

DELAWARE COMPENSATION RATING BUREAU, INC.

Review of Experience Rating Plan Parameters

Page 20.1 contains Collectible Premium Ratios.

Page 20.2 contains Expected Loss Cost 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 2017 to 2019 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			
2017	320,024,528	330,796,314	0.9674
2018	326,213,792	325,845,507	1.0011
2019	304,894,066	324,587,523	0.9393
TOTAL	951,132,386	981,229,344	0.9693
MANUFACTURING AND UTILITIES			
2017	40,041,092	35,661,221	1.1228
2018	43,986,740	40,072,602	1.0977
2019	38,276,797	36,339,547	1.0533
TOTAL	122,304,629	112,073,370	1.0913
CONTRACTING AND QUARRYING			
2017	63,571,427	60,054,651	1.0586
2018	69,895,285	64,050,095	1.0913
2019	70,153,188	69,864,337	1.0041
TOTAL	203,619,900	193,969,083	1.0498
OTHER INDUSTRIES			
2017	216,412,010	235,080,442	0.9206
2018	212,331,767	221,722,810	0.9576
2019	196,464,081	218,383,639	0.8996
TOTAL	625,207,858	675,186,891	0.9260

\* Excludes classifications and coverages not subject to experience rating.

## EXPECTED LOSS RATE FACTORS

### CALCULATION OF EXPECTED LOSS RATE FACTORS

Policy Year Beginning 12/1	Average Law Multiplier	Adjustment Factor	Loss Ratio Development Factor	Expense Allowance ** 1 / (PLR/CPR)	Trend Factor	Product (2) * (3) * (4) * (5) * (6)	Expected Loss Rate Factor 1.0 / (7)	Factor to Reflect Approved Rate Levels*	Combined Effect (8) * (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b><u>Manufacturing and Utilities</u></b>									
2016	1.0098	1.0000	1.5350	2.0050	1.1288	3.5081	0.2851	1.0488	0.2990
2017	1.0135	1.0000	1.7870	2.0050	1.0939	3.9723	0.2517	1.0488	0.2640
2018	1.0085	1.0000	2.4113	2.0050	1.0609	5.1727	0.1933	1.0488	0.2027
<b><u>Contracting and Quarrying</u></b>									
2016	1.0098	1.0000	1.4871	1.9287	1.1288	3.2693	0.3059	1.0487	0.3208
2017	1.0135	1.0000	1.9543	1.9287	1.0939	4.1789	0.2393	1.0487	0.2510
2018	1.0085	1.0000	2.4818	1.9287	1.0609	5.1213	0.1953	1.0487	0.2048
<b><u>Other Industries</u></b>									
2016	1.0098	1.0000	1.5808	1.7013	1.1288	3.0656	0.3262	1.0488	0.3421
2017	1.0135	1.0000	1.8334	1.7013	1.0939	3.4581	0.2892	1.0488	0.3033
2018	1.0085	1.0000	2.4447	1.7013	1.0609	4.4500	0.2247	1.0488	0.2357

\* (12/1/20 Filed Change in Manual Rate Level)/(12/1/20 Approved Change in Manual Rate Level) by Industry Group, from Exhibit 12, Page 1.

\*\* Permissible Loss Ratio = 0.5443  
Collectible Premium Ratios  
Manufacturing = 1.0913  
Contracting = 1.0498  
All Other = 0.9260

## Experience Rating Plan Parameters

- (1) Eligibility Point = (3,161 = 1 yr Prem)                      3 yr =                      \$9,483
- (2) Permissible Loss Ratio =                      0.5615 (a)
- (3) Expected Losses needed to achieve 5% credibility                      \$5,325
- (4) Max Value :                       $\frac{0.25 * \$5,325}{0.05} =$                       \$26,625
- (5) K-Value  
a) If (3) is assigned 5% credibility, then  
 $K = \frac{E * (1 - c)}{c} = \frac{\$5,325 * (1 - .05)}{.05} =$                       \$101,175
- (6) .055 Credibility Interval - the .0525 left endpoint  
corresponds to  $E = \frac{(K * C)}{(1 - C)} = \frac{\$101,175 * .0525}{.9475} =$                       \$5,606
- (7) Right endpoint for .05 credibility interval =                      \$5,605
- (8) Self rating point = 25 \* average serious claim  
= 25 \* \$356,290 =                      \$8,907,250
- 6% of (8) rounded to the nearest \$1,000 =                      \$534,000
- Selected =                      \$534,000

(a) Standard LR / CPR = Manual LR  
0.5443/ 0.9693 = 0.5615