

State: Indiana **Filing Company:** Indiana Compensation Rating Bureau
TOI/Sub-TOI: 16.0 Workers Compensation/16.0002 Employers Liability WC
Product Name: R-1417
Project Name/Number: 2019 Update to the Retrospective Rating Plan Parameters-Excess Loss Pure Premium Factors/R-1417

Filing at a Glance

Company: Indiana Compensation Rating Bureau
 Product Name: R-1417
 State: Indiana
 TOI: 16.0 Workers Compensation
 Sub-TOI: 16.0002 Employers Liability WC
 Filing Type: Rule
 Date Submitted: 06/06/2019
 SERFF Tr Num: INCR-131968624
 SERFF Status: **Closed-Filed**
 State Tr Num: EFT OK /
 State Status:
 Co Tr Num: R-1417
 Co Status:
 Effective Date: 01/01/2020
 Requested (New):
 Effective Date: 01/01/2020
 Requested (Renewal):
 Author(s): Robin Eleson
 Reviewer(s): Thomas Faust (primary), Kim Green
 Disposition Date: 06/07/2019
 Disposition Status: Filed
 Effective Date (New):
 Effective Date (Renewal):

State: Indiana **Filing Company:** Indiana Compensation Rating Bureau
TOI/Sub-TOI: 16.0 Workers Compensation/16.0002 Employers Liability WC
Product Name: R-1417
Project Name/Number: 2019 Update to the Retrospective Rating Plan Parameters-Excess Loss Pure Premium Factors/R-1417

General Information

Project Name: 2019 Update to the Retrospective Rating Plan Parameters-Excess Loss Pure Premium Factors
 Status of Filing in Domicile: Pending
 Project Number: R-1417
 Domicile Status Comments:
 Reference Organization: Reference Number:
 Reference Title: Advisory Org. Circular: NCCI Circular CIF-2019-05
 Filing Status Changed: 06/07/2019
 Company Status Changed:
 State Status Changed: Deemer Date:
 Created By: Robin Eleson
 Submitted By: Robin Eleson
 Corresponding Filing Tracking Number:

Filing Description:

This item proposes revisions to the following values in NCCI's Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance (Retrospective Rating Plan Manual):

- Excess Loss Pure Premium Factors (ELPPFs) and Excess Loss and Allocated Expense Pure Premium Factors (ELAEPFs)
- State average cost per case values by hazard group underlying the proposed ELPPFs and ELAEPFs
- Each state's excess loss curve parameters, which were last updated in 2014*
- A methodology revision to introduce a new parameter for calculating the proposed ELPPFs and ELAEPFs that facilitates the removal of the expected loss for potential large loss events exceeding \$50 million*

Company and Contact

Filing Contact Information

Duane Schroeder, Vice President dschroeder@icrb.net
 5920 Castleway W Dr 317-842-2800 [Phone] 308 [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	06/06/2019	160933448

State: Indiana Filing Company: Indiana Compensation Rating Bureau
TOI/Sub-TOI: 16.0 Workers Compensation/16.0002 Employers Liability WC
Product Name: R-1417
Project Name/Number: 2019 Update to the Retrospective Rating Plan Parameters-Excess Loss Pure Premium Factors/R-1417

Correspondence Summary

Dispositions

Status	Created By	Created On	Date Submitted
Filed	Thomas Faust	06/07/2019	06/07/2019

State: Indiana Filing Company: Indiana Compensation Rating Bureau
TOI/Sub-TOI: 16.0 Workers Compensation/16.0002 Employers Liability WC
Product Name: R-1417
Project Name/Number: 2019 Update to the Retrospective Rating Plan Parameters-Excess Loss Pure Premium Factors/R-1417

Disposition

Disposition Date: 06/07/2019

Effective Date (New):

Effective Date (Renewal):

Status: Filed

Comment:

Rate data does NOT apply to filing.

Schedule	Schedule Item	Schedule Item Status	Public Access
Supporting Document	80 Filing Description/Cover Letter/NAIC Transmittal		Yes
Supporting Document	Third Party Filers		Yes
Supporting Document	R-1417 Filing Memorandum		Yes

SERFF Tracking #:

INCR-131968624

State Tracking #:

EFT OK /

Company Tracking #:

R-1417

State:

Indiana

Filing Company:

Indiana Compensation Rating Bureau

TOI/Sub-TOI:

16.0 Workers Compensation/16.0002 Employers Liability WC

Product Name:

R-1417

Project Name/Number:

2019 Update to the Retrospective Rating Plan Parameters-Excess Loss Pure Premium Factors/R-1417

Supporting Document Schedules

Satisfied - Item:	80 Filing Description/Cover Letter/NAIC Transmittal
Comments:	R-1417 - 2019 Update to the Retro Rating Plan Parameters-Excess Loss Pure Premium Factors, Excess Loss & Allocated Expense Pure Premium Factors, & Average Cost per Case Values
Attachment(s):	
Item Status:	
Status Date:	

Satisfied - Item:	Third Party Filers
Comments:	Per IC 27-7-2-3 through IC 27-7-2-4 the Bureau has Statutory authority to file rates, rules, plans & forms on behalf of all workers compensation insurance companies in Indiana.
Attachment(s):	
Item Status:	
Status Date:	

Satisfied - Item:	R-1417 Filing Memorandum
Comments:	
Attachment(s):	Item R-1417 - 2019 Update to the Retro Rating Plan Parameters-Excess Loss Pure Premium Factors.pdf
Item Status:	
Status Date:	

FILING MEMORANDUM

**ITEM R-1417—2019 UPDATE TO THE RETROSPECTIVE RATING PLAN
 PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS, EXCESS LOSS AND ALLOCATED
 EXPENSE PURE PREMIUM FACTORS, AND AVERAGE COST PER CASE VALUES**

PURPOSE

This item proposes revisions to the following values in NCCI's *Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance (Retrospective Rating Plan Manual)*:

- Excess Loss Pure Premium Factors (ELPPFs) and Excess Loss and Allocated Expense Pure Premium Factors (ELAEPFs)
- State average cost per case values by hazard group underlying the proposed ELPPFs and ELAEPFs
- Each state's excess loss curve parameters, which were last updated in 2014*
- A methodology revision to introduce a new parameter for calculating the proposed ELPPFs and ELAEPFs that facilitates the removal of the expected loss for potential large loss events exceeding \$50 million*

*Does not apply in Texas.

BACKGROUND

A retrospective rating plan adjusts the premium for an employer's policy on the basis of losses incurred during the term of that policy. At the simplest level, an employer's retrospective rating premium (RRP) is determined by the formula, $RRP = (BP + LCF * L) * TM$, where:

RRP	=	Retrospective Rating Premium, subject to minimum and maximum amounts
BP	=	Basic Premium
LCF	=	Loss Conversion Factor, generally reflecting loss adjustment expense
L	=	Actual Incurred Loss during the effective policy period
TM	=	Tax Multiplier

The RRP is not known until after the policy expires and the actual losses are fully developed. The basic premium contains provisions for the expenses of the carrier. It also includes a net aggregate loss factor, which results from the maximum and minimum limitations on the RRP. The net aggregate loss factor reflects the charge to compensate for the possibility that the RRP will exceed the maximum premium amount. It also reflects the savings resulting from the possibility that the RRP will be less than the minimum premium amount. The net aggregate loss factor accounts for the difference between the provision for the maximum and the savings from the minimum.

To determine policy size, reference the look-up table Appendix A—Table of Expected Claim Count Groups, which is based upon a calculation of the expected number of claims for the policy. To provide consistency to the derivation of the expected number of claims, the average cost per case values by hazard group that underlie the proposed ELPPFs and ELAEPFs are included in this filing. For an illustration of how the expected number of claims is computed, refer to line 7 of the Basic Premium Factor Calculation Example in Appendix D of NCCI's *Retrospective Rating Plan Manual*.

The enclosed materials are copyrighted materials of the National Council on Compensation Insurance, Inc. ("NCCI"). The use of these materials may be governed by a separate contractual agreement between NCCI and its licensees such as an affiliation agreement between you and NCCI. Unless permitted by NCCI, you may not copy, create derivative works (by way of example, create or supplement your own works, databases, software, publications, manuals, or other materials), display, perform, or use the materials, in whole or in part, in any media. Such actions taken by you, or by your direction, may be in violation of federal copyright and other commercial laws. NCCI does not permit or acquiesce such use of its materials. In the event such use is contemplated or desired, please contact NCCI's Legal Department for permission.

FILING MEMORANDUM

ITEM R-1417—2019 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS, EXCESS LOSS AND ALLOCATED EXPENSE PURE PREMIUM FACTORS, AND AVERAGE COST PER CASE VALUES

ELPPFs and ELAEPFFs

The Retrospective Rating Plan contains an optional provision—an individual loss limitation—that limits the loss amount arising out of any one accident that will be used to calculate retrospective premium adjustments. The charge for limiting losses is determined by applying an Excess Loss Factor (ELF) or an Excess Loss and Allocated Expense Factor (ELAEF). The ELFs and ELAEFs vary by loss limitation, state, and hazard group. The variation in ELFs and ELAEFs among hazard groups reflects the varying degrees of severity exposure to occupational hazards inherent to operations associated with each classification.

In states where loss costs are developed, NCCI files ELPPFs and ELAEPFFs instead of ELFs and ELAEFs. Carriers convert these two factors into ELFs and ELAEFs. The differences between ELPPFs and ELAEPFFs are:

- ELPPFs represent the expected amount of losses above a given limit (excess losses) relative to the loss cost portion of the premium. ELPPFs do not consider the inclusion of allocated loss adjustment expense (ALAE) as part of incurred losses. Carriers convert ELPPFs to ELFs.

$$\text{ELPPF} = \text{Excess Losses} / \text{Loss Cost Premium}$$

- ELAEPFFs, which apply when the definition of loss includes ALAE, represent the expected amount of losses and ALAE above a given limit (excess losses including ALAE) relative to the loss cost portion of the premium. These optional values are provided for loss cost states where permitted. Refer to the Exhibit Comments and Implementation Summary of this memorandum for a list of the states where ELAEPFFs are not provided. Carriers convert ELAEPFFs to ELAEFs.

$$\text{ELAEPFF} = \text{Excess Losses and Allocated Loss Adjustment Expenses} / \text{Loss Cost Premium}$$

ELPPFs and ELAEPFFs are updated regularly for two reasons:

1. ELPPFs and ELAEPFFs are computed from excess ratios, which reflect the expected percentage of losses above a given loss limit. For any fixed limit, inflation will increase the percentage of losses above that limit. Therefore, ELPPFs and ELAEPFFs are regularly updated to accurately reflect the effect of inflation on those losses.
2. Overall excess ratios are computed as a weighted average of claim group excess ratios. Thus, excess ratios, and consequently ELPPFs and ELAEPFFs, are updated regularly for changes in the mix of losses across claim groups.

The proposed state ELPPFs and ELAEPFFs are based on the latest five years of Unit Statistical data. The latest five years of data generally underlie the latest approved NCCI experience filings.

In this filing, the excess loss curve parameters are updated for the first time since 2014. Also, a minor change in the methodology is introduced to include a parameter for calculating the proposed ELPPFs and ELAEPFFs that scales the values appropriately for potential large loss events exceeding \$50 million. Both changes are described in more detail in Informational Exhibit 4 in this filing.

The enclosed materials are copyrighted materials of the National Council on Compensation Insurance, Inc. ("NCCI"). The use of these materials may be governed by a separate contractual agreement between NCCI and its licensees such as an affiliation agreement between you and NCCI. Unless permitted by NCCI, you may not copy, create derivative works (by way of example, create or supplement your own works, databases, software, publications, manuals, or other materials), display, perform, or use the materials, in whole or in part, in any media. Such actions taken by you, or by your direction, may be in violation of federal copyright and other commercial laws. NCCI does not permit or acquiesce such use of its materials. In the event such use is contemplated or desired, please contact NCCI's Legal Department for permission.

FILING MEMORANDUM

ITEM R-1417—2019 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS, EXCESS LOSS AND ALLOCATED EXPENSE PURE PREMIUM FACTORS, AND AVERAGE COST PER CASE VALUES

PROPOSAL

This item proposes to update the ELPPFs and ELAEPFFs that are used with an optional loss limitation in NCCI's *Retrospective Rating Plan Manual*. Exhibits 1 and 2 contain the proposed ELPPFs and ELAEPFFs. The average cost per case values are also being updated for use in determining the expected number of claims for the countrywide Table of Aggregate Loss Factors and are included as Exhibit 3.

IMPACT

The values proposed in this item are based on the latest filed information available as of May 7, 2019.

The proposed ELPPFs and ELAEPFFs are necessary to maintain the aggregate expected balance between the retrospectively rated premium and the guaranteed cost premium. If the ELPPFs and ELAEPFFs are not updated, there will be a natural erosion of rate adequacy over time caused by inflation acting to increase the percentage of losses over any fixed loss limit.

This proposal to adjust the ELPPFs and ELAEPFFs may increase or decrease premium for an employer that chooses to purchase an individual loss limitation, depending on which limit is purchased.

The changes to the overall proposed ELPPFs and ELAEPFFs are generally downward for most states, particularly for loss limits of \$250,000 and higher. The impact varies across both loss limits and hazard groups for each state. A few states will observe an increase in proposed ELPPFs and ELAEPFFs, mainly due to the refresh of the data and the proposed change in the state-specific excess loss curve parameters.

The impact due to the methodology change for handling large loss events results in a very slight increase to the ELPPFs and ELAEPFFs, because the newly introduced unlimited parameter is always greater than the average cost per case underlying the current methodology. The methodology change impact is minimal when reviewing the differences between the current and refreshed ELPPF and ELAEPFF values.

The proposed ELPPFs and ELAEPFFs also reflect an updated mix of loss weights and average costs per case by hazard group and claim group. Because retrospectively rated policies represent a small percentage of a state's premium, changes are expected to have a negligible impact on overall statewide premium levels.

IMPLEMENTATION

This item is applicable to new and renewal voluntary policies only and will become effective concurrent with each state's approved loss cost/rate filing effective on and after October 1, 2019. For example, this item will be effective January 1, 2020, for approved loss cost/rate filings that have a January 1, 2020 effective date. Similarly, this item will be effective July 1, 2020, for approved loss cost/rate filings that have a July 1, 2020 effective date.

The enclosed materials are copyrighted materials of the National Council on Compensation Insurance, Inc. ("NCCI"). The use of these materials may be governed by a separate contractual agreement between NCCI and its licensees such as an affiliation agreement between you and NCCI. Unless permitted by NCCI, you may not copy, create derivative works (by way of example, create or supplement your own works, databases, software, publications, manuals, or other materials), display, perform, or use the materials, in whole or in part, in any media. Such actions taken by you, or by your direction, may be in violation of federal copyright and other commercial laws. NCCI does not permit or acquiesce such use of its materials. In the event such use is contemplated or desired, please contact NCCI's Legal Department for permission.

FILING MEMORANDUM

**ITEM R-1417—2019 UPDATE TO THE RETROSPECTIVE RATING PLAN
 PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS, EXCESS LOSS AND ALLOCATED
 EXPENSE PURE PREMIUM FACTORS, AND AVERAGE COST PER CASE VALUES**

If there is no loss cost/rate filing for a state in a given year, this item will take effect on that state’s regular loss cost/rate effective date. The regular loss cost/rate effective date is one year later than the date of the state’s previous year’s effective date.

Anticipated Effective Dates by State

The following chart shows the anticipated effective dates for each state:

State	Anticipated* Effective Date
Alabama	March 1, 2020
Alaska	January 1, 2020
Arkansas	July 1, 2020
Colorado	January 1, 2020
Connecticut	January 1, 2020
District of Columbia	November 1, 2019
Georgia	March 1, 2020
Hawaii	The effective date will be determined upon regulatory approval of the individual carrier’s election to adopt this change.
Illinois	January 1, 2020
Indiana	January 1, 2020
Kansas	January 1, 2020
Kentucky	October 1, 2019
Louisiana	May 1, 2020
Maine	April 1, 2020
Maryland	January 1, 2020
Mississippi	March 1, 2020
Missouri	January 1, 2020
Montana	July 1, 2020
Nebraska	February 1, 2020
Nevada	March 1, 2020

The enclosed materials are copyrighted materials of the National Council on Compensation Insurance, Inc. ("NCCI"). The use of these materials may be governed by a separate contractual agreement between NCCI and its licensees such as an affiliation agreement between you and NCCI. Unless permitted by NCCI, you may not copy, create derivative works (by way of example, create or supplement your own works, databases, software, publications, manuals, or other materials), display, perform, or use the materials, in whole or in part, in any media. Such actions taken by you, or by your direction, may be in violation of federal copyright and other commercial laws. NCCI does not permit or acquiesce such use of its materials. In the event such use is contemplated or desired, please contact NCCI's Legal Department for permission.

FILING MEMORANDUM

ITEM R-1417—2019 UPDATE TO THE RETROSPECTIVE RATING PLAN
 PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS, EXCESS LOSS AND ALLOCATED
 EXPENSE PURE PREMIUM FACTORS, AND AVERAGE COST PER CASE VALUES

State	Anticipated* Effective Date
New Hampshire	January 1, 2020
New Mexico	January 1, 2020
North Carolina	April 1, 2020
Oklahoma	January 1, 2020
Oregon	January 1, 2020
Rhode Island	August 1, 2020
South Carolina	April 1, 2020
South Dakota	July 1, 2020
Tennessee	March 1, 2020
Texas	July 1, 2020
Utah	January 1, 2020
Vermont	April 1, 2020
West Virginia	November 1, 2019

*Subject to change, depending on the approved effective date of the loss cost/rate filing if a loss cost/rate filing has been submitted for a state.

EXHIBIT COMMENTS AND IMPLEMENTATION SUMMARY

Exhibit	Exhibit Comments
1	Displays the revised state ELPPFs in NCCI's <i>Retrospective Rating Plan Manual</i> .
2	Displays the revised state ELAEPFFs in NCCI's <i>Retrospective Rating Plan Manual</i> <ul style="list-style-type: none"> Applies in all states in this item except GA, IL, KY, LA, MD, OR, and SD
3	Displays the revised state average cost per case values by hazard group.
4	Displays the informational exhibit related to the refresh of the excess loss curve parameters and the methodology revision <ul style="list-style-type: none"> Applies in all states in this item except TX

The enclosed materials are copyrighted materials of the National Council on Compensation Insurance, Inc. ("NCCI"). The use of these materials may be governed by a separate contractual agreement between NCCI and its licensees such as an affiliation agreement between you and NCCI. Unless permitted by NCCI, you may not copy, create derivative works (by way of example, create or supplement your own works, databases, software, publications, manuals, or other materials), display, perform, or use the materials, in whole or in part, in any media. Such actions taken by you, or by your direction, may be in violation of federal copyright and other commercial laws. NCCI does not permit or acquiesce such use of its materials. In the event such use is contemplated or desired, please contact NCCI's Legal Department for permission.

**ITEM R-1417—2019 UPDATE TO THE RETROSPECTIVE RATING PLAN
PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS, EXCESS LOSS AND ALLOCATED
EXPENSE PURE PREMIUM FACTORS, AND AVERAGE COST PER CASE VALUES**

**EXHIBIT 1
RETROSPECTIVE RATING PLAN MANUAL
INDIANA STATE SPECIAL RATING VALUES
EXCESS LOSS PURE PREMIUM FACTORS**

Per Accident Limitation	Hazard Groups						
	A	B	C	D	E	F	G
\$10,000	0.516	0.569	0.594	0.636	0.667	0.712	0.727
\$15,000	0.460	0.515	0.542	0.587	0.621	0.671	0.690
\$20,000	0.416	0.472	0.500	0.547	0.584	0.636	0.659
\$25,000	0.380	0.437	0.465	0.513	0.552	0.606	0.631
\$30,000	0.350	0.406	0.435	0.483	0.524	0.579	0.606
\$35,000	0.324	0.380	0.409	0.457	0.499	0.554	0.584
\$40,000	0.302	0.357	0.386	0.434	0.476	0.532	0.563
\$50,000	0.267	0.319	0.347	0.394	0.437	0.493	0.526
\$75,000	0.206	0.253	0.279	0.322	0.364	0.418	0.455
\$100,000	0.168	0.211	0.234	0.274	0.314	0.365	0.402
\$125,000	0.142	0.180	0.202	0.239	0.277	0.325	0.363
\$150,000	0.122	0.157	0.178	0.212	0.249	0.294	0.331
\$175,000	0.107	0.139	0.158	0.191	0.226	0.269	0.305
\$200,000	0.095	0.125	0.143	0.174	0.207	0.248	0.284
\$225,000	0.085	0.113	0.130	0.159	0.191	0.230	0.266
\$250,000	0.077	0.103	0.120	0.147	0.178	0.215	0.250
\$275,000	0.071	0.095	0.111	0.136	0.166	0.202	0.236
\$300,000	0.065	0.088	0.103	0.127	0.156	0.190	0.224
\$325,000	0.060	0.082	0.096	0.120	0.147	0.180	0.213
\$350,000	0.056	0.076	0.090	0.113	0.139	0.171	0.203
\$375,000	0.052	0.072	0.085	0.106	0.132	0.162	0.194
\$400,000	0.049	0.068	0.080	0.101	0.126	0.155	0.186
\$425,000	0.046	0.064	0.076	0.096	0.120	0.148	0.179
\$450,000	0.044	0.061	0.072	0.092	0.115	0.142	0.173
\$475,000	0.041	0.058	0.069	0.088	0.110	0.136	0.166
\$500,000	0.039	0.055	0.066	0.084	0.106	0.131	0.161
\$600,000	0.033	0.046	0.056	0.072	0.092	0.114	0.142
\$700,000	0.028	0.040	0.049	0.063	0.081	0.102	0.128
\$800,000	0.025	0.035	0.044	0.057	0.073	0.092	0.117
\$900,000	0.022	0.032	0.040	0.051	0.067	0.084	0.108
\$1,000,000	0.020	0.029	0.036	0.047	0.062	0.077	0.101
\$2,000,000	0.011	0.016	0.021	0.027	0.037	0.046	0.063
\$3,000,000	0.007	0.011	0.015	0.020	0.027	0.034	0.048
\$4,000,000	0.006	0.009	0.011	0.015	0.021	0.027	0.039
\$5,000,000	0.004	0.007	0.009	0.013	0.018	0.023	0.033
\$6,000,000	0.004	0.006	0.008	0.011	0.015	0.019	0.028
\$7,000,000	0.003	0.005	0.006	0.009	0.013	0.016	0.024
\$8,000,000	0.002	0.004	0.005	0.008	0.011	0.014	0.021
\$9,000,000	0.002	0.003	0.005	0.007	0.009	0.013	0.019
\$10,000,000	0.002	0.003	0.004	0.006	0.008	0.011	0.017

**ITEM R-1417—2019 UPDATE TO THE RETROSPECTIVE RATING PLAN
PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS, EXCESS LOSS AND ALLOCATED
EXPENSE PURE PREMIUM FACTORS, AND AVERAGE COST PER CASE VALUES**

**EXHIBIT 2
RETROSPECTIVE RATING PLAN MANUAL
INDIANA STATE SPECIAL RATING VALUES
EXCESS LOSS AND ALLOCATED EXPENSE PURE PREMIUM FACTORS**

Per Accident Limitation	Hazard Groups						
	A	B	C	D	E	F	G
\$10,000	0.575	0.632	0.657	0.702	0.734	0.782	0.797
\$15,000	0.514	0.574	0.602	0.650	0.687	0.739	0.759
\$20,000	0.467	0.528	0.558	0.608	0.647	0.703	0.726
\$25,000	0.428	0.490	0.520	0.571	0.613	0.671	0.697
\$30,000	0.396	0.457	0.488	0.540	0.583	0.642	0.671
\$35,000	0.368	0.429	0.460	0.511	0.556	0.616	0.647
\$40,000	0.344	0.404	0.435	0.486	0.532	0.592	0.625
\$50,000	0.305	0.363	0.392	0.443	0.490	0.550	0.585
\$75,000	0.238	0.290	0.317	0.365	0.410	0.469	0.508
\$100,000	0.196	0.242	0.268	0.311	0.355	0.411	0.451
\$125,000	0.166	0.208	0.232	0.273	0.314	0.367	0.407
\$150,000	0.144	0.183	0.205	0.243	0.283	0.333	0.372
\$175,000	0.127	0.163	0.183	0.219	0.257	0.305	0.344
\$200,000	0.113	0.146	0.166	0.200	0.236	0.282	0.320
\$225,000	0.102	0.133	0.152	0.184	0.219	0.262	0.300
\$250,000	0.093	0.122	0.140	0.170	0.204	0.245	0.282
\$275,000	0.085	0.112	0.129	0.158	0.191	0.230	0.267
\$300,000	0.078	0.104	0.121	0.148	0.179	0.217	0.253
\$325,000	0.073	0.097	0.113	0.139	0.169	0.206	0.241
\$350,000	0.068	0.091	0.106	0.131	0.160	0.195	0.230
\$375,000	0.064	0.086	0.100	0.124	0.152	0.186	0.220
\$400,000	0.060	0.081	0.095	0.118	0.145	0.178	0.212
\$425,000	0.056	0.076	0.090	0.112	0.139	0.170	0.203
\$450,000	0.053	0.072	0.086	0.107	0.133	0.163	0.196
\$475,000	0.051	0.069	0.082	0.102	0.127	0.157	0.189
\$500,000	0.048	0.066	0.078	0.098	0.122	0.151	0.183
\$600,000	0.040	0.056	0.067	0.084	0.106	0.132	0.162
\$700,000	0.035	0.048	0.058	0.074	0.094	0.117	0.146
\$800,000	0.031	0.043	0.052	0.066	0.085	0.106	0.133
\$900,000	0.027	0.038	0.047	0.060	0.077	0.097	0.123
\$1,000,000	0.025	0.035	0.043	0.055	0.071	0.089	0.114
\$2,000,000	0.013	0.019	0.024	0.031	0.042	0.053	0.071
\$3,000,000	0.009	0.013	0.017	0.023	0.031	0.039	0.054
\$4,000,000	0.007	0.010	0.013	0.018	0.024	0.031	0.044
\$5,000,000	0.005	0.008	0.011	0.014	0.020	0.026	0.037
\$6,000,000	0.004	0.007	0.009	0.012	0.017	0.022	0.031
\$7,000,000	0.004	0.006	0.008	0.010	0.014	0.019	0.027
\$8,000,000	0.003	0.005	0.006	0.009	0.013	0.016	0.024
\$9,000,000	0.003	0.004	0.006	0.008	0.011	0.014	0.021
\$10,000,000	0.002	0.004	0.005	0.007	0.010	0.013	0.019

**ITEM R-1417—2019 UPDATE TO THE RETROSPECTIVE RATING PLAN
PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS, EXCESS LOSS AND ALLOCATED
EXPENSE PURE PREMIUM FACTORS, AND AVERAGE COST PER CASE VALUES**

**EXHIBIT 3
RETROSPECTIVE RATING PLAN MANUAL
STATE SPECIAL RATING VALUES
AVERAGE COST PER CASE**

State	Hazard Groups						
	A	B	C	D	E	F	G
AK	12,547	15,661	17,890	24,374	30,558	38,972	48,950
AL	7,457	10,256	11,214	15,233	19,943	29,052	33,587
AR	4,807	6,465	7,055	10,337	15,999	26,654	25,521
CO	5,713	8,336	9,292	13,258	17,515	23,843	27,398
CT	10,679	14,982	16,777	22,507	29,720	42,039	45,184
DC	13,870	19,347	22,913	25,393	39,893	36,597	56,634
GA	8,674	10,821	12,569	16,480	23,496	37,797	38,802
HI	13,144	16,966	17,410	21,235	25,770	29,140	34,149
IL	11,209	15,658	18,145	24,755	35,066	50,589	57,289
IN	5,166	7,429	8,123	11,195	14,655	24,530	22,174
KS	4,968	7,424	8,329	13,049	17,147	26,129	29,063
KY	5,268	8,183	9,179	12,580	18,197	29,356	45,197
LA	14,510	17,667	23,629	32,078	43,935	59,967	52,672
MD	8,318	11,531	13,470	18,617	24,914	34,750	34,381
ME	4,676	6,162	6,742	9,435	12,994	19,039	17,582
MO	8,477	11,598	14,218	20,251	27,412	40,910	45,088
MS	7,513	10,089	12,151	14,808	21,610	32,799	26,672
MT	5,985	10,253	11,043	15,124	16,907	28,743	35,924
NC	8,289	9,938	12,431	18,531	25,900	42,939	46,159
NE	6,092	9,695	10,658	14,903	20,486	32,357	31,338
NH	7,349	9,877	11,134	15,511	19,571	27,463	27,049
NM	8,455	10,624	11,479	16,688	24,583	36,462	41,183
NV	5,626	7,635	8,995	10,648	16,423	22,718	24,778
OK	8,390	14,042	14,318	19,682	26,503	41,752	54,958
OR	5,171	7,471	7,908	10,166	12,477	17,316	21,120
RI	8,789	12,520	13,989	17,343	22,346	29,736	31,602
SC	9,798	13,405	15,868	23,801	31,750	46,557	53,839
SD	5,380	8,455	9,109	12,623	18,502	31,304	28,383
TN	4,778	7,389	8,595	11,489	18,030	26,052	28,606
TX	5,410	7,258	8,671	10,711	13,069	19,580	27,344
UT	4,521	6,301	7,258	9,566	13,776	20,277	24,071
VT	9,283	11,861	14,049	20,040	23,549	35,319	31,136
WV	4,245	6,627	7,356	10,476	12,419	19,241	24,889

**ITEM R-1417—2019 UPDATE TO THE RETROSPECTIVE RATING PLAN
PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS, EXCESS LOSS AND ALLOCATED
EXPENSE PURE PREMIUM FACTORS, AND AVERAGE COST PER CASE VALUES**

**EXHIBIT 3
RETROSPECTIVE RATING PLAN MANUAL
STATE SPECIAL RATING VALUES
AVERAGE COST PER CASE INCLUDING ALAE**

State	Hazard Groups						
	A	B	C	D	E	F	G
AK	13,949	17,402	19,859	27,030	33,848	43,126	54,036
AL	8,398	11,537	12,603	17,096	22,351	32,516	37,491
AR	5,361	7,204	7,848	11,475	17,722	29,465	28,124
CO	6,268	9,138	10,175	14,498	19,129	26,015	29,829
CT	11,838	16,595	18,570	24,894	32,842	46,422	49,809
DC	15,411	21,472	25,398	28,125	44,104	40,433	62,372
HI	14,730	19,008	19,498	23,773	28,833	32,590	38,149
IN	5,660	8,134	8,886	12,236	16,003	26,755	24,150
KS	5,562	8,303	9,307	14,560	19,107	29,081	32,268
ME	5,009	6,601	7,220	10,096	13,896	20,349	18,779
MO	9,460	12,930	15,829	22,515	30,432	45,357	49,856
MS	8,589	11,528	13,868	16,886	24,608	37,316	30,276
MT	6,284	10,759	11,584	15,849	17,709	30,077	37,545
NC	9,217	11,041	13,794	20,540	28,673	47,487	50,929
NE	6,618	10,520	11,554	16,137	22,158	34,956	33,791
NH	8,003	10,754	12,115	16,860	21,259	29,809	29,325
NM	9,292	11,670	12,597	18,290	26,914	39,876	44,938
NV	6,117	8,295	9,760	11,541	17,770	24,552	26,706
OK	9,243	15,451	15,738	21,607	29,055	45,708	59,988
RI	10,012	14,253	15,915	19,718	25,384	33,753	35,807
SC	11,057	15,114	17,867	26,765	35,651	52,222	60,216
TN	5,410	8,358	9,710	12,962	20,310	29,317	32,119
TX	5,981	8,112	9,767	12,149	14,949	22,601	31,965
UT	5,095	7,091	8,152	10,725	15,416	22,659	26,815
VT	10,029	12,812	15,164	21,616	25,387	38,049	33,503
WV	4,930	7,688	8,518	12,111	14,332	22,157	28,537

**ITEM R-1417—2019 UPDATE TO THE RETROSPECTIVE RATING PLAN
PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS, EXCESS LOSS AND ALLOCATED
EXPENSE PURE PREMIUM FACTORS, AND AVERAGE COST PER CASE VALUES**

EXHIBIT 4

INFORMATIONAL EXHIBIT

The excess ratio curves underlying the proposed state ELPPFs are being refreshed in this update. The latest valuation of case-incurred loss amounts from NCCI's *Statistical Plan for Workers Compensation and Employers Liability Insurance* are compiled across 37 states and combined for five older policy periods, corresponding to policy periods within the 2005–2010 time frame. These policy periods are selected to use claim amounts evaluated as of the 6th through 10th reports. Using this data, one countrywide excess ratio curve is generated for each claim group (five curves).

Claim group—Every claim is assigned to one of the following five claim groups using its latest evaluation:

1. Fatal
2. Permanent Total
3. Permanent Partial and Temporary Total—Likely-to-Develop
4. Permanent Partial and Temporary Total—Not-Likely-to-Develop
5. Medical Only

Consistent with the 2014 Excess Loss Factor methodology that NCCI introduced in Item R-1408—2014 Update to the Retrospective Rating Plan Parameters—Excess Loss Pure Premium Factors and Excess Loss and Allocated Expense Pure Premium Factors, every state has five unique excess ratio curves shaped from the newly refreshed countrywide curves. The state curves are shaped using state-specific claim amounts from the five policy periods evaluated as of the 6th through 10th reports. The variability of the state's claim data for each claim group is quantified and compared to the variability observed in the countrywide claim group data (at the same maturity) to determine the adjustment applied to generate the state excess ratio curves. This helps address the differences in benefit levels and variation in claim amounts across states. A credibility-weighted procedure is applied to compute the variability observed for states having small claim volumes for any one claim group.

The current methodology is summarized and described in Item R-1408 in Informational Exhibit 3, filed in each jurisdiction in 2014. One small change in the methodology—to address large events beyond \$50M—has been introduced in this filing and is described later but does not affect the curves.

The following table summarizes a comparison of the 2014 ELPPF methodology to that being proposed in this filing that refreshes the 2014 methodology with newer data:

Component	Current Methodology (2014)	Proposed Methodology
Organization of the Data	Curves by Claim Group: <ul style="list-style-type: none"> • Fatal • Permanent Total • Permanent Partial and Temporary Total—Likely-to-Develop • Permanent Partial and Temporary Total—Not-Likely-to-Develop • Medical Only 	Same as current

**ITEM R-1417—2019 UPDATE TO THE RETROSPECTIVE RATING PLAN
PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS, EXCESS LOSS AND ALLOCATED
EXPENSE PURE PREMIUM FACTORS, AND AVERAGE COST PER CASE VALUES**

EXHIBIT 4 (CONT'D)

Component	Current Methodology (2014)	Proposed Methodology
Maturity of the Data	Curves based on PYs ranging from 2000–2005 <ul style="list-style-type: none"> • 6th through 10th reports for all claim groups 	Curves based on PYs ranging from 2005–2010 <ul style="list-style-type: none"> • 6th through 10th reports for all claim groups
Form of Body of Excess Ratio Curves	Mixture of two lognormal distributions fitted for each claim group	Same as current
Form of Tail of Excess Ratio Curves	A Generalized Pareto (GPD) tail is spliced on to each CW Curve by claim group	Same as current
Adjusting Countrywide Curves to the State Level	Countrywide parameters are adjusted to the state level using the state's R-value. The R-value is the state's credibility-weighted proxy CV relative to the countrywide proxy CV and is calculated by claim group.	Same as current
Stabilizing ELFs for Annual Updates/ Treatment of PT Claims	PT severities (based on the same data as the curves) are locked-in and adjusted forward each year for trend and benefit on-levels <ul style="list-style-type: none"> • The ratios (by state and hazard group) of expected PT claim counts to expected non-PT lost-time claim counts will remain constant 	Same as current except PT severities and ratios are based on PYs ranging from 2005–2010
Handling of Catastrophic Events Beyond \$50M	Final excess ratios are adjusted to limit occurrences to \$50 million <ul style="list-style-type: none"> • Excess ratios at \$50M = 0 	Introduces unlimited parameter to accommodate the removal of expected losses beyond \$50M <ul style="list-style-type: none"> • Excess ratio at \$50M = 0
Inclusion of ALAE by Claim Group and Size of Loss	<ul style="list-style-type: none"> • Severities are scaled by separate claim group relativities (balanced to get the correct statewide total ALAE) • Countrywide shape curves including ALAE are fitted for each claim group and then CV adjusted similar to loss • CW ALAE/Loss = 12.7% • Weighted at state level with pure loss shape curves based on how the statewide ALAE/Loss ratio compares to the overall countrywide ALAE /Loss ratio 	Same as Current except: CW ALAE/Loss = 13.2%

METHODOLOGY REVISION

The ELPPFs and ELAEPPFs that NCCI produces and files are non-catastrophe. Events exceeding \$50 million are considered catastrophes and non-ratable. The current approach handled this in a final adjustment by initially producing unlimited excess loss provisions. Then the excess provision for losses beyond \$50

**ITEM R-1417—2019 UPDATE TO THE RETROSPECTIVE RATING PLAN
PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS, EXCESS LOSS AND ALLOCATED
EXPENSE PURE PREMIUM FACTORS, AND AVERAGE COST PER CASE VALUES**

EXHIBIT 4 (CONT'D)

million is removed and the excess ratios at the remaining loss limits are adjusted and rescaled. This process ensures that the excess ratio at the \$50M loss limit is zero and that the excess ratio at zero dollars is 1.0.

In this filing, NCCI is proposing a slightly different approach to calculating the excess ratios to accomplish the same outcome. Let $E[\min(X;x)]$ be defined as the limited expected value (LEV) of a random variable loss amount (X) limited at x . Given this notation, the generalized form of the excess ratio calculation at a limit of \$100,000 is as follows:

$$\text{Excess Ratio @\$100,000} = 1 - \frac{E[\min(X;100,000)]}{\text{Average Cost per Case}}$$

Under the current methodology, the average cost per case varies by state, claim group, and hazard group, and it can be thought of as conceptually analogous to a limited expected value at \$50M (because the ELPPFs are non-catastrophe).

Under the proposed methodology in this filing, NCCI introduces the new unlimited parameter (UP), which is used in determining the numerator (LEV) in the formula above. UP is determined by setting $E[\min(X;\$50,000,000)]$ equal to the average cost per case. This results in an excess ratio of zero at \$50,000,000 and facilitates the removal of the expected loss for potential large loss events exceeding \$50 million. The calculation change does not impact the methodology used to create the loss curve parameters that underlie the excess ratio calculations.

In summary, the excess loss calculation has an added parameter (i.e., the unlimited parameter) that allows for calculating excess ratios using limited expected values rather than calculating excess ratios from an unlimited distribution, which then needs to be adjusted. Because the UP is used only in intermediate calculations of the ELPPFs, it will not be included in the **Retrospective Rating Plan Manual** and is not needed for use in any other components of the **Retrospective Rating Plan**. The UP will be provided as an informational value in the **Excess Loss Factor Calculations** NCCI produces by state.