

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.

Staff is taking into account the impact of direct savings attributable to House Bill 373.

**INDICATED CHANGE IN RATE LEVEL**

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(1a) Policy Year 2013 Loss and Loss Adjustment Expense Ratio	0.3169	0.5402	0.8571
(1b) Policy Year 2014 Loss and Loss Adjustment Expense Ratio	0.2668	0.4680	0.7348
(1c) Policy Year 2015 Loss and Loss Adjustment Expense Ratio	0.2797	0.5752	0.8549
(1d) Policy Year 2016 Loss and Loss Adjustment Expense Ratio	0.2249	0.5285	0.7534
(1e) Average (Midpoint = 7/1/2015)	0.2721	0.5280	0.8001
(2a) Policy Year 2013 Loss and LAE Ratio Trended to 12/1/2019	0.2695	0.5829	
(2b) Policy Year 2014 Loss and LAE Ratio Trended to 12/1/2019	0.2332	0.4986	
(2c) Policy Year 2015 Loss and LAE Ratio Trended to 12/1/2019	0.2513	0.6049	
(2d) Policy Year 2016 Loss and LAE Ratio Trended to 12/1/2019	0.2077	0.5487	
(2e) Average at 12/1/2019	0.2404	0.5588	0.7992
(3a) House Bill 373 Adjustment	1.0000	0.6607	
(3b) Average Trended Loss and LAE Ratio Post-Legislation (2e) * (3a)	0.2404	0.3692	0.6096
(4a) Excess Loss Factor at \$1,819,104 (Post-Legislative Basis) *			0.0765
(4b) Provision for Excess Loss (5a) - (3b)			0.0505
(5a) Total Trended Loss and LAE Ratio (3b) / (1.0 - (4a))	0.2482	0.4119	0.6601
(5b) Percentage of Total	37.60%	62.40%	
(6) Permissible Loss and Loss Adjustment Ratio			0.7170
(7) Indicated Change in Rates (5a) / (6)			0.9206
(8) Estimated Effect of the 7/1/19 Benefit Change			1.0077
(9) Indicated Change in Residual Market Rate Level (7) * (8)			0.9277
(9a) Factor to Adjust for Compromise With Insurance Department			0.99933
(9b) Change in Residual Market Rate Level to Reflect Compromise (9) * (9a)			0.9271 <b>-7.29%</b>
(10) Indicated Change in Voluntary Market Loss Costs (9) * [0.7457 / 0.7681]			0.9006
(10a) Factor to Adjust for Compromise With Insurance Department			0.99933
(10b) Change in Voluntary Market Loss Cost Level to Reflect Compromise (10) * (10a)			0.9000 <b>-10.00%</b>

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

	<b>Mfg.</b>	<b>Cont.</b>	<b>Other</b>	<b>Total</b>
(11) Current Collectible Premium Ratio	1.0910	1.0442	0.9299	
(12) Proposed Collectible Premium Ratio	1.0983	1.0435	0.9156	
(13) Change in Collectible Premium Ratio (12) / (11)	1.0067	0.9993	0.9846	0.9902
(14) Change in Residual Market Manual Rate Level (9b) * (13)	0.9333	0.9265	0.9128	0.9180
(15) Change in Voluntary Market Manual Loss Cost Level (10b) * (13)	0.9060	0.8994	0.8861	0.8912
(16) Current Offset for Residual Market Surcharge				0.9927
(17) Proposed Offset for Residual Market Surcharge				0.9942
(18) Adjusted Change in Voluntary Market Manual Loss Cost Level (15) * (17) / (16)	0.9074	0.9008	0.8874	0.8925

\* \$2,672,000 on a Post-HB175, Pre-HB373 basis.

**DETERMINATION OF TREND**

**INDEMNITY**

Policy Year	2010	2011	2012	2013	2014	2015	2016
Actual Loss Ratio	0.2821	0.2799	0.2877	0.3169	0.2668	0.2797	0.2249
Normalized Frequency	0.6862	0.6426	0.5763	0.6040	0.5185	0.5445	0.4614
Severity Loss Ratio	0.4111	0.4356	0.4992	0.5246	0.5146	0.5137	0.4874
<b>x</b>	1	2	3	4	5	6	7
<b>y</b>	0.4111	0.4356	0.4992	0.5246	0.5146	0.5137	0.4874

**7 Point Exponential Regression:  $y = 0.425591 * 1.031595 ^ x$**

**Selected Annual Trend = 3.2%**

Policy Year	Annual Trend Factor (1)	Trend Period # Years to 12/1/19 (2)	Severity Trend Factor (3) = (1)^(2)	Frequency Trend Factor (4) #
2013	1.0316	5.9167	1.2021	0.7075
2014	1.0316	4.9167	1.1653	0.7501
2015	1.0316	3.9167	1.1296	0.7953
2016	1.0316	2.9167	1.0950	0.8432

**Trended Loss Ratio**

Policy Year	Actual Loss Ratio (5)	Combined Trend Factor (6) = (3)*(4)	Trended Loss Ratio (7) = (5)*(6)
2013	0.3169	0.8505	0.2695
2014	0.2668	0.8741	0.2332
2015	0.2797	0.8984	0.2513
2016	0.2249	0.9233	0.2077
Average			0.2404

# See Page 12.4 for column (4).

**DETERMINATION OF TREND**

**MEDICAL**

Policy Year	2010	2011	2012	2013	2014	2015	2016
Actual Loss Ratio	0.5214	0.4891	0.4658	0.5402	0.4680	0.5752	0.5285
Normalized Frequency	0.6862	0.6426	0.5763	0.6040	0.5185	0.5445	0.4614
Severity Loss Ratio	0.7598	0.7611	0.8082	0.8943	0.9027	1.0565	1.1454
<b>x</b>	1	2	3	4	5	6	7
<b>y</b>	0.7598	0.7611	0.8082	0.8943	0.9027	1.0565	1.1454

**7 Point Exponential Regression:  $y = 0.672061 * 1.073959 ^ x$**

**Selected Annual Trend = 7.4%**

Policy Year	Annual Trend Factor (1)	Trend Period # Years to 12/1/19 (2)	Severity Trend Factor (3) = (1)^(2)	Frequency Trend Factor (4) #
2013	1.0740	5.9167	1.5253	0.7075
2014	1.0740	4.9167	1.4202	0.7501
2015	1.0740	3.9167	1.3224	0.7953
2016	1.0740	2.9167	1.2314	0.8432

**Trended Loss Ratio**

Policy Year	Actual Loss Ratio (5)	Combined Trend Factor (6) = (3)*(4)	Trended Loss Ratio (7) = (5)*(6)
2013	0.5402	1.0791	0.5829
2014	0.4680	1.0653	0.4986
2015	0.5752	1.0517	0.6049
2016	0.5285	1.0383	0.5487
Average			0.5588

# See Page 12.4 for column (4).

**DETERMINATION OF TREND**

**CLAIM FREQUENCY**

Policy Year Frequency per \$1 million of Expected Losses

Policy Year	Claim Frequency	Normalized Frequency
2004	11.92	1.0000
2005	10.66	0.8943
2006	10.01	0.8398
2007	9.30	0.7802
2008	8.23	0.6904
2009	8.18	0.6862
2010	8.18	0.6862
2011	7.66	0.6426
2012	6.87	0.5763
2013	7.20	0.6040
2014	6.18	0.5185
2015	6.49	0.5445
2016	5.50	0.4614

Policy Year	2010	2011	2012	2013	2014	2015	2016
<b>x</b>	1	2	3	4	5	6	7
<b>y</b>	0.6862	0.6426	0.5763	0.6040	0.5185	0.5445	0.4614

7 Point (2010 - 2016) Exponential Regression:  $y = 0.721592 * 0.943509 ^ x$

Annual Trend = **-5.6%**

Policy Year	2008	2011	2012	2013	2014	2015	2016
<b>x</b>	1	2	3	4	5	6	7
<b>y</b>	0.6904	0.6426	0.5763	0.6040	0.5185	0.5445	0.4614

7 Point (2008, 2011 - 2016) Exponential Regression:  $y = 0.724109 * 0.942893 ^ x$

Annual Trend = **-5.7%**

**Selected Annual Trend (Average of -5.6% and -5.7%) = -5.7%**

Policy Year	Annual Trend Factor (1)	# of Years to 12/1/19 (2)	Frequency Trend Factor (3) = (1)^(2)
2013	0.9432	5.9167	0.7075
2014	0.9432	4.9167	0.7501
2015	0.9432	3.9167	0.7953
2016	0.9432	2.9167	0.8432