

TECHNICAL SUPPLEMENT

PROPOSED EFFECTIVE JUNE 1, 2012



November 18, 2011

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 June 1, 2012

Dear Director McGreevy:

We are enclosing for your review, supporting actuarial and statistical data used to produce the results of the proposed June 1, 2012 advisory loss costs and rating values filing.

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,

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Laura Backus Half, 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 Ayres

Director and Actuary, FCAS, MAAA Actuarial & Economic Services Division

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National Council on Compensation Insurance, Inc.

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SUMMARY



Rhode Island

Proposed Effective Date

June 1, 2012

I. Industrial Classifications

Overall Proposed Change in Statewide Premium Level - New and Renewal Policies Only	+6.4%
By Component Experience and Trend Benefits Change in Loss Adjustment Expense Overall Change	+6.4% +0.1% <u>-0.1%</u> +6.4%
By Industry Group Manufacturing Contracting Office and Clerical Goods and Services Miscellaneous Overall Change	+6.3% +8.4% +4.9% +6.0% +6.4%

II. "F" Classifications

Overall Proposed Change in Statewide Premium Level
- New and Renewal Policies Only
-7.7%



EXHIBIT I

Section A - Policy Year 2009 Experience

Premium:

(1)	Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$122,545,160
(2)	Premium On-level Factor (Appendix A-I)	1.023
(3)	Premium Available for Benefits Costs = $(1)x(2)$	\$125,363,699

Indemnity Benefit Cost:

(4)	Limited Indemnity Paid Losses Developed to Ultimate (Appendix A-II)	\$69,596,833
(5)	Indemnity Loss On-level Factor (Appendix A-I)	1.023
(6)	Factor to Include Loss Adjustment Expenses (Exhibit II)	1.1885
(7)	Composite Adjustment Factor = (5)x(6)	1.216
(8)	Adjusted Limited Indemnity Losses = (4)x(7)	\$84,629,749
(9)	Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (8)/(3)	0.675
(10)	Factor to Reflect Indemnity Trend (Appendix A-III)	0.983
(11)	Projected Limited Indemnity Cost Ratio = (9)x(10)	0.664
(12)	Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.040
(13)	Projected Indemnity Cost Ratio = (11)x(12)	0.691
(14)	Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.001
(15)	Projected Indemnity Cost Ratio including Benefit Changes = (13)x(14)	0.692

Medical Benefit Cost:

(16)	Limited Medical Paid Losses Developed to Ultimate (Appendix A-II)	\$38,165,385
(17)	Medical Loss On-level Factor (Appendix A-I)	1.000
(18)	Factor to Include Loss Adjustment Expenses (Exhibit II)	1.1885
(19)	Composite Adjustment Factor = (17)x(18)	1.189
(20)	Adjusted Limited Medical Losses = (16)x(19)	\$45,378,643
(21)	Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (20)/(3)	0.362
(22)	Factor to Reflect Medical Trend (Appendix A-III)	1.000
(23)	Projected Limited Medical Cost Ratio = (21)x(22)	0.362
(24)	Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.040
(25)	Projected Medical Cost Ratio = (23)x(24)	0.376
(26)	Factor to Reflect Proposed Changes in Medical Benefits	1.000
(27)	Projected Medical Cost Ratio including Benefit Changes = (25)x(26)	0.376

Total Benefit Cost:

(28) I	Indicated Change Based on Experience	, Trend and Benefits = (15)+(27)	1.068
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EXHIBIT I

Section B - Policy Year 2008 Experience

Premium:

(1)	Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$129,911,012
(2)	Premium On-level Factor (Appendix A-I)	0.992
(3)	Premium Available for Benefits Costs = $(1)x(2)$	\$128,871,724

Indemnity Benefit Cost:

(4)	Limited Indemnity Paid Losses Developed to Ultimate (Appendix A-II)	\$73,603,775
(5)	Indemnity Loss On-level Factor (Appendix A-I)	1.024
(6)	Factor to Include Loss Adjustment Expenses (Exhibit II)	1.1885
(7)	Composite Adjustment Factor = (5)x(6)	1.217
(8)	Adjusted Limited Indemnity Losses = (4)x(7)	\$89,575,794
(9)	Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (8)/(3)	0.695
(10)	Factor to Reflect Indemnity Trend (Appendix A-III)	0.978
(11)	Projected Limited Indemnity Cost Ratio = (9)x(10)	0.680
(12)	Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.040
(13)	Projected Indemnity Cost Ratio = (11)x(12)	0.707
(14)	Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.001
(15)	Projected Indemnity Cost Ratio including Benefit Changes = (13)x(14)	0.708

Medical Benefit Cost:

(18) Factor to Include Loss Adjustment Expenses (Exhibit II)	.000
	.000
	1885
(19) Composite Adjustment Factor = (17)x(18)	1.189
(20) Adjusted Limited Medical Losses = (16)x(19) \$46,403	3,004
(21) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (20)/(3)	0.360
(22) Factor to Reflect Medical Trend (Appendix A-III)	.000
(23) Projected Limited Medical Cost Ratio = (21)x(22)	0.360
(24) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	.040
(25) Projected Medical Cost Ratio = (23)x(24)).374
(26) Factor to Reflect Proposed Changes in Medical Benefits 1	.000
(27) Projected Medical Cost Ratio including Benefit Changes = (25)x(26)).374

Total Benefit Cost:

(28)	Indicated Change Based on Experience, Trend	and Benefits = (15)+(27)	1.082
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EXHIBIT I

Section C - Policy Year 2007 Experience

Premium:

(1)	Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$143,503,363
(2)	Premium On-level Factor (Appendix A-I)	0.938
(3)	Premium Available for Benefits Costs = $(1)x(2)$	\$134,606,154

Indemnity Benefit Cost:

(4)	Limited Indemnity Paid Losses Developed to Ultimate (Appendix A-II)	\$74,595,936
(5)	Indemnity Loss On-level Factor (Appendix A-I)	1.026
(6)	Factor to Include Loss Adjustment Expenses (Exhibit II)	1.1885
(7)	Composite Adjustment Factor = $(5)x(6)$	1.219
(8)	Adjusted Limited Indemnity Losses = (4)x(7)	\$90,932,446
(9)	Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (8)/(3)	0.676
(10)	Factor to Reflect Indemnity Trend (Appendix A-III)	0.973
(11)	Projected Limited Indemnity Cost Ratio = (9)x(10)	0.658
(12)	Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.040
(13)	Projected Indemnity Cost Ratio = (11)x(12)	0.684
(14)	Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.001
(15)	Projected Indemnity Cost Ratio including Benefit Changes = (13)x(14)	0.685

Medical Benefit Cost:

(16)	Limited Medical Paid Losses Developed to Ultimate (Appendix A-II)	\$39,302,425
(17)	Medical Loss On-level Factor (Appendix A-I)	1.000
(18)		1.1885
(19)		1.189
(20)	Adjusted Limited Medical Losses = (16)x(19)	\$46,730,583
(21)	Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (20)/(3)	0.347
(22)	Factor to Reflect Medical Trend (Appendix A-III)	1.000
(23)	Projected Limited Medical Cost Ratio = (21)x(22)	0.347
(24)	Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.040
(25)	Projected Medical Cost Ratio = (23)x(24)	0.361
(26)	Factor to Reflect Proposed Changes in Medical Benefits	1.000
(27)	Projected Medical Cost Ratio including Benefit Changes = (25)x(26)	0.361

Total Benefit Cost:

(28)	Indicated Change Based	l on Experience.	Trend and Benefits = $(15)+(27)$	1.046



EXHIBIT I

(1)	Policy Year 2009 Combined Projected Loss Ratio	1.068
(2)	Policy Year 2008 Combined Projected Loss Ratio	1.082
(3)	Policy Year 2007 Combined Projected Loss Ratio	1.046
(4)	Indicated Change Based on Experience, Trend & Benefits = [(1)+(2)+(3)]/3	1.065
Secti	on E - Application of the Change in Loss Adjustment Expenses	
(1)	Indicated Premium Level Change	1.065
(2)	Effect of Change in Loss Adjustment Expenses	0.999
(3)	Indicated Loss Cost Level Change = (1)x(2)	1.064
	Indicated Premium Level Change Effect of Change in Loss Adjustment Expenses Indicated Loss Cost Level Change = (1)x(2)	



EXHIBIT I

Section F - Distribution of Final Loss Cost Level Change to Industry Groups

Industry Group Differentials (Appendix A-V):

Manufacturing	0.999
Contracting	1.019
Office & Clerical	0.986
Goods & Services	0.996
Miscellaneous	1.000

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)	(2)	(3) = 0	(1)x(2)
	Final Overall	Industry	Final Lo	ss Cost
	Loss Cost	Group	Level (Change
Industry Group	Level Change	Differential	by Indus	try Group
Manufacturing	1.064	0.999	1.063	(6.3%)
Contracting	1.064	1.019	1.084	(8.4%)
Office & Clerical	1.064	0.986	1.049	(4.9%)
Goods & Services	1.064	0.996	1.060	(6.0%)
Miscellaneous	1.064	1.000	1.064	(6.4%)
Overall	1.064	1.000	1.064	(6.4%)



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 18.7% loss adjustment expense allowance as a percentage of incurred losses.

Accident <u>Year</u>	Accident Year Developed <u>LAE Ratio</u>	Accident Year Developed DCCE Ratio	Accident Year Developed <u>AOE Ratio</u>
2006	18.6%	10.6%	8.0%
2007	19.1%	11.1%	8.0%
2008	19.0%	11.6%	7.4%
2009	19.6%	12.0%	7.6%
2010	19.7%	12.3%	7.4%
Countrywide selected:	19.7%	12.2%	7.5%
Rhode Island selected: (11.2% = 12.2% x 0.918)	18.7%	11.2%	7.5%

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

(1a) Rhode Island paid losses (in '000s)	137,564
(1b) Rhode Island paid DCCE (in '000s)	13,954
(1c) Ratio (1b)/(1a)	10.1%
(2a) Countrywide Paid Losses (in '000s)	65,956,208
(2b) Countrywide Paid DCCE (in '000s)	7,265,954
(2c) Ratio (2b)/(2a)	11.0%
(3) Rhode Island DCCE relativity	0.918

Section C - Derivation of Rhode Island Loss Adjustment Expense Provision

(1) Indicated Rhode Island DCCE Ratio (based on countrywide data) (Section A)	11.2%
(2) Selected Countrywide AOE Ratio (Section A)	7.5%
(3) Selected Rhode Island Loss Adjustment Expense Allowance = (1) + (2)	18.7%
(4) Currently Approved Rhode Island Loss Adjustment Expense Allowance	18.85%
(5) Impact Due to Change in LAE Allowance = [1 + (3)] / [1 + (4)]	0.999

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 2009 Policy Year Premium to Present Pure Premium Level

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
								Premium
		Rate				Adj. Factor	Off-balance	Adjustment
		Level	Cumulative		Product	Present Index/	Adjustment	Factor
	Date	Change	Index	Weight	(2)x(3)	Sum Column (4)	Factor*	(5)x(6)
NR	06/01/08	Base	1.000	1.000	1.000	1.027	0.996	1.023
NR	06/01/10	0.991	0.991					
NR	06/01/11	1.036	1.027					
					1.000			

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

	(1)	(2)	(3)	(4)	(5)
	Benefit	Ourse de tirre		D	Adj. Factor
	Level	Cumulative		Product	Present Index/
Date	Change	Index	Weight	(2)x(3)	Sum Column (4)
				1	
09/01/08	Base	1.000	0.280	0.280	1.023
09/01/09	1.0020	1.002	0.667	0.668	
09/01/10	1.0000	1.002	0.053	0.053	
1/1/2012**	1.0220	1.024			
			70,	1.001	

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

	(1)	(2)	(3)	(4)	(5)
	Benefit				Adj. Factor
	Level	Cumulative		Product	Present Index/
Date	Change	Index	Weight	(2)x(3)	Sum Column (4)
09/01/08	Base	1.000	0.280	0.280	1.000
09/01/09	1.0000	1.000	0.667	0.667	
09/01/10	1.0000	1.000	0.053	0.053	
01/01/12	1.0000	1.000			
				1.000	

NR=New and Renewal Business

^{*0.996 = 0.989 / 0.993 = (}Targeted Off-balance) / (Off-balance for Policy Year 2009)

^{**}Full effect of S. 2083 effective 1/1/2012



APPENDIX A-I

Derivation of Policy Year On-level Factors

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

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
								Premium
		Rate				Adj. Factor	Off-balance	Adjustment
		Level	Cumulative		Product	Present Index/	Adjustment	Factor
_	Date	Change	Index	Weight	(2)x(3)	Sum Column (4)	Factor*	(5)x(6)
NR	02/01/07	Base	1.000	0.438	0.438	0.993	0.999	0.992
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					
					0.960	.*.()		

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

	(1)	(2)	(3)	(4)	(5)
	Benefit Level	Cumulative		Product	Adj. Factor Present Index/
Date	Change	Index	Weight	(2)x(3)	Sum Column (4)
09/01/07	Base	1.000	0.280	0.280	1.024
09/01/08	1.0010	1.001	0.667	0.668	
09/01/09	1.0020	1.003	0.053	0.053	
09/01/10	1.0000	1.003	70,		
1/1/2012**	1.0220	1.025	.0.		
		X		1.001	

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

	(1)	(2)	(3)	(4)	(5)
)			A 11 E 4
	Benefit				Adj. Factor
	Level	Cumulative		Product	Present Index/
Date	Change	Index	Weight	(2)x(3)	Sum Column (4)
09/01/07	Base	1.000	0.280	0.280	1.000
09/01/08	1.0000	1.000	0.667	0.667	
09/01/09	1.0000	1.000	0.053	0.053	
09/01/10	1.0000	1.000			
01/01/12	1.0000	1.000			
				1.000	

NR=New and Renewal Business

^{*0.999 = 0.989 / 0.990 = (}Targeted Off-balance) / (Off-balance for Policy Year 2008)

^{**}Full effect of S. 2083 effective 1/1/2012



APPENDIX A-I

Derivation of Policy Year On-level Factors

Section G - Factor Adjusting 2007 Policy Year Premium to Present Pure Premium Level

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
		_						Premium
		Rate				Adj. Factor	Off-balance	Adjustment
		Level	Cumulative		Product	Present Index/	Adjustment	Factor
_	Date	Change	Index	Weight	(2)x(3)	Sum Column (4)	Factor*	(5)x(6)
NR	01/01/06	Base	1.000	0.211	0.211	0.937	1.001	0.938
NR	02/01/07	0.927	0.927	0.789	0.731			
NR	06/01/08	0.928	0.860					
NR	06/01/10	0.991	0.852					
NR	06/01/11	1.036	0.883			(A)		
					0.942	X		

Section H - Factor Adjusting 2007 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)
09/01/06	Base	1.000	0.280	0.280	1.026
09/01/07	1.0040	1.004	0.667	0.670	
09/01/08	1.0010	1.005	0.053	0.053	
09/01/09	1.0020	1.007			
09/01/10	1.0000	1.007			
1/1/2012**	1.0220	1.029			
		-0)		1.003	

Section I - Factor Adjusting 2007 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)
	-		-		
09/01/06	Base	1.000	0.280	0.280	1.000
09/01/07	1.0000	1.000	0.667	0.667	
09/01/08	1.0000	1.000	0.053	0.053	
09/01/09	1.0000	1.000			
09/01/10	1.0000	1.000			
01/01/12	1.0000	1.000			
				1.000	

NR=New and Renewal Business

^{*1.001 = 0.989 / 0.988 = (}Targeted Off-balance) / (Off-balance for Policy Year 2007)

^{**}Full effect of S. 2083 effective 1/1/2012



APPENDIX A-I

Section J - Premium Adjustment to Average Expected Mod

	(1) Average	(2) Average	(3) Average Mod	(4) Weighted	(5) Average	(6)= (5)/(4) Policy Year		
	Intrastate	Interstate	Combined	Average	Mod	Adjustment		
Rating Year	Mod	Mod	Rated Risk	Off-Balance	Expected	Factor		
1005	0.022	0.056	0.020	0.044	0.000	1 051		
1995	0.932	0.956	0.939	0.941	0.989	1.051		
1996	0.914	0.853	0.888	0.893	0.989	1.108		
1997	0.934	0.923	0.930	0.933	0.989 0.989	1.060		
1998 1999	0.955	0.927	0.946	0.949		1.042		
	1.041	0.978	1.019	1.018	0.989	0.972		
2000	1.006	0.969	0.994	0.994	0.989	0.995		
2001	1.010	0.998	1.006	1.006	0.989	0.983		
2002	1.010	1.019	1.013	1.012	0.989	0.977		
2003	1.018	1.005	1.013	1.012	0.989	0.977		
2004	0.991	1.008	0.997	0.997	0.989	0.992		
2005	0.976	1.017	0.991	0.992	0.989	0.997		
2006	0.974	0.991	0.980	0.981	0.989	1.008		
2007	0.985	0.991	0.987	0.988	0.989	1.001		
2008	0.986	0.995	0.989	0.990	0.989	0.999		
2009	0.995	0.987	0.992	0.993	0.989	0.996		
2010	0.999	0.987	0.994	0.995	0.989	0.994		
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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Premium and Loss Summary Valued as of 12/31/2010

Policy Year 2009

(1) (2) (3)	Standard Earned Premium Factor to Develop Premium to Ultimate Standard Earned Premium Developed to Ultimate = (1)x(2)	\$123,284,869 0.994 \$122,545,160
(4) (5) (6)	Limited Indemnity Paid Losses Limited Indemnity Paid Development Factor to Ultimate Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$24,732,350 2.814 \$69,596,833
(7) (8) (9)	Limited Medical Paid Losses Limited Medical Paid Development Factor to Ultimate Limited Medical Paid Losses Developed to Ultimate = (7)x(8)	\$23,299,991 1.638 \$38,165,385

Policy Year 2008

(1)	Standard Earned Premium	\$130,041,053
(2)	Factor to Develop Premium to Ultimate	0.999
(3)	Standard Earned Premium Developed to Ultimate = $(1)x(2)$	\$129,911,012
(4)	Limited Indemnity Paid Losses	\$44,259,636
(5)	Limited Indemnity Paid Development Factor to Ultimate	1.663
(6)	Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$73,603,775
(7)	Limited Medical Paid Losses	\$30,229,990
(8)	Limited Medical Paid Development Factor to Ultimate	1.291
(9)	Limited Medical Paid Losses Developed to Ultimate = (7)x(8)	\$39,026,917

Policy Year 2007

(1) (2)	Standard Earned Premium Factor to Develop Premium to Ultimate	\$143,503,363 1.000
(3)	Standard Earned Premium Developed to Ultimate = $(1)x(2)$	\$143,503,363
(4)	Limited Indemnity Paid Losses	\$56,256,362
(5)	Limited Indemnity Paid Development Factor to Ultimate	1.326
(6)	Limited Indemnity Paid Losses Developed to Ultimate = $(4)x(5)$	\$74,595,936
(7)	Limited Medical Paid Losses	\$33,027,248
(8)	Limited Medical Paid Development Factor to Ultimate	1.190
(9)	Limited Medical Paid Losses Developed to Ultimate = (7)x(8)	\$39,302,425



APPENDIX A-II

Determination of Policy Year Development Factors

Section A - Premium Development Factors

Policy	Standard P	Development	
<u>Year</u>	For Matching	<u>Companies</u>	<u>Factor</u>
	1st Report	2nd Report	
2006	152,792,369	154,571,745	1.012
2007	142,547,235	141,121,237	0.990
2008	132,282,145	130,041,053	0.983
Average			0.995
		0	
	2nd Report	3rd Report	<i>J.</i>
2005	160,743,049	160,435,910	0.998
2006	152,558,607	152,533,835	1.000
2007	143,522,610	143,503,363	1.000
Average			0.999
· ·			
	3rd Report	4th Report	
2004	259,931,555	259,750,134	0.999
2005	158,531,289	158,466,939	1.000
2006	154,455,414	154,386,245	1.000
Average			1.000
	4th Report	5th Report	
2003	248,704,123	248,650,173	1.000
2004	257,185,764	257,182,046	1.000
2005	160,395,047	160,334,875	1.000
Average		, ,	1.000

Summary of Premium Development Factors

1st/5th	2nd/5th	3rd/5th	4th/5th
0.994	0.999	1.000	1.000



APPENDIX A-II

Determination of Policy Year Development Factors

Section B - Limited Paid Loss Development Factors

Policy Limited Paid Indemnity Losses Povelopment Policy Factor Year For Matching Companies Factor Factor Year Year For Matching Companies Factor Factor Year Year For Matching Companies Factor Year Year For Matching Companies Factor Year Year					Adjusted				
1st Report	Policy	Limited Paid Inde	mnity Losses	Development	Development	Policy	Limited Paid Med	lical Losses	Development
2004 24,458,659 41,276,981 1,688 1,688 2004 23,431,380 29,074,149 1,241 2005 26,293,271 43,523,679 16,655 1,655 2005 24,503,886 30,918,384 1,246 2006 25,819,385 43,757,934 1,695 1,694 1,694 2007 23,333,741 30,276,208 1,238 2008 25,192,158 44,259,636 1,757 1,757 2008 23,291,835 30,229,990 1,298 2008 25,192,158 44,259,636 1,757 1,757 2008 23,291,835 30,229,990 1,298 2003 39,610,699 49,155,278 1,241 1,241 2003 27,856,019 29,721,351 1,067 2004 41,279,394 50,460,380 1,222 1,222 2004 25,078,977 31,840,194 1,095 2005 43,757,934 54,775,516 1,252 1,252 2006 30,918,98 33,272,076 1,091 2007 44,078,194 56,256,362 1,276 1,276 2007 30,276,208 33,047,179 1,074 2002 45,686,265 50,352,078 1,103 1,103 2002 27,188,099 27,500,755 1,012 2004 45,040,380 55,306,600 10,98 1,103 2002 27,188,099 27,500,755 1,012 2004 45,040,380 55,306,600 10,98 1,109 2003 29,724,984 31,248,813 1,051 2004 50,460,380 55,306,600 1,096 2004 31,840,194 32,962,371 1,027 2005 54,775,516 60,353,196 1,102 1,102 2006 33,347,179 34,516,240 1,038 2005 50,372,174 52,387,506 1,096 2004 31,840,194 32,962,371 1,027 2005 55,172,359 60,744,458 1,101 1,101 2005 33,720,706 34,967,566 1,037 2006 54,775,516 60,353,196 1,102 1,102 2006 33,347,179 34,516,240 1,038 2005 50,372,174 52,387,506 1,040 1,040 2002 27,516,846 28,046,697 1,019 2004 55,306,600 55,205,55 1,053 2004 26,980,753 33,047,295 1,002 2006 54,775,516 60,353,196 1,002 1,003 2005 25,145,841 20,005 25,145,845 20,006 20,005 25,145,841 20,005 25,145,845 20,005 20,005 25,145,845 20,00	<u>Year</u>	For Matching C	<u>Companies</u>	<u>Factor</u>	Factor**	<u>Year</u>	For Matching C	ompanies	<u>Factor</u>
2004 24,458,659 41,276,981 1,688 1,688 2004 23,431,380 29,074,149 1,241 2005 26,293,271 43,523,679 16,655 1,655 2005 24,503,886 30,918,384 1,246 2006 25,819,385 43,757,934 1,695 1,694 1,694 2007 23,333,741 30,276,208 1,238 2008 25,192,158 44,259,636 1,757 1,757 2008 23,291,835 30,229,990 1,298 2008 25,192,158 44,259,636 1,757 1,757 2008 23,291,835 30,229,990 1,298 2003 39,610,699 49,155,278 1,241 1,241 2003 27,856,019 29,721,351 1,067 2004 41,279,394 50,460,380 1,222 1,222 2004 25,078,977 31,840,194 1,095 2005 43,757,934 54,775,516 1,252 1,252 2006 30,918,98 33,272,076 1,091 2007 44,078,194 56,256,362 1,276 1,276 2007 30,276,208 33,047,179 1,074 2002 45,686,265 50,352,078 1,103 1,103 2002 27,188,099 27,500,755 1,012 2004 45,040,380 55,306,600 10,98 1,103 2002 27,188,099 27,500,755 1,012 2004 45,040,380 55,306,600 10,98 1,109 2003 29,724,984 31,248,813 1,051 2004 50,460,380 55,306,600 1,096 2004 31,840,194 32,962,371 1,027 2005 54,775,516 60,353,196 1,102 1,102 2006 33,347,179 34,516,240 1,038 2005 50,372,174 52,387,506 1,096 2004 31,840,194 32,962,371 1,027 2005 55,172,359 60,744,458 1,101 1,101 2005 33,720,706 34,967,566 1,037 2006 54,775,516 60,353,196 1,102 1,102 2006 33,347,179 34,516,240 1,038 2005 50,372,174 52,387,506 1,040 1,040 2002 27,516,846 28,046,697 1,019 2004 55,306,600 55,205,55 1,053 2004 26,980,753 33,047,295 1,002 2006 54,775,516 60,353,196 1,002 1,003 2005 25,145,841 20,005 25,145,845 20,006 20,005 25,145,841 20,005 25,145,845 20,005 20,005 25,145,845 20,00									
2005									
2006	2004	24,458,659	41,276,981	1.688	1.688	2004	23,431,380	29,074,149	
2007 26,016,673 44,078,194 1,694 1,694 2007 23,333,741 30,276,208 1,298 2008 25,192,158 44,259,636 1,757 1,757 2008 23,291,835 30,229,990 1,298 1,269	2005	26,293,271	43,523,679	1.655	1.655	2005	24,503,886	30,918,384	1.262
Average	2006	25,819,385	43,757,934	1.695	1.695	2006	24,905,069	31,061,221	1.247
Average	2007	26,016,673	44,078,194	1.694	1.694	2007	23,333,741	30,276,208	1.298
Average	2008	25.192.158	44.259.636	1.757	1.757	2008	23.291.835	30.229.990	1.298
2003 39,610,699 49,155,278 1,241 1,241 2003 27,856,018 29,721,351 1,067 2004 41,279,394 50,460,380 1,222 1,222 2004 29,078,977 31,840,194 1,095 2005 43,523,679 55,172,399 1,288 1,288 2005 30,918,384 33,720,706 1,091 2006 43,757,934 54,775,516 1,252 1,252 2006 31,051,939 33,347,179 1,074 2007 44,078,194 56,256,362 1,276 1,276 2007 30,276,208 33,027,248 1,091 Average* 1,254 Average* 33,027,248 1,091 Average* 37d Report 4th Report 4th Report 2002 45,688,265 50,352,078 1,103 1,103 2002 27,168,099 27,500,765 1,012 2003 49,202,260 54,581,158 1,109 1,109 2003 29,724,864 31,245,813 1,051 2004 50,460,380 55,306,600 1,096 1,096 2004 31,840,194 32,692,371 1,027 2005 55,172,399 60,744,458 1,101 1,101 2005 33,347,179 34,516,240 1,035 Average* 1,102 4th Report 2006 33,347,179 34,516,240 1,035 Average* 1,102 4th Report 2006 33,347,179 34,516,240 1,035 2001 50,860,746 54,107,056 1,084 1,084 2001 26,980,753 27,053,823 1,003 2002 50,372,174 52,387,506 1,040 1,040 2002 27,516,846 28,046,697 1,019 2003 54,581,158 57,730,393 1,058 1,058 2003 31,455,813 31,764,295 1,017 2004 50,860,746 54,107,056 1,084 1,084 2001 26,980,753 27,053,823 1,003 2002 50,372,174 52,387,506 1,040 1,040 2002 27,516,846 28,046,697 1,019 2003 54,581,158 57,730,393 1,058 1,053 2004 32,692,371 33,005,354 1,015 2004 55,306,600 56,230,575 1,053 1,053 2004 32,692,371 33,005,354 1,015 2004 55,178,601 56,910,961 1,035 1,035 1,050 2002 27,853,823 27,447,759 1,015 2004 55,179,013 59,209,148 1,027 1,027 2003 27,581,830 28,124,645 1,010 2003 57,303,39 59,300,418 1,027 1,027 2003 25,914,840 26,287,067 26,306,903 1,011 2004 55,179,013 59,289,101 1,019 1,019 2004 26,287,667		-, - ,	,,				-, - ,	, -,	
2003 39,610,699 49,155,278 1.241 1.241 2.003 27,856,018 29,721,351 1.067 2004 41,279,394 50,460,380 1.222 1.222 2.004 29,078,977 31,840,194 1.095 2005 43,523,679 55,172,359 1.268 1.268 2.005 30,918,344 33,720,706 1.091 2006 43,757,934 54,775,516 1.252 1.252 2.006 31,061,939 33,347,179 1.074 2007 44,078,194 56,256,362 1.276 1.276 2.007 30,276,208 33,027,248 1.091 2002 45,668,265 50,352,078 1.103 1.103 2.002 27,168,099 27,500,765 1.012 2002 45,668,265 50,352,078 1.103 1.103 2.002 27,168,099 27,500,765 1.012 2004 50,460,380 55,306,600 1.096 1.096 2.004 31,840,194 32,692,371 1.027 2005 54,775,516 60,353,196 1.102 1.102 2.006 33,347,179 34,516,240 1.035 2006 54,775,516 60,353,196 1.102 1.102 2.006 33,347,179 34,516,240 1.035 2007 40,689,0746 54,107,056 1.064 1.040 2.002 27,516,846 2.80,46,697 1.019 2008 54,581,158 57,730,393 1.058 1.058 2.003 31,263,813 31,764,295 1.003 2009 50,372,174 52,387,506 1.040 1.040 2.002 27,516,846 28,046,697 1.019 2000 54,861,101 56,910,961 1.037 1.038 2.005 34,967,566 35,662,229 1.002 2000 54,861,101 56,910,961 1.037 1.038 2.005 34,967,566 35,662,229 1.002 2000 54,860,101 56,910,961 1.037 1.037 2.000 25,914,840 26,287,067 1.014 2001 54,860,101 56,910,961 1.037 1.037 2.000 25,914,840 26,287,067 1.014 2001 54,860,101 56,910,961 1.037 1.037 2.000 25,914,840 26,287,067 1.014 2001 54,860,101 56,910,961 1.037 1.037 2.000 27,951,823 27,053,823 1.003 2002 52,137,862 53,660,569 1.093 1.094 2.004 27,953,823 27,447,759 1.015 2004 54,860,101 56,938,304 1.042 1.042 2.001 27,953,823 27,447,759 1.015 2005 54,860,101 56,938,304 1.042 1.042 2.001 27,853,823 27,447,759 1.015 2004 54,860,101 56,938,304 1.042	· · · · · · · · · · · · · · · · · · ·								
2004		2nd Report	3rd Report				2nd Report	3rd Report	
2004	2003	39.610.699	49.155.278	1.241	1.241	2003	27.856.018	29.721.351	1.067
2005				1.222		2004			1.095
2006		, ,	, ,					, ,	
Average		, ,	, ,					, ,	
Average		, ,							
3rd Report		44,070,134	30,230,302	1.270			30,270,200	33,027,240	
2002 45,668,265 50,352,078 1.103 1.103 2002 27,186,099 27,500,765 1.012	Average				1.254	Average			1.000
2002 45,668,265 50,352,078 1.103 1.103 2002 27,186,099 27,500,765 1.012		3rd Report	4th Report				3rd Report	4th Report	
2003	2002			1 103	1 103	2002			1 012
2004 50,460,380 55,306,600 1.096 1.096 2004 31,840,194 32,692,371 1.027		, ,	, ,				,,	, ,	
2005 55,172,359 60,744,458 1.101 1.101 2005 33,720,706 34,967,566 1.037 2006 54,775,516 60,353,196 1.102 1.102 2006 33,347,179 34,516,240 1.035 1.033 2.002 2.006 33,347,179 34,516,240 1.035 2.004 2.006 33,347,179 34,516,240 1.035 2.008 2.00		, ,					, ,	, ,	
2006									
Average* 1.102 Average* 1.033 Average* 1.033 1.033									
Ath Report Sth		54,775,516	60,353,196	1.102			33,347,179	34,516,240	
2001 50,860,746 54,107,056 1.064 1.064 2001 26,980,753 27,053,823 1.003 2002 50,372,174 52,387,506 1.040 1.040 2002 27,516,846 28,046,697 1.019 2003 54,581,158 57,730,393 1.058 2003 31,245,813 31,764,295 1.017 2004 55,306,600 58,230,575 1.053 1.053 2004 32,692,371 33,005,354 1.010 2005 60,744,458 63,056,504 1.038 1.038 2005 34,967,566 35,652,229 1.020 Average*	Average [*]				1.102	Average [*]			1.033
2001 50,860,746 54,107,056 1.064 1.064 2001 26,980,753 27,053,823 1.003 2002 50,372,174 52,387,506 1.040 1.040 2002 27,516,846 28,046,697 1.019 2003 54,581,158 57,730,393 1.058 2003 31,245,813 31,764,295 1.017 2004 55,306,600 58,230,575 1.053 1.053 2004 32,692,371 33,005,354 1.010 2005 60,744,458 63,056,504 1.038 1.038 2005 34,967,566 35,652,229 1.020 Average*		4th Poport	5th Poport				4th Poport	5th Poport	
2002 50,372,174 52,387,506 1.040 1.040 2002 27,516,846 28,046,697 1.019 2003 54,581,158 57,730,393 1.058 1.058 2003 31,245,813 31,764,295 1.017 2004 55,306,600 58,230,575 1.053 1.053 2004 32,692,371 33,005,354 1.010 2005 60,744,458 63,056,504 1.038 1.038 2005 34,967,566 35,652,229 1.020 Average* Eth Report									

^{*} Based on five years of data; a three-year average after the highest and lowest factors are excluded.

^{**}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

Determination of Policy Year Development Factors

Section B - Limited Paid Loss Development Factors

Policy Limited Paid Indemnity Losses Development Factor Year Year For Matching Companies Pactor Factor Year Y					Adjusted				
Tith Report	Policy	Limited Paid Inde	emnity Losses	Development	Development	Policy	Limited Paid Med	dical Losses	Development
1998 42,212,313 43,406,564 1,028 1,009 1,009 1,009 1,009 1,009 1,009 1,009 1,009 1,009 1,009 1,009 1,009 1,009 1,000 1,0	<u>Year</u>	For Matching (<u>Companies</u>	<u>Factor</u>	Factor**	<u>Year</u>	For Matching C	ompanies	<u>Factor</u>
1998 42,212,313 43,406,564 1,028 1,008 1998 19,987,457 20,314,075 1,016 1099 10,008 1999 26,287,986 26,616,981 1,016 2000 56,671,047 57,381,632 1,013 1,013 2000 25,716,175 26,142,289 1,017 2001 57,504,166 57,982,705 1,008 1,008 2,001 27,307,509 27,504,304 1,017 2002 53,325,180 54,288,016 1,007 1,007 2,002 27,827,789 27,955,252 1,005 2,008 2,088 2,008 2,008 2,008 2,008 2,008 2,008 2,008 2,088 2,008 2									
1999									
2000 56,671,047 57,381,632 1.013 1.013 2000 25,716,175 26,142,289 1.017 2001 57,504,166 57,982,705 1.008 1.007 2002 27,827,789 27,955,252 1.005 2002 27,827,789 27,955,252 1.005 2002 27,827,789 27,955,252 1.005 2002 27,827,789 27,955,252 1.005 2002 27,827,789 27,955,252 1.005 2002 27,827,789 27,955,252 1.005 2002 27,827,789 27,955,252 1.005 2002 27,827,789 27,955,252 1.005 2002 27,827,789 27,955,252 1.005 2002 27,827,789 27,955,252 1.005 2002 27,827,789 27,955,252 1.005 2002 27,827,789 27,955,252 1.005 2002 27,827,789 27,955,252 20,0174,409 1.015 2000 57,381,632 57,605,439 1.004 1.004 2000 25,142,289 26,327,432 1.007 2001 56,970,661 57,392,158 1.007 1.007 2001 26,950,976 27,127,728 1.007 2004 26,950,977		, ,	, ,						
2001 57,504,166 57,982,705 1.008 1.007 2.002 27,827,789 27,955,252 1.005	1999	51,623,590	52,069,178	1.009	1.009	1999	26,287,986	26,616,981	1.013
2002 53,925,180 54,288,016 1.007 1.007 2002 27,827,789 27,955,252 1.005	2000	56,671,047	57,381,632	1.013	1.013	2000	25,716,175		1.017
Average	2001	57,504,166	57,982,705	1.008	1.008	2001	27,307,509	27,504,304	1.007
1997 36,580,491 36,707,916 1.003 1.003 1.997 18,449,807 18,533,519 1.005 1998 43,406,564 43,934,305 1.012 1.012 1.988 20,314,075 20,614,409 1.015 1999 49,654,764 50,198,453 1.001 1.011 1.999 25,044,208 25,712,512 1.012 2000 57,381,632 57,605,439 1.004 1.004 2000 26,142,289 26,327,432 1.007 2001 56,970,661 57,392,158 1.007 1.007 2001 26,950,976 27,127,728 1.007 Average*	2002	53,925,180	54,288,016	1.007	1.007	2002	27,827,789	27,955,252	1.005
1997 36,580,491 36,707,916 1.003 1.003 1.997 18,448,807 18,533,519 1.005 1.998 43,406,564 43,934,305 1.012 1.012 1.998 20,314,075 20,614,409 1.015 1.999 49,654,764 50,198,453 1.011 1.011 1.999 25,404,205 25,712,512 1.012 2.000 57,381,632 57,605,439 1.004 1.004 2.000 26,142,289 26,327,432 1.007 2.001 56,970,661 57,392,158 1.007 1.007 Average* 1.007 Average* 1.007 Average* 1.007 Average* 1.007 Average* 1.007 Average* 1.008 1	Average*				1.010	Average*			1.012
1997 36,580,491 36,707,916 1.003 1.003 1.997 18,448,807 18,533,519 1.005 1.998 43,406,564 43,934,305 1.012 1.012 1.998 20,314,075 20,614,409 1.015 1.999 49,654,764 50,198,453 1.011 1.011 1.999 25,404,205 25,712,512 1.012 2.000 57,381,632 57,605,439 1.004 1.004 2.000 26,142,289 26,327,432 1.007 2.001 56,970,661 57,392,158 1.007 1.007 Average* 1.007 Average* 1.007 Average* 1.007 Average* 1.007 Average* 1.007 Average* 1.008 1									
1998									
1999									
2000 57,381,632 57,605,439 1,004 1,004 2000 26,142,289 26,327,432 1,007 2001 26,950,976 27,127,728 1,007 2001 26,950,976 27,127,728 1,007 2001 26,950,976 27,127,728 1,007 2001 26,950,976 27,127,728 1,007 2001 26,950,976 27,127,728 1,007 2001 26,950,976 27,127,728 1,007 2001 26,950,976 27,127,728 1,007 2001 26,950,976 27,127,728 1,007 2001 26,950,976 27,127,728 1,007 2001 26,950,976 27,127,728 1,007 2001 26,950,976 27,127,728 27,127,127 27,127,127,127,127,127,127,127,127,127,1		43,406,564	43,934,305	1.012	1.012		20,314,075	20,614,409	1.015
2001 56,970,661 57,392,158 1.007 1.007 2001 26,950,976 27,127,728 1.007	1999	49,654,764	50,198,453	1.011	1.011	1999	25,404,208	25,712,512	1.012
Average* 1.007	2000	57,381,632	57,605,439	1.004	1.004	2000	26,142,289	26,327,432	1.007
1996 32,674,824 32,846,595 1.005 1.005 1.996 16,213,480 16,235,553 1.001 1997 36,707,916 36,826,980 1.003 1.003 1.997 18,533,519 18,584,097 1.003 1998 42,629,658 43,077,137 1.010 1.010 1.998 1.9,810,005 1.9,845,098 1.002 1999 50,198,453 50,172,000 0.999 0.999 1.999 25,712,512 25,782,357 1.003 2000 56,220,917 56,319,208 1.002 1.002 2.000 25,774,875 25,810,095 1.001 Average*	2001	56,970,661	57,392,158	1.007	1.007	2001	26,950,976	27,127,728	1.007
1996 32,674,824 32,846,595 1.005 1.005 1.996 16,213,480 16,235,553 1.001 1997 36,707,916 36,826,980 1.003 1.003 1.997 18,533,519 18,584,097 1.003 1998 42,629,658 43,077,137 1.010 1.010 1998 19,810,005 19,845,098 1.002 1999 50,198,453 50,172,000 0.999 0.999 1999 25,712,512 25,782,357 1.003 2000 56,220,917 56,319,208 1.002 1.002 2.000 25,774,875 25,810,095 1.001 Average*	Average*				1.007	Average*	70.		1.009
1996 32,674,824 32,846,595 1.005 1.005 1.996 16,213,480 16,235,553 1.001 1997 36,707,916 36,826,980 1.003 1.003 1.997 18,533,519 18,584,097 1.003 1998 42,629,658 43,077,137 1.010 1.010 1998 19,810,005 19,845,098 1.002 1999 50,198,453 50,172,000 0.999 0.999 1999 25,712,512 25,782,357 1.003 2000 56,220,917 56,319,208 1.002 1.002 2.000 25,774,875 25,810,095 1.001 Average*									
1997 36,707,916 36,826,980 1.003 1.003 1.997 18,533,519 18,584,097 1.003 1998 42,629,658 43,077,137 1.010 1.010 1.010 1998 19,810,005 19,845,098 1.002 1.002 1.000 25,774,875 25,810,095 1.001 1.002 1.003 1.003 1.002 1.002 1.003 1.002 1.003 1.002 1.002 1.003		9th Report	10th Report					10th Report	
1998	1996	32,674,824	32,846,595	1.005	1.005		16,213,480	16,235,553	1.001
1999	1997	36,707,916	36,826,980	1.003	1.003	1997	18,533,519	18,584,097	1.003
2000 56,220,917 56,319,208 1.002 1.002 2000 25,774,875 25,810,095 1.001	1998	42,629,658	43,077,137	1.010	1.010	1998	19,810,005	19,845,098	1.002
Average* 1.003	1999	50,198,453	50,172,000	0.999	0.999	1999	25,712,512	25,782,357	1.003
10th Report	2000	56,220,917	56,319,208	1.002	1.002	2000	25,774,875	25,810,095	1.001
1995 34,484,486 34,747,251 1.008 1.008 1995 16,084,917 16,212,270 1.008 1996 32,846,595 32,724,991 0.996 0.996 1996 16,235,553 16,251,623 1.001 1997 36,780,963 37,255,954 1.013 1.013 1997 18,569,277 18,681,785 1.004 1998 43,077,137 43,389,578 1.007 1.007 1998 19,845,098 19,918,456 1.004 1999 49,175,804 49,533,156 1.007 1.007 1999 25,227,164 25,254,524 1.001 Average* 11th Report 12th Report 1.007 Average* 11th Report 12th Report 1.004 1994 33,323,206 33,512,877 1.006 1.006 1994 15,389,374 15,456,104 1.004 1995 34,747,251 35,156,810 1.012 1.012 1995 16,212,270 16,231,587 1.001 1996 31,852,632 32,012,701 1.00	Average*				1.003	Average*			1.002
1995 34,484,486 34,747,251 1.008 1.008 1995 16,084,917 16,212,270 1.008 1996 32,846,595 32,724,991 0.996 0.996 1996 16,235,553 16,251,623 1.001 1997 36,780,963 37,255,954 1.013 1.013 1997 18,569,277 18,681,785 1.004 1998 43,077,137 43,389,578 1.007 1.007 1998 19,845,098 19,918,456 1.004 1999 49,175,804 49,533,156 1.007 1.007 1999 25,227,164 25,254,524 1.001 Average* 11th Report 12th Report 1.007 Average* 11th Report 12th Report 1.004 1994 33,323,206 33,512,877 1.006 1.006 1994 15,389,374 15,456,104 1.004 1995 34,747,251 35,156,810 1.012 1.012 1995 16,212,270 16,231,587 1.001 1996 31,852,632 32,012,701 1.00					*/	0			
1996 32,846,595 32,724,991 0.996 0.996 1996 16,235,553 16,251,623 1.001 1997 36,780,963 37,255,954 1.013 1.013 1997 18,569,277 18,681,785 1.006 1998 43,077,137 43,389,578 1.007 1.007 1998 19,845,098 19,918,456 1.004 1999 49,175,804 49,533,156 1.007 1.007 1998 25,227,164 25,254,524 1.001 Average* 11th Report 12th Report 1.007 Average* 11th Report 1.004 1994 33,323,206 33,512,877 1.006 1.994 15,389,374 15,456,104 1.004 1995 34,747,251 35,156,810 1.012 1.012 1.995 15,830,280 15,837,773 1.000 1996 31,852,632 32,012,701 1.005 1.005 1.996 15,830,280 15,837,773 1.000 1997 37,255,954 37,648,704 1.011 1.011 1.997 </td <td></td> <td>10th Report</td> <td>11th Report</td> <td></td> <td></td> <td></td> <td>10th Report</td> <td>11th Report</td> <td></td>		10th Report	11th Report				10th Report	11th Report	
1997 36,780,963 37,255,954 1.013 1.013 1997 18,569,277 18,681,785 1.006 1998 43,077,137 43,389,578 1.007 1.007 1998 19,845,098 19,918,456 1.004 1999 49,175,804 49,533,156 1.007 1.007 1999 25,227,164 25,254,524 1.001 Average* 11th Report 12th Report 1.004 1994 33,323,206 33,512,877 1.006 1.006 1994 15,389,374 15,456,104 1.004 1995 34,747,251 35,156,810 1.012 1.012 1995 16,212,270 16,231,587 1.001 1996 31,852,632 32,012,701 1.005 1.005 1996 15,830,280 15,837,773 1.000 1997 37,255,954 37,648,704 1.011 1.011 1.997 18,681,785 18,735,336 1.003 Average* 12th Report 13th Report 1.001 1.001 <t< td=""><td>1995</td><td>34,484,486</td><td>34,747,251</td><td>1.008</td><td>1.008</td><td>1995</td><td>16,084,917</td><td>16,212,270</td><td>1.008</td></t<>	1995	34,484,486	34,747,251	1.008	1.008	1995	16,084,917	16,212,270	1.008
1998 43,077,137 43,389,578 1.007 1.007 1998 19,845,098 19,918,456 1.004 1999 49,175,804 49,533,156 1.007 1.007 1999 25,227,164 25,254,524 1.001 Average* 11th Report 12th Report 12th Report 11th Report 12th Report 12th Report 12th Report 12th Report 12th Report 12th Report 15,456,104 1.004 1995 34,747,251 35,156,810 1.012 1.012 1995 16,212,270 16,231,587 1.001 1996 31,852,632 32,012,701 1.005 1.005 1.996 15,830,280 15,837,773 1.000 1997 37,255,954 37,648,704 1.011 1.011 1.997 18,681,785 18,735,336 1.003 Average* 12th Report 1.002 1.003 1.004 1998 19,566,266 19,629,556 1.003 1993 31,311,916 31,464,644 1.005 1.005 1993 15,826,498	1996	32,846,595	32,724,991	0.996	0.996	1996	16,235,553	16,251,623	1.001
1999 49,175,804 49,533,156 1.007 1.007 1999 25,227,164 25,254,524 1.001 Average* 1.007 Average* 1.004 1.004 1.004 1.004 1994 33,323,206 33,512,877 1.006 1.006 1.004 15,389,374 15,456,104 1.004 1995 34,747,251 35,156,810 1.012 1.012 1.005	1997	36,780,963	37,255,954	1.013	1.013	1997	18,569,277	18,681,785	1.006
Average* 1.007 Average* 1.004	1998	43,077,137	43,389,578	1.007	1.007	1998	19,845,098	19,918,456	1.004
Average* 1.007 Average* 1.004	1999	49,175,804	49,533,156	1.007	1.007	1999	25,227,164	25,254,524	1.001
1994 33,323,206 33,512,877 1.006 1.006 1994 15,389,374 15,456,104 1.004 1995 34,747,251 35,156,810 1.012 1.012 1995 16,212,270 16,231,587 1.001 1996 31,852,632 32,012,701 1.005 1.005 1996 15,830,280 15,837,773 1.000 1997 37,255,954 37,648,704 1.011 1.011 1.997 18,681,785 18,735,336 1.003 1998 42,676,619 42,740,567 1.001 1.001 1998 19,566,266 19,629,556 1.003 Average* 1.007 Average* 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.003 1.003 1.003 1.004	Average*				1.007	Average*			1.004
1994 33,323,206 33,512,877 1.006 1.006 1994 15,389,374 15,456,104 1.004 1995 34,747,251 35,156,810 1.012 1.012 1995 16,212,270 16,231,587 1.001 1996 31,852,632 32,012,701 1.005 1.005 1996 15,830,280 15,837,773 1.000 1997 37,255,954 37,648,704 1.011 1.011 1.997 18,681,785 18,735,336 1.003 1998 42,676,619 42,740,567 1.001 1.001 1998 19,566,266 19,629,556 1.003 Average* 1.007 Average* 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.002 1.003 1.003 1.003 1.004				~ () '					
1995 34,747,251 35,156,810 1.012 1.012 1995 16,212,270 16,231,587 1.001 1996 31,852,632 32,012,701 1.005 1.005 1996 15,830,280 15,837,773 1.000 1997 37,255,954 37,648,704 1.011 1.011 1997 18,681,785 18,735,336 1.003 1998 42,676,619 42,740,567 1.001 1.001 1998 19,566,266 19,629,556 1.003 Average* 1.007 Average* 1.002 1993 31,311,916 31,464,644 1.005 1.005 1993 15,826,498 15,896,143 1.004 1994 33,512,877 33,955,659 1.013 1.013 1994 15,456,104 15,563,353 1.007 1995 32,990,967 33,232,553 1.007 1.007 1995 15,521,386 15,556,270 1.002 1996 32,012,701 32,155,572 1.004 1.004 1996 15,837,773 15,844,313 1.000 1997 37,362,820 37,464,986 1.003 1.003		11th Report	12th Report	1			11th Report	12th Report	
1996 31,852,632 32,012,701 1.005 1.005 1996 15,830,280 15,837,773 1.000 1997 37,255,954 37,648,704 1.011 1.011 1997 18,681,785 18,735,336 1.003 1998 42,676,619 42,740,567 1.001 1.001 1998 19,566,266 19,629,556 1.003 Average* 1.007 Average* 1.002 1.003 1.003 1.003 1.003 1.003 1.004 1.004 1.004 1.004 1.004 1.004 <td>1994</td> <td>33,323,206</td> <td>33,512,877</td> <td>1.006</td> <td>1.006</td> <td>1994</td> <td>15,389,374</td> <td>15,456,104</td> <td>1.004</td>	1994	33,323,206	33,512,877	1.006	1.006	1994	15,389,374	15,456,104	1.004
1997 37,255,954 37,648,704 1.011 1.011 1997 18,681,785 18,735,336 1.003 1998 42,676,619 42,740,567 1.001 1.001 1998 19,566,266 19,629,556 1.003 Average* 12th Report 13th Report 12th Report 13th Report 1993 31,311,916 31,464,644 1.005 1.005 1993 15,826,498 15,896,143 1.004 1994 33,512,877 33,955,659 1.013 1.013 1994 15,456,104 15,563,353 1.007 1995 32,990,967 33,232,553 1.007 1.007 1995 15,521,386 15,556,270 1.002 1996 32,012,701 32,155,572 1.004 1.004 1996 15,837,773 15,844,313 1.000 1997 37,362,820 37,464,986 1.003 1.003 1.997 18,560,977 18,636,109 1.004	1995	34,747,251	35,156,810	1.012	1.012	1995	16,212,270	16,231,587	1.001
1998 42,676,619 42,740,567 1.001 1.001 1998 19,566,266 19,629,556 1.003 Average* 12th Report 13th Report 1.002 1993 31,311,916 31,464,644 1.005 1.005 1993 15,826,498 15,896,143 1.004 1994 33,512,877 33,955,659 1.013 1.013 1994 15,456,104 15,563,353 1.007 1995 32,990,967 33,232,553 1.007 1.007 1995 15,521,386 15,556,270 1.002 1996 32,012,701 32,155,572 1.004 1.004 1996 15,837,773 15,844,313 1.000 1997 37,362,820 37,464,986 1.003 1.003 1.997 18,560,977 18,636,109 1.004	1996	31,852,632	32,012,701	1.005	1.005	1996	15,830,280	15,837,773	1.000
Average* 1.007 Average* 1.002 12th Report 13th Report 1.005 1.005 1.993 15,826,498 15,896,143 1.004 1994 33,512,877 33,955,659 1.013 1.013 1994 15,456,104 15,563,353 1.007 1995 32,990,967 33,232,553 1.007 1.007 1995 15,521,386 15,556,270 1.002 1996 32,012,701 32,155,572 1.004 1.004 1996 15,837,773 15,844,313 1.000 1997 37,362,820 37,464,986 1.003 1.003 1997 18,560,977 18,636,109 1.004	1997	37,255,954	37,648,704	1.011	1.011	1997	18,681,785	18,735,336	1.003
Average* 1.007 Average* 1.002 12th Report 13th Report 1.005 1.005 1.993 15,826,498 15,896,143 1.004 1994 33,512,877 33,955,659 1.013 1.013 1994 15,456,104 15,563,353 1.007 1995 32,990,967 33,232,553 1.007 1.007 1995 15,521,386 15,556,270 1.002 1996 32,012,701 32,155,572 1.004 1.004 1996 15,837,773 15,844,313 1.000 1997 37,362,820 37,464,986 1.003 1.003 1997 18,560,977 18,636,109 1.004	1998	42,676,619	42,740,567	1.001	1.001	1998	19,566,266	19,629,556	1.003
1993 31,311,916 31,464,644 1.005 1.005 1993 15,826,498 15,896,143 1.004 1994 33,512,877 33,955,659 1.013 1.013 1994 15,456,104 15,563,353 1.007 1995 32,990,967 33,232,553 1.007 1.007 1995 15,521,386 15,556,270 1.002 1996 32,012,701 32,155,572 1.004 1.004 1996 15,837,773 15,844,313 1.000 1997 37,362,820 37,464,986 1.003 1.003 1997 18,560,977 18,636,109 1.004	Average*				1.007	Average*			1.002
1993 31,311,916 31,464,644 1.005 1.005 1993 15,826,498 15,896,143 1.004 1994 33,512,877 33,955,659 1.013 1.013 1994 15,456,104 15,563,353 1.007 1995 32,990,967 33,232,553 1.007 1.007 1995 15,521,386 15,556,270 1.002 1996 32,012,701 32,155,572 1.004 1.004 1996 15,837,773 15,844,313 1.000 1997 37,362,820 37,464,986 1.003 1.003 1997 18,560,977 18,636,109 1.004	· ·					· ·			
1994 33,512,877 33,955,659 1.013 1.013 1994 15,456,104 15,563,353 1.007 1995 32,990,967 33,232,553 1.007 1.007 1995 15,521,386 15,556,270 1.002 1996 32,012,701 32,155,572 1.004 1.004 1996 15,837,773 15,844,313 1.000 1997 37,362,820 37,464,986 1.003 1.003 1997 18,560,977 18,636,109 1.004									
1995 32,990,967 33,232,553 1.007 1.007 1995 15,521,386 15,556,270 1.002 1996 32,012,701 32,155,572 1.004 1.004 1996 15,837,773 15,844,313 1.000 1997 37,362,820 37,464,986 1.003 1.003 1997 18,560,977 18,636,109 1.004	1993	31,311,916	31,464,644	1.005	1.005	1993	15,826,498	15,896,143	1.004
1996 32,012,701 32,155,572 1.004 1.004 1996 15,837,773 15,844,313 1.000 1997 37,362,820 37,464,986 1.003 1.003 1997 18,560,977 18,636,109 1.004	1994	33,512,877	33,955,659	1.013	1.013	1994	15,456,104	15,563,353	1.007
1996 32,012,701 32,155,572 1.004 1.004 1996 15,837,773 15,844,313 1.000 1997 37,362,820 37,464,986 1.003 1.003 1997 18,560,977 18,636,109 1.004	1995	32,990,967	33,232,553	1.007	1.007	1995	15,521,386	15,556,270	1.002
	1996	32,012,701	32,155,572	1.004	1.004	1996		15,844,313	1.000
	1997	37,362,820	37,464,986	1.003	1.003	1997	18,560,977	18,636,109	1.004
	Average*				1.005	Average*			

^{*} Based on five years of data; a three-year average after the highest and lowest factors are excluded.

^{**}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

Determination of Policy Year Development Factors

Section B - Limited Paid Loss Development Factors

Section B - En	iliteu i alu Loss L	bevelopilient i act	OIS	Adjusted				
Policy	Limited Paid Inc	demnity Losses	Development	Development	Policy	Limited Paid Med	dical Losses	Development
<u>Year</u>	For Matching	<u>Companies</u>	Factor	Factor**	<u>Year</u>	For Matching C	<u>Companies</u>	Factor
	40th Damant	4.4th Damant				40th Danast	4.44b Danast	
4000	13th Report	14th Report	4 000	4 004	4000	13th Report	14th Report	4.007
1992	50,054,354	50,171,991	1.002	1.001	1992	21,858,867	22,006,254	1.007
1993	31,464,644	31,347,960	0.996	0.996	1993	15,896,143	15,948,061	1.003
1994	33,955,644	34,088,175	1.004	1.004	1994	15,562,207	15,612,562	1.003
1995	33,232,553	33,502,119	1.008	1.008	1995	15,556,270	15,673,602	1.008
1996	31,786,431	31,935,043	1.005	1.005	1996	15,603,359	15,619,834	1.001
Average*				1.003	Average*			1.004
	14th Report	15th Report				14th Report	15th Report	
1991	84,867,644	85,067,275	1.002	1.001	1991	31,791,597	31,801,608	1.000
1992	50,171,991	50,475,239	1.006	1.003	1992	22,006,254	22,050,490	1.002
1993	31,143,340	31,312,506	1.005	1.005	1993	15,842,196	15,921,074	1.005
1994	34,088,175	34,210,155	1.004	1.004	1994	15,612,562	15,659,647	1.003
1995	33,199,174	33,228,165	1.001	1.001	1995	15,474,610	15,563,514	1.006
Average*	,,	, -,		1.003	Average*	~0.	-,,-	1.003
3.								
	15th Report	16th Report				15th Report	16th Report	
1990	112,369,065	112,921,997	1.005	1.003	1990	34,619,956	34,683,835	1.002
1991	85,067,275	85,413,339	1.004	1.002	1991	31,801,608	31,847,419	1.001
1992	50,467,754	50,640,064	1.003	1.002	1992	22,041,763	22,075,707	1.002
1993	31,312,506	31,340,200	1.001	1.001	1993	15,921,074	15,957,128	1.002
1994	34,041,112	34,295,673	1.007	1.007	1994	15,563,677	15,607,504	1.003
Average*				1.002	Average*			1.002
_				X	0			
	16th Report	17th Report			•	16th Report	17th Report	
1989	162,900,487	163,987,971	1.007	1.004	1989	43,595,965	43,688,573	1.002
1990	112,921,997	113,344,983	1.004	1.002	1990	34,683,835	34,760,093	1.002
1991	85,318,691	85,628,249	1.004	1.002	1991	31,837,874	31,866,312	1.001
1992	50,640,064	51,008,164	1.007	1.004	1992	22,075,707	22,123,854	1.002
1993	31,295,814	31,316,424	1.001	1.001	1993	15,887,095	15,954,894	1.004
Average*				1.003	Average*			1.002
			~ O '					
	17th Report	18th Report)			17th Report	18th Report	
1988	146,868,881	147,472,552	1.004	1.002	1988	37,529,517	37,719,691	1.005
1989	163,987,971	164,898,340	1.006	1.003	1989	43,688,573	43,598,247	0.998
1990	113,344,983	113,648,613	1.003	1.002	1990	34,761,031	34,805,436	1.001
1991	85,628,249	86,034,466	1.005	1.003	1991	31,866,312	31,998,971	1.004
1992	47,917,022	48,013,492	1.002	1.001	1992	20,360,873	20,381,260	1.001
Average*				1.002	Average*			1.002
	18th Report	19th Report				18th Report	19th Report	
1987	138,333,222	139,471,838	1.008	1.004	1987	35,516,354	35,574,511	1.002
1988	147,472,552	148,218,743	1.005	1.003	1988	37,719,691	37,826,764	1.003
1989	164,898,340	165,966,875	1.006	1.003	1989	43,598,050	43,725,422	
1990	113,648,613	114,415,086	1.007	1.004	1990	34,805,436	34,878,992	1.002
1991	82,526,514	82,685,142	1.002	1.001	1991	30,393,516	30,410,004	1.001
Average†*				1.002	Average†*			1.001

^{*} Based on five years of data; a three-year average after the highest and lowest factors are excluded.

^{**}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.

[†] The 18th/19th link ratio is raised to the two-thirds power to remove the overlap with the AY 19th/Ult development factor.



APPENDIX A-II

Determination of Loss Development Factors to Ultimate Report

Section C - Determination of Accident Year Loss Development Factors (19th-to-Ultimate Report)

	<u>Indemnity</u>	<u>Medical</u>
(1) Losses for accident year 1982 valued as of 12-31-1989	41,579,735	12,185,765
(2) Losses for accident year 1983 valued as of 12-31-1990	48,207,932	12,491,967
(3) Losses for accident year 1984 valued as of 12-31-1991	60,815,286	16,007,784
(4) Losses for accident year 1985 valued as of 12-31-1992	62,687,270	16,038,245
(5) Losses for accident year 1986 valued as of 12-31-1993	87,142,610	23,613,214
(6) Average = $((1)+(2)+(3)+(4)+(5))/5$	60,086,567	16,067,395
(7) Losses for accident year 1987 valued as of 12-31-1994	94,213,387	24,999,754
(8) Ratio = $(6)/(7)$	0.638	0.643
(9) Losses for accident year 1987 valued as of 12-31-2005	125,005,357	31,467,731
(10) Losses for accident year 1987 valued as of 12-31-2006	125,618,737	31,320,949
(11) Losses for accident years prior to 1987 valued as of 12-31-2005	761,895,840	227,420,226
(12) Losses for accident years prior to 1987 valued as of 12-31-2006	762,659,607	226,907,055
(13) 19th-to-ultimate development factor	1.014	0.970
= 1+[(10)-(9)+((12)-(11))/(8)]/(9)		
(14) Losses for accident year 1983 valued as of 12-31-1990	70,360,447	17,983,483
(15) Losses for accident year 1984 valued as of 12-31-1991	84,410,491	21,837,066
(16) Losses for accident year 1985 valued as of 12-31-1992	91,746,740	22,341,056
(17) Losses for accident year 1986 valued as of 12-31-1993	124,008,588	32,762,128
(18) Losses for accident year 1987 valued as of 12-31-1994	142,469,344	37,561,443
(19) Average = ((14)+(15)+(16)+(17)+(18))/5	102,599,122	26,497,035
(20) Losses for accident year 1988 valued as of 12-31-1995	166,661,568	42,694,640
(21) Ratio = (19)/(20)	0.616	0.621
(22) Losses for accident year 1988 valued as of 12-31-2006	148,339,983	39,536,559
(23) Losses for accident year 1988 valued as of 12-31-2007	148,470,363	39,455,267
(24) Losses for accident years prior to 1988 valued as of 12-31-2006	920,413,413	274,338,432
(25) Losses for accident years prior to 1988 valued as of 12-31-2007	923,902,848	275,808,796
(26) 19th-to-ultimate development factor	1.039	1.058
= 1+[(23)-(22)+((25)-(24))/(21)]/(22)		
(27) Losses for accident year 1984 valued as of 12-31-2002	68,198,335	17,361,281
(28) Losses for accident year 1985 valued as of 12-31-2003	73,099,153	17,360,517
(29) Losses for accident year 1986 valued as of 12-31-2004	103,760,161	26,138,648
(30) Losses for accident year 1987 valued as of 12-31-2005	117,291,188	30,385,898
(31) Losses for accident year 1988 valued as of 12-31-2006	135,320,427	34,596,999
(32) Average = ((27)+(28)+(29)+(30)+(31))/5	99,533,853	25,168,669
(33) Losses for accident year 1989 valued as of 12-31-2007	153,303,907	41,940,624
(34) Ratio = $(32)/(33)$	0.649	0.600
(35) Losses for accident year 1989 valued as of 12-31-2007	162,296,326	46,437,427
(36) Losses for accident year 1989 valued as of 12-31-2008	162,846,242	47,050,108
(37) Losses for accident years prior to 1989 valued as of 12-31-2007	1,065,623,332	313,369,236
(38) Losses for accident years prior to 1989 valued as of 12-31-2008	1,064,845,159	313,078,636
(39) 19th-to-ultimate development factor	0.996	1.003
= 1+[(36)-(35)+((38)-(37))/(34)]/(35)		



APPENDIX A-II

Determination of Loss Development Factors to Ultimate Report

Section C - Determination of Accident Year Loss Development Factors (19th-to-Ultimate Report)

	<u>Indemnity</u>	<u>Medical</u>
(40) Losses for accident year 1985 valued as of 12-31-2003	72,133,569	17,030,044
(41) Losses for accident year 1986 valued as of 12-31-2004	103,394,981	26,065,307
(42) Losses for accident year 1987 valued as of 12-31-2005	117,287,655	30,377,078
(43) Losses for accident year 1988 valued as of 12-31-2006	135,320,181	34,596,116
(44) Losses for accident year 1989 valued as of 12-31-2007	153,303,907	41,940,477
(45) Average = $((40)+(41)+(42)+(43)+(44))/5$	116,288,059	30,001,804
(46) Losses for accident year 1990 valued as of 12-31-2008	132,557,076	38,051,246
(47) Ratio = $(45)/(46)$	0.877	0.788
(48) Losses for accident year 1990 valued as of 12-31-2008	142,869,386	40,122,657
(49) Losses for accident year 1990 valued as of 12-31-2009	143,362,890	40,025,137
(50) Losses for accident years prior to 1990 valued as of 12-31-2008	1,227,691,401	339,239,769
(51) Losses for accident years prior to 1990 valued as of 12-31-2009	1,227,234,596	340,865,940
(52) 19th-to-ultimate development factor	1.000	1.049
= 1+[(49)-(48)+((51)-(50))/(47)]/(48)		
(53) Losses for accident year 1986 valued as of 12-31-2004	103,394,981	26.065.307
(54) Losses for accident year 1987 valued as of 12-31-2005	117,287,655	30,377,078
(55) Losses for accident year 1988 valued as of 12-31-2006	135,320,181	34,596,116
(56) Losses for accident year 1989 valued as of 12-31-2007	153,303,907	41,940,479
(57) Losses for accident year 1990 valued as of 12-31-2008	132,557,076	38,051,244
(58) Average = ((53)+(54)+(55)+(56)+(57))/5	128,372,760	34,206,045
(59) Losses for accident year 1991 valued as of 12-31-2009	84,920,958	31,100,120
(60) Ratio = $(58)/(59)$	1.512	1.100
(61) Losses for accident year 1991 valued as of 12-31-2009	83,457,706	27,266,612
(62) Losses for accident year 1991 valued as of 12-31-2010	83,696,160	27,266,640
(63) Losses for accident years prior to 1991 valued as of 12-31-2009	1,245,268,982	318,743,184
(64) Losses for accident years prior to 1991 valued as of 12-31-2010	1,246,025,241	319,204,249
(65) 19th-to-ultimate development factor	1.009	1.015
= 1+[(62)-(61)+((64)-(63))/(60)]/(61)		
(66) Five Year Average	1.012	1.019
(67) Selected*	1.006	1.019
(or) oblicated	1.000	1.019

^{*}For indemnity, the development portion of the tail factor was adjusted by the factor of 0.5.

- (1) through (5) and (7) include only information for matching companies for the 1989 through 1994 valuations.
- (9) through (12) include only information for matching companies for the 2005 and 2006 valuations.
- (14) through (18) and (20) include only information for matching companies for the 1990 through 1995 valuations.
- (22) through (25) include only information for matching companies for the 2006 and 2007 valuations.
- (27) through (31) and (33) include only information for matching companies for the 2002 through 2007 valuations.
- (35) through (38) include only information for matching companies for the 2007 and 2008 valuations.
- (40) through (44) and (46) include only information for matching companies for the 2003 through 2008 valuations.
- (48) through (51) include only information for matching companies for the 2008 and 2009 valuations.
- (53) through (57) and (59) include only information for matching companies for the 2004 through 2009 valuations.
- (61) through (64) include only information for matching companies for the 2009 and 2010 valuations.



APPENDIX A-II

Derivation of Loss Development Factors

Section D - Accident Year Ratios

Accident Year Unlimited Paid+Case-to-Incurred Including IBNR Ratios

Accident	Indemnity Losses	at a 19th Report		Accident	Medical Losses at	a 19th Report	
<u>Year</u>	Paid+Case	Incl. IBNR	<u>Ratio</u>	<u>Year</u>	Paid+Case	Incl. IBNR	<u>Ratio</u>
1988	155,275,894	157,213,503	0.988	1988	38,432,257	39,536,559	0.972
1989	170,794,475	172,804,870	0.988	1989	45,131,576	46,437,574	0.972
1990	148,530,687	150,085,503	0.990	1990	41,250,468	42,753,189	0.965
1991	85,572,984	87,051,269	0.983	1991	29,610,755	31,100,120	0.952
1992	59,481,886	61,029,924	0.975	1992	24,402,991	25,648,153	0.951
Average			0.985	Average	.0		0.962

Average			0.985	Average			0.962
					(0)		
		Accident Y	ear Limited Pa	aid-to-Paid+Case	Ratios		
Accident	Indemnity Losses	at a 19th Report		Accident	Medical Losses at	a 19th Report	
<u>Year</u>	<u>Paid</u>	Paid+Case	<u>Ratio</u>	<u>Year</u>	<u>Paid</u>	Paid+Case	<u>Ratio</u>
1988	148,809,702	155,275,894	0.958	1988	36,842,589	38,432,257	0.959
1989	160,800,473	170,334,720	0.944	1989	42,144,404	44,849,538	0.940
1990	141,557,910	148,530,687	0.953	1990	39,621,910	41,250,468	0.961
1991	84,280,695	85,572,984	0.985	1991	28,997,406	29,610,755	0.979
1992	56,503,118	59,394,173	0.951	1992	24,140,196	24,402,991	0.989
Selected			0.979	Average			0.966

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

	<u>Indemnity</u>	Medical
(1) Selected Unlimited Incurred 19th-to-Ultimate Loss Development Factor (Section C)	1.006	1.019
(2) Unlimited Paid+Case-to-Incurred Including IBNR Ratio (Section D)	0.985	0.962
(3) Unlimited Paid+Case 19th-to-Ultimate Loss Development Factor = (1)/(2)	1.021	1.059
(4) Factor to Adjust 19th-to-Ultimate Development Factor to a Limited Basis	0.509	0.509
(5) Limited Paid+Case 19th-to-Ultimate Loss Development Factor = ((3)-1)x(4)+1	1.011	1.030
(6) Limited Paid-to-Paid+Case Ratio (Section D)	0.979	0.966
(7) Limited Paid 19th-to-Ultimate Loss Development Factor = (5)/(6)	1.033	1.066



APPENDIX A-II

Derivation of Policy Year Loss Development Factors

Section F - Summary of Limited Paid Loss Development Factors

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
_	1st/2nd	2nd/3rd	3rd/4th	4th/5th	5th/6th	6th/7th	7th/8th	8th/9th
Indemnity	1.692	1.254	1.102	1.050	1.031	1.022	1.010	1.007
Medical	1.269	1.085	1.033	1.015	1.013	1.005	1.012	1.009
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
_	9th/10th		11th/12th	12th/13th	13th/14th	14th/15th	15th/16th	16th/17th
Indemnity	1.003		1.007	1.005	1.003	1.003	1.002	1.003
Medical	1.002	1.004	1.002	1.003	1.004	1.003	1.002	1.002
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
			Ltd. Paid					
			19th/Ult	18th/Ult	17th/Ult	16th/Ult	15th/Ult	14th/Ult
_	17th/18th	18th/19th†	Factor	(19)x(18)	(20)x(17)	(21)x(16)	(22)x(15)	(23)x(14)
Indemnity	1.002	1.002	1.033	1.035	1.037	1.040	1.042	1.045
Medical	1.002	1.001	1.066	1.067	1.069	1.071	1.073	1.076
	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
	13th/Ult	12th/Ult	11th/Ult	10th/Ult	9th/Ult	8th/Ult	7th/Ult	6th/Ult
_	(24)x(13)	(25)x(12)	(26)x(11)	(27)x(10)	(28)x(9)	(29)x(8)	(30)x(7)	(31)x(6)
Indemnity	1.048	1.053	1.060	1.067	1.070	1.077	1.088	1.112
Medical	1.080	1.083	1.085	1.089	1.091	1.101	1.114	1.120
	(33)	(34)	(35)	(36)	(37)			
	5th/Ult	4th/Ult	3rd/Ult	2nd/Ult	1st/Ult			
_	(32)x(5)	(33)x(4)	(34)x(3)	(35)x(2)	(36)x(1)			
Indemnity	1.146	1.203	1.326	1.663	2.814			
Medical	1.135	1.152	1.190	1.291	1.638			

[†] The 18th/19th link ratio is raised to the two-thirds power to remove the overlap with the AY 19th/Ult development factor.



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*	3,699,731
(2) Statewide Excess Ratio for (1)	0.038
(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/{1-[(2)x(1-(3))]}	1.040

Section H - Policy Year Thresholds

oolds	alijon
	Policy Year
Experience	Detrended
Year	Threshold
2010	3,366,471
2009	3,331,320
2008	3,240,356
2007	3,124,047
2006	3,024,722
2005	2,915,521
2004	2,812,570
2003	2,726,211
2002	2,616,618
2001	2,517,207
2000	2,439,154
1999	2,349,581
1998	2,266,080
1997 1996	2,169,042
1995	2,059,211 1,977,389
1994	1,917,369
1993	1,860,371
1993	1,820,767
1991	1,755,468
1990	1,685,517
	.,,

^{*} May 18, 2013 is the midpoint of the effective period for which the revised pure premiums are being proposed.



APPENDIX A-III

Policy Year Trend Factors

Section A - Summary of Annual Trend Factors

Rhode Island Underlying Data*

(1)	(2)	(3)	(4)	(5)	(6)
	Claim Freq	Indemnity	Medical	On-leveled	On-leveled
	per Million	Average	Average	Indemnity	Medical
Policy	of On-Level	Claim	Claim	Loss	Loss
Year	Premium	Severity	Severity	Ratio	Ratio
				2	
2000	41.655	14,878	6,646	0.620	0.277
2001	40.127	15,529	7,207	0.623	0.289
2002	39.961	14,014	7,122	0.560	0.285
2003	38.800	14,801	7,801	0.575	0.303
2004	36.887	14,668	7,947	0.541	0.293
2005	36.220	15,216	8,266	0.551	0.299
2006	34.454	15,785	8,399	0.544	0.289
2007	33.424	17,014	8,736	0.569	0.292
2008	31.204	18,736	9,704	0.585	0.303
2009	31.444	18,061	9,682	0.568	0.304

^{*}All development to ultimate, and place on current loss and premium levels

	Indemnity	Medical
- Current Approved Trend Factor for Rhode Island	0.990	1.000
- PY 8-point Trend Factor Based on Frequency/Severity Analysis		
(1) Frequency Trend	0.964	0.964
(2) Severity Trend	1.042	1.043
(3) Loss Ratio Trend = (1) X (2)	1.004	1.005
- Annual Trend Factor Based on Statistical Trend Analysis		
(1) Frequency Trend	0.973	0.973
(2) Severity Trend	1.029	1.035
(3) Loss Ratio Trend = (1) X (2)	1.001	1.007
Selected Annual Trend Factor	0.995	1.000



APPENDIX A-III

Policy Year Trend Factors

Section B - Derivation of Trend Factors

I. Indemnity			II. Medical	
(1) Selected	annual trend factor	0.995	(1) Selected annual trend factor	1.000
midpoint	f trend period from the of policy year 2009 to the of the effective period	3.439	(2) Length of trend period from the midpoint of policy year 2009 to the midpoint of the effective period	3.439
midpoint	f trend period from the of policy year 2008 to the of the effective period	4.439	(3) Length of trend period from the midpoint of policy year 2008 to the midpoint of the effective period	4.439
midpoint	f trend period from the of policy year 2007 to the of the effective period	5.439	(4) Length of trend period from the midpoint of policy year 2007 to the midpoint of the effective period	5.439
(5) Effect on = (1) ^ (2	Policy Year 2009)	0.983	(5) Effect on Policy Year 2009 = (1) ^ (2)	1.000
(6) Effect on = (1) ^ (3	Policy Year 2008)	0.978	(6) Effect on Policy Year 2008 = (1) ^ (3)	1.000
(7) Effect on = (1) ^ (4)	Policy Year 2007	0.973	(7) Effect on Policy Year 2007 = (1) ^ (4)	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 between policy years 2007, 2008, and 2009.

Carriers not included in experience valued as of 12/31/2010

Name of Carrier	Annual Statement Premium Written	Annual Statement Losses Incurred	% of State Premium	% of State Losses
Policy Ye	ear 2007			
No	ne	X	<i>(</i> O,	
Policy Ye	ear 2008			
No	ne			
Policy Ye	ear 2009	40)		
No	ne			
ACCI CONTIL	ential			



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.

I. INDUSTRY GROUP WAGE TREND ADJUSTMENT

	(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	105,109,457	62,293,154	167,402,611	1.079	1.001	1.000	1.000
Contracting	135,629,463	76,384,574	212,014,037	1.078	1.002	1.001	1.001
Off. & Cler.	74,782,296	48,342,208	123,124,504	1.092	0.989	0.996	0.996
Goods and Srv.	213,388,627	140,912,055	354,300,682	1.071	1.008	1.003	1.003
Miscellaneous	89,321,026	53,749,883	143,070,908	1.099	0.983	0.994	0.994
Statewide	618,230,869	381,681,874	999,912,743	1.080		1.000	

^{*}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				Current/	Current
	Converted Indicated	Standard	Standard	Latest Year Current	Five Year Current	Five Year Proposed	Proposed	Relativity
Industry Group	Balanced Losses	Premium	Premium	Expected Losses	Expected Losses	Expected Losses	(12)/(13)	(14)IG/(14)SW
Manufacturing	145,424,461	1.052	1.054	25,840,375	137,794,483	146,425,054	0.941	1.000
Contracting	183,696,204	1.088	1.089	30,709,935	168,468,277	179,118,238	0.941	1.000
Off. & Cler.	106,949,956	1.036	1.047	21,028,534	103,493,201	109,934,374	0.941	1.000
Goods and Srv.	307,328,044	0.984	0.988	61,875,419	292,670,931	310,809,593	0.942	1.001
Miscellaneous	124,000,367	1.017	1.028	24,451,838	116,499,047	123,836,070	0.941	1.000
Statewide	867,399,032			163,906,101	818,925,939	870,123,329	0.941	

III. INDUSTRY GROUP DIFFERENTIALS

	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
			C.	(O)	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	0.993	0.996	0.993	5,302	12,000	0.660	0.994	0.999	0.999
Contracting	1.026	1.029	1.027	3,849	12,000	0.570	1.014	1.019	1.019
Off. & Cler.	0.973	0.976	0.969	3,481	12,000	0.540	0.981	0.986	0.986
Goods and Srv.	0.988	0.991	0.991	13,256	12,000	1.000	0.991	0.996	0.996
Miscellaneous	1.001	1.004	0.995	3,917	12,000	0.570	0.995	1.000	1.000
Statewide	0.997		0.996				0.995		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.

Policy Period	Inde	mnity	Medical		
Toney Tenod	Likely-to-Develop	Not-Likely-to-Develop	Likely-to-Develop	Not-Likely-to-Develop	
1/04-12/04	1.055	1.018	1.178	1.010	
1/05-12/05	1.088	1.036	1.186	1.008	
1/06-12/06	1.117	1.063	1.186	1.012	
1/07-12/07	1.240	1.143	1.200	1.017	
1/08-12/08	1.798	1.430	1.327	1.017	

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
1/04-12/04	0.959	1.000
1/05-12/05	0.963	1.000
1/06-12/06	0.968	1.000
1/07-12/07	0.973	1.000
1/08-12/08	0.978	1.000

3. Factors to Adjust to the Full January 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 (T.T.)	Medical
1/04-12/04	1.024	1.022	1.039	1.023	1.000
1/05-12/05	1.020	1.019	1.038	1.020	1.000
1/06-12/06	1.017	1.017	1.038	1.017	1.000
1/07-12/07	1.011	1.012	1.037	1.011	1.000
1/08-12/08	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)
1/04-12/04	1.036	1.000	1.034	1.051	1.014	1.035	0.999	1.178	1.010
1/05-12/05	1.069	1.018	1.068	1.088	1.036	1.069	1.018	1.186	1.008
1/06-12/06	1.100	1.046	1.100	1.122	1.068	1.100	1.046	1.186	1.012
1/07-12/07	1.220	1.124	1.221	1.251	1.153	1.220	1.124	1.200	1.017
1/08-12/08	1.773	1.410	1.774	1.822	1.449	1.773	1.410	1.327	1.017

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

Section A-2 - Expected Excess Provision and Redistribution

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

Hazard Group	A	В	C	D	Е	F	G
(1) Excess Ratios	0.085	0.106	0.126	0.144	0.171	0.211	0.273
(2) Excess Factors 1/(1-(1))	1.092	1.119	1.144	1.168	1.206	1.268	1.376

ACC/ Co.

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

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*	0.996	1.029	0.976	0.991	1.004
(2) Final Differentials**	0.999	1.019	0.986	0.996	1.000
(3) Adjustment (2)/(1)	1.003	0.990	1.010	1.005	0.996

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

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		<i>(.C</i>		
	Indicated Losses to	Current Ratio of	Proposed Ratio of	Off-balance	Balancing Indicated
Policy Period	Pure Premium at	Manual to Standard	Manual to Standard	Adjustment	to Expected Losses
1 oney 1 chou	Proposed Level	Premium	Premium	(2)/(3)	(1)x(4)
1/04-12/04	0.927	1.029	1.028	1.001	0.928
1/05-12/05	0.897	1.029	1.032	0.997	0.894
1/06-12/06	0.901	1.029	1.046	0.984	0.887
1/07-12/07	0.872	1.027	1.037	0.990	0.863
1/08-12/08	0.872	1.026	1.037	0.989	0.862

3. Adjustment for Experience Change

A factor of 1.049 is applied to adjust for the experience change in the proposed loss cost level.

4. Factor to Reflect the Proposed Loss-Based Expenses

A factor of 1.187 is applied to include the proposed loss adjustment expense.

5. Secondary Conversion Factors: Indicated Pure Premiums

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

Policy Period	Manufacturing	Contracting	Office and Clerical	Goods and Services	Miscellaneous
1/04-12/04	1.159	1.144	1.167	1.161	1.151
1/05-12/05	1.117	1.102	1.124	1.119	1.109
1/06-12/06	1.108	1.093	1.116	1.110	1.100
1/07-12/07	1.078	1.064	1.085	1.080	1.070
1/08-12/08	1.077	1.063	1.084	1.079	1.069

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



<u>Section B – Calculation of Present on Rate Level Pure Premiums</u>

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.

Adjustment for Experience Change

A factor of 1.049 is applied to adjust for the experience change in the proposed loss cost level.

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	0.957	1.000
(2) Proposed Trend	0.978	1.000
(3) Change in Trend (2)/(1)	1.022	1.000

3. Factors to Adjust to the Full January 1, 2012 Benefit Level

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

Effective Date	Indemnity	Medical
September 1, 2011	1.001	1.000
January 1, 2012 (relativity adjustment to reflect full effects)	1.001	0.998
Combined Benefit Adjustment	1.002	0.998

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	1.1885	1.1885	1.187	1.187
(2) Overall Change (1b)/(1a)			0.999	0.999

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 off-balance must be applied.

	(1)	(2)	(3)
	Current Ratio of	Proposed Ratio of	Off-balance Adjustment
Industry Group	Manual to Standard Premium	Manual to Standard Premium	(1)/(2)
Manufacturing	1.052	1.054	0.998
Contracting	1.088	1.089	0.999
Office & Clerical	1.036	1.047	0.989
Goods & Services	0.984	0.988	0.996
Miscellaneous	1.017	1.028	0.989



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	0.999	1.000	0.999
Contracting	1.019	1.000	1.019
Office & Clerical	0.986	1.000	0.986
Goods & Services	0.996	1.001	0.997
Miscellaneous	1.000	1.000	1.000

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

Combined Conversion Factors

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

Industry Group	Indemnity	Medical	
Manufacturing	1.070	1.043	
Contracting	1.092	1.065	
Office & Clerical	1.046	1.020	
Goods & Services	1.066	1.039	
Miscellaneous	1.061	1.034	
	_C C		

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



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: \$15,249,315 for indemnity, and \$4,559,658 for medical.

The partial credibilities formula is:

z=[(expected losses) / (full credibility standard)]^{0.4}

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	1.0040
Contracting	1.0159
Office & Clerical	1.0114
Goods & Services	1.0045
Miscellaneous	0.9955

(2) <u>Ratios of Manual to Standard Premiums</u>

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	1.054
Contracting	1.089
Office & Clerical	1.047
Goods & Services	0.988
Miscellaneous	1.028

(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) <u>Swing Limits</u>

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 21% above to 9% below
Contracting	from 23% above to 7% below
Office & Clerical	from 20% above to 10% below
Goods & Services	from 21% above to 9% below
Miscellaneous	from 21% above to 9% 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	0170	0908	0918	1005	1699	2260	2386		1472	2002	2709	2797	2802	2960	3004	3069
2586	2587	2841	3064	3113	3179	3257	3336		3114	3131	3240	3726	3830	4130	4410	5020
3365	3373	3515	3808	3851	4282	4351	4352		5191	5221	5402	5473	5479	5703	5951	6003
4452	4686	4692	4902	5040	5102	5146	5472		6229	6854	6884	7016	7024	7047	7222	7360
5537	5551	6811	6836	7231	7380	7705	8002		7394	7395	7398	7421	7431	7453	7539	7605
8008	8046	8381	8387	8719	8824	8842	9012		8013	8015	8018	8039	8047	8111	8233	8263
9016	9156	9170	9186	9410	9521				8279	8293	8385	8500	8754	8799	8826	8901
				•					9178	9402	9505	9586				



APPENDIX B-II

Determination of Rating Values on Miscellaneous Values Page

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

ikly Wage (S.A.W.W.). Proposed Miscellaneous values are based on formulas, dependent on the S.A.W	'.VV		
, , , , , , , , , , , , , , , , , , , ,	Current	Proposed	Change
1) State Average Weekly Wage (SAWW)	\$822.48 *	\$844.94 **	2.7%
2) Average Weekly Wage	\$757.06 ***	\$844.94 **	11.6%
3) Basis of premium applicable in accordance with the <i>Basic Manual</i> footnote instructions for Code 7370 "Taxicab Co.":			
Employee operated vehicle	\$59,051 ~	\$65,900 ^	11.6%
Leased or rented vehicle	\$39,367 ~~	\$43,900 ^^	11.5%
4) Maximum Payroll applicable in accordance with the <i>Basic Manual</i> footnote instructions for Code 9178 "Athletic Sports or Park: Non-Contact Sports", and Code 9179 "Athletic Sports or Park:		>	
Contact Sports"	\$3,000 #	\$3,400 ##	13.3%
5) Maximum Payroll applicable in accordance with the <i>Basic Manual</i> footnote instructions for Code 9186 "CarnivalTraveling"	\$3,000 #	No Cap ###	
6) Maximum Payroll applicable in accordance with Basic Manual Rule 2-E-1 "Executive Officers"	\$3,300 &	\$3,400 &	3.0%
7) Minimum Payroll applicable in accordance with <i>Basic Manual</i> Rule 2-E-1 "Executive Officers"	\$800 &8	\$850 &&	6.3%
8) Per Passenger Seat Surcharge - In accordance with the <i>Basic Manual</i> 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, 2010.
- ** State Average Weekly Wage. Effective September 1, 2011.
- *** Estimate for calendar year 2009 from Current Population Survey statistics. Reflects wages capped at \$150,000.
- ~ Underlying formula is: C.P.S. x 52 x 1.5 (Rounded to the nearest \$1).
- ~~ Underlying formula is: C.P.S. x 52 (Rounded to the nearest \$1).
- ^ 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: C.P.S. x 4 (Rounded to the nearest \$100).
- ## Underlying formula is: S.A.W.W. x 4 (Rounded to the nearest \$100), Item B-1422.
- ### No cap established per 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) and Percent Premium Reductions for deductibles 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-1402.



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
01/01/04 - 12/31/04	0	0	0	1,524,446	1,845,592	103,672	816,565	830,902	1,663,712
01/01/05 - 12/31/05	68,836	0	33,646	1,456,477	3,057,308	75,867	777,256	558,899	2,098,876
01/01/06 - 12/31/06	0	0	0	1,403,127	1,418,808	94,408	532,124	550,436	1,200,541
01/01/07 - 12/31/07	0	0	0	882,251	1,096,606	118,515	692,179	582,829	1,439,274
01/01/08 - 12/31/08	0	0	0	1,014,228	1,270,375	118,983	589,736	656,374	1,618,815

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
01/01/04 - 12/31/04	1.036	1.000	1.034	1.051	1.014	1.035	0.999	1.178	1.010
01/01/05 - 12/31/05	1.069	1.018	1.068	1.088	1.036	1.069	1.018	1.186	1.008
01/01/06 - 12/31/06	1.100	1.046	1.100	1.122	1.068	1.100	1.046	1.186	1.012
01/01/07 - 12/31/07	1.220	1.124	1.221	1.251	1.153	1.220	1.124	1.200	1.017
01/01/08 - 12/31/08	1.773	1.410	1.774	1.822	1.449	1.773	1.410	1.327	1.017

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	1.144

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
01/01/04 - 12/31/04	0	0	0	1,740,336	2,032,787	116,552	886,083	1,217,722	2,076,281
01/01/05 - 12/31/05	79,930	0	39,032	1,721,278	3,440,466	88,095	859,469	860,152	2,647,238
01/01/06 - 12/31/06	0	0	0	1,710,047	1,645,937	112,803	604,593	843,090	1,508,632
01/01/07 - 12/31/07	0	0	0	1,198,858	1,373,404	157,055	845,090	871,653	1,791,484
01/01/08 - 12/31/08	0	0	0	2,007,254	1,999,487	229,146	903,224	1,114,520	2,036,523

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

	INDUSTRY GROUP:
Policy Period	Office and Clerical
01/01/04 - 12/31/04	1.167
01/01/05 - 12/31/05	1.124
01/01/06 - 12/31/06	1.116
01/01/07 - 12/31/07	1.085
01/01/08 - 12/31/08	1.084

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
01/01/04 - 12/31/04	3,678,015,153	2,166,988	3,406,321	1,421,082	2,423,020	5,573,309	3,844,102	9,417,411
01/01/05 - 12/31/05	3,949,554,757	2,167,449	4,833,127	966,811	2,975,496	7,000,576	3,942,307	10,942,883
01/01/06 - 12/31/06	4,147,943,144	2,034,301	2,511,591	940,888	1,683,633	4,545,892	2,624,521	7,170,413
01/01/07 - 12/31/07	4,484,943,107	1,471,166	2,407,066	945,744	1,943,760	3,878,232	2,889,504	6,767,736
01/01/08 - 12/31/08	4,593,629,943	2,424,258	3,146,539	1,208,140	2,207,591	5,570,797	3,415,731	8,986,528
Total	20,854,086,104	10,264,162	16,304,644	5,482,665	11,233,500	26,568,806	16,716,165	43,284,971
	_	INDICATED PURE PREMIUM					0.080	0.21

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	0.121	0.079	0.20
Conversion Factors (App. B-I, section B)	1.046	1.020	XXX
PURE PREMIUMS PRESENT ON RATE LEVEL			
(Underlying Pure Premiums) x (Conversion Factor)	0.127	0.081	0.21



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:

		<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1.	Indicated Pure Premium	0.127	0.080	0.21
2.	Pure Premium Indicated by National Relativity	0.102	0.072	0.17
3.	Pure Premium Present on Rate Level	0.127	0.081	0.21
4.	State Credibilities	100%	100%	xxx
5.	National Credibilities	0%	0%	xxx
6.	Residual Credibilities = 100% - (4) - (5)	0%	0%	xxx
7.	Derived by Formula Pure Premiums = $(1) \times (4) + (2) \times (5) + (3) \times (6)$	0.127	0.080	0.21
8.	Test Correction Factor	1.0114	1.0114	xxx
9.	Underlying Pure Premiums = (7) x (8) *	0.129	0.081	0.21
10.	Ratio of Manual to Standard Premium			1.047
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 = 0.21 x 0.900 = 0.19 b) Upper bound = 0.21 x 1.200 = 0.25			
13.	Pure Premiums Underlying Proposed Loss Cost* = ((13TOT) / (9TOT)) x (9) , (13TOT) = (12) / (10)	0.129	0.081	0.21
14.	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 -7.7%.

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 full January 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.)	
1/04 - 12/04	1.024	1.022	1.039	1.023	1.000
1/05 - 12/05	1.020	1.019	1.038	1.020	1.000
1/06 - 12/06	1.017	1.017	1.038	1.017	1.000
1/07 - 12/07	1.011	1.012	1.037	1.011	1.000
1/08 - 12/08	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.)	
1/04 - 12/04	1.049	1.029	1.006	1.029	1.000
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

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 0.995 and 1.000 for indemnity and medical, respectively.

Policy Period	Indemnity	Medical
1/04 - 12/04	0.959	1.000
1/05 - 12/05	0.963	1.000
1/06 - 12/06	0.968	1.000
1/07 - 12/07	0.973	1.000
1/08 - 12/08	0.978	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	
1/04 - 12/04	1.126	1.016	1.362	1.056	
1/05 - 12/05	1.152	1.028	1.422	1.048	
1/06 - 12/06	1.266	1.099	1.489	1.048	
1/07 - 12/07	1.542	1.230	1.595	1.079	
1/08 - 12/08	2.611	1.595	1.793	1.134	

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

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)
1/04 - 12/04	1.106	0.998	1.104	1.122	1.012	1.105	0.997	1.362	1.056
1/05 - 12/05	1.132	1.010	1.130	1.152	1.028	1.132	1.010	1.422	1.048
1/06 - 12/06	1.246	1.082	1.246	1.272	1.104	1.246	1.082	1.489	1.048
1/07 - 12/07	1.517	1.210	1.518	1.556	1.241	1.517	1.210	1.595	1.079
1/08 - 12/08	2.574	1.572	2.577	2.645	1.616	2.574	1.572	1.793	1.134

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)
1/04 - 12/04	1.133	1.022	1.111	1.086	0.980	1.111	1.003	1.362	1.056
1/05 - 12/05	1.158	1.034	1.138	1.116	0.996	1.138	1.016	1.422	1.048
1/06 - 12/06	1.273	1.105	1.255	1.232	1.069	1.255	1.089	1.489	1.048
1/07 - 12/07	1.547	1.234	1.530	1.506	1.202	1.530	1.221	1.595	1.079
1/08 - 12/08	2.607	1.593	2.589	2.561	1.565	2.589	1.582	1.793	1.134

^{*} 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	A	В	С	D	Е	F	G
(1) Excess Ratios	0.085	0.106	0.126	0.144	0.171	0.211	0.273
(2) Excess Factors 1/(1-(1))	1.092	1.119	1.144	1.168	1.206	1.268	1.376

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-base expenses by policy period.

Policy Period	State Act	Federal Act
1/04 - 12/04	1.187	1.187
1/05 - 12/05	1.187	1.255
1/06 - 12/06	1.187	1.187
1/07 - 12/07	1.187	1.280
1/08 - 12/08	1.187	1.286

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



B – Present On Rate Level

Benefits

The current underlying pure premiums are at the prorated January 1, 2012 state and October 1, 2010 federal law levels. These pure premiums are adjusted to reflect the weighted effect of state and federal laws which bring losses to the full January 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%)	0.090
Federal Weight (Fed%)	0.910

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

 $\frac{2}{2}$ Trend Since the trend in the current underlying pure premiums is adequate for the current rating year, additional trend is applied to bring the underlyings to the proposed rating year.

Indemnity	Medical
0.995	1.000

<u>B – Present On Rate Level (continued)</u>

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	1.187	1.187	1.187
(b) Loss-based Assessment	1.000	1.000	1.000
(c) Total = $(a) + (b) - 1$	1.187	1.187	1.187

FEDERAL ACT

	Indemnity	Medical	Total
(d) Loss Adjustment Expense	1.187	1.187	1.187
(e) Loss-based Assessment	1.186	1.000	1.067
(f) Total = (d) + (e) - 1	1.373	1.187	1.254

	Indemnity	Medical	Total
(g) Weighted Proposed Expenses = [(c) x St%] + [(f) x Fed%]	1.356	1.187	1.248

Current:

STAT

	Indemnity	Medical	Total
(h) Loss Adjustment Expense	1.1885	1.1885	1.189
(i) Loss-based Assessment	1.000	1.000	1.000
(j) $Total = (h) + (i) - 1$	1.1885	1.1885	1.189

FEDERAL

, 0	Indemnity	Medical	Total
(k) Loss Adjustment Expense	1.1885	1.1885	1.189
(1) Loss-based Assessment	1.200	1.000	1.104
(m) Total = $(k) + (l) - 1$	1.389	1.189	1.293

	Indemnity	Medical	Total
(n) Weighted Current Expenses = [(j) x St%] + [(m) x Fed%]	1.371	1.189	1.283

Change:

	Indemnity	Medical	Total
Weighted Expense Change in Loss Base Expenses = $[(g) / (n)]$	0.989	0.998	0.973

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

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

Indemnity	Medical
0.987	0.998



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: \$53,115,650 for indemnity, and \$23,848,800 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

1.026

(Selected based on Rhode Island off-balance analysis)

C. Swing Limits

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

List of	Classifications	Limited	by	Upper	Swing:
			_		

<u>List of Classifications Limited by Lower Swing:</u>

7327 8709



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
01/01/04 - 12/31/04	0	0	0	18,575	248,661	0	31,128	5,034	116,826
01/01/05 - 12/31/05	0	0	0	0	75,783	1,800	49,361	36,240	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	71,410	0	72,121	0	97,288
01/01/08 - 12/31/08	0	0	0	0	0	0	10,453	0	34,797

FEDERAL ACT - LIMITED LOSSES (Workers Compensation Statistical Plan)

Dalian Daria d	Fatal	Fatal	Permanent	Permanent Partial	Permanent Partial	Temporary Total	Temporary Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/04 - 12/31/04	0	0	0	0	0	0	0	0	0
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

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
01/01/04 - 12/31/04	1.106	0.998	1.104	1.122	1.012	1.105	0.997	1.362	1.056
01/01/05 - 12/31/05	1.132	1.010	1.130	1.152	1.028	1.132	1.010	1.422	1.048
01/01/06 - 12/31/06	1.246	1.082	1.246	1.272	1.104	1.246	1.082	1.489	1.048
01/01/07 - 12/31/07	1.517	1.210	1.518	1.556	1.241	1.517	1.210	1.595	1.079
01/01/08 - 12/31/08	2.574	1.572	2.577	2.645	1.616	2.574	1.572	1.793	1.134

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
01/01/04 - 12/31/04	1.133	1.022	1.111	1.086	0.980	1.111	1.003	1.362	1.056
01/01/05 - 12/31/05	1.158	1.034	1.138	1.116	0.996	1.138	1.016	1.422	1.048
01/01/06 - 12/31/06	1.273	1.105	1.255	1.232	1.069	1.255	1.089	1.489	1.048
01/01/07 - 12/31/07	1.547	1.234	1.530	1.506	1.202	1.530	1.221	1.595	1.079
01/01/08 - 12/31/08	2.607	1.593	2.589	2.561	1.565	2.589	1.582	1.793	1.134



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	1.268

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
01/01/04 - 12/31/04	0	0	0	24,187	292,051	0	36,018	10,922	186,642
01/01/05 - 12/31/05	0	0	0	0	90,414	2,365	57,860	65,542	91,317
01/01/06 - 12/31/06	0	0	0	1,612	0	0	42,827	0	37,368
01/01/07 - 12/31/07	0	0	0	0	102,850	0	101,278	0	151,894
01/01/08 - 12/31/08	0	0	0	0	0	0	19,070	0	51,779

FEDERAL 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
01/01/04 - 12/31/04	0	0	0	0	0	0	0	0	0
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

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

	INDUSTRY GROUP:
Policy Period	F-Class
01/01/04 - 12/31/04	1.187
01/01/05 - 12/31/05	1.187
01/01/06 - 12/31/06	1.187
01/01/07 - 12/31/07	1.187
01/01/08 - 12/31/08	1.187

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

	INDUSTRY GROUP:
Policy Period	F-Class
01/01/04 - 12/31/04	1.187
01/01/05 - 12/31/05	1.255
01/01/06 - 12/31/06	1.187
01/01/07 - 12/31/07	1.280
01/01/08 - 12/31/08	1.286



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
01/01/04 - 12/31/04	5,511,425	28,710	389,418	12,964	221,544	418,128	234,508	652,636
01/01/05 - 12/31/05	5,423,225	2,807	176,001	77,798	108,393	178,808	186,191	364,999
01/01/06 - 12/31/06	4,310,984	1,913	50,836	0	44,356	52,749	44,356	97,105
01/01/07 - 12/31/07	3,737,550	0	242,300	0	180,298	242,300	180,298	422,598
01/01/08 - 12/31/08	4,214,237	0	22,636	0	61,462	22,636	61,462	84,098
Total	23,197,421	33,430	881,191	90,762	616,053	914,621	706,815	1,621,436
		INDICATED PURE PREMIUM				3.943	3.047	6.99

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	3.935	4.255	8.19
Conversion Factors (Section B)	0.987	0.998	XXX
PURE PREMIUMS PRESENT ON RATE LEVEL			
(Underlying Pure Premiums) x (Conversion Factor)	3.884	4.246	8.13
ACCI CONFIDER			



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:

		<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1.	Indicated Pure Premium	3.943	3.047	6.99
2.	Pure Premium Indicated by National Relativity	3.806	4.925	8.73
3.	Pure Premium Present on Rate Level	3.884	4.246	8.13
4.	State Credibilities	20%	28%	xxx
5.	National Credibilities	40%	36%	xxx
6.	Residual Credibilities = 100% - (4) - (5)	40%	36%	xxx
7.	Derived by Formula Pure Premiums = (1) x (4) + (2) x (5) + (3) x (6)	3.865	4.155	8.02
8.	Test Correction Factor	1.0000	1.0000	xxx
9.	Underlying Pure Premiums = (7) x (8) *	3.865	4.155	8.02
10.	Ratio of Manual to Standard Premium			1.026
11.	Loss Cost = (9) x (10)			8.23
12.	Loss Cost Within Swing Limits			8.23
	Current Loss Cost x Swing Limits a) Lower bound = 8.42 x 0.850 = 7.16 b) Upper bound = 8.42 x 1.150 = 9.68			
13.	Pure Premiums Underlying Proposed Loss Cost* = ((13TOT) / (9TOT)) x (9) , (13TOT) = (12) / (10)	3.865	4.155	8.02
14.	Disease, Catastrophe and/or Miscellaneous Loadings			0.00
15.	Final Loaded Loss Cost			8.23

^{*} 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 09/01/2011

Type of Injury	Percentage Losses (a)	Effect (%)
Fatal	0.7%	0.3
Permanent Total	5.2%	0.2
Permanent Partial	49.0%	0.1
Temporary Total	10.1%	0.3
Indemnity	65.0%	0.1 (b)
Medical	35.0%	0.0
Total	100.0%	0.1 (b)

- (a) Indemnity/Medical split based on policy year financial data projected to 09/01/2011. Proportions within indemnity based on the 24 month period ending 12/31/2007 on the 9/1/2010 law level and developed to an ultimate basis by type of injury.
- (b) Weighted average.



APPENDIX C-II

U.S. LONGSHORE AND HARBOR WORKERS' COMPENSATION ACT LAW MEMO

Impact By Type of Injury Due to the Increase in the Minimum and Maximum Weekly Benefit, Effective 10/01/2011

Type of Injury	Percentage of Losses *	Effect (%)
Fatal	4.3%	+ 0.6
Permanent Total	12.1%	+ 0.5
Permanent Partial	29.0%	+ 0.2
Temporary Total	3.6%	+ 0.5
Total Indemnity	49.0%	+ 0.3 **
Medical	51.0%	0.0
Total	100.0%	+ 0.1 **

^{*} Nationwide losses under Longshore and Harbor Workers' Act for the three-year policy period ending 12/31/2007 on the 10/01/2010 law level and developed to an ultimate report by type of injury.

^{**} Weighted-average.



Rhode Island

Appendix C-III

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 2011 * 123,000,000

2.) Compensation Payments Reported (on indemnity only) in 2010 * 660,886,505

3.) Assessment Rate on Indemnity Losses (1) / (2) 18.6%

Breakdown of Losses Under the Longshore and Harbor Workers Act

4.) Indemnity Losses (Combination of 1st through 3rd reports) # 42,966,699

5.) Medical Losses (Combination of 1st through 3rd reports) # 76,379,126

6.) Total Losses (4) + (5) 119,345,825

7.) Assessment Rate on Total Losses { (3) x (4) } / (6) 6.7%

* Source: U.S. Department of Labor

Source: NCCI Workers Compensation Statistical Plan data