# 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

# **CALENDAR YEAR**

|             |  | 2018                         | 2019                                  | 2020                            |
|-------------|--|------------------------------|---------------------------------------|---------------------------------|
| (1)         | Standard Earned Premium at Company Rate Level including Large Deductible on a Net Basis excluding Expense Constant Dollars (Page 3.2, line (10)) | \$ 3,058,691,444             | \$ 3,052,851,804                      | \$ 2,654,276,453                |
| (2)         | Standard Earned Premium at Company Level including Large Deductible on a Gross Basis excluding Expense Constant Dollars (Page 3.2, line (11))    | \$ 3,735,234,309             | \$ 3,652,712,051                      | \$ 3,125,524,553                |
| (3)<br>(3a) | Commission and Brokerage<br>Reported Ratio { (3) / (1) }   | \$ 191,150,369<br>0.0625     | \$ 196,034,929<br>0.0642              | \$ 177,999,636<br>0.0671        |
| (4)<br>(4a) | Other Acquisition Reported Ratio { (4) / (2) }   | \$ 111,680,662<br>0.0299     | \$ 88,609,094<br>0.0243               | \$ 82,362,537<br>0.0264         |
| (5)<br>(5a) | General Expense<br>Reported Ratio { (5) / (2) }  | \$ 188,386,578<br>0.0504     | \$ 182,333,375<br>0.0499              | \$ 185,891,782<br>0.0595        |
|             |  | Three Year<br>Average<br>(1) | Expense Constant<br>Income (Page 3.3) | <b>Difference</b> { (1) - (2) } |
|             | COMMISSION AND BROKERAGE OTHER ACQUISITION   | 0.0646<br>0.0269             | 0.0132<br>0.0050                      | 0.0514<br>0.0219                |
|             | TOTAL PRODUCTION   | 0.0915                       | 0.0182                                | 0.0733                          |
|             | GENERAL EXPENSE  | 0.0533                       | 0.0112                                | 0.0421                          |

# EXHIBIT I - A ALL COMPANIES

# **CALENDAR YEAR**

|      |  | 2018             | 2019             | 2020             |
|------|--|------------------|------------------|------------------|
| (1)  | Standard Earned Premium at PCRB DSR Level including Large Deductible on a Net Basis  | \$ 1,905,360,711 | \$ 1,866,790,105 | \$ 1,570,963,913 |
| (2)  | Multiplier to Bring Premium to Company Rate Level  | 1.6384           | 1.6702           | 1.7333           |
| (3)  | Standard Earned Premium at Company Rate Level including Large Deductible on a Net Basis { (1) * (2) }                                    | \$ 3,121,742,989 | \$ 3,117,912,833 | \$ 2,722,951,750 |
| (4)  | Large Deductible Adj. at PCRB DSR Level  | \$ 510,598,389   | \$ 478,930,337   | \$ 369,172,033   |
| (5)  | Multiplier to Bring L. D. Adj. to Company Rate Level   | 1.3250           | 1.2525           | 1.2765           |
| (6)  | Large Deductible Adj. at Company Rate Level { (4) * (5) }  | \$ 676,542,865   | \$ 599,860,247   | \$ 471,248,100   |
| (7)  | Standard Earned Premium at Company Rate Level including Large Deductible on a Gross Basis { (3) + (6) }                                  | \$ 3,798,285,854 | \$ 3,717,773,080 | \$ 3,194,199,850 |
| (8)  | Expense Constant Removal Factor  | 0.9834           | 0.9825           | 0.9785           |
| (9)  | Expense Constant Dollars { (7)[1 - (8)] }  | \$ 63,051,545    | \$ 65,061,029    | \$ 68,675,297    |
| (10) | Standard Earned Premium at Company Rate Level including Large Deductible on a Net Basis excluding Expense Constant Dollars { (3) - (9) } | \$ 3,058,691,444 | \$ 3,052,851,804 | \$ 2,654,276,453 |
| (11) | Standard Earned Premium at Company Level including Large Deductible on a Gross Basis excluding Expense Constant Dollars { (7) - (9) }    | \$ 3,735,234,309 | \$ 3,652,712,051 | \$ 3,125,524,553 |

# EXHIBIT II

# EXPENSE CONSTANT INCOME - ALL COMPANIES

#### **MANUAL YEAR 2018**

| (1)  | Number of Policies  |                                |                |           | 262,463            |
|------|---|--------------------------------|----------------|-----------|--------------------|
| (2)  | Expense Constant Income With Expense Const  | tant @ Current                 | Level = \$ 340 |           | \$ 89,237,420      |
| (3)  | Interstate Adjustment Factor  |                                |                |           | 0.90               |
| (4)  | Adjusted Expense Constant Income {(2) * (3)}  |                                |                |           | \$ 80,313,678      |
| (5)  | Standard Earned Premium Excluding Expense including Large Deductible on a Net Basis                           | Constant                       |                |           | \$ 2,215,627,588   |
| (5a) | Factor to Bring Premium to Current Level  |                                |                |           | 1.0257             |
| (5b) | Standard Earned Premium Excluding Expense including Large Deductible on a Net Basis at Cu                     |                                |                |           | \$ 2,272,569,217   |
| (6)  | Standard Earned Premium Excluding Expense including Large Deductible on a Gross Basis                         | Constant                       |                |           | \$ 2,978,588,247   |
| (6a) | Factor to Bring Premium to Current Level  |                                |                |           | 1.0410             |
| (6b) | Standard Earned Premium <u>Excluding</u> Expense <u>including</u> Large Deductible on a <u>Gross</u> Basis at |                                |                |           | \$ 3,100,710,365   |
| (7)  | Distribution of Expense Constant Income   | 0/                             | 0/             | Φ.        | Tatal Function (f) |
|      | -   | %                              | %              | \$        | Total Expense \$   |
|      | (a) General Expense   | 43.3%                          |                | \$ 147.34 | \$ 34,803,165      |
|      | (b) Production i) Commission ii) Other Acquisition  | \$ 30,036,939<br>\$ 15,473,574 |                |           |                    |
|      | Total   | \$ 80,313,678                  |                |           |                    |
| (8)  | Expense Constant Ratio for General Expense  | 0.0112                         |                |           |                    |
| (9)  | Expense Constant Ratio for Commission { (7b(  | i)) / (5b }                    |                |           | 0.0132             |
| (10) | Expense Constant Ratio for Other Acquisition {  | 0.0050                         |                |           |                    |

# EXHIBIT III

# LOSS ADJUSTMENT EXPENSE RATIOS - ALL COMPANIES

# **CALENDAR YEAR**

|  | 2018             | 2019             | 2020             |  |
|--|------------------|------------------|------------------|--|
| (1) Loss Adjustment Expense  | \$ 306,322,195   | \$ 292,172,648   | \$ 224,185,259   |  |
| (2) Incurred Losses including Large Deductible on a Net Basis  | \$ 1,159,791,152 | \$ 1,336,819,024 | \$ 900,272,608   |  |
| (3) Large Deductible Adjustment  | \$ 659,975,663   | \$ 692,629,810   | \$ 623,749,301   |  |
| (4) Incurred Losses <u>including</u> Large Deductible on a <u>Gross</u> Basis { (2) + (3) }                                    | \$ 1,819,766,815 | \$ 2,029,448,834 | \$ 1,524,021,909 |  |
| (5) Ratio of Loss Adjustment Expense<br>to Incurred Losses including Large<br>Deductible on a Net Basis<br>{ (1) / (2) }       | 0.2641           | 0.2186           | 0.2490           |  |
| (6) Ratio of Loss Adjustment Expense to Incurred Losses including Large Deductible on a Gross Basis { (1) / (4) }              | 0.1683           | 0.1440           | 0.1471           |  |
| Three-Year Average of Loss Adjustment Expense Ratios to Direct Incurred Losses including Large Deductible on a Net Basis  0.24 |                  |                  |                  |  |
| Three-Year Average of Loss Adjustment Expense Ratios to Direct Incurred Losses including Large Deductible on a Gross Basis     |                  |                  |                  |  |

#### **EXHIBIT IV - A**

#### SIZE OF RISKS - SCHEDULE X COMPANIES

#### **MANUAL YEAR 2018**

|                         |          | Intrastate SEP |
|-------------------------|----------|----------------|
|                         |          | excluding Loss |
|                         | Number   | and Expense    |
| Intrastate Risks        | of Risks | Constant       |
|                         | (1)      | (2)            |
|                         |          |                |
| Up to \$10,000          | 81,522   | \$ 106,033,169 |
| \$10,001 - \$200,000    | 7,257    | \$ 239,606,447 |
| \$200,001 - \$1,750,000 | 272      | \$ 117,780,695 |
| Over \$1,750,000        | 29       | \$ 123,826,174 |
|                         |          |                |
| TOTAL                   | 89,080   | \$ 587,246,485 |

#### **DISTRIBUTION OF PREMIUM TO DISCOUNT BLOCK**

| Size of Risk            | Number of Risks | First \$10,000       | Next \$190,000       | Next \$1,550,000     | Over \$1,750,000    |
|-------------------------|-----------------|----------------------|----------------------|----------------------|---------------------|
| Up to \$10,000          | 81,522          | \$ 106,033,169       |                      |                      |                     |
| \$10,001 - \$200,000    | 7,257           | \$ 72,570,000        | \$ 167,036,447       |                      |                     |
| \$200,001 - \$1,750,000 | 272             | \$ 2,720,000         | \$ 51,680,000        | \$ 63,380,695        |                     |
| Over \$1,750,000        | 29              | \$ 290,000           | \$ 5,510,000         | \$ 44,950,000        | \$ 73,076,174       |
|                         |                 |                      |                      |                      |                     |
| TOTAL                   |                 | <b>*</b> 404 040 400 | <b>A</b> 004 000 447 | <b>*</b> 400 000 005 | <b>A</b> 70 070 171 |
| TOTAL                   | 89,080          | \$ 181,613,169       | \$ 224,226,447       | \$ 108,330,695       | \$ 73,076,174       |
|                         |                 |                      |                      |                      |                     |
| PERCENTAGE              |                 | 30.93%               | 38.18%               | 18.45%               | 12.44%              |

# $\label{eq:exhibit_iv-b} \underline{\text{EXHIBIT IV - B}}$ SIZE OF RISKS - SCHEDULE Y COMPANIES

#### **MANUAL YEAR 2018**

|                         |          | Intrastate SEP   |
|-------------------------|----------|------------------|
|                         |          | excluding Loss   |
|                         | Number   | and Expense      |
| Intrastate Risks        | of Risks | Constant         |
|                         | (1)      | (2)              |
|                         |          |                  |
| Up to \$10,000          | 142,888  | \$ 234,407,482   |
| \$10,001 - \$200,000    | 21,774   | \$ 843,152,696   |
| \$200,001 - \$1,750,000 | 1,635    | \$ 761,942,583   |
| Over \$1,750,000        | 89       | \$ 336,981,848   |
|                         |          |                  |
|                         |          |                  |
| TOTAL                   | 166,386  | \$ 2,176,484,609 |

#### **DISTRIBUTION OF PREMIUM TO DISCOUNT BLOCK**

| Size of Risk  | Number of Risks                  | First \$10,000  | Next \$190,000                                    | Next \$1,550,000                 | Over \$1,750,000 |
|---|----------------------------------|---|---|----------------------------------|------------------|
| Up to \$10,000<br>\$10,001 - \$200,000<br>\$200,001 - \$1,750,000<br>Over \$1,750,000 | 142,888<br>21,774<br>1,635<br>89 | \$ 234,407,482<br>\$ 217,740,000<br>\$ 16,350,000<br>\$ 890,000 | \$ 625,412,696<br>\$ 310,650,000<br>\$ 16,910,000 | \$ 434,942,583<br>\$ 137,950,000 | \$ 181,231,848   |
| TOTAL   | 166,386                          | \$ 469,387,482  | \$ 952,972,696                                    | \$ 572,892,583                   | \$ 181,231,848   |
| PERCENTAGE  |                                  | 21.57%  | 43.78%  | 26.32%                           | 8.33%            |

# **EXHIBIT IV - C**

#### AVERAGE COMPANY PREMIUM DISCOUNT

#### **SCHEDULE X COMPANIES**

|   | Premium Distribution to Discount Block (EXHIBIT IV - A) | Reduction from Manual      |   | Weighted<br>Reduction        |
|---|---|----------------------------|---|------------------------------|
| Up to \$10,000<br>\$10,001 - \$200,000<br>\$200,001 - \$1,750,000<br>Over \$1,750,000 | 30.93<br>38.18<br>18.45<br>12.44                        | 0.0<br>5.1<br>6.5<br>7.5   |   | 0.00<br>1.95<br>1.20<br>0.93 |
|   |   | Premium Discount           | = | 4.08                         |
| Intrastate I  | 4.08  |                            |   |                              |
| Interstate i  | 4.58  |                            |   |                              |
|   | OMPANIES  |                            |   |                              |
|   | Premium Distribution to Discount Block (EXHIBIT IV - B) | Reduction<br>from Manual   |   | Weighted<br>Reduction        |
| Up to \$10,000<br>\$10,001 - \$200,000<br>\$200,001 - \$1,750,000<br>Over \$1,750,000 | 21.57<br>43.78<br>26.32<br>8.33                         | 0.0<br>9.1<br>11.3<br>12.3 |   | 0.00<br>3.98<br>2.97<br>1.02 |
|   |   | Premium Discount           | = | 7.97                         |

**Intrastate Premium Discount** 

**Interstate Premium Discount** 

7.97

8.47

# **EXHIBIT IV - D**

#### AVERAGE COMPANY PREMIUM DISCOUNT

# **ALL COMPANIES**

|                     | Intrastate SEP excluding Loss and Expense Constant | Interstate<br>Premium Discount |
|---------------------|--|--------------------------------|
| SCHEDULE X          | \$ 587,246,485                                     | 4.58                           |
| SCHEDULE Y          | \$ 2,176,484,609                                   | 8.47                           |
| WEIGHTED<br>AVERAGE |  | 7.64                           |

<u>EXHIBIT V</u>

<u>DELAWARE POOL GROSS WRITTEN PREMIUM AND UNCOLLECTIBLE PREMIUM\*</u>

Data as of 3/31/2022

| POLICY<br>YEAR | (1)<br>GROSS WRITTEN<br>PREMIUM | (2)<br>UNCOLLECTIBLE<br>PREMIUM | (3)=(2)/(1)<br>RATIO |
|----------------|---------------------------------|---------------------------------|----------------------|
| TEAN           |                                 |                                 | - IAHO               |
| 2011           | 10,743,905                      | 70,755                          | 0.66%                |
| 2012           | 15,488,876                      | 122,935                         | 0.79%                |
| 2013           | 22,238,637                      | 566,173                         | 2.55%                |
| 2014           | 17,272,716                      | 176,957                         | 1.02%                |
| 2015           | 17,967,649                      | 142,633                         | 0.79%                |
| 2016           | 16,603,141                      | 437,076                         | 2.63%                |
| 2017           | 15,638,470                      | 478,151                         | 3.06%                |
| 2018           | 13,552,589                      | 316,868                         | 2.34%                |
| 2019           | 10,099,811                      | 275,712                         | 2.73%                |
| 2020           | 10,082,448                      | 237,424                         | 2.35%                |
|                |                                 |                                 |                      |
|                |                                 |                                 |                      |
|                |                                 | All Year Average                | 1.89%                |
|                |                                 | Five Year Average               | 2.62%                |
|                |                                 | Three Year Average              | 2.47%                |
|                |                                 | Selected                        | 1.31%                |

NOTE: Selected as 50% of 5-year average reflecting collection differences between the residual and voluntary markets.

<sup>\*</sup> Data courtesy of NCCI, Inc. Excludes Audit Noncompliance Charge premium