

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 2014 to 2016 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			
2014	258,211,562	260,286,052	0.9920
2015	247,095,158	259,025,925	0.9539
2016	286,601,879	297,368,719	0.9638
TOTAL	791,908,599	816,680,696	0.9697
MANUFACTURING AND UTILITIES			
2014	34,335,697	31,534,717	1.0888
2015	33,641,793	30,869,674	1.0898
2016	35,919,716	32,826,790	1.0942
TOTAL	103,897,207	95,231,181	1.0910
CONTRACTING AND QUARRYING			
2014	50,143,592	47,541,230	1.0547
2015	48,303,173	46,969,170	1.0284
2016	57,816,413	55,135,715	1.0486
TOTAL	156,263,179	149,646,115	1.0442
OTHER INDUSTRIES			
2014	173,732,273	181,210,105	0.9587
2015	165,150,191	181,187,081	0.9115
2016	192,865,750	209,406,215	0.9210
TOTAL	531,748,213	571,803,400	0.9299

* 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)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<u>Manufacturing and Utilities</u>							
2013	0.9236	1.0000	1.6885	1.8688	1.2960	3.7771	0.2648
2014	0.9614	1.0000	1.7518	1.8688	1.2139	3.8206	0.2617
2015	0.9849	1.0000	2.5313	1.8688	1.1375	5.2997	0.1887
<u>Contracting and Quarrying</u>							
2013	0.9236	1.0000	1.5963	1.7886	1.2960	3.4176	0.2926
2014	0.9614	1.0000	1.8923	1.7886	1.2139	3.9499	0.2532
2015	0.9849	1.0000	2.5263	1.7886	1.1375	5.0622	0.1975
<u>Other Industries</u>							
2013	0.9236	1.0000	1.6005	1.5928	1.2960	3.0514	0.3277
2014	0.9614	1.0000	1.8439	1.5928	1.2139	3.4276	0.2917
2015	0.9849	1.0000	2.3951	1.5928	1.1375	4.2739	0.2340

* Permissible Loss Ratio = 0.5838
 Collectible Premium Ratios
 Manufacturing = 1.0910
 Contracting = 1.0442
 All Other = 0.9299

Experience Rating Plan Parameters

- (1) Eligibility Point = (3,161 = 1 yr Prem) 3 yr = \$9,483
- (2) Permissible Loss Ratio = 0.6020 (a)
- (3) Expected Losses needed to achieve 5% credibility
 (1) * (2) = \$9,483 * 0.6020 = \$5,709
- (4) Max Value : $\frac{0.25 * \$5,709}{0.05} =$ \$28,545
- (5) K-Value
 a) If (3) is assigned 5% credibility, then
 $K = \frac{E * (1 - c)}{c} = \frac{\$5,709 * (1 - .05)}{.05} =$ \$108,471
- (6) .055 Credibility Interval - the .0525 left endpoint
 corresponds to $E = \frac{(K * C)}{(1 - C)} = \frac{\$108,471 * .0525}{.9475} =$ \$6,010
- (7) Right endpoint for .05 credibility interval = \$6,009
- (8) Self rating point = 25 * average serious claim
 = 25 * \$304,144 = \$7,603,600
- 6% of (8) rounded to the nearest \$1,000 = \$456,000
- Selected = \$456,000

(a) Standard LR / CPR = Manual LR
 0.5838 / 0.9697 = 0.6020