

**ARIZONA ELECTED OFFICIALS' RETIREMENT PLAN
CONSOLIDATED REPORT**

JUNE 30, 2012



October 12, 2012

The Board of Trustees
Arizona Elected Officials' Retirement Plan
Phoenix, Arizona

Re: Arizona Elected Officials' Retirement Plan Actuarial Valuation as of June 30, 2012

Ladies and Gentlemen:

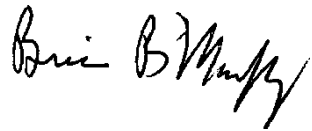
The results of the June 30, 2012 annual actuarial valuation of members covered by the Arizona Elected Officials' Retirement Plan (EORP) are presented in this report. The purpose of the valuation was to measure the System's funding progress, provide actuarial information in connection with applicable Governmental Accounting Standards Board Statements and to determine the employer contribution for the 2013-2014 fiscal year. This report should not be relied upon for any other purpose. This report may be distributed to parties other than the System only in its entirety and only with the permission of the Board.

The valuation was based upon information, furnished by the State Retirement System, concerning Retirement System benefits, financial transactions, and individual members, terminated members, retirees and beneficiaries. Data was checked for internal and year to year consistency, but was not otherwise audited by us. As a result, we are unable to assume responsibility for the accuracy or completeness of the data provided.


Future actuarial measurements may differ significantly from those presented in this report due to such factors as experience differing from that anticipated by actuarial assumptions, changes in plan provisions, actuarial assumptions/methods or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements.

To the best of our knowledge, this report is complete and accurate and the valuation was conducted in accordance with standards of practice prescribed by the Actuarial Standards Board and in compliance with the applicable state statutes. The undersigned are independent of the plan sponsor and are Members of the American Academy of Actuaries (MAAA) who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. It is our opinion that the actuarial assumptions used for the valuation produce results which are reasonable.

Respectfully submitted,

Handwritten signature of Brian B. Murphy in black ink.

Brian B. Murphy, FSA, EA, MAAA

Handwritten signature of Mark Buis in black ink.

Mark Buis, FSA, EA, MAAA

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EXECUTIVE SUMMARY/BOARD SUMMARY

1. Required Employer Contributions to Support Retirement Benefits

The computed employer contribution and funded status for the fiscal year beginning July 1, 2013 is shown below.

	Employer Contribution	Funded Status
EORP	39.62%	58.4%

2. Contribution Rate Comparison

The chart below compares the results of this valuation of the Retirement Plan with the results of the prior year's valuation:

Valuation Date	Employer Contribution	Funded Status
6/30/2011	36.44%	62.1%
6/30/2012	39.62%	58.4%

3. Reasons for Change

There are three general reasons why contribution rates change from one valuation to the next. The first is a change in the benefits or eligibility conditions of the plan. The second is a change in the valuation assumptions or methods used to predict future occurrences. The third is the difference during the year between the plan's actual experience and what the assumptions predicted.

EXECUTIVE SUMMARY/BOARD SUMMARY

The following benefit changes were reflected in the valuation:

- Member contributions are increased from 11.50% to 13.00% of pay for the fiscal year 2013-2014 with a maintenance of effort provision. The entire schedule is shown on page F-4.

The following method and assumption changes were reflected in the valuation:

- The recommendations of the assumption study completed in May 2012, including demographic assumption changes.
- The investment return assumption was decreased to 8.00% from 8.25%.
- For the June 30, 2013 valuation the Board adopted an investment return of 7.85% and wage inflation of 4.00%.

The contribution rate increased from 36.44% of payroll last year to 39.62% of payroll this year for the following reasons:

- Continued phase-in of asset losses from prior years.
- Changes in the actuarial assumptions.

4. Plan Experience

Experience during the year ended June 30, 2012 was overall unfavorable. On a market value basis, the System's return for the year ended June 30, 2012 was -0.9%. However, the market value smoothing techniques used in this valuation of the System recognize both past and present investment gains and losses. The resulting actuarial asset yield for the year was 1.5%. The effects of the asset losses were partially offset by gains attributable to demographic experience. Detailed information related to System experience is shown on page B-2.

5. Looking Ahead

If the Market Value of Assets were used as the basis of our calculations (instead of the smoothed value), the employer contribution would have been approximately 45% of payroll (instead of 39.62% of payroll) and the funded status would have been about 49% (instead of 58.4%). If equity markets do not improve significantly, the June 30, 2013 valuation will likely show yet another increase in the employer contribution amount (absent any liability gains).

6. Conclusion

The continuing effect of prior losses was dampened by the 7-year smoothing period, and further offset by the effect of lower than expected pay increases. There remains \$59 million of unrecognized investment losses that will, in the absence of other gains, drive the contribution rate up over the next several years.

The retired lives are less than fully funded on a funding value of assets basis, but are much less than fully funded based upon the market value of assets. It is most important that this plan receive contributions at least equal to the rates shown in this report.

SECTION A
INTRODUCTION

FUNDING OBJECTIVE

The purpose of the annual actuarial valuation of the Arizona Elected Officials' Retirement Plan as of June 30, 2012 is to:

- Compute the liabilities associated with benefits likely to be paid on behalf of current retired and active members. This information is contained in Section B.
- Compare accrued assets with accrued liabilities to assess the funded condition. This information is contained in Section B.
- Compute the employers' recommended contribution rates for the Fiscal Year beginning July 1, 2013. This information is contained in Section A.

This objective is stated in Article 4, Chapter 5, Title 38, Sections 843B and 848N of the Arizona Revised Statutes.

CONTRIBUTION RATES

The Retirement Plan is supported by member contributions, employer contributions and investment income from Retirement Plan assets.

Contributions which satisfy the funding objective are determined by the annual actuarial valuation and are sufficient to:

- (1) Cover the actuarial present value of benefits allocated to the current year by the actuarial cost method described in Section E (the normal cost); and
- (2) Finance over a period of future years the actuarial present value of benefits not covered by valuation assets and anticipated future normal costs (the unfunded actuarial accrued liability).

Computed contribution rates for the fiscal year beginning July 1, 2013 are shown on page A-2.

CONTRIBUTION REQUIREMENTS

Development of Employer Contributions for the Indicated Valuation Date

	June 30,	
	2011	2012
Contribution for Fiscal Year	2013	2014
Pension		
Normal cost requirement		
Service pensions	22.12%	23.13%
Disability pensions	0.00	0.08
Survivors of active members	0.73	0.69
Refunds of members' accumulated contributions	<u>0.74</u>	<u>0.83</u>
Total normal cost requirement	23.59%	24.73%
Employee Contributions		
Total employee rate	11.50	13.00
Less maintenance of effort	4.50	6.00
Adjusted employee rate	<u>7.00%</u>	<u>7.00%</u>
Employer normal cost requirement	16.59%	17.73%
Amortization of unfunded liabilities	<u>18.05%</u>	<u>20.33%</u>
Total pension contribution requirement	34.64%	38.06%
Health		
Normal cost requirement	0.74%	0.58%
Amortization of unfunded liabilities	<u>1.06%</u>	<u>0.98%</u>
Total health contribution requirement	1.80%	1.56%
Total contribution requirement	36.44%	39.62%

Actuarial accrued liability, \$610,228,771, exceeded the funding value of assets, which was \$356,345,977. The resulting unfunded actuarial accrued liabilities were amortized as a level percent of payroll over a closed period of 24 years and added to the employer normal cost. The 24 year period is a one year decrease from last year.

HISTORICAL SUMMARY OF EMPLOYER RATES

Valuation Date	Fiscal Year		Unfunded Actuarial	
June 30	Ending June 30	Normal Cost	Accrued Liability	Total
2003	2005	21.12	(6.58)	14.54
2004	2006	22.17	(1.63)	20.54
2005	2007	22.57	1.70	24.27
2006	2008	16.59	3.62	20.21
2007	2009	18.46	9.54	28.00
2008	2010	17.34	8.91	26.25
2009	2011	18.51	11.28	29.79
2010	2012	18.52	14.47	32.99
2011	2013	17.33	19.11	36.44
2012	2014	18.31	21.31	39.62

2005 results were revised pursuant to changes enacted by the 2006 Legislature and the EORP Board of Trustees.

The statutory minimum employer contribution is 10% of payroll.

Results prior to 2009 were calculated by the prior actuary.

SECTION B
FUNDING RESULTS

PRESENT VALUE OF FUTURE BENEFITS AND ACCRUED LIABILITY

	June 30,	
	2011	2012
A. Accrued Liability		
1. For retirees and beneficiaries	\$ 393,829,905	\$ 400,005,375
2. For vested terminated members	4,533,840	5,162,792
3. For present active members		
a. Value of expected future benefit payments	274,865,744	298,240,420
b. Value of future normal costs	82,907,981	93,179,816
c. Active member accrued liability: (a) - (b)	191,957,763	205,060,604
4. Total accrued liability	590,321,508	610,228,771
B. Present Assets (Funding Value)	366,429,302	356,345,977
C. Unfunded Accrued Liability: (A.4) - (B)	223,892,206	253,882,794
D. Funding Ratio: (B) / (A.4)	62.1%	58.4%

DERIVATION OF EXPERIENCE GAIN/(LOSS)

Actual experience will never (except by coincidence) exactly match assumed experience. Gains and losses often cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the experience gain (loss) is shown below, along with a year-by-year comparative schedule.

	June 30,	
	2011	2012
(1) UAAL* at start of year	\$178,428,708	\$223,892,206
(2) Normal cost from last valuation	17,330,114	16,816,095
(3) Actual Contributions	28,330,985	29,408,781
(4) Interest Accrual	14,698,903	17,951,659
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	182,126,740	229,251,179
(6) Changes from benefit increases	8,290,257	-
(7) Changes in actuarial methods & assumptions	26,696,195	6,140,577
(8) Change in Reserve for future pension increases	\$(7,663,738)	-
(9) Expected UAAL after changes: (5) + (6) + (7) + (8)	209,449,454	235,391,756
(10) Actual UAAL at end of year	223,892,206	253,882,794
(11) Experience Gain/(Loss): (9) - (10)	(14,442,752)	(18,491,038)

* *Unfunded Actuarial Accrued Liabilities*

FY2012 Gains and Losses by Source

	Gain/(Loss)	% of Liabilities
Investment Return	\$(24,257,058)	-4.1%
Salary Increases	6,954,862	1.2%
Retirement	785,966	0.1%
Turnover	(1,417,911)	-0.2%
Disability	-	0.0%
Death-in-Service	81,153	0.0%
Retiree Mortality	(725,465)	-0.1%
Other	87,415	0.0%
Total	(18,491,038)	-3.1%

**UNFUNDED ACTUARIAL ACCRUED LIABILITIES
COMPARATIVE STATEMENT**

(Dollar amounts in \$'000s)

Valuation Date	(1) Actuarial Accrued Liabilities (AAL)	(2) Valuation Assets	(3) Unfunded AAL	(5) Funded Ratio (2)/(1)	(6) Financing Period	(7) Payroll	Liability Ratio	
							(8) Unfunded (3)/(7)	(9) Total (1)/(7)
2003	\$297,892	\$353,463	\$(55,571)	118.7%	20 yrs.	\$ 49,351	0.0%	603.6%
2004	328,921	343,376	(14,455)	104.4	20	50,624	0.0	649.7
2005	360,758	344,604	16,154	95.5	20	53,449	30.2	675.0
2006	391,403	351,701	39,702	89.9	30	54,696	72.6	715.6
2007	451,299	336,717	114,582	74.6	29	61,308	186.9	736.1
2008	454,340	348,013	106,327	76.6	28	62,184	171.0	730.6
2009	506,191	360,950	145,241	71.3	27	67,777	214.3	746.8
2010	535,771	357,342	178,429	66.7	26	66,442	268.5	806.4
2011	590,322	366,429	223,893	62.1	25	66,637	336.0	885.9
2012	610,229	356,346	253,883	58.4	24	67,934	373.7	898.3

The Unfunded Liability ratio gives a general measure of the ability to collect contributions to pay off the unfunded liabilities. The Total Liability ratio gives a longer term indication of the volatility of the contribution rate.

2005 results revised pursuant to changes in assumptions and methods enacted by the 2006 Legislature and the EORP Board of Trustees. Results prior to 2009 were calculated by the prior actuary.

SHORT CONDITION TEST

If the contributions to EORP are soundly executed, the Plan will *pay all promised benefits when due -- the ultimate test of financial soundness.*

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 active and inactive members.

In a system that has been following the discipline of pre-funding, 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 active and inactive 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.

Short Condition Test (Including Health Insurance Subsidy) (in \$'000s)

Calendar Year	Aggregate Actuarial Liabilities For			Actuarial Assets	Portion of Actuarial Liabilities covered by Assets		
	(1) Non-Retired Contributions	(2) Annuitants	(3) Non-Retired Members (Employer Financed Portion)		(1)	(2)	(3)
2009	\$40,924	\$324,200	\$141,067	\$360,950	100%	99%	0.0%
2010	43,283	349,417	143,071	357,342	100	90	0.0
2011	42,171	393,830	154,321	366,429	100	82	0.0
2012	47,274	400,005	162,949	356,346	100	77	0.0

SECTION C
FUND ASSETS

DEVELOPMENT OF FUNDING VALUE OF ASSETS (7-YEAR SMOOTHING)

Year Ended June 30:	2012	2013	2014	2015	2016	2017	2018
A. Funding Value Beginning of Year	\$ 366,429,302						
B. Market Value End of Year	296,954,981						
C. Market Value Beginning of Year	315,016,662						
D. Non Investment Net Cash Flow	(15,420,585)						
E. Investment Income							
E1. Total: B-C-D	(2,641,096)						
E2. Amount for Immediate Recognition: (8.25%)	29,594,318						
E3. Amount for Phased-in Recognition: E1-E2	(32,235,414)						
F. Phased in Recognition of Investment Income							
F1. Current Year: E3 / 7	(4,605,059)						
F2. First Prior Year	2,549,233	\$ (3,855,929)					
F3. Second Prior Year	594,564	2,549,233	\$ (3,855,929)				
F4. Third Prior Year	(13,156,236)	594,564	2,549,233	\$ (3,855,929)			
F5. Fourth Prior Year	(7,655,972)	(13,156,236)	594,564	2,549,233	\$ (3,855,929)		
F6. Fifth Prior Year	3,400,807	(7,655,972)	(13,156,236)	594,564	2,549,233	\$ (3,855,929)	
F7. Sixth Prior Year	(889,617)	3,400,808	(7,655,972)	(13,156,232)	594,562	2,549,235	\$ (3,855,932)
F8. Funding Value Corridor Adjustment	(4,494,778)						
F9. Total Recognized Investment Gain	(24,257,058)	(18,123,532)	(21,524,340)	(13,868,364)	(712,134)	(1,306,694)	(3,855,932)
G. Funding Value End of Year							
G1. Preliminary Funding Value End of Year: (A+D+E2+F1:F7)	360,840,755						
G2. Upper Corridor: (120% x B)	356,345,977						
G3. Lower Corridor: (80% x B)	237,563,985						
G4. End of Year: (G1 subject to max of G2 and min of G3)	356,345,977						
H. Difference Between Market Value & Funding Value: (B-G4)	(59,390,996)	(41,267,464)	(19,743,124)	(5,874,760)	(5,162,626)	(3,855,932)	0
I. Market Rate of Return	-0.9%						
J. Recognized Rate of Return	1.5%						
K. Ratio of Funding Value to Market Value	120.0%						

The funding value of assets recognizes assumed investment return (line E2) fully each year. Differences between actual and assumed investment return (line E3) are phased-in over a closed 7-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 actual and assumed rates of investment return are exactly equal for 7 consecutive years, the funding value will become equal to market value.

REVENUES AND DISBURSEMENTS

	2011	2012
Market Value at the Beginning of Year:	\$ 279,543,818	\$ 315,016,662
Revenues:		
a. Member contributions	\$ 6,168,434	\$ 7,519,470
b. Employer contributions	21,942,587	21,740,632
c. Interest and dividends	5,420,163	4,157,656
d. Investment gain	43,885,469	(5,391,819)
e. Net transfers	219,964	148,679
f. Total	\$ 77,636,617	\$ 28,174,618
Disbursements:		
a. Refunds of member contributions	216,689	89,631
b. Pension benefits	40,592,096	44,451,963
c. Investment expenses	1,030,645	1,406,933
d. Administrative expenses	324,343	287,772
e. Total	42,163,773	46,236,299
Reserve Increase:		
Total revenues minus total disbursements	35,472,844	(18,061,681)
Market Value at the End of Year:	\$ 315,016,662	\$ 296,954,981

SECTION D
CENSUS DATA

JUNE 30, 2012 VALUATION DATA SUMMARY

For purposes of the June 30, 2012 valuation, information on 1,969 covered persons was furnished. These people may be briefly described as follows.

	No.	Averages			
		Age	Years of Service	Annual Pay or Retirement Allowance	
				2012	2011
Actives	845	55.3	8.5	\$80,395	\$78,860
Retirees & Beneficiaries	992	72.0		44,264	43,901
Inactive Vested	132	54.6			
	1,969				

ACTIVE MEMBERS

**Members in Active Service as of June 30, 2012
by Years of Service**

Age	Years of Service							Total Count	Total Pay	Average Pay
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 & Up			
Under 25								-	\$ -	\$ -
25 - 29	7							7	340,476	48,639
30 - 34	16	3	1					20	752,747	37,637
35 - 39	24	7	2	1				34	1,429,637	42,048
40 - 44	48	15	3					66	5,262,262	79,731
45 - 49	48	28	12	7				95	8,591,046	90,432
50 - 54	51	44	26	14	2	1		138	12,472,656	90,382
55 - 59	41	52	48	34	5	1	1	182	16,329,345	89,722
60 - 64	35	44	41	35	2	4	1	162	14,237,174	87,884
65 and Over	36	33	35	23	8	4	2	141	8,518,577	60,415
Total	306	226	168	114	17	10	4	845	\$67,933,920	\$80,395

TERMINATED VESTED MEMBERS

Age	Years of Service					Total Count
	0 - 4	5 - 9	10 - 14	15 - 19	20 & Up	
Under 30						
30 - 39	3	1				4
40 - 44	7	7	1			15
45 - 49	4	7	2			13
50 - 54	16	14	4	2	1	37
55 - 59	5	17	4			26
60 - 69	13	17	3	3	1	37
70 and Over						
Total	48	63	14	5	2	132

RETIREES AND BENEFICIARIES

Attained Ages	Males		Females		Total	
	No.	Annual Pension Benefits	No.	Annual Pension Benefits	No.	Annual Pension Benefits
Under 25	1	\$ 32,169	0	\$ 0	1	\$ 32,169
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	3	22,211	0	0	3	22,211
40-44	4	48,541	2	20,492	6	69,033
45-49	4	43,086	2	12,037	6	55,123
50-54	13	408,939	14	354,129	27	763,068
55-59	33	1,451,301	27	1,187,431	60	2,638,732
60-64	91	5,498,013	62	3,252,344	153	8,750,357
65-69	118	6,156,891	57	2,480,062	175	8,636,953
70-74	116	5,863,905	60	1,978,521	176	7,842,426
75-79	106	5,252,540	59	2,069,719	165	7,322,259
80-84	66	3,047,867	43	1,286,891	109	4,334,758
85-89	37	1,226,167	48	1,419,967	85	2,646,134
90-94	8	276,627	13	426,386	21	703,013
95-99	1	11,599	3	67,468	4	79,067
100 and Over	1	14,837	0	0	1	14,837
Totals	602	\$29,354,693	390	\$14,555,447	992	\$43,910,140

Pension Being Paid		Number	Annual Pensions	Average Pensions
Retired Members	Service Pensions	785	\$36,507,430	\$46,506
	Disability Pensions	14	1,289,125	92,080
Totals		799	37,796,555	47,305
Survivors of Members	Spouses	191	6,040,263	31,624
	Children with Guardians	2	73,322	36,661
Total		193	6,113,585	31,677
Total Pension being Paid		992	\$43,910,140	\$44,264
		Average Age	Average Service	Average Age at Retirement
Normal retired members		71.0	14.5	61.1
Disability retired members		69.2	11.6	58.1
Spouse beneficiaries		76.4	13.5	57.7

**PENSIONS BEING PAID
HISTORICAL SCHEDULE**

Valuation Date June 30	No.	Annual Pensions	% Incr. in Annual Pensions	Average Pension	Present Value of Pensions	
					Total	Average
2003	709	\$22,308,359	13.8%	\$31,465	\$183,882,540	\$259,355
2004	730	23,854,186	6.9	32,677	204,302,428	279,866
2005	769	26,112,301	9.5	33,956	228,886,601	297,642
2006	797	28,044,340	7.4	35,187	248,357,037	311,615
2007	826	30,380,250	8.3	36,780	277,278,034	335,688
2008	872	32,850,340	8.1	37,672	285,633,966	327,562
2009	905	36,262,571	10.4	40,069	317,313,745	350,623
2010	921	39,337,025	8.5	42,711	342,362,491	371,729
2011	990	43,461,664	10.5	43,901	386,446,172	390,350
2012	992	43,910,140	1.0	44,264	392,503,050	395,668

Results prior to 2009 were prepared by the prior actuary.

SECTION E
METHODS AND ASSUMPTIONS

VALUATION METHODS

Actuarial Cost Method - Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using the Entry Age Normal Cost Method having the following characteristics:

- (i) The annual normal costs for each individual active member, payable from the date of employment to the date of retirement, are sufficient to accumulate to the value of the member's pension at time of retirement;
- (ii) Each annual normal cost is a constant percentage of the member's year by year projected compensation.

The entry-age actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's compensation between the entry age of the member and the assumed exit ages.

Actuarial Accrued Liability - The actuarial accrued liability is the portion of actuarial present value allocated to service rendered prior to the valuation date, including experience gains and losses. The actuarial accrued liability was computed using the assumptions summarized in this report.

Actuarial Value of System Assets - The actuarial value of assets recognizes assumed investment income fully each year. Differences between actual and assumed investment income are phased in over a closed seven year period subject to a 20% corridor. During periods when investment performance exceeds the assumed rate, actuarial value of assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, the actuarial value of assets will tend to be greater than market value.

Financing of Unfunded Actuarial Accrued Liabilities – The actuarial value of assets were subtracted from the computed actuarial accrued liability. Any unfunded amount would be amortized as level percent of payroll over a closed period of 24 years. If the actuarial value of assets exceeded the actuarial accrued liability, the excess was amortized over an open period of 20 years and applied as a credit to reduce the normal cost which otherwise would be payable.

Active member payroll was assumed to increase 4.50% annually for the purpose of computing the amortization payment (credit) as a level percent of payroll.

VALUATION ASSUMPTIONS

Beginning with the June 30, 2007 valuation and with each subsequent valuation, if the actuarial value of assets exceeds the actuarial accrued liabilities, one half of this excess in each year is allocated to a Stabilization Reserve. The Stabilization Reserve is excluded from the calculation of the employer contribution rates. The Stabilization Reserve continues to accumulate as long as the plan is over-funded. Once the plan becomes under-funded, the Stabilization Reserve will be used to dampen increases in the employer contribution rates.

The rate of investment return was 8.00% a year, compounded annually net of investment and administrative expenses.

The assumed real return is the rate of return in excess of wage growth. Considering other assumptions used in the valuation, the 8.00% nominal rate translates to a net real return over wage growth of 3.50% a year.

The rates of pay increase used for individual members are shown below. This assumption is used to project a member's current pay to the pay upon which System benefits will be based.

Sample Ages	Salary Increase Assumptions For an Individual Member		
	Merit & Seniority	Base (Economy)	Increase Next Year
20	0.25%	4.5%	4.75%
25	0.25%	4.5%	4.75%
30	0.25%	4.5%	4.75%
35	0.25%	4.5%	4.75%
40	0.25%	4.5%	4.75%
45	0.25%	4.5%	4.75%
50	0.25%	4.5%	4.75%
55	0.25%	4.5%	4.75%
60	0.25%	4.5%	4.75%
Ref:	1		

Active Member Payroll is assumed to grow at 4.50% per year. Although no specific price inflation assumption is required to perform this valuation, since no benefits are linked to prices, a price inflation assumption on the order of 3.0% to 4.0% would be consistent with the other economic assumptions.

VALUATION ASSUMPTIONS

The healthy mortality table used to evaluate death after retirement in this valuation of the System was the RP 2000 Mortality table projected to 2025 using projection scale AA with no adjustment for males and females. This assumption was first used for the June 30, 2012 valuation of the System and include margin for future improvements in mortality. Sample rates of mortality and years of life expectancy are shown below:

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.14%	0.11%	33.27	34.93
55	0.22	0.22	28.52	30.16
60	0.45	0.45	23.92	25.58
65	0.90	0.86	19.58	21.28
70	1.52	1.48	15.58	17.31
75	2.66	2.30	11.87	13.69
80	5.01	3.85	8.63	10.41
Ref:	472 x 1.00 0 year set forward	473 x 1.00 0 year set forward		

This assumption is used to measure the probabilities of each benefit payment being made after retirement. For disabled members, non-disability rates with a five year set forward were used.

The disabled mortality table used to evaluate death after retirement in this valuation of the System was the RP 2000 Mortality table projected to 2025 using projection scale AA set forward 10 years for both males and females. This assumption was first used for the June 30, 2012 valuation of the System. Sample rates of mortality and years of life expectancy are shown below:

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.45%	0.45%	23.88	25.54
55	0.90	0.86	19.54	21.23
60	1.52	1.48	15.54	17.27
65	2.66	2.30	11.83	13.64
70	5.01	3.85	8.59	10.37
75	9.29	6.66	6.02	7.52
80	16.59	12.22	4.13	5.39
Ref:	472 x 1.00 10 year set forward	473 x 1.00 10 year set forward		

VALUATION ASSUMPTIONS

For actives, the sample rates of mortality for death-in-service are shown below, and were first used for the June 30, 2012 valuation of the Plan.

Sample Attained Ages	Probability of Dying Next Year	
	Men	Women
50	0.10%	0.08%
55	0.17	0.17
60	0.34	0.33
65	0.67	0.64
Ref:	472 x 0.75 0 year set forward	473 x 0.75 0 year set forward

The rates of regular retirement used to measure the probability of eligible members retiring during the next year are shown below. This assumption was first used for the June 30, 2012 valuation of the Plan.

Retirement Rates: Age-related rates for employees who were hired before January 1, 2012 are shown below:

Age at Retirement	EORP
62	20%
63	20%
64	20%
65	20%
66	20%
67	20%
68	20%
69	20%
70	20%
71	20%
72	20%
73	20%
74	20%
75	100%
Ref.	2155

These retirement rates are applicable to employees attaining age 62 before attaining 20 years of service.

VALUATION ASSUMPTIONS

Service-related rates for employees who were hired before January 1, 2012 are shown below:

Service at Retirement	EORP
20	45%
21	40%
22	20%
23	15%
24	15%
25	20%
26	20%
27	20%
28	20%
29	20%
30	20%
31	20%
32	20%
33	20%
34	20%
35	100%
Ref.	2156

These retirement rates are applicable to employees attaining 20 years of service before attaining age 62.

Age-related rates for employees who were hired after January 1, 2012 are shown below:

Age at Retirement	EORP
62	40%
63	30%
64	20%
65	15%
66	15%
67	45%
68	45%
69	15%
70	100%
Ref.	1745

VALUATION ASSUMPTIONS

Early Retirement Rates: Service-related rates for employees who were hired before January 1, 2012 are shown below:

Service at Retirement	EORP
5	4.5%
6	4.5%
7	4.5%
8	4.5%
9	4.5%
10	4.5%
11	4.5%
12	4.5%
13	4.5%
14	4.5%
15	4.5%
16	4.5%
17	4.5%
18	4.5%
19	4.5%
Ref.	2157

Rates of separation from active membership used in the valuation are shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

Sample Ages	Service Index	% of Active Members Separating Within Next Year
All	1	6.00%
	2	6.00%
	3	6.00%
	4	6.00%
	5	6.00%
	6	6.00%
	7	6.00%
	8	6.00%
	9	6.00%
	10 & Over	2.00%
Ref.		607

VALUATION ASSUMPTIONS

Rates of disability among active members used in the valuation are shown below, and were first used for the June 30, 2012 valuation of the System.

Sample Ages	% of Active Members Becoming Disabled Within Next Year
	EORP
20	0.01%
25	0.01%
30	0.01%
35	0.01%
40	0.02%
45	0.02%
50	0.03%
55	0.03%
Ref	592
	25%

SUMMARY OF ASSUMPTIONS USED
JUNE 30, 2012
MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption:	85% of males and 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 for active member valuation purposes.
Pay Increase Timing:	Six months after the valuation date. This means that the pays received are assumed to be annual rates of pay on the valuation date as opposed to W-2 type earnings for the prior 12 months.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and turnover decrements do not operate during retirement eligibility.
Service Credit Accruals:	It is assumed that members accrue one year of service credit per year.
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.
Normal Form of Benefit:	A straight life payment is the assumed normal form of benefit for members who are not married, and the 75% Joint and Survivor form of payment with no reduction, for married members. 85% of members are assumed to be married at time of retirement.
Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.
Health Care Utilization:	70% of future retirees are expected to utilize health care. 85% of those are assumed to be married.
Future Cost of Living Increases:	Future cost of living increases are not reflected in the liabilities. The 2012 Experience Study recommended reducing the expected rate of return by approximately 0.5% to account for this contingency.

SECTION F
PLAN PROVISIONS

SUMMARY OF PLAN PROVISIONS VALUED AND/OR CONSIDERED

Normal Retirement (no reduction for age). An elected official may retire upon meeting one of the following age and service requirements:

- ❖ Age 60 years with 25 or more years of credited service;
- ❖ Age 62 years with 10 or more years of credited service;
- ❖ Age 65 years with 5 or more years of credited service;

The amount of a normal retirement pension is four percent of average yearly salary multiplied by years of credited service. Maximum is 80 percent of average yearly salary. Effective July 17, 1994, average yearly salary is the elected official's highest average salary during a three-consecutive year period within the final 10 years of service. For elected officials whose membership commenced before July 17, 1994, average yearly salary will generally be final salary at termination of service.

Effective August 6, 1999, a member may retire at any age with 20 or more years of credited service.

Early Retirement (reduction for age). An elected official who is at least 50 years and has 10 or more years of credited service may retire before meeting an age and service requirement for normal retirement. The amount of an early retirement pension is computed by determining the amount of accrued normal retirement pension and then reducing the amount determined by three-twelfths of one percent for each month early retirement precedes the member's normal retirement age.

Effective August 6, 1999, a member with at least five years of credited service may retire early at any age. For those members who retire under this August 6, 1999 provision, their benefits are calculated using a three-year average salary, and the reduction for early retirement is capped at 30%.

Vested Termination (deferred retirement). An elected official with five or more years of credited service retains entitlement to a deferred pension upon ceasing to be an elected official if the official's accumulated contributions are left on deposit in the Retirement Plan. The amount of pension is determined in the same manner as a normal or early pension, whichever is applicable.

Disability Retirement. An elected official who becomes incapacitated for the duties of office may be retired by the Board of Trustees. The amount of pension is 80 percent of three-year average salary if the elected official has at least 10 years of credited service, 40 percent of three-year average salary if the elected official has five but less than 10 years of credited service, and 20 percent of three-year average salary if the elected official has less than five years of credited service.

Survivor Pensions. Payable to the eligible beneficiary of a retired elected official or an active and inactive elected official. An eligible beneficiary is a surviving spouse who was married to the retired active or inactive elected official for at least two years; or, if there is no eligible spouse, a minor child. A surviving spouse's pension terminates upon death. A surviving child's pension terminates upon attainment of age 18 years, marriage, adoption or death, unless the child is a full time student under the age of 23 or was disabled prior to age 18. The amount of a surviving spouse's pension is 75% of the pension being paid the deceased retired elected official or the disability pension accrued by the deceased active elected official. The amount of a surviving child's pension is an equal share of the amount of a surviving spouse's pension.

Other Terminations. The elected official is paid a refund of accumulated member contributions, plus an additional amount if the member has at least five years of service credit. The amount is a percent of the member contribution amount, ranging from 25% to 100% (with at least 10 years of service credit).

Post-Retirement Adjustments. Contingent upon the excess investment earnings, effective July 1 of each year, eligible retired members or survivors may be entitled to a permanent benefit increase in their base benefit. To be eligible for the increase, the retired member or survivor must be either age 55 or older on July 1 of the current year and receiving benefits on or before July 31 of the previous year, or the retired member or survivor has been receiving benefits on or before July 31 of the previous two years. The maximum amount of the increase is 4% of the average normal benefit being received on the preceding June 30.

Prior to July 1, 2013 a COLA reserve is maintained and used to pay for the post-retirement adjustment. The investment return on the COLA reserve is the same as the return on the market value of assets (whether the return is positive or negative). Additional amounts are added to the COLA reserve in years when the investment return on the market value of assets exceeds 9.0%. Each year the present value of that year's post-retirement adjustment is subtracted from COLA reserve. A post-retirement adjustment is paid as long as there is a positive balance in the COLA reserve.

Post-Retirement Health Insurance Subsidy. Payable on behalf of retired members and survivors who elect coverage provided by the state or participating employer. The monthly amounts cannot exceed:

<u>Member Only</u>		<u>With Dependents</u>		
<u>Not Medicare Eligible</u>	<u>Medicare Eligible</u>	<u>All Not Medicare Eligible</u>	<u>All Medicare Eligible</u>	<u>One With Medicare</u>
\$150	\$100	\$260	\$170	\$215

Retired members or survivors who have between five and eight years of credited service are eligible for a proportionate share of the full subsidy.

Elected Officials Contributions. Seven percent of compensation.

Employer Contributions. A designed portion of court docket fees. Municipal employers contribute the computed normal cost rate plus a payment to amortize their unfunded actuarial accrued liability (UAAL) over a period not to exceed 30 years (a lump sum payment for UAAL is required for municipal employers entering after September 15, 1989). Pursuant to 1989 legislation, state and county employers contribute the difference between the actuarially determined contribution requirement and designated docket fees.

Changes in Plan Provisions for Existing Members and New Hires effective January 1, 2012

Existing Members

- Member contribution rates are shown in the schedule below. Additional member contributions DO NOT reduce the employer contribution; this means there is a “maintenance of effort” provision.
 - FY 2010-2011 – 7.0%
 - FY 2011-2012 – 10.0%
 - FY 2012-2013 – 11.5%
 - FY 2013-2014 and after: 13.0% or a 33.3%/66.7% split between the employee and the employer, whichever is lower; minimum employee contribution rate is 7.0%, minimum employer contribution rate is 10%.
- Employer will contribute to System when members retire and return to work.

New Hires on or after January 1, 2012

- Average salary is the elected official's highest average salary during a five-consecutive year period within the last 10 years of service
- Normal retirement: 65 years of age with 5 or more years of credited service or 62 years of age with 10 or more years of service.
- Multiplier of 3% of average monthly compensation multiplied by years of credited service; maximum benefit is 75% of average monthly compensation.
- No early retirement.
- Survivor benefit is equal to 50% of the member's benefit at time of death; may elect a higher survivor benefit but with actuarial reduction.
- Disability benefit:
 - 75% of average salary if member has 10 or more years of service
 - 37.5% of average salary if member has between 5 and 9 years of service
 - 18.75% of average salary if member has less than 5 years of service
- If ceases to hold office for any reason other than death or retirement, member can withdraw their accumulated contributions less any benefit payments already received or any amount the member owes the plan (no employer match of refund contributions) with interest at rate set by Board.

- Member contribution rates are shown in the schedule below. Additional member contributions DO NOT reduce the employer contribution; this means there is a “maintenance of effort” provision.
 - FY 2010-2011 – 7.0%
 - FY 2011-2012 – 10.0%
 - FY 2012-2013 – 11.5%
 - FY 2013-2014 and after: 13.0% or a 33.3%/66.7% split between the employee and the employer, whichever is lower; minimum employee contribution rate is 7.0%, minimum employer contribution rate is 10%.
- Employer will contribute to System when members retire and return to work.

Existing Members and New Hires

- COLA provision – effective July 1, 2013
 - Effective May 31, 2011 no more excess investment earnings will be transferred to the current COLA reserve. Any remaining COLA reserve will be used to pay future COLA increases until the COLA reserve is depleted.
 - A COLA is only paid in a year when the return on the market value of assets exceeds 10.5% and the plan is at least 60% funded. 100% of the excess earnings is used to determine whether a COLA can be paid and the size of the COLA for that year.
 - No COLA reserve accumulates. The present value of that year’s COLA for eligible retirees cannot exceed 100% of the earnings in excess of 10.5%. If the excess earnings is high enough to exceed the present value of that year’s COLA, the excess stays in the fund.
 - To be eligible for an increase the retiree or the survivor must be:
 - In the case of a retired member who became a member of the plan before January 1, 2012, the retired member or survivor was receiving benefits on or before July 31 of the two previous years or
 - In the case of a retired member who became a member of the plan before January 1, 2012, the retired member or survivor was 55 or older on July 1 of the current year and was receiving benefits on or before July 31 of the previous year
 - In the case of a retired member who became a member of the plan on or after January 1, 2012, the retired member or survivor was at least 55 or older on July 1 and receiving benefits
 - The amount of the COLA to be paid is determined as follows:
 - Funded ratio is 60-64%, COLA is 2%
 - Funded ratio is 65-69%, COLA is 2.5%
 - Funded ratio is 70-74%, COLA is 3%
 - Funded ratio is 75-79%, COLA is 3.5%
 - Funded ratio is 80% or more, COLA is 4%

SECTION G
GLOSSARY

<i>Actuarial Accrued Liability</i>	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.”
<i>Accrued Service</i>	The service credited under the plan which was rendered before the date of the actuarial valuation.
<i>Actuarial Assumptions</i>	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.
<i>Actuarial Cost Method</i>	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.”
<i>Actuarial Equivalent</i>	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.
<i>Actuarial Present Value</i>	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.
<i>Amortization</i>	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.
<i>Experience Gain (Loss)</i>	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.
<i>Normal Cost</i>	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.

<i>Reserve Account</i>	An account used to indicate that funds have been set aside for a specific purpose and is not generally available for other uses.
<i>Unfunded Actuarial Accrued Liability</i>	The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”
<i>Valuation Assets</i>	The value of current plan assets recognized for valuation purposes. Generally based on market value plus a portion of unrealized appreciation or depreciation.

APPENDIX I

ACCOUNTING DISCLOSURES

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

GASB STATEMENT NO. 25 SUPPLEMENTARY INFORMATION

**REQUIRED SUPPLEMENTARY INFORMATION
(EXCLUDING HEALTH INSURANCE SUBSIDY BEGINNING JUNE 30, 2008)
SCHEDULE OF FUNDING PROGRESS**

Year Ended June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll [(b-a)]/(c)
2003	\$ 353,463,170	\$ 297,891,264	\$(55,571,906)	118.7 %	\$49,350,925	0.00 %
2004	343,375,639	328,920,980	(14,454,659)	104.4 %	50,624,413	0.00 %
2005	344,604,118	360,757,867	16,153,749	95.5 %	53,448,803	30.2 %
2006	351,700,873	391,403,356	39,702,483	89.9 %	54,696,109	72.6 %
2007	336,716,618	451,299,201	114,582,583	74.6 %	61,307,852	186.9 %
2008	348,013,490	441,886,450	93,872,960	78.8 %	62,183,699	151.0 %
2009	360,950,484	494,436,556	133,486,072	73.0 %	67,776,690	197.0 %
2010	357,341,873	523,755,771	166,413,898	68.2 %	66,442,072	250.5 %
2011	366,429,302	577,826,717	211,397,415	63.4 %	66,637,032	317.2 %
2012	356,345,977	598,328,645	241,982,668	59.6 %	67,933,920	356.2 %

Results for years prior to 2009 were calculated by prior actuary.

GASB STATEMENT NO. 25 SUPPLEMENTARY INFORMATION

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ended June 30	Annual Required Contribution
2002	\$ 3,656,604
2003	3,755,629
2004	6,976,772
2005	6,809,136
2006	11,479,967
2007	10,057,915
2008	11,431,128
2009	17,529,092
2010	18,341,612
2011	20,937,609 (est.)
2012	22,854,744 (est.)
2013	25,207,287 (est.)
2014	28,235,016 (est.)

Fiscal Years prior to 2011 provided by the prior actuary.

Beginning with the 2011 fiscal year, this schedule shows the estimated annual required contribution (calculated based on the recommended contribution rate and the projected payroll for the fiscal year). Actual amounts reported in the employer's financial statements may be different, due to differences between the projected payroll and the actual payroll during the fiscal year.

GASB STATEMENT NO. 25 SUPPLEMENTARY INFORMATION

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	June 30, 2012
Actuarial cost method	Entry Age Normal
Amortization method	Level percent-of-pay closed
Remaining amortization period	24 years
Asset valuation method	7-year smoothed market 80%/120% market
Actuarial assumptions:	
Investment rate of return	8.00%
Projected salary increases	4.75%
Payroll Growth	4.50%
Cost-of-living adjustments	None

GASB STATEMENT NO. 45 SUPPLEMENTARY INFORMATION

The following information is presented concerning the post-retirement health insurance subsidy. The liabilities and computed contribution for the post-retirement health insurance subsidy were based on the same assumptions and actuarial cost methods as indicated for GASB Statement No. 25.

As of the June 30, 2012 valuation, an 8.00% interest rate assumption was used. It is our understanding that currently assets are not segregated to fund these liabilities. As a result, according to GASB Statement No. 45, these benefits may not be considered to be pre-funded. In that case the 8.00% interest rate assumption may not be appropriate. This issue should be discussed with the auditors and with legal counsel.

SCHEDULE OF FUNDING PROGRESS

Valuation Date June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2006	\$0	\$12,264,911	\$12,264,911	0.00%	\$54,696,109	22.42%
2007	0	13,070,334	13,070,334	0.00	61,307,852	21.32%
2008	0	12,454,201	12,454,201	0.00	62,183,699	20.03%
2009	0	11,754,076	11,754,076	0.00	67,776,690	17.34%
2010	0	12,014,810	12,014,810	0.00	66,442,072	18.08%
2011	0	12,494,791	12,494,791	0.00	66,637,032	18.75%
2012	0	11,900,126	11,900,126	0.00	67,933,920	17.52%

ANNUAL REQUIRED CONTRIBUTION

Valuation Date June 30	Fiscal Year Ended June 30	Normal Cost (a)	Actuarial Accrued Liability (b)	Total (a+b)	Dollar Amount
2005	2007	1.64%	1.42%	3.06%	\$ 1,523,119
2006	2008	1.05%	1.17%	2.22%	1,380,478
2007	2009	0.91%	1.09%	2.00%	1,355,533
2008	2010	0.85%	1.04%	1.89%	1,255,755
2009	2011	0.85%	0.92%	1.77%	1,322,611
2010	2012	0.83%	0.96%	1.79%	1,311,218
2011	2013	0.74%	1.06%	1.80%	1,309,847
2012	2014	0.58%	0.98%	1.56%	1,157,294

Fiscal Years prior to 2011 provided by the prior actuary.

Health Insurance Subsidy Payment Reported for FY 2012: \$914,968

October 12, 2012

Mr. James Hacking
Administrator
Arizona Elected Officials' Retirement Plan
3010 E. Camelback Road, Suite 200
Phoenix, Arizona 85016

Re: Report of the June 30, 2012 Actuarial Valuation of EORP

Dear Mr. Hacking:

Enclosed please find 5 copies of this report.

Any questions or comments you may develop will be welcome.

Sincerely,

Mark Buis, FSA, EA, MAAA

MB:sc
Enclosures