PENNSYLVANIA COMPENSATION RATING BUREAU

Measures of Goodness of Fit in Trend Calculations Using Loss Ratios

Estimates of trended loss ratios using from 4 to 10 data points for each loss development technique are shown in Exhibit 6 of this mailing.

The first page of the attachment shows $R^2$ values for the regressions producing those trended loss ratios.

Pages 2 and 3 show indemnity fitted loss ratios for each loss development method using from 4 to 10 data points.  Page 2 uses linear regression and page 3 uses exponential techniques.  Pages 4 and 5 present analogous results for medical-linear and medical-exponential respectively.

Pages 6 through 9 show residuals resulting from the comparison of actual and fitted (actual minus fitted) values for the curves used in the trend projections. Page 6 shows indemnity results using linear regression, page 7 is for indemnity-exponential, page 8 for medical-linear and page 9 for medical-exponential.

| INDEMNITY | | Average | | |
| --- | --- | --- | --- | --- |
| **r^2** | | (Pd & Inc) | (Incur) | (Pd-23) |
| 4 Point | Linear | 0.076 | 0.276 | 0.542 |
| 5 Point | Linear | 0.141 | 0.236 | 0.605 |
| 6 Point | Linear | 0.076 | 0.561 | 0.140 |
| 7 Point | Linear | 0.248 | 0.675 | 0.008 |
| 8 Point | Linear | 0.496 | 0.772 | 0.121 |
| 9 Point | Linear | 0.640 | 0.836 | 0.322 |
| 10 Point | Linear | 0.735 | 0.875 | 0.502 |
| | | | | |
| 4 Point | Expon'l | 0.079 | 0.282 | 0.546 |
| 5 Point | Expon'l | 0.142 | 0.242 | 0.604 |
| 6 Point | Expon'l | 0.072 | 0.563 | 0.139 |
| 7 Point | Expon'l | 0.240 | 0.675 | 0.008 |
| 8 Point | Expon'l | 0.489 | 0.777 | 0.113 |
| 9 Point | Expon'l | 0.633 | 0.838 | 0.308 |
| 10 Point | Expon'l | 0.732 | 0.879 | 0.488 |

| MEDICAL | | Average | | |
| --- | --- | --- | --- | --- |
| **r^2** | | (Pd & Inc) | (Incur) | (Pd-23) |
| 4 Point | Linear | 0.066 | 0.121 | 0.014 |
| 5 Point | Linear | 0.143 | 0.241 | 0.036 |
| 6 Point | Linear | 0.476 | 0.527 | 0.397 |
| 7 Point | Linear | 0.422 | 0.455 | 0.364 |
| 8 Point | Linear | 0.385 | 0.437 | 0.305 |
| 9 Point | Linear | 0.247 | 0.286 | 0.189 |
| 10 Point | Linear | 0.412 | 0.462 | 0.326 |
| | | | | |
| 4 Point | Expon'l | 0.065 | 0.123 | 0.013 |
| 5 Point | Expon'l | 0.146 | 0.247 | 0.036 |
| 6 Point | Expon'l | 0.475 | 0.529 | 0.394 |
| 7 Point | Expon'l | 0.426 | 0.461 | 0.366 |
| 8 Point | Expon'l | 0.392 | 0.444 | 0.310 |
| 9 Point | Expon'l | 0.254 | 0.295 | 0.194 |
| 10 Point | Expon'l | 0.416 | 0.467 | 0.330 |

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| INDEMNITY Linear FITTED | Policy Year | Loss Ratio Average (Pd & Inc) | Loss Ratio (Incur) | Loss Ratio (Pd-23) |
|---|---|---|---|---|
| 4 Point | 2006 | 0.4903 | 0.4734 | 0.5072 |
| | 2007 | 0.4932 | 0.4674 | 0.5190 |
| | 2008 | 0.4961 | 0.4615 | 0.5308 |
| | 2009 | 0.4990 | 0.4556 | 0.5426 |
| 5 Point | 2005 | 0.4874 | 0.4733 | 0.5014 |
| | 2006 | 0.4903 | 0.4694 | 0.5112 |
| | 2007 | 0.4932 | 0.4654 | 0.5210 |
| | 2008 | 0.4961 | 0.4615 | 0.5308 |
| | 2009 | 0.4990 | 0.4576 | 0.5406 |
| 6 Point | 2004 | 0.5037 | 0.4935 | 0.5139 |
| | 2005 | 0.5014 | 0.4851 | 0.5176 |
| | 2006 | 0.4991 | 0.4768 | 0.5213 |
| | 2007 | 0.4967 | 0.4684 | 0.5250 |
| | 2008 | 0.4944 | 0.4600 | 0.5288 |
| | 2009 | 0.4920 | 0.4517 | 0.5325 |
| 7 Point | 2003 | 0.5127 | 0.5022 | 0.5232 |
| | 2004 | 0.5088 | 0.4937 | 0.5239 |
| | 2005 | 0.5049 | 0.4853 | 0.5246 |
| | 2006 | 0.5011 | 0.4769 | 0.5253 |
| | 2007 | 0.4972 | 0.4684 | 0.5260 |
| | 2008 | 0.4934 | 0.4600 | 0.5268 |
| | 2009 | 0.4895 | 0.4516 | 0.5275 |
| 8 Point | 2002 | 0.5326 | 0.5230 | 0.5423 |
| | 2003 | 0.5256 | 0.5121 | 0.5391 |
| | 2004 | 0.5185 | 0.5012 | 0.5358 |
| | 2005 | 0.5114 | 0.4902 | 0.5326 |
| | 2006 | 0.5043 | 0.4793 | 0.5293 |
| | 2007 | 0.4972 | 0.4684 | 0.5260 |
| | 2008 | 0.4901 | 0.4575 | 0.5228 |
| | 2009 | 0.4831 | 0.4466 | 0.5195 |
| 9 Point | 2001 | 0.5474 | 0.5357 | 0.5591 |
| | 2002 | 0.5389 | 0.5245 | 0.5535 |
| | 2003 | 0.5305 | 0.5132 | 0.5478 |
| | 2004 | 0.5221 | 0.5020 | 0.5422 |
| | 2005 | 0.5136 | 0.4908 | 0.5365 |
| | 2006 | 0.5052 | 0.4795 | 0.5309 |
| | 2007 | 0.4968 | 0.4683 | 0.5253 |
| | 2008 | 0.4883 | 0.4571 | 0.5196 |
| | 2009 | 0.4799 | 0.4459 | 0.5140 |
| 10 Point | 2000 | 0.5676 | 0.5550 | 0.5802 |
| | 2001 | 0.5573 | 0.5425 | 0.5721 |
| | 2002 | 0.5470 | 0.5300 | 0.5641 |
| | 2003 | 0.5367 | 0.5175 | 0.5560 |
| | 2004 | 0.5264 | 0.5050 | 0.5479 |
| | 2005 | 0.5161 | 0.4925 | 0.5398 |
| | 2006 | 0.5058 | 0.4800 | 0.5317 |
| | 2007 | 0.4955 | 0.4675 | 0.5236 |
| | 2008 | 0.4852 | 0.4550 | 0.5155 |
| | 2009 | 0.4749 | 0.4425 | 0.5074 |

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| INDEMNITY Expon'l FITTED | Policy Year | Loss Ratio Average (Pd & Inc) | Loss Ratio (Incur) | Loss Ratio (Pd-23) |
|---|---|---|---|---|
| 4 Point | 2006 | 0.4901 | 0.4734 | 0.5069 |
| | 2007 | 0.4930 | 0.4673 | 0.5186 |
| | 2008 | 0.4960 | 0.4613 | 0.5306 |
| | 2009 | 0.4990 | 0.4554 | 0.5429 |
| 5 Point | 2005 | 0.4873 | 0.4734 | 0.5014 |
| | 2006 | 0.4902 | 0.4693 | 0.5109 |
| | 2007 | 0.4931 | 0.4653 | 0.5207 |
| | 2008 | 0.4960 | 0.4613 | 0.5306 |
| | 2009 | 0.4990 | 0.4573 | 0.5407 |
| 6 Point | 2004 | 0.5034 | 0.4934 | 0.5136 |
| | 2005 | 0.5011 | 0.4848 | 0.5173 |
| | 2006 | 0.4988 | 0.4764 | 0.5210 |
| | 2007 | 0.4965 | 0.4681 | 0.5248 |
| | 2008 | 0.4943 | 0.4599 | 0.5286 |
| | 2009 | 0.4921 | 0.4519 | 0.5324 |
| 7 Point | 2003 | 0.5124 | 0.5023 | 0.5229 |
| | 2004 | 0.5085 | 0.4935 | 0.5236 |
| | 2005 | 0.5047 | 0.4849 | 0.5243 |
| | 2006 | 0.5008 | 0.4764 | 0.5251 |
| | 2007 | 0.4971 | 0.4681 | 0.5258 |
| | 2008 | 0.4933 | 0.4599 | 0.5265 |
| | 2009 | 0.4896 | 0.4519 | 0.5273 |
| 8 Point | 2002 | 0.5322 | 0.5231 | 0.5416 |
| | 2003 | 0.5250 | 0.5116 | 0.5384 |
| | 2004 | 0.5178 | 0.5004 | 0.5352 |
| | 2005 | 0.5108 | 0.4894 | 0.5321 |
| | 2006 | 0.5039 | 0.4786 | 0.5289 |
| | 2007 | 0.4971 | 0.4681 | 0.5258 |
| | 2008 | 0.4903 | 0.4578 | 0.5227 |
| | 2009 | 0.4837 | 0.4477 | 0.5196 |
| 9 Point | 2001 | 0.5471 | 0.5363 | 0.5584 |
| | 2002 | 0.5384 | 0.5243 | 0.5527 |
| | 2003 | 0.5298 | 0.5125 | 0.5470 |
| | 2004 | 0.5213 | 0.5010 | 0.5414 |
| | 2005 | 0.5129 | 0.4898 | 0.5359 |
| | 2006 | 0.5047 | 0.4788 | 0.5304 |
| | 2007 | 0.4966 | 0.4680 | 0.5250 |
| | 2008 | 0.4887 | 0.4575 | 0.5197 |
| | 2009 | 0.4809 | 0.4472 | 0.5144 |
| 10 Point | 2000 | 0.5675 | 0.5560 | 0.5794 |
| | 2001 | 0.5566 | 0.5424 | 0.5711 |
| | 2002 | 0.5460 | 0.5291 | 0.5629 |
| | 2003 | 0.5355 | 0.5161 | 0.5548 |
| | 2004 | 0.5252 | 0.5035 | 0.5468 |
| | 2005 | 0.5151 | 0.4911 | 0.5390 |
| | 2006 | 0.5053 | 0.4791 | 0.5312 |
| | 2007 | 0.4956 | 0.4674 | 0.5236 |
| | 2008 | 0.4861 | 0.4559 | 0.5160 |
| | 2009 | 0.4767 | 0.4447 | 0.5086 |

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| MEDICAL Linear **FITTED** | Policy Year | Loss Ratio Average (Pd & Inc) | Loss Ratio (Incur) | Loss Ratio (Pd-23) |
|---|---|---|---|---|
| 4 Point | 2006 | 0.4849 | 0.4682 | 0.5017 |
|  | 2007 | 0.4820 | 0.4634 | 0.5006 |
|  | 2008 | 0.4791 | 0.4587 | 0.4995 |
|  | 2009 | 0.4761 | 0.4539 | 0.4984 |
| 5 Point | 2005 | 0.4887 | 0.4741 | 0.5033 |
|  | 2006 | 0.4855 | 0.4689 | 0.5020 |
|  | 2007 | 0.4823 | 0.4638 | 0.5008 |
|  | 2008 | 0.4791 | 0.4587 | 0.4995 |
|  | 2009 | 0.4759 | 0.4535 | 0.4983 |
| 6 Point | 2004 | 0.5060 | 0.4902 | 0.5218 |
|  | 2005 | 0.4989 | 0.4821 | 0.5158 |
|  | 2006 | 0.4919 | 0.4739 | 0.5099 |
|  | 2007 | 0.4848 | 0.4658 | 0.5039 |
|  | 2008 | 0.4778 | 0.4577 | 0.4980 |
|  | 2009 | 0.4707 | 0.4495 | 0.4920 |
| 7 Point | 2003 | 0.5056 | 0.4894 | 0.5218 |
|  | 2004 | 0.5003 | 0.4833 | 0.5173 |
|  | 2005 | 0.4949 | 0.4773 | 0.5127 |
|  | 2006 | 0.4896 | 0.4712 | 0.5081 |
|  | 2007 | 0.4843 | 0.4651 | 0.5035 |
|  | 2008 | 0.4789 | 0.4590 | 0.4989 |
|  | 2009 | 0.4736 | 0.4530 | 0.4943 |
| 8 Point | 2002 | 0.5054 | 0.4900 | 0.5208 |
|  | 2003 | 0.5012 | 0.4850 | 0.5173 |
|  | 2004 | 0.4969 | 0.4800 | 0.5138 |
|  | 2005 | 0.4927 | 0.4751 | 0.5104 |
|  | 2006 | 0.4885 | 0.4701 | 0.5069 |
|  | 2007 | 0.4843 | 0.4651 | 0.5035 |
|  | 2008 | 0.4800 | 0.4601 | 0.5000 |
|  | 2009 | 0.4758 | 0.4552 | 0.4965 |
| 9 Point | 2001 | 0.5017 | 0.4859 | 0.5175 |
|  | 2002 | 0.4989 | 0.4825 | 0.5152 |
|  | 2003 | 0.4961 | 0.4791 | 0.5130 |
|  | 2004 | 0.4932 | 0.4758 | 0.5107 |
|  | 2005 | 0.4904 | 0.4724 | 0.5084 |
|  | 2006 | 0.4876 | 0.4690 | 0.5061 |
|  | 2007 | 0.4847 | 0.4656 | 0.5039 |
|  | 2008 | 0.4819 | 0.4623 | 0.5016 |
|  | 2009 | 0.4791 | 0.4589 | 0.4993 |
| 10 Point | 2000 | 0.5103 | 0.4970 | 0.5236 |
|  | 2001 | 0.5066 | 0.4924 | 0.5208 |
|  | 2002 | 0.5028 | 0.4878 | 0.5179 |
|  | 2003 | 0.4991 | 0.4832 | 0.5150 |
|  | 2004 | 0.4954 | 0.4786 | 0.5121 |
|  | 2005 | 0.4916 | 0.4740 | 0.5092 |
|  | 2006 | 0.4879 | 0.4694 | 0.5063 |
|  | 2007 | 0.4841 | 0.4648 | 0.5035 |
|  | 2008 | 0.4804 | 0.4602 | 0.5006 |
|  | 2009 | 0.4766 | 0.4556 | 0.4977 |

| MEDICAL Expon'l FITTED | Policy Year | Loss Ratio Average (Pd & Inc) | Loss Ratio (Incur) | Loss Ratio (Pd-23) |
|---|---|---|---|---|
| 4 Point | 2006 | 0.4847 | 0.4679 | 0.5016 |
| | 2007 | 0.4818 | 0.4632 | 0.5005 |
| | 2008 | 0.4789 | 0.4584 | 0.4994 |
| | 2009 | 0.4760 | 0.4538 | 0.4984 |
| 5 Point | 2005 | 0.4886 | 0.4740 | 0.5032 |
| | 2006 | 0.4853 | 0.4687 | 0.5020 |
| | 2007 | 0.4821 | 0.4636 | 0.5007 |
| | 2008 | 0.4789 | 0.4584 | 0.4994 |
| | 2009 | 0.4757 | 0.4534 | 0.4982 |
| 6 Point | 2004 | 0.5058 | 0.4901 | 0.5215 |
| | 2005 | 0.4986 | 0.4818 | 0.5155 |
| | 2006 | 0.4915 | 0.4735 | 0.5096 |
| | 2007 | 0.4846 | 0.4655 | 0.5037 |
| | 2008 | 0.4777 | 0.4575 | 0.4979 |
| | 2009 | 0.4709 | 0.4497 | 0.4922 |
| 7 Point | 2003 | 0.5056 | 0.4895 | 0.5217 |
| | 2004 | 0.5001 | 0.4832 | 0.5170 |
| | 2005 | 0.4947 | 0.4770 | 0.5124 |
| | 2006 | 0.4893 | 0.4708 | 0.5078 |
| | 2007 | 0.4840 | 0.4648 | 0.5033 |
| | 2008 | 0.4788 | 0.4588 | 0.4988 |
| | 2009 | 0.4736 | 0.4529 | 0.4943 |
| 8 Point | 2002 | 0.5054 | 0.4902 | 0.5207 |
| | 2003 | 0.5011 | 0.4850 | 0.5172 |
| | 2004 | 0.4968 | 0.4798 | 0.5137 |
| | 2005 | 0.4925 | 0.4748 | 0.5102 |
| | 2006 | 0.4882 | 0.4698 | 0.5067 |
| | 2007 | 0.4840 | 0.4648 | 0.5033 |
| | 2008 | 0.4799 | 0.4599 | 0.4999 |
| | 2009 | 0.4757 | 0.4550 | 0.4965 |
| 9 Point | 2001 | 0.5017 | 0.4860 | 0.5175 |
| | 2002 | 0.4988 | 0.4825 | 0.5151 |
| | 2003 | 0.4959 | 0.4790 | 0.5128 |
| | 2004 | 0.4930 | 0.4755 | 0.5105 |
| | 2005 | 0.4902 | 0.4721 | 0.5082 |
| | 2006 | 0.4873 | 0.4687 | 0.5059 |
| | 2007 | 0.4845 | 0.4653 | 0.5037 |
| | 2008 | 0.4817 | 0.4620 | 0.5014 |
| | 2009 | 0.4789 | 0.4586 | 0.4992 |
| 10 Point | 2000 | 0.5104 | 0.4971 | 0.5236 |
| | 2001 | 0.5065 | 0.4923 | 0.5207 |
| | 2002 | 0.5027 | 0.4876 | 0.5177 |
| | 2003 | 0.4989 | 0.4829 | 0.5148 |
| | 2004 | 0.4951 | 0.4782 | 0.5119 |
| | 2005 | 0.4913 | 0.4736 | 0.5090 |
| | 2006 | 0.4876 | 0.4691 | 0.5061 |
| | 2007 | 0.4839 | 0.4646 | 0.5033 |
| | 2008 | 0.4802 | 0.4601 | 0.5005 |
| | 2009 | 0.4766 | 0.4557 | 0.4976 |

| INDEMNITY Linear RESIDUALS | Policy Year | Loss Ratio Average (Pd & Inc) | Loss Ratio (Incur) | Loss Ratio (Pd-23) |
|---|---|---|---|---|
| 4 Point | 2006 | -0.0118 | -0.0115 | -0.0121 |
| | 2007 | 0.0128 | 0.0134 | 0.0122 |
| | 2008 | 0.0099 | 0.0077 | 0.0120 |
| | 2009 | -0.0108 | -0.0096 | -0.0121 |
| 5 Point | 2005 | 0.0000 | -0.0040 | 0.0040 |
| | 2006 | -0.0118 | -0.0075 | -0.0161 |
| | 2007 | 0.0128 | 0.0154 | 0.0102 |
| | 2008 | 0.0099 | 0.0077 | 0.0120 |
| | 2009 | -0.0108 | -0.0116 | -0.0101 |
| 6 Point | 2004 | 0.0175 | 0.0148 | 0.0202 |
| | 2005 | -0.0140 | -0.0158 | -0.0122 |
| | 2006 | -0.0206 | -0.0149 | -0.0262 |
| | 2007 | 0.0093 | 0.0124 | 0.0062 |
| | 2008 | 0.0116 | 0.0092 | 0.0140 |
| | 2009 | -0.0038 | -0.0057 | -0.0020 |
| 7 Point | 2003 | 0.0076 | 0.0003 | 0.0150 |
| | 2004 | 0.0124 | 0.0146 | 0.0102 |
| | 2005 | -0.0175 | -0.0160 | -0.0192 |
| | 2006 | -0.0226 | -0.0150 | -0.0302 |
| | 2007 | 0.0088 | 0.0124 | 0.0052 |
| | 2008 | 0.0126 | 0.0092 | 0.0160 |
| | 2009 | -0.0013 | -0.0056 | 0.0030 |
| 8 Point | 2002 | 0.0226 | 0.0173 | 0.0278 |
| | 2003 | -0.0053 | -0.0096 | -0.0009 |
| | 2004 | 0.0027 | 0.0071 | -0.0017 |
| | 2005 | -0.0240 | -0.0209 | -0.0272 |
| | 2006 | -0.0258 | -0.0174 | -0.0342 |
| | 2007 | 0.0088 | 0.0124 | 0.0052 |
| | 2008 | 0.0159 | 0.0117 | 0.0200 |
| | 2009 | 0.0051 | -0.0006 | 0.0110 |
| 9 Point | 2001 | 0.0126 | 0.0030 | 0.0223 |
| | 2002 | 0.0163 | 0.0158 | 0.0166 |
| | 2003 | -0.0102 | -0.0107 | -0.0096 |
| | 2004 | -0.0009 | 0.0063 | -0.0081 |
| | 2005 | -0.0262 | -0.0215 | -0.0311 |
| | 2006 | -0.0267 | -0.0176 | -0.0358 |
| | 2007 | 0.0092 | 0.0125 | 0.0060 |
| | 2008 | 0.0177 | 0.0121 | 0.0232 |
| | 2009 | 0.0083 | 0.0001 | 0.0165 |
| 10 Point | 2000 | 0.0223 | 0.0153 | 0.0294 |
| | 2001 | 0.0027 | -0.0038 | 0.0093 |
| | 2002 | 0.0082 | 0.0103 | 0.0060 |
| | 2003 | -0.0164 | -0.0150 | -0.0178 |
| | 2004 | -0.0052 | 0.0033 | -0.0138 |
| | 2005 | -0.0287 | -0.0232 | -0.0344 |
| | 2006 | -0.0273 | -0.0181 | -0.0366 |
| | 2007 | 0.0105 | 0.0133 | 0.0076 |
| | 2008 | 0.0208 | 0.0142 | 0.0273 |
| | 2009 | 0.0133 | 0.0035 | 0.0231 |

| INDEMNITY Expon'l RESIDUALS | Policy Year | Loss Ratio Average (Pd & Inc) | Loss Ratio (Incur) | Loss Ratio (Pd-23) |
|---|---|---|---|---|
| 4 Point | 2006 | -0.0116 | -0.0115 | -0.0118 |
| | 2007 | 0.0130 | 0.0135 | 0.0126 |
| | 2008 | 0.0100 | 0.0079 | 0.0122 |
| | 2009 | -0.0108 | -0.0094 | -0.0124 |
| 5 Point | 2005 | 0.0001 | -0.0041 | 0.0040 |
| | 2006 | -0.0117 | -0.0074 | -0.0158 |
| | 2007 | 0.0129 | 0.0155 | 0.0105 |
| | 2008 | 0.0100 | 0.0079 | 0.0122 |
| | 2009 | -0.0108 | -0.0113 | -0.0102 |
| 6 Point | 2004 | 0.0178 | 0.0149 | 0.0205 |
| | 2005 | -0.0137 | -0.0155 | -0.0119 |
| | 2006 | -0.0203 | -0.0145 | -0.0259 |
| | 2007 | 0.0095 | 0.0127 | 0.0064 |
| | 2008 | 0.0117 | 0.0093 | 0.0142 |
| | 2009 | -0.0039 | -0.0059 | -0.0019 |
| 7 Point | 2003 | 0.0079 | 0.0002 | 0.0153 |
| | 2004 | 0.0127 | 0.0148 | 0.0105 |
| | 2005 | -0.0173 | -0.0156 | -0.0189 |
| | 2006 | -0.0223 | -0.0145 | -0.0300 |
| | 2007 | 0.0089 | 0.0127 | 0.0054 |
| | 2008 | 0.0127 | 0.0093 | 0.0163 |
| | 2009 | -0.0014 | -0.0059 | 0.0032 |
| 8 Point | 2002 | 0.0230 | 0.0172 | 0.0285 |
| | 2003 | -0.0047 | -0.0091 | -0.0002 |
| | 2004 | 0.0034 | 0.0079 | -0.0011 |
| | 2005 | -0.0234 | -0.0201 | -0.0267 |
| | 2006 | -0.0254 | -0.0167 | -0.0338 |
| | 2007 | 0.0089 | 0.0127 | 0.0054 |
| | 2008 | 0.0157 | 0.0114 | 0.0201 |
| | 2009 | 0.0045 | -0.0017 | 0.0109 |
| 9 Point | 2001 | 0.0129 | 0.0024 | 0.0230 |
| | 2002 | 0.0168 | 0.0160 | 0.0174 |
| | 2003 | -0.0095 | -0.0100 | -0.0088 |
| | 2004 | -0.0001 | 0.0073 | -0.0073 |
| | 2005 | -0.0255 | -0.0205 | -0.0305 |
| | 2006 | -0.0262 | -0.0169 | -0.0353 |
| | 2007 | 0.0094 | 0.0128 | 0.0062 |
| | 2008 | 0.0173 | 0.0117 | 0.0231 |
| | 2009 | 0.0073 | -0.0012 | 0.0161 |
| 10 Point | 2000 | 0.0224 | 0.0143 | 0.0302 |
| | 2001 | 0.0034 | -0.0037 | 0.0103 |
| | 2002 | 0.0092 | 0.0112 | 0.0072 |
| | 2003 | -0.0152 | -0.0136 | -0.0166 |
| | 2004 | -0.0040 | 0.0048 | -0.0127 |
| | 2005 | -0.0277 | -0.0218 | -0.0336 |
| | 2006 | -0.0268 | -0.0172 | -0.0361 |
| | 2007 | 0.0104 | 0.0134 | 0.0076 |
| | 2008 | 0.0199 | 0.0133 | 0.0268 |
| | 2009 | 0.0115 | 0.0013 | 0.0219 |

| MEDICAL Linear **RESIDUALS** | Policy Year | Loss Ratio Average (Pd & Inc) | Loss Ratio (Incur) | Loss Ratio (Pd-23) |
|---|---|---|---|---|
| 4 Point | 2006 | -0.0126 | -0.0146 | -0.0106 |
| | 2007 | 0.0205 | 0.0239 | 0.0172 |
| | 2008 | -0.0032 | -0.0040 | -0.0024 |
| | 2009 | -0.0047 | -0.0053 | -0.0041 |
| | | | | |
| 5 Point | 2005 | 0.0005 | 0.0007 | 0.0003 |
| | 2006 | -0.0132 | -0.0153 | -0.0109 |
| | 2007 | 0.0202 | 0.0235 | 0.0170 |
| | 2008 | -0.0032 | -0.0040 | -0.0024 |
| | 2009 | -0.0045 | -0.0049 | -0.0040 |
| | | | | |
| 6 Point | 2004 | 0.0128 | 0.0100 | 0.0157 |
| | 2005 | -0.0097 | -0.0073 | -0.0122 |
| | 2006 | -0.0196 | -0.0203 | -0.0188 |
| | 2007 | 0.0177 | 0.0215 | 0.0139 |
| | 2008 | -0.0019 | -0.0030 | -0.0009 |
| | 2009 | 0.0007 | -0.0009 | 0.0023 |
| | | | | |
| 7 Point | 2003 | -0.0085 | -0.0103 | -0.0068 |
| | 2004 | 0.0185 | 0.0169 | 0.0203 |
| | 2005 | -0.0057 | -0.0025 | -0.0091 |
| | 2006 | -0.0173 | -0.0176 | -0.0170 |
| | 2007 | 0.0182 | 0.0222 | 0.0143 |
| | 2008 | -0.0030 | -0.0043 | -0.0018 |
| | 2009 | -0.0022 | -0.0044 | 0.0000 |
| | | | | |
| 8 Point | 2002 | -0.0078 | -0.0077 | -0.0080 |
| | 2003 | -0.0041 | -0.0059 | -0.0023 |
| | 2004 | 0.0219 | 0.0202 | 0.0237 |
| | 2005 | -0.0035 | -0.0003 | -0.0068 |
| | 2006 | -0.0162 | -0.0165 | -0.0158 |
| | 2007 | 0.0182 | 0.0222 | 0.0143 |
| | 2008 | -0.0041 | -0.0054 | -0.0029 |
| | 2009 | -0.0044 | -0.0066 | -0.0022 |
| | | | | |
| 9 Point | 2001 | -0.0130 | -0.0150 | -0.0110 |
| | 2002 | -0.0013 | -0.0002 | -0.0024 |
| | 2003 | 0.0010 | 0.0000 | 0.0020 |
| | 2004 | 0.0256 | 0.0244 | 0.0268 |
| | 2005 | -0.0012 | 0.0024 | -0.0048 |
| | 2006 | -0.0153 | -0.0154 | -0.0150 |
| | 2007 | 0.0178 | 0.0217 | 0.0139 |
| | 2008 | -0.0060 | -0.0076 | -0.0045 |
| | 2009 | -0.0077 | -0.0103 | -0.0050 |
| | | | | |
| 10 Point | 2000 | 0.0110 | 0.0148 | 0.0073 |
| | 2001 | -0.0179 | -0.0215 | -0.0143 |
| | 2002 | -0.0052 | -0.0055 | -0.0051 |
| | 2003 | -0.0020 | -0.0041 | 0.0000 |
| | 2004 | 0.0234 | 0.0216 | 0.0254 |
| | 2005 | -0.0024 | 0.0008 | -0.0056 |
| | 2006 | -0.0156 | -0.0158 | -0.0152 |
| | 2007 | 0.0184 | 0.0225 | 0.0143 |
| | 2008 | -0.0045 | -0.0055 | -0.0035 |
| | 2009 | -0.0052 | -0.0070 | -0.0034 |

| MEDICAL Expon'l RESIDUALS | Policy Year | Loss Ratio Average (Pd & Inc) | Loss Ratio (Incur) | Loss Ratio (Pd-23) |
|---|---|---|---|---|
| 4 Point | 2006 | -0.0124 | -0.0143 | -0.0105 |
|  | 2007 | 0.0207 | 0.0241 | 0.0173 |
|  | 2008 | -0.0030 | -0.0037 | -0.0023 |
|  | 2009 | -0.0046 | -0.0052 | -0.0041 |
| 5 Point | 2005 | 0.0006 | 0.0008 | 0.0004 |
|  | 2006 | -0.0130 | -0.0151 | -0.0109 |
|  | 2007 | 0.0204 | 0.0237 | 0.0171 |
|  | 2008 | -0.0030 | -0.0037 | -0.0023 |
|  | 2009 | -0.0043 | -0.0048 | -0.0039 |
| 6 Point | 2004 | 0.0130 | 0.0101 | 0.0160 |
|  | 2005 | -0.0094 | -0.0070 | -0.0119 |
|  | 2006 | -0.0192 | -0.0199 | -0.0185 |
|  | 2007 | 0.0179 | 0.0218 | 0.0141 |
|  | 2008 | -0.0018 | -0.0028 | -0.0008 |
|  | 2009 | 0.0005 | -0.0011 | 0.0021 |
| 7 Point | 2003 | -0.0085 | -0.0104 | -0.0067 |
|  | 2004 | 0.0187 | 0.0170 | 0.0205 |
|  | 2005 | -0.0055 | -0.0022 | -0.0088 |
|  | 2006 | -0.0170 | -0.0172 | -0.0167 |
|  | 2007 | 0.0185 | 0.0225 | 0.0145 |
|  | 2008 | -0.0029 | -0.0041 | -0.0017 |
|  | 2009 | -0.0022 | -0.0043 | 0.0000 |
| 8 Point | 2002 | -0.0078 | -0.0079 | -0.0079 |
|  | 2003 | -0.0040 | -0.0059 | -0.0022 |
|  | 2004 | 0.0220 | 0.0204 | 0.0238 |
|  | 2005 | -0.0033 | 0.0000 | -0.0066 |
|  | 2006 | -0.0159 | -0.0162 | -0.0156 |
|  | 2007 | 0.0185 | 0.0225 | 0.0145 |
|  | 2008 | -0.0040 | -0.0052 | -0.0028 |
|  | 2009 | -0.0043 | -0.0064 | -0.0022 |
| 9 Point | 2001 | -0.0130 | -0.0151 | -0.0110 |
|  | 2002 | -0.0012 | -0.0002 | -0.0023 |
|  | 2003 | 0.0012 | 0.0001 | 0.0022 |
|  | 2004 | 0.0258 | 0.0247 | 0.0270 |
|  | 2005 | -0.0010 | 0.0027 | -0.0046 |
|  | 2006 | -0.0150 | -0.0151 | -0.0148 |
|  | 2007 | 0.0180 | 0.0220 | 0.0141 |
|  | 2008 | -0.0058 | -0.0073 | -0.0043 |
|  | 2009 | -0.0075 | -0.0100 | -0.0049 |
| 10 Point | 2000 | 0.0109 | 0.0147 | 0.0073 |
|  | 2001 | -0.0178 | -0.0214 | -0.0142 |
|  | 2002 | -0.0051 | -0.0053 | -0.0049 |
|  | 2003 | -0.0018 | -0.0038 | 0.0002 |
|  | 2004 | 0.0237 | 0.0220 | 0.0256 |
|  | 2005 | -0.0021 | 0.0012 | -0.0054 |
|  | 2006 | -0.0153 | -0.0155 | -0.0150 |
|  | 2007 | 0.0186 | 0.0227 | 0.0145 |
|  | 2008 | -0.0043 | -0.0054 | -0.0034 |
|  | 2009 | -0.0052 | -0.0071 | -0.0033 |