

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 2016 to 2018 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			
2016	299,796,215	308,043,997	0.9732
2017	320,425,571	331,020,815	0.9680
2018	320,946,454	323,067,007	0.9934
TOTAL	941,168,240	962,131,820	0.9782
MANUFACTURING AND UTILITIES			
2016	39,586,542	35,762,663	1.1069
2017	41,237,022	36,519,040	1.1292
2018	44,457,004	40,277,248	1.1038
TOTAL	125,280,568	112,558,951	1.1130
CONTRACTING AND QUARRYING			
2016	59,736,750	57,287,803	1.0427
2017	63,928,619	60,330,685	1.0596
2018	64,820,623	61,512,565	1.0538
TOTAL	188,485,992	179,131,053	1.0522
OTHER INDUSTRIES			
2016	200,472,923	214,993,532	0.9325
2017	215,259,930	234,171,090	0.9192
2018	211,668,826	221,277,193	0.9566
TOTAL	627,401,679	670,441,816	0.9358

* 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>							
2015	0.9969	1.0000	1.7176	1.9357	1.1653	3.8623	0.2589
2016	1.0067	1.0000	1.9379	1.9357	1.1208	4.2325	0.2363
2017	1.0103	1.0000	2.5803	1.9357	1.0784	5.4417	0.1838
<u>Contracting and Quarrying</u>							
2015	0.9969	1.0000	1.6378	1.8299	1.1653	3.4816	0.2872
2016	1.0067	1.0000	1.7716	1.8299	1.1208	3.6578	0.2734
2017	1.0103	1.0000	2.6649	1.8299	1.0784	5.3130	0.1882
<u>Other Industries</u>							
2015	0.9969	1.0000	1.6498	1.6275	1.1653	3.1192	0.3206
2016	1.0067	1.0000	1.9636	1.6275	1.1208	3.6058	0.2773
2017	1.0103	1.0000	2.6046	1.6275	1.0784	4.6184	0.2165

** Permissible Loss Ratio = 0.5750
 Collectible Premium Ratios
 Manufacturing = 1.1130
 Contracting = 1.0522
 All Other = 0.9358

Experience Rating Plan Parameters

- (1) Eligibility Point = (3,161 = 1 yr Prem) 3 yr = \$9,483
- (2) Permissible Loss Ratio = 0.5878 (a)
- (3) Expected Losses needed to achieve 5% credibility \$5,574
- (4) Max Value : $\frac{0.25 * \$5,574}{0.05} =$ \$27,870
- (5) K-Value
 a) If (3) is assigned 5% credibility, then
 $K = \frac{E * (1 - c)}{c} = \frac{\$5,574 * (1 - .05)}{.05} =$ \$105,906
- (6) .055 Credibility Interval - the .0525 left endpoint
 corresponds to $E = \frac{(K * C)}{(1 - C)} = \frac{\$105,906 * .0525}{.9475} =$ \$5,868
- (7) Right endpoint for .05 credibility interval = \$5,867
- (8) Self rating point = 25 * average serious claim
 $= 25 * \$364,043 =$ \$9,101,075

- 6% of (8) rounded to the nearest \$1,000 = \$546,000
- Selected = \$546,000

(a) Standard LR / CPR = Manual LR
 $0.5750 / 0.9782 = 0.5878$