

May 17, 2012

William M. Blume Jr., CPA  
Director  
South Carolina Retirement Systems  
PO Box 11960  
Columbia, SC 29211-1960

**Re: Actuarial Impact of an Ad Hoc COLA Effective July 1, 2012**

Dear Bill:

As requested, below is the financial impact to the South Carolina Retirement System (SCRS) and Police Officers Retirement System (PORS) if the Board enacted an ad hoc COLA. The current State Code of Law provides retirees in SCRS an automatic increase in their pension allowance equal to the annual increase in CPI-W up to 1.00% and the Budget and Control Board (Board) the authority to grant an additional increase, up to the lesser of the total percentage increase in CPI-W or 4%, if certain defined financial criteria are satisfied.

The increase in CPI-W during 2011 was 3.2%. Therefore, the Board may grant a 2.2% increase for retirees in SCRS and a 3.2% benefit increase for the retirees in PORS. This letter provides the cost of enacting an ad hoc benefit adjustment.

#### **Discussion of State Statutes and Budget and Control Board's Funding Policy**

Section 9-1-1810 of the South Carolina Code permits the Board to grant an ad hoc COLA up to the increase in CPI to the extent that the additional liabilities would not extend the amortization period of the unfunded actuarial accrued liability beyond 30 years.

The funding policy established by the Board also has prescribed criteria for identifying whether a cost of living adjustment may be provided. This policy states that in order for the Board to grant a COLA in a given year the amortization period in the most recent actuarial valuation, with the liability for the COLA under consideration included in the UAAL and with the elimination of the effect of any changes in benefits, actuarial methods, and actuarial assumptions, must be at or below the amortization period for the preceding year.

Since the Board has the authority to increase the employer contribution rates. The Board has the authority to enact an ad hoc COLA and, if necessary, increase the contribution rate to an amount sufficient to satisfy a 30-year funding period.

#### **Summary of Cost Impact**

Below is a summary of the cost impact for SCRS and PORS. Also attached are exhibits providing additional cost information. The increase in the contribution rates discussed below is the minimum contribution rates that the Board can enact to satisfy the State Code of Law and the Funding Policy. These contribution rates would become effective July 1, 2013. We have also included a discussion of the contribution requirements based on an alternative approach to fund the COLAs.

### Cost Impact to SCRS

Enacting a 2.20% ad hoc COLA would result in a \$490 million increase the unfunded actuarial accrued liability as of July 1, 2012 (\$14,901 million total unfunded liability). The 2011 actuarial valuation results will require an increase in the contribution rate from 10.60% to 12.23% of pay before recognizing any ad hoc COLA. Enacting the ad hoc COLA would result in an additional 0.29% increase in the rate to maintain a 30-year funding period. Meaning, the contribution rate that would become effective July 1, 2013 would need to increase to at least 12.52%.

As of July 1, 2011, there is \$3,210 million in deferred investment losses that have not been recognized in the calculation of the contribution rates. As a result, it is projected that the 30-year contribution rate will increase above 14.6% by fiscal year 2018, when those investment losses become fully recognized in the calculations. The increased liability due to the ad hoc COLA would increase the projected contribution requirement for fiscal year 2018 to 15.0% of pay.

### Cost Impact to PORS

Enacting a 3.20% ad hoc COLA would result in a \$79 million increase the unfunded actuarial accrued liability as of July 1, 2012 (\$1,176 million total unfunded liability). Due to the change in assumptions, including the repeal of the 2.00% automatic COLA, the current contribution rate of 12.30% will continue to be sufficient to satisfy the Board's funding policy. As of July 1, 2011, the funding period is 22 years. Enacting an ad hoc COLA would increase the funding period to 25 years. Alternatively, the contribution rate would need to increase to 12.76% to maintain the current 22-year funding period.

Similar to SCRS, there is \$411 million in deferred investment losses that have not been recognized in the calculation of the contribution rates as of the last actuarial valuation. As a result, it is projected that the 30-year contribution rate will increase from 13.3% to 13.8% of pay for fiscal year 2018 if the ad hoc COLA was provided.

### **Recommended Funding Policy to Finance Future Ad Hoc COLAs**

The historical practice of financing ad hoc COLAs with an open funding period is not a strong funding policy and partly contributed to the continual increase in the unfunded liability for SCRS and PORS. The open funding period requires increased contributions well beyond the time-period the enhancement is provided, which effectively transfers the cost to future generations.

Therefore, we recommend the Board consider adopting a stronger funding policy to finance any COLAs. If COLAs are going to be provided on a bona fide ad hoc basis, we recommend financing the benefit improvement by creating a separate amortization base that will be funded as a level dollar amount over a closed 15-year period. Since the average life expectancy of the retirees who would receive the enhancement is approximately 15 years, a 15-year funding period would coincide with the time-period the enhancement is effectively provided. Therefore, the funding for the increase will not extend beyond the period the COLA is provided. This method also results in stakeholders being able to readily identify the unfunded liability that has been created at the time of the enactment and remains to be funded in the future. If this funding approach is adopted the contribution rate effective July 1, 2013 would increase to 12.80% for SCRS and to 13.04% for PORS.

A practice of regularly providing ad hoc COLAs also creates challenges in developing a contribution strategy that will improve the financial condition of the retirement system. Without, pre-recognizing these benefit improvements in the liability and cost, the actual benefits projected to be paid from the trust are severely understated. In this situation, we strongly recommend the COLAs be recognized in the actuarial assumptions to reflect the practice of granting them. This, in fact, will be required for determining the accounting cost and net pension liability under the proposed GASB rules. We would consider a pattern of ad hoc COLAs to exist if there is a pattern of granting an ad hoc COLA in two of the next three years or three of the next five years, at which time we would recommend that future COLAs are prefunded by reflecting them in the actuarial assumptions.

### **Basis of Calculations**

GRS based the calculations and analysis in this letter on the member and financial data provided by SCRS used to perform the actuarial valuation as of July 1, 2011. The valuation results as of July 1, 2011 for the current plan in this analysis are preliminary and have not yet been accepted by the Budget Control Board. The actuarial assumptions and methods are based on those recommended in our Experience Study Report dated September 2011 and adopted by the Budget Control Board in November 2011.

For purposes of this analysis, the COLA impact is based on the statutes in effect as of July 1, 2011 and does not take into consideration any legislation changes that are being considered by the General Assembly.

### **General Comments**

Our calculations are based upon assumptions regarding future events, which may or may not materialize. Depending on actual plan experience, actual results could deviate significantly from our projections.

In the event that other changes are considered in addition to the COLA, it is very important to remember that the results of separate actuarial valuations cannot generally be added together to produce a correct estimate of the combined effect of all of the changes.

We are not attorneys, and we cannot provide a legal opinion regarding the changes in this proposed legislation. Nothing in this letter should be construed as providing legal, investment or tax advice. No statement in this letter is intended to be interpreted as a recommendation in favor of or in opposition to the changes studied herein.

William M. Blume Jr., CPA

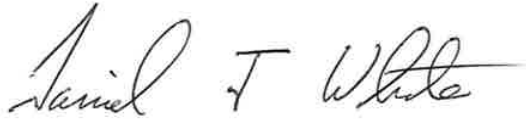
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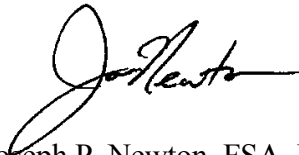
We certify that the undersigned are members of the American Academy of Actuaries and that we meet all of the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. In addition, both of the undersigned are experienced in performing valuations for large public retirement systems. If you have any questions, or require any additional or clarifying information, please do not hesitate to contact either of us.

Sincerely,

**Gabriel Roeder Smith & Company**



Daniel J. White, FSA, MAAA, EA  
Senior Consultant



Joseph P. Newton, FSA, MAAA, EA  
Senior Consultant

Enclosure

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**Exhibit 1. - Cost impact of a 2.20% Ad Hoc COLA on July 1, 2012 to the  
Annuitants of the South Carolina Retirement System (SCRS)**

Measure (1)	2010 Valuation (2)	2011 Valuation	
		Current (5)	2.20% Ad Hoc COLA (6)
<b>1. Unfunded Actuarial Accrued Liability</b>	\$ 13,374	\$ 14,411	\$ 14,901
<i>Increase due to ad hoc COLA</i>			\$ 490
<b>2. Amortization Period (Years) Based on the Current Contribution Rate of 10.60%</b>	30.0	50.5	56.8
<i>Increase due to ad hoc COLA</i>			6.3
<b>3. Contribution Rate Required to Maintain a 30-Year Amortization Period</b>	10.60%	12.23%	12.52%
<i>Increase due to ad hoc COLA</i>			0.29%
<b>4. Contribution Rate if the ad hoc COLA is funded over a 15-year Closed Period as Recommended by GRS</b>			12.80%

Notes and Assumptions:

- The July 1, 2010 valuation results were calculated by the Retirement System's prior actuary.
- The results of the July 1, 2010 valuation are based on prior assumptions. The current assumptions were adopted by the Budget and Control Board in November 2011 and used to perform the July 1, 2011 actuarial valuation.
- The 10.60% contribution rate was adopted by the Board in November 2011 and effective beginning July 1, 2012.
- The results of the 2011 actuarial valuation will determine the contribution rate that will become effective beginning July 1, 2013.



**Exhibit 2. - Cost impact of a 3.20% Ad Hoc COLA on July 1, 2012 to the  
Annuitants of the Police Officers Retirement System (PORS)**

Measure (1)	2010 Valuation (2)	2011 Valuation	
		Current (5)	2.20% Ad Hoc COLA (6)
<b>1. Unfunded Actuarial Accrued Liability</b>	\$ 1,238	\$ 1,097	\$ 1,176
<i>Increase due to ad hoc COLA</i>			\$ 79
<b>2. Amortization Period (Years) Based on the Current Contribution Rate of 12.30%</b>	30.0	22.2	25.4
<i>Increase due to ad hoc COLA</i>			3.2
<b>3. Contribution Rate Required to Maintain a 30-Year Amortization Period</b>	12.30%	12.30%	12.30% <sup>1</sup>
<i>Increase due to ad hoc COLA</i>			0.00%
<b>4. Contribution Rate if the ad hoc COLA is funded over a 15-year Closed Period as Recommended by GRS</b>			13.04%

<sup>1</sup> The employer contribution rate to maintain a 22.2 year funding period is 12.76%

Notes and Assumptions:

- The July 1, 2010 valuation results were calculated by the Retirement System's prior actuary.
- The results of the July 1, 2010 valuation are based on prior assumptions. The current assumptions were adopted by the Budget and Control Board in November 2011 and used to perform the July 1, 2011 actuarial valuation.
- The 12.30% contribution rate was adopted by the Board in November 2011 and effective beginning July 1, 2012.
- The results of the 2011 actuarial valuation will determine the contribution rate that will become effective beginning July 1, 2013.

