

SERFF Tracking Number:	INCR-127352641	State:	Indiana
Filing Company:	Indiana Compensation Rating Bureau	State Tracking Number:	
Company Tracking Number:	R-1403		
TOI:	16.0 Workers Compensation	Sub-TOI:	16.0002 Employers Liability WC
Product Name:	R-1403		
Project Name/Number:	2011 Update to Retrospective Rating Plan Parameters Expected Loss Ranges & State Hazard Group Differentials & Creation of Retrospective Rating Plan Manual Appendix D/R-1403		

Filing at a Glance

Company: Indiana Compensation Rating Bureau

Product Name: R-1403

TOI: 16.0 Workers Compensation

Sub-TOI: 16.0002 Employers Liability WC

Filing Type: Rule

SERFF Tr Num: INCR-127352641

SERFF Status: Closed-Filed

Co Tr Num: R-1403

Co Status:

Author: Robin Eleson

Date Submitted: 08/09/2011

State: Indiana

State Tr Num:

State Status:

Reviewer(s): Andrew Howard

Disposition Date: 09/07/2011

Disposition Status: **Filed**

Effective Date Requested (New): 01/01/2012

Effective Date Requested (Renewal): 01/01/2012

Effective Date (New):

Effective Date (Renewal):

General Information

Project Name: 2011 Update to Retrospective Rating Plan Parameters
Expected Loss Ranges & State Hazard Group Differentials & Creation
of Retrospective Rating Plan Manual Appendix D

Project Number: R-1403

Reference Organization:

Reference Title:

Filing Status Changed: 09/07/2011

State Status Changed:

Created By: Robin Eleson

Corresponding Filing Tracking Number:

Filing Description:

Item updates Appendix A Table of Expected Loss Ranges & the Hazard Group Differentials and creates Appendix D Basic Premium Factor Calculation Example in NCCI's 2009 Edition of the Retrospective Rating Plan Manual for Workers Compensation & Employers Liability Insurance.

Status of Filing in Domicile: Pending

Domicile Status Comments:

Reference Number:

Advisory Org. Circular: CIF-2011-09

Company Status Changed:

Deemer Date:

Submitted By: Robin Eleson

Company and Contact

Filing Contact Information

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SERFF Tracking Number: INCR-127352641 State: Indiana
Filing Company: Indiana Compensation Rating Bureau State Tracking Number:
Company Tracking Number: R-1403
TOI: 16.0 Workers Compensation Sub-TOI: 16.0002 Employers Liability WC
Product Name: R-1403
Project Name/Number: 2011 Update to Retrospective Rating Plan Parameters Expected Loss Ranges & State Hazard Group Differentials & Creation of Retrospective Rating Plan Manual Appendix D/R-1403

Filing Company Information

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

Filing Fees

Fee Required?	No
Retaliatory?	No
Fee Explanation:	
Per Company:	Yes

SERFF Tracking Number: *INCR-127352641* *State:* *Indiana*
Filing Company: *Indiana Compensation Rating Bureau* *State Tracking Number:*
Company Tracking Number: *R-1403*
TOI: *16.0 Workers Compensation* *Sub-TOI:* *16.0002 Employers Liability WC*
Product Name: *R-1403*
Project Name/Number: *2011 Update to Retrospective Rating Plan Parameters Expected Loss Ranges & State Hazard Group Differentials & Creation of*
Retrospective Rating Plan Manual Appendix D/R-1403

Correspondence Summary

Dispositions

Status	Created By	Created On	Date Submitted
Filed	Andrew Howard	09/07/2011	09/07/2011

SERFF Tracking Number: *INCR-127352641* *State:* *Indiana*
Filing Company: *Indiana Compensation Rating Bureau* *State Tracking Number:*
Company Tracking Number: *R-1403*
TOI: *16.0 Workers Compensation* *Sub-TOI:* *16.0002 Employers Liability WC*
Product Name: *R-1403*
Project Name/Number: *2011 Update to Retrospective Rating Plan Parameters Expected Loss Ranges & State Hazard Group Differentials & Creation of Retrospective Rating Plan Manual Appendix D/R-1403*

Disposition

Disposition Date: 09/07/2011

Effective Date (New):

Effective Date (Renewal):

Status: Filed

Comment:

Rate data does NOT apply to filing.

SERFF Tracking Number:	INCR-127352641	State:	Indiana
Filing Company:	Indiana Compensation Rating Bureau	State Tracking Number:	
Company Tracking Number:	R-1403		
TOI:	16.0 Workers Compensation	Sub-TOI:	16.0002 Employers Liability WC
Product Name:	R-1403		
Project Name/Number:	2011 Update to Retrospective Rating Plan Parameters Expected Loss Ranges & State Hazard Group Differentials & Creation of Retrospective Rating Plan Manual Appendix D/R-1403		

Schedule	Schedule Item	Schedule Item Status	Public Access
Supporting Document	80 Filing Description/Cover Letter/NAIC Transmittal		Yes
Supporting Document	Filing Fee		Yes
Supporting Document	Third Party Filers		Yes
Supporting Document	R-1403 Filing Memroandum		Yes

SERFF Tracking Number: INCR-127352641 State: Indiana
Filing Company: Indiana Compensation Rating Bureau State Tracking Number:
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Supporting Document Schedules

	Item Status:	Status Date:
Satisfied - Item: 80 Filing Description/Cover Letter/NAIC Transmittal		

Comments:

Item R-1403 - 2011 Update to Retrospective Rating Plan Parameters Expected Loss Ranges & State Hazard Group Differentials & Creation of Retrospective Rating Plan Manual Appendix D.

	Item Status:	Status Date:
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Satisfied - Item: Filing Fee

Comments:

The quarterly billing system is currently applicable & manatory for SERFF filings. The IDOI will bill for the filing.

	Item Status:	Status Date:
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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.

	Item Status:	Status Date:
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Satisfied - Item: R-1403 Filing Memroandum

Comments:

Attachment:

R-1403 2011 Update to Retro Rating Plan Parameters.pdf

FILING MEMORANDUM

ITEM R-1403—2011 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS—EXPECTED LOSS RANGES AND STATE HAZARD GROUP DIFFERENTIALS—AND CREATION OF RETROSPECTIVE RATING PLAN MANUAL APPENDIX D

PURPOSE

This item updates Appendix A—Table of Expected Loss Ranges and the Hazard Group Differentials (commonly referred to as Relativities), and creates Appendix D—Basic Premium Factor Calculation Example in NCCI's 2009 Edition of the *Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance*.

BACKGROUND

The Retrospective Rating Plan adjusts a risk's premium for a policy according to the loss experience during the effective period of the policy. At the simplest level, an insured's retrospective premium is determined by the formula $R = (b + cL) * T$, where:

R	=	Retrospective premium, subject to minimum and maximum amounts
b	=	Basic premium
c	=	Loss conversion factor, generally reflecting loss adjustment expense
L	=	Actual incurred loss during the effective policy period
T	=	Tax multiplier

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

Expected Loss Ranges

Appendix B—Table of Insurance Charges contains the excess ratios needed to quantify the insurance charge and savings described above. The ratio of the loss limit to expected losses—the entry ratio—is used to look up the values in the Table of Insurance Charges. The charges depend not only on the maximum and minimum subject losses, but also on the size of the insured. This is because the expected variation in losses is lower for larger employers.

As inflation increases claim size, there is an apparent growth in the size of the insured, measured in expected losses, but no real growth in the size of the insured, measured in the expected number of claims. To correct for the impact of loss size inflation, NCCI is proposing that Appendix A—Table of Expected Loss Ranges be updated for the trend in average size of loss. The last time such an update was made was in 2007 (Item R-1396—2007 Update to Retrospective Rating Plan Parameters). The current Table of Expected Loss Ranges is based on a projected annual increase in average loss size of 8.5% from March 26, 2004 to January 1, 2009. NCCI has observed an actual annualized growth in average loss size of 5.5% from March 26, 2004

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FILING MEMORANDUM

ITEM R-1403—2011 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS—EXPECTED LOSS RANGES AND STATE HAZARD GROUP DIFFERENTIALS—AND CREATION OF RETROSPECTIVE RATING PLAN MANUAL APPENDIX D

to March 5, 2008, and projects an annual growth in average loss size of 5.5% from March 5, 2008 to January 1, 2013. The new table incorporates both of these observed and projected changes in severity.

Hazard Group Differentials

The variation in the loss ratios for employers in the lower hazard groups generally should be smaller than the variation for employers in the higher hazard groups. The Hazard Group Differential factors adjust for this difference by placing lower hazard group employers in a higher Expected Loss Range and higher hazard group employers in a lower Expected Loss Range than would otherwise be the case. This adjustment affects the column selection in Appendix B—Table of Insurance Charges, which then impacts the basic premium portion of the retrospective policy premium. The Hazard Group Differentials should be updated regularly to reflect changes in the circumstances (e.g., state statutory benefit levels, inflation, etc.) underlying each state's severity.

NCCI's 2009 Edition of the Retrospective Rating Plan Manual

In 2009, NCCI filed Item R-1399, which introduced the 2009 Edition of the *Retrospective Rating Plan Manual*. In addition, the 2009 Edition of the *Retrospective Rating Plan Manual User's Guide* was also introduced. This companion product contains nonpremium-impact-related information and is not filed for regulatory approval. Section D of the *User's Guide* contains the calculation of a basic premium factor. NCCI has determined that this calculation should be filed for regulatory approval and included in the *Retrospective Rating Plan Manual* as Appendix D. It will be removed from the *User's Guide*.

PROPOSAL

It is proposed that changes be made, as described in the Background section, to Appendix A—Table of Expected Loss Ranges, and the Hazard Group Differentials/Relativities, and the creation of Appendix D, in NCCI's 2009 Edition of the *Retrospective Rating Plan Manual*. Please note that this item is not being filed in Virginia at this time. The proposed changes will be included in the next loss cost filing.

Exception: In Hawaii, the effective date is determined upon regulatory approval of the individual carrier's election to adopt these changes.

Florida State-Specific

It is proposed that Florida revise Appendix A—Table of Expected Loss Ranges and the Hazard Group Differentials to NCCI's 1984 Edition of the *Retrospective Rating Plan Manual* since the 2009 Edition has not yet been approved in Florida. Also, the creation of Appendix D is not being proposed in Florida since the 1984 Edition of the manual contains the basic premium factor calculation example.

Texas State-Specific

It is proposed that Texas discontinue its state special Appendix D to NCCI's 2009 Edition of the *Retrospective Rating Plan Manual* and adopt the national proposal, which mirrors the Texas version.

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FILING MEMORANDUM

ITEM R-1403—2011 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS—EXPECTED LOSS RANGES AND STATE HAZARD GROUP DIFFERENTIALS—AND CREATION OF RETROSPECTIVE RATING PLAN MANUAL APPENDIX D

West Virginia State-Specific

It is proposed that West Virginia adopt only Exhibits 1 & 4 of this item. The Expected Loss Ranges and the Hazard Group Differentials will be included in the next loss cost filing.

IMPACT

Expected Loss Ranges

The proposed changes to the Expected Loss Ranges are necessary to maintain the aggregate expected balance between the retrospectively rated premium and the guaranteed cost premium. If these ranges were not updated, there would be a natural slippage caused by inflation over time because risks would have an apparent growth in size as seen by increasing expected losses, but no real growth in size as seen by their expected number of claims. These changes are expected to be revenue neutral.

Hazard Group Differentials

Retrospective rating should produce premium that is equitably distributed to all insured employers, but, on average, close to the guaranteed cost premium. The object of this change is to maintain the aggregate expected balance, although the impact will vary slightly for each insured employer. For most insured employers electing retrospective rating, the impact on final premium from these changes is expected to be minimal. The improved equity afforded by retrospective rating from this change will result in slightly lower average insurance charges for some insureds, and slightly higher charges for others. However, the statewide impact will be negligible. The program is designed to be revenue-neutral countrywide.

NCCI's 2009 Edition of the Retrospective Rating Plan Manual

No premium impact is expected as a result of the revisions to the 2009 Edition of the *Retrospective Rating Plan Manual*.

IMPLEMENTATION

In order to implement this item, the attached exhibits detail the changes required in NCCI's 2009 Edition of the *Retrospective Rating Plan Manual*. As explained in these exhibits, individual state severities, as well as countrywide severities, are used in the calculation of the relativities. The following is a summary of the exhibits included in this item filing package:

- **Exhibit 1** contains Appendix A—Table of Expected Loss Ranges
- **Exhibit 2** contains the State Hazard Group Differentials
- **Exhibit 3** contains a description of the development of the differentials/relativities
- **Exhibit 4** contains the new Appendix D—Basic Premium Factor Calculation Example
- **Exhibit 5** contains the Texas state special Appendix D to be discontinued

In all states this item will be implemented effective at 12:01 a.m. on **January 1, 2012**, applicable to new and renewal voluntary policies only.

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ITEM R-1403—2011 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS—EXPECTED LOSS RANGES AND
STATE HAZARD GROUP DIFFERENTIALS—AND CREATION OF RETROSPECTIVE RATING PLAN MANUAL APPENDIX D

EXHIBIT 1

RETROSPECTIVE RATING PLAN MANUAL—2009 EDITION

APPENDIX A

2012—TABLE OF EXPECTED LOSS RANGES

(Applies in: AK, AL, AR, AZ, CO, CT, DC, GA, HI, IA, ID, IL, IN, KS, KY, LA, MD, ME, MI, MO, MS,
MT, NC, NE, NH, NM, NV, OK, OR, RI, SC, SD, TN, TX, UT, VT, WI)

Expected Loss Group	Range Rounded Values	Expected Loss Group	Range Rounded Values	Expected Loss Group	Range Rounded Values
95	1,069 — 1,668	65	89,596 — 96,768	35	1,117,459 — 1,254,650
94	1,669 — 2,469	64	96,769 — 104,515	34	1,254,651 — 1,408,687
93	2,470 — 3,262	63	104,516 — 112,881	33	1,408,688 — 1,606,329
92	3,263 — 4,312	62	112,882 — 121,917	32	1,606,330 — 1,846,373
91	4,313 — 5,608	61	121,918 — 131,677	31	1,846,374 — 2,122,290
90	5,609 — 6,774	60	131,678 — 142,246	30	2,122,291 — 2,439,441
89	6,775 — 8,175	59	142,247 — 153,803	29	2,439,442 — 2,899,798
88	8,176 — 9,490	58	153,804 — 166,063	28	2,899,799 — 3,467,527
87	9,491 — 11,016	57	166,064 — 178,922	27	3,467,528 — 4,146,414
86	11,017 — 12,778	56	178,923 — 192,782	26	4,146,415 — 5,111,668
85	12,779 — 14,451	55	192,783 — 207,716	25	5,111,669 — 6,504,746
84	14,452 — 16,337	54	207,717 — 224,594	24	6,504,747 — 8,277,480
83	16,338 — 18,450	53	224,595 — 242,913	23	8,277,481 — 10,577,165
82	18,451 — 20,529	52	242,914 — 262,733	22	10,577,166 — 13,534,484
81	20,530 — 22,841	51	262,734 — 284,159	21	13,534,485 — 17,318,654
80	22,842 — 25,410	50	284,160 — 306,638	20	17,318,655 — 22,160,857
79	25,411 — 28,271	49	306,639 — 330,841	19	22,160,858 — 28,356,911
78	28,272 — 31,196	48	330,842 — 357,128	18	28,356,912 — 38,897,361
77	31,197 — 34,345	47	357,129 — 388,536	17	38,897,362 — 57,528,883
76	34,346 — 37,816	46	388,537 — 422,704	16	57,528,884 — 85,084,766
75	37,817 — 41,556	45	422,705 — 459,879	15	85,084,767 — 125,839,689
74	41,557 — 45,495	44	459,880 — 502,548	14	125,839,690 — 186,115,898
73	45,496 — 49,808	43	502,549 — 549,895	13	186,115,899 — 275,263,927
72	49,809 — 54,536	42	549,896 — 601,708	12	275,263,928 — 430,893,183
71	54,537 — 59,530	41	601,709 — 663,309	11	430,893,184 — 681,845,588
70	59,531 — 64,935	40	663,310 — 733,021	10	681,845,589 — 1,078,952,801
69	64,936 — 70,826	39	733,022 — 810,061	9	1,078,952,802 — & over
68	70,827 — 76,791	38	810,062 — 895,197		
67	76,792 — 82,946	37	895,198 — 995,262		
66	82,947 — 89,595	36	995,263 — 1,117,458		

ITEM R-1403—2011 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS—EXPECTED LOSS RANGES AND
STATE HAZARD GROUP DIFFERENTIALS—AND CREATION OF RETROSPECTIVE RATING PLAN MANUAL APPENDIX D

EXHIBIT 2

RETROSPECTIVE RATING PLAN MANUAL—2009 EDITION
STATE SPECIAL RATING VALUES

1. HAZARD GROUP DIFFERENTIALS

(Applies in: AK, AL, AR, AZ, CO, CT, DC, GA, HI, IA, ID, IL, IN, KS, KY, LA, MD, ME, MI, MO,
MS, MT, NC, NE, NH, NM, NV, OK, OR, RI, SC, SD, TN, TX, UT, VT, WI)

State	Hazard Group						
	A	B	C	D	E	F	G
AK	1.74	1.28	1.14	1.03	0.88	0.72	0.55
AL	1.69	1.25	1.11	1.00	0.86	0.70	0.53
AR	1.87	1.38	1.22	1.10	0.93	0.75	0.55
AZ	1.84	1.36	1.20	1.08	0.91	0.73	0.53
CO	2.00	1.50	1.34	1.21	1.04	0.85	0.66
CT	1.56	1.14	1.02	0.91	0.78	0.63	0.48
DC	1.80	1.32	1.17	1.06	0.90	0.74	0.56
GA	1.55	1.16	1.03	0.93	0.79	0.65	0.49
HI	2.18	1.60	1.43	1.29	1.10	0.91	0.70
IA	1.77	1.31	1.18	1.06	0.91	0.74	0.57
ID	1.82	1.36	1.22	1.11	0.95	0.79	0.60
IL	1.31	0.99	0.90	0.81	0.70	0.57	0.44
IN	1.97	1.48	1.33	1.21	1.04	0.87	0.67
KS	1.74	1.30	1.16	1.05	0.89	0.73	0.56
KY	1.80	1.33	1.18	1.06	0.90	0.74	0.54
LA	1.44	1.07	0.95	0.86	0.74	0.61	0.47
MD	1.69	1.25	1.11	1.00	0.85	0.70	0.54
ME	1.72	1.26	1.13	1.02	0.87	0.72	0.55
MI	1.85	1.37	1.23	1.12	0.97	0.80	0.61
MO	1.96	1.49	1.33	1.20	1.03	0.84	0.64
MS	1.86	1.38	1.23	1.11	0.95	0.78	0.60
MT	1.79	1.33	1.17	1.06	0.90	0.73	0.54
NC	1.37	1.03	0.92	0.82	0.71	0.57	0.44
NE	1.75	1.30	1.16	1.04	0.89	0.72	0.55
NH	1.57	1.15	1.03	0.93	0.79	0.65	0.50
NM	1.76	1.30	1.16	1.05	0.89	0.74	0.57
NV	1.75	1.29	1.14	1.03	0.87	0.71	0.53
OK	1.58	1.18	1.06	0.94	0.80	0.66	0.51
OR	2.37	1.75	1.56	1.41	1.20	0.99	0.75
RI	2.12	1.55	1.39	1.25	1.07	0.88	0.67
SC	1.65	1.23	1.10	0.99	0.85	0.70	0.54
SD	1.77	1.31	1.16	1.05	0.89	0.72	0.54
TN	1.68	1.25	1.12	1.01	0.87	0.71	0.55
TX	2.49	1.90	1.70	1.51	1.30	1.05	0.78
UT	1.85	1.36	1.22	1.10	0.94	0.77	0.58
VT	1.75	1.28	1.15	1.03	0.88	0.73	0.55
WI	1.88	1.40	1.26	1.14	0.98	0.81	0.63

ITEM R-1403—2011 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS—EXPECTED LOSS RANGES AND STATE HAZARD GROUP DIFFERENTIALS—AND CREATION OF RETROSPECTIVE RATING PLAN MANUAL APPENDIX D**EXHIBIT 3****DEVELOPMENT OF INDIANA HAZARD GROUP DIFFERENTIALS/RELATIVITIES FOR HAZARD GROUPS A TO G**

- Step 1.** Historical experience is trended, on-leveled, and developed to estimate the severities for each hazard group.
- Step 2.** The severities are weighted with the countrywide severities by hazard group using a credibility that varies by state. For this purpose, 155,000 claims are regarded as fully credible and the square root rule is used to compute partial credibilities.
- Step 3.** Credibility weighted severities for each state hazard group are produced. A new countrywide average severity is calculated by taking the weighted average of the formula for state severities using claim counts as weights.
- Step 4.** The relativities are calculated by dividing the countrywide severity by the individual state hazard group severities. The final relativities are derived by capping the indicated relativities at a 15.0% increase or decrease from the prior update.

Step 1	Hazard Group	Indiana	Countrywide
Severities	A	26,734	32,299
	B	34,812	44,134
	C	38,129	49,538
	D	41,916	54,838
	E	47,627	64,617
	F	57,125	78,535
	G	71,532	103,311
Step 2	Claim Count	=	54,166
	Credibility	=	$(54,166 / 155,000) ^{0.5} = 0.591$
Step 3	Hazard Group	Indiana	
Credibility	A	29,009	= (0.591)(26,734) + (0.409)(32,299)
Weighted	B	38,623	
Severities	C	42,793	
	D	47,199	
	E	54,573	
	F	65,878	
	G	84,525	
	Countrywide Overall:	57,027	
Step 4	Hazard Group	Relativities	
Relativities	A	1.97	= 57,027 / 29,009
	B	1.48	
	C	1.33	
	D	1.21	
	E	1.04	
	F	0.87	
	G	0.67	

Note: The underlying data source for the above calculations is NCCI's **Statistical Plan Manual for Workers Compensation and Employers Liability Insurance (Statistical Plan)**, excluding medical-only claims. The **Statistical Plan** data for each state is adjusted accordingly, as reflected in the data underlying the Excess Loss Factor (ELF) calculation.

ITEM R-1403—2011 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS—EXPECTED LOSS RANGES AND STATE HAZARD GROUP DIFFERENTIALS—AND CREATION OF RETROSPECTIVE RATING PLAN MANUAL APPENDIX D

EXHIBIT 4
RETROSPECTIVE RATING PLAN MANUAL—2009 EDITION
APPENDIX D—BASIC PREMIUM FACTOR CALCULATION EXAMPLE
 (Applies in: AL, AK, AR, AZ, CO, CT, DC, GA, HI, IA, ID, IL, **IN**, KS, KY, LA, MD, ME, MI, MO, MS, MT, NC, NE, NH, NM, NV, OK, OR, RI, SC, SD, TN, TX, UT, VT, WI, WV)

BASIC PREMIUM FACTOR CALCULATION EXAMPLE

The following example is for illustrative purposes only. It is not intended as a recommendation and is not to be interpreted as a recommendation. The factors used in the example have been filed and approved for use in certain states. Please refer to the rules and appendices in this manual or other NCCI manuals for the filed formulas and factors.

For this example, assume the Retrospective Rating Plan Agreement provides:

Retrospective Rating Factors

a.	<u>Estimated Standard Premium</u>	<u>\$500,000</u>
b.	<u>Maximum Retrospective Premium Factor</u>	<u>130%</u>
c.	<u>Minimum Retrospective Premium Factor</u>	<u>60%</u>
d.	<u>Loss Conversion Factor</u>	<u>1.120</u>
e.	<u>Tax Multiplier</u>	<u>1.070</u>
f.	<u>State Hazard Group Relativity</u>	<u>1.80</u>
g.	<u>Excess Loss Factor (\$50,000 Loss Limit)</u>	<u>.360</u>
h.	<u>Expenses from Expense Ratio Table</u>	<u>.201</u>

Example Calculation of the Basic Premium Factor

The key to establishing the Basic Premium Factor for the Retrospective Rating Plan is the Table of Insurance Charges filed with state insurance departments. By expected loss groups, it indicates the factors to establish the premium charge that is vital to the determination of the Basic Premium Factor.

1.	<u>Estimated Standard Premium (a)</u>	<u>\$500,000</u>
2.	<u>Expected Losses</u>	<u>\$306,500</u>
3.	<u>Expected Loss Ratio</u>	<u>.613</u>
4.	<u>Expected Limited Loss Ratio (3) – (g)</u>	<u>.253</u>
5.	<u>Expense and Profit and Contingency (Excluding Taxes) (1) x (h)</u>	<u>\$100,500</u>
6.	<u>Expected Loss Plus Expense Ratio [(2) + (5)] ÷ (1)</u>	<u>.814</u>
7.	<u>Loss and Expense in Converted Losses (3) x (d)</u>	<u>.687</u>
8.	<u>Expense and Profit and Contingency (Excluding Loss and Claim) (6) – (7)</u>	<u>.127</u>
9.	<u>Minimum Retrospective Premium Excluding Taxes [(c) ÷ (e)]</u>	<u>.561</u>
10.	<u>Maximum Retrospective Premium Excluding Taxes [(b) ÷ (e)]</u>	<u>1.215</u>
11.	<u>Table of Insurance Charges Value Difference [(6) – (9)] ÷ [(d) x (4)]</u>	<u>.893</u>
12.	<u>Table of Insurance Charges Entry Difference [(10) – (9)] ÷ [(d) x (4)]</u>	<u>2.31</u>
13.	<u>Ratio of Losses for Minimum Retrospective Premium to Expected Limited Losses</u>	<u>.02</u>
14.	<u>Ratio of Losses for Maximum Retrospective Premium to Expected Limited Losses</u>	<u>2.33</u>

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EXHIBIT 4 (CONT'D)
RETROSPECTIVE RATING PLAN MANUAL—2009 EDITION
APPENDIX D—BASIC PREMIUM FACTOR CALCULATION EXAMPLE
(Applies in: AL, AK, AR, AZ, CO, CT, DC, GA, HI, IA, ID, IL, IN, KS, KY, LA, MD, ME, MI, MO, MS, MT, NC, NE, NH, NM, NV, OK, OR, RI, SC, SD, TN, TX, UT, VT, WI, WV)

15.	Table of Insurance Charges—Premium Charge for (14)	.0883
16.	Table of Insurance Charges—Premium Savings for (13)	.0000
17.	Net Insurance Charge [(15) – (16)] x (4) x (d)	.025
18.	Basic Premium Factor (17) + (8)	.152

The use of the Table of Insurance Charges is accounted for in the following explanations and illustrations of how to determine the factors and other elements needed for the operation of the Plan.

Note: The procedures described here are designed exclusively for workers compensation and employers liability insurance. Rules for the application of a retrospective rating plan to a combination of workers compensation and employers liability insurance and other lines of casualty insurance are in the Retrospective Rating Plan Manual issued by the Insurance Services Office (ISO).

Note: The above calculations are based on the 1998 Table of Insurance Charges in Appendix B of the *Retrospective Rating Plan Manual*.

The procedure for establishing the values and factors in the above examples follows:

Line 1. Estimated Standard Premium: This is the annual standard premium. *Refer to the Retrospective Rating Plan Manual for definition of standard premium.* For three-year retrospective rating plans, multiply the annual standard premium times three (3).

Line 2. Expected Losses: For an intrastate risk, the expected losses equal the estimated standard premium (Line 1) multiplied by the expected loss ratio for the state (Line 3). For the purpose of this example, it has been assumed that the risk is an intrastate risk with an expected loss ratio of .613, which produces expected losses of \$306,500 (\$500,000 x .613).

For an interstate risk, the expected losses equal the sum of the products of the estimated standard premium for each state and the corresponding expected loss ratio for each state. The expected loss ratio for the risk (Line 3) is obtained by dividing the total expected losses for all states covered by the Retrospective Rating Plan (Line 2) by the total standard premium (Line 1).

Line 3. Expected Loss Ratio: See the discussion for Line 2.

Line 4. Expected Limited Loss Ratio: This ratio is determined by subtracting the excess loss factor from the expected loss ratio.

Line 5. Expense and Profit and Contingency—Excluding Taxes: The expense and profit and contingency (excluding taxes) is determined, by multiplying the standard premium by the expense ratio.

For a three-year plan, values are determined similarly for each of the years based on each annual estimated standard premium, and the sum of these values is the provision for expense and profit and contingency. The value for expenses shown in this example is equal to \$100,500 (\$500,000 x .201).

Line 6. Expected Loss Plus Expense Ratio: This ratio is obtained by dividing the expected losses plus the expenses and profit and contingency (excluding taxes) by the standard premium.

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Line 7. Loss and Expense in Converted Losses: This factor, which expresses the ratio of expected losses and expense to estimated standard premium, is the product of the expected loss ratio and the loss conversion factor.

Line 8. Expense and Profit and Contingency in Basic Premium: The difference between the factor in Line 6, representing the total net premium provision for the insured under the Retrospective Rating Plan, and the factor in Line 7, representing expected losses and loss adjustment expense associated with insuring the risk, is the expense and contingency amount, and must be included in the basic premium.

Line 9. Minimum Premium Retrospective Factor—Excluding Taxes

Line 10. Maximum Premium Retrospective Factor—Excluding Taxes

Line 11. Table of Insurance Charges—Value Difference

Line 12. Table of Insurance Charges—Entry Difference

Line 9 through Line 12 are determined in a way designed to facilitate the testing process by which the basic premium factor is established. The factors entered for these items are obtained as indicated in the example.

Line 11, Table of Insurance Charges—Value Difference, equals the difference between the table charge for the entry ratio from which the savings is taken and the table charge for the entry ratio from which the charge is taken.

Line 12, Table of Insurance Charges—Entry Difference, equals the difference between the entry ratios that determine the savings factor and the charge for the maximum premium.

To use the Table of Insurance Charges, find the loss group in the Table of Expected Loss Ranges containing the adjusted expected loss value. The adjusted expected loss value is calculated as follows:

Expected Losses (Line 2) x State Hazard Group Relativity x Loss Group Adjustment Factor

The Loss Group Adjustment Factor (F) applies when an individual loss limit is selected. The factor is:

$$F = \frac{1 + [(.) (LER)]}{1 - LER}$$

where the LER = ELF ÷ Line (3) = .587

$$F = \frac{1 + [(.) (.587)]}{1 - (.587)} = 3.558$$

State Hazard Group Relativity = 1.80

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The adjusted expected loss value equals 1,962,949 (= 306,500 x 1.80 x 3.558). This expected loss value falls into expected loss group 30. Refer to the 2008 Table of Expected Loss Ranges in the *Retrospective Rating Plan Manual*.

Then, choose two entry ratios from the Expected Loss Group in the table with a difference equal to Line 12. Make this choice so that the difference in the charges for the Expected Loss Group and for the selected entries most closely approximates Line 11.

To illustrate this testing procedure, several entry ratios and their corresponding charges in Group 30 have been reproduced from the Table:

<u>Entry Ratio</u>	<u>Charges (Group 30)</u>	<u>Savings</u>
<u>.01</u>	<u>.9900</u>	<u>.0000</u>
<u>.02</u>	<u>.9800</u>	<u>.0000</u>
<u>.03</u>	<u>.9700</u>	<u>.0000</u>

<u>Entry Ratio</u>	<u>Charges (Group 30)</u>
<u>2.32</u>	<u>.0888</u>
<u>2.33</u>	<u>.0883</u>
<u>2.34</u>	<u>.0877</u>

Choose and list pairs of entry ratios with a difference equal to Line 12, in this case 2.31, and note the respective difference in these charges:

$$(.01, 2.32)(.9900 - .0888) = .9012$$

$$(.02, 2.33)(.9800 - .0883) = .8917$$

$$(.03, 2.34)(.9700 - .0877) = .8823$$

The pair of entry ratios whose charge difference most closely approximates Line 11, .893, is recorded under Lines 13 and 14. In this case, Line 13 is .02 and Line 14 is 2.33.

Line 13. Ratio of Losses for Minimum Retrospective Premium to Expected Limited Losses: See discussion for Line 12.

Line 14. Ratio of Losses for Maximum Retrospective Premium to Expected Limited Losses: See discussion for Line 12.

Line 15. Table of Insurance Charges—Premium Charge for (14): This is the premium charge for losses in excess of those provided by the maximum retrospective premium. It is obtained by reading from the table as shown in Line 12.

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Line 16. Table of Insurance Charges—Premium Savings for (13): This is the premium savings for losses less than those that would produce the minimum retrospective premium. The values for premium savings are listed directly beneath the charge values in the Table of Insurance Charges. In this example, the savings of .0000 for entry ratio .02 (Line 13) in Group 30 is found directly beneath the charge value of .9800.

Line 17. Net Insurance Charge: The net insurance charge is determined by calculating the difference between the charge for possible losses that might produce more than the maximum retrospective premium and the savings for losses that might produce less than the minimum retrospective premium, and then multiplying that difference by the product of the expected loss ratio and the loss conversion factor. The net insurance charge may be less than zero, as long as the basic premium factor is not negative.

Line 18. Basic Premium Factor: The basic premium factor is the sum of the net premium charge and the expenses and profit and contingencies in the basic premium expressed as a percentage of the standard premium. The standard premium multiplied by the basic premium factor produces the basic premium used in computing the retrospective rating plan premium.