Gabriel Roeder Smith & Company
Consultants & Actuaries

Arkansas Teacher Retirement System

Annual Actuarial Valuation of Active and Inactive Members

June 30, 2013

REPORT OF THE JUNE 30, 2013 ACTUARIAL VALUATION
OUTLINE OF CONTENTS

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December 11, 2013

Board of Trustees
Arkansas Teacher Retirement System
Little Rock, Arkansas

Dear Board Members:

Presented in this report are the results of the ***Annual Actuarial Valuation of non-retired members as of June 30, 2013.*** The June 30th annual valuation of retired lives receiving monthly benefits indicates the liabilities for future benefit payments to existing retirees. These liabilities are covered in a separate report. These are also covered briefly in this report on page B-4.

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the Retirement System only in its entirety and only with the permission of the Board.

The valuation was based upon census data and financial information provided by the System's administrative staff. Preparation of this data requires considerable staff time. The helpful cooperation of the Arkansas Teacher Retirement System staff in furnishing the data is acknowledged with appreciation.

We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the data provided by ATRS. The actuarial assumptions used for valuation purposes are summarized in Section G. These assumptions reflect experience during the period July 1, 2005 to June 30, 2010.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law. This report does not contain an analysis of the potential range of such future measurements.

To the best of our knowledge, this report is complete and accurate and was made in accordance with standards of practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries. The actuarial assumptions used for the valuation produce results which, individually and in the aggregate, are reasonable.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. Brian Murphy and Judy Kermans are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The actuaries submitting this report are independent of the plan sponsor.

Respectfully submitted,

Brian B. Murphy

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

Judith A. Kermans

Judith A. Kermans, EA, MAAA, FCA

BBM/JAK:rmn

SECTION A

EXECUTIVE SUMMARY

General Financial Objective. Section 24-3-103 of the Arkansas Code provides as follows (emphasis added):

> "6.01. (1) The general financial objective of each Arkansas public employee retirement plan shall be to ***establish and receive contributions which, expressed as percents of active member payroll, will remain approximately level from generation to generation of Arkansas citizens***. More specifically, contributions received each year shall be sufficient both to (i) fully cover the costs of benefit commitments being made to members for their service being rendered in such year and (ii) make a level payment which if paid annually over a reasonable period of future years will fully cover the unfunded costs of benefit commitments for service previously rendered....."

Arkansas Teacher Retirement System Status: Based upon the results of June 30, 2013 actuarial valuations, ***ATRS is satisfying the financial objective of level-contribution-percent financing.***

This report contains the results of the June 30, 2013 valuation. The table below shows a summary of the data used in the valuation. This data was the basis for determining valuation results and recommended employer contribution rates.

	Number	Average	Type of Average
Active not in TDROP	70,660	$34,920	Pay
Active in TDROP	4,265	60,927	Pay
Deferred Vested	13,099	4,809	Annual Projected Benefit
Retired	36,254	21,067	Annual Current Benefit
Total Members	**124,278**		

Included in the 2013 valuation were 4,025 reemployed retirees (shown in the Retired category) with total earnings of $91.9 million. ATRS receives 14% employer contributions on these individuals per Arkansas Code Section 24-7-708.

The June 30, 2013 valuation results are used to determine the contribution rate for Fiscal Year 2015.

Employer Contribution Rates for Fiscal Years Ending June 30, 2015 and 2014 (Prior Year)

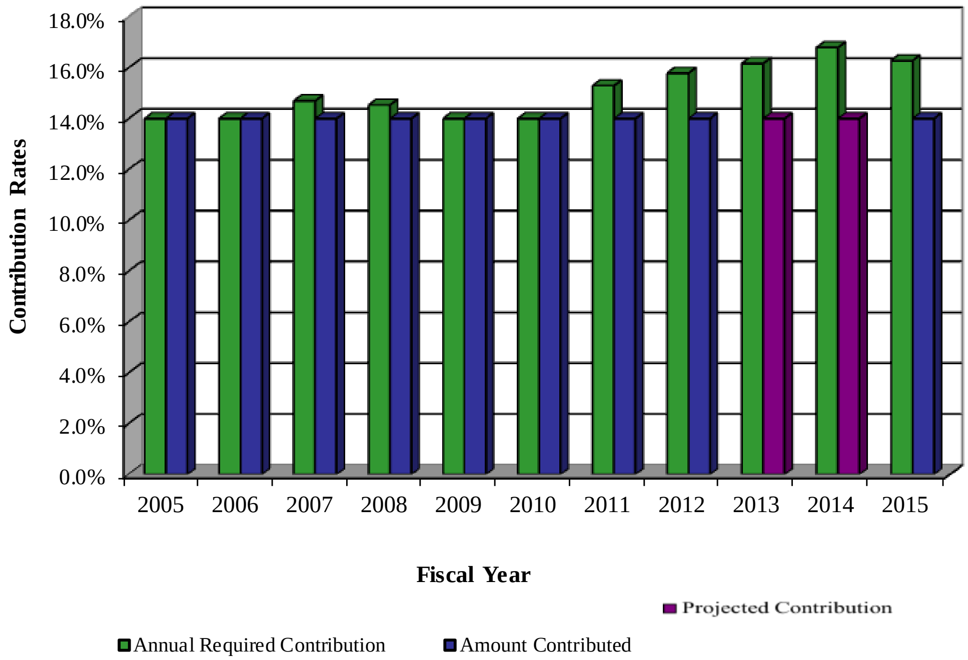
	Percents of Active Member Full Payroll			
Computed Contributions for	**Teachers**	**Support**	**Combined**	**Prior Year**
Normal Cost	12.23%	10.66%	**11.75%**	11.73%
Average Member Contributions	5.24%	4.01%	**4.86%**	4.80%
Net Employer Normal Cost	6.99%	6.65%	**6.89%**	6.93%
Unfunded Actuarial Accrued Liabilities			**7.11%**	7.07%
Employer Contribution Rate			**14.00%**	14.00%
Amortization Years			**69.9**	over 100
Funded Ratio			**73.3%**	71.2%

The amortization period this year is 70 years, a decrease from last year's period of over 100 years. The decrease occurred primarily due to investment gains, with the annual market rate of return being 14.87%[#] compared to an assumed rate of 8.0%. Investment gains and losses that occur each year are smoothed in over a 4-year period. As of the June 30, 2012 valuation, the actuarial value of assets was set equal to the market value, which means that there were no prior investment gains or losses to be phased-in as of the June 30, 2013 valuation. As of June 30, 2013, the market value of assets exceeded the actuarial value of assets by approximately $0.6 billion.

The Arkansas Teacher Retirement System remains stable with a 73.3% funded position as of June 30, 2013. However, without sustained investment gains over the next few years or an increase in contributions, it is likely that the amortization period will remain high (over 50 years) in the next valuation. Based on the June 30, 2013 valuation, an employer contribution rate of 16.3% would be needed to return the amortization period to 30 years as of June 30, 2014.

\# *The actuary calculated this return figure so it may not exactly match the investment consultant's figure.*

The following graph shows a history of the amounts contributed vs. the annual required contributions (ARC) and a projection of the amounts that are expected to be contributed in FY14 and FY15.



Since the amortization period exceeded 30 years in the 2005, 2006, 2009, 2010, 2011, 2012 and 2013 valuations, the amount contributed is less than the ARC in FY 2007, FY 2008, FY 2011, FY 2012 and FY 2013 and will also be less than the ARC in FY 2014 and FY 2015 (unless an increase in the contribution rate occurs). In FY 2009 (June 30, 2007 valuation) and FY 2010 (June 30, 2008 valuation), the amount contributed equaled the ARC.

Recent Changes in ATRS laws and benefit provisions:

1) A member who is eligible for age and service retirement (age 60 and 5 years of service or 28 years of service at any age) is no longer eligible to apply for disability retirement and a disability member may not be employed directly or indirectly by an ATRS covered employer, which includes indirect employment through an independent contractor, limited liability company, partnership, corporation or legal entity (Act 493 of 2013).

2) Act 555 of 2013 limits the use of a reciprocal system's calculation of FAS if the ATRS member's reciprocal service credit is less than the number of years used to calculate the FAS for ATRS. Beginning July 1, 2014, if a member has less than three years of reciprocal service (the number of years used to calculate ATRS' FAS), then ATRS will obtain the salary and service credit from the reciprocal system, and use that salary and service as if it had all been earned in ATRS to calculate a FAS for retirement. Act 720 of 2013 made a minor change to final average salary for members who stop work during their last year of employment immediately before retirement.

4) Act 966 of 2013 allows the ATRS Board to set the contributory multiplier for service credit earned after June 30, 2013, within a range of 1.75% to 2.15%. The noncontributory multiplier for service credit earned after June 30, 2013, may be set within a range of 0.5% and 1.39%. In addition, this act would allow the Board to set special multiplier rates for the first 10 years of ATRS service earned after June 30, 2013, for both contributory and noncontributory service. After members earn more than 10 years of service after June 30, 2013, the Board may increase the multiplier rates to the standard multiplier rates for all years of service. This act is dependent upon the actuary's certification that the amortization period is in excess of 30 years to pay unfunded liabilities prior to any reduction to the multipliers.

5) Act 966 of 2013 eliminated the minimum benefit from all benefit calculations.

6) For active participants who enter the T-DROP Plan July 1, 2013 or later, the reduction for contributory, reciprocal, and noncontributory service credit is 1% for each year and fractional year of service credit (Act 605 of 2013).

7) Act 967 of 2013 gives the ATRS Board authority to reverse the compounding of a benefit and reset the base amount to the pre-compounding amount. If this were to occur, it would include participants in the T-DROP plan. The future benefits of a member would not be reduced to recover any benefits paid to a member as a result of the compounding. In addition, the member's benefit on the date of the reversal would not be impacted, but future COLA's would be based upon the reset base amount. This act is dependent upon the actuary's certification that the amortization period is in excess of 30 years to pay unfunded liabilities prior to any reversal of the compounding of the COLA.

8) Beginning July 1, 2013, survivors have three months to file an application for benefits if the benefits are to begin the month of the member's death. Otherwise, the benefits will begin the month that the survivor application is filed with the system (Act 571 of 2013).

9) Act 602 of 2013 allows the ATRS Board to set the member contribution rate between 6% and 7% of salary. This act is dependent upon the actuary's certification that the amortization period is in excess of 30 years to pay unfunded liabilities prior to any increase in the current contribution rate. The rate for fiscal year 2014 remains at 6%.

10) Act 603 of 2013 allows the ATRS Board to increase or decrease the stipend to a minimum of $1 per month and a maximum of $75 per month. This act is dependent upon the actuary's certification that the amortization period is in excess of 30 years to pay unfunded liabilities prior to any reduction in the current stipend. The stipend for fiscal year 2015 remains at $75 per month.

11) Act 140 of 2013 specifies that all membership rights (including noncontributory service credit) and beneficiary designations to the ATRS are cancelled when a member gets a refund of his or her contributions.

12) Compliance with IRS – A.C.A. § 24-7-305. Effective July 1, 2013, Act 109 of 2013 allowed the Board of Trustees to issue rules necessary to align with the rules of the IRS when the IRS removes a penalty or loosens a restriction on public pension plans to benefit the ATRS members.

13) Technical Changes to Laws – A.C.A. § 24-7-202, 24-7-734. Act 140 of 2013 made a few notable changes to ATRS laws.
    a. The definition of salary was expanded to add the requirement that the employer must be required to withhold federal income tax from the wages under the IRS code. In addition, per Act 521 of 2013, 'Salary' does not include: All or part of a payment made as a result of a contract buyout agreement, settlement, claim, judgment, arbitration aware, decree, or court-ordered payment to a member on which the employer is required to withhold federal income tax from wages unless the amount paid to the member is higher than the wages earned by the member for regular service."
    b. (ACA § 24-7-734(b)). If ATRS is unable to locate a member or beneficiary within five years of when a benefit is due, then the Board shall direct that the amount shall be forfeited to the trust assets of the system.

14) Private School Service for Classified Employees – A.C.A. §24-7-607. Act 223 of 2013 was introduced to cover classified employees for the purchase of private school service. The service would be purchased at actuarial cost, and only five years of service could be purchased.

15) Definition and Application of Manifest Injustice Law – A.C.A. §§ 24-7-202, 24-7-205. Act 303 of 2013 provides a definition of manifest injustice that could apply to a member, benefit participant, or employer. This rule requires a three-person committee composed of the ATRS CFO, Member Services Manager, and General Counsel to review the requests for manifest injustice and to make a recommendation to the Executive Director. The Executive Director may approve recommendations of up to $10,000.

16) Delinquent Member Contributions - Act 336 of 2013 allows members to forfeit service credit for any contributory fiscal year for which there is a balance due to the system.

17) Delinquent Employer Contributions – A.C.A. § 24-7-411. Act 448 of 2013 allows ATRS to collect delinquent employer contributions from the Arkansas Department of Education, via the employers' operating funds.

18) School Resource Officers – A.C.A. § 24-7-501. Act 449 of 2013 allows employers to engage the services of a retiree from a reciprocal system to ATRS, who is an Arkansas-certified, law enforcement individual, to work in the school systems and become a member of ATRS.

19) Purchase of Air Time as a Result of Wrongful Termination – A.C.A. §§ 24-7-702, 24-7-735, 6-17-413. Act 521 of 2013 allows a member to purchase service credit under a settlement agreement or court order to resolve a claim of wrong termination if the service credit is purchased from the date of termination by an ATRS employer to the date of the resolution of the dispute. This service credit would be purchased at actuarial cost.

20) Buyout of Inactive Members—A.C.A. § 24-7-505. Act 606 of 2013 allows the ATRS Board to create a voluntary "buyout plan" for inactive vested members. The System will make a one-time lump sum payment to a member, a surviving spouse, or an alternate payee in

exchange for a member, surviving spouse, or alternate payee's cancellation of membership and retirement benefit rights. The buyout plan will be established by Board rules. The rule is 16-1 Cash and Savings Help Program for Members (CASH). This particular plan offering will end June 30, 2014. Depending upon the success of the plan, it may be extended by the Board.

21) Post-Secondary Higher Education Employees (mostly Colleges)—A.C.A. § 24-7-1601-1607. This section of the code was added through legislation in 2011. At that time employees of post-secondary higher education (PSHE) agencies had to make a choice to offer ATRS as a retirement plan to new employees they considered benefits eligible. The requirement for the new employees to be offered ATRS was that the employee had to be vested in ATRS. The 2011 law allowed ATRS members at that time to be grandfathered with ATRS, even though the employer could choose not to enroll new members to ATRS. This provision was made to comply with policies developed by several of the larger colleges in Arkansas. Act 607 of 2013 was written to allow the PSHE employers to design their own plans, but lifted the vesting requirement if that is what the colleges wanted. [There will no longer be any stacking of part-time college/teaching work for school district employees (Act 513 of 2011)].

22) Employer Contributions – A.C.A. § 24-7-401. Act 162 of 2013 allows the ATRS Board to modify the employer contribution rate between 14% and 15% only if the annual report from the actuary establishes that the System has a greater than 30 amortization period to pay unfunded liabilities without an employer contribution rate of more than 14%. If the actuary's report shows that the amortization period is 30 years or less with a 14% employer contribution rate, then the employer rate shall not exceed 14%. Act 1446 of 2013 clearly stated the dates for implementation and contribution increment amounts of any increase to employer contributions: until July 1, 2015, the employer rate shall not exceed 14%; beginning July 1, 2015, and afterwards, the employer rate cannot exceed 15%. This act also includes the language that an actuary report must show that the amortization period is greater than 30 years to pay unfunded liabilities in order to increase the rate above 14%, beginning July 1, 2015, and then it can only be increased in increments of 0.25% per year. If the actuary's report shows that the amortization period is 30 years or less with a 14% employer rate, then the rate shall not exceed 14%. The employer rate may only be increased if the System implements cost savings from member benefit programs or increased member contributions, or both, measured after July 1, 2013, which equal or exceed the value of the employer contribution increase before or at the same time as an employer rate increase. The cost savings from member benefit programs or increase member rate, or both, shall take place or be approved before or at the same time as an employer rate increase. The System shall rely upon actuarial reports to determine the relative impact of changes to member benefit programs or increased member contributions, or both, including whether the cost savings from member benefit programs or increased member contributions, or both, is equal to or exceeds the value of the proposed employer contribution increase. The value of cost savings from a member benefit program or member contribution increases shall be set at the time of the initial actuarial report that establishes the estimated value and shall remain as initially set unless the member benefit program or member contribution rate has changes after the actuarial report sets the value. If the actuary's report shows that the amortization period is 30 years or less with an employer contribution rate below the existing employer contribution rate, then the employer rate shall be set at the higher of 14% or the rate required to amortize the System's unfunded liabilities over 30 years.

SECTION B

VALUATION RESULTS

EMPLOYER CONTRIBUTION RATE COMPUTED AS OF JUNE 30, 2013 FOR THE FISCAL YEAR ENDING JUNE 30, 2015

	Percents of Active Member Payroll			
Computed Contributions for	**Teachers**	**Support**	**Combined**	**Prior Year**
Normal Cost				
Age & Service Annuities	9.58%	7.17%	**8.84%**	8.83%
Deferred Annuities	1.61%	2.12%	**1.77%**	1.77%
Survivor Benefits	0.19%	0.16%	**0.18%**	0.18%
Disability Benefits	0.47%	0.42%	**0.45%**	0.45%
Refunds of Member Contributions	0.38%	0.79%	**0.51%**	0.50%
Total	12.23%	10.66%	**11.75%**	11.73%
Average Member Contributions	5.24%	4.01%	**4.86%**	4.80%
Net Employer Normal Cost	6.99%	6.65%	**6.89%**	6.93%
Unfunded Actuarial Accrued Liabilities			**7.11%**	7.07%
Employer Contribution Rate			**14.00%**	14.00%
Amortization Years			**69.9**	over 100

The amortization period is the number of years it will take to pay off the unfunded liability of $4.5 billion assuming that the employer contribution rate remains at the 14% of payroll level. Since 2000, the period has varied from a low of 19 years to a high of over 100 years. Unless there is a substantial investment gain in FY 2014, it is very likely that the amortization period will remain high (over 50 years) in the next valuation.

COMPUTED EMPLOYER CONTRIBUTION RATES
10-YEAR COMPARATIVE STATEMENT

Valuation Date June 30	Active Members in Valuation **		Average Annual Pay		Consumer Price (Inflation) Index		Employer Contributions	
	Number	Annual Payroll ($Millions)	Amount	% Change	Value	% Change	Computed Financing Period	Total Employer Rate
2004#	63,185	1,748	27,660	2.6 %	189.7	3.3 %	31	14.0 %
2005	65,793	1,962	29,826	7.8 %	194.5	2.5 %	38	14.0 %
2006	67,710	2,080	30,714	3.0 %	202.9	4.3 %	36	14.0 %
2007#	69,226	2,191	31,645	3.0 %	208.4	2.7 %	19	14.0 %
2008#	70,172	2,268	32,319	2.1 %	218.8	5.0 %	21	14.0 %
2009	70,655	2,318	32,804	1.5 %	215.7	(1.4)%	45	14.0 %
2010#	72,208	2,381	32,980	0.5 %	218.0	1.1 %	52	14.0 %
2011#*	76,780	2,728	35,534	7.7 %	225.7	3.6 %	66	14.0 %
2012	75,627	2,714	35,891	1.0 %	229.5	1.7 %	over 100	14.0 %
2013#	74,925	2,727	36,400	1.4 %	233.5	1.8 %	70	14.0 %

* *Revised assumptions.*

\# *Legislated benefit or contribution rate changes.*

** *Beginning with the June 30, 2011 valuation, active members include TDROP members and payroll.*

COMPUTED ACTUARIAL LIABILITIES AS OF JUNE 30, 2013

Actuarial Present Value of	(1) Total Present Value	Entry Age Actuarial Cost Method (2) Portion Covered by Future Normal Cost Contributions	(3) Actuarial Accrued Liabilities (1)-(2)
Age and service retirement allowances based on total service likely to be rendered by present active members.	$ 7,256,224,886	$1,933,956,934	$ 5,322,267,952
Age and service retirement allowances based on total service likely to be rendered by present T-DROP members.	2,428,180,294	39,027,113	2,389,153,181
Vested Deferred Benefits likely to be paid present active and inactive members.	1,141,539,006	387,682,413	753,856,593
Survivor benefits expected to be paid on behalf of present active members.	113,374,012	39,918,106	73,455,906
Disability Benefits expected to be paid on behalf of present active members.	189,943,607	98,428,573	91,515,034
Refunds of Member contributions expected to be paid on behalf of present active members.	14,000,913	106,713,990	(92,713,077)
Benefits payable to present retirees and beneficiaries.	8,092,949,624	0	8,092,949,624
Lump Sum Death benefits payable to present retirees and beneficiaries.	87,569,792	0	87,569,792
Total	$19,323,782,134	$2,605,727,129	$16,718,055,005
Applicable Assets	12,246,805,197	0	12,246,805,197
Liabilities to be Covered by Future Contributions	$ 7,076,976,937	$2,605,727,129	$ 4,471,249,808

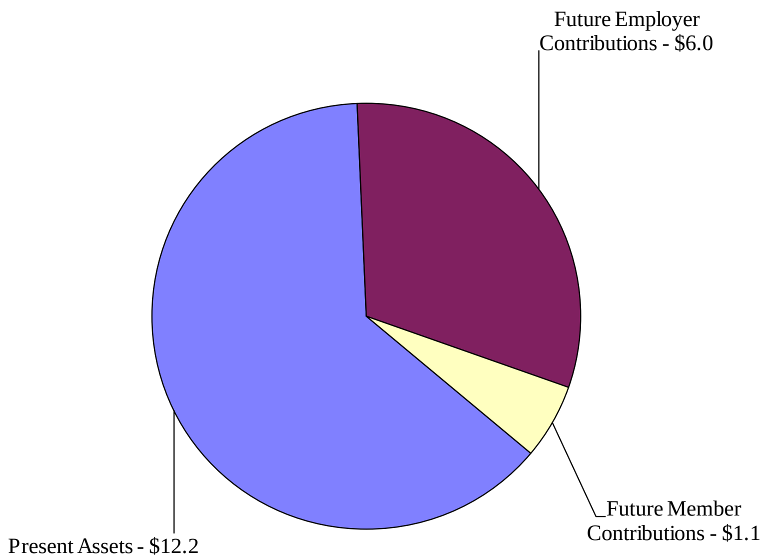
LIABILITIES FOR ANNUITIES BEING PAID JULY 1, 2013
TABULATED BY TYPE OF ANNUITY BEING PAID

Type of Annuity	Liabilities July 1, 2013*		
	Men	Women	Totals
RETIREMENT RESERVE ACCOUNT			
Age & Service Annuities			
Option 1 (Straight Life)	$ 1,087,926,206	$ 4,352,246,713	$ 5,440,172,919
Option A (100% Joint & Survivor)	589,287,713	508,428,790	1,097,716,503
Option B (50% Joint & Survivor)	310,700,370	408,382,646	719,083,016
Option C (10 Years Certain & Life)	40,543,004	134,821,353	175,364,357
Beneficiaries	31,664,037	107,224,301	138,888,338
Total Age & Service	2,060,121,330	5,511,103,803	7,571,225,133
Disability Annuities			
Option 1	40,057,848	229,971,906	270,029,754
Option A	23,953,381	32,647,145	56,600,526
Option B	5,123,435	10,183,653	15,307,088
Option C	1,076,286	6,497,314	7,573,600
Beneficiaries	20,546,153	22,925,328	43,471,481
Total Disability	90,757,103	302,225,346	392,982,449
Act 793	12,611,934	6,898,917	19,510,851
Total Retirement Reserve Account	2,163,490,367	5,820,228,066	7,983,718,433
SURVIVORS' BENEFIT ACCOUNT			
Beneficiaries of Deceased Members	$ 37,305,524	$ 50,834,278	$ 88,139,802
OTHER LIABILITIES			
Act 808	$ 14,580,788	$ 6,510,601	$ 21,091,389
RETIREMENT SYSTEM TOTALS			
Total Annuity Liabilities	2,215,376,679	5,877,572,945	$ 8,092,949,624

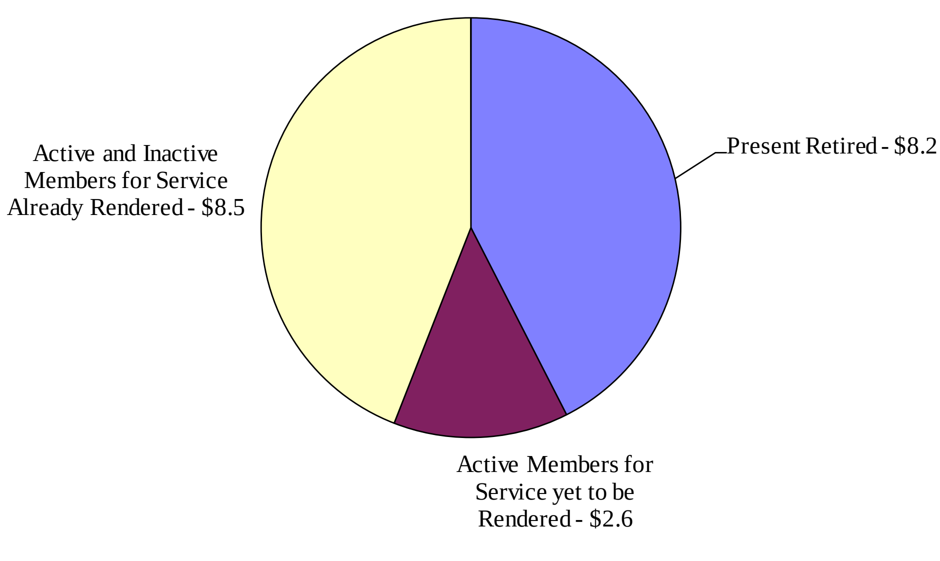
* *Does not include liabilities associated with lump sum death benefit.*

FINANCING $19.3 BILLION* OF BENEFIT PROMISES FOR PRESENT ACTIVE AND RETIRED MEMBERS JUNE 30, 2013

Sources of Funds



Uses of Funds



*   *Present value of future benefits. All amounts are in billions.*

SHORT CONDITION TEST

ATRS' funding objective is to meet long term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the System are level in concept and soundly executed, the System will ***pay all promised benefits when due -- the ultimate test of financial soundness***. Testing for level contribution rates is the long term test.

A short condition test is one means of checking a system's progress under its funding program. In a short condition test, the plan's present assets (cash and investments) are compared with: 1) Member contributions on deposit; 2) The liabilities for future benefits to present retired lives; 3) The liabilities for service already rendered by members. In a system that has been following the discipline of level percent-of-payroll financing, the liabilities for member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by members (liability 3) will be partially covered by the remainder of present assets. The larger the funded portion of liability 3, the stronger the condition of the system. Liability 3 being fully funded is unusual.

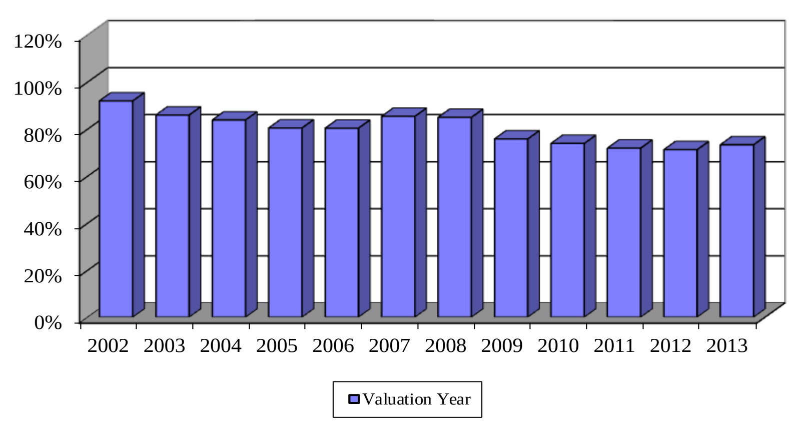
The schedule below illustrates the history of Liability 3 of the System and is indicative of the ATRS objective of following the discipline of level percent-of-payroll financing.

Val. Date June 30	(1) Member Contrb.	(2) Retirees and Benef.	(3) Active and Inactive Members (Employer Financed Portion)	Present Valuation Assets	Portion of Present Values Covered by Present Assets			
					(1)	(2)	(3)	Total
	-----------------------$ Millions-----------------------							
2004#	547	3,985	5,518	8,424	100%	100%	71%	84%
2005	586	4,276	6,111	8,817	100%	100%	65%	80%
2006	630	4,617	6,376	9,332	100%	100%	64%	80%
2007#	679	4,960	6,690	10,519	100%	100%	73%	85%
2008#	732	5,544	7,058	11,319	100%	100%	71%	85%
2009	790	6,041	7,188	10,617	100%	100%	53%	76%
2010#	848	6,516	7,333	10,845	100%	100%	47%	74%
2011#*	929	7,132	7,460	11,146	100%	100%	41%	72%
2012	981	7,649	7,509	11,484	100%	100%	38%	71%
2013#	1,027	8,181	7,510	12,247	100%	100%	40%	73%

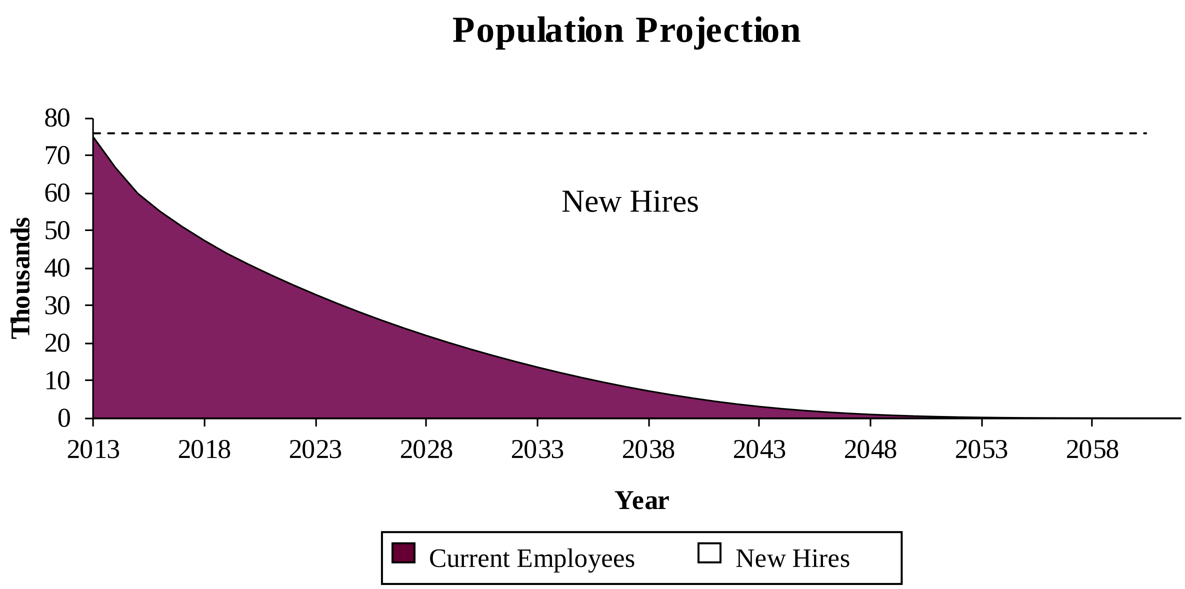
* *Revised actuarial assumptions or methods.*

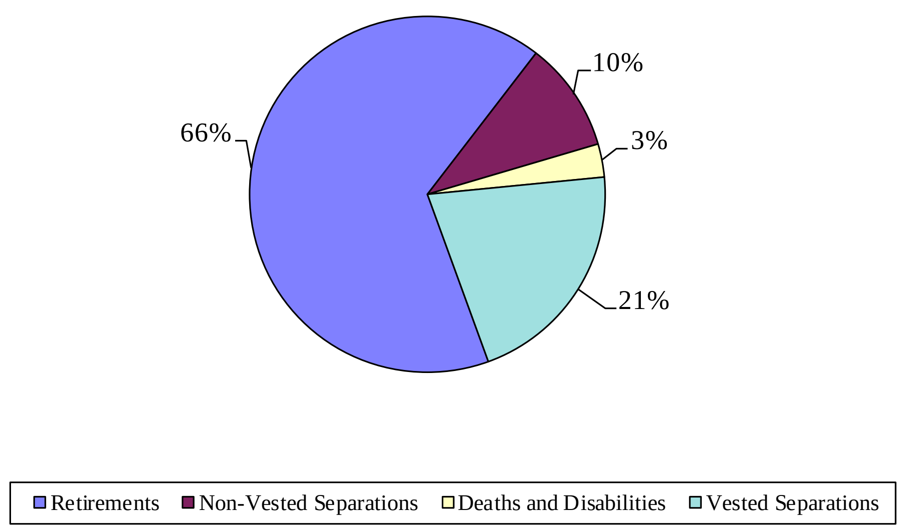
\# *Legislated benefit or contribution rate change.*

Actuarial Value of Assets as a Percent of Accrued Liabilities (Funded Ratio)



EXPECTED DEVELOPMENT OF PRESENT POPULATION
JUNE 30, 2013 (EXCLUDES REHIRED RETIREES)





The charts show the expected future development of the present population in simplified terms. The retirement system presently covers 74,925 active members (includes T-DROP). Eventually, 10% of the population is expected to terminate covered employment prior to retirement and forfeit eligibility for an employer provided benefit. Approximately 87% of the present population is expected to receive monthly retirement benefits. Approximately 3% of the present population is expected to become eligible for death-in-service or disability benefits. Within 9 years, over half of the covered membership is expected to consist of new hires.

SECTION C

SUMMARY OF BENEFITS

SUMMARY OF PROVISIONS
JUNE 30, 2013

1. **Voluntary Retirement – A.C.A. § 24-7-701.** A member may retire at age 60 with 5 or more years of credited service, or after 28 years of credited service regardless of age.

2. **Early Retirement – A.C.A. § 24-7-702.** A member who has more than 25 but less than 28 years of credited service and has not attained age 60 years may retire and receive an immediate early retirement annuity. The early annuity is an age & service annuity reduced by the lesser of (i) and (ii) below:

   (i) 5/12 of 1% multiplied by the number of months by which early retirement precedes completion of 28 years of service, or

   (ii) 5/12 of 1% multiplied by the number of months by which early retirement precedes the attainment of age 60 years.

3. **Deferred Retirement – A.C.A. § 24-7-707.** An inactive member who has 5 or more years of credited service will be entitled to an age & service annuity beginning at age 60, provided accumulated contributions are left on deposit with the retirement system.

4. **Disability Retirement – A.C.A. § 24-7-704.** An active member, with 5 or more years of credited service, who becomes totally and permanently disabled may be retired and receive a disability annuity computed in the same manner as an age & service annuity. In order to qualify for disability retirement, the member must exhibit symptoms of physical or mental incapacitation while the member is employed by a system employer as an active member (Act 973 of 2011). A member who is eligible for age and service retirement (age 60 and 5 years of service or 28 years of service at any age) is no longer eligible to apply for disability retirement and a disability member may not be employed directly or indirectly by an ATRS covered employer, which includes indirect employment through an independent contractor, limited liability company, partnership, corporation or legal entity (Act 493 of 2013).

5. **Final Average Salary (FAS) – A.C.A. 24-7-736.** A member's final average salary is the average of the annual salaries paid during the period of 3 years of credited service producing the highest annual average. Beginning July 1, 2009, no salary paid in any year which is utilized in the computation of the members' final average salary, shall exceed 120% of the salary earned in the preceding year. If a member has a break in covered employment for eight years or more between

any of the member's highest salary years used in the calculation of final average salary, then anti-spiking checking does not apply to the next highest year in the formula (Act 225 of 2011 – effective date of law July 27, 2011). There will no longer be any stacking of part-time college/teaching work for school district employees (Act 513 of 2011). Act 555 of 2013 limits the use of a reciprocal system's calculation of FAS if the ATRS member's reciprocal service credit is less than the number of years used to calculate the FAS for ATRS. Beginning July 1, 2014, if a member has less than three years of reciprocal service (the number of years used to calculate ATRS' FAS), then ATRS will obtain the salary and service credit from the reciprocal system, and use that salary and service as if it had all been earned in ATRS to calculate a FAS for retirement. Act 720 of 2013 made a minor change to final average salary for members who stop work during their last year of employment immediately before retirement.

6. **Age & Service Annuity and Disability Annuity – A.C.A. §§ 24-7-705, 24-7-727 (stipend).** The annuity payable will not be less than the total of: years of contributory service times 2.15% of FAS; plus years of non-contributory service times 1.39% of FAS; plus $900 for all members with 10 or more years of ATRS credited service. For a member who elected to contribute on only the first $7,800 of each annual salary after June 30, 1969, each annual salary used in computing FAS is limited to a maximum of $7,800. Act 966 of 2013 allows the ATRS Board to set the contributory multiplier for service credit earned after June 30, 2013, within a range of 1.75% to 2.15%. The noncontributory multiplier for service credit earned after June 30, 2013, may be set within a range of 0.5% and 1.39%. In addition, this act would allow the Board to set special multiplier rates for the first 10 years of ATRS service earned after June 30, 2013, for both contributory and noncontributory service. After members earn more than 10 years of service after June 30, 2013, the Board may increase the multiplier rates to the standard multiplier rates for all years of service. This act is dependent upon the actuary's certification that the amortization period is in excess of 30 years to pay unfunded liabilities prior to any reduction to the multipliers.

7. **T-DROP – ACA § 24-7-1301-1316.** A member with 28 or more years of service may participate in the Teacher Deferred Retirement Option Plan (T-DROP, Act 1096 of 1995). 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 (Act 162 of 2011) and 6/10% 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. The annual addition to the T-DROP account is increased each year by 3% of the member's annuity at the initial participation date and the account is credited with 2% less than the system's rate of return (but not less than 2%, nor greater than 6% interest on the mean balance) each year. Deposits to T-DROP cease at the earlier of 10 years of T-DROP participation or separation from service. T-DROP participants may continue in covered employment after 10 years of participation, but do not accumulate additional service credit or make member contributions. Beginning July 1, 2010, members who remain in T-DROP for more than 10 years get interest on T-DROP account balances. The 10-year plus T-DROP interest rate that will be credited to an active members' T-DROP account must be no less than 4% and no greater than 6% as determined by the Board of Trustees. Upon actual retirement, the member may receive the T-DROP account balance in the form of a lump sum or as an additional annuity. Beginning July 1, 2011, the T-DROP distribution may be a combination of both lump sum and annuity allowing members to take a partial annuity along with a corresponding partial lump sum (Act 162 of 2011). For active participants who enter the T-DROP Plan July 1, 2013 or later, the reduction for contributory, reciprocal, and noncontributory service credit is 1% for each year and fractional year of service credit (Act 605 of 2013).

8. **Post-Retirement Increases – A.C.A. §§ 24-7-713, 24-7-727 (compound COLA).** Each July 1, annuities are adjusted to be equal to the base annuity times 100% plus 3% for each full year in the period from the effective date of the base annuity to the current July 1. The base annuity is the amount of the member's annuity on the later of July 1, 2001 or the effective date of retirement, as re-determined by Acts 396 of 1999 and 992 of 1997. The July 1, 2009 cost of living adjustment for retirees was compounded. The annuity was adjusted by multiplying 3% times the June 30, 2009 retirement benefit amount. After it was calculated on July 1, 2009, the base amount was reset to be the July 1, 2009 benefit amount. Future cost of living raises will be established by the new updated base amount. Future cost of living adjustments will be evaluated on an annual basis to determine if a simple or compound cost of living increase will be given, depending on the financial condition of the System. Act 967 of 2013 gives the ATRS Board authority to reverse the compounding of a benefit and reset the base amount to the pre-compounding amount. If this were to occur, it would include participants in the T-DROP plan. The future benefits of a member would not be reduced to recover any benefits paid to a member as a result of the compounding. In addition, the member's benefit on the date of the reversal would not be impacted, but future COLA's would be based upon the reset base amount. *This act is dependent upon the actuary's certification that the amortization period is in excess of 30 years to pay unfunded liabilities prior to any reversal of the compounding of the COLA.*

9. **Survivor Benefits – A.C.A. § 24-7-710.** Upon the death of an active member, who has 5 or more years of credited service (which includes the year immediately preceding the death), the following annuities are payable:

   (a) The surviving spouse receives an annuity computed in the same manner as if the member had (i) retired the date of his death with entitlement to an annuity, (ii) elected Option A - 100% Survivor Annuity, and (iii) nominated the spouse as joint beneficiary. If the member has attained age 60 and has acquired 5 years of credited service or has acquired 25 years of credited service regardless of age, the annuity begins immediately; otherwise the annuity begins the month following the date the member would have attained age 60. Under certain circumstances, a lump sum distribution may be made to the beneficiary(ies) of the deceased member.

   (b) Each dependent child receives an annuity in an amount equal to 20% of the highest salary received in covered employment (including the year of death). If there are 3 or more dependent children, the aggregate amount of the dependent children's annuity shall not exceed 60% of the member's highest salary received in covered employment and shall be divided equally among the dependent children. A child is dependent until the child's death, marriage, or attainment of age 18 (age 23 if the child is a full-time student).

   Beginning July 1, 2013, survivors have three months to file an application for benefits if the benefits are to begin the month of the member's death. Otherwise, the benefits will begin the month that the survivor application is filed with the system (Act 571 of 2013).

10. **Lump Sum Death Benefit – A.C.A. § 24-7-720.** Beneficiaries of deceased active members or retirees with 10 or more years of ATRS credited service are eligible to receive a lump sum death benefit of up to $10,000 ($6,667 for non-contributory service-benefit). The amount will be prorated for members who have both contributory service and non-contributory service. Members with 15 or more years of contributory service will receive the full $10,000 (Act 977 of 2011).

11. **Members' Contributions – A.C.A. § 24-7-406.** Members contribute 6% of their salaries (by individual election, members who became members before July 1, 1971 could contribute on only the first $7,800 of their annual salaries). If a member leaves service prior to becoming eligible to retire, the accumulated contributions are returned upon request. No interest is credited to a member's contributions for the first year of membership; after 1 year, interest credits are 2%

annually (effective June 30, 2010). Effective June 30, 2012, the interest credit is 1%. Effective July 1, 1986, a non-contributory plan was created. Effective July 1, 1993, all new members including any former active members were automatically non-contributory members. By individual election, members could choose to contribute. The benefit accrual rate for non-contributory members is reduced. Effective July 1, 1999 the default choice for new members is contributory. All current members had until July 1, 2000 to make a final election. Effective July 1, 1997, all future member contributions are tax-deferred in accordance with §414(h) of the Internal Revenue Code of the United States. Effective July 1, 2005, all non-contributory members whose status changes from support to teacher (contracted for more than 181 days), will become contributory. Effective July 1, 2006 and each July 1 thereafter, members who previously elected to be non-contributory may elect to change to contributory status under Act 385 of 2005. Effective July 1, 2007, all noncontributory members may elect to change to contributory status. The election is irrevocable. Effective July 1, 2009, employer contributions are collected at a rate of 14% on active members, T-DROP participants (even those who work beyond the 10-year participation period), and working retirees (Act 743 of 2009). Act 602 of 2013 allows the ATRS Board to set the member contribution rate between 6% and 7% of salary. *This act is dependent upon the actuary's certification that the amortization period is in excess of 30 years to pay unfunded liabilities prior to any increase in the current contribution rate. The rate for fiscal year 2014 remains at 6%.*

12. **Act 808 Retirement – A.C.A. § 24-4-732.** Any employee of a state agency who was an active member of the Arkansas Teacher Retirement System on April 8, 1987, and who qualified for retirement before January 1, 1988, could become a member of the Arkansas Public Employees Retirement System and retire from that system. All credited service was transferred to that system but the member’s contributions were retained by the Arkansas Teacher Retirement System and the benefit amount is transferred monthly to the Arkansas Public Employees Retirement System. Each July 1, annuities are adjusted by 3% (compound escalator).

13. **Act 793 Retirement – A.C.A § 24-4-522.** Any employee who was a member of the rehabilitation services in 1977 was permitted to become a member of the Arkansas Public Employees Retirement System. Liabilities associated with prior service earned through 6/30/1978 remain in the Arkansas Teacher Retirement System. Future service is allocated to the Arkansas Public Employees Retirement System. Each July 1, annuities are adjusted by 3% (compound escalator).

14. **Retiree Health Stipend – A.C.A. § 24-7-713.** Each retired member as of June 30, 2008, with 5 or more years of ATRS credited service receives $75 per month toward retiree health care

premiums. Members in T-DROP do not receive the $75 per month until actual retirement. For all members retiring on or after July 1, 2008, a minimum of 10 years of ATRS credited service is required to receive the $75 per month stipend. Act 603 of 2013 allows the ATRS Board to increase or decrease the stipend to a minimum of $1 per month and a maximum of $75 per month. *This act is dependent upon the actuary's certification that the amortization period is in excess of 30 years to pay unfunded liabilities prior to any reduction in the current stipend. The stipend for fiscal year 2015 remains at $75 per month.*

15. **Optional Forms of Benefits – A.C.A. § 24-7-706:**

Option 1 ***(Straight Life Annuity)***

A member will receive the maximum monthly benefit for which he/she qualifies, throughout his/her lifetime. No monthly benefits will be paid to his/her beneficiary after the member's death. Should a member die before he/she has drawn in benefits an amount equal to his/her contributions plus earned interest, the balance will be paid to a designated beneficiary. The designated beneficiary may be anyone chosen by the member.

Option A ***(100% Survivor Annuity)***

Under this option a member will receive a reduced annuity throughout his/her lifetime. Upon the member's death, the designated beneficiary will receive the same annuity for the balance of his/her lifetime.

Option B ***(50% Survivor Annuity)***

Under this option a member will receive a reduced annuity throughout his/her lifetime. Upon the member's death, the designated beneficiary will receive one-half (1/2) of this annuity for the balance of his/her lifetime.

Option C (Annuity for Ten Years Certain and Life Thereafter)

A reduced monthly benefit payable for 120 months. After that time, a member's monthly allowance will revert to the amount he/she would have received under the regular plan and continue for life. If the member dies before receiving 120 payments, the designated beneficiary will receive a monthly benefit in the same amount until monthly benefits to both the member and the beneficiary equal 120 monthly payments. No further benefits are then payable to the beneficiary.

Option Factors are based upon an 8.0% interest rate and the 1971 Group Annuity Mortality Table projected to 1984, with a 75% unisex mix.

16. **Refund of Member Contributions – A.C.A. § 24-7-711.** Any termination refund made to a member or a lump sum payout made to a surviving spouse after July 1, 2011, cancels all service credit, including noncontributory service credit (Act 976 of 2011); any repurchase of refunded service will be as contributory years at actuarial cost (Act 69 of 2011). Act 140 of 2013 specifies that all membership rights (including noncontributory service credit) and beneficiary designations to the ATRS are cancelled when a member gets a refund of his or her contributions.

17. **Contract Buyout – A.C.A. § 24-7-735.** During periods of contract buyout/litigation/termination, members will not receive service credit if no on-call service or on site work is performed. ATRS will not allow the purchase of the time between actual work and the settlement (Act 163 of 2011).

18. **Actuarial Cost of Service – A.C.A. §§ 24-1-107, 24-2-502, 24-7-202, 24-7-406, 24-7-501, 24-7-502, 24-7-612, 24-7-602, 24-7-603, 24-7-604, 24-7-606, 24-7-607, 24-7-610, 24-7-611.** Effective July 1, 2011, all service purchases will be at actuarial cost (Act 69 of 2011).

19. **Deceased Member Refund of Contributions – § 24-7-711.** Effective July 1, 2011, if a beneficiary is not eligible for survivor benefits, or if a surviving spouse is eligible and chooses a contribution refund, the interest on the refund stops the July 1 following the member's death (Act 136 of 2011).

20. **Limit Lookback to Five Years – A.C.A. §§ 24-7-202, 24-7-205.** Effective July 1, 2011, absent intentional nondisclosure, fraud, misrepresentation, or criminal act, members can no longer establish old service previously unreported (Act 138 of 2011). (More than 20 cases per year.)

21. **Service Credit Requirements – A.C.A. §§ 24-7-501, 24-7-502, 24-7-601, 24-7-603, 24-7-604, 24-7-606, 24-7-607, 24-7-611.** Effective July 1, 2011, members must receive 160 days of service to be credited with a year of service credit (Act 974 of 2011).

22. **T-DROP Cash Balance Account.** Effective July 1, 2012, a T-DROP cash balance account was established that allows members exiting T-DROP to place all or a portion of their T-DROP proceeds into a Cash Balance Account (CBA) at ATRS. The interest rate credited will be between 2.0% and 4.0%, increasing 25 basis points for each year on deposit.

23. **Delinquent Member Contributions – A.C.A. § 24-7-205.** Act 336 of 2013 allows members to forfeit service credit for any contributory fiscal year for which there is a balance due to the system.

24. **Purchase of Air Time as a Result of Wrongful Termination – A.C.A. §§ 24-7-702, 24-7-735, 6-17-413.** Act 521 of 2013 allows a member to purchase service credit under a settlement agreement or court order to resolve a claim of wrong termination if the service credit is purchased from the date of termination by an ATRS employer to the date of the resolution of the dispute. This service credit would be purchased at actuarial cost.

25. **Buyout of Inactive Members—A.C.A. § 24-7-505.** Act 606 of 2013 allows the ATRS Board to create a voluntary "buyout plan" for inactive vested members. The System will make a one-time lump sum payment to a member, a surviving spouse, or an alternate payee in exchange for a member, surviving spouse, or alternate payee's cancellation of membership and retirement benefit rights. The buyout plan will be established by Board rules. The rule is 16-1 Cash and Savings Help Program for Members (CASH). This particular plan offering will end June 30, 2014. Depending upon the success of the plan, it may be extended by the Board.

SAMPLE BENEFIT COMPUTATIONS FOR A MEMBER RETIRING JUNE 30, 2013

The data for the Example member is shown below.

A.	$35,000	Final Average Compensation
B.	32	Total Service Credit
C.	27	Contributory Service Credit
D.	60	Age of Retiree
E.	55	Age of Spouse
F.	100%	Percentage of Retirement Allowance to Continue to Spouse after Retiree's Death (Retiree Chooses this Percentage)

The computations that would be made for this case are:

		Annual
G.	Non-Contributory Base: 1.39% x A x B	$15,568
H.	Extra for Contributory: 0.76% x A x C	7,182
I.	Subtotal Benefit: G + H	22,750
J.	Health Stipend	900
K.	Total Benefit: I + J	23,650
L.	Adjustment for Line F election: (1 - 0.83037) x I	3,859
M.	Annual Amount Payable	$19,791

Projected Benefits, taking into account increases after retirement would be:

Year Ended June 30	Annual Amount
2014	$19,791
2015	20,385
2016	20,979
2017	21,573
2018	22,167

Thereafter, the amount would increase by $594 annually for life.

SAMPLE T-DROP BENEFIT COMPUTATIONS FOR A MEMBER ENTERING T-DROP JUNE 30, 2013

The data for the Example member is shown below.

A.	$35,000	Final Average Compensation
B.	28	Total Service Credit
C.	28	Contributory Service Credit
D.	55	Age of Retiree

The computations that would be made for this case are:

			Annual Amount
E.	Non-Contributory Base:	0.0139 x A x B	$13,622
F.	Extra for Contributory:	0.00760 x A x C	7,448
G.	Reduction for T-DROP Plan: (1% for each year of contributory service) 0.28 x (E+F)		5,900
H.	Reduction for Entering T-DROP with less than 30 years of service (6% for each year less than 30): 0.12 x (E + F - G)		1,820
I.	Annual Amount Payable E + F – G – H		$13,350

Projected Deposits, taking into account increases after DROP, and 5 years duration would be:

Year Ended June 30	Amount Deposited
2014	$13,350
2015	13,751
2016	14,151
2017	14,552
2018	14,952
Total	$70,756

The amount deposited, together with credited interest can be paid as a lump sum or as an annuity. A portion of the deposits can also be placed into a Cash Balance account.

SECTION D

FINANCIAL INFORMATION AND GASB REPORTING

This information is presented in draft form for review by the System's auditor. Please let us know if there are any items the auditor changes so that we may maintain consistency with the System's financial statements.

ASSET VALUATION METHOD

An essential step in the valuation process is comparing valuation assets with computed liabilities. Valuation assets are those assets that are recognized for funding purposes.

Asset valuation methods are distinguished by the timing of the recognition of investment income. Total investment income is the sum of ordinary income and capital value changes. Under a pure market value approach, ordinary investment income and all capital value changes would be recognized immediately. Because of market volatility, use of pure market values in retirement funding can result in volatile contribution rates and unstable financial ratios, contrary to ATRS objectives.

Under the ATRS asset valuation method (see page D-3), assumed investment return is recognized fully each year. Differences between actual and assumed investment return are phased-in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, the funding value will tend to be less than the market value. Conversely, during periods when investment performance is less than the assumed rate, funding value will tend to be greater than market value. If assumed rates are exactly realized for 3 consecutive years, funding value will become equal to market value.

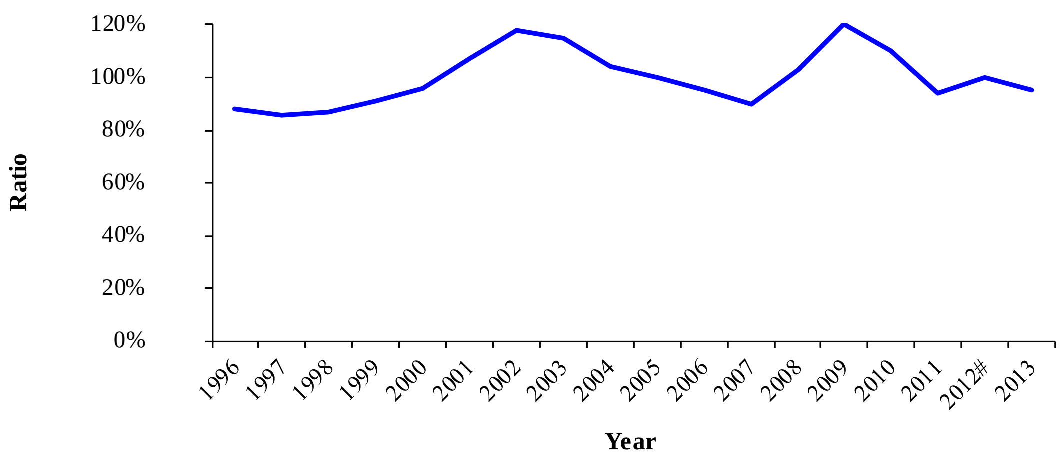
A multi-year comparison of market value to funding (actuarial) value is on the following page.

ASSET VALUATION METHOD

Valuation Date June 30	Market Value of Assets (1)	Actuarial Value of Assets (2)	Ratio of AV to MV (2) / (1)
1996	$ 4,750	$ 4,186	88%
1997	5,747	4,956	86%
1998	6,656	5,815	87%
1999	7,403	6,740	91%
2000	7,978	7,620	96%
2001	7,643	8,166	107%
2002	7,084	8,328	118%
2003	7,050	8,113	115%
2004	8,122	8,424	104%
2005	8,811	8,817	100%
2006	9,868	9,332	95%
2007	11,637	10,519	90%
2008	11,018	11,319	103%
2009	8,847	10,617	120%
2010	9,884	10,845	110%
2011	11,895	11,146	94%
2012#	11,484	11,484	100%
2013	12,830	12,247	95%

 # Actuarial Value set equal to Market Value.

Ratio of Actuarial Value to Market Value



This year the market value of assets exceeds the actuarial value (see page A-2). To prevent unreasonably large differences between market value and funding value, there is a requirement that the recognized assets must always be between 80% and 120% of the market value (see page D-3).

DEVELOPMENT OF FUNDING VALUE OF ASSETS

Year Ended June 30:	2011	2012	2013	2014	2015	2016
A. Funding Value Beginning of Year	$ 10,845,091,623	$ 11,146,221,518	$ 11,483,885,509			
B. Market Value End of Year	11,894,877,338	11,483,885,509	12,829,565,578			
C. Market Value Beginning of Year	9,883,573,998	11,894,877,338	11,483,885,509			
D. Non-Investment Net Cash Flow	(200,981,038)	(284,584,663)	(336,581,359)			
E. Investment Return						
E1. Market Total: B - C - D	2,212,284,378	(126,407,166)	1,682,261,428			
E2. Amount for Immediate Recognition (8%)	859,568,088	880,314,335	905,247,586			
E3. Amount for Phased-In Recognition: E1-E2	1,352,716,290	(1,006,721,501)	777,013,842			
F. Phased-In Recognition of Investment Return						
F1. Current Year: 0.25 x E3	338,179,073	(251,680,375)	194,253,461	Unknown	Unknown	Unknown
F2. First Prior Year	99,652,124	338,179,073	-	$ 194,253,461	Unknown	Unknown
F3. Second Prior Year	(465,185,644)	99,652,124	-	-	$ 194,253,461	Unknown
F4. Third Prior Year	(330,102,708)	(465,185,645)	-	-	-	$ 194,253,459
F5. Accelerated Market Value Recognition		20,969,142				
F6. Total Recognized Investment Gain	**(357,457,155)**	**(258,065,681)**	194,253,461	194,253,461	194,253,461	194,253,459
G. Funding Value End of Year:						
G1. Preliminary Funding Value End of Year: A+D+E2+F6	**11,146,221,518**	**11,483,885,509**	**12,246,805,197**			
G2. Upper Corridor Limit: 120% x B	**14,273,852,806**	**13,780,662,611**	**15,395,478,694**			
G3. Lower Corridor Limit: 80% x B	**9,515,901,870**	**9,187,108,407**	**10,263,652,462**			
G4. Funding Value End of Year	**11,146,221,518**	**11,483,885,509**	**12,246,805,197**			
H. Actual/Projected Difference between Market and Funding Value	748,655,820	-	582,760,381	388,506,920	194,253,459	-
I. Market Rate of Return	22.61 %	(1.08)%	14.87 %			
J. Funding Rate of Return	4.67 %	5.65 %	9.72 %			
K. Ratio of Funding Value to Market Value	93.71 %	100.00 %	95.46 %			

The Funding Value of Assets recognizes assumed investment return (line E2) fully each year. Differences between actual and assumed investment income (line E3) are phased-in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than Market Value. ***The Funding Value of Assets is unbiased with respect to Market Value***. At any time it may be either greater or less than Market Value. If assumed rates are exactly realized for 3 consecutive years, it will become equal to Market Value.

The assets of the Retirement System, as of June 30, 2013, were reported to your actuary to be $12,829,565,578. This amount, together with a market value adjustment of $(582,760,381) this year, is used to finance the Retirement System liability.

Accounts	Assets at June 30 2013	Assets at June 30 2012
Regular Accounts		
Members' Deposit Accounts		
Contributions	$ 1,001,177,347	$ 955,909,055
Interest	6,215,559,708	5,157,081,946
Total	7,216,737,055	6,112,991,001
T-Drop Member Deposit Accounts		
Contributions	25,387,239	24,701,972
Interest	57,429,987	60,072,472
Total	82,817,226	84,774,444
Cash Balance Account	14,034,807	-
Employer's Accumulation Account	(3,033,603,218)	(2,742,643,657)
Retirement Reserve Account	7,933,255,409	7,397,906,995
Act 808 Retirement Reserve Account	21,150,401	23,965,228
T-Lump Payable	497,306,284	515,374,106
Survivors Benefit Account	87,759,726	82,111,923
Total Regular Accounts	12,819,457,690	11,474,480,040
Other Accounts		
Income Expense Account	10,107,888	9,405,469
Other Special Reserves	-	-
Miscellaneous	-	-
Total Other Accounts	10,107,888	9,405,469
Total Accounting Value of Assets	12,829,565,578	11,483,885,509
Market Value Adjustment	(582,760,381)	-
Funding Value of Assets	$12,246,805,197	$11,483,885,509

MARKET VALUE OF ASSETS

The net market value of assets at year end was $12,829,565,578 and was invested as shown below.

	Market Value at June 30	
	2013	2012
Cash	$ 9,359,618	$ 26,379,786
Receivables		
Unsettled Trades and Accrued Return	240,671,737	92,501,858
Member Contributions	9,348,659	17,036,031
Employer Contributions	31,667,952	30,120,719
Other	248,167	288,734
Total Receivables	281,936,515	139,947,342
Investments		
Short Term	164,934,920	199,749,156
Common and Preferred	2,002,380,899	2,268,669,378
International	676,244,312	767,071,603
Corporate Bonds	604,521,290	668,258,022
Alternative Investments	3,156,677,872	2,655,233,383
Real Estate	89,084,466	85,931,196
Mortgage Loans	9,272,679	42,666,169
Municipal Bonds	708,047	2,132,226
Government Securities	197,768,163	188,877,582
Other Investments	5,834,609,368	4,580,575,519
Repurchase Agreements	-	-
Total Investments	12,736,202,016	11,459,164,234
Invested Securities Lending	633,218,698	682,684,172
Net Equipment	368,859	364,132
Total Assets	13,661,085,706	12,308,539,666
Liabilities		
Escrow Payables	408,988	153,954
Other Payables	2,800,530	2,371,397
Securities Related Payables	194,108,294	136,888,090
Securities Lending Collateral	634,202,316	685,240,716
Total Liabilities	831,520,128	824,654,157
Net Market Value	$12,829,565,578	$11,483,885,509
Change from Prior Year	1,345,680,069	(410,991,829)

MARKET VALUE RECONCILIATION

Assets developed during the year as follows:

	Year Ended June 30	
	2013	2012
Net Market Value July 1	$ 11,483,885,509	$ 11,894,877,338
Additions		
Employer Contributions	400,964,889	398,822,946
Employee Contributions	119,752,294	117,662,465
Appreciation	1,599,388,173	(223,289,187)
Interest	61,058,423	63,510,047
Dividends	63,503,663	72,945,026
Real Estate	8,304,344	8,198,063
Other	2,332,747	1,598,919
Securities Lending Activity	4,048,115	4,164,115
Total Additions	2,259,352,648	443,612,394
Deductions		
Age & Service Benefits	683,699,898	631,087,683
Disability Benefits	33,164,746	31,316,331
Option Benefits	19,925,200	18,501,555
Survivor Benefits	8,699,159	8,486,669
Reciprocal Service	34,346,675	31,166,875
Act 808	3,516,979	3,844,317
Refunds	11,087,596	9,225,151
Active Member Death	326,748	380,913
T-DROP Benefits	59,031,639	67,060,580
CBA Benefits	3,499,902	
Investment Expense	42,735,948	43,536,354
Administrative Expense	7,755,004	9,995,146
Total Deductions	907,789,494	854,601,574
Miscellaneous	(5,883,085)	(2,649)
Net Market Value June 30	$ 12,829,565,578	$ 11,483,885,509

SCHEDULE OF FUNDING PROGRESS
(DOLLAR AMOUNTS IN MILLIONS)

Valuation Date June 30	(1) Actuarial Value of Assets	(2) Entry Age AAL	(3) UAAL (2)-(1)	(4) Funding Ratio (1)/(2)	(5) Annual Payroll	Liabilities as a % of Payroll		
						Unfunded (3)/(5)	Funded (1)/(5)	Total (2)/(5)
1992+	$ 2,729	$ 3,329	$ 600	82.0%	$ 1,077	55.7%	253.4%	309.1%
1993+	3,051	3,712	661	82.2%	1,120	59.0%	272.4%	331.4%
1994	3,307	3,960	653	83.5%	1,167	56.0%	283.3%	339.3%
1995*	3,626	4,257	631	85.2%	1,234	51.1%	293.9%	345.0%
1996	4,186	4,635	449	90.3%	1,260	35.6%	332.3%	367.9%
1997+	4,956	5,403	447	91.7%	1,302	34.3%	380.7%	415.0%
1998+*	5,815	6,188	373	94.0%	1,368	27.3%	425.0%	452.3%
1999+	6,740	6,834	94	98.6%	1,429	6.6%	471.6%	478.2%
2000+	7,620	7,879	259	96.7%	1,485	17.4%	513.2%	530.6%
2001+	8,166	8,561	395	95.4%	1,557	25.4%	524.4%	549.8%
2002*	8,328	9,062	734	91.9%	1,628	45.1%	511.5%	556.6%
2003+	8,113	9,445	1,332	85.9%	1,683	79.1%	482.1%	561.2%
2004	8,424	10,050	1,626	83.8%	1,748	93.0%	481.9%	574.9%
2005	8,817	10,973	2,156	80.4%	1,962	109.9%	449.4%	559.3%
2006	9,332	11,623	2,291	80.3%	2,080	110.1%	448.7%	558.8%
2007+	10,519	12,329	1,810	85.3%	2,191	82.6%	480.1%	562.7%
2008+	11,319	13,334	2,015	84.9%	2,268	88.8%	499.1%	587.9%
2009	10,617	14,019	3,402	75.7%	2,318	146.8%	458.0%	604.8%
2010+	10,845	14,697	3,852	73.8%	2,381	161.8%	455.5%	617.3%
2011+*	11,146	15,521	4,375	71.8%	2,728	160.4%	408.6%	569.0%
2012	11,484	16,139	4,655	71.2%	2,714	171.5%	423.2%	594.7%
2013+*	12,247	16,718	4,471	73.3%	2,727	164.0%	449.1%	613.1%

\+ *Legislated benefit or contribution rate change.*
* *Revised actuarial assumptions.*

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ended June 30	Valuation Date June 30	Estimated Covered Payroll	Annual Required Contribution	(A) Annual Required Contribution*	(B) Actual Contribution Dollars	(B)/(A) Percent Contributed
1995	1993	$1,167,358,783	12.0%	$140,083,054	$139,795,997	99.8%
1996	1994	1,233,547,775	12.0%	148,025,733	132,609,965	89.6%
1997	1995	1,260,191,925	12.0%	151,223,031	153,546,224	101.5%
1998	1996	1,302,185,875	12.0%	156,262,305	158,962,714	101.7%
1999	1997	1,368,394,225	12.0%	164,207,307	166,785,926	101.6%
2000	1998	1,429,104,358	12.0%	171,492,523	175,686,958	102.4%
2001	1999	1,485,415,583	12.0%	178,249,870	181,115,569	101.6%
2002	2000	1,557,116,642	12.0%	186,853,997	191,352,911	102.4%
2003	2001	1,628,005,867	12.0%	195,360,704	200,455,916	102.6%
2004	2002	1,683,364,754	13.0%	218,837,418	224,184,274	102.4%
2005	2003	1,747,706,248	14.0%	244,678,875	286,442,709	117.1%
2006	2004	1,962,360,535	14.0%	285,635,385	311,713,735	109.1%
2007	2005	2,079,642,601	14.7%	321,663,706	331,891,210	103.2%
2008	2006	2,190,658,242	14.5%	343,985,637	350,319,504	101.8%
2009	2007	2,267,883,313	14.0%	344,033,405	359,061,671	104.4%
2010	2008	2,591,786,067	14.0%	362,850,049	389,296,432	107.3%
2011	2009	2,742,706,241	15.4%	417,318,761	400,330,902	95.9%
2012	2010	2,818,139,121	15.8%	443,648,576	398,822,946	89.9%
2013	2011	2,803,049,400	16.2%	452,142,154	400,964,889	88.7%

* *Actual contributions will be based on pay actually paid throughout the year which may be different from the payroll used in this calculation. The ARC has been adjusted to include contributions expected on behalf of T-DROP participants and retirees who have returned to work, when information was available.*

SECTION E

COVERED MEMBER DATA

TOTAL ACTIVE MEMBERS IN VALUATION JUNE 30, 2013
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20	291							291	$ 1,048,663
20-24	1,888	17						1,905	35,217,174
25-29	4,491	1,175	11					5,677	178,830,369
30-34	3,076	3,640	774	7				7,497	259,839,469
35-39	2,791	2,613	2,576	610	1			8,591	310,014,544
40-44	2,611	2,634	2,130	2,317	546	2		10,240	385,914,727
45-49	1,856	2,164	1,842	1,691	1,715	528	1	9,797	369,752,573
50-54	1,702	1,845	1,762	1,689	1,422	1,594	58	10,072	376,346,629
55-59	1,395	1,432	1,374	1,443	1,486	977	102	8,209	295,395,779
60	252	267	237	234	299	187	18	1,494	53,004,773
61	224	259	192	225	227	203	13	1,343	48,492,195
62	222	232	175	180	209	163	20	1,201	41,113,813
63	190	183	134	145	153	119	11	935	31,467,158
64	151	176	107	101	102	112	12	761	24,278,938
65	187	149	87	76	100	73	13	685	20,351,057
66	154	108	68	33	29	38	6	436	10,843,017
67	120	108	35	19	14	15	2	313	6,668,348
68	132	64	28	11	10	8	3	256	4,946,900
69	94	52	16	7	1	1	2	173	2,864,237
70 & Up	369	280	95	17	8	14	1	784	11,024,671
Totals	**22,196**	**17,398**	**11,643**	**8,805**	**6,322**	**4,034**	**262**	**70,660**	**$2,467,415,034**

This schedule does not include T-DROP members or retirees who returned to work.

Group Averages:
Age: 45.0 years
Service: 10.2 years

WOMEN ACTIVE MEMBERS IN VALUATION JUNE 30, 2013
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20	120							120	$ 385,123
20-24	1,319	9						1,328	25,433,073
25-29	3,368	936	5					4,309	135,368,489
30-34	2,364	2,810	602	4				5,780	193,372,330
35-39	2,233	2,111	2,033	460				6,837	234,119,441
40-44	2,130	2,202	1,758	1,784	457	2		8,333	298,528,717
45-49	1,371	1,793	1,583	1,362	1,332	447		7,888	284,713,648
50-54	1,233	1,427	1,495	1,436	1,165	1,220	42	8,018	287,058,387
55-59	982	1,073	1,089	1,180	1,291	831	82	6,528	229,039,333
60	177	194	174	195	255	159	16	1,170	40,625,480
61	140	176	142	187	196	179	10	1,030	36,632,188
62	134	162	138	148	176	142	16	916	31,224,363
63	117	119	93	118	125	105	8	685	22,495,276
64	88	112	69	78	80	97	11	535	16,900,595
65	107	99	54	56	83	67	10	476	14,327,421
66	95	71	50	28	22	35	6	307	7,633,589
67	74	72	26	12	9	14	2	209	4,437,034
68	75	39	12	7	7	8	2	150	2,773,673
69	54	30	12	4	1	1	2	104	1,866,573
70 & Up	202	134	53	11	7	12	1	420	5,483,101
Totals	**16,383**	**13,569**	**9,388**	**7,070**	**5,206**	**3,319**	**208**	**55,143**	**$1,872,417,834**

This schedule does not include T-DROP members or retirees who returned to work.

Group Averages:

Age: 44.9 years
Service: 10.5 years

MEN ACTIVE MEMBERS IN VALUATION JUNE 30, 2013
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20	171							171	$ 663,540
20-24	569	8						577	9,784,101
25-29	1,123	239	6					1,368	43,461,880
30-34	712	830	172	3				1,717	66,467,139
35-39	558	502	543	150	1			1,754	75,895,103
40-44	481	432	372	533	89			1,907	87,386,010
45-49	485	371	259	329	383	81	1	1,909	85,038,925
50-54	469	418	267	253	257	374	16	2,054	89,288,242
55-59	413	359	285	263	195	146	20	1,681	66,356,446
60	75	73	63	39	44	28	2	324	12,379,293
61	84	83	50	38	31	24	3	313	11,860,007
62	88	70	37	32	33	21	4	285	9,889,450
63	73	64	41	27	28	14	3	250	8,971,882
64	63	64	38	23	22	15	1	226	7,378,343
65	80	50	33	20	17	6	3	209	6,023,636
66	59	37	18	5	7	3		129	3,209,428
67	46	36	9	7	5	1		104	2,231,314
68	57	25	16	4	3		1	106	2,173,227
69	40	22	4	3				69	997,664
70 & Up	167	146	42	6	1	2		364	5,541,570
Totals	**5,813**	**3,829**	**2,255**	**1,735**	**1,116**	**715**	**54**	**15,517**	**$ 594,997,200**

This schedule does not include T-DROP members or retirees who returned to work.

Group Averages:

Age: 45.1 years
Service: 9.1 years

SUMMARY OF ACTIVE MEMBERS (EXCLUDES T-DROP AND REHIRED RETIREES)

	Teachers		Support		Total Active Members	
	No.	Valuation Payroll	No.	Valuation Payroll	No.	Valuation Payroll
Women	27,496	$ 1,298,005,381	27,647	$ 574,412,453	55,143	$ 1,872,417,834
Men	7,441	398,770,628	8,076	196,226,572	15,517	594,997,200
All	34,937	$ 1,696,776,009	35,723	$ 770,639,025	70,660	$ 2,467,415,034

	Teachers	Support	Total
Members Contributing Now	30,995	18,528	49,523
Members Not Contributing	3,942	17,195	21,137
All	34,937	35,723	70,660

		Group Averages			Active Member Payroll
June 30	Number	Age	Service	Annual Earnings	($ Millions)
1999	59,499	43.5	9.8	$24,019	1,429
2000	60,147	43.6	9.6	24,696	1,485
2001	61,389	43.7	9.5	25,365	1,557
2002	62,011	43.8	9.4	26,254	1,628
2003	62,432	44.0	9.5	26,963	1,683
2004	63,185	44.2	9.5	27,660	1,748
2005	65,793	44.2	9.4	29,826	1,962
2006	67,710	44.3	9.3	30,714	2,080
2007	69,226	44.4	9.3	31,645	2,191
2008	70,172	44.5	9.4	32,319	2,268
2009	70,655	44.7	9.5	32,804	2,318
2010	72,208	44.7	9.7	32,980	2,381
2011	72,293	44.8	9.9	33,995	2,458
2012	71,195	45.0	10.1	34,362	2,446
2013	70,660	45.0	10.2	34,920	2,467

The figures on this historical schedule are affected by the inclusion of new non-teaching employees beginning July 1, 1989.

These schedules do not include T-DROP members or retirees who returned to work.

DEFERRED VESTED MEMBERS AT JUNE 30, 2013
BY ATTAINED AGE

Age	Number	Estimated Annual Benefits	Contribution Balance
Below 40	1,916	$ 9,940,952	$ 19,202,982
40	320	1,565,828	2,245,481
41	331	1,741,194	2,635,338
42	364	1,784,748	2,601,086
43	362	1,741,282	2,185,900
44	436	2,135,807	2,539,053
45	461	2,004,265	2,364,582
46	485	2,249,562	2,613,940
47	549	2,576,723	2,982,304
48	605	2,616,571	3,024,835
49	552	2,496,725	2,918,492
50	597	2,685,907	3,009,592
51	623	2,997,335	4,177,524
52	542	2,721,399	4,019,291
53	618	3,034,175	4,176,527
54	565	2,860,923	4,493,979
55	622	3,225,868	5,260,077
56	569	2,904,334	4,540,322
57	574	3,133,141	5,763,044
58	563	3,103,216	5,547,332
59	344	1,527,421	2,230,633
60 & Up	1,071	3,850,216	5,441,557
Future Beneficiaries #	30	99,349	0
Totals	**13,099**	**$ 62,996,941**	**$ 93,973,871**

 # These are 30 beneficiaries of deceased active members who are eligible for a pension at age 62.

An inactive member is no longer actively working and has sufficient service credit to qualify for a monthly benefit at retirement age.

ALL MEMBERS PARTICIPATING IN T-DROP AT JUNE 30, 2013
BY ATTAINED AGE

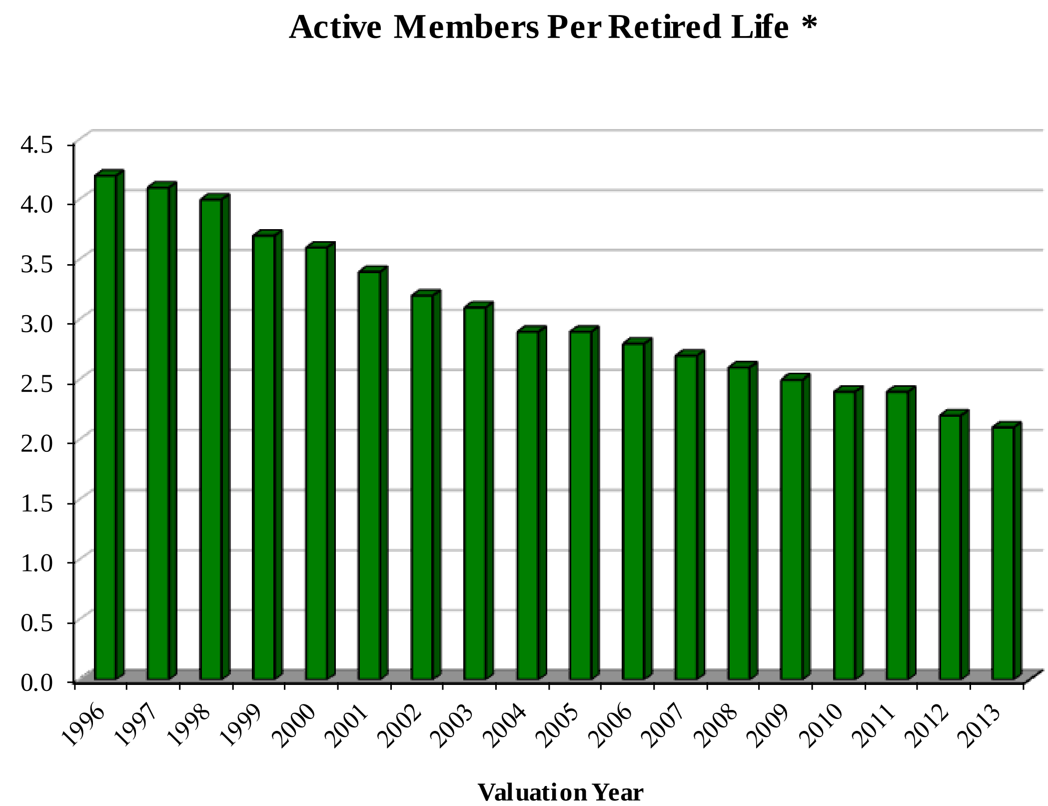
Age	Number	Current T-DROP Contribution	Original T-DROP Contribution	T-DROP Account Balance	Pay
49	9	$ 146,935	$ 142,655	$ 144,201	$ 456,412
50	17	347,548	336,731	367,401	957,105
51	91	1,944,801	1,862,074	2,829,615	5,277,977
52	188	4,023,110	3,822,832	7,010,342	10,932,283
53	249	5,826,447	5,468,314	12,878,950	15,501,084
54	306	7,043,483	6,497,008	19,841,416	18,337,650
55	357	8,350,365	7,587,497	28,377,002	21,759,840
56	372	8,587,932	7,713,956	36,826,931	22,367,121
57	378	9,064,888	7,913,360	44,399,906	23,259,578
58	378	9,049,132	7,848,332	50,542,593	23,283,289
59	412	8,720,410	7,866,781	60,796,552	25,209,681
60	380	7,682,808	7,141,639	57,554,794	22,890,449
61	319	6,311,027	6,342,183	51,962,879	20,085,151
62	257	4,989,769	4,965,603	38,743,101	15,953,485
63	194	3,637,866	3,780,761	28,317,521	12,040,490
64	152	2,595,312	2,924,815	23,254,691	9,682,922
65	98	2,116,572	1,895,221	13,012,644	5,938,923
66	62	1,074,466	1,005,085	7,068,690	3,342,609
67	17	253,644	277,470	2,597,710	967,679
68	9	175,371	144,902	1,218,383	454,764
69	7	125,891	128,074	1,280,759	415,192
70	7	165,996	160,498	1,147,535	441,500
71	3	39,774	34,998	204,875	143,961
72	1	27,351	21,169	255,929	60,400
75	1	-	12,570	174,808	28,388
80	1	24,689	26,030	54,515	63,726
Totals	**4,265**	**$ 92,325,587**	**$ 85,920,558**	**$ 490,863,743**	**$ 259,851,659**

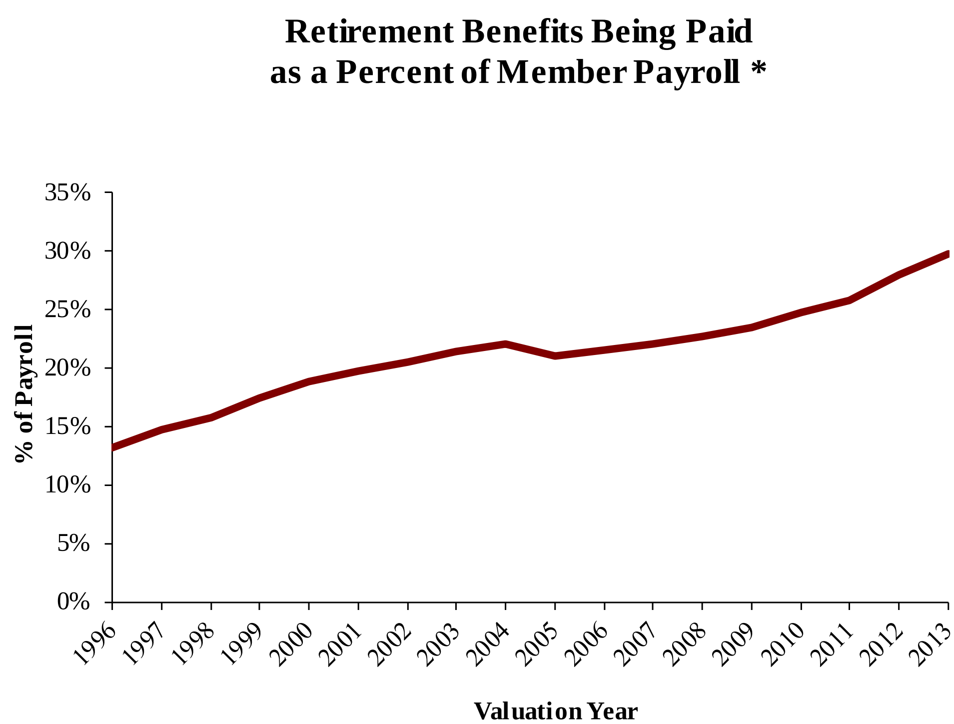
A T-DROP member continues to work, but does not accrue retirement benefits. A reduced benefit is paid into the T-DROP account (see page C-2) during T-DROP participation. ATRS receives full employee contributions on behalf of these people.

ANNUITIES BEING PAID RETIREES AND BENEFICIARIES JULY 1, 2013
BY TYPE OF ANNUITY BEING PAID

Type of Annuity	No.	Annual Amounts: Original Annuities	Annual Amounts: Base Annuities	Annual Amounts: Current Annuities
RETIREMENT RESERVE ACCOUNT				
Age & Service				
Option 1 (Basic single life)	25,200	$ 356,544,245	$ 479,326,673	$ 533,159,118
Option A (Joint & 100% Survivor)	3,797	62,149,229	76,973,949	85,562,892
Option B (Joint & 50% Survivor)	2,039	43,397,552	56,074,927	62,428,959
Option C (10-year certain)	745	11,581,432	12,937,694	14,319,267
Beneficiaries	822	12,510,511	14,330,011	16,019,797
Totals	32,603	486,182,969	639,643,254	711,490,033
Disability				
Option 1	1,976	18,484,214	24,801,823	27,461,902
Option A	314	3,240,672	3,841,308	4,227,825
Option B	78	1,005,069	1,250,440	1,382,037
Option C	62	537,230	563,027	623,594
Beneficiaries	300	2,972,389	3,943,549	4,403,017
Totals	2,730	26,239,574	34,400,147	38,098,375
Act 793	211	1,249,974	2,196,299	2,196,299
Totals	35,544	513,672,517	676,239,700	751,784,707
SURVIVOR'S BENEFIT ACCOUNT				
Beneficiaries of Deceased Members	632	5,704,975	7,663,423	8,491,667
ACT 808				
Act 808	78	1,384,760	3,484,853	3,484,853
RETIREMENT SYSTEM TOTALS				
Total Annuities Being Paid	36,254	$ 520,762,252	$ 687,387,976	$ 763,761,227

The Original Annuity is the annuity at the date of retirement.
The Base Annuity is the amount from which the 3.0% COLA is calculated.
The Current Annuity is the annuity payable at July 1, 2013.





** Beginning with the June 30, 2011 valuation, active members include T-DROP participants and payroll.*

BENEFIT CHANGES DURING RECENT YEARS OF RETIREMENT & RELATED CHANGES IN PURCHASING POWER (1980 $)

Year Ended June 30	Increase Beginning of Year	Benefit Dollars in Year*	Inflation (Loss) in Year#	Purchasing Power at Year End	
				1980 $	% of 1980
1980	- - - -	$ 5,000	- - - -	$ 5,000	100%
1981	$ 75	5,075	(9.6)%	4,632	93%
1982	152	5,227	(7.1)%	4,456	89%
1983	152	5,379	(2.6)%	4,471	89%
1984	431	5,810	(4.2)%	4,633	93%
1985	438	6,248	(3.7)%	4,802	96%
1986	509	6,757	(1.7)%	5,103	102%
1987	197	6,954	(3.7)%	5,067	101%
1988	400	7,354	(3.9)%	5,154	103%
1989	503	7,857	(5.1)%	5,236	105%
1990	497	8,354	(4.7)%	5,319	106%
1991	230	8,584	(4.7)%	5,220	104%
1992	762	9,346	(3.1)%	5,513	110%
1993	792	10,138	(3.0)%	5,806	116%
1994	820	10,958	(2.5)%	6,123	122%
1995	303	11,261	(3.0)%	6,107	122%
1996	303	11,564	(2.8)%	6,103	122%
1997	1,657	13,221	(2.3)%	6,821	136%
1998	1,214	14,435	(1.7)%	7,324	146%
1999	323	14,758	(2.0)%	7,344	147%
2000	1,039	15,797	(3.7)%	7,583	152%
2001	1,220	17,017	(3.2)%	7,907	158%
2002	672	17,689	(1.1)%	8,132	163%
2003	468	18,157	(2.1)%	8,174	163%
2004	468	18,625	(3.3)%	8,120	162%
2005	468	19,093	(2.5)%	8,118	162%
2006	468	19,561	(4.3)%	7,973	159%
2007	468	20,029	(2.7)%	7,950	159%
2008	468	20,497	(5.0)%	7,747	155%
2009	468	20,965	1.4 %	8,038	161%
2010	629	21,594	(1.1)%	8,193	164%
2011	648	22,242	(3.6)%	8,149	163%
2012	648	22,890	(1.7)%	8,249	165%
2013	648	23,538	(1.8)%	8,336	167%
2014	648	24,186			

* *The $5,000 benefit used to begin this schedule is an arbitrary amount. A smaller beginning amount would show a smaller purchasing power loss in percent loss.*

\# *Based on Consumer Price Index, All Urban Consumers, United States City Average (June values).*

BENEFIT CHANGES DURING RECENT YEARS OF RETIREMENT & RELATED CHANGES IN PURCHASING POWER (1990 $)

Year Ended June 30	Increase Beginning of Year	Benefit Dollars in Year*	Inflation (Loss) in Year#	Purchasing Power At Year End	
				1990 $	% of 1990
1990	- - - -	$ 5,000	- - - -	$ 5,000	100%
1991	$ 150	5,150	(4.7)%	4,919	98%
1992	457	5,607	(3.1)%	5,195	104%
1993	475	6,082	(3.0)%	5,471	109%
1994	492	6,574	(2.5)%	5,770	115%
1995	182	6,756	(3.0)%	5,755	115%
1996	182	6,938	(2.8)%	5,751	115%
1997	330	7,268	(2.3)%	5,889	118%
1998	667	7,935	(1.7)%	6,324	126%
1999	177	8,112	(2.0)%	6,340	127%
2000	849	8,961	(3.7)%	6,756	135%
2001	826	9,787	(3.2)%	7,143	143%
2002	387	10,174	(1.1)%	7,346	147%
2003	270	10,444	(2.1)%	7,385	148%
2004	270	10,714	(3.3)%	7,337	147%
2005	270	10,984	(2.5)%	7,336	147%
2006	270	11,254	(4.3)%	7,205	144%
2007	270	11,524	(2.7)%	7,185	144%
2008	270	11,794	(5.0)%	7,002	140%
2009	270	12,064	1.4 %	7,265	145%
2010	362	12,426	(1.1)%	7,405	148%
2011	373	12,799	(3.6)%	7,366	147%
2012	373	13,171	(1.7)%	7,456	149%
2013	373	13,544	(1.8)%	7,535	151%
2014	373	13,917			

* *The $5,000 benefit used to begin this schedule is an arbitrary amount. A smaller beginning amount would show a smaller purchasing power loss in percent loss.*

\# *Based on Consumer Price Index, All Urban Consumers, United States City Average (June values).*

BENEFIT CHANGES DURING RECENT YEARS OF RETIREMENT & RELATED CHANGES IN PURCHASING POWER (2000 $)

Year Ended June 30	Increase Beginning of Year	Benefit Dollars in Year*	Inflation (Loss) in Year#	Purchasing Power At Year End	
				2000 $	% of 2000
2000	$ - - - -	$ 5,900	- - - -	$5,900	100%
2001	177	6,077	(3.2)%	5,886	100%
2002	252	6,329	(1.1)%	6,065	103%
2003	179	6,508	(2.1)%	6,108	104%
2004	179	6,687	(3.3)%	6,078	103%
2005	179	6,867	(2.5)%	6,086	103%
2006	179	7,046	(4.3)%	5,987	101%
2007	179	7,225	(2.7)%	5,978	101%
2008	179	7,404	(5.0)%	5,834	99%
2009	179	7,583	1.4 %	6,061	103%
2010	228	7,811	(1.1)%	6,178	105%
2011	234	8,045	(3.6)%	6,145	104%
2012	234	8,280	(1.7)%	6,221	105%
2013	234	8,514	(1.8)%	6,286	107%
2014	234	8,748			

* *The $5,900 benefit used to begin this schedule is an arbitrary amount. A smaller beginning amount would show a smaller purchasing power loss in percent loss.*

\# *Based on Consumer Price Index, All Urban Consumers, United States City Average (June values).*

SECTION F

FINANCIAL PRINCIPLES

FINANCIAL PRINCIPLES AND OPERATIONAL TECHNIQUES

Promises Made and To Be Paid For. As each year is completed, the System, in effect, hands an "IOU" to each member then acquiring a year of service credit. The "IOU" says: "The Arkansas Teacher Retirement System owes you one year's worth of retirement benefits, payments in cash commencing when you qualify for retirement."

The related ***key financial questions*** are:
Which generation of taxpayers contributes the money to cover the IOU?
The present taxpayers, who receive the benefit of the member's present year of service?
Or the future taxpayers, who happen to be in Arkansas at the time the IOU becomes a cash demand?

The financial objective of the ATRS is that this year's taxpayers contribute the money to cover the IOUs being handed out this year so that ***the employer contribution rate will remain approximately level from generation to generation*** -- our children and our grandchildren will not have to contribute greater percents of pay than we contribute now. This objective was set forth in Act 793 of 1977.

(There are systems which have ***a design for deferring contributions to future <u>taxpayers</u>***, lured by a lower contribution rate now and putting aside the fact that the contribution rate must then relentlessly grow much greater over decades of time -- consume now, and let your children face higher contribution rates after you retire.)

An inevitable byproduct of the level-cost design is the accumulation of reserve assets for decades and the income produced when the assets are invested. ***Investment income*** becomes the ***third and largest contributor*** for benefits to employees, and is interlocked with the contribution amounts required from employees and employers.

Translated to actuarial terminology, this level-cost objective means that the contribution rates must total at least the following:

> Normal Cost (the cost of members' service being rendered this year)
> … plus …
> Interest on Unfunded Actuarial Accrued Liabilities (unfunded accrued liabilities are the difference between (i) liabilities for service already rendered and (ii) the accrued assets of the plan).

Computing Contributions to Support System Benefits. From a given schedule of benefits and from the employee data and asset data furnished, the actuary determines the contribution rates to support the benefits, by means of ***an actuarial valuation***. An actuarial valuation has a number of ingredients such as: the rate of investment income which plan assets will earn; the rates of withdrawal of active members who leave covered employment before qualifying for any monthly benefit; the rates of mortality; the rates of disability; the rates of pay increases; and the assumed age or ages at actual retirement. In an actuarial valuation, assumptions must be made as to what the above rates will be, for the next year and for decades in the future. Only the subsequent actual experience of the System can indicate the degree of accuracy of the assumptions.

Reconciling Differences Between Assumed Experience and Actual Experience. Once actual experience has occurred and been observed, it will not coincide exactly with assumed experience, regardless of the accuracy of the various financial assumptions or the skill of the actuary and the precision of the calculations made. The System copes with these continually changing differences by having annual actuarial valuations. Each actuarial valuation is a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The result is continual adjustments in financial position.

THE ACTUARIAL VALUATION PROCESS

The financing diagram on the next page shows the relationship between the two fundamentally different philosophies of paying for retirement benefits: the method where contributions match cash benefit payments (or barely exceed cash benefit payments, as in the Federal Social Security program), and is thus an ***increasing contribution method***; and the ***level contribution method*** which equalizes contributions between the generations.

The actuarial valuation is the mathematical process by which the level contribution rate is determined, and the flow of activity constituting the valuation may be summarized as follows:

A. ***Census Data***, furnished by plan administrator
   - Retired lives now receiving benefits
   - Former employees with vested benefits not yet payable
   - Active employees

B. + ***Asset data*** (cash & investments), furnished by plan administrator

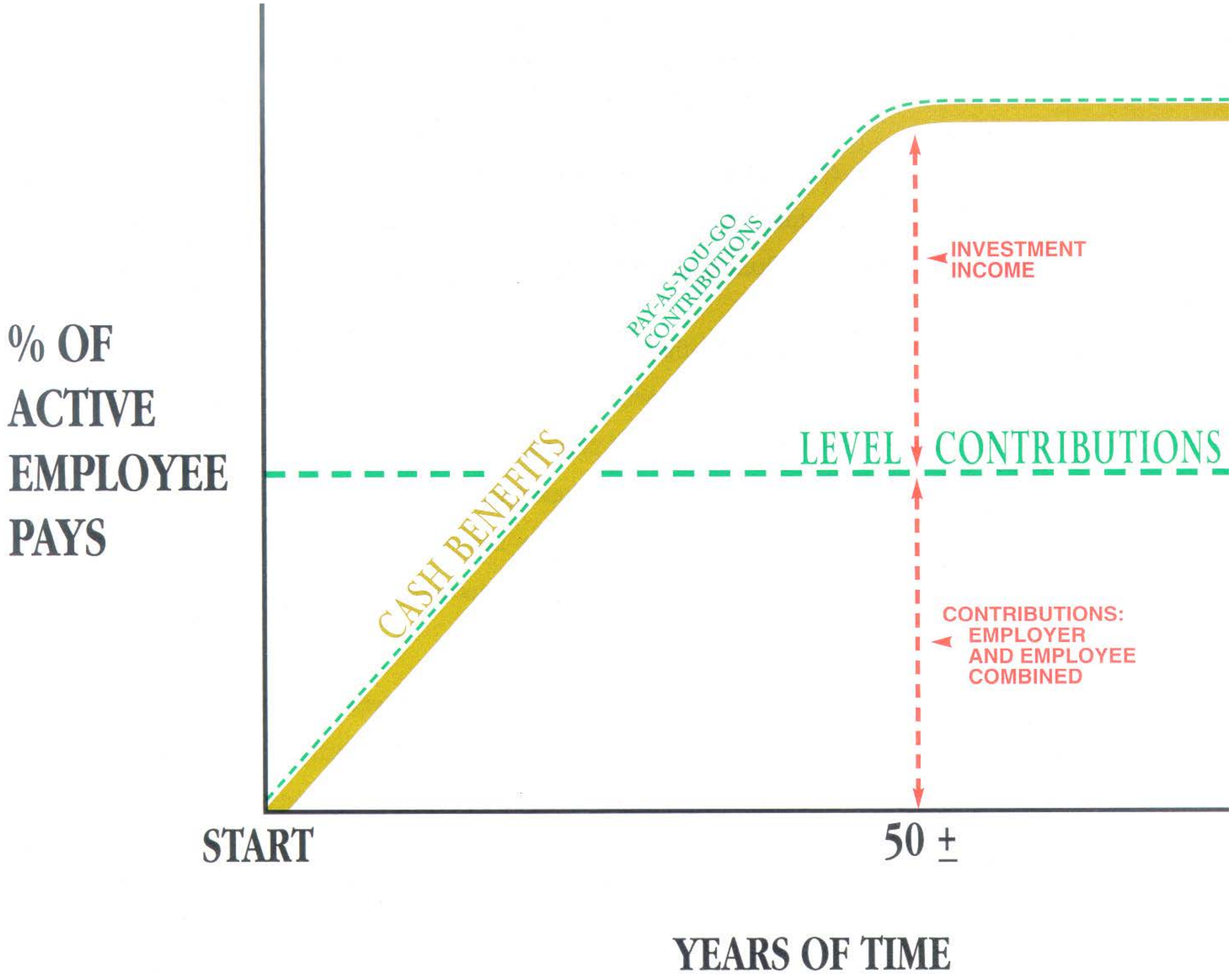
C. + **Benefit provisions** that establish eligibility and amounts of payments to members

D. + ***Assumptions concerning future financial experiences in various risk areas***, which assumptions are established by the Board of Trustees after consulting with the actuary.

E. + ***The funding method*** for employer contributions (the long-term planned pattern for employer contributions)

F. + ***Mathematically combining the assumptions, the funding method, and the data***

G. = Determination of:
   - ***Plan financial position***, and/or
   - ***New Employer Contribution Rate***



CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

- Economic Risk Areas
  - Rates of investment return
  - Rates of pay increase
  - Changes in active member group size
- Non-Economic Risk Areas
  - Ages at actual retirement
  - Rates of mortality
  - Rates of withdrawal of active members (turnover)
  - Rates of disability

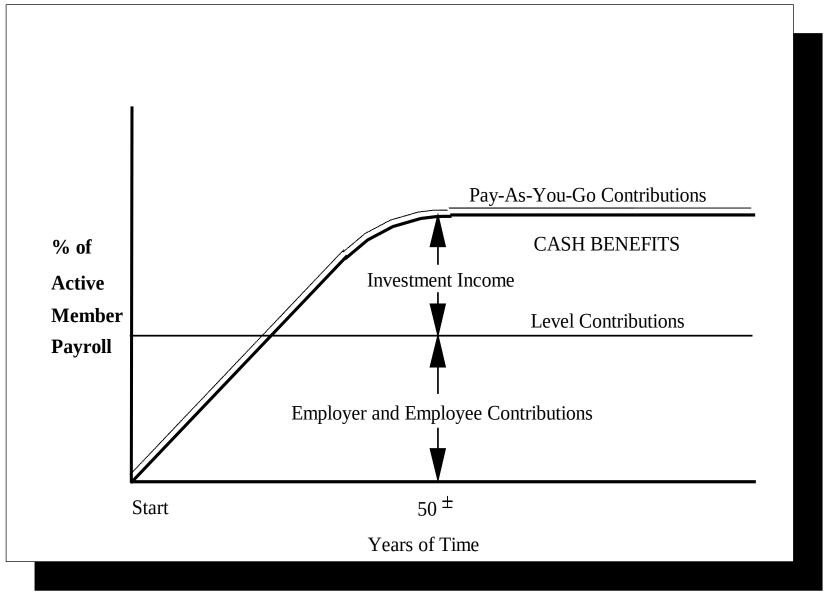
SECTION G

ACTUARIAL ASSUMPTIONS

SELECTION OF ASSUMPTIONS USED IN ACTUARIAL VALUATIONS

Economic Assumptions

Investment return
Pay increases to individual employees:
  the portion for economic changes
Active member group size and
  total payroll growth



Demographic Assumptions

Actual ages at service retirement
Pay increases to individual members:
  the portion for merit & seniority
Disability while actively employed
Separations before retirement
Mortality after retirement
Mortality before retirement

RELATIONSHIP BETWEEN PLAN GOVERNING BODY AND THE ACTUARY

The actuary should have the primary responsibility for choosing the ***demographic*** assumptions used in the actuarial valuation, making use of specialized training and experience.

The actuary and other professionals can provide guidance concerning the choice of suitable economic assumptions, but the basis of the economic assumptions is the assumed rate of ***inflation***, a quantity which defies accurate prediction. Given an assumed rate of future inflation, it is very important that this rate be applied in a consistent manner in deriving the assumed rate of investment return, the economic portion of the assumption on pay increases to individual employees, and the assumed rate of growth of active member payroll. Consistent application of assumptions is an area in which the actuary has specialized training.

A sound procedure is that the actuary suggests reasonable alternatives for economic assumptions, followed by discussion involving the actuary, the Plan Governing Body, and other professionals, and the Plan Governing Body then makes a final choice from the various alternatives.

Summary of Assumptions Used in Actuarial Valuations For the Arkansas Teacher Retirement System Assumptions Adopted by Board of Trustees After Consulting With Actuary

Economic Assumptions

The investment return rate used in the valuation was 8% per year, compounded annually (net after administrative expenses). This rate of return is not the assumed real rate of return. The real rate of return over wage inflation in this valuation is defined to be the portion of investment return which is more than the wage inflation rate. Considering wage inflation recognition of 3.25%, the 8% rate translates to an assumed real rate of return over wage inflation of 4.75%. This rate was first used for the ***June 30, 2011*** valuation. The assumed real rate of return over price inflation would be higher – on the order 5% to 5.25%.

Pay increase assumptions for individual active members are shown on pages G-7 and G-8. Part of the assumption for each age is for a merit and/or seniority increase, and the other 3.25% recognizes wage inflation. These rates were first used for the ***June 30, 2011*** valuation.

No specific ***Price Inflation*** is needed for this valuation. However, the wage inflation and interest rate assumptions would be compatible with a price inflation assumption of 2.75%. It is assumed that the 3% COLA will always be paid.

The Active Member Group size is assumed to remain constant at its present level.

Total active member payroll is assumed to increase 3.25% per year, which is the portion of the individual pay increase assumptions attributable to wage inflation. This rate was first used for the ***June 30, 2011*** valuation.

Non-Economic Assumptions

The mortality table used was the RP-2000 Mortality table for males and females projected 25 years with scale AA (95% for men & 87% for women). Mortality rates were adjusted to include a small margin for future mortality improvement as described in the table named above. Related values are shown on page G-4. This table was first used for the ***June 30, 2011*** valuation. For disabled lives, the mortality table used was the 1983 Group Annuity Mortality Table set forward 5 years. The set forward of 5 years was first used for the ***June 30, 2002*** valuation.

The probabilities of retirement for members eligible to retire are shown on page G-5 and G-6. The rates for full retirement were first used in the ***June 30, 2011*** valuation. The rates for reduced retirement were first used in the ***June 30, 2002*** valuation.

The probabilities of withdrawal from service, ***death-in-service*** and ***disability*** are shown for sample ages on pages G-7 and G-8. These rates were first used in the ***June 30, 2011*** valuation.

The entry age actuarial cost method of valuation was used in determining accrued liabilities and normal cost.

Differences in the past between assumed experience and actual experience ("actuarial gains and losses") become part of actuarial accrued liabilities.

Unfunded actuarial accrued liabilities are amortized to produce contribution amounts (the total of principal & interest) which are level percents of payroll contributions.

These cost methods were first used in the June 30, 1986 valuation.

Asset Valuation Method. A market value related asset method is used as described on page D-1. This method was first used in the June 30, 1995 valuation. It was modified following the 1997-2002 Experience Study to include an 80% - 120% market value corridor.

The data about persons now covered and about present assets was furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the Actuary. Members whose dates of birth were not supplied were assumed to be 40 years old on the valuation date. Members whose salaries were not supplied and that entered T-DROP before September 2003 were assumed to have the group average pay of $65,814. Those that entered after were assumed to have the group average pay of $60,400.

SINGLE LIFE RETIREMENT VALUES

Sample Attained Ages	Present Value of $1.00 Monthly for Life		Present Value of $1 Monthly for Life Increasing 3.0% Annually		Future Life Expectancy (years)		Percent Dying within Next Year	
	Men	Women	Men	Women	Men	Women	Men	Women
40	$147.45	$148.74	$192.83	$195.36	43.26	45.92	0.08 %	0.04 %
45	144.24	145.78	186.54	189.56	38.45	41.03	0.10 %	0.07 %
50	139.69	141.63	178.19	181.91	33.65	36.18	0.13 %	0.10 %
55	133.32	135.93	167.28	172.06	28.89	31.39	0.21 %	0.19 %
60	124.93	128.62	153.79	160.06	24.28	26.77	0.43 %	0.39 %
65	114.53	119.62	137.94	146.03	19.92	22.41	0.85 %	0.74 %
70	102.19	109.01	120.09	130.24	15.89	18.36	1.45 %	1.28 %
75	87.25	96.62	99.84	112.72	12.15	14.64	2.53 %	2.00 %
80	70.65	82.27	78.66	93.60	8.86	11.25	4.76 %	3.35 %
85	54.64	66.59	59.29	73.90	6.25	8.29	8.83 %	5.80 %
Ref:	472 x 0.95	473 x 0.87	472 x 0.95	473 x 0.87				

Sample Attained Ages	Benefit Increasing 3.0% Yearly	Portion of Age 60 Lives Still Alive	
		Men	Women
60	$100.00	100%	100%
65	115.00	97%	97%
70	130.00	92%	93%
75	145.00	84%	86%
80	160.00	71%	76%
Ref		472 x 0.95	473 x 0.87

PROBABILITIES OF RETIREMENT FOR MEMBERS

Retirement Ages	% of Active Participants Retiring with Unreduced Benefits			
	Education		Support	
	Male	Female	Male	Female
48	59%	55%	25%	25%
49	67%	25%	54%	22%
50	11%	7%	3%	9%
51	7%	6%	5%	7%
52	7%	6%	8%	7%
53	7%	8%	9%	8%
54	8%	8%	9%	8%
55	9%	9%	6%	10%
56	11%	10%	10%	9%
57	11%	12%	10%	10%
58	11%	12%	16%	14%
59	14%	16%	16%	27%
60	16%	16%	11%	13%
61	15%	15%	10%	14%
62	30%	26%	29%	22%
63	24%	22%	21%	18%
64	22%	20%	25%	20%
65	37%	43%	46%	40%
66	43%	41%	38%	36%
67	35%	34%	37%	35%
68	31%	33%	39%	28%
69	25%	33%	26%	34%
70	37%	40%	33%	34%
71	41%	30%	34%	33%
72	32%	34%	41%	31%
73	44%	36%	32%	34%
74	30%	30%	29%	34%
75	100%	100%	100%	100%
Ref	2013	2014	2015	2016

These rates are based upon data presented in the 2005-2010 experience study and were first used in the 2011 valuation.

PROBABILITIES OF REDUCED RETIREMENT FOR MEMBERS

Retirement Ages	% of Active Participants Retiring with Reduced Benefits			
	Education		Support	
	Male	Female	Male	Female
50	2%	2%	2%	2%
51	2%	2%	2%	2%
52	3%	3%	3%	3%
53	4%	4%	4%	4%
54	4%	4%	4%	4%
55	6%	6%	6%	6%
56	9%	5%	9%	5%
57	9%	5%	9%	5%
58	9%	5%	9%	5%
59	9%	5%	9%	5%
Ref	826	825	826	825

DURATION OF T-DROP FOR MEMBERS

Present T-DROP members are assumed to remain in T-DROP according to the following table:

Entry Age	Assumed Duration Years
50-56	6
57	5
58	4
59+	3

Future retirees are assumed to have entered T-DROP at the time that is to their greatest financial advantage based on the schedule above.

TEACHERS
SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE AGE AND SERVICE RETIREMENT & INDIVIDUAL PAY INCREASES

Sample Ages	Service	Percent of Active Members Separating Within the Next Year					
		Death		Disability		Other	
		Men	Women	Men	Women	Men	Women
	0					25.30%	18.00%
	1					13.80%	11.30%
	2					10.60%	9.10%
	3					8.40%	8.40%
	4					5.00%	6.60%
25	5 & Up	0.01%	0.01%	0.05%	0.05%	3.50%	4.00%
30		0.02%	0.01%	0.05%	0.04%	3.60%	4.30%
35		0.03%	0.02%	0.04%	0.05%	2.80%	2.90%
40		0.04%	0.02%	0.08%	0.09%	2.30%	2.10%
45		0.05%	0.03%	0.18%	0.16%	1.90%	1.80%
50		0.07%	0.05%	0.40%	0.39%	2.90%	2.20%
55		0.11%	0.10%	0.73%	0.69%	3.60%	2.60%
60		0.22%	0.20%	0.96%	0.86%	3.10%	2.30%
65		0.43%	0.38%	1.00%	0.90%	2.50%	1.80%
Ref:		472 x 0.48	473 x 0.44	737 x 1	738 x 1	718 1192	719 1193

Age	Pay Increase Assumptions for an Individual Member		
	Merit & Seniority	Base (Economic)	Increase Next Year
20	5.10%	3.25%	8.35%
25	4.10%	3.25%	7.35%
30	3.10%	3.25%	6.35%
35	2.10%	3.25%	5.35%
40	1.40%	3.25%	4.65%
45	0.90%	3.25%	4.15%
50	0.46%	3.25%	3.71%
55	0.12%	3.25%	3.37%
60	0.00%	3.25%	3.25%
65	0.00%	3.25%	3.25%
Ref:	388		

SUPPORT EMPLOYEES
SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE AGE AND SERVICE RETIREMENT & INDIVIDUAL PAY INCREASES

Sample Ages	Service	Percent of Active Members Separating Within the Next Year					
		Death		Disability		Other	
		Men	Women	Men	Women	Men	Women
	0					47.50%	46.80%
	1					27.30%	24.90%
	2					18.90%	17.00%
	3					15.30%	13.20%
	4					10.80%	10.40%
25	5 & Up	0.01%	0.01%	0.05%	0.04%	11.10%	9.50%
30		0.02%	0.01%	0.10%	0.05%	9.00%	7.20%
35		0.03%	0.02%	0.10%	0.05%	6.90%	5.40%
40		0.04%	0.02%	0.12%	0.07%	5.40%	4.90%
45		0.05%	0.03%	0.20%	0.16%	4.30%	4.40%
50		0.07%	0.05%	0.55%	0.34%	3.90%	3.60%
55		0.11%	0.10%	0.88%	0.59%	3.50%	3.00%
60		0.22%	0.20%	0.98%	0.76%	2.80%	2.50%
65		0.43%	0.38%	1.00%	0.80%	2.30%	2.00%
Ref:		472 x 0.48	473 x 0.44	739 x 1	740 x 1	720 1194	721 1195

Age	Pay Increase Assumptions for an Individual Member		
	Merit & Seniority	Base (Economic)	Increase Next Year
20	5.85%	3.25%	9.10%
25	4.97%	3.25%	8.22%
30	3.93%	3.25%	7.18%
35	3.33%	3.25%	6.58%
40	2.65%	3.25%	5.90%
45	1.29%	3.25%	4.54%
50	0.35%	3.25%	3.60%
55	0.00%	3.25%	3.25%
60	0.00%	3.25%	3.25%
65	0.00%	3.25%	3.25%
Ref:	389		

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS
JUNE 30, 2013

Marriage Assumption:	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing:	Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Decrement Timing:	Decrements are assumed to occur mid-year, with the exception of normal and early retirement which are assumed to occur at the beginning of the year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and the service nearest whole year on the date of the valuation.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability does not operate during the first 5 years of service. Disability and turnover do not operate during retirement eligibility.
Normal Form of Benefit:	The assumed normal form of benefit is the straight life form.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made. The payroll used for this purpose is payroll for all active members plus payroll for members who entered T-DROP on or after September 2003.
Loads:	Active member liabilities were increased by 0.25% to account for subsidized Options, Service Purchases, etc.

SECTION H

GLOSSARY

GLOSSARY

Accrued Service. The service credited under the plan which was rendered before the date of the actuarial valuation.

Accumulated Benefit Obligation. The actuarial present value of vested and non-vested benefits based on service to date and past and current salary levels.

Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability".

Actuarial Assumptions. Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method".

Actuarial Equivalent. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Actuarial Present Value of Credited Projected Benefits or Pension Benefit Obligation. The present value of future benefits based on service to date and the effect projected salary increases.

GLOSSARY

Actuary. A person who is trained in the applications of probability and compound interest to solve problems in business and finance that involve payment of money in the future, contingent upon the occurrence of future events. Most actuaries in the United States are Members of the American Academy of Actuaries. The Society of Actuaries is an international research, education and membership organization for actuaries in the life and health insurance, employee benefits, and pension fields. It administers a series of examinations leading initially to Associateship and the designation A.S.A. and ultimately to Fellowship with the designation F.S.A. The federal government certifies actuaries to practice under ERISA with the designation of E.A.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Experience Gain (Loss). A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost". Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Plan Termination Liability. The actuarial present value of future plan benefits based on the assumption that there will be no further accruals for future service and salary. The termination liability will generally be less than the liabilities computed on a "going concern" basis and is not normally determined in a routine actuarial valuation.

Reserve Account. An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability".

Valuation Assets. The value of current plan assets recognized for valuation purposes. Generally based on book value plus a portion of unrealized appreciation or depreciation.

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December 11, 2013

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

Re: Report of June 30, 2013 Actuarial Valuation of Active and Inactive Members

Dear Mr. Hopkins:

Enclosed are 15 copies of the report. If you need anything else, please call.

Sincerely,

Judith A. Kermans

JAK:rmn
Enclosures