#### 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.

# 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 0.2455 0.2503 0.2748 0.2612 0.2580	Medical 0.4615 0.5763 0.5984 0.5567 0.5482	Total 0.7070 0.8266 0.8732 0.8179 0.8062
(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	0.2287 0.2360 0.2622 0.2522 0.2448	0.5897 0.7056 0.7020 0.6258 0.6558	0.9006
(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)	0.2448	0.3373	0.5821
(4a) (4b)	Excess Loss Factor at \$1,459,413 (Post-Legislative Basis) * Provision for Excess Loss (5a)-(3b)			0.1249 0.0831
(5a) (5b)	Total Trended Loss and LAE Ratio (3b)/(1.0-(4a)) Percentage of Total	0.2561 38.48%	0.4091 61.52%	0.6652
(6)	Permissible Loss and Loss Adjustment Ratio			0.6871
(7)	Indicated Change in Rates (5a) / (6)			0.9681
(8)	Estimated Effect of the 7/1/15 Benefit Change			0.9992
(9) (9a) (9b)	Indicated Change in Residual Market Rate Level (7) * (8) Factor to Adjust for Compromise With Insurance Department Change in Residual Market Rate Level to Reflect Compromise (9) * (9a)			0.9673 0.93348 0.9030
(10) (10a) (10b)	Indicated Change in Voluntary Market Loss Costs (9) * [0.7095 / 0.7239] Factor to Adjust for Compromise With Insurance Department Change in Voluntary Market Loss Cost Level to Reflect Compromise (10) * (10a)			0.9481 0.93348 0.8850

# CHANGES IN MANUAL PREMIUM LEVEL BY INDUSTRY GROUP

		Mfg.	Cont.	Other	Total
(11) (12) (13)	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
(14)	Change in Residual Market Manual Rate Level (9b) * (13)	0.9645	0.9373	0.9219	0.9307
(15)	Change in Voluntary Market Manual Loss Cost Level (10b) * (13)	0.9453	0.9186	0.9035	0.9122
(16) (17)	Current Offset for Residual Market Surcharge Proposed Offset for Residual Market Surcharge				0.9902 0.9833
(18)	Adjusted Change in Voluntary Market Manual Loss Cost Level (15) * (17)/(16)	0.9387	0.9122	0.8972	0.9058

 $<sup>^{\</sup>star}$  \$2,830,000 on a Pre-Legislative basis.

# **DETERMINATION OF TREND**

# INDEMNITY

Policy Year		2006	2007	2008	2009	2010	2011	2012
Actual Loss Ratio		0.2660	0.2600	0.2302	0.2455	0.2503	0.2748	0.2612
Normalized Frequency		0.6271	0.5829	0.5177	0.5143	0.5143	0.4837	0.4409
Severity Loss Ratio		0.4242	0.4460	0.4447	0.4773	0.4867	0.5681	0.5924
	x	1	2	3	4	5	6	7
	У	0.4242	0.4460	0.4447	0.4773	0.4867	0.5681	0.5924

# 7 Point Exponential Regression: y = 0.389501 \* 1.057905 ^ x

**Selected Annual Trend Factor to 12/1/15** 

Annual	Trend Period	Severity	Frequency
Tuesd	# \/ a a #a	Tuesd Feeter	Transl Costs

5.8%

Policy	Annual	Trend Period	Severity	Frequency
Year	Trend	# Years	Trend Factor	Trend Factor
	(1)	(2)	(3) = (1)^(2)	(4) #
2009	1.0579	5.9167	1.3952	0.6676
2010	1.0579	4.9167	1.3188	0.7148
2011	1.0579	3.9167	1.2466	0.7653
2012	1.0579	2.9167	1.1784	0.8194

# **Trended Loss Ratio**

Policy Year	Actual Loss Ratio (5)	Combined Trend Factor $(6) = (3)^*(4)$	Trended Loss Ratio (7) = (5)*(6)
2009	0.2455	0.9314	0.2287
2010	0.2503	0.9427	0.2360
2011	0.2748	0.9540	0.2622
2012	0.2612	0.9656	0.2522
Average			0.2448

<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
	0.3909	0.4302	0.4167	0.4615	0.5763	0.5984	0.5567
	0.6271	0.5829	0.5177	0.5143	0.5143	0.4837	0.4409
	0.6233	0.7380	0.8049	0.8973	1.1206	1.2371	1.2626
x	1	2	3	4	5	6	7
v	0.6233	0.7380	0.8049	0.8973	1.1206	1.2371	1.2626

# 7 Point Exponential Regression: $y = 0.562793 * 1.132411 ^ x$

Selected Annual Trend Factor to 9/1/08 =	13.2%
Legislative Adjustments to Annual Severity Trend	
From 9/1/08 to 1/31/13 (SB1) =	-1.5%
1/31/13 and later (SB1, SB238) =	-1.8%
Selected Annual Trend Factor	
From 9/1/08 to 1/31/13 (SB1) =	11.7%
1/31/13 and later (SB1, SB238) =	11.4%

				Annual Trend		Severity	
	Annual Trend		Severity Trend	Factor From		Trend Factor	
Policy	Factor to	Trend Period	Factor to	1/31/13 to	Trend Period	1/31/13 to	Frequency
Year	1/31/13	# Years	1/31/13	12/1/15	# Years	12/1/15	Trend Factor
	(1)	(2)	(3) = (1)^(2)	(4)	(5)	$(6) = (4)^{(5)}$	(7) #
2009	1.117	3.0833	1.4082	1.114	2.8334	1.3592	0.6676
2010	1.117	2.0833	1.2602	1.114	2.8334	1.3592	0.7148
2011	1.117	1.0833	1.1278	1.114	2.8334	1.3592	0.7653
2012	1.117	0.0833	1.0093	1.114	2.8334	1.3592	0.8194
Policy		Actual Loss		Combined		Trended	
Year		Ratio		Trend Factor		Loss Ratio	
		(8)		$(9) = (3)^*(6)^*(7)$		(10) = (8)*(9)	
2009		0.4615		1.2778		0.5897	
2010		0.5763		1.2244		0.7056	
2011		0.5984		1.1731		0.7020	
2012		0.5567		1.1241		0.6258	
Average						0.6558	

<sup>#</sup> See Page 12.4 for column (7).

#### **DETERMINATION OF TREND**

#### **Claim Frequency**

Policy Year Frequency per \$1 million of Expected Losses

	Policy		Claim		Normalized		Adjusted Normalized
	Year		Frequency		Frequency		Frequency
	2000		14.72		1.0000		
	2001		12.84		0.8723		
	2002		13.01		0.8838		
	2003		12.45		0.8458		
	2004		10.96		0.7446		
	2005		9.81		0.6665		
	2006		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 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
v	0.7446	0.6665	0.6271	0.5829	0.5177	0.4869 *	0.4438 *

7 Point 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.