New Jersey Schools Insurance Group
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Board of Trustees Meeting of November 18, 2015
Action Item
Special Report - Pricing Study

Each year NJSIG's actuary, Towers Watson, evaluates the pricing for the Group's risk retentions as of September 30th. That date is used for this pricing study because the resulting pricing indications are available for budget development by the Group's members.

Tower Watson's attached report (NJSIG Rate Review 16_17 draft) indicates the rates the Group should charge its members for the retained risk in each major coverage central estimate. (see page 11) The coverage extended above the Group's retained risk is reinsured. This limits the Group's potential payout on each claim to the retained portion. **We will address the price of reinsurance at the March meeting.**

In WC (Workers' Compensation) the Group retains $1,000,000 of risk for each claim. Similarly the Group retains $500,000 for each GL (General Liability) and AL (Auto Liability) occurrence (claim). The Group retains $1,000,000 of risk for each property occurrence (claim) and retains the entire APD (Auto Physical Damage) line of coverage. E&O (Errors and Omissions) is entirely reinsured.

The Towers Watson central estimate on page 11 indicates an overall rate increase of 4.8%, excluding E&O for the 2016 – 2017 policy year.

Utilizing indications below the central estimate will reduce the rate and thus reduce the costs to the members. Utilizing indications above the central estimate would increase the rate and thus increase costs to the members. See page 11 to see the affect of choosing the indicated rates at the low reasonable or high reasonable levels. You can see that choosing the rate indications at the low reasonable level would offer the Group's members a rate increase of 0.8%. At the high reasonable level the Group's members would see a rate increase of 11.3% excluding the fully insured E&O line of coverage.

Selecting the low reasonable level would increase the probability that we would not collect enough money to cover the Group's expenses and thus have a fund year deficit. This would require using the Group's surplus funds to balance the financials for the year. Selecting the high reasonable level results in higher rates for members and a greater chance of having collected too much money. In today's school budget environment choosing at the higher reasonable level should be reserved to those times when the Group's financial viability requires this decision.

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Consistent with past practices, individual lines of coverage with dramatic indicated rate changes are averaged to smooth the extent of annual fluctuations. For example, 4.3% indicated rate increase for GL is averaged with the 23.3% rate decrease for AL and the 20.8% increase for APD to yield a combined rate decrease of 4.5%. Property has an indicated 4.9% rate decrease. However, the Group continues to gradually increase insured values to more realistic levels.

My recommendation is to keep GL, AL, APD and property rates the same as the 2015-2016 rates.

Actual member rates will increase 7.8% on average for WC. The loss history of the membership of each sub fund is used to establish the WC rates for each sub fund. The non-sub fund (NJSIG) members are evaluated together as their own group. Thus there is a range of WC rate changes based on the loss history of the group of districts being evaluated.

The rate change for E&O coverage will be determined by the results of the renewal renegotiation of the E&O policy, which is materially influenced by the actual loss experience up to the date of the renewal negotiations.

GASB 68 implementation will have a material negative impact on the Group's surplus position. Because the Group is currently at an appropriate surplus level, it will be necessary to embark on a multi-year effort to restore surplus to current levels. Implementing GASB 68 indicates using conservative pricing for the 2016-2017 policy year.

Recommended Resolution: Approve a 0% rate increase for GL, AL, APD and property lines of coverage, and a 7.8% increase in the WC line of coverage. The result is an overall average rate increase of 5.9% for the Members. Foregoing the indicated rate decrease for the GL, AL, APD and property lines represents $953,000 of revenue in excess of expected expenses for those lines which might be available for surplus contribution at year end 2017.

William Mayo

William M. Mayo, Executive Director

New Jersey Schools Insurance Group

Rate Review for the July 1, 2016-2017 Policy Year

November 13, 2015

TOWERS WATSON

TOWERS WATSON

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November 13, 2015

Mr. William M. Mayo, CPCU, ARM
Executive Director
New Jersey Schools Insurance Group
450 Veteran's Drive
Burlington, NJ 08016-1268

Dear Bill:

Attached is our rate level review for the July 1, 2016-2017 policy year using data evaluated as of September 30, 2015 (E&O as of June 30, 2015).

This draft report is intended for discussion purposes only, and should not be relied upon by NJSIG or referenced or distributed to third parties without Towers Watson's express written consent. We look forward to the opportunity to discuss our analysis and findings with you and will issue a final report shortly thereafter, which will replace this draft.

Attention is called to the section of the report entitled *Distribution*, which sets out the limits on distribution of the report.

This report contains workpapers, trade secrets, and confidential information of both NJSIG and Towers Watson, and as such, it is not intended to be subject to disclosure requirements under any Freedom of Information Act or similar laws.

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

We have enjoyed working with you in the preparation of this report. Please call if you have any questions.

Sincerely

TOWERS WATSON

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Purpose and Scope

Towers Watson was retained by the New Jersey Schools Insurance Group (NJSIG) to perform a rate level review for the July 1, 2016 through June 30, 2017 policy year (2016-2017 policy year). Towers Watson was also asked to produce deductible rating factors for the 2016-2017 policy year.

This report was prepared for the internal use of NJSIG management to present our findings with respect to this analysis. It is our understanding that NJSIG management will consider the findings of this report for the purposes of establishing rate levels and for internal management reporting.

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

The exhibits and appendices 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 develop estimates of NJSIG's 2016-2017 rate indications on several bases representing various intended measures. These include an actuarial central estimate, as well as estimates above and below this actuarial central estimate. We also develop deductible factors on an actuarial central estimate basis. These estimates were arrived at through evaluation of the results of various actuarial methods and models applied to NJSIG's experience. As such, the derivation of these estimates does not reflect extreme events which are believed to have a remote possibility of occurring.

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.

Our analysis was based on data evaluated as of September 30, 2015 (E&O loss data as of June 30, 2015). Additional information was provided through November 10, 2015. No account whatsoever has been taken in the projections of developments or data received subsequent to November 10, 2015.

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

- Workers Compensation
- General Liability
- Auto Liability
- Auto Physical Damage
- Errors and Omissions
- Property

We have included data only for those members who were part of the program from October 1, 2014 through September 30, 2015. We also excluded a portion of claims due to asbestos losses. NJSIG has indicated that the property coverage document has been modified to exclude asbestos abatement losses and as such these losses would no longer represent a future exposure to NJSIG.

Our analysis was performed on data net of subrogation and other such recoveries. We have assumed that all of NJSIG's future subrogation and other recoveries will be valid and collectible. In addition, we have not reduced our projected premiums for anticipated investment income.

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

Material Assumptions

The findings in this report are materially influenced by certain assumptions related to the 2016-2017 expenses and exposure levels selected by NJSIG. NJSIG provided forecasted expenses based on knowledge of its operational costs and exposure levels based on expected changes in its book of business. Evaluating the reasonableness of these assumptions is outside the scope of this assignment, therefore we are not opining on their reasonableness.

Distribution

Our report is delivered under the following terms and conditions:

- This report is provided to NJSIG 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 solely in the context of their performing regular audit 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

In addition, we understand that NJSIG may wish to provide copies of this report to its broker and current or prospective reinsurers or excess insurers and the New Jersey Department of Banking and Insurance (the Recipients). Permission is hereby granted for such distribution on the conditions that:

- Each Recipient agrees not to reference or distribute the report to any other party
- Each Recipient recognizes that the furnishing of this report is not a substitute for its own due diligence and agrees to place no reliance on this report or the data contained herein that would result in the creation of any duty or liability by Towers Watson to such party
- Each Recipient understands that such RECIPIENT IS DEEMED TO HAVE ACCEPTED THESE TERMS AND CONDITIONS by retaining a copy of this report

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 NJSIG 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. Beginning in 2014, the Group changed its name to the New Jersey Schools Insurance Group. NJSIG is governed by a Board of Trustees, comprised of superintendents, school board members and business administrators from member districts.

The NJSIG retains a portion of the following exposures:

- Workers Compensation (WC)
- General Liability (GL)
- Auto Liability (AL)
- Auto Physical Damage (APD)
- Errors and Omissions (7/1/02 through 6/30/08 only) (E&O)
- Property

We note that for E&O, APD and property, coverage is over a member deductible.

All claims are self-administered by NJSIG, except for E&O claims beginning July 1, 2015. Effective with the 2015-2016 policy year, Summit Claim Services, LLC handles all E&O claims.

Changes in Operations and Business Environment

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

During the end of 2010 and the first six months of 2011, the Group made additional changes to the case reserving staff including the reassignment of claims. Indications suggest these changes have 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 a Bornhuetter-Ferguson projection method based on reported losses adjusted for case reserve adequacy. These projections and triangles are displayed in Section WC, Exhibit 5 of the June 30, 2015 analysis. Further, we have placed additional weight on the paid loss development techniques and the frequency/severity method, which are less impacted by these changes.

In addition, the E&O claims handling has been moved to a third party administrator (Summitt Claim Services LLC) effective July 1, 2015. Changes in claims handling could have a significant impact on payment and reporting development patterns. We made no adjustments to our analysis to account for this change, given its recent implementation.

These recent changes in operations introduce additional uncertainty in the loss estimates for the WC and E&O coverages.

Terminology

Accident Year: Includes all claims that occurred during the "accident period", e.g., accident year July 1, 2015 through June 30, 2016 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 NJSIG. 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 NJSIG'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 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, 2015 through June 30, 2016 with a retroactive date of July 1, 2015 would include all claims arising from accident year 2015-2016 that were reported in 2015-2016.

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 NJSIG's experience at September 30, 2015 and subject to the considerations set forth in the *Reliances and Limitations* section, we have developed the following rate level indications.

Indicated Rate Level Changes for 2016-2017

The indicated results of our rate level review are summarized on Summary Exhibit 1 and in the table below based on the indicated costs for the 2016-2017 year divided by the estimated premium for the 2016-2017 year using 2015-2016 rates, experience modification factors and member rating adjustments and 2016-2017 estimated exposures.

2016-2017 INDICATED PREMIUM AND RATE CHANGES

	Central Estimate		Low Reasonable		High Reasonable	
	Premium ($000s)	Rate Change	Premium ($000s)	Rate Change	Premium ($000s)	Rate Change
WC at Statutory	$68,278	+7.8%	$66,347	+4.7%	$71,367	+12.7%
GL at $500,000	8,533	+4.3%	7,900	-3.4%	9,798	+19.8%
AL at $500,000	3,672	-23.3%	3,396	-29.1%	4,059	-15.3%
APD	773	+20.8%	757	+18.2%	811	+26.8%
E&O at $1 Million	16,014	+48.9%	15,279	+42.1%	17,239	+60.3%
Property at $1 Million	6,318	-4.9%	5,845	-12.0%	6,964	+4.9%
Total	$103,587	+9.8%	$99,522	+5.5%	$110,239	+16.8%
Total Excl. E&O	$87,573	+4.8%	$84,243	+0.8%	$92,999	+11.3%

Comparison to Prior Analysis

Details of the effect of rating components underlying the central estimate rate level indications are summarized in the following table.

INDICATED 2016-2017 RATE LEVEL CHANGE BY COMPONENT – CENTRAL ESTIMATE

	WC	GL	AL	APD	E&O	Property
Prior Analysis						
Prior Indication	+0.7%	+9.5%	-35.9%	+22.3%	+63.8%	-2.2%
Annual Loss Trend	+0.4%	+3.6%	+2.0%	+1.3%	+11.3%	0.4%
Impact of 2015-16 Rate Change	+0.5%	-1.9%	+1.9%	-4.4%	-23.5%	0.0%
Preliminary Indication	**+1.7%**	**+11.2%**	**-33.3%**	**+18.4%**	**+39.5%**	**-1.8%**
Updated Analysis						
Experience Change	-1.8%	-8.3%	+3.7%	-4.7%	-2.0%	-1.0%
Change in Trend	-1.2%	-4.2%	+1.0%	+1.7%	+1.6%	0.0%
Change in Expenses	+0.8%	+3.2%	+5.0%	+7.7%	+3.9%	+1.7%
Change in e-mod/individ mod	+8.4%	+3.5%	+4.5%	-2.2%	+3.3%	-3.9%
Current Indication	**+7.8%**	**+4.3%**	**-23.3%**	**+20.8%**	**+48.9%**	**-4.9%**

The most significant observations regarding the analysis are detailed below:

Workers Compensation – The prior rate indication is +0.7%. We would expect the rate indication to increase for inflationary costs on losses by +0.4%. In addition, the average implemented rate increase for the 2015-2016 policy year caused a 0.5% increase in the current indications. The combination of these factors produces a preliminary indication of +1.7%. Our current analysis indicates favorable loss experience and trend. In selecting the 2016-2017 pure premium, we did not give significant weight to the 2013-2014 results which were heavily influenced by winter storms. Our prior analysis assumed that the 2013-2014 results would increase the average 2015-2016 experience and individual modification factors. However, improvements in 2011-2012 and 2012-2013 experience more than offset the 2013-2014 impact. These changes, plus the shift of membership out of the NJSIG subfund which generates higher premium levels, result in a +8.4% impact on the current rate indication. The increase in expenses impacts rates by +0.8%. Combining these effects results in an indicated rate change of +7.8%.

General Liability – The prior rate indication is +9.5%. We would expect the rate indication to increase for inflationary costs by +3.6%. In addition, the average implemented rate increase for the 2015-2016 policy year caused a 1.9% decrease in the current indications. The rate indication decreases due to favorable loss experience and a reduction in trend have a -8.3% and -4.2% impact, respectively. Increases in expenses create an increase in rates (3.2%) and the change in experience and individual modification factors creates a further increase of 3.5%. The overall rate indication as of September 30, 2015 is +4.3%.

Auto Liability – The preliminary rate indication implies a rate decrease of 33.3% based on the prior indication of -35.9%, a rate increase of 1.9% and an expected trend impact of +2.0%. NJSIG loss experience causes the indication to increase (+3.7% impact). An increase in the trend assumption (+1.0%), expenses (+5.0%) and experience and individual modification factors (+4.5%) result in the current indication of -23.3%.

Auto Physical Damage – For the 2015-16 coverage year, NJSIG increased rates on average 4.4%; this combined with a loss trend of +1.3% results in a preliminary indication of +18.4%. The overall indication for the 2016-2017 year is +20.8%, reflecting favorable loss experience (-4.7%) and individual premium modification (-2.2%) which was more than offset by an increase in trend (+1.7%) and expenses (+7.7%).

Errors & Omissions – The preliminary indication (+39.5%) is the result of our prior indication (+63.8%) plus the rate level impacts due to trend (+11.3%) less the implemented rate change of approximately 23.5%. Our current indication was decreased by 2.0% due to favorable loss experience. Changes in individual rating, loss trend and expenses increased the rate indication by 8.9%. The overall rate indication for the 2016-2017 year is +48.9%.

Property – The preliminary indication is a decrease of 1.8%. Historical experience and individual rating for property improved by approximately 4.8%. There was no change in the trend assumption. The change in expenses increased the indication by +1.7%. The combined effect is a rate indication of -4.9%.

Key assumptions regarding premium and cost levels are as follows:

Expenses (other than workers compensation specific items) – Expenses increased approximately 16% or $1.8 million from our prior analysis. Expenses are distributed proportionally by coverage based on a combination of gross and net premium volume and management's assessment of the operational costs associated with each coverage. We have offset operating expenses by the premium retained by NJSIG for the "pass-through" coverages (e.g., builders risk, boiler and machinery, excess liability, etc.). In addition, expenses were reduced by premium collected for E&O coverage that was not ceded to reinsurers, totaling $0.2 million.

Subfund Administration Fee – The subfund administration fees were provided by NJSIG and are determined by the subfund agreements/contracts. The fees are allocated to the workers compensation coverage only.

Experience Modification Factors – The average experience modification factors for workers compensation for all members and for the subfunds were calculated based on the 2015-2016 experience modification factors and member premiums supplied by NJSIG. We understand that NJSIG derived the experience modification factors using the New Jersey Compensation Rating and Inspection Bureau (NJCRIB) approved plan effective January 1, 2014.

The average experience modification factors for general liability and auto liability were selected judgmentally based on the 2015-2016 charged experience modification factors and a balanced plan (i.e., an overall modification factor of 1.00).

Individual Rating Adjustment – NJSIG adjusts individual risk premiums by coverage based on underwriting judgment regarding member risk characteristics. The total adjustment across all coverages is approximately $0.1 million or less than 0.01% of the estimated 2016-2017 premium. By coverage, WC has a net debit while all other lines have net credits.

Exposures – Estimated 2016-2017 exposures are assumed to increase 3.0% over the 10/1/2014 to 9/30/2015 levels for WC while we assume no exposure growth for all other coverages.

Trends – Annual loss trends by coverage are detailed in the *Analysis* section.