

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.

COLLECTIBLE PREMIUM RATIOS *

Manual Years 2020 to 2022 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			
2020	373,041,169	403,558,682	0.9244
2021	372,982,943	408,832,622	0.9123
2022	294,194,390	307,636,656	0.9563
TOTAL	1,040,218,502	1,120,027,960	0.9287
MANUFACTURING AND UTILITIES			
2020	46,181,108	45,103,109	1.0239
2021	44,756,740	39,606,158	1.1300
2022	33,524,406	31,401,034	1.0676
TOTAL	124,462,254	116,110,301	1.0719
CONTRACTING AND QUARRYING			
2020	80,871,129	79,661,315	1.0152
2021	75,978,990	74,697,851	1.0172
2022	65,678,446	64,231,447	1.0225
TOTAL	222,528,565	218,590,613	1.0180
OTHER INDUSTRIES			
2020	245,988,932	278,794,258	0.8823
2021	252,247,213	294,528,613	0.8564
2022	194,991,538	212,004,175	0.9198
TOTAL	693,227,683	785,327,046	0.8827

* 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>							
2019	1.0391	1.0000	1.1760	1.7997	1.0579	2.3265	0.4298
2020	1.0334	1.0000	1.2627	1.7997	1.0429	2.4491	0.4083
2021	1.0265	1.0000	1.4899	1.7997	1.0283	2.8303	0.3533
<u>Contracting and Quarrying</u>							
2019	1.0391	1.0000	1.1791	1.7092	1.0579	2.2154	0.4514
2020	1.0334	1.0000	1.3431	1.7092	1.0429	2.4741	0.4042
2021	1.0265	1.0000	1.6498	1.7092	1.0283	2.9765	0.3360
<u>Other Industries</u>							
2019	1.0391	1.0000	1.1770	1.4820	1.0579	1.9175	0.5215
2020	1.0334	1.0000	1.3159	1.4820	1.0429	2.1018	0.4758
2021	1.0265	1.0000	1.5087	1.4820	1.0283	2.3601	0.4237

* Permissible Loss Ratio = 0.5956
 Collectible Premium Ratios
 Manufacturing = 1.0719
 Contracting = 1.0180
 All Other = 0.8827

Experience Rating Plan Parameters

(1)	Eligibility Point = (3,161 = 1 yr Prem)	3 yr =	\$9,483
(2)	Permissible Loss Ratio =		0.6413 (a)
(3)	Expected Losses needed to achieve 5% credibility		\$6,081
(4)	Max Value :	$\frac{0.25 * \$6,081}{0.05}$	\$30,405
(5)	K-Value		
	a) If (3) is assigned 5% credibility, then		
	$K = \frac{E * (1 - c)}{c} = \frac{\$6,081 * (1 - .05)}{.05}$		\$115,539
(6)	.055 Credibility Interval - the .0525 left endpoint corresponds to $E = \frac{(K * C)}{(1 - C)}$	$\frac{\$115,539 * .0525}{.9475}$	\$6,402
(7)	Right endpoint for .05 credibility interval =		\$6,401
(8)	Self-rating point = 25 * average serious claim		
	= 25 * \$368,885 =		\$9,222,125
	6% of (8) rounded to the nearest \$1,000 =		\$553,000
		Selected =	\$553,000
(a)	Standard LR / CPR = Manual LR		
	0.5956 / 0.92870 = 0.6413		