DELAWARE COMPENSATION RATING BUREAU, INC.

State and Hazard Group Relativities

The attached exhibit pages present an analysis of Delaware State and Hazard Group relativities.

The exhibit on page 18.1 shows the derivation of the proposed relativities. DCRB and countrywide average severities are shown by hazard group and in total. A credibility weight is calculated for each hazard group based on the number of claims. A credibility weighted average severity is then calculated and these average severities are related to the countrywide average severity for all hazard groups combined to generate the indicated (and selected) relativities. An adjustment has been made to recognize the impact of Senate Bill 1, Senate Bill 238, House Bill 175 and House Bill 373 on Delaware average costs.

Page 18.2 shows the calculation of the overall countrywide average severity that is used in page 18.1.

Derivation of State and Hazard Group Relativities Delaware December 1, 2022 Filing

Hazard Group	Current Relativity (1)	DCRB Average Severity (2)	Ratio to DCRB Total (3)	Ratio DCRB to Countrywide Total (4)	Ratio to NCCI Total (5)	Countrywide Average Severity (6)	# Claims (7)	Credibility (8)	Credibility Weighted Average Severity (9)	Ratio to Countrywide Total (10)	Selected State & Hazard Group Relativity (11)
Α	1.620	29,769	2.273	2.097	1.602	`38,971	` [′] 707	0.068	38,346	1.628	1.628
В	1.296	41,408	1.634	1.508	1.307	47,746	1,892	0.110	47,049	1.327	1.327
С	1.153	56,292	1.202	1.109	1.169	53,418	3,773	0.156	53,866	1.159	1.159
D	0.984	73,741	0.918	0.847	0.993	62,874	1,022	0.081	63,755	0.979	0.979
Ε	0.812	90,468	0.748	0.690	0.840	74,294	1,768	0.107	76,025	0.821	0.821
F	0.660	142,291	0.476	0.439	0.685	91,139	785	0.071	94,771	0.659	0.659
G	0.565	196,283	0.345	0.318	0.597	104,507	112	0.027	106,985	0.584	0.584
All		67,678		0.922		62,426	10,059	0.255	63,765		

⁽¹⁾ Prior Year Values

⁽²⁾ From DCRB Unit Statistical Data

 $^{(3) = (2)}_{AII} / (2)_{i}$

 $^{(4) = (6)}_{AII} / (2)_{i}$

⁽⁵⁾ From NCCI Item Filing R-1413 - 2017 Update to the Retrospective Rating Plan Parameters

The value for each hazard group = (Countrywide Average Severity for the Hazard Group / Countrywide Overall Average Severity)

 $^{(6) = (6)}_{AII} / (5)_i$ with the value, $(5)_{AII}$, calculated on page 18.2

⁽⁷⁾ From DCRB Unit Statistical Data

^{(8) = [#} claims by TOI / 155,000]^0.5

^{(9) = [}DCRB Average Severity * Credibility] + [Countrywide Average Severity * (1-Credibility)]

 $^{(10) = (6)}_{AII} / (9)_{i}$

^{(11) = (10),} rounded to three decimals

Projected Countrywide Average Severity

NCCI Effective Date	NCCI Countrywide Average Severity	Exponential Trends			
1/1/2007	44,457	12 year	1.70%		
1/1/2008	51,533	11 year	1.00%		
1/1/2009	55,578	10 year	0.60%		
1/1/2010	57,375	9 year	0.50%		
1/1/2011	57,797	8 year	0.60%		
1/1/2011	57,797	7 year (selected)	0.90%		
1/1/2013	57,027	6 year	1.50%		
1/1/2014	55,818	5 year	2.10%		
1/1/2015	55,954	4 year	2.10%		
1/1/2016	59,215	3 year	0.40%		
1/1/2017	60,022	2 year	-0.50%		
1/1/2018	59,736 *	-			

Selected Countrywide Average Severity = $59,736 * [(1.009) ^ 4.9167 \text{ years}] = 62,426$ where 4.9167 years is the difference between one year past the filing effective date (12/1/2023). and one year past the latest NCCI effective date (1/1/2019).

^{*} From NCCI Item Filing R-1413 - 2017 Update to the Retrospective Rating Plan Parameters