



Program Administrators Association

"Where Program Business Gets Done"

Data - A Valuable Commodity

Casualty Lines of Business

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Valued Clients
Individualized Solutions



Agenda

- What risk takers want
- What risk takers can live with
- What risk takers do with your data/information
- What risk takers do to fill in the blanks
- Example

What risk takers want

What risk takers want...

1. To make an acceptable profit
2. To align their interests with yours
3. To be able to make an informed underwriting decision
4. Adequate data and other information to enable them to maximize the likelihood of satisfying their first 3 wants
5. No surprises

What risk takers want...

1. Current policy form(s)
2. Current underwriting manual
3. Historical and projected exposures
4. Historical and projected premiums
5. Historical and projected rate changes (filed rates as well as debits/credits)
6. Individual claim detail, at each year-end evaluation and the current evaluation (paid vs. reported; loss vs. ALAE), including: Date of Loss, Date Reported, Claim Number, State, Line of Business, Class, Policy Number, Policy Limit, Deductible/SIR, Type of Loss
7. Descriptions of any changes in policy forms/coverages, claims handling, limits/deductibles, states, regulatory/judicial climate,...
8. Copies of any actuarial reports on the subject book of business

What risk takers can live with

What risk takers can live with...

1. Varies significantly by company
2. Varies significantly by market conditions - data requirements are inversely proportional to the softness of the market
3. Historical premium
4. Current evaluation of claims
5. Triangles

What risk takers do with your data/information

What risk takers do with your data/information...

1. Trend exposures
2. Trend premium
3. Trend loss and ALAE
4. Develop loss and ALAE (i.e., add a provision for IBNR)
5. Based on the above, derive a selected expected loss and ALAE ratio (i.e., “loss pick”) for the prospective coverage period
6. Add fixed and variable expenses and profit/loss sharing provisions, to determined if acceptable margins are achieved

What risk takers do to fill in the blanks

What risk takers do to fill in the blanks...

1. Two key areas where lack of quality data/information are likely to adversely affect projections: Historical and projected rate changes; and multiple evaluations of claims data (i.e., the ability to create development triangles specific to the book of business)
2. Risk takers replace missing data/information with industry proxy data and/or “underwriting judgment”
3. Projections based on the use of proxies and judgment will tend to be more conservative than those based on high quality, program specific data
4. Many times can be the difference between getting a deal done or not

Example

Example

1. General liability program for plumbers
2. Occurrence form
3. All-in fixed and variable expenses are 27.5%
4. Underwriter requires a loss pick of at most 70%

Example - Program Experience

| Accident | Written | Earned | Reported Loss+ALAE @12/31/14 | Reported Loss+ALAE Ratio |
|-------------|-------------------|-------------------|------------------------------------|--------------------------------|
| <u>Year</u> | <u>Premium</u> | <u>Premium</u> | | |
| 2009 | 15,000,000 | 14,500,000 | 10,000,000 | 69.0% |
| 2010 | 16,000,000 | 15,500,000 | 11,000,000 | 71.0% |
| 2011 | 17,000,000 | 16,500,000 | 10,500,000 | 63.6% |
| 2012 | 18,000,000 | 17,500,000 | 8,000,000 | 45.7% |
| 2013 | 19,000,000 | 18,500,000 | 7,500,000 | 40.5% |
| <u>2014</u> | <u>20,000,000</u> | <u>19,500,000</u> | <u>5,500,000</u> | <u>28.2%</u> |
| Total | 105,000,000 | 102,000,000 | 52,500,000 | 51.5% |

Example

PREMISES/OPERATIONS LIABILITY---ALAE INCLUDED INCURRED LOSSES (THOUSANDS)

Unlimited

Years Of Development

| Accident Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1992 | 1,343,239 | 2,166,530 | 2,884,466 | 3,228,740 | 3,430,485 | 3,521,433 | 3,577,114 | 3,628,440 | 3,668,198 | 3,696,497 | 3,720,928 | 3,741,936 | 3,761,783 | 3,767,337 | 3,782,250 | 3,790,885 | 3,795,888 | 3,802,324 | 3,811,733 | 3,818,717 |
| 1993 | 1,376,945 | 2,203,404 | 2,773,409 | 3,158,885 | 3,323,071 | 3,425,063 | 3,516,031 | 3,569,635 | 3,614,783 | 3,651,229 | 3,664,137 | 3,685,838 | 3,712,423 | 3,714,878 | 3,736,560 | 3,741,343 | 3,743,668 | 3,754,070 | 3,772,225 | |
| 1994 | 1,437,656 | 2,289,752 | 2,955,898 | 3,348,099 | 3,563,954 | 3,732,306 | 3,787,426 | 3,843,001 | 3,865,939 | 3,891,977 | 3,919,092 | 3,936,011 | 3,939,969 | 3,950,801 | 3,962,170 | 3,969,631 | 3,977,872 | 3,983,443 | | |
| 1995 | 1,245,849 | 2,031,085 | 2,638,211 | 3,051,989 | 3,304,261 | 3,456,939 | 3,524,998 | 3,575,875 | 3,605,326 | 3,643,144 | 3,663,859 | 3,673,701 | 3,687,569 | 3,693,828 | 3,705,626 | 3,716,860 | 3,725,893 | | | |
| 1996 | 1,316,159 | 2,147,448 | 2,856,220 | 3,332,368 | 3,610,142 | 3,751,929 | 3,829,855 | 3,871,423 | 3,922,240 | 3,936,660 | 3,954,106 | 3,974,491 | 3,989,685 | 3,993,720 | 4,001,264 | 4,011,018 | | | | |
| 1997 | 1,390,788 | 2,299,977 | 3,077,510 | 3,592,758 | 3,857,309 | 4,045,409 | 4,163,026 | 4,224,730 | 4,226,856 | 4,253,682 | 4,277,072 | 4,299,599 | 4,327,958 | 4,324,881 | 4,331,418 | | | | | |
| 1998 | 1,358,094 | 2,299,139 | 3,091,571 | 3,632,154 | 3,962,331 | 4,080,806 | 4,172,478 | 4,201,817 | 4,237,105 | 4,263,731 | 4,290,297 | 4,308,854 | 4,313,517 | 4,314,226 | | | | | | |
| 1999 | 1,515,245 | 2,484,921 | 3,306,246 | 3,991,116 | 4,288,099 | 4,510,485 | 4,556,191 | 4,596,643 | 4,617,453 | 4,649,772 | 4,674,002 | 4,684,647 | 4,695,130 | | | | | | | |
| 2000 | 1,437,147 | 2,339,630 | 3,282,707 | 3,895,452 | 4,215,127 | 4,343,034 | 4,401,801 | 4,452,041 | 4,490,144 | 4,518,655 | 4,539,397 | 4,562,560 | | | | | | | | |
| 2001 | 1,319,145 | 2,238,246 | 3,023,827 | 3,589,764 | 3,870,791 | 3,972,015 | 4,046,823 | 4,080,852 | 4,106,779 | 4,139,470 | 4,159,607 | | | | | | | | | |
| 2002 | 1,221,354 | 1,951,946 | 2,676,295 | 3,160,827 | 3,377,460 | 3,448,225 | 3,509,997 | 3,557,957 | 3,579,157 | 3,594,587 | | | | | | | | | | |
| 2003 | 1,216,581 | 2,006,257 | 2,712,775 | 3,142,298 | 3,343,297 | 3,485,120 | 3,496,848 | 3,531,197 | 3,560,350 | | | | | | | | | | | |
| 2004 | 1,196,611 | 2,000,629 | 2,572,910 | 3,010,327 | 3,211,029 | 3,352,467 | 3,393,154 | 3,440,729 | | | | | | | | | | | | |
| 2005 | 1,198,312 | 1,915,254 | 2,594,469 | 3,003,786 | 3,175,335 | 3,286,983 | 3,340,508 | | | | | | | | | | | | | |
| 2006 | 1,264,620 | 2,015,794 | 2,646,694 | 3,069,232 | 3,269,312 | 3,370,124 | | | | | | | | | | | | | | |
| 2007 | 1,373,399 | 2,239,213 | 2,972,808 | 3,450,635 | 3,688,237 | | | | | | | | | | | | | | | |
| 2008 | 1,435,709 | 2,363,951 | 3,092,427 | 3,596,743 | | | | | | | | | | | | | | | | |
| 2009 | 1,416,557 | 2,309,150 | 2,988,080 | | | | | | | | | | | | | | | | | |
| 2010 | 1,439,215 | 2,266,016 | | | | | | | | | | | | | | | | | | |
| 2011 | 1,443,303 | | | | | | | | | | | | | | | | | | | |

Weighted Average Development Factors

| | <u>1 - 2</u> | <u>2 - 3</u> | <u>3 - 4</u> | <u>4 - 5</u> | <u>5 - 6</u> | <u>6 - 7</u> | <u>7 - 8</u> | <u>8 - 9</u> | <u>9 - 10</u> | <u>10 - 11</u> | <u>11 - 12</u> | <u>12 - 13</u> | <u>13 - 14</u> | <u>14 - 15</u> | <u>15 - 16</u> | <u>16 - 17</u> | <u>17 - 18</u> | <u>18 - 19</u> | <u>19 - 20</u> | <u>20 - Ult</u> |
|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| 3-Yr ATA | 1.617 | 1.310 | 1.161 | 1.064 | 1.037 | 1.010 | 1.012 | 1.007 | 1.006 | 1.005 | 1.004 | 1.003 | 1.000 | 1.002 | 1.002 | 1.002 | 1.002 | 1.004 | 1.002 | 1.002 |
| All-Yr ATA | 1.630 | 1.327 | 1.059 | 1.020 | 1.009 | 1.006 | 1.004 | 1.003 | 1.003 | 1.002 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 |
| 3-Yr ATU | 2.891 | 1.788 | 1.365 | 1.175 | 1.105 | 1.066 | 1.055 | 1.042 | 1.035 | 1.028 | 1.023 | 1.019 | 1.016 | 1.016 | 1.013 | 1.011 | 1.009 | 1.007 | 1.004 | 1.002 |
| All-Yr ATU | 2.419 | 1.484 | 1.118 | 1.056 | 1.035 | 1.026 | 1.019 | 1.015 | 1.012 | 1.009 | 1.007 | 1.006 | 1.005 | 1.005 | 1.004 | 1.004 | 1.003 | 1.002 | 1.001 | 1.001 |

Example

PREMISES/OPERATIONS LIABILITY---ALAE INCLUDED

INCURRED LOSSES (THOUSANDS)

Ultimate Loss Development Factors

| <u>Age</u> | <u>50,000</u> | <u>100,000</u> | <u>300,000</u> | <u>500,000</u> | <u>1,000,000</u> | <u>Unlimited</u> |
|------------|---------------|----------------|----------------|----------------|------------------|------------------|
| 120 | 1.011 | 1.014 | 1.019 | 1.021 | 1.024 | 1.028 |
| 108 | 1.014 | 1.017 | 1.023 | 1.026 | 1.029 | 1.035 |
| 96 | 1.018 | 1.022 | 1.029 | 1.032 | 1.036 | 1.042 |
| 84 | 1.024 | 1.027 | 1.035 | 1.039 | 1.046 | 1.055 |
| 72 | 1.029 | 1.032 | 1.043 | 1.050 | 1.059 | 1.066 |
| 60 | 1.037 | 1.042 | 1.061 | 1.073 | 1.088 | 1.105 |
| 48 | 1.058 | 1.069 | 1.105 | 1.126 | 1.152 | 1.175 |
| 36 | 1.133 | 1.166 | 1.242 | 1.281 | 1.328 | 1.365 |
| 24 | 1.322 | 1.409 | 1.569 | 1.643 | 1.728 | 1.788 |
| 12 | 1.767 | 2.015 | 2.418 | 2.587 | 2.782 | 2.891 |

Example

PRODUCTS/COMPLETED OPERATIONS LIABILITY---ALAE INCLUDED

INCURRED LOSSES (THOUSANDS)

Ultimate Loss Development Factors

| <u>Age</u> | <u>50,000</u> | <u>100,000</u> | <u>300,000</u> | <u>500,000</u> | <u>1,000,000</u> | <u>Unlimited</u> |
|------------|---------------|----------------|----------------|----------------|------------------|------------------|
| 120 | 1.062 | 1.069 | 1.079 | 1.081 | 1.086 | 1.100 |
| 108 | 1.084 | 1.092 | 1.104 | 1.106 | 1.111 | 1.126 |
| 96 | 1.111 | 1.122 | 1.135 | 1.138 | 1.143 | 1.160 |
| 84 | 1.145 | 1.159 | 1.178 | 1.182 | 1.188 | 1.211 |
| 72 | 1.194 | 1.212 | 1.239 | 1.247 | 1.257 | 1.283 |
| 60 | 1.250 | 1.276 | 1.316 | 1.327 | 1.344 | 1.377 |
| 48 | 1.318 | 1.355 | 1.415 | 1.437 | 1.463 | 1.505 |
| 36 | 1.448 | 1.508 | 1.620 | 1.666 | 1.720 | 1.783 |
| 24 | 1.718 | 1.840 | 2.052 | 2.144 | 2.265 | 2.392 |
| 12 | 2.369 | 2.694 | 3.202 | 3.423 | 3.721 | 4.033 |

Example

TOTAL GENERAL LIABILITY---ALAE INCLUDED

INCURRED LOSSES (THOUSANDS)

Ultimate Loss Development Factors

| <u>Age</u> | <u>50,000</u> | <u>100,000</u> | <u>300,000</u> | <u>500,000</u> | <u>1,000,000</u> | <u>Unlimited</u> |
|------------|---------------|----------------|----------------|----------------|------------------|------------------|
| 120 | 1.020 | 1.024 | 1.030 | 1.032 | 1.036 | 1.042 |
| 108 | 1.026 | 1.030 | 1.038 | 1.041 | 1.045 | 1.053 |
| 96 | 1.034 | 1.039 | 1.049 | 1.052 | 1.057 | 1.065 |
| 84 | 1.045 | 1.050 | 1.062 | 1.067 | 1.074 | 1.085 |
| 72 | 1.057 | 1.064 | 1.079 | 1.087 | 1.097 | 1.107 |
| 60 | 1.073 | 1.082 | 1.106 | 1.119 | 1.136 | 1.156 |
| 48 | 1.100 | 1.116 | 1.158 | 1.181 | 1.209 | 1.236 |
| 36 | 1.183 | 1.222 | 1.306 | 1.348 | 1.398 | 1.440 |
| 24 | 1.384 | 1.479 | 1.651 | 1.730 | 1.823 | 1.895 |
| 12 | 1.858 | 2.122 | 2.550 | 2.730 | 2.945 | 3.086 |

Example - No development data provided

| | | Estimated | | | |
|-------------|-------------------|------------------|---------------|-------------------|--------------|
| | | Reported | Loss | Estimated | Ultimate |
| Accident | Earned | Loss+ALAE | Development | Ultimate | Loss+ALAE |
| <u>Year</u> | <u>Premium</u> | <u>@12/31/14</u> | <u>Factor</u> | <u>Loss+ALAE</u> | <u>Ratio</u> |
| 2009 | 14,500,000 | 10,000,000 | 1.097 | 10,969,959 | 75.7% |
| 2010 | 15,500,000 | 11,000,000 | 1.136 | 12,494,539 | 80.6% |
| 2011 | 16,500,000 | 10,500,000 | 1.209 | 12,693,627 | 76.9% |
| 2012 | 17,500,000 | 8,000,000 | 1.398 | 11,186,858 | 63.9% |
| 2013 | 18,500,000 | 7,500,000 | 1.823 | 13,670,210 | 73.9% |
| <u>2014</u> | <u>19,500,000</u> | <u>5,500,000</u> | <u>2.945</u> | <u>16,197,123</u> | <u>83.1%</u> |
| Total | 102,000,000 | 52,500,000 | | 77,212,315 | 75.7% |

Example - Development data provided

PLUMBERS GENERAL LIABILITY INCURRED LOSSES (THOUSANDS) Ultimate Loss Development Factors

Accident

| <u>Year</u> | <u>12</u> | <u>24</u> | <u>36</u> | <u>48</u> | <u>60</u> | <u>72</u> | <u>84</u> | <u>96</u> | <u>108</u> |
|-------------|-----------|-----------|-----------|------------|------------|------------|-----------|-----------|------------|
| 2006 | 4,000,000 | 5,700,000 | 7,000,000 | 7,700,000 | 8,000,000 | 8,200,000 | 8,400,000 | 8,450,000 | 8,500,000 |
| 2007 | 4,300,000 | 6,300,000 | 7,400,000 | 8,300,000 | 8,600,000 | 8,800,000 | 8,900,000 | 9,000,000 | |
| 2008 | 4,000,000 | 6,600,000 | 8,000,000 | 8,500,000 | 9,100,000 | 9,400,000 | 9,500,000 | | |
| 2009 | 4,700,000 | 7,000,000 | 8,500,000 | 9,200,000 | 9,800,000 | 10,000,000 | | | |
| 2010 | 5,400,000 | 7,900,000 | 9,400,000 | 10,500,000 | 11,000,000 | | | | |
| 2011 | 5,000,000 | 8,000,000 | 9,600,000 | 10,500,000 | | | | | |
| 2012 | 4,500,000 | 6,700,000 | 8,000,000 | | | | | | |
| 2013 | 5,000,000 | 7,500,000 | | | | | | | |
| 2014 | 5,500,000 | | | | | | | | |
| Wt Avg: | 1.509 | 1.201 | 1.096 | 1.052 | 1.025 | 1.015 | 1.009 | 1.006 | |
| Industry: | 1.616 | 1.303 | 1.157 | 1.064 | 1.035 | 1.022 | 1.016 | 1.011 | 1.045 |
| Selected: | 1.550 | 1.200 | 1.100 | 1.055 | 1.025 | 1.015 | 1.010 | 1.007 | 1.035 |
| Cumulative: | 2.364 | 1.525 | 1.271 | 1.155 | 1.095 | 1.068 | 1.053 | 1.042 | 1.035 |

Example - Development data provided

| | | Estimated | | | |
|-------------|-------------------|------------------|---------------|-------------------|--------------|
| | | Reported | Loss | Estimated | Ultimate |
| Accident | Earned | Loss+ALAE | Development | Ultimate | Loss+ALAE |
| <u>Year</u> | <u>Premium</u> | <u>@12/31/14</u> | <u>Factor</u> | <u>Loss+ALAE</u> | <u>Ratio</u> |
| 2009 | 14,500,000 | 10,000,000 | 1.068 | 10,684,575 | 73.7% |
| 2010 | 15,500,000 | 11,000,000 | 1.095 | 12,046,858 | 77.7% |
| 2011 | 16,500,000 | 10,500,000 | 1.155 | 12,131,733 | 73.5% |
| 2012 | 17,500,000 | 8,000,000 | 1.271 | 10,167,548 | 58.1% |
| 2013 | 18,500,000 | 7,500,000 | 1.525 | 11,438,492 | 61.8% |
| <u>2014</u> | <u>19,500,000</u> | <u>5,500,000</u> | <u>2.364</u> | <u>13,001,752</u> | <u>66.7%</u> |
| Total | 102,000,000 | 52,500,000 | | 69,470,958 | 68.1% |

Better, more accurate liability loss development data reflects:

1. Actual class of business distribution
2. Actual policy limit profiles
3. Actual deductible/SIR profiles
4. Actual claims handling practices
5. Actual reporting and payment lags

Without this, underwriters will replace missing data/information with industry proxies and/or judgment, usually to the detriment of the producer.