State: *Missouri* ***Filing Company:*** *NCCI*
TOI/Sub-TOI: *16.0 Workers Compensation/16.0004 Standard WC*
Product Name: *R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors*
Project Name/Number: */*

Filing at a Glance

Company:	NCCI
Product Name:	R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors
State:	Missouri
TOI:	16.0 Workers Compensation
Sub-TOI:	16.0004 Standard WC
Filing Type:	Rule
Date Submitted:	06/11/2014
SERFF Tr Num:	NCCI-129548308
SERFF Status:	Closed-APPROVED
State Tr Num:	47
State Status:	APPROVED
Co Tr Num:	R-1408 (MJ)
Effective Date Requested (New):	01/01/2015
Effective Date Requested (Renewal):	01/01/2015
Author(s):	Lesley O'Brien, Alison Herwig, Frank Gnolfo, Dennis Kokulak, Robert Dalton, Michelle Baker, Miguel Joubert
Reviewer(s):	Patrick Lennon (primary)
Disposition Date:	08/26/2014
Disposition Status:	APPROVED
Effective Date (New):	01/01/2015
Effective Date (Renewal):	01/01/2015

State Filing Description:

State: Missouri **Filing Company:** NCCI
TOI/Sub-TOI: 16.0 Workers Compensation/16.0004 Standard WC
Product Name: R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors
Project Name/Number: /

General Information

Project Name:
Project Number:
Reference Organization:
Reference Title:
Filing Status Changed: 08/26/2014
State Status Changed: 08/26/2014
Created By: Frank Gnolfo
Corresponding Filing Tracking Number:
State TOI: 16.0 Workers Compensation

Status of Filing in Domicile:
Domicile Status Comments:
Reference Number:
Advisory Org. Circular:
Deemer Date:
Submitted By: Frank Gnolfo
State Sub-TOI: 16.0004 Standard WC

Filing Description:

This item proposes to:

• Update the Excess Loss Pure Premium Factors (ELPPFs) and Excess Loss and Allocated Expense Pure Premium Factors (ELAEPPFs) in NCCI's Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance (Retrospective Rating Plan Manual)

• Introduce a newly enhanced methodology for determining ELPPFs and ELAEPPFs

Company and Contact

Filing Contact Information

Roy Wood, State Relations Executive
11430 Gravois Road
Suite 310
St. Louis, MO 63126

roy_wood@ncci.com
314-843-4001 [Phone]
314-842-3188 [FAX]

Filing Company Information

NCCI
901 Peninsula Corporate Circle
Boca Raton, FL 33487
(561) 893-3186 ext. [Phone]

CoCode:
Group Code:
Group Name:
FEIN Number: 65-0439698

State of Domicile: Florida
Company Type:
State ID Number:

Filing Fees

Fee Required? Yes
Fee Amount: $50.00
Retaliatory? No
Fee Explanation: Rule
Per Company: Yes

Company	Amount	Date Processed	Transaction #
NCCI	$50.00	06/11/2014	83012528

State Specific

NAIC Number: NA
Have you reviewed the General Instructions document? (yes/no)(General Instructions updated 9/14/07): Yes
If this is a rate filing, was rate data added on the rate/rule schedule? (yes/no): No

State: Missouri **Filing Company:** NCCI
TOI/Sub-TOI: 16.0 Workers Compensation/16.0004 Standard WC
Product Name: R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors
Project Name/Number: /

Are you paying the $50 per company per submission filing fee electronically using EFT or would you like to be billed in arrears? All companies and filing entities are strongly encouraged to take advantage of the EFT payment option. The utilization of SERFF and EFT for the payment of filing fees in other states has resulted in a more efficient filing review process and has provided a significant administrative cost savings for the industry.: Yes

SERFF Tracking #:	*NCCI-129548308*	***State Tracking #:***	*47*	***Company Tracking #:***	*R-1408 (MJ)*

State:	*Missouri*	***Filing Company:***	*NCCI*
TOI/Sub-TOI:	*16.0 Workers Compensation/16.0004 Standard WC*		
Product Name:	*R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors*		
Project Name/Number:	*/*		

Correspondence Summary

Dispositions

Status	Created By	Created On	Date Submitted
APPROVED	Patrick Lennon	08/26/2014	08/26/2014

Objection Letters and Response Letters

Objection Letters

Status	Created By	Created On	Date Submitted
PENDING INDUSTRY RESPONSE	Patrick Lennon	08/22/2014	08/22/2014
PENDING INDUSTRY RESPONSE	Patrick Lennon	07/08/2014	07/08/2014

Response Letters

Responded By	Created On	Date Submitted
Robert Dalton	08/22/2014	08/22/2014
Frank Gnolfo	08/04/2014	08/04/2014

Filing Notes

Subject	Note Type	Created By	Created On	Date Submitted
Status Update	Note To Reviewer	Frank Gnolfo	08/20/2014	08/20/2014
Response Date	Note To Filer	Patrick Lennon	07/22/2014	07/22/2014
Objection of 7/8/14	Note To Reviewer	Frank Gnolfo	07/22/2014	07/22/2014
State ID	Note To Filer	Amy Feeler	06/12/2014	06/12/2014

SERFF Tracking #:	*NCCI-129548308*	***State Tracking #:***	*47*	***Company Tracking #:***	*R-1408 (MJ)*

State:	*Missouri*	***Filing Company:***	*NCCI*
TOI/Sub-TOI:	*16.0 Workers Compensation/16.0004 Standard WC*		
Product Name:	*R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors*		
Project Name/Number:	*/*		

Disposition

Disposition Date: 08/26/2014
Effective Date (New): 01/01/2015
Effective Date (Renewal): 01/01/2015
Status: APPROVED

Comment:

Rate data does NOT apply to filing.

Schedule	Schedule Item	Schedule Item Status	Public Access
Supporting Document	Filing Memorandum	APPROVED	Yes
Supporting Document	R-1408 Informational Only Exhbits	APPROVED	Yes
Supporting Document	Response to Objection of 7/8/14	APPROVED	Yes
Rate	Exhibit 1	APPROVED	Yes
Rate	Exhibit 2	APPROVED	Yes

State: Missouri **Filing Company:** NCCI
TOI/Sub-TOI: 16.0 Workers Compensation/16.0004 Standard WC
Product Name: R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors
Project Name/Number: /

Objection Letter

Objection Letter Status	PENDING INDUSTRY RESPONSE
Objection Letter Date	08/22/2014
Submitted Date	08/22/2014
Respond By Date	08/29/2014

Dear Roy Wood,

Introduction:

Thank you for your response to our previous inquiry. Upon review of the information provided, the following concerns remain:

Objection 1

Comments: Please resubmit the response from 8/4/14 as it's not appearing in the Supporting Documentation tab as indicated.

Conclusion:

Please respond to this letter by the above date. This submission will be held in suspense pending your response. Feel free to contact me at 573.751.1946 should you have any questions or concerns.

Sincerely,
Patrick Lennon

State: Missouri **Filing Company:** NCCI
TOI/Sub-TOI: 16.0 Workers Compensation/16.0004 Standard WC
Product Name: R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors
Project Name/Number: /

Objection Letter

Objection Letter Status	PENDING INDUSTRY RESPONSE
Objection Letter Date	07/08/2014
Submitted Date	07/08/2014
Respond By Date	08/06/2014

Dear Roy Wood,

Introduction:

Thank you for the filing recently submitted to this Department. Please be advised that although we have begun the review process, the company remains responsible for assuring that coverage provided to Missouri citizens fully complies with all applicable statutes and regulations. Upon preliminary review, the following issues raised concerns and need clarification:

Objection 1

Comments: What does the filing do?

Objection 2

Comments: Why is the change being made now?

Objection 3

Comments: Who will be impacted by this change and to what degree?

Objection 4

Comments: Provide the number of policyholders affected by this change.

Conclusion:

Please respond to this letter by the above date. This submission will be held in suspense pending your response. Feel free to contact me at 573.751.1946 should you have any questions or concerns.

Sincerely,

Patrick Lennon

SERFF Tracking #:	NCCI-129548308	**State Tracking #:**	47	**Company Tracking #:**	R-1408 (MJ)

State:	Missouri	**Filing Company:**	NCCI
TOI/Sub-TOI:	16.0 Workers Compensation/16.0004 Standard WC		
Product Name:	R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors		
Project Name/Number:	/		

Response Letter

Response Letter Status	Submitted to State
Response Letter Date	08/22/2014
Submitted Date	08/22/2014

Dear Patrick Lennon,

Introduction:

Response 1

Comments:

See attached response.

Related Objection 1

Comments: Please resubmit the response from 8/4/14 as it's not appearing in the Supporting Documentation tab as indicated.

Changed Items:

Supporting Document Schedule Item Changes	
Satisfied - Item:	Response to Objection of 7/8/14
Comments:	
Attachment(s):	MO Interrogatory Response R-1408.pdf

No Form Schedule items changed.

No Rate/Rule Schedule items changed.

Conclusion:

Sincerely,
Robert Dalton

State: Missouri **Filing Company:** NCCI
TOI/Sub-TOI: 16.0 Workers Compensation/16.0004 Standard WC
Product Name: R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors
Project Name/Number: /

Response Letter

Response Letter Status	Submitted to State
Response Letter Date	08/04/2014
Submitted Date	08/04/2014

Dear Patrick Lennon,

Introduction:

Hello

Response 1

Comments:

Response is in supporting doc folder

Related Objection 1

Comments: What does the filing do?

Changed Items:

No Supporting Documents changed.

No Form Schedule items changed.

No Rate/Rule Schedule items changed.

Response 2

Comments:

Response is in supporting doc folder

Related Objection 2

Comments: Why is the change being made now?

Changed Items:

No Supporting Documents changed.

No Form Schedule items changed.

No Rate/Rule Schedule items changed.

Response 3

Comments:

Response is in supporting doc folder

Related Objection 3

Comments: Who will be impacted by this change and to what degree?

Changed Items:

No Supporting Documents changed.

No Form Schedule items changed.

No Rate/Rule Schedule items changed.

State: Missouri **Filing Company:** NCCI
TOI/Sub-TOI: 16.0 Workers Compensation/16.0004 Standard WC
Product Name: R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors
Project Name/Number: /

Response 4

Comments:

Response is in supporting doc folder

Related Objection 4

Comments: Provide the number of policyholders affected by this change.

Changed Items:

No Supporting Documents changed.

No Form Schedule items changed.

No Rate/Rule Schedule items changed.

Conclusion:

Thank you
Sincerely,
Frank Gnolfo

State: Missouri **Filing Company:** NCCI
TOI/Sub-TOI: 16.0 Workers Compensation/16.0004 Standard WC
Product Name: R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors
Project Name/Number: /

Note To Reviewer

Created By:

Frank Gnolfo on 08/20/2014 09:29 AM

Last Edited By:

Patrick Lennon

Submitted On:

08/26/2014 09:28 AM

Subject:

Status Update

Comments:

Patrick,

We provided a response, through SERFF, to the objection on Item 1408 on August 1. Can you give me a status on the filing?

Give me a call if there are any questions.
Thank you,
Roy O. Wood

State: Missouri **Filing Company:** NCCI
TOI/Sub-TOI: 16.0 Workers Compensation/16.0004 Standard WC
Product Name: R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors
Project Name/Number: /

Note To Filer

Created By:

Patrick Lennon on 07/22/2014 03:38 PM

Last Edited By:

Patrick Lennon

Submitted On:

08/26/2014 09:28 AM

Subject:

Response Date

Comments:

i've updated the respond by date to 8/6/14.

State: Missouri **Filing Company:** NCCI
TOI/Sub-TOI: 16.0 Workers Compensation/16.0004 Standard WC
Product Name: R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors
Project Name/Number: /

Note To Reviewer

Created By:

Frank Gnolfo on 07/22/2014 01:41 PM

Last Edited By:

Patrick Lennon

Submitted On:

08/26/2014 09:28 AM

Subject:

Objection of 7/8/14

Comments:

Hello,
We request if this objection can be given an additional 15 calendar days to respond to?

State: *Missouri* ***Filing Company:*** *NCCI*
TOI/Sub-TOI: *16.0 Workers Compensation/16.0004 Standard WC*
Product Name: *R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors*
Project Name/Number: */*

Note To Filer

Created By:

Amy Feeler on 06/12/2014 08:31 AM

Last Edited By:

Patrick Lennon

Submitted On:

08/26/2014 09:28 AM

Subject:

State ID

Comments:

'In order to accurately run SERFF reports, we ask all filers without official NAIC numbers to enter their State ID number under the State ID field on the Company and Contacts tab.

The State ID Number for NCCI is: 9999-85000 Please include this number in all future filings.

The State ID number can be found by entering the company name on the first search field on the DIFP website at the following link: https://sbs-mo.naic.org/Lion-Web/jsp/sbsreports/CompanySearchLookup.jsp

Thank you for your cooperation.

SERFF Tracking #:	*NCCI-129548308*	***State Tracking #:***	*47*	***Company Tracking #:***	*R-1408 (MJ)*

State:	*Missouri*	***Filing Company:***	*NCCI*
TOI/Sub-TOI:	*16.0 Workers Compensation/16.0004 Standard WC*		
Product Name:	*R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors*		
Project Name/Number:	*/*		

Rate/Rule Schedule

Item No.	Schedule Item Status	Exhibit Name	Rule # or Page #	Rate Action	Previous State Filing Number	Attachments
1	APPROVED 08/26/2014	Exhibit 1	Excess Loss Pure Premium Factors	Replacement	R-1406	Missouri - Ex. 1.pdf
2	APPROVED 08/26/2014	Exhibit 2	Excess Loss and Allocated Expense Pure Premium Factors	Replacement	R-1406	Missouri - Ex. 2.pdf

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

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

3. Excess Loss Pure Premium Factors

Per Accident Limitation	Hazard Groups						
	A	B	C	D	E	F	G
$10,000	0.587	0.631	0.656	0.687	0.713	0.737	0.750
$15,000	0.532	0.582	0.610	0.645	0.676	0.704	0.722
$20,000	0.489	0.542	0.571	0.610	0.644	0.675	0.697
$25,000	0.452	0.508	0.538	0.579	0.616	0.649	0.675
$30,000	0.422	0.479	0.509	0.551	0.591	0.626	0.655
$35,000	0.395	0.453	0.484	0.527	0.568	0.604	0.637
$40,000	0.372	0.430	0.461	0.505	0.547	0.585	0.620
$50,000	0.333	0.392	0.423	0.467	0.512	0.550	0.590
$75,000	0.267	0.322	0.354	0.397	0.443	0.483	0.530
$100,000	0.224	0.276	0.307	0.347	0.395	0.434	0.485
$125,000	0.193	0.243	0.273	0.311	0.358	0.396	0.450
$150,000	0.171	0.217	0.247	0.283	0.329	0.366	0.422
$175,000	0.153	0.197	0.226	0.261	0.306	0.341	0.398
$200,000	0.139	0.181	0.209	0.242	0.287	0.321	0.378
$225,000	0.127	0.168	0.195	0.227	0.270	0.303	0.361
$250,000	0.118	0.157	0.184	0.214	0.257	0.288	0.347
$275,000	0.109	0.147	0.173	0.202	0.244	0.275	0.334
$300,000	0.102	0.138	0.164	0.192	0.234	0.263	0.322
$325,000	0.096	0.131	0.157	0.183	0.224	0.252	0.311
$350,000	0.090	0.124	0.149	0.176	0.216	0.243	0.302
$375,000	0.085	0.119	0.143	0.168	0.208	0.234	0.293
$400,000	0.081	0.113	0.137	0.162	0.201	0.227	0.285
$425,000	0.077	0.108	0.132	0.156	0.194	0.220	0.278
$450,000	0.073	0.104	0.127	0.151	0.188	0.213	0.271
$475,000	0.070	0.100	0.123	0.146	0.183	0.207	0.265
$500,000	0.067	0.096	0.119	0.141	0.178	0.201	0.259
$600,000	0.057	0.084	0.106	0.126	0.161	0.182	0.239
$700,000	0.050	0.075	0.095	0.114	0.147	0.167	0.222
$800,000	0.044	0.067	0.087	0.104	0.136	0.155	0.209
$900,000	0.040	0.061	0.080	0.096	0.127	0.145	0.197
$1,000,000	0.036	0.056	0.074	0.089	0.119	0.136	0.187
$2,000,000	0.018	0.031	0.043	0.053	0.075	0.087	0.128
$3,000,000	0.011	0.021	0.030	0.037	0.054	0.064	0.099
$4,000,000	0.008	0.015	0.023	0.028	0.042	0.051	0.080
$5,000,000	0.006	0.012	0.018	0.022	0.034	0.042	0.066
$6,000,000	0.005	0.010	0.014	0.018	0.028	0.035	0.056
$7,000,000	0.004	0.008	0.012	0.015	0.024	0.030	0.048
$8,000,000	0.003	0.007	0.010	0.013	0.020	0.026	0.042
$9,000,000	0.003	0.006	0.008	0.011	0.018	0.022	0.037
$10,000,000	0.002	0.005	0.007	0.010	0.015	0.020	0.033

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

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

3. Excess Loss and Allocated Expense Pure Premium Factors

Per Accident Limitation	Hazard Groups						
	A	B	C	D	E	F	G
$10,000	0.678	0.725	0.752	0.785	0.813	0.838	0.851
$15,000	0.618	0.672	0.702	0.740	0.773	0.803	0.821
$20,000	0.570	0.629	0.660	0.702	0.739	0.772	0.795
$25,000	0.530	0.591	0.623	0.668	0.708	0.744	0.771
$30,000	0.495	0.558	0.591	0.638	0.680	0.718	0.749
$35,000	0.465	0.529	0.563	0.611	0.655	0.695	0.729
$40,000	0.439	0.504	0.538	0.586	0.633	0.674	0.710
$50,000	0.395	0.460	0.495	0.544	0.592	0.635	0.677
$75,000	0.319	0.381	0.416	0.464	0.515	0.560	0.610
$100,000	0.269	0.328	0.362	0.408	0.460	0.504	0.559
$125,000	0.234	0.290	0.323	0.366	0.418	0.461	0.519
$150,000	0.208	0.261	0.293	0.334	0.385	0.427	0.487
$175,000	0.188	0.238	0.269	0.308	0.359	0.398	0.460
$200,000	0.171	0.219	0.250	0.287	0.336	0.375	0.438
$225,000	0.157	0.203	0.233	0.269	0.318	0.355	0.418
$250,000	0.146	0.190	0.220	0.254	0.302	0.337	0.401
$275,000	0.136	0.178	0.208	0.241	0.287	0.322	0.386
$300,000	0.127	0.168	0.197	0.229	0.275	0.308	0.373
$325,000	0.119	0.160	0.188	0.219	0.264	0.296	0.361
$350,000	0.113	0.152	0.179	0.209	0.254	0.285	0.350
$375,000	0.107	0.145	0.172	0.201	0.245	0.276	0.340
$400,000	0.101	0.138	0.165	0.193	0.237	0.267	0.331
$425,000	0.097	0.133	0.159	0.186	0.229	0.258	0.323
$450,000	0.092	0.127	0.153	0.180	0.222	0.251	0.315
$475,000	0.088	0.122	0.148	0.174	0.216	0.244	0.308
$500,000	0.084	0.118	0.143	0.169	0.210	0.237	0.301
$600,000	0.072	0.103	0.127	0.150	0.190	0.215	0.277
$700,000	0.063	0.092	0.114	0.136	0.174	0.197	0.258
$800,000	0.056	0.083	0.104	0.124	0.160	0.183	0.243
$900,000	0.050	0.075	0.096	0.115	0.149	0.171	0.229
$1,000,000	0.045	0.069	0.089	0.106	0.140	0.160	0.218
$2,000,000	0.023	0.038	0.051	0.063	0.087	0.102	0.149
$3,000,000	0.014	0.025	0.035	0.044	0.063	0.075	0.114
$4,000,000	0.010	0.019	0.026	0.033	0.049	0.059	0.092
$5,000,000	0.008	0.014	0.021	0.026	0.039	0.048	0.076
$6,000,000	0.006	0.011	0.016	0.021	0.033	0.040	0.065
$7,000,000	0.005	0.009	0.014	0.017	0.027	0.034	0.056
$8,000,000	0.004	0.008	0.011	0.015	0.023	0.029	0.048
$9,000,000	0.003	0.006	0.010	0.012	0.020	0.025	0.042
$10,000,000	0.003	0.006	0.008	0.011	0.017	0.022	0.037

SERFF Tracking #:	*NCCI-129548308*	***State Tracking #:***	*47*	***Company Tracking #:***	*R-1408 (MJ)*

State:	*Missouri*	***Filing Company:***	*NCCI*
TOI/Sub-TOI:	*16.0 Workers Compensation/16.0004 Standard WC*		
Product Name:	*R-1408 2014 Update to the Retrospective Rating Plan Parameters - ExcessLoss Factors*		
Project Name/Number:	*/*		

Supporting Document Schedules

Satisfied - Item:	Filing Memorandum
Comments:	
Attachment(s):	R-1408--Filing Memorandum.pdf
Item Status:	APPROVED
Status Date:	08/26/2014

Satisfied - Item:	R-1408 Informational Only Exhbits
Comments:	
Attachment(s):	Informational Exhibit 3.pdf Informational Exhibit 4.pdf Informational Exhibit 5.pdf
Item Status:	APPROVED
Status Date:	08/26/2014

Satisfied - Item:	Response to Objection of 7/8/14
Comments:	
Attachment(s):	MO Interrogatory Response R-1408.pdf
Item Status:	APPROVED
Status Date:	08/26/2014

FILING MEMORANDUM

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

PURPOSE

This item proposes to:

- Update the Excess Loss Pure Premium Factors (ELPPFs) and Excess Loss and Allocated Expense Pure Premium Factors (ELAEPPFs) in NCCI's ***Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance (Retrospective Rating Plan Manual)***
- Introduce a newly enhanced methodology for determining ELPPFs and ELAEPPFs

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. The Retrospective Rating Plan contains an optional provision—an individual loss limitation—which limits the loss amount arising out of any one accident that will be used in the calculation of retrospective premium adjustments. The charge for limiting losses is determined by application of 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 for which loss costs are developed, NCCI files ELPPFs and ELAEPPFs instead of ELFs and ELAEFs. Carriers convert these two factors into ELFs and ELAEFs. The differences between ELPPFs and ELAEPPFs are described below:

- 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 take into account the inclusion of allocated loss adjustment expense (ALAE) as part of incurred losses. Carriers convert ELPPFs to ELFs.

  ELPPF = Excess Losses/Loss Cost Premium

- ELAEPPFs, 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 Filing Memorandum for a list of the states where ELAEPPFs are not provided. Carriers convert ELAEPPFs to ELAEFs.

  ELAEPPF = Excess Losses and Allocated Loss Adjustment Expenses/Loss Cost Premium

ELPPFs and ELAEPPFs must be updated periodically for two reasons:

1. ELPPFs and ELAEPPFs 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 ELAEPPFs are periodically updated to accurately reflect the effect of inflation on those losses.
2. Overall excess ratios are computed as a weighted average of injury type excess ratios. Thus, excess ratios, and consequently ELPPFs and ELAEPPFs, must be updated regularly for changes in the mix of injury types.

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The excess ratio curves underlying the proposed state ELPPFs and ELAEPPFs are being modified in this update. In all states except Texas and West Virginia, the excess ratio curves were last adjusted by NCCI in 2004. In Texas and West Virginia, the current excess ratio curves were adopted when NCCI began producing retrospective rating values for these states, which for Texas was 2011 and for West Virginia was 2008. The proposed new methodology has been researched in conjunction with NCCI's Individual Risk Rating Working Group for several years.

The proposed state ELPPFs and ELAEPPFs in this item are all based on the new methodology, except for Texas. The proposed ELPPFs and ELAEPPFs for Texas are computed in the same manner as the currently approved ELPPFs and ELAEPPFs.

PROPOSAL

This item proposes to update the ELPPFs and ELAEPPFs that are used with an optional loss limitation in NCCI's ***Retrospective Rating Plan Manual***. Exhibits 1 and 2 contain the proposed ELPPFs and ELAEPPFs.

Exhibits 1 and 2 are being filed in states where both ELPPFs and ELAEPPFs apply. Exhibit 1 is being filed in states where only ELPPFs apply.

IMPACT

The proposed ELPPFs and ELAEPPFs are necessary to maintain the aggregate expected balance between the retrospectively rated premium and the guaranteed cost premium. If the ELPPFs and ELAEPPFs 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 ELAEPPFs may increase or decrease premium for an employer that chooses to purchase an individual loss limitation, depending on which limit is purchased. The proposed ELPPFs and ELAEPPFs are adjusted to remove losses beyond $50 million.

An overview of the proposed new methodology is provided in Informational Exhibit 3. The impact from implementation of the proposed new methodology varies by state, by loss limit selected, and by hazard group. Informational Exhibit 3 provides the areas where the proposed ELPPFs and ELAEPPFs are typically increasing or decreasing on a countrywide basis when compared to the current ELPPFs and ELAEPPFs. The proposed ELPPFs and ELAEPPFs also reflect an updated mix of loss weights by injury type. 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 and will become effective concurrent with each state's approved loss cost/rate filing effective on and after October 1, 2014. For example, this item will be effective January 1, 2015, for approved loss cost/rate fillings that have a January 1, 2015 effective

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date. Similarly, this item will be effective July 1, 2015, for approved loss cost/rate filings that have a July 1, 2015 effective date.

If there is no loss cost/rate filing for a state in a given year, this item will take effect on that state's anticipated rate effective date. The anticipated rate effective date is the anniversary date of the previous year's effective date in that state.

Anticipated Effective Dates by State

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

State	Anticipated Effective Date*
Alabama	March 1, 2015
Alaska	January 1, 2015
Arkansas	July 1, 2015
Colorado	January 1, 2015
Connecticut	January 1, 2015
District of Columbia	November 1, 2014
Georgia	March 1, 2015
Hawaii	The effective date will be determined upon regulatory approval of the individual carrier's election to adopt this change.
Illinois	January 1, 2015
Indiana	January 1, 2015
Kansas	January 1, 2015
Kentucky	October 1, 2014
Louisiana	May 1, 2015
Maine	April 1, 2015
Maryland	January 1, 2015
Mississippi	March 1, 2015
Missouri	January 1, 2015
Montana	July 1, 2015
Nebraska	February 1, 2015
Nevada	March 1, 2015

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New Hampshire	January 1, 2015
New Mexico	January 1, 2015
North Carolina	April 1, 2015
Oklahoma	January 1, 2015
Oregon	January 1, 2015
Rhode Island	August 1, 2015
South Carolina	September 1, 2015
South Dakota	July 1, 2015
Tennessee	March 1, 2015
Texas	June 1, 2015
Utah	December 1, 2014
Vermont	April 1, 2015
West Virginia	November 1, 2014

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

EXHIBIT COMMENTS AND IMPLEMENTATION SUMMARY

Exhibit	Exhibit Comments	Implementation Summary
1	Details the state ELPPFs, which apply for all states in this item.	Revises NCCI's ***Retrospective Rating Plan Manual***.
2	Details the state ELAEPPFs, which apply for all states in this item except Georgia, Illinois, Kentucky, Louisiana, Maryland, Oregon, and South Dakota.	
3	Details the proposed new methodology for determining ELPPFs and ELAEPPFs.	Provides informational exhibits related to the proposed changes.
4 and 5	Details hypothetical illustrations of Statistical Model Output.	

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Overview of the Proposed New ELF Methodology[1]

The excess ratio curves underlying the proposed state ELFs are being modified in this update. The latest valuation of case incurred loss amounts from NCCI's Statistical Plan are compiled across 36 states and combined for five older policy periods, corresponding to policy periods within the 2000-2005 timeframe. These policy periods are selected to use claim amounts evaluated as of 6th through 10th reports. Using this data, one countrywide curve is generated for each claim group (5 curves).

Claim group—Every claim is assigned to one of the following 5 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

The claim groups are based on claims characteristics reported to NCCI for injury type, part of body, and open versus closed status. The injury types reported to NCCI are Fatal, Permanent Total (PT), Permanent Partial (PP), Temporary Total (TT), and Medical-Only. A combination of injury type, part of body, and open versus closed claim status is used to determine whether a claim is in the Likely-to-Develop category or the Not-Likely-to-Develop category.[2]

The loss amounts on open claims are stochastically dispersed and developed to ultimate value. While aggregate loss development accounts for the average difference between reported loss amounts to date and loss amounts at ultimate value, dispersion accounts for the uncertainty surrounding individual claim outcomes. For example, if two claims, initially at $200,000 each developed to $250,000, the empirical excess ratio at $300,000 would be zero and the aggregate loss development factor (LDF) would be 1.25. However, if one claim developed to $400,000 and one claim developed down to $100,000, then the excess ratio at $300,000 would be greater than zero, but the aggregate LDF would still be 1.25.

Closed claim amounts are not developed nor dispersed. Open claims develop over a time period until time of closure, the maximum duration of which varies by claim group. The development and dispersion programs determine the contribution of each claim to the final excess ratios. The overall loss development resulting from this process is balanced to development factors underlying loss cost filings by state, claim group, and policy period.

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[1] *For purposes of this overview, the term ELF encompasses Excess Loss Factor (ELF), Excess Loss and Allocated Expense Factor (ELAEF), Excess Loss Pure Premium Factor (ELPPF), and Excess Loss and Allocated Expense Pure Premium Factor (ELAEPFF).*

[2] *More details may be found in the following CAS paper: Thomas V. Daley, "Class Ratemaking for Workers Compensation: New Developments in Loss Development" Variance 2013, Volume 6, Issue 2.*

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The excess ratios are defined as the ratio of expected losses greater than a particular limit to total expected losses. Tables of excess ratios are indexed by entry ratio—the ratio of the loss limit per claim to the average loss per claim. For each claim group, NCCI undertakes the following:

- Using the countrywide data, 5,000 empirical excess ratio values are determined. Once the empirical excess ratios are determined, a set of two lognormal curves is fit through the values to generate a smooth excess loss curve.
- The mixture of two lognormal curves form the body of the curves at lower entry ratios.
- At high-entry ratios, where the data becomes sparse, a generalized Pareto tail is spliced onto the body of each curve using extreme value theory to account for large events.
- The countrywide curves are normalized to a mean of 1.0. The excess ratios for losses above a given loss limit and claim group are obtained from the normalized curve by using the curve's value at the entry ratio for that loss limit.
- State excess ratio curves are shaped directly from the countrywide curves for each claim group using the credibility-weighted standard deviation of logged claim amounts for each state relative to the same value for countrywide.
- This calculation determines a proxy coefficient of variation (CV) based on each state's five policy periods of data at 6^{th} through10^{th} reports relative to the CV of the countrywide data at the same maturity.
- These credibility-weighted relativities (R-values) vary by claim group, and are applied to the parameters of the countrywide curves. The state curves are renormalized to a mean of 1.0.
- On a per-claim basis, excess ratios are calculated by claim group and then weighted together to arrive at excess ratios for all claim groups combined. For a given state, hazard group, and loss limit, the excess ratio is constrained to be no less than the excess ratio for a lower hazard group for the same state and loss limit.
- The change from a per-claim to a per-occurrence basis is done using countrywide data through the application of the results of a new model, which captures the number and amounts of individual claims per occurrence, as well as the correlation between claim amounts for claims within an occurrence.
- Events exceeding $50 million are considered catastrophes and non-ratable, so the excess provision for losses beyond $50 million is removed and the excess ratios are adjusted and rescaled.
- Final ELFs (or ELPPFs, ELAEPPFs, etc.) are determined by applying the appropriate expense ratios for that state.

The average cost per case (ACC) is used to calculate the final ELF value. The ACC for each claim group and hazard group is used to calculate the entry ratio for each loss limit (entry ratio = loss limit / ACC), and

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the entry ratio is then used to determine the excess ratio. The same excess ratio curves can be used repeatedly by updating the ACC (and loss weights) by claim group and hazard group periodically.

The excess ratios for each claim group are weighted together using the loss weights by claim group to produce one excess ratio per loss limit for a given hazard group.

Determining the ACC and Loss Weights Using New Statistical Models

NCCI has created and tested two Bayesian statistical multilevel factor models. NCCI uses the output from the models to smooth the volatility in the data, pulling information out of the observed data, while discarding the random noise. This is especially important in smaller states, as ELFs are produced by:

- State
- Hazard group
- Claim group

The two models produce the following output: a) fitted state average costs per case, and b) fitted state claim counts. The fitted values are multiplied together to determine the ultimate losses. The loss weights are the portion of ultimate losses from each claim group, and they are applied to the excess ratios by claim group to determine the final ELFs.

The observed losses that enter the calculation of the ACC are developed, on-leveled for benefit changes, and trended to the midpoint of the filing effective period. For each state, the adjusted losses are brought to an ultimate value by claim group and hazard group for indemnity and medical components. The latest five available Statistical Plan policy periods for each state are used. Claim counts are also developed to ultimate value for the five policy periods, and observed average costs per case are determined at a claim group and hazard group level. The observed values are simultaneously input to the multilevel model for each state.

The model strives to find the optimal balance between responsiveness and stability by considering both observed claim counts and intrastate variation relative to the interstate variation. All parameters are estimated simultaneously and only reflect the following included claim groups:

- Fatal
- Permanent Partial and Temporary Total—Likely-to-Develop
- Permanent Partial and Temporary Total—Not-Likely-to-Develop

Due to the large number of observed claims and their minor impact on the magnitude of excess ratios, the empirical medical-only ACC is used, and thus, these claims are not modeled. The permanent total claim group is treated differently, and described in detail in another section of this document.

The following briefly describes each element or parameter of the ACC model output:

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Fitted Base Average Cost per Case represents the fitted severity for each claim group in the "typical" state at a Hazard Group A level. The value of this parameter is constant across states, analogous to a base rate conceptually.

State Relativity is the ratio of the severity for the state to the severity for the typical state. State Relativities reflect all absolute state differences in a state's ACC and is normalized to a geometric mean of 1.0 across all states.

Claim Group-Hazard Group Relativity is the ratio of the ACC for a given hazard group (within a claim group) to the ACC for all hazard groups (within a claim group). Claim Group-Hazard Group Relativities

reflect how severity varies across hazard groups within each claim group. The value of these parameters is constant across states.

State-Claim Group Relativity is the ratio of the ACC for a given claim group to the ACC over all claim groups. State-Claim Group Relativities reflect relative claim group severity and are normalized to a geometric mean of 1.0 by state and claim group. The value of these parameters varies across states.

Fitted State Average Cost per Case represents the fitted severity and is the product of the four parameters above. The relativities are multiplied together by matching state, hazard group, and claim group fields.

The other statistical model computes values used to calculate fitted state claim counts. In addition to using the same five policy periods of adjusted losses and claim counts as the ACC model as inputs, five policy periods of actual payroll by hazard group and report period are also input into the claim count model for frequency (claims per million dollars of payroll)

Several parameters are estimated from the Bayesian multilevel model, which strives to find the optimal balance between responsiveness and stability by considering both volume and intrastate variation relative to the interstate variation. All parameters are estimated simultaneously and are based only on the included claim groups (i.e., Fatal, Likely PP/TT, and Not Likely PP/TT).

The following briefly describes each element or parameter of the model output for determining fitted claim counts.

Observed Payroll ($millions) is shown by state, policy period, and hazard group. This is a model input, not an output. It serves as a measure for the exposure base.

Policy Period Relativity is the ratio of claim count per payroll for a given policy period to the ratio of claim count per payroll of the latest policy period. Policy period relativities reflect any temporal differences in the relationship between payroll and claim counts. Possible reasons for shifts over time include, but are

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not limited to, wage level changes. These parameters, and the patterns they reflect, are constant across all states, hazard groups, and claim groups. The latest policy period is base level 1.000.

Adjusted Payroll is the sum product of Policy Period Relativities and Observed Payroll for the state. It represents total payroll adjusted to a common "policy period" level.

State Relativity, in this model, is the ratio of claim count per payroll for the state to claim count per payroll for a typical state. The State Relativity reflects all absolute state differences in claim frequency and is normalized to a geometric mean of 1.0 across all states.

State-Hazard Group Relativity is the ratio of claim count per payroll for a given hazard group to claim count per payroll over all hazard groups. State-Hazard Group Relativities reflect state variation in hazard

group frequency without capturing any absolute state or hazard group differences and are normalized to a geometric mean of 1.0 by state and hazard group. The value of these parameters differs by state.

Claim Group Frequency represents the fitted frequency for the "typical" state at a Hazard Group A level for policy period. The value of these parameters is constant across states.

Claim Group-Hazard Group Relativity, in this model, is the ratio of the claim count per payroll for a given hazard group (within a claim group) to the claim count per payroll over all hazard groups (within a claim group). Claim Group-Hazard Group Relativities reflect how frequency varies across hazard groups within each claim group, relative to the frequency of Hazard Group A. The value of these parameters is constant across states.

State-Claim Group Relativity, in this model, is the ratio of the claim count per payroll for a given claim group to the claim count per payroll over all claim groups. State-Claim Group Relativities reflect relative claim group frequency and are normalized to a geometric mean of 1.0 by state and claim group. The value of these parameters varies across states.

Fitted State Claim Counts represent the fitted total claims over the five policy periods. The five-year total is directly computed by first calculating Adjusted Payroll. The fitted state claim counts are the product of the following parameters, and presented as nonintegers for fatal and PT claim groups:

- Adjusted Payroll
- State Relativity
- State-Hazard Group Relativities
- Claim Group Frequency
- Claim Group-Hazard Group Relativities
- State-Claim Group Relativities

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A hypothetical example of the model output for State X for both models is included as informational Exhibits 4 and 5 to illustrate the new calculations of the fitted state ACC and the fitted state claim counts.

Due to the large number of observed claims, and the relatively minimal impact that the medical-only claim group has on the magnitude of excess ratios, the empirical medical-only values are used and thus, the

claims are not modeled. The permanent total claim group is treated differently, and described in another section of this document.

Treatment of the Permanent Total Claim Group

Because of the low PT claim volume and high variation in individual PT claim amounts, average reported PT costs per case in all but the largest states can be quite volatile from year to year, and resulting ELF values could fluctuate considerably from year to year.

To reduce fluctuations in ELFs from year to year, two fundamental amounts are determined and held constant by NCCI. They are:

1. An initial PT average cost per case by state and hazard group
2. The PT share of lost-time claims by state and hazard group

This treatment stabilizes ELFs from one year to the next by reducing volatility due to reported data while allowing responsiveness to changes in state average claim cost trends.

The state PT expected claim counts are determined by the same multilevel model used for determining the fitted state claim counts. However, the inputs include PT claim counts by state and hazard group along with data for the other lost-time claim groups, developed to ultimate value. In addition, the initial PT model output is based upon the data underlying the base time periods at 6^{th} through 10^{th} reports used for determining the excess ratio curves. This approach allows us to use more mature data for PT claims while still utilizing recent information from the other claim groups.

The proportion of total lost-time claim counts represented by the PT claim group is held constant over time, and applied to the total of the fitted state claim counts for the purpose of stabilizing loss weights over time. The indicated PT claim count is the product of this constant initial PT proportion, to the annually updated sum of the lost-time claim counts for the other claim groups.

The state PT ACC is determined by the same multilevel model used for determining the state fitted ACC. However, the inputs include PT loss amounts by state and hazard group along with data for the other claim groups developed to an ultimate value. In addition, the initial PT model output is based upon the data underlying the base time periods at 6th through 10th reports used for determining the excess ratio curves.

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The PT ACC is trended to the appropriate level in two stages:

1. From the base time period for the initial ACC to the midpoint of the latest 5-year experience period for the annual ELF update
2. From the midpoint of the experience period for the annual ELF update to the midpoint of the period that the updated ELFs are expected to be effective

The first stage uses countrywide trend factors of 5.0% per year for indemnity and 6.7% per year for medical. These trends are the average annual changes from Accident Year (AY) 2002 to AY 2008 per the NCCI Countrywide Frequency and Severity Analysis. The 2002 to 2008 period was selected to avoid certain possibly distorting influences on long-term severity changes. Before AY 2002, frequency of small claims declined faster than frequency of larger claims, resulting in larger annual severity changes than changes in costs for comparable wages and medical services indicated. After AY 2008, the Great Recession had a distorting effect on average claim sizes. NCCI tested alternatives of using state severity throughout the entire period. The selected approach proved to have the best balance between stability and responsiveness to state specific data.

The second stage uses state-specific lost-time severity trend factors for indemnity and medical from the most recent state loss cost or rate filing. The resulting trends from each stage are multiplied to determine a combined trend amount.

The other PT adjustment factors account for state-specific benefit on-levels and an indemnity and medical loss split, and are applied to determine the indicated PT average cost per case. The PT indemnity and

medical loss split is calculated based on the PT losses used in the multilevel model that determines the PT state average cost per case.

Derived using an assumption of a constant ratio of the number of PT claims to total indemnity claims at the state and hazard group level, PT loss weights are the product of the indicated PT claim count and the indicated PT ACC for the state.

Determining Loss and Allocated Loss Adjustment Expense Excess Loss Factors

Retrospective rating may be applied to incurred losses including allocated loss adjustment expenses (ALAE). If an insured selects this type of plan, Excess Loss and Allocated Loss Adjustment Expense Factors (ELAEFs) are applied. An ELAEF represents the ratio of expected losses and ALAE greater than a particular loss limit to standard premium. An ELAEPPF corresponds to the ratio of expected losses and ALAE greater than a particular loss limit to NCCI pure premium.

In NCCI's current methodology, the average severities of only Fatal, Permanent Total, and Permanent Partial claims are scaled up by a single factor calculated to balance in resulting dollars to what was

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implied by the statewide estimated ratio of ALAE to pure loss. No ALAE is allocated to Temporary Total and Medical Only Claims. This implicitly assumed a higher ratio for ALAE to pure loss for more serious injury types, and thus, for larger claims.

Examination of historical data has shown that the ratio of ALAE to pure loss tends to be smaller for more serious claim groups and also for larger claims within each claim group. The new methodology for accounting for ALAE is now consistent with these empirical observations.

Column (3) of the following table illustrates the claim group relativities NCCI is applying to all states. These ratios are based on historical countrywide estimates of ALAE to pure loss by claim group, but scaled to balance to what is implied by the statewide estimated ratio of ALAE to pure loss (in this case, 0.127):

Claim Group (1)	Pure Loss Severity (2)	CW ALAE Adjustment (3)	Off-Balance Factor (4) = 0.127/Total (3)	ALAE Adjustment Factor (5) = (3) x (4)	Loss & ALAE Severity (6) = (2) x [1.0 + (5)]
Fatal	356,203	0.0590	1.190	0.0702	381,208
PT	1,955,493	0.0782	1.190	0.0931	2,137,549
Likely PP/TT	139,253	0.1188	1.190	0.1414	158,943
Not-Likely PP/TT	36,575	0.1132	1.190	0.1347	41,502
Medical-Only	1,414	0.1320	1.190	0.1571	1,636
Total	n/a	0.1067	1.190	0.1270	n/a

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Average pure loss severities by claim group in column (2) are multiplied by estimated ratios of ALAE to pure loss by claim group, scaled to the state ALAE level as shown in column (5).

Excess ratio curves by state and claim group have been fit separately, both for pure loss data and for loss + ALAE data, respectively. The latter data was based on an estimate for ALAE/loss that varies by state, claim group, and size of claim. The state loss + ALAE excess ratio curves are calculated by interpolating between the loss only and loss + ALAE curve based on the state's ratio of ALAE to loss relative to countrywide. These two excess ratio shape curves are weighted together by applying a weight W to the loss + ALAE curve and correspondingly applying the weight (1-W) to the pure loss curve.

W = (ratio of statewide ALAE/loss) / (ratio of countrywide ALAE/loss)

The weighting procedure is applied for each claim group in the state.

The fitted state average cost per case by hazard group is multiplied by the scaled state ALAE factor to get the resulting loss + ALAE average cost per case. The total losses used in determining the loss weights are adjusted to include ALAE from the scaled state factors in column (5), and are used for determining the loss and ALAE weights across claim group and hazard group.

Comparison of Methodology Changes by Component

Component	Current Methodology	Proposed Methodology
Organization of the Data	Curves by Injury Type: Fatal, PT, PP, TT and Medical-Only	Curves by Claim Group: Fatal, PT, Likely PP&TT, Not-Likely PP&TT, and Medical-Only
Maturity of the Data	Curves based on PYs 1995-1997 • 3rd through 5th reports for Fatal and PT • 5th report only for PP, TT, and Medical-Only	Curves based on PYs 2000-2005 • 6th through 10th reports for all claim groups
Loss Development and Dispersion	• One Gamma LDF was applied to all open claims within a state, report, and injury type • Each open claim was replaced by 173 observations	• LDF distribution varies by size of claim for claims prior to 10th report • Less relative development applied to larger claims through regression model • A lognormal distribution is assumed for the ultimate LDF
Form of Body of Curves	Empirical excess ratio tables by: • State • Injury type	Mixture of two lognormal excess ratio functions fitted for each claim group
Form of Tail of ELF	Mixed exponential tail by state and	A Generalized Pareto (GPD) tail is

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Curves	injury type	spliced on each CW curve by claim group
Adjusting Countrywide Curves to the State Level	Not Applicable	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
Determination of Average Costs per Case and Loss Weights	Empirical data is used to compute average severities and loss weights by: • State • Injury type Countrywide tables are used to adjust severities and distribute losses to hazard groups	Two Bayesian multilevel models to determine fitted severities and fitted claim counts by: • State • Claim group • Hazard group
Stabilizing ELFs for Annual Updates	• PT severity and weights are subject to volatility, especially in smaller states • Ad hoc tempering is applied to mitigate the impact of data outliers or unusually large changes	• PT severities (based on the same data as the curves) are locked-in and adjusted forward each year for trend and benefit on-levels • The ratios (by state and hazard group) of expected PT claim counts to expected non-PT lost-time claim counts will remain constant • Excess ratios are no longer averaged with the prior year
Excess Ratio Adjustments	Current curves include a differential trend additive adjustment and an adjustment for large events not represented in the data (up to $50 million)	• The differential trend additive adjustment is removed • The adjustment for large events is removed due to the use of extreme value theory in developing the curves • Final excess ratios are adjusted to limit occurrences to $50 million
Inclusion of ALAE by Claim Group and Size of Loss	• Severities for Fatal, PT, and PP are scaled by a common factor to include statewide ALAE using the same shape curves as for pure loss excess ratios • No ALAE is included for TT and Medical-Only • Does not recognize differences in ALAE by size of loss	• 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 • 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

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Advantages of the Proposed Methodology

The enhancements that NCCI has added to the new ELF methodology provide many practical and theoretical advantages over the current methodology. This approach lends itself to more year-to-year stability by state than the current methodology. Some of the major advantages include the following:

- A large volume of data is pooled to calculate the proposed countrywide excess ratio curves.
- Deriving state curves from the countrywide curves is less sensitive to data outliers than empirical excess ratios by state by injury type used in the current methodology.
- The data is more recent and more mature (6^{th} through10^{th} reports) than used in the previous curves; result is less uncertainty for estimating loss development and dispersion due to fewer open claims.
- The injured part of body data element is utilized in the proposed excess ratio curves.
- The reconfiguration of the permanent partial and temporary total claims into the likely-to-develop and not-likely-to-develop claim groups reduces claim crossover from one injury type to another, which can distort the excess ratio calculations.
- State curves are tailored using the state's proxy CV and will capture differences in benefit structures (for example, existence of cost of living allowances [COLAs]). Parameters can be modified to reflect a change in curve shapes over time.
- Lognormal mixtures are spreadsheet friendly functional forms.
- Statistical modeling is introduced to capture the signal from the data and smooth out fluctuations.
- Statistical models account for correlations between states due to differences in a state's severity, frequency, and/or industry mix.
- More stability is introduced by eliminating the impact of permanent total claims emerging into or departing from the latest data used in determining the severities and loss weights.
- The fact that the ALAE/Loss ratio tends to be higher for less severe injury types and less for larger claims within a given injury type is now reflected.

General Patterns of ELF Results on Countrywide Basis

The impact from implementation of the proposed ELF methodology varies by state, by loss limit selected, and by hazard group. Although results vary by state, because state curves are shaped from countrywide curves, it may be useful to describe a few general patterns of the countrywide curves. Based upon an NCCI countrywide ELF analysis, the proposed methodology and current methodology were compared by weighing together the five countrywide excess ratio curves across the claim groups. In applying the new methodology to the same data underlying the current approved ELFs, NCCI's general observations are:

- The shape of the countrywide excess ratio curves are changing
- At most loss limits below $3 million, the proposed excess ratios are increasing slightly from the latest filed values
- At limits beyond $3 million, the proposed excess ratios begin to decrease noticeably from the latest filed values

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

EXHIBIT 4
INFORMATIONAL EXHIBIT - EXCESS LOSS FACTORS FOR STATE X
CALCULATION OF STATE AVERAGE COST PER CASE
FOR ILLUSTRATION PURPOSES ONLY

Exhibit 4.A
Fitted Base Average Cost Per Case

Claim Group	
Fatal	271,079
Likely PP/TT	91,826
Not Likely PP/TT	24,027

Exhibit 4.B

State Relativity	0.916

Exhibit 4.C
Claim Group-Hazard Group Relativities

	Hazard Group						
Claim Group	**A**	**B**	**C**	**D**	**E**	**F**	**G**
Fatal	1.000	1.124	1.155	1.246	1.342	1.456	1.548
Likely PP/TT	1.000	1.281	1.357	1.593	1.864	2.210	2.515
Not Likely PP/TT	1.000	1.233	1.294	1.482	1.692	1.955	2.180

Exhibit 4.D
State-Claim Group Relativities

Claim Group	
Fatal	0.596
Likely PP/TT	1.449
Not Likely PP/TT	1.158

Exhibit 4.E
Fitted State Average Cost Per Case

	Hazard Group						
Claim Group	**A**	**B**	**C**	**D**	**E**	**F**	**G**
Fatal	148,003	166,331	170,911	184,418	198,682	215,466	229,133
PT*	1,170,455	1,619,884	1,777,110	2,067,076	2,492,614	3,023,908	3,528,555
Likely PP/TT	121,921	156,165	165,392	194,210	227,210	269,494	306,680
Not Likely PP/TT	25,477	31,405	32,966	37,757	43,110	49,798	55,544
Med-Only**	1,212	1,370	1,377	1,529	1,664	1,869	1,771

* The Permanent Total values are determined using a different approach, as described within Informational Exhibit 3.
** Medical Only average values are based on observed non-fitted data.

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

EXHIBIT 5
INFORMATIONAL EXHIBIT - EXCESS LOSS FACTORS FOR STATE X
CALCULATION OF STATE CLAIM COUNTS
FOR ILLUSTRATION PURPOSES ONLY

Exhibit 5.A
Payroll ($ million)

	Hazard Group						
Policy Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**
5/1/09-4/30/10	922	3,217	14,229	3,087	5,601	1,788	562
5/1/08-4/30/09	891	3,233	13,946	3,060	5,417	1,792	545
5/1/07-4/30/08	911	3,300	14,175	3,109	5,634	1,866	546
5/1/06-4/30/07	837	3,084	13,239	2,773	5,416	1,803	562
5/1/05-4/30/06	766	2,961	12,928	2,582	5,146	1,680	534

Exhibit 5.B

Policy Period	**Relativity**
5/1/09-4/30/10	1.000
5/1/08-4/30/09	1.016
5/1/07-4/30/08	1.108
5/1/06-4/30/07	1.199
5/1/05-4/30/06	1.289

Exhibit 5.C

	Hazard Group						
	A	**B**	**C**	**D**	**E**	**F**	**G**
Adjusted Payroll ($ million)	4,827	17,674	76,652	16,295	30,479	10,004	3,083

Exhibit 5.D

State Relativity	0.933

Exhibit 5.E
State-Hazard Group Relativities

	Hazard Group						
	A	**B**	**C**	**D**	**E**	**F**	**G**
Relativity	1.273	1.117	1.119	0.937	0.958	0.834	0.841

Exhibit 5.F

Claim Group Frequency	
Claim Group	**Claims per $ Million Payroll**
Fatal	0.00037
Likely PP/TT	0.06346
Not Likely PP/TT	0.31153

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

EXHIBIT 5 (CONT'D)
INFORMATIONAL EXHIBIT - EXCESS LOSS FACTORS FOR STATE X
CALCULATION OF STATE CLAIM COUNTS
FOR ILLUSTRATION PURPOSES ONLY

Exhibit 5.G
Claim Group-Hazard Group Relativities

	Hazard Group						
Claim Group	**A**	**B**	**C**	**D**	**E**	**F**	**G**
Fatal	1.000	0.950	0.708	2.342	2.997	9.970	15.479
Likely PP/TT	1.000	0.748	0.375	0.719	0.650	1.450	1.383
Not Likely PP/TT	1.000	0.750	0.379	0.722	0.652	1.445	1.379

Exhibit 5.H
State-Claim Group Relativities

Claim Group	
Fatal	1.310
Likely PP/TT	0.882
Not Likely PP/TT	0.865

Exhibit 5.I
Fitted State Claim Counts

	Hazard Group						
Claim Group	**A**	**B**	**C**	**D**	**E**	**F**	**G**
Fatal	2.801	8.546	27.701	16.313	39.896	37.912	18.294
PT*	3.803	13.892	43.499	16.330	37.772	23.831	11.399
Likely PP/TT	321	771	1,680	574	990	631	187
Not Likely PP/TT	1,545	3,725	8,172	2,773	4,789	3,030	899
Med-Only**	9,210	21,471	45,036	13,809	20,787	10,868	2,504

* The Permanent Total values are determined using a different approach, as described within Informational Exhibit 3.
** Medical Only average values are based on observed non-fitted data.

National Council on Compensation Insurance

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August 1, 2014

Mr. Patrick Lennon
Missouri Department of Insurance, Financial Institutions
and Professional Registration (DIFP)
PO Box 690
Jefferson City, MO 65102-0690

RE: **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**
NCCI SERFF Tracking Number: NCCI-129548308; State Tracking #: 27

Dear Mr. Lennon:

Thank you for your July 8, 2014 objection regarding the above-referenced item filing. After review and consideration, below please find our responses.

Objection 1: What does the filing do?

Response: This filing revises the current approved excess loss pure premium factors and excess loss and allocated expense pure premium factors by hazard group and selected loss limits applicable in the state of Missouri. It also introduces a new methodology to compute the proposed factors.

Objection 2: Why is the change being made now?

Response: The excess loss pure premium factors and excess loss and allocated expense pure premium factors are revised annually to be effective concurrent with the next loss cost filing in Missouri. The Retrospective Rating Plan national item-filings are typically filed by NCCI in May or June every year. The annual updates are normally accounting for the impact that claim inflation may produce on the factors over time. In this 2014 update, the methodology is also being enhanced for all NCCI states for the first time in 10 years. The prior methodology was introduced by NCCI in 2004.

Objection 3: Who will be impacted by this change and to what degree?

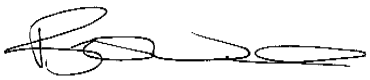
Response: An excess loss pure premium factor is an elective element in NCCI's Retrospective Rating Plan. Excess loss premium is a small portion of the total retrospective rating premium. Any insured with a policy written on a retrospectively rated basis, who also chooses a loss limitation, is potentially impacted by the change in excess loss pure premium factors. The factors vary by loss limit selected, and the hazard group to which the operations of the insured are assigned. In Missouri, the excess loss pure premium factors are generally increasing for loss limits below $3M and decreasing at loss limits beyond $3M. The degree of impact for each insured is not quantifiable as NCCI does not collect the retrospective rating parameters at a policy detail level, which is required to determine such impact exactly.

Objection 4: Provide the number of policyholders affected by this change.

Response: The Unit Statistical Plan Data collected by NCCI has a field indicating if a policy is retrospectively rated. Based upon a recent year's worth of policies in Missouri, there are approximately 1,200 voluntary policies reported as retrospectively rated. If every one of them purchased a loss limitation, then 1,200 is the greatest possible number of policyholders impacted. In reality, the number is probably less than 1,200, as not every insured elects to purchase a loss limitation. Less than 1.5% of all policies written in Missouri are retrospectively rated.

Thank you for your consideration of this item. If you have further questions, please do not hesitate to contact me.

Sincerely,



Roy O. Wood
State Relations Executive

ROW:mj