

AIS RISK CONSULTANTS, INC.

Consulting Actuaries • Insurance Advisors

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Date: September 24, 2012

To: The Honorable Karen Weldin Stewart
Delaware Insurance Commissioner

From: Allan I. Schwartz

Re: Delaware Compensation Rating Bureau Filing No. 1201; Dated August 14, 2012

In accordance with your request, I have reviewed the Delaware Compensation Rating Bureau (DCRB) filing No. 1201; dated August 14, 2011; proposed effective December 1, 2012. Based upon my analysis I have concluded that smaller increases than those proposed by the DCRB are warranted.¹ A comparison of the values from my analysis and those contained in the DCRB filing is set forth in the following table.

Comparison of AIS and DCRB Rate & Loss Cost Changes

	<u>AIS</u>	<u>DCRB</u>	<u>Difference AIS - DCRB</u>
Change in Residual Market Rate Level	22.6%	43.5%	-20.9%
Change in Voluntary Market Loss Costs	18.1%	38.3%	-20.2%
Adjusted Change in Voluntary Market Manual Loss Cost Level	16.7%	36.6%	-19.9%

The calculations underlying our values are set forth in Schedule AIS-1.

The difference between the AIS and DCRB values relate to the: (i) projected ultimate losses for historical periods along with the impact on the loss trend calculation and (ii) loss adjustment expense provision.²

¹ Our analysis is based upon the information currently available, and is subject to revision if additional relevant information becomes available.

² We also made a technical correction to the trend time periods used by the DCRB for medical losses. For the severity trend, the DCRB procedure used an inaccurate split of time before and after 9/1/08 for policy years 2008 to 2010. Correcting this results in a slight increase in the otherwise indicated rate and loss cost changes.

1. Projected Ultimate Losses for Historical Periods

The procedure used by the DCRB to derive the projected ultimate losses for the historical periods involves:

- (i) Deriving average paid and case incurred loss development factors based upon the most recent four calendar years of experience
- (ii) Fitting the factors to a mathematical curve
- (iii) Use the fitted factors to derive paid and case incurred development factors to ultimate
- (iv) Multiply the paid and case incurred development factors to ultimate by the reported paid and case incurred losses to derive project ultimate losses based upon paid experience and case incurred experience, respectively
- (v) Select the average of those two indications for the projected ultimate losses

We made one change to the method used by the DCRB. Instead of using the loss development reserve procedure in step 4, we used a B-F reserve procedure.³

Both the loss development reserve procedure and B-F reserve procedure are actuarially accepted methods used for calculating ultimate loss projections. The loss development procedure tends to be more responsive but subject to a larger degree of variability, whereas the B-F procedure tends to be more stable with a smaller degree of variability.

After reviewing the reported experience included in the DCRB filing, we believe that in the current circumstances it is more appropriate to use the B-F reserve procedure.⁴

As an example of the instability of the indications from the loss development reserve procedure used by the DCRB, that method gives an increase in medical claim severity from policy year 2009 to 2010 of 35.9%.⁵ This is an extremely large increase in medical claim severity in a one-year time period. The DCRB has not given any reasonable explanation for this

³ The calculations are set forth in Schedule AIS-3.

⁴ For this particular filing, for most policy years, the loss development and B-F procedures give very similar results, differing by less than 1%. For policy year 2009 the difference is about 2%, while for policy year 2010 the difference is about 17%.

⁵ $35.9\% = (1.8167 / 1.3364 - 1) \times 100\%$; DCRB filing, Brown Book, Exhibit VII-2

highly unusual result. This result indicates that for the current filing, the loss development procedure does not give a reasonable result.

In contrast, the B-F reserve procedure gives an increase in medical claim severity from policy year 2009 to 2010 of 12.0%.⁶ While that value is still high, it falls within a range of believable values.

The revision to the projected ultimate losses for the historical periods based upon using the B-F procedure also impacts the trend calculation.⁷ Our loss cost and rate calculations are based upon the same seven year historical trend time period used by the DCRB.

2. Loss Adjustment Expenses

The DCRB filing proposes an increase in loss adjustment expenses (LAE) from 17.35% to 19.29% of losses. The DCRB calculation of the LAE provision depends on making several adjustments to the reported experience.⁸ The basis for, and calculation of, these adjustments was not provided.

In addition, there appears to be a discrepancy between the direction of the losses in different parts of the filing. The DCRB's calculation of the LAE provision shows the dollars of losses decreasing from calendar year 2008 to 2010.⁹ In contrast, the projected loss ratio calculations in the DCRB filing show increasing losses from policy year 2008 to 2010.¹⁰ The LAE provision is calculated as loss adjustment expenses divided by losses.¹¹ Therefore, as loss values decrease (everything else held constant), the LAE ratio increases.

Given these unresolved issues regarding the LAE calculation, we used the current LAE provision of 17.35% in our analysis.

⁶ Schedule AIS-2, Sheet 9

⁷ Schedule AIS-2

⁸ DCRB filing, Exhibit 8, Exhibit III, Lines (1d) and (1e)

⁹ DCRB filing, Exhibit 8, Exhibit III, Line (4)

¹⁰ DCRB filing, Brown Book, Exhibit IV-1, IV-2 and IV-3, Line (14)

¹¹ DCRB filing, Exhibit 8, Exhibit III, Line (6a)

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The Honorable Karen Weldin Stewart, Delaware Insurance Commissioner

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3. Conclusion

Based upon my analysis I have concluded that an increase of about 23% in the residual market rates and 18% in the voluntary loss costs is appropriate.

Please feel free to contact me if there is anything you would care to discuss.

Enclosures

cc: Gene Reed
Ann Lyon

DELAWARE WORKERS' COMPENSATION

Analysis of DCRB Filing Proposed Effective December 1, 2012

Voluntary Market Loss Cost and Residual Market Rates

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(1a) Policy Year 2007 Loss and Loss Adjustment Expense Ratio	0.3241	0.5757	0.8999
(1b) Policy Year 2008 Loss and Loss Adjustment Expense Ratio	0.2852	0.5445	0.8297
(1c) Policy Year 2009 Loss and Loss Adjustment Expense Ratio	0.3017	0.5916	0.8933
(1d) Policy Year 2010 Loss and Loss Adjustment Expense Ratio	0.2835	0.6356	0.9191
(1e) Average (Midpoint = 7/1/2009)	0.2986	0.5869	0.8855
(2a) Policy Year 2007 Loss and LAE Ratio Trended to 12/1/2013	0.2535	0.6067	
(2b) Policy Year 2008 Loss and LAE Ratio Trended to 12/1/2013	0.2325	0.5635	
(2c) Policy Year 2009 Loss and LAE Ratio Trended to 12/1/2013	0.2564	0.6080	
(2d) Policy Year 2010 Loss and LAE Ratio Trended to 12/1/2013	0.2512	0.6487	
(2e) Average at 12/1/2013	0.2484	0.6067	0.8551
(3a) Senate Bill 1 Adjustment	1.0000	0.8260	
(3b) Average Trended Loss and LAE Ratio Post-SB1 (2e) X (3a)	0.2484	0.5011	0.7495
(4a) Excess Loss Factor at \$2,229,397 (Post SB1 Basis)			0.0990
(4b) Provision for Excess Loss (5a)-(3b)			0.0824
(5a) Total Trended Loss and LAE Ratio (3b)/(1.0-(4a))	0.2375	0.5944	0.8319
(5b) Percentage of Total	28.55%	71.45%	
(6) Permissible Loss and Loss Adjustment Ratio			0.6827
(7) Indicated Change in Rates (5a) / (6)			1.2185
(8) Estimated Effect of the 7/1/13 Benefit Change			1.0062
(9) Change in Residual Market Rate Level (7) * (8)			1.2261
(10) Change in Voluntary Market Loss Costs (9) * [0.7074 / 0.7343]			1.1812

Changes in Manual Premium Level by Industry Group

	<u>Mfg.</u>	<u>Cont.</u>	<u>Other</u>	<u>Total</u>
(11) Current Collectible Premium Ratio	0.8690	0.9585	0.8402	
(12) Proposed Collectible Premium Ratio	0.8705	0.9489	0.8331	
(13) Change in Collectible Premium Ratio (12)/(11)	1.0017	0.9900	0.9915	0.9926
(14) Change in Residual Market Manual Rate Level (9) * (13)	1.2282	1.2138	1.2157	1.2170
(15) Change in Voluntary Market Manual Loss Cost Level (10) * (13)	1.1832	1.1694	1.1712	1.1724
(16) Current Offset for Residual Market Surcharge				0.9955
(17) Proposed Offset for Residual Market Surcharge				0.9910
(18) Adjusted Change in Voluntary Market Manual Loss Cost Level (15) * (17) / (16)	1.1779	1.1641	1.1659	1.1671

Analysis of DCRB Filing Proposed Effective December 1, 2012

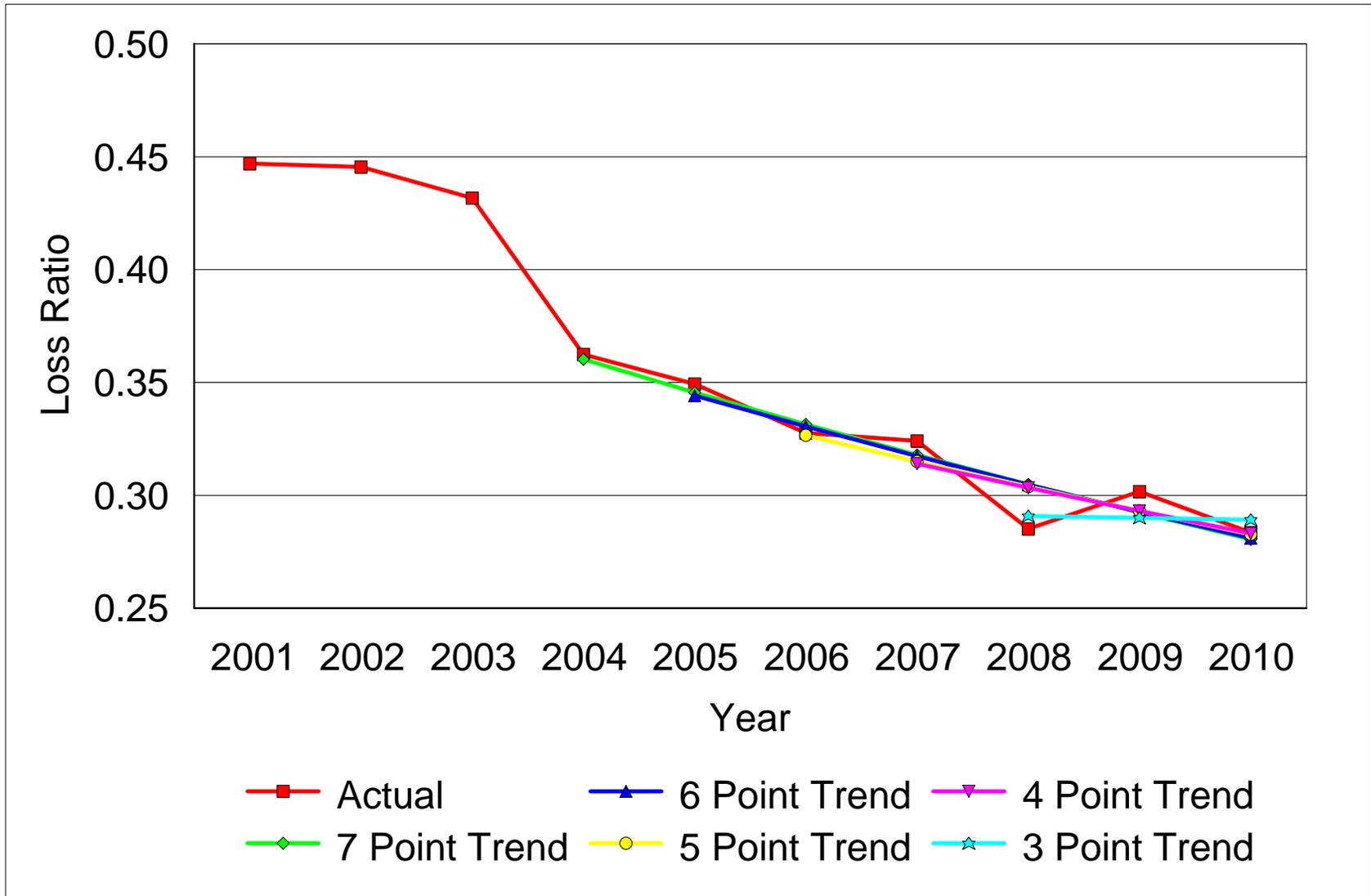
Analysis of Indemnity Loss Ratio Trend

Policy Year	Indemnity Proj Ult Loss Ratio	Change From Prior Year	Fitted Indemnity Loss Ratio								
			10 Year	9 Year	8 Year	7 Year	6 Year	5 Year	4 Year	3 Year	
2001	0.4544		0.4595								
2002	0.4529	-0.3%	0.4343	0.4365							
2003	0.4388	-3.1%	0.4105	0.4122	0.4046						
2004	0.3684	-16.0%	0.3880	0.3892	0.3836	0.3662					
2005	0.3551	-3.6%	0.3668	0.3675	0.3637	0.3513	0.3499				
2006	0.3331	-6.2%	0.3467	0.3471	0.3448	0.3369	0.3360	0.3320			
2007	0.3295	-1.1%	0.3277	0.3278	0.3269	0.3231	0.3226	0.3202	0.3192		
2008	0.2899	-12.0%	0.3097	0.3095	0.3099	0.3099	0.3098	0.3089	0.3084	0.2957	
2009	0.3067	5.8%	0.2927	0.2923	0.2938	0.2973	0.2975	0.2979	0.2979	0.2948	
2010	0.2882	-6.0%	0.2767	0.2760	0.2786	0.2851	0.2857	0.2874	0.2878	0.2940	
Annual Percent Change			-5.5%	-5.6%	-5.2%	-4.1%	-4.0%	-3.5%	-3.4%	-0.3%	
Average of 4 year to 6 year =								-3.6%			
Average of 4 year to 7 year =								-3.7%			
Average of 4 year to 7 year excluding maximum and minimum =								-3.8%			
Average of 3 year to 8 year =								-3.4%			
Average of 3 year to 8 year excluding maximum and minimum =								-3.7%			
Median of 3 year to 10 year =								-4.0%			

Regression Output								
Constant	112.0	113.8	105.9	82.6	80.2	71.3	68.1	4.6
Std Err of Y Est	0.050	0.053	0.054	0.035	0.039	0.044	0.053	0.048
R Squared	93%	91%	87%	89%	82%	70%	51%	1%
Adjusted R Squared	92%	90%	85%	86%	78%	59%	27%	-99%
No. of Observations	10	9	8	7	6	5	4	3
Degrees of Freedom	8	7	6	5	4	3	2	1
X Coefficient(s)	-0.0563	-0.0573	-0.0533	-0.0417	-0.0405	-0.0361	-0.0345	-0.0029
Std Err of Coef.	0.0055	0.0068	0.0083	0.0067	0.0094	0.0138	0.0238	0.0342
T-Statistic	-10.3	-8.4	-6.4	-6.3	-4.3	-2.6	-1.4	-0.1
Probability	0.0%	0.0%	0.1%	0.2%	1.2%	7.9%	28.4%	94.6%

Analysis of DCRB Filing Proposed Effective December 1, 2012

Analysis of Indemnity Loss Ratio Trend



Analysis of DCRB Filing Proposed Effective December 1, 2012

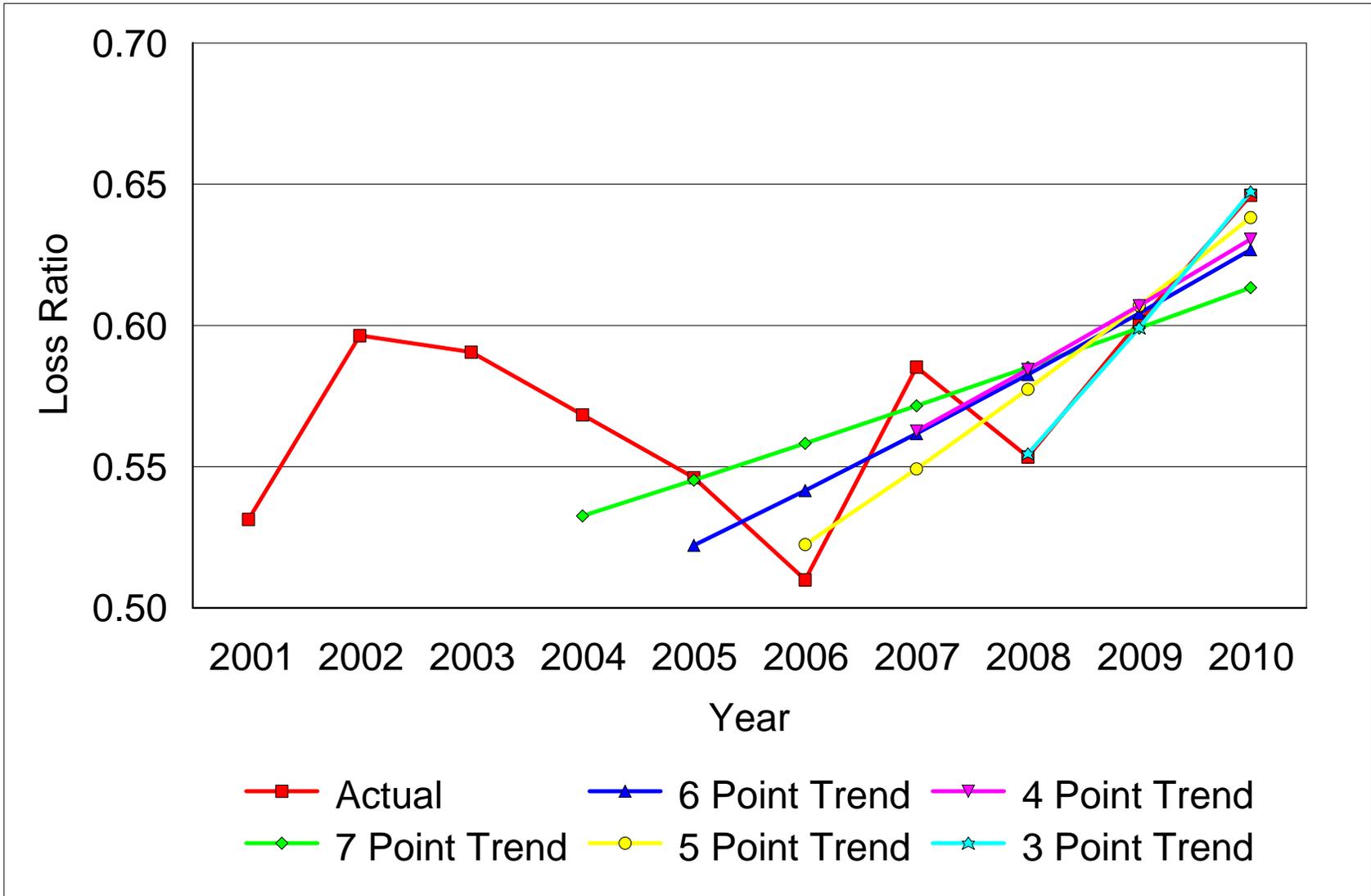
Analysis of Medical Loss Ratio Trend

Policy Year	Medical Proj Ult Loss Ratio	Change From Prior Year	Fitted Medical Loss Ratio							
			10 Year	9 Year	8 Year	7 Year	6 Year	5 Year	4 Year	3 Year
2001	0.5313		0.5486							
2002	0.5965	12.3%	0.5536	0.5616						
2003	0.5906	-1.0%	0.5587	0.5652	0.5485					
2004	0.5684	-3.8%	0.5639	0.5689	0.5556	0.5326				
2005	0.5462	-3.9%	0.5691	0.5726	0.5629	0.5453	0.5221			
2006	0.5100	-6.6%	0.5743	0.5764	0.5702	0.5583	0.5416	0.5224		
2007	0.5853	14.8%	0.5796	0.5801	0.5776	0.5716	0.5617	0.5492	0.5627	
2008	0.5535	-5.4%	0.5850	0.5839	0.5852	0.5852	0.5826	0.5774	0.5844	0.5545
2009	0.6014	8.6%	0.5903	0.5877	0.5928	0.5991	0.6043	0.6071	0.6071	0.5991
2010	0.6461	7.4%	0.5958	0.5916	0.6005	0.6134	0.6268	0.6382	0.6305	0.6473
Annual Percent Change			0.9%	0.7%	1.3%	2.4%	3.7%	5.1%	3.9%	8.0%
Average of 4 year to 6 year =							4.2%			
Average of 4 year to 7 year =							3.8%			
Average of 4 year to 7 year excluding maximum and minimum =							3.8%			
Average of 3 year to 8 year =							4.1%			
Average of 3 year to 8 year excluding maximum and minimum =							3.8%			
Median of 3 year to 10 year =							3.1%			

Regression Output									
Constant	-18.9	-13.6	-26.6	-47.8	-73.9	-101.0	-76.8	-155.9	
Std Err of Y Est	0.067	0.070	0.069	0.061	0.052	0.047	0.051	0.005	
R Squared	16%	7%	20%	45%	68%	79%	58%	100%	
Adjusted R Squared	6%	-6%	7%	34%	60%	72%	37%	100%	
No. of Observations	10	9	8	7	6	5	4	3	
Degrees of Freedom	8	7	6	5	4	3	2	1	
X Coefficient(s)	0.0092	0.0065	0.0130	0.0235	0.0365	0.0500	0.0380	0.0773	
Std Err of Coef.	0.0073	0.0090	0.0106	0.0116	0.0125	0.0149	0.0228	0.0032	
T-Statistic	1.2	0.7	1.2	2.0	2.9	3.4	1.7	23.9	
Probability	24.7%	49.3%	26.6%	9.8%	4.3%	4.4%	23.8%	2.7%	

Analysis of DCRB Filing Proposed Effective December 1, 2012

Analysis of Medical Loss Ratio Trend



Analysis of DCRB Filing Proposed Effective December 1, 2012

Analysis of Normalized Claim Frequency Trend

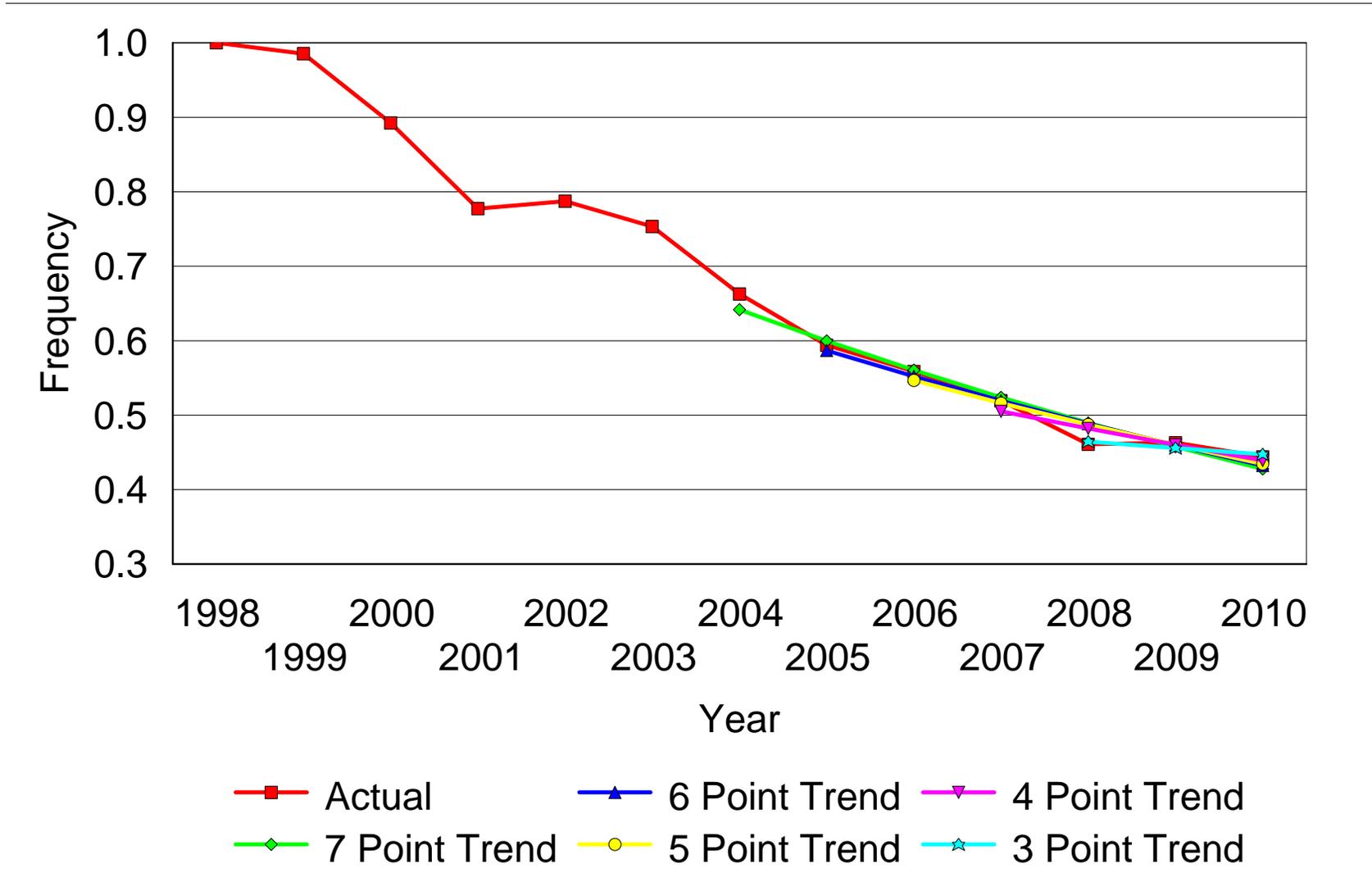
Policy Year	Normalized Claim Frequency	Change From Prior Year	Fitted Normalized Claim Frequency							
			10 Year	9 Year	8 Year	7 Year	6 Year	5 Year	4 Year	3 Year
1998	1.0000									
1999	0.9854	-1.5%								
2000	0.8924	-9.4%								
2001	0.7774	-12.9%	0.8166							
2002	0.7873	1.3%	0.7593	0.7761						
2003	0.7533	-4.3%	0.7060	0.7187	0.7136					
2004	0.6629	-12.0%	0.6565	0.6655	0.6618	0.6416				
2005	0.5940	-10.4%	0.6104	0.6163	0.6138	0.5997	0.5868			
2006	0.5587	-5.9%	0.5676	0.5707	0.5693	0.5605	0.5521	0.5467		
2007	0.5195	-7.0%	0.5278	0.5285	0.5280	0.5239	0.5194	0.5162	0.5052	
2008	0.4609	-11.3%	0.4908	0.4894	0.4897	0.4897	0.4886	0.4874	0.4822	0.4645
2009	0.4631	0.5%	0.4563	0.4532	0.4541	0.4577	0.4597	0.4602	0.4602	0.4560
2010	0.4441	-4.1%	0.4243	0.4197	0.4212	0.4278	0.4324	0.4346	0.4393	0.4476
2012.917			0.3432	0.3354	0.3381	0.3512	0.3619	0.3676	0.3835	0.4240
Annual Percent Change			-7.0%	-7.4%	-7.3%	-6.5%	-5.9%	-5.6%	-4.6%	-1.8%
Average of 4 year to 6 year =							-5.4%			
Average of 4 year to 7 year =							-5.6%			
Average of 4 year to 7 year excluding maximum and minimum =							-5.8%			
Average of 3 year to 8 year =							-5.3%			
Average of 3 year to 8 year excluding maximum and minimum =							-5.6%			
Median of 3 year to 10 year =							-6.5%			

	<u>AIS</u>	<u>DCRB</u>
Selected	-6.5%	-6.5%

	Regression Output							
Constant	145.4	153.6	150.5	135.0	121.9	114.6	92.8	36.5
Std Err of Y Est	0.044	0.041	0.044	0.036	0.033	0.037	0.039	0.019
R Squared	97%	97%	95%	95%	94%	89%	78%	66%
Adjusted R Squared	96%	96%	95%	94%	92%	85%	68%	31%
No. of Observations	10	9	8	7	6	5	4	3
Degrees of Freedom	8	7	6	5	4	3	2	1
X Coefficient(s)	-0.0727	-0.0768	-0.0753	-0.0676	-0.0611	-0.0574	-0.0466	-0.0186
Std Err of Coef.	0.0048	0.0053	0.0067	0.0068	0.0080	0.0118	0.0173	0.0135
T-Statistic	-15.0	-14.5	-11.2	-10.0	-7.6	-4.9	-2.7	-1.4
Probability	0.0%	0.0%	0.0%	0.0%	0.2%	1.6%	11.4%	40.0%

Analysis of DCRB Filing Proposed Effective December 1, 2012

Analysis of Normalized Claim Frequency Trend



Analysis of DCRB Filing Proposed Effective December 1, 2012

Analysis of Indemnity Severity Loss Ratio Trend

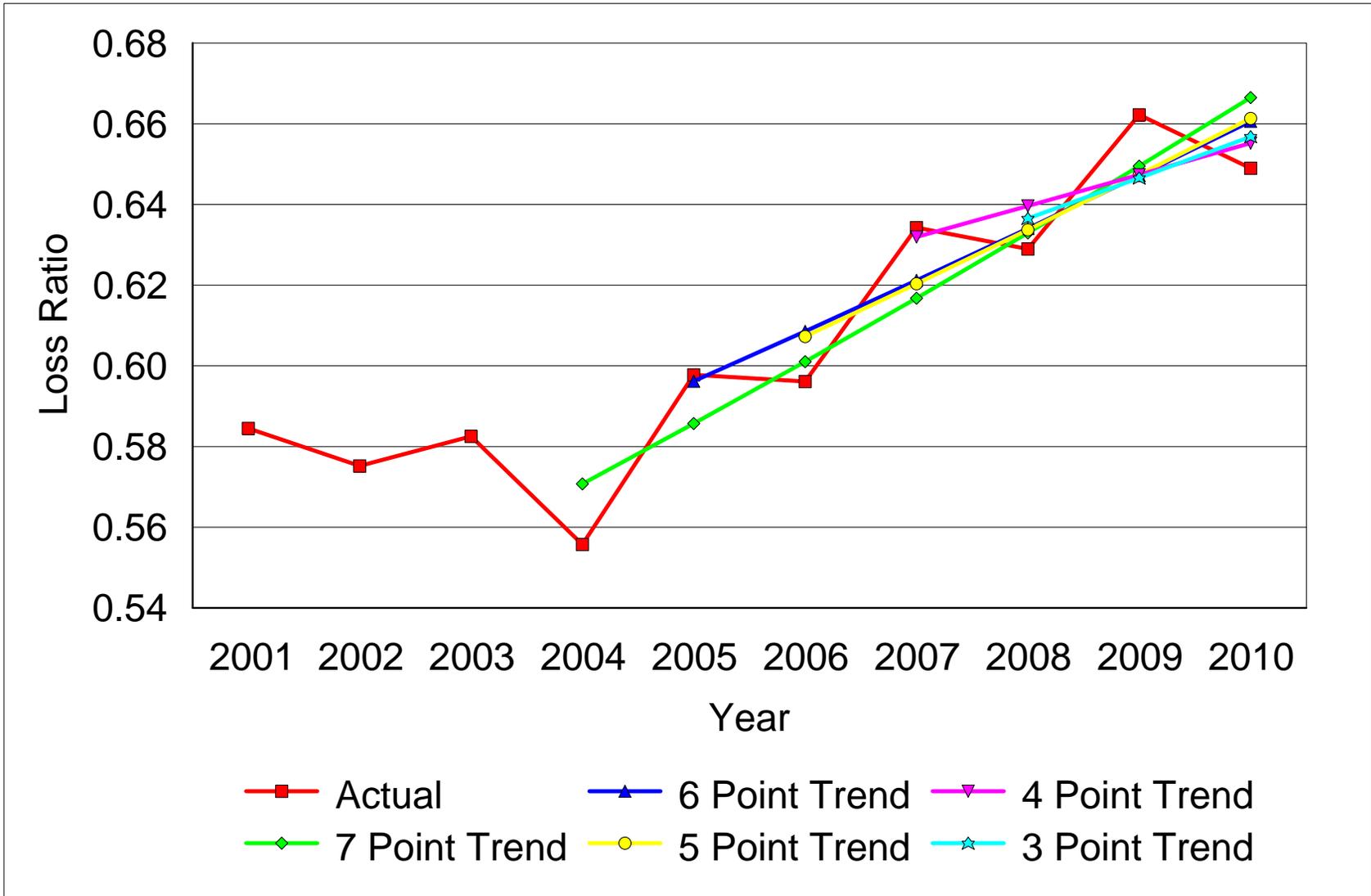
Policy Year	Indemnity Severity Loss Ratio	Change From Prior Year	Fitted Indemnity Severity Loss Ratio								
			10 Year	9 Year	8 Year	7 Year	6 Year	5 Year	4 Year	3 Year	
2001	0.5845		0.5627								
2002	0.5752	-1.6%	0.5720	0.5624							
2003	0.5826	1.3%	0.5814	0.5735	0.5670						
2004	0.5558	-4.6%	0.5910	0.5848	0.5796	0.5708					
2005	0.5978	7.6%	0.6008	0.5964	0.5925	0.5857	0.5962				
2006	0.5961	-0.3%	0.6107	0.6081	0.6057	0.6010	0.6086	0.6073			
2007	0.6342	6.4%	0.6208	0.6202	0.6192	0.6168	0.6212	0.6204	0.6319		
2008	0.6290	-0.8%	0.6311	0.6324	0.6329	0.6329	0.6341	0.6337	0.6396	0.6365	
2009	0.6622	5.3%	0.6415	0.6449	0.6470	0.6495	0.6472	0.6474	0.6474	0.6466	
2010	0.6490	-2.0%	0.6521	0.6577	0.6614	0.6665	0.6606	0.6613	0.6552	0.6568	
Annual Percent Change			1.7%	2.0%	2.2%	2.6%	2.1%	2.2%	1.2%	1.6%	
Average of 4 year to 6 year =								1.8%			
Average of 4 year to 7 year =								2.0%			
Average of 4 year to 7 year excluding maximum and minimum =								2.1%			
Average of 3 year to 8 year =								2.0%			
Average of 3 year to 8 year excluding maximum and minimum =								2.0%			
Median of 3 year to 10 year =								2.0%			

	AIS	DCRB
Selected	2.6%	3.8%

Regression Output									
Constant	-33.4	-39.8	-44.6	-52.4	-41.6	-43.2	-24.6	-31.9	
Std Err of Y Est	0.030	0.027	0.027	0.025	0.021	0.024	0.021	0.029	
R Squared	75%	82%	82%	86%	81%	72%	45%	36%	
Adjusted R Squared	72%	79%	79%	83%	76%	63%	17%	-27%	
No. of Observations	10	9	8	7	6	5	4	3	
Degrees of Freedom	8	7	6	5	4	3	2	1	
X Coefficient(s)	0.0164	0.0196	0.0220	0.0258	0.0205	0.0213	0.0121	0.0157	
Std Err of Coef.	0.0033	0.0035	0.0042	0.0047	0.0050	0.0077	0.0095	0.0207	
T-Statistic	4.9	5.6	5.3	5.5	4.1	2.8	1.3	0.8	
Probability	0.1%	0.1%	0.2%	0.3%	1.5%	6.9%	33.2%	58.7%	

Analysis of DCRB Filing Proposed Effective December 1, 2012

Analysis of Indemnity Severity Loss Ratio Trend



Analysis of DCRB Filing Proposed Effective December 1, 2012

Analysis of Medical Severity Loss Ratio Trend

Policy Year	Medical Severity Loss Ratio	Change From Prior Year	Fitted Medical Severity Loss Ratio								
			10 Year	9 Year	8 Year	7 Year	6 Year	5 Year	4 Year	3 Year	
2001	0.6835		0.6718								
2002	0.7576	10.8%	0.7291	0.7236							
2003	0.7841	3.5%	0.7914	0.7865	0.7686						
2004	0.8574	9.4%	0.8589	0.8548	0.8395	0.8300					
2005	0.9195	7.2%	0.9322	0.9291	0.9170	0.9092	0.8898				
2006	0.9128	-0.7%	1.0118	1.0099	1.0016	0.9960	0.9810	0.9556			
2007	1.1266	23.4%	1.0982	1.0977	1.0941	1.0910	1.0816	1.0640	1.1138		
2008	1.2009	6.6%	1.1919	1.1931	1.1950	1.1950	1.1925	1.1847	1.2121	1.1939	
2009	1.2986	8.1%	1.2937	1.2968	1.3053	1.3090	1.3147	1.3190	1.3190	1.3140	
2010	1.4549	12.0%	1.4041	1.4095	1.4258	1.4339	1.4495	1.4686	1.4354	1.4463	
Annual Percent Change			8.5%	8.7%	9.2%	9.5%	10.3%	11.3%	8.8%	10.1%	
Average of 4 year to 6 year =							10.1%				
Average of 4 year to 7 year =							10.0%				
Average of 4 year to 7 year excluding maximum and minimum =							9.9%				
Average of 3 year to 8 year =							9.9%				
Average of 3 year to 8 year excluding maximum and minimum =							9.8%				
Median of 3 year to 10 year =							9.4%				

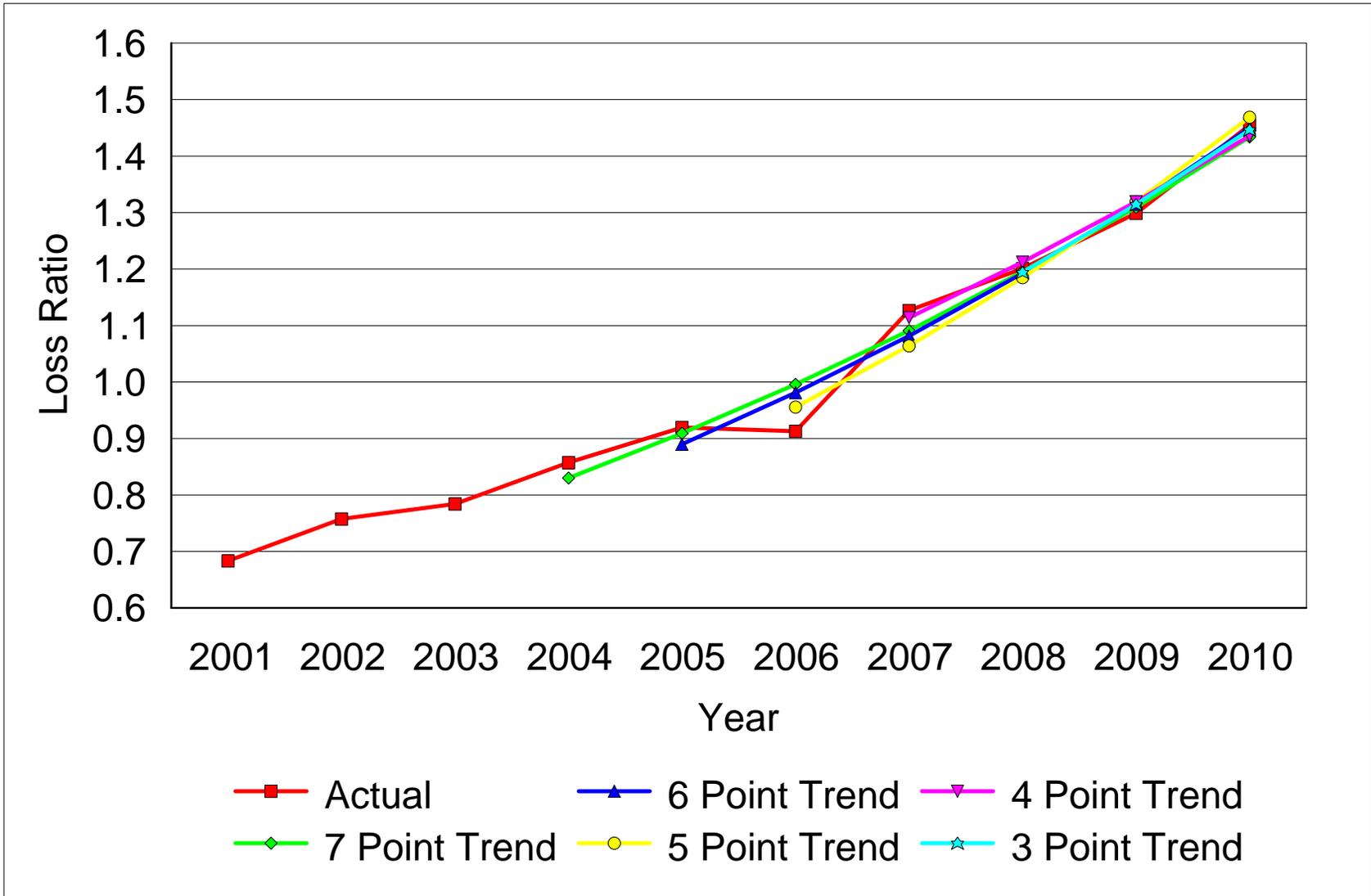
	<u>AIS</u>	<u>DCRB</u>
Selected	9.5%	12.5%

Annual Adjustment After 9/1/2008 to Reflect Medical Fee Schedule	-1.8%	-1.8%
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Regression Output								
Constant	-164.3	-167.2	-177.1	-182.8	-195.8	-215.6	-169.6	-192.4
Std Err of Y Est	0.043	0.045	0.042	0.045	0.045	0.044	0.018	0.014
R Squared	97%	97%	97%	96%	95%	95%	98%	99%
Adjusted R Squared	97%	96%	96%	95%	94%	94%	97%	98%
No. of Observations	10	9	8	7	6	5	4	3
Degrees of Freedom	8	7	6	5	4	3	2	1
X Coefficient(s)	0.0819	0.0833	0.0883	0.0911	0.0976	0.1074	0.0845	0.0959
Std Err of Coef.	0.0047	0.0058	0.0065	0.0085	0.0108	0.0140	0.0080	0.0102
T-Statistic	17.4	14.3	13.5	10.7	9.0	7.7	10.6	9.4
Probability	0.0%	0.0%	0.0%	0.0%	0.1%	0.5%	0.9%	6.8%

Analysis of DCRB Filing Proposed Effective December 1, 2012

Analysis of Medical Severity Loss Ratio Trend



Analysis of Delaware Compensation Rating Bureau Filing Proposed Effective December 1, 2012

Derivation of Projected Ultimate Losses - Indemnity
(Amounts in Millions)

<u>Policy Year</u>	<u>Standard Earned Premium</u>	<u>Premium Development Factor</u>	<u>Developed Earned Premium</u>	<u>Expected Loss Ratio</u>	<u>Expected Losses</u>	<u>Reported Losses</u>	
						<u>Paid</u>	<u>Incurred</u>
2001	\$96.047	1.0000	\$96.047	39.24%	\$37.688	\$33.173	\$35.537
2002	\$118.815	1.0000	\$118.815	33.45%	\$39.742	\$34.765	\$36.992
2003	\$133.014	1.0000	\$133.014	31.35%	\$41.697	\$35.174	\$38.482
2004	\$151.084	1.0017	\$151.341	27.96%	\$42.320	\$34.897	\$37.332
2005	\$185.094	1.0000	\$185.094	23.49%	\$43.477	\$34.428	\$39.585
2006	\$204.698	0.9997	\$204.636	21.22%	\$43.429	\$32.380	\$39.705
2007	\$198.145	0.9996	\$198.066	23.34%	\$46.238	\$29.383	\$38.457
2008	\$150.146	1.0001	\$150.161	27.37%	\$41.104	\$23.626	\$33.053
2009	\$117.508	1.0000	\$117.508	36.35%	\$42.718	\$16.312	\$30.506
2010	\$105.137	0.9909	\$104.181	35.37%	\$36.844	\$8.145	\$21.482

<u>Policy Year</u>	<u>Development Factor</u>		<u>Projected Ultimate Losses</u>				<u>AIS Selected</u>	<u>DCRB Selected</u>
	<u>Paid</u>	<u>Incurred</u>	<u>Paid Dev</u>	<u>Inc Dev</u>	<u>Paid BF</u>	<u>Inc BF</u>		
2001	1.1465	1.0534	\$38.033	\$37.435	\$37.989	\$37.448	\$37.718	\$37.734
2002	1.1709	1.0622	\$40.706	\$39.293	\$40.565	\$39.319	\$39.942	\$40.000
2003	1.2022	1.0723	\$42.286	\$41.265	\$42.187	\$41.294	\$41.740	\$41.775
2004	1.2442	1.0842	\$43.419	\$40.475	\$43.203	\$40.618	\$41.911	\$41.947
2005	1.3028	1.0986	\$44.853	\$43.488	\$44.533	\$43.487	\$44.010	\$44.170
2006	1.3901	1.1178	\$45.011	\$44.382	\$44.567	\$44.282	\$44.425	\$44.697
2007	1.5331	1.1482	\$45.047	\$44.157	\$45.461	\$44.425	\$44.943	\$44.602
2008	1.8126	1.2138	\$42.824	\$40.120	\$42.053	\$40.293	\$41.173	\$41.472
2009	2.6247	1.4302	\$42.814	\$43.629	\$42.755	\$43.355	\$43.055	\$43.221
2010	5.3777	1.9846	\$43.801	\$42.633	\$38.138	\$39.761	\$38.950	\$43.217

Analysis of Delaware Compensation Rating Bureau Filing Proposed Effective December 1, 2012

Derivation of Projected Ultimate Losses - Medical
(Amounts in Millions)

<u>Policy Year</u>	<u>Standard Earned Premium</u>	<u>Premium Development Factor</u>	<u>Developed Earned Premium</u>	<u>Expected Loss Ratio</u>	<u>Expected Losses</u>	<u>Reported Losses</u>	
						<u>Paid</u>	<u>Incurred</u>
2001	\$96.047	1.0000	\$96.047	53.55%	\$51.438	\$37.645	\$45.474
2002	\$118.815	1.0000	\$118.815	49.84%	\$59.217	\$43.542	\$51.368
2003	\$133.014	1.0000	\$133.014	46.90%	\$62.387	\$43.372	\$52.512
2004	\$151.084	1.0017	\$151.341	47.03%	\$71.176	\$48.100	\$57.374
2005	\$185.094	1.0000	\$185.094	39.59%	\$73.270	\$46.483	\$58.371
2006	\$204.698	0.9997	\$204.636	34.42%	\$70.438	\$44.240	\$55.219
2007	\$198.145	0.9996	\$198.066	41.19%	\$81.579	\$47.139	\$59.291
2008	\$150.146	1.0001	\$150.161	52.96%	\$79.531	\$42.697	\$51.852
2009	\$117.508	1.0000	\$117.508	69.90%	\$82.135	\$40.464	\$50.515
2010	\$105.137	0.9909	\$104.181	70.77%	\$73.727	\$34.571	\$51.428

<u>Policy Year</u>	<u>Development Factor</u>		<u>Projected Ultimate Losses</u>				<u>AIS Selected</u>	<u>DCRB Selected</u>
	<u>Paid</u>	<u>Incurred</u>	<u>Paid Dev</u>	<u>Inc Dev</u>	<u>Paid BF</u>	<u>Inc BF</u>		
2001	1.2886	1.1768	\$48.509	\$53.514	\$49.165	\$53.202	\$51.184	\$51.012
2002	1.3244	1.2020	\$57.667	\$61.745	\$58.047	\$61.320	\$59.683	\$59.706
2003	1.3663	1.2322	\$59.259	\$64.705	\$60.098	\$64.269	\$62.183	\$61.982
2004	1.4159	1.2691	\$68.105	\$72.813	\$69.007	\$72.466	\$70.736	\$70.459
2005	1.4757	1.3160	\$68.595	\$76.816	\$70.102	\$75.964	\$73.033	\$72.705
2006	1.5497	1.3775	\$68.558	\$76.065	\$69.225	\$74.523	\$71.874	\$72.312
2007	1.6447	1.4635	\$77.529	\$86.772	\$79.116	\$85.127	\$82.122	\$82.150
2008	1.7795	1.5940	\$75.979	\$82.652	\$77.535	\$81.489	\$79.512	\$79.315
2009	2.0534	1.8215	\$83.090	\$92.014	\$82.600	\$87.558	\$85.079	\$87.552
2010	2.9154	2.3243	\$100.787	\$119.535	\$83.009	\$93.436	\$88.222	\$110.161

Analysis of Delaware Compensation Rating Bureau Filing Proposed Effective December 1, 2012

Calculation of Projected Ultimate Loss Ratio from DCRB 2011 Filing
(Amounts in Millions)

<u>Policy Year</u>	<u>Standard Earned Premium</u>	<u>Premium Development Factor</u>	<u>Developed Earned Premium</u>	<u>Projected Ultimate Losses</u>		<u>Projected Ultimate Loss Ratio</u>	
				<u>Indemnity</u>	<u>Medical</u>	<u>Indemnity</u>	<u>Medical</u>
2001	\$97.827	1.0000	\$97.827	\$38.386	\$52.391	39.24%	53.55%
2002	\$120.439	1.0000	\$120.439	\$40.285	\$60.027	33.45%	49.84%
2003	\$134.715	1.0016	\$134.931	\$42.298	\$63.286	31.35%	46.90%
2004	\$152.952	0.9998	\$152.921	\$42.762	\$71.919	27.96%	47.03%
2005	\$187.879	0.9988	\$187.654	\$44.078	\$74.283	23.49%	39.59%
2006	\$207.263	0.9987	\$206.994	\$43.929	\$71.249	21.22%	34.42%
2007	\$200.206	0.9991	\$200.026	\$46.695	\$82.386	23.34%	41.19%
2008	\$150.964	0.9981	\$150.677	\$41.245	\$79.804	27.37%	52.96%
2009	\$117.240	0.9908	\$116.161	\$42.228	\$81.194	36.35%	69.90%

Source: DCRB 2011 Filing, Exhibit IV

Analysis of Delaware Compensation Rating Bureau Filing Proposed Effective December 1, 2012

Derivation of Expected Loss Ratio for Policy Year 2010

<u>Policy Year</u>	<u>Expected Loss Ratio</u>	<u>Loss Factors</u>		<u>Premium Factors</u>				<u>Adjusted Expected Loss Ratio</u>
		<u>Benefit Level</u>	<u>Trend to 12/11 Rates</u>	<u>Factor to 12/1/11 Rates</u>	<u>Expense Constant Factor</u>	<u>DCCPAP Factor</u>	<u>Chancery Factor</u>	
2006	21.22%	1.0566	0.7137	0.7807	0.9974	0.9960	1.0593	19.48%
2007	23.34%	1.0287	0.7556	0.8017	0.9977	0.9974	1.0593	21.47%
2008	27.37%	1.0114	0.7999	1.0813	0.9974	0.9989	1.0593	19.41%
2009	36.35%	1.0077	0.8468	1.3456	0.9971	1.0105	1.0593	21.60%
Average								20.49%
2010	35.37%	1.0104	0.8965	1.4653	0.9968	1.0105	1.0593	20.49%

<u>Policy Year</u>	<u>Expected Loss Ratio</u>	<u>Loss Factors</u>		<u>Premium Factors</u>				<u>Adjusted Expected Loss Ratio</u>
		<u>Benefit Level</u>	<u>Trend to 12/11 Rates</u>	<u>Factor to 12/1/11 Rates</u>	<u>Expense Constant Factor</u>	<u>DCCPAP Factor</u>	<u>Chancery Factor</u>	
2006	34.42%	1.0000	0.9274	0.7807	0.9974	0.9960	1.0593	38.86%
2007	41.19%	1.0000	0.9281	0.8017	0.9977	0.9974	1.0593	45.23%
2008	52.96%	1.0000	0.9288	1.0813	0.9974	0.9989	1.0593	43.10%
2009	69.90%	1.0000	0.9294	1.3456	0.9971	1.0105	1.0593	45.23%
Average								43.11%
2010	70.77%	1.0000	0.9524	1.4653	0.9968	1.0105	1.0593	43.11%