

PENNSYLVANIA COMPENSATION RATING BUREAU

Review of Experience Rating Plan Parameters

Page 19.1 contains Collectible Premium Ratios.

Page 19.2 contains Expected Loss Cost Factors. They are applied to loss costs by classification to produce Table A (Expected Loss Factors) which are the basis for the calculation of Expected Losses.

Page 19.3 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 1998, 1999 and 2000 Unit Data

Manual Year	Premium at Manual Rates	Collected Premium (Excluding Constants)	Collectible Premium Ratio (2)/(3)
(1)	(2)	(3)	(4)
ALL INDUSTRIES			
1998	2,344,724,035	2,218,703,529	1.0568
1999	2,453,241,856	2,288,032,841	1.0722
2000	2,579,822,955	2,351,802,472	1.0970
TOTAL	7,377,788,846	6,858,538,842	1.0757
MANUFACTURING AND UTILITIES			
1998	640,382,811	592,859,661	1.0802
1999	651,464,197	584,328,159	1.1149
2000	647,578,241	581,517,768	1.1136
TOTAL	1,939,425,249	1,758,705,588	1.1028
CONTRACTING AND QUARRYING			
1998	391,007,311	372,367,707	1.0501
1999	422,033,225	399,647,368	1.0560
2000	456,941,028	419,078,042	1.0903
TOTAL	1,269,981,564	1,191,093,117	1.0662
OTHER INDUSTRIES			
1998	1,313,333,913	1,253,476,161	1.0478
1999	1,379,744,434	1,304,057,314	1.0580
2000	1,475,303,686	1,351,206,662	1.0918
TOTAL	4,168,382,033	3,908,740,137	1.0664

* Excludes classifications and coverages not subject to experience rating

CALCULATION OF EXPECTED LOSS COST FACTORS (a)

Policy Year Beginning 4/1 (1)	Act 57 Adjust- ment (2)	Adjust- ment Factor (3)	Loss Ratio Development Factor (4)	Collectible Premium Ratio (5)	Trend Factor (6)	Product (2) * (3) * (4) * (5) * (6) (7)	Expected Loss Cost Factor 1.0 / (7) (8)
<u>Manufacturing and Utilities</u>							
2000	1.0000	1.0000	1.2406	1.1028	1.2003	1.6422	0.6089
2001	1.0000	1.0000	1.3846	1.1028	1.1467	1.7510	0.5711
2002	1.0000	1.0000	1.7863	1.1028	1.0955	2.1581	0.4634
<u>Contracting and Quarrying</u>							
2000	1.0000	1.0000	1.3374	1.0662	1.2003	1.7115	0.5843
2001	1.0000	1.0000	1.4627	1.0662	1.1467	1.7884	0.5592
2002	1.0000	1.0000	1.7961	1.0662	1.0955	2.0980	0.4766
<u>Other Industries</u>							
2000	1.0000	1.0000	1.2640	1.0664	1.2003	1.6179	0.6181
2001	1.0000	1.0000	1.3953	1.0664	1.1467	1.7063	0.5861
2002	1.0000	1.0000	1.7909	1.0664	1.0955	2.0923	0.4779

a Apply to pure Loss Costs (pre-LBA, Merit Rating Plan, PCCPAP and Certified Safety Committee adjustments).

Experience Rating Plan Parameters

- | | | |
|-----|--|---|
| (1) | Current Premium Eligibility Point =
Expected Losses needed to achieve 5% credibility | \$10,000 |
| (2) | Max Value : $\frac{0.25 * \$10,000}{0.05} =$ | \$50,000 |
| (3) | K-Value
a) If (1) is assigned 5% credibility, then
$K = \frac{E(1-c)}{c} = \frac{\$10,000 * (1-.05)}{.05} =$ | \$190,000 |
| (4) | .055 Credibility Interval - the .0525 left endpoint
corresponds to $E = \frac{(K * C)}{(1-C)} =$ | $\frac{190,000 * .0525}{.9475} =$
\$10,528 |
| (5) | Right endpoint for .05 credibility interval = | \$10,527 |
| (6) | Average serious claim = | \$251,529 |
| (7) | Self rating point = 25 * average serious claim # | \$6,288,225 |
| (8) | 6% of (7) rounded to the nearest \$1,000 = | 377,000 |