

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.

INDICATED CHANGE IN RATE LEVEL

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(1a) Policy Year 2015 Loss and Loss Adjustment Expense Ratio	0.3278	0.4017	0.7295
(1b) Policy Year 2016 Loss and Loss Adjustment Expense Ratio	0.3036	0.4334	0.7370
(1c) Policy Year 2017 Loss and Loss Adjustment Expense Ratio	0.2767	0.3939	0.6706
(1d) Policy Year 2018 Loss and Loss Adjustment Expense Ratio	0.2580	0.3584	0.6164
(1e) Average (Midpoint = 7/1/2017)	0.2915	0.3969	0.6884
(2a) Policy Year 2015 Loss and LAE Ratio Trended to 12/1/2020	0.2217	0.3863	
(2b) Policy Year 2016 Loss and LAE Ratio Trended to 12/1/2020	0.2194	0.4195	
(2c) Policy Year 2017 Loss and LAE Ratio Trended to 12/1/2020	0.2136	0.3838	
(2d) Policy Year 2018 Loss and LAE Ratio Trended to 12/1/2020	0.2127	0.3515	
(2e) Average at 12/1/2021	0.2169	0.3853	0.6022
(3a) Excess Loss Factor at \$1,742,306 (Post-Legislative Basis)			0.0796
(3b) Provision for Excess Loss (4a) - (2e)			0.0521
(4a) Total Trended Loss and LAE Ratio (2e) / (1.0 - (3a))	0.2226	0.4317	0.6543
(4b) Percentage of Total	34.02%	65.98%	
(5) Permissible Loss and Loss Adjustment Ratio			0.6866
(6) Indicated Change in Rates (4a) / (5)			0.9530
(7) Estimated Effect of the 7/1/21 Benefit Change			1.0036
(8) Indicated Change in Residual Market Rate Level (6) * (7)			0.9564 -4.36%
(9) Indicated Change in Voluntary Market Loss Costs (8) * [0.7186 / 0.7411]			0.9274 -7.26%

	Mfg.	Cont.	Other	Total
(10) Current Collectible Premium Ratio	1.1130	1.0522	0.9358	
(11) Proposed Collectible Premium Ratio	1.0913	1.0498	0.9260	
(12) Change in Collectible Premium Ratio (11) / (10)	0.9805	0.9977	0.9895	0.9899
(13) Change in Residual Market Manual Rate Level (8) * (12)	0.9378	0.9542	0.9464	0.9467
(14) Change in Voluntary Market Manual Loss Cost Level (9) * (12)	0.9093	0.9253	0.9177	0.9180
(15) Current Offset for Residual Market Surcharge				0.9946
(16) Proposed Offset for Residual Market Surcharge				0.9957
(17) Adjusted Change in Voluntary Market Manual Loss Cost Level (14) * (16) / (15)	0.9103	0.9263	0.9187	0.9190

DETERMINATION OF TREND

INDEMNITY

Policy Year	2012	2013	2014	2015	2016	2017	2018
Actual Loss Ratio	0.3625	0.4019	0.3301	0.3278	0.3036	0.2767	0.2580
Normalized Frequency	0.6879	0.7173	0.6127	0.6438	0.5637	0.5662	0.4918
Severity Loss Ratio	0.5270	0.5603	0.5387	0.5092	0.5386	0.4887	0.5246
x	1	2	3	4	5	6	7
y	0.5270	0.5603	0.5387	0.5092	0.5386	0.4887	0.5246

7 Point Exponential Regression: $y = 0.548347 * 0.989791 ^ x$

Selected Annual Trend =

-1.0%

Policy Year	Annual Trend Factor (1)	Trend Period # Years to 12/1/21 (2)	Severity Trend Factor (3) = (1)^(2)	Frequency Trend Factor (4) #
2015	0.9898	5.9167	0.9411	0.7187
2016	0.9898	4.9167	0.9508	0.7600
2017	0.9898	3.9167	0.9606	0.8036
2018	0.9898	2.9167	0.9705	0.8497

Trended Loss Ratio

Policy Year	Actual Loss Ratio (5)	Combined Trend Factor (6) = (3)*(4)	Trended Loss Ratio (7) = (5)*(6)
2015	0.3278	0.6764	0.2217
2016	0.3036	0.7226	0.2194
2017	0.2767	0.7719	0.2136
2018	0.2580	0.8246	0.2127
Average			0.2169

See Page 12.4 for column (3).

DETERMINATION OF TREND

MEDICAL

Policy Year	2012	2013	2014	2015	2016	2017	2018
Actual Loss Ratio	0.3679	0.4335	0.3982	0.4017	0.4334	0.3939	0.3584
Normalized Frequency	0.6879	0.7173	0.6127	0.6438	0.5637	0.5662	0.4918
Severity Loss Ratio	0.5348	0.6043	0.6499	0.6240	0.7688	0.6957	0.7287
x	1	2	3	4	5	6	7
y	0.5348	0.6043	0.6499	0.6240	0.7688	0.6957	0.7287

7 Point Exponential Regression: $y = 0.537011 * 1.050439 ^ x$

Selected Annual Trend =

5.0%

Policy Year	Annual Trend Factor (1)	Trend Period # Years to 12/1/21 (2)	Severity Trend Factor (3) = (1)^(2)	Frequency Trend Factor (4) #
2015	1.0504	5.9167	1.3380	0.7187
2016	1.0504	4.9167	1.2737	0.7600
2017	1.0504	3.9167	1.2126	0.8036
2018	1.0504	2.9167	1.1543	0.8497

Trended Loss Ratio

Policy Year	Actual Loss Ratio (5)	Combined Trend Factor (6) = (3)*(4)	Trended Loss Ratio (7) = (5)*(6)
2015	0.4017	0.9616	0.3863
2016	0.4334	0.9680	0.4195
2017	0.3939	0.9744	0.3838
2018	0.3584	0.9808	0.3515
Average			0.3853

See Page 12.4 for column (3).

DETERMINATION OF TREND

CLAIM FREQUENCY

Policy Year Frequency per \$1 million of Expected Losses

Policy Year	Claim Frequency	Normalized Frequency
2006	12.24	1.0000
2007	11.33	0.9257
2008	10.04	0.8203
2009	9.89	0.8080
2010	9.95	0.8129
2011	9.36	0.7647
2012	8.42	0.6879
2013	8.78	0.7173
2014	7.50	0.6127
2015	7.88	0.6438
2016	6.90	0.5637
2017	6.93	0.5662
2018	6.02	0.4918

Policy Year	2012	2013	2014	2015	2016	2017	2018
x	1	2	3	4	5	6	7
y	0.6879	0.7173	0.6127	0.6438	0.5637	0.5662	0.4918

7 Point (2012 - 2018) Exponential Regression: $y = 0.759572 * 0.945702^x$

Selected Annual Trend = -5.4%

Policy Year	Annual Trend Factor (1)	# of Years to 12/1/21 (2)	Frequency Trend Factor (3) = (1)^(2)
2015	0.9457	5.9167	0.7187
2016	0.9457	4.9167	0.7600
2017	0.9457	3.9167	0.8036
2018	0.9457	2.9167	0.8497