

DELAWARE COMPENSATION RATING BUREAU, INC

Review of Experience Rating Plan Parameters

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

In past filings, historical 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, were considered as an added reference in selecting prospective CPRs.

In this year's analysis, it was observed that the CPRs from Market Profile Reports have 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.

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 2009 to 2011 Unit Data

Manual Year	Premium at Manual Rates	Collected Premium (Excluding Constants)	Collectible Premium Ratio (2)/(3)
(1)	(2)	(3)	(4)
ALL INDUSTRIES			
2009	182,863,371	214,208,756	0.8537
2010	167,912,983	188,222,855	0.8921
2011	166,930,065	191,451,535	0.8719
TOTAL	517,706,419	593,883,146	0.8717
MANUFACTURING AND UTILITIES			
2009	27,122,141	30,673,869	0.8842
2010	21,667,409	22,252,953	0.9737
2011	22,427,843	23,316,606	0.9619
TOTAL	71,217,393	76,243,428	0.9341
CONTRACTING AND QUARRYING			
2009	34,648,291	36,920,870	0.9384
2010	33,574,083	34,315,388	0.9784
2011	30,092,037	30,940,919	0.9726
TOTAL	98,314,411	102,177,177	0.9622
OTHER INDUSTRIES			
2009	121,092,939	146,614,017	0.8259
2010	112,671,491	131,654,514	0.8558
2011	114,410,185	137,194,010	0.8339
TOTAL	348,174,615	415,462,541	0.8380

\* 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		
2009	0.8537	0.8520
2010	0.8921	0.8891
2011	0.8719	0.8697
MANUFACTURING AND UTILITIES		
2009	0.8842	0.8876
2010	0.9737	0.9719
2011	0.9619	0.9483
CONTRACTING AND QUARRYING		
2009	0.9384	0.9428
2010	0.9784	0.9746
2011	0.9726	0.9690
OTHER INDUSTRIES		
2009	0.8259	0.8198
2010	0.8558	0.8516
2011	0.8339	0.8327

**COLLECTIBLE PREMIUM RATIOS \***

Manual Years 2011 to 2013 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			
2011	166,292,102	191,202,292	0.8697
2012	176,828,761	201,167,761	0.8790
2013	210,673,499	226,620,708	0.9296
TOTAL	553,794,363	618,990,761	0.8947
MANUFACTURING AND UTILITIES			
2011	22,171,298	23,381,035	0.9483
2012	21,046,764	22,062,274	0.9540
2013	27,104,156	26,345,316	1.0288
TOTAL	70,322,218	71,788,625	0.9796
CONTRACTING AND QUARRYING			
2011	31,105,162	32,098,779	0.9690
2012	36,534,663	36,375,419	1.0044
2013	38,112,400	37,888,885	1.0059
TOTAL	105,752,225	106,363,083	0.9943
OTHER INDUSTRIES			
2011	113,015,643	135,722,479	0.8327
2012	119,247,334	142,730,068	0.8355
2013	145,456,943	162,386,506	0.8957
TOTAL	377,719,920	440,839,053	0.8568

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

**EXPECTED LOSS RATE FACTORS**

**CALCULATION OF EXPECTED LOSS RATE FACTORS**

<b>Policy Year Beginning 12/1 (1)</b>	<b>Average Law Multiplier (2)</b>	<b>Adjustment Factor (3)</b>	<b>Loss Ratio Development Factor (4)</b>	<b>Expense Allowance ** 1 / (PLR/CPR) (5)</b>	<b>Trend Factor (6)</b>	<b>Product (2) * (3) * (4) * (5) * (6) (7)</b>	<b>Expected Loss Rate Factor 1.0 / (7) (8)</b>
<b><u>Manufacturing and Utilities</u></b>							
2010	0.7969	1.0000	1.6045	1.7162	1.5480	3.3969	0.2944
2011	0.7999	1.0000	2.2436	1.7162	1.4059	4.3302	0.2309
2012	0.8001	1.0000	3.0166	1.7162	1.2777	5.2925	0.1889
<b><u>Contracting and Quarrying</u></b>							
2010	0.7969	1.0000	1.8767	1.7419	1.5480	4.0327	0.2480
2011	0.7999	1.0000	2.1326	1.7419	1.4059	4.1776	0.2394
2012	0.8001	1.0000	3.1093	1.7419	1.2777	5.5368	0.1806
<b><u>Other Industries</u></b>							
2010	0.7969	1.0000	1.6658	1.5011	1.5480	3.0847	0.3242
2011	0.7999	1.0000	2.0225	1.5011	1.4059	3.4142	0.2929
2012	0.8001	1.0000	2.8105	1.5011	1.2777	4.3129	0.2319

\*\* Permissible Loss Ratio = 0.5708  
 Collectible Premium Ratios  
     Manufacturing = 0.9796  
     Contracting = 0.9943  
     All Other = 0.8568

Experience Rating Plan Parameters

(1)	Eligibility Point = (3,161 = 1 yr Prem)	3 yr =	\$9,483
(2)	Permissible Loss Ratio =		0.6380 (a)
(3)	Expected Losses needed to achieve 5% credibility (1)*(2) = \$9,483*0.6380 =		\$6,050
(4)	Max Value :	$\frac{0.25 * \$6,050}{0.05} =$	\$30,250
(5)	K-Value a) If (3) is assigned 5% credibility, then $K = \frac{E(1-c)}{c} = \frac{\$6,050 * (1-.05)}{.05} =$		\$114,950
(6)	.055 Credibility Interval - the .0525 left endpoint corresponds to $E = \frac{(K * C)}{(1-C)} =$	$\frac{\$114,950 * .0525}{.9475} =$	\$6,369
(7)	Right endpoint for .05 credibility interval =		\$6,368
(8)	Self rating point = 25 * average serious claim  = 25 * \$381,817 =		\$9,545,425
	6% of (8) rounded to the nearest \$1,000 =		\$573,000
		Selected =	\$573,000

(a) Standard LR / CPR = Manual LR  
0.5708/0.8947 = 0.6380