

7. Financial

A. Member Equity (Surplus)



MEMBER EQUITY (SURPLUS)

What is member equity (surplus) as it relates to an insurance pool?

Member equity (surplus) is an amount of money the Group holds which is above the amount necessary to pay claims (ultimate liability).

How is the ultimate liability amount determined?

An independent actuary determines the ultimate liability of the Group by studying past (historical) claim payout trends. Based on history the actuary projects the ultimate liability. This ultimate liability is "booked" into the financials as an expense.

How much member equity (surplus) is required for the Group?

A different independent actuary performs a study of the Group's risk characteristics. This study culminates in a dollar figure known as Risk Based Capital (RBC). The RBC amount is the minimum member equity (surplus) the Group should maintain in order to be prepared for unplanned events. Examples of unplanned events are natural disasters, law changes which result in unforeseen claims (FLMA) or uncollectables. The original RBC calculation during the 2010 study was \$25 million. The attached report by Sigma Consulting summarizes this calculation.

Since the RBC is a minimum number the question of "what is enough?" still needs to be defined. In the Sigma report they estimated an appropriate amount of member equity (surplus) to be 2.5 x RBC.

Through discussions with Sigma it was learned that all commercial insurance carriers are required to have an RBC calculated. Each year these markets report their RBC and total member equity (surplus) to the state insurance commissioner within their domicile. This ratio of RBC to member equity (surplus) is then used to evaluate the financial stability of the insurance company.

Each state commissioner reports these findings to the National Association of Insurance Commissioners (NAIC). The NAIC publishes this information yearly.

The Group Trustees decided to use this information in determining a member equity (surplus) guideline. In this way the wisdom of the entire insurance market is layered into the Group's member equity (surplus) guideline. Instead of a yearly ratio it was decided to use a five year average in order to smooth out potential sharp fluctuations in the RBC to member equity (surplus) ratio.

This five year average is utilized once a year to evaluate the Group's member equity (surplus) needs. In addition, Sigma recommended to inflation adjust their original RBC calculation yearly. The entire calculation is presented each year during the September meeting for Trustee review.

Revised: 10/22/12



Actuarial Consulting Group, Inc.

Executive Summary of Strategic Risk Analysis for NJSBAIG

October 2010

Executive Summary

Purpose

SIGMA has been commissioned by NJSBAIG to consult with the Board about establishing a policy regarding the appropriate amount of Fund Surplus. The consulting study was prepared using SIGMA's Strategic Risk Analysis (SRA), a forecasting model that measures the sensitivity of a pool's financial statements to an array of risk and operational variables inherent to risks of public schools.

Methodology

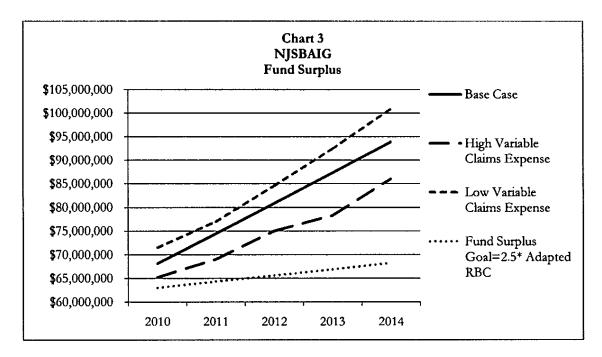
The first step in the analysis was to set a provisional goal for Fund surplus that is consistent with the standards used by state insurance commissioners to assess the solvency of regulated insurance companies. The measure chosen for the SRA is Risk Based Capital (RBC) a technique that considers a variety of risks including:

- Reserve development
- Rate adequacy
- Investment risk
- Credit risk (receivables from insureds and reinsurers)

The Fund Surplus goal for the year ending June 30, 2011 is \$63,037,755 or 2.5 x the Adapted RBC for NJSBAIG. This goal is increased four percent per year to account for increases in exposures and inflation in claims expenses.

The next step is to forecast the financial statements and determine whether the goal is achieved over the five year period 2010-2014. The forecasts were done using a range of claims expenses that simulated the loss experience by line, by year, based on NJSBAIG's loss variation patterns of the last several years. The range of claims expenses measured how the surplus would be affected if claims vary in reasonably predictable patterns. The other cost and growth assumptions were developed in conjunction with the Executive Director of NJSBAIG.

The results of this analysis are summarized in the following chart, an excerpt from the main SRA report.



Fund Surplus

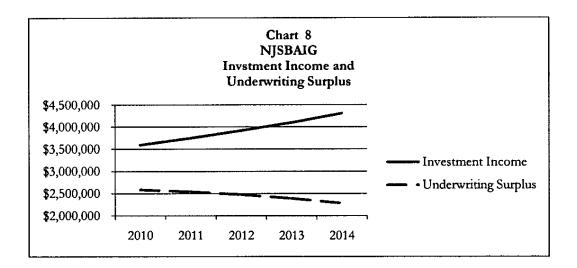
Year beginning July 1	2010	2011	2012	2013	2014
Base Case	\$68,156,415	\$74,439,594	\$80,828,241	\$87,311,092	\$93,896,395
High Variable Claims Expense	\$65,243,767	\$69,011,473	\$75,001,848	\$ 78,280,579	\$86,020,699
Low Variable Claims Expense	\$71,467,336	\$76,952,842	\$84,508,763	\$92,390,587	\$100,859,917
Fund Surplus Goal=2.5* Adapted RBC	\$63,037,755	\$64,298,510	\$65,584,480	\$66,896,169	\$68,234,093

The goal of 2.5 x Adapted RBC is achieved for each year of the forecast, in each scenario.

These forecasts indicate that the Fund Surplus will enable NJSBAIG to help the New Jersey public schools stabilize the cost of risk by.

- Paying claims that exceed the accident year claims fund (this is demonstrated in the variable loss scenarios in the SRA)
- Supporting programs like the Safety Grants that encourage safety and, eventually, lower the cost of risk for all members of NJSBAIG
- Absorbing new groups of members, like a sub-fund; without additional capital contribution
- Increasing retentions if market conditions warrant an increase
- Writing additional lines of coverage
- Subsidizing premium contributions when predatory competitors threaten the membership

The growth in *Fund Surplus* is dependent on investment income. The investment income exceeds the underwriting surplus, as shown in the following graph.



Comparison of Investment Income and Underwriting Surplus-Base Case

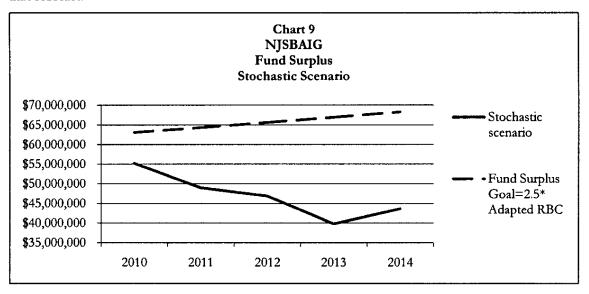
Year Beginning July 1	2010	2011	2012	2013	2014
Investment Income	\$3,592,593	\$3,747,062	\$ 3,915,279	\$4,093,591	\$4,305,170
Underwriting Surplus	\$ 2,579,751	\$2,536,116	\$2,473,369	\$2,389,260	\$2,280,133

NJSBAIG has kept premium contributions low as a part of the mission of controlling insurance costs for the school districts. This will cause underwriting surplus to be low and in the case of unexpected claims, even negative. Thus, it is important to maintain the funds from which to generate investment income to build *Fund Surplus*.

The Fund Surplus should support not only the expected variation in claims and operating costs, but also enable NJSBAIG to rebuild the surplus in case of costly unexpected events such as:

- Multiple large property losses and the insolvency of a reinsurer in the same year
- Adverse loss development
- Class action suits

These are called *Stochastic events* in the SRA. A forecast of surplus was done assuming adverse loss development of \$40 million over a four year period. The following graph shows the result of that forecast.



Fund Surplus

Year Beginning July 1	2010	2011	2012	2013	2014
Stochastic scenario	\$55,215,949	\$48,930,153	\$46,845,804	\$39,800,638	\$43,613,057
Fund Surplus Goal=2.5* Adapted RBC	\$63,037,755	\$64,298,510	\$ 65,584,480	\$66,896,169	\$68,234,093

If adverse loss development, or any *Stochastic event* of this magnitude occurred, the *Fund surplus* would not meet the goal of 2.5* Adapted RBC.

When formulating surplus policy, the Board should consider the possibility of a *Stochastic event* and its effect on *Fund Surplus*. The *Fund Surplus* should always be sufficient to support the work necessary to stabilize the cost of risk and to rebuild in a reasonable time frame if NJSBAIG suffers a large unexpected operating loss.

A Strategic Risk Analysis for the purposes of Estimating Surplus Requirements Prepared for:

New Jersey School Boards Association Insurance Group

October 2010



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Purpose

The New Jersey School Boards Association Insurance Group (NJSBAIG) contracted with SIGMA Actuarial Consulting Group, Inc. (SIGMA) to conduct a study to help the NJSBAIG Board of Trustees set guidelines for the amount of *Fund Surplus* needed to accomplish the mission of stabilizing the cost of insurance for public schools in New Jersey.

To establish a policy for Fund Surplus, the following issues must be addressed:

- How much surplus is needed today to support the existing base of insureds?
- What are reasonable goals based on insurance industry standards?
- How much will be needed over the next few years if:
 - o Claims experience is consistent with recent years?
 - o Claims experience varies, up or down, from current projections?
- How will programs like the Safety Grant award affect the amount of surplus?
- How will surplus be effected in case of unforeseen events such as:
 - O Unexpected claims expenses in excess of reasonably expected variations?
 - O Adverse development of loss reserves caused by systemic events and/or changes in court decisions?

These questions will be addressed using SIGMA's *Strategic Risk Analysis (SRA)*. The *SRA* is a sensitivity analysis that estimates the changes in *Fund Surplus* emanating from variations in the claims and operating expenses of NJSBAIG. It provides a range of forecasts of *Fund Surplus* that will help the Board establish its policies.

Qualifying Statements

- We have relied without audit or verification on historical data and qualitative information supplied by NJSBAIG. It is our understanding we have been provided with all information which would materially affect the analysis, and that all information furnished to us has been accurate and complete.
- 2. We have assumed there are no factors which would cause patterns in the financial statements provided to be unrepresentative of the current or future situation.
- 3. The SRA is based on financial statement projections using input from NJSBAIG's financial statements, and assumptions developed in conjunction with NJSBAIG.
- 4. The SRA is intended for use as a planning model. The forecasts can be refined based on changes in input data. The SRA can also be used in negotiations with fronting carriers and regulators to demonstrate the NJSBAIG's stability under a variety of loss and expense structures.

This report should be released only in its entirety. SIGMA's staff will be available for consultation should any individual reviewing this report have questions or require further analysis.

Definition and Uses of Surplus

Surplus is the difference in total assets and total liabilities. In the NJSBAIG financial statements, it is referred to as Fund Surplus. This figure is net of premiums and losses ceded to reinsurers for losses excess of NJSBAIG's retentions.

For other entities, the difference in assets and liabilities can be known as capital and surplus, policyholders' surplus, or paid in capital and retained earnings. To be consistent with the terms used by NJSBAIG, the term Fund Surplus will be used throughout this report.

Fund Surplus does not mean funds excess of those needed to accomplish the mission of NJSBAIG. Instead, Fund Surplus should be viewed as a factor in supporting the mission by:

- Cushioning against claims expenses excess of those set aside in the annual claims fund (this
 is demonstrated in the variable loss scenarios in the SRA)
- Supporting programs like the Safety Grants that encourage safety and, eventually, lower the cost of risk for all members of NJSBAIG
- Absorbing new groups of members, like a sub-fund; without additional capital contribution
- Increasing retentions if market conditions warrant
- Writing additional lines of coverage
- Subsidizing premium contributions when predatory competitors threaten the membership

Establishing Goals for Fund Surplus

NJSBAIG is a not for profit entity formed to provide a risk sharing mechanism for New Jersey public schools. It files financial statements and plans of risk management with the New Jersey state insurance department, but is not regulated in the same manner as a commercial insurer. The National Association of Insurance Commissioners provides guidelines for surplus and other financial measurements for commercial insurance companies. The state insurance commissioners' role is to assure the solvency of insurance companies licensed in their state for the protection of policyholders. The commissioners use Insurance Regulatory Information Systems (IRIS) ratios and Risk Based Capital (RBC) requirements as guidelines for solvency and financial strength to assure that policyholders' claims will be paid.

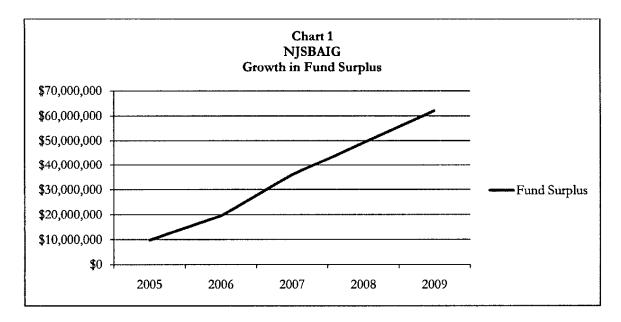
A nonprofit pool like NJSBAIG does not have to comply with these specific measures. The Board of Trustees has to determine the level of surplus needed to provide the services for schools without undue stress on for the individual boards' budgets.

History

Fund Surplus

The Fund Surplus for NJSBAIG has grown from \$9.8 million in 2006 (fiscal year ended June 30, 2006) to almost \$62 million as of June 30, 2010.

The Fund Surplus growth for that period is shown in Chart 1.



Growth in Fund Surplus 2005-2009

Year beginning July 1	2005	2006	2007	2008	2009
Fund Surplus	\$9,779,331	\$19,514,255	\$35,892,776	\$49,065,640	\$61,984,071

Both in dollar and percentage terms, the growth in *Fund Surplus* has been significant and has enabled NJSBAIG to pay the Safety Grant awards that can lead to additional surplus growth and reduction in the cost of risk for all members.

Goals for the SRA

The first step in establishing a policy for *Fund Surplus* is to set goals against which to measure the forecasts. The goals suggested in this report are based on standards used by state insurance commissioners to evaluate the solvency of regulated insurance companies.

Risk Based Capital

Risk Based Capital (RBC) sets out a minimum level of capital (Fund Surplus) that will help maintain solvency and support the various risks assumed by an insurance company. RBC is estimated by actuarial formulae and reflects the level of risk the company has assumed. Specifically, RBC considers risks such as:

- Reserve development
- Rate adequacy
- Investment risk
- Credit risk (receivables from insureds and reinsurers)

The RBC estimate considers the mix of lines of business and the relative volatility of the reserves and loss potential associated with those coverages. The mix of equities and fixed income investments is a factor in the RBC estimate. The impact of ceded reinsurance and other credit risks is also considered.

It is important to understand that RBC is an <u>estimate of the minimum</u> capital needed to support a company's risk, <u>not the recommended amount of Fund Surplus.</u>

When RBC is estimated for an insurance company, regulators will view this calculation and the amount of surplus held by the carrier in the following way:

Surplus as % of RBC estimate	Regulatory action
100% or greater	No action required
75-100%	Recommended that company take action to increase surplus
50-75%	Regulators will recommend steps to increase surplus
35-50%	Regulators are authorized to take control of the company
Under 35%	Regulators are required to take control of the company

RBC Adapted for NJSBAIG

SIGMA estimated NJSBAIG's RBC based on the factors described in the previous section. Because NJSBAIG is not specifically required to file an NAIC annual statement, (also known as a yellow blank or book) this is not a formal RBC calculation. The calculation for NJSBAIG will be referred to as Adapted RBC. Appendix A contains a detailed explanation of the Adapted RBC calculation.

Based on the preliminary 2010 year-end financial statements, the Adapted RBC estimate for NJSBAIG is \$24.7 million. The Fund Surplus is over \$61 million or approximately 250% of the Adapted RBC estimate. Appendix A, page 11 (Industry Comparison Exhibit 1) shows that at year-end 2009, the industry ratio of surplus to the calculated RBC amount is 3.22. The 2,635 NAIC companies included in the industry information have surplus at approximately 322% of the RBC estimate.

There is no firm rule concerning the "target" relation of surplus to the RBC amount calculated. The \$24.7 million should be viewed as the minimum Fund Surplus needed to avoid intervention from state regulators. NJSBAIG (and any other company or group) will want to maintain surplus well in excess of the minimum to withstand the impact of adverse events such as adverse development on booked reserves, non-payment of claims by reinsurers, or higher than anticipated loss experience for the current period.

The "target ratio" of Fund Surplus to Adapted RBC for NJSBAIG does not necessarily have to be 3.22, just like the industry. The industry is likely overcapitalized. The industry also has significant risk related to stocks and bonds (i.e. Equity Risk), that NJSBAIG does not. However, the 3.22 industry ratio is certainly a benchmark statistic to consider when considering a target ratio for NJSBAIG.

Consideration should also be given to the risk appetite of NJSBAIG, particularly as it relates to assessments or other surplus raising mechanisms that would need to be implemented should the Fund Surplus approach the Adapted RBC figure.

A target ratio of at least 2.50 of Fund Surplus to Adapted RBC would seem appropriate for NJSBAIG. The target ratio as a long-term goal should be set to prevent adverse events from reducing the Fund Surplus to an amount below or even near the Adapted RBC estimate. Based on a target ratio of Fund Surplus to Adapted RBC of 2.50, the target Fund Surplus as of 6/30/10 would be \$61.8 million.

For companies required to file an NAIC annual statement, RBC is calculated each year-end as part of the financial statement filing process. The RBC amount for a company should not change significantly from year to year IF the company's risk profile is stable. If a company makes a significant change such as writing a new line of business or retaining additional exposure for a line of business, the calculated RBC and implied surplus need will likely increase. It makes senses that the RBC amount would increase in these situations. The company is taking more risk and needs more capital (i.e. surplus) to support the additional risk. Should the risk profile for NJSBAIG change in the future, the Adapted RBC amount should be re-calculated.

Appendix A contains a detailed explanation of RBC.

Reserves: Fund Surplus

Another goal for Fund Surplus is the ratio of net unpaid loss reserves to Fund Surplus. This is important because unexpected increases in the reserves could cause declines in surplus. As measured by the Adapted RBC, reserve risk is the most significant risk facing NJSBAIG. The goal used for Reserves to Fund Surplus is 3.00; i.e., reserves should not be more than three times the Fund Surplus.

Summary of Goals for the SRA

Goals for the SRA will be:

Fund Surplus of 2.50 x Adapted RBC - \$61,801,720 as of June 30, 2010. This figure is increased four percent per year after that. This assumes no significant changes in NJSBAIG's operating philosophy going forward. This is consistent with other assumptions within the SRA.

Reserves: Fund Surplus - Less than 3.00. As of June 30, 2010, the net reserves are \$165,000,000 and the surplus is \$61,984,071. The ratio is 2.66 as of June 30, 2010.

Assumptions

Variable Claims Experience

The most variable element of risk for NJSBAIG is the amount of retained losses. Future losses are estimated using actuarial techniques supported by historical claims and exposure data. While these techniques, and the supporting data, are sound, they will likely vary from the forecasted amount because of the fortuitous nature of property and casualty claims. The amount by which they can vary, the *volatility*, is different for each line of coverage. For example, forecasts for automobile physical damage will be much less volatile than the estimates for property or workers compensation. The unique nature of each line of coverage and the relative mix of the risks must be considered when estimating the effect of variable claims costs on *Fund Surplus*.

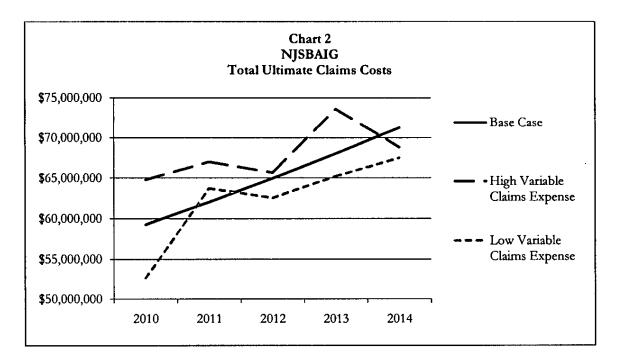
For the SRA, claims expenses were simulated to produce a range of claims based on the historical variability of NJSBAIG's retained losses. The losses were simulated 10,000 times for each line, for each of the five years, to produce an array of possible claims costs. The five years 2010-2014 were summed to create the range of total claims costs for the analysis.

Three claims cost scenarios were used in the first phase of the forecasts:

- Base Case
- High Variable, and
- Low Variable

The Base Case scenario assumes each year's loss experience will be "expected" or equal to the annual forecast. Actual losses will vary somewhat from the "expected" number. The Low Variable and High Variable claim cost scenarios, represent the 10th and 90th percentiles of the total five year losses, respectively. These scenarios show how the financial statements, and the Fund Surplus, will be affected when the claims vary from the "expected" level. This range of losses is based on the historical variability of both the frequency and severity of NJSBAIG's claims history. This will produce realistic forecasts of the surplus under a variety of loss conditions. The claims costs for each line of coverage, for each of the five years for the three scenarios are in Appendix B.

Chart 2 is a graph of the <u>total annual claims expenses</u> of each scenario. This demonstrates the random nature of the claims costs. For example the total losses in the *Low Variable* are higher than the *Base Case in 2011* and the losses in the *Base Case* are greater than the *High Variable* in 2014.



Total Ultimate Claims Costs

Year beginning July 1	2010	2011	2012	2013	2014	Total
Base Case	\$59,277,000	\$62,043,000	\$64,958,000	\$68,031,000	\$71,274,000	\$325,583,000
High Variable Claims Expense	\$64,775,563	\$ 67,016,029	\$65,671,881	\$73,602,698	\$68,817,287	\$339,883,457
Low Variable Claims Expense	\$52,636,346	\$ 63,715,732	\$62,571,382	\$65,226,089	\$67,504,335	\$311,653,884

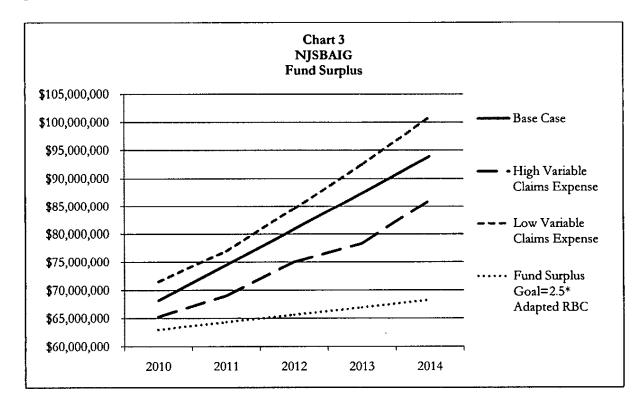
Appendix B contains more information about the simulation of future claims costs.

Other Key Assumptions

Assumption	Rationale
Financial statement forecasts	The forecasts for the years July 1, 2010-14 were based on preliminary estimates of the financial statements dated September 13, 2010. An addendum to the report can be done if the final statements, assumptions or scenarios are changed
Investment rate 1.5%	The returns for the last few years have been between three and five percent. Some of the expiring investments will be replaced by instruments with a lower yield. Since interest rates are expected to stay low, 1.5% was used to be conservative.
Agent's commission	Twelve percent of Gross Written Premium
Operating expenses	Increased two percent per year from the year end as of June 30, 2010
Fund Surplus goal	\$ 61,801,720, or (2.50 x Adapted RBC) as of June 30, 2010. This goal is increased four percent per year to account for increase in exposures and claims costs.
Safety Grant	50% of underwriting surplus
Expense	(NWP minus claims and operating expenses)

Analysis

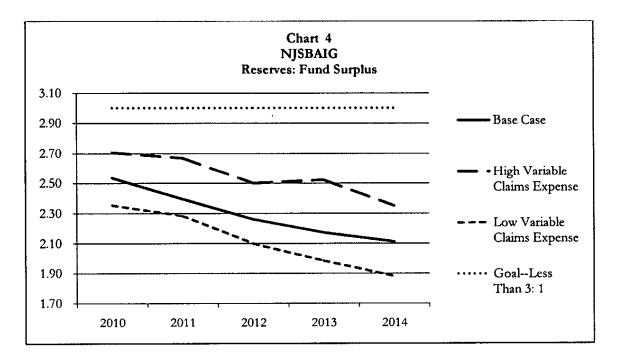
Chart 3 shows that the *Fund Surplus* meets the (2.5 x *Adapted RBC*) goal in each year of the forecast. In these scenarios, the Safety Grant award is equal to fifty percent of underwriting surplus. Thus, the accumulation of underwriting surplus and investment income allows surplus to grow and exceed the goal.



Fund Surplus

Year beginning July 1	2010	2011	2012	2013	2014
Base Case	\$ 68,156,415	\$ 74,439,594	\$80,828,241	\$87,311,092	\$93,896,395
High Variable Claims Expense	\$ 65,243,767	\$69,011,473	\$75,001,848	\$78,280,579	\$86,020,699
Low Variable Claims Expense	\$ 71,467,336	\$76,952,842	\$84,508,763	\$92,390,587	\$100,859,917
Fund Surplus Goal = 2.5 * Adapted RBC	\$63,037,755	\$64,298,510	\$65,584,480	\$66,896,169	\$68,234,093

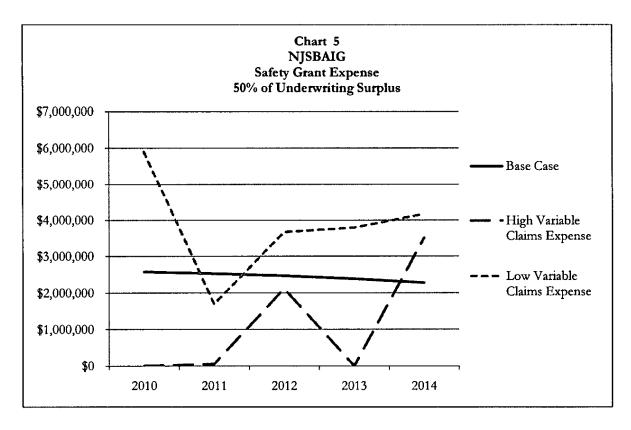
Chart 4 shows that the Reserves: Fund Surplus goal of less than 3: 1 is attained in all years.



Reserves: Fund Surplus

Year beginning July 1	2010	2011	2012	2013	2014
Base Case	2.53	2.40	2.26	2.17	2.11
High Variable Claims Expense	2.70	2.67	2.50	2.52	2.35
Low Variable Claims Expense	2.35	2.28	2.10	1.98	1.88
GoalLess Than 3: 1	3.00	3.00	3.00	3.00	3.00

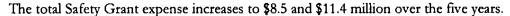
The Safety Grant program is relatively new and supports the loss control culture that can lead to lower costs for all members. Chart 5 is a graph of the Safety Grant expense, equal to fifty percent of underwriting surplus for each year. For the five years, the grants range from \$5.6 to \$19.2 million, depending on the operating results for each year. This demonstrates that the pricing, expense structure, and predictable loss patterns for NJSBAIG should allow these funds to be returned to the members, even in years when claims are greater than the expected amount. This expense is included in the forecasted income statements.

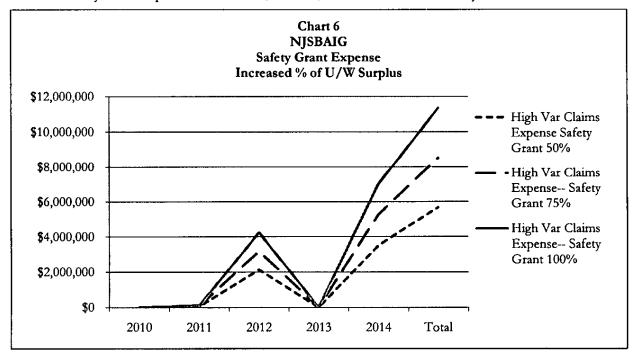


Safety Grant Expense 50% of U/W Surplus

Year beginning July 1	2010	2011	2012	2013	2014	Total
Base Case	\$2,579,751	\$2,536,116	\$2,473,369	\$2,389,260	\$2,280,133	\$12,258,629
High Variable Claims Expense	\$0	\$49,602	\$2,116,428	\$0	\$3,508,489	\$5,674,519
Low Variable Claims Expense	\$ 5,900,078	\$1,699,750	\$3,666,678	\$3,791,716	\$4,164,965	\$19,223,187

The Fund Surplus goals are met when the Safety Grant expense is fifty percent of underwriting surplus. Since that program is important to the mission, NJSBAIG could consider increasing that expense to provide more incentive to manage risk. Chart 5 shows the amount of Safety Grant expense that could be paid if the award was increased to 75% and 100% of underwriting surplus. The chart is for the High Variable claims expense, indicating how much could be paid, even if claims expense exceeds the forecast over the five year period.

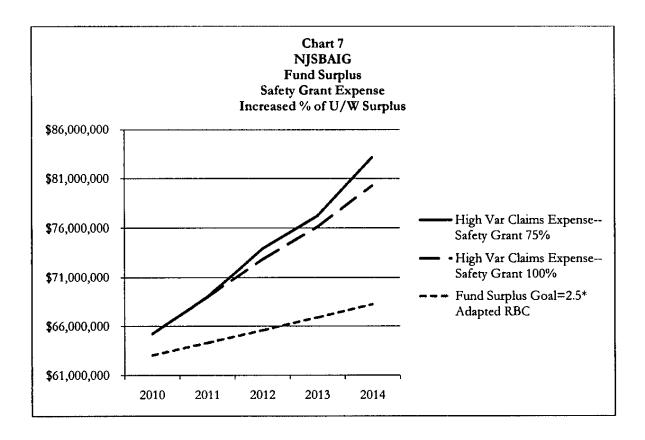




Safety Grant Expense--Increased % of U/W Surplus

Year Beginning July 1	2010	2011	2012	2013	2014	Total
High Var Claims Expense Safety Grant 50%	\$ 0	\$49,602	\$2,116,428	\$0	\$ 3,508,489	\$5,674,519
High Var Claims Expense Safety Grant 75%	\$0	\$74,403	\$3,174,642	\$0	\$5,262,734	\$8,511,779
High Var Claims Expense – Safety Grant 100%	\$0	\$99,203	\$4,232,856	\$ 0	\$7,016,979	\$11,349,039

When the Safety Grants increase, can the Fund surplus goals be met? Chart 7 shows that the goals are met, even if the Safety Grant is increased.



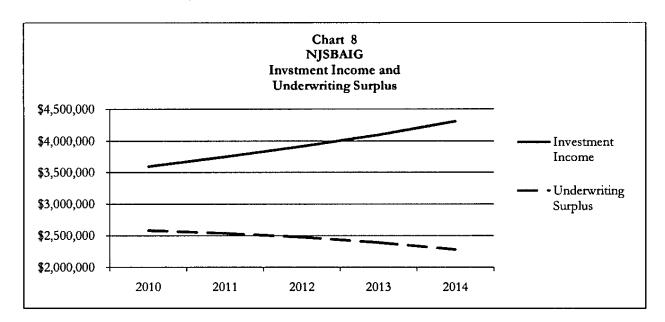
Fund Surplus
Safety Grant Expense--Higher Claims and Expense Scenarios

Year beginning July 1	2010	2011	2012	2013	2014
High Variable Claims Expense Safety Grant 75%	\$65,243,767	\$68,986,486	\$73,910,708	\$77,188,944	\$83,145,288
High Variable Claims Expense Safety Grant 100%	\$ 65,243,767	\$68,961,499	\$72,819,567	\$76,097,310	\$80,269,878
Fund Surplus Goal=2.5* Adapted RBC	\$63,037,755	\$64,298,510	\$65,584,480	\$66,896,169	\$68,234,093

Summary of Variable Claims Expense Scenarios

Currently, NJSBAIG has sufficient surplus to serve its existing member base. The loss funds and expense structure will allow surplus accumulation, even when losses vary reasonably from projected or "expected" losses and when the Safety Grant expense is increased. It should be noted, however, that the surplus accumulation relies heavily on investment income; not underwriting surplus.

Chart 8 shows the comparison of investment and underwriting income in the *Base Case* scenario. Investment income is significantly greater than underwriting surplus. NJSBAIG has kept rates low to help the budgets of its members and earns investment income on an asset base of between \$250 and \$303 million over the five years. While this has benefited the members, it will not continue if the asset base is reduced either by unforeseen losses or costs, or dividends.



Comparison of Investment Income and Underwriting Surplus--Base Case

Year Beginning July 1	2010	2011	2012	2013	2014
Investment Income	\$3,592,593	\$3,747,062	\$3,915,279	\$4,093,591	\$4,305,170
Underwriting Surplus	\$2,579,751	\$2,536,116	\$2,473,369	\$2,389,260	\$2,280,133

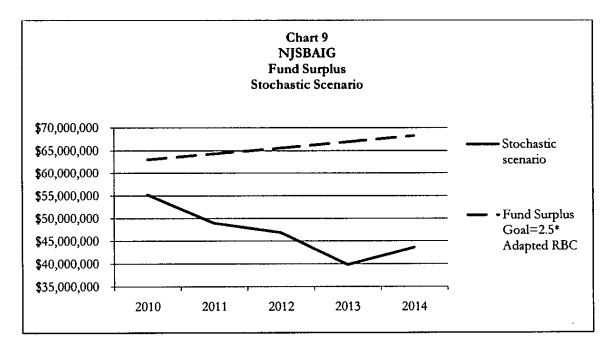
Stochastic Events

The forecasted surplus accumulation described above is dependent on losses being reasonably predictable and following the distribution patterns of the last few years. A surplus policy based only on these scenarios would ignore the possibility of significant costs that could reduce Fund Surplus and impede the mission of NJSBAIG. In the SRA, these are called Stochastic Events—random events that are potentially very costly and cannot be controlled. A significant Stochastic Event could be:

- Adverse loss reserve development
- Multiple large property losses and the insolvency of a reinsurer in the same year
- Class action suits

This section summarizes the forecasts where is it assumed that there is adverse development on existing loss reserves. The loss reserves are increased by \$40 million over a four year period beginning July 1, 2010. This reflects the upper range of potential loss development. In this scenario, it is also assumed that accident year claims expenses are at the *High Variable* level.

Chart 9 compares the forecasted Fund Surplus to the goal of (2.5 x Adapted RBC).



Fund Surplus

Year Beginning July 1	2010	2011	2012	2013	2014
Stochastic Scenario	\$55,215,949	\$48,930,153	\$46,845,804	\$39,800,638	\$43,613,057
Fund Surplus Goal=2.5* Adapted RBC	\$63,037,755	\$64,298,510	\$65,584,480	\$66,896,169	\$68,234,093

The Fund Surplus goal is not achieved in any year in the Stochastic Scenario. Fund Surplus begins to increase in 2014, the year in which there is no adverse loss development. In case of a significant Stochastic Event, the Board can decide whether to take immediate steps to build Fund Surplus or forecast the potential increases to determine when the surplus reaches an acceptable level.

Summary and Recommendations

The forecasts in the SRA show that the current Fund Surplus and expense structure will support the mission of stabilizing the cost of risk for public schools in New Jersey. When claims costs vary consistent with recent patterns, and when the Safety Grant awards are increased, the surplus goal is achieved. However, the growth in surplus comes mostly from investment income. A significant reduction in surplus would result in reduced investment income and could cause the Fund Surplus to fall below the goal.

If Fund Surplus is reduced by a Stochastic Event, it could impede the mission and create the need for either reduction of the Safety Grant awards, premium increases, or in the extreme case; an assessment.

When formulating surplus policy, the Board should consider the possibility of a *Stochastic Event* and its effect on *Fund Surplus*. The primary use of surplus for NJSBAIG is to stabilize the cost of risk by:

- Paying claims that exceed the accident year claims fund (this is demonstrated in the variable loss scenarios in the SRA)
- Supporting programs like the Safety Grants that encourage safety and, eventually, lower the cost of risk for all members of NJSBAIG
- Absorbing new groups of members, like a sub-fund; without additional capital contribution
- Increasing retentions if market conditions warrant
- Writing additional lines of coverage
- Subsidizing premium contributions when predatory competitors threaten the membership

The Fund Surplus should be sufficient to support this work and to rebuild it in a reasonable time frame if NJSBAIG suffers a large unexpected operating loss.

Appendix A – RBC Adapted for NJSBAIG

Introduction

The NAIC risk-based capital (RBC) system was created to provide a capital adequacy standard that is related to risk and provides regulatory authority. The system/formula is uniform among states. All property and casualty (P&C) insurance companies issuing Statutory Financial Statements, i.e. NAIC Annual Statement - yellow book, are subject to the same system. The RBC calculations are also completed for risk retention groups (RRGs) that must file a yellow book.

The RBC process provides a framework for consideration of capital adequacy and risk for other types of companies that are not required to issue Statutory Financial Statements. The exact RBC calculations cannot be made since certain calculations require exact schedules from the Statutory Financial Statements. However, an adapted RBC calculation can be performed.

Components of P&C Risk Based Capital Calculation

The RBC Calculation for P&C insurance companies is made up of six components:

- R0 Asset Risk Affiliated Companies
- R1 Asset Risk Fixed Income
- R2 Asset Risk Equity
- R3 Asset Risk Credit
- R4 Underwriting Risk Reserves
- R5 Underwriting Risk Net Written Premium

Based on industry data for P&C insurance companies, the R4 and R5 components make up over 55% of the "total risk".

The R0 and R2 risk components above do not apply to NJSBAIG at this point. The R0 risk component is not applicable because there is no separate affiliate bearing risk or making investments that is re-consolidated into the financials of NJSBAIG. The R0 risk component typically applies to companies with complicated structures. The R2 risk component is not applicable because at this time NJSBAIG has a conservative investment philosophy that does not include equities.

Summary of Adapted RBC Calculation for NJSBAIG

The total adapted RBC for NJSBAIG calculated before the covariance adjustment is \$34,570,752. As part of the RBC process this figure is adjusted for the fact that the various risks facing an insurance entity are at least partially independent. In other words, the various risks facing the insurance entity will not all occur at the same time.

Therefore, a covariance adjustment is made to the calculated RBC. The formula for that adjustment is shown on the summary exhibit. The total adapted RBC for NJSBAIG after the covariance adjustment is \$24,720,688.

The regulatory action levels based on the \$24,720,688 are:

- Mandatory Control Level Surplus less than \$8,652,241 requires that the regulator take steps to place the insurer under control.
- Authorized Control Level Surplus greater than \$8,652,241 but less than \$12,360,344 regulator authorized to take control of the insurer.
- Regulatory Action Level Surplus greater than \$12,360,344 but less than \$18,540,516 –
 insurance company is required to file an actuary plan and the state insurance
 commissioner is required to perform any examinations necessary.
- Company Action Level Surplus greater than \$18,540,516 but less than \$24,720,688 insurer must prepare a report to the regulator outlining a comprehensive financial plan that identifies the conditions that contributed to the company's financial condition. The plan must contain proposals to correct the financial problems and provide projections of the financial condition of the company, with and without the proposed corrections.
- No Action Level Surplus greater than \$24,720,688. NJSBAIG would fall in this category based on the above calculations and preliminary indicated surplus as of 6/30/10 of \$61,984,071. 97.5% of the filed NAIC companies were in this category for year-end 2009.

Table 1 - Calculation of R1 Risk Charge - Asset Risk - Fixed Income

The risk charge for R1 is calculated based on the RBC factors used in the standard RBC calculation. Government backed securities have no risk charge associated with them so a factor of 0.000 is applied to the asset value for government backed securities. Certificates of deposit and cash and cash equivalent each received a risk charge of 0.003 of their value. The total risk charge for R1 is \$244,252.

The charge for R1 is a very small part of the overall risk for NJSBAIG and for the industry.

Table 2 - Calculation of R3 Risk Charge - Asset Risk - Credit Risk

The risk charge for R3 for property and casualty insurance companies is mostly related to reinsurance recoverables. There are also small risk charges for other recoverables. Because NJSBAIG is not required to file Statutory Financial Statements, the reinsurance recoverables are not shown in the same manner as a NAIC company would show them. We are assuming a possible \$10 million in reinsurance recoverables as of 6/30/10. Based on an industry RBC factor of 0.10, the risk charge related to reinsurance recoverables is \$1 million.

There are other minor charges for investment income due and accrued and premiums receivable. The total R3 charge is \$1,187,985.

Table 3 - Calculation of R4 Risk Charge - Underwriting Risk - Reserves

The risk related to reserves is the largest risk component for NJSBAIG and the P&C industry. The RBC formula is adapted here because company specific adjustments are made based on data from the Statutory Financial Statements. The calculations here are based on the industry factors for the R4 charge.

The estimated carried net loss reserves for each coverage as of 6/30/10 are multiplied by a factor for each line of business based on industry worse case years adjusted for investment income. The investment income adjustment assumes a 5% discount rate. That is higher than is currently achieved in most cases, but that rate is statutorily defined.

The RBC factors by line for NJSBAIG, after adjusting for investment income, vary from 0.094 for workers compensation to 0.274 for general liability and E&O. Adding the charge for all the separate coverages together yields a RBC charge for reserves of \$22,913,000.

One final adjustment is made to the R4 charge called the loss concentration factor. Basically, it adjusts for the spread across multiple coverages. The loss concentration factor for NJSBAIG is 90.96%. The R4 charge after application of the loss concentration factor is \$20,841,665.

Table 4 - Calculation of R5 Risk Charge - Underwriting Risk - Written Premium

The risk related to written premium is the second largest risk component for NJSBAIG and the third largest for the P&C industry, after equity risk. The RBC formula is also adapted here because company specific adjustments are made based on data from the Statutory Financial Statements. The calculations here are based on the industry factors for the R5 charge.

The estimated net written premium for each coverage for the prior year are multiplied by a factor for each line of business based on industry worse case years adjusted for investment income. The investment income adjustment assumes a 5% discount rate. That is higher than is currently achieved in most cases, but that rate is statutorily defined.

The RBC factors by line for NJSBAIG, after adjusting for investment income, vary from 0.147 for general liability to 0.192 for property. Adding the charge for all the separate coverages together yields a RBC charge for premium of \$13,337,148.

One final adjustment is made to the R5 charge called the premium concentration factor. Basically, it adjusts for the spread across multiple coverages. The premium concentration factor for NJSBAIG is 92.2%. The R5 charge after application of the premium concentration factor is \$12,296,850.

Industry Comparison Exhibits 1 and 2

The adapted RBC calculated for NJSBAIG is compared to P&C Industry statistics in Industry Comparison Exhibits 1 and 2. The source of the industry information is the article by the NAIC Staff titled "Property and Casualty Industry RBC Results for 2009".

The first chart shows the industry distribution by risk component compared to the distribution by risk component for NJSBAIG. The figures are then normalized to exclude the R0 and R2 component since NJSBAIG does not have these risk factors. R4, reserve risk, and R5, premium risk represent over 95% of the risk for NJSBAIG. For the industry, excluding R0 and R2, the reserve and premium risk represent approximately 87% of the risk.

The industry ratio of total adjusted capital (surplus) to RBC is 3.22 for 2009. The ratio for NJSBAIG based on the preliminary 6/30/10 financials is 2.51. The ratio for NJSBAIG is lower than the industry. NJSBAIG has no equity risk and a lower reserve risk factor (as a percentage) versus the industry and therefore a lower ratio seems reasonable.

The bottom two charts on industry comparison exhibit 1, show the ratio of reserve risk, R4, to total reserves and the ratio of premium risk, R5, to net written premium. The average effective factor for reserve risk is 0.126 for NJSBAIG versus 0.172 for the industry. That means that the reserves for NJSBAIG are less risky than the industry, as a percentage of the reserves.

The average effective factor for premium risk is 0.153 for NJSBAIG versus 0.132 for the industry. That means that the premium risk for NJSBAIG is more risky than the industry as a percentage of the premium.

Comparison exhibit 2 shows other related industry data. The top chart shows the ratio of surplus to assets for companies with similar asset sizes. NJSBAIG's ratio is lower than the industry average, however, that is partially driven by a lack of equities which would require more surplus to support their risk.

The bottom chart on that exhibit shows that 97.5% of the NAIC companies are at the No Action level for year-end 2009. 2.5% of the NAIC companies included in the article required some level of action based on the RBC system.

Appendix A, Summary

New Jersey School Board Insurance Association Group

Adapted Risk Based Capital Calculation Based on Industry Risk Based Capital Formula

Risk	Risk Based Capital
Component	by Component
R1 - Asset Risk - Fixed Income	244,252
R2 - Asset Risk - Equity	0
R3 - Asset Risk - Credit Risk	1,187,985
R4 - Underwriting Risk - Reserves	20,841,665
R5 - Underwriting Risk - Written Premium	12,296,850
Total RBC Before Covariance Adjustment	34,570,752
Total RBC After Covariance Adjustment	24,720,688

Note: NJSBAIG has no R2 Component since no investments in Equities.

Note: Total RBC After Covariance Adjustment calculated as:

Square Root of $(R1^2 + R2^2 + (R3/2)^2 + (R3/2 + R4)^2 + R5^2)$

Half of the Credit Risk (R3) is included with R4 in the covariance adjustment as part of the RBC formula.

Regulatory Action Levels based on Risk Based Capital Calculations

No Action	Greater than	24,720,689
Company Action Level	18,540,516	24,720,688
Regulatory Action Level	12,360,344	18,540,516
Authorized Control Level	8,652,241	12,360,344
Mandatory Control Level	-	8,652,241

Ratio of Surplus to Total RBC After Covariance Adjustment

<u> </u>		
Surplus as of 6/30/09	61,984,071	
Total RBC After Covariance Adjustment	24,720,688	
Ratio of Surplus to Total RBC		
After Covariance Adjustment	2.51	

New Jersey School Board Insurance Association Group

Calculation of RI Risk Charge - Asset Risk - Fixed Income

Asset	Asset	RBC	R1 - Asset Risk	
Туре	Value	Factor	Fixed Income	
	(1)	(2)	(3)	
Cash and Cash Equivalents	53,746,311	0.003	161,239	
Fixed Maturity Govt Backed etc	152,970,247	0.000	0	
CDs	27,670,971	0.003	83,013	
Total R1 Charge			244,252	

⁽¹⁾ Figures from preliminary balance sheet as of 6/30/10 dated 9/13/10.

⁽²⁾ Based on RBC formula

 $^{(3) = (1) \}times (2)$

New Jersey School Board Insurance Association Group

Calculation of R3 Risk Charge - Asset Risk - Credit Risk

	Receivable/	RBC	R3 - Asset Risk-
Item	Recoverable Amount	Factor	Credit Risk
	(1)	(2)	(3)
Reinsurance Recoverables (estimated-see note A)	10,000,000	0.100	1,000,000
Investment Income Due and Accrued	1,135,133	0.010	11,351
Premiums Receivable	3,532,682	0.050	176,634
Total R3 Charge			1,187,985

⁽A) Estimated reinsurance recoverables for draft purposes (full reinsurance recoverables are not shown on the financials in the manner that they would be for a "NAIC yellow-book" company).

⁽¹⁾ As noted above, reinsurance recoverables estimated for draft purposes, other figures from balance sheet as of 6/30/10.

⁽²⁾ Based on RBC formula

 $^{(3) = (1) \}times (2)$

New Jersey School Board Insurance Association Group

Calculation of R4 Risk Charge - Underwriting Risk - Reserves

	Net Loss Reserves	Industry Loss	Adjustment for	RBC	R4 - Underwriting	
Coverage	as of June 30, 2010	& Expense RBC %	Investment Income	Factor	Risk - Reserves	
	(1)	(2)	(3)	(4)	(5)	
Workers Compensation	115,300,000	0.310	0.835	0.094	10,838,200	
General Liability	30,000,000	0.478	0.862	0.274	8,220,000	
Property	2,700,000	0.184	0.966	0.144	388,800	
Auto	8,000,000	0.238	0.909	0.125	1,000,000	
Errors and Omissions	9,000,000	0.478	0.862	0.274	2,466,000	
Total	165,000,000				22,913,000	
% of Total Reserves Related to	wc		ı		69.88%	
Loss Concentration Factor - 70% + 30% x (% of Total Reserves related to one line)						
Total R4 Charge (After Applying Loss Concentration Factor) (6)						

⁽¹⁾ Net Carried Reserves by coverage as of 6/30/10 based on preliminary balance sheet dated 9/13/10 (may not tie by line of bu.

⁽²⁾ Industry Loss and Expense RBC% is not credibility adjusted for company experience. This is typically done with a yellow book company using schedule P data by annual statement line.

⁽³⁾ As part of RBC calculation, a discount rate of 5% is used and industry payout patterns.

⁽⁴⁾ RBC Factor = [(2) + 1.000] x (3) - 1.000

 $^{(5) = (1) \}times (4)$

^{(6) =} Total R4 Charge before Loss Concentration Factor x Loss Concentration Factor

New Jersey School Board Insurance Association Group

Calculation of R5 Risk Charge - Underweiting Risk - Written Premium

Coverage	Net Written Premium 7/1/09-10	Industry Loss & Expense Ratio	Adjustment for Investment Income	Underwriting Expense Ratio	RBC Factor	R5 - Underwriting Risk - Premium	
	(1)	(2)	(3)	(4)	(5)	(6)	
Workers Compensation	59,551,616	1.051	0.632	0.290	0.164	9,766,465	
General Liability	8,047,516	1.045	0.820	0.290	0,147	1,182,985	
Property	7,242,764	0.955	0.944	0.290	0.192	1,390,611	
Auto	5,633,261	1.005	0.883	0.290	0.177	997,087	
Total	80,475,157					13,337,148	
% of Net Premium Related	to WC					74.09	
Premium Concentration Fac	ctor - 70% + 30% x (% of Tota	l Premium related to or	ne line)			92.29	
Total R5 Charge (after Pre	emium Concentration Factor	1 (7)				12,296,850	

⁽¹⁾ Estimated from Total Net Written Premium and allocated to coverages where NJSBAIG is currently retaining exposure.

⁽²⁾ Industry Loss and Expense Ratio is not credibility adjusted for company experience.

⁽³⁾ As part of RBC calculation, a discount rate of 5% is used and industry payout patterns.

⁽⁴⁾ Underwriting Expense Ratio includes a provision for safety grant expenses.

⁽⁵⁾ RBC Factor = [(2) + 1.000] x (3) + (4) - 1.000

 $^{(6) = (1) \}times (5)$

^{(7) =} Total R5 Charge before Premium Concentration Factor x Premium Concentration Facto

Appendix A, Industry Comparison Exhibit 1

New Jersey School Board Insurance Association Group

Comparison of Key RBC Related Ratios Versus Industry

Percentage of Company Risk Attributable to Each Risk Component

Risk			Industry 2009	
Component	NJSBAIG	Industry 2009	without R0 and R2	
R0 - Asset Risk - Affiliates	N/A	15.8%	N/A	
R1 - Asset Risk - Fixed Income	0.7%	2.4%	3.8%	
R2 - Asset Risk - Equity	0.0%	20.4%	N/A	
R3 - Asset Risk - Credit Risk	3.4%	5.8%	9.1%	
R4 - Underwriting Risk - Reserves	60.3%	35.9%	56.2%	
R5 - Underwriting Risk - Written Premium	35.6%	19.7%	30.9%	
Total	100.0%	100.0%	100.0%	

Note: Percentages in last column above are normalized to exclude Affiliate (R0) and Equity Risk (R2)

Ratio of Total Adjusted Capital to Risk Based Capital After Covariance Adjustment

	Calculated RBC	Total	Ratio
	After Covariance	Adjusted	TAC/
	Adjustment	Capital	RBC
Aggregate Industry 2009 (000)	199,655,368	643,685,862	3.22
NJSBAIG	24,720,688	61,984,071	2.51

Ratio of Reserve RBC (Factor R4) to Reserves

	Reserve	Reserve	Average Effective	
Aggregate Industry 2009 (000)	Base 534,188,232	RBC (R4) 92,046,392	Factor 0.172	
NJSBAIG	165,000,000	20,841,665	0.126	

Ratio of Premium RBC (Factor R5) to Premium

	Premium	Premium	Average Effective
	Base	RBC (R5)	Factor
Aggregate Industry 2009 (000)	413,246,203	54,614,664	0.132
NJSBAIG	80,475,157	12,296,850	0.153

Source of Industry Information: NAIC Staff "Property and Casualty Industry RBC Results for 2009"
- summarizes 2,635 Property and Casualty Risk-Based Capital (RBC) filings that have been received and uploaded to the NAIC database for calendar year 2009 as of June 21, 2010.

Appendix A, Industry Comparison Exhibit 2

New Jersey School Board Insurance Association Group

Comparison of Key RBC Related Ratios Versus Industry

Comparison of Key Ratios for Companies with Asset Size between \$100 and \$250 Million

2009 Surplus to Asset Ratio (Industry)	0.406	
NJSBAIG Surplus to Asset Ratio	0.255	
Median RBC Ratio (2009)	920.0%	
NJSBAIG RBC Ratio	501.5%	

(Median RBC Ratio is Total Adjusted Capital divided by Authorized Control Level RBC)

2009 Industry Results by Action Level

Action Level	# of Companies	% of Companies
No Action	2569	97.50%
Company Action Level	18	0.68%
Regulatory Action Level	10	0.38%
Authorized Control Level	10	0.38%
Mandatory Control Level	28	1.06%

Source of Industry Information: NAIC Staff "Property and Casualty Industry RBC Results for 2009" - summarizes 2,635 Property and Casualty Risk-Based Capital (RBC) filings that have been received

and uploaded to the NAIC database for calendar year 2009 as of June 21, 2010.

Appendix B – Loss Simulations

Introduction

A statistical model can be used to estimate amounts for confidence levels around the projected losses. Confidence levels are useful for determining funding requirements within a self-insured retention, defining an adequate amount to achieve a desired level of confidence that a particular liability is adequately funded, negotiation of proper collateralization for a program requiring security, determination of a cost effective aggregate stop-loss and determination of an appropriate maximum for a retrospectively rated insurance program.

A limitation of the statistical model is that a concept known as parameter risk is not included in the calculation of the aggregate distribution. Parameter risk is the risk associated with the possible incorrect estimate of the projected losses. There is always the possibility that the estimate of projected loss is wrong. However, we have made our best estimate of the assumptions regarding the exposure to loss.

Outline of Basic Methodology

- 1. A frequency and severity distribution are estimated for each coverage based on the projected losses and the size of loss distribution of the historical data. Judgment is also used when necessary and based on our experience with similar risks. The frequency is modeled using a negative binomial distribution. The severity distribution is modeled using a lognormal distribution. A useful feature of the lognormal distribution is that it is positively skewed. For this reason it is widely used within the insurance industry.
- 2. Monte Carlo simulation is then used to simulate NJSBAIG's losses at various probability levels. The simulation was performed 10,000 times for each coverage and for each projected policy year. A random number of claims are first estimated based on the frequency distribution. The severity of each claim is then estimated based on the severity distribution. The results of the 10,000 simulations are shown for each coverage.
- The simulation results are combined for all coverages and projected years to estimate probability levels for the five year period.

Simulation Summary

The following table shows the projected ultimate losses for all coverages combined by year at several key probability levels. The Mean, 90% and 10% probability levels tie back to the base case, high variable and low variable scenarios used in the report.

The Total column indicates the aggregate losses at various confidence levels. For example, an aggregate loss amount of \$326,939,280 should be adequate to pay all losses that occur during the projected five-year period 55% of the time. This means that 55 out of 100 times, losses will be less than or equal to \$326,939,280 for all five years combined. Larger dollar amounts relate to higher probability levels. For example, there is a 80% chance that losses will not exceed \$335,055,991.

All Coverages

Aggregate Loss Probability Distribution

Various Limits

Probability Level	7/1/10-11	7/1/11-12	7/1/12-13	7/1/13-14	7/1/14-15	Total
Mean	\$59,277,000	\$62,043,000	\$64,958,000	\$ 68,031,000	\$71,274,000	\$325,583,000
10%	52,636,346	63,715,732	62,571,382	65,226,089	67,504,335	311,653,884
25%	54,660,556	58,848,649	59,985,805	74,731,713	69,896,152	318,122,875
50%	60,175,414	62,884,646	61,333,950	65,708,407	75,343,064	325,445,481
55%	60,716,576	57,308,804	68,878,906	71,170,651	68,864,342	326,939,280
75%	53,749,195	66,262,083	71,877,404	71,013,891	70,154,801	333,057,375
80%	54,891,889	66,195,000	67,181,439	70,481,679	76,305,984	335,055,991
85%	58,782,319	68,179,538	70,240,558	70,425,275	69,602,553	337,230,243
90%	64,775,563	67,016,029	65,671,881	73,602,698	68,817,287	339,883,457
95%	55,524,105	69,235,142	68,759,644	70,342,948	79,919,127	343,780,966

Note: Probabilty level based on all years and all coverages combined.

The claims costs for the Base Case, High Variable, and Low Variable scenarios by coverage and year are shown below.

Base Case

	7/1/10-11	7/1/11-12	7/1/12-13	7/1/13-14	7/1/14-15	Total
		//1/11-12	7/1/12-13			
WC	41,757,000	43,444,000	45,199,000	47,025,000	48,925,000	226,350,000
GL	8,633,000	9,334,000	10,092,000	10,912,000	11,798,000	50,769,000
AL	3,274,000	3,540,000	3,828,000	4,138,000	4,475,000	19,255,000
APD	433,000	442,000	450,000	459,000	469,000	2,253,000
Prop	5,180,000	5,283,000	5,389,000	5,497,000	5,607,000	26,956,000
Annual totals	59,277,000	62,043,000	64,958,000	68,031,000	71,274,000	
					Grand Total	325,583,000

High Variable – 90th Percentile

	7/1/10-11	7/1/11-12	7/1/12-13	7/1/13-14	7/1/14-15	Total
WC	46,410,742	49,943,074	46,446,312	55,727,134	45,466,144	243,993,406
GL	9,528,529	8,856,787	10,141,849	8,472,438	12,731,424	49,731,028
AL	2,314,817	2,713,427	3,727,499	4,812,901	3,818,577	17,387,221
APD	316,702	482,493	344,426	711,706	511,944	2,367,272
Prop	6,204,773	5,020,248	5,011,795	3,878,518	6,289,196	26,404,529
Annual totals	64,775,563	67,016,029	65,671,881	73,602,698	68,817,287	
					Grand Total	339,883,457

Low Variable – 10th Percentile

	7/1/10-11	7/1/11-12	7/1/12-13	7/1/13-14	7/1/14-15	Total
WC	37,386,725	43,325,835	44,213,364	44,833,722	41,585,403	211,345,049
GL	8,780,432	7,161,030	7,395,485	10,409,956	12,119,138	45,866,041
AL	2,167,526	5,450,525	4,282,620	4,685,476	5,078,201	21,664,350
APD	438,318	446,338	666,743	352,740	453,947	2,358,086
Prop	3,863,346	7,332,003	6,013,169	4,944,194	8,267,646	30,420,358
Annual totals	52,636,346	63,715,732	62,571,382	65,226,089	67,504,335	
					Grand Total	311,653,884

Appendix C - Income Statement and Balance Sheet - Base Case

INCOME STATEMENT NJSBAIG - BASE

Year beginning July 01,	2010	2011	2012	2013	2014
Written Premium	110,000,000	114,400,000	118,976,000	123,735,040	128,684,442
Earned Premium	110,000,000	114,400,000	118,976,000	123,735,040	128,684,442
Reins Recoveries and Subrogation	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Reinsurance Charges	25,300,000	26,312,000	27,364,480	28,459,059	29,597,422
Net Earned Premium	86,700,000	90,088,000	93,611,520	97,275,981	101,087,020
Loss Experience:					
Paid Losses	51,548,498	56,439,592	60,548,806	61,233,041	62,549,717
Change in Loss Reserve	7,728,502	5,603,408	4,409,194	6,797,959	8,724,283
Loss & LAE Incurred	59,277,000	62,043,000	64,958,000	68,031,000	71,274,000
Underwriting Gain (Loss)	27,423,000	28,045,000	28,653,520	29,244,981	29,813,020
Undrwrtng Investmnt Income	2,662,832	2,724,716	2,798,685	2,881,167	2,995,504
Undrwrtng Profit	30,085,832	30,769,716	31,452,205	32,126,148	32,808,524
Operating Expenses:		-			
Agent Commissions	13,200,000	13,728,000	14,277,120	14,848,205	15,442,133
Salaries and Fringe Benefits	5,755,356	5,870,463	5,987,873	6,107,630	6,229,783
Safety Grant Expense	2,579,751	2,536,116	2,473,369	2,389,260	2,280,133
Management Fees	161,030	164,251	167,536	170,887	174,305
Office Expenses	947,256	966,201	985,525	1,005,235	1,025,340
Consulting and Professional Fees	1,551,432	1,582,461	1,614,110	1,646,392	1,679,320
Travel and Meeting Expense	242,283	247,128	252,071	257,112	262,255
Depreciation	311,026	317,246	323,591	330,063	336,664
Bad Debt	95,115	97,017	98,958	100,937	102,956
Total Operating Expenses	24,843,249	25,508,884	26,180,151	26,855,721	27,532,887
Pretax Operating Income	5,242,583	5,260,832	5,272,054	5,270,427	5,275,636
Income on Capital	929,761	1,022,346	1,116,594	1,212,424	1,309,666
Earnings Before Taxes	6,172,344	6,283,178	6,388,648	6,482,850	6,585,303
Net Income	6,172,344	6,283,178	6,388,648	6,482,850	6,585,303

BALANCE SHEET NJSBAIG - BASE

Year beginning July 01,	2010	2011	2012	2013	2014
Assets:					
Cash and Cash Equivalents	65,093,159	76,936,111	87,671,205	100,867,906	116,068,365
Investments	180,641,220	180,641,220	180,641,220	180,641,220	180,641,220
	245,734,379	257,577,331	268,312,425	281,509,126	296,709,585
Accrued Interest and Dividends	1,135,133	1,135,133	1,135,133	1,135,133	1,135,133
Premiums Receivable	3,532,782	3,532,782	3,532,782	3,532,782	3,532,782
Reinsurance Recoverables	0	0	0	0	. 0
Furniture, Fixtures & Equipment	791,456	791,456	791,456	791,456	791,456
Prepaid Expenses and Other Assets	1,272,661	1,272,661	1,272,661	1,272,661	1,272,661
Total Assets	252,466,411	264,309,363	275,044,457	288,241,158	303,441,617
Liabilities:					
Loss Reserves	172,728,502	178,331,910	182,741,104	189,539,063	198,263,346
Adjustment Expense Reserve	761,414	761,414	761,414	761,414	761,414
Unearned Premium Reserve	4,596,436	4,596,436	4,596,436	4,596,436	4,596,436
Accounts Payable and Accrued Expen	3,643,893	3,643,893	3,643,893	3,643,893	3,643,893
Safety Grant Payable	2,579,751	2,536,116	2,473,369	2,389,260	2,280,133
Total Liabilities	184,309,996	189,869,769	194,216,215	200,930,066	209,545,222
Capital:					
Retained Earnings	68,156,415	74,439,594	80,828,241	87,311,092	93,896,395
Fund Surplus	68,156,415	74,439,594	80,828,241	87,311,092	93,896,395
Total Liabilities & Equity	252,466,411	264,309,363	275,044,457	288,241,158	303,441,617

Appendix D - Income Statement and Balance Sheet - High Variable Claims Expense

INCOME STATEMENT NJSBAIG - HIGH VARIABLE

Year beginning July 01,	2010	2011	2012	2013	2014
Written Premium	110,000,000	114,400,000	118,976,000	123,735,040	128,684,442
Earned Premium	110,000,000	114,400,000	118,976,000	123,735,040	128,684,442
Reins Recoveries and Subrogation	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Reinsurance Charges	25,300,000	26,312,000	27,364,480	28,459,059	29,597,422
Net Earned Premium	86,700,000	90,088,000	93,611,520	97,275,981	101,087,020
Loss Experience:					
Paid Losses	53,306,447	59,283,625	62,326,649	63,757,896	63,992,054
Change in Loss Reserve	11,469,116	7,732,404	3,345,231	9,844,802	4,825,233
Loss & LAE Incurred	64,775,563	67,016,029	65,671,881	73,602,698	68,817,287
Underwriting Gain (Loss)	21,924,437	23,071,971	27,939,639	23,673,283	32,269,733
Undrwrtng Investmnt Income	2,668,996	2,739,447	2,838,775	2,946,881	3,057,422
Undrwrtng Profit	24,593,433	25,811,418	30,778,414	26,620,164	35,327,155
Operating Expenses:					
Agent Commissions	13,200,000	13,728,000	14,277,120	14,848,205	15,442,133
Salaries and Fringe Benefits	5,755,356	5,870,463	5,987,873	6,107,630	6,229,783
Safety Grant Expense	-	49,602	2,116,428	-	3,508,489
Management Fees	161,030	164,251	167,536	170,887	174,305
Office Expenses	947,256	966,201	985,525	1,005,235	1,025,340
Consulting and Professional Fees	1,551,432	1,582,461	1,614,110	1,646,392	1,679,320
Travel and Meeting Expense	242,283	247,128	252,071	257,112	262,255
Depreciation	311,026	317,246	323,591	330,063	336,664
Bad Debt	95,115	97,017	98,958	100,937	102,956
Total Operating Expenses	22,263,498	23,022,369	25,823,211	24,466,461	28,761,244
Pretax Operating Income	2,329,935	2,789,049	4,955,203	2,153,703	6,565,911
Income on Capital	929,761	978,657	1,035,172	1,125,028	1,174,209
Earnings Before Taxes	3,259,696	3,767,706	5,990,375	3,278,730	7,740,120
Net Income	3,259,696	3,767,706	5,990,375	3,278,730	7,740,120

BALANCE SHEET NJSBAIG - HIGH YARIABLE

Year beginning July 01,	2010	2011	2012	2013	2014
Assets:					
Cash and Cash Equivalents	63,341,374	74,891,085	86,293,518	97,300,622	113,374,465
Investments	180,641,220	180,641,220	180,641,220	180,641,220	180,641,220
	243,982,594	255,532,305	266,934,738	277,941,842	294,015,685
Accrued Interest and Dividends	1,135,133	1,135,133	1,135,133	1,135,133	1,135,133
Premiums Receivable	3,532,782	3,532,782	3,532,782	3,532,782	3,532,782
Reinsurance Recoverables	0	0	0	0	0
Furniture, Fixtures & Equipment	791,456	791,456	791,456	791,456	791,456
Prepaid Expenses and Other Assets	1,272,661	1,272,661	1,272,661	1,272,661	1,272,661
Total Assets	250,714,626	262,264,337	273,666,770	284,673,874	300,747,717
Liabilities:					
Loss Reserves	176,469,116	184,201,520	187,546,751	197,391,553	202,216,786
Adjustment Expense Reserve	761,414	761,414	761,414	761,414	761,414
Unearned Premium Reserve	4,596,436	4,596,436	4,596,436	4,596,436	4,596,436
Accounts Payable and Accrued Expen	3,643,893	3,643,893	3,643,893	3,643,893	3,643,893
Safety Grant Payable	0	49,602	2,116,428	0	3,508,489
Total Liabilities	185,470,859	193,252,865	198,664,922	206,393,296	214,727,018
Capital:					
Retained Earnings	65,243,767	69,011,473	75,001,848	78,280,579	86,020,699
Fund Surplus	65,243,767	69,011,473	75,001,848	78,280,579	86,020,699
Total Liabilities & Equity	250,714,626	262,264,337	273,666,770	284,673,874	300,747,717

Appendix E - Income Statement and Balance Sheet - Low Variable Claims Expense

INCOME STATEMENT NJSBAIG - LOW VARIABLE

Year beginning July 01,	2010	201 <i>1</i>	2012	2013	2014
Written Premium	110,000,000	114,400,000	118,976,000	123,735,040	128,684,442
Earned Premium	110,000,000	114,400,000	118,976,000	123,735,040	128,684,442
Reins Recoveries and Subrogation	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Reinsurance Charges	25,300,000	26,312,000	27,364,480	28,459,059	29,597,422
Net Earned Premium	86,700,000	90,088,000	93,611,520	97,275,981	101,087,020
Loss Experience:					
Paid Losses	49,482,387	56,230,090	60,796,082	59,390,197	61,159,665
Change in Loss Reserve	3,153,960	7,485,643	1,775,300	5,835,891	6,344,669
Loss & LAE Incurred	52,636,346	63,715,732	62,571,382	65,226,089	67,504,335
Underwriting Gain (Loss)	34,063,654	26,372,268	31,040,138	32,049,892	33,582,685
Undrwring Investmnt Income	2,653,426	2,713,747	2,734,951	2,822,476	2,918,506
Undrwrtng Profit	36,717,079	29,086,014	33,775,089	34,872,369	36,501,191
Operating Expenses:				-	
Agent Commissions	13,200,000	13,728,000	14,277,120	14,848,205	15,442,133
Salaries and Fringe Benefits	5,755,356	5,870,463	5,987,873	6,107,630	6,229,783
Safety Grant Expense	5,900,078	1,699,750	3,666,678	3,791,716	4,164,965
Management Fees	161,030	164,251	167,536	170,887	174,305
Office Expenses	947,256	966,201	985,525	1,005,235	1,025,340
Consulting and Professional Fees	1,551,432	1,582,461	1,614,110	1,646,392	1,679,320
Travel and Meeting Expense	242,283	247,128	252,071	257,112	262,255
Depreciation	311,026	317,246	323,591	330,063	336,664
Bad Debt	95,115	97,017	98,958	100,937	102,956
Total Operating Expenses	28,163,576	24,672,518	27,373,460	28,258,177	29,417,720
Pretax Operating Income	8,553,504	4,413,497	6,401,628	6,614,192	7,083,471
Income on Capital	929,761	1,072,010	1,154,293	1,267,631	1,385,859
Earnings Before Taxes	9,483,265	5,485,507	7,555,921	7,881,823	8,469,330
Net Income	9,483,265	5,485,507	7,555,921	7,881,823	8,469,330

BALANCE SHEET NJSBAIG - LOW VARIABLE

Year beginning July 01,	2010	2011	2012	2013	2014
Assets:					
Cash and Cash Equivalents	67,149,864	75,920,686	87,218,835	101,061,588	116,248,837
Investments	180,641,220	180,641,220	180,641,220	180,641,220	180,641,220
	247,791,084	256,561,906	267,860,055	281,702,808	296,890,057
Accrued Interest and Dividends	1,135,133	1,135,133	1,135,133	1,135,133	1,135,133
Premiums Receivable	3,532,782	3,532,782	3,532,782	3,532,782	3,532,782
Reinsurance Recoverables	0	0	0	0	0
Furniture, Fixtures & Equipment	791,456	791,456	791,456	791,456	791,456
Prepaid Expenses and Other Assets	1,272,661	1,272,661	1,272,661	1,272,661	1,272,661
Total Assets	254,523,116	263,293,938	274,592,087	288,434,840	303,622,089
Liabilities:					
Loss Reserves	168,153,960	175,639,602	177,414,903	183,250,794	189,595,463
Adjustment Expense Reserve	761,414	761,414	761,414	761,414	761,414
Unearned Premium Reserve	4,596,436	4,596,436	4,596,436	4,596,436	4,596,436
Accounts Payable and Accrued Expen	3,643,893	3,643,893	3,643,893	3,643,893	3,643,893
Safety Grant Payable	5,900,078	1,699,750	3,666,678	3,791,716	4,164,965
Total Liabilities	183,055,781	186,341,096	190,083,323	196,044,253	202,762,172
Capital:					
Retained Earnings	71,467,336	76,952,842	84,508,763	92,390,587	100,859,917
Fund Surphis	71,467,336	76,952,842	84,508,763	92,390,587	100,859,917
Total Liabilities & Equity	254,523,116	263,293,938	274,592,087	288,434,840	303,622,089

Appendix F - Income Statement and Balance Sheet - Stochastic Scenario

INCOME STATEMENT NJSBAIG - Stochastic Scenario Adverse Loss Development

Year beginning July 01,	2010	2011	2012	2013	2014
Written Premium	110,000,000	114,400,000	118,976,000	123,735,040	128,684,442
Earned Premium	110,000,000	114,400,000	118,976,000	123,735,040	128,684,442
Reins Recoveries and Subrogation	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Reinsurance Charges	25,300,000	26,312,000	27,364,480	28,459,059	29,597,422
Net Earned Premium	86,700,000	90,088,000	93,611,520	97,275,981	101,087,020
Loss Experience:					
Paid Losses	57,015,606	65,606,293	69,604,639	71,779,417	68,755,921
Change in Loss Reserve	17,759,957	11,409,736	6,067,242	11,823,281	61,360
Loss & LAE Incurred	74,775,563	77,016,029	75,671,881	83,602,698	68,817,28
Underwriting Gain (Loss)	11,924,437	13,071,971	17,939,639	13,673,283	32,269,73
Undrwring Investmnt Income	2,641,177	2,786,762	2,948,842	3,045,325	3,215,40
Undrwring Profit	14,565,614	15,858,733	20,888,481	16,718,609	35,485,14
Operating Expenses:					
Agent Commissions	13,200,000	13,728,000	14,277,120	14,848,205	15,442,13
Salaries and Fringe Benefits	5,755,356	5,870,463	5,987,873	6,107,630	6,229,78
Safety Grant Expense	-	-	-	-	7,016,97
Management Fees	161,030	164,251	167,536	170,887	174,30
Office Expenses	947,256	966,201	985,525	1,005,235	1,025,34
Consulting and Professional Fees	1,551,432	1,582,461	1,614,110	1,646,392	1,679,32
Travel and Meeting Expense	242,283	247,128	252,071	257,112	262,25
Depreciation	311,026	317,246	323,591	330,063	336,66
Bad Debt	95,115	97,017	98,958	100,937	102,95
Total Operating Expenses	22,263,498	22,972,768	23,706,783	24,466,461	32,269,73
Pretax Operating Income	(7,697,884)	(7,114,035)	(2,818,302)	(7,747,852)	3,215,40
Income on Capital	929,761	828,239	733,952	702,687	597,01
Earnings Before Taxes	(6,768,122)	(6,285,795)	(2,084,349)	(7,045,165)	3,812,41
Net Income	(6,768,122)	(6,285,795)	(2,084,349)	(7,045,165)	3,812,41

BALANCE SHEET

NJSBAIG - Stochastic Scenario Adverse Loss Development

Year beginning July 01,	2010	2011	2012	2013	2014
Assets:					
Cash and Cash Equivalents	59,604,396	64,728,337	68,711,229	73,489,345	84,380,108
Investments	180,641,220	180,641,220	180,641,220	180,641,220	180,641,220
	240,245,616	245,369,557	249,352,449	254,130,565	265,021,328
Accrued Interest and Dividends	1,135,133	1,135,133	1,135,133	1,135,133	1,135,133
Premiums Receivable	3,532,782	3,532,782	3,532,782	3,532,782	3,532,782
Reinsurance Recoverables	0	0	0	0	0
Furniture, Fixtures & Equipment	791,456	791,456	791,456	791,456	791,456
Prepaid Expenses and Other Assets	1,272,661	1,272,661	1,272,661	1,272,661	1,272,661
Total Assets	246,977,648	252,101,589	256,084,481	260,862,597	271,753,360
Liabilities:					
Loss Reserves	182,759,957	194,169,693	200,236,935	212,060,215	212,121,581
Adjustment Expense Reserve	761,414	761,414	761,414	761,414	761,414
Unearned Premium Reserve	4,596,436	4,596,436	4,596,436	4,596,436	4,596,436
Accounts Payable and Accrued Expen	3,643,893	3,643,893	3,643,893	3,643,893	3,643,893
Safety Grant Payable	0	0	0	0	7,016,979
Total Liabilities	191,761,700	203,171,436	209,238,678	221,061,958	228,140,303
Capital:					
Retained Earnings	55,215,949	48,930,153	46,845,804	39,800,638	43,613,057
Fund Surplus	55,215,949	48,930,153	46,845,804	39,800,638	43,613,057
Total Liabilities & Equity	246,977,648	252,101,589	256,084,481	260,862,597	271,753,360