
State:	Indiana	Filing Company:	Indiana Compensation Rating Bureau
TOI/Sub-TOI:	16.0 Workers Compensation/16.0004 Standard WC		
Product Name:	January 1, 2019 Advisory Rate Filing		
Project Name/Number:	/		

Filing at a Glance

Company:	Indiana Compensation Rating Bureau
Product Name:	January 1, 2019 Advisory Rate Filing
State:	Indiana
TOI:	16.0 Workers Compensation
Sub-TOI:	16.0004 Standard WC
Filing Type:	Rate
Date Submitted:	09/20/2018
SERFF Tr Num:	INCR-131655856
SERFF Status:	Closed-Filed
State Tr Num:	EFT OK /
State Status:	Rates OK
Co Tr Num:	1/1/2019 RATES
Co Status:	
Effective Date	01/01/2019
Requested (New):	
Effective Date	01/01/2019
Requested (Renewal):	
Author(s):	Ron Cooper
Reviewer(s):	Kim Green (primary), Richard Beverage
Disposition Date:	10/05/2018
Disposition Status:	Filed
Effective Date (New):	
Effective Date (Renewal):	

State: Indiana
TOI/Sub-TOI: 16.0 Workers Compensation/16.0004 Standard WC
Product Name: January 1, 2019 Advisory Rate Filing
Project Name/Number: /

Filing Company: Indiana Compensation Rating Bureau

General Information

Project Name: Status of Filing in Domicile: Pending
 Project Number: Domicile Status Comments:
 Reference Organization: Reference Number:
 Reference Title: Advisory Org. Circular: ICRB Circular 2018-06
 Filing Status Changed: 10/05/2018 Company Status Changed:
 State Status Changed: 10/05/2018 Deemer Date:
 Created By: Ron Cooper Submitted By: Ron Cooper
 Corresponding Filing Tracking Number:

Filing Description:

Full filing of advisory loss costs, advisory rates and rating values for both voluntary and assigned risk business effective January 1, 2019 for new and renewal policies. This filing proposes a 5.6% decrease to the overall voluntary loss cost level and a 7.6% decrease to the overall voluntary and assigned risk rate level.

Company and Contact

Filing Contact Information

Ron Cooper, President rcooper@icrb.net
 5920 Castleway W Dr 317-842-2800 [Phone] 301 [Ext]
 Indianapolis, IN 46250

Filing Company Information

Indiana Compensation Rating Bureau	CoCode:	State of Domicile: Indiana
5920 Castleway W Dr	Group Code:	Company Type: Rating
Indianapolis, IN 46250	Group Name: ICRB	Organization
(317) 842-2800 ext. 301[Phone]	FEIN Number: 35-0837318	State ID Number:

Filing Fees

Fee Required? Yes
 Fee Amount: \$35.00
 Retaliatory? No
 Fee Explanation:
 Per Company: Yes

Company	Amount	Date Processed	Transaction #
Indiana Compensation Rating Bureau	\$35.00	09/20/2018	147809557

State:	Indiana	Filing Company:	Indiana Compensation Rating Bureau
TOI/Sub-TOI:	16.0 Workers Compensation/16.0004 Standard WC		
Product Name:	January 1, 2019 Advisory Rate Filing		
Project Name/Number:	/		

Rate Information

Rate data applies to filing.

Filing Method:	SERFF
Rate Change Type:	Decrease
Overall Percentage of Last Rate Revision:	-12.800%
Effective Date of Last Rate Revision:	01/01/2018
Filing Method of Last Filing:	SERFF
SERFF Tracking Number of Last Filing:	INCR-130732721

Company Rate Information

Company Name:	Overall % Indicated Change:	Overall % Rate Impact:	Written Premium Change for this Program:	Number of Policy Holders Affected for this Program:	Written Premium for this Program:	Maximum % Change (where req'd):	Minimum % Change (where req'd):
Indiana Compensation Rating Bureau	-7.600%	-7.600%	\$-62,761,028	100,000	\$825,803,000	%	%

State:	Indiana	Filing Company:	Indiana Compensation Rating Bureau
TOI/Sub-TOI:	16.0 Workers Compensation/16.0004 Standard WC		
Product Name:	January 1, 2019 Advisory Rate Filing		
Project Name/Number:	/		

Rate/Rule Schedule

Item No.	Schedule Item Status	Exhibit Name	Rule # or Page #	Rate Action	Previous State Filing Number	Attachments
1		January 1, 2019 Rate Filing		New		January 1, 2019 PROPOSED Rate Filing 09-20-18.pdf



Indiana

Advisory Loss Costs, Advisory Rates,
Assigned Risk Rates, and
Rating Values Filing

Proposed Effective January 1, 2019



September 20, 2018

Steve Robertson
Commissioner of Insurance
Indiana Department of Insurance
311 W. Washington St., Suite 300
Indianapolis, IN 46204-2787

**RE: Workers Compensation Advisory Loss Costs, Rates, and Rating Values:
Indiana Voluntary and Assigned Risk Markets**

Dear Commissioner Robertson:

In accordance with the applicable statutes and regulations in the state of Indiana, I am filing for your consideration and approval the workers compensation advisory loss costs, advisory rates, and rating values for the Indiana voluntary market and assigned risk rates and rating values for the Indiana assigned risk market.

This filing proposes a 5.6% decrease to the overall voluntary loss cost level and a 7.6% decrease to the overall voluntary and assigned risk rate level to become effective on January 1, 2019 for new and renewal business.

Please note the following in connection with this filing:

1. As a result of Item B-1397, effective July 1, 2007, a single combined rate is still calculated for Class Codes 7710 and 7711 via a payroll-weighted average of the separately indicated rates for these two Class Codes.
2. As a result of Item B-1435, effective January 1, 2018:
 - a. Class Codes 1860, 4279, and 4282 are combined to reflect the final year of a two-year transition program, and Class Codes 1860 and 4282 are discontinued.
 - b. Class Codes 2501 and 2534 are combined to reflect the final year of a two-year transition program, and Class Code 2534 is discontinued.
 - c. Class Codes 4111 and 4113 are combined to reflect the final year of a two-year transition program, and Class Code 4113 is discontinued.
 - d. Class Codes 4053, 4061, and 4062 are combined to reflect the second year of a three-year transition program. In the third year of the transition, Class Codes 4053 and 4061 will be discontinued.
 - e. Class Codes 4683 and 4716 are combined to reflect the second year of a three-year transition program. In the third year of the transition, Class Code 4716 will be discontinued.
3. As a result of Item B-1436, effective January 1, 2019:
 - a. Class Codes 8825 and 8826 are combined to reflect the first year of a two-year transition program. In the second year of the transition, Class Code 8825 will be discontinued.
4. As a result of Item R-1414, effective January 1, 2019, new parameters are shown on the Retrospective Rating Plan Manual pages.
5. As a result of Item R-1415, the retrospective rating plan parameters were updated.



INDIANA COMPENSATION RATING BUREAU
5920 Castleway West Drive • Indianapolis, Indiana 46250
317.842.2800 • 800.622.4208 • Fax: 317.842.3717 • icrb.net



6. As a result of Item 01-IN-2017, effective January 1, 2018, class code 7732 is established and has rate of \$122.00 per volunteer, and the loss cost will be \$89.00 per volunteer. This rate will remain in effect until, at least, the 1/1/2021 filing.

Our desire is to make this filing as clear as possible. For additional information, we would be glad to meet with you at your convenience.

We make this filing on behalf of the members and subscribers of the Indiana Compensation Rating Bureau. All persons on the "Interested Persons List" have been notified of the captioned filing.

We respectfully request that the filing be "Filed" electronically via the NAIC SERFF system within thirty days.

Sincerely,

Actuarial content prepared by:

Ronald W. Cooper, CWCP
President

Robert Moss, ACAS, MAAA
Assistant Actuary, NCCI

Enclosure



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Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Actuarial Certification

I, Rob Moss, am an Assistant Actuary for the National Council on Compensation Insurance, Inc. I am an Associate of the Casualty Actuarial Society and a member of the American Academy of Actuaries, and I meet the Qualification Standards of the American Academy of Actuaries to provide the actuarial report contained herein.

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

A handwritten signature in dark ink, reading "Robert J. Moss". The signature is written in a cursive, flowing style.

Robert Moss, ACAS, MAAA
Assistant Actuary
Actuarial & Economic Services



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Disclosures

Purpose of the Report

The purpose of this report is to provide the proposed advisory rates and loss costs, assigned risk rates, and rating values for workers compensation policies in Indiana, proposed to be effective January 1, 2019. The intended users of this report are:

- The Indiana Department of Insurance
- Affiliated carriers, for their reference in determining workers compensation rates

Scope

The prospective advisory rates are intended to cover the indemnity and medical benefits provided under the system, the expenses associated with providing these benefits (loss adjustment expenses) and any other costs associated with providing workers compensation insurance (such as commissions, taxes, etc.).

The filing also contains advisory loss costs. 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.).

Carriers offering workers compensation insurance in Indiana may desire to a) adopt the advisory rates which are based on NCCI's compilations of expense data, b) deviate from the advisory rates, or c) adopt the advisory loss costs to which they would apply their own expense provisions. The latter option can be accomplished through a loss cost multiplier that is applied to the approved advisory prospective loss costs in order to compute the final workers compensation rates that a carrier intends 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.

Employers unable to secure coverage in the voluntary market can apply for such coverage in the assigned risk market. The proposed rates for the voluntary market are also applicable to the assigned risk policies, with a proposed effective date of January 1, 2019. Currently, assigned risk policies with premium greater than \$2,500 are assessed a 25% surcharge, with the surcharge being applied to the premium amount above \$2,500. This filing proposes no change to the assigned risk surcharge.



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Disclosures

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 July 5, 2018 were not considered for inclusion in the analysis.

Advisory rate and 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 July 11, 2018 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 August 23, 2018. Therefore, events that occurred after this date that may have a material impact on workers compensation costs in this jurisdiction have not been considered in the analysis.

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

All carriers writing at least one-tenth of one percent of the Indiana workers compensation written premium volume and whose data is not included in the experience period are listed below:

- Policy Year 2015 – Guarantee Insurance Company (1.1% of state premium)
- Policy Year 2016 – Guarantee Insurance Company (1.1% of state premium)

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



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Disclosures

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 advisory rates and loss costs proposed in this filing.



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

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- Selections Underlying the Proposed Changes
- Additional Proposed Changes

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- Proposed Assigned Risk Rates and Rating Values
- Proposed Values for Inclusion in the Experience Rating Plan Manual
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- Exhibit I: Determination of the Indicated Rate Level Change
- Exhibit II: Workers Compensation Expense Program
- Appendix A: Factors Underlying the Proposed Advisory Rate Level Change
- Appendix B: Calculations Underlying the Rate Change by Classification
- Appendix C: Memoranda for Laws and Assessments
- Appendix D: Factor to Convert Advisory Rates

Part 4 Additional Information

- Definitions
- Key Contacts



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Part 1 Filing Overview

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



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Executive Summary

Based on its review of the most recently available data, NCCI has proposed an overall average workers compensation advisory loss cost level change of -5.6% and an advisory rate level change of -7.6% to become effective January 1, 2019. In addition, NCCI has proposed an overall average assigned risk rate level change of -7.6%, also to become effective January 1, 2019.

Advisory Rate Filing Components

Change in Experience and Development	- 3.3%
Change in Trend	- 2.5%
Change in Benefits	+ 0.3%
<u>Change in Loss-based Expenses</u>	<u>- 0.2%</u>
Proposed Change in Overall Advisory Loss Cost Level	- 5.6%
Change in Production & General Expenses and Taxes	+ 0.6%
<u>Change in Profit and Contingency Provision</u>	<u>- 2.7%</u>
Proposed Change in Overall Advisory Rate Level	- 7.6%
Proposed Change in Overall Assigned Risk Rate Level	- 7.6%

Key observations:

- The filing is based on premium and loss experience for policy years 2015 and 2016. The financial data experience period evaluated as of December 31, 2017 shows continued improvement when compared with data evaluated as of December 31, 2016.
- Indiana's lost-time claim frequency decreased 5.8% in the latest complete policy year available (2016).
- After adjusting to a common wage level, the indemnity and medical average cost per case appears relatively stable.
- The Profit and Contingency provision decreased due to the Tax Cuts and Jobs Act (2017).



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Executive Summary

Proposed Changes in Advisory Rate Level by Industry Group:

<u>Industry Group</u>	<u>Average Change</u>	<u>Maximum Increase</u>	<u>Maximum Decrease</u>
Manufacturing	- 7.6%	+ 17%	- 33%
Contracting	- 8.3%	+ 17%	- 33%
Office and Clerical	- 7.2%	+ 18%	- 32%
Goods and Services	- 7.8%	+ 17%	- 33%
Miscellaneous	- 6.8%	+ 18%	- 32%

Additional Notable Change(s) Proposed in the Filing:

- Classification Ratemaking – Revised Credibility Parameters
- Updates to Retrospective Rating



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Overview of Methodology

Aggregate Ratemaking

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

- The reported historical premium totals are projected to an ultimate basis and adjusted to the current pure premium level
- The excess loss portion of individual large claims are removed from reported aggregate losses, based on an Indiana-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/or expense changes are applied to the projected cost ratios

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

Class Ratemaking

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

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

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.



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Summary of Selections

The following is a summary of selections underlying the advisory rates and loss costs and assigned risk rates proposed to be effective January 1, 2019, along with the selections underlying the currently-approved rates and loss costs.

Advisory Rates and Loss Costs	Currently Approved January 1, 2018	Proposed Effective January 1, 2019
Experience Period	Policy Years 2014 and 2015	Policy Years 2015 and 2016
Premium Development	3-year average	3-year average
Basis of Loss Experience	Average of Paid and Paid+Case losses	Average of Paid and Paid+Case losses
Paid Loss Development	2-year average	2-year average
Paid+Case Loss Development	5-year average	5-year average
Tail Factors	10-year average	10-year average
Indemnity Annual Loss Ratio Trend Factor	0.960	0.960
Medical Annual Loss Ratio Trend Factor	0.995	0.985
Production and General Expense	23.3%	23.5%
Profit and Contingency Provision	2.0%	0.0%
Loss Adjustment Expense Provision	16.6%	16.2%
Base Threshold for Limiting Losses	\$9,086,441	\$8,580,309
Large Loss Excess Ratio	0.2%	0.3%
Classification Swing Limits (applied by Industry Group)	+/-25%	+/-25%
Assigned Risk Rates	Currently Approved January 1, 2018	Proposed Effective January 1, 2019
Surcharge on premium in excess of \$2,500	25%	25%



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Selections Underlying the Proposed Changes

Experience and Development

NCCI analyzed the emerging experience of Indiana workers compensation policies in recent years. The primary focus of our analysis was on premiums and losses from policy years 2015 and 2016 evaluated as of December 31, 2017. The most recently available full policy year is 2016 since the last policy had an effective date of December 31, 2016 and did not expire until December 31, 2017. During this year's analysis, after reviewing various possible experience periods, the use of the two most recently available full policy years of data was selected as most appropriate in terms of providing balance between stability and responsiveness.

Different aggregations of loss experience were analyzed in preparation of this filing. These were (i) paid losses (benefit amounts already paid by insurers on reported claims) and (ii) the sum of paid losses plus case reserves (paid losses and the amounts set aside to cover future payments on those claims). In this filing, NCCI utilized loss development factors based on each of these two loss aggregations. This is consistent with NCCI filings made in the past several years in Indiana. Loss development factors are needed since paid losses and case reserve estimates on a given claim change over time until the claim is finally closed. The loss development factors are based on how paid losses and case reserve estimates changed over time for claims from older years. In this filing, NCCI selected development factors appropriate for the experience base.

Trend

This filing relies primarily on the experience from policy years 2015 and 2016. However, the proposed advisory loss cost, advisory rate, and assigned risk rates are intended for use with policies with effective dates starting on January 1, 2019. It is necessary to use trend factors that forecast how much the future Indiana 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 advisory rate level change.



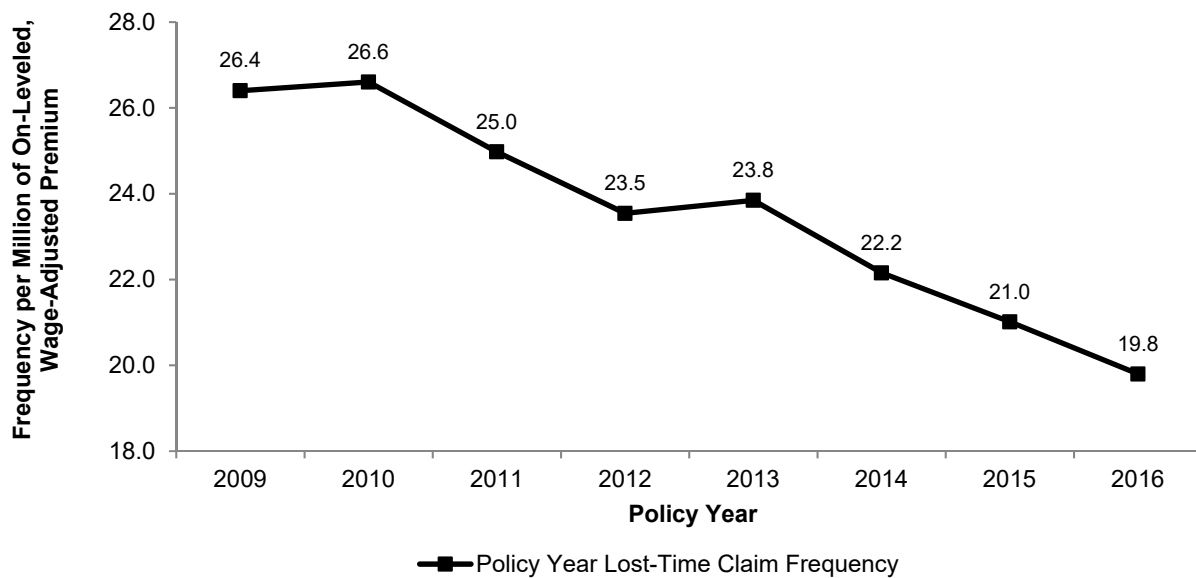
Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Selections Underlying the Proposed Changes

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

Indiana Claim Frequency



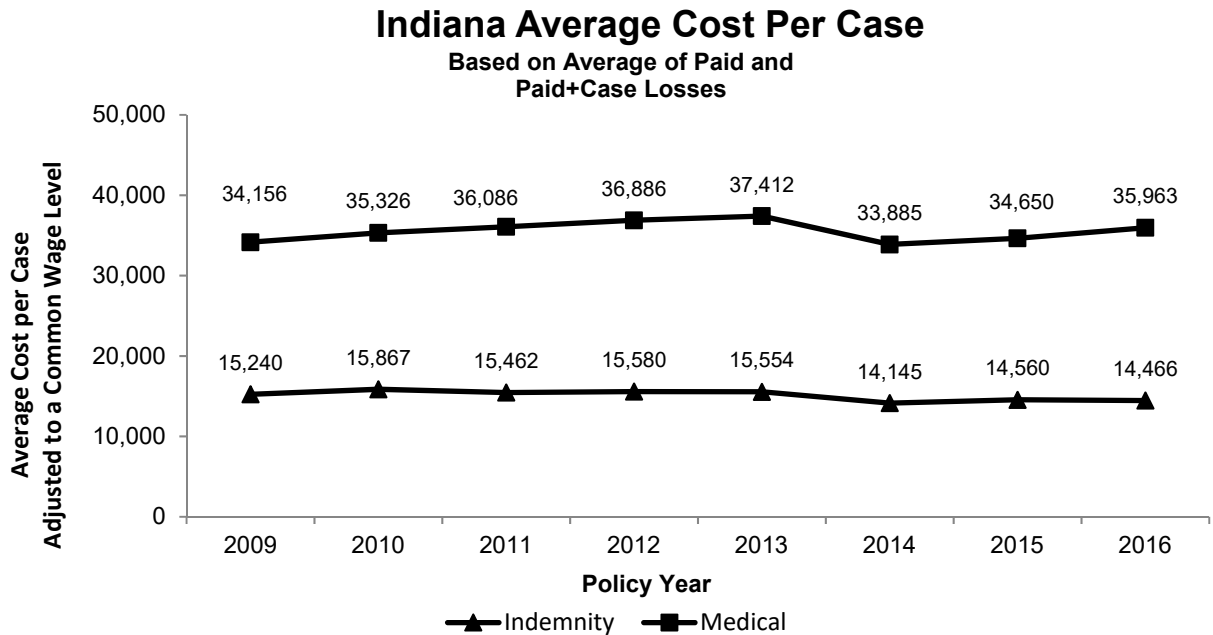
Indiana's lost-time claim frequency has generally declined since 2010, as shown immediately above. The data in this chart reflects premiums at today's advisory rate and wage levels.



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Selections Underlying the Proposed Changes



As this chart illustrates, Indiana's average indemnity cost per case in excess of wage growth has remained fairly consistent over time, while a long-term upward trend in the medical average cost per case was interrupted in PY 2014 due to the medical fee schedule implementation as part of HEA 1320.

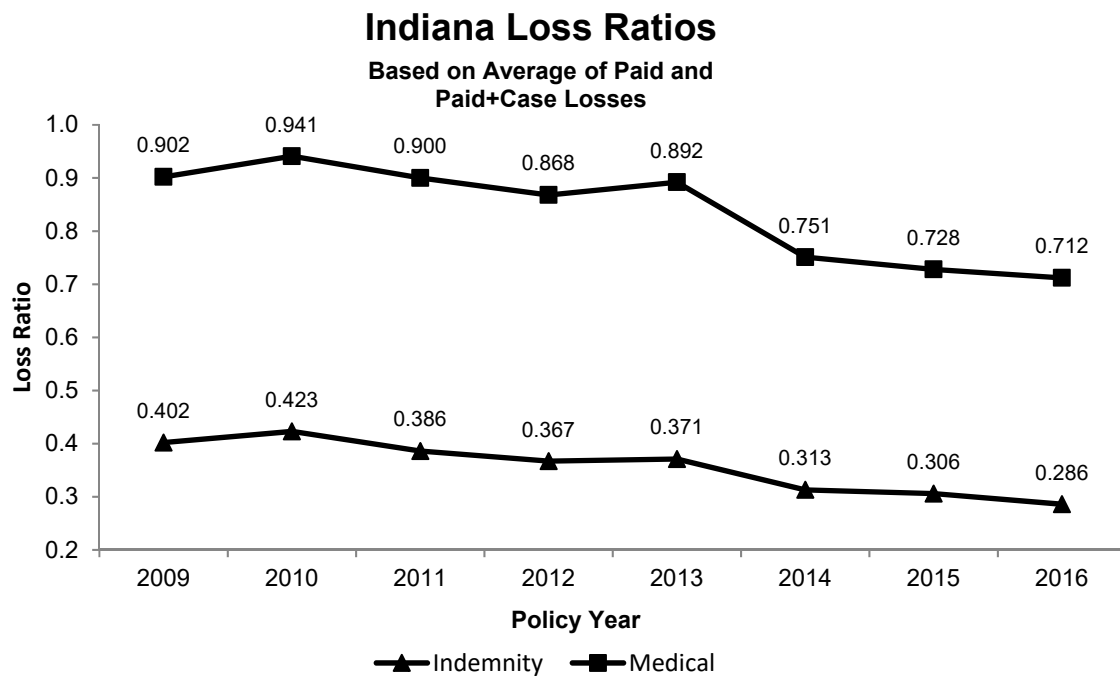


Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Selections Underlying the Proposed Changes

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



Based on our analysis this year, we are proposing to maintain the current annual indemnity loss ratio trend of -4.0% and decrease the annual medical loss ratio trend from -0.5% to -1.5%.



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Selections Underlying the Proposed Changes

Benefit Changes

Indemnity Benefit Changes: Workers injured in Indiana receive wage replacement (indemnity) benefits at a rate of two-thirds of their pre-injury weekly wage. These benefits are subject to a weekly minimum and maximum. In Indiana, legislation must be enacted to change benefit levels. Since no legislation was enacted with respect to a change in indemnity benefits for the prospective policy period, there are no indemnity benefit changes included in the 1/1/2019 filing.

Medical Fee Schedule Changes: NCCI has included the impact of the most recent Medical Fee Schedule updates effective October 1, 2017 and January 1, 2018, as well as the impact of a workers compensation drug formulary that was enacted as part of Senate Bill 369, effective July 1, 2018. The combined change is estimated to increase overall workers compensation system costs by 0.3%. Please see Appendix C-I for additional details.

Expense-Related Provisions

This filing proposes changes to several expense-related provisions as described below. Please see Exhibit II for additional detail.

Production and General Expense: The proposed advisory rates include a provision for production and general expenses. The latest data from the Insurance Expense Exhibit (which is reported annually by insurers to state insurance departments) is used to derive the Indiana expense provision.

The current provision in the advisory rates for production expense is 18.3% of premium. This filing proposes an increase in this provision to 18.5%.

The current provision in the advisory rates for general expenses is 5.0% of premium. This filing proposes to maintain the current provision.

The overall advisory rate change due to the proposed production and general expense provisions is an increase of 0.3%.

Premium Taxes and Assessments: This filing proposes an increase in the WC Guaranty Association provision from 0.0% to 0.2%, which results in an increase to the currently approved provision for taxes and assessments from 1.6% to 1.8%.



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Selections Underlying the Proposed Changes

Profit and Contingency Provision: By law, Indiana rates must be determined such that workers compensation insurers in Indiana can be expected to earn a reasonable rate of return. Analysis and determination of a profit and contingency (P&C) provision is necessary to ensure this premise is maintained. As a result of the Tax Cuts and Jobs Act (2017), NCCI is proposing to revise the current P&C provision from 2.0% to 0.0%.

Loss-Based Expenses: The proposed advisory rates and 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 advisory rates and loss costs by using a ratio of loss adjustment expense dollars to loss dollars (called the LAE provision). In this filing, NCCI is proposing to decrease the current LAE provision from 16.6% to 16.2% of losses—resulting in a rate level impact of -0.4%.

Loss-Based Assessment: In 2018, the Indiana Department of Labor (DOL) issued its notice for the INSafe tax assessment. The money in this fund is used solely for safety and health consultation, education, and training services for employer groups and for the onsite consultation service. This tax is imposed upon each insurance carrier licensed to do workers compensation business in the state, and on each self-insured employer. The DOL indicated that the special fund for safety and health consultation is less than \$600,000, thus triggering the statutory tax levy. The last assessment was levied in 2014. In this filing, NCCI is proposing to include a provision of 0.2% of losses for the INSafe assessment—resulting in a rate level impact of +0.2%.

**Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing –
January 1, 2019****Additional Proposed Changes****Classification Ratemaking – Revised Credibility Parameters**

This filing proposes an update to the parameters of the credibility formulas used in the calculation of derived by formula pure premiums (see Appendix B-I), which are used in the calculation of rates. The proposed changes to the credibility formulas are expected to significantly increase the stability of classification rates—particularly for those classifications with low volume of observed experience—while also seeking to improve the level of predictive accuracy.

To achieve enhanced year-to-year stability, NCCI is proposing to revise the credibility parameters according to the following tables:

Indicated (State) Pure Premium Credibility Formula

	<u>Previous Filing</u>	<u>Proposed Filing</u>
Basis for credibility	Expected losses	Expected losses
Exponent	0.40	0.50
Full credibility standard:		
- Indemnity	850 x average indemnity severity for lost-time claims	1,700 x average indemnity severity for lost-time claims
- Medical	400 x average medical severity for lost-time claims	800 x average medical severity for lost-time claims

National Pure Premium Credibility Formula

	<u>Previous Filing</u>	<u>Proposed Filing</u>
Basis for credibility	Actual lost-time claims	Actual lost-time claims
Exponent	0.40	0.50
Full credibility standard:		
- Indemnity	1,150 lost-time claims	2,300 lost-time claims
- Medical	1,000 lost-time claims	2,000 lost-time claims
Limitation of National Pure Premium Credibility	0.5 x (1 – state credibility)	0.5 x (1 – state credibility)

Additionally, state special classifications that exist in a minimal number of states will no longer include a national component in the ratemaking process.

Present On Rate Level Pure Premium Credibility Formula

There is no change to the credibility formula for the present on rate level pure premium, which will continue to receive the residual credibility (100% minus the sum of the state and national credibilities).



**Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing –
January 1, 2019**

Additional Proposed Changes

Background

As explained in Appendix B-I of this filing, the classification rates are derived using a three-way credibility weighting of the indicated, present on rate level, and national pure premiums. The formulas used to produce the credibility weights for each classification were derived in the early 1990s using a method based on limited fluctuation credibility theory. At its core, limited fluctuation credibility theory seeks to limit the extent to which random fluctuations in classification experience can influence final rates.

When the Likely/Not-Likely class ratemaking methodology was first implemented, NCCI incorporated several major revisions to its classification ratemaking methodology designed to improve the predictive accuracy and year-to-year stability of classification rates. Among these revisions were updates to the parameters of the credibility formulas which had previously remained unchanged since the early 1990s. When developing the revised credibility parameters, consideration was given to the following:

- An update to the limited fluctuation approach to credibility with the most recently available data indicated that reductions to classification credibilities may be appropriate.
- While newly-implemented updates to NCCI's classification ratemaking methodology (e.g., incorporating likely and not-likely loss development groupings and including an expected excess provision after limiting large claims to \$500,000) were expected to result in significantly enhanced accuracy and stability, they suggested increases to classification credibilities may be appropriate.

At that time, to balance these concerns, NCCI revised the credibility parameters without introducing significant changes to the actual classification credibility percentages used. It was NCCI's intent to further recalibrate the credibility parameters when a sufficient volume of pure premium data based on the revised classification methodology became available to achieve increased year-to-year stability of rates.

NCCI has recently concluded a multi-year analysis of its class ratemaking methodologies, which focused on the stability of small classes. When conducting this research, NCCI re-estimated historical classification derived by formula pure premiums using alternatives to the current methodology. This research resulted in NCCI investigating updates to the parameters of the credibility formulas used in the calculation of derived by formula pure premiums.



Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Additional Proposed Changes

Methodology

During the multi-year analysis of its class ratemaking methodologies, NCCI refreshed the limited fluctuation approach to credibility using the latest pure premium data from all jurisdictions for which the full history of likely/not-likely filings was available.

The first task was to estimate the exponent of the credibility formula indicated by the most recent pure premium data. To accomplish this task, sample coefficients of variation were derived and a linear model was fit. The exponent of the credibility formula indicated by the most recent pure premium data is the (negative of the) fitted slope of the linear model.

The second task was to estimate the full credibility standard. Limited fluctuation credibility theory suggests that as the size of a class increases, the random fluctuation of the class pure premium decreases. However, some minimal level of random fluctuation is likely to persist for even the largest classes. Based on the linear model, the full credibility standard was determined after recognizing this minimum level of random fluctuation along with the targeted level of pure premium fluctuation in the losses with which credibility is to be calibrated, and the probability that this level of fluctuation will be achieved.

In addition to relying on limited fluctuation credibility theory to calibrate the parameters of the credibility formulas, several performance testing metrics were utilized—which focused on the stability or accuracy of the alternative classification pure premiums. These metrics were used to distinguish between the various alternatives and to guide the selection of updated parameters to the credibility formulas.

Ultimately, selections were made for both the exponent of the credibility formula and the full credibility standard. These selections required judgment and considered both the linear model and the performance test results. The final credibility parameters being proposed accomplished the goal of stabilizing the small classes and were shown to achieve excellent performance results based on the tests performed.

Impact

These class ratemaking methodology changes will impact individual class rates, but will not impact the state's overall average rate level indication—since the individual classification code changes must balance to the overall average statewide change. These changes are expected to result in increased class equity and stability. Any specific class code impacts will be subject to NCCI's current class ratemaking procedures (swing limits, credibility-weighted average of indicated, national, and present-on-rate level, etc.).



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Updates to Retrospective Rating

Changes to Retrospective Rating Plan Manual Pages

Due to the replacement of Table M within Item R-1414 effective January 1, 2019, State Hazard Group Differentials and the Table of Expected Loss Ranges are no longer needed to calculate retrospective rating premium. These values have been removed from the Retrospective Rating Plan Manual pages.

If a carrier has elected to calculate net aggregate loss factors using the new Table of Aggregate Loss Factors, the expected number of claims for the policy must be determined. To aid in deriving the expected number of claims, the average cost per case values that underlie the ELF's, ELPPFs, ELAEFs, and ELAEPPFs, are now included on the Retrospective Rating Plan Manual pages.

Update to Retrospective Development Factor Methodology

This filing proposes an enhancement to NCCI's methodology of calculating Retrospective Development Factors which are shown on the Retrospective Rating Plan Manual pages. In retrospective rating plans, retrospective development premium is an optional element that stabilizes premium adjustments by anticipating that losses typically develop upwards over time.

To calculate Retrospective Development Factors at each adjustment, total loss development factors are needed by report. Under NCCI's current methodology, total loss development factors are estimated by weighting together injury type-specific development factors by their losses from the corresponding policy period. Losses by injury type, particularly permanent total (PT) losses, may be volatile from one policy period to the next. To reduce the potential for large fluctuations year to year, NCCI proposes to use information from five policy periods to weight the injury type-specific development factors. This enhancement increases the stability of the total loss development factors and consequently the Retrospective Development Factors.



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Part 2 Proposed Values

- Proposed Advisory Rates, Loss Costs and Rating Values
- Proposed Assigned Risk Rates and Rating Values
- Proposed Values for Inclusion in the Experience Rating Plan Manual
- Proposed Values for Inclusion in the Retrospective Rating Plan Manual



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Proposed Advisory Rates, Loss Costs, and Rating Values

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

- Advisory rates, loss costs, minimum premiums, expected loss rates, and d-ratios by class code, along with associated footnotes
- Advisory miscellaneous values, such as:
 - Premium discount percentages
 - Premium Reduction Percentages by Deductible Amount
 - Maximum and minimum weekly payroll applicable for select class codes
 - Premium determination for Partners and Sole Proprietors
 - Terrorism advisory rate and loss cost
 - United States Longshore and Harbor Workers' Compensation Coverage Percentage

ADVISORY LOSS COSTS AND ADVISORY RATES**INDIANA**

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

Effective January 1, 2019

CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO
0005	2.20	1.64	853	1.25	0.43	2014	2.79	2.08	1039	1.47	0.37
0008	2.13	1.59	831	1.16	0.41	2016	2.37	1.77	907	1.37	0.45
0016	4.09	3.06	1448	2.12	0.37	2021	1.45	1.08	617	0.79	0.42
0034	2.49	1.86	944	1.40	0.43	2039	1.23	0.92	547	0.72	0.45
0035	1.73	1.29	705	1.00	0.45	2041	1.84	1.37	740	1.07	0.45
0036	2.72	2.03	1017	1.56	0.43	2065	0.97	0.72	466	0.55	0.43
0037	2.72	2.03	1017	1.49	0.42	2070	2.76	2.06	1029	1.57	0.43
0042	3.32	2.48	1206	1.81	0.42	2081	1.69	1.26	692	0.96	0.43
0050	4.08	3.05	1445	2.31	0.43	2089	1.99	1.49	787	1.14	0.43
0059D	0.30	0.22	—	0.07	0.37	2095	2.10	1.57	822	1.19	0.43
0065D	0.06	0.04	—	0.02	0.37	2105	1.87	1.40	749	1.08	0.45
0066D	0.06	0.04	—	0.02	0.37	2110	1.71	1.28	699	0.99	0.45
0067D	0.06	0.04	—	0.02	0.37	2111	1.36	1.02	588	0.79	0.45
0079	3.64	2.72	1307	1.95	0.37	2112	2.61	1.95	982	1.50	0.45
0083	3.59	2.68	1291	2.03	0.43	2114	1.87	1.40	749	1.08	0.45
0106	5.73	4.28	1500	2.84	0.33	2121	1.17	0.87	529	0.66	0.43
0113	2.57	1.92	970	1.46	0.43	2130	1.42	1.06	607	0.81	0.43
0170	2.43	1.82	925	1.38	0.43	2131	1.02	0.76	481	0.59	0.43
0251	2.05	1.53	806	1.17	0.43	2143	1.17	0.87	529	0.68	0.45
0400	—	—	—	0.79	0.41	2157	2.52	1.88	954	1.44	0.43
0401	7.65	5.71	A	3.79	0.33	2172	0.82	0.61	418	0.46	0.42
0766N	0.28	0.21	—	—	—	2174	1.32	0.99	576	0.77	0.45
0771N	0.27	0.20	—	—	—	2211	4.41	3.29	1500	2.32	0.37
0908P	139.00	104.00	299	78.80	0.43	2220	1.20	0.90	538	0.68	0.43
0913P	307.00	229.00	467	175.82	0.43	2286	0.90	0.67	444	0.52	0.45
1005*	3.01	2.25	1108	1.02	0.32	2288	2.46	1.84	935	1.42	0.45
1016X*	8.17	6.10	1500	2.64	0.32	2300	—	—	—	0.91	0.43
1164D	2.08	1.55	815	0.96	0.32	2302	1.00	0.75	475	0.57	0.43
1165D	1.73	1.29	705	0.85	0.33	2305	1.17	0.87	529	0.64	0.42
1320	2.34	1.75	897	1.15	0.33	2361	1.20	0.90	538	0.68	0.43
1322	5.11	3.82	1500	2.59	0.33	2362	1.02	0.76	481	0.58	0.43
1430	2.50	1.87	948	1.31	0.37	2380	1.65	1.23	680	0.94	0.43
1438	2.77	2.07	1033	1.39	0.33	2386	—	—	—	0.91	0.43
1452	1.39	1.04	598	0.74	0.37	2388	1.17	0.87	529	0.68	0.45
1463	7.77	5.80	1500	3.82	0.33	2402	1.53	1.14	642	0.80	0.37
1472	1.72	1.28	702	0.85	0.33	2413	1.66	1.24	683	0.95	0.43
1604X	2.44	1.82	929	1.29	0.37	2416	1.12	0.84	513	0.64	0.43
1624D	1.46	1.09	620	0.72	0.33	2417	0.73	0.55	390	0.42	0.43
1642	1.17	0.87	529	0.62	0.37	2501	1.60	1.20	664	0.91	0.43
1654	3.74	2.79	1338	1.97	0.37	2503	0.93	0.69	453	0.54	0.45
1655	—	—	—	0.62	0.37	2534	—	—	—	0.91	0.43
1699	1.63	1.22	673	0.86	0.37	2570	2.26	1.69	872	1.31	0.45
1701	2.19	1.64	850	1.14	0.37	2585	1.95	1.46	774	1.13	0.45
1710D	2.63	1.96	988	1.35	0.37	2586	1.33	0.99	579	0.76	0.43
1741	—	—	—	1.14	0.37	2587	1.49	1.11	629	0.87	0.45
1747	1.14	0.85	519	0.60	0.37	2589	1.26	0.94	557	0.71	0.43
1748	4.68	3.50	1500	2.42	0.37	2600	2.20	1.64	853	1.29	0.45
1803D	4.37	3.26	1500	1.93	0.33	2623	4.00	2.99	1420	2.19	0.42
1852	—	—	—	0.58	0.32	2651	0.87	0.65	434	0.50	0.45
1853	—	—	—	1.14	0.37	2660	1.32	0.99	576	0.76	0.45
1860	—	—	—	0.68	0.43	2670	1.09	0.81	503	0.66	0.49
1924	1.48	1.11	626	0.86	0.45	2683	1.36	1.02	588	0.78	0.45
1925	2.37	1.77	907	1.29	0.41	2688	1.54	1.15	645	0.90	0.45
2002	1.74	1.30	708	1.00	0.45	2701	10.51	7.85	1500	5.51	0.37
2003	2.59	1.93	976	1.48	0.43	2702	13.74	10.26	1500	6.45	0.32

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

ADVISORY LOSS COSTS AND ADVISORY RATES**INDIANA**

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

Effective January 1, 2019

CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO
2709	7.20	5.38	1500	3.78	0.37	3224	1.81	1.35	730	1.06	0.45
2710	5.76	4.30	1500	2.84	0.33	3227	1.87	1.40	749	1.09	0.45
2714	3.10	2.32	1137	1.80	0.45	3240	1.98	1.48	784	1.15	0.45
2731	2.71	2.02	1014	1.41	0.37	3241	1.51	1.13	636	0.86	0.43
2735	3.25	2.43	1184	1.87	0.45	3255	1.47	1.10	623	0.88	0.49
2759	4.62	3.45	1500	2.68	0.45	3257	1.54	1.15	645	0.88	0.43
2790	1.12	0.84	513	0.65	0.45	3270	1.41	1.05	604	0.80	0.43
2797	1.68	1.25	689	0.96	0.43	3300	4.29	3.20	1500	2.39	0.43
2799	3.44	2.57	1244	1.88	0.42	3303	2.07	1.55	812	1.19	0.45
2802	3.51	2.62	1266	1.92	0.42	3307	2.05	1.53	806	1.17	0.43
2835	1.51	1.13	636	0.91	0.49	3315	2.04	1.52	803	1.19	0.45
2836	1.48	1.11	626	0.89	0.49	3334	1.21	0.90	541	0.70	0.43
2841	2.35	1.76	900	1.36	0.45	3336	1.53	1.14	642	0.80	0.37
2881	1.80	1.34	727	1.08	0.49	3365	2.94	2.20	1086	1.54	0.37
2883	1.65	1.23	680	0.94	0.43	3372	2.07	1.55	812	1.13	0.42
2913	—	—	—	0.94	0.43	3373	3.21	2.40	1171	1.86	0.43
2915	2.22	1.66	859	1.21	0.42	3383	0.81	0.61	415	0.47	0.45
2916	2.02	1.51	796	1.00	0.33	3385	0.43	0.32	295	0.25	0.45
2923	1.57	1.17	655	0.91	0.45	3400	2.53	1.89	957	1.37	0.41
2942	—	—	—	0.48	0.49	3507	1.74	1.30	708	0.99	0.43
2960	3.07	2.29	1127	1.74	0.43	3515	1.44	1.08	614	0.81	0.43
3004	0.79	0.59	409	0.42	0.37	3548	0.85	0.63	428	0.48	0.43
3018	1.65	1.23	680	0.86	0.37	3559	1.62	1.21	670	0.91	0.43
3022	1.96	1.46	777	1.14	0.45	3574	0.81	0.61	415	0.47	0.45
3027	1.65	1.23	680	0.86	0.37	3581	0.76	0.57	399	0.44	0.45
3028	1.69	1.26	692	0.96	0.43	3612	1.32	0.99	576	0.72	0.42
3030	3.85	2.88	1373	2.01	0.37	3620	2.10	1.57	822	1.10	0.37
3040	3.49	2.61	1259	1.83	0.37	3629	1.08	0.81	500	0.63	0.45
3041	2.77	2.07	1033	1.56	0.43	3632	1.53	1.14	642	0.84	0.42
3042	2.01	1.50	793	1.10	0.42	3634	1.09	0.81	503	0.63	0.45
3064	2.52	1.88	954	1.44	0.43	3635	1.50	1.12	633	0.85	0.43
3069	—	—	—	1.05	0.43	3638	0.96	0.72	462	0.55	0.45
3076	1.86	1.39	746	1.05	0.43	3642	1.27	0.95	560	0.72	0.43
3081D	2.72	2.03	1017	1.40	0.37	3643	1.30	0.97	570	0.74	0.43
3082D	2.76	2.06	1029	1.40	0.37	3647	1.36	1.02	588	0.75	0.42
3085D	2.35	1.76	900	1.20	0.37	3648	0.97	0.72	466	0.56	0.45
3110	2.26	1.69	872	1.29	0.43	3681	0.61	0.46	352	0.35	0.45
3111	1.68	1.25	689	0.95	0.43	3685	0.51	0.38	321	0.29	0.45
3113	1.06	0.79	494	0.60	0.43	3719	0.49	0.37	314	0.23	0.32
3114	1.75	1.31	711	1.00	0.43	3724	2.30	1.72	885	1.14	0.33
3118	1.06	0.79	494	0.62	0.45	3726	1.89	1.41	755	0.89	0.32
3119	0.52	0.39	324	0.32	0.50	3803	1.56	1.17	651	0.89	0.43
3122	1.11	0.83	510	0.64	0.45	3807	1.30	0.97	570	0.75	0.45
3126	1.05	0.78	491	0.59	0.43	3808	2.52	1.88	954	1.38	0.42
3131	1.02	0.76	481	0.58	0.43	3821X	4.48	3.35	1500	2.44	0.42
3132	1.92	1.43	765	1.08	0.43	3822X	2.50	1.87	948	1.35	0.41
3145	1.65	1.23	680	0.93	0.43	3824X	1.95	1.46	774	1.06	0.42
3146	1.39	1.04	598	0.79	0.43	3826	0.43	0.32	295	0.25	0.43
3169	1.54	1.15	645	0.88	0.43	3827	1.50	1.12	633	0.82	0.42
3175	—	—	—	0.88	0.43	3830	0.91	0.68	447	0.50	0.42
3179	1.11	0.83	510	0.64	0.45	3851	1.72	1.28	702	1.00	0.45
3180	1.54	1.15	645	0.90	0.45	3865	1.05	0.78	491	0.62	0.49
3188	1.17	0.87	529	0.68	0.45	3881	3.06	2.29	1124	1.74	0.43
3220	1.14	0.85	519	0.65	0.43	4000	3.58	2.67	1288	1.79	0.33
3223	—	—	—	0.90	0.45	4021	2.38	1.78	910	1.25	0.37

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

ADVISORY LOSS COSTS AND ADVISORY RATES**INDIANA**

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Effective January 1, 2019

CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO
4024D	2.76	2.06	1029	1.43	0.37	4653	1.27	0.95	560	0.73	0.45
4034	3.49	2.61	1259	1.83	0.37	4665	3.21	2.40	1171	1.68	0.37
4036	1.69	1.26	692	0.88	0.37	4670	4.30	3.21	1500	2.24	0.37
4038	1.39	1.04	598	0.84	0.50	4683	2.35	1.76	900	1.34	0.43
4053X	1.58	1.18	658	0.90	0.43	4686	1.27	0.95	560	0.67	0.37
4061X	1.69	1.26	692	0.99	0.45	4692	0.54	0.40	330	0.31	0.45
4062	1.59	1.19	661	0.91	0.43	4693	0.54	0.40	330	0.30	0.43
4101	1.51	1.13	636	0.83	0.42	4703	1.02	0.76	481	0.58	0.43
4109	0.27	0.20	245	0.16	0.45	4716X	2.35	1.76	900	1.34	0.43
4110	0.43	0.32	295	0.25	0.43	4717	1.17	0.87	529	0.70	0.49
4111	1.45	1.08	617	0.84	0.45	4720	1.08	0.81	500	0.61	0.43
4113	—	—	—	0.84	0.45	4740	0.43	0.32	295	0.23	0.37
4114	1.51	1.13	636	0.86	0.43	4741	1.38	1.03	595	0.80	0.43
4130	1.98	1.48	784	1.12	0.43	4751	1.30	0.97	570	0.68	0.37
4131	3.43	2.56	1240	1.98	0.45	4766NX	2.08	1.55	903	0.98	0.32
4133	1.27	0.95	560	0.74	0.45	4771NX	1.53	1.14	727	0.71	0.32
4149	0.39	0.29	283	0.23	0.49	4777	1.92	1.43	765	0.90	0.32
4206	1.39	1.04	598	0.80	0.43	4825	0.46	0.34	305	0.24	0.37
4207	1.17	0.87	529	0.61	0.37	4828	1.39	1.04	598	0.76	0.41
4239	1.23	0.92	547	0.64	0.37	4829	0.84	0.63	425	0.42	0.33
4240	2.22	1.66	859	1.28	0.45	4902	2.26	1.69	872	1.32	0.45
4243	1.47	1.10	623	0.83	0.43	4923	0.60	0.45	349	0.34	0.43
4244	1.62	1.21	670	0.92	0.43	5020	3.09	2.31	1133	1.63	0.37
4250	0.99	0.74	472	0.56	0.43	5022	3.25	2.43	1184	1.63	0.33
4251	1.60	1.20	664	0.91	0.43	5037	6.33	4.73	1500	2.96	0.32
4263	1.84	1.37	740	1.04	0.43	5040	4.35	3.25	1500	2.03	0.32
4273	1.20	0.90	538	0.68	0.43	5057	2.97	2.22	1096	1.41	0.32
4279	1.18	0.88	532	0.68	0.43	5059	8.96	6.69	1500	4.17	0.32
4282	—	—	—	0.68	0.43	5069	—	—	—	4.17	0.32
4283	0.67	0.50	371	0.38	0.43	5102	2.92	2.18	1080	1.45	0.33
4299	1.24	0.93	551	0.72	0.45	5146	2.37	1.77	907	1.25	0.37
4304	3.37	2.52	1222	1.84	0.42	5160	1.32	0.99	576	0.67	0.33
4307	1.21	0.90	541	0.72	0.49	5183	1.40	1.05	601	0.74	0.37
4351	0.60	0.45	349	0.34	0.43	5188	1.76	1.31	714	0.93	0.37
4352	0.87	0.65	434	0.50	0.45	5190	1.66	1.24	683	0.87	0.37
4360	0.66	0.49	368	0.39	0.45	5191	0.80	0.60	412	0.46	0.43
4361	0.63	0.47	358	0.36	0.45	5192	1.90	1.42	759	1.08	0.43
4410	1.71	1.28	699	0.97	0.43	5213	3.10	2.32	1137	1.55	0.33
4420	1.53	1.14	642	0.76	0.33	5215	3.16	2.36	1155	1.74	0.42
4431	1.00	0.75	475	0.60	0.49	5221	2.40	1.79	916	1.27	0.37
4432	0.79	0.59	409	0.48	0.49	5222	3.76	2.81	1344	1.88	0.33
4439	—	—	—	0.57	0.43	5223	4.64	3.47	1500	2.42	0.37
4452	1.56	1.17	651	0.88	0.43	5348	1.98	1.48	784	1.04	0.37
4459	1.74	1.30	708	0.99	0.43	5402	2.08	1.55	815	1.21	0.45
4470	1.47	1.10	623	0.84	0.43	5403	3.44	2.57	1244	1.71	0.33
4484	1.86	1.39	746	1.05	0.43	5437	3.42	2.55	1237	1.80	0.37
4493	1.56	1.17	651	0.89	0.43	5443	1.67	1.25	686	0.95	0.43
4511	0.51	0.38	321	0.28	0.42	5445	3.13	2.34	1146	1.56	0.33
4557	1.32	0.99	576	0.77	0.45	5462	3.92	2.93	1395	2.06	0.37
4558	1.00	0.75	475	0.57	0.43	5472	3.73	2.79	1335	1.75	0.32
4568	1.26	0.94	557	0.66	0.37	5473	4.76	3.56	1500	2.20	0.32
4581	0.52	0.39	324	0.26	0.33	5474	3.59	2.68	1291	1.79	0.33
4583	2.41	1.80	919	1.20	0.33	5478	2.34	1.75	897	1.24	0.37
4611	0.36	0.27	273	0.21	0.45	5479	3.59	2.68	1291	1.96	0.42
4635	1.56	1.17	651	0.73	0.32	5480	2.68	2.00	1004	1.35	0.33

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

ADVISORY LOSS COSTS AND ADVISORY RATES**INDIANA**

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

Effective January 1, 2019

CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO
5491	0.88	0.66	437	0.44	0.33	7024M	1.47	1.10	623	0.69	0.32
5506	4.03	3.01	1429	1.87	0.32	7038M	3.88	2.90	1382	1.77	0.32
5507	2.11	1.58	825	1.06	0.33	7046M	4.10	3.06	1452	1.94	0.32
5508D	5.18	3.87	1500	2.73	0.37	7047M	2.09	1.56	818	0.95	0.32
5535	3.04	2.27	1118	1.60	0.37	7050M	6.14	4.59	1500	2.71	0.32
5537	2.87	2.14	1064	1.50	0.37	7090M	4.31	3.22	1500	1.97	0.32
5551	6.10	4.56	1500	2.85	0.32	7098M	4.55	3.40	1500	2.15	0.32
5606	0.82	0.61	418	0.41	0.33	7099M	6.48	4.84	1500	2.95	0.32
5610	3.07	2.29	1127	1.76	0.43	7133	1.50	1.12	633	0.74	0.33
5645	6.25	4.67	1500	3.10	0.33	7151M	1.82	1.36	733	0.90	0.33
5703	6.19	4.62	1500	3.23	0.37	7152M	2.89	2.16	1070	1.37	0.33
5705	10.08	7.53	1500	5.26	0.37	7153M	2.03	1.52	799	1.00	0.33
5951	0.21	0.16	226	0.12	0.45	7219	4.08	3.05	1445	2.06	0.33
6003	3.32	2.48	1206	1.77	0.37	7222	3.49	2.61	1259	1.85	0.37
6005	2.43	1.82	925	1.27	0.37	7225	3.36	2.51	1218	1.78	0.37
6017	—	—	—	1.55	0.33	7228	—	—	—	2.06	0.33
6018	1.22	0.91	544	0.66	0.37	7229	—	—	—	2.06	0.33
6045	2.10	1.57	822	1.12	0.37	7230	6.42	4.80	1500	3.54	0.42
6204	4.32	3.23	1500	2.16	0.33	7231	5.36	4.00	1500	2.99	0.42
6206	1.28	0.96	563	0.60	0.32	7232	3.17	2.37	1159	1.60	0.33
6213	0.84	0.63	425	0.42	0.33	7309F	11.42	8.53	1500	4.67	0.27
6214	1.02	0.76	481	0.48	0.32	7313F	4.25	3.17	1499	1.74	0.27
6216	3.15	2.35	1152	1.47	0.32	7317F	10.98	8.20	1500	4.51	0.27
6217	2.27	1.70	875	1.13	0.33	7327F	28.25	21.10	1500	11.47	0.27
6229	2.46	1.84	935	1.22	0.33	7333M	1.32	0.99	576	0.64	0.32
6233	1.43	1.07	610	0.72	0.33	7335M	1.47	1.10	623	0.71	0.32
6235	3.33	2.49	1209	1.56	0.32	7337M	2.09	1.56	818	0.98	0.32
6236	3.70	2.76	1326	1.95	0.37	7350F	14.90	11.13	1500	6.34	0.29
6237	0.78	0.58	406	0.41	0.37	7360	2.35	1.76	900	1.23	0.37
6251D	3.46	2.58	1250	1.73	0.33	7370	4.28	3.20	1500	2.42	0.43
6252D	2.49	1.86	944	1.15	0.32	7380	2.69	2.01	1007	1.48	0.42
6260	—	—	—	1.73	0.33	7382	2.57	1.92	970	1.45	0.43
6306	2.54	1.90	960	1.27	0.33	7390	2.72	2.03	1017	1.55	0.43
6319	1.89	1.41	755	0.93	0.33	7394M	1.64	1.23	677	0.78	0.32
6325	1.98	1.48	784	0.99	0.33	7395M	1.82	1.36	733	0.87	0.32
6400	3.10	2.32	1137	1.71	0.42	7398M	2.59	1.93	976	1.20	0.32
6503	1.03	0.77	484	0.60	0.45	7402	0.12	0.09	198	0.07	0.44
6504	1.83	1.37	736	1.06	0.45	7403	2.52	1.88	954	1.32	0.37
6702M*	2.42	1.81	922	1.27	0.37	7405N	0.93	0.69	551	0.49	0.37
6703M*	3.83	2.86	1366	1.93	0.37	7420	3.72	2.78	1332	1.75	0.32
6704M*	2.69	2.01	1007	1.41	0.37	7421	0.44	0.33	299	0.22	0.33
6801F	5.47	4.09	1500	2.35	0.32	7422	0.74	0.55	393	0.35	0.32
6811	4.21	3.14	1486	2.19	0.37	7425	1.04	0.78	488	0.49	0.32
6824F	10.91	8.15	1500	4.61	0.29	7431N	0.46	0.34	352	0.22	0.32
6826F	6.85	5.12	1500	2.95	0.32	7445N	0.31	0.23	—	—	—
6834	1.94	1.45	771	1.06	0.42	7453N	0.15	0.11	—	—	—
6836	2.20	1.64	853	1.14	0.37	7502	1.18	0.88	532	0.62	0.37
6843F	8.78	6.56	1500	3.60	0.27	7515	0.66	0.49	368	0.31	0.32
6845F	7.61	5.68	1500	3.11	0.27	7520	2.40	1.79	916	1.36	0.43
6854	3.07	2.29	1127	1.42	0.32	7538	2.94	2.20	1086	1.38	0.32
6872F	11.30	8.44	1500	4.63	0.27	7539	0.93	0.69	453	0.46	0.33
6874F	20.33	15.19	1500	8.33	0.27	7540	1.60	1.20	664	0.74	0.32
6882	2.20	1.64	853	1.03	0.32	7580	1.81	1.35	730	0.94	0.37
6884	3.29	2.46	1196	1.60	0.32	7590	2.08	1.55	815	1.14	0.42
7016M	1.32	0.99	576	0.63	0.32	7600	2.58	1.93	973	1.37	0.37

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ADVISORY LOSS COSTS AND ADVISORY RATES**INDIANA**

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Effective January 1, 2019

CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO
7605	1.79	1.34	724	0.94	0.37	8304	3.48	2.60	1256	1.82	0.37
7610	0.33	0.25	264	0.18	0.42	8350	2.84	2.12	1055	1.42	0.33
7698X	3.67	2.74	1316	1.63	0.32	8380	1.59	1.19	661	0.87	0.42
7699X	1.51	1.13	636	0.76	0.37	8381	1.46	1.09	620	0.80	0.42
7705	3.22	2.41	1174	1.76	0.42	8385	1.80	1.34	727	0.94	0.37
7710X	2.49	1.86	944	1.23	0.33	8392	1.73	1.29	705	0.97	0.43
7711X	2.49	1.86	944	1.23	0.33	8393X	1.31	0.98	573	0.75	0.43
7720	1.73	1.29	705	0.90	0.37	8500	4.68	3.50	1500	2.44	0.37
7725X	1.63	1.22	673	0.77	0.33	8601	0.25	0.19	239	0.14	0.42
7732PX	122.00	89.00	282	61.89	0.37	8602	0.90	0.67	444	0.49	0.42
7855	1.99	1.49	787	1.04	0.37	8603	0.05	0.04	176	0.03	0.43
8001	1.52	1.14	639	0.87	0.45	8606	1.49	1.11	629	0.74	0.33
8002	1.38	1.03	595	0.77	0.43	8709F	5.43	4.06	1500	2.22	0.27
8006	1.50	1.12	633	0.85	0.43	8719	1.74	1.30	708	0.81	0.32
8008	0.98	0.73	469	0.56	0.45	8720	0.83	0.62	421	0.43	0.37
8010	1.21	0.90	541	0.70	0.45	8721	0.22	0.16	229	0.12	0.37
8013	0.29	0.22	251	0.17	0.43	8723	0.12	0.09	198	0.07	0.43
8015	0.55	0.41	333	0.31	0.43	8725	1.66	1.24	683	0.87	0.37
8017	1.00	0.75	475	0.57	0.45	8726F	3.03	2.26	1114	1.30	0.32
8018	2.01	1.50	793	1.16	0.45	8734M	0.28	0.21	248	0.15	0.37
8021	2.02	1.51	796	1.14	0.43	8737M	0.26	0.19	242	0.13	0.37
8031	1.87	1.40	749	1.06	0.43	8738M	0.40	0.30	286	0.20	0.37
8032	1.47	1.10	623	0.85	0.45	8742	0.21	0.16	226	0.11	0.37
8033	1.94	1.45	771	1.09	0.43	8745	2.57	1.92	970	1.41	0.42
8037	1.56	1.17	651	0.90	0.45	8748	0.39	0.29	283	0.21	0.42
8039	1.32	0.99	576	0.76	0.45	8755	0.18	0.13	217	0.09	0.37
8044	1.90	1.42	759	1.04	0.42	8799	0.76	0.57	399	0.42	0.43
8045	0.59	0.44	346	0.34	0.45	8800	1.31	0.98	573	0.78	0.49
8046	1.61	1.20	667	0.92	0.43	8803	0.05	0.04	176	0.02	0.37
8047	0.69	0.52	377	0.40	0.45	8805M	0.16	0.12	210	0.09	0.43
8058	1.76	1.31	714	0.98	0.43	8810	0.12	0.09	198	0.07	0.43
8072	0.49	0.37	314	0.28	0.45	8814M	0.15	0.11	207	0.09	0.43
8102	1.32	0.99	576	0.76	0.45	8815M	0.23	0.17	232	0.13	0.43
8103	1.46	1.09	620	0.79	0.41	8820	0.10	0.07	192	0.06	0.42
8105	—	—	—	1.16	0.45	8824	2.02	1.51	796	1.17	0.45
8106	2.81	2.10	1045	1.47	0.37	8825	1.37	1.02	592	0.78	0.43
8107	1.81	1.35	730	0.95	0.37	8826	1.37	1.02	592	0.78	0.43
8111	1.87	1.40	749	1.07	0.43	8829	1.45	1.08	617	0.82	0.43
8116	1.91	1.43	762	1.08	0.43	8831	0.98	0.73	469	0.55	0.43
8203	3.54	2.64	1275	2.02	0.43	8832	0.21	0.16	226	0.12	0.43
8204	3.59	2.68	1291	1.87	0.37	8833	0.63	0.47	358	0.36	0.43
8209	2.53	1.89	957	1.43	0.43	8835	1.61	1.20	667	0.92	0.43
8215	1.88	1.40	752	0.99	0.37	8842	2.43	1.82	925	1.37	0.43
8227	2.10	1.57	822	0.98	0.32	8855	0.13	0.10	201	0.08	0.43
8232	2.95	2.20	1089	1.54	0.37	8856	0.30	0.22	255	0.17	0.43
8233	1.81	1.35	730	0.97	0.37	8864	1.04	0.78	488	0.59	0.43
8235	2.88	2.15	1067	1.64	0.43	8868	0.28	0.21	248	0.16	0.45
8263	3.95	2.95	1404	2.13	0.41	8869	0.92	0.69	450	0.53	0.45
8264	2.91	2.17	1077	1.52	0.37	8871	0.06	0.04	179	0.03	0.45
8265	3.85	2.88	1373	1.90	0.33	8901	0.13	0.10	201	0.07	0.42
8279	5.34	3.99	1500	2.62	0.33	9012	0.86	0.64	431	0.47	0.42
8288	5.46	4.08	1500	2.82	0.37	9014X	1.99	1.49	787	1.13	0.43
8291	2.70	2.02	1011	1.48	0.42	9015	2.37	1.77	907	1.35	0.43
8292	2.42	1.81	922	1.37	0.43	9016	2.11	1.58	825	1.19	0.43
8293	6.35	4.74	1500	3.38	0.37	9019	1.35	1.01	585	0.71	0.37

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ADVISORY LOSS COSTS AND ADVISORY RATES

INDIANA

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

Effective January 1, 2019

CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO
9033	1.94	1.45	771	1.10	0.43						
9040	1.95	1.46	774	1.13	0.45						
9044	1.00	0.75	475	0.57	0.45						
9052	1.31	0.98	573	0.76	0.45						
9058	1.28	0.96	563	0.76	0.49						
9060	1.08	0.81	500	0.62	0.45						
9061	0.97	0.72	466	0.58	0.49						
9062	1.04	0.78	488	0.62	0.49						
9063	0.74	0.55	393	0.43	0.45						
9077F	5.09	3.80	1500	2.25	0.40						
9082	1.00	0.75	475	0.59	0.49						
9083	0.90	0.67	444	0.54	0.49						
9084	1.01	0.75	478	0.57	0.43						
9088a	a	a	a	a	a						
9089	0.74	0.55	393	0.43	0.45						
9093	1.26	0.94	557	0.72	0.45						
9101	2.60	1.94	979	1.49	0.45						
9102	2.11	1.58	825	1.20	0.43						
9154	1.08	0.81	500	0.61	0.43						
9156	1.56	1.17	651	0.85	0.42						
9170	5.81	4.34	1500	2.69	0.32						
9178	4.88	3.65	1500	2.87	0.49						
9179	7.91	5.91	1500	4.57	0.45						
9180	5.03	3.76	1500	2.58	0.37						
9182	1.33	0.99	579	0.74	0.43						
9186	8.27	6.18	1500	4.04	0.33						
9220	3.19	2.38	1165	1.74	0.42						
9402	2.74	2.05	1023	1.44	0.37						
9403	4.16	3.11	1470	2.08	0.33						
9410	1.53	1.14	642	0.87	0.43						
9501	2.01	1.50	793	1.10	0.42						
9505	2.43	1.82	925	1.33	0.42						
9516	2.82	2.11	1048	1.49	0.37						
9519	3.20	2.39	1168	1.69	0.37						
9521	1.69	1.26	692	0.89	0.37						
9522	1.51	1.13	636	0.86	0.43						
9534	1.92	1.43	765	0.97	0.33						
9554	4.79	3.58	1500	2.38	0.33						
9586	0.35	0.26	270	0.21	0.49						
9600	1.32	0.99	576	0.78	0.45						
9620	0.72	0.54	387	0.39	0.42						

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

Effective January 1, 2019

APPLICABLE TO ADVISORY RATES ONLY
FOOTNOTES

- a Rate for each individual risk must be obtained from NCCI Customer Service or the Indiana Compensation Rating Bureau (ICRB).
- A Minimum Premium \$100 per ginning location for policy minimum premium computation.
- D Rate for classification already includes the specific disease loading shown in the table below. See **Basic Manual** Rule 3-A-7.

Disease			Disease			Disease		
Code No.	Loading	Symbol	Code No.	Loading	Symbol	Code No.	Loading	Symbol
0059D	0.30	S	1624D	0.02	S	4024D	0.03	S
0065D	0.06	S	1710D	0.06	S	5508D	0.04	S
0066D	0.06	S	1803D	0.47	S	6251D	0.04	S
0067D	0.06	S	3081D	0.05	S	6252D	0.03	S
1164D	0.04	S	3082D	0.06	S			
1165D	0.03	S	3085D	0.04	S			

S=Silica

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

Class Code	Non-Ratable Element Code
4766	0766
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**

- 1005 Rate includes a non-ratable disease element of \$0.86. (For coverage written separately for federal benefits only, \$0.84. For coverage written separately for state benefits only, \$0.02.)
- 1016 Rate includes a non-ratable disease element of \$2.57. (For coverage written separately for federal benefits only, \$2.52. For coverage written separately for state benefits only, \$0.05.)
- 6702 Rate and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection code rate and elr each x 1.215.
- 6703 Rate and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection class rate x 1.924 and elr x 1.855.
- 6704 Rate and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection class rate and elr each x 1.35.

Effective January 1, 2019

APPLICABLE TO ADVISORY LOSS COSTS ONLY
FOOTNOTES

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

Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol
0059D	0.22	S	1624D	0.01	S	4024D	0.02	S
0065D	0.04	S	1710D	0.04	S	5508D	0.03	S
0066D	0.04	S	1803D	0.35	S	6251D	0.03	S
0067D	0.04	S	3081D	0.04	S	6252D	0.02	S
1164D	0.03	S	3082D	0.04	S			
1165D	0.02	S	3085D	0.03	S			

S=Silica

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

Class Code	Non-Ratable Element Code
4766	0766
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**

- 1005 Advisory loss cost includes a non-ratable disease element of \$0.64. (For coverage written separately for federal benefits only, \$0.63. For coverage written separately for state benefits only, \$0.01.)
- 1016 Advisory loss cost includes a non-ratable disease element of \$1.92. (For coverage written separately for federal benefits only, \$1.88. For coverage written separately for state benefits only, \$0.04.)
- 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 1.924 and elr x 1.855.
- 6704 Loss cost and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection class loss cost and elr each x 1.35.

Effective January 1, 2019

MISCELLANEOUS VALUES - ADVISORY RATES

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

Employee operated vehicle.....	\$69,700
Leased or rented vehicle.....	\$46,400

Catastrophe (other than Certified Acts of Terrorism) - (Advisory Rate) 0.01

Expense Constant applicable in accordance with **Basic Manual** Rule 3-A-11..... \$160

Maximum Weekly Payroll applicable in accordance with **Basic Manual** Rule 2-E – "Executive Officers," "Partners, Sole Proprietors, and Members or Managers of Limited Liability Companies" as amended in Indiana Special Rules, and the **Basic Manual** footnote instructions for Code 9178 – "Athletic Sports or Park: Non-Contact Sports," and Code 9179 – "Athletic Sports or Park: Contact Sports"..... \$3,600

Minimum Weekly Payroll applicable in accordance with **Basic Manual** Rule 2-E – "Executive Officers" and "Partners, Sole Proprietors, and Members or Managers of Limited Liability Companies"..... \$750

Premium Discount Percentages-(See **Basic Manual** Rule 3-A-19.) Premium discounts are not mandatory in Indiana. The following premium discounts are applicable to Standard Premiums:

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

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

Deductible Amount	With Coinsurance Premium Reduction Percentages HAZARD GROUP						
	A	B	C	D	E	F	G
\$0	8.2%	7.2%	6.7%	5.9%	5.1%	4.3%	3.8%
\$500	13.1%	10.9%	10.0%	8.4%	7.0%	5.5%	5.1%
\$1,000	16.3%	13.5%	12.3%	10.2%	8.4%	6.6%	6.1%
\$1,500	18.6%	15.4%	14.0%	11.6%	9.5%	7.4%	6.9%
\$2,000	20.4%	16.9%	15.4%	12.7%	10.5%	8.2%	7.6%
\$2,500	21.9%	18.2%	16.6%	13.7%	11.3%	8.8%	8.2%
\$3,000	23.1%	19.4%	17.6%	14.6%	12.1%	9.4%	8.7%
\$3,500	24.3%	20.4%	18.5%	15.4%	12.8%	10.0%	9.2%
\$4,000	25.3%	21.3%	19.3%	16.1%	13.4%	10.5%	9.7%
\$4,500	26.2%	22.1%	20.1%	16.8%	14.0%	11.0%	10.1%
\$5,000	27.0%	22.8%	20.8%	17.4%	14.5%	11.5%	10.5%

Effective January 1, 2019

MISCELLANEOUS VALUES - ADVISORY RATES(cont.)

Deductible Amount	Without Coinsurance Premium Reduction Percentages HAZARD GROUP						
	A	B	C	D	E	F	G
\$500	6.2%	4.6%	4.1%	3.1%	2.4%	1.6%	1.6%
\$1,000	10.1%	7.8%	7.0%	5.4%	4.1%	2.8%	2.8%
\$1,500	13.0%	10.2%	9.1%	7.1%	5.5%	3.9%	3.9%
\$2,000	15.2%	12.1%	10.9%	8.6%	6.7%	4.8%	4.7%
\$2,500	17.1%	13.8%	12.3%	9.8%	7.8%	5.7%	5.4%
\$3,000	18.7%	15.2%	13.6%	10.9%	8.7%	6.4%	6.1%
\$3,500	20.1%	16.4%	14.7%	11.9%	9.6%	7.1%	6.7%
\$4,000	21.3%	17.5%	15.8%	12.8%	10.4%	7.8%	7.3%
\$4,500	22.4%	18.6%	16.7%	13.6%	11.1%	8.4%	7.8%
\$5,000	23.5%	19.5%	17.6%	14.4%	11.8%	9.0%	8.3%

Terrorism - (Advisory Rate)..... 0.01

United States Longshore and Harbor Workers' Compensation Coverage Percentage

applicable only in connection with **Basic Manual** Rule 3-A-4..... 59%

(Multiply a Non-F classification rate by a factor of 1.59 to adjust for differences in benefits and loss-based expenses. This factor is the product of the adjustment for differences in benefits (1.51) and the adjustment for differences in loss-based expenses (1.054).).

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.

Effective January 1, 2019

MISCELLANEOUS VALUES - ADVISORY LOSS COSTS

Advisory Loss Elimination Ratios - The following reduction percentages are applicable for employers electing total deductibles on a per claim basis. They do not include a safety factor.

Deductible Amount	With Coinsurance Loss Elimination Ratios HAZARD GROUP						
	A	B	C	D	E	F	G
\$0	10.7%	9.4%	8.8%	7.7%	6.7%	5.6%	5.0%
\$500	17.1%	14.3%	13.1%	10.9%	9.1%	7.2%	6.6%
\$1,000	21.3%	17.6%	16.0%	13.3%	11.0%	8.6%	8.0%
\$1,500	24.3%	20.1%	18.3%	15.1%	12.5%	9.7%	9.1%
\$2,000	26.6%	22.1%	20.1%	16.6%	13.7%	10.6%	9.9%
\$2,500	28.5%	23.8%	21.6%	17.9%	14.8%	11.5%	10.7%
\$3,000	30.2%	25.3%	23.0%	19.0%	15.8%	12.3%	11.4%
\$3,500	31.7%	26.6%	24.1%	20.1%	16.7%	13.1%	12.0%
\$4,000	33.0%	27.7%	25.2%	21.0%	17.5%	13.7%	12.6%
\$4,500	34.1%	28.8%	26.2%	21.9%	18.3%	14.4%	13.2%
\$5,000	35.2%	29.8%	27.1%	22.7%	19.0%	15.0%	13.7%

Deductible Amount	Without Coinsurance Loss Elimination Ratios HAZARD GROUP						
	A	B	C	D	E	F	G
\$500	8.0%	6.0%	5.4%	4.1%	3.1%	2.0%	2.0%
\$1,000	13.2%	10.2%	9.1%	7.0%	5.4%	3.7%	3.7%
\$1,500	16.9%	13.3%	11.9%	9.3%	7.2%	5.1%	5.1%
\$2,000	19.8%	15.8%	14.2%	11.2%	8.8%	6.3%	6.1%
\$2,500	22.3%	18.0%	16.1%	12.8%	10.2%	7.4%	7.1%
\$3,000	24.3%	19.8%	17.7%	14.2%	11.4%	8.4%	7.9%
\$3,500	26.2%	21.4%	19.2%	15.5%	12.5%	9.3%	8.7%
\$4,000	27.8%	22.9%	20.6%	16.7%	13.5%	10.2%	9.5%
\$4,500	29.3%	24.2%	21.8%	17.8%	14.5%	11.0%	10.2%
\$5,000	30.6%	25.5%	22.9%	18.8%	15.4%	11.8%	10.8%

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

Employee operated vehicle.....	\$69,700
Leased or rented vehicle.....	\$46,400

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

Maximum Weekly Payroll applicable in accordance with **Basic Manual** Rule 2-E – "Executive Officers," "Partners, Sole Proprietors, and Members or Managers of Limited Liability Companies" as amended in Indiana Special Rules, and the **Basic Manual** footnote instructions for Code 9178 – "Athletic Sports or Park: Non-Contact Sports," and Code 9179 – "Athletic Sports or Park: Contact" \$3,600

Minimum Weekly Payroll applicable in accordance with **Basic Manual** Rule 2-E – "Executive Officers" and "Partners, Sole Proprietors, and Members or Managers of Limited Liability Companies"..... \$750

Terrorism - (Advisory Loss Cost) 0.005

Effective January 1, 2019

MISCELLANEOUS VALUES - ADVISORY LOSS COSTS (cont.)

United States Longshore and Harbor Workers' Compensation Coverage Percentage applicable
only in connection with **Basic Manual** Rule 3-A-4..... 59%

(Multiply a Non-F classification loss cost by a factor of 1.59 to adjust for differences in benefits and loss-based expenses. This factor is the product of the adjustment for differences in benefits (1.51) and the adjustment for differences in loss-based expenses (1.054).)

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.



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Proposed Assigned Risk Rates and Rating Values

The following pages include proposed assigned risk rates and rating values:

- Assigned risk rates, minimum premium, expected loss rates, and d-ratios by class code, along with associated footnotes
- Miscellaneous values, such as:
 - Maximum and minimum weekly payroll applicable for select class codes
 - Premium determination for Partners and Sole Proprietors
 - Terrorism rate
 - United States Longshore and Harbor Workers' Compensation Coverage Percentage

WORKERS COMPENSATION AND EMPLOYERS LIABILITY

INDIANA

Effective January 1, 2019

APPLICABLE TO ASSIGNED RISK POLICIES ONLY

CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO
0005	2.20	853	1.25	0.43	2014	2.79	1039	1.47	0.37	2709	7.20	1500	3.78	0.37
0008	2.13	831	1.16	0.41	2016	2.37	907	1.37	0.45	2710	5.76	1500	2.84	0.33
0016	4.09	1448	2.12	0.37	2021	1.45	617	0.79	0.42	2714	3.10	1137	1.80	0.45
0034	2.49	944	1.40	0.43	2039	1.23	547	0.72	0.45	2731	2.71	1014	1.41	0.37
0035	1.73	705	1.00	0.45	2041	1.84	740	1.07	0.45	2735	3.25	1184	1.87	0.45
0036	2.72	1017	1.56	0.43	2065	0.97	466	0.55	0.43	2759	4.62	1500	2.68	0.45
0037	2.72	1017	1.49	0.42	2070	2.76	1029	1.57	0.43	2790	1.12	513	0.65	0.45
0042	3.32	1206	1.81	0.42	2081	1.69	692	0.96	0.43	2797	1.68	689	0.96	0.43
0050	4.08	1445	2.31	0.43	2089	1.99	787	1.14	0.43	2799	3.44	1244	1.88	0.42
0059D	0.30	—	0.07	0.37	2095	2.10	822	1.19	0.43	2802	3.51	1266	1.92	0.42
0065D	0.06	—	0.02	0.37	2105	1.87	749	1.08	0.45	2835	1.51	636	0.91	0.49
0066D	0.06	—	0.02	0.37	2110	1.71	699	0.99	0.45	2836	1.48	626	0.89	0.49
0067D	0.06	—	0.02	0.37	2111	1.36	588	0.79	0.45	2841	2.35	900	1.36	0.45
0079	3.64	1307	1.95	0.37	2112	2.61	982	1.50	0.45	2881	1.80	727	1.08	0.49
0083	3.59	1291	2.03	0.43	2114	1.87	749	1.08	0.45	2883	1.65	680	0.94	0.43
0106	5.73	1500	2.84	0.33	2121	1.17	529	0.66	0.43	2913	—	—	0.94	0.43
0113	2.57	970	1.46	0.43	2130	1.42	607	0.81	0.43	2915	2.22	859	1.21	0.42
0170	2.43	925	1.38	0.43	2131	1.02	481	0.59	0.43	2916	2.02	796	1.00	0.33
0251	2.05	806	1.17	0.43	2143	1.17	529	0.68	0.45	2923	1.57	655	0.91	0.45
0400	—	—	0.79	0.41	2157	2.52	954	1.44	0.43	2942	—	—	0.48	0.49
0401	7.65	A	3.79	0.33	2172	0.82	418	0.46	0.42	2960	3.07	1127	1.74	0.43
0766N	0.28	—	—	—	2174	1.32	576	0.77	0.45	3004	0.79	409	0.42	0.37
0771N	0.27	—	—	—	2211	4.41	1500	2.32	0.37	3018	1.65	680	0.86	0.37
0908P	139.00	299	78.80	0.43	2220	1.20	538	0.68	0.43	3022	1.96	777	1.14	0.45
0913P	307.00	467	175.82	0.43	2286	0.90	444	0.52	0.45	3027	1.65	680	0.86	0.37
1005*	3.01	1108	1.02	0.32	2288	2.46	935	1.42	0.45	3028	1.69	692	0.96	0.43
1016X*	8.17	1500	2.64	0.32	2300	—	—	0.91	0.43	3030	3.85	1373	2.01	0.37
1164D	2.08	815	0.96	0.32	2302	1.00	475	0.57	0.43	3040	3.49	1259	1.83	0.37
1165D	1.73	705	0.85	0.33	2305	1.17	529	0.64	0.42	3041	2.77	1033	1.56	0.43
1320	2.34	897	1.15	0.33	2361	1.20	538	0.68	0.43	3042	2.01	793	1.10	0.42
1322	5.11	1500	2.59	0.33	2362	1.02	481	0.58	0.43	3064	2.52	954	1.44	0.43
1430	2.50	948	1.31	0.37	2380	1.65	680	0.94	0.43	3069	—	—	1.05	0.43
1438	2.77	1033	1.39	0.33	2386	—	—	0.91	0.43	3076	1.86	746	1.05	0.43
1452	1.39	598	0.74	0.37	2388	1.17	529	0.68	0.45	3081D	2.72	1017	1.40	0.37
1463	7.77	1500	3.82	0.33	2402	1.53	642	0.80	0.37	3082D	2.76	1029	1.40	0.37
1472	1.72	702	0.85	0.33	2413	1.66	683	0.95	0.43	3085D	2.35	900	1.20	0.37
1604X	2.44	929	1.29	0.37	2416	1.12	513	0.64	0.43	3110	2.26	872	1.29	0.43
1624D	1.46	620	0.72	0.33	2417	0.73	390	0.42	0.43	3111	1.68	689	0.95	0.43
1642	1.17	529	0.62	0.37	2501	1.60	664	0.91	0.43	3113	1.06	494	0.60	0.43
1654	3.74	1338	1.97	0.37	2503	0.93	453	0.54	0.45	3114	1.75	711	1.00	0.43
1655	—	—	0.62	0.37	2534	—	—	0.91	0.43	3118	1.06	494	0.62	0.45
1699	1.63	673	0.86	0.37	2570	2.26	872	1.31	0.45	3119	0.52	324	0.32	0.50
1701	2.19	850	1.14	0.37	2585	1.95	774	1.13	0.45	3122	1.11	510	0.64	0.45
1710D	2.63	988	1.35	0.37	2586	1.33	579	0.76	0.43	3126	1.05	491	0.59	0.43
1741	—	—	1.14	0.37	2587	1.49	629	0.87	0.45	3131	1.02	481	0.58	0.43
1747	1.14	519	0.60	0.37	2589	1.26	557	0.71	0.43	3132	1.92	765	1.08	0.43
1748	4.68	1500	2.42	0.37	2600	2.20	853	1.29	0.45	3145	1.65	680	0.93	0.43
1803D	4.37	1500	1.93	0.33	2623	4.00	1420	2.19	0.42	3146	1.39	598	0.79	0.43
1852	—	—	0.58	0.32	2651	0.87	434	0.50	0.45	3169	1.54	645	0.88	0.43
1853	—	—	1.14	0.37	2660	1.32	576	0.76	0.45	3175	—	—	0.88	0.43
1860	—	—	0.68	0.43	2670	1.09	503	0.66	0.49	3179	1.11	510	0.64	0.45
1924	1.48	626	0.86	0.45	2683	1.36	588	0.78	0.45	3180	1.54	645	0.90	0.45
1925	2.37	907	1.29	0.41	2688	1.54	645	0.90	0.45	3188	1.17	529	0.68	0.45
2002	1.74	708	1.00	0.45	2701	10.51	1500	5.51	0.37	3220	1.14	519	0.65	0.43
2003	2.59	976	1.48	0.43	2702	13.74	1500	6.45	0.32	3223	—	—	0.90	0.45

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

WORKERS COMPENSATION AND EMPLOYERS LIABILITY

INDIANA

Effective January 1, 2019

APPLICABLE TO ASSIGNED RISK POLICIES ONLY

CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO
3224	1.81	730	1.06	0.45	4024D	2.76	1029	1.43	0.37	4653	1.27	560	0.73	0.45
3227	1.87	749	1.09	0.45	4034	3.49	1259	1.83	0.37	4665	3.21	1171	1.68	0.37
3240	1.98	784	1.15	0.45	4036	1.69	692	0.88	0.37	4670	4.30	1500	2.24	0.37
3241	1.51	636	0.86	0.43	4038	1.39	598	0.84	0.50	4683	2.35	900	1.34	0.43
3255	1.47	623	0.88	0.49	4053X	1.58	658	0.90	0.43	4686	1.27	560	0.67	0.37
3257	1.54	645	0.88	0.43	4061X	1.69	692	0.99	0.45	4692	0.54	330	0.31	0.45
3270	1.41	604	0.80	0.43	4062	1.59	661	0.91	0.43	4693	0.54	330	0.30	0.43
3300	4.29	1500	2.39	0.43	4101	1.51	636	0.83	0.42	4703	1.02	481	0.58	0.43
3303	2.07	812	1.19	0.45	4109	0.27	245	0.16	0.45	4716X	2.35	900	1.34	0.43
3307	2.05	806	1.17	0.43	4110	0.43	295	0.25	0.43	4717	1.17	529	0.70	0.49
3315	2.04	803	1.19	0.45	4111	1.45	617	0.84	0.45	4720	1.08	500	0.61	0.43
3334	1.21	541	0.70	0.43	4113	—	—	0.84	0.45	4740	0.43	295	0.23	0.37
3336	1.53	642	0.80	0.37	4114	1.51	636	0.86	0.43	4741	1.38	595	0.80	0.43
3365	2.94	1086	1.54	0.37	4130	1.98	784	1.12	0.43	4751	1.30	570	0.68	0.37
3372	2.07	812	1.13	0.42	4131	3.43	1240	1.98	0.45	4766NX	2.08	903	0.98	0.32
3373	3.21	1171	1.86	0.43	4133	1.27	560	0.74	0.45	4771NX	1.53	727	0.71	0.32
3383	0.81	415	0.47	0.45	4149	0.39	283	0.23	0.49	4777	1.92	765	0.90	0.32
3385	0.43	295	0.25	0.45	4206	1.39	598	0.80	0.43	4825	0.46	305	0.24	0.37
3400	2.53	957	1.37	0.41	4207	1.17	529	0.61	0.37	4828	1.39	598	0.76	0.41
3507	1.74	708	0.99	0.43	4239	1.23	547	0.64	0.37	4829	0.84	425	0.42	0.33
3515	1.44	614	0.81	0.43	4240	2.22	859	1.28	0.45	4902	2.26	872	1.32	0.45
3548	0.85	428	0.48	0.43	4243	1.47	623	0.83	0.43	4923	0.60	349	0.34	0.43
3559	1.62	670	0.91	0.43	4244	1.62	670	0.92	0.43	5020	3.09	1133	1.63	0.37
3574	0.81	415	0.47	0.45	4250	0.99	472	0.56	0.43	5022	3.25	1184	1.63	0.33
3581	0.76	399	0.44	0.45	4251	1.60	664	0.91	0.43	5037	6.33	1500	2.96	0.32
3612	1.32	576	0.72	0.42	4263	1.84	740	1.04	0.43	5040	4.35	1500	2.03	0.32
3620	2.10	822	1.10	0.37	4273	1.20	538	0.68	0.43	5057	2.97	1096	1.41	0.32
3629	1.08	500	0.63	0.45	4279	1.18	532	0.68	0.43	5059	8.96	1500	4.17	0.32
3632	1.53	642	0.84	0.42	4282	—	—	0.68	0.43	5069	—	—	4.17	0.32
3634	1.09	503	0.63	0.45	4283	0.67	371	0.38	0.43	5102	2.92	1080	1.45	0.33
3635	1.50	633	0.85	0.43	4299	1.24	551	0.72	0.45	5146	2.37	907	1.25	0.37
3638	0.96	462	0.55	0.45	4304	3.37	1222	1.84	0.42	5160	1.32	576	0.67	0.33
3642	1.27	560	0.72	0.43	4307	1.21	541	0.72	0.49	5183	1.40	601	0.74	0.37
3643	1.30	570	0.74	0.43	4351	0.60	349	0.34	0.43	5188	1.76	714	0.93	0.37
3647	1.36	588	0.75	0.42	4352	0.87	434	0.50	0.45	5190	1.66	683	0.87	0.37
3648	0.97	466	0.56	0.45	4360	0.66	368	0.39	0.45	5191	0.80	412	0.46	0.43
3681	0.61	352	0.35	0.45	4361	0.63	358	0.36	0.45	5192	1.90	759	1.08	0.43
3685	0.51	321	0.29	0.45	4410	1.71	699	0.97	0.43	5213	3.10	1137	1.55	0.33
3719	0.49	314	0.23	0.32	4420	1.53	642	0.76	0.33	5215	3.16	1155	1.74	0.42
3724	2.30	885	1.14	0.33	4431	1.00	475	0.60	0.49	5221	2.40	916	1.27	0.37
3726	1.89	755	0.89	0.32	4432	0.79	409	0.48	0.49	5222	3.76	1344	1.88	0.33
3803	1.56	651	0.89	0.43	4439	—	—	0.57	0.43	5223	4.64	1500	2.42	0.37
3807	1.30	570	0.75	0.45	4452	1.56	651	0.88	0.43	5348	1.98	784	1.04	0.37
3808	2.52	954	1.38	0.42	4459	1.74	708	0.99	0.43	5402	2.08	815	1.21	0.45
3821X	4.48	1500	2.44	0.42	4470	1.47	623	0.84	0.43	5403	3.44	1244	1.71	0.33
3822X	2.50	948	1.35	0.41	4484	1.86	746	1.05	0.43	5437	3.42	1237	1.80	0.37
3824X	1.95	774	1.06	0.42	4493	1.56	651	0.89	0.43	5443	1.67	686	0.95	0.43
3826	0.43	295	0.25	0.43	4511	0.51	321	0.28	0.42	5445	3.13	1146	1.56	0.33
3827	1.50	633	0.82	0.42	4557	1.32	576	0.77	0.45	5462	3.92	1395	2.06	0.37
3830	0.91	447	0.50	0.42	4558	1.00	475	0.57	0.43	5472	3.73	1335	1.75	0.32
3851	1.72	702	1.00	0.45	4568	1.26	557	0.66	0.37	5473	4.76	1500	2.20	0.32
3865	1.05	491	0.62	0.49	4581	0.52	324	0.26	0.33	5474	3.59	1291	1.79	0.33
3881	3.06	1124	1.74	0.43	4583	2.41	919	1.20	0.33	5478	2.34	897	1.24	0.37
4000	3.58	1288	1.79	0.33	4611	0.36	273	0.21	0.45	5479	3.59	1291	1.96	0.42
4021	2.38	910	1.25	0.37	4635	1.56	651	0.73	0.32	5480	2.68	1004	1.35	0.33

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

WORKERS COMPENSATION AND EMPLOYERS LIABILITY

INDIANA

Effective January 1, 2019

APPLICABLE TO ASSIGNED RISK POLICIES ONLY

CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO
5491	0.88	437	0.44	0.33	7024M	1.47	623	0.69	0.32	7605	1.79	724	0.94	0.37
5506	4.03	1429	1.87	0.32	7038M	3.88	1382	1.77	0.32	7610	0.33	264	0.18	0.42
5507	2.11	825	1.06	0.33	7046M	4.10	1452	1.94	0.32	7698X	3.67	1316	1.63	0.32
5508D	5.18	1500	2.73	0.37	7047M	2.09	818	0.95	0.32	7699X	1.51	636	0.76	0.37
5535	3.04	1118	1.60	0.37	7050M	6.14	1500	2.71	0.32	7705	3.22	1174	1.76	0.42
5537	2.87	1064	1.50	0.37	7090M	4.31	1500	1.97	0.32	7710X	2.49	944	1.23	0.33
5551	6.10	1500	2.85	0.32	7098M	4.55	1500	2.15	0.32	7711X	2.49	944	1.23	0.33
5606	0.82	418	0.41	0.33	7099M	6.48	1500	2.95	0.32	7720	1.73	705	0.90	0.37
5610	3.07	1127	1.76	0.43	7133	1.50	633	0.74	0.33	7725X	1.63	673	0.77	0.33
5645	6.25	1500	3.10	0.33	7151M	1.82	733	0.90	0.33	7732PX	122.00	282	61.89	0.37
5703	6.19	1500	3.23	0.37	7152M	2.89	1070	1.37	0.33	7855	1.99	787	1.04	0.37
5705	10.08	1500	5.26	0.37	7153M	2.03	799	1.00	0.33	8001	1.52	639	0.87	0.45
5951	0.21	226	0.12	0.45	7219	4.08	1445	2.06	0.33	8002	1.38	595	0.77	0.43
6003	3.32	1206	1.77	0.37	7222	3.49	1259	1.85	0.37	8006	1.50	633	0.85	0.43
6005	2.43	925	1.27	0.37	7225	3.36	1218	1.78	0.37	8008	0.98	469	0.56	0.45
6017	—	—	1.55	0.33	7228	—	—	2.06	0.33	8010	1.21	541	0.70	0.45
6018	1.22	544	0.66	0.37	7229	—	—	2.06	0.33	8013	0.29	251	0.17	0.43
6045	2.10	822	1.12	0.37	7230	6.42	1500	3.54	0.42	8015	0.55	333	0.31	0.43
6204	4.32	1500	2.16	0.33	7231	5.36	1500	2.99	0.42	8017	1.00	475	0.57	0.45
6206	1.28	563	0.60	0.32	7232	3.17	1159	1.60	0.33	8018	2.01	793	1.16	0.45
6213	0.84	425	0.42	0.33	7309F	11.42	1500	4.67	0.27	8021	2.02	796	1.14	0.43
6214	1.02	481	0.48	0.32	7313F	4.25	1499	1.74	0.27	8031	1.87	749	1.06	0.43
6216	3.15	1152	1.47	0.32	7317F	10.98	1500	4.51	0.27	8032	1.47	623	0.85	0.45
6217	2.27	875	1.13	0.33	7327F	28.25	1500	11.47	0.27	8033	1.94	771	1.09	0.43
6229	2.46	935	1.22	0.33	7333M	1.32	576	0.64	0.32	8037	1.56	651	0.90	0.45
6233	1.43	610	0.72	0.33	7335M	1.47	623	0.71	0.32	8039	1.32	576	0.76	0.45
6235	3.33	1209	1.56	0.32	7337M	2.09	818	0.98	0.32	8044	1.90	759	1.04	0.42
6236	3.70	1326	1.95	0.37	7350F	14.90	1500	6.34	0.29	8045	0.59	346	0.34	0.45
6237	0.78	406	0.41	0.37	7360	2.35	900	1.23	0.37	8046	1.61	667	0.92	0.43
6251D	3.46	1250	1.73	0.33	7370	4.28	1500	2.42	0.43	8047	0.69	377	0.40	0.45
6252D	2.49	944	1.15	0.32	7380	2.69	1007	1.48	0.42	8058	1.76	714	0.98	0.43
6260	—	—	1.73	0.33	7382	2.57	970	1.45	0.43	8072	0.49	314	0.28	0.45
6306	2.54	960	1.27	0.33	7390	2.72	1017	1.55	0.43	8102	1.32	576	0.76	0.45
6319	1.89	755	0.93	0.33	7394M	1.64	677	0.78	0.32	8103	1.46	620	0.79	0.41
6325	1.98	784	0.99	0.33	7395M	1.82	733	0.87	0.32	8105	—	—	1.16	0.45
6400	3.10	1137	1.71	0.42	7398M	2.59	976	1.20	0.32	8106	2.81	1045	1.47	0.37
6503	1.03	484	0.60	0.45	7402	0.12	198	0.07	0.44	8107	1.81	730	0.95	0.37
6504	1.83	736	1.06	0.45	7403	2.52	954	1.32	0.37	8111	1.87	749	1.07	0.43
6702M*	2.42	922	1.27	0.37	7405N	0.93	551	0.49	0.37	8116	1.91	762	1.08	0.43
6703M*	3.83	1366	1.93	0.37	7420	3.72	1332	1.75	0.32	8203	3.54	1275	2.02	0.43
6704M*	2.69	1007	1.41	0.37	7421	0.44	299	0.22	0.33	8204	3.59	1291	1.87	0.37
6801F	5.47	1500	2.35	0.32	7422	0.74	393	0.35	0.32	8209	2.53	957	1.43	0.43
6811	4.21	1486	2.19	0.37	7425	1.04	488	0.49	0.32	8215	1.88	752	0.99	0.37
6824F	10.91	1500	4.61	0.29	7431N	0.46	352	0.22	0.32	8227	2.10	822	0.98	0.32
6826F	6.85	1500	2.95	0.32	7445N	0.31	—	—	—	8232	2.95	1089	1.54	0.37
6834	1.94	771	1.06	0.42	7453N	0.15	—	—	—	8233	1.81	730	0.97	0.37
6836	2.20	853	1.14	0.37	7502	1.18	532	0.62	0.37	8235	2.88	1067	1.64	0.43
6843F	8.78	1500	3.60	0.27	7515	0.66	368	0.31	0.32	8263	3.95	1404	2.13	0.41
6845F	7.61	1500	3.11	0.27	7520	2.40	916	1.36	0.43	8264	2.91	1077	1.52	0.37
6854	3.07	1127	1.42	0.32	7538	2.94	1086	1.38	0.32	8265	3.85	1373	1.90	0.33
6872F	11.30	1500	4.63	0.27	7539	0.93	453	0.46	0.33	8279	5.34	1500	2.62	0.33
6874F	20.33	1500	8.33	0.27	7540	1.60	664	0.74	0.32	8288	5.46	1500	2.82	0.37
6882	2.20	853	1.03	0.32	7580	1.81	730	0.94	0.37	8291	2.70	1011	1.48	0.42
6884	3.29	1196	1.60	0.32	7590	2.08	815	1.14	0.42	8292	2.42	922	1.37	0.43
7016M	1.32	576	0.63	0.32	7600	2.58	973	1.37	0.37	8293	6.35	1500	3.38	0.37

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

WORKERS COMPENSATION AND EMPLOYERS LIABILITY

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CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO
8304	3.48	1256	1.82	0.37	9033	1.94	771	1.10	0.43					
8350	2.84	1055	1.42	0.33	9040	1.95	774	1.13	0.45					
8380	1.59	661	0.87	0.42	9044	1.00	475	0.57	0.45					
8381	1.46	620	0.80	0.42	9052	1.31	573	0.76	0.45					
8385	1.80	727	0.94	0.37	9058	1.28	563	0.76	0.49					
8392	1.73	705	0.97	0.43	9060	1.08	500	0.62	0.45					
8393X	1.31	573	0.75	0.43	9061	0.97	466	0.58	0.49					
8500	4.68	1500	2.44	0.37	9062	1.04	488	0.62	0.49					
8601	0.25	239	0.14	0.42	9063	0.74	393	0.43	0.45					
8602	0.90	444	0.49	0.42	9077F	5.09	1500	2.25	0.40					
8603	0.05	176	0.03	0.43	9082	1.00	475	0.59	0.49					
8606	1.49	629	0.74	0.33	9083	0.90	444	0.54	0.49					
8709F	5.43	1500	2.22	0.27	9084	1.01	478	0.57	0.43					
8719	1.74	708	0.81	0.32	9088a	a	a	a	a					
8720	0.83	421	0.43	0.37	9089	0.74	393	0.43	0.45					
8721	0.22	229	0.12	0.37	9093	1.26	557	0.72	0.45					
8723	0.12	198	0.07	0.43	9101	2.60	979	1.49	0.45					
8725	1.66	683	0.87	0.37	9102	2.11	825	1.20	0.43					
8726F	3.03	1114	1.30	0.32	9154	1.08	500	0.61	0.43					
8734M	0.28	248	0.15	0.37	9156	1.56	651	0.85	0.42					
8737M	0.26	242	0.13	0.37	9170	5.81	1500	2.69	0.32					
8738M	0.40	286	0.20	0.37	9178	4.88	1500	2.87	0.49					
8742	0.21	226	0.11	0.37	9179	7.91	1500	4.57	0.45					
8745	2.57	970	1.41	0.42	9180	5.03	1500	2.58	0.37					
8748	0.39	283	0.21	0.42	9182	1.33	579	0.74	0.43					
8755	0.18	217	0.09	0.37	9186	8.27	1500	4.04	0.33					
8799	0.76	399	0.42	0.43	9220	3.19	1165	1.74	0.42					
8800	1.31	573	0.78	0.49	9402	2.74	1023	1.44	0.37					
8803	0.05	176	0.02	0.37	9403	4.16	1470	2.08	0.33					
8805M	0.16	210	0.09	0.43	9410	1.53	642	0.87	0.43					
8810	0.12	198	0.07	0.43	9501	2.01	793	1.10	0.42					
8814M	0.15	207	0.09	0.43	9505	2.43	925	1.33	0.42					
8815M	0.23	232	0.13	0.43	9516	2.82	1048	1.49	0.37					
8820	0.10	192	0.06	0.42	9519	3.20	1168	1.69	0.37					
8824	2.02	796	1.17	0.45	9521	1.69	692	0.89	0.37					
8825	1.37	592	0.78	0.43	9522	1.51	636	0.86	0.43					
8826	1.37	592	0.78	0.43	9534	1.92	765	0.97	0.33					
8829	1.45	617	0.82	0.43	9554	4.79	1500	2.38	0.33					
8831	0.98	469	0.55	0.43	9586	0.35	270	0.21	0.49					
8832	0.21	226	0.12	0.43	9600	1.32	576	0.78	0.45					
8833	0.63	358	0.36	0.43	9620	0.72	387	0.39	0.42					
8835	1.61	667	0.92	0.43										
8842	2.43	925	1.37	0.43										
8855	0.13	201	0.08	0.43										
8856	0.30	255	0.17	0.43										
8864	1.04	488	0.59	0.43										
8868	0.28	248	0.16	0.45										
8869	0.92	450	0.53	0.45										
8871	0.06	179	0.03	0.45										
8901	0.13	201	0.07	0.42										
9012	0.86	431	0.47	0.42										
9014X	1.99	787	1.13	0.43										
9015	2.37	907	1.35	0.43										
9016	2.11	825	1.19	0.43										
9019	1.35	585	0.71	0.37										

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

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FOOTNOTES

- a Rate for each individual risk must be obtained from NCCI Customer Service or the Indiana Compensation Rating Bureau (ICRB).
- A Minimum Premium \$100 per ginning location for policy minimum premium computation.
- D Rate for classification already includes the specific disease loading shown in the table below. See **Basic Manual** Rule 3-A-7.

Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol
0059D	0.30	S	1624D	0.02	S	4024D	0.03	S
0065D	0.06	S	1710D	0.06	S	5508D	0.04	S
0066D	0.06	S	1803D	0.47	S	6251D	0.04	S
0067D	0.06	S	3081D	0.05	S	6252D	0.03	S
1164D	0.04	S	3082D	0.06	S			
1165D	0.03	S	3085D	0.04	S			

S=Silica

- F Rate provides for coverage under the United States Longshore and Harbor Workers Compensation Act and its extensions. Rate includes a provision for the USL&HW Assessment.
- M Risks are subject to Admiralty Law or Federal Employers Liability Act (FELA). However, the published rate is for risks that voluntarily purchase standard workers compensation and employers liability coverage. A provision for the USL&HW Assessment is included for those classifications under Program II USL Act. The listed codes of 6702, 6703, 6704, 7151, 7152, 7153, 8734, 8737, 8738, 8805, 8814, and 8815 under the Federal Employers' Liability Act (FELA) for employees of interstate railroads are not applicable in the residual market.
- N This code is part of a ratable / non-ratable group shown below. The statistical non-ratable code and corresponding rate are applied in addition to the basic classification when determining premium.

Class Code	Non-Ratable Element Code
4766	0766
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**

- 1005 Rate includes a non-ratable disease element of \$0.86. (For coverage written separately for federal benefits only, \$0.84. For coverage written separately for state benefits only, \$0.02.)
- 1016 Rate includes a non-ratable disease element of \$2.57. (For coverage written separately for federal benefits only, \$2.52. For coverage written separately for state benefits only, \$0.05.)
- 6702 Rate and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection code rate and elr each x 1.215.
- 6703 Rate and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection class rate x 1.924 and elr x 1.855.
- 6704 Rate and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection class rate and elr each x 1.35.

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MISCELLANEOUS VALUES

Basis of premium applicable in accordance with **Basic Manual** footnote instructions for Code 7370 --

"Taxicab Co.":

Employee operated vehicle.....	\$69,700
Leased or rented vehicle.....	\$46,400

Catastrophe (other than Certified Acts of Terrorism) - (Assigned Risk)..... 0.01**Expense Constant** applicable in accordance with **Basic Manual** Rule 3-A-11..... \$160**Loss Sensitive Rating Plan (LSRP)** - The factors which are used in the calculation of the LSRP are as follows:

Basic Premium Factor	0.40	Loss Development Factors	
Minimum Premium Factor	0.75	1st Adjustment	0.07
Maximum Premium Factor	1.75	2nd Adjustment	0.03
Loss Conversion Factor	1.162	3rd Adjustment	0.02
Tax Multiplier	1.02	4th Adjustment	0.02

Maximum Weekly Payroll applicable in accordance with **Basic Manual** Rule 2-E -- "Executive Officers,""Partners, Sole Proprietors, and Members or Managers of Limited Liability Companies" as amended in Indiana Special Rules, and the **Basic Manual** footnote instructions for Code 9178 -- "Athletic Sports or Park: Non-Contact Sports," and Code 9179 -- "Athletic Sports or Park: Contact Sports".....

\$3,600

Minimum Weekly Payroll applicable in accordance with **Basic Manual** Rule 2-E -- "Executive Officers"

and "Partners, Sole Proprietors, and Members or Managers of Limited Liability Companies".....

\$750

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

Deductible Amount	With Coinsurance Premium Reduction Percentages HAZARD GROUP						
	A	B	C	D	E	F	G
\$0	8.2%	7.2%	6.7%	5.9%	5.1%	4.3%	3.8%
\$500	13.1%	10.9%	10.0%	8.4%	7.0%	5.5%	5.1%
\$1,000	16.3%	13.5%	12.3%	10.2%	8.4%	6.6%	6.1%
\$1,500	18.6%	15.4%	14.0%	11.6%	9.5%	7.4%	6.9%
\$2,000	20.4%	16.9%	15.4%	12.7%	10.5%	8.2%	7.6%
\$2,500	21.9%	18.2%	16.6%	13.7%	11.3%	8.8%	8.2%
\$3,000	23.1%	19.4%	17.6%	14.6%	12.1%	9.4%	8.7%
\$3,500	24.3%	20.4%	18.5%	15.4%	12.8%	10.0%	9.2%
\$4,000	25.3%	21.3%	19.3%	16.1%	13.4%	10.5%	9.7%
\$4,500	26.2%	22.1%	20.1%	16.8%	14.0%	11.0%	10.1%
\$5,000	27.0%	22.8%	20.8%	17.4%	14.5%	11.5%	10.5%

Effective January 1, 2019

APPLICABLE TO ASSIGNED RISK POLICIES ONLY

MISCELLANEOUS VALUES (cont.)

Deductible Amount	Without Coinsurance Premium Reduction Percentages HAZARD GROUP						
	A	B	C	D	E	F	G
\$500	6.2%	4.6%	4.1%	3.1%	2.4%	1.6%	1.6%
\$1,000	10.1%	7.8%	7.0%	5.4%	4.1%	2.8%	2.8%
\$1,500	13.0%	10.2%	9.1%	7.1%	5.5%	3.9%	3.9%
\$2,000	15.2%	12.1%	10.9%	8.6%	6.7%	4.8%	4.7%
\$2,500	17.1%	13.8%	12.3%	9.8%	7.8%	5.7%	5.4%
\$3,000	18.7%	15.2%	13.6%	10.9%	8.7%	6.4%	6.1%
\$3,500	20.1%	16.4%	14.7%	11.9%	9.6%	7.1%	6.7%
\$4,000	21.3%	17.5%	15.8%	12.8%	10.4%	7.8%	7.3%
\$4,500	22.4%	18.6%	16.7%	13.6%	11.1%	8.4%	7.8%
\$5,000	23.5%	19.5%	17.6%	14.4%	11.8%	9.0%	8.3%

Terrorism - (Assigned Risk)..... 0.01

United States Longshore and Harbor Workers' Compensation Coverage Percentage
applicable only in connection with **Basic Manual** Rule 3-A-4..... 59%

(Multiply a Non-F classification rate by a factor of 1.59 to adjust for differences in benefits and loss-based expenses. This factor is the product of the adjustment for differences in benefits (1.51) and the adjustment for differences in loss-based expenses (1.054).)

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.

A 25% residual market surcharge is applicable to the premium in excess of \$2,500 of the standard premium, subject to audit.



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

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 January 1, 2019
TABLE OF WEIGHTING VALUES
APPLICABLE TO ALL POLICIES
Experience Rating Program - ERA

Expected Losses				Weighting Values	Expected Losses				Weighting Values
0	--	1,612		0.04	909,286	--	959,441		0.44
1,613	--	6,518		0.05	959,442	--	1,012,500		0.45
6,519	--	11,529		0.06	1,012,501	--	1,068,724		0.46
11,530	--	16,648		0.07	1,068,725	--	1,128,405		0.47
16,649	--	21,879		0.08	1,128,406	--	1,191,871		0.48
21,880	--	36,595		0.09	1,191,872	--	1,259,495		0.49
36,596	--	54,474		0.10	1,259,496	--	1,331,701		0.50
54,475	--	70,376		0.11	1,331,702	--	1,408,972		0.51
70,377	--	85,860		0.12	1,408,973	--	1,491,858		0.52
85,861	--	101,347		0.13	1,491,859	--	1,580,998		0.53
101,348	--	117,023		0.14	1,580,999	--	1,677,126		0.54
117,024	--	132,997		0.15	1,677,127	--	1,781,099		0.55
132,998	--	149,340		0.16	1,781,100	--	1,893,917		0.56
149,341	--	166,105		0.17	1,893,918	--	2,016,761		0.57
166,106	--	183,340		0.18	2,016,762	--	2,151,030		0.58
183,341	--	201,084		0.19	2,151,031	--	2,298,396		0.59
201,085	--	219,375		0.20	2,298,397	--	2,460,874		0.60
219,376	--	238,252		0.21	2,460,875	--	2,640,914		0.61
238,253	--	257,752		0.22	2,640,915	--	2,841,527		0.62
257,753	--	277,913		0.23	2,841,528	--	3,066,455		0.63
277,914	--	298,778		0.24	3,066,456	--	3,320,403		0.64
298,779	--	320,386		0.25	3,320,404	--	3,609,376		0.65
320,387	--	342,785		0.26	3,609,377	--	3,941,157		0.66
342,786	--	366,020		0.27	3,941,158	--	4,326,019		0.67
366,021	--	390,144		0.28	4,326,020	--	4,777,812		0.68
390,145	--	415,210		0.29	4,777,813	--	5,315,657		0.69
415,211	--	441,278		0.30	5,315,658	--	5,966,730		0.70
441,279	--	468,410		0.31	5,966,731	--	6,770,992		0.71
468,411	--	496,676		0.32	6,770,993	--	7,789,722		0.72
496,677	--	526,148		0.33	7,789,723	--	9,121,902		0.73
526,149	--	556,909		0.34	9,121,903	--	10,938,506		0.74
556,910	--	589,044		0.35	10,938,507	--	13,562,485		0.75
589,045	--	622,650		0.36	13,562,486	--	17,685,873		0.76
622,651	--	657,832		0.37	17,685,874	--	25,107,964		0.77
657,833	--	694,703		0.38	25,107,965	--	42,426,161		0.78
694,704	--	733,390		0.39	42,426,162	--	129,017,104		0.79
733,391	--	774,031		0.40	129,017,105	AND OVER			0.80
774,032	--	816,777		0.41					
816,778	--	861,800		0.42					
861,801	--	909,285		0.43					

(a) G	7.70
(b) State Per Claim Accident Limitation	\$192,000
(c) State Multiple Claim Accident Limitation	\$384,000
(d) USL&HW Per Claim Accident Limitation	\$845,500
(e) USL&HW Multiple Claim Accident Limitation	\$1,691,000
(f) Employers Liability Accident Limitation	\$55,000
(g) Primary/Excess Loss Split Point	\$17,000
(h) USL&HW Act -- Expected Loss Factor -- Non-F Classes	1.52
<i>(Multiply a Non-F classification ELR by the USL&HW Act - Expected Loss Factor of 1.52.)</i>	

Effective January 1, 2019
TABLE OF BALLAST VALUES
APPLICABLE TO ALL POLICIES
Experience Rating Plan - ERA

Expected Losses				Expected Losses				Expected Losses			
Ballast Values				Ballast Values				Ballast Values			
0	--	41,417	19,250	1,329,028	--	1,367,505	154,000	2,676,137	--	2,714,631	288,750
41,418	--	71,282	23,100	1,367,506	--	1,405,985	157,850	2,714,632	--	2,753,126	292,600
71,283	--	105,598	26,950	1,405,986	--	1,444,465	161,700	2,753,127	--	2,791,620	296,450
105,599	--	141,799	30,800	1,444,466	--	1,482,947	165,550	2,791,621	--	2,830,115	300,300
141,800	--	178,880	34,650	1,482,948	--	1,521,429	169,400	2,830,116	--	2,868,611	304,150
178,881	--	216,427	38,500	1,521,430	--	1,559,912	173,250	2,868,612	--	2,907,106	308,000
216,428	--	254,246	42,350	1,559,913	--	1,598,396	177,100	2,907,107	--	2,945,601	311,850
254,247	--	292,236	46,200	1,598,397	--	1,636,881	180,950	2,945,602	--	2,984,097	315,700
292,237	--	330,340	50,050	1,636,882	--	1,675,367	184,800	2,984,098	--	3,022,592	319,550
330,341	--	368,524	53,900	1,675,368	--	1,713,853	188,650	3,022,593	--	3,061,088	323,400
368,525	--	406,767	57,750	1,713,854	--	1,752,340	192,500	3,061,089	--	3,099,584	327,250
406,768	--	445,053	61,600	1,752,341	--	1,790,827	196,350	3,099,585	--	3,138,080	331,100
445,054	--	483,372	65,450	1,790,828	--	1,829,315	200,200	3,138,081	--	3,176,576	334,950
483,373	--	521,718	69,300	1,829,316	--	1,867,803	204,050	3,176,577	--	3,215,072	338,800
521,719	--	560,084	73,150	1,867,804	--	1,906,292	207,900	3,215,073	--	3,253,568	342,650
560,085	--	598,468	77,000	1,906,293	--	1,944,782	211,750	3,253,569	--	3,292,064	346,500
598,469	--	636,865	80,850	1,944,783	--	1,983,271	215,600	3,292,065	--	3,330,561	350,350
636,866	--	675,274	84,700	1,983,272	--	2,021,761	219,450	3,330,562	--	3,369,057	354,200
675,275	--	713,692	88,550	2,021,762	--	2,060,252	223,300	3,369,058	--	3,407,554	358,050
713,693	--	752,119	92,400	2,060,253	--	2,098,743	227,150	3,407,555	--	3,446,050	361,900
752,120	--	790,553	96,250	2,098,744	--	2,137,234	231,000	3,446,051	--	3,484,547	365,750
790,554	--	828,993	100,100	2,137,235	--	2,175,725	234,850	3,484,548	--	3,523,044	369,600
828,994	--	867,438	103,950	2,175,726	--	2,214,217	238,700	3,523,045	--	3,561,540	373,450
867,439	--	905,888	107,800	2,214,218	--	2,252,709	242,550	3,561,541	--	3,600,037	377,300
905,889	--	944,342	111,650	2,252,710	--	2,291,201	246,400	3,600,038	--	3,638,534	381,150
944,343	--	982,799	115,500	2,291,202	--	2,329,694	250,250	3,638,535	--	3,676,750	385,000
982,800	--	1,021,260	119,350	2,329,695	--	2,368,187	254,100				
1,021,261	--	1,059,724	123,200	2,368,188	--	2,406,680	257,950				
1,059,725	--	1,098,190	127,050	2,406,681	--	2,445,173	261,800				
1,098,191	--	1,136,658	130,900	2,445,174	--	2,483,666	265,650				
1,136,659	--	1,175,128	134,750	2,483,667	--	2,522,160	269,500				
1,175,129	--	1,213,601	138,600	2,522,161	--	2,560,654	273,350				
1,213,602	--	1,252,075	142,450	2,560,655	--	2,599,148	277,200				
1,252,076	--	1,290,550	146,300	2,599,149	--	2,637,642	281,050				
1,290,551	--	1,329,027	150,150	2,637,643	--	2,676,136	284,900				

For Expected Losses greater than \$3,676,750, the Ballast Value can be calculated using the following formula (rounded to the nearest 1):

$$\text{Ballast} = (0.10)(\text{Expected Losses}) + 2500(\text{Expected Losses})(7.70) / (\text{Expected Losses} + (700)(7.70))$$

$$G = 7.70$$

NATIONAL COUNCIL ON COMPENSATION INSURANCE, INC.

INDIANA—UPDATE TO EXPERIENCE RATING PREMIUM ELIGIBILITY AMOUNTS

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

2. State Subject Premium Eligibility Amounts

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

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

State Table of Subject Premium Eligibility Amounts

State	Rating Effective Date	Column A (\$)	Column B (\$)
IN	7/1/19 and after	5,500	2,750
	7/1/18 - 6/30/19	5,500	2,750
	7/1/17 - 6/30/18	5,000	2,500

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



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Proposed Values for Inclusion in the Retrospective Rating Plan Manual

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

- Average Cost per Case
- Average Cost per Case including ALAE
- Excess loss factors
- Excess loss and allocated expense factors
- Excess loss pure premium factors
- Retrospective pure premium development factors

RETROSPECTIVE RATING PLAN MANUAL
STATE SPECIAL RATING VALUES

INDIANA

APPLICABLE TO ADVISORY RATES

Effective January 1, 2019

1. Average Cost per Case

A	B	C	D	E	F	G
5,053	7,029	7,791	10,623	14,445	22,765	20,024

Average Cost per Case including ALAE

A	B	C	D	E	F	G
5,576	7,751	8,585	11,695	15,885	25,015	21,965

2. Tax Multipliers

- a. State (non-F Classes) 1.020
- b. Federal Classes, or non-F classes
where rate is increased by the
USL&HW Act Percentage 1.052

**3. Countrywide
Expected Loss Ratio**
0.600

**Countrywide Expected Loss and
Allocated Expense Ratio**
0.679

4. Table of Expense Ratios
Type A: 2018-02
Type B: 2018-02

5.

Excess Loss Factors

(Applicable to New and Renewal Policies)

**Per Accident
Limitation**

Hazard Groups

	A	B	C	D	E	F	G
\$10,000	0.383	0.420	0.440	0.471	0.498	0.526	0.538
\$15,000	0.340	0.379	0.400	0.434	0.463	0.495	0.510
\$20,000	0.306	0.347	0.368	0.403	0.434	0.468	0.486
\$25,000	0.279	0.320	0.341	0.377	0.409	0.444	0.465
\$30,000	0.256	0.297	0.319	0.354	0.387	0.423	0.445
\$35,000	0.237	0.278	0.299	0.334	0.368	0.404	0.428
\$40,000	0.221	0.260	0.281	0.317	0.351	0.387	0.412
\$50,000	0.194	0.232	0.252	0.286	0.320	0.357	0.384
\$75,000	0.149	0.183	0.201	0.232	0.265	0.300	0.329
\$100,000	0.121	0.151	0.167	0.196	0.226	0.260	0.289
\$125,000	0.102	0.129	0.144	0.169	0.198	0.230	0.259
\$150,000	0.087	0.112	0.126	0.149	0.177	0.206	0.235
\$175,000	0.077	0.099	0.112	0.134	0.160	0.187	0.215
\$200,000	0.068	0.089	0.101	0.121	0.146	0.171	0.199
\$225,000	0.062	0.081	0.092	0.111	0.134	0.158	0.185
\$250,000	0.056	0.074	0.085	0.102	0.124	0.147	0.174
\$275,000	0.051	0.068	0.078	0.095	0.116	0.137	0.163
\$300,000	0.047	0.063	0.073	0.088	0.108	0.129	0.154
\$325,000	0.044	0.059	0.068	0.083	0.102	0.122	0.147
\$350,000	0.041	0.055	0.064	0.078	0.096	0.115	0.139
\$375,000	0.038	0.052	0.060	0.073	0.091	0.109	0.133
\$400,000	0.036	0.049	0.057	0.070	0.087	0.104	0.127
\$425,000	0.034	0.046	0.054	0.066	0.083	0.099	0.122
\$450,000	0.032	0.044	0.051	0.063	0.079	0.095	0.117
\$475,000	0.030	0.041	0.049	0.060	0.076	0.091	0.113
\$500,000	0.028	0.040	0.047	0.057	0.073	0.087	0.109
\$600,000	0.023	0.033	0.039	0.049	0.062	0.075	0.096
\$700,000	0.020	0.028	0.034	0.042	0.055	0.066	0.086
\$800,000	0.017	0.025	0.030	0.037	0.049	0.059	0.077
\$900,000	0.015	0.022	0.027	0.033	0.044	0.053	0.071
\$1,000,000	0.013	0.020	0.024	0.030	0.040	0.049	0.065
\$2,000,000	0.006	0.009	0.012	0.015	0.021	0.026	0.038
\$3,000,000	0.004	0.006	0.007	0.009	0.014	0.017	0.026
\$4,000,000	0.002	0.004	0.005	0.007	0.010	0.013	0.020
\$5,000,000	0.002	0.003	0.004	0.005	0.008	0.010	0.016
\$6,000,000	0.001	0.002	0.003	0.004	0.006	0.008	0.013
\$7,000,000	0.001	0.002	0.002	0.003	0.005	0.006	0.011
\$8,000,000	0.001	0.002	0.002	0.003	0.004	0.005	0.009
\$9,000,000	0.001	0.001	0.002	0.002	0.003	0.005	0.008
\$10,000,000	0.001	0.001	0.001	0.002	0.003	0.004	0.007

RETROSPECTIVE RATING PLAN MANUAL
STATE SPECIAL RATING VALUES

INDIANA

APPLICABLE TO ADVISORY RATES

Effective January 1, 2019

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

Per Accident Limitation	Hazard Groups						
	A	B	C	D	E	F	G
\$10,000	0.431	0.471	0.491	0.525	0.553	0.582	0.594
\$15,000	0.385	0.427	0.449	0.485	0.516	0.550	0.565
\$20,000	0.349	0.393	0.415	0.453	0.486	0.521	0.540
\$25,000	0.319	0.364	0.387	0.425	0.459	0.497	0.518
\$30,000	0.295	0.339	0.362	0.400	0.436	0.474	0.497
\$35,000	0.274	0.318	0.340	0.379	0.415	0.454	0.479
\$40,000	0.256	0.299	0.321	0.360	0.396	0.436	0.462
\$50,000	0.226	0.268	0.289	0.327	0.364	0.404	0.431
\$75,000	0.176	0.213	0.233	0.267	0.303	0.342	0.372
\$100,000	0.144	0.178	0.196	0.227	0.261	0.298	0.329
\$125,000	0.123	0.153	0.169	0.198	0.230	0.264	0.295
\$150,000	0.107	0.134	0.149	0.176	0.206	0.238	0.269
\$175,000	0.094	0.120	0.134	0.158	0.186	0.217	0.247
\$200,000	0.085	0.108	0.121	0.144	0.171	0.200	0.229
\$225,000	0.077	0.099	0.111	0.132	0.158	0.185	0.214
\$250,000	0.070	0.091	0.102	0.122	0.147	0.172	0.201
\$275,000	0.064	0.084	0.095	0.114	0.137	0.162	0.189
\$300,000	0.060	0.078	0.089	0.106	0.129	0.152	0.179
\$325,000	0.055	0.073	0.083	0.100	0.121	0.144	0.171
\$350,000	0.052	0.068	0.078	0.094	0.115	0.136	0.163
\$375,000	0.049	0.064	0.074	0.089	0.109	0.130	0.155
\$400,000	0.046	0.061	0.070	0.084	0.104	0.124	0.149
\$425,000	0.043	0.058	0.066	0.080	0.099	0.118	0.143
\$450,000	0.041	0.055	0.063	0.077	0.095	0.113	0.138
\$475,000	0.039	0.052	0.060	0.073	0.091	0.108	0.133
\$500,000	0.037	0.050	0.058	0.070	0.087	0.104	0.128
\$600,000	0.031	0.042	0.049	0.060	0.075	0.090	0.113
\$700,000	0.026	0.036	0.043	0.052	0.066	0.080	0.101
\$800,000	0.023	0.032	0.038	0.046	0.059	0.071	0.091
\$900,000	0.020	0.028	0.034	0.041	0.054	0.065	0.084
\$1,000,000	0.018	0.025	0.030	0.037	0.049	0.059	0.077
\$2,000,000	0.008	0.012	0.015	0.019	0.026	0.031	0.044
\$3,000,000	0.005	0.008	0.010	0.012	0.017	0.021	0.031
\$4,000,000	0.004	0.005	0.007	0.008	0.012	0.015	0.023
\$5,000,000	0.003	0.004	0.005	0.006	0.009	0.012	0.019
\$6,000,000	0.002	0.003	0.004	0.005	0.007	0.009	0.015
\$7,000,000	0.002	0.003	0.003	0.004	0.006	0.008	0.013
\$8,000,000	0.002	0.002	0.003	0.003	0.005	0.006	0.011
\$9,000,000	0.001	0.002	0.002	0.003	0.004	0.006	0.009
\$10,000,000	0.001	0.002	0.002	0.002	0.004	0.005	0.008

6.

Retrospective Development Factors

With Loss Limit			Without Loss Limit			4th & Subsequent Adjustment
1st Adj.	2nd Adj.	3rd Adj.	1st Adj.	2nd Adj.	3rd Adj.	
0.03	0.01	0.01	0.07	0.03	0.02	0.00

RETROSPECTIVE RATING PLAN MANUAL
STATE SPECIAL RATING VALUES

APPLICABLE TO ADVISORY LOSS COSTS

INDIANA

Effective January 1, 2019

1. Average Cost per Case

A	B	C	D	E	F	G
5,053	7,029	7,791	10,623	14,445	22,765	20,024

Average Cost per Case including ALAE

A	B	C	D	E	F	G
5,576	7,751	8,585	11,695	15,885	25,015	21,965

2.

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

**Per Accident
Limitation**

Hazard Groups

	A	B	C	D	E	F	G
\$10,000	0.512	0.562	0.588	0.630	0.665	0.703	0.719
\$15,000	0.454	0.507	0.535	0.580	0.619	0.661	0.682
\$20,000	0.409	0.464	0.492	0.539	0.580	0.625	0.649
\$25,000	0.373	0.428	0.456	0.504	0.547	0.594	0.621
\$30,000	0.343	0.397	0.426	0.473	0.518	0.566	0.595
\$35,000	0.317	0.371	0.399	0.447	0.492	0.540	0.572
\$40,000	0.295	0.348	0.376	0.423	0.468	0.517	0.551
\$50,000	0.259	0.310	0.337	0.383	0.428	0.477	0.513
\$75,000	0.199	0.244	0.268	0.310	0.354	0.401	0.440
\$100,000	0.161	0.202	0.223	0.261	0.303	0.347	0.386
\$125,000	0.136	0.172	0.192	0.226	0.265	0.307	0.346
\$150,000	0.117	0.150	0.168	0.200	0.236	0.275	0.314
\$175,000	0.103	0.133	0.150	0.179	0.213	0.250	0.288
\$200,000	0.091	0.119	0.135	0.162	0.195	0.229	0.266
\$225,000	0.082	0.108	0.123	0.148	0.179	0.211	0.248
\$250,000	0.075	0.099	0.113	0.137	0.166	0.197	0.232
\$275,000	0.068	0.091	0.105	0.127	0.155	0.184	0.218
\$300,000	0.063	0.084	0.097	0.118	0.145	0.173	0.206
\$325,000	0.058	0.079	0.091	0.111	0.136	0.163	0.196
\$350,000	0.054	0.074	0.085	0.104	0.129	0.154	0.186
\$375,000	0.051	0.069	0.081	0.098	0.122	0.146	0.178
\$400,000	0.048	0.065	0.076	0.093	0.116	0.139	0.170
\$425,000	0.045	0.062	0.072	0.088	0.111	0.133	0.163
\$450,000	0.042	0.058	0.069	0.084	0.106	0.127	0.157
\$475,000	0.040	0.055	0.065	0.080	0.101	0.122	0.151
\$500,000	0.038	0.053	0.062	0.077	0.097	0.117	0.146
\$600,000	0.031	0.044	0.053	0.065	0.083	0.101	0.128
\$700,000	0.027	0.038	0.046	0.057	0.073	0.089	0.114
\$800,000	0.023	0.033	0.040	0.050	0.065	0.079	0.104
\$900,000	0.020	0.030	0.036	0.045	0.059	0.071	0.095
\$1,000,000	0.018	0.026	0.032	0.040	0.054	0.065	0.087
\$2,000,000	0.008	0.012	0.016	0.020	0.028	0.035	0.050
\$3,000,000	0.005	0.008	0.010	0.013	0.018	0.023	0.035
\$4,000,000	0.003	0.005	0.007	0.009	0.013	0.017	0.026
\$5,000,000	0.002	0.004	0.005	0.007	0.010	0.013	0.021
\$6,000,000	0.002	0.003	0.004	0.005	0.008	0.010	0.017
\$7,000,000	0.002	0.002	0.003	0.004	0.007	0.009	0.014
\$8,000,000	0.001	0.002	0.003	0.003	0.005	0.007	0.012
\$9,000,000	0.001	0.002	0.002	0.003	0.005	0.006	0.010
\$10,000,000	0.001	0.002	0.002	0.002	0.004	0.005	0.009

RETROSPECTIVE RATING PLAN MANUAL
STATE SPECIAL RATING VALUES

APPLICABLE TO ADVISORY LOSS COSTS

INDIANA

Effective January 1, 2019

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

Per Accident Limitation	Hazard Groups						
	A	B	C	D	E	F	G
\$10,000	0.576	0.630	0.657	0.701	0.739	0.779	0.794
\$15,000	0.514	0.571	0.601	0.648	0.690	0.734	0.755
\$20,000	0.466	0.525	0.555	0.605	0.649	0.697	0.722
\$25,000	0.427	0.486	0.517	0.568	0.614	0.664	0.692
\$30,000	0.394	0.453	0.484	0.535	0.583	0.634	0.665
\$35,000	0.366	0.424	0.455	0.506	0.555	0.607	0.640
\$40,000	0.342	0.400	0.430	0.481	0.530	0.583	0.617
\$50,000	0.302	0.358	0.387	0.437	0.486	0.540	0.577
\$75,000	0.235	0.285	0.311	0.357	0.405	0.457	0.497
\$100,000	0.193	0.238	0.262	0.304	0.349	0.398	0.439
\$125,000	0.164	0.204	0.226	0.264	0.307	0.353	0.395
\$150,000	0.143	0.179	0.200	0.235	0.275	0.318	0.359
\$175,000	0.126	0.160	0.179	0.211	0.249	0.290	0.330
\$200,000	0.113	0.144	0.162	0.192	0.228	0.267	0.306
\$225,000	0.102	0.132	0.148	0.177	0.211	0.247	0.286
\$250,000	0.094	0.121	0.137	0.163	0.196	0.230	0.268
\$275,000	0.086	0.112	0.127	0.152	0.183	0.216	0.253
\$300,000	0.080	0.104	0.119	0.142	0.172	0.203	0.240
\$325,000	0.074	0.097	0.111	0.133	0.162	0.192	0.228
\$350,000	0.069	0.091	0.105	0.126	0.154	0.182	0.217
\$375,000	0.065	0.086	0.099	0.119	0.146	0.173	0.208
\$400,000	0.061	0.081	0.094	0.113	0.139	0.165	0.199
\$425,000	0.058	0.077	0.089	0.107	0.133	0.158	0.191
\$450,000	0.055	0.073	0.085	0.102	0.127	0.151	0.184
\$475,000	0.052	0.070	0.081	0.098	0.122	0.145	0.177
\$500,000	0.049	0.066	0.077	0.094	0.117	0.139	0.171
\$600,000	0.041	0.056	0.066	0.080	0.101	0.121	0.151
\$700,000	0.035	0.048	0.057	0.070	0.089	0.107	0.135
\$800,000	0.030	0.043	0.050	0.062	0.079	0.095	0.122
\$900,000	0.027	0.038	0.045	0.055	0.072	0.086	0.112
\$1,000,000	0.024	0.034	0.041	0.050	0.065	0.079	0.103
\$2,000,000	0.011	0.016	0.020	0.025	0.034	0.042	0.059
\$3,000,000	0.007	0.010	0.013	0.016	0.023	0.028	0.041
\$4,000,000	0.005	0.007	0.009	0.011	0.016	0.020	0.031
\$5,000,000	0.004	0.005	0.007	0.009	0.013	0.016	0.025
\$6,000,000	0.003	0.004	0.005	0.007	0.010	0.013	0.020
\$7,000,000	0.002	0.003	0.004	0.005	0.008	0.010	0.017
\$8,000,000	0.002	0.003	0.003	0.004	0.007	0.009	0.014
\$9,000,000	0.002	0.002	0.003	0.004	0.006	0.007	0.012
\$10,000,000	0.002	0.002	0.003	0.003	0.005	0.006	0.011

3.

Retrospective Pure Premium Development Factors

With Loss Limit			Without Loss Limit			4th & Subsequent Adjustment
1st Adj.	2nd Adj.	3rd Adj.	1st Adj.	2nd Adj.	3rd Adj.	
0.04	0.02	0.01	0.09	0.05	0.03	0.00

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

Type A: 2018-02

WC Premium Range	Expense	WC Premium Range	Expense	WC Premium Range	Expense
From To	Ratio	From To	Ratio	From To	Ratio
0 - 10,055	0.362	21,928 - 22,469	0.314	393,334 - 424,799	0.266
10,056 - 10,167	0.361	22,470 - 23,037	0.313	424,800 - 461,739	0.265
10,168 - 10,282	0.360	23,038 - 23,636	0.312	461,740 - 505,714	0.264
10,283 - 10,399	0.359	23,637 - 24,266	0.311	505,715 - 558,947	0.263
10,400 - 10,520	0.358	24,267 - 24,931	0.310	558,948 - 624,705	0.262
10,521 - 10,643	0.358	24,932 - 25,633	0.309	624,706 - 707,999	0.261
10,644 - 10,769	0.357	25,634 - 26,376	0.308	708,000 - 816,923	0.260
10,770 - 10,898	0.356	26,377 - 27,164	0.307	816,924 - 965,454	0.259
10,899 - 11,030	0.355	27,165 - 27,999	0.307	965,455 - 1,179,999	0.258
11,031 - 11,165	0.354	28,000 - 28,888	0.306	1,180,000 - 1,517,142	0.257
11,166 - 11,304	0.353	28,889 - 29,836	0.305	1,517,143 - 1,824,799	0.256
11,305 - 11,446	0.352	29,837 - 30,847	0.304	1,824,800 - 1,983,478	0.255
11,447 - 11,592	0.351	30,848 - 31,929	0.303	1,983,479 - 2,172,380	0.255
11,593 - 11,741	0.350	31,930 - 33,090	0.302	2,172,381 - 2,401,052	0.254
11,742 - 11,895	0.349	33,091 - 34,339	0.301	2,401,053 - 2,683,529	0.253
11,896 - 12,052	0.348	34,340 - 35,686	0.300	2,683,530 - 3,041,333	0.252
12,053 - 12,214	0.347	35,687 - 37,142	0.299	3,041,334 - 3,509,230	0.251
12,215 - 12,380	0.346	37,143 - 38,723	0.298	3,509,231 - 4,147,272	0.250
12,381 - 12,551	0.345	38,724 - 40,444	0.297	4,147,273 - 5,068,888	0.249
12,552 - 12,727	0.344	40,445 - 42,325	0.296	5,068,889 - 6,517,142	0.248
12,728 - 12,907	0.343	42,326 - 44,390	0.295	6,517,143 - 9,123,999	0.247
12,908 - 13,093	0.342	44,391 - 46,666	0.294	9,124,000 - 15,206,666	0.246
13,094 - 13,284	0.341	46,667 - 49,189	0.293	15,206,667 - 45,619,999	0.245
13,285 - 13,481	0.340	49,190 - 51,999	0.292	45,620,000 - And Above	0.244
13,482 - 13,684	0.339	52,000 - 55,151	0.291		
13,685 - 13,893	0.338	55,152 - 58,709	0.290		
13,894 - 14,108	0.337	58,710 - 62,758	0.289		
14,109 - 14,330	0.336	62,759 - 67,407	0.288		
14,331 - 14,559	0.335	67,408 - 72,799	0.287		
14,560 - 14,796	0.334	72,800 - 79,130	0.286		
14,797 - 15,041	0.333	79,131 - 86,666	0.285		
15,042 - 15,294	0.332	86,667 - 95,789	0.284		
15,295 - 15,555	0.332	95,790 - 107,058	0.283		
15,556 - 15,826	0.331	107,059 - 121,333	0.282		
15,827 - 16,106	0.330	121,334 - 139,999	0.281		
16,107 - 16,396	0.329	140,000 - 165,454	0.281		
16,397 - 16,697	0.328	165,455 - 200,377	0.280		
16,698 - 17,009	0.327	200,378 - 208,235	0.279		
17,010 - 17,333	0.326	208,236 - 216,734	0.278		
17,334 - 17,669	0.325	216,735 - 225,957	0.277		
17,670 - 18,019	0.324	225,958 - 235,999	0.276		
18,020 - 18,383	0.323	236,000 - 246,976	0.275		
18,384 - 18,762	0.322	246,977 - 259,024	0.274		
18,763 - 19,157	0.321	259,025 - 272,307	0.273		
19,158 - 19,569	0.320	272,308 - 287,027	0.272		
19,570 - 19,999	0.319	287,028 - 303,428	0.271		
20,000 - 20,449	0.318	303,429 - 321,818	0.270		
20,450 - 20,919	0.317	321,819 - 342,580	0.269		
20,920 - 21,411	0.316	342,581 - 366,206	0.268		
21,412 - 21,927	0.315	366,207 - 393,333	0.267		
				First - 10,000	0.0%
				Next - 190,000	9.1%
				Next - 1,550,000	11.3%
				Over - 1,750,000	12.3%
				Expected Loss Ratio:	0.600
				Tax Multiplier:	1.039

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

Type B: 2018-02

WC Premium Range		Expense Ratio
From	To	
0	- 10,099	0.362
10,100	- 10,303	0.361
10,304	- 10,515	0.360
10,516	- 10,736	0.359
10,737	- 10,967	0.358
10,968	- 11,208	0.358
11,209	- 11,460	0.357
11,461	- 11,724	0.356
11,725	- 11,999	0.355
12,000	- 12,289	0.354
12,290	- 12,592	0.353
12,593	- 12,911	0.352
12,912	- 13,246	0.351
13,247	- 13,599	0.350
13,600	- 13,972	0.349
13,973	- 14,366	0.348
14,367	- 14,782	0.347
14,783	- 15,223	0.346
15,224	- 15,692	0.345
15,693	- 16,190	0.344
16,191	- 16,721	0.343
16,722	- 17,288	0.342
17,289	- 17,894	0.341
17,895	- 18,545	0.340
18,546	- 19,245	0.339

WC Premium Range		Expense Ratio
From	To	
19,246	- 19,999	0.338
20,000	- 20,816	0.337
20,817	- 21,702	0.336
21,703	- 22,666	0.335
22,667	- 23,720	0.334
23,721	- 24,878	0.333
24,879	- 26,153	0.332
26,154	- 27,567	0.332
27,568	- 29,142	0.331
29,143	- 30,909	0.330
30,910	- 32,903	0.329
32,904	- 35,172	0.328
35,173	- 37,777	0.327
37,778	- 40,799	0.326
40,800	- 44,347	0.325
44,348	- 48,571	0.324
48,572	- 53,684	0.323
53,685	- 59,999	0.322
60,000	- 67,999	0.321
68,000	- 78,461	0.320
78,462	- 92,727	0.319
92,728	- 113,333	0.318
113,334	- 145,714	0.317
145,715	- 200,606	0.316
200,607	- 213,548	0.315

WC Premium Range		Expense Ratio
From	To	
213,549	- 228,275	0.314
228,276	- 245,185	0.313
245,186	- 264,799	0.312
264,800	- 287,826	0.311
287,827	- 315,238	0.310
315,239	- 348,421	0.309
348,422	- 389,411	0.308
389,412	- 441,333	0.307
441,334	- 509,230	0.307
509,231	- 601,818	0.306
601,819	- 735,555	0.305
735,556	- 945,714	0.304
945,715	- 1,323,999	0.303
1,324,000	- 1,809,565	0.302
1,809,566	- 1,981,904	0.301
1,981,905	- 2,190,526	0.300
2,190,527	- 2,448,235	0.299
2,448,236	- 2,774,666	0.298
2,774,667	- 3,201,538	0.297
3,201,539	- 3,783,636	0.296
3,783,637	- 4,624,444	0.295
4,624,445	- 5,945,714	0.294
5,945,715	- 8,323,999	0.293
8,324,000	- 13,873,333	0.292
13,873,334	- 41,619,999	0.291
41,620,000	- And Above	0.290
First	- 10,000	0.0%
Next	- 190,000	5.1%
Next	- 1,550,000	6.5%
Over	- 1,750,000	7.5%
Expected Loss Ratio:		0.600
Tax Multiplier:		1.039

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

Type A: 2018-02

WC Premium Range From To	Expense Ratio	WC Premium Range From To	Expense Ratio	WC Premium Range From To	Expense Ratio
0 - 10,055	0.283	21,928 - 22,469	0.235	393,334 - 424,799	0.187
10,056 - 10,167	0.282	22,470 - 23,037	0.234	424,800 - 461,739	0.186
10,168 - 10,282	0.281	23,038 - 23,636	0.233	461,740 - 505,714	0.185
10,283 - 10,399	0.280	23,637 - 24,266	0.232	505,715 - 558,947	0.184
10,400 - 10,520	0.279	24,267 - 24,931	0.231	558,948 - 624,705	0.183
10,521 - 10,643	0.278	24,932 - 25,633	0.230	624,706 - 707,999	0.182
10,644 - 10,769	0.277	25,634 - 26,376	0.229	708,000 - 816,923	0.181
10,770 - 10,898	0.276	26,377 - 27,164	0.228	816,924 - 965,454	0.180
10,899 - 11,030	0.275	27,165 - 27,999	0.227	965,455 - 1,179,999	0.179
11,031 - 11,165	0.274	28,000 - 28,888	0.226	1,180,000 - 1,517,142	0.178
11,166 - 11,304	0.273	28,889 - 29,836	0.225	1,517,143 - 1,824,799	0.177
11,305 - 11,446	0.273	29,837 - 30,847	0.224	1,824,800 - 1,983,478	0.176
11,447 - 11,592	0.272	30,848 - 31,929	0.223	1,983,479 - 2,172,380	0.175
11,593 - 11,741	0.271	31,930 - 33,090	0.222	2,172,381 - 2,401,052	0.174
11,742 - 11,895	0.270	33,091 - 34,339	0.222	2,401,053 - 2,683,529	0.173
11,896 - 12,052	0.269	34,340 - 35,686	0.221	2,683,530 - 3,041,333	0.172
12,053 - 12,214	0.268	35,687 - 37,142	0.220	3,041,334 - 3,509,230	0.171
12,215 - 12,380	0.267	37,143 - 38,723	0.219	3,509,231 - 4,147,272	0.171
12,381 - 12,551	0.266	38,724 - 40,444	0.218	4,147,273 - 5,068,888	0.170
12,552 - 12,727	0.265	40,445 - 42,325	0.217	5,068,889 - 6,517,142	0.169
12,728 - 12,907	0.264	42,326 - 44,390	0.216	6,517,143 - 9,123,999	0.168
12,908 - 13,093	0.263	44,391 - 46,666	0.215	9,124,000 - 15,206,666	0.167
13,094 - 13,284	0.262	46,667 - 49,189	0.214	15,206,667 - 45,619,999	0.166
13,285 - 13,481	0.261	49,190 - 51,999	0.213	45,620,000 - And Above	0.165
13,482 - 13,684	0.260	52,000 - 55,151	0.212		
13,685 - 13,893	0.259	55,152 - 58,709	0.211		
13,894 - 14,108	0.258	58,710 - 62,758	0.210		
14,109 - 14,330	0.257	62,759 - 67,407	0.209		
14,331 - 14,559	0.256	67,408 - 72,799	0.208		
14,560 - 14,796	0.255	72,800 - 79,130	0.207		
14,797 - 15,041	0.254	79,131 - 86,666	0.206		
15,042 - 15,294	0.253	86,667 - 95,789	0.205		
15,295 - 15,555	0.252	95,790 - 107,058	0.204		
15,556 - 15,826	0.251	107,059 - 121,333	0.203		
15,827 - 16,106	0.250	121,334 - 139,999	0.202		
16,107 - 16,396	0.249	140,000 - 165,454	0.201		
16,397 - 16,697	0.248	165,455 - 200,377	0.200		
16,698 - 17,009	0.248	200,378 - 208,235	0.199		
17,010 - 17,333	0.247	208,236 - 216,734	0.198		
17,334 - 17,669	0.246	216,735 - 225,957	0.197		
17,670 - 18,019	0.245	225,958 - 235,999	0.196		
18,020 - 18,383	0.244	236,000 - 246,976	0.196		
18,384 - 18,762	0.243	246,977 - 259,024	0.195		
18,763 - 19,157	0.242	259,025 - 272,307	0.194		
19,158 - 19,569	0.241	272,308 - 287,027	0.193		
19,570 - 19,999	0.240	287,028 - 303,428	0.192		
20,000 - 20,449	0.239	303,429 - 321,818	0.191		
20,450 - 20,919	0.238	321,819 - 342,580	0.190		
20,920 - 21,411	0.237	342,581 - 366,206	0.189		
21,412 - 21,927	0.236	366,207 - 393,333	0.188		
				First - 10,000	0.0%
				Next - 190,000	9.1%
				Next - 1,550,000	11.3%
				Over - 1,750,000	12.3%
				Expected Loss and ALAE Ratio:	0.679
				Tax Multiplier:	1.039

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

Type B: 2018-02

WC Premium Range		Expense Ratio
From	To	
0	- 10,099	0.283
10,100	- 10,303	0.282
10,304	- 10,515	0.281
10,516	- 10,736	0.280
10,737	- 10,967	0.279
10,968	- 11,208	0.278
11,209	- 11,460	0.277
11,461	- 11,724	0.276
11,725	- 11,999	0.275
12,000	- 12,289	0.274
12,290	- 12,592	0.273
12,593	- 12,911	0.273
12,912	- 13,246	0.272
13,247	- 13,599	0.271
13,600	- 13,972	0.270
13,973	- 14,366	0.269
14,367	- 14,782	0.268
14,783	- 15,223	0.267
15,224	- 15,692	0.266
15,693	- 16,190	0.265
16,191	- 16,721	0.264
16,722	- 17,288	0.263
17,289	- 17,894	0.262
17,895	- 18,545	0.261
18,546	- 19,245	0.260

WC Premium Range		Expense Ratio
From	To	
19,246	- 19,999	0.259
20,000	- 20,816	0.258
20,817	- 21,702	0.257
21,703	- 22,666	0.256
22,667	- 23,720	0.255
23,721	- 24,878	0.254
24,879	- 26,153	0.253
26,154	- 27,567	0.252
27,568	- 29,142	0.251
29,143	- 30,909	0.250
30,910	- 32,903	0.249
32,904	- 35,172	0.248
35,173	- 37,777	0.248
37,778	- 40,799	0.247
40,800	- 44,347	0.246
44,348	- 48,571	0.245
48,572	- 53,684	0.244
53,685	- 59,999	0.243
60,000	- 67,999	0.242
68,000	- 78,461	0.241
78,462	- 92,727	0.240
92,728	- 113,333	0.239
113,334	- 145,714	0.238
145,715	- 200,606	0.237
200,607	- 213,548	0.236

WC Premium Range		Expense Ratio
From	To	
213,549	- 228,275	0.235
228,276	- 245,185	0.234
245,186	- 264,799	0.233
264,800	- 287,826	0.232
287,827	- 315,238	0.231
315,239	- 348,421	0.230
348,422	- 389,411	0.229
389,412	- 441,333	0.228
441,334	- 509,230	0.227
509,231	- 601,818	0.226
601,819	- 735,555	0.225
735,556	- 945,714	0.224
945,715	- 1,323,999	0.223
1,324,000	- 1,809,565	0.222
1,809,566	- 1,981,904	0.222
1,981,905	- 2,190,526	0.221
2,190,527	- 2,448,235	0.220
2,448,236	- 2,774,666	0.219
2,774,667	- 3,201,538	0.218
3,201,539	- 3,783,636	0.217
3,783,637	- 4,624,444	0.216
4,624,445	- 5,945,714	0.215
5,945,715	- 8,323,999	0.214
8,324,000	- 13,873,333	0.213
13,873,334	- 41,619,999	0.212
41,620,000	- And Above	0.211
First	10,000	0.0%
Next	190,000	5.1%
Next	1,550,000	6.5%
Over	1,750,000	7.5%
Expected Loss and ALAE Ratio:		0.679
Tax Multiplier:		1.039



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Part 3 Supporting Exhibits

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



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Exhibit I – Determination of Indicated Rate 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 advisory rate level
2. Reported indemnity and medical losses are limited by a large loss threshold, developed to ultimate using limited development factors, and on-leveled to a common benefit level to yield adjusted limited losses
3. Limited indemnity and medical cost ratios excluding trend and benefits are calculated as adjusted losses (step 2) divided by premium available for benefit costs (step 1)
4. Trend factors are applied to the indemnity and medical cost ratios to reflect expected differences between the historical experience years and the effective period of the proposed filing
5. 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 expense-related provisions is applied to determine the indicated overall average advisory rate level change. The detailed calculations can be found on the following pages.



INDIANA

EXHIBIT I

Determination of Indicated Rate Level Change

Section A - Policy Year 2016 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$805,744,869
(2) Premium On-level Factor (Appendix A-I)	0.487
(3) Pure Premium Available for Benefit Costs = (1) x (2)	\$392,397,751

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	\$111,606,733
(5) Indemnity Loss On-level Factor (Appendix A-I)	1.007
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$112,387,980
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.286
(8) Factor to Reflect Indemnity Trend (Appendix A-III)	0.885
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.253
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.003
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.254
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.000
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.254

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Appendix A-II)	\$278,007,220
(15) Medical Loss On-level Factor (Appendix A-I)	1.005
(16) Adjusted Limited Medical Losses = (14) x (15)	\$279,397,256
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.712
(18) Factor to Reflect Medical Trend (Appendix A-III)	0.956
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.681
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.003
(21) Projected Medical Cost Ratio = (19) x (20)	0.683
(22) Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.004
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.686

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.940
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EXHIBIT I

Determination of Indicated Rate Level Change

Section B - Policy Year 2015 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$762,358,796
(2) Premium On-level Factor (Appendix A-I)	0.493
(3) Pure Premium Available for Benefit Costs = (1) x (2)	\$375,842,886

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	\$110,049,087
(5) Indemnity Loss On-level Factor (Appendix A-I)	1.044
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$114,891,247
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.306
(8) Factor to Reflect Indemnity Trend (Appendix A-III)	0.849
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.260
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.003
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.261
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.000
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.261

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Appendix A-II)	\$271,066,631
(15) Medical Loss On-level Factor (Appendix A-I)	1.009
(16) Adjusted Limited Medical Losses = (14) x (15)	\$273,506,231
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.728
(18) Factor to Reflect Medical Trend (Appendix A-III)	0.941
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.685
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.003
(21) Projected Medical Cost Ratio = (19) x (20)	0.687
(22) Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.004
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.690

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.951
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INDIANA

EXHIBIT I

Determination of Indicated Rate Level Change

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

(1) Policy Year 2016 Indicated Change Based on Experience, Trend, and Benefits	0.940
(2) Policy Year 2015 Indicated Change Based on Experience, Trend, and Benefits	0.951
(3) Indicated Change Based on Experience, Trend, and Benefits = $[(1)+(2)] / 2$	0.946

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

(1) Indicated Rate Level Change	0.946
(2) Effect of the Change in Production and General Expenses (Exhibit II)	1.003
(3) Indicated Change Modified to Reflect the Change in Production and General Expenses = (1) x (2)	0.949

Section E - Application of the Change in Taxes and Premium-based Assessments

(1) Indicated Rate Level Change	0.949
(2) Effect of the Change in Taxes and Premium-based Assessments (Exhibit II)	1.003
(3) Indicated Change Modified to Reflect the Change in Taxes and Premium-based Assessments = (1) x (2)	0.952

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

(1) Indicated Rate Level Change	0.952
(2) Effect of the Change in the Profit and Contingency Provision (Exhibit II)	0.973
(3) Indicated Change Modified to Reflect the Change in the Profit and Contingency Provision = (1) x (2)	0.926

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

(1) Indicated Rate Level Change	0.926
(2) Effect of the Change in Loss-based Expenses and Assessments (Exhibit II)	0.998
(3) Indicated Change Modified to Reflect the Change in Loss-based Expenses and Assessments = (1) x (2)	0.924



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EXHIBIT I

Determination of Indicated Rate Level Change

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

Industry Group Differentials (Appendix A-IV):

Manufacturing	1.000
Contracting	0.992
Office & Clerical	1.004
Goods & Services	0.998
Miscellaneous	1.009

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

Industry Group	(1) Final Overall Rate Level Change	(2) Industry Group Differential	(3) = (1) x (2) Final Rate Level Change by Industry Group	
Manufacturing	0.924	1.000	0.924	(-7.6%)
Contracting	0.924	0.992	0.917	(-8.3%)
Office & Clerical	0.924	1.004	0.928	(-7.2%)
Goods & Services	0.924	0.998	0.922	(-7.8%)
Miscellaneous	0.924	1.009	0.932	(-6.8%)
Overall	0.924	1.000	0.924	(-7.6%)



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Exhibit II – Workers Compensation Expense Program

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

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

Premium Taxes and Assessments: The proposed advisory rates have a provision for taxes, licenses, and fees (excluding Federal Income Tax) of 1.8%. This includes 1.3% for the Premium Tax, a 0.3% miscellaneous tax provision, and a provision of 0.2% for the Insurance Guaranty Association assessment.

Profit and Contingency Provision: By law, Indiana workers compensation rates must be determined so that insurers can be expected to earn a reasonable rate of return. Analysis and determination of a profit and contingency provision is necessary to ensure this premise is maintained.

Loss-based Expense Provisions: The proposed advisory rates include a provision for loss adjustment expenses (LAE). LAE is included in the advisory rates by using a ratio of loss adjustment expense dollars to loss dollars (called the LAE provision). These expenses are directly associated with the handling of workers compensation claims. The LAE provision is comprised of two components: 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.

1. 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, in addition to policy year and accident year developed DCCE ratios on a state-specific basis.
2. An Indiana-to-countrywide DCCE relativity is selected based on NAIC Annual Statement data.
3. The Indiana proposed DCCE ratio is calculated as an average of:
 - a. The countrywide-selected DCCE ratio multiplied by the state-to-countrywide DCCE relativity.
 - b. The state-specific DCCE ratios developed using multiplicative and additive methods on both a policy year and accident year basis.
4. Given the nature of AOE, it cannot be allocated to a specific claim, and hence



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Exhibit II – Workers Compensation Expense Program

cannot be accurately attributed to specific states. In this filing, the state-specific AOE ratio reflects the latest selected countrywide provision.

Loss-based Assessment: In 2018, the Indiana Department of Labor (DOL) issued its notice for the INSafe tax assessment. The money in this fund is used solely for safety and healthy consultation, education, and training services for employer groups and for the on-site consultation service. The proposed advisory rates include a provision of 0.2% of losses for the INSafe assessment.

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

The proposed expenses are reviewed each year and incorporates the most recently available data from the Insurance Expense Exhibit, which is reported annually by insurers to state insurance departments.



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EXHIBIT II

Section A - Comparison of Proposed and Current Expense Provisions

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

	Expense Provisions Underlying <u>Current Rates</u>	Expense Provisions Underlying <u>Proposed Rates</u>
(1) Expense Constant	\$160	\$160
(2) Production Expense	18.3%	18.5%
(3) General Expense	5.0%	5.0%
(4) Taxes, Licenses and Fees (other than Federal Income Tax)		
Premium Tax	1.3%	1.3%
Miscellaneous	0.3%	0.3%
WC Guaranty Association	0.0%	0.2%
Total	1.6%	1.8%
(5) Profit and Contingency Provision	2.0%	0.0%
(6) Total Overhead Provisions (2)+(3)+(4)+(5)	26.9%	25.3%
(7) Target Cost Ratio [100% - (6)]	73.1%	74.7%
(8) Loss Adjustment Expense	16.6%	16.2%
(9) Loss-based Assessment	0.0%	0.2%
(10) Permissible Loss Ratio (7) / [1+(8)+(9)]	62.7%	64.2%



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EXHIBIT II

Section B - Calculation of Change in Expense Provisions

	A	B	C	D
	<u>Current Expenses</u>	<u>Col. A with Proposed Prod & Gen Exp</u>	<u>Col. B with Proposed Taxes</u>	<u>Col. C with Proposed Profit and Contingency</u>
(1) Production Expense	18.3%	18.5%	18.5%	18.5%
(2) General Expense	5.0%	5.0%	5.0%	5.0%
(3) Taxes	1.6%	1.6%	1.8%	1.8%
(4) Profit and Contingency Provision	<u>2.0%</u>	<u>2.0%</u>	<u>2.0%</u>	<u>0.0%</u>
(5) Total Provisions (1)+(2)+(3)+(4)	26.9%	27.1%	27.3%	25.3%
(6) TCR (100%-(5))	73.1%	72.9%	72.7%	74.7%
(7) Loss Based Expenses	16.6%	16.4%	16.4%	16.4%
(8) Change in Production and General Expense (6A) / (6B)			1.003	+0.3%
(9) Change in Taxes and Assessments (6B) / (6C)			1.003	+0.3%
(10) Change in Profit and Contingency Provision (6C) / (6D)			0.973	-2.7%
(11) Change in Loss Based Expenses [1.0 + (7B)]/[1.0 + (7A)]			0.998	-0.2%



INDIANA

EXHIBIT II

Section C - Countrywide Expense Program

NCCI annually reviews expense provisions underlying workers compensation rates.

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

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

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

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



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EXHIBIT II

Section D - Derivation of General Expense Provisions

The data below (amounts in thousands) illustrates that the combination of a 5.0% general expense provision in the manual rates, a \$160 expense constant, and the premium discount schedule generates general expense premium dollars that are consistent with historical actual general expenses as reported in the Insurance Expense Exhibit. All figures below obtained from the Insurance Expense Exhibit (IEE) include data for stock and mutual companies.

	<u>2015</u>	<u>2016</u>	<u>2017</u>
(1) Direct Earned Premium (NAIC Insurance Expense Exhibit Data)	47,962,596	49,589,244	49,874,309
(1a) Effect of Premium Discounts	0.9284	0.9284	0.9284
(1b) Effect of Schedule Rating	0.9605	0.9501	0.9489
(1c) Effect of Carrier Deviations	1.0383	1.0249	1.0278
(1d) Effect of Deductibles	0.7337	0.7364	0.7387
(1e) Expense Constant Offset	0.9919	0.9918	0.9918
(2) Gross Adjusted Premium (STD Premium @ NCCI Level Excl. Expense Constant) $\{(1) / [(1a) \times (1b) \times (1c) \times (1d)]\} \times (1e)$	70,032,027	73,877,445	73,955,198
(3) Direct General Expenses Incurred (NAIC Insurance Expense Exhibit Data)	2,819,889	2,813,993	3,200,452
(3a) Proportion of Expense Constant Attributable to General Expenses	0.4063	0.4063	0.4063
(4) General Expenses Incurred (Excluding Expense Constant Revenue) $(3) - (2) \times [1 - (1e)] / (1e) \times (3a)$	2,587,529	2,565,823	2,952,021
(5) Ratio of General Expense to Premium (Excluding Expense Constant Revenue) $(4) / (2)$	3.69%	3.47%	3.99%
(6) General Expense Gradations (General Expenses in Average Premium Discount)	1.27%	1.28%	1.28%
(7) General Expense Provision $(5) + (6)$	4.96%	4.75%	5.27%
(8) Selected General Expense Provision (Three-Year Average)			5.0%



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EXHIBIT II

Section E - Derivation of Production Expense Provisions

The data below (amounts in thousands) illustrates that the combination of a 18.5% production expense provision in the manual rates, a \$160 expense constant, and the premium discount schedule generates production expense premium dollars that are consistent with historical actual production expenses as reported for combined stock and mutual companies' voluntary business. All figures below obtained from the Insurance Expense Exhibit (IEE) include data for stock and mutual companies.

	<u>2015</u>	<u>2016</u>	<u>2017</u>
(1) Direct Written Premium (NAIC Insurance Expense Exhibit Data)	48,603,697	49,898,708	50,045,258
(1a) Effect of Premium Discounts	0.9283	0.9284	0.9284
(1b) Effect of Schedule Rating	0.9595	0.9501	0.9481
(1c) Effect of Carrier Deviations	1.0388	1.0248	1.0297
(1d) Effect of Deductibles	0.7334	0.7387	0.7387
(1e) Expense Constant Offset	0.9919	0.9917	0.9917
(2) Pool Written Premium (Summary of NCCI Managed Pools - Combined Stock and Mutual Company Data)	1,214,412	1,156,397	1,110,747
(3) Adjusted Direct Written Premium (STD Premium Excl. Pool Written Premium) [(1)-(2)] / (1a) x (1e)	50,636,036	52,065,650	52,270,955
(4) Gross Direct Written Premium (STD Premium @ NCCI Level Incl. Pool Written Premium) {(1) / [(1a) x (1b) x (1c) x (1d)]} x (1e)	71,044,591	74,106,781	74,126,783
(5) Direct Commission & Brokerage Incurred (NAIC Insurance Expense Exhibit Data)	4,208,419	4,434,236	4,591,083
(6) Pool Producer Fees (Summary of NCCI Managed Pools - Combined Stock and Mutual Company Data)	42,649	42,149	39,826
(7) Direct Other Acquisition Expenses Incurred (NAIC Insurance Expense Exhibit Data)	2,669,227	2,899,995	2,498,189
(7a) Proportion of Expense Constant Attributable to Production Expenses	0.5313	0.5313	0.5313
(8) Other Acquisition Expenses Incurred (Excluding Expense Constant Revenue) (7) - (4) x [1-(1e)]/(1e) x (7a)	2,360,988	2,570,465	2,168,570
(9) Ratio of Other Acq. Expenses to Premium (Excluding Expense Constant Revenue) (8)/(4)	3.32%	3.47%	2.93%
(10) Direct Commission & Brokerage Provision [(5)-(6)]/(3)	8.23%	8.44%	8.71%
(11) Production Expense Gradations (Production Expenses in Average Premium Discount)	6.79%	6.78%	6.78%
(12) Production Expense Provision (9)+(10)+(11)	18.34%	18.69%	18.42%
(13) Selected Production Expense Provision (Three-Year Average)			18.5%

**INDIANA****EXHIBIT II****Section F - Insurance Guaranty Association—Workers Compensation Account Assessment****Assessments Levied in Calendar Year 2017**

(1) CY 2015 net direct written premium*	\$ 905,664,149
(2) Assessment levied during 2017	\$ 525,000
(3) Indicated Provision	0.0579%
(4) CY 2013 net direct written premium*	\$ 843,823,715
(5) Assessment levied during 2017	\$ 1,250,000
(6) Indicated Provision	0.1481%
(7) Combined Provision for CY 2017	0.2060%
(8) Indicated Provision (Rounded)	0.2%

*Net direct written premiums are direct gross premiums written in Indiana on workers compensation insurance policies less returned premiums and dividends paid or credited to policyholders on direct business. Net direct written premiums do not include premiums on contracts between insurers or reinsurers.



INDIANA

EXHIBIT II

Section G - INSafe Loss Based Assessment

(1)	CY 2018 Indicated INSafe Division Tax Assessment (assessment based on benefits paid, excluding medical payments)	0.75%
(2)	Indemnity Paid Losses*	99,463,362
(3)	Medical Paid Losses*	267,103,777
(4)	Indicated Overall INSafe Division Tax Assessment for CY 2018 = $[(2)/((2)+(3))]*(1)$	0.2%

* Indemnity and Medical Losses reflect policy year 2016 losses, adjusted to current benefit levels, developed to ultimate and trended to the midpoint of the effective period.



INDIANA

EXHIBIT II

Section H - (A) Determination of Loss Adjustment Expense Provisor

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 16.2% loss adjustment expense allowance as a percentage of incurred losses.

Accident Year	Accident Year Developed DCCE Ratio	Accident Year Developed AOE Ratio
2013	13.1%	7.2%
2014	13.4%	6.9%
2015	13.1%	6.9%
2016	13.2%	7.3%
2017	13.2%	7.8%
Countrywide selected:	13.2%	7.6%
Indiana Selected:	8.9%	7.6%
(8.9% = 13.2% x 0.677)		

(B) Determination of Indiana DCCE relativity--(Latest 2-years of calendar year data)

(1a) Indiana paid losses (in 000's)	801,525
(1b) Indiana paid DCCE (in 000's)	70,175
(1c) Ratio (1b)/(1a)	8.8%
(2a) Countrywide paid losses (in 000's)	46,253,196
(2b) Countrywide paid DCCE (in 000's)	6,009,745
(2c) Ratio (2b)/(2a)	13.0%
(3) Indiana DCCE relativity (1c)/(2c)	0.677

(C) Derivation of Loss Adjustment Expense Provision

(4) Indicated Indiana DCCE Ratio (based on NAIC Annual Statement data - see Section H - (A))	8.9%
(5) Indicated Indiana DCCE Ratio (based on NCCI Financial Call data - see Section H - (D))	8.3%
(6) Selected Indiana DCCE Ratio = [(4) + (5)] / 2	8.6%
(7) Selected Indiana AOE Ratio (based on CW NAIC Annual Statement data - see Section H - (A))	7.6%
(8) Selected Indiana Loss Adjustment Expense Allowance = (6) + (7)	16.2%
(9) Current Indiana Loss Adjustment Expense Allowance	16.6%
(10) Proposed Change in Loss Adjustment Expense Allowance = [1+ (8)] / [1+ (9)] -1	-0.3%

Notes

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



INDIANA

EXHIBIT II

(D) Derivation of Expense Provisions - Defense & Cost Containment Expense (Financial data)

Additive Method

Policy Year Evaluation Paid DCCE to Paid Losses

<u>PY</u>	<u>Ratio @17</u>	<u>2 yr avg Factor to Ult.</u>	<u>3 yr avg Factor to Ult.</u>	<u>4 yr avg Factor to Ult.</u>	<u>5 yr avg Factor to Ult.</u>	<u>5 x hilo Factor to Ult.</u>	<u>Selected Factor to Ult.</u>
2014	0.084	0.004	0.004	0.004	0.005	0.005	0.004
2015	0.073	0.009	0.009	0.009	0.010	0.009	0.009
2016	0.066	0.015	0.016	0.016	0.017	0.016	0.016

<u>PY</u>	<u>Ratio @17</u>	<u>2 yr avg Ultimate Ratio</u>	<u>3 yr avg Ultimate Ratio</u>	<u>4 yr avg Ultimate Ratio</u>	<u>5 yr avg Ultimate Ratio</u>	<u>5 x hilo Ultimate Ratio</u>	<u>Selected Ultimate Ratio</u>
2014	0.084	0.088	0.088	0.088	0.089	0.089	0.088
2015	0.073	0.082	0.082	0.082	0.083	0.082	0.082
2016	0.066	0.081	0.082	0.082	0.083	0.082	0.082

2 year average **0.082**

Accident Year Evaluation Paid DCCE to Paid Losses

<u>AY</u>	<u>Ratio @17</u>	<u>2 yr avg Factor to Ult.</u>	<u>3 yr avg Factor to Ult.</u>	<u>4 yr avg Factor to Ult.</u>	<u>5 yr avg Factor to Ult.</u>	<u>5 x hilo Factor to Ult.</u>	<u>Selected Factor to Ult.</u>
2015	0.079	0.007	0.007	0.007	0.007	0.007	0.007
2016	0.068	0.012	0.012	0.013	0.013	0.013	0.012
2017	0.065	0.019	0.020	0.021	0.021	0.020	0.020

<u>AY</u>	<u>Ratio @17</u>	<u>2 yr avg Ultimate Ratio</u>	<u>3 yr avg Ultimate Ratio</u>	<u>4 yr avg Ultimate Ratio</u>	<u>5 yr avg Ultimate Ratio</u>	<u>5 x hilo Ultimate Ratio</u>	<u>Selected Ultimate Ratio</u>
2015	0.079	0.086	0.086	0.086	0.086	0.086	0.086
2016	0.068	0.080	0.080	0.081	0.081	0.081	0.080
2017	0.065	0.084	0.085	0.086	0.086	0.085	0.085

2 year average **0.083**



INDIANA

EXHIBIT II

(D) Derivation of Expense Provisions - Defense & Cost Containment Expense (Financial data)

Chain Ladder Method

Policy Year Evaluation Paid DCCE to Paid Losses

<u>PY</u>	<u>Ratio @17</u>	<u>2 yr avg Factor to Ult.</u>	<u>3 yr avg Factor to Ult.</u>	<u>4 yr avg Factor to Ult.</u>	<u>5 yr avg Factor to Ult.</u>	<u>5 x hilo Factor to Ult.</u>	<u>Selected Factor to Ult.</u>
2014	0.084	1.036	1.061	1.060	1.066	1.072	1.061
2015	0.073	1.106	1.136	1.136	1.137	1.143	1.136
2016	0.066	1.191	1.256	1.260	1.259	1.263	1.256

<u>PY</u>	<u>Ratio @17</u>	<u>2 yr avg Ultimate Ratio</u>	<u>3 yr avg Ultimate Ratio</u>	<u>4 yr avg Ultimate Ratio</u>	<u>5 yr avg Ultimate Ratio</u>	<u>5 x hilo Ultimate Ratio</u>	<u>Selected Ultimate Ratio</u>
2014	0.084	0.087	0.089	0.089	0.090	0.090	0.089
2015	0.073	0.081	0.083	0.083	0.083	0.083	0.083
2016	0.066	0.079	0.083	0.083	0.083	0.083	0.083

2 year average **0.083**

Accident Year Evaluation Paid DCCE to Paid Losses

<u>AY</u>	<u>Ratio @17</u>	<u>2 yr avg Factor to Ult.</u>	<u>3 yr avg Factor to Ult.</u>	<u>4 yr avg Factor to Ult.</u>	<u>5 yr avg Factor to Ult.</u>	<u>5 x hilo Factor to Ult.</u>	<u>Selected Factor to Ult.</u>
2015	0.079	1.092	1.099	1.105	1.112	1.114	1.099
2016	0.068	1.158	1.184	1.201	1.207	1.214	1.184
2017	0.065	1.273	1.339	1.362	1.363	1.357	1.339

<u>AY</u>	<u>Ratio @17</u>	<u>2 yr avg Ultimate Ratio</u>	<u>3 yr avg Ultimate Ratio</u>	<u>4 yr avg Ultimate Ratio</u>	<u>5 yr avg Ultimate Ratio</u>	<u>5 x hilo Ultimate Ratio</u>	<u>Selected Ultimate Ratio</u>
2015	0.079	0.086	0.087	0.087	0.088	0.088	0.087
2016	0.068	0.079	0.081	0.082	0.082	0.083	0.081
2017	0.065	0.083	0.087	0.089	0.089	0.088	0.087

2 year average **0.084**

Final selected average 8.3%



NATIONAL COUNCIL ON COMPENSATION INSURANCE
INTERNAL RATE OF RETURN ANALYSIS
INDIANA - VOLUNTARY

Exhibit II-I

Overview

According to actuarial principles, insurance rates must be determined such that insurers can be expected to earn an appropriate rate of return. Analysis and determination of a profit and contingency (P&C) provision is necessary to ensure this objective is achieved. To determine the profit and contingency provision, NCCI first uses market-based financial methods to estimate the rate of return (also known as the cost of capital) required by investors of securities with a similar risk profile to workers compensation insurance. NCCI then performs an Internal Rate of Return (IRR) analysis to estimate the profit and contingency provision that needs to be included in the proposed rates for insurers to earn the cost of capital, after accounting for investment income.

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

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

IRR Model Inputs and Results

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

- The "Static" estimate of the P&C provision assumes that the return on investment and the WACC do not change over time, but remain static at their indicated market values at the time the model was run.
- The "Dynamic" estimate assumes that the return on investment and WACC vary over time. The investment portfolio is assumed to be reinvested at future forecasted yields as securities mature, and WACC varies to reflect future expected costs of equity and debt. The starting point for the Dynamic estimates is January 1, 2019.

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

TABLE 1: IRR MODEL INPUTS AND RESULTS

<u>Inputs:</u>			
(1)	Expenses and Taxes as a Percentage of Net Premium at NCCI Level	19.50%	
(2)	Reserve-to-Surplus Ratio	1.83	
(3)	Cash Flow Patterns	See Table 2	
		<u>Static</u>	<u>Dynamic*</u>
(4)	Return on Investments	3.20%	4.14% - 4.62%
(5)	Weighted Average Cost of Capital	8.08%	9.07% - 9.64%
<u>Results</u>			
		<u>Static</u>	<u>Dynamic</u>
(6)	Indicated Profit and Contingency Provision	0.61%	-0.85%
(7)	Loss and Loss Adjustment Expense Provision [100% - (6) - (1)]	79.89%	81.35%

Table Notes:

It is assumed that no policyholders dividends are paid and that there are no rate departures (deviations or schedule rating).

(1) Expense provisions and taxes derived from the filing.

(2) Calculated from Best's 2017 Aggregates & Averages, for Commercial Casualty Composite, as the weighted average of Loss, LAE, and Unearned Premium Reserves to Policyholder Surplus, for years 2012 - 2016.

* See Table 3 for details by time period.



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INDIANA - VOLUNTARY

Exhibit II-I

TABLE 2: CASH FLOW PATTERNS (CUMULATIVE)

Time	(1) Policy-Year Collected Premium	(2) Earned Premium	(3) Written Premium	(4) Expenses and Taxes	(5) Paid Losses and LAE
0.00	-	-	-	-	-
0.25	14.60%	3.86%	30.90%	14.38%	1.21%
0.50	31.43%	14.54%	54.50%	30.95%	4.55%
0.75	53.46%	31.09%	77.90%	52.64%	9.74%
1.00	76.80%	53.33%	100.00%	76.65%	16.70%
1.25	89.28%	74.46%		89.44%	28.15%
1.50	97.00%	88.79%		97.05%	39.60%
1.75	100.00%	97.24%		100.00%	51.05%
2.00		100.00%			62.50%
2.25					67.10%
2.50					71.70%
2.75					76.30%
3.00					80.90%
3.25					82.40%
3.50					83.90%
3.75					85.40%
4.00					86.90%
4.25					87.83%
4.50					88.75%
4.75					89.68%
5.00					90.60%
6.00					92.30%
7.00					94.00%
8.00					94.60%
9.00					95.10%
10.00					95.50%
11.00					96.30%
12.00					97.00%
13.00					97.40%
14.00					97.60%
15.00					97.70%
16.00					97.80%
17.00					97.80%
18.00					97.90%
19.00					98.30%
20.00					98.50%
21.00					98.70%
22.00					98.80%
23.00					98.90%
24.00					98.90%
25.00					99.00%
26.00					99.40%
27.00					99.40%
28.00					99.50%
29.00					99.60%
30.00					99.70%
31.00					99.80%
32.00					99.87%
33.00					99.93%
34.00					99.97%
35.00					100.00%

**TABLE 3: DYNAMIC ESTIMATE
INPUTS**

Time	(1) Return on Investments	(2) Weighted Average Cost of Capital
0.00	-	-
0.25	4.14%	9.07%
0.50	4.17%	9.23%
0.75	4.26%	9.39%
1.00	4.27%	9.42%
1.25	4.27%	9.35%
1.50	4.25%	9.25%
1.75	4.23%	9.20%
2.00	4.23%	9.21%
2.25	4.23%	9.26%
2.50	4.23%	9.31%
2.75	4.30%	9.34%
3.00	4.30%	9.40%
3.25	4.27%	9.43%
3.50	4.27%	9.44%
3.75	4.24%	9.41%
4.00	4.24%	9.40%
4.25	4.24%	9.41%
4.50	4.24%	9.41%
4.75	4.25%	9.41%
5.00	4.25%	9.40%
6.00	4.28%	9.48%
7.00	4.33%	9.65%
8.00	4.54%	9.85%
9.00	4.69%	9.88%
10.00	4.66%	9.80%
11.00	4.58%	9.73%
12.00	4.57%	9.68%
13.00	4.56%	9.66%
14.00	4.55%	9.64%
15.00	4.56%	9.63%
16.00	4.56%	9.62%
17.00	4.57%	9.61%
18.00	4.57%	9.61%
19.00	4.57%	9.61%
20.00	4.58%	9.62%
21.00	4.61%	9.63%
22.00	4.62%	9.64%
23.00	4.62%	9.64%
24.00	4.62%	9.64%
25.00	4.62%	9.64%
26.00	4.62%	9.64%
27.00	4.62%	9.64%
28.00	4.62%	9.64%
29.00	4.62%	9.64%
30.00	4.62%	9.64%
31.00	4.62%	9.64%
32.00	4.62%	9.64%
33.00	4.62%	9.64%
34.00	4.62%	9.64%
35.00	4.62%	9.64%

Table 2 Notes:

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

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



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Calculation Details

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

List of Tables

Static Estimate

Table 4: Derivation of Insurance Cash Flows

Table 5: Derivation of Cash Flows to the Capital Providers

Dynamic Estimate

Table 6: Derivation of Insurance Cash Flows

Table 7: Derivation of Cash Flows to the Capital Providers

Appendices

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

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

Table A.2: Calculation of Return on Investments

Appendix B: Federal Income Tax Incurred from Insurance Operations

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

Table B.2: Federal Income Tax Calculation (Dynamic Estimate)

Appendix C: Reserve-to-Surplus Ratio

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



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Exhibit II-I

Calculation Details - Static Estimate

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

Time	(1) Collected Premium Factor	(2) Expense and Taxes Factor	(3) Paid Losses and LAE Factor	(4) Federal Income Tax Factor	(5) Insurance Cash flow Factor
0.00	-	-	-	-	-
0.25	0.1460	0.0280	0.0097	0.0056	0.1027
0.50	0.3143	0.0603	0.0364	0.0112	0.2064
0.75	0.5346	0.1026	0.0778	0.0168	0.3374
1.00	0.7680	0.1495	0.1334	0.0224	0.4628
1.25	0.8928	0.1744	0.2249	0.0189	0.4746
1.50	0.9700	0.1892	0.3164	0.0154	0.4490
1.75	1.0000	0.1950	0.4078	0.0119	0.3853
2.00	1.0000	0.1950	0.4993	0.0083	0.2974
2.25	1.0000	0.1950	0.5360	0.0076	0.2614
2.50	1.0000	0.1950	0.5728	0.0068	0.2254
2.75	1.0000	0.1950	0.6095	0.0061	0.1894
3.00	1.0000	0.1950	0.6463	0.0053	0.1534
3.25	1.0000	0.1950	0.6583	0.0051	0.1417
3.50	1.0000	0.1950	0.6703	0.0048	0.1299
3.75	1.0000	0.1950	0.6822	0.0046	0.1182
4.00	1.0000	0.1950	0.6942	0.0043	0.1065
4.25	1.0000	0.1950	0.7016	0.0041	0.0993
4.50	1.0000	0.1950	0.7090	0.0040	0.0920
4.75	1.0000	0.1950	0.7164	0.0038	0.0848
5.00	1.0000	0.1950	0.7238	0.0036	0.0776
6.00	1.0000	0.1950	0.7374	0.0032	0.0644
7.00	1.0000	0.1950	0.7509	0.0028	0.0512
8.00	1.0000	0.1950	0.7557	0.0026	0.0466
9.00	1.0000	0.1950	0.7597	0.0024	0.0428
10.00	1.0000	0.1950	0.7629	0.0023	0.0398
11.00	1.0000	0.1950	0.7693	0.0020	0.0337
12.00	1.0000	0.1950	0.7749	0.0018	0.0283
13.00	1.0000	0.1950	0.7781	0.0017	0.0252
14.00	1.0000	0.1950	0.7797	0.0016	0.0237
15.00	1.0000	0.1950	0.7805	0.0016	0.0229
16.00	1.0000	0.1950	0.7813	0.0015	0.0222
17.00	1.0000	0.1950	0.7813	0.0015	0.0222
18.00	1.0000	0.1950	0.7821	0.0014	0.0215
19.00	1.0000	0.1950	0.7853	0.0013	0.0184
20.00	1.0000	0.1950	0.7869	0.0013	0.0168
21.00	1.0000	0.1950	0.7885	0.0013	0.0152
22.00	1.0000	0.1950	0.7893	0.0013	0.0144
23.00	1.0000	0.1950	0.7901	0.0013	0.0136
24.00	1.0000	0.1950	0.7901	0.0013	0.0136
25.00	1.0000	0.1950	0.7909	0.0013	0.0128
26.00	1.0000	0.1950	0.7941	0.0013	0.0096
27.00	1.0000	0.1950	0.7941	0.0013	0.0096
28.00	1.0000	0.1950	0.7949	0.0013	0.0088
29.00	1.0000	0.1950	0.7957	0.0013	0.0080
30.00	1.0000	0.1950	0.7965	0.0013	0.0072
31.00	1.0000	0.1950	0.7973	0.0013	0.0064
32.00	1.0000	0.1950	0.7979	0.0013	0.0058
33.00	1.0000	0.1950	0.7983	0.0013	0.0054
34.00	1.0000	0.1950	0.7986	0.0013	0.0051
35.00	1.0000	0.1950	0.7989	0.0013	0.0048

Column Notes:

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



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Calculation Details - Static Estimate (continued)

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

Time	(1) Unearned Premium, Unpaid Loss and Unpaid LAE Reserve Factor	(2) Factor for Surplus Allocated to Reserves	(3) Total Invested Funds Factor	(4) Income from Invested Funds Factor	(5) Capital Provider Equity Factor	(6) Capital Provider Cash Flow Factor	(7) Discounted Capital Provider Cash Flow Factor
0.00	-	-	-	-	-	-	-
0.25	0.2916	0.1593	0.2879	0.0011	(0.1840)	(0.1840)	(0.1823)
0.50	0.4794	0.2620	0.5106	0.0043	(0.3000)	(0.1159)	(0.1126)
0.75	0.6387	0.3490	0.7433	0.0092	(0.3967)	(0.0967)	(0.0921)
1.00	0.7593	0.4149	0.9423	0.0159	(0.4636)	(0.0670)	(0.0626)
1.25	0.6254	0.3417	0.8599	0.0230	(0.3622)	0.1014	0.0929
1.50	0.5051	0.2760	0.7511	0.0294	(0.2726)	0.0896	0.0805
1.75	0.3966	0.2167	0.6133	0.0348	(0.1933)	0.0794	0.0700
2.00	0.2996	0.1637	0.4633	0.0390	(0.1269)	0.0663	0.0573
2.25	0.2628	0.1436	0.4065	0.0424	(0.1026)	0.0243	0.0206
2.50	0.2261	0.1235	0.3496	0.0454	(0.0788)	0.0238	0.0198
2.75	0.1893	0.1035	0.2928	0.0480	(0.0555)	0.0234	0.0191
3.00	0.1526	0.0834	0.2360	0.0501	(0.0325)	0.0229	0.0183
3.25	0.1406	0.0768	0.2174	0.0518	(0.0239)	0.0086	0.0067
3.50	0.1286	0.0703	0.1989	0.0535	(0.0155)	0.0084	0.0065
3.75	0.1166	0.0637	0.1804	0.0550	(0.0072)	0.0083	0.0063
4.00	0.1047	0.0572	0.1618	0.0563	0.0010	0.0082	0.0060
4.25	0.0973	0.0531	0.1504	0.0576	0.0064	0.0054	0.0040
4.50	0.0899	0.0491	0.1390	0.0587	0.0118	0.0054	0.0038
4.75	0.0825	0.0451	0.1276	0.0598	0.0170	0.0053	0.0037
5.00	0.0751	0.0410	0.1161	0.0607	0.0222	0.0052	0.0035
6.00	0.0615	0.0336	0.0951	0.0641	0.0334	0.0112	0.0073
7.00	0.0479	0.0262	0.0741	0.0668	0.0439	0.0106	0.0064
8.00	0.0431	0.0236	0.0667	0.0691	0.0490	0.0051	0.0028
9.00	0.0391	0.0214	0.0605	0.0711	0.0534	0.0044	0.0023
10.00	0.0359	0.0196	0.0556	0.0729	0.0572	0.0038	0.0018
11.00	0.0296	0.0162	0.0457	0.0746	0.0625	0.0054	0.0024
12.00	0.0240	0.0131	0.0371	0.0759	0.0671	0.0046	0.0019
13.00	0.0208	0.0114	0.0321	0.0770	0.0701	0.0030	0.0011
14.00	0.0192	0.0105	0.0297	0.0780	0.0720	0.0019	0.0007
15.00	0.0184	0.0100	0.0284	0.0789	0.0734	0.0014	0.0005
16.00	0.0176	0.0096	0.0272	0.0798	0.0748	0.0014	0.0004
17.00	0.0176	0.0096	0.0272	0.0807	0.0757	0.0009	0.0003
18.00	0.0168	0.0092	0.0259	0.0815	0.0771	0.0013	0.0003
19.00	0.0136	0.0074	0.0210	0.0823	0.0796	0.0026	0.0006
20.00	0.0120	0.0065	0.0185	0.0829	0.0812	0.0015	0.0003
21.00	0.0104	0.0057	0.0161	0.0835	0.0826	0.0014	0.0003
22.00	0.0096	0.0052	0.0148	0.0839	0.0835	0.0009	0.0002
23.00	0.0088	0.0048	0.0136	0.0844	0.0844	0.0009	0.0002
24.00	0.0088	0.0048	0.0136	0.0848	0.0848	0.0004	0.0001
25.00	0.0080	0.0044	0.0124	0.0852	0.0857	0.0009	0.0001
26.00	0.0048	0.0026	0.0074	0.0856	0.0878	0.0021	0.0003
27.00	0.0048	0.0026	0.0074	0.0858	0.0880	0.0002	0.0000
28.00	0.0040	0.0022	0.0062	0.0860	0.0887	0.0007	0.0001
29.00	0.0032	0.0017	0.0049	0.0862	0.0893	0.0006	0.0001
30.00	0.0024	0.0013	0.0037	0.0863	0.0899	0.0006	0.0001
31.00	0.0016	0.0009	0.0025	0.0864	0.0904	0.0005	0.0001
32.00	0.0010	0.0005	0.0016	0.0865	0.0908	0.0004	0.0000
33.00	0.0006	0.0003	0.0009	0.0865	0.0911	0.0003	0.0000
34.00	0.0002	0.0001	0.0004	0.0866	0.0913	0.0002	0.0000
35.00	-	-	-	0.0866	0.0914	0.0001	0.0000

Column Notes:

- (1) is Unearned Premium Reserve (equal to Written Premium minus Earned Premium, per the cashflow pattern) plus Unpaid Loss and LAE Reserve (equal to Incurred minus Paid Losses and LAE) by time period, expressed as a factor,
= [Table 2 col (3) - Table 2 col (2)] + Table 1 row (7, Static) x [Table 2 col (2) - Table 2 col (5)]
- (2) is the Surplus derived from Reserves per the Reserve-to-Surplus Ratio by time period, expressed as a factor, = (1) / Table 1 row (2)
- (3) is Reserves plus Surplus minus Agent Balances by time period, expressed as a factor, = (1) + (2) - Agent Balances. Agent Balances exist when Written Premium exceeds Collected Premium, = [Table 2 col (3) - Table 2 col (1)].
- (4) is derived by applying the Return on Investments [Table 1 row (4, Static)] to the average Invested Funds (4) from the previous and current time periods, plus previous Income from Invested Funds, by time period expressed as a factor.
- (5) is Insurance Cash Flow plus Income from Invested Funds minus Total Invested Funds by time period, expressed as a factor,
= Table 4 col (5) + (4) - (3)
- (6) is the difference between Capital Provider Equity (5) at the current and previous time periods, expressed as a factor
- (7) is the Capital Provider Cash Flow (6) discounted by the Weighted Average Cost of Capital [Table 1 row (5, Static)], expressed as a factor



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Calculation Details - Dynamic Estimate

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

Time	(1) Collected Premium Factor	(2) Expense and Taxes Factor	(3) Paid Losses and LAE Factor	(4) Federal Income Tax Factor	(5) Insurance Cash flow Factor
0.00	-	-	-	-	-
0.25	0.1460	0.0280	0.0098	0.0052	0.1029
0.50	0.3143	0.0603	0.0370	0.0105	0.2064
0.75	0.5346	0.1026	0.0792	0.0157	0.3371
1.00	0.7680	0.1495	0.1359	0.0209	0.4618
1.25	0.8928	0.1744	0.2290	0.0171	0.4723
1.50	0.9700	0.1892	0.3221	0.0132	0.4454
1.75	1.0000	0.1950	0.4153	0.0093	0.3804
2.00	1.0000	0.1950	0.5084	0.0054	0.2912
2.25	1.0000	0.1950	0.5459	0.0046	0.2545
2.50	1.0000	0.1950	0.5833	0.0039	0.2179
2.75	1.0000	0.1950	0.6207	0.0031	0.1812
3.00	1.0000	0.1950	0.6581	0.0023	0.1446
3.25	1.0000	0.1950	0.6703	0.0021	0.1326
3.50	1.0000	0.1950	0.6825	0.0018	0.1207
3.75	1.0000	0.1950	0.6947	0.0015	0.1087
4.00	1.0000	0.1950	0.7069	0.0013	0.0968
4.25	1.0000	0.1950	0.7145	0.0011	0.0894
4.50	1.0000	0.1950	0.7220	0.0009	0.0821
4.75	1.0000	0.1950	0.7295	0.0008	0.0747
5.00	1.0000	0.1950	0.7370	0.0006	0.0674
6.00	1.0000	0.1950	0.7509	0.0002	0.0539
7.00	1.0000	0.1950	0.7647	(0.0002)	0.0405
8.00	1.0000	0.1950	0.7696	(0.0004)	0.0359
9.00	1.0000	0.1950	0.7736	(0.0006)	0.0320
10.00	1.0000	0.1950	0.7769	(0.0008)	0.0289
11.00	1.0000	0.1950	0.7834	(0.0011)	0.0227
12.00	1.0000	0.1950	0.7891	(0.0012)	0.0172
13.00	1.0000	0.1950	0.7923	(0.0014)	0.0140
14.00	1.0000	0.1950	0.7940	(0.0015)	0.0125
15.00	1.0000	0.1950	0.7948	(0.0015)	0.0117
16.00	1.0000	0.1950	0.7956	(0.0016)	0.0110
17.00	1.0000	0.1950	0.7956	(0.0016)	0.0110
18.00	1.0000	0.1950	0.7964	(0.0017)	0.0103
19.00	1.0000	0.1950	0.7997	(0.0017)	0.0071
20.00	1.0000	0.1950	0.8013	(0.0017)	0.0055
21.00	1.0000	0.1950	0.8029	(0.0018)	0.0038
22.00	1.0000	0.1950	0.8037	(0.0018)	0.0030
23.00	1.0000	0.1950	0.8045	(0.0018)	0.0022
24.00	1.0000	0.1950	0.8045	(0.0018)	0.0022
25.00	1.0000	0.1950	0.8054	(0.0018)	0.0014
26.00	1.0000	0.1950	0.8086	(0.0018)	(0.0018)
27.00	1.0000	0.1950	0.8086	(0.0018)	(0.0018)
28.00	1.0000	0.1950	0.8094	(0.0018)	(0.0027)
29.00	1.0000	0.1950	0.8102	(0.0018)	(0.0035)
30.00	1.0000	0.1950	0.8111	(0.0018)	(0.0043)
31.00	1.0000	0.1950	0.8119	(0.0018)	(0.0051)
32.00	1.0000	0.1950	0.8125	(0.0018)	(0.0057)
33.00	1.0000	0.1950	0.8129	(0.0018)	(0.0061)
34.00	1.0000	0.1950	0.8132	(0.0018)	(0.0065)
35.00	1.0000	0.1950	0.8135	(0.0018)	(0.0067)

Column Notes:

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



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Calculation Details - Dynamic Estimate (continued)

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

Time	(1) Unearned Premium, Unpaid Loss and Unpaid LAE Reserve Factor	(2) Factor for Surplus Allocated to Reserves	(3) Total Invested Funds Factor	(4) Income from Invested Funds Factor	(5) Capital Provider Equity Factor	(6) Capital Provider Cash Flow Factor	(7) Cumulative Discount Factor	(8) Discounted Capital Provider Cash Flow Factor
0.00	-	-	-	-	-	-	-	-
0.25	0.2920	0.1595	0.2885	0.0015	(0.1841)	(0.1841)	0.9892	(0.1821)
0.50	0.4809	0.2628	0.5129	0.0056	(0.3009)	(0.1167)	0.9676	(0.1130)
0.75	0.6418	0.3507	0.7481	0.0122	(0.3989)	(0.0980)	0.9462	(0.0927)
1.00	0.7647	0.4179	0.9506	0.0211	(0.4677)	(0.0688)	0.9251	(0.0636)
1.25	0.6321	0.3454	0.8703	0.0307	(0.3673)	0.1004	0.9047	0.0908
1.50	0.5123	0.2799	0.7622	0.0392	(0.2775)	0.0898	0.8849	0.0795
1.75	0.4034	0.2204	0.6238	0.0465	(0.1969)	0.0806	0.8656	0.0698
2.00	0.3051	0.1667	0.4718	0.0522	(0.1284)	0.0685	0.8468	0.0580
2.25	0.2676	0.1463	0.4139	0.0568	(0.1026)	0.0258	0.8282	0.0214
2.50	0.2302	0.1258	0.3560	0.0608	(0.0774)	0.0252	0.8100	0.0204
2.75	0.1928	0.1054	0.2982	0.0642	(0.0527)	0.0247	0.7921	0.0195
3.00	0.1554	0.0849	0.2403	0.0671	(0.0286)	0.0241	0.7745	0.0186
3.25	0.1432	0.0782	0.2214	0.0695	(0.0193)	0.0094	0.7573	0.0071
3.50	0.1310	0.0716	0.2025	0.0717	(0.0101)	0.0092	0.7404	0.0068
3.75	0.1188	0.0649	0.1837	0.0738	(0.0012)	0.0089	0.7239	0.0065
4.00	0.1066	0.0582	0.1648	0.0756	0.0076	0.0087	0.7078	0.0062
4.25	0.0990	0.0541	0.1532	0.0772	0.0135	0.0059	0.6921	0.0041
4.50	0.0915	0.0500	0.1415	0.0788	0.0193	0.0058	0.6767	0.0039
4.75	0.0840	0.0459	0.1299	0.0802	0.0251	0.0057	0.6617	0.0038
5.00	0.0765	0.0418	0.1183	0.0815	0.0306	0.0056	0.6470	0.0036
6.00	0.0626	0.0342	0.0969	0.0861	0.0432	0.0125	0.6114	0.0077
7.00	0.0488	0.0267	0.0755	0.0898	0.0549	0.0117	0.5576	0.0065
8.00	0.0439	0.0240	0.0679	0.0931	0.0610	0.0061	0.5076	0.0031
9.00	0.0399	0.0218	0.0616	0.0961	0.0665	0.0054	0.4620	0.0025
10.00	0.0366	0.0200	0.0566	0.0989	0.0712	0.0047	0.4207	0.0020
11.00	0.0301	0.0164	0.0465	0.1012	0.0774	0.0062	0.3834	0.0024
12.00	0.0244	0.0133	0.0377	0.1032	0.0826	0.0052	0.3496	0.0018
13.00	0.0212	0.0116	0.0327	0.1048	0.0861	0.0035	0.3188	0.0011
14.00	0.0195	0.0107	0.0302	0.1062	0.0885	0.0024	0.2908	0.0007
15.00	0.0187	0.0102	0.0289	0.1076	0.0904	0.0019	0.2652	0.0005
16.00	0.0179	0.0098	0.0277	0.1089	0.0921	0.0018	0.2420	0.0004
17.00	0.0179	0.0098	0.0277	0.1101	0.0935	0.0013	0.2207	0.0003
18.00	0.0171	0.0093	0.0264	0.1114	0.0952	0.0017	0.2014	0.0003
19.00	0.0138	0.0076	0.0214	0.1124	0.0981	0.0029	0.1837	0.0005
20.00	0.0122	0.0067	0.0189	0.1134	0.1000	0.0018	0.1676	0.0003
21.00	0.0106	0.0058	0.0164	0.1142	0.1017	0.0017	0.1529	0.0003
22.00	0.0098	0.0053	0.0151	0.1149	0.1028	0.0012	0.1395	0.0002
23.00	0.0089	0.0049	0.0138	0.1156	0.1039	0.0011	0.1272	0.0001
24.00	0.0089	0.0049	0.0138	0.1162	0.1046	0.0006	0.1160	0.0001
25.00	0.0081	0.0044	0.0126	0.1168	0.1056	0.0011	0.1058	0.0001
26.00	0.0049	0.0027	0.0075	0.1173	0.1079	0.0023	0.0965	0.0002
27.00	0.0049	0.0027	0.0075	0.1176	0.1082	0.0003	0.0880	0.0000
28.00	0.0041	0.0022	0.0063	0.1180	0.1090	0.0008	0.0803	0.0001
29.00	0.0033	0.0018	0.0050	0.1182	0.1097	0.0007	0.0732	0.0001
30.00	0.0024	0.0013	0.0038	0.1184	0.1104	0.0007	0.0668	0.0000
31.00	0.0016	0.0009	0.0025	0.1186	0.1110	0.0006	0.0609	0.0000
32.00	0.0010	0.0006	0.0016	0.1187	0.1114	0.0004	0.0556	0.0000
33.00	0.0006	0.0003	0.0009	0.1187	0.1117	0.0003	0.0507	0.0000
34.00	0.0002	0.0001	0.0004	0.1187	0.1119	0.0002	0.0462	0.0000
35.00	-	-	-	0.1188	0.1120	0.0001	0.0422	0.0000

Column Notes:

- (1) is Unearned Premium Reserve (equal to Written Premium minus Earned Premium, per the cashflow pattern) plus Unpaid Loss and LAE Reserve (equal to Incurred minus Paid Losses and LAE) by time period, expressed as a factor,
= [Table 2 col (3) - Table 2 col (2)] + Table 1 row (7, Dynamic) x [Table 2 col (2) - Table 2 col (5)]
- (2) is the Surplus derived from Reserves per the Reserve-to-Surplus Ratio by time period, expressed as a factor, = (1) / Table 1 row (2)
- (3) is Reserves plus Surplus minus Agent Balances by time period, expressed as a factor, = (1) + (2) - Agent Balances. Agent Balances exist when Written Premium exceeds Collected Premium, = [Table 2 col (3) - Table 2 col (1)].
- (4) is derived by applying the Return on Investments [Table 3 col (1)] to the average Invested Funds (4) from the previous and current time periods, plus previous Income from Invested Funds, by time period expressed as a factor.
- (5) is Insurance Cash Flow plus Income from Invested Funds minus Total Invested Funds by time period, expressed as a factor,
= Table 6 col (5) + (4) - (3)
- (6) is the difference between Capital Provider Equity (5) at the current and previous time periods, expressed as a factor
- (7) is derived from the respective Weighted Average Cost of Capital [Table 3 col (2)] for each time period, expressed as a factor
- (8) is the Capital Provider Cash Flow (6) discounted by the Cumulative Discount Factor (7), expressed as a factor



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

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

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

	Static	IRR Model Time (yrs)		
		1.00	2.00	5.00
(1) 5 year US T-note Yield	2.53%	3.92%	3.71%	3.90%
(2) US Equity Market Risk Premium	7.65%			
(3) Beta for Property/Casualty (P/C) Insurers	0.86			
(4) Equity Cost of Capital for P/C Insurers	9.11%	10.50%	10.29%	10.48%
(5) Share of Equity Capital for P/C Insurers	83%			
(6) Debt Cost of Capital for P/C Insurers	3.03%	4.13%	3.96%	4.11%
(7) Weighted Average Cost of Capital (WACC)	8.08%	9.42%	9.21%	9.40%

Column Notes:

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



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

TABLE A.2 CALCULATION OF RETURN ON INVESTMENTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Security Description	Investment Portfolio	Yield Curve, Maturity and Spread	Roll-over Period	Income Tax Rate	Post-tax Return			
					IRR Model Time (yrs)			
					Static	1.00	2.00	5.00
Bonds, of which	73.6%							
Government Direct Obligations	6.5%							
< 1yr	2.0%	6 mo US T-bill	0.50 yrs	21.00%	1.40%	2.85%	2.80%	2.34%
1 – 5 yrs	2.5%	2.5 yr US T-note	2.50 yrs	21.00%	1.76%	2.63%	2.63%	2.88%
5 – 10 yrs	1.3%	7.5 yr US T-note	7.50 yrs	21.00%	2.13%	2.94%	2.94%	2.94%
10 – 20 yrs	0.3%	15 yr US T-note	15.00 yrs	21.00%	2.24%	3.23%	3.23%	3.23%
> 20 yrs	0.4%	20 yr US T-note	20.00 yrs	21.00%	2.29%	3.47%	3.47%	3.47%
Collateralized Securities	6.5%							
< 1yr	0.8%	6 mo US T-bill + 50 basis points	0.50 yrs	21.00%	1.79%	3.25%	3.20%	2.73%
1 – 5 yrs	2.5%	2.5 yr US T-note + 50 basis points	2.50 yrs	21.00%	2.16%	3.02%	3.02%	3.27%
5 – 10 yrs	1.7%	7.5 yr US T-note + 50 basis points	7.50 yrs	21.00%	2.53%	3.34%	3.34%	3.34%
10 – 20 yrs	1.1%	15 yr US T-note + 50 basis points	15.00 yrs	21.00%	2.63%	3.63%	3.63%	3.63%
> 20 yrs	0.4%	20 yr US T-note + 50 basis points	20.00 yrs	21.00%	2.69%	3.86%	3.86%	3.86%
Tax-exempt Bonds	25.5%							
< 1yr	2.0%	6 mo US T-bill + Tax-exempt spread	0.50 yrs	5.25%	1.78%	3.53%	3.46%	2.91%
1 – 5 yrs	6.1%	2.5 yr US T-note + Tax-exempt spread	2.50 yrs	5.25%	2.31%	3.35%	3.35%	3.65%
5 – 10 yrs	8.7%	7.5 yr US T-note + Tax-exempt spread	7.50 yrs	5.25%	2.82%	3.79%	3.79%	3.79%
10 – 20 yrs	6.6%	15 yr US T-note + Tax-exempt spread	15.00 yrs	5.25%	3.06%	4.24%	4.24%	4.24%
> 20 yrs	2.2%	20 yr US T-note + Tax-exempt spread	20.00 yrs	5.25%	3.19%	4.57%	4.57%	4.57%
Industrial and Hybrid Securities (unaffiliated)	33.6%							
< 1yr	4.2%	6 mo US T-bill + Corp spread	0.50 yrs	21.00%	1.96%	3.42%	3.37%	2.91%
1 – 5 yrs	13.2%	2.5 yr US T-note + Corp spread	2.50 yrs	21.00%	2.61%	3.47%	3.47%	3.73%
5 – 10 yrs	12.2%	7.5 yr US T-note + Corp spread	7.50 yrs	21.00%	3.24%	4.05%	4.05%	4.05%
10 – 20 yrs	1.7%	15 yr US T-note + Corp spread	15.00 yrs	21.00%	3.43%	4.41%	4.41%	4.41%
> 20 yrs	2.3%	20 yr US T-note + Corp spread	20.00 yrs	21.00%	3.52%	4.65%	4.65%	4.65%
Industrial and Hybrid Securities (affiliated)	1.4%							
< 1yr	0.9%	6 mo US T-bill + Corp spread	0.50 yrs	5.25%	2.36%	4.11%	4.04%	3.49%
1 – 5 yrs	0.5%	2.5 yr US T-note + Corp spread	2.50 yrs	5.25%	3.13%	4.17%	4.17%	4.47%
5 – 10 yrs	0.0%	7.5 yr US T-note + Corp spread	7.50 yrs	5.25%	3.89%	4.86%	4.86%	4.86%
10 – 20 yrs	0.0%	15 yr US T-note + Corp spread	15.00 yrs	5.25%	4.11%	5.28%	5.28%	5.28%
> 20 yrs	0.0%	20 yr US T-note + Corp spread	20.00 yrs	5.25%	4.22%	5.57%	5.57%	5.57%
Stocks, of which	12.5%							
Preferred Stock	0.4%	5 year US T-note + 382 basis points	0.25 yrs	13.13%	5.52%	6.73%	6.55%	6.71%
Common Stock	12.1%	5 year US T-note + 765 basis points	0.25 yrs	18.33%	8.32%	9.45%	9.28%	9.43%
Mortgage Loans	1.8%							
Real Estate	0.4%							
Cash & Short-Term Investment	3.9%	3 month US T-bill	0.25 yrs	21.00%	1.25%	2.88%	2.73%	2.26%
All Other Assets*	7.9%							
Post-Tax Return on Invested Funds, pre-Expense:					3.37%	4.44%	4.41%	4.43%
Investment Expense**:					-0.17%	-0.17%	-0.17%	-0.17%
Post-Tax Return on Invested Funds:					3.20%	4.27%	4.23%	4.25%

Table Notes:

- Government Direct Obligations include US Government Issuer Obligations and Non-US Government Issuer Obligations. Collateralized Securities include Mortgage Backed, Loan Backed, or Structured Securities. Tax-exempt Bonds include Issuer Obligations of US States, Territories, and Possessions, US Political Subdivisions of States, Territories, and Possessions, and US Special Revenue and Special Assessment Obligations. Industrial and Hybrid Securities (unaffiliated) include Industrial and Miscellaneous and Hybrid Securities. Industrial and Hybrid Securities (affiliated) include Parents, Subsidiaries, and Affiliates.
- Bond and total portfolio distributions are 3-year averages for 2014-2016, calculated from various annual editions of Best's Aggregates & Averages (Property-Casualty), Assets for Commercial Casualty Composite, p. 276, Column 3, Net Admitted Assets. For each year 2014-2016, the maturity distribution pertains to all bonds owned as of December 31 at book/adjusted carrying value for Commercial Casualty Composite, Schedule D, Part 1A, Section 2.
- Spread to US treasury yields are either constant or varying by maturity (tax-exempt or corporate) as applicable. The tax-exempt spread is a term structure of average historical spreads in forward rates at different maturities between US municipal bonds and US Treasuries. Data on historical yields to US municipal bonds are from Bloomberg. The corporate spread is a term structure of average historical spreads in forward rates at different maturities between US corporate bonds and US Treasuries. Historical data on yields to US corporate bonds are from the US Department of Treasury.
- Applies only to the Dynamic estimate of the return on invested funds. The roll-over period is the time interval at which the estimated yield is updated for the given security in the investment portfolio. For bonds, the roll-over period is the bond's term to maturity. Forward yields for common and preferred stocks are updated quarterly.
- It is assumed that investment returns, except dividends and tax exempt municipal bond income, are taxed at 21%. With respect to dividends, it is assumed that 50% of dividends received are tax exempt. It is further assumed that in accordance with the "pro-ration" provision, 25% of otherwise exempt municipal bond income and dividends are taxed at 21%. The portion of income attributable to capital appreciation is assumed to equal 66.1% while the income portion is 33.9%. The percentages were obtained from Morningstar's Analyst Research Center containing Table 6-7 previously published in Ibbotson SBBI Classic Yearbook, large company stocks, arithmetic mean.
- Static estimates of treasury yields are actual current yields.
- (7)-(9) Apply only to the Dynamic estimate of the return on invested funds. Forward estimates of treasury yields at various maturities are from Moody's.

* Yields to mortgage loans, real estate, and all other assets are not directly estimated, but are assumed to be equal to the weighted average portfolio yield net of these categories.

** Investment expense calculated from Annual Statement data for the Commercial Casualty Composite by dividing Total Investment Expense by Cash and Invested Assets.

Total investment expense for 2016 from the Annual Statement, Exhibit of Net Investment Income.

Average of 2015 and 2016 cash and invested assets from Best's Aggregates and Averages (Property-Casualty), Assets for Commercial Casualty Composite, p.276, Line 12.



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APPENDIX B: FEDERAL INCOME TAX INCURRED FROM INSURANCE OPERATIONS

Federal taxes on underwriting income, based on the Tax Cuts and Jobs Act of 2017, are calculated in the following tables on an annual basis. Columns (1) through (4) are the same under both the Static and Dynamic Estimates; the paid losses and LAE factors (col (5)) vary by Estimate. Note that investment taxes are accounted for in Appendix A. Annual tax is prorated when quarterly amounts are required.

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

Time	(1) Written Premium Factor	(2) Unearned Premium Factor	(3) Expense and Taxes Factor	(4) Discount Factor	(5) Paid Losses and LAE Factor	(6) AY1 Paid Losses and LAE Factor	(7) AY2 Paid Losses and LAE Factor	(8) Discounted AY1 Unpaid Losses & LAE Factor	(9) Discounted AY2 Unpaid Losses & LAE Factor	(10) Federal Income Tax Factor
0.00	-	-	-	-	-	-	-	-	-	-
1.00	1.0000	0.4668	0.1495	0.8919	0.1334	0.1334	-	0.2373	-	0.0224
2.00	1.0000	-	0.1950	0.8783	0.4993	0.3078	0.1915	0.0805	0.1854	0.0083
3.00	1.0000	-	0.1950	0.8685	0.6463	0.3308	0.3155	0.0596	0.0738	0.0053
4.00	1.0000	-	0.1950	0.8551	0.6942	0.3553	0.3390	0.0378	0.0525	0.0043
5.00	1.0000	-	0.1950	0.8501	0.7238	0.3652	0.3586	0.0291	0.0349	0.0036
6.00	1.0000	-	0.1950	0.8455	0.7374	0.3704	0.3669	0.0245	0.0276	0.0032
7.00	1.0000	-	0.1950	0.8490	0.7509	0.3780	0.3729	0.0182	0.0224	0.0028
8.00	1.0000	-	0.1950	0.8567	0.7557	0.3778	0.3779	0.0185	0.0183	0.0026
9.00	1.0000	-	0.1950	0.8624	0.7597	0.3809	0.3788	0.0160	0.0177	0.0024
10.00	1.0000	-	0.1950	0.8794	0.7629	0.3817	0.3812	0.0156	0.0157	0.0023
11.00	1.0000	-	0.1950	0.8904	0.7693	0.3861	0.3832	0.0119	0.0143	0.0020
12.00	1.0000	-	0.1950	0.9016	0.7749	0.3881	0.3868	0.0102	0.0113	0.0018
13.00	1.0000	-	0.1950	0.9130	0.7781	0.3895	0.3886	0.0091	0.0098	0.0017
14.00	1.0000	-	0.1950	0.9246	0.7797	0.3900	0.3897	0.0087	0.0089	0.0016
15.00	1.0000	-	0.1950	0.9363	0.7805	0.3904	0.3901	0.0085	0.0086	0.0016
16.00	1.0000	-	0.1950	0.9483	0.7813	0.3908	0.3905	0.0082	0.0084	0.0015
17.00	1.0000	-	0.1950	0.9604	0.7813	0.3906	0.3907	0.0085	0.0083	0.0015
18.00	1.0000	-	0.1950	0.9726	0.7821	0.3913	0.3908	0.0079	0.0083	0.0014
19.00	1.0000	-	0.1950	0.9848	0.7853	0.3933	0.3920	0.0060	0.0073	0.0013
20.00	1.0000	-	0.1950	0.9870	0.7869	0.3935	0.3934	0.0059	0.0060	0.0013
21.00	1.0000	-	0.1950	0.9870	0.7885	0.3946	0.3939	0.0048	0.0055	0.0013
22.00	1.0000	-	0.1950	0.9870	0.7893	0.3947	0.3946	0.0047	0.0047	0.0013
23.00	1.0000	-	0.1950	0.9870	0.7901	0.3952	0.3949	0.0041	0.0045	0.0013
24.00	1.0000	-	0.1950	0.9870	0.7901	0.3949	0.3951	0.0044	0.0042	0.0013
25.00	1.0000	-	0.1950	0.9870	0.7909	0.3957	0.3952	0.0037	0.0042	0.0013
26.00	1.0000	-	0.1950	0.9870	0.7941	0.3977	0.3964	0.0017	0.0030	0.0013
27.00	1.0000	-	0.1950	0.9870	0.7941	0.3967	0.3974	0.0027	0.0020	0.0013
28.00	1.0000	-	0.1950	0.9870	0.7949	0.3978	0.3971	0.0016	0.0023	0.0013
29.00	1.0000	-	0.1950	0.9870	0.7957	0.3979	0.3978	0.0016	0.0016	0.0013
30.00	1.0000	-	0.1950	0.9870	0.7965	0.3984	0.3980	0.0010	0.0014	0.0013
31.00	1.0000	-	0.1950	0.9870	0.7973	0.3987	0.3985	0.0007	0.0009	0.0013
32.00	1.0000	-	0.1950	0.9870	0.7979	0.3990	0.3988	0.0004	0.0006	0.0013
33.00	1.0000	-	0.1950	0.9870	0.7983	0.3992	0.3991	0.0002	0.0003	0.0013
34.00	1.0000	-	0.1950	0.9870	0.7986	0.3994	0.3993	0.0001	0.0002	0.0013
35.00	1.0000	-	0.1950	0.9870	0.7989	0.3994	0.3994	-	-	0.0013

Column Notes:

- (1) is Written Premium by time period, expressed as a factor, = Table 2 col (3)
- (2) is Written Premium minus Earned Premium by time period, expressed as a factor, = Table 2 col (3) - Table 2 col (2)
- (3) is Expenses and Taxes by time period, expressed as a factor, = Table 1 row (1) x Table 2 col (4)
- (4) is calculated using a payout pattern derived from Best's 2016 Aggregates and Averages, Schedule P Table 1D, and a discount rate of 2.63%
- (5) is Paid Losses and LAE by time period, expressed as a factor, = Table 1 row (7, Static) x Table 2 col (5)
- (6) and (7) split the payments between the accident year coincident with the policy year ("AY1"), and the following accident year ("AY2"). Assuming that the payout pattern is linear between integer times, and that the average accident date for AY2 is two-thirds of a year later than the average accident date for AY1, columns (6) and (7) are determined by solving these two equations simultaneously:

$$\text{Col (6)} + \text{Col (7)} = \text{Col (5)}$$

$$\text{Col (7)} = (2/3) * \text{Col (6, previous row)} + (1/3) * \text{Col (6)}$$
 with Col (6, Time 1) = Col (5, Time 1) and Col (6, Time 35) = Col (7, Time 35)
- (8) is the discounted difference between AY1 Losses and LAE that will ultimately be paid, and the amount already paid,

$$= [\text{col (6, Time 35)} - (6)] * (4)$$
- (9) is the discounted difference between AY2 Losses and LAE that will ultimately be paid, and the amount already paid,

$$= [\text{col (7, Time 35)} - (7)] * \text{col (4, previous row)}$$
- (10) Per IRS rules, federal income tax equals the tax rate (21%) times the adjusted underwriting income

$$= 21\% * \{ (1) - 0.8 * (2) - [(3) + (5) + (8) + (9)] \}$$



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

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

Time	(1) Written Premium Factor	(2) Unearned Premium Factor	(3) Expense and Taxes Factor	(4) Discount Factor	(5) Paid Losses and LAE Factor	(6) AY1 Paid Losses and LAE Factor	(7) AY2 Paid Losses and LAE Factor	(8) Discounted AY1 Unpaid Losses & LAE Factor	(9) Discounted AY2 Unpaid Losses & LAE Factor	(10) Federal Income Tax Factor
0.00	-	-	-	-	-	-	-	-	-	-
1.00	1.0000	0.4668	0.1495	0.8919	0.1359	0.1359	-	0.2416	-	0.0209
2.00	1.0000	-	0.1950	0.8783	0.5084	0.3134	0.1950	0.0820	0.1888	0.0054
3.00	1.0000	-	0.1950	0.8685	0.6581	0.3369	0.3212	0.0607	0.0751	0.0023
4.00	1.0000	-	0.1950	0.8551	0.7069	0.3618	0.3452	0.0385	0.0535	0.0013
5.00	1.0000	-	0.1950	0.8501	0.7370	0.3719	0.3651	0.0296	0.0356	0.0006
6.00	1.0000	-	0.1950	0.8455	0.7509	0.3772	0.3737	0.0250	0.0281	0.0002
7.00	1.0000	-	0.1950	0.8490	0.7647	0.3849	0.3798	0.0185	0.0228	(0.0002)
8.00	1.0000	-	0.1950	0.8567	0.7696	0.3847	0.3848	0.0189	0.0186	(0.0004)
9.00	1.0000	-	0.1950	0.8624	0.7736	0.3879	0.3858	0.0163	0.0180	(0.0006)
10.00	1.0000	-	0.1950	0.8794	0.7769	0.3887	0.3882	0.0158	0.0160	(0.0008)
11.00	1.0000	-	0.1950	0.8904	0.7834	0.3932	0.3902	0.0121	0.0145	(0.0011)
12.00	1.0000	-	0.1950	0.9016	0.7891	0.3952	0.3939	0.0104	0.0115	(0.0012)
13.00	1.0000	-	0.1950	0.9130	0.7923	0.3966	0.3957	0.0092	0.0100	(0.0014)
14.00	1.0000	-	0.1950	0.9246	0.7940	0.3972	0.3968	0.0089	0.0091	(0.0015)
15.00	1.0000	-	0.1950	0.9363	0.7948	0.3975	0.3973	0.0086	0.0088	(0.0015)
16.00	1.0000	-	0.1950	0.9483	0.7956	0.3979	0.3977	0.0083	0.0085	(0.0016)
17.00	1.0000	-	0.1950	0.9604	0.7956	0.3977	0.3979	0.0087	0.0084	(0.0016)
18.00	1.0000	-	0.1950	0.9726	0.7964	0.3984	0.3980	0.0081	0.0084	(0.0017)
19.00	1.0000	-	0.1950	0.9848	0.7997	0.4005	0.3991	0.0061	0.0074	(0.0017)
20.00	1.0000	-	0.1950	0.9870	0.8013	0.4007	0.4006	0.0060	0.0061	(0.0017)
21.00	1.0000	-	0.1950	0.9870	0.8029	0.4018	0.4011	0.0048	0.0056	(0.0018)
22.00	1.0000	-	0.1950	0.9870	0.8037	0.4019	0.4019	0.0048	0.0048	(0.0018)
23.00	1.0000	-	0.1950	0.9870	0.8045	0.4025	0.4021	0.0042	0.0046	(0.0018)
24.00	1.0000	-	0.1950	0.9870	0.8045	0.4022	0.4024	0.0045	0.0043	(0.0018)
25.00	1.0000	-	0.1950	0.9870	0.8054	0.4029	0.4024	0.0038	0.0043	(0.0018)
26.00	1.0000	-	0.1950	0.9870	0.8086	0.4050	0.4036	0.0017	0.0031	(0.0018)
27.00	1.0000	-	0.1950	0.9870	0.8086	0.4040	0.4047	0.0027	0.0021	(0.0018)
28.00	1.0000	-	0.1950	0.9870	0.8094	0.4051	0.4043	0.0016	0.0024	(0.0018)
29.00	1.0000	-	0.1950	0.9870	0.8102	0.4051	0.4051	0.0016	0.0016	(0.0018)
30.00	1.0000	-	0.1950	0.9870	0.8111	0.4057	0.4053	0.0010	0.0014	(0.0018)
31.00	1.0000	-	0.1950	0.9870	0.8119	0.4060	0.4058	0.0007	0.0009	(0.0018)
32.00	1.0000	-	0.1950	0.9870	0.8125	0.4063	0.4061	0.0004	0.0006	(0.0018)
33.00	1.0000	-	0.1950	0.9870	0.8129	0.4065	0.4064	0.0002	0.0003	(0.0018)
34.00	1.0000	-	0.1950	0.9870	0.8132	0.4067	0.4066	0.0001	0.0002	(0.0018)
35.00	1.0000	-	0.1950	0.9870	0.8135	0.4067	0.4067	-	-	(0.0018)

Column Notes:

- (1) is Written Premium by time period, expressed as a factor, = Table 2 col (3)
- (2) is Written Premium minus Earned Premium by time period, expressed as a factor, = Table 2 col (3) - Table 2 col (2)
- (3) is Expenses and Taxes by time period, expressed as a factor, = Table 1 row (1) x Table 2 col (4)
- (4) is calculated using a payout pattern derived from Best's 2016 Aggregates and Averages, Schedule P Table 1D, and a discount rate of 2.63%
- (5) is Paid Losses and LAE by time period, expressed as a factor, = Table 1 row (7, Dynamic) x Table 2 col (5)
- (6) and (7) split the payments between the accident year coincident with the policy year ("AY1"), and the following accident year ("AY2"). Assuming that the payout pattern is linear between integer times, and that the average accident date for AY2 is two-thirds of a year later than the average accident date for AY1, columns (6) and (7) are determined by solving these two equations simultaneously:

$$\text{Col (6)} + \text{Col (7)} = \text{Col (5)}$$

$$\text{Col (7)} = (2/3) * \text{Col (6, previous row)} + (1/3) * \text{Col (6)}$$
with Col (6, Time 1) = Col (5, Time 1) and Col (6, Time 35) = Col (7, Time 35)
- (8) is the discounted difference between AY1 Losses and LAE that will ultimately be paid, and the amount already paid,

$$= [\text{col (6, Time 35)} - (6)] * (4)$$
- (9) is the discounted difference between AY2 Losses and LAE that will ultimately be paid, and the amount already paid,

$$= [\text{col (7, Time 35)} - (7)] * (4)$$
- (10) Per IRS rules, federal income tax equals the tax rate (21%) times the adjusted underwriting income

$$= 21\% * \{ (1) - 0.8 * (2) - [(3) + (5) + (8) + (9)] \}$$



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APPENDIX C: RESERVE-TO-SURPLUS RATIO

in 000's

	(1)	(2)	(3)	(4)	(5)	(6)
Year End	Unpaid Losses	Unpaid Loss Adjustment Expense	Unearned Premium	Policyholder Surplus	Ratio excl. Unearned Premium $\{(1)+(2)\} / (4)$	Ratio incl. Unearned Premium $\{(1)+(2) + (3)\} / (4)$
2016	186,424,236	41,741,053	72,716,997	169,831,305	1.34	1.77
2015	185,919,427	42,816,231	73,469,477	169,017,203	1.35	1.79
2014	214,239,981	48,564,685	83,674,315	192,947,461	1.36	1.80
2013	215,275,673	47,841,227	81,229,642	182,832,920	1.44	1.88
2012	212,275,479	46,533,070	75,723,720	174,892,306	1.48	1.91
2012 - 2016	1,014,134,796	227,496,266	386,814,151	889,521,195	1.40	1.83

Selected Ratio including Unearned Premium: 1.83

Source: Columns (1) - (4) for the latest year are taken from Liabilities, Surplus and Other Funds on page 277 in Best's 2017 Aggregates & Averages, for Commercial Casualty Composite.



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EXHIBIT II

Section J - Table of Premium Discounts

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

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



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EXHIBIT II

Section K - Average Expense Provisions

Reproduced below are the graduated expense provisions by policy size.

Gradation of Standard Premium

Division of Premium		Expense Gradations		
		Production*	General	Discounts
First	\$10,000	18.5%	5.0%	---
Next	\$190,000	11.0%	4.0%	9.1%
Next	\$1,550,000	9.5%	3.4%	11.3%
Over	\$ 1,750,000	9.5%	2.5%	12.3%
Proposed Average:		11.7%	3.7%	
Proposed Average Expense Gradation: (Expense for 1st \$10,000 - Avg Expense)		6.8%	1.3%	

Average Premium Discount:

$$[Avg\ Exp\ Grad] / [1 - Taxes - P\&C] = [6.8\% + 1.3\%] / [1 - 1.8\% - .0\%] = 8.2\%$$

Composition of Standard Premium:

Benefit & Loss Adj. Cost	Production (18.5%)	General (5.0%)	Profit (.0%)	Taxes (1.8%)			
74.7%	11.7%	3.7%	0.0%	1.7%	} Premium -- After Discounts (91.8%)	} Standard Premium -- Excluding Expense Constant (100.0%)	
	6.8%	1.3%	0.0%	0.1%			
	0.5%	0.4%	0.0%	0.0%	} -- Discount (8.2%)		
					} -- Premium from \$160 expense constant. (.8% = 1/0.992 - 1)^		

Notes

* The production expense gradations shown are based on Type A gradations.

^ The 0.992 offset is for the \$160 expense constant.



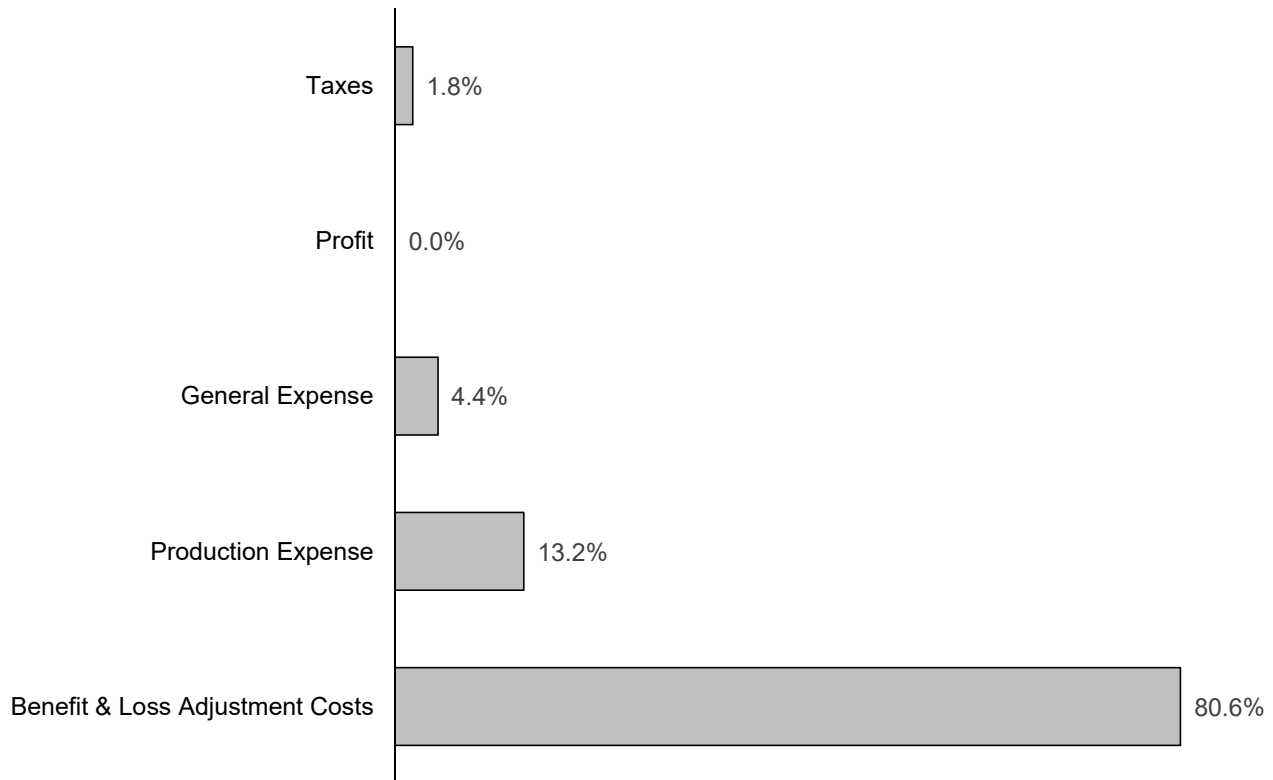
INDIANA

EXHIBIT II

Section L - Indiana Expense Provisions as a Percentage of Net Premium at NCCI Level

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

Components of Premium



Notes

Benefit & Loss Adjustment Costs	80.6% = (74.7%) / 92.7%
Production Expense	13.2% = (11.7% + 0.5%) / 92.7%
General Expense	4.4% = (3.7% + 0.4%) / 92.7%
Profit	0.0% = (0.0% + 0.0%) / 92.7%
Taxes	<u>1.8%</u> = (1.7% + 0.0%) / 92.7%
Total	100.0%



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Appendix A – Factors Underlying the Proposed Rate Level Change

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

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

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

- Adjustment for Expense Constant Removal: This factor removes premium collected via the charged expense constant.
- Adjustment for Expense Removal: This factor is applied to remove expenses from the reported assigned risk and voluntary DSR level premium totals—serving to make the separate market premiums more comparable.
- Experience Rating Off-Balance Adjustment Factor: This factor reflects the relative difference between the average experience rating modification for the historical year being on-leveled and the average experience rating modification targeted in the filing.

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

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



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APPENDIX A-I

Determination of Policy Year On-level Factors

Section A - Factor Adjusting 2016 Policy Year Assigned Risk Premium to Present Assigned Risk Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rate Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Constant Removal @	Adj. For Expense Removal	Premium Adjustment Factor (5)x(6)x(7)
Date								
NR 01/01/16	Base	1.000	1.000	1.000	0.791	0.984	0.627	0.488
NR 01/01/17	0.907	0.907						
NR 01/01/18	0.872	0.791						
				1.000				

Section B - Factor Adjusting 2016 Policy Year Voluntary Premium to Present Voluntary Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rate Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Constant Removal @	Adj. For Expense Removal	Premium Adjustment Factor (5)x(6)x(7)
Date								
NR 01/01/16	Base	1.000	1.000	1.000	0.791	0.984	0.627	0.488
NR 01/01/17	0.907	0.907						
NR 01/01/18	0.872	0.791						
				1.000				

Section C - Factor Adjusting 2016 Policy Year Assigned Risk Premium and Voluntary Premium to Present Statewide Level

(1) Assigned Risk Market Share PY 2016	0.074
(2) Voluntary Market Share PY 2016	0.926
(3) Assigned Risk Standard Premium Adjustment Factor (See Sec. A)	0.488
(4) Voluntary Standard Premium Adjustment Factor (See Sec. B)	0.488
(5) Premium Adjustment Factor = [(1)x(3)]/1.172+(2)x(4) #	0.483
(6) Experience Rating Off-balance Adjustment Factor*	1.008
(7) Final Premium Adjustment Factor = (5)x(6)	0.487

NR New and renewal business.

@ Eliminates premium derived from expense constants.

Current premium index (assigned risk-to-voluntary) = 1.172

* = 1.008 = 0.961 / 0.953 = (Targeted Off-balance) / (Off-balance for Policy Year 2016)



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APPENDIX A-I

Determination of Policy Year On-level Factors

Section D - Factor Adjusting 2016 Policy Year Indemnity Losses to Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
01/01/16	Base	1.000	0.177	0.177	1.007
07/01/16	1.041	1.041	0.178	0.185	
10/01/16	1.000	1.041	0.232	0.242	
01/01/17	1.000	1.041	0.413	0.430	
				1.034	

Section E - Factor Adjusting 2016 Policy Year Medical Losses to Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
01/01/16	Base	1.000	0.177	0.177	1.005
07/01/16	1.000	1.000	0.178	0.178	
10/01/16	1.002	1.002	0.232	0.232	
01/01/17	1.006	1.008	0.413	0.416	
				1.003	



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APPENDIX A-I

Determination of Policy Year On-level Factors

Section F - Factor Adjusting 2015 Policy Year Assigned Risk Premium to Present Assigned Risk Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rate Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Constant Removal @	Adj. For Expense Removal	Premium Adjustment Factor (5)x(6)x(7)
Date								
NR 01/01/15	Base	1.000	1.000	1.000	0.811	0.974	0.627	0.495
NR 01/01/16	1.025	1.025						
NR 01/01/17	0.907	0.930						
NR 01/01/18	0.872	0.811						
				1.000				

Section G - Factor Adjusting 2015 Policy Year Voluntary Premium to Present Voluntary Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rate Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Constant Removal @	Adj. For Expense Removal	Premium Adjustment Factor (5)x(6)x(7)
Date								
NR 01/01/15	Base	1.000	1.000	1.000	0.811	0.974	0.627	0.495
NR 01/01/16	1.025	1.025						
NR 01/01/17	0.907	0.930						
NR 01/01/18	0.872	0.811						
				1.000				

Section H - Factor Adjusting 2015 Policy Year Assigned Risk Premium and Voluntary Premium to Present Statewide Level

(1) Assigned Risk Market Share PY 2015	0.083
(2) Voluntary Market Share PY 2015	0.917
(3) Assigned Risk Standard Premium Adjustment Factor (See Sec. F)	0.495
(4) Voluntary Standard Premium Adjustment Factor (See Sec. G)	0.495
(5) Premium Adjustment Factor = [(1)x(3)]/1.172+(2)x(4) #	0.489
(6) Experience Rating Off-balance Adjustment Factor*	1.008
(7) Final Premium Adjustment Factor = (5)x(6)	0.493

NR New and renewal business.

@ Eliminates premium derived from expense constants.

Current premium index (assigned risk-to-voluntary) = 1.172

* = 1.008 = 0.961 / 0.953 = (Targeted Off-balance) / (Off-balance for Policy Year 2015)



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APPENDIX A-I

Determination of Policy Year On-level Factors

Section I - 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)
01/01/15	Base	1.000	0.177	0.177	1.044
07/01/15	1.043	1.043	0.409	0.427	
01/01/16	1.000	1.043	0.324	0.338	
07/01/16	1.041	1.086	0.072	0.078	
10/01/16	1.000	1.086	0.018	0.020	
01/01/17	1.000	1.086			
				1.040	

Section J - 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)
01/01/15	Base	1.000	0.177	0.177	1.009
07/01/15	1.000	1.000	0.409	0.409	
01/01/16	1.002	1.002	0.324	0.325	
07/01/16	1.000	1.002	0.072	0.072	
10/01/16	1.002	1.004	0.018	0.018	
01/01/17	1.006	1.010			
				1.001	



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Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Appendix A – Factors Underlying the Proposed Rate Level Change

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

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

Limited Large Loss Methodology

In order to limit volatility on the advisory rate indications due to the impact of extraordinary large losses, a limited large loss methodology is used in Indiana. 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 \$8,580,309, based on the volume of premium in policy years 2014 and 2015 underlying the currently approved filing that utilizes data valued as of 12/31/2016. 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 Indiana 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 L.

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 0.3%, as shown in Appendix A-II Section K.

Development Factors

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

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

For indemnity and medical loss development past the 19th report, a “tail” factor is used to reflect all future expected emergence. The calculation of indemnity and medical paid + case 19th-to-ultimate tail factors utilize all available experience for the years prior to the tail attachment point. Tail factors are calculated for the most recent ten available policy years, each relying on losses



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Appendix A – Factors Underlying the Proposed Rate Level Change

in older policy years as well as a factor to adjust for the differences in the volume of losses between the policy years. Tail factors are calculated separately for indemnity and medical losses by comparing the changes in the volume of policy year losses that occur on policy years reported after a nineteenth report to the volume of policy year losses at the nineteenth report, along with the application of a growth adjustment factor.

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



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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 12/31/2017

Policy Year 2016

(1) Standard Earned Premium	\$800,143,862
(2) Factor to Develop Premium to Ultimate	1.007
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$805,744,869
(4) Limited Indemnity Paid Losses	\$48,042,814
(5) Limited Indemnity Paid Development Factor to Ultimate	2.329
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$111,891,714
(7) Limited Indemnity Paid+Case Losses	\$92,230,118
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.207
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$111,321,752
(10) Policy Year 2016 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$111,606,733
(11) Limited Medical Paid Losses	\$196,521,457
(12) Limited Medical Paid Development Factor to Ultimate	1.364
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$268,055,267
(14) Limited Medical Paid+Case Losses	\$282,867,556
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.018
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$287,959,172
(17) Policy Year 2016 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$278,007,220

Policy Year 2015

(1) Standard Earned Premium	\$762,358,796
(2) Factor to Develop Premium to Ultimate	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$762,358,796
(4) Limited Indemnity Paid Losses	\$74,916,562
(5) Limited Indemnity Paid Development Factor to Ultimate	1.488
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$111,475,844
(7) Limited Indemnity Paid+Case Losses	\$100,762,829
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.078
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$108,622,330
(10) Policy Year 2015 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$110,049,087
(11) Limited Medical Paid Losses	\$237,921,711
(12) Limited Medical Paid Development Factor to Ultimate	1.130
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$268,851,533
(14) Limited Medical Paid+Case Losses	\$274,379,246
(15) Limited Medical Paid+Case Development Factor to Ultimate	0.996
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$273,281,729
(17) Policy Year 2015 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$271,066,631



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section B - Premium Development Factors

<u>Policy Year</u>	<u>1st/2nd</u>	<u>Policy Year</u>	<u>2nd/3rd</u>	<u>Policy Year</u>	<u>3rd/4th</u>	<u>Policy Year</u>	<u>4th/5th</u>
2013	1.009	2012	1.000	2011	1.000	2010	1.001
2014	1.012	2013	1.001	2012	1.000	2011	1.000
2015	1.001	2014	0.999	2013	1.000	2012	1.000
Average	1.007	Average	1.000	Average	1.000	Average	1.000

Summary of Premium Development Factors

<u>1st/5th</u>	<u>2nd/5th</u>	<u>3rd/5th</u>	<u>4th/5th</u>
1.007	1.000	1.000	1.000



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section C - Limited Indemnity Paid Loss Development Factors

<u>Policy Year</u>	<u>1st/2nd</u>	<u>Policy Year</u>	<u>2nd/3rd</u>	<u>Policy Year</u>	<u>3rd/4th</u>	<u>Policy Year</u>	<u>4th/5th</u>
2014	1.554	2013	1.188	2012	1.109	2011	1.048
2015	1.576	2014	1.174	2013	1.122	2012	1.049
Average	1.565	Average	1.181	Average	1.116	Average	1.049
<u>Policy Year</u>	<u>5th/6th</u>	<u>Policy Year</u>	<u>6th/7th</u>	<u>Policy Year</u>	<u>7th/8th</u>	<u>Policy Year</u>	<u>8th/9th</u>
2010	1.029	2009	1.012	2008	1.011	2007	1.006
2011	1.026	2010	1.014	2009	1.010	2008	1.008
Average	1.028	Average	1.013	Average	1.011	Average	1.007
<u>Policy Year</u>	<u>9th/10th</u>	<u>Policy Year</u>	<u>10th/11th</u>	<u>Policy Year</u>	<u>11th/12th</u>	<u>Policy Year</u>	<u>12th/13th</u>
2006	1.002	2005	1.001	2004	1.001	2003	1.000
2007	1.005	2006	1.002	2005	1.003	2004	1.000
Average	1.004	Average	1.002	Average	1.002	Average	1.000
<u>Policy Year</u>	<u>13th/14th</u>	<u>Policy Year</u>	<u>14th/15th</u>	<u>Policy Year</u>	<u>15th/16th</u>	<u>Policy Year</u>	<u>16th/17th</u>
2002	1.000	2001	0.999	2000	1.000	1999	1.001
2003	1.003	2002	1.000	2001	0.999	2000	1.000
Average	1.002	Average	1.000	Average	1.000	Average	1.001
<u>Policy Year</u>	<u>17th/18th</u>	<u>Policy Year</u>	<u>18th/19th</u>				
1998	1.000	1997	1.001				
1999	1.001	1998	1.000				
Average	1.001	Average	1.001				



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section D - Limited Medical Paid Loss Development Factors

<u>Policy Year</u>	<u>1st/2nd</u>	<u>Policy Year</u>	<u>2nd/3rd</u>	<u>Policy Year</u>	<u>3rd/4th</u>	<u>Policy Year</u>	<u>4th/5th</u>
2014	1.192	2013	1.040	2012	1.015	2011	1.008
2015	1.221	2014	1.039	2013	1.019	2012	1.008
Average	1.207	Average	1.040	Average	1.017	Average	1.008
<u>Policy Year</u>	<u>5th/6th</u>	<u>Policy Year</u>	<u>6th/7th</u>	<u>Policy Year</u>	<u>7th/8th</u>	<u>Policy Year</u>	<u>8th/9th</u>
2010	1.009	2009	1.004	2008	1.002	2007	1.003
2011	1.016	2010	1.003	2009	1.003	2008	1.003
Average	1.013	Average	1.004	Average	1.003	Average	1.003
<u>Policy Year</u>	<u>9th/10th</u>	<u>Policy Year</u>	<u>10th/11th</u>	<u>Policy Year</u>	<u>11th/12th</u>	<u>Policy Year</u>	<u>12th/13th</u>
2006	1.007	2005	1.004	2004	1.003	2003	1.002
2007	1.005	2006	1.002	2005	1.001	2004	1.002
Average	1.006	Average	1.003	Average	1.002	Average	1.002
<u>Policy Year</u>	<u>13th/14th</u>	<u>Policy Year</u>	<u>14th/15th</u>	<u>Policy Year</u>	<u>15th/16th</u>	<u>Policy Year</u>	<u>16th/17th</u>
2002	1.000	2001	1.003	2000	1.000	1999	1.000
2003	1.003	2002	1.000	2001	1.002	2000	1.001
Average	1.002	Average	1.002	Average	1.001	Average	1.001
<u>Policy Year</u>	<u>17th/18th</u>	<u>Policy Year</u>	<u>18th/19th</u>				
1998	1.003	1997	1.002				
1999	1.000	1998	1.003				
Average	1.002	Average	1.003				



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section E - Limited Indemnity Paid + Case Loss Development Factors

Policy Year	<u>1st/2nd</u>	Policy Year	<u>2nd/3rd</u>	Policy Year	<u>3rd/4th</u>	Policy Year	<u>4th/5th</u>
2011	1.141	2010	1.048	2009	1.017	2008	1.011
2012	1.132	2011	1.038	2010	1.013	2009	1.001
2013	1.127	2012	1.072	2011	1.028	2010	1.008
2014	1.082	2013	1.057	2012	1.029	2011	1.001
2015	1.116	2014	1.019	2013	1.025	2012	1.000
Average	1.120	Average	1.047	Average	1.022	Average	1.004
Policy Year	<u>5th/6th</u>	Policy Year	<u>6th/7th</u>	Policy Year	<u>7th/8th</u>	Policy Year	<u>8th/9th</u>
2007	0.997	2006	0.997	2005	0.999	2004	0.998
2008	0.989	2007	1.007	2006	1.001	2005	1.000
2009	0.999	2008	0.999	2007	0.999	2006	0.999
2010	1.004	2009	1.004	2008	1.000	2007	1.002
2011	1.001	2010	1.003	2009	1.003	2008	1.002
Average	0.998	Average	1.002	Average	1.000	Average	1.000
Policy Year	<u>9th/10th</u>	Policy Year	<u>10th/11th</u>	Policy Year	<u>11th/12th</u>	Policy Year	<u>12th/13th</u>
2003	1.004	2002	1.001	2001	0.999	2000	0.999
2004	0.999	2003	1.002	2002	1.001	2001	0.998
2005	1.003	2004	1.000	2003	1.000	2002	1.000
2006	1.000	2005	1.002	2004	1.001	2003	1.000
2007	1.000	2006	1.000	2005	1.000	2004	1.000
Average	1.001	Average	1.001	Average	1.000	Average	0.999
Policy Year	<u>13th/14th</u>	Policy Year	<u>14th/15th</u>	Policy Year	<u>15th/16th</u>	Policy Year	<u>16th/17th</u>
1999	1.000	1998	1.000	1997	1.000	1996	1.000
2000	1.000	1999	1.000	1998	1.000	1997	1.000
2001	1.000	2000	1.000	1999	1.000	1998	1.000
2002	1.001	2001	0.999	2000	1.000	1999	1.001
2003	0.999	2002	0.999	2001	0.999	2000	1.000
Average	1.000	Average	1.000	Average	1.000	Average	1.000
Policy Year	<u>17th/18th</u>	Policy Year	<u>18th/19th</u>				
1995	1.000	1994	1.000				
1996	0.999	1995	1.000				
1997	1.000	1996	1.004				
1998	1.000	1997	1.000				
1999	1.000	1998	1.000				
Average	1.000	Average	1.001				



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section F - Limited Medical Paid + Case Loss Development Factors

<u>Policy Year</u>	<u>1st/2nd</u>	<u>Policy Year</u>	<u>2nd/3rd</u>	<u>Policy Year</u>	<u>3rd/4th</u>	<u>Policy Year</u>	<u>4th/5th</u>
2011	1.075	2010	1.007	2009	0.989	2008	1.003
2012	1.043	2011	0.991	2010	1.004	2009	0.999
2013	1.002	2012	0.989	2011	0.998	2010	0.995
2014	0.988	2013	0.998	2012	0.983	2011	0.996
2015	1.003	2014	0.992	2013	0.988	2012	0.998
Average	1.022	Average	0.995	Average	0.992	Average	0.998
<u>Policy Year</u>	<u>5th/6th</u>	<u>Policy Year</u>	<u>6th/7th</u>	<u>Policy Year</u>	<u>7th/8th</u>	<u>Policy Year</u>	<u>8th/9th</u>
2007	0.997	2006	1.002	2005	0.998	2004	1.000
2008	0.993	2007	1.005	2006	0.996	2005	0.999
2009	1.001	2008	0.996	2007	1.006	2006	1.006
2010	1.000	2009	1.003	2008	0.999	2007	1.002
2011	1.015	2010	0.996	2009	1.001	2008	0.998
Average	1.001	Average	1.000	Average	1.000	Average	1.001
<u>Policy Year</u>	<u>9th/10th</u>	<u>Policy Year</u>	<u>10th/11th</u>	<u>Policy Year</u>	<u>11th/12th</u>	<u>Policy Year</u>	<u>12th/13th</u>
2003	1.000	2002	1.001	2001	0.998	2000	1.001
2004	1.000	2003	0.999	2002	1.001	2001	1.004
2005	0.999	2004	1.004	2003	1.004	2002	0.999
2006	1.002	2005	1.002	2004	1.004	2003	1.012
2007	1.000	2006	1.002	2005	0.996	2004	1.001
Average	1.000	Average	1.002	Average	1.001	Average	1.003
<u>Policy Year</u>	<u>13th/14th</u>	<u>Policy Year</u>	<u>14th/15th</u>	<u>Policy Year</u>	<u>15th/16th</u>	<u>Policy Year</u>	<u>16th/17th</u>
1999	0.999	1998	1.015	1997	0.998	1996	1.000
2000	1.001	1999	1.000	1998	0.999	1997	1.000
2001	1.004	2000	1.000	1999	1.000	1998	0.999
2002	0.999	2001	0.996	2000	0.999	1999	1.000
2003	0.994	2002	1.002	2001	0.999	2000	1.000
Average	0.999	Average	1.003	Average	0.999	Average	1.000
<u>Policy Year</u>	<u>17th/18th</u>	<u>Policy Year</u>	<u>18th/19th</u>				
1995	1.000	1994	1.000				
1996	0.999	1995	1.001				
1997	1.001	1996	1.002				
1998	1.003	1997	1.000				
1999	0.999	1998	0.994				
Average	1.000	Average	0.999				



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

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

Indemnity Paid+Case Data for Matching Companies

(1) Policy Year	(2) <u>Losses for Policy Year</u> 19th Report	(3) <u>Losses for Policy Year</u> 20th Report	(4) <u>Losses for All Prior Policy Years</u> Previous	(5) <u>Losses for All Prior Policy Years</u> Current	(6) Factor to Adjust Losses for Prior Policy Years	(7) Indicated 19th-to-Ult Development for Policy Year
1988	105,457,172	105,471,494	835,817,080	835,693,390	0.473	0.998
1989	116,058,644	116,061,522	936,621,902	936,438,493	0.475	0.997
1990	115,887,595	115,864,234	1,031,922,300	1,032,118,894	0.529	1.003
1991	111,694,592	111,685,133	1,147,983,128	1,148,551,878	0.619	1.008
1992	95,588,037	95,755,950	1,259,952,491	1,260,377,855	0.801	1.007
1993	93,024,429	93,021,427	1,356,158,382	1,356,576,490	0.886	1.005
1994	86,763,019	86,774,518	1,440,762,911	1,440,900,984	0.999	1.002
1995	81,745,960	81,776,925	1,525,011,995	1,525,700,495	1.112	1.008
1996	80,089,797	80,458,308	1,606,212,584	1,606,074,544	1.162	1.003
1997	86,111,470	86,111,471	1,686,532,852	1,686,615,417	1.100	1.001

Selected Indemnity 19th-to-Ultimate Loss Development Factor 1.003

Medical Paid+Case Data for Matching Companies

(8) Policy Year	(9) <u>Losses for Policy Year</u> 19th Report	(10) <u>Losses for Policy Year</u> 20th Report	(11) <u>Losses for All Prior Policy Years</u> Previous	(12) <u>Losses for All Prior Policy Years</u> Current	(13) Factor to Adjust Losses for Prior Policy Years	(14) Indicated 19th-to-Ult Development for Policy Year
1988	147,389,533	147,521,043	883,349,424	883,915,585	0.465	1.009
1989	164,417,397	164,376,250	1,025,806,893	1,025,502,698	0.463	0.996
1990	186,637,360	187,253,894	1,165,296,134	1,168,337,713	0.462	1.039
1991	184,721,640	184,680,004	1,355,591,607	1,352,468,853	0.546	0.969
1992	182,351,703	181,469,369	1,537,080,009	1,534,434,935	0.627	0.972
1993	173,839,979	173,669,517	1,715,882,236	1,714,325,706	0.733	0.987
1994	178,598,308	178,555,296	1,876,593,330	1,876,889,821	0.773	1.002
1995	169,217,843	169,232,774	2,051,923,751	2,055,827,297	0.878	1.026
1996	168,697,175	168,797,115	2,224,531,435	2,229,946,456	0.934	1.035
1997	170,606,030	170,611,714	2,398,743,571	2,399,643,464	0.969	1.005

Selected Medical 19th-to-Ultimate Loss Development Factor 1.004

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

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

Columns (4) and (11) are valued as of the date at which the given policy year is at a 19th report.

Columns (5) and (12) are valued as of the date at which the given policy year is at a 20th report.



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

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

Policy Year	Indemnity Paid-to-Paid + Case Ratio 19th Report	Medical Paid-to-Paid + Case Ratio 19th Report
1994	1.000	0.983
1995	0.999	0.987
1996	1.000	0.996
1997	0.995	0.985
1998	1.000	0.999
Average	0.999	0.990

	Indemnity	Medical
(1) Paid+Case 19th-to-Ultimate Loss Development Factor (Section G)	1.003	1.004
(2) Factor to Adjust 19th-to-Ultimate Development Factor to a Limited Basis	0.782	0.782
(3) Limited Paid+Case 19th-to-Ultimate Loss Development Factor = [(1)-1]x(2)+1	1.002	1.003
(4) Limited Paid-to-Paid+Case Ratio (Section H)	0.999	0.990
(5) Limited Paid 19th-to-Ultimate Loss Development Factor = (3) / (4)	1.003	1.013

Section I - Summary of Limited Paid Loss Development Factors

(1) Indemnity Paid Loss Development			(3) Medical Paid Loss Development		
Report	to Next Report	to Ultimate	Report	to Next Report	to Ultimate
1st	1.565	2.329	1st	1.207	1.364
2nd	1.181	1.488	2nd	1.040	1.130
3rd	1.116	1.260	3rd	1.017	1.087
4th	1.049	1.129	4th	1.008	1.069
5th	1.028	1.076	5th	1.013	1.061
6th	1.013	1.047	6th	1.004	1.047
7th	1.011	1.034	7th	1.003	1.043
8th	1.007	1.023	8th	1.003	1.040
9th	1.004	1.016	9th	1.006	1.037
10th	1.002	1.012	10th	1.003	1.031
11th	1.002	1.010	11th	1.002	1.028
12th	1.000	1.008	12th	1.002	1.026
13th	1.002	1.008	13th	1.002	1.024
14th	1.000	1.006	14th	1.002	1.022
15th	1.000	1.006	15th	1.001	1.020
16th	1.001	1.006	16th	1.001	1.019
17th	1.001	1.005	17th	1.002	1.018
18th	1.001	1.004	18th	1.003	1.016
19th	1.003	Section H	19th	1.013	Section H

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



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

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

	(1)	(2)
	<u>Indemnity Paid+Case Loss Development</u>	<u>to Ultimate</u>
Report	<u>to Next Report</u>	<u>to Ultimate</u>
1st	1.120	1.207
2nd	1.047	1.078
3rd	1.022	1.030
4th	1.004	1.008
5th	0.998	1.004
6th	1.002	1.006
7th	1.000	1.004
8th	1.000	1.004
9th	1.001	1.004
10th	1.001	1.003
11th	1.000	1.002
12th	0.999	1.002
13th	1.000	1.003
14th	1.000	1.003
15th	1.000	1.003
16th	1.000	1.003
17th	1.000	1.003
18th	1.001	1.003
19th		1.002

Section H

	(3)	(4)
	<u>Medical Paid+Case Loss Development</u>	<u>to Ultimate</u>
Report	<u>to Next Report</u>	<u>to Ultimate</u>
1st	1.022	1.018
2nd	0.995	0.996
3rd	0.992	1.001
4th	0.998	1.009
5th	1.001	1.011
6th	1.000	1.010
7th	1.000	1.010
8th	1.001	1.010
9th	1.000	1.009
10th	1.002	1.009
11th	1.001	1.007
12th	1.003	1.006
13th	0.999	1.003
14th	1.003	1.004
15th	0.999	1.001
16th	1.000	1.002
17th	1.000	1.002
18th	0.999	1.002
19th		1.003

Section H

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

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



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

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

(1) Threshold at the Midpoint of the Loss Cost Effective Period*	8,580,309
(2) Statewide Excess Ratio for (1)	0.003
(3) Market Share for Carriers Missing from Large Loss and Catastrophe Call	0.000
(4) Factor to Adjust Limited Losses to an Unlimited Basis = $1.0 / \{1.0 - [(2) \times (1.0 - (3))]\}$	1.003

Section L - Policy Year Large Loss Limits

Experience Year	Policy Year Detrended Limit
2016	7,587,874
2015	7,451,212
2014	7,270,669
2013	7,085,091
2012	6,976,376
2011	6,837,759
2010	6,657,993
2009	6,475,650
2008	6,432,880
2007	6,368,256
2006	6,208,460
2005	6,028,265
2004	5,877,739
2003	5,695,745
2002	5,519,757
2001	5,382,923
2000	5,257,587
1999	5,110,501
1998	4,950,013

* November 30, 2019 is the midpoint of the effective period for which the revised loss costs are being proposed.



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Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Appendix A – Factors Underlying the Proposed Rate 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 limited 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 Indiana. 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 2009 through 2016 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 rates to each of the policy years in the experience period. The average accident dates are based on an Indiana distribution of policy writings by month and assume a uniform probability of loss over the coverage period.



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APPENDIX A-III

Policy Year Trend Factors

Section A - Summary of Policy Year Data

(1)	(2)	(3)	(4)	(5)	(6)
Policy Year	Lost-Time Claim Frequency*	Indemnity		Medical	
		Avg Cost Per Case**	Loss Ratio^	Avg Cost Per Case**	Loss Ratio^
2009	26.402	15,240	0.402	34,156	0.902
2010	26.605	15,867	0.423	35,326	0.941
2011	24.977	15,462	0.386	36,086	0.900
2012	23.543	15,580	0.367	36,886	0.868
2013	23.847	15,554	0.371	37,412	0.892
2014	22.156	14,145	0.313	33,885	0.751
2015	21.014	14,560	0.306	34,650	0.728
2016	19.799	14,466	0.286	35,963	0.712

* Figures have been adjusted to the common wage level.

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

Section B - Summary of Annual Trend Factors

	<u>Indemnity</u>	<u>Medical</u>
(1) Current Approved Annual Loss Ratio Trend Factor	0.960	0.995
(2) Selected Annual Loss Ratio Trend Factor	0.960	0.985
(3) Length of Trend Period from Midpoint of Policy Year to Midpoint of Effective Period:		
	<u>Years</u>	
Policy Year 2015	4.001	
Policy Year 2016	3.001	
(4) Trend Factor Applied to Experience Year = (2) ^ (3)	<u>Indemnity</u>	<u>Medical</u>
Policy Year 2015	0.849	0.941
Policy Year 2016	0.885	0.956



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APPENDIX A-IV

Derivation of Industry Group Differentials

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

I. Expected Losses

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

Industry Group	(1) Latest Year Current Expected Losses Prior to Adjustment for Change in Off-Balance	(2) Five Year Current Expected Losses Prior to Adjustment for Change in Off-Balance	(3) Five Year Proposed Expected Losses Prior to Adjustment for Change in Off-Balance	(4) Current Ratio of Manual to Standard Premium	(5) Proposed Ratio of Manual to Standard Premium
Manufacturing	204,067,738	908,668,527	856,357,067	1.112	1.120
Contracting	113,813,617	519,348,273	490,328,661	1.137	1.136
Office & Clerical	69,820,520	322,330,637	303,727,268	1.098	1.113
Goods & Services	233,644,932	1,046,829,680	986,143,107	1.034	1.049
Miscellaneous	126,614,492	593,442,977	560,746,824	1.056	1.065
Statewide	747,961,299	3,390,620,094	3,197,302,927		

Industry Group	(6) Latest Year Current Expected Losses Adjusted for Change in Off-Balance (1)x(4)/(5)	(7) Five Year Current Expected Losses Adjusted for Change in Off-Balance (2)x(4)/(5)	(8) Five Year Proposed Expected Losses Adjusted for Change in Off-Balance (3)x(4)/(5)	(9) Current/ Proposed (7)/(8)	(10) Adjustment to Proposed for Current Relativity (9)IG/(9)SW
Manufacturing	202,610,111	902,178,038	850,240,231	1.061	1.001
Contracting	113,913,805	519,805,446	490,760,288	1.059	0.999
Office & Clerical	68,879,543	317,986,558	299,633,908	1.061	1.001
Goods & Services	230,303,966	1,031,860,714	972,041,919	1.062	1.002
Miscellaneous	125,544,510	588,427,966	556,008,119	1.058	0.998
Statewide	741,251,935	3,360,258,722	3,168,684,465	1.060	



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APPENDIX A-IV

II. Industry Group Differentials

To calculate the converted indicated balanced losses (11) the reported losses are limited to \$500,000 for a single claim occurrence and \$1,500,000 for each multiple claim occurrence. After the application of limited development, trend and benefit factors, the limited losses are brought to an unlimited level through the application of the expected excess provision. The 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	850,175,684	0.999	1.000	19,611
Contracting	485,015,458	0.989	0.990	8,219
Office & Clerical	301,503,881	1.005	1.006	6,199
Goods & Services	971,148,298	0.997	0.998	23,822
Miscellaneous	559,611,248	1.008	1.009	11,374
Statewide	3,167,454,569	0.999		

Industry Group	(15) Full Credibility Standard for Lost-Time Claim Counts	(16) Credibility Minimum of 1.000 and ((14)/(15))^0.5	(17) Credibility Weighted Indicated/Expected Ratio [(16)IGx(12)IG] + [1-(16)IG]x(12)SW*	(18) Final Industry Group Differential (17)IG/(17)SW
Manufacturing	12,000	1.00	0.999	1.000
Contracting	12,000	0.83	0.991	0.992
Office & Clerical	12,000	0.72	1.003	1.004
Goods & Services	12,000	1.00	0.997	0.998
Miscellaneous	12,000	0.97	1.008	1.009
Statewide			0.999	1.000

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



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Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Appendix B – Calculations Underlying the Rate Change by Classification

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

1. Calculate industry group differentials, which are used to more equitably distribute the proposed overall average advisory rate level change based on the individual experience of each industry group
2. For each classification, determine the indicated pure premiums based on the most recently-available five policy periods of Indiana 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.



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APPENDIX B-I

Distribution of Rate Level Change to Occupational Classification

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

Section A – Calculation of Indicated Pure Premiums

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

Section A-1 – Calculation of Primary Conversion Factors

1. Limited Loss Development Factors

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

Policy Period	Indemnity		Medical	
	Likely-to-Develop	Not-Likely-to-Develop	Likely-to-Develop	Not-Likely-to-Develop
7/11-6/12	1.011	1.004	1.032	1.001
7/12-6/13	1.023	1.010	1.035	1.001
7/13-6/14	1.075	1.031	1.026	1.002
7/14-6/15	1.190	1.078	1.035	1.005
7/15-6/16	1.537	1.165	1.110	1.019

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
7/11-6/12	0.738	0.893
7/12-6/13	0.768	0.907
7/13-6/14	0.800	0.921
7/14-6/15	0.834	0.935
7/15-6/16	0.869	0.949

3. Factors to Adjust to the January 1, 2019 Benefit Level

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

Policy Period	Fatal	Permanent Total (P.T.)	Permanent Partial (P.P.)	Temporary Total (T.T.)	Medical
7/11-6/12	1.066	1.157	1.174	1.069	0.955
7/12-6/13	1.066	1.157	1.174	1.069	0.955
7/13-6/14	1.054	1.130	1.142	1.057	0.987
7/14-6/15	1.030	1.073	1.081	1.032	1.016
7/15-6/16	1.010	1.025	1.026	1.011	1.011



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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)
7/11-6/12	0.795	0.790	0.863	0.876	0.870	0.798	0.792	0.880	0.854
7/12-6/13	0.838	0.827	0.909	0.922	0.911	0.840	0.829	0.897	0.867
7/13-6/14	0.906	0.869	0.972	0.982	0.942	0.909	0.872	0.933	0.911
7/14-6/15	1.022	0.926	1.065	1.073	0.972	1.024	0.928	0.983	0.955
7/15-6/16	1.349	1.023	1.369	1.370	1.039	1.350	1.024	1.065	0.978

* 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	A	B	C	D	E	F	G
(1) Excess Ratios	0.039	0.056	0.067	0.083	0.106	0.129	0.163
(2) Excess Factors 1/(1-(1))	1.041	1.059	1.072	1.091	1.119	1.148	1.195

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



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APPENDIX B-I

Section A-3 – Calculation of Secondary Conversion Factors

1. Factors to Adjust for Proposed Industry Group Differentials

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

	Manufacturing	Contracting	Office and Clerical	Goods and Services	Miscellaneous
(1) Indicated Differentials*	1.000	0.990	1.006	0.998	1.009
(2) Final Differentials**	1.000	0.992	1.004	0.998	1.009
(3) Adjustment (2)/(1)	1.000	1.002	0.998	1.000	1.000

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

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

2. Factors to Balance Indicated to Expected Losses

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

Policy Period	(1) Adjustment of Indicated Losses to Pure Premium at Proposed Level	(2) Current Ratio of Manual to Standard Premium	(3) Proposed Ratio of Manual to Standard Premium	(4) Off-balance Adjustment (2)/(3)	(5) Balancing Indicated to Expected Losses (1)x(4)
7/11-6/12	0.903	1.081	1.062	1.018	0.919
7/12-6/13	0.879	1.080	1.080	1.000	0.879
7/13-6/14	0.905	1.081	1.096	0.986	0.892
7/14-6/15	1.010	1.081	1.109	0.975	0.985
7/15-6/16	0.975	1.081	1.105	0.978	0.954

3. Adjustment for Experience Change

A factor of 0.967 is applied to adjust for the experience change in the proposed rate level.

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

The following factors are applied to include the proposed loss-based expense provisions. These combined (indemnity and medical) factors are based on an indemnity and medical loss-weighted average by policy period and industry group of the proposed loss-based expense provisions.

Policy Period	Manufacturing	Contracting	Office and Clerical	Goods and Services	Miscellaneous
7/11-6/12	1.164	1.164	1.164	1.164	1.164
7/12-6/13	1.164	1.164	1.164	1.164	1.164
7/13-6/14	1.164	1.164	1.164	1.164	1.164
7/14-6/15	1.164	1.164	1.164	1.164	1.164
7/15-6/16	1.164	1.164	1.164	1.164	1.164



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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
7/11-6/12	1.034	1.037	1.032	1.034	1.035
7/12-6/13	0.989	0.992	0.987	0.989	0.990
7/13-6/14	1.004	1.006	1.002	1.004	1.004
7/14-6/15	1.109	1.111	1.106	1.108	1.109
7/15-6/16	1.074	1.076	1.071	1.074	1.074



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APPENDIX B-I

Section B – Calculation of Present on Rate Level Pure Premiums

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

1. Adjustment for Experience Change

A factor of 0.967 is applied to adjust for the experience change in the proposed rate level.

2. Factors to Adjust to the Proposed Trend Level

The pure premiums underlying the current rates contain the current trend. The change in trend factors, 1.000 and 0.965, for indemnity and medical, respectively, are applied to adjust to the proposed trend level.

3. Factors to Adjust to the January 1, 2019 Benefit Level

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

Effective Date	Indemnity	Medical
October 1, 2017	1.000	1.001
January 1, 2018	1.000	1.009
January 1, 2019	1.000	0.994
Combined Benefit Adjustment	1.000	1.004

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

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

	(a) Current		(b) Proposed	
	Indemnity	Medical	Indemnity	Medical
(1) Loss Adjustment Expense	1.166	1.166	1.162	1.162
(2) Loss-based Assessment	1.000	1.000	1.0075	1.000
(3) = (1) + (2) – 1.000	1.166	1.166	1.1695	1.162
(4) Overall Change (3b)/(3a)			1.003	0.997

5. Adjustment to Obtain Expected Losses

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

Industry Group	(1) Current Ratio of Manual to Standard Premium	(2) Proposed Ratio of Manual to Standard Premium	(3) Off-balance Adjustment (1)/(2)
Manufacturing	1.112	1.120	0.993
Contracting	1.137	1.136	1.001
Office & Clerical	1.098	1.113	0.987
Goods & Services	1.034	1.049	0.986
Miscellaneous	1.056	1.065	0.992



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APPENDIX B-I

6. Factors to Adjust for Proposed Industry Group Differentials

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

Industry Group	(1) Final Differential*	(2) Adjustment to Proposed for Current Relativities**	(3) Adjusted Differential (1)x(2)
Manufacturing	1.000	1.001	1.001
Contracting	0.992	0.999	0.991
Office & Clerical	1.004	1.001	1.005
Goods & Services	0.998	1.002	1.000
Miscellaneous	1.009	0.998	1.007

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

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

7. Combined Conversion Factors

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

Industry Group	Indemnity	Medical
Manufacturing	0.964	0.928
Contracting	0.962	0.927
Office & Clerical	0.962	0.926
Goods & Services	0.956	0.921
Miscellaneous	0.969	0.933



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APPENDIX B-I

Section C – Calculation of National Pure Premiums

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

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

Section D – Calculation of Derived by Formula Pure Premiums

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

As for the preceding pure premiums, separate computations are performed for each partial pure premium: indemnity and medical. Each partial formula pure premium is derived by the weighting of the indicated, present on rate level and national partial pure premiums. The weight assigned to the policy year indicated pure premium varies in one-percent intervals from zero percent to one hundred percent, depending upon the volume of expected losses (i.e. the product of the underlying pure premiums and the payroll in hundreds). To achieve full state credibility, a classification must have expected losses of at least: \$20,373,062 for indemnity and \$27,349,014 for medical.

The partial credibilities formula is:

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

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

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

National Credibility equals the smaller of:

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

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

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

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



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APPENDIX B-II

Adjustments to Obtain Rates

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

1. Test Correction Factor

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

The factors referred to above are set out as follows:

	Test Correction Factor
Manufacturing	1.0072
Contracting	1.0027
Office & Clerical	1.0359
Goods & Services	1.0103
Miscellaneous	1.0047

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	1.120
Contracting	1.136
Office & Clerical	1.113
Goods & Services	1.049
Miscellaneous	1.065

3. Expense Allowance

The expense allowance is introduced into the rate by dividing the product of the proposed pure premium and the appropriate factors above by the proposed target cost ratio of 0.747 (see Exhibit II-A for derivation of this factor). This operation produces the proposed rate prior to the addition of a disease loading, if any.

4. Disease Loadings

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



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APPENDIX B-II

5. Swing Limits

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

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

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

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

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

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

List of Classifications Limited by the Upper Swing

1005 2651 7711 8602 8603 8856

List of Classifications Limited by the Lower Swing

8037 8803



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APPENDIX B-III

Derivation of Proposed Rate - Code 8810

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

LIMITED LOSSES (Workers Compensation Statistical Plan)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
07/01/11 - 06/30/12	0	0	81,042	938,921	1,475,167	399,359	909,676	2,443,066	10,293,964
07/01/12 - 06/30/13	0	0	0	1,090,480	1,316,949	710,819	1,067,995	3,264,509	11,490,377
07/01/13 - 06/30/14	0	27,373	25,986	847,942	1,666,388	509,834	1,109,227	3,140,448	11,173,923
07/01/14 - 06/30/15	0	56,500	0	1,459,580	1,325,898	648,328	844,318	4,243,031	10,355,538
07/01/15 - 06/30/16	0	15,000	267,333	328,137	1,124,351	502,839	1,189,161	2,947,923	9,632,492

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

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
07/01/11 - 06/30/12	0.795	0.790	0.863	0.876	0.870	0.798	0.792	0.880	0.854
07/01/12 - 06/30/13	0.838	0.827	0.909	0.922	0.911	0.840	0.829	0.897	0.867
07/01/13 - 06/30/14	0.906	0.869	0.972	0.982	0.942	0.909	0.872	0.933	0.911
07/01/14 - 06/30/15	1.022	0.926	1.065	1.073	0.972	1.024	0.928	0.983	0.955
07/01/15 - 06/30/16	1.349	1.023	1.369	1.370	1.039	1.350	1.024	1.065	0.978

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	1.072

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

Redistribution %	40%
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APPENDIX B-III

Derivation of Proposed Rate - Code 8810

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

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
07/01/11 - 06/30/12	0	0	72,952	857,933	1,338,692	332,419	751,505	2,339,073	9,479,902
07/01/12 - 06/30/13	0	0	0	1,048,744	1,251,434	622,815	923,515	3,184,580	10,737,447
07/01/13 - 06/30/14	0	24,812	26,346	868,557	1,637,372	483,407	1,008,921	3,178,404	10,984,001
07/01/14 - 06/30/15	0	54,573	0	1,633,609	1,344,302	692,493	817,287	4,534,473	10,660,749
07/01/15 - 06/30/16	0	16,006	381,748	468,918	1,218,535	708,082	1,270,168	3,407,917	10,166,056

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

Policy Period	INDUSTRY GROUP: Office and Clerical
07/01/11 - 06/30/12	1.032
07/01/12 - 06/30/13	0.987
07/01/13 - 06/30/14	1.002
07/01/14 - 06/30/15	1.106
07/01/15 - 06/30/16	1.071

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

Policy Period	Payroll	Indemnity Likely	Indemnity Not-Likely	Medical Likely	Medical Not-Likely	Total Indemnity	Total Medical	Total
07/01/11 - 06/30/12	22,612,139,341	1,303,730	2,157,083	2,413,923	9,783,259	3,460,813	12,197,182	15,657,995
07/01/12 - 06/30/13	21,490,642,449	1,649,829	2,146,675	3,143,180	10,597,860	3,796,504	13,741,040	17,537,544
07/01/13 - 06/30/14	21,996,310,564	1,381,067	2,676,447	3,184,761	11,005,969	4,057,514	14,190,730	18,248,244
07/01/14 - 06/30/15	23,085,529,102	2,572,669	2,451,075	5,015,127	11,790,788	5,023,744	16,805,915	21,829,659
07/01/15 - 06/30/16	24,197,578,322	1,669,419	2,682,543	3,649,879	10,887,846	4,351,962	14,537,725	18,889,687
Total	113,382,199,778	8,576,714	12,113,823	17,406,870	54,065,722	20,690,537	71,472,592	92,163,129
INDICATED PURE PREMIUM						0.018	0.063	0.08

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

	Indemnity	Medical	Total
Pure Premiums Underlying Current Rate	0.022	0.068	0.09
Conversion Factors (App. B-I, Section B)	0.962	0.926	xxx
PURE PREMIUMS PRESENT ON RATE LEVEL (Underlying Pure Premiums) x (Conversion Factor)	0.021	0.063	0.08



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APPENDIX B-III

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

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

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1. Indicated Pure Premium	0.018	0.063	0.08
2. Pure Premium Indicated by National Relativity	0.016	0.053	0.07
3. Pure Premium Present on Rate Level	0.021	0.063	0.08
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 = $(1) \times (4) + (2) \times (5) + (3) \times (6)$	0.018	0.063	0.08
8. Test Correction Factor	1.0359	1.0359	xxx
9. Underlying Pure Premiums = $(7) \times (8) *$	0.015	0.065	0.08
10. Ratio of Manual to Standard Premium			1.113
11. Target Cost Ratio			0.747
12. Rate = $(9) \times (10) / (11)$			0.12
13. Rate Within Swing Limits			0.12
Current Rate x Swing Limits			
a) Lower bound = $0.14 \times 0.680 = 0.10$			
b) Upper bound = $0.14 \times 1.180 = 0.16$			
14. Pure Premiums Underlying Proposed Rate* = $((14\text{TOT}) / (9\text{TOT})) \times (9) ; (14\text{TOT}) = (13) \times (11) / (10)$	0.015	0.065	0.08
15. Disease, Catastrophe and/or Miscellaneous Loadings			0.00
16. Final Loaded Rate			0.12

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



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APPENDIX B-IV

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 rates. The payrolls are extended by the rates presently in effect and by the indicated rates. The rates are limited to the swing limits based on 25% above and 25% below the current rates. This results in the indicated rate level change of -0.3%.

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 January 1, 2019 state law level. The federal losses are adjusted to the October 1, 2017 federal law level.

STATE ACT

Policy Period	Fatal	Permanent Total (P.T.)	Permanent Partial (P.P.)	Temporary Total (T.T.)	Medical
1/11 - 12/11	1.066	1.157	1.174	1.069	0.955
1/12 - 12/12	1.066	1.157	1.174	1.069	0.955
1/13 - 12/13	1.064	1.151	1.168	1.067	0.962
1/14 - 12/14	1.043	1.104	1.113	1.046	1.008
1/15 - 12/15	1.020	1.051	1.056	1.022	1.013

FEDERAL ACT

Policy Period	Fatal	Permanent Total (P.T.)	Permanent Partial (P.P.)	Temporary Total (T.T.)	Medical
1/11 - 12/11	1.028	1.023	1.010	1.023	1.000
1/12 - 12/12	1.022	1.019	1.008	1.019	1.000
1/13 - 12/13	1.018	1.015	1.006	1.015	1.000
1/14 - 12/14	1.015	1.012	1.005	1.012	1.000
1/15 - 12/15	1.011	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 0.960 and 0.985 for indemnity and medical, respectively.

Policy Period	Indemnity	Medical
1/11 - 12/11	0.721	0.886
1/12 - 12/12	0.751	0.900
1/13 - 12/13	0.783	0.913
1/14 - 12/14	0.815	0.927
1/15 - 12/15	0.849	0.941



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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.

Policy Period	Indemnity		Medical	
	Likely-to-Develop	Not-Likely-to-Develop	Likely-to-Develop	Not-Likely-to-Develop
1/11 - 12/11	1.093	1.030	1.196	1.036
1/12 - 12/12	1.124	1.052	1.220	1.041
1/13 - 12/13	1.245	1.116	1.253	1.067
1/14 - 12/14	1.412	1.212	1.337	1.089
1/15 - 12/15	2.198	1.728	1.571	1.145

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

Policy Period	Fatal (L)	Fatal (NL)	P.T.*	P.P. (L)	P.P. (NL)	T.T. (L)	T.T. (NL)	Medical (L)	Medical (NL)
1/11 - 12/11	0.840	0.792	0.912	0.925	0.872	0.842	0.794	1.012	0.877
1/12 - 12/12	0.900	0.842	0.977	0.991	0.928	0.902	0.845	1.049	0.895
1/13 - 12/13	1.037	0.930	1.122	1.139	1.021	1.040	0.932	1.101	0.937
1/14 - 12/14	1.200	1.030	1.270	1.281	1.099	1.204	1.033	1.249	1.018
1/15 - 12/15	1.903	1.496	1.961	1.971	1.549	1.907	1.499	1.498	1.091

FEDERAL ACT

Policy Period	Fatal (L)	Fatal (NL)	P.T.*	P.P. (L)	P.P. (NL)	T.T. (L)	T.T. (NL)	Medical (L)	Medical (NL)
1/11 - 12/11	0.810	0.763	0.806	0.796	0.750	0.806	0.760	1.060	0.918
1/12 - 12/12	0.863	0.807	0.860	0.851	0.796	0.860	0.805	1.098	0.937
1/13 - 12/13	0.992	0.890	0.989	0.981	0.879	0.989	0.887	1.144	0.974
1/14 - 12/14	1.168	1.003	1.165	1.157	0.993	1.165	1.000	1.239	1.010
1/15 - 12/15	1.887	1.483	1.881	1.872	1.471	1.881	1.479	1.478	1.077

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



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APPENDIX B-IV

Section A-2 – Expected Excess Provision and Redistribution

To reduce distortions in individual class rate 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	A	B	C	D	E	F	G
(1) Excess Ratios	0.039	0.056	0.067	0.083	0.106	0.129	0.163
(2) Excess Factors 1/(1-(1))	1.041	1.059	1.072	1.091	1.119	1.148	1.195

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
1/11 - 12/11	1.169	1.208
1/12 - 12/12	1.162	1.182
1/13 - 12/13	1.162	1.197
1/14 - 12/14	1.162	1.179
1/15 - 12/15	1.166	1.185

** See Section B.3 for the indemnity and medical breakdown of the proposed loss-based expenses.



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APPENDIX B-IV

Section B – Present on Rate Level

1. Benefits

The current underlying pure premiums are at the current January 1, 2017 state and October 1, 2016 federal law levels. These pure premiums are adjusted to reflect the weighted effect of state and federal laws which bring losses to the proposed January 1, 2019 state and October 1, 2017 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%)	0.280
Federal Weight (Fed%)	0.720

	Indemnity	Medical	Total
(a) State Laws	1.000	1.004	1.003
(b) Federal Laws	1.003	1.000	1.002
(c) Weighted Laws = [(a)xSt%] + [(b)xFed%]	1.002	1.001	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
0.960	0.985



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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	1.162	1.162	1.162
(b) Loss-Based Assessment	1.0075	1.000	1.002
(c) Total = (a) + (b) - 1	1.1695	1.162	1.164

FEDERAL ACT			
	Indemnity	Medical	Total
(d) Loss Adjustment Expense	1.162	1.162	1.162
(e) Loss-Based Assessment	1.113	1.000	1.065
(f) Total = (d) + (e) - 1	1.275	1.162	1.227

	Indemnity	Medical	Total
(g) Weighted Proposed Expenses = [(c) x St%] + [(f) x Fed%]	1.245	1.162	1.209

Current:

STATE ACT			
	Indemnity	Medical	Total
(h) Loss Adjustment Expense	1.166	1.166	1.166
(i) Loss-Based Assessment	1.000	1.000	1.000
(j) Total = (h) + (i) - 1	1.166	1.166	1.166

FEDERAL ACT			
	Indemnity	Medical	Total
(k) Loss Adjustment Expense	1.166	1.166	1.166
(l) Loss-Based Assessment	1.119	1.000	1.071
(m) Total = (k) + (l) - 1	1.285	1.166	1.237

	Indemnity	Medical	Total
(n) Weighted Current Expenses = [(j) x St%] + [(m) x Fed%]	1.252	1.166	1.217

Change:

	Indemnity	Medical	Total
Weighted Expense Change in Loss-Based Expenses = [(g) / (n)]	0.994	0.997	0.993

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

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

Indemnity	Medical
0.956	0.983



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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: \$108,352,900 for indemnity and \$54,812,000 for medical.

II. Calculation of Proposed Rates

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

A. Test Correction Factor	1.0000
B. Ratio of Manual Premium to Earned Premium (determined on a countrywide basis)	1.215
C. Expense Allowance	0.747

The expense allowance is introduced into the rate by dividing the product of the proposed pure premiums and the appropriate factors above by the proposed target cost ratio.

D. Swing Limits

No classifications were adjusted on account of swing limits.



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APPENDIX B-IV

Derivation of Proposed Rate - Code 7313

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)

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
01/01/11 - 12/31/11	0	0	0	0	0	0	0	0	3,729
01/01/12 - 12/31/12	0	0	0	0	0	0	0	0	257
01/01/13 - 12/31/13	0	0	0	0	0	0	0	0	133
01/01/14 - 12/31/14	0	0	0	0	0	0	0	0	0
01/01/15 - 12/31/15	0	0	0	0	0	0	0	0	0

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
01/01/11 - 12/31/11	0	0	0	0	0	0	0	0	4,870
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
01/01/15 - 12/31/15	0	0	0	0	0	0	0	0	0

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

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/11 - 12/31/11	0.840	0.792	0.912	0.925	0.872	0.842	0.794	1.012	0.877
01/01/12 - 12/31/12	0.900	0.842	0.977	0.991	0.928	0.902	0.845	1.049	0.895
01/01/13 - 12/31/13	1.037	0.930	1.122	1.139	1.021	1.040	0.932	1.101	0.937
01/01/14 - 12/31/14	1.200	1.030	1.270	1.281	1.099	1.204	1.033	1.249	1.018
01/01/15 - 12/31/15	1.903	1.496	1.961	1.971	1.549	1.907	1.499	1.498	1.091

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

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/11 - 12/31/11	0.810	0.763	0.806	0.796	0.750	0.806	0.760	1.060	0.918
01/01/12 - 12/31/12	0.863	0.807	0.860	0.851	0.796	0.860	0.805	1.098	0.937
01/01/13 - 12/31/13	0.992	0.890	0.989	0.981	0.879	0.989	0.887	1.144	0.974
01/01/14 - 12/31/14	1.168	1.003	1.165	1.157	0.993	1.165	1.000	1.239	1.010
01/01/15 - 12/31/15	1.887	1.483	1.881	1.872	1.471	1.881	1.479	1.478	1.077



INDIANA

APPENDIX B-IV

Derivation of Proposed Rate - Code 7313

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: G	
Excess Factor	1.195

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

Redistribution %	40%
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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
01/01/11 - 12/31/11	0	0	0	0	0	0	0	0	3,907
01/01/12 - 12/31/12	0	0	0	0	0	0	0	0	275
01/01/13 - 12/31/13	0	0	0	0	0	0	0	0	149
01/01/14 - 12/31/14	0	0	0	0	0	0	0	0	0
01/01/15 - 12/31/15	0	0	0	0	0	0	0	0	0

FEDERAL 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
01/01/11 - 12/31/11	0	0	0	0	0	0	0	0	5,342
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
01/01/15 - 12/31/15	0	0	0	0	0	0	0	0	0

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

Policy Period	INDUSTRY GROUP: F-Class
01/01/11 - 12/31/11	1.169
01/01/12 - 12/31/12	1.162
01/01/13 - 12/31/13	1.162
01/01/14 - 12/31/14	1.162
01/01/15 - 12/31/15	1.166

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

Policy Period	INDUSTRY GROUP: F-Class
01/01/11 - 12/31/11	1.208
01/01/12 - 12/31/12	1.182
01/01/13 - 12/31/13	1.197
01/01/14 - 12/31/14	1.179
01/01/15 - 12/31/15	1.185



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APPENDIX B-IV

Derivation of Proposed Rate - Code 7313

TOTAL - PAYROLL, FINAL CONVERTED LOSSES

Policy Period	Payroll	Indemnity Likely	Indemnity Not-Likely	Medical Likely	Medical Not-Likely	Total Indemnity	Total Medical	Total
01/01/11 - 12/31/11	1,536,521	0	0	0	11,020	0	11,020	11,020
01/01/12 - 12/31/12	1,622,349	0	0	0	320	0	320	320
01/01/13 - 12/31/13	3,468,127	0	0	0	173	0	173	173
01/01/14 - 12/31/14	4,573,466	0	0	0	0	0	0	0
01/01/15 - 12/31/15	2,981,817	0	0	0	0	0	0	0
Total	14,182,280	0	0	0	11,513	0	11,513	11,513
INDICATED PURE PREMIUM						0.000	0.081	0.08

The present on rate level pure premiums are developed by adjusting the pure premiums underlying the current rate 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 Rate	1.211	1.539	2.75
Conversion Factors (Section B)	0.956	0.983	xxx
PURE PREMIUMS PRESENT ON RATE LEVEL			
(Underlying Pure Premiums) x (Conversion Factor)	1.158	1.513	2.67



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APPENDIX B-IV

Derivation of Proposed Rate - Code 7313

Industry Group - F-Class, Hazard Group - G

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

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1. Indicated Pure Premium	0.000	0.081	0.08
2. Pure Premium Indicated by National Relativity	1.532	1.707	3.24
3. Pure Premium Present on Rate Level	1.158	1.513	2.67
4. State Credibilities	4%	6%	xxx
5. National Credibilities	12%	13%	xxx
6. Residual Credibilities = $100\% - (4) - (5)$	84%	81%	xxx
7. Derived by Formula Pure Premiums = $(1) \times (4) + (2) \times (5) + (3) \times (6)$	1.157	1.452	2.61
8. Test Correction Factor	1.0000	1.0000	xxx
9. Underlying Pure Premiums = $(7) \times (8) *$	1.158	1.452	2.61
10. Ratio of Manual to Standard Premium			1.215
11. Target Cost Ratio			0.747
12. Rate = $(9) \times (10) / (11)$			4.25
13. Rate Within Swing Limits			4.25
Current Rate x Swing Limits			
a) Lower bound = $4.18 \times 0.750 = 3.14$			
b) Upper bound = $4.18 \times 1.250 = 5.22$			
14. Pure Premiums Underlying Proposed Rate* = $((14TOT) / (9TOT)) \times (9) ; (14TOT) = (13) \times (11) / (10)$	1.158	1.452	2.61
15. Disease, Catastrophe and/or Miscellaneous Loadings			0.00
16. Final Loaded Rate			4.25

* Indemnity pure premium is adjusted for the rounded total pure premium:

Indemnity Pure Premium = Total Pure Premium - Medical Pure Premium



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APPENDIX B-V

Derivation of Proposed Traumatic Rate - Code 1016

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 classification 1016 follows:

LIMITED LOSSES (Workers Compensation Statistical Plan)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
07/01/11 - 06/30/12	0	0	0	528,380	872,951	11,200	75,114	786,314	2,233,322
07/01/12 - 06/30/13	0	332,500	0	597,261	387,073	0	125,281	459,647	1,301,621
07/01/13 - 06/30/14	0	0	0	325,137	207,321	3,807	80,212	220,031	1,181,593
07/01/14 - 06/30/15	0	0	0	151,312	336,224	0	117,337	391,637	964,612
07/01/15 - 06/30/16	0	0	0	34,188	122,340	41,450	98,172	113,650	584,198

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

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
07/01/11 - 06/30/12	0.795	0.790	0.863	0.876	0.870	0.798	0.792	0.880	0.854
07/01/12 - 06/30/13	0.838	0.827	0.909	0.922	0.911	0.840	0.829	0.897	0.867
07/01/13 - 06/30/14	0.906	0.869	0.972	0.982	0.942	0.909	0.872	0.933	0.911
07/01/14 - 06/30/15	1.022	0.926	1.065	1.073	0.972	1.024	0.928	0.983	0.955
07/01/15 - 06/30/16	1.349	1.023	1.369	1.370	1.039	1.350	1.024	1.065	0.978

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: G
Excess Factor	1.195

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

Redistribution %	40%
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APPENDIX B-V

Derivation of Proposed Traumatic Rate - Code 1016

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

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
07/01/11 - 06/30/12	0	0	0	516,944	848,208	9,983	66,441	863,462	2,342,476
07/01/12 - 06/30/13	0	307,108	0	615,019	393,827	0	115,994	535,492	1,405,253
07/01/13 - 06/30/14	0	0	0	356,592	218,116	3,865	78,118	270,409	1,306,721
07/01/14 - 06/30/15	0	0	0	181,329	364,996	0	121,612	472,598	1,134,542
07/01/15 - 06/30/16	0	0	0	52,311	141,963	62,496	112,274	152,615	700,344

SECONDARY PARTIAL CONVERSION FACTOR (Loss-based expense, if applicable)

	Indemnity	Medical
Loss Based Expense	1.170	1.162

PAYROLL, FINAL CONVERTED LOSSES (Expected Unlimited Losses x Loss-Based Expenses, if applicable)

Policy Period	Payroll	Indemnity Likely	Indemnity Not-Likely	Medical Likely	Medical Not-Likely	Total Indemnity	Total Medical	Total
07/01/11 - 06/30/12	115,785,756	616,241	1,069,682	1,003,343	2,721,957	1,685,923	3,725,300	5,411,223
07/01/12 - 06/30/13	106,988,102	719,265	955,398	622,242	1,632,904	1,674,663	2,255,146	3,929,809
07/01/13 - 06/30/14	78,438,249	421,554	346,446	314,215	1,518,410	768,000	1,832,625	2,600,625
07/01/14 - 06/30/15	86,001,423	212,064	569,088	549,159	1,318,338	781,152	1,867,497	2,648,649
07/01/15 - 06/30/16	70,495,318	134,267	297,330	177,339	813,800	431,597	991,138	1,422,735
Total	457,708,848	2,103,391	3,237,944	2,666,297	8,005,408	5,341,336	10,671,706	16,013,041
INDICATED PURE PREMIUM						1.167	2.332	3.50

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

	Indemnity	Medical	Total
Pure Premiums Underlying Current Rate	1.380	2.920	4.30
Conversion Factors *	1.003	0.966	xxx
PURE PREMIUMS PRESENT ON RATE LEVEL (Underlying Pure Premiums) x (Conversion Factor)	1.384	2.821	4.21

* Conversion factors only adjust for changes in trend, benefit, and if applicable, loss-based expense provision.



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APPENDIX B-V

Derivation of Proposed Traumatic Rate - Code 1016
COAL MINING—NOC, Hazard Group - G

The traumatic rate for classification 1016 is derived as follows:

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1. Indicated Pure Premium	1.167	2.332	3.50
2. Pure Premium Indicated by National Relativity	1.714	2.913	4.63
3. Pure Premium Present on Rate Level	1.384	2.821	4.21
4. State Credibilities†	39%	62%	xxx
5. National Credibilities	30%	19%	xxx
6. Residual Credibilities = 100% - (4) - (5)	31%	19%	xxx
7. Derived by Formula Pure Premiums = (1) x (4) + (2) x (5) + (3) x (6)	1.398	2.535	3.93
8. Voluntary Offset	1.000	1.000	xxx
9. Underlying Pure Premiums = (7) x (8) *	1.395	2.535	3.93
10. Ratio of Manual to Standard Premium			1.065
11. Target Cost Ratio			0.747
12. Rate = (9) x (10) / (11)			5.60
13. Rate Within Swing Limits			5.60
Current Rate x Swing Limits			
a) Lower bound = 6.21 x 0.75 = 4.66			
b) Upper bound = 6.21 x 1.25 = 7.76			
14. Pure Premiums Underlying Proposed Rate* = ((14TOT) / (9TOT)) x (9) ; (14TOT) = (13) x (11) / (10)	1.395	2.535	3.93
15. Proposed Traumatic Rate			5.60
16. Proposed Traumatic Loss Cost = (15) x 0.747 #			4.18

† To achieve full state credibility, the classification must have expected losses of at least: \$41,993,831 for indemnity, and \$33,755,605 for medical.

* Indemnity pure premium is adjusted for the rounded total pure premium:

Indemnity Pure Premium = Total Pure Premium - Medical Pure Premium

0.747 = Factor to convert from Traumatic Rate to Traumatic Loss Costs



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APPENDIX B-V

Coal Mine Occupational Disease Proposed Underground and Surface Rates

Part A - State Occupational Disease (OD) Pure Premium*

1. Estimated Number of Claims per Year	5
2. Estimated Average Cost per Claim	\$50,000
3. Estimated Cost of State Act Disease Claims per Year = (1) x (2)	\$250,000
4. Estimated Coal Miner Payroll	\$732,651,126
5. State OD Pure Premium per \$100 of Payroll = (3) / (4) x 100	0.03

Part B - Federal Occupational Disease (OD) Pure Premium**

6. Estimated Entitlements for Claims Filed by Living Miners	25
7. Average Cost per Case for Living Miners	\$435,108
8. Cost of Claims Filed by Living Miners = (6) x (7)	\$10,877,700
9. Estimated Entitlements for Claims Filed by Living Widows	3
10. Average Cost per Case for Living Widows	\$263,481
11. Cost of Claims Filed by Living Widows = (9) x (10)	\$790,443
12. Total Cost of Federal Claims (8) + (11)	\$11,668,143
13. Estimated Coal Miner Payroll	\$994,984,355
14. Federal OD Pure Premium per \$100 of Payroll = (12) / (13) x 100	1.17

Part C - Split Total Occupational Disease (OD) Pure Premium by Class Code

15. Code 1016 OD Costs Relative to Code 1005 Costs	3.000
16. Distribution of Coal Mining Payroll**	
a) 1005 Payroll as % of Total Coal Mining Payroll	42.5%
b) 1016 Payroll as % of Total Coal Mining Payroll	57.5%
17. Proposed State OD Pure Premiums	
a) 1005 State OD Pure Premium = (5) / [(16a) + (16b) x (15)]	0.01
b) 1016 State OD Pure Premium = (17a) x (15)	0.03
18. Proposed Federal OD Pure Premiums	
a) 1005 Federal OD Pure Premium = (14) / [(16a) + (16b) x (15)]	0.54
b) 1016 Federal OD Pure Premium = (18a) x (15)	1.62
19. Loss-Based Expense Provision	1.164
20. Target Cost Ratio	0.747
21. Proposed State OD Rates	
a) 1005 State OD Rate = (17a) x (19) / (20)	0.02
b) 1016 State OD Rate = (17b) x (19) / (20)	0.05
22. Proposed Federal OD Rates	
a) 1005 Federal OD Rate = (18a) x (19) / (20)	0.84
b) 1016 Federal OD Rate = (18b) x (19) / (20)	2.52

* Based on a review of data for all NCCI states excluding IL, KY, VA, and WV

** Based on a review of data for all NCCI states excluding KY, VA, and WV



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

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 legislative changes to the maximum weekly wage used for calculating benefits along with changes to the awards per degree of permanent partial impairment, changes to 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 State benefit levels are detailed in this section of the filing:

- Annual Update to the Medical Fee Schedule
- Senate Bill 369 (Workers Compensation Drug Formulary), Effective July 1, 2018
- Longshore and Harbor Workers' Compensation Act
 - Change in the Minimum and Maximum Weekly Benefits, Effective October 1, 2017
 - Annual Assessment



INDIANA

APPENDIX C-I

ANALYSIS OF INDIANA MEDICAL FEE SCHEDULE CHANGES EFFECTIVE OCTOBER 1, 2017 AND JANUARY 1, 2018

NCCI estimates that the changes to the fee schedule for hospital inpatient services in Indiana, effective October 1, 2017, will result in an impact of +0.1% on overall workers compensation system costs.

NCCI estimates that the changes to the fee schedule for hospital outpatient services in Indiana, effective January 1, 2018, will result in an impact of +0.6% on overall workers compensation system costs.

Summary of Changes

The Indiana medical fee schedule changes are described below:

- Maximum reimbursement for Hospital Inpatient services was updated to 200% of Medicare's 2018 Inpatient Prospective Payment System (IPPS), effective October 1, 2017. Previously, maximum reimbursement for Hospital Inpatient services was 200% of Medicare's 2017 IPPS.
- Maximum reimbursement for Hospital Outpatient services was updated to 200% of Medicare's 2018 Outpatient Prospective Payment System (OPPS), effective January 1, 2018. Previously, maximum reimbursement for Hospital Outpatient services was 200% of Medicare's 2017 OPPS.

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.
 - In response to a fee schedule decrease, NCCI research indicates that physician payments decline by approximately 50% of the fee schedule change.
 - In response to a fee schedule increase, NCCI research indicates that physician payments increase by approximately 80% of the fee schedule change. The magnitude of the response for physician fee schedules depends on the relative



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APPENDIX C-I

ANALYSIS OF INDIANA MEDICAL FEE SCHEDULE CHANGES EFFECTIVE OCTOBER 1, 2017 AND JANUARY 1, 2018

difference between actual payments and fee schedule maximums (i.e. the price departure). Consequently, the formula used to determine the percent realized for physician fee schedule changes is $80\% \times (1.10 + 1.20 \times (\text{price departure}))$. For non-physician fee schedule changes, a price realization factor of 80% is assumed.

3. Determine the share of costs that are subject to the fee schedule
 - The share is based on a combination of fields, such as procedure code, provider type, and place of service, as reported on the NCCI Medical Data Call, to categorize payments that are subject to the fee schedule.
 - The share is calculated as the greater of the percent of observed payments with a maximum allowable reimbursement (MAR) or 75%. NCCI assumes no change for the share of costs not 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 Indiana for Service Year 2016.
- The share of benefit costs attributed to medical benefits is based on NCCI's Financial Call data for Indiana from the latest two policy years projected to the effective date of the benefit changes.

Hospital Inpatient Fee Schedule

In Indiana, payments for hospital inpatient services represent 10.5% of total medical costs. Of these payments, 57.0% have a MAR. The overall change in maximums for hospital inpatient services is a weighted average of the percentage change in MAR by episode (Revised MAR/Prior MAR). The weights are based on Service Year 2016 observed payments by episode for Indiana, as reported on NCCI's Medical Data Call. The overall weighted-average percentage change in maximums for hospital inpatient services is +1.1%.

Since the overall average maximum reimbursement for hospital inpatient services increased, the percentage expected to be realized from the fee schedule change is 80%. The impact on hospital inpatient payments after applying the price realization factor is +0.9% ($= +1.1\% \times 0.80$).

The above impact of +0.9% is then multiplied by the percentage of medical costs attributed to hospital inpatient payments in Indiana (10.5%) to arrive at an impact of +0.1% on medical costs. This is then multiplied by the percentage of benefit costs attributed to medical benefits in Indiana (71.8%) to arrive at an impact of +0.1% on overall workers compensation costs.

Hospital Outpatient Fee Schedule



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APPENDIX C-I

ANALYSIS OF INDIANA MEDICAL FEE SCHEDULE CHANGES EFFECTIVE OCTOBER 1, 2017 AND JANUARY 1, 2018

In Indiana, payments for hospital outpatient services represent 17.0% of total medical payments. Of these payments, 79.0% have a MAR. The overall change in maximums for hospital outpatient services is a weighted average of the percentage change in MAR by procedure code (Revised MAR/Prior MAR). The weights are based on Service Year 2016 observed payments by procedure code for Indiana, as reported on NCCI's Medical Data Call. The overall weighted-average percentage change in maximums for hospital outpatient services is +6.3%.

Since the overall average maximum reimbursement for hospital outpatient services increased, the percentage expected to be realized from the fee schedule change is 80%. The impact on hospital outpatient payments after applying the price realization factor is +5.0% ($= +6.3\% \times 0.80$).

The above impact of +5.0% is then multiplied by the percentage of medical costs attributed to hospital outpatient payments in Indiana (17.0%) to arrive at an impact of +0.9% on medical costs. This is then multiplied by the percentage of benefit costs attributed to medical benefits in Indiana (72.0%) to arrive at an impact of +0.6% on overall workers compensation costs.

Note that Medicare rules for outpatient services contain a comprehensive payment policy that packages payment for adjunctive and secondary items, services, and procedures into the primary procedure under certain circumstances. For this analysis, the experience is aggregated according to the packaging rules reflected under Medicare, if applicable.

Summary of Impacts

The impacts from the fee schedule changes in Indiana are summarized in the following table:

		(A)	(B)	(C) = (A) x (B)	(D)	(E) = (C) x (D)
Effective Date	Type of Service	Impact on Type of Service	Share of Medical Costs	Impact on Medical Costs	Medical Costs as a Share of Overall Costs	Impact on Overall Costs
10/1/2017	Hospital Inpatient	+0.9%	10.5%	+0.1%	71.8%	+0.1%
1/1/2018	Hospital Outpatient	+5.0%	17.0%	+0.9%	72.0%	+0.6%



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ANALYSIS OF ENACTED INDIANA SENATE BILL 369 EFFECTIVE JULY 1, 2018

NCCI estimates that enacted Indiana Senate Bill (SB) 369, which mandates the use of the Official Disability Guidelines Workers' Compensation Drug Formulary Appendix A (the ODG formulary), will result in an impact of -0.4% on overall workers compensation system costs in Indiana. SB 369 is effective July 1, 2018 and requires use of the closed formulary beginning January 1, 2019.

Background and Summary of SB 369

The ODG formulary is a detailed list of prescription drugs that are frequently used in the treatment of injured workers. Within this list, there is a status indicator that identifies whether or not each drug requires prior authorization. Drugs with a status indicator of "N" (N-drugs) require prior authorization by the employer or workers compensation insurer, while drugs with a status indicator of "Y," (Y-drugs) preferred drugs, do not require prior authorization. The list of preferred drugs, those that do not require prior authorization, defines the "closed formulary."

SB 369 amends the Indiana Code to require the use of the ODG formulary in Indiana. Reimbursements for N-drugs will require prior authorization beginning January 1, 2019. If an employee begins use of an N-drug before July 1, 2018, reimbursement is permitted for the N-drug until January 1, 2020.

Actuarial Analysis

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

- Detailed medical data underlying the calculations in this analysis are based on NCCI's Medical Data Call for Indiana for Service Year 2016.
- Texas medical data (Texas Department of Insurance) for Service Years 2010-2014.
- The share of benefit costs attributed to medical benefits, based on NCCI's Financial Call data for Indiana from the latest 2 policy years.

In some components of the analysis NCCI may rely on other data sources, which are referenced where applicable.

In Indiana, payments for drugs represent 4.0% of all workers compensation medical payments. To evaluate the impact of the closed drug formulary, NCCI identified drugs dispensed for workers compensation claims in Indiana classified by the formulary as N-drugs. In this analysis, a drug that is not on the ODG formulary has unknown status, and is treated as a Y-drug since we expect these drugs to be pre-authorized or substituted for by Y-drugs. Based on Medical Call Data for Service Year 2016, those drugs requiring preauthorization (i.e. N-drugs) represent 19.3% of all Indiana drug payments used in the treatment of injured workers.

There are several factors that affect the cost impact of implementing a closed formulary including:



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ANALYSIS OF ENACTED INDIANA SENATE BILL 369 EFFECTIVE JULY 1, 2018

- The degree to which Y-drugs or other non-drug treatments would be substituted for N-drugs
- The degree of elimination of N-drugs
- The degree of authorization of N-drugs

To estimate a cost impact of the implementation, NCCI relied on several observed statistics resulting from the implementation of the ODG formulary in Texas, which was implemented on September 1, 2011 for new claims and which also applied to legacy claims as of September 1, 2013.

- NCCI estimates a 92% decrease in N-drug average cost per claim for Accident Year (AY) 2014 relative to AY 2010 at 12-month maturity in Texas.
- Texas experience shows that the average N-Drug cost per claim in Service Year 2014 is 75% lower than the average for Service Year 2010.
- The Texas Department of Insurance has calculated an 83% reduction in the total N-drug costs from Fiscal-Accident Year 2011 (ending August 30, 2011) to Fiscal-Accident Year 2012¹.

NCCI also estimated the average cost per script by reimbursement status ("Y" and "N") for Service Year (SY) 2016 for Indiana. The average cost per script of Y-drugs (\$63.06) relative to N-drugs (\$266.66) was 23.6%. Thus, NCCI estimates a 76.4% decrease ($= 23.6\% - 100\%$) on the affected prescribed drugs assuming a 100% substitution of each N-drug script for a Y-drug script and assuming the average Y-drug cost per script.

Taking into consideration the range of these possible estimates, NCCI estimates that implementation of the ODG formulary will result in a -75.0% impact on N-drug costs in Indiana. The -75.0% impact on N-drug costs is multiplied by the N-drug share of prescription drug payments (19.3%) to arrive at an estimated impact of -14.5% ($= -75.0\% \times 19.3\%$) in prescription drug payments in Indiana.

The impact on prescription drug payments is then multiplied by the Indiana percentage of medical costs attributed to prescription drug payments (4.0%) to arrive at an impact on medical costs of -0.6%. The impact on medical costs is then multiplied by the Indiana percentage of benefit costs attributed to medical benefits (72.6%) to arrive at an impact of -0.4% on overall workers compensation costs in Indiana.

¹ *Impact of the Texas Pharmacy Closed Formulary, A Preliminary Report Based on 12-month Injuries with 24-month Services and Legacy Status*, Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, February 2015



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ANALYSIS OF ENACTED INDIANA SENATE BILL 369 EFFECTIVE JULY 1, 2018

Summary of Changes

The impact of the ODG formulary implementation beginning January 1, 2019 is summarized in the following table:

	(A)	(B)	(C) = (A) x (B)	(D)	(E) = (C) x (D)
Type of Service	Impact on Type of Service	Share of Medical Costs	Impact on Medical Costs	Medical Costs as a Share of Overall Costs	Impact on Overall Costs
Drugs	-14.5%	4.0%	-0.6%	72.6%	-0.4%



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APPENDIX C-III

Longshore and Harbor Workers' Compensation Act

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

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 \$718.24 ("current") to \$735.89 ("revised"), and apply to injuries occurring on or after October 1, 2017.

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 wages¹, indexed to the Longshore And Harbor Workers' Compensation Act average weekly wage², determine expected current and revised average weekly benefits by benefit payment type (and dependency type, as appropriate)³.
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)⁴ 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 type⁵.
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	2.2%	+ 0.5
Permanent Total	5.9%	+ 0.4
Permanent Partial	41.9%	+ 0.2
Temporary Total	7.6%	+ 0.4
Total Indemnity	57.6%	+ 0.3
Medical	42.4%	0.0
Total	100.0%	+ 0.2

¹ Based on NCCI Detailed Claim Information data.

² Bureau of Labor Statistics Quarterly Census of Employment and Wages, for all private sector employment, and adjusted to reflect injured workers.

³ 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).

⁴ 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.

⁵ NCCI Unit Statistical Plan data for the 36-month policy period ending 12/31/2014 on the 10/01/2016 law level and developed to an ultimate basis by type of injury.



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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/rates and assigned risk rates include the following provision for the federal assessment:

1.) Estimated Total Expense Needed for 2018 *	107,000,000
2.) Compensation Payments Reported (on indemnity only) in 2017 *	948,926,168
3.) Assessment Rate on Indemnity Losses (1) / (2)	11.3%

Breakdown of Losses Under the Longshore and Harbor Workers Act

4.) Indemnity Losses (Combination of 1st through 3rd reports) #	44,388,071
5.) Medical Losses (Combination of 1st through 3rd reports) #	32,733,507
6.) Total Losses (4) + (5)	77,121,578
7.) Assessment Rate on Total Losses { (3) x (4) } / (6)	6.5%

* Source: U.S. Department of Labor

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



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APPENDIX D

I. Factor to Convert Advisory Rates to Assigned Risk Rates

A factor of 1.000 is applied to the advisory rates in order to convert to assigned risk rates.

II. Factor to Convert Advisory Rates to Advisory Loss Costs

A factor of 0.747 is applied to the advisory rates in order to convert to advisory loss costs. This factor is the proposed target cost ratio for advisory rates.



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Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Part 4 Additional Information

- Definitions
- Key Contacts



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

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.



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Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Definitions

Policy Year:

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

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

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

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

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

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



Indiana

Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2019

Key Contacts

ICRB KEY CONTACTS

Ronald W. Cooper, CWCP, President (rcooper@icrb.net)
Duane Schroeder, CPCU, Vice President (dschroeder@icrb.net)

ICRB
5920 Castleway West Drive
Indianapolis, IN 46250
Phone (317) 842-2800 Fax (317) 842-3717

NCCI KEY CONTACTS

Amy Quinn, State Relations Executive
Regulatory Division
National Council on Compensation Insurance, Inc. (NCCI)
204 Caughman Farm Lane, Suite 303
Lexington, SC 29072
Phone (561) 893-3812 Fax (561) 893-5825

Robert Moss, ACAS, MAAA, Assistant Actuary
Actuarial and Economic Services Division
National Council on Compensation Insurance, Inc. (NCCI)
901 Peninsula Corporate Circle
Boca Raton, Florida 33487-1362
Phone (561) 893-3794 Fax (561) 893-5430

All NCCI employees can be contacted via e-mail using the following format:

First Name_Last Name@NCCI.com

State:	Indiana	Filing Company:	Indiana Compensation Rating Bureau
TOI/Sub-TOI:	16.0 Workers Compensation/16.0004 Standard WC		
Product Name:	January 1, 2019 Advisory Rate Filing		
Project Name/Number:	/		

Supporting Document Schedules

Satisfied - Item:	80 Filing Description/Cover Letter/NAIC Transmittal
Comments:	The filing cover letter is included in the Rate/Rule Schedule tab, within the document titled "January 1, 2019 Rate Filing."
Attachment(s):	
Item Status:	
Status Date:	

Satisfied - Item:	82 Actuarial Support
Comments:	Actuarial support is contained within the document titled "January 1, 2019 Rate Filing."
Attachment(s):	
Item Status:	
Status Date:	