DOCKET NO. 2275-2013

In the Matter of Delaware Compensation Rating Bureau

Pre-Filed Direct Testimony of Allan I. Schwartz

I - QUALIFICATIONS

My name is Allan I. Schwartz. My address is 4400 Route 9 South, Freehold, New Jersey.

I am President of AIS Risk Consultants, an actuarial consulting firm which I started in November 1984. In that capacity I have performed consulting work for a variety of clients covering a wide spectrum of actuarial projects.

From May 1988 to January 1990 I was Assistant Commissioner with the New Jersey Department of Insurance (NJDOI). In that position, I was responsible for all property/liability filings, excluding workers' compensation, submitted to the NJDOI in addition to other responsibilities. From June 1986 until April 1988 I was Chief Actuary for the North Carolina Department of Insurance (NCDOI). I was responsible for all the actuarial work at the NCDOI, both property / liability and life / accident / health. From August 1977 to November 1984 I worked for the actuarial consulting firm of Woodward and Fondiller. My last position at that firm was Senior Actuary. Prior to that, from March 1976 to August 1977, I was employed by the National Council on Compensation Insurance (NCCI). While there, I worked on rate level analyses, benefit factor evaluations, and special projects. Before that, I attended college where I received a B.S. degree in physics from Cooper Union.

I am a Fellow of the Casualty Actuarial Society, an Associate in the Society of Actuaries, a Member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries. I have belonged to various regional actuarial organizations and professional actuarial committees. In addition, I have served on the Property / Casualty and Life / Accident / Health Actuarial Task Forces of the National Association of Insurance Commissioners (NAIC). I was also Chairperson of a subcommittee for the NAIC statistical task force. This subcommittee developed NAIC standard private passenger automobile statistical data reporting requirements.

I have received various professional designations related to insurance other than my actuarial credentials. Those include the following professional designations from the Insurance Institute of America:

Associate in Reinsurance

Associate in Claims

Associate in Premium Auditing

Associate in Underwriting

Associate in Insurance Accounting and Finance

Associate in Risk Management

Associate in Personal Insurance

In addition, I have a professional designation from LOMA in partnership with the American Institute for Chartered Property Casualty Underwriters / Insurance Institute of America. That is:

Associate, Customer Service

I also have the professional designation of Certified Rate of Return Analyst (CRRA) from the Society of Utility and Regulatory Financial Analysts. This designation is awarded based upon experience and successful completion of a written examination.

A resume setting forth my professional background is attached as Appendix AIS-A.

I have received several awards in connection with my professional work. Those are:

Research Excellence Award from Farmers Insurance Group in connection with the paper I wrote entitled, "Actuarial Issues to be Addressed in Pricing Excess of Loss Reinsurance".

Reinsurance Association of America Award for Academic Excellence in connection with my Associate in Reinsurance designation.

National Association of Mutual Insurance Companies Award for Academic Excellence in connection with my Associate in Insurance Accounting and Finance designation.

My designation of Associate, Customer Service was awarded “With Honors”.

I have met the requirements for continuing education of the actuarial profession.

In the course of my professional work I have you dealt with the issue of ratemaking. I have reviewed rate filings on behalf of regulatory agencies and consumer groups. I have also prepared rate filings on behalf of insurance companies. I have been involved with workers compensation ratemaking issues in Delaware for more than 10 years.

I have written several papers dealing with various aspects of actuarial work. These have included topics on ratemaking, reserving, and reinsurance. I have also presented lectures and taught classes on these subjects. In addition, I was editor of Fresh Air Magazine, a newsletter published by Actuaries in Regulation. This is a special interest group of the Casualty Actuarial Society composed of actuaries who work for State Insurance Departments.

I have testified in property / liability insurance rate proceedings in Arkansas, California, Connecticut, Delaware, District of Columbia, Florida, Georgia, Maine, Massachusetts, Nevada, New Jersey, New Mexico, North Carolina, Oklahoma, Rhode Island, South Carolina, Texas and Virginia. Many of these cases involved workers compensation insurance.

The data and information I relied upon in this testimony is the type reasonably relied upon by actuaries working in the field of insurance ratemaking.

My testimony in this case is held to a reasonable degree of actuarial probability.

In my analysis, I considered documents published by recognized actuarial organizations, such as the applicable Actuarial Standards of Practice. Actuarial Standards of Practice (ASOPs) are published by the Actuarial Standards Board and have been described by the American Academy of Actuaries as follows "ASOPs provide guidance on the techniques, applications, procedures, and methods that reflect appropriate actuarial practices in the United States."[1]

A brief explanation of the Actuarial Standards Board and the American Academy of Actuaries is as follows.

The Actuarial Standards Board states the following, "The Actuarial Standards Board (ASB) establishes and improves standards of actuarial practice. These Actuarial Standards of Practice (ASOPs) identify what the actuary should consider, document, and disclose when performing an actuarial assignment. The ASB's goal is to set standards for appropriate practice for the U.S."[2]

The American Academy of Actuaries states the following, "The American Academy of Actuaries is a D.C.-based 17,500-member professional association whose mission is to serve the public and the U.S. actuarial profession. Academy members include consultants, corporate executives and staff, regulators, government officials, academicians, and retired actuaries. Their

[1] http://www.actuary.org/content/professionalism

[2] http://www.actuarialstandardsboard.org/aboutasb.asp

areas of practice cover pensions, life insurance, casualty insurance, health insurance, financial reporting, risk management, and more."[3]

II - SUMMARY

I have reviewed the Delaware Compensation Rating Bureau (DCRB) Filing No. 1305 dated October 9, 2013 for "Workers Compensation Residual Market Rate and Voluntary Market Loss Cost Filing Proposed Effective December 1, 2013" for a +38.52% increase in residual market rates and a 41.75% increase in voluntary market loss costs; along with other data / information supplied by the DCRB and other materials.[4]

If the DCRB's proposed increases are implemented, the combined increase since December 1, 2011 will be about +107% for residual market rates and about +94% for voluntary market loss costs.[5]

Based upon my analysis of the DCRB filing, there were three areas where I either disagreed with the procedures used by DCRB or concluded that DCRB has not adequately supported the procedure used.[6] These issues relate to the:

(1) Projected ultimate losses for historical periods

(2) Loss trend calculation

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[3] http://www.actuary.org/content/about-us

[4] In various aspects of this testimony the words "I", "me", "my", "our", "we" etc. may be used to refer to the work performed by AIS Risk Consultants in this analysis. All this work was performed either directly by Allan I. Schwartz or under his supervision, and he takes responsibility for this entire testimony and related schedules and appendices.

[5] DCRB filing, Schedule I;
For the residual market, the DCRB proposed rate change of +38.52% combined with the prior changes of +26.06% effective December 1, 2012 and +18.26% effective December 1, 2011, results in a combined change of 106.5% = (1.3852 X 1.2606 X 1.1826 – 1) X 100%
For the voluntary market, the DCRB proposed loss cost change of +41.75% combined with the prior changes of +21.66% effective December 1, 2012 and +12.61% effective December 1, 2011, results in a combined change of 94.2% = (1.4175 X 1.2166 X 1.1261 – 1) X 100%

[6] With regard to any item which is not discussed in this testimony, it should not be assumed that we agree with the procedure used by the DCRB.

(3) Loss adjustment expense provision

I made revisions to the DCRB procedure for each of these items, all of which had a numerical impact on the overall indicated residual market rates and voluntary market loss costs.

A summary of the differences between the DCRB and AIS calculations for these three items is given in the following table.

Impact of DCRB Filing Components on Inflating
Residual Market Rates and Voluntary Market Loss Cost

Filing Component	Value used by AIS	Value used by DCRB	Impact of DCRB Calculation	
Projected Ultimate Loss Ratio (4 Year Avg)	0.6680	0.7170	7.3%	
Method	B-F	LDF		
Annual Net Trend : Losses / Premiums	1.8%	4.2%	11.3%	
Indemnity	-2.9%	-0.6%		
Medical (After 1/31/13)	3.6%	6.5%		
Loss Adjustment Expenses	18.2%	19.7%	1.3%	
Residual Market Rate Change	14.45%	38.52%	21.0%	Multiplicative
			24.1%	Additive
Voluntary Market Loss Cost Change	17.12%	41.75%	21.0%	Multiplicative
			24.6%	Additive

The conclusion from my analysis is that the DCRB filing is based upon actuarially inappropriate projections of costs which are inconsistent with 18 Del. C. § 2601 et seq.

Our residual market rate level and voluntary market loss cost indications are derived in Schedule AIS-1. A summary of those values compared to the values proposed by the DCRB are set forth in the following table.

Comparison of AIS and DCRB Rate & Loss Cost Changes

	AIS	DCRB	Difference AIS - DCRB
Change in Residual Market Rate Level	14.4%	38.5%	-24.1%
Change in Voluntary Market Loss Costs	17.1%	41.8%	-24.6%

In reaching my conclusion that DCRB's proposed residual market rates and voluntary market loss costs are inappropriate I considered the statutory standards set forth in 18 Del. C. § 2601 et seq.

My analysis, based upon the information currently available for use, indicates that for Delaware workers compensation insurance actuarially appropriate values for a residual market rate increase and a voluntary market loss cost increase are +14.4% and +17.1%, respectively.[7]

The following sections discuss the issues where there is a difference between myself and the DCRB. Before going into those particular issues, I will discuss ratemaking in general.

III - RATE MAKING FORMULA

The ratemaking technique used in my analysis (as well as in the DCRB filing) is the loss ratio method, which has been described as follows:

[7] My analysis is based upon the information currently available for use, and is subject to revision if additional relevant information becomes available for use.

> The loss ratio method develops indicated rate changes rather than indicated rates. Indicated rates are determined by application of an adjustment factor, the ratio of the experience loss ratio to a target loss ratio, to the current rates. The experience loss ratio is the ratio of the experience losses to the on-level earned premium - the earned premium which would have resulted for the experience period had the current rates been in effect for the entire period.
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> Foundations of Casualty Actuarial Science (Third Edition, Casualty Actuarial Society, p. 37

In algebraic terms, the actuarial rate formula would be as follows:

Let:

L = Provision for Losses

A = Provision for Loss Adjustment Expenses

E = Underwriting Expenses

U = Underwriting Profit Factor

T = Target Loss and Loss Adjustment Expense

R = Actuarial Rate Indication

Then:

$$R = [L + A] / [1 - E - U]$$

or

$$R = [L + A] / T$$

Underwriting expenses consist of commissions, other acquisition expenses, general expenses and state premium taxes; licenses & fees.

The target loss and loss adjustment expense ratio (also referred to as the permissible loss and loss adjustment expense ratio) is numerically equal to 100% - underwriting expense ratio - underwriting profit factor[8]. The permissible ratio is the proportion of the premium dollar that can be (or is permitted or targeted to be) paid out in losses and loss adjustment expenses and still allow insurance companies the opportunity to earn a fair profit, after underwriting expenses are paid. If the projected proportion of the premium dollar expected to be paid out is more than the permissible amount, then a rate increase is needed to bring revenue up to the level of outgo. Similarly, if the projected proportion of the premium dollar expected to be paid out is less than the permissible amount, then a rate decrease should be implemented in order to bring income and outgo into balance. The amount of the rate change is determined by dividing the projected ratio by the permissible ratio.

The loss ratio ratemaking formula that I used is the same one that has historically been used in Delaware for workers compensation insurance. While the overall structure and formula is the same, there have been disagreements over time regarding various inputs into that formula.

There are four major conceptual issues in projecting losses for the policy period the rates are expected to be in effect. They are: (1) how much will the final [or ultimate] losses from past claims eventually turn out to be [this is addressed through loss reserving methods], (2) how much will future losses and premiums differ from those in the past because of insurance inflation, (3) how much will future losses differ from those in the past because of statutory benefit provisions[9] and (4) the impact of large losses.

The first issue is addressed by an analysis of loss reserves. The second issue is handled, in large part, through an analysis of historical trend experience.[10] The third issue involves the analysis of the impact of law changes, if applicable. The fourth issue is typically examined by evaluating large losses over an extended period of time.[11]

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[8] The numerical value of the permissible loss and loss adjustment expense ratio is shown in Schedule AIS-1, Line (6). Our analysis uses the same numerical value for this item as in the DCRB filing.

[9] The statutory changes that are reflected in the current analysis deal with Senate Bill 1, Senate Bill 238 and Senate Bill 175. (Schedule AIS-1, Line (3)) Our analysis uses the same numerical values as in the DCRB filing.

[10] While the analysis of historical experience is typically the starting point and a large consideration in evaluating trends, other items can also be taken into account.

[11] Both indemnity and medical benefits contribute the the total value of large claims. In most large claims for workers compensation in Delaware, the vast majority of losses has arisen from medical costs.

Loss Reserve Analysis

A loss reserve analysis takes into account the situation that the case loss reserves established by insurance companies at a given point in time are usually not the amount that will ultimately be paid out by the insurers on those claims. The aggregate ultimate loss is the cost of all claims for the historical time period under consideration (e.g., policy year 2011), after all occurrences have been reported and settled. The case incurred losses at any given point in time consist of the amount paid, plus case reserves on known claims. A case reserve is the estimated value of the unpaid loss on an individual open claim, taking into account the information known at a particular point in time. Different insurance companies can employ different practices in setting case reserves. Mathematically, case incurred losses, paid losses and case reserves are related [both on individual claims and aggregated across groups of claims] as follows:

Case Incurred Losses = Paid Losses + Case Reserves

Reported case incurred losses change over time for two main reasons.

First, as more information becomes known about claims, the reserves may change and/or the amount paid may differ from the reserve. The difference between the previous reserve and the revised reserve or actual settlement will cause the reported incurred losses to change over time.

Second, some occurrences may have already taken place which will lead to claims, but they have not yet been reported to the insurance company. These claims are referred to as incurred but not reported (IBNR). These latter reported claims will not be included in earlier evaluations of the case incurred losses which reflect only known claims. As these IBNR claims are reported, the losses known to the insurer will change. [12]

Loss reserves as a proportion of total losses are larger for liability lines of insurance such as workers compensation as opposed to property lines of insurance such as homeowners. Workers compensation claims tend to be reported fairly quickly, so there is typically only a

[12] For workers' compensation, claims can also be reopened which is another reason that incurred losses can change over time.

relatively small amount of pure IBNR.[13] However, there can be significant changes in workers compensation case reserves over time for reported claims.[14]

I evaluated loss reserves using an actuarial method referred to as the B-F reserve procedure. The DCRB used a loss development (or link ratio) procedure. The B-F method tends to give more stable reserve indications whereas the loss development method tends to give more responsive (including overly responsive) reserve values that can be subject to excessive fluctuation and distortion. Both of these methods can give reasonable values for loss reserves under appropriate circumstances.

However, given the factual situation applicable for this proceeding, it is my opinion that the B-F method I used is more appropriate than the loss development method used by the DCRB. A further explanation of this is given later in this testimony.

Trend – Losses & Premiums

In very general terms, the need to use trend in the ratemaking process results from the fact that the experience used to evaluate rates is from an historical period[15], whereas the rates under consideration will actually be implemented in the future.[16] The common analogy for trend is inflation. That is, it measures the change in the cost of an item during a period of time.

However, whereas inflation in the general economy has just one component (i.e., price per unit), trend for insurance purposes has many components. The three main components are (a) claim severity, (b) claim frequency and (c) exposure growth. The first two items deal with losses. The third component influences premiums.

[13] By pure IBNR I mean actual unreported claims. This does not include changes in reserves for known claims, which can be included in a broader definition of IBNR.

[14] Known workers compensation claims are also subject to being reopened which can result in changes in the amount of the claim.

[15] The historical experience periods used in this filing are policy years 2008, 2009, 2010 and 2011. (Schedule AIS-1, Line 1) A policy year covers the experience of all policies issued in a given year. For example, policy year 2011 would include policies issued from 1/1/2011 to 12/31/2011, the last of which does not expire until December 2012. Hence, a given policy year covers claims resulting from occurrences over a two year period.

[16] For the current filing, the DCRB requested an effective date of December 1, 2013; which was in the future relative to the filing date of October 9, 2013.

Actuaries measure trend by examining the historical movement of costs -- both claim severity [also known as cost per claim or average claim cost] and claim frequency -- of insurance losses. The pure premium loss trend is a combination of the claim severity and claim frequency loss trends. The total trend factor is obtained by adjusting the annual trend for the length of the trend period in years.

The number of years of trend is calculated as the time period between the historical experience period and the rate period. For example, the most recent year of experience in the DCRB filing is the policy year 2011. The average date of loss during this experience period is 12/31/2011.[17] The loss coverages from this proceeding, however, are calculated to apply to policies written from 12/1/2013 to 11/30/2014, the last policy which will expire on 11/30/2015. The average date of loss covered during the rate period is therefore 11/30/2014 (halfway between 12/1/2013 to 11/30/2015). Hence, there is a time lag of 2.917 years (= 11/30/14 – 12/31/11) between the rate period and the latest experience period. The earlier historical policy periods covering 2010, 2009 and 2008 are one year, two years and three years earlier in time and hence the trend period will be one year, two years and three years longer, or 3.917 years, 4.917 years and 5.917 years, respectively.

Pure premium, as referenced previously, is defined as the losses per insured exposure. The pure premium is mathematically equivalent to the claim severity multiplied by the claim frequency. The algebraic formulas that define these factors are set forth as follows:

$$\text{Claim Severity} = \frac{\text{Dollars of Losses}}{\text{Number of Claims}} = \text{Average Cost Per Claim}$$

$$\text{Claim Frequency} = \frac{\text{Number of Claims}}{\text{Number of Exposures}} = \text{Avg. Number of Claims Per Exposure}$$

[17] Average of first day of first policy (1/1/2011) and last day of last policy (12/31/2012)

$$\text{Pure Premium} = \frac{\text{Dollars of Losses}}{\text{Number of Exposures}} = \text{Average Cost Per Exposure}$$

The relationship between these three factors is as follows:

Pure Premium = Claim Severity X Claim Frequency

Hence, the trend in the pure premium is mathematically related to the trends in the claim severity and claim frequency.

For the workers compensation insurance coverage that is the subject of this proceeding, the exposure is measured in dollars of payroll. Therefore, the pure premium is the amount of loss in relation to payroll.

Trend is reflected in the analysis by converting the Policy Year Loss and Loss Adjustment Expense Ratio (on a historical basis) as shown in Schedule AIS-1, Line (1) to the Policy Year Loss and LAE Ratio Trended to 12/1/2014 as shown in Schedule AIS-1, Line (2). As an example, for Policy Year 2008 the historical Medical loss & LAE ratio is 0.4571 and the trended value is 0.5708. That means the medical net loss to premium trend factor for Policy Year 2008 was 1.249 (= 0.5708 / 0.4571) or a 24.9% increase. Or in other words, medical losses as a percent of payroll are projected to be 24.9% higher in the rate period than in the historical period for policy year 2008.

Statutory Benefit Provisions

The benefits paid for workers compensation insurance depend upon the applicable statutory benefit provisions. This is the case for both indemnity payments to injured workers as well as medical payments to health care providers.

There are three statutory benefit changes that impact the analysis. Those are Senate Bill 1, Senate Bill 238 and Senate Bill 175. The DCRB filing showed medical cost reductions for those three statutory changes of -17.4%, -0.42% and -7.11%, respectively.[18] We have used those same values in our analysis.

[18] DCRB Filing, Brown Book, EXHIBIT I, Line (3)

Impact Of Large Losses

The presence (or absence) of large losses during a given experience period can distort the analysis. The DCRB filing addresses this issue by removing actual large losses and including a provision for expected excess losses. This is a reasonable and accepted actuarial procedure. We have accepted the DCRB analysis of large losses for use in our analysis.

IV - PROJECTED ULTIMATE LOSSES FOR HISTORICAL PERIODS

Consideration of this issue falls within the scope of 18 Del. C. § 2604(b)(1) which states "Past and prospective loss experiences within and outside this State, in accordance with accepted actuarial principles".

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.[19]

Both the loss development reserve procedure and B-F reserve procedure can be actuarially acceptable methods for calculating ultimate loss projections, depending on the

[19] The calculations are set forth in Schedule AIS-3.

circumstances of a particular situation. 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.[20]

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 indemnity and medical claim severity between policy years 2010 to 2011 of 32.1% and 22.3%, respectively.[21] This is an extremely large increase in both the indemnity and medical claim severity in a one-year time period. The DCRB has not given any reasonable explanation for this highly unusual result. This result indicates that for the current filing, the loss development procedure used by the DCRB does not give a reasonable result.

In contrast, the B-F reserve procedure gives an increase in indemnity and medical claim severity between policy years 2010 to 2011 of 11.5% and 8.5%, respectively.[22] While those values are still high, they fall within a range of believable values.

A brief explanation of the B-F[23] method compared to the loss development method follows:[24]

> Actuaries rely on the Bornhuetter-Ferguson technique almost as often as they rely on the development method. The Bornhuetter-Ferguson technique is essentially a blend of the development and expected claims techniques. In the development technique, we multiply actual claims by a

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[20] 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 2010 the difference is about 6%, while for policy year 2011 the difference is about 21%.

[21] 32.1% = (0.7285 / 0.5513 -1) X 100% and 22.3% = (1.6481 / 1.3473 -1) X 100%; DCRB filing, Brown Book, Exhibits VII-1 and VII-2

[22] Schedule AIS-2, Sheets 7 and 9

[23] The terms “B-F” and “Bornhuetter-Ferguson” refer to the same method / technique.

[24] “ESTIMATING UNPAID CLAIMS USING BASIC TECHNIQUES”, Jacqueline Friedland; Version 3, July 30, 2010; © Casualty Actuarial Society, 2010

> cumulative claim development factor. This technique can lead to erratic, unreliable projections when the cumulative development factor is large because a relatively small swing in reported claims or the reporting of an unusually large claim could result in a very large swing in projected ultimate claims. In the expected claims technique, the unpaid claim estimate is equal to the difference between a predetermined estimate of expected claims and the actual payments. This has the advantage of stability, but it completely ignores actual results as reported. The Bornhuetter-Ferguson technique combines the two techniques by splitting ultimate claims into two components: actual reported (or paid) claims and expected unreported (or unpaid) claims. As experience matures, more weight is given to the actual claims and the expected claims become gradually less important.

A brief discussion of the advantages of the B-F method follows:[25]

> An advantage of the Bornhuetter-Ferguson technique is that random fluctuations early in the life of an accident year (or other defined time interval) do not significantly distort the projections. For example, if several large and unusual claims are reported for an accident year, then the reported claim development technique may produce overly conservative ultimate claims estimates. This situation does not, however, seriously distort the Bornhuetter-Ferguson technique.
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> Actuaries frequently use the Bornhuetter-Ferguson method for long-tail lines of insurance, particularly for the most immature years, due to the highly leveraged nature of claim development factors for such lines.

The workers compensation coverage which is the subject of this proceeding is a long-tail line of insurance. Both the indemnity and medical losses are paid out over a long period of time. This results in large loss development factors for both indemnity and medical being used by the DCRB. As an example, for policy year 2011 the DCRB uses paid loss development factors for indemnity and medical of 5.5056 and 2.9764, respectively.[26] That means for indemnity and medical, only about 18% and 34% of the losses have been paid, respectively.[27] On a case incurred basis, the loss development factors used by the DCRB are somewhat smaller, but still

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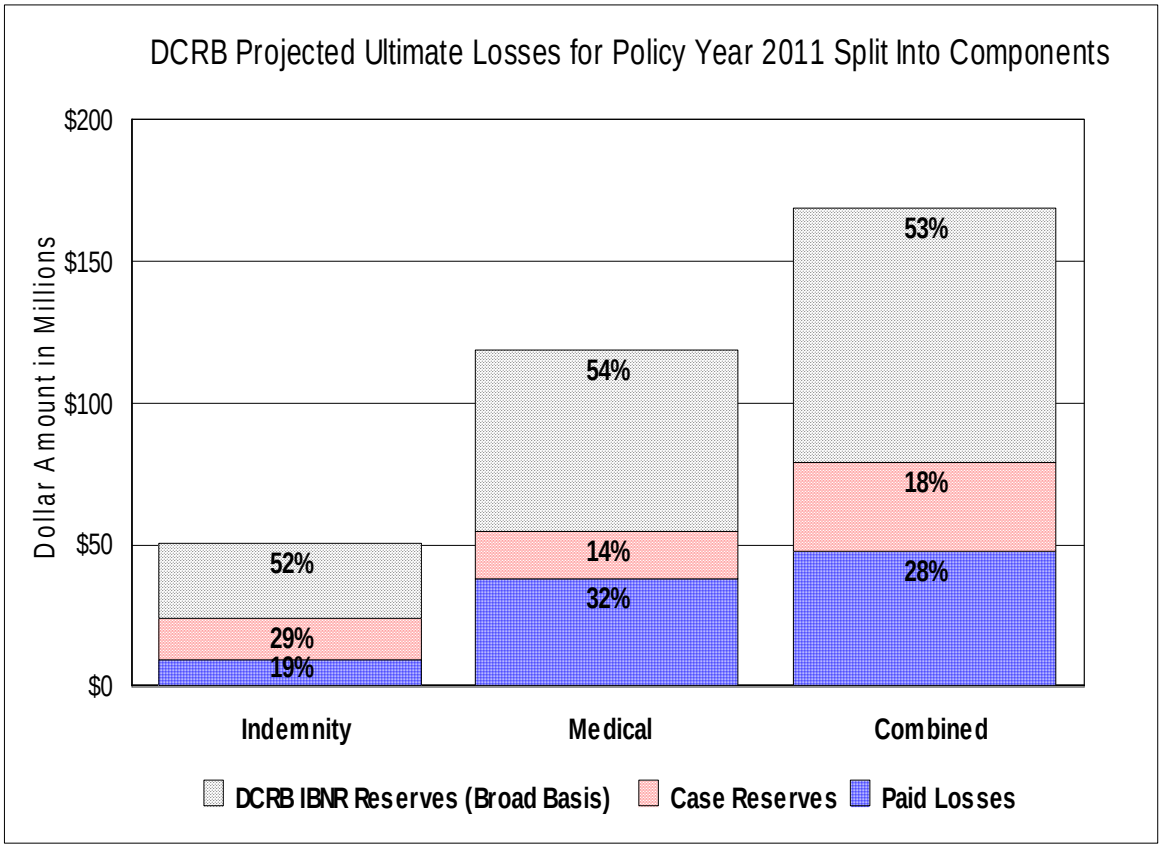
[25] *Ibid.*

[26] DCRB filing, Brown Book, EXHIBIT IV – 1, Line (9)

[27] 18% = 100% / 5.5056; 34% = 100% / 2.9764

high at 2.0056 and 2.2698 for indemnity and medical, respectively.[28] That means for indemnity and medical, only about 50% and 44% of the losses have been incurred (on a case basis), respectively.[29] These high development factors, when applied to the reported paid and case incurred losses as part of the loss development technique, can result in erratic and unreliable results. While the B-F method uses the same numerical values for the development factors, the manner in which those values are applied in the B-F procedure does not result in the same distortion, variability and fluctuation as in the loss development method.

To further illustrate that the workers compensation coverage for this filing is a long-tail line of insurance and that the use of the loss development method can give distorted unreliable results, the graph below shows a split of the DCRB's projected ultimate losses for policy year 2011 into the components of paid, case reserves and IBNR reserves.



[28] DCRB filing, Brown Book, EXHIBIT IV – 1, Line (12)

[29] 50% = 100% / 2.0056; 44% = 100% / 2.2698

As can be seen, more than 50% of the DCRB's projected overall ultimate losses for policy year 2011 consist of IBNR.[30] Less than 30% of the overall losses have been paid and less than 20% is in case reserves. In a situation such as this, where the majority of losses are in the form of IBNR, the loss development method used by the DCRB can give unreliable distorted results which are subject to an excessive degree of fluctuation and variability.

V - LOSS TREND CALCULATION

Consideration of this issue falls within the scope of 18 Del. C. § 2604(b)(1) which states "Past and prospective loss experiences within and outside this State, in accordance with accepted actuarial principles".

The revision to the projected ultimate losses for the historical periods based upon using the B-F procedure also impacts the trend calculation.[31] Our loss cost and rate calculations are based upon the same seven year historical trend time period used by the DCRB.

A summary of our loss trend values and those used by the DCRB are shown in the following table.

[30] This is the broad basis of IBNR, including projected future changes related to case reserves.
[31] Schedule AIS-2

Summary of Loss Trend Values

Cost Component	Annual Trend Used by AIS	Annual Trend Used by DCRB
Indemnity Severity	2.4%	4.7%
Indemnity Frequency *	-5.1%	-5.1%
Indemnity Pure Premium	-2.9%	-0.6%
Medical Severity **	9.2%	12.2%
Medical Frequency *	-5.1%	-5.1%
Medical Pure Premium	3.6%	6.5%

* Premium trend is reflected as part of the frequency trend value

** Medical trend after 1/31/13

With regard to the indemnity severity trend, as a basis of comparison, we examined changes in the Delaware average weekly wage over time. This can be used as a rough reasonability check since indemnity benefits are a function of the injured worker's wage. Delaware average weekly wages, as well as changes over time, are shown in the following table.

Delaware Average Weekly Wage Changes

Year	Average Weekly Wage	Change From Prior Year
2005	$858	
2006	$890	3.7%
2007	$908	2.0%
2008	$911	0.3%
2009	$911	0.0%
2010	$934	2.5%
2011	$972	4.1%
2012	$994	2.3%
Average - Arithmetic		2.1%
Average - Geometric		2.1%
Average - Exponential		1.9%

Source: National Council on Compensation Insurance
Annual Statistical Bulletin
and Bureau of Labor Statistics

The indemnity severity annual trend we used of 2.4% is generally consistent with the annual change in the Delaware statewide average weekly wage of 2% a year. By contrast, the DCRB indemnity severity annual trend of 4.7% is more than twice as large as the annual change in the Delaware statewide average weekly wage of 2% a year.

With regard to the medical trend, as a point of comparison we examined changes in the medical component of the consumer price index. The medical CPI is shown in the following table.

Medical Care CPI-U Trend

Year	Medical Care CPI - U	Change From Prior Year
2005	323.2	
2006	336.2	4.0%
2007	351.1	4.4%
2008	364.1	3.7%
2009	375.6	3.2%
2010	388.4	3.4%
2011	400.3	3.1%
2012	414.9	3.6%
2013	425.1	2.5%
Average - Arithmetic		3.5%
Average - Geometric		3.5%
Average - Exponential		3.5%

Source: Bureau of Labor Statistics

The changes over time in the medical care CPI-U of 3.5% are considerably lower than the medical severity annual trend selected by both myself at 9.2% and the DCRB at 12.2%. This could be an indication that the residual market rates and voluntary market loss costs that I derived may be too high. The medical care CPI-U annual trend of 3.5% is roughly consistent with data from the DCRB that medical claim payments are increasing at about 4% to 5% a year, as discussed below.

We reviewed the Medical Data Call Overview Report from the DCRB to the Data Collection Committee dated October 9, 2013; showing data through the first quarter of 2013. That contained time series data both for Medical Procedure Data and Prescription Drug Data for a number of items, including the average payment per claim. That data is summarized by year ending periods in Schedule AIS-4. Trend calculations performed on that data indicate average payment per claim annual trends of about 4% a year for medical procedures and about 5% a year for prescription drugs. These data are consistent with the conclusion that the DCRB filing uses excessive loss trends and projections for medical costs.

It is my understanding that in January 2014 the DCRB had data available through the second quarter of 2013 for the Medical Data Call Overview Report. However, the DCRB made the decision not to submit that information to the Data Collection Committee (DCC) until February 4, 2014. The ratepayer advocate received this information about 4PM on February 4, 2014. The decision by the DCRB to not provide the quarterly data to the DCC in a timely manner could be considered to be contrary to the intent of 19 Del. C. § 2301E(e) which states "Data shall be provided to the Data Collection Committee on at least a quarterly basis, and the committee shall share the data it collects with the Health Care Advisory Panel created by § 2322A of this title". As a result of the delay by the DCRB in providing the second quarter Medical Data Call Overview Report I have not had the opportunity to appropriately evaluate and analyze that information. I will attempt to evaluate that information prior to the hearing scheduled to commence on February 10, 2014; and may prepare supplemental direct testimony to address that issue.

The decreasing frequency of -5.1% annually used by myself and DCRB are consistent with workers compensation insurance experience on a broad basis. The National Council on Compensation Insurance (NCCI)[32] has stated, "In Accident Year 2012, lost-time claim frequency declined by 5% according to preliminary estimates. While frequency decreased by 5%, the average cost per lost-time claim increased 1% for indemnity and 3% for medical."

VI - LOSS ADJUSTMENT EXPENSE PROVISION

Consideration of this issue falls within the scope of 18 Del. C. § 2604(b)(3) which states "Past and prospective expenses, within and outside Delaware".

The DCRB filing proposes an increase in loss adjustment expenses (LAE) to 19.72% of losses. The DCRB calculation of the LAE provision depends on making several adjustments to the reported experience.[33] The basis for, and calculation of, these adjustments was not provided.

In addition, there appears to be a discrepancy between the changes in losses by year in different parts of the filing. The DCRB's calculation of the LAE provision shows the dollars of losses increasing by about 12% from calendar year 2009 to 2011.[34] In contrast, the projected

[32] NCCI is an insurance industry statistical and rate making organization in about 35 jurisdictions throughout the United States.

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

[34] DCRB filing, Exhibit 8, Exhibit III, Line (4)

loss ratio calculations in the DCRB filing show an increase in losses from policy year 2009 to 2011 of about 28%[35], which is about twice the increase shown in the LAE calculation. The LAE provision is calculated as loss adjustment expenses divided by losses.[36] Therefore, the lower the loss values used (everything else held constant), the LAE ratio increases.

In addition, the value shown by the DCRB for LAE / loss during 2010 of 21.59% is very high and appears to be an outlier.

In order to address these concerns to some extent, we used a longer time period from 2007 to 2011, and selected the LAE / loss provision based upon the five year average excluding the maximum and minimum values.

VII - CONCLUSION

Based upon my analysis, using the information that is currently available, I have concluded that an increase of about 14% in the residual market rates and 17% in the voluntary loss costs is within the range of reasonable values.[37]

I hold that opinion to a reasonable degree of actuarial probability.

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

[36] DCRB filing, Exhibit 8, Exhibit III, Line (6a)

[37] My analysis is based upon the information currently available for use, and is subject to revision if additional relevant information becomes available for use.

DELAWARE WORKERS' COMPENSATION

Analysis of DCRB Filing Proposed Effective December 1, 2013

Voluntary Market Loss Cost and Residual Market Rates

		Indemnity	Medical	Total
(1a)	Policy Year 2008 Loss and Loss Adjustment Expense Ratio	0.2491	0.4571	0.7062
(1b)	Policy Year 2009 Loss and Loss Adjustment Expense Ratio	0.2668	0.5054	0.7721
(1c)	Policy Year 2010 Loss and Loss Adjustment Expense Ratio	0.2509	0.5845	0.8354
(1d)	Policy Year 2011 Loss and Loss Adjustment Expense Ratio	0.2583	0.5858	0.8441
(1e)	Average (Midpoint = 7/1/2010)	0.2563	0.5332	0.7895
(2a)	Policy Year 2008 Loss and LAE Ratio Trended to 12/1/2014	0.2103	0.5708	
(2b)	Policy Year 2009 Loss and LAE Ratio Trended to 12/1/2014	0.2318	0.6073	
(2c)	Policy Year 2010 Loss and LAE Ratio Trended to 12/1/2014	0.2243	0.6759	
(2d)	Policy Year 2011 Loss and LAE Ratio Trended to 12/1/2014	0.2376	0.6519	
(2e)	Average at 12/1/2014	0.2260	0.6265	0.8525
(3ai)	Senate Bill 1 Adjustment	1.0000	0.8260	
(3aii)	Senate Bill 238 Adjustment	1.0000	0.9958	
(3aiii)	House Bill 175 Adjustment	1.0000	0.9289	
(3a)	Combined Legislative Adjustment	1.0000	0.7640	
(3b)	Average Trended Loss and LAE Ratio Post-Legislation (2e) X (3a)	0.2260	0.4787	0.7047
(4a)	Excess Loss Factor at $1,919,854 (Post-Legislative Basis)			0.1187
(4b)	Provision for Excess Loss (5a)-(3b)			0.0949
(5a)	Total Trended Loss and LAE Ratio (3b)/(1.0-(4a))	0.2276	0.5720	0.7996
(5b)	Percentage of Total	28.46%	71.54%	
(6)	Permissible Loss and Loss Adjustment Ratio			0.7009
(7)	Indicated Change in Rates (5a) / (6)			1.1408
(8)	Estimated Effect of the 7/1/14 Benefit Change			1.0032
(9)	Change in Residual Market Rate Level (7) * (8)			1.1445
(10)	Change in Voluntary Market Loss Costs (9) * [0.7239 / 0.7074]			1.1712

Changes in Manual Premium Level by Industry Group

		Mfg.	Cont.	Other	Total
(11)	Current Collectible Premium Ratio	0.8705	0.9489	0.8331	
(12)	Proposed Collectible Premium Ratio	0.9171	0.9579	0.8393	
(13)	Change in Collectible Premium Ratio (12) / (11)	1.0535	1.0095	1.0074	1.0139
(14)	Change in Residual Market Manual Rate Level (9) * (13)	1.2057	1.1553	1.1530	1.1604
(15)	Change in Voluntary Market Manual Loss Cost Level (10) * (13)	1.2339	1.1823	1.1799	1.1874
(16)	Current Offset for Residual Market Surcharge				0.9910
(17)	Proposed Offset for Residual Market Surcharge				0.9902
(18)	Adjusted Change in Voluntary Market Manual Loss Cost Level (15) * (17) / (16)	1.2329	1.1813	1.1789	1.1865

Analysis of DCRB Filing Proposed Effective December 1, 2013

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
2002	0.3765		0.3598							
2003	0.3720	-1.2%	0.3437	0.3369						
2004	0.3125	-16.0%	0.3284	0.3230	0.3074					
2005	0.3021	-3.3%	0.3137	0.3098	0.2979	0.2951				
2006	0.2904	-3.9%	0.2996	0.2970	0.2887	0.2867	0.2823			
2007	0.2806	-3.4%	0.2862	0.2848	0.2798	0.2785	0.2755	0.2693		
2008	0.2491	-11.2%	0.2734	0.2731	0.2712	0.2705	0.2688	0.2650	0.2543	
2009	0.2668	7.1%	0.2612	0.2619	0.2628	0.2628	0.2624	0.2609	0.2556	0.2628
2010	0.2509	-6.0%	0.2495	0.2511	0.2547	0.2553	0.2561	0.2568	0.2568	0.2586
2011	0.2583	3.0%	0.2383	0.2408	0.2468	0.2480	0.2499	0.2528	0.2580	0.2544
Annual Percent Change			-4.5%	-4.1%	-3.1%	-2.9%	-2.4%	-1.6%	0.5%	-1.6%

Average of 4 year to 6 year = -1.2%

Average of 4 year to 7 year = -1.6%

Average of 4 year to 7 year excluding maximum and minimum = -2.0%

Average of 3 year to 8 year = -1.8%

Average of 3 year to 8 year excluding maximum and minimum = -2.1%

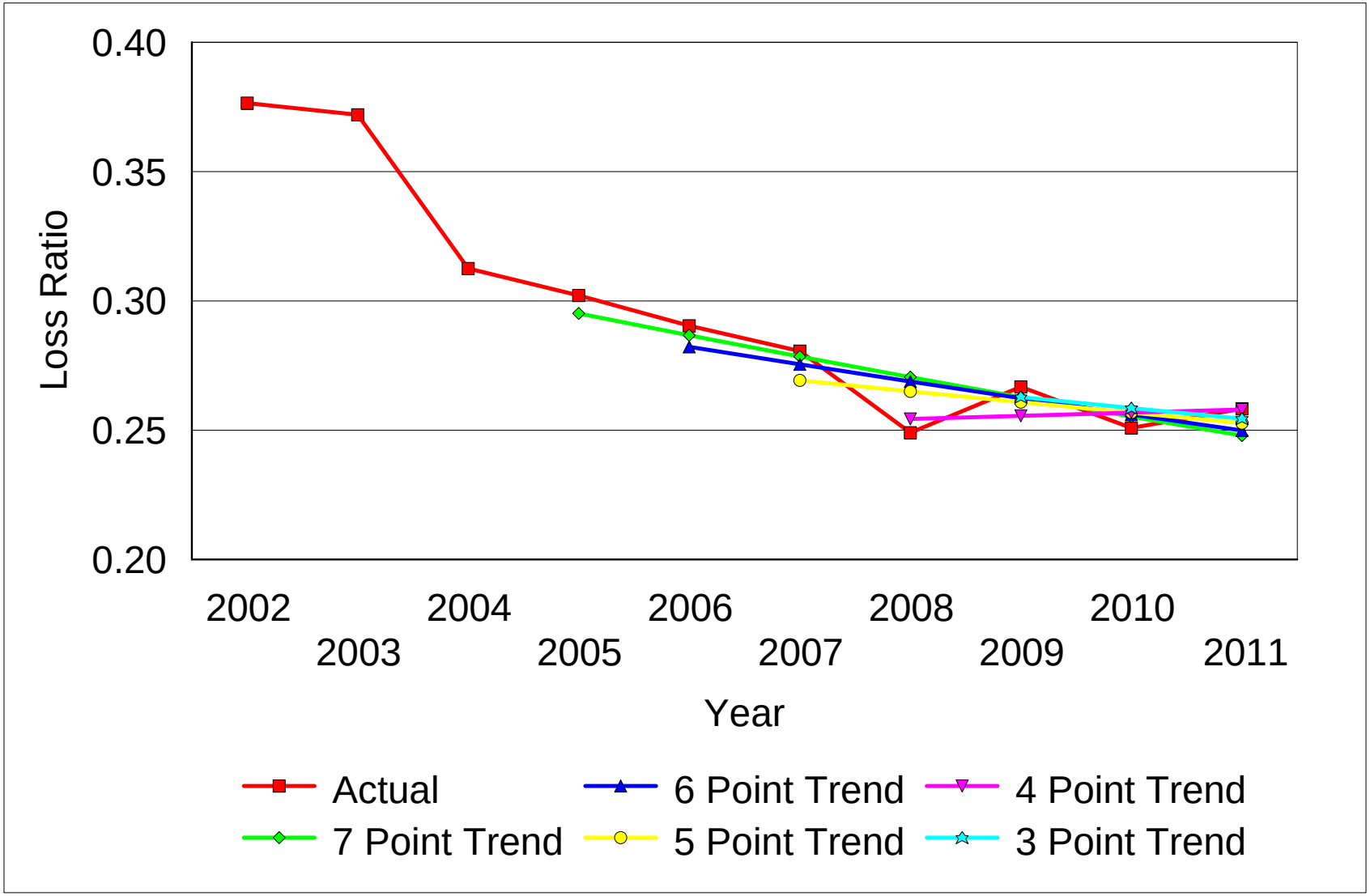
Median of 3 year to 10 year = -2.6%

Regression Output

Constant	90.6	83.0	61.7	57.0	47.6	30.5	-11.0	31.1
Std Err of Y Est	0.060	0.061	0.041	0.044	0.047	0.049	0.038	0.037
R Squared	86%	80%	80%	71%	54%	26%	4%	28%
Adjusted R Squared	84%	77%	77%	65%	43%	2%	-44%	-45%
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)	-0.0458	-0.0420	-0.0314	-0.0290	-0.0244	-0.0158	0.0048	-0.0162
Std Err of Coef.	0.0066	0.0079	0.0064	0.0084	0.0112	0.0154	0.0168	0.0261
T-Statistic	-6.9	-5.3	-4.9	-3.5	-2.2	-1.0	0.3	-0.6
Probability	0.0%	0.1%	0.3%	1.8%	9.5%	37.8%	80.3%	64.7%

Analysis of DCRB Filing Proposed Effective December 1, 2013

Analysis of Indemnity Loss Ratio Trend



Analysis of DCRB Filing Proposed Effective December 1, 2013

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
2002	0.4925		0.4508							
2003	0.5000	1.5%	0.4597	0.4421						
2004	0.4638	-7.2%	0.4688	0.4541	0.4270					
2005	0.4522	-2.5%	0.4781	0.4665	0.4445	0.4240				
2006	0.4284	-5.3%	0.4875	0.4792	0.4627	0.4465	0.4277			
2007	0.4779	11.6%	0.4971	0.4923	0.4816	0.4703	0.4564	0.4558		
2008	0.4571	-4.3%	0.5070	0.5057	0.5013	0.4954	0.4869	0.4866	0.4641	
2009	0.5054	10.5%	0.5170	0.5195	0.5218	0.5218	0.5196	0.5194	0.5072	0.5176
2010	0.5845	15.7%	0.5272	0.5337	0.5431	0.5496	0.5543	0.5544	0.5544	0.5572
2011	0.5858	0.2%	0.5376	0.5482	0.5654	0.5789	0.5915	0.5918	0.6060	0.5999
Annual Percent Change			2.0%	2.7%	4.1%	5.3%	6.7%	6.7%	9.3%	7.7%

Average of 4 year to 6 year = 7.6%

Average of 4 year to 7 year = 7.0%

Average of 4 year to 7 year excluding maximum and minimum = 6.7%

Average of 3 year to 8 year = 6.6%

Average of 3 year to 8 year excluding maximum and minimum = 6.6%

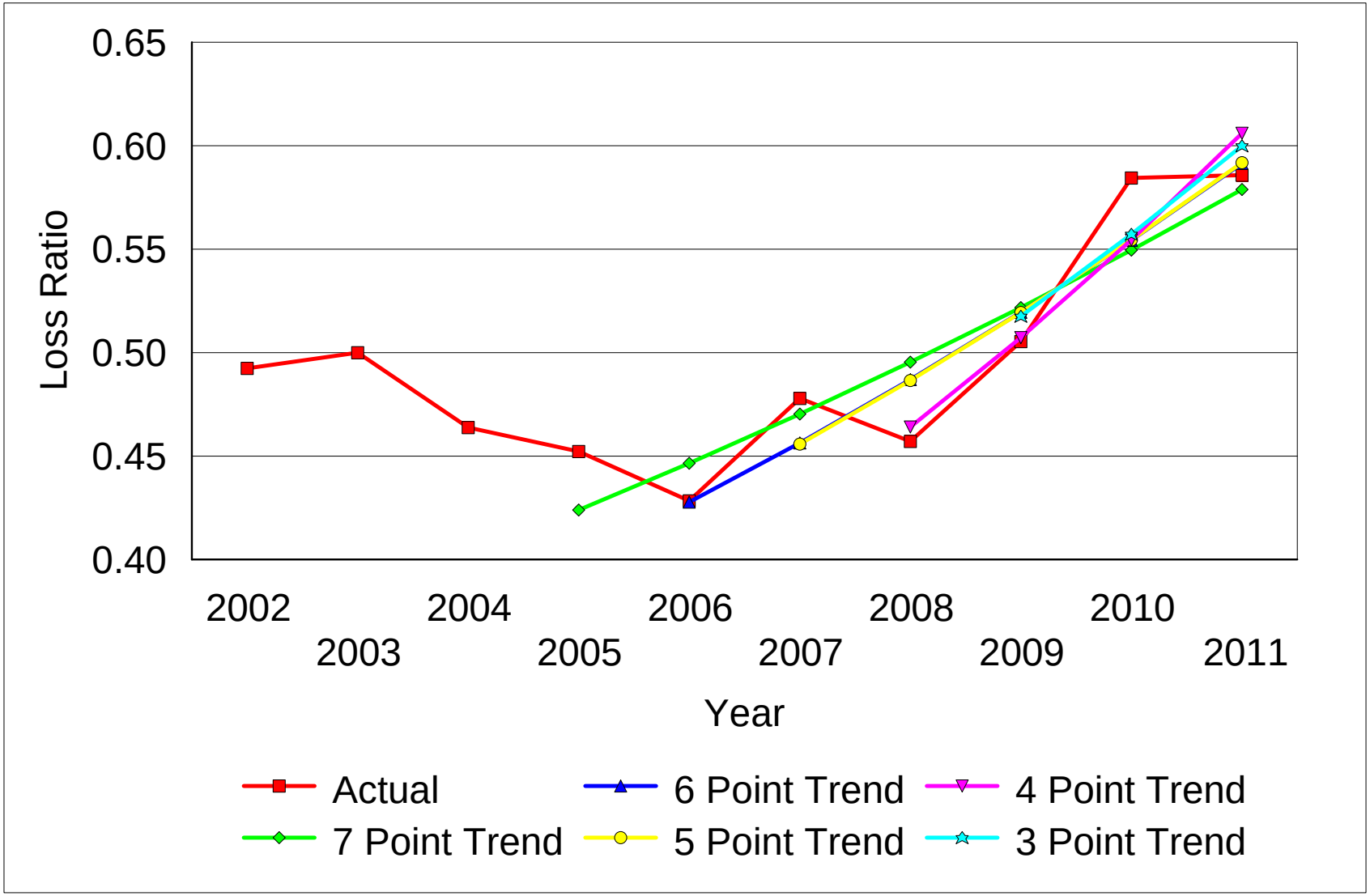
Median of 3 year to 10 year = 6.0%

Regression Output

Constant	-39.9	-54.7	-81.2	-104.9	-130.9	-131.8	-179.4	-149.0
Std Err of Y Est	0.091	0.088	0.070	0.059	0.049	0.057	0.046	0.058
R Squared	32%	45%	70%	81%	88%	81%	90%	76%
Adjusted R Squared	24%	37%	65%	77%	85%	75%	86%	52%
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)	0.0196	0.0269	0.0401	0.0519	0.0648	0.0653	0.0889	0.0738
Std Err of Coef.	0.0100	0.0113	0.0108	0.0112	0.0118	0.0180	0.0204	0.0413
T-Statistic	2.0	2.4	3.7	4.6	5.5	3.6	4.4	1.8
Probability	8.5%	4.9%	1.0%	0.6%	0.5%	3.6%	4.9%	32.5%

Analysis of DCRB Filing Proposed Effective December 1, 2013

Analysis of Medical Loss Ratio Trend



Analysis of DCRB Filing Proposed Effective December 1, 2013

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
1999	1.0000									
2000	0.9066	-9.3%								
2001	0.7903	-12.8%								
2002	0.8007	1.3%	0.7755							
2003	0.7663	-4.3%	0.7233	0.7131						
2004	0.6751	-11.9%	0.6746	0.6668	0.6432					
2005	0.6041	-10.5%	0.6291	0.6236	0.6062	0.5897				
2006	0.5686	-5.9%	0.5867	0.5831	0.5712	0.5595	0.5506			
2007	0.5276	-7.2%	0.5472	0.5453	0.5383	0.5309	0.5250	0.5116		
2008	0.4692	-11.1%	0.5103	0.5099	0.5073	0.5038	0.5005	0.4925	0.4776	
2009	0.4719	0.6%	0.4760	0.4768	0.4780	0.4780	0.4773	0.4742	0.4669	0.4781
2010	0.4714	-0.1%	0.4439	0.4459	0.4505	0.4536	0.4551	0.4565	0.4565	0.4592
2011	0.4354	-7.6%	0.4140	0.4169	0.4245	0.4304	0.4339	0.4395	0.4464	0.4411
2013.917			0.3378	0.3428	0.3570	0.3693	0.3776	0.3935	0.4180	0.3923
Annual Percent Change			-6.7%	-6.5%	-5.8%	-5.1%	-4.7%	-3.7%	-2.2%	-3.9%

Average of 4 year to 6 year = -3.5%

Average of 4 year to 7 year = -3.9%

Average of 4 year to 7 year excluding maximum and minimum = -4.2%

Average of 3 year to 8 year = -4.2%

Average of 3 year to 8 year excluding maximum and minimum = -4.4%

Median of 3 year to 10 year = -4.9%

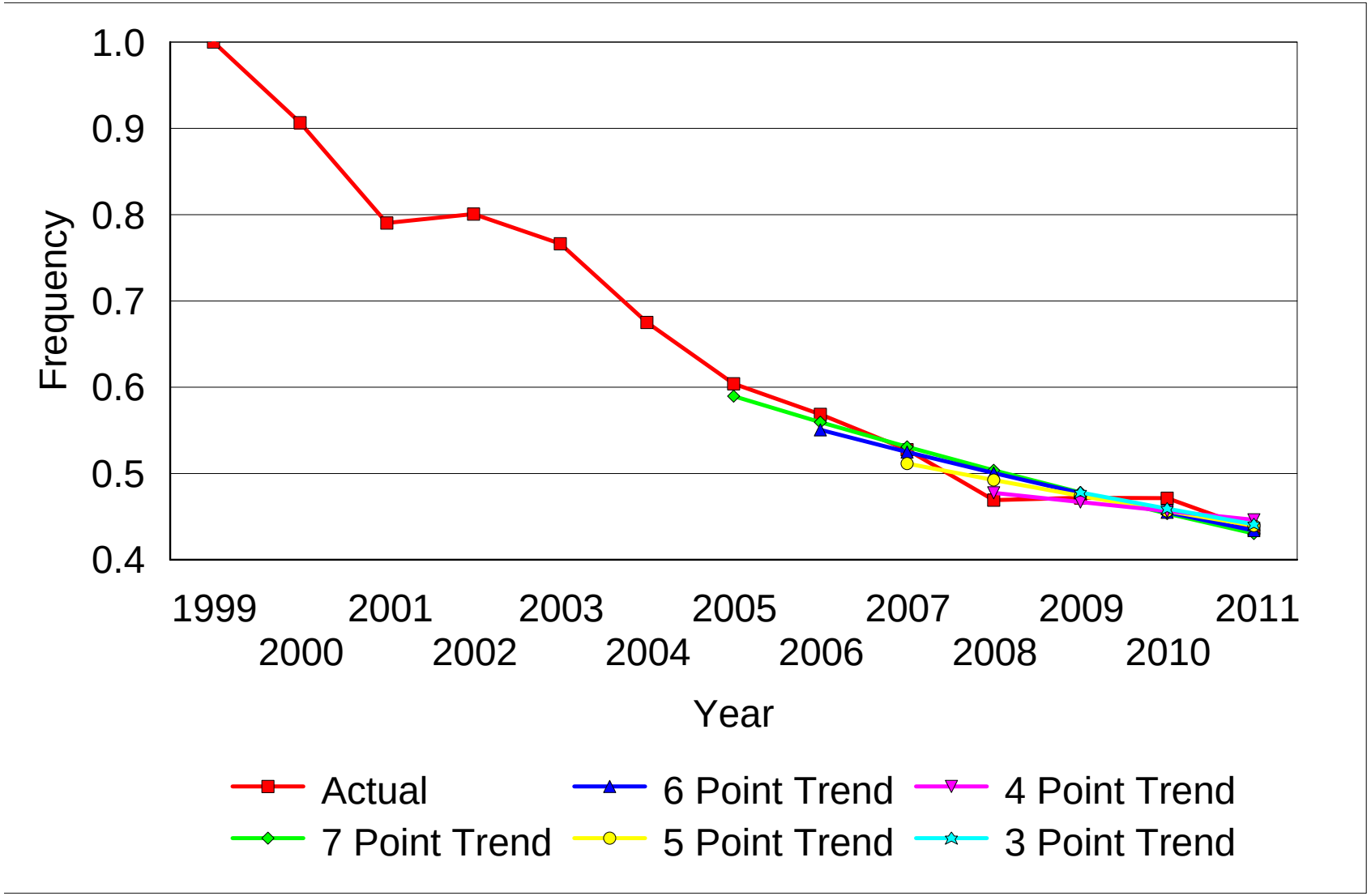
	AIS	DCRB
Selected	**-5.1%**	**-5.1%**

Regression Output

Constant	139.4	134.0	118.5	104.7	94.9	75.5	44.5	80.1
Std Err of Y Est	0.052	0.054	0.044	0.039	0.041	0.038	0.032	0.032
R Squared	95%	93%	93%	91%	86%	76%	55%	76%
Adjusted R Squared	94%	92%	91%	89%	82%	69%	33%	52%
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)	-0.0697	-0.0671	-0.0594	-0.0525	-0.0476	-0.0379	-0.0225	-0.0403
Std Err of Coef.	0.0057	0.0069	0.0068	0.0074	0.0097	0.0122	0.0144	0.0226
T-Statistic	-12.2	-9.7	-8.7	-7.1	-4.9	-3.1	-1.6	-1.8
Probability	0.0%	0.0%	0.0%	0.1%	0.8%	5.3%	25.8%	32.6%

Analysis of DCRB Filing Proposed Effective December 1, 2013

Analysis of Normalized Claim Frequency Trend



Analysis of DCRB Filing Proposed Effective December 1, 2013

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
2002	0.4702		0.4640							
2003	0.4854	3.2%	0.4752	0.4725						
2004	0.4629	-4.6%	0.4868	0.4844	0.4779					
2005	0.5001	8.0%	0.4986	0.4968	0.4915	0.5005				
2006	0.5107	2.1%	0.5107	0.5094	0.5055	0.5124	0.5127			
2007	0.5318	4.1%	0.5231	0.5223	0.5198	0.5245	0.5248	0.5263		
2008	0.5308	-0.2%	0.5358	0.5356	0.5345	0.5370	0.5371	0.5381	0.5326	
2009	0.5654	6.5%	0.5488	0.5492	0.5497	0.5497	0.5497	0.5502	0.5473	0.5497
2010	0.5322	-5.9%	0.5621	0.5631	0.5653	0.5627	0.5627	0.5625	0.5625	0.5631
2011	0.5933	11.5%	0.5757	0.5774	0.5813	0.5761	0.5759	0.5750	0.5780	0.5768
Annual Percent Change			2.4%	2.5%	2.8%	2.4%	2.4%	2.2%	2.8%	2.4%

Average of 4 year to 6 year = 2.5%

Average of 4 year to 7 year = 2.4%

Average of 4 year to 7 year excluding maximum and minimum = 2.4%

Average of 3 year to 8 year = 2.5%

Average of 3 year to 8 year excluding maximum and minimum = 2.5%

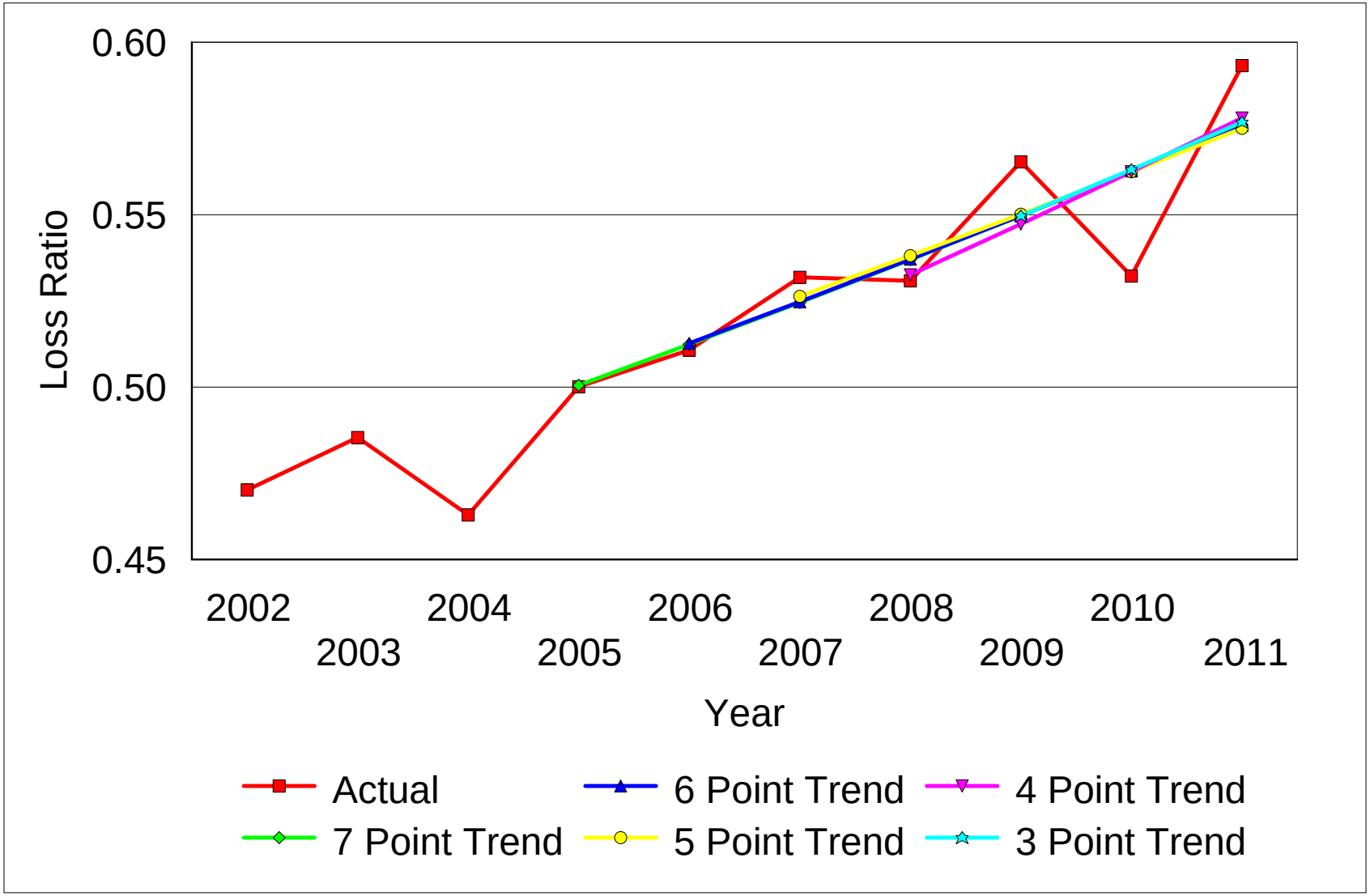
Median of 3 year to 10 year = 2.4%

	AIS	**DCRB**
Selected	**2.4%**	**4.7%**

Regression Output								
Constant	-48.8	-51.0	-56.8	-47.7	-47.3	-45.0	-55.5	-49.0
Std Err of Y Est	0.032	0.034	0.034	0.032	0.036	0.041	0.049	0.069
R Squared	85%	82%	83%	75%	65%	49%	44%	20%
Adjusted R Squared	83%	80%	80%	70%	56%	32%	16%	-61%
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)	0.0240	0.0251	0.0280	0.0234	0.0233	0.0221	0.0273	0.0241
Std Err of Coef.	0.0035	0.0044	0.0052	0.0060	0.0085	0.0130	0.0219	0.0488
T-Statistic	6.8	5.7	5.4	3.9	2.7	1.7	1.2	0.5
Probability	0.0%	0.1%	0.2%	1.2%	5.3%	18.7%	33.8%	70.8%

Analysis of DCRB Filing Proposed Effective December 1, 2013

Analysis of Indemnity Severity Loss Ratio Trend



Analysis of DCRB Filing Proposed Effective December 1, 2013

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
2002	0.6150		0.5813							
2003	0.6525	6.1%	0.6356	0.6199						
2004	0.6870	5.3%	0.6950	0.6810	0.6638					
2005	0.7486	9.0%	0.7599	0.7481	0.7332	0.7190				
2006	0.7534	0.6%	0.8309	0.8218	0.8099	0.7981	0.7769			
2007	0.9058	20.2%	0.9085	0.9028	0.8946	0.8859	0.8694	0.8910		
2008	0.9743	7.6%	0.9934	0.9918	0.9882	0.9834	0.9728	0.9879	0.9717	
2009	1.0709	9.9%	1.0861	1.0895	1.0915	1.0915	1.0886	1.0953	1.0863	1.0825
2010	1.2398	15.8%	1.1876	1.1969	1.2057	1.2116	1.2182	1.2144	1.2144	1.2134
2011	1.3454	8.5%	1.2985	1.3149	1.3318	1.3449	1.3631	1.3465	1.3576	1.3600
Annual Percent Change			9.3%	9.9%	10.5%	11.0%	11.9%	10.9%	11.8%	12.1%

Average of 4 year to 6 year = 11.5%

Average of 4 year to 7 year = 11.4%

Average of 4 year to 7 year excluding maximum and minimum = 11.4%

Average of 3 year to 8 year = 11.4%

Average of 3 year to 8 year excluding maximum and minimum = 11.4%

Median of 3 year to 10 year = 10.9%

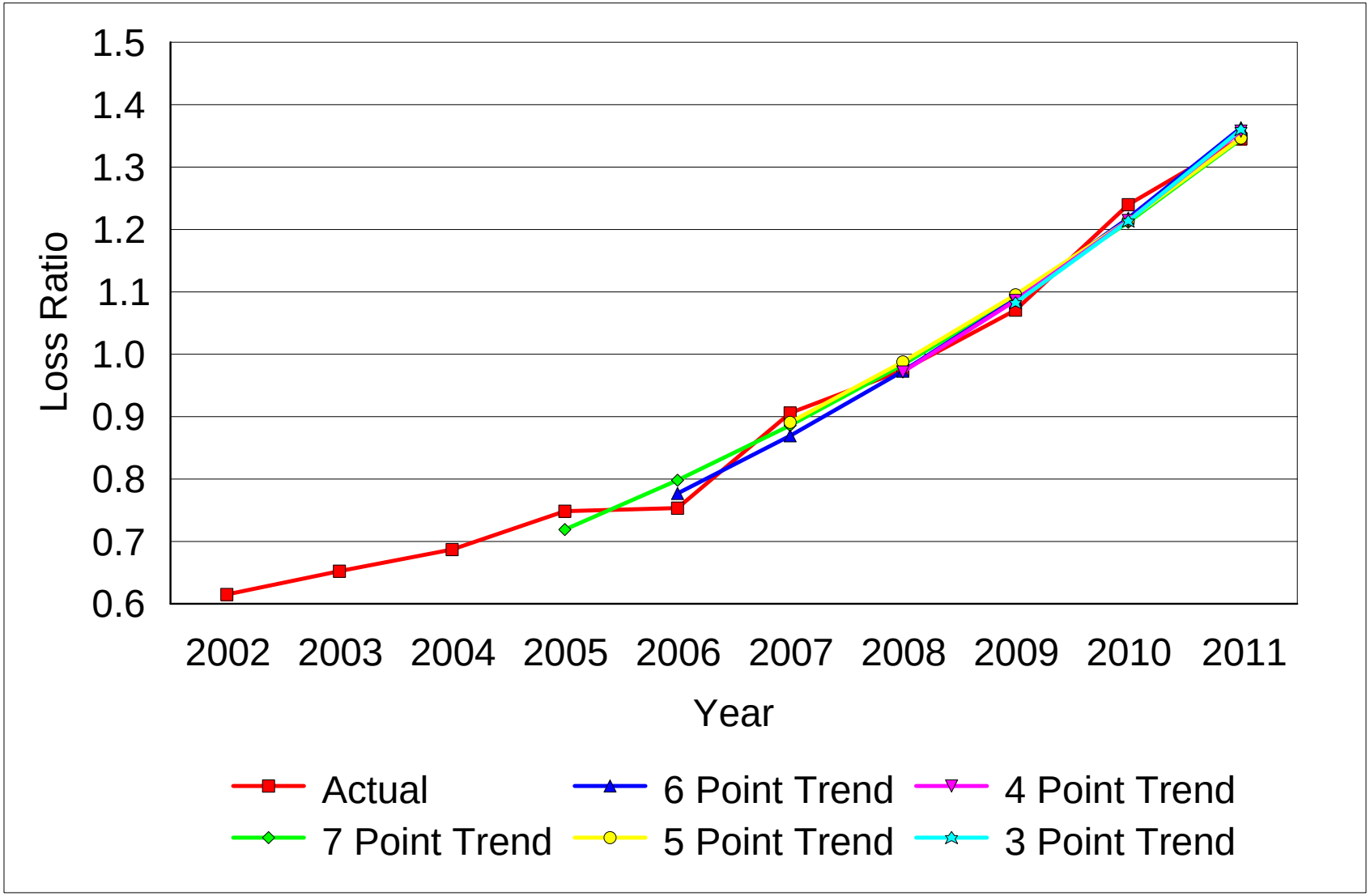
	AIS	DCRB	
Selected	**11.0%**	**14.0%**	
Annual Adjustment After 9/1/2008	**-1.5%**	**1.5%**	Applied from 9/1/2008 to 1/31/13
to Reflect Medical Fee Schedule	**-1.8%**	**-1.8%**	Applied after 1/31/13

Regression Output

Constant	-179.3	-188.7	-199.7	-209.6	-225.8	-207.3	-223.9	-229.1
Std Err of Y Est	0.047	0.042	0.038	0.036	0.029	0.022	0.019	0.026
R Squared	97%	98%	98%	98%	98%	99%	99%	97%
Adjusted R Squared	97%	97%	98%	98%	98%	98%	98%	95%
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)	0.0893	0.0940	0.0995	0.1044	0.1124	0.1032	0.1115	0.1141
Std Err of Coef.	0.0051	0.0055	0.0058	0.0068	0.0069	0.0068	0.0085	0.0187
T-Statistic	17.3	17.1	17.2	15.4	16.2	15.1	13.1	6.1
Probability	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.6%	10.3%

Analysis of DCRB Filing Proposed Effective December 1, 2013

Analysis of Medical Severity Loss Ratio Trend



Analysis of Delaware Compensation Rating Bureau Filing Proposed Effective December 1, 2013

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

Policy Year	Standard Earned Premium	Premium Development Factor	Developed Earned Premium	Expected Loss Ratio	Expected Losses	Reported Losses Paid	Reported Losses Incurred
2002	$120.84	1.0000	$120.84	33.61%	$40.62	$35.32	$37.35
2003	$134.59	1.0000	$134.59	31.38%	$42.24	$36.41	$39.60
2004	$153.05	1.0000	$153.05	27.69%	$42.39	$36.33	$38.63
2005	$187.90	1.0018	$188.24	23.78%	$44.76	$36.39	$41.23
2006	$201.14	1.0015	$201.44	21.71%	$43.74	$34.96	$40.81
2007	$200.03	1.0011	$200.25	22.69%	$45.43	$33.59	$39.86
2008	$151.14	1.0010	$151.29	27.42%	$41.48	$28.76	$35.05
2009	$118.17	1.0017	$118.37	36.64%	$43.38	$24.57	$36.94
2010	$105.60	1.0028	$105.89	37.39%	$39.59	$15.54	$28.47
2011	$106.22	0.9961	$105.80	35.47%	$37.53	$9.49	$24.34

Policy Year	Development Factor Paid	Development Factor Incurred	Projected Ultimate Losses Paid Dev	Projected Ultimate Losses Inc Dev	Projected Ultimate Losses Paid BF	Projected Ultimate Losses Inc BF	AIS Selected	DCRB Selected
2002	1.1277	1.0505	$39.83	$39.24	$39.92	$39.30	$39.61	$39.54
2003	1.1507	1.0609	$41.89	$42.01	$41.94	$42.02	$41.98	$41.95
2004	1.1811	1.0726	$42.91	$41.44	$42.83	$41.50	$42.17	$42.17
2005	1.2228	1.0862	$44.50	$44.78	$44.55	$44.78	$44.66	$44.64
2006	1.2826	1.1020	$44.83	$44.97	$44.59	$44.86	$44.73	$44.90
2007	1.3738	1.1222	$46.14	$44.73	$45.95	$44.81	$45.38	$45.44
2008	1.5257	1.1531	$43.88	$40.42	$43.05	$40.56	$41.81	$42.15
2009	1.8234	1.2202	$44.81	$45.08	$44.16	$44.77	$44.47	$44.94
2010	2.6783	1.4535	$41.62	$41.38	$40.35	$40.82	$40.59	$41.50
2011	5.5056	2.0056	$52.24	$48.81	$40.20	$43.15	$41.68	$50.52

Analysis of Delaware Compensation Rating Bureau Filing Proposed Effective December 1, 2013

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

Policy Year	Standard Earned Premium	Premium Development Factor	Developed Earned Premium	Expected Loss Ratio	Expected Losses	Reported Losses Paid	Reported Losses Incurred
2002	$120.84	1.0000	$120.84	50.23%	$60.69	$44.88	$53.22
2003	$134.59	1.0000	$134.59	46.75%	$62.92	$45.96	$56.52
2004	$153.05	1.0000	$153.05	46.74%	$71.54	$49.79	$58.51
2005	$187.90	1.0018	$188.24	39.46%	$74.27	$49.65	$61.50
2006	$201.14	1.0015	$201.44	35.12%	$70.75	$46.93	$57.20
2007	$200.03	1.0011	$200.25	41.46%	$83.02	$50.59	$61.56
2008	$151.14	1.0010	$151.29	52.95%	$80.11	$46.68	$56.78
2009	$118.17	1.0017	$118.37	72.40%	$85.70	$47.36	$57.44
2010	$105.60	1.0028	$105.89	84.68%	$89.67	$48.26	$61.70
2011	$106.22	0.9961	$105.80	80.00%	$84.65	$38.18	$54.45

Policy Year	Development Factor Paid	Development Factor Incurred	Projected Ultimate Losses Paid Dev	Projected Ultimate Losses Inc Dev	Projected Ultimate Losses Paid BF	Projected Ultimate Losses Inc BF	AIS Selected	DCRB Selected
2002	1.2839	1.1716	$57.63	$62.35	$58.31	$62.11	$60.21	$59.99
2003	1.3209	1.1932	$60.71	$67.44	$61.24	$66.71	$63.98	$64.08
2004	1.3642	1.2184	$67.93	$71.29	$68.89	$71.33	$70.11	$69.61
2005	1.4156	1.2487	$70.28	$76.79	$71.45	$76.29	$73.87	$73.54
2006	1.4775	1.2875	$69.34	$73.64	$69.80	$72.99	$71.39	$71.49
2007	1.5533	1.3414	$78.58	$82.58	$80.16	$82.69	$81.43	$80.58
2008	1.6496	1.4263	$77.01	$80.98	$78.23	$80.72	$79.47	$79.00
2009	1.7854	1.5766	$84.56	$90.56	$85.06	$88.78	$86.92	$87.56
2010	2.0807	1.7745	$100.41	$109.49	$94.83	$100.84	$97.83	$104.95
2011	2.9764	2.2698	$113.65	$123.60	$94.39	$101.81	$98.10	$118.62

Analysis of Delaware Compensation Rating Bureau Filing Proposed Effective December 1, 2013

Calculation of Projected Ultimate Loss Ratio from AIS Analysis of DCRB 2012 Filing
(Amounts in Millions)

Policy Year	Standard Earned Premium	Premium Development Factor	Developed Earned Premium	Projected Ultimate Losses		Projected Ultimate Loss Ratio	
				Indemnity	Medical	Indemnity	Medical
2002	$118.82	1.0000	$118.82	$39.94	$59.68	33.61%	50.23%
2003	$133.01	1.0000	$133.01	$41.74	$62.18	31.38%	46.75%
2004	$151.08	1.0017	$151.34	$41.91	$70.74	27.69%	46.74%
2005	$185.09	1.0000	$185.09	$44.01	$73.03	23.78%	39.46%
2006	$204.70	0.9997	$204.64	$44.43	$71.87	21.71%	35.12%
2007	$198.15	0.9996	$198.07	$44.94	$82.12	22.69%	41.46%
2008	$150.15	1.0001	$150.17	$41.17	$79.51	27.42%	52.95%
2009	$117.51	1.0000	$117.51	$43.06	$85.08	36.64%	72.40%
2010	$105.14	0.9909	$104.18	$38.95	$88.22	37.39%	84.68%

Source: AIS 9/24/12 Analysis of DCRB 2012 Filing; Schedule AIS-3, Sheets 1 and 2

Analysis of Delaware Compensation Rating Bureau Filing Proposed Effective December 1, 2013

Derivation of Expected Loss Ratio for Policy Year 2011

Indemnity

		Loss Factors		Premium Factors			
Policy Year	Expected Loss Ratio	Benefit Level	Trend to 12/12 Rates	Factor to 12/1/12 Rates	Expense Constant Factor	DCCPAP Factor	Adjusted Expected Loss Ratio
2007	22.69%	1.0536	0.7821	1.0105	0.9977	0.9974	18.59%
2008	27.42%	1.0358	0.8153	1.3631	0.9974	0.9989	17.05%
2009	36.64%	1.0320	0.8498	1.6973	0.9971	1.0147	18.71%
2010	37.39%	1.0348	0.8859	1.8475	0.9970	1.0142	18.35%
Average							18.18%
2011	35.47%	1.0379	0.9235	1.8499	0.9970	1.0142	18.18%

Medical

		Loss Factors		Premium Factors			
Policy Year	Expected Loss Ratio	Benefit Level	Trend to 12/11 Rates	Factor to 12/1/11 Rates	Expense Constant Factor	DCCPAP Factor	Adjusted Expected Loss Ratio
2007	41.46%	1.0000	1.0537	1.0105	0.9977	0.9974	43.44%
2008	52.95%	1.0000	1.0349	1.3631	0.9974	0.9989	40.35%
2009	72.40%	1.0000	1.0277	1.6973	0.9971	1.0147	43.33%
2010	84.68%	1.0000	1.0205	1.8475	0.9970	1.0142	46.26%
Average							43.35%
2011	80.00%	1.0000	1.0135	1.8499	0.9970	1.0142	43.35%

Delaware Compensation Rating Bureau, Inc.

Medical Data Call Overview Report

Medical Procedure Data

Year Ending	Number of Claims with Payment(s)	Number of Procedures	Procedure Units	Medical Amount Charged	Medical Amount Paid	Average Procedures per Claim	Average Units per Procedure	Average Procedure Units per Claim	Average Payment per Procedure	Average Payment per Unit	Average Payment per Claim
Jun-11	17,923	331,045	760,367	$71,846,155	$53,928,642	18.47	2.30	42.42	$162.90	$70.92	$3,008.91
Sep-11	17,873	327,360	772,684	$72,658,770	$54,882,650	18.32	2.36	43.23	$167.65	$71.03	$3,070.70
Dec-11	17,866	326,686	819,839	$76,601,856	$57,842,136	18.29	2.51	45.89	$177.06	$70.55	$3,237.55
Mar-12	18,002	323,427	835,497	$75,518,319	$57,094,509	17.97	2.58	46.41	$176.53	$68.34	$3,171.56
Jun-12	18,210	323,168	851,869	$76,984,356	$58,383,837	17.75	2.64	46.78	$180.66	$68.54	$3,206.14
Sep-12	18,146	321,969	861,614	$79,255,013	$60,114,745	17.74	2.68	47.48	$186.71	$69.77	$3,312.84
Dec-12	17,890	313,920	817,490	$75,151,519	$56,791,577	17.55	2.60	45.70	$180.91	$69.47	$3,174.49
Mar-13	17,903	313,398	829,779	$77,650,367	$58,432,420	17.51	2.65	46.35	$186.45	$70.42	$3,263.83
Average Annual Trend During Time Period											
June 2011 to March 2013						-3.2%	8.4%	4.9%	7.4%	-0.9%	4.0%
Sept 2011 to March 2013						-3.2%	6.7%	3.2%	6.2%	-0.5%	2.7%
Dec 2011 to March 2013						-3.2%	3.6%	0.2%	4.3%	0.7%	0.9%
March 2012 to March 2013						-2.5%	1.5%	-1.0%	4.5%	3.0%	1.9%
June 2012 to March 2013						-2.1%	-0.6%	-2.6%	2.6%	3.1%	0.4%

Source: DCC Qtrly Report Pkg Oct 2013

Delaware Compensation Rating Bureau, Inc.

Medical Data Call Overview Report

Prescription Drug Data

Year Ending	Number of Claims with Payment(s)	Number of Procedures	Procedure Units	Medical Amount Charged	Medical Amount Paid	Average Procedures per Claim	Average Units per Procedure	Average Procedure Units per Claim	Average Payment per Procedure	Average Payment per Unit	Average Payment per Claim
Jun-11	7,003	39,449	2,824,175	$7,730,117	$6,540,198	5.63	71.59	403.28	$165.79	$2.32	$933.91
Sep-11	7,055	40,086	2,796,753	$7,611,281	$6,646,118	5.68	69.77	396.42	$165.80	$2.38	$942.04
Dec-11	7,180	42,366	2,917,219	$7,854,122	$6,835,122	5.90	68.86	406.30	$161.34	$2.34	$951.97
Mar-12	7,208	43,689	2,976,193	$8,059,353	$6,955,828	6.06	68.12	412.90	$159.21	$2.34	$965.01
Jun-12	7,278	44,449	3,021,334	$8,298,344	$7,107,104	6.11	67.97	415.13	$159.89	$2.35	$976.52
Sep-12	7,410	44,795	3,031,327	$8,426,096	$7,217,508	6.05	67.67	409.09	$161.12	$2.38	$974.02
Dec-12	7,291	43,522	2,984,017	$8,477,497	$7,250,099	5.97	68.56	409.27	$166.58	$2.43	$994.39
Mar-13	7,431	44,684	3,075,331	$8,802,216	$7,562,196	6.01	68.82	413.85	$169.24	$2.46	$1,017.66
Average Annual Trend During Time Period											
June 2011 to March 2013						3.8%	-2.0%	1.8%	0.8%	2.8%	4.6%
Sept 2011 to March 2013						2.8%	-0.8%	1.9%	2.0%	2.8%	4.8%
Dec 2011 to March 2013						0.4%	0.1%	0.6%	4.5%	4.3%	4.9%
March 2012 to March 2013						-1.5%	1.2%	-0.4%	6.7%	5.5%	5.1%
June 2012 to March 2013						-2.3%	2.0%	-0.4%	8.5%	6.3%	5.9%

Source: DCC Qtrly Report Pkg Oct 2013

Analysis of DCRB Filing Proposed Effective December 1, 2013

Analysis of LAE to Loss Provision

Year	Historical LAE / Loss as Calculated by DCRB
2008	15.76%
2009	16.98%
2010	19.30%
2011	21.59%
2012	18.26%
3 - Year Average	19.72%
5 - Year Average Ex Max / Min	18.18%
Selected Value	18.18%

Source: Current and Prior DCRB Filings, Exhibit 8

ALLAN I. SCHWARTZ
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4400 Route 9 South
Freehold, New Jersey 07728
732-780-0330

EDUCATION

Cooper Union, B.S., Physics, 1975

PROFESSIONAL AFFILIATIONS

Casualty Actuarial Society, Fellow - 1981, Associate - 1979

Society of Actuaries, Associate - 1983

American Academy of Actuaries, Member - 1979

Conference of Consulting Actuaries, Fellow - 1989, Member - 1983

Associate in Reinsurance - June 1998
(Received Reinsurance Association of America Award for Academic Excellence)

Associate in Claims - September 1998

Associate in Premium Auditing - May 1999

Associate in Underwriting - June 1999

Associate in Insurance Accounting and Finance - June 2002
(Received National Association of Mutual Insurance Companies Award for Academic Excellence)

Associate in Risk Management - September 2002

Associate in Personal Insurance – January 2008

Associate, Customer Service – March 2008 (With Honors)

Certified Rate of Return Analyst – April 2011

Casualty Actuarial Society Course on Interest Rate Models - March 2002

Association for Studies in Non-Life Insurance

International Actuarial Association

Casualty Actuarial Society Examination Committee : 1983-1984

Casualty Actuarial Society - Committee on Management Data and Information : 1988

Conference of Actuaries in Public Practice - Committee on Surveys : 1985

Self-Insurance / Statistics Committee - International Association for Industrial Accident Boards and Commissions (IAIABC) : 1985

Property/Casualty Actuarial Task Force of the National Association of Insurance Commissioners (NAIC) : 1987 - 1989

Statistical Task Force of the NAIC : 1988 - 1989

Life / Accident / Health Actuarial Task Force of the NAIC : 1987

Middle Atlantic Actuarial Club : 1987

Casualty Actuaries of the Southeast : 1987

Editor - Fresh Air Newsletter (Published by Actuaries in Regulation) : 1987 - 1988

PUBLICATIONS

"Workers' Compensation and Investment Income" : Best's Review, Property / Casualty Insurance Edition, 10/82

"A Note on Calendar Year Loss Ratios" : Proceedings of the Casualty Actuarial Society, 11/82

"An Actuary's Analysis of the Security of a Self-Insured" : Business Insurance, 9/26/83

"Actuarial Issues to be Addressed in Pricing Excess of Loss Reinsurance" : Proceedings of the Los Angeles Chapter CPCU Technical Conference, 6/84 (Received Research Excellence Award from Farmers Insurance Group)

"An Actuarial Analysis of Self-Insurance" : The Self-Insurer, Volume 1, Issue 3, 1984

"Loss and Loss Expense Reserving" : The Self-Insurer, Volume 1, Issue 4, 1984

"The ABC's of Reinsurance" : The Self-Insurer, Volume 2, Issue 4, 1985

"Actuarial Implications of Claims-Made Policies" : The Journal of the Independent Reinsurance Underwriters Association, Volume I, Number 1, October 1985

"Considerations in the Regulatory Analysis of Workers' Compensation Rate Filings" : Best's Review, Property / Casualty Insurance Edition, 8/88

"Delays in Payment of Private Passenger Auto Premium Receipts / Commissions : Impact on Calculation of Investment Income", Journal on Insurance Regulation, Volume 7, No. 3, March 1989

"Various Studies Related to Workers' Compensation", State of California - Workers' Compensation Rate Study Commission, Volume V, March 1992

LECTURES PRESENTED

"Reserving Losses for Self-Insureds" & "Actuarial Sufficiency of Self-Insurance Programs" : Eleventh Workers' Compensation College of the IAIABC - 4/84

"Problems, Trends, and History of Self-Insurance" : 1984 IAIABC Central States Association Conference - 6/84

"Actuarial Issues to be Addressed in Pricing Excess of Loss Reinsurance" : Los Angeles CPCU Technical Conference - 6/84

"Types of Security Available for the Self-Insured Employer" : 1984 Mid-Year Meeting of the National Council of Self-Insurers - 9/84

"Actuarial Implications of Claims-Made Policies" : Fall 1985 Meeting of the Independent Reinsurance Underwriters Association - 10/85

"North Carolina Medical Malpractice Closed Claim Study" : Duke University - Conference on Developing Information Bases for Medical Malpractice Claim Studies - 5/87

"A Regulator's Perspective on Rate Filings" : Casualty Actuarial Society Seminar on Ratemaking - 3/88

"Understanding the Insurance Industry and Regulation" : Public Citizen's Taming the Insurance Giant Conference - 2/90

"Analyzing Insurance Company Rate Filings" : National Association of Attorneys General Insurance Committee Meeting - 4/90

"Where Does All The Money Go - Insurance Profitability" : Workers Compensation in New York - 5/95

WORK EXPERIENCE

AIS RISK CONSULTANTS, INC.
President - 11/84 to Present

Responsibilities include performing actuarial analyses for all lines of property/casualty insurance. Loss reserve and rate level studies for insurance companies, reinsurance companies, state insurance funds, self-insurers, captive insurers, brokerage firms and attorneys. Work also involves projection of payment patterns, excess insurance studies, production of management information systems and development of individual risk rating plans.

Has been qualified as an expert in property/casualty insurance in numerous jurisdictions. Has provided testimony in regulatory and legislative hearings.

NEW JERSEY DEPARTMENT OF INSURANCE
Assistant Commissioner - 5/88 to 1/90

Supervised a staff of 20+ which regulated rates, rules and policy forms in New Jersey for property/casualty insurance to determine compliance with the applicable statutes and regulations. Also responsible for the statistical section for property/casualty insurance. This section gathers and analyzes data related to property/casualty insurance. Provided advice to the Insurance Commissioner and other senior staff members of the Insurance Department regarding the impact of proposed legislation, regulations and overall policy directives.

Provided recommendations in regard to the financial analysis and condition of insurers, including excess profits reports.

NORTH CAROLINA DEPARTMENT OF INSURANCE
Chief Actuary - 6/86 to 4/88

Responsible for all actuarial studies performed in the Department of Insurance covering property / casualty / life / health / accident insurance.

Work included the analysis of filings made by insurance companies to see that they are in compliance with the insurance laws and regulations of the State of North Carolina. Also interacted with the legal staff of the Insurance Department in drafting proposed insurance laws and regulations.

Responsible for the analysis of the loss and loss adjustment expense reserves established by insurance companies to meet the liabilities they have incurred in the past, but which will not be payable until some time in the future.

Involved in various special projects relating to the financial analysis of insurance operations. These included the review of reinsurance contracts, the financial analysis of the North Carolina State Property Fire Insurance Fund and a study of medical malpractice closed claims.

Was in charge of a staff of six, including four professional and two clerical people. Other duties involved the writing of computer programs, providing expert testimony at rate hearings and assisting the Insurance Commissioner prepare for legislative committees.

WOODWARD & FONDILLER
Senior Actuary - 8/77 to 11/84

Consulting property/casualty actuarial studies (see description under AIS Risk Consultants, Inc.)

NATIONAL COUNCIL ON COMPENSATION INSURANCE
Actuarial Trainee - 3/76 to 8/77

Performed ratemaking analyses and prepared rate filings for workers' compensation insurance. Regularly evaluated the impact of changes in workers' compensation benefits. Also assisted the Director of Research with special studies related to data collection, ratemaking procedures and benefit evaluations.

Wilmington, Delaware, December 2012
Delaware Compensation Rating Bureau Workers Compensation Insurance Rate Hearing

Boston, Massachusetts, June 2012
Workers Compensation Rating and Inspection Bureau of Massachusetts Rate Hearing

San Francisco, California, April 2012
Mercury Casualty Company Homeowners Insurance Rate Hearing

San Francisco, California, January 2012
California State Automobile Association Inter-Insurance Bureau Homeowners Insurance
Pre Filed Testimony (Case Settled)

Wilmington, Delaware, October 2011
Delaware Compensation Rating Bureau Workers Compensation Insurance Rate Hearing

Raleigh, North Carolina, July 2011
North Carolina Rate Bureau Dwelling Fire and Extended Coverage Insurance Rate Hearing

Wilmington, Delaware, November 2010
Delaware Compensation Rating Bureau Workers Compensation Insurance Rate Hearing

San Francisco, California, November 2010
Allstate Insurance Company Your Choice Automobile Pre Filed Testimony (Case Settled)

Santa Fe, New Mexico, August 2010
Blue Cross Blue Shield of New Mexico Health Insurance Rate Hearing

Austin, Texas, July 2010
Texas Automobile Insurance Plan Association Automobile Insurance Rate Hearing

Santa Fe, New Mexico, November 2009
Industry Title Insurance Rate Hearing

Tallahassee, Florida, November 2009
Citizens Property Insurance Company Homeowners Insurance Rate Hearing

Wilmington, Delaware, September 2009
Delaware Compensation Rating Bureau Workers Compensation Insurance Rate Hearing

Austin, Texas, April 2009
State Farm Lloyds Homeowners Insurance Rate Hearing

Raleigh, North Carolina, July 2008
North Carolina Rate Bureau Automobile Insurance Rate Hearing

San Francisco, California, May 2008
GeoVera Insurance Company Earthquake Insurance Rate Hearing

San Francisco, California, May 2008
Allstate Insurance Company Homeowners Insurance Rate Hearing

San Francisco, California, March 2008
Fireman's Fund Insurance Company Earthquake Insurance Rate Hearing

Tallahassee, Florida, February 2008
Service Insurance Company Commercial Multi Peril Insurance Rate Hearing

Tallahassee, Florida, January 2008
Hartford Insurance Group Homeowners Insurance Rate Hearing

Boston, Massachusetts, January 2008
Arbella Insurance Company Automobile Insurance Rate Hearing

Boston, Massachusetts, January 2008
Premier Insurance Company Automobile Insurance Rate Hearing

Boston, Massachusetts, January 2008
Hanover Insurance Company Automobile Insurance Rate Hearing

Boston, Massachusetts, January 2008
Safety Insurance Company Automobile Insurance Rate Hearing

Boston, Massachusetts, January 2008
Commerce Insurance Group Automobile Insurance Rate Hearing

San Francisco, California, November 2007
Explorer Insurance Company Automobile Insurance Rate Hearing

Wilmington, Delaware, November 2007
Delaware Compensation Rating Bureau Workers Compensation Insurance Rate Hearing

Boston, Massachusetts, October 2007
Massachusetts Property Ins. Underwriting Association Homeowners Insurance Rate Hearing

San Francisco, California, May 2007
Allstate Insurance Company Automobile Insurance Rate Hearing

Tallahassee, Florida, March 2007
Nationwide Insurance Company Homeowners Insurance Rate Hearing

Austin, Texas, August 2006
Industry Title Insurance Rate Hearing

Key West, Florida, August 2006
Citizens Property Insurance Company Homeowners Insurance Rate Hearing

Boston, Massachusetts, January 2006
Massachusetts Property Ins. Underwriting Association Homeowners Insurance Rate Hearing

Tallahassee, Florida, October 2005
NCCI Workers Compensation Insurance Rate Hearing

Raleigh, North Carolina, September 2005
North Carolina Rate Bureau Automobile Insurance Rate Hearing

San Francisco, California, August 2005
Safeco Insurance Company Earthquake Insurance Rate Hearing

Boston, Massachusetts, April 2005
Massachusetts Workers Compensation Insurance Rate Hearing

Austin, Texas, July 2004
Medical Protective Insurance Company Medical Malpractice Insurance Rate Hearing

Trenton, New Jersey, June 2004
Medical Protective Insurance Company Medical Malpractice Insurance Rate Hearing

Austin, Texas, December 2003
Industry Title Insurance Rate Hearing

Boston, Massachusetts, April 2003
Massachusetts Workers Compensation Insurance Rate Hearing

Los Angeles, California, March 2003
SCPIE Medical Malpractice Insurance Rate Hearing

Raleigh, North Carolina, July 2002
North Carolina Rate Bureau Automobile Insurance Rate Hearing

Tallahassee, Florida, February 2002
NCCI Workers Compensation Insurance Rate Hearing

Raleigh, North Carolina, September 2001
North Carolina Rate Bureau Automobile Insurance Rate Hearing

Trenton, New Jersey, September 2001
Liberty Mutual Fire Insurance Company Automobile Insurance Rate Hearing

Boston, Massachusetts, August 2001
Massachusetts Automobile Insurance Bureau Rate Hearing

Trenton, New Jersey, July 2001
State Farm Indemnity Automobile Insurance Rate Hearing

Austin, Texas, March 2001
Industry Automobile Benchmark Rate Hearing

Trenton, New Jersey, January 2001
Selective Insurance Company Automobile Insurance Rate Hearing

Tallahassee, Florida, October 2000
NCCI Workers Compensation Insurance Rate Hearing

Boston, Massachusetts, August 2000
Massachusetts Automobile Insurance Bureau Rate Hearing

Austin, Texas, December 1999
Automobile Insurance Plan Association Rate Hearing

Raleigh, North Carolina, December 1999
North Carolina Rate Bureau Automobile Insurance Rate Hearing

Austin, Texas, November 1999
Industry Title Insurance Rate Hearing

Tallahassee, Florida, September 1999
NCCI Workers Compensation Insurance Rate Hearing

Austin, Texas, September 1999
Industry Texas Automobile Insurance Benchmark Rate Hearing

Boston, Massachusetts, August 1999
Massachusetts Automobile Insurance Bureau Rate Hearing

Austin, Texas, June 1999
Industry Property Insurance Benchmark Rate Hearing