GRS Gabriel Roeder Smith & Company
Consultants & Actuaries
One Towne Square
Suite 800
Southfield, MI 48076-3723
248.799.9000 phone
248.799.9020 fax
www.gabrielroeder.com

February 27, 2013

Mr. George Hopkins
Executive Director
Arkansas Teacher Retirement System
1400 West Third Street
Little Rock, Arkansas 72201

Re: Senate Bill 163 – T-DROP Reduction Factor

Dear Mr. Hopkins:

You have asked us for our analysis of Senate Bill (SB) 163 as it relates to the Arkansas Teacher Retirement System (ATRS).

SB 163 modifies Arkansas Code Section 24-7-1306(b) to change the amount of TDROP deposits.

The TDROP deposit amount is defined in Section 24-7-1306(b)(1). It is currently equal to 100% of the accrued plan benefit reduced by 1.0% for each year of contributory and reciprocal service credit and fractions thereof and 0.6% multiplied by each year of non-contributory service and fractions thereof.

SB 163 will require that the TDROP deposit will be equal to 100% of the accrued benefit reduced by 1.0% for *each* year of credited service including Contributory, Non-Contributory, and Reciprocal service.

SB 163 will have a positive financial impact on ATRS. It is estimated to reduce plan liabilities by about $25 million, as of June 30, 2012. Based upon a 30 year amortization of unfunded liabilities, the annual savings would be approximately 0.07% of payroll. Our formal cost analysis follows. As of June 30, 2012, the amortization period exceeded 100 years. In the absence of other changes in plan benefits or contribution rate levels that will still be the case even if SB 163 becomes law. Please see our comments on the last page of the enclosed analysis.

Please review this information carefully to ensure that we have understood the bill properly. The analysis in this letter and report should not be relied upon if there is doubt about our understanding of the bill. Our analysis relates only to the plan changes described in this correspondence. In the event that other plan changes are being considered, it is very important to remember that the results of separate actuarial analyses cannot generally be added together to produce a total. The total can be considerably greater than the sum of the parts due to the interaction of various plan provisions with each other, and with the assumptions that must be used.

The undersigned are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Circular 230 Notice: Pursuant to regulations issued by the IRS, to the extent this communication (or any attachment) concerns tax matters, it is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding tax-related penalties under the Internal Revenue Code or (ii) marketing or recommending to another party any tax-related matter addressed within. Each taxpayer should seek advice based on the individual's circumstances from an independent tax advisor.

This communication shall not be construed to provide tax advice, legal advice or investment advice.

Please call if you have any questions regarding the calculations enclosed.

Sincerely,

Judith A. Kermans

Judith A. Kermans, EA, MAAA, FCA

Brian B. Murphy

Brian B. Murphy, FSA, EA, MAAA, FCA

JAK/BBM:mrb

Enclosures

cc: Gail Bolden, ATRS
Brian Murphy, GRS
Heidi Barry, GRS

ARKANSAS TEACHER RETIREMENT SYSTEM
SUPPLEMENTAL ACTUARIAL VALUATION AS OF JUNE 30, 2012
SENATE BILL 163

Requested By:	Mr. George Hopkins, Executive Director
Date:	February 27, 2013
Submitted By:	Brian B. Murphy, FSA, EA, MAAA, FCA and Judith A. Kermans, EA, MAAA, FCA Actuaries Gabriel, Roeder, Smith & Company

This report contains actuarial valuations of proposed changes in benefits for members of the Arkansas Teacher Retirement System. The actuaries issuing this report are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

The supplemental valuations were based on the census data and actuarial methods and assumptions used in the June 30, 2012 actuarial valuation. The results of the supplemental valuations indicate what the June 30, 2012 valuation would have shown if the proposed benefit changes had been in effect on that date. Supplemental valuations do not predict the result of future actuarial valuations. (Future activities can affect future valuation results in an unpredictable manner.) Rather, supplemental valuations give an indication of the probable effect of **only the benefit changes** on future valuations without comment on the complete end result of the future valuations.

These calculations are based upon assumptions regarding future events, which may or may not materialize. They are also based upon present and proposed plan provisions that are outlined in the valuation report. If you have reason to believe that the assumptions that were used are unreasonable, that the plan provisions are incorrectly described, that important and relevant plan provisions are not described, or that conditions have changed since the calculations were made, you should contact the authors of this report prior to relying on information in the report.

If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the authors of the report prior to making such decision. Also, in the event that more than one plan change is being considered, it is very important to remember that the results of separate actuarial valuations cannot generally be added together to produce a total. The total can be considerably greater than the sum of the parts due to the interaction of various plan provisions with each other, and with the assumptions that must be used.

This report is intended to describe the financial effect of the proposed plan changes. No statement in this report is intended to be interpreted as a recommendation in favor of the changes, or in opposition to them.

This report is intended to describe the financial effect of the proposed plan changes on the Retirement System. Except as otherwise noted, potential effects on others benefit plans were not considered.

A review of the proposed provisions for compliance with Federal, State or local laws or regulations, specifically IRC §415 and rules related to the diminishment of benefits, was outside the scope of this assignment.

Actuarial assumptions and methods were consistent with those used in the regular actuarial valuation of the Retirement System on the valuation date, unless otherwise noted. Actuarial assumptions are adopted by the Retirement Board of Trustees. The assumptions used for this valuation include:

- An assumed rate of investment return of 8.0%.
- An entry-age normal cost valuation method.
- For purposes of amortizing unfunded accrued liabilities, payroll was assumed to increase 3.25% per year.

The amortization period as of the June 30, 2012 valuation is over 100 years, based upon a 14% employer contribution rate.

A brief summary of the data, as of June 30, 2012, used in this valuation is presented below.

	Active Members				Retired Members	
			Average in Years			Annual
Group	**Number**	**Covered Payroll**	**Age**	**Service**	**Number**	**Benefits**
Education	34,591	$ 1,672,475,831	43.2	12.3		
Support	36,604	773,904,943	46.7	8.0		
Total	71,195	$ 2,446,380,774	45.0	10.1	34,160	$709,171,554

	T-DROP Members			Deferred Vested Members	
Group	**Number**	**Account Balance**	**Covered Payroll**	**Number**	**Estimated Annual Benefits**
Total	4,432	$510,753,765	$267,948,212	12,654	$59,203,653

Of the 75,627 active and TDROP members shown above, 52,295 were contributory and 23,332 were non-contributory.

ARKANSAS TEACHER RETIREMENT SYSTEM
SUPPLEMENTAL ACTUARIAL VALUATION AS OF JUNE 30, 2012
SENATE BILL 163

CURRENT:

Teacher Deferred Retirement Option Plan (T-DROP) Reduction

A member with 28 or more years of service may participate in the T-DROP. An amount equal to the amount that would have been paid had the member retired, reduced by 1% for each year of contributory, 1% for each year of reciprocal and **6/10 of 1%** for each year of non-contributory service, is deposited into a T-DROP account. Members who enter T-DROP with less than 30 years of service are subject to an additional 6% reduction for each year less than 30 years.

PROPOSED:

Teacher Deferred Retirement Option Plan (T-DROP) Reduction

A member with 28 or more years of service may participate in the T-DROP. An amount equal to the amount that would have been paid had the member retired, reduced by 1% for each year of contributory, 1% for each year of reciprocal and **1%** for each year of non-contributory service, is deposited into a T-DROP account. Members who enter T-DROP with less than 30 years of service are subject to an additional 6% reduction for each year less than 30 years.

Actuarial Statement

The financial effect of the proposal is shown below:

		$ Millions		
	Valuation Date June 30, 2012	**Valuation Results**	**Proposal Results**	**Effect**
1)	Accrued Liabilities	$16,139.4	$16,114.4	
2)	Funding Value of Assets	11,483.9	11,483.9	
3)	UAAL $: (1) - (2)	$ 4,655.5	$ 4,630.5	$ (25.0)
4)	- % Funded: (2) / (1)	71%	71%	
5)	Member Contribution Rate	4.80%	4.80%	
6)	Employer Contribution Rate	14.00%	14.00%	
7)	Normal Cost	6.93%	6.91%	
8)	UAAL %: (6) - (7)	7.07%	7.09%	
9)	Amortization Years	**Over 100**	**Over 100**	

The stand-alone effect of this proposal based upon a 30-year amortization of the change in the UAAL is (0.07%) of payroll.

ARKANSAS TEACHER RETIREMENT SYSTEM
SUPPLEMENTAL ACTUARIAL VALUATION AS OF JUNE 30, 2012
SENATE BILL 163
COMMENTS

1. The actuarial calculations are based on the June 30, 2012 actuarial valuation. Please remember that these changes, if adopted, would likely impact the June 30, 2013 valuation. That valuation will be completed in the fall of 2013 and will be based on member data and financial results as of June 30, 2013, neither of which is available to us at this time.

2. The proposals as we understand them do not provide for grandfathering of the TDROP reduction factor of 0.6% for current active members for their non-contributory service. We advise a review by Counsel for compliance with Federal and State law on this point, if that has not already been done. It is possible that the absence of grandfathering will cause some people to retire sooner than they otherwise would have. We did not consider that possibility in the financial analysis of this proposal.

3. Probabilities of retirement were not adjusted in connection with these proposals. If members retire at different ages or with different benefit amounts than expected, as a result of these changes, then the cost of the changes will be different than shown on the previous pages.

4. We cannot accurately estimate a savings in terms of amortization years, when the amortization period is over 100 years. Measurements in terms of amortization years depend very highly on the starting point. If the amortization period in the valuation had been 30 years, the apparent savings in terms of amortization years could have been calculated. The savings in terms of percentages of pay (shown on the previous pages) would have been the same.