

DELAWARE COMPENSATION RATING BUREAU, INC

Review of Experience Rating Plan Parameters

Pages 20.1 through 20.3 contain information regarding Collectible Premium Ratios (CPRs).

Historically, reports of CPRs based on unit data were used to select CPRs for deriving prospective manual rating values. Recently, CPRs derived from the DCRB's Market Profile Report, which utilizes policy data for recent periods and is thus available for more recent periods than unit reports, have been considered as an added reference in selecting prospective CPRs.

In the DCRB's December 1, 2014 filing, it was observed that the CPRs from Market Profile Reports had been increasing noticeably since Policy Year 2011. Since CPRs from unit data were not available for these more recent policy years, it was decided to use the Market Profile Report source to select CPRs for this filing. This required partitioning the Market Profile Report data into industry groups, a level of detail not published in the legacy Market Profile Reports.

For the December 1, 2015 filing, CPRs have again been selected based on Market Profile Reports partitioned by industry group.

Page 20.1 contains CPRs based on unit data. This source is consistent with that used exclusively or predominantly for CPR selections in past filings.

Page 20.2 shows comparisons of CPRs derived from unit data to CPRs calculated from the Market Profile Report data by industry group.

Page 20.3 contains CPRs based on the Market Profile Report data. The three-year totals are the CPR selections for this year's filing.

Page 20.4 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 20.5 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 2010 to 2012 Unit Data

Manual Year	Premium at Manual Rates	Collected Premium (Excluding Constants)	Collectible Premium Ratio (2)/(3)
(1)	(2)	(3)	(4)
ALL INDUSTRIES			
2010	167,763,165	187,939,552	0.8926
2011	166,927,950	191,063,114	0.8737
2012	176,413,124	199,946,283	0.8823
TOTAL	511,104,239	578,948,949	0.8828
MANUFACTURING AND UTILITIES			
2010	21,826,016	22,518,129	0.9693
2011	22,442,163	23,157,089	0.9691
2012	21,340,613	21,898,597	0.9745
TOTAL	65,608,792	67,573,815	0.9709
CONTRACTING AND QUARRYING			
2010	33,249,119	33,841,547	0.9825
2011	29,934,784	30,756,008	0.9733
2012	32,785,514	32,675,289	1.0034
TOTAL	95,969,417	97,272,844	0.9866
OTHER INDUSTRIES			
2010	112,688,030	131,579,876	0.8564
2011	114,551,003	137,150,017	0.8352
2012	122,286,997	145,372,397	0.8412
TOTAL	349,526,030	414,102,290	0.8441

* Excludes classifications and coverages not subject to experience rating.

COLLECTIBLE PREMIUM RATIOS

Comparison of Unit Data and Market Profile Report Data

Manual Year	Unit Data	Market Profile Report Data
ALL INDUSTRIES		
2010	0.8926	0.8892
2011	0.8737	0.8697
2012	0.8823	0.8822
MANUFACTURING AND UTILITIES		
2010	0.9693	0.9727
2011	0.9691	0.9485
2012	0.9745	0.9696
CONTRACTING AND QUARRYING		
2010	0.9825	0.9743
2011	0.9733	0.9683
2012	1.0034	1.0071
OTHER INDUSTRIES		
2010	0.8564	0.8518
2011	0.8352	0.8330
2012	0.8412	0.8376

COLLECTIBLE PREMIUM RATIOS *

Manual Years 2012 to 2014 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			
2012	180,072,989	204,121,325	0.8822
2013	223,370,944	239,557,911	0.9324
2014	239,362,173	244,614,014	0.9785
TOTAL	642,806,106	688,293,250	0.9339
MANUFACTURING AND UTILITIES			
2012	21,928,485	22,616,087	0.9696
2013	27,954,529	27,097,402	1.0316
2014	37,655,119	36,224,837	1.0395
TOTAL	87,538,133	85,938,326	1.0186
CONTRACTING AND QUARRYING			
2012	36,290,791	36,034,078	1.0071
2013	42,552,043	41,990,846	1.0134
2014	44,412,996	42,455,869	1.0461
TOTAL	123,255,830	120,480,792	1.0230
OTHER INDUSTRIES			
2012	121,853,713	145,471,160	0.8376
2013	152,864,372	170,469,663	0.8967
2014	157,294,058	165,933,309	0.9479
TOTAL	432,012,143	481,874,132	0.8965

* Excludes classifications and coverages not subject to experience rating.

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>									
2011	0.9025	1.0000	1.7090	1.7764	1.3838	3.7914	0.2638	1.0731	0.2831
2012	0.8972	1.0000	1.9527	1.7764	1.2755	3.9696	0.2519	1.0731	0.2703
2013	0.9495	1.0000	2.5043	1.7764	1.1761	4.9678	0.2013	1.0731	0.2160
<u>Contracting and Quarrying</u>									
2011	0.9025	1.0000	1.6440	1.7841	1.3838	3.6630	0.2730	1.0732	0.2930
2012	0.8972	1.0000	2.0346	1.7841	1.2755	4.1540	0.2407	1.0732	0.2583
2013	0.9495	1.0000	2.5494	1.7841	1.1761	5.0792	0.1969	1.0732	0.2113
<u>Other Industries</u>									
2011	0.9025	1.0000	1.5789	1.5635	1.3838	3.0830	0.3244	1.0731	0.3481
2012	0.8972	1.0000	1.8516	1.5635	1.2755	3.3129	0.3019	1.0731	0.3240
2013	0.9495	1.0000	2.4676	1.5635	1.1761	4.3084	0.2321	1.0731	0.2491

* (12/1/15 Filed Change in Manual Rate Level)/(12/1/15 Approved Change in Manual Rate Level) by Industry Group from Page 1.

** Permissible Loss Ratio = 0.5734
 Collectible Premium Ratios
 Manufacturing = 1.0186
 Contracting = 1.0230
 All Other = 0.8965

Experience Rating Plan Parameters

(1)	Eligibility Point = (3,161 = 1 yr Prem)	3 yr =	\$9,483
(2)	Permissible Loss Ratio =		0.6140 (a)
(3)	Expected Losses needed to achieve 5% credibility (1)*(2) = \$9,483*0.6140 =		\$5,823
(4)	Max Value :	$\frac{0.25 * \$5,823}{0.05} =$	\$29,115
(5)	K-Value a) If (3) is assigned 5% credibility, then $K = \frac{E(1-c)}{c} = \frac{\$5,823 * (1-.05)}{.05} =$		\$110,637
(6)	.055 Credibility Interval - the .0525 left endpoint corresponds to $E = \frac{(K * C)}{(1-C)} =$	$\frac{\$110,637 * .0525}{.9475} =$	\$6,130
(7)	Right endpoint for .05 credibility interval =		\$6,129
(8)	Self rating point = 25 * average serious claim = 25 * \$353,628 =		\$8,840,700
	6% of (8) rounded to the nearest \$1,000 =		\$530,000
		Selected =	\$530,000

(a) Standard LR / CPR = Manual LR
0.5734/0.9339 = 0.6140