

DELAWARE COMPENSATION RATING BUREAU, INC.

Review of Experience Rating Plan Parameters

Page 20.1 contains Collectible Premium Ratios.

Page 20.2 contains Expected Loss Rate Factors. They are applied to residual market rates by classification to produce Table A, Expected Loss Factors, which are the basis for the calculation of Expected Losses.

Page 20.3 contains the derivation of various factors, i.e. maximum single loss size, self-rating point, that are used to produce Table B.

Superseded

COLLECTIBLE PREMIUM RATIOS *

Manual Years 2019 to 2021 Market Profile Report Data

Manual Year	Premium at Manual Rates	Collected Premium (Excluding Constants)	Collectible Premium Ratio (2)/(3)
(1)	(2)	(3)	(4)
ALL INDUSTRIES			
2019	406,987,562	424,669,096	0.9584
2020	365,918,840	394,206,843	0.9282
2021	352,049,279	385,561,352	0.9131
TOTAL	1,124,955,681	1,204,437,291	0.9340
MANUFACTURING AND UTILITIES			
2019	52,103,450	49,266,127	1.0576
2020	43,998,970	42,771,494	1.0287
2021	40,148,245	36,502,768	1.0999
TOTAL	136,250,665	128,540,389	1.0600
CONTRACTING AND QUARRYING			
2019	90,530,872	85,400,513	1.0601
2020	80,243,623	79,426,650	1.0103
2021	77,567,841	77,920,491	0.9955
TOTAL	248,342,336	242,747,654	1.0230
OTHER INDUSTRIES			
2019	264,353,240	290,002,456	0.9116
2020	241,676,247	272,008,699	0.8885
2021	234,333,193	271,138,093	0.8643
TOTAL	740,362,680	833,149,248	0.8886

* Excludes classifications and coverages not subject to experience rating.

EXPECTED LOSS RATE FACTORS

CALCULATION OF EXPECTED LOSS RATE FACTORS

Policy Year Beginning 12/1 (1)	Average Law Multiplier (2)	Adjustment Factor (3)	Loss Ratio Development Factor (4)	Expense Allowance * 1 / (PLR/CPR) (5)	Trend Factor (6)	Product (2) * (3) * (4) * (5) * (6) (7)	Expected Loss Rate Factor 1.0 / (7) (8)
<u>Manufacturing and Utilities</u>							
2018	1.0320	1.0000	1.2858	1.8639	1.0436	2.5811	0.3874
2019	1.0250	1.0000	1.4626	1.8639	1.0324	2.8848	0.3466
2020	1.0190	1.0000	1.8125	1.8639	1.0214	3.5162	0.2844
<u>Contracting and Quarrying</u>							
2018	1.0320	1.0000	1.3272	1.7988	1.0436	2.5712	0.3889
2019	1.0250	1.0000	1.4454	1.7988	1.0324	2.7513	0.3635
2020	1.0190	1.0000	1.7619	1.7988	1.0214	3.2986	0.3032
<u>Other Industries</u>							
2018	1.0320	1.0000	1.2952	1.5625	1.0436	2.1796	0.4588
2019	1.0250	1.0000	1.4484	1.5625	1.0324	2.3949	0.4176
2020	1.0190	1.0000	1.8466	1.5625	1.0214	3.0031	0.3330

* Permissible Loss Ratio = 0.5687
 Collectible Premium Ratios
 Manufacturing = 1.0600
 Contracting = 1.0230
 All Other = 0.8886

Experience Rating Plan Parameters

(1)	Eligibility Point = (3,161 = 1 yr Prem)	3 yr =	\$9,483
(2)	Permissible Loss Ratio =		0.6089 (a)
(3)	Expected Losses needed to achieve 5% credibility		\$5,774
(4)	Max Value :	$0.25 * \$5,774 =$ 0.05	\$28,870
(5)	K-Value		
	a) If (3) is assigned 5% credibility, then		
	$K = \frac{E * (1 - c)}{c} = \frac{\$5,774 * (1 - .05)}{.05} =$		\$109,706
(6)	.055 Credibility Interval - the .0525 left endpoint corresponds to $E = \frac{(K * C)}{(1 - C)} =$	$\frac{\$109,706 * .0525}{.9475} =$	\$6,079
(7)	Right endpoint for .05 credibility interval =		\$6,078
(8)	Self-rating point = 25 * average serious claim		
	= 25 * \$319,730 =		\$7,993,250
	6% of (8) rounded to the nearest \$1,000 =		\$480,000
		Selected =	\$480,000

(a) Standard LR / CPR = Manual LR
 $0.5687 / 0.9340 = 0.6089$