

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.

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.

**EXHIBIT I**

**INDICATED CHANGE IN RATE LEVEL**

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
<b>(1a)</b> Policy Year 2010 Loss and Loss Adjustment Expense Ratio	0.2722	0.6113	0.8835
<b>(1b)</b> Policy Year 2011 Loss and Loss Adjustment Expense Ratio	0.2825	0.6318	0.9143
<b>(1c)</b> Policy Year 2012 Loss and Loss Adjustment Expense Ratio	0.2816	0.5944	0.8760
<b>(1d)</b> Policy Year 2013 Loss and Loss Adjustment Expense Ratio	0.3487	0.6549	1.0036
<b>(1e)</b> Average (Midpoint = 7/1/2012)	0.2963	0.6231	0.9194
<b>(2a)</b> Policy Year 2010 Loss and LAE Ratio Trended to 12/1/2016	0.3051	0.7425	
<b>(2b)</b> Policy Year 2011 Loss and LAE Ratio Trended to 12/1/2016	0.3106	0.7414	
<b>(2c)</b> Policy Year 2012 Loss and LAE Ratio Trended to 12/1/2016	0.3037	0.6737	
<b>(2d)</b> Policy Year 2013 Loss and LAE Ratio Trended to 12/1/2016	0.3689	0.7188	
<b>(2e)</b> Average at 12/1/2016	0.3221	0.7191	1.0412
<b>(3ai)</b> Senate Bill 1 Adjustment	1.0000	0.8260	
<b>(3aii)</b> Senate Bill 238 Adjustment	1.0000	0.9958	
<b>(3aiii)</b> House Bill 175 Adjustment	1.0000	0.9397	
<b>(3aiv)</b> House Bill 373 Adjustment	1.0000	0.6707	
<b>(3a)</b> Combined Legislative Adjustment	1.0000	0.5184	
<b>(3b)</b> Average Trended Loss and LAE Ratio Post-Legislation (2e)*(3a)	0.3221	0.3728	0.6949
<b>(4a)</b> Excess Loss Factor at \$1,632,672 (Post-Legislative Basis) *			0.1155
<b>(4b)</b> Provision for Excess Loss (5a)-(3b)			0.0907
<b>(5a)</b> Total Trended Loss and LAE Ratio (3b)/(1.0-(4a))	0.3339	0.4517	0.7856
<b>(5b)</b> Percentage of Total	42.50%	57.50%	
<b>(6)</b> Permissible Loss and Loss Adjustment Ratio			0.6880
<b>(7)</b> Indicated Change in Rates (5a) / (6)			1.1419
<b>(8)</b> Estimated Effect of the 7/1/16 Benefit Change			1.0064
<b>(9)</b> Indicated Change in Residual Market Rate Level (7) * (8)			1.1492
<b>(9a)</b> Factor to Adjust for Compromise With Insurance Department			0.93189
<b>(9b)</b> Change in Residual Market Rate Level to Reflect Compromise (9) * (9a)			1.0709
<b>(10)</b> Indicated Change in Voluntary Market Loss Costs (9) * [0.7102 / 0.7095]			1.1503
<b>(10a)</b> Factor to Adjust for Compromise With Insurance Department			0.93189
<b>(10b)</b> Change in Voluntary Market Loss Cost Level to Reflect Compromise (9) * (9a)			1.0720

**CHANGES IN MANUAL PREMIUM LEVEL BY INDUSTRY GROUP**

	<b>Mfg.</b>	<b>Cont.</b>	<b>Other</b>	<b>Total</b>
<b>(11)</b> Current Collectible Premium Ratio	0.9796	0.9943	0.8568	
<b>(12)</b> Proposed Collectible Premium Ratio	1.0186	1.0230	0.8965	
<b>(13)</b> Change in Collectible Premium Ratio (12) / (11)	1.0398	1.0289	1.0463	1.0421
<b>(14)</b> Change in Residual Market Manual Rate Level (9b) * (13)	1.1135	1.1018	1.1205	1.1160
<b>(15)</b> Change in Voluntary Market Manual Loss Cost Level (10b) * (13)	1.1147	1.1030	1.1216	1.1171
<b>(16)</b> Current Offset for Residual Market Surcharge				0.9833
<b>(17)</b> Proposed Offset for Residual Market Surcharge				0.9883
<b>(18)</b> Adjusted Change in Voluntary Market Manual Loss Cost Level (15) * (17)/(16)	1.1204	1.1086	1.1273	1.1228

\* \$3,180,000 on a Pre-Legislative basis.

**DETERMINATION OF TREND**

**INDEMNITY**

Policy Year	2007	2008	2009	2010	2011	2012	2013
Actual Loss Ratio	0.2792	0.2432	0.2758	0.2722	0.2825	0.2816	0.3487
Normalized Frequency	0.6682	0.5940	0.5918	0.5925	0.5583	0.5023	0.5314
Severity Loss Ratio	0.4178	0.4094	0.4660	0.4594	0.5060	0.5606	0.6562
<b>x</b>	1	2	3	4	5	6	7
<b>y</b>	0.4178	0.4094	0.4660	0.4594	0.5060	0.5606	0.6562

**7 Point Exponential Regression:  $y = 0.365061 * 1.076552 ^ x$**

**Selected Annual Trend Factor to 12/1/16**

**7.7%**

Policy Year	Annual Trend (1)	Trend Period # Years (2)	Severity Trend Factor (3) = (1)^(2)	Frequency Trend Factor (4) #
2010	1.0766	5.9167	1.5476	0.7245
2011	1.0766	4.9167	1.4375	0.7651
2012	1.0766	3.9167	1.3352	0.8079
2013	1.0766	2.9167	1.2402	0.8531

**Trended Loss Ratio**

Policy Year	Actual Loss Ratio (5)	Combined Trend Factor (6) = (3)*(4)	Trended Loss Ratio (7) = (5)*(6)
2010	0.2722	1.1212	0.3051
2011	0.2825	1.0998	0.3106
2012	0.2816	1.0787	0.3037
2013	0.3487	1.0580	0.3689
Average			0.3221

# See Page 12.4 for column (4).

**DETERMINATION OF TREND**

**MEDICAL**

Policy Year	2007	2008	2009	2010	2011	2012	2013
Actual Loss Ratio	0.4576	0.4574	0.5191	0.6113	0.6318	0.5944	0.6549
Normalized Frequency	0.6682	0.5940	0.5918	0.5925	0.5583	0.5023	0.5314
Severity Loss Ratio	0.6848	0.7700	0.8772	1.0317	1.1316	1.1834	1.2324
<b>x</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>y</b>	0.6848	0.7700	0.8772	1.0317	1.1316	1.1834	1.2324

**7 Point Exponential Regression:  $y = 0.640701 * 1.108229345 ^ x$**

**Selected Annual Trend Factor to 9/1/08 =** **10.8%**

**Legislative Adjustments to Annual Severity Trend**  
**From 9/1/08 to 1/31/13 (SB1) =** **-1.5%**  
**From 1/31/13 and later (SB1, SB238) =** **-1.8%**

**Selected Annual Trend Factor**  
**From 9/1/08 to 1/31/13 (SB1) =** **9.3%**  
**From 1/31/13 and later (SB1, SB238) =** **9.0%**

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 12/1/16 (4)	Trend Period # Years (5)	Severity Trend Factor 1/31/13 to 12/1/2016 (6) = (4)^(5)	Frequency Trend Factor (7) #
2010	1.093	2.0833	1.2040	1.090	3.8334	1.3925	0.7245
2011	1.093	1.0833	1.1014	1.090	3.8334	1.3925	0.7651
2012	1.093	0.0833	1.0075	1.090	3.8334	1.3925	0.8079
2013	1.093	0.0000	1.0000	1.090	2.9167	1.2865	0.8531

Policy Year	Actual Loss Ratio (8)	Combined Trend Factor (9) = (3)*(6)*(7)	Trended Loss Ratio (10) = (8)*(9)
2010	0.6113	1.2147	0.7425
2011	0.6318	1.1734	0.7414
2012	0.5944	1.1334	0.6737
2013	0.6549	1.0975	0.7188
Average			0.7191

# See Page 12.4 for column (7).

## DETERMINATION OF TREND

### Claim Frequency

Policy Year Frequency per \$1 million of Expected Losses

Policy Year	Claim Frequency	Normalized Frequency	Adjusted Normalized Frequency
2001	13.74	1.0000	
2002	13.92	1.0131	
2003	13.32	0.9694	
2004	11.73	0.8537	
2005	10.49	0.7635	
2006	9.88	0.7191	
2007	9.18	0.6682	
2008	8.16	0.5940	
2009	8.13	0.5918	
2010	8.14	0.5925	
2011	7.67	0.5583	0.5597 *
2012	6.90	0.5023	0.5036 *
2013	7.30	0.5314	0.5328 *

Policy Year	2007	2008	2009	2010	2011	2012	2013
<b>x</b>	1	2	3	4	5	6	7
<b>y</b>	0.6682	0.5940	0.5918	0.5925	0.5583	0.5023	0.5314

7 Point (2007 - 2013) Exponential Regression:  $y = 0.670815 * 0.962133654^x$

Frequency Trend Factor      **-3.8%**

Policy Year	2005	2006	2007	2008	2011	2012	2013
<b>x</b>	1	2	3	4	5	6	7
<b>y</b>	0.7635	0.7191	0.6682	0.5940	0.5597 *	0.5036 *	0.5328 *

7 Point (2005 - 2008; 2011 - 2013) Exponential Regression:  $y = 0.812828 * 0.9320967^x$

Frequency Trend Factor      **-6.8%**

**Selected Frequency Trend Factor** (Average of -3.8% and -6.8%)      **-5.3%**

Policy Year	Frequency Trend Factor (1)	# of Years to 12/1/15 (2)	Frequency Trend to 12/1/15 (3) = (1) ^ (2)
2010	0.9470	5.9167	0.7245
2011	0.9470	4.9167	0.7651
2012	0.9470	3.9167	0.8079
2013	0.9470	2.9167	0.8531

\* Policy Years 2011, 2012 and 2013 normalized frequencies have been adjusted to account for the removal of Policy Years 2009 and 2010 from the trend calculation.