### DELAWARE COMPENSATION RATING BUREAU, INC.

## Indicated Residual Market Rate Change

Page 1 presents the overall indicated changes in rates and loss costs.

Derivation of the indemnity and medical trend factors and trended loss ratios shown on page 1 is presented on pages 2 and 3.

Page 4 shows the derivation of overall frequency trend factors for each of the latest four policy years.

Due to the impact of Senate Bill 1 and consistent with an adjustment to medical severity trend that was a part of the compromise reached with the Insurance Department for the 2009 Filing, medical severity trend is separated between pre-Senate Bill 1 and post-Senate Bill 1 trends. The difference between the two trend rates is a reduction of 1.5 points in medical trend attributed in the resolution of the 2009 filing to effects of the implementation of a medical fee schedule which was substantially operational beginning 9/1/2008. The original adjustment to medical trend was a reduction of 1.8 points; however, certain provisions of Senate Bill 1 were not able to be implemented as initially intended, reducing the estimated impact to 1.5 points as noted above. Senate Bill 238 corrected for those unimplemented provisions of Senate Bill 1 and restored the adjustment to medical trend to a 1.8 point reduction effective January 31, 2013. After June 27, 2013, the difference is a reduction of 2.2 points due to the combined impacts of Senate Bill 238 and House Bill 175.

In addition, staff is also taking into account the impact of direct savings attributable to Senate Bill 238, House Bill 175 and House Bill 373.

## INDICATED CHANGE IN RATE LEVEL

(1a) (1b) (1c) (1d) (1e)	Policy Year 2009 Loss and Loss Adjustment Expense Ratio Policy Year 2010 Loss and Loss Adjustment Expense Ratio Policy Year 2011 Loss and Loss Adjustment Expense Ratio Policy Year 2012 Loss and Loss Adjustment Expense Ratio Average (Midpoint = 7/1/2011)	Indemnity 0.2454 0.2502 0.2747 0.2609 0.2578	Medical 0.4659 0.5831 0.6079 0.5740 0.5577	Total 0.7113 0.8333 0.8826 0.8349 0.8155
(2a) (2b) (2c) (2d) (2e)	Policy Year 2009 Loss and LAE Ratio Trended to 12/1/2015 Policy Year 2010 Loss and LAE Ratio Trended to 12/1/2015 Policy Year 2011 Loss and LAE Ratio Trended to 12/1/2015 Policy Year 2012 Loss and LAE Ratio Trended to 12/1/2015 Average at 12/1/2015	0.2285 0.2358 0.2620 0.2518 0.2445	0.6019 0.7195 0.7163 0.6459 0.6709	0.9154
(3ai) (3aii) (3aiii) (3aiv) (3a)	Senate Bill 1 Adjustment Senate Bill 238 Adjustment House Bill 175 Adjustment House Bill 373 Adjustment Combined Legislative Adjustment	1.0000 1.0000 1.0000 1.0000 1.0000	0.8260 0.9958 0.9258 0.6755 0.5144	
(3b)	Average Trended Loss and LAE Ratio Post-Legislation (2e)*(3a)	0.2445	0.3451	0.5896
(4a) (4b)	Excess Loss Factor at \$1,441,569 (Post-Legislative Basis) * Provision for Excess Loss (5a)-(3b)			0.1290 0.0873
(5a) (5b)	Total Trended Loss and LAE Ratio (3b)/(1.0-(4a)) Percentage of Total	0.2557 37.78%	0.4212 62.22%	0.6769
(6)	Permissible Loss and Loss Adjustment Ratio			0.6871
(7)	Indicated Change in Rates (5a) / (6)			0.9852
(8)	Estimated Effect of the 7/1/15 Benefit Change			0.9992
(9)	Indicated Change in Residual Market Rate Level (7) * (8)			0.9844
(10)	Indicated Change in Voluntary Market Loss Costs (9) * [0.7095 / 0.7239]			0.9648

# CHANGES IN MANUAL PREMIUM LEVEL BY INDUSTRY GROUP

	Mfg.	Cont.	Other	Total
Current Collectible Premium Ratio Proposed Collectible Premium Ratio Change in Collectible Premium Ratio (12) / (11)	0.9171 0.9796 1.0681	0.9579 0.9943 1.0380	0.8393 0.8568 1.0209	1.0307
Change in Residual Market Manual Rate Level (9) * (13)	1.0514	1.0218	1.0050	1.0146
Change in Voluntary Market Manual Loss Cost Level (10) * (13)	1.0305	1.0015	0.9850	0.9944
Current Offset for Residual Market Surcharge Proposed Offset for Residual Market Surcharge				0.9902 0.9833
Adjusted Change in Voluntary Market Manual Loss Cost Level (15) * (17)/(16)	1.0233	0.9945	0.9781	0.9875
	Proposed Collectible Premium Ratio Change in Collectible Premium Ratio (12) / (11)  Change in Residual Market Manual Rate Level (9) * (13)  Change in Voluntary Market Manual Loss Cost Level (10) * (13)  Current Offset for Residual Market Surcharge Proposed Offset for Residual Market Surcharge  Adjusted Change in Voluntary Market Manual Loss Cost Level	Proposed Collectible Premium Ratio Change in Collectible Premium Ratio (12) / (11)  Change in Residual Market Manual Rate Level (9) * (13)  Change in Voluntary Market Manual Loss Cost Level (10) * (13)  1.0305  Current Offset for Residual Market Surcharge Proposed Offset for Residual Market Surcharge  Adjusted Change in Voluntary Market Manual Loss Cost Level  1.0233	Current Collectible Premium Ratio Proposed Collectible Premium Ratio Change in Collectible Premium Ratio (12) / (11)  Change in Residual Market Manual Rate Level (9) * (13)  Change in Voluntary Market Manual Loss Cost Level (10) * (13)  Current Offset for Residual Market Surcharge Proposed Offset for Residual Market Surcharge Adjusted Change in Voluntary Market Manual Loss Cost Level  1.0233  0.9945	Current Collectible Premium Ratio Proposed Collectible Premium Ratio Change in Collectible Premium Ratio (12) / (11)  Change in Residual Market Manual Rate Level (9) * (13)  Change in Voluntary Market Manual Loss Cost Level (10) * (13)  Current Offset for Residual Market Surcharge Proposed Offset for Residual Market Surcharge Adjusted Change in Voluntary Market Manual Loss Cost Level  1.0233  0.9945  0.8393  0.9943  0.8568  1.0209  1.0218  1.0218  1.0218  1.0218  1.0218  0.9850

<sup>\* \$2,830,000</sup> on a Pre-Legislative basis.

# **DETERMINATION OF TREND**

# INDEMNITY

Policy Year		2006	2007	2008	2009	2010	2011	2012
Actual Loss Ratio		0.2659	0.2599	0.2301	0.2454	0.2502	0.2747	0.2609
Normalized Frequency		0.6271	0.5829	0.5177	0.5143	0.5143	0.4837	0.4409
Severity Loss Ratio		0.4240	0.4459	0.4445	0.4772	0.4865	0.5679	0.5917
	x	1	2	3	4	5	6	7
	У	0.4240	0.4459	0.4445	0.4772	0.4865	0.5679	0.5917

7 Point Exponential Regression: y = 0.389448 * 1.057816 ^ x								
	Selected Annual Trend Fact	or to 12/1/15	5.8%					
Policy Year	Annual Trend (1)	Trend Period # Years (2)	Severity Trend Factor (3) = (1)^(2)	Frequency Trend Factor (4) #				
2009 2010 2011 2012	1.0578 1.0578 1.0578 1.0578	5.9167 4.9167 3.9167 2.9167	1.3944 1.3182 1.2462 1.1781	0.6676 0.7148 0.7653 0.8194				
Trended Loss Ratio								
Policy Year	Actual Loss Ratio (5)	Combined Trend Factor (6) = (3)*(4)	Trended Loss Ratio (7) = (5)*(6)					
2009 2010 2011 2012	0.2454 0.2502 0.2747 0.2609	0.9309 0.9422 0.9537 0.9653	0.2285 0.2358 0.2620 0.2518					
Average			0.2445					

<sup>#</sup> See Page 12.4 for column (4).

### **DETERMINATION OF TREND**

### **MEDICAL**

Policy Year Actual Loss Ratio Normalized Frequency Severity Loss Ratio

	2006	2007	2008	2009	2010	2011	2012
	0.3935	0.4332	0.4204	0.4659	0.5831	0.6079	0.5740
	0.6271	0.5829	0.5177	0.5143	0.5143	0.4837	0.4409
	0.6275	0.7432	0.8121	0.9059	1.1338	1.2568	1.3019
x	1	2	3	4	5	6	7
v	0.6275	0.7432	0.8121	0.9059	1.1338	1.2568	1.3019

7 Point Exponential Regression: y = 0.562647 \* 1.136144463 ^ x

Selected Annual Trend Factor to 9/1/08 =	13.6%
Legislative Adjustments to Annual Severity Trend	
From 9/1/08 to 1/31/13 (SB1) =	-1.5%
From 1/31/13 to 6/27/13 (SB1, SB238) =	-1.8%
6/27/13 and later (SB1, SB238, HB175) =	-2.2%
Selected Annual Trend Factor	
From 9/1/08 to 1/31/13 (SB1) =	12.1%
From 1/31/13 to 6/27/13 (SB1, SB238) =	11.8%
6/27/13 and later (SB1, SB238, HB175) =	11.4%

Policy Year	Annual Trend Factor to 1/31/13 (1)	Trend Period # Years (2)	Severity Trend Factor to 1/31/13 (3) = (1)^(2)	Annual Trend Factor From 1/31/13 to 6/27/13 (4)	Trend Period # Years (5)	Severity Trend Factor 1/31/13 to 6/27/13 (6) = (4)^(5)	Annual Trend Factor From 6/27/13 to 12/1/15 (7)
2009	1.121	3.0833	1.4227	1.118	0.4046	1.0462	1.114
2010	1.121	2.0833	1.2690	1.118	0.4046	1.0462	1.114
2011	1.121	1.0833	1.1319	1.118	0.4046	1.0462	1.114
2012	1.121	0.0833	1.0096	1.118	0.4046	1.0462	1.114
		Severity Trend Factor			Combined		
Policy	Trend Period	6/27/13 to	Frequency	Actual Loss	Trend Factor	Trended	
Year	# Years	12/1/15	Trend Factor	Ratio	(12) =	Loss Ratio	
	(8)	(9) = (7)^(8)	(10) #	(11)	(3)*(6)*(9)*(10)		
2009	2.4288	1.3002	0.6676	0.4659	1.2920	0.6019	
2010	2.4288	1.3002	0.7148	0.5831	1.2339	0.7195	
2011	2.4288	1.3002	0.7653	0.6079	1.1783	0.7163	
2012	2.4288	1.3002	0.8194	0.5740	1.1253	0.6459	
Average						0.6709	

<sup>#</sup> See Page 12.4 for column (10).

## **DETERMINATION OF TREND**

### **Claim Frequency**

Policy Year Frequency per \$1 million of Expected Losses

	Dollov		Claim		Normalizad		Adjusted
	Policy		Claim		Normalized		Normalized
	Year		Frequency		Frequency		Frequency
	2000		14.72		1.0000		
	2001		12.84		0.8723		
	2002		13.01		0.8838		
	2002		12.45		0.8458		
	2003		10.96		0.7446		
	2004		9.81		0.6665		
	2005		9.23		0.6271		
	2007		8.58		0.5829		
	2008		7.62		0.5177		
	2009		7.57		0.5143		
	2010		7.57		0.5143		
	2011		7.12		0.4837		0.4869 *
	2012		6.49		0.4409		0.4438 *
Policy Year	2006	2007	2008	2009	2010	2011	2012
x	1	2	3	4	5	6	7
у	0.6271	0.5829	0.5177	0.5143	0.5143	0.4837	0.4409

7 Point (2006 - 2012) Exponential Regression: **y** = 0.641895 \* 0.94998839 ^ **x** 

Frequency Trend Factor

-5.0%

Policy Year	2004	2005	2006	2007	2008	2011	2012
x	1	2	3	4	5	6	7
у	0.7446	0.6665	0.6271	0.5829	0.5177	0.4869 *	0.4438 *

7 Point (2004 - 2008; 2011 - 2012) Exponential Regression: **y** = 0.804199311 \* 0.918771725 ^ **x** 

Frequency Trend Factor

-8.1%

Selected Frequency Trend Factor (Average of -5.0% and -8.1%)

-6.6%

Policy Year	Frequency Trend Factor (1)	# of Years to 12/1/14 (2)	Frequency Trend to 12/1/14 (3) = (1) ^ (2)
2009	0.9340	5.9167	0.6676
2010	0.9340	4.9167	0.7148
2011	0.9340	3.9167	0.7653
2012	0.9340	2.9167	0.8194

<sup>\*</sup> Policy Years 2011 and 2012 normalized frequencies have been adjusted to account for the removal of Policy Years 2009 and 2010 from the trend calculation.