

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 December 1, 2021 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. The bottom of the exhibit presents the approved December 1, 2020 relativities.

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, 2021 Filing**

Hazard Group	DCRB Average Severity (1)	Ratio to DCRB Total (2)=(1) _{All} / (1) _i	Ratio DCRB to Countrywide Total (3)=(5) _{All} / (1) _i	Ratio to NCCI Total * (4)	Countrywide Average Severity ** (5)=(5) _{All} / (4) _i	# Claims (6)	Credibility *** (7)	Credibility Weighted Average Severity **** (8)	Ratio to Countrywide Total (9)=(5) _{All} / (8) _i	Selected State & Hazard Group Relativity (10)
A	32,027	2.246	1.932	1.602	38,624	684	0.066	38,189	1.620	1.620
B	51,090	1.408	1.211	1.307	47,321	1,826	0.109	47,732	1.296	1.296
C	57,624	1.248	1.074	1.169	52,942	3,758	0.156	53,672	1.153	1.153
D	69,115	1.041	0.895	0.993	62,314	981	0.080	62,858	0.984	0.984
E	97,610	0.737	0.634	0.840	73,633	1,740	0.106	76,174	0.812	0.812
F	139,518	0.516	0.443	0.685	90,328	745	0.069	93,722	0.660	0.660
G	332,238	0.216	0.186	0.597	103,577	103	0.026	109,522	0.565	0.565
All	71,928		0.860		61,870	9,837	0.252	64,405		

* From DCRB Filing No. 1902, Exhibit 18, Column (5)

** The value, (5) All, is calculated on page 18.2

*** Credibility = [# claims / 155,000] ^ 0.5

**** [DCRB Average Severity * Credibility] + [Countrywide Average Severity * (1-Credibility)]

Delaware December 1, 2020 Filing

Hazard Group	Approved Relativity
A	1.592
B	1.260
C	1.101
D	0.965
E	0.788
F	0.643
G	0.539

Projected Countrywide Average Severity

NCCI Effective Date	NCCI Countrywide Average Severity	Exponential Trends	
		1/1/2007	44,457
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) ^ 3.9167 years] = 61,870
 where 3.9167 years is the difference between one year past the filing effective date (12/1/2022).
 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