

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 2018 to 2020 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			
2018	324,738,703	324,837,297	0.9997
2019	300,948,932	316,984,260	0.9494
2020	295,581,507	326,565,137	0.9051
TOTAL	921,269,141	968,386,694	0.9513
MANUFACTURING AND UTILITIES			
2018	41,918,100	38,653,268	1.0845
2019	36,866,705	35,229,129	1.0465
2020	34,547,580	32,819,325	1.0527
TOTAL	113,332,385	106,701,722	1.0621
CONTRACTING AND QUARRYING			
2018	69,610,534	63,401,325	1.0979
2019	63,593,056	60,100,066	1.0581
2020	52,316,717	51,860,688	1.0088
TOTAL	185,520,307	175,362,079	1.0579
OTHER INDUSTRIES			
2018	213,210,069	222,782,704	0.9570
2019	200,489,171	221,655,066	0.9045
2020	208,717,209	241,885,123	0.8629
TOTAL	622,416,449	686,322,892	0.9069

* 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)	Factor to Reflect Approved Rate Levels* (9)	Combined Effect (8) * (9) (10)
<u>Manufacturing and Utilities</u>									
2017	1.0221	1.0000	1.3845	1.9942	1.0171	2.8702	0.3484	1.0204	0.3555
2018	1.0153	1.0000	1.6132	1.9942	1.0125	3.3071	0.3024	1.0204	0.3086
2019	1.0092	1.0000	2.0681	1.9942	1.0081	4.1959	0.2383	1.0204	0.2432
<u>Contracting and Quarrying</u>									
2017	1.0221	1.0000	1.4883	1.9863	1.0171	3.0732	0.3254	1.0205	0.3321
2018	1.0153	1.0000	1.6359	1.9863	1.0125	3.3403	0.2994	1.0205	0.3055
2019	1.0092	1.0000	2.0103	1.9863	1.0081	4.0624	0.2462	1.0205	0.2512
<u>Other Industries</u>									
2017	1.0221	1.0000	1.4077	1.7028	1.0171	2.4919	0.4013	1.0206	0.4096
2018	1.0153	1.0000	1.5915	1.7028	1.0125	2.7859	0.3590	1.0206	0.3664
2019	1.0092	1.0000	2.0082	1.7028	1.0081	3.4790	0.2874	1.0206	0.2933

* (12/1/21 Filed Change in Manual Rate Level)/(12/1/21 Approved Change in Manual Rate Level) by Industry Group, from Exhibit 12, Page 1.

** Permissible Loss Ratio = 0.5326
 Collectible Premium Ratios
 Manufacturing = 1.0621
 Contracting = 1.0579
 All Other = 0.9069

Experience Rating Plan Parameters

(1)	Eligibility Point = (3,161 = 1 yr Prem)	3 yr =	\$9,483
(2)	Permissible Loss Ratio =		0.5599 (a)
(3)	Expected Losses needed to achieve 5% credibility		\$5,310
(4)	Max Value :	$\frac{0.25 * \$5,310}{0.05} =$	\$26,550
(5)	K-Value		
	a) If (3) is assigned 5% credibility, then		
	$K = \frac{E * (1 - c)}{c} =$	$\frac{\$5,310 * (1 - .05)}{.05} =$	\$100,890
(6)	.055 Credibility Interval - the .0525 left endpoint corresponds to $E = \frac{(K * C)}{(1 - C)} =$	$\frac{\$100,890 * .0525}{.9475} =$	\$5,590
(7)	Right endpoint for .05 credibility interval =		\$5,589
(8)	Self rating point = 25 * average serious claim		
	$= 25 * \$318,337 =$		\$7,958,425
	6% of (8) rounded to the nearest \$1,000 =		\$478,000
		Selected =	\$478,000

(a) Standard LR / CPR = Manual LR
 $0.5326 / 0.9513 = 0.5599$