

PENNSYLVANIA COMPENSATION RATING BUREAU  
F CLASS FILING

Expense Study

The following exhibits are used in the development of specific expense provisions to be used in the PCRB's proposed F-Class filing. The provisions are for commission & brokerage, other acquisition, general and loss adjustment expense, premium discount and uncollectible premium.

Exhibit I of the attachment presents summary figures for standard earned premium, general expenses and total production costs from the last three calendar years. The data is drawn from Pennsylvania Expense Call submissions. The data has been adjusted to include the experience for large deductible policies.

Exhibit I-A develops standard earned premium on both net and gross bases after adjusting for large deductible policies and removing expense constant dollars.

Exhibit II shows the development of the expense constant offset that is carried forward to Exhibit I.

Exhibit III shows the calculation of the loss adjustment expense provision as a function of the incurred losses. The loss adjustment expense factor is based on all-company experience and is developed from the same source of data as Exhibit I above. We selected a three-year average of loss adjustment expense ratios to direct incurred losses including large deductibles on a gross basis.

Exhibits IV-A and IV-B show the development of an average provision for premium discount based upon the Schedule X and Schedule Y premium discount tables, respectively. The data used by the PCRB for this purpose is Unit Statistical Plan data. These exhibits form the basis for Exhibits IV-C and IV-D, which develop the average interstate premium discounts both for Schedule X and Y companies separately and on an all-company basis.

Exhibit V develops the provision for uncollectible premium based on the ratio of uncollectible premium to gross written premium. Please note that the selection of an uncollectible premium provision recognizes the fact that in the residual market, collection problems would be more prevalent than in the market as a whole. The data used is courtesy of NCCI, Inc.

**EXHIBIT I**  
**ALL COMPANIES**

	<b>CALENDAR YEAR</b>		
	<b>2016</b>	<b>2017</b>	<b>2018</b>
(1) Standard Earned Premium at Company Rate Level <u>including</u> Large Deductible on a <u>Net</u> Basis <u>excluding</u> Expense Constant Dollars (Page 3.2, line (10))	\$ 2,838,935,302	\$ 2,865,939,331	\$ 3,069,058,105
(2) Standard Earned Premium at Company Level <u>including</u> Large Deductible on a <u>Gross</u> Basis <u>excluding</u> Expense Constant Dollars (Page 3.2, line (11))	\$ 3,710,366,906	\$ 3,711,012,878	\$ 3,745,350,867
(3) Commission and Brokerage	\$ 175,203,749	\$ 196,716,148	\$ 191,205,119
(3a) Reported Ratio { (3) / (1) }	0.0617	0.0686	0.0623
(4) Other Acquisition	\$ 111,854,749	\$ 108,486,330	\$ 111,672,786
(4a) Reported Ratio { (4) / (2) }	0.0301	0.0292	0.0298
(5) General Expense	\$ 165,930,931	\$ 175,366,202	\$ 188,374,381
(5a) Reported Ratio { (5) / (2) }	0.0447	0.0473	0.0503

	<b>Three Year Average (1)</b>	<b>Expense Constant Income (Page 3.3) (2)</b>	<b>Difference { (1) - (2) }</b>
COMMISSION AND BROKERAGE	0.0642	0.0119	0.0523
OTHER ACQUISITION	0.0297	0.0057	0.0240
TOTAL PRODUCTION	0.0939	0.0176	0.0763
GENERAL EXPENSE	0.0474	0.0114	0.0360

**EXHIBIT I - A  
ALL COMPANIES**

	<u>CALENDAR YEAR</u>		
	<u>2016</u>	<u>2017</u>	<u>2018</u>
(1) Standard Earned Premium at PCR B DSR Level <u>including</u> Large Deductible on a <u>Net</u> Basis	\$ 1,764,887,687	\$ 1,782,042,947	\$ 1,905,647,131
(2) Multiplier to Bring Premium to Company Rate Level	1.6434	1.6436	1.6447
(3) Standard Earned Premium at Company Rate Level <u>including</u> Large Deductible on a <u>Net</u> Basis { (1) * (2) }	\$ 2,900,416,425	\$ 2,928,965,788	\$ 3,134,217,836
(4) Large Deductible Adj. at PCR B DSR Level	\$ 656,099,687	\$ 634,439,600	\$ 510,255,592
(5) Multiplier to Bring L. D. Adj. to Company Rate Level	1.3282	1.3320	1.3254
(6) Large Deductible Adj. at Company Rate Level { (4) * (5) }	\$ 871,431,604	\$ 845,073,547	\$ 676,292,762
(7) Standard Earned Premium at Company Rate Level <u>including</u> Large Deductible on a <u>Gross</u> Basis { (3) + (6) }	\$ 3,771,848,029	\$ 3,774,039,335	\$ 3,810,510,598
(8) Expense Constant Removal Factor	0.9837	0.9833	0.9829
(9) Expense Constant Dollars { (7)[1 - (8)] }	\$ 61,481,123	\$ 63,026,457	\$ 65,159,731
(10) Standard Earned Premium at Company Rate Level <u>including</u> Large Deductible on a <u>Net</u> Basis <u>excluding</u> Expense Constant Dollars { (3) - (9) }	\$ 2,838,935,302	\$ 2,865,939,331	\$ 3,069,058,105
(11) Standard Earned Premium at Company Level <u>including</u> Large Deductible on a <u>Gross</u> Basis <u>excluding</u> Expense Constant Dollars { (7) - (9) }	\$ 3,710,366,906	\$ 3,711,012,878	\$ 3,745,350,867

**EXHIBIT II****EXPENSE CONSTANT INCOME - ALL COMPANIES****MANUAL YEAR 2016**

(1) Number of Policies				262,766	
(2) Expense Constant Income With Expense Constant @ Current Level = \$ 315				\$ 82,771,290	
(3) Interstate Adjustment Factor				0.90	
(4) Adjusted Expense Constant Income {(2) * (3)}				\$ 74,494,161	
(5) Standard Earned Premium <u>Excluding</u> Expense Constant <u>including</u> Large Deductible on a <u>Net</u> Basis				\$ 2,010,905,074	
(5a) Factor to Bring Premium to Current Level				1.0955	
(5b) Standard Earned Premium <u>Excluding</u> Expense Constant <u>including</u> Large Deductible on a <u>Net</u> Basis at Current Level				\$ 2,202,946,509	
(6) Standard Earned Premium <u>Excluding</u> Expense Constant <u>including</u> Large Deductible on a <u>Gross</u> Basis				\$ 2,735,971,631	
(6a) Factor to Bring Premium to Current Level				1.0349	
(6b) Standard Earned Premium <u>Excluding</u> Expense Constant <u>including</u> Large Deductible on a <u>Gross</u> Basis at Current Level				\$ 2,831,457,041	
(7) Distribution of Expense Constant Income					
		%	%	\$	Total Expense \$
(a) General Expense	43.3%			\$ 136.50	\$ 32,281,333
(b) Production	56.7%				
i) Commission			62.0%	\$ 110.67	\$ 26,171,953
ii) Other Acquisition			38.0%	\$ 67.83	\$ 16,040,875
Total	100.0%			\$ 315.00	\$ 74,494,161
(8) Expense Constant Ratio for General Expense { (7a) / (6b) }					0.0114
(9) Expense Constant Ratio for Commission { (7b(i)) / (5b) }					0.0119
(10) Expense Constant Ratio for Other Acquisition { (7b(ii)) / (6b) }					0.0057

**EXHIBIT III**

**LOSS ADJUSTMENT EXPENSE RATIOS - ALL COMPANIES**

	<b><u>CALENDAR YEAR</u></b>		
	<b><u>2016</u></b>	<b><u>2017</u></b>	<b><u>2018</u></b>
(1) Loss Adjustment Expense	\$ 309,757,636	\$ 282,054,429	\$ 302,920,593
(2) Incurred Losses <u>including</u> Large Deductible on a <u>Net</u> Basis	\$ 1,330,776,476	\$ 1,166,700,960	\$ 1,154,943,637
(3) Large Deductible Adjustment	\$ 753,343,352	\$ 644,973,257	\$ 659,636,158
(4) Incurred Losses <u>including</u> Large Deductible on a <u>Gross</u> Basis { (2) + (3) }	\$ 2,084,119,828	\$ 1,811,674,217	\$ 1,814,579,795
(5) Ratio of Loss Adjustment Expense to Incurred Losses <u>including</u> Large Deductible on a <u>Net</u> Basis { (1) / (2) }	0.2328	0.2418	0.2623
(6) Ratio of Loss Adjustment Expense to Incurred Losses <u>including</u> Large Deductible on a <u>Gross</u> Basis { (1) / (4) }	0.1486	0.1557	0.1669
<b>Three-Year Average of Loss Adjustment Expense Ratios to Direct Incurred Losses including Large Deductible on a Net Basis</b>			0.2456
<b>Three-Year Average of Loss Adjustment Expense Ratios to Direct Incurred Losses including Large Deductible on a Gross Basis</b>			0.1571

**EXHIBIT IV - A**

**SIZE OF RISKS - SCHEDULE X COMPANIES**

**MANUAL YEAR 2016**

<u>Intrastate Risks</u>	<u>Number of Risks</u>	<u>Intrastate SEP excluding Loss and Expense Constant</u>
	<u>(1)</u>	<u>(2)</u>
Up to \$10,000	89,688	\$ 111,785,694
\$10,001 - \$200,000	7,081	\$ 228,482,376
\$200,001 - \$1,750,000	234	\$ 99,973,145
Over \$1,750,000	25	\$ 119,503,402
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TOTAL	97,028	\$ 559,744,617

**DISTRIBUTION OF PREMIUM TO DISCOUNT BLOCK**

<u>Size of Risk</u>	<u>Number of Risks</u>	<u>First \$10,000</u>	<u>Next \$190,000</u>	<u>Next \$1,550,000</u>	<u>Over \$1,750,000</u>
Up to \$10,000	89,688	\$ 111,785,694			
\$10,001 - \$200,000	7,081	\$ 70,810,000	\$ 157,672,376		
\$200,001 - \$1,750,000	234	\$ 2,340,000	\$ 44,460,000	\$ 53,173,145	
Over \$1,750,000	25	\$ 250,000	\$ 4,750,000	\$ 38,750,000	\$ 75,753,402
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TOTAL	97,028	\$ 185,185,694	\$ 206,882,376	\$ 91,923,145	\$ 75,753,402
PERCENTAGE		33.08%	36.96%	16.42%	13.53%

**EXHIBIT IV - B**

**SIZE OF RISKS - SCHEDULE Y COMPANIES**

**MANUAL YEAR 2016**

<u>Intrastate Risks</u>	<u>Number of Risks</u>	<u>Intrastate SEP excluding Loss and Expense Constant</u>
	<u>(1)</u>	<u>(2)</u>
Up to \$10,000	137,490	\$ 248,155,704
\$10,001 - \$200,000	21,500	\$ 837,756,614
\$200,001 - \$1,750,000	1,592	\$ 745,031,059
Over \$1,750,000	94	\$ 353,308,391
TOTAL	160,676	\$ 2,184,251,768

**DISTRIBUTION OF PREMIUM TO DISCOUNT BLOCK**

<u>Size of Risk</u>	<u>Number of Risks</u>	<u>First \$10,000</u>	<u>Next \$190,000</u>	<u>Next \$1,550,000</u>	<u>Over \$1,750,000</u>
Up to \$10,000	137,490	\$ 248,155,704			
\$10,001 - \$200,000	21,500	\$ 215,000,000	\$ 622,756,614		
\$200,001 - \$1,750,000	1,592	\$ 15,920,000	\$ 302,480,000	\$ 426,631,059	
Over \$1,750,000	94	\$ 940,000	\$ 17,860,000	\$ 145,700,000	\$ 188,808,391
TOTAL	160,676	\$ 480,015,704	\$ 943,096,614	\$ 572,331,059	\$ 188,808,391
PERCENTAGE		21.98%	43.18%	26.20%	8.64%

**EXHIBIT IV - C**

**AVERAGE COMPANY PREMIUM DISCOUNT**

**SCHEDULE X COMPANIES**

	Premium Distribution to Discount Block <b><u>(EXHIBIT IV - A)</u></b>	Reduction from Manual <u>                    </u>	Weighted Reduction <u>                    </u>
Up to \$10,000	33.08	0.0	0.00
\$10,001 - \$200,000	36.96	5.1	1.88
\$200,001 - \$1,750,000	16.42	6.5	1.07
Over \$1,750,000	13.53	7.5	1.01
			<u>                    </u>
		<b>Premium Discount =</b>	<b>3.96</b>
<b>Intrastate Premium Discount</b>		<b>3.96</b>	
<b>Interstate Premium Discount</b>		<b>4.46</b>	

**SCHEDULE Y COMPANIES**

	Premium Distribution to Discount Block <b><u>(EXHIBIT IV - B)</u></b>	Reduction from Manual <u>                    </u>	Weighted Reduction <u>                    </u>
Up to \$10,000	21.98	0.0	0.00
\$10,001 - \$200,000	43.18	9.1	3.93
\$200,001 - \$1,750,000	26.2	11.3	2.96
Over \$1,750,000	8.64	12.3	1.06
			<u>                    </u>
		<b>Premium Discount =</b>	<b>7.95</b>
<b>Intrastate Premium Discount</b>		<b>7.95</b>	
<b>Interstate Premium Discount</b>		<b>8.45</b>	

**EXHIBIT IV - D**

**AVERAGE COMPANY PREMIUM DISCOUNT**

**ALL COMPANIES**

	<u>Intrastate SEP excluding Loss and Expense Constant</u>	<u>Interstate Premium Discount</u>
<b>SCHEDULE X</b>	\$ 559,744,617	4.46
<b>SCHEDULE Y</b>	\$ 2,184,251,768	8.45
<b>WEIGHTED AVERAGE</b>		<u>7.64</u>

**EXHIBIT V**

**DELAWARE POOL GROSS WRITTEN PREMIUM AND UNCOLLECTIBLE PREMIUM\***

Data as of 3/31/2020

<b>POLICY YEAR</b>	<b>(1) GROSS WRITTEN PREMIUM</b>	<b>(2) UNCOLLECTIBLE PREMIUM</b>	<b>(3)=(2)/(1) RATIO</b>
2009	7,534,777	48,615	0.65%
2010	6,971,475	218,938	3.14%
2011	10,743,905	73,045	0.68%
2012	15,490,200	121,840	0.79%
2013	22,238,637	565,778	2.54%
2014	17,272,716	169,944	0.98%
2015	17,968,805	132,716	0.74%
2016	16,600,638	412,729	2.49%
2017	15,644,595	455,944	2.91%
2018	13,715,423	344,974	2.52%
		All Year Average	1.74%
		Five Year Average	1.93%
		Three Year Average	2.64%
		Selected	1.15%

\* Data courtesy of NCCI, Inc.  
Excludes Audit Noncompliance Charge premium