

TECHNICAL SUPPLEMENT

PROPOSED EFFECTIVE JULY 1, 2013



November 16, 2012

Honorable Paul McGreevy Director State of Rhode Island and Providence Plantations Department of Business Regulation Insurance Division 1511 Pontiac Ave Cranston, RI 02920

Attention: Paula Pallozzi, Chief Property & Casualty Insurance Rate Analyst

Re: Technical Supplement for Rhode Island Workers Compensation Advisory Loss Costs and Rating Values Filing – Effective July 1, 2013

Dear Director McGreevy:

We are enclosing for your review, supporting actuarial and statistical data used to produce the results of the proposed July 1, 2013 advisory loss costs and rating values filing.

Additional information supporting the LAE provision will be provided under a separate cover.

As always, if you should have any questions or need additional information, please do not hesitate to contact me at (802) 454-1800 or Karen Ayres at (201) 386-2636.

Respectfully Submitted,

Laum Kettel

Laura Backus Hall, CPCU State Relations Executive



Actuarial Certification

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

Filing prepared by:

Karen J. apres

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SUMMARY

Proposed Effective Date	July 1, 2013
I. Industrial Classifications	
Overall Proposed Change in Loss Cost Level	
New and Renewal Policies	+8.0%
By Component	
Change in Experience, Trend and Benefits	+5.8%
Offset for Change in EL Factors	+0.9%
Change in Loss Based Expenses	+1.1%
Overall Loss Cost Level Change	+8.0%
By Industry Group	
Manufacturing	+8.2%
Contracting	+7.4%
Office & Clerical	+6.5%
Goods & Services	+9.0%
Miscellaneous	+7.6%
Overall	+8.0%
II. "F" Classifications	
Overall Proposed Change in Voluntary Loss Cost Level	
New and Renewal Policies	-2.4%



EXPLANATORY MEMORANDUM

Changes Impacting Aggregate Ratemaking

Employers' Liability Increased Limits Percentages—Item B-1425

Item B-1425 was recently approved in Rhode Island effective January 1, 2013. As referenced within Item B-1425, NCCI is applying a ratemaking adjustment due to changes in the employers' liability increased limits percentages.

Background

The employers' liability coverage and the statutory workers compensation coverage must both be considered when determining the overall loss cost level indication because the loss costs fund both coverages. Employers' liability increased limits premiums and losses are reported in the financial call data on which the overall loss cost level indications are based.

Why Is the Ratemaking Adjustment Necessary?

The employers' liability increased limits percentages were reduced in Item B-1425. All else equal, this change will directly reduce the otherwise reported statewide financial call standard earned premium for years beginning on and after January 1, 2013. However, in this year's filing the experience period used to determine the proposed loss costs is necessarily from a time period *prior* to 2013, when the previous (higher) increased limits percentages were in place.

The premium adjustment for employers' liability is not unlike an on-level factor. Therefore, it would be inappropriate to determine a loss cost level indication without the application of such a premium adjustment to the historical data.

The combined impact of the ratemaking adjustment on statewide standard earned premium and the revised increased limits percentages is expected to be revenue neutral on an overall basis.

Where Is the Ratemaking Adjustment Located in This Filing?

Exhibit I of the filing's technical supplement includes a rate offset that is inversely proportional to the estimated change in employers' liability premium that will be collected beginning January 1, 2013. The estimated change in employers' liability premium is also found on Exhibit I and was derived using a state-specific distribution of employers' liability increased limits premiums.



EXPLANATORY MEMORANDUM

Changes Impacting Aggregate Ratemaking

19th-to-Ultimate Report Loss Development Tail Factor

In past NCCI filings in this jurisdiction, bulk and IBNR (incurred but not reported) reserves were included in the calculation of the 19th-to-ultimate report loss development factor (LDF). Beginning with financial data valued as of December 31, 2011, carriers no longer report bulk and IBNR reserves to NCCI. As a result, NCCI has revised the calculation of the 19th-to-ultimate report LDF in this filing to be based on paid losses plus case reserves ("paid plus case" or "case incurred losses").

Changes in IBNR reserves can have a notable impact on total incurred loss development factors—due to reserve strengthening/weakening in a given calendar year. Therefore, using paid plus case losses is expected to add stability to the resulting 19th-to-ultimate report LDFs over time.

Since prior to this year IBNR was only reported on the calendar-accident year financial calls, the 19thto-ultimate report LDF in previous filings was calculated based on accident year data—regardless of the data aggregation used to calculate LDFs from a 1st to 19th report. Since bulk and IBNR reserves will no longer be used in the calculation beginning with this year's filing, the data (accident or policy year) used in the 19th-to-ultimate report LDF will be consistent with that used to calculate LDFs from a 1st to 19th report.

For workers compensation, pure IBNR losses beyond a 19th report are atypical. If one assumes that an increase in case reserves for an old claim is exactly offset by a decrease in IBNR, it follows that total incurred (including IBNR) loss development is less than paid plus case loss development. To reflect the longer expected loss development period associated with paid plus case losses, the "factor to adjust losses for prior policy years" was also revised in this year's filing. This factor compares the losses for a recent year at a 19th report to the average annual losses for the ten previous years. In past filings, this factor was calculated by comparing losses for a recent year at a 19th report to the average annual losses for the ten previous years.



EXHIBIT I

Exhibit I-A - Policy Year 2010 Experience

Premium:

(1) (2) (3)	Standard Earned Premium Developed to Ultimate (Appendix A-II) Premium On-level Factor (Appendix A-I) Premium Available for Benefits Costs = (1) x (2)	\$121,662,083 1.086 \$132,125,022
Inden	nnity Benefit Cost:	
(13)	Limited Indemnity Losses Developed to Ultimate (Appendix A-II) Indemnity Loss On-level Factor (Appendix A-I) Factor to Include Loss-based Expenses (Exhibit II) Composite Adjustment Factor = $(5) \times (6)$ Adjusted Limited Indemnity Losses = $(4) \times (7)$ Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = $(8) / (3)$ Factor to Reflect Indemnity Trend (Appendix A-III) Projected Limited Indemnity Cost Ratio = $(9) \times (10)$ Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-III) Projected Indemnity Cost Ratio = $(11) \times (12)$ Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C) Projected Indemnity Cost Ratio including Benefit Changes = $(13) \times (14)$	\$74,757,618 1.023 1.175 1.202 \$89,858,657 0.680 1.000 0.680 1.045 0.711 1.002 0.712
Medic	cal Benefit Cost:	
(17) (18) (19) (20) (21) (22) (23) (24) (25)	Factor to Include Loss-based Expenses (Exhibit II) Composite Adjustment Factor = $(17) \times (18)$ Adjusted Limited Medical Losses = $(16) \times (19)$ Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = $(20) / (3)$ Factor to Reflect Medical Trend (Appendix A-III) Projected Limited Medical Cost Ratio = $(21) \times (22)$	\$39,614,587 1.000 1.175 1.175 \$46,547,140 0.352 1.018 0.358 1.045 0.374 1.000 0.374

Total Benefit Cost:

(28) Indicated Change Based on Experience	, Trend and Benefits = $(15) + (27)$	1.086
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EXHIBIT I

Exhibit I-B - Policy Year 2009 Experience

Premium:

(1) (2) (3)	Standard Earned Premium Developed to Ultimate (Appendix A-II) Premium On-level Factor (Appendix A-I) Premium Available for Benefits Costs = (1) x (2)	\$122,400,424 1.081 \$132,314,858
Inden	nnity Benefit Cost:	
(11) (12) (13)	Limited Indemnity Losses Developed to Ultimate (Appendix A-II) Indemnity Loss On-level Factor (Appendix A-I) Factor to Include Loss-based Expenses (Exhibit II) Composite Adjustment Factor = $(5) \times (6)$ Adjusted Limited Indemnity Losses = $(4) \times (7)$ Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = $(8) / (3)$ Factor to Reflect Indemnity Trend (Appendix A-III) Projected Limited Indemnity Cost Ratio = $(9) \times (10)$ Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II) Projected Indemnity Cost Ratio = $(11) \times (12)$ Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C) Projected Indemnity Cost Ratio including Benefit Changes = $(13) \times (14)$	\$70,666,444 1.024 1.175 1.203 \$85,011,732 0.642 1.000 0.642 1.045 0.671 1.002 0.672
Medic	al Benefit Cost:	
(17) (18) (19) (20) (21) (22) (23) (24) (25)	Factor to Include Loss-based Expenses (Exhibit II) Composite Adjustment Factor = $(17) \times (18)$ Adjusted Limited Medical Losses = $(16) \times (19)$ Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = $(20) / (3)$ Factor to Reflect Medical Trend (Appendix A-III) Projected Limited Medical Cost Ratio = $(21) \times (22)$	38,104,097 1.000 1.175 1.175 444,772,314 0.338 1.023 0.346 1.045 0.362 1.000 0.362

Total Benefit Cost:

(28)	Indicated Change Based on Experience, Trend and Benefits = (15) + (27)	1.034
(20)	indicated onlarge based on Experience, mend and benefits $= (10) + (27)$	1.00+



EXHIBIT I

Exhibit I-C - Policy Year 2008 Experience

Premium:

(1) (2) (3)	Standard Earned Premium Developed to Ultimate (Appendix A-II) Premium On-level Factor (Appendix A-I) Premium Available for Benefits Costs = (1) x (2)	\$130,187,129 1.045 \$136,045,550
Inden	nnity Benefit Cost:	
(11) (12) (13)	Limited Indemnity Losses Developed to Ultimate (Appendix A-II) Indemnity Loss On-level Factor (Appendix A-I) Factor to Include Loss-based Expenses (Exhibit II) Composite Adjustment Factor = $(5) \times (6)$ Adjusted Limited Indemnity Losses = $(4) \times (7)$ Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = $(8) / (3)$ Factor to Reflect Indemnity Trend (Appendix A-III) Projected Limited Indemnity Cost Ratio = $(9) \times (10)$ Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II) Projected Indemnity Cost Ratio = $(11) \times (12)$ Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C) Projected Indemnity Cost Ratio including Benefit Changes = $(13) \times (14)$	75,108,173 1.025 1.175 1.204 90,430,240 0.665 1.000 0.665 1.045 0.695 1.002 0.696
Medic	al Benefit Cost:	
(17) (18) (19) (20) (21) (22) (23)	Factor to Include Loss-based Expenses (Exhibit II) Composite Adjustment Factor = (17) x (18) Adjusted Limited Medical Losses = (16) x (19) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (20) / (3) Factor to Reflect Medical Trend (Appendix A-III)	\$38,539,572 1.000 1.175 1.175 \$45,283,997 0.333 1.028 0.342 1.045 0.357 1.000 0.357

Total Benefit Cost:

(28) Indicated Change Based on Experience, Trend and Benefits = (15) + (27)	1.053
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EXHIBIT I

Exhib	it I-D - Indicated Change Based on Experience, Trend and Benefits	
(1)	Policy Year 2010 Projected Cost Ratio	1.086
(2)	Policy Year 2009 Projected Cost Ratio	1.034
(3)	Policy Year 2008 Projected Cost Ratio	1.053
(4)	Indicated Change Based on Experience, Trend and Benefits = [(1)+(2)+(3)] / 3	1.058
Exhib	it I-E - Offset for Change in EL Factors	
(1)	Indicated Change	1.058
(2)	Offset for Change in EL Factors	1.009
(3)	Indicated Change Modified to Reflect Offset for Change in EL Factors = (1) x (2)	1.068
Exhib	it I-F - Application of Change in Loss Based Expenses	
(1)	Indicated Change	1.068
(2)	Effect of Change in Loss Based Expenses (Exhibit II)	1.011
(3)	Indicated Change Modified to Reflect Change in Loss Based Expenses = (1) x (2)	1.080



EXHIBIT I

Exhibit I-G - Distribution of Loss Cost Level Change to Industry Groups

Industry Group Differentials (Appendix A-V):

Manufacturing	1.002
Contracting	0.994
Office & Clerical	0.986
Goods & Services	1.009
Miscellaneous	0.996

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

	(1) Final Overall Loss Cost	(2) Industry Group	(3) = (1) x (2) Final Loss Cost Level Change	
Industry Group	Level Change	Differential	by Industry Group	
Manufacturing	1.080	1.002	1.082	(+8.2%)
Contracting	1.080	0.994	1.074	(+7.4%)
Office & Clerical	1.080	0.986	1.065	(+6.5%)
Goods & Services	1.080	1.009	1.090	(+9.0%)
Miscellaneous	1.080	0.996	1.076	(+7.6%)
Overall	1.080	1.000	1.080	(+8.0%)



EXHIBIT II

Section A - Derivation of Loss Adjustment Expense Provision

NCCI has computed the loss adjustment expense allowance on an accident year basis using data obtained from the NCCI Call for Loss Adjustment Expense. For this filing, NCCI proposes a 18.8% loss adjustment expense allowance as a percentage of incurred losses.

Accident <u>Year</u>	Accident Year Developed <u>LAE Ratio</u>	Accident Year Developed <u>DCCE Ratio</u>	Accident Year Developed <u>AOE Ratio</u>
2007	19.2%	10.9%	8.3%
2008	18.9%	11.3%	7.6%
2009	19.6%	11.8%	7.8%
2010	19.6%	12.1%	7.5%
2011	19.9%	12.9%	7.0%
Countrywide selected:	19.8%	12.5%	7.3%
Rhode Island selected: (11.5% = 12.5% x 0.920)	18.8%	11.5%	7.3%

Section B - Derivation of Rhode Island DCCE relativity--(Latest 3-years of calendar year data)

 (1a) Rhode Island paid losses (in '000s) (1b) Rhode Island paid DCCE (in '000s) (1c) Ratio (1b)/(1a) 	148,071 15,264 10.3%
(2a) Countrywide paid losses (in '000s) (2b) Countrywide paid DCCE (in '000s) (2c) Ratio (2b)/(2a)	66,990,306 7,511,738 11.2%
(3) Rhode Island DCCE relativity (1c)/(2c)	0.920

Section C - Proposed change in Rhode Island Loss Adjustment Expense Allowance

(1) Current Rhode Island LAE Allowance	17.5%
(2) Proposed Rhode Island LAE Allowance	18.8%
(3) Proposed Change in LAE	1.011
= [1.0 + (2)] / [1.0 + (1)] - 1	1.1%

Notes

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



APPENDIX A-I

Derivation of Policy Year On-level Factors

Section A - Factor Adjusting 2010 Policy Year Premium to Present Pure Premium Level

		(1) Pure	(2)	(3)	(4)	(5)	(6)	(7) Premium
		Premium	Cumulative		Product	Adj. Factor Present Index/	Off-balance	Adjustment Factor
_	Date	Level Change	Index	Weight	(2)x(3)	Sum Column (4)	Adjustment Factor*	(5)x(6)
NR	06/01/08	Base	1.000	0.438	0.438	1.086	1.000	1.086
NR	06/01/10	0.991	0.991	0.562	0.557			
NR	06/01/11	1.036	1.027					
NR	07/01/12	1.053	1.081					
					0.995			

Section B - Factor Adjusting 2010 Policy Year Indemnity Losses To Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
09/01/09	Base	1.000	0.280	0.280	1.023
09/01/10	1.000	1.000	0.667	0.667	
09/01/11	1.001	1.001	0.053	0.053	
01/01/12	1.022	1.023			
				1.000	

Section C - Factor Adjusting 2010 Policy Year Medical Losses To Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
09/01/09	Base	1.000	0.280	0.280	1.000
09/01/09	1.000	1.000	0.280	0.280	1.000
09/01/11	1.000	1.000	0.053	0.053	
01/01/12	1.000	1.000			
				1.000	

NR New and renewal business.

1.000 = 0.993 / 0.993 = (Targeted Off-balance) / (Off-balance for Policy Year 2010)



APPENDIX A-I

Derivation of Policy Year On-level Factors

Section D - Factor Adjusting 2009 Policy Year Premium to Present Pure Premium Level

	Date	(1) Pure Premium Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)	(6) Off-balance Adjustment Factor*	(7) Premium Adjustment Factor (5)x(6)
NR NR NR NR	06/01/08 06/01/10 06/01/11 07/01/12	Base 0.991 1.036 1.053	1.000 0.991 1.027 1.081	1.000	1.000	1.081	1.000	1.081

Section E - Factor Adjusting 2009 Policy Year Indemnity Losses To Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
	_				
09/01/08	Base	1.000	0.280	0.280	1.024
09/01/09	1.002	1.002	0.667	0.668	
09/01/10	1.000	1.002	0.053	0.053	
09/01/11	1.001	1.003			
01/01/12	1.022	1.025			
				1.001	

Section F - Factor Adjusting 2009 Policy Year Medical Losses To Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
09/01/08	Base	1.000	0.280	0.280	1.000
09/01/09	1.000	1.000	0.667	0.667	
09/01/10	1.000	1.000	0.053	0.053	
09/01/11	1.000	1.000			
01/01/12	1.000	1.000			
				1.000	

NR New and renewal business.

1.000 = 0.993 / 0.993 = (Targeted Off-balance) / (Off-balance for Policy Year 2009)



APPENDIX A-I

Derivation of Policy Year On-level Factors

Section G - Factor Adjusting 2008 Policy Year Premium to Present Pure Premium Level

		(1) Pure	(2)	(3)	(4)	(5)	(6)	(7) Premium
	Date	Premium Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Off-balance Adjustment Factor*	Adjustment Factor (5)x(6)
NR	02/01/07	Base	1.000	0.438	0.438	1.046	0.999	1.045
NR	06/01/08	0.928	0.928	0.562	0.522			
NR	06/01/10	0.991	0.920					
NR	06/01/11	1.036	0.953					
NR	07/01/12	1.053	1.004					
					0.960			

Section H - Factor Adjusting 2008 Policy Year Indemnity Losses To Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
09/01/07	Base	1.000	0.280	0.280	1.025
09/01/08	1.001	1.001	0.667	0.668	
09/01/09	1.002	1.003	0.053	0.053	
09/01/10	1.000	1.003			
09/01/11	1.001	1.004			
01/01/12	1.022	1.026			
				1.001	

Section I - Factor Adjusting 2008 Policy Year Medical Losses To Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
		(1
09/01/07	Base	1.000	0.280	0.280	1.000
09/01/08	1.000	1.000	0.667	0.667	
09/01/09	1.000	1.000	0.053	0.053	
09/01/10	1.000	1.000			
09/01/11	1.000	1.000			
01/01/12	1.000	1.000			
				1.000	

NR New and renewal business.

0.999 = 0.993 / 0.994 = (Targeted Off-balance) / (Off-balance for Policy Year 2008)



APPENDIX A-I

Section J - Premium Adjustment to Average Expected Mod

Rating Year	(1) Average Intrastate Mod	(2) Average Interstate Mod	(3) Average Mod Combined Rated Risk	(4) Weighted Average Off-Balance	(5) Average Mod Expected	(6)= (5)/(4) Policy Year Adjustment Factor
1996	0.914	0.853	0.888	0.893	0.993	1.112
1997	0.934	0.923	0.930	0.933	0.993	1.064
1998	0.955	0.927	0.946	0.949	0.993	1.046
1999	1.041	0.978	1.019	1.018	0.993	0.975
2000	1.006	0.969	0.994	0.994	0.993	0.999
2001	1.010	0.998	1.006	1.006	0.993	0.987
2002	1.010	1.019	1.013	1.012	0.993	0.981
2003	1.018	1.005	1.013	1.012	0.993	0.981
2004	0.991	1.008	0.997	0.997	0.993	0.996
2005	0.976	1.017	0.991	0.992	0.993	1.001
2006	0.974	0.991	0.980	0.981	0.993	1.012
2007	0.985	0.991	0.987	0.988	0.993	1.005
2008	0.985	1.009	0.993	0.994	0.993	0.999
2009	0.995	0.987	0.992	0.993	0.993	1.000
2010	0.993	0.994	0.993	0.993	0.993	1.000
2011	0.999	0.999	0.999	0.999	0.993	0.994



APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Premium and Loss Summary Valued as of 12/31/2011

Policy Year 2010

(1)	Standard Earned Premium	\$123,015,251
(2)	Factor to Develop Premium to Ultimate	0.989
(3)	Standard Earned Premium Developed to Ultimate = $(1)x(2)$	\$121,662,083
(4)	Limited Indemnity Paid Losses	\$26,378,835
(5)	Limited Indemnity Paid Development Factor to Ultimate	2.834
(6)	Limited Indemnity Paid Losses Developed to Ultimate = $(4)x(5)$	\$74,757,618
(7)	Limited Medical Paid Losses	\$24,155,236
(8)	Limited Medical Paid Development Factor to Ultimate	1.640
(9)	Limited Medical Paid Losses Developed to Ultimate = $(7)x(8)$	\$39,614,587

Policy Year 2009

(1)	Standard Earned Premium	\$122,400,424
(2)	Factor to Develop Premium to Ultimate	1.000
(3)	Standard Earned Premium Developed to Ultimate = $(1)x(2)$	\$122,400,424
(4)	Limited Indemnity Paid Losses	\$42,442,309
(5)	Limited Indemnity Paid Development Factor to Ultimate	1.665
(6)	Limited Indemnity Paid Losses Developed to Ultimate = $(4)x(5)$	\$70,666,444
(7)	Limited Medical Paid Losses	\$29,745,587
(8)	Limited Medical Paid Development Factor to Ultimate	1.281
(9)	Limited Medical Paid Losses Developed to Ultimate = $(7)x(8)$	\$38,104,097

Policy Year 2008

(1)	Standard Earned Premium	\$130,187,129
(2)	Factor to Develop Premium to Ultimate	1.000
(3)	Standard Earned Premium Developed to Ultimate = (1)x(2)	\$130,187,129
(4)	Limited Indemnity Paid Losses	\$57,073,080
(5)	Limited Indemnity Paid Development Factor to Ultimate	1.316
(6)	Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$75,108,173
(7)	Limited Medical Paid Losses	\$32,771,745
(8)	Limited Medical Paid Development Factor to Ultimate	1.176
(9)	Limited Medical Paid Losses Developed to Ultimate = (7)x(8)	\$38,539,572



APPENDIX A-II

Derivation of Policy Year Development Factors

Section A - Premium Development Factors

Policy <u>Year</u>	<u>1st/2nd</u>	Policy <u>Year</u>	<u>2nd/3rd</u>	Policy <u>Year</u>	3rd/4th	Policy <u>Year</u>	<u>4th/5th</u>
2007 2008	0.990 0.984	2006 2007	1.000 1.000	2005 2006	1.000 1.000	2004 2005	1.000 1.000
2008	0.984 0.993	2007 2008	1.000	2008	1.000	2005	1.000
Average	0.989	Average	1.000	Average	1.000	Average	1.000

Summary of Premium Development Factors

<u>1st/5th</u>	<u>2nd/5th</u>	<u>3rd/5th</u>	<u>4th/5th</u>
0.989	1.000	1.000	1.000



APPENDIX A-II

Derivation of Policy Year Development Factors

Section B - Limited Indemnity Paid Loss Development Factors

Policy <u>Year</u>	<u>1st/2nd</u>	Policy <u>Year</u>	<u>2nd/3rd</u>	Policy <u>Year</u>	<u>3rd/4th</u>	Policy <u>Year</u>	<u>4th/5th</u>
2005	1.655	2004	1.222	2003	1.109	2002	1.040
2005	1.695	2004	1.268	2003	1.096	2002	1.040
2000	1.694	2005	1.252	2004	1.101	2003	1.053
2007	1.757	2000	1.276	2005	1.101	2004	1.033
2008	1.716	2007	1.290	2000	1.114	2005	1.050
2009	1.710	2000	1.230	2007	1.114		1.001
Average*	1.702	Average*	1.265	Average*	1.104	Average*	1.050
Policy		Policy		Policy		Policy	
Year	<u>5th/6th</u>	Year	6th/7th	Year	7th/8th	Year	8th/9th
Tour		<u>- 1041</u>		Tour		1001	
2001	1.042	2000	1.012	1999	1.009	1998	1.012
2002	1.029	2001	1.029	2000	1.013	1999	1.011
2003	1.027	2002	1.021	2001	1.008	2000	1.004
2004	1.019	2003	1.024	2002	1.007	2001	1.007
2005	1.021	2004	1.029	2003	1.017	2002	1.008
Average*	1.026	Average*	1.025	Average*	1.010	Average*	1.009
D <i>I</i>						D "	
Policy	011 /4 011	Policy	1011 (1111	Policy		Policy	1011 (1011
Year	<u>9th/10th</u>	Year	<u>10th/11th</u>	Year	<u>11th/12th</u>	Year	<u>12th/13th</u>
1997	1.003	1996	0.996	1995	1.012	1994	1.013
1998	1.010	1997	1.013	1996	1.005	1995	1.007
1999	0.999	1998	1.007	1997	1.011	1996	1.004
2000	1.002	1999	1.007	1998	1.001	1997	1.003
2001	1.004	2000	1.006	1999	1.009	1998	1.005
Average*	1.003	Average*	1.007	Average*	1.008	Average*	1.005
Policy		Policy		Policy		Policy	
Year	13th/14th	Year	14th/15th**	Year	15th/16th**	Year	16th/17th**
1993	0.996	1992	1.003	1991	1.002	1990	1.002
1994	1.004	1993	1.005	1992	1.002	1991	1.002
1995	1.008	1994	1.004	1993	1.001	1992	1.002
1996	1.005	1995	1.004	1994	1.007	1993	1.001
1997	1.001	1996	1.005	1995	1.000	1994	1.003
Average*	1.003	Average*	1.004	Average*	1.002	Average*	1.002
Policy		Policy					
Year	17th/18th**	Year	18th/19th**				
1989	1.003	1988	1.003				
1909	1.002	1989	1.003				
1990	1.002	1989	1.003				
1991	1.003	1990	1.004				
1992	1.001	1991	1.003				
1990	1.001	1992	1.005				

Average* 1.002 Average* 1.003

* Excludes the years with the lowest and highest factors. **For Policy Years 1992 and prior, the development portion of the link ratio was adjusted by a factor of 0.5. No adjustment was made for Policy Years 1993 and after.



APPENDIX A-II

Derivation of Policy Year Development Factors

Section C - Limited Medical Paid Loss Development Factors

Policy <u>Year</u>	<u>1st/2nd</u>	Policy <u>Year</u>	<u>2nd/3rd</u>	Policy <u>Year</u>	<u>3rd/4th</u>	Policy <u>Year</u>	<u>4th/5th</u>
2005	1.262	2004	1.095	2003	1.051	2002	1.019
2005	1.247	2004	1.091	2003	1.027	2002	1.013
2000	1.247	2005	1.073	2004	1.037	2003	1.017
2008	1.297	2000	1.091	2005	1.035	2004	1.019
2008	1.280	2007	1.084	2000	1.050	2005	1.019
2003	1.200	2000	1.004	2007	1.050	2000	1.020
Average*	1.280	Average*	1.089	Average*	1.041	Average*	1.018
Policy		Policy		Policy		Policy	
Year	<u>5th/6th</u>	Year	6th/7th	Year	7th/8th	Year	8th/9th
<u>I eai</u>	<u>30//001</u>	<u>Tear</u>	000/101	<u>rear</u>	<u>/////////////////////////////////////</u>	<u>i ear</u>	011/911
2001	1.015	2000	1.001	1999	1.013	1998	1.015
2002	1.010	2001	1.004	2000	1.017	1999	1.009
2003	1.015	2002	1.006	2001	1.007	2000	1.007
2004	0.998	2003	1.006	2002	1.005	2001	1.007
2005	1.017	2004	1.000	2003	1.003	2002	1.005
Average*	1.013	Average*	1.004	Average*	1.008	Average*	1.008
Policy	a.). (1 a.)	Policy		Policy		Policy	
Year	<u>9th/10th</u>	Year	<u>10th/11th</u>	Year	<u>11th/12th</u>	Year	<u>12th/13th</u>
1997	1.003	1996	1.001	1995	1.001	1994	1.007
1998	1.002	1997	1.006	1996	1.000	1995	1.002
1999	0.998	1998	1.004	1997	1.003	1996	1.000
2000	1.001	1999	1.001	1998	1.003	1997	1.004
2001	1.005	2000	1.006	1999	1.008	1998	1.003
Average*	1.002	Average*	1.004	Average*	1.002	Average*	1.003
Policy		Policy		Policy		Policy	404 (474
Year	<u>13th/14th</u>	Year	<u>14th/15th</u>	Year	<u>15th/16th</u>	Year	<u>16th/17th</u>
1993	1.003	1992	1.002	1991	1.001	1990	1.002
1994	1.003	1993	1.005	1992	1.002	1991	1.001
1995	1.008	1994	1.003	1993	1.002	1992	1.002
1996	1.001	1995	1.006	1994	1.003	1993	1.004
1997	1.003	1996	1.002	1995	1.004	1994	1.003
Average*	1.003	Average*	1.003	Average*	1.002	Average*	1.002
Dellari		Dellas					
Policy	17th /10th	Policy	1 0th /1 0th				
<u>Year</u>	<u>17th/18th</u>	Year	<u>18th/19th</u>				
1989	0.998	1988	1.003				
1990	1.001	1989	1.003				
1991	1.004	1990	1.002				
1992	1.001	1991	1.001				
1993	1.006	1992	1.001				

Average*1.002Average*1.002* Excludes the years with the lowest and highest factors.



APPENDIX A-II

Determination of Loss Development Factors to Ultimate Report

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

Indemnity Paid+Case Data for Matching Companies

(1)	(2)	(3)	(4)	(5)	(6) Factor to	(7) Indicated
	Losses for	Policy Year	Losses for All I	Prior Policy Years	Adjust Losses	19th-to-Ult Development
Policy Year	19th Report	20th Report	Previous	Current	for Prior Policy Years	for Policy Year
1984	81,194,477	81,307,944	571,393,393	573,015,383	0.807	1.026
1985	99,181,358	99,646,049	630,586,643	630,204,695	0.661	0.999
1986	125,687,696	126,336,934	721,066,898	720,792,022	0.545	1.001
1987	146,804,573	147,122,330	874,425,983	876,324,864	0.532	1.026
1988	154,789,370	154,601,218	1,030,466,054	1,029,990,336	0.559	0.993
1989	176,705,579	177,303,328	1,184,591,554	1,185,617,201	0.528	1.014
1990	112,503,975	112,790,726	1,298,012,626	1,298,407,649	0.899	1.006
1991	85,575,382	85,672,605	1,409,971,357	1,411,320,660	1.239	1.014
				Average 19th-to-Ultima	ate Loss Development Factor	1.010

*The development portion of the tail factor was adjusted by a factor of 0.5.

Medical Paid+Case Data for Matching Companies

(8)	(9)	(10)	(11)	(12)	(13) Factor to	(14) Indicated
	Losses for	Policy Year	Losses for All P	rior Policy Years	Adjust Losses	19th-to-Ult Development
Policy Year	19th Report	20th Report	Previous	Current	for Prior Policy Years	for Policy Year
1984	19,246,244	19,323,191	173,499,164	173,921,567	0.904	1.028
1985	26,394,325	26,676,091	192,526,656	193,065,376	0.671	1.041
1986	31,620,463	31,670,926	216,546,253	215,725,243	0.583	0.957
1987	36,236,506	36,343,910	247,396,169	248,426,085	0.554	1.054
1988	40,060,453	40,473,026	287,528,106	288,304,223	0.550	1.046
1989	46,187,274	45,985,799	328,777,249	331,652,950	0.516	1.116
1990	33,727,323	33,705,991	358,959,619	359,252,351	0.754	1.011
1991	30,866,077	31,077,089	392,573,150	395,172,089	0.884	1.102

Average 19th-to-Ultimate Loss Development Factor 1.044

Selected 19th-to-Ultimate Loss Development Factor*

1.005



APPENDIX A-II

Derivation of Policy Year Development Factors

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

Policy <u>Year</u>	Indemnity Paid-to- Paid + Case Ratio <u>19th Report</u>	Policy <u>Year</u>	Medical Paid-to- Paid + Case Ratio <u>19th Report</u>
1988 1989 1990 1991 1992	0.959 0.942 0.976 0.969 0.983	1988 1989 1990 1991 1992	0.952 0.951 0.982 0.984 0.990
Average Selected*	0.966 0.983	Average	0.972

*Adjusted to reflect the 1992 reform

	Indemnity	Medical
 Paid+Case 19th-to-Ultimate Loss Development Factor (Section F) 	1.005	1.044
(2) Factor to Adjust 19th-to-Ultimate Development Factor to a Limited Basis	0.457	0.457
(3) Limited Paid+Case 19th-to-Ultimate Loss Development Factor = [(1) - 1.0] x (2) + 1.0	1.002	1.020
(4) Limited Paid-to-Paid+Case Ratio (Section E)	0.983	0.972
(5) Limited Paid 19th-to-Ultimate Loss Development Factor = (3) / (4)	1.019	1.049

Section F - Summary of Limited Paid Loss Development Factors

	(1)	(2)		(3)	(4)
	Indemnity Paid Loss	<u>Development</u>		Medical Paid Loss E	<u>Development</u>
Report	to Next Report	to Ultimate	<u>Report</u>	to Next Report	to Ultimate
1st	1.702	2.834	1st	1.280	1.640
2nd	1.265	1.665	2nd	1.089	1.281
3rd	1.104	1.316	3rd	1.041	1.176
4th	1.050	1.192	4th	1.018	1.130
5th	1.026	1.135	5th	1.013	1.110
6th	1.025	1.106	6th	1.004	1.096
7th	1.010	1.079	7th	1.008	1.092
8th	1.009	1.068	8th	1.008	1.083
9th	1.003	1.058	9th	1.002	1.074
10th	1.007	1.055	10th	1.004	1.072
11th	1.008	1.048	11th	1.002	1.068
12th	1.005	1.040	12th	1.003	1.066
13th	1.003	1.035	13th	1.003	1.063
14th	1.004	1.032	14th	1.003	1.060
15th	1.002	1.028	15th	1.002	1.057
16th	1.002	1.026	16th	1.002	1.055
17th	1.002	1.024	17th	1.002	1.053
18th	1.003	1.022	18th	1.002	1.051
19th		1.019 Section E	19th		1.049 Section E

(2) = Cumulative upward product of column (1) except where noted.

(4) = Cumulative upward product of column (3) except where noted.



APPENDIX A-II

Thresholds

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

(1) Threshold at the Midpoint of the Loss Cost Effective Period*	3,271,700
(2) Statewide Excess Ratio for (1)	0.043
(3) Market Share for Carriers Missing from Large Loss and Catastrophe Call	0.000
(4) Factor to Adjust Limited Losses to an Unlimited Basis = 1.0 / {1.0 - [(2) x (1.0 - (3))]}	1.045

* June 8, 2014 is the midpoint of the effective period for which the revised loss costs are being proposed.

Section H - Policy Year Thresholds

	Policy Year
Experience	Detrended
Year	Threshold
1991	1,610,072
1992	1,669,611
1993	1,705,975
1994	1,754,525
1995	1,813,392
1996	1,888,670
1997	1,989,445
1998	2,078,126
1999	2,154,862
2000	2,236,845
2001	2,308,424
2002	2,399,866
2003	2,500,111
2004	2,579,255
2005	2,673,938
2006	2,773,770
2007	2,855,153
2008	2,911,719
2009	2,958,754
2010	3,023,395
2011	3,045,280



APPENDIX A-III

Policy Year Trend Factors

Section A - Summary of Policy Year Data

(1)	(2)	(3)	(4)	(5)	(6)
	Lost-Time	Indemnit	у	Medical	
Policy	Claim	Avg Cost	Loss	Avg Cost	Loss
Year	Frequency	Per Case	Ratio	Per Case	Ratio
1996	41.557	15,047	0.626	6,945	0.289
1997	41.585	14,631	0.608	6,939	0.288
1998	38.992	15,368	0.599	6,771	0.264
1999	40.099	14,284	0.573	6,980	0.280
2000	38.385	15,131	0.581	6,751	0.259
2001	37.048	15,816	0.586	7,318	0.271
2002	36.735	14,312	0.526	7,188	0.264
2003	35.757	15,240	0.545	7,838	0.280
2004	34.062	15,020	0.512	7,939	0.271
2005	33.443	15,357	0.514	8,301	0.278
2006	31.695	16,254	0.515	8,550	0.271
2007	30.753	17,515	0.539	8,941	0.275
2008	28.844	19,615	0.566	9,819	0.283
2009	29.634	18,460	0.547	9,716	0.288
2010	31.372	18,450	0.579	9,557	0.300

Columns (2), (3), and (5) are adjusted to the current wage level.

Section B - Summary of Annual Trend Factors

	Indemnity	<u>Medical</u>
d Factor	0.995	1.000
	1.013	B 1.010
	1.018	1.014
	1.000	1.005
olicy Year to Mic	point of Effective Period:	
2008	5.496	
2009	4.496	
2010	3.496	
= (3) ^ (4)	Indemnity	<u>Medical</u>
2008	1.000	1.028
2009	1.000	1.023
2010	1.000	1.018
	olicy Year to Mic 2008 2009 2010 = (3) ^ (4) 2008 2009	1.013 1.018 1.000 olicy Year to Midpoint of Effective Period: 2008 5.496 2009 4.496 2010 3.496 = (3) ^ (4) <u>Indemnity</u> 2008 1.000 2009 1.000



APPENDIX A-IV

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

Carriers not included in experience valued as of 12/31/2011

Name of Carrier	Annual Statement Premium Written	Annual Statement Losses Incurred	% of State Premium	% of State Losses
	Policy Year 2008 None			
	Policy Year 2009 None			
	Policy Year 2010 None			



Derivation of Industry Group Differentials

Industry group differentials are used to more equitably distribute the overall premium level change based on the individual experience of each industry group.

Wage trend adjustments are calculated to account for the change in industry group wages relative to the change in medical losses. The converted indicated losses used to calculate these adjustments are the losses from the Workers Compensation Statistical Plan. These losses are limited to \$500,000 for single claim occurrence and \$1,500,000 for each multiple claim occurrence. These limited losses are then adjusted to an ultimate unlimited basis through the application of limited development and an expected excess provision, and brought to the proposed experience, law and loss-based expense levels.

The indicated losses, column (8), are the converted indicated losses further adjusted for trend and the change in overall off balance for experience rating; the adjustments are shown in Appendix B-I, Sections A-1 through A-3. The expected losses (13) are at the same proposed level as the indicated losses and contain a change in industry group off balance. An adjustment to convert the proposed expected losses to reflect current relativities (15) is used to calculate the indicated to expected ratio (16). The indicated differential (17) reflects the indicated losses at a proposed level to expected losses with relativities of the current level to correctly distribute the proposed changes on an industry group basis.

In the calculation of the credibility weighted differentials, the ratios of indicated losses to expected losses by industry group (modified by the wage trend adjustments), column (18), are credibility weighted with the statewide ratio. The credibility is based on lost-time claim counts, column (19). The full credibility standard, column (20), is 12,000 lost-time claims for each industry group. Partial credibility is calculated using the square root of the ratio of the actual lost-time claim counts and the number of lost-time claim counts required for full credibility. The statewide credibility weighted ratio (22) is rebalanced using the latest year expected losses to ensure that the overall premium level change is achieved.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Converted	QCEW		Medical Loss	Normalized
	Converted	Converted	Indicated Total	Average	Wage Trend	Wage Trend	Medical Loss
	Indicated Indemnity	Indicated Medical	Losses*	Weekly Wage	Differential	Adjustment	Wage Trend
Industry Group	Losses*	Losses*	(1)+(2)	Trend	(4)SW/(4)IG	[(1)+(2)x(5)]/(3)	Adjustment
Manufacturing	105,759,478	63,821,442	169,580,921	1.077	0.997	0.999	0.999
Contracting	133,350,511	75,058,911	208,409,422	1.072	1.002	1.001	1.001
Off. & Cler.	76,876,145	48,894,723	125,770,868	1.081	0.994	0.998	0.998
Goods and Srv.	229,254,491	150,610,743	379,865,234	1.067	1.007	1.003	1.003
Miscellaneous	94,171,147	56,026,918	150,198,065	1.082	0.993	0.997	0.997
Statewide	639,411,773	394,412,736	1,033,824,509	1.074		1.000	

I. Industry Group Wage Trend Adjustment

*These converted indicated losses are prior to the application of trend.



II. Indicated and Expected Losses

	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
		Current	Proposed					Adjustment to
		Ratio of	Ratio of					Proposed for
		Manual to	Manual to	Latest Year		Five Year	Current/	Current
	Converted Indicated	Standard	Standard	Current Expected	Five Year Current	Proposed	Proposed	Relativity
Industry Group	Balanced Losses	Premium	Premium	Losses	Expected Losses	Expected Losses	(12)/(13)	(14)IG/(14)SW
Manufacturing	153,827,293	1.054	1.049	25,028,828	141,474,998	152,739,182	0.926	1.000
Contracting	189,087,728	1.089	1.091	30,142,874	176,889,024	190,975,540	0.926	1.000
Off. & Cler.	114,111,830	1.047	1.057	20,979,017	108,170,771	116,781,557	0.926	1.000
Goods and Srv.	343,664,069	0.988	0.992	63,885,117	316,113,976	341,274,921	0.926	1.000
Miscellaneous	135,768,017	1.028	1.038	26,642,515	125,829,356	135,848,333	0.926	1.000
Statewide	936,458,937			166,678,351	868,478,125	937,619,533	0.926	

III. Industry Group Differentials

	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
					Full			Normalized	
			Indicated/		Credibility			Credibility	
			Expected		Standard		Credibility	Weighted	
		Indicated	Ratio (w/		for Lost-	Credibility	Weighted	Indicated/	Final
	Indicated/Expected	Differential (w/o	Wage	Lost-Time	Time	Minimum of	Indicated/	Expected	Industry
	Ratio	Wage Trend)	Trend)	Claim	Claim	1.000 and	Expected	Ratio	Group
Industry Group	(8)/[(13)x(15)]	(16)IG/(16)SW	(7)x(16)	Counts	Counts	((19)/(20))^0.5	Ratio	(22)IG/(22)SW*	Differential
Manufacturing	1.007	1.008	1.006	4,838	12,000	0.63	1.003	1.002	1.002
Contracting	0.990	0.991	0.991	3,468	12,000	0.54	0.995	0.994	0.994
Off. & Cler.	0.977	0.978	0.975	3,139	12,000	0.51	0.987	0.986	0.986
Goods and Srv.	1.007	1.008	1.010	13,098	12,000	1.00	1.010	1.009	1.009
Miscellaneous	0.999	1.000	0.996	3,756	12,000	0.56	0.997	0.996	0.996
Statewide	0.999		0.999				1.001		1.000

*Statewide ratio (column 22) = $\Sigma_{IG}((11)x(22)) \div \Sigma_{IG}(11)$



Distribution of Pure Premium Level Change to Occupational Classification

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

Section A – Calculation of Indicated Pure Premiums

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

Section A-1 – Calculation of Primary Conversion Factors

1. Limited Loss Development Factors

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

Deliau Deried	Inde	emnity	Medical		
Policy Period	Likely-to-Develop	Not-Likely-to-Develop	Likely-to-Develop	Not-Likely-to-Develop	
1/05-12/05	1.056	1.017	1.153	1.010	
1/06-12/06	1.085	1.034	1.174	1.009	
1/07-12/07	1.119	1.063	1.176	1.014	
1/08-12/08	1.261	1.131	1.198	1.014	
1/09-12/09	1.871	1.435	1.339	1.014	

2. Factors to Adjust to the Proposed Trend Level

The proposed trend factors are applied to adjust the indicated pure premiums to the proposed level.

Policy Period	Indemnity	Medical
1/05-12/05	1.000	1.043
1/06-12/06	1.000	1.038
1/07-12/07	1.000	1.033
1/08-12/08	1.000	1.028
1/09-12/09	1.000	1.023

3. Factors to Adjust to the September 1, 2012 Benefit Level

The factors in the following table are applied to adjust the statistical plan losses to the proposed benefit level.

Policy Period	Fatal	Permanent Total (P.T.)	Permanent Partial (P.P.)	Temporary Total	Medical
		(F.I.)	(F.F.)	(T.T.)	
1/05-12/05	1.023	1.021	1.039	1.023	1.000
1/06-12/06	1.020	1.019	1.039	1.020	1.000
1/07-12/07	1.014	1.014	1.038	1.014	1.000
1/08-12/08	1.011	1.011	1.037	1.011	1.000
1/09-12/09	1.008	1.009	1.036	1.008	1.000



4. Primary Conversion Factors: Indicated Pure Premiums

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

Policy Period	Fatal (L)	Fatal (NL)	P.T.*	P.P. (L)	P.P. (NL)	T.T. (L)	T.T. (NL)	Medical (L)	Medical (NL)
1/05-12/05	1.080	1.040	1.078	1.097	1.057	1.080	1.040	1.203	1.053
1/06-12/06	1.107	1.055	1.106	1.127	1.074	1.107	1.055	1.219	1.047
1/07-12/07	1.135	1.078	1.135	1.162	1.103	1.135	1.078	1.215	1.047
1/08-12/08	1.275	1.143	1.275	1.308	1.173	1.275	1.143	1.232	1.042
1/09-12/09	1.886	1.446	1.888	1.938	1.487	1.886	1.446	1.370	1.037

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

Section A-2 – Expected Excess Provision and Redistribution

After the application of the primary conversion factors, the limited losses are brought to an expected unlimited level through the application of excess loss factors by hazard group. These factors are shown below.

Hazard Group	А	В	С	D	E	F	G
(1) Excess Ratios	0.090	0.112	0.131	0.148	0.174	0.215	0.275
(2) Excess Factors 1/(1-(1))	1.099	1.126	1.151	1.174	1.211	1.273	1.380

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



Section A-3 – Calculation of Secondary Conversion Factors

1. Factors to Adjust for Proposed Industry Group Differentials

The following factors are applied to adjust the indicated industry group differentials for normalized wage trend, the effect of credibility weighting of the industry group differentials, and weighting the differentials by the latest year expected losses.

	Manufacturing	Contracting	Office and Clerical	Goods and Services	Miscellaneous
(1) Indicated Differentials*	1.008	0.991	0.978	1.008	1.000
(2) Final Differentials**	1.002	0.994	0.986	1.009	0.996
(3) Adjustment (2)/(1)	0.994	1.003	1.008	1.001	0.996

*See Appendix A-V, column (17).

**See Appendix A-V, column (24).

2. Factors to Balance Indicated to Expected Losses

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

	(1)	(2)	(3)	(4)	(5)
	Adjustment of	Current Ratio of	Proposed Ratio of		Balancing
	Indicated Losses	Manual to	Manual to	Off-balance	Indicated to
Policy Period	to Pure Premium	Standard	Standard	Adjustment	Expected Losses
T Olicy T erioù	at Proposed Level	Premium	Premium	(2)/(3)	(1)x(4)
1/05-12/05	0.931	1.034	1.032	1.002	0.933
1/06-12/06	0.932	1.034	1.046	0.989	0.922
1/07-12/07	0.895	1.032	1.038	0.994	0.890
1/08-12/08	0.870	1.031	1.040	0.991	0.862
1/09-12/09	0.875	1.030	1.031	0.999	0.874

3. Adjustment for Experience Change

A factor of 1.034 is applied to adjust for the experience change in the proposed loss cost level.

4. Offset for Change in Standard Premium Expected from B-1425.

A factor of 1.009 is applied to offset the change in standard premium expected from Item B-1425.

5. Factor to Reflect the Proposed Loss Adjustment Expense

A factor of 1.188 is applied to include the proposed loss adjustment expense.

6. Secondary Conversion Factors: Indicated Pure Premiums

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

Policy Period	Manufacturing	Contracting	Office and Clerical	Goods and Services	Miscellaneous
1/05-12/05	1.149	1.160	1.166	1.158	1.152
1/06-12/06	1.136	1.146	1.152	1.144	1.138
1/07-12/07	1.096	1.106	1.112	1.104	1.099
1/08-12/08	1.062	1.072	1.077	1.069	1.064
1/09-12/09	1.077	1.087	1.092	1.084	1.079



Section B - Calculation of Present on Rate Level Pure Premiums

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

1. Adjustment for Experience Change

A factor of 1.034 is applied to adjust for the experience change in the proposed loss cost level.

2. Factors to Adjust to the Proposed Trend Level

The pure premiums underlying current loss costs contain the current trend. The change in trend is applied to adjust to the proposed trend level.

	Indemnity	Medical
(1) Current Trend	0.978	1.000
(2) Proposed Trend	1.000	1.023
(3) Change in Trend (2)/(1)	1.022	1.023

3. Factors to Adjust to the September 9, 2012 Benefit Level

The pure premiums underlying current loss costs are at the current 1/1/2012 level. The following factors are applied to adjust to the proposed benefit level.

Effective Date	Indemnity	Medical
September 1, 2012	1.002	1.000

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

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

	(a) Current		(b) Proposed	
	Indemnity	Medical	Indemnity	Medical
(1) Loss Adjustment Expense	1.175	1.175	1.188	1.188
(2) Overall Change (1b)/(1a)			1.011	1.011

5. Adjustment to Obtain Expected Losses

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

	(1)	(2)	(3)
	Current Ratio of	Proposed Ratio of	Off-balance
	Manual to Standard	Manual to Standard	Adjustment
Industry Group	Premium	Premium	(1)/(2)
Manufacturing	1.054	1.049	1.005
Contracting	1.089	1.091	0.998
Office & Clerical	1.047	1.057	0.991
Goods & Services	0.988	0.992	0.996
Miscellaneous	1.028	1.038	0.990



6. Factors to Adjust for Proposed Industry Group Differentials

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

	(1)	(2)	(3)
	Final	Adjustment to Proposed for	Adjusted Differential
Industry Group	Differential*	Current Relativities**	(1)x(2)
Manufacturing	1.002	1.000	1.002
Contracting	0.994	1.000	0.994
Office & Clerical	0.986	1.000	0.986
Goods & Services	1.009	1.000	1.009
Miscellaneous	0.996	1.000	0.996

*See Appendix A-V, column (24).

**See Appendix A-V, column (15).

7. Offset for Change in Standard Premium Expected from B-1425.

A factor of 1.009 is applied to offset the change in standard premium expected from Item B-1425.

8. Combined Conversion Factors

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

Industry Group	Indemnity	Medical
Manufacturing	1.088	1.087
Contracting	1.071	1.070
Office & Clerical	1.055	1.054
Goods & Services	1.085	1.084
Miscellaneous	1.065	1.064



Section C – Calculation of National Pure Premiums

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

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

Section D – Calculation of Derived by Formula Pure Premiums

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

As for the preceding pure premiums, separate computations are performed for each partial pure premium: indemnity and medical. Each partial formula pure premium is derived by the weighting of the indicated, present on rate level and national partial pure premiums. The weight assigned to the policy year indicated pure premium varies in one percent intervals from zero percent to one hundred percent, depending upon the volume of expected losses (i.e. the product of the underlying pure premiums and the payroll in hundreds). To achieve full state credibility, a classification must have expected losses of at least: \$17,285,175 for indemnity, and \$5,164,200 for medical.

The partial credibilities formula is:

```
z=[ (expected losses) / (full credibility standard) ]<sup>0.4</sup>
```

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

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

National Credibility = the smaller of $[(national cases)/(full credibility standard)]^{0.4}$ and [(1 - state credibility)/2]

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

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

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



Adjustments to Pure Premiums to Obtain Advisory Loss Costs

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

1. Test Correction Factor

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

The factors referred to above are set out as follows:

	Test Correction Factor
Manufacturing	1.0076
Contracting	1.0168
Office & Clerical	1.0120
Goods & Services	1.0017
Miscellaneous	0.9836

2. Ratios of Manual to Standard Premiums

The ratios of manual to standard premiums by industry group have also been excluded from the classification experience, and it is necessary to apply these factors to the derived by formula pure premiums.

	Ratio of Manual to Standard Premiums
Manufacturing	1.049
Contracting	1.091
Office & Clerical	1.057
Goods & Services	0.992
Miscellaneous	1.038

3. Disease Loadings

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



4. Swing Limits

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

Manufacturing	from 23% above to 7% below
Contracting	from 22% above to 8% below
Office & Clerical	from 22% above to 8% below
Goods & Services	from 24% above to 6% below
Miscellaneous	from 23% above to 7% below

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

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

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

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

List of Classifications Limited by Upper Swing

List of Classifications Limited by Lower Swing

0034	0035	0170	1452	2065	2070	2114	2211	0106	2039	2111	2157	2362	2960	3069	3131
2585	2586	2600	2841	3028	3064	3081	3175	3365	3383	3620	3629	3726	4000	4038	4130
3180	3336	3372	3373	3632	3642	3824	3851	4304	4410	4557	4686	5020	5059	5479	5951
4207	4351	4452	4741	4751	4902	5040	5102	7016	7024	7047	7222	7360	7394	7395	7398
5213	5348	5462	5472	5551	6003	6251	7229	7431	7453	7538	7605	8013	8047	8111	8235
7231	7390	7520	7705	8215	8387	8719	8748	8263	8293	8381	8500	8799	8800	8871	8901
8803	8842	9012	9016	9156	9170			9093	9178	9402					



APPENDIX B-II

Determination of Rating Values on Miscellaneous Values Page

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

	Current	Proposed	Change
1) State Average Weekly Wage (SAWW)	\$844.94 *	\$864.81 **	2.4%
 Basis of premium applicable in accordance with the Basic Manual footnote instructions for Code 7370 "Taxicab Co.": 			
Employee operated vehicle ^	\$65,900	\$67,500	2.4%
Leased or rented vehicle ^^	\$43,900	\$45,000	2.5%
3) Maximum Payroll applicable in accordance with the Basic Manual footnote instructions for Code 9178 "Athletic Sports or Park: Non-Contact Sports", and Code 9179 "Athletic Sports or Park: Contact Sports" [#]	\$3,400	\$3,500	2.9%
4) Maximum Payroll applicable in accordance with Basic Manual Rule 2-E-1 "Executive Officers" &	\$3,400	\$3,500	2.9%
5) Minimum Payroll applicable in accordance with Basic Manual Rule 2-E-1 "Executive Officers" ^{&&}	\$850	\$850	0.0%
6) Per Passenger Seat Surcharge - In accordance with the Basic Manual footnote instructions for classification Code 7421, the surcharge is			
Maximum surcharge per aircraft +	\$1,000	\$1,000	0.0%
Per passenger seat ++	\$100	\$100	0.0%

* State Average Weekly Wage. Effective September 1, 2011.

** State Average Weekly Wage. Effective September 1, 2012.

[^] Underlying formula is: S.A.W.W. x 52 x 1.5 (Rounded to the nearest \$100), Item B-1422.

^{^^} Underlying formula is: S.A.W.W. x 52 (Rounded to the nearest \$100), Item B-1422.

Underlying formula is: S.A.W.W. x 4 (Rounded to the nearest \$100), Item B-1422.

& Underlying formula is: S.A.W.W. x 4 (Rounded to the nearest \$100), Item B-1420

&& Underlying formula is: S.A.W.W. (Rounded to the nearest \$50), Item B-1420.

+ Amount is capped at \$1000.

++ Amount is capped at \$100.

 B. Loss Elimination Ratios (LERs) continue to be determined using the standard methodology described in the literature (e.g. Gillam,W.R.; and Snader, R.H., "Fundamentals of Individual Risk Rating," 1992, and Rollins, J.; and Washburn,M.J., "A Quantification of Snader's Deductible Safety Factor," 1994). The updated values reflect the experience, trend and development consistent with the ELPPFs filed in Item R-1404.



APPENDIX B-III

DERIVATION OF PROPOSED ADVISORY LOSS COST - CODE 8810

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

LIMITED LOSSES (Workers Compensation Statistical Plan)

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/05 - 12/31/05	68,836	0	33,646	1,236,062	2,308,977	196,174	1,468,605	519,255	2,099,414
01/01/06 - 12/31/06	0	0	0	914,654	1,383,879	703,939	670,421	592,725	1,247,264
01/01/07 - 12/31/07	0	0	0	926,904	793,217	367,779	1,370,361	636,185	1,430,161
01/01/08 - 12/31/08	0	0	0	1,253,976	1,762,009	260,205	557,254	668,175	1,621,109
01/01/09 - 12/31/09	0	0	0	303,917	649,746	240,897	1,445,723	345,759	1,553,073

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

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/05 - 12/31/05	1.080	1.040	1.078	1.097	1.057	1.080	1.040	1.203	1.053
01/01/06 - 12/31/06	1.107	1.055	1.106	1.127	1.074	1.107	1.055	1.219	1.047
01/01/07 - 12/31/07	1.135	1.078	1.135	1.162	1.103	1.135	1.078	1.215	1.047
01/01/08 - 12/31/08	1.275	1.143	1.275	1.308	1.173	1.275	1.143	1.232	1.042
01/01/09 - 12/31/09	1.886	1.446	1.888	1.938	1.487	1.886	1.446	1.370	1.037

EXPECTED EXCESS PROVISION AND REDISTRIBUTION (Appendix B-I, Section A-2)

After the application of the primary conversion factors, the limited losses are brought to an expected unlimited level through the application of a hazard group-specific excess loss factor. The factor is shown below:

	HAZARD GROUP: C
Excess Factor	1.151

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

Redistribution % 40%

APPENDIX B-III



DERIVATION OF PROPOSED ADVISORY LOSS COST - CODE 8810

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

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/05 - 12/31/05	81,069	0	39,551	1,478,641	2,661,403	231,037	1,665,537	820,097	2,783,373
01/01/06 - 12/31/06	0	0	0	1,124,079	1,620,759	849,764	771,287	940,664	1,635,113
01/01/07 - 12/31/07	0	0	0	1,174,510	954,077	455,196	1,610,904	979,666	1,865,049
01/01/08 - 12/31/08	0	0	0	1,788,600	2,253,835	361,777	694,569	1,066,267	2,106,999
01/01/09 - 12/31/09	0	0	0	642,281	1,053,587	495,438	2,279,656	608,049	2,037,766

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

	INDUSTRY GROUP:				
Policy Period	Office and Clerical				
01/01/05 - 12/31/05	1.166				
01/01/06 - 12/31/06	1.152				
01/01/07 - 12/31/07	1.112				
01/01/08 - 12/31/08	1.077				
01/01/09 - 12/31/09	1.092				

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

		Indemnity	Indemnity	Medical	Medical	Total	Total	
Policy Period	Payroll	Likely	Not-Likely	Likely	Not-Likely	Indemnity	Medical	Total
01/01/05 - 12/31/05	3,949,371,043	2,134,127	5,045,212	956,233	3,245,413	7,179,339	4,201,646	11,380,985
01/01/06 - 12/31/06	4,153,103,607	2,273,867	2,755,637	1,083,645	1,883,650	5,029,504	2,967,295	7,996,799
01/01/07 - 12/31/07	4,510,079,697	1,812,233	2,852,259	1,089,389	2,073,934	4,664,492	3,163,323	7,827,815
01/01/08 - 12/31/08	4,586,674,436	2,315,956	3,175,431	1,148,370	2,269,238	5,491,387	3,417,608	8,908,995
01/01/09 - 12/31/09	4,517,249,645	1,242,389	3,639,901	663,990	2,225,240	4,882,290	2,889,230	7,771,520
Total	21,716,478,428	9,778,572	17,468,440	4,941,627	11,697,475	27,247,012	16,639,102	43,886,114
		INDICATED PURE PREMIUM				0.125	0.077	0.20

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

	Indemnity	Medical	Total
Pure Premiums Underlying Current Loss Cost	0.129	0.081	0.21
Conversion Factors (App. B-I, section B)	1.055	1.054	XXX
PURE PREMIUMS PRESENT ON RATE LEVEL			
(Underlying Pure Premiums) x (Conversion Factor)	0.136	0.085	0.22



APPENDIX B-III

DERIVATION OF PROPOSED ADVISORY LOSS COST - CODE 8810 Industry Group - Office and Clerical. Hazard Group - C.

The loss cost for the above captioned classification is then derived as shown in the following exhibit:

		Indemnity	<u>Medical</u>	<u>Total</u>
1.	Indicated Pure Premium	0.125	0.077	0.20
2.	Pure Premium Indicated by National Relativity	0.107	0.077	0.18
3.	Pure Premium Present on Rate Level	0.136	0.085	0.22
4.	State Credibilities	100%	100%	xxx
5.	National Credibilities	0%	0%	ххх
6.	Residual Credibilities = 100% - (4) - (5)	0%	0%	xxx
7.	Derived by Formula Pure Premiums = (1) x (4) + (2) x (5) + (3) x (6)	0.125	0.077	0.20
8.	Test Correction Factor	1.0120	1.0120	ххх
9.	Underlying Pure Premiums = (7) x (8) *	0.132	0.078	0.21
10.	Ratio of Manual to Standard Premium			1.057
11.	Loss Cost = (9) x (10)			0.22
12.	Loss Cost Within Swing Limits			0.22
	Current Loss Cost x Swing Limits a) Lower bound = 0.22 x 0.920 = 0.21 b) Upper bound = 0.22 x 1.220 = 0.26			
13.	Pure Premiums Underlying Proposed Loss Cost*	0.132	0.078	0.21
14.	= ((13TOT) / (9TOT)) x (9) , (13TOT) = (12) / (10) Disease, Catastrophe and/or Miscellaneous Loadings			0.00
15.	Final Loaded Loss Cost			0.22

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



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

The Workers Compensation Statistical Plan (WCSP) data is used to determine the overall "F" classifications (F-class) premium level change as well as the individual change by the various classifications. There are three sets of pure premiums for each classification: indicated, present on rate level, and national pure premiums. All sets of pure premiums are adjusted to the common proposed level that is explained further in this exhibit. These three sets of pure premiums are credibility weighted and the results, the derived by formula pure premiums, are adjusted for additional proposed components (section II) to determine the indicated loss costs. The payrolls are extended by the loss costs presently in effect and the indicated loss costs. The loss costs are then limited to the swing limits based on 15% above and 15% below the current loss costs, which results in the indicated loss cost level change of -2.4%.

A – Calculation of F-Class Indicated Pure Premiums

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

A-1 Calculation of Primary Conversion Factor

1. Benefits

The state losses are adjusted to the September 1, 2012 state law level. The federal losses are adjusted to the October 1, 2011 federal law level.

	STATE ACT										
Policy Period	Fatal	Permanent Total	Permanent Partial	Temporary Total	Medical						
		(P.T.)	(P.P.)	(T.T.)							
1/05 - 12/05	1.023	1.021	1.039	1.023	1.000						
1/06 - 12/06	1.020	1.019	1.039	1.020	1.000						
1/07 - 12/07	1.014	1.014	1.038	1.014	1.000						
1/08 - 12/08	1.011	1.011	1.037	1.011	1.000						
1/09 - 12/09	1.008	1.009	1.036	1.008	1.000						

FEDERAL ACT							
Policy Period	Fatal	Permanent Total	Permanent Partial	Temporary Total	Medical		
		(P.T.)	(P.P.)	(T.T.)			
1/05 - 12/05	1.044	1.026	1.006	1.026	1.000		
1/06 - 12/06	1.039	1.024	1.005	1.024	1.000		
1/07 - 12/07	1.031	1.020	1.004	1.020	1.000		
1/08 - 12/08	1.021	1.014	1.003	1.014	1.000		
1/09 - 12/09	1.011	1.009	1.002	1.009	1.000		

2. Trend

The following factors are applied to trend the losses in each policy year to the proposed rating year. The selected annual trends utilized were 1.000 and 1.005 for indemnity and medical, respectively.

Indemnity	Medical
1.000	1.043
1.000	1.038
1.000	1.033
1.000	1.028
1.000	1.023
	1.000 1.000 1.000 1.000



A-1 Calculation of Primary Conversion Factor (continued)

3. Development

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

	Inde	mnity	Medical		
Policy Period	Likely- to-Develop	Not-Likely- to-Develop	Likely- to-Develop	Not-Likely- to-Develop	
1/05 - 12/05	1.128	1.048	1.350	1.059	
1/06 - 12/06	1.169	1.065	1.405	1.051	
1/07 - 12/07	1.293	1.147	1.457	1.060	
1/08 - 12/08	1.589	1.281	1.566	1.096	
1/09 - 12/09	2.773	1.723	1.776	1.165	

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

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

	STATE ACT								
Policy Period	Fatal	Fatal	P.T.*	P.P.	P.P.	T.T.	T.T.	Medical	Medical
	(L)	(NL)		(L)	(NL)	(L)	(NL)	(L)	(NL)
1/05 - 12/05	1.154	1.072	1.152	1.172	1.089	1.154	1.072	1.408	1.105
1/06 - 12/06	1.192	1.086	1.191	1.215	1 .107	1.192	1.086	1.458	1.091
1/07 - 12/07	1.311	1.163	1.311	1.342	1 .191	1.311	1.163	1.505	1.095
1/08 - 12/08	1.606	1.295	1.606	1.648	1.328	1.606	1.295	1.610	1.127
1/09 - 12/09	2.795	1.737	2.798	2.873	1.785	2.795	1.737	1.817	1.192

	FEDERAL ACT								
Policy Period	Fatal	Fatal	P.T.*	P.P.	P.P.	T.T.	T.T.	Medical	Medical
	(L)	(NL)		(L)	(NL)	(L)	(NL)	(L)	(NL)
1/05 - 12/05	1.178	1.094	1.157	1.135	1.054	1.157	1.075	1.408	1.105
1/06 - 12/06	1.215	1.107	1.197	1.175	1.070	1.197	1.091	1.458	1.091
1/07 - 12/07	1.333	1.183	1.319	1.298	1.152	1.319	1.170	1.505	1.095
1/08 - 12/08	1.622	1.308	1.611	1.594	1.285	1.611	1.299	1.610	1.127
1/09 - 12/09	2.804	1.742	2.798	2.779	1.726	2.798	1.739	1.817	1.192

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



A-2 – Expected Excess Provision and Redistribution

To reduce distortions in individual class loss cost indications, individual claim amounts are subject to a maximum limit of \$500,000. Multiple claims accidents are limited to three times the individual claim loss limitation. After the application of the primary conversion factors, the limited losses are brought to an expected unlimited level through the application of excess loss factors by hazard group. These factors are shown below.

Hazard Group	А	В	С	D	E	F	G
(1) Excess Ratios	0.090	0.112	0.131	0.148	0.174	0.215	0.275
(2) Excess Factors 1/(1-(1))	1.099	1.126	1.151	1.174	1.211	1.273	1.380

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

A-3 – Calculation of Secondary Conversion Factors

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

Policy Period	State Act	Federal Act
1/05 - 12/05	1.188	1.247
1/06 - 12/06	1.188	1.188
1/07 - 12/07	1.188	1.267
1/08 - 12/08	1.188	1.260
1/09 - 12/09	1.188	1.260

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



B – Present On Rate Level

1. Benefits

The current underlying pure premiums are at the current January 1, 2012 state and October 1, 2011 federal law levels. These pure premiums are adjusted to reflect the weighted effect of state and federal laws which bring losses to the proposed September 1, 2012 state and October 1, 2011 federal law levels. The distribution of state and federal losses in regard to total losses was used to determine the weighted effects.

State Weight (St%)	0.102	
Federal Weight (Fed%)	0.898	

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

2. Trend

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

Indemnity	Medical
1.000	1.005



B – Present On Rate Level (continued)

3. Loss-Based Expenses

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

Proposed:

	STATE ACT		
	Indemnity	Medical	Total
(a) Loss Adjustment Expense	1.188	1.188	1.188
(b) Loss-Based Assessment	1.000	1.000	1.000
(c) Total = (a) + (b) – 1	1.188	1.188	1.188

EDERAL ACT		
Indemnity	Medical	Total
1.188	1.188	1.188
1.160	1.000	1.079
1.348	1.188	1.267
	Indemnity 1.188 1.160	Indemnity Medical 1.188 1.188 1.160 1.000

	Indemnity	Medical	Total
(g) Weighted Proposed Expenses = [(c) x St%] + [(f) x Fed%]	1.332	1.188	1.259

Current:

	STATE		
	Indemnity	Medical	Total
(h) Loss Adjustment Expense	1.175	1.175	1.175
(i) Loss-Based Assessment	1.000	1.000	1.000
(j) Total = (h) + (i) - 1	1.175	1.175	1.175

	FEDERAL		
	Indemnity	Medical	Total
(k) Loss Adjustment Expense	1.175	1.175	1.175
(I) Loss-Based Assessment	1.186	1.000	1.067
(m) Total = (k) + (l) - 1	1.361	1.175	1.242

	Indemnity	Medical	Total
(n) Weighted Current Expenses = [(j) x St%] + [(m) x Fed%]	1.342	1.175	1.235

Change:

	Indemnity	Medical	Total
Weighted Expense Change in Loss-Based Expenses = [(g) / (n)]	0.993	1.011	1.019

4. Conversion Factors = $(1) \times (2) \times (3)$

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

Indemnity	Medical
0.993	1.016



C. National Pure Premiums

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

Class Code 9077

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

D. Derived by Formula Pure Premiums

The derived by formula pure premiums are calculated by a process similar to that of the industrial codes, which is described in Appendix B-I, Section D. To achieve full state credibility, a classification must have expected losses of at least: \$57,872,250 for indemnity, and \$25,512,000 for medical.

II. Calculation of Proposed Loss Costs

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

A. Test Correction Factor	1.0000
B. Ratio of Manual Premium to Earned Premium (Selected based on Rhode Island off-balance analysis)	1.043

C. Swing Limits

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

List of Classifications Limited by Upper Swing: 7327 7350 9077

List of Classifications Limited by Lower Swing: None



APPENDIX B-IV

DERIVATION OF PROPOSED ADVISORY LOSS COST - CODE 6824

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

STATE ACT - LIMITED LOSSES (Workers Compensation Statistical Plan)

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/05 - 12/31/05	0	0	0	0	75,783	113,622	49,361	65,198	58,445
01/01/06 - 12/31/06	0	0	0	1,000	0	0	34,105	0	25,156
01/01/07 - 12/31/07	0	0	0	0	565	0	119,171	0	99,758
01/01/08 - 12/31/08	0	0	0	0	0	0	10,453	0	34,801
01/01/09 - 12/31/09	0	0	0	0	0	5,000	38,365	1,500	67,138

FEDERAL ACT - LIMITED LOSSES (Workers Compensation Statistical Plan)

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/05 - 12/31/05	0	0	0	0	0	0	0	0	0
01/01/06 - 12/31/06	0	0	0	0	0	0	0	0	0
01/01/07 - 12/31/07	0	0	0	0	0	0	0	0	0
01/01/08 - 12/31/08	0	0	0	0	0	0	0	0	0
01/01/09 - 12/31/09	0	0	0	0	0	0	0	0	0

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

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/05 - 12/31/05	1.154	1.072	1.152	1.172	1.089	1.154	1.072	1.408	1.105
01/01/06 - 12/31/06	1.192	1.086	1.191	1.215	1.107	1.192	1.086	1.458	1.091
01/01/07 - 12/31/07	1.311	1.163	1.311	1.342	1.191	1.311	1.163	1.505	1.095
01/01/08 - 12/31/08	1.606	1.295	1.606	1.648	1.328	1.606	1.295	1.610	1.127
01/01/09 - 12/31/09	2.795	1.737	2.798	2.873	1.785	2.795	1.737	1.817	1.192

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

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/05 - 12/31/05	1.178	1.094	1.157	1.135	1.054	1.157	1.075	1.408	1.105
01/01/06 - 12/31/06	1.215	1.107	1.197	1.175	1.070	1.197	1.091	1.458	1.091
01/01/07 - 12/31/07	1.333	1.183	1.319	1.298	1.152	1.319	1.170	1.505	1.095
01/01/08 - 12/31/08	1.622	1.308	1.611	1.594	1.285	1.611	1.299	1.610	1.127
01/01/09 - 12/31/09	2.804	1.742	2.798	2.779	1.726	2.798	1.739	1.817	1.192



APPENDIX B-IV

DERIVATION OF PROPOSED ADVISORY LOSS COST - CODE 6824

EXPECTED EXCESS PROVISION AND REDISTRIBUTION (Appendix B-IV, Section A-2)

After the application of the primary conversion factors, the limited losses are brought to an expected unlimited level through the application of a hazard group-specific excess loss factor. The factor is shown below:

	HAZARD GROUP: F
Excess Factor	1.273

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

Redistribution % 40%

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

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/05 - 12/31/05	0	0	0	0	96,062	152,622	61,592	131,224	97,040
01/01/06 - 12/31/06	0	0	0	1,547	0	0	43,112	0	38,995
01/01/07 - 12/31/07	0	0	0	0	783	0	161,324	0	154,317
01/01/08 - 12/31/08	0	0	0	0	0	0	15,757	0	51,421
01/01/09 - 12/31/09	0	0	0	0	0	16,267	77,568	4,999	109,187

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

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/05 - 12/31/05	0	0	0	0	0	0	0	0	0
01/01/06 - 12/31/06	0	0	0	0	0	0	0	0	0
01/01/07 - 12/31/07	0	0	0	0	0	0	0	0	0
01/01/08 - 12/31/08	0	0	0	0	0	0	0	0	0
01/01/09 - 12/31/09	0	0	0	0	0	0	0	0	0

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

	INDUSTRY GROUP:
Policy Period	F-Class
01/01/05 - 12/31/05	1.188
01/01/06 - 12/31/06	1.188
01/01/07 - 12/31/07	1.188
01/01/08 - 12/31/08	1.188
01/01/09 - 12/31/09	1.188

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

Policy Period	INDUSTRY GROUP: F-Class
01/01/05 - 12/31/05	1.247
01/01/06 - 12/31/06	1.188
01/01/07 - 12/31/07	1.267
01/01/08 - 12/31/08	1.260
01/01/09 - 12/31/09	1.260

APPENDIX B-IV



DERIVATION OF PROPOSED ADVISORY LOSS COST - CODE 6824

TOTAL - PAYROLL, FINAL CONVERTED LOSSES

		Indemnity	Indemnity	Medical	Medical	Total	Total	
Policy Period	Payroll	Likely	Not-Likely	Likely	Not-Likely	Indemnity	Medical	Total
01/01/05 - 12/31/05	5,423,225	181,315	187,293	155,894	115,284	368,608	271,178	639,786
01/01/06 - 12/31/06	4,310,984	1,838	51,217	0	46,326	53,055	46,326	99,381
01/01/07 - 12/31/07	3,737,550	0	192,583	0	183,329	192,583	183,329	375,912
01/01/08 - 12/31/08	4,214,237	0	18,719	0	61,088	18,719	61,088	79,807
01/01/09 - 12/31/09	4,052,991	19,325	92,151	5,939	129,714	111,476	135,653	247,129
Total	21,738,987	202,478	541,963	161,833	535,741	744,441	697,574	1,442,015
		INDICATED PURE PREMIUM			3.424	3.209	6.63	

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

	Indemnity	Medical	Total
Pure Premiums Underlying Current Loss Cost	3.826	4.114	7.94
Conversion Factors (Section B)	0.993	1.016	XXX
PURE PREMIUMS PRESENT ON RATE LEVEL			
(Underlying Pure Premiums) x (Conversion Factor)	3.799	4.180	7.98



APPENDIX B-IV

DERIVATION OF PROPOSED ADVISORY LOSS COST - CODE 6824 Industry Group - F-Class. Hazard Group - F.

The loss cost for the above captioned classification is then derived as shown in the following exhibit:

		Indemnity	<u>Medical</u>	<u>Total</u>
1.	Indicated Pure Premium	3.424	3.209	6.63
2.	Pure Premium Indicated by National Relativity	3.616	5.052	8.67
3.	Pure Premium Present on Rate Level	3.799	4.180	7.98
4.	State Credibilities	18%	26%	xxx
5.	National Credibilities	41%	37%	xxx
6.	Residual Credibilities = 100% - (4) - (5)	41%	37%	xxx
7.	Derived by Formula Pure Premiums = (1) x (4) + (2) x (5) + (3) x (6)	3.656	4.250	7.91
8.	Test Correction Factor	1.0000	1.0000	xxx
9.	Underlying Pure Premiums = (7) x (8) *	3.660	4.250	7.91
10.	Ratio of Manual to Standard Premium			1.043
11.	Loss Cost = (9) x (10)			8.25
12.	Loss Cost Within Swing Limits			8.25
	Current Loss Cost x Swing Limits a) Lower bound = 8.15 x 0.850 = 6.93 b) Upper bound = 8.15 x 1.150 = 9.37			
13.	Pure Premiums Underlying Proposed Loss Cost* = ((13TOT) / (9TOT)) x (9) , (13TOT) = (12) / (10)	3.660	4.250	7.91
14.	Disease, Catastrophe and/or Miscellaneous Loadings			0.00
15.	Final Loaded Loss Cost			8.25

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



RHODE ISLAND LAW MEMO

APPENDIX C-I

Impact By Type of Injury Due to the Increase in the Maximum Weekly Benefit, Effective 9/1/2012

Type of Injury	Percentage Losses (a)	Effect (%)
Fatal	0.5%	0.3
Permanent Total	2.3%	0.2
Permanent Partial	43.2%	0.1
Temporary Total	19.1%	0.3
Indemnity	65.1%	0.2 (b)
Medical	34.9%	0.0
Total	100.0%	0.1 (b)

 Indemnity/Medical split based on policy year financial data projected to 9/1/2012. Proportions within indemnity based on the 36 month period ending 12/31/2008 on the 1/1/2012 law level and developed to an ultimate basis by type of injury.

(b) Weighted average.



Rhode Island

Appendix C-II

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

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

1.)	Estimated Total Expense Needed for 2012 *	124,000,000
2.)	Compensation Payments Reported (on indemnity only) in 2011 *	773,656,732
3.)	Assessment Rate on Indemnity Losses (1) / (2)	16.0%

Breakdown of Losses Under the Longshore and Harbor Workers Act

7.)	Assessment Rate on Total Losses { (3) x (4) } / (6)	7.9%
6.)	Total Losses (4) + (5)	97,393,700
5.)	Medical Losses (Combination of 1st through 3rd reports) #	49,568,628
4.)	Indemnity Losses (Combination of 1st through 3rd reports) #	47,825,072

- * Source: U.S. Department of Labor
- # Source: NCCI Workers Compensation Statistical Plan data