



14. Reserve Study

Estimated Liabilities as of June 30



RESERVE STUDY

Each year the Group contracts with an independent actuary to evaluate the Group's liabilities. This study represents the ultimate liability for all open and incurred but not reported (IBNR) claims for all time.

This evaluation is extremely important as this estimation is used in determining the Group's financial position. The Group's financial auditor utilizes the actuary's ultimate liability estimate as the largest expense item when developing an income statement and balance sheet.

This reserve study is forwarded to the Department of Banking and Insurance (DOBI). Their actuary reviews it for accuracy.

New Jersey School Boards Association Insurance
Group

**Estimated Liabilities as of
June 30, 2012**

September 27, 2012

TOWERS WATSON 



September 27, 2012

Mr. Marty Kalbach
Director
New Jersey School Boards Association Insurance Group
450 Veteran's Drive
Burlington, NJ 08016-1268

Dear Marty:

Enclosed please find our report regarding the loss and allocated loss adjustment expense liabilities as of June 30, 2012 for the New Jersey School Boards Association Insurance Group (NJSBAIG).

This final report replaces and supersedes the draft reports dated July 20, 2012 and August 6, 2012.


Attention is called to the *Distribution* section of the final report, which sets out the limits on distribution and use of the report and, in particular, the conditions that permitted recipients must recognize and are deemed to have accepted by retaining a copy of the final report.

The authors of this report are members of the American Academy of Actuaries and we meet its Qualification Standards to render the actuarial opinion contained herein.

We have enjoyed working on this analysis for you. Please contact either of us with any questions.

Sincerely,

Towers Watson

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Enclosures

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Purpose and Scope

Towers Watson was retained by the New Jersey School Boards Association Insurance Group (NJSBAIG or the Group) to prepare an actuarial analysis of NJSBAIG's loss and allocated loss adjustment expense (ALAE) experience for the purpose of developing estimates of unpaid loss and ALAE as of June 30, 2012.

This report was prepared for the internal use of NJSBAIG management to present our findings with respect to this analysis. It is our understanding that NJSBAIG management will consider our findings for the purposes of establishing liability estimates for external financial reporting and internal management reporting.

Our report is not intended or necessarily suitable for any other purposes.

The exhibits attached in support of our conclusions are an integral part of this report. These sections have been prepared so that our actuarial assumptions and judgments are documented. Judgments about the analysis and findings presented in this report should be made only after considering the report in its entirety. Our projections are predicated on a number of assumptions as to future conditions and events. These assumptions are documented in subsequent sections of this report, and should be understood in order to place the actuarial estimates in their appropriate context. In addition, the projections are subject to a number of reliances and limitations, as described in subsequent sections of this report.

We are available to answer any questions that may arise regarding this report. We assume that the user of this report will seek such explanation on any matter in question.

In this report, we provide estimates of NJSBAIG's unpaid loss and ALAE as of June 30, 2012 on several bases representing various intended measures. These include an actuarial central estimate, as well as estimates above and below the actuarial central estimate. The actuarial central estimate and the alternate estimates were arrived at through the evaluation of the results of various actuarial methods applied to the NJSBAIG's experience. As such, the derivation of these estimates does not include consideration of extreme events, which are considered to have a remote possibility of occurring. The higher and lower estimates are intended to present measures of the Group's unpaid loss and ALAE that consider outcomes that may be considered unlikely, but that are not remote. We consider the actuarial central estimate and the range of estimates presented here suitable for use in financial reporting contexts.

The scope does not include quantification of the uncertainty in our estimates. However, our report includes commentary on this uncertainty, to assist in understanding the financial implications of our results.

As requested by NJSBAIG, our analysis included the following coverages:

- Workers Compensation (WC)
- General Liability (GL)
- Auto Liability (AL)
- Auto Physical Damage (APD)
- Errors and Omissions (E&O)
- Property

Our analysis was performed net of ceded excess insurance/reinsurance, net of deductibles, and net of future salvage and subrogation. We have assumed that all of NJSBAIG's ceded excess insurance/reinsurance and other recoveries will be valid and collectible.

All loss amounts are stated on an undiscounted basis as regards future investment income.

Throughout this report, the use of the term loss without modification includes loss and ALAE, but does not include unallocated loss adjustment expense (ULAE).

Distribution

Our report is delivered under the following terms and conditions:

- This report is provided to NJSBAIG solely for the intended purpose, and may not be referenced or distributed to any other party without our prior written consent
- This report has been prepared for use by persons technically competent in the areas covered and with the necessary background information
- Draft versions of this report must not be relied upon by any person for any purpose
- A copy of this report may be shared with your auditors, broker, regulator and current or prospective reinsurers or excess insurers in the context of performing their regular activities
- You shall not refer to us or include any portion of this report in any shareholder communication or in any offering materials or fairness opinion provided by your professional advisors prepared in connection with the public offering or private placement of any security
- This report may be shared with your affiliates, provided that you ensure that each such affiliate complies with the terms above and the applicable statement of work as if it were a party to them, and you remain responsible for such compliance

We accept no responsibility for any consequences arising from any third party relying on this report. If we agree to provide this report to a third party, you are responsible for ensuring that the report is provided in its entirety, that the third party is made aware of the fact that they are not entitled to rely upon it, and that they may not distribute the report to any other party.

This report contains workpapers, trade secrets, and confidential information of both NJSBAIG and Towers Watson. Because of the nature of the material contained in the report, it is not intended to be subject to disclosure requirements under any Freedom of Information Act or similar laws.

Background

Overview

In 1983, the New Jersey school districts joined to create a workers compensation partnership under the sponsorship of the New Jersey School Boards Association. Since that time membership has expanded and loss exposures covered by the Group have increased. NJSBAIG is governed by a Board of Trustees, comprised of superintendents, members and business administrators from member districts.

NJSBAIG retains a portion of the following exposures:

- Workers Compensation
- General Liability
- Auto Liability
- Auto Physical Damage
- Errors and Omissions (7/1/02 through 6/30/08 only)
- Property

We note that for E&O, Auto Physical Damage and Property, coverage is over a member deductible.

All claims are self-administered by NJSBAIG.

Changes in Operations and Business Environment

In September 2009, NJSBAIG implemented changes in the case reserving methodology for the Workers Compensation line of business. Specifically, NJSBAIG made an effort to increase case reserve adequacy earlier for the purpose of developing more accurate experience modification factors.

During the end of 2010 and the first six months of 2011, NJSBAIG made additional changes to the case reserving staff including the reassignment of claims. While this change is relatively recent, preliminary indications suggest it has resulted in significant case reserve strengthening on the Workers Compensation line of business. The changes in reserving approach for this coverage impact the reporting pattern and the development of ultimate losses.

In light of these changes, we have added a development and Bornhuetter-Ferguson projection method based on reported losses adjusted for case reserve adequacy. These projections and triangles are displayed in Section WC, Exhibit 5. Further, we have placed additional weight on the paid loss development techniques, which are unaffected by these changes, and the frequency/severity method, which is less impacted by these changes.

These recent changes in operations introduce additional uncertainty in the liability estimates for this coverage, as we discuss in a subsequent section of this report.

Reinsurance

NJSBAIG retentions by coverage and year are summarized below.

NJSBAIG LOSS RETENTIONS IN THOUSANDS					
Policy Period	WC	GL	E&O	AL	Property
10/83-6/85	\$150	--	--	--	--
7/85-6/87	500	\$200	--	\$200	\$250
7/87-6/88	500	250	--	250	250
7/88-6/91	500	250	--	250	150
7/91-6/98	350	250	--	250	150
7/98-6/01	350	100	--	100	150
7/01-6/02	350	100	--	100	1,000
7/02-6/03	500	500	1,000	500	1,000
7/03-6/08	1,000	500	1,000	500	1,000
7/08-6/12	1,000	500	--	500	1,000

These retentions refer to losses only. ALAE is shared pro-rata with NJSBAIG's reinsurers once the retained limit has been pierced. All coverages are written on an occurrence form, except for E&O which is written on a claims-made basis. NJSBAIG also issues tail liability coverage for E&O business.

Auto Physical Damage coverage is unlimited.

NJSBAIG's retentions are also subject to inner aggregates as follows:

- 7/1/1993 through 6/30/1998 – \$250,000 excess of \$250,000 for AL, GL and excess of \$350,000 for WC losses and ALAE with aggregate of \$250,000
- 7/1/1998 through 6/30/2002 – \$500,000 excess of \$100,000 for AL, GL and excess of \$350,000 for WC losses and ALAE with aggregate of \$500,000
- 7/1/2002 through 6/30/2003 – \$500,000 excess of \$500,000 for AL, GL and WC losses and ALAE with aggregate of \$500,000
- 7/1/2003 through 6/30/2008 – \$500,000 excess of \$500,000 for AL and GL losses and ALAE with aggregate of \$500,000

Terminology

Accident Year: Includes all claims that occurred during the “accident period”, e.g., accident year July 1, 2011 through June 30, 2012 would include all claims occurring during that period, regardless of when they were reported.

Allocated Loss Adjustment Expense (ALAE): ALAE refers to defense, litigation and medical cost containment expenses, whether internal or external (e.g., attorney fees for defense, cost of engaging experts, etc.).

Case Reserves: The estimate of unpaid loss (or loss and ALAE) amounts established by the claim department for unpaid claims that have been reported to NJSBAIG. Case reserves are established on an individual claim basis.

Earned Premium: The pro rata portion of written premium that represents the earned portion of the insurance contract as of a given point in time.

Exposure: The units in which the insurer's exposure to loss are measured. In NJSBAIG's case, exposures are defined as payroll, average daily attendance, number of vehicles or total insured value.

Frequency: Claims per unit of exposure.

IBNR: IBNR stands for claims Incurred But Not Reported. In this report, we have used the term in its broader, more general sense, to represent development on outstanding case reserves (also referred to as supplemental or IBNER – Incurred But Not Enough Reported) and unreported claims (also referred to as “pure” IBNR or IBNYR – Incurred But Not Yet Reported).

Loss: The use of the term loss without modification includes loss and ALAE, but does not include ULAE.

Loss Adjustment Expense (LAE): The term LAE includes both allocated and unallocated loss adjustment expense. See definition of unallocated loss adjustment expense below.

Loss Development Factors: Factors used to project losses and/or ALAE to their ultimate value. These factors adjust actual losses to include IBNR and case reserve adequacy, or total unpaid amounts, to produce an estimate of total or ultimate loss (and/or ALAE).

Loss Reserves: A liability item on the entity's balance sheet to provide for unpaid claims. It consists of two components – case reserves and IBNR reserves.

Paid Loss: The amount of money that has been paid by the entity on behalf of insureds to cover claims of the insured.

Pure Premium: Loss (or loss and ALAE) per unit of exposure.

Reported Loss: The total of paid loss and case reserves for known claims

Report Year: Includes all claims reported during the report period that occurred subsequent to the retroactive date of the coverage, e.g., report year July 1, 2011 through June 30, 2012 with a retroactive date of July 1, 2011 would include all claims arising from accident year 2010/11 that were reported in 2011/12. (Generally used to analyze claims made policy experience.)

Severity: Average loss per claim.

Unallocated Loss Adjustment Expense (ULAE): Those loss adjustment expenses not included within ALAE (e.g., fees of adjusters, attorney fees incurred in the determination of coverage, etc.).

Written Premium: The total premium that is charged for policies with effective dates during the accounting period.

Findings

Based on our analysis of NJSBAIG's experience at June 30, 2012, and subject to the considerations set forth in the *Reliances and Limitations* section, we have reached the following conclusions.

Estimated Loss and ALAE Liabilities as of June 30, 2012

The actuarial central estimate of liabilities by coverage and in total is summarized in the table below and in Summary, Exhibit 1, Sheet 1a, 2a and 3. We also provide a range of reasonable estimates as shown below and on Summary, Exhibit 1, Sheets 1b, 1c, 2b and Sheet 2c. Please note that these estimates are on a nominal basis, i.e., they do not adjust for the time value of money.

NET UNPAID LOSS AND ALAE ESTIMATES AFTER DEDUCTIBLE AS OF JUNE 30, 2012 (IN THOUSANDS OF DOLLARS)

Coverage	Central Estimate			Total Liability	
	Case Reserves	IBNR	Total Liability	Low Reasonable	High Reasonable
Workers Compensation	\$95,509	\$54,820	\$150,329	\$135,730	\$179,294
General Liability	14,985	11,125	26,110	23,953	30,625
Auto Liability	3,842	3,248	7,091	6,204	8,716
Auto Physical Damage	467	(91)	376	376	376
Errors and Omissions	751	624	1,375	1,075	1,845
Property	3,274	(1,227)	2,047	2,047	2,047
Inner Aggregate	1,473	346	1,819	1,819	1,819
Total	\$120,300	\$68,844	\$189,144	\$171,203	\$224,719

For the liability coverages (excluding the inner aggregate), we have estimated unpaid losses at levels lower and higher than the actuarial central estimate.

Since June 30, 2008, we have seen evidence of higher loss development for the last four accident years for workers compensation. Specifically, we are aware that NJSBAIG implemented changes in the case reserving methodology in September 2009 and made changes with respect to the claims adjusting staff in 2010 and 2011. In addition, the economic conditions from 2007 to present may affect historical patterns of injury reports including, but not limited to the possibility that future medical problems may be attributed to historical claims. All of these items contribute to additional uncertainty with respect to our estimates.

Holding reserves at a level above the actuarial central estimate increases the probability that the reserves will be adequate to meet actual future losses, but does not eliminate the possibility that ultimate paid losses and ALAE could exceed our current estimates. Holding reserves below the actuarial central estimate increases the likelihood that ultimate values will exceed the amount recorded. It must be noted that the range presented here is not all inclusive. Results outside of this range are possible, if not likely.

Comparison with Prior Analysis

A comparison of our current central estimate ultimate loss and ALAE estimates for the 2010/2011 and prior accident years to our analysis as of June 30, 2011 is as follows.

COMPARISON OF RETAINED ULTIMATE LOSSES AND ALAE (IN THOUSANDS OF DOLLARS)			
Accident Year	June 2012	June 2011	Percent Change
1995/96 and Prior	\$115,744	\$116,030	0%
1996/97	5,076	5,079	0%
1997/98	5,232	5,202	1%
1998/99	6,911	6,775	2%
1999/00	11,523	11,523	0%
2000/01	23,198	23,098	0%
2001/02	26,096	26,087	0%
2002/03	32,163	31,729	1%
2003/04	44,033	43,673	1%
2004/05	43,182	43,413	-1%
2005/06	46,179	45,343	2%
2006/07	45,885	46,079	0%
2007/08	50,476	52,392	-4%
2008/09	50,464	52,302	-4%
2009/10	59,307	60,220	-2%
2010/11	60,661	62,941	-4%
Total	\$626,129	\$631,884	-1%

Overall, the estimated ultimate losses for 2010/11 and prior accident years have improved.

Changes in ultimate loss estimates are influenced by several factors which affect the frequency and severity of claims. Frequency can be impacted by general economic factors as well as members' focus on safety and attitude toward loss control. The frequency by year is particularly significant for lines such as E&O, where the volume of claims is low. Severity is influenced by inflation (e.g., medical costs, social inflation, public attitudes) and by NJSBIAG's accident year retention. Higher retentions generally lead to increased volatility in severity results by accident year. One common theme we observed across most lines is an increasing value of large claims; even auto physical damage results were impacted by this trend. Changes by lines of business are as follows:

- **Workers Compensation:** Indicated ultimate net losses and ALAE increased by \$2.5 million from our June 2011 analysis for coverage years 2010/11 and prior. Frequency emergence has been as expected. However, for accident years 2005/06 through 2010/11, severity emergence was generally greater than expected. These increases were mostly due to greater than expected increases in case reserves, particularly on large losses.
- **General Liability:** In total, ultimate net losses and ALAE decreased by 7%, mostly due to a combination of favorable frequency and severity emergence in the most recent five accident years. However, the loss ratio has increased significantly from the 2005/06 to 2010/11 accident years with 2010/11 being over 100%.
- **Auto Liability:** Results for all years improved about 7% or \$1.7 million. Most of the improvement came from the 2008/09 through 2010/11 accident years. Frequency emergence has been as expected. The latest eight accident years (2003/04 through 2010/11) showed generally favorable severity emergence.
- **Auto Physical Damage:** Overall our ultimate loss & ALAE estimates increased by \$123,000, driven by the 2010/11 accident year. Both frequency and severity emergence were generally as expected, except for the 2010/11 severity which was greater than expected.
- **Errors and Omissions:** Results for all years decreased approximately 1% or \$140,000. Favorable development in accident years 2006/07 and 2007/08 more than offset deterioration in the 2003/04 and 2005/06 years. Severity emergence for all accident years was equal to or less than expected, except for the 2005/06 year.
- **Property:** Frequency results for all accident years were generally as expected. Severity for the 2009/10 and 2010/11 years was slightly higher than expected. Overall, ultimate net loss and ALAE decreased by 2% or \$606,000.
- **Aggregate:** There was a slight decrease in our estimates overall (\$71,000). The 1998/99 estimated ultimate increased due to a new workers compensation claim which breached the aggregate attachment point. This increase was more than offset by a decrease in the 2006/07 accident year results.

Historical Loss Ratios/Pure Premiums/Severity/Frequency

On Exhibit 1, Sheet 2 of each coverage section, we derive various diagnostic ratios of total loss costs based on the central estimate ultimate losses. For all coverages combined, the loss ratio has increased from 2006/07 to 2011/12. The 2011/12 estimated ultimate loss ratio is 93% driven by unfavorable results for all coverages except auto liability. Observations by coverage are as follows:

- **Workers Compensation** – The frequency of claims has decreased steadily between 2000/01 and 2011/12, which we also see in New Jersey and countrywide insurance industry data. The estimated ultimate loss ratios have been increasing since 2007/08 with an estimated loss ratio of 92% for the 2011/12 accident year.
- **General Liability** – Severity for the 2008/09 through 2011/12 years is significantly above the prior levels. Claims frequency is relatively flat. The loss ratio is showing a similar increase to the severity for the latest four years, reflecting little rate increase. There also seems to be an increase above historical levels in the frequency and severity of large claims in the most recent four years.
- **Automobile Liability** – The frequency of paid claims over the last eight years (2004/05 through 2011/12) is significantly lower than for the prior years. The average severity has been volatile across all years. The most recent four years (2008/09 to 2011/12) are showing a significant increase over the prior levels, primarily due to large loss activity.
- **Auto Physical Damage** – The reported claim frequency has decreased steadily from 2000/01 through 2010/11. However, the frequency of claims that close with a payment has varied considerably by year. We note that the percent of claims without payment for 2007/08 through 2011/12 is much lower than for the previous sixteen years. The loss ratios for the most recent three accident years are at their highest point since 2000/01. The high levels for 2008/09 through 2010/11 were due to a combination of unusually high reported losses and rate decreases. The 2011/12 loss ratio is driven primarily by one large loss currently valued at \$350,000.
- **Errors & Omissions** – Results have been somewhat volatile from year to year reflecting the high severity/low frequency characteristics of this coverage and the relatively large retention level. Severity increased dramatically from 2002/03 through 2006/07. The 2007/08 year is showing a slight decrease in severity offset somewhat by higher frequency. The 2008/09 through 2010/11 years were not analyzed because they are fully reinsured.

- **Property** – The 2006/07 through 2011/12 accident year severities are showing significant increases from the prior years' levels. The 2006/07 and 2009/10 results are due primarily to large claims. The 2007/08 and 2011/12 results are due to both large loss activity and an increased frequency of claims. The increase in frequency between \$500,000 and \$1 million is notable for the 2007/08 year. These large claims are generally due to burst pipes and subsequent water damage. This significant loss activity drives the high loss ratios for all six years, which are well above historical levels. The 2011/12 year paid claim frequency increased to a level similar to the 2001/02 to 2003/04 levels and well above the 2004/05 to 2010/11 levels.

Analysis

For each line of coverage reviewed, our analysis consisted of the steps outlined below.

First development factors are used to determine unlimited ultimate losses for each year. We adjust the estimated ultimate losses for claims which have pierced the retention. We then subtract limited paid losses from the net retained ultimate losses to estimate outstanding liabilities. The estimates are developed on a nominal basis and do not contain a provision for adverse experience.

Development Patterns

Our projection of future claim reporting and payment is based on NJSBAIG's historical experience. Using historical loss development experience provided by NJSBAIG, we select report-to-report (RTR) development factors. In cases for which NJSBAIG's historical data is not sufficiently statistically credible, stable, or mature (i.e., E&O), we have supplemented NJSBAIG's experience with benchmark reporting and payment patterns.

Benchmark patterns are constructed internally by Towers Watson, drawing upon available relevant sources of loss development data. Benchmarks are revised periodically as new information and trends emerge. While each entity's own development can be expected to vary from the benchmark based on individual circumstances, we believe the benchmark is an appropriate supplement to the analysis of entity data, as it represents our current judgment as to the typical emergence of loss that can be expected for that class of coverage.

In lines of business with lengthy development characteristics, loss development will often continue beyond the greatest maturity level reflected in the underlying data. When necessary, we have estimated development tail factors by reviewing comparable benchmarks developed internally by Towers Watson along with the known development progression reflected in NJSBAIG's experience.

The selected development patterns are used for both the loss development and Bornhuetter-Ferguson projection methods.

Initial Expected Losses

The selected initial expected losses (IELs) are based on a review of the results of our June 30, 2011 analysis, the 2012/13 rate level analysis and observed trends.

Selected Ultimate Losses

In general, the selected ultimate losses are based on the results of five projection methods: the reported and paid development methods, the reported and paid Bornhuetter-Ferguson methods, and the frequency/severity method. In addition, for workers compensation we employed development and Bornhuetter-Ferguson methods on reported losses adjusted for case reserve adequacy. Our selections are based on judgment reflecting the range of estimates produced by the methods and the strengths and weaknesses of each method. These methods are described in the final section of this report. We also calculated the implied severities and pure premiums as a reasonability check.

Estimated Claim Frequency, Severity, Pure Premiums and Loss Ratios

We use our projections of ultimate claim counts and losses to estimate reported claim and claims with payment frequencies (reported claims per exposure unit and claims with payment per exposure unit), claim severity (losses per claim with payment), and pure premium (losses per exposure unit).

Our frequency calculation relies on NJSBAIG's exposure data. Our selection of ultimate counts is based on projections of both reported claims and claims with payments. These selections are compared to exposures to determine estimated claim frequency. To derive the severity component, we divide the projected ultimate losses by ultimate claims with payment.

We also calculate pure premiums by dividing the net retained ultimate losses by NJSBAIG exposures and loss ratios by dividing the net retained ultimate losses by net premium.

Estimated Outstanding Liabilities as of June 30, 2012

We use our loss estimates and NJSBAIG's historical payments to estimate outstanding liabilities as of June 30, 2012. We first adjust the ultimate loss selections to reflect NJSBAIG's reinsurance, deductibles and other recoveries. Indicated liabilities as of June 30, 2012 are calculated by subtracting the net loss payments from the estimated retention-adjusted ultimate losses.

Using the reported and paid losses and ALAE for Workers Compensation, Auto Liability and General Liability, we compile claims that fall into the inner aggregate layers and estimate liabilities based on case reserves and the potential for further development of large losses into these layers. Details are shown in Exhibit 2 of the Summary section.

General Overview of Exhibits

Exhibit 1 of the Summary section (Summary, Exhibit 1, Sheets 1a through 4c) presents a summary of our analysis. Summary, Exhibit 2, Sheets 1 and 2 show the derivation of the inner aggregate liability by accident year. A comparison of current and prior estimated ultimate losses is found in Summary, Exhibit 3.1 and 3.2.

Each subsequent section of exhibits (WC, GL, AL, APD, EO, and Property) documents our analysis for each line of coverage. Exhibits are set up identically for each section except workers compensation.

Exhibit 1: Sheet 1a through 1c – Summary of estimated central estimate, low reasonable and high reasonable net ultimate losses and indicated liabilities as of June 30, 2012, respectively. (Property and APD exhibits contain only a central estimate).

Sheet 2 – Average severities, frequencies, pure premiums and loss ratios, net of reinsurance and recoveries and gross of deductibles.

Exhibit 2: Summary of loss projections and selected central estimate, low reasonable and high reasonable ultimate losses by year. (Property and ADP exhibits contain only a central estimate).

Exhibit 3: Reported loss development method projections

Exhibit 4: Paid loss development method projections

Exhibit 5: WC: Adjusted reported loss development method projections

GL & AL: Frequency/Severity projection method

APD, E&O & Property: Reported count development method projection

Exhibit 6: WC: Frequency/Severity projection method

GL & AL: Reported count development method projection

APD, E&O & Property: Claim count with payment development method projection

Exhibit 7: WC: Reported count development method projection

GL & AL: Claim count with payment development method projection

APD, E&O & Property: Summary of data

Exhibit 8: WC: Claim count with payment development method projection

GL & AL: Summary of data

APD, E&O & Property: Large loss listing with recoveries by claim

Exhibit 9: WC: Summary of data

GL & AL: Large loss listing with recoveries by claim

Exhibit 10: WC: Large loss listing with recoveries by claim

Reliances and Limitations

Inherent Uncertainty

Projections of loss and ALAE liabilities are subject to potentially large errors of estimation, since the ultimate disposition of claims incurred prior to the financial statement date, whether reported or not, is subject to the outcome of events that have not yet occurred. Examples of these events include jury decisions, court interpretations, legislative changes, changes in the medical condition of claimants, public attitudes, and social/economic conditions such as inflation. Any estimate of future costs is subject to the inherent limitation on one's ability to predict the aggregate course of future events. It should therefore be expected that the actual emergence of losses and ALAE will vary, perhaps materially, from any estimate. Thus, no assurance can be given that NJSBAIG's actual loss and ALAE will not ultimately exceed the estimates contained herein. In our judgment, we have employed techniques and assumptions that are appropriate, and the estimates presented herein are reasonable, given the information currently available.

The inherent uncertainty associated with loss and ALAE liability estimates is magnified in this case due to the following circumstances.

- NJSBAIG's mix of business is weighted toward coverages such as workers compensation and general liability for which the estimation of unpaid loss is more uncertain than for shorter-tailed property and casualty lines.
- NJSBAIG has relatively high per occurrence retentions, which increases the uncertainty associated with our liability estimates. This is particularly significant with respect to the E&O coverage, which is a high severity/low frequency exposure.
- The geographic concentration of NJSBAIG could cause adverse results due to legislative or judicial changes or catastrophic events (e.g., hurricanes).
- Recent changes in loss emergence, case reserving methodology (especially for WC), claims staffing and economic conditions may produce different patterns of loss development than are anticipated by our analysis.
- NJSBAIG has a small volume of losses for E&O. Loss projections based on small volumes of data tend to be volatile.

Note that a quantification of this uncertainty would likely reflect a range of reasonable favorable and adverse scenarios, but not necessarily a range of all possible outcomes. Further, the proper application of any range is dependent on the context. NJSBAIG's financial reports are governed by accounting standards, and such standards vary among jurisdictions. Under current accounting standards, the ends of a range that is illustrative of uncertainty would likely not be suitable for financial reporting purposes.

Data Reliance

Throughout this analysis, we have relied on historical data and other quantitative and qualitative information supplied by NJSBAIG. We have not independently audited or verified this information; however, we have reviewed it for reasonableness and internal consistency. We have assumed that the information is complete and accurate, and that we have been provided with all information relevant to the analysis of NJSBAIG's ultimate losses and ALAE. The accuracy of our results is dependent upon the accuracy and completeness of the underlying data; therefore, any material discrepancies discovered in this data should be reported to us and this report amended accordingly, if warranted.

We note that there were three items where data was inconsistent or incomplete.

- Errors and Omissions (E&O) reported and paid loss histories were provided to us on an accident year basis. Estimates of ultimate losses on a report year basis may differ from the results by accident year. While tail coverage may exhibit different development patterns than a claims-made policy, NJSBAIG has historically denied these claims.
- Net premium for the 2000/01 year for several of the coverages appears unusual compared to subsequent years and reported exposures. Also the 2003/04 year premium for E&O is not consistent with the exposures and premium for other coverage years. Both years' premiums are consistent with data provided for our prior analysis.
- Net premium for the 2009/10 and 2010/11 years for GL was provided net of med pay premiums to reinsurance. Prior to 2009/10, GL net premiums included this amount. The impact of this change is approximately 5% of premium.

Complete and consistent data is a critical component of actuarial analyses; incomplete and/or inconsistent data increases the uncertainty associated with our estimates.

Ranges of Estimates

The range of estimates presented herein is intended to reflect the reasonably expected variation in loss and ALAE based on information currently available. It is possible that actual results will fall outside this range.

Extraordinary Future Emergence

We have not anticipated any extraordinary changes to the legal, social, or economic environment that might affect the cost, frequency, or future reporting of claims. In addition, our estimates make no provision for potential future claims arising from loss causes not represented in the historical data (e.g., new types of mass torts or latent injuries, terrorist acts, etc.) except insofar as claims of these types are included but not identified in the reported claims and are implicitly analyzed.

Net Reinsurance Collectibility

Our estimates are presented net of excess insurance/reinsurance. Based solely on inquiries made of senior management, we understand that none of NJSBAIG's reinsurance is considered uncollectible. An independent evaluation of the quality of security provided by NJSBAIG's reinsurers is outside the scope of our engagement. We have assumed that all of the entity's excess insurance/reinsurance protection will be valid and collectible. Contingent liability may exist for any excess insurance/reinsurance recoveries that may prove to be uncollectible. Should such liabilities materialize, they would be in addition to the net liability estimates contained herein.

Underlying Assets

We have not examined the assets underlying NJSBAIG's outstanding liabilities and we have formed no opinion as to the validity or value of these assets. We have assumed throughout the analysis that NJSBAIG's outstanding loss liabilities are backed by valid assets with suitably scheduled maturities and/or adequate liquidity to meet cash flow requirements.

Self-Insurance Risk

When reviewing our findings, it is important to note certain implications of a self-insurance group. The entire retained risk remains with the members of the self-insurance group, which likely exposes the members to greater potential fluctuations in financial experience than does a first dollar insurance program. The members of NJSBAIG should have sufficient financial capacity to reserve for and withstand those fluctuations. Actual losses in excess of projected losses will have to be paid by NJSBAIG members. It is not possible to estimate such fluctuations completely accurately; however, the effects of such fluctuations can be reduced by the funding of a provision for contingencies (a margin for the risk of adverse deviation from the expected loss levels). We have not calculated such risk margins or estimated confidence levels in the scope of our review.

An important factor bearing on a self-insured group's financial capacity is the existence of an excess insurance/reinsurance program. Excess insurance/reinsurance is generally considered an integral part of programs with the potential for catastrophic losses; workers compensation, property and liability losses are characterized by this potential.

Nothing in this report should be construed as recommending that NJSBAIG members should or should not self-insure these coverages. Many factors other than the outstanding liability level should be considered in that decision.

Data and Information

NJSBAIG provided the following data and information for use in this analysis:

- For each line of coverage, gross paid and reported loss and ALAE development data, evaluated as of each coverage year-end through June 30, 2012;
- For each line of coverage, reported and claims with payment count development data, evaluated as of each coverage year-end through June 30, 2012;
- For each line of coverage, recoveries (salvage, subrogation and excess insurance) as June 30, 2012;
- Gross and net earned premium information for each calendar year by coverage;
- Exposure data for each accident year by coverage;
- History of claims handling procedures;
- Claims detail for each coverage as of June 30, 2012; and
- A description of NJSBAIG's excess insurance/reinsurance agreements.

Description of Projection Methods

The choice of method to estimate ultimate losses should consider, among other things, the line of coverage, the number of years of experience, and the age of the accident year being developed. In general, these methods can be applied to losses, ALAE, and various measures of claim count.

Reported Loss Development Method

The reported development method is based upon the assumption that the relative change in a given year's reported loss estimates from one evaluation point to the next is similar to the relative change in prior years' reported loss estimates at similar evaluation points. In utilizing this method, actual annual historical reported loss data is evaluated. Successive years can be arranged to form a triangle of data.

RTR development factors are calculated to measure the change in cumulative reported costs from one evaluation point to the next. These historical RTR factors and comparable benchmark factors form the basis for selecting the RTR factors used in projecting the current valuation of losses to an ultimate basis. In addition, a tail factor is selected to account for loss development beyond the observed experience. The tail factor is based on trends shown in the data and consideration of external benchmarks.

This method's implicit assumption is that the relative adequacy of case reserves has been consistent over time, and that there have been no material changes in the rate at which claims have been reported or paid.

Paid Loss Development Method

The paid development method is similar to the reported development method; however, case reserves are excluded from the analysis. While this method has the disadvantage of not recognizing the information provided by current case reserves, it has the advantage of avoiding potential distortions in the data due to changes in case reserving methodology.

This method's implicit assumption is that the rate of payment of claims has been relatively consistent over time.

Reported Bornhuetter-Ferguson Method

The reported Bornhuetter-Ferguson (B-F) method is essentially a blend of two other methods. The first method is the loss development method whereby actual reported losses are multiplied by an expected loss development factor. For slow reporting coverages, the loss development method can lead to erratic and unreliable projections because a relatively small swing in early reportings can result in a large swing in ultimate projections. The second method is the expected loss method whereby the future IBNR reserve equals the difference between a predetermined estimate of expected losses and actual reported losses. This has the advantage of stability, but it does not respond to actual results as they emerge.

The reported B-F method combines these two methods by setting ultimate losses equal to actual reported losses plus expected unreported losses. As an experience year matures and expected unreported losses become smaller, the initial expected loss assumption becomes gradually less important.

Two parameters are needed to apply the B-F method: the initial expected losses and the expected reporting pattern. The initial expected losses are selected as described in the *Analysis* section, while the expected reporting pattern is based on the incurred loss development analysis described above.

This method is often used for long-tail lines and in situations where the reported loss experience is relatively immature or lacks sufficient credibility for the application of other methods.

Paid Bornhuetter-Ferguson Method

The paid Bornhuetter-Ferguson method is analogous to the reported B-F method using paid losses and development patterns in place of reported losses and patterns.

Adjusted Reported Method

The adjusted reported development method is analogous to the reported development method except that the reported losses used in the calculation of development factors are first adjusted to a common case reserve adequacy basis. As noted above, the reported loss development technique is dependent on consistency in reserving philosophies and procedures to produce reliable results. The adjusted reported development method modifies the raw data to restate historical case reserves to the level that the current case reserves would imply, after the consideration of trend.

This technique is also known as the Berquist-Sherman method. It is designed to reduce distortions that may exist due to changes in the adequacy of case reserves over the experience period.

Frequency/Severity Method

The frequency/severity method calculates ultimate losses by separately projecting ultimate claim frequency (claims per exposure) and ultimate claim severity (cost per claim) for each experience period. Typically, loss development methods are used to project ultimate frequency and severity based on historical data. Ultimate losses are calculated as the product of the two items. This method is intended to avoid distortions that may exist with the other methods for the most recent years as the result of changes in case reserve levels, settlement rates, etc. In addition, it may provide insight into the drivers of the loss experience.