Gabriel Roeder Smith & Company
Consultants & Actuaries

ARIZONA CORRECTIONS OFFICER RETIREMENT PLAN CONSOLIDATED REPORT

JUNE 30, 2016

GRS

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November 29, 2016

Board of Trustees
Arizona Corrections Officer Retirement Plan
Phoenix, Arizona

Re: Arizona Corrections Officer Retirement Plan Actuarial Valuation as of June 30, 2016

Dear Board Members:

The results of the June 30, 2016 annual actuarial valuation of members covered by the Arizona Corrections Officer Retirement Plan (CORP) are presented in this report.

This report was prepared at the request of the Board and is intended for use by the Retirement Plan and those designated or approved by the Board. This report may be distributed to parties other than the Retirement Plan only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The purpose of this valuation is to measure the Retirement Plan's funding progress and to determine the employer contribution for the 2017-2018 fiscal year. The funding objective is stated in Article 4, Chapter 5, Title 38, Section 891A of the Arizona Revised Statutes. In addition, this consolidated report provides summary information for CORP participating employers. This report should not be relied on for any purpose. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The computed contribution rate shown on page A-2 may be considered as a minimum contribution rate that complies with the Board's funding policy. Users of this report should be aware that contributions made at that rate do not guarantee benefit security. Given the importance of benefit security to any retirement system, we suggest that contributions to the System in excess of those presented in this report be considered.

The findings in this report are based on data and other information through June 30, 2016. 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 (such as the end of an amortization period, or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

This valuation assumes the continuing ability of the participating employers to make the contributions necessary to fund this plan. A determination regarding whether or not the participating employers are actually able to do so is outside our scope of expertise. Consequently, we did not perform such an analysis.

The valuation was based upon information furnished by the Retirement Plan, concerning Retirement Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the Retirement Plan.

In addition, this report was prepared using certain assumptions approved by the Board as described in the section of this report entitled Methods and Assumptions.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement plans. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Arizona Corrections Officer Retirement Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and with applicable statutes.

Mark Buis, James D. Anderson and Francois Pieterse are Members of the American Academy of Actuaries (MAAA). These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

Gabriel, Roeder, Smith & Company will be pleased to review this valuation report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

Mark Buis	James D. Anderson	Francois Pieterse
FSA, EA, FCA, MAAA	FSA, EA, MAAA	ASA, FCA, MAAA

MB/JDA/FP:mrb

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1. Required Employer Contributions to Support Retirement Benefits

The computed employer contribution and funded status for the fiscal year beginning July 1, 2017 is shown below:

Averages	Pension	Health	Total
Employer Contribution Rate	20.76%	0.22%	20.98%
Funded Status	57.3%	108.6%	59.1%

2. Contribution Rate Comparison

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

Valuation Date	Pension	Health	Total
6/30/2015	18.51%	0.20%	18.71%
6/30/2016	20.76%	0.22%	20.98%

Please note that the pension contribution rate shown above increased from the June 30, 2015 valuation for most employers. This arose primarily due to a change in the investment return assumption from 7.85% to 7.5%. The reasons for the change in contribution rate and funded status are described in more detail on pages 2-4 of this report.

EXECUTIVE SUMMARY/BOARD SUMMARY

3. Reasons for Change

In aggregate, changes in the contribution rate and funded status are illustrated on the following charts. The impact of each change will be different for each employer.

Contribution Rate	Pension	Health	Total
Contribution Rate Last Valuation	18.51%	0.20%	18.71%
Asset Losses	0.21%	0.01%	0.22%
Tier 2	(0.15)%	(0.01)%	(0.16)%
Payroll Base	0.38%	(0.01)%	0.37%
PBI Gain/Loss	(0.25)%	0.00%	(0.25)%
Benefit Changes	0.15%	0.00%	0.15%
Assumption Changes	1.95%	0.06%	2.01%
Other	(0.04)%	(0.03)%	(0.07)%
Contribution Rate This Valuation	20.76%	0.22%	20.98%

Funded Status	Pension	Health	Total
Funded Status Last Valuation	57.3%	110.4%	59.2%
Asset Losses	(0.7)%	(1.3)%	(0.7)%
Tier 2	0.0%	0.0%	0.0%
Payroll Base	1.6%	0.0%	1.6%
PBI Gain/Loss	0.8%	0.0%	0.8%
Benefit Changes	(0.1)%	0.0%	(0.1)%
Assumption Changes	(2.3)%	(4.0)%	(2.4)%
Other	0.7%	3.5%	0.7%
Funded Status This Valuation	57.3%	108.6%	59.1%

Asset Losses – Asset losses are based on 7-year smoothing of assets. The return on market value was 0.6% for the year ending June 30, 2016. However, based on funding value, the average return for the last 7 years is approximately 6.6%

EXECUTIVE SUMMARY/BOARD SUMMARY

Tier 2 – The decrease in the contribution rate is due to the fact that as current members retire, they are replaced by new members who have a less costly Tier of Benefits (for members hired on or after January 1, 2012). This will typically result in a declining normal cost rate that will occur gradually over time as the population mix (Tier 1 / Tier 2) changes.

Payroll Base – Under the current amortization policy, the contribution rate is developed based on a percentage of payroll. To the extent that overall payroll is lower/greater than last year's payroll projected at 4.0% payroll growth, the contribution rate will increase/decrease as a result. For example, if there were 2 active members in the Plan last year and one of the members retired, the existing unfunded liability would now be spread over the payroll of one member instead of 2 members and the resulting contribution rate would be much higher. Therefore, it is important to consider the overall dollar level of the contribution along with the contribution rate. The dollar contributions are also shown on Page A-2. The change in the funded status is primarily due to gain or losses on the overall salary assumption, which includes both the wage base assumption (4.0%) and the merit and longevity components of the salary assumption.

PBI Gain/(Loss) – Under the current structure, retired members will receive a PBI under certain conditions based on the current year excess asset return. The valuation assumes a resulting average PBI of approximately 2.25% per year. Since there was no PBI for CORP members this year, this resulted in a gain for the Retirement Plan with a corresponding reduction in the contribution rate and increase in the funded status.

Benefit Changes – The Reverse DROP sunset provision was cancelled, resulting in an increase in the employer contribution rate of 0.15%. It is important to note that the impact of this change will vary from one employer to another.

EXECUTIVE SUMMARY/BOARD SUMMARY

Assumption Changes – For this valuation, the Board adopted a change in the investment return assumption from 7.85% to 7.5%. While the average increase on contribution rates was approximately 1.95%, the impact will be different for each employer. The Actuary is currently conducting an experience study which analyzes all of the actuarial assumptions. These changes (if any), will be adopted with the June 30, 2017 actuarial valuation.

Other – This is the combination of all factors other than those listed above and primarily reflect demographic gains and losses (i.e., retirement, turnover, disability, etc. experience that differs from the actuarial assumptions). While this number is small on a combined plan basis, it will vary considerably from employer to employer, especially for employers with a smaller number of members.

Impact of November 10, 2016 Hall Decision on Valuation Results

While the ruling of the Hall case was issued on November 10, 2016, this was effective after the measurement date of June 30, 2016 and is still under legal review. The potential impact of this will be reflected in the June 30, 2017 actuarial valuation to the extent applicable to CORP.

4. Plan Experience

Experience during the year ended June 30, 2016 was overall favorable. On a market value basis, the Plan's return for the year ended June 30, 2016 was 0.6%. 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 6.6%. The effects of the asset losses phased-in from prior years were fully offset by gains attributable to demographic experience. Detailed information related to Plan experience is shown on page B-2.

5. Looking Ahead

The continuing effect of prior asset losses was dampened by the 7-year smoothing period, and further offset by the effect of lower than expected pay increases. There remains $126 million of unrecognized

EXECUTIVE SUMMARY/BOARD SUMMARY

investment losses that will, in the absence of other gains, put upward pressure on the contribution rate next year.

If the June 30, 2016 pension valuation results were based on market value instead of smoothed funding value, the pension funded percent of the plan would be 53.0% (instead of 57.3%), and the pension employer contribution requirement would be 22.21% of payroll (instead of 20.76%). Absent investment market gains, it is expected that the funded percent will continue to decrease and the employer contribution requirement will continue to increase.

In 2014, the Society of Actuaries published new mortality tables which include mortality improvement scales. While these tables were not developed specifically for the Public Sector, we recommend that the mortality assumption be reviewed in conjunction with the next regularly scheduled experience study.

The Board has adopted an investment return assumption of 7.4% for the June 30, 2017 actuarial valuation. If all other assumptions are realized, this change will result in upward pressure on the contribution rate.

6. Conclusion

The changes to actuarial assumptions increased contribution rates for most employers. This will inject more monies into the fund and ultimately strengthen the long term sustainability of the Retirement System.

After accounting for active member contributions, the retired lives are less than fully funded on a funding value of assets basis, and much less than fully funded based upon the market value of assets (please see page B-4). 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 Corrections Officer Retirement Plan as of June 30, 2016 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, 2017. This information is contained in Section A.

This objective is stated in Article 4, Chapter 5, Title 38, Section 891A of the Arizona Revised Statutes.

CONTRIBUTION RATES

The Retirement System is supported by member contributions, employer contributions and investment income from Retirement System 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, 2017 are shown on page A-2.

Pension contribution dollars are also shown, based on the valuation payroll information adjusted to reflect annual payroll increases between the valuation date and the beginning of the fiscal year for which the contribution is being determined.

CONTRIBUTION REQUIREMENTS

Development of Employer Contributions for the Indicated Valuation Date

	June 30, 2015	June 30, 2016
Contribution for Fiscal Year Ending	2017	2018
Pension		
Normal cost requirement		
Service pensions	10.34%	11.32%
Disability pensions	0.27	0.28
Survivors of active members	1.02	1.04
Refunds of members' accumulated contributions	3.18	2.88
Total normal cost requirement	14.81%	15.52%
Less member contributions	8.41	8.41
Employer normal cost requirement	6.40%	7.11%
Amortization of unfunded liabilities	12.11%	13.65%
Total recommended pension contribution rate	**18.51%**	**20.76%**
Total recommended pension contribution amount	**$ 123,379,313**	**$ 134,571,179**
Health		
Normal cost requirement	0.31%	0.32%
Amortization of unfunded liabilities	(0.11)%	(0.10)%
Total health contribution requirement rate	**0.20%**	**0.22%**
Total health contribution requirement amount	**$ 1,333,110**	**$ 1,426,091**
Total contribution rate	**18.71%**	**20.98%**

Actuarial accrued liability, $3,037,679,282, exceeded the funding value of assets, which was $1,794,425,090. The unfunded actuarial accrued liabilities were amortized as a level percent-of-payroll over a closed period of 20 years ending on June 30, 2037 and added to the employer normal cost. The 20-year period is a one year decrease from last year. The results shown above are prior to the application of the statutory minimum of 6% of payroll.

HISTORICAL SUMMARY OF EMPLOYER PENSION RATES

Valuation Date June 30	Fiscal Year Ending June 30	Normal Cost	Unfunded Actuarial Accrued Liability	Total
2007	2009	7.10%	1.55%	8.65%
2008	2010	6.10	1.39	7.49
2009	2011	6.43	2.14	8.57
2010	2012	6.67	2.83	9.50
2011	2013	6.47	4.84	11.31
2012	2014	7.50	6.18	13.68
2013	2015	7.12	7.34	14.46
2014* (before phase-in)	2016	6.55	11.44	17.99
2014* (after phase-in)	2016	6.55	8.27	14.82
2015* (before phase-in)	2017	6.40	12.11	18.51
2015* (after phase-in)	2017	6.40	10.35	16.75
2016*	**2018**	**7.11**	**13.65**	**20.76**

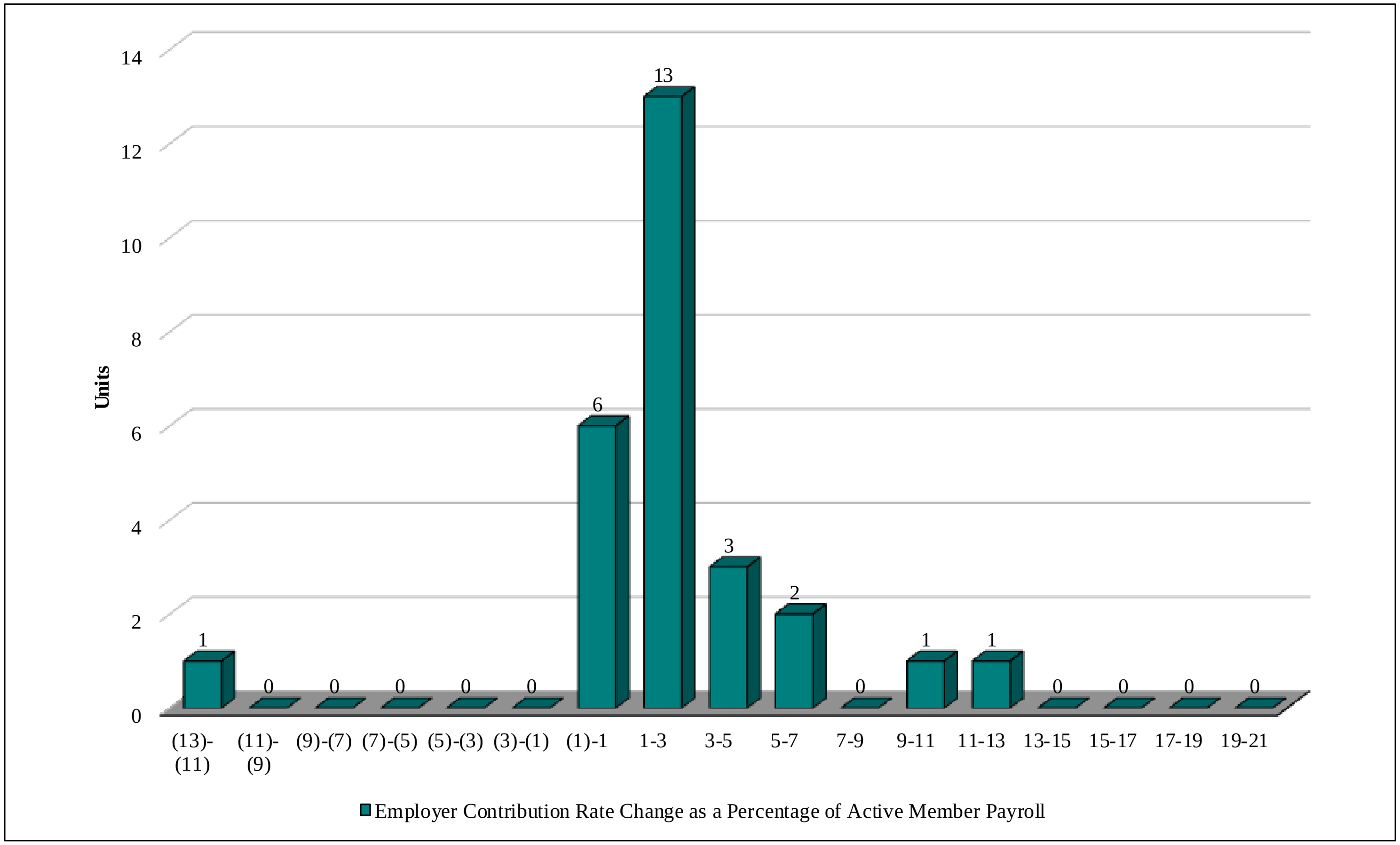
** Beginning with the June 30, 2014 valuation the rates are for pension only.*

Results prior to 2009 were calculated by the prior actuary.

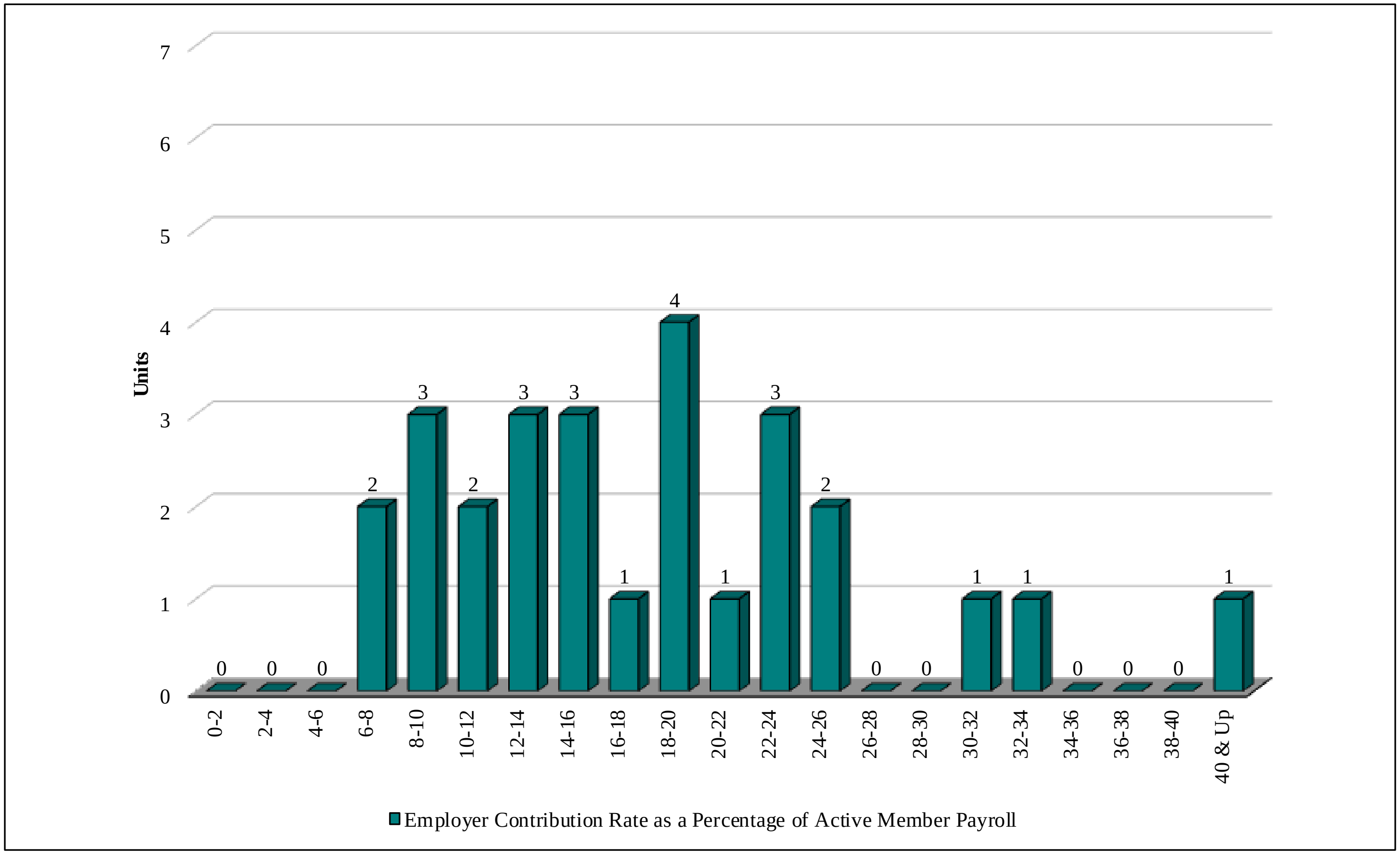
HISTORICAL SUMMARY OF EMPLOYER HEALTH RATES

Valuation Date June 30	Fiscal Year Ending June 30	Normal Cost	Unfunded Actuarial Accrued Liability	Total
2014	2016	0.33%	(0.11)%	0.22%
2015	2017	0.31	(0.11)	0.20
2016	**2018**	**0.32**	**(0.10)**	**0.22**

EMPLOYER CONTRIBUTION RATE CHANGES AT JUNE 30, 2016
ALL EMPLOYERS



EMPLOYER CONTRIBUTION RATES - ALL EMPLOYERS AT JUNE 30, 2016



SECTION B

FUNDING RESULTS

PRESENT VALUE OF FUTURE BENEFITS AND ACCRUED LIABILITY

	June 30, 2015	June 30, 2016
Pension		
A. Accrued Liability		
1. For retirees and beneficiaries	$ 1,351,258,733	$ 1,495,286,564
2. For vested terminated members	32,620,312	38,164,905
3. For present active members		
a. Value of expected future benefit payments	1,950,470,072	2,017,714,222
b. Value of future normal costs	594,112,734	620,487,434
c. Active member accrued liability: (a) - (b)	1,356,357,338	1,397,226,788
4. Total accrued liability	2,740,236,383	2,930,678,257
B. Present Assets (Funding Value)	1,571,430,528	1,678,275,008
C. Unfunded Accrued Liability: (A.4) - (B)	1,168,805,855	1,252,403,249
D. Stabilization Reserve	745,540	876,952
E. Net Unfunded Accrued Liability: (C) + (D)	$ 1,169,551,395	$ 1,253,280,201
F. Funding Ratio: (B) / (A.4)	57.3%	57.3%
Health		
A. Accrued Liability		
1. For retirees and beneficiaries	$ 36,787,041	$ 41,492,406
2. For present active members		
a. Value of expected future benefit payments	75,977,917	77,468,809
b. Value of future normal costs	11,893,806	11,960,190
c. Active member accrued liability: (a) - (b)	64,084,111	65,508,619
3. Total accrued liability	100,871,152	107,001,025
B. Present Assets (Funding Value)	111,345,889	116,150,082
C. Net Unfunded Accrued Liability: (A.3) - (B)	$ (10,474,737)	$ (9,149,057)
D. Funding Ratio: (B) / (A.3)	110.4%	108.6%

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, 2015	June 30, 2016
(1) UAAL* at start of year	$ 1,126,333,650	$ 1,168,805,855
(2) Normal cost from last valuation	93,510,233	90,119,523
(3) Actual contributions	135,487,374	163,408,199
(4) Interest accrual	86,769,590	88,874,679
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	1,171,126,099	1,184,391,858
(6) Changes from benefit increases, methods and assumptions	-	120,178,640
(7) Change in reserve for future pension increases	-	-
(8) Expected UAAL after changes: (5) + (6) + (7)	1,171,126,099	1,304,570,498
(9) Actual UAAL at end of year	1,168,805,855	1,252,403,249
(10) Experience Gain/(Loss): (8) -(9)	$ 2,320,244	$ 52,167,249

* *Unfunded Actuarial Accrued Liability.*

FY 2016 Gains and Losses by Source

	Gain/(Loss)	% of Liability
Investment Return	$ (19,594,343)	-0.7%
Salary Increases	47,561,884	1.7%
Retirement	609,610	0.0%
Turnover	6,794,423	0.2%
Disability	(7,062)	0.0%
Death-in-Service	(598,611)	0.0%
PBI	23,597,713	0.9%
Retiree Mortality	569,423	0.0%
Other	(6,765,788)	-0.2%
Total	$ 52,167,249	1.9%

UNFUNDED ACTUARIAL ACCRUED LIABILITIES COMPARATIVE STATEMENT

(Dollar amounts in $'000s)

Pension

Valuation Date	(1) Actuarial Accrued Liabilities (AAL)	(2) Valuation Assets	(3) Unfunded AAL	(4) Funded Ratio (2)/(1)	(5) Financing Period	(6) Payroll	Liability Ratio (7) Unfunded (3)/(6)	Liability Ratio (8) Total (1)/(6)
2007	$ 1,110,801	$ 940,126	$ 170,675	84.6%	29 yrs.	$ 515,428	33.1%	215.5%
2008	1,390,363	1,207,026	183,337	86.8	28	642,621	28.5	216.4
2009	1,584,293	1,309,124	275,169	82.6	27	630,825	43.6	251.1
2010	1,722,006	1,382,144	339,862	80.3	26	616,481	55.1	279.3
2011	2,008,569	1,466,750	541,819	73.0	25	609,243	88.9	329.7
2012	2,231,544	1,512,989	718,555	67.8	24	626,223	114.7	356.3
2013	2,330,238	1,559,583	770,655	66.9	23	604,068	127.6	385.8
2014 *	2,637,545	1,511,212	1,126,333	57.3	22	625,264	180.1	421.8
2015 *	2,740,236	1,571,431	1,168,805	57.3	21	616,267	189.7	444.7
2016*	**2,930,678**	**1,678,275**	**1,252,403**	**57.3**	**20**	**599,319**	**209.0**	**489.0**

** Pension only beginning with the June 30, 2014 valuation.*

Health

Valuation Date	(1) Actuarial Accrued Liabilities (AAL)	(2) Valuation Assets	(3) Unfunded AAL	(4) Funded Ratio (2)/(1)	(5) Financing Period	(6) Payroll	Liability Ratio (7) Unfunded (3)/(6)	Liability Ratio (8) Total (1)/(6)
2014	$ 97,015	$ 102,100	$ (5,085)	105.2%	22 yrs.	$ 625,264	(0.8)%	15.5%
2015	100,871	111,346	(10,475)	110.4	21	616,267	(1.7)	16.4
2016	**107,001**	**116,150**	**(9,149)**	**108.6**	**20**	**599,319**	**(1.5)**	**17.9**

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.

Results prior to 2009 were calculated by the prior actuary.

SHORT CONDITION TEST

If the contributions to CORP are soundly executed, the System 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; and
3) The liabilities for service already rendered by active and inactive members.

In a plan 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 plan.

Short Condition Test

(in $'000s)

Pension

	Aggregate Actuarial Liabilities for				Portion of Actuarial Liabilities Covered by Assets		
Calendar Year	(1) Non-Retired Contributions	(2) Annuitants	(3) Non-Retired Members (Employer Financed Portion)	Actuarial Assets	(1)	(2)	(3)
2009	$314,100	$ 586,596	$ 683,597	$1,309,124	100%	100%	59.7%
2010	345,122	689,910	686,973	1,382,144	100%	100%	50.5%
2011	353,892	823,664	831,013	1,466,750	100%	100%	34.8%
2012	373,726	918,771	939,047	1,512,989	100%	100%	23.5%
2013	382,417	1,011,478	936,343	1,559,583	100%	100%	17.7%
2014*	396,381	1,269,515	971,649	1,511,212	100%	88%	0.0%
2015*	406,641	1,351,259	982,336	1,571,431	100%	86%	0.0%
2016*	**408,016**	**1,495,287**	**1,027,375**	**1,678,275**	**100%**	**85%**	**0.0%**

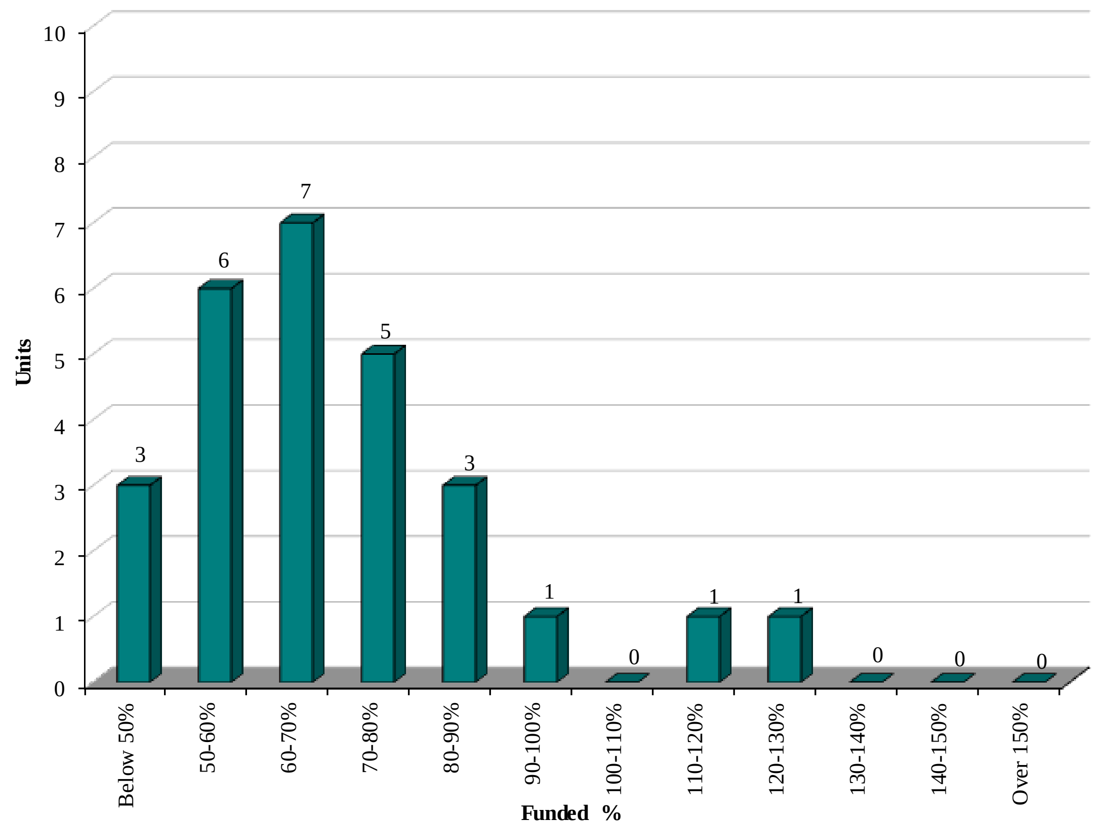
** Pension only beginning with the June 30, 2014 valuation.*

SHORT CONDITION TEST

Health

Calendar Year	Aggregate Actuarial Liabilities for (1) Non-Retired Contributions	(2) Annuitants	(3) Non-Retired Members (Employer Financed Portion)	Actuarial Assets	Portion of Actuarial Liabilities Covered by Assets (1)	(2)	(3)
2014	$ 0	$32,793	$64,222	$102,100	100%	100%	107.9%
2015	0	36,787	64,084	111,346	100%	100%	116.3%
2016	**0**	**41,492**	**65,509**	**116,150**	**100%**	**100%**	**114.0%**

FUNDED PERCENTS - ALL EMPLOYERS AT JUNE 30, 2016



PENSION CONTRIBUTION PROJECTION

Fiscal Year Ending June 30	Contribution Rate	Contribution Amount (Estimate)
2018	20.76%	$134,571,179
2019	21.16	142,650,635
2020	21.44	150,319,792
2021	21.51	156,842,998
2022	21.64	164,102,547
2023	21.88	172,559,440
2024	22.03	180,692,131
2025	22.00	187,663,911
2026	21.95	194,726,898
2027	21.89	201,962,400
2028	21.83	209,465,178

Contribution Rate and Amount estimated based on June 30, 2016 valuation data, methods, and assumptions, including 7.50% investment return and 4% payroll growth.

SECTION C

FUND ASSETS

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

Year Ended June 30:	2016	2017	2018	2019	2020	2021	2022
A. Funding Value Beginning of Year	$ 1,571,430,528						
B. Market Value End of Year	1,552,273,458						
C. Market Value Beginning of Year	1,539,868,120						
D. Non Investment Net Cash Flow	2,965,145						
E. Investment Income							
E1. Total: B-C-D	9,440,193						
E2. Amount for Immediate Recognition: (7.85%)	123,473,678						
E3. Amount for Phased-in Recognition: E1-E2	(114,033,485)						
F. Phased-in Recognition of Investment Income							
F1. Current Year: E3 / 7	(16,290,498)						
F2. First Prior Year	(9,194,258)	$ (16,290,498)					
F3. Second Prior Year	8,714,006	(9,194,258)	$ (16,290,498)				
F4. Third Prior Year	2,691,222	8,714,006	(9,194,258)	$ (16,290,498)			
F5. Fourth Prior Year	(17,588,811)	2,691,222	8,714,006	(9,194,258)	$ (16,290,498)		
F6. Fifth Prior Year	9,960,661	(17,588,811)	2,691,222	8,714,006	(9,194,258)	$ (16,290,498)	
F7. Sixth Prior Year	2,113,335	9,960,661	(17,588,811)	2,691,224	8,714,004	(9,194,260)	$ (16,290,497)
F8. Total Recognized Investment Gain	(19,594,343)	(21,707,678)	(31,668,339)	(14,079,526)	(16,770,752)	(25,484,758)	(16,290,497)
G. Funding Value End of Year							
G1. Preliminary Funding Value End of Year: (A+D+E2+F1:F7)	1,678,275,008						
G2. Upper Corridor: (120% x B)	1,862,728,150						
G3. Lower Corridor: (80% x B)	1,241,818,766						
G4. End of Year: (G1 subject to max of G2 and min of G3)	1,678,275,008						
H. Difference Between Market Value & Funding Value: (B-G4)	(126,001,550)	(104,293,872)	(72,625,533)	(58,546,007)	(41,775,255)	(16,290,497)	0
I. Market Rate of Return	0.6%						
J. Recognized Rate of Return	6.6%						
K. Ratio of Funding Value to Market Value	108.1%						

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.

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

Year Ended June 30:	2016	2017	2018	2019	2020	2021	2022
A. Funding Value Beginning of Year	$ 111,345,889						
B. Market Value End of Year	107,420,586						
C. Market Value Beginning of Year	109,237,632						
D. Non Investment Net Cash Flow	(2,477,350)						
E. Investment Income							
E1. Total: B-C-D	660,304						
E2. Amount for Immediate Recognition: (7.85%)	8,643,416						
E3. Amount for Phased-in Recognition: E1-E2	(7,983,112)						
F. Phased-in Recognition of Investment Income							
F1. Current Year: E3 / 7	(1,140,445)						
F2. First Prior Year	(623,076)	$ (1,140,445)					
F3. Second Prior Year	584,150	(623,076)	$ (1,140,445)				
F4. Third Prior Year	173,946	584,150	(623,076)	$ (1,140,445)			
F5. Fourth Prior Year	(1,136,847)	173,946	584,150	(623,076)	$ (1,140,445)		
F6. Fifth Prior Year	643,804	(1,136,847)	173,946	584,150	(623,076)	$ (1,140,445)	
F7. Sixth Prior Year	136,595	643,804	(1,136,847)	173,947	584,154	(623,078)	$ (1,140,442)
F8. Total Recognized Investment Gain	(1,361,873)	(1,498,468)	(2,142,272)	(1,005,424)	(1,179,367)	(1,763,523)	(1,140,442)
G. Funding Value End of Year							
G1. Preliminary Funding Value End of Year: (A+D+E2+F1:F7)	116,150,082						
G2. Upper Corridor: (120% x B)	128,904,703						
G3. Lower Corridor: (80% x B)	85,936,469						
G4. End of Year: (G1 subject to max of G2 and min of G3)	116,150,082						
H. Difference Between Market Value & Funding Value: (B-G4)	(8,729,496)	(7,231,028)	(5,088,756)	(4,083,332)	(2,903,965)	(1,140,442)	0
I. Market Rate of Return	0.6%						
J. Recognized Rate of Return	6.6%						
K. Ratio of Funding Value to Market Value	108.1%						

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

Pension

	2015	2016
Market Value at the Beginning of Year:	$1,497,245,001	$1,539,868,120
Revenues:		
a. Member contributions	$ 52,909,951	$ 52,129,050
b. Employer contributions	82,577,422	111,279,148
c. Investment income (net of expenses)	53,830,411	9,440,194
d. Net transfers	(544,809)	(674,396)
e. Total	$ 188,772,975	$ 172,173,996
Disbursements:		
a. Refunds of member contributions	$ 28,388,926	$ 31,456,835
b. Pension benefits (including DROP)	116,382,685	126,951,440
c. Administrative Expenses	1,378,245	1,360,383
d. Totals	$ 146,149,856	$ 159,768,658
Reserve Increase:		
Total revenues minus total disbursements	$ 42,623,119	$ 12,405,338
Market Value at the End of Year:	$1,539,868,120	$1,552,273,458

Health

	2015	2016
Market Value at the Beginning of Year:	$ 101,323,221	$ 109,237,632
Revenues:		
a. Health contributions	7,587,137	1,343,414
b. Interest income (net of expenses)	3,814,278	660,304
c. Total	$ 11,401,415	$ 2,003,718
Disbursements:	$ 3,487,004	$ 3,820,764
Reserve Increase:		
Total revenues minus total disbursements	7,914,411	(1,817,046)
Market Value at the End of Year:	$ 109,237,632	$ 107,420,586

SECTION D

CENSUS DATA

JUNE 30, 2016 VALUATION DATA SUMMARY

For purposes of the June 30, 2016 valuation, information on 21,423 covered persons was furnished. These people may be briefly described as follows:

		Averages			
				Annual Pay or Retirement Allowance	
	No.	Age	Years of Service	2016	2015
Actives	13,846	39.1	8.3	$43,285	$43,448
Retirees & Beneficiaries	4,785	63.9		26,463	26,353
Inactive/Vested	2,792	37.6			
	21,423				

ACTIVE MEMBERS

Members in Active Service as of June 30, 2016
by Years of Service

Age	Years of Service 0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 & Up	Total Count	Total Pay	Average Pay
Under 25	1,149	4						1,153	$ 40,455,089	$35,087
25 - 29	2,018	395	10					2,423	89,674,277	37,010
30 - 34	989	782	306	1				2,078	84,483,197	40,656
35 - 39	539	557	570	166	1			1,833	80,815,458	44,089
40 - 44	381	414	479	509	49			1,832	85,706,582	46,783
45 - 49	300	373	361	424	183	24		1,665	80,295,517	48,226
50 - 54	203	219	281	279	136	95	9	1,222	59,092,187	48,357
55 - 59	134	167	222	247	78	58	25	931	44,669,267	47,980
60 - 64	59	112	142	132	41	34	9	529	25,468,776	48,145
65 and over	15	48	54	32	17	6	8	180	8,658,626	48,103
Total	5,787	3,071	2,425	1,790	505	217	51	13,846	$ 599,318,976	$43,285

INACTIVE/VESTED MEMBERS

Age	Years of Service					Total Count
	0 - 4	5 - 9	10 - 14	15 - 19	20 & Up	
Under 30	863	43				906
30 - 39	700	129	38	5		872
40 - 44	219	41	16	4		280
45 - 49	163	39	26	9	2	239
50 - 54	117	22	24	8	1	172
55 - 59	92	29	42	13	1	177
60 - 69	76	12	37	12	1	138
70 and over	4	3			1	8
Total	2,234	318	183	51	6	2,792

RETIREES AND BENEFICIARIES

Attained Ages	Males No.	Males Annual Pension Benefits	Females No.	Females Annual Pension Benefits	Total No.	Total Annual Pension Benefits
Under 25	6	$ 85,909	3	$ 35,865	9	$ 121,774
25-29	0	0	4	56,143	4	56,143
30-34	3	64,081	6	91,998	9	156,079
35-39	7	119,873	14	206,114	21	325,987
40-44	64	1,672,836	37	802,054	101	2,474,890
45-49	229	6,025,689	98	2,383,965	327	8,409,654
50-54	383	11,048,552	170	4,898,206	553	15,946,758
55-59	437	13,840,169	221	6,936,509	658	20,776,678
60-64	504	15,853,477	287	8,033,562	791	23,887,039
65-69	615	17,537,763	326	7,791,405	941	25,329,168
70-74	428	10,962,708	224	4,964,503	652	15,927,211
75-79	255	5,115,038	148	2,692,662	403	7,807,700
80-84	139	2,590,986	77	1,250,285	216	3,841,271
85-89	47	790,148	35	459,973	82	1,250,121
90-94	12	187,137	5	81,604	17	268,741
95-99	0	0	1	45,214	1	45,214
100 and Over	0	0	0	0	0	0
Totals	**3,129**	**$85,894,366**	**1,656**	**$40,730,062**	**4,785**	**$126,624,428**

Pension Being Paid		Number	Annual Pensions	Average Pensions
Retired Members	Service Pensions	4,044	$113,232,724	$28,000
	Disability Pensions	136	2,766,411	20,341
Totals		4,180	115,999,135	27,751
Survivors of Members	Spouses	572	10,185,854	17,807
	Children with Guardians	33	439,439	13,316
Total		605	10,625,293	17,562
Total Pension Being Paid		**4,785**	**$126,624,428**	**$26,463**

	Average Age	Average Service	Average Age at Retirement
Normal Retired Members	64.0	20.1	56.5
Disability Retired Members	56.7	9.6	45.8
Spouse Beneficiaries	67.2	12.9	52.3

PENSIONS BEING PAID
HISTORICAL SCHEDULE

Valuation Date June 30	No.	Annual Pensions	% Incr. in Annual Pensions	Average Pension	Present Value of Pensions Total	Present Value of Pensions Average
1990	115	$ 765,738	34.0%	$ 6,659	$ 7,150,080	$ 62,175
1995	435	3,456,705	27.5	7,946	34,140,660	78,484
2000	925	11,042,151	14.5	11,937	107,650,253	116,379
2001	1,040	13,446,069	21.8	12,929	124,247,094	119,468
2002	1,218	17,660,065	31.3	14,499	166,073,532	136,349
2003	1,363	21,653,042	22.6	15,886	201,489,450	147,828
2004	1,536	26,261,143	21.3	17,097	255,272,652	166,193
2005	1,733	31,329,225	19.3	18,078	332,199,210	191,690
2006	1,955	37,272,183	19.0	19,065	384,512,841	196,682
2007	2,123	42,666,000	14.5	20,097	430,172,373	202,625
2008	2,428	51,062,647	19.7	21,031	504,461,674	207,768
2009	2,591	59,089,591	15.7	22,806	566,228,807	218,537
2010	2,908	69,769,056	18.1	23,992	666,416,976	229,167
2011	3,256	81,637,650	17.0	25,073	796,704,561	244,688
2012	3,476	87,918,348	7.7	25,293	889,093,751	255,781
2013	3,810	96,465,575	9.7	25,319	980,669,280	257,394
2014	4,090	107,562,143	11.5	26,299	1,269,514,650	310,395
2015	4,410	116,217,259	8.0	26,353	1,351,258,733	306,408
2016	**4,785**	**126,624,428**	**9.0**	**26,463**	**1,495,286,564**	**312,495**

Results prior to 2009 were calculated 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 were determined using an individual entry-age actuarial cost method having the following characteristics:

(i) the annual normal costs for each individual active member, payable from the date of hire to the date of retirement, are sufficient to accumulate to the value of the member's benefits.

(ii) each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

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 7-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 20 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 4.00% annually for the purpose of computing the amortization payment (credit) as a level percent-of-payroll.

VALUATION ASSUMPTIONS

Funded Ratio **–** Unless otherwise indicated, a funded ratio measurement presented in this report is based upon the actuarial accrued liability and the actuarial value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

1. The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations, in other words, of transferring the obligations to a unrelated third party in an arm's length market value type transaction.
2. The measurement is dependent upon the actuarial cost method which, in combination with the plan's amortization policy, affects the timing and amounts of future contributions. The amount of future contributions will most certainly differ from those assumed in this report due to future actual experience differing from assumed experience based upon actuarial assumptions. A funded ratio measurement in this report of 100% is not synonymous with no required future contributions. If the funded ratio were 100%, the plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).
3. The measurement would produce a different result if the market value of assets were used instead of the actuarial value of assets, unless the market value of assets is used in the measurement.

Stabilization Reserve **–** 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.

VALUATION ASSUMPTIONS

The rate of investment return was 7.50% 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 7.50% 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 Plan benefits will be based.

	Salary Increase Assumptions For an Individual Member		
Sample Ages	**Merit & Seniority**	**Base (Economy)**	**Increase Next Year**
20	3.3%	4.0%	7.3%
25	3.0%	4.0%	7.0%
30	2.2%	4.0%	6.2%
35	1.3%	4.0%	5.3%
40	0.7%	4.0%	4.7%
45	0.5%	4.0%	4.5%
50	0.4%	4.0%	4.4%
55	0.2%	4.0%	4.2%
60	0.0%	4.0%	4.0%
Ref:	382		

Active member payroll is assumed to grow at 4.00% 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% 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 Plan was the RP 2000 Mortality table (adjusted by 105% for both males and females). This assumption was first used for the June 30, 2012 valuation of the Plan. Sample rates of mortality and years of life expectancy are shown below:

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Males	Females	Males	Females
50	0.22%	0.18%	30.37	33.14
55	0.38	0.29	25.76	28.47
60	0.71	0.53	21.35	23.95
65	1.34	1.02	17.24	19.72
70	2.33	1.76	13.54	15.86
75	3.97	2.95	10.27	12.40
80	6.76	4.82	7.50	9.38
Ref:	506 x 1.05 0 year set forward	507 x 1.05 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 5-year set forward were used.

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

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Males	Females	Males	Females
50	0.67%	0.51%	21.74	24.38
55	1.27	0.97	17.61	20.12
60	2.22	1.67	13.88	16.23
65	3.78	2.81	10.57	12.74
70	6.44	4.59	7.75	9.68
75	11.08	7.74	5.49	7.09
80	18.34	13.17	3.86	5.15
Ref:	506 x 1.00 10 year set forward	507 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	
	Males	Females
50	0.17%	0.13%
55	0.29	0.22
60	0.54	0.40
65	1.02	0.78
Ref:	506 x 0.80 0 year set forward	507 x 0.80 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. These assumptions was first used for the June 30, 2012 valuation of the System.

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

Age at Retirement	Rates
60	60%
61	60%
62	60%
63	60%
64	60%
65	60%
66	60%
67	60%
68	60%
69	60%
70	60%
71	60%
72	60%
73	60%
74	60%
75	100%
Ref.	2153

These retirement rates are applicable to employees attaining age 62 before attaining 20 (25 for dispatchers) years of service.

VALUATION ASSUMPTIONS

Service-related rates for members hired before January 1, 2012 are shown below:

Service at Retirement	CORP
20	28%
21	28%
22	22%
23	20%
24	17%
25	33%
26	33%
27	25%
28	17%
29	17%
30	30%
31	30%
32	50%
33	50%
34	75%
35	75%
36	75%
37	100%
Ref.	2154

These retirement rates are applicable to employees attaining 20 (25 for dispatchers) years of service before attaining age 62.

Age-related rates for members hired after January 1, 2012 are shown below:

Age at Retirement	CORP
53	40%
54	40%
55	30%
56	15%
57	15%
58	30%
59	30%
60	65%
61	65%
62	100%
Ref.	1744

VALUATION ASSUMPTIONS

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. This assumption was first used for the June 30, 2012 valuation of the Plan.

Sample Ages	Years of Service	% of Active Members Separating within Next Year
All	0	25.00%
	1	20.00%
	2	16.00%
	3	14.00%
	4	12.00%
	5	9.00%
	6	9.00%
	7	9.00%
	8	8.00%
	9	8.00%
	10	8.00%
	11	5.00%
	12	4.00%
	13	4.00%
	14	3.00%
	15	3.00%
	16	3.00%
	17	2.00%
	18	2.00%
	19	2.00%
Ref.		729

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 Plan.

Sample Ages	% of Active Members Becoming Disabled within Next Year
20	0.03%
25	0.03%
30	0.03%
35	0.04%
40	0.05%
45	0.06%
50	0.08%
55	0.08%
Ref	592 75%

SUMMARY OF ASSUMPTIONS USED
JUNE 30, 2016
MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption:	80% 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 80% Joint and Survivor form of payment with no reduction, for married members. 80% of members are assumed to be married at the 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 retiree health care. 80% of those are assumed to be married.
Assumed Future Permanent Benefit Increases (PBI):	Members retired on or before July 1, 2011: 2.25% of benefit. Members retired on or after August 1, 2011: 0.5% of benefit.

SUMMARY OF ASSUMPTIONS USED
JUNE 30, 2016
MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Interest on Reverse DROP:	The lump sum distribution is credited as though it accrued monthly from the Reverse DROP date to the date the member elected to participate in the Reverse DROP (plus interest equal to the yield on a five (5) year Treasury note as of the first day of the month as published by the Federal Reserve Board). For purposes of this valuation we used an interest rate of 2%.
Financing of Unfunded Actuarial Accrued Liabilities (Money in the Pipes):	The rate-setting valuation projects the unfunded actuarial accrued liability to the beginning of the applicable fiscal year to determine the applicable unfunded amortization rate.

SECTION F

PLAN PROVISIONS

SUMMARY OF PLAN PROVISIONS VALUED AND/OR CONSIDERED

Membership: Designated positions for the following employers that elect to join the Plan are eligible to participate in the CORP if the employee's customary employment is for at least forty (40) hours per week, or as defined by statute. A.R.S. § 38-881(13):

- For a County: A county detention officer and non-uniformed employees of a sheriff's department whose primary duties require direct inmate contact.
- For the State Department of Corrections and the Department of Juvenile Correction: Specific positions are eligible to participate. Refer to the statute for specific positions.
- For a City or Town, a City or Town Detention Officer.
- For an employer of an eligible group as defined in A.R.S. § 38-842, full-time dispatchers.
- For the judiciary, probation, surveillance, and juvenile detention officers and those positions designated by the Local Board.
- For the Department of Public Safety, state detention officers.

Dispatchers hired after November 24, 2009 must participate in the Arizona State Retirement System. A.R.S. § 38-902(C).

Average Monthly Compensation

For members hired before January 1, 2012:

One-thirty-sixth of total compensation paid to member during the three years, out of the last 10 years of credited service, in which the amount paid was highest. Compensation is the amount including base salary, overtime pay, shift differential pay and holiday pay, paid to an employee on a regular payroll basis and longevity pay paid at least every six months for which contributions are made to the System.

For members hired after January 1, 2012:

One-sixtieth of total compensation paid to member during the five years, out of the last 10 years of credited service, in which the amount paid was highest. Compensation is the amount including base salary, overtime pay, shift differential pay and holiday pay, paid to an employee on a regular payroll basis and longevity pay paid at least every six months for which contributions are made to the System.

Normal Retirement (no reduction for age)

For members hired before January 1, 2012:

A corrections officer may retire upon meeting one of the following age and service requirements:

a) Any age with 20 (25 for dispatchers) or more years of credited service (effective August 9, 2001);
b) Age 62 years with 10 or more years of credited service; or
c) A combination of age and credited service equal to 80 (effective July 1, 1995).

The amount of normal pension at 20 years of credited service is 50% of average monthly salary with 2% increments for every year over 20 years of credited service up to 25 years of credited service. With 25 or more years of credited service the accrual rate is 2.5% for each year.

SUMMARY OF PLAN PROVISIONS VALUED AND/OR CONSIDERED

The maximum amount payable as a normal retirement pension is 80% of the average monthly compensation.

For members hired after January 1, 2012:
First day of month following the attainment of age 52.5 and completion of 25 years of service or the attainment of age 62 and completion of 10 years of service.

The amount of monthly normal pension is based on credited service and average monthly compensation as follows:

- ***Age 62 and 10 years of service,*** 2.5% of average monthly compensation per year of credited service.
- ***Age 52.5 with 25 or more years of credited service,*** 62.5% of average monthly compensation, plus 2.5% of average monthly compensation for each year of credited service over 25.
- ***Age 52.5 with 25 years of service, but less than 25 years of credited service,*** 2.5% of average monthly compensation multiplied total credited service.

The maximum amount payable as a normal retirement pension is 80% of the average monthly compensation.

Early Retirement (reduction for age): No provision.

Vested Termination (deferred retirement): Termination of covered position employment with 10 or more years of credited service. Pension is calculated based on twice the member's accumulated contributions with payments commencing at age 62. Benefit is forfeited if accumulated contributions are refunded. The following schedule shows additional money which would be payable to members who receive a refund of their accumulated member contributions.

Years of Credited Service	Additional Monies (% of Contributions)
0-4	0%
5-6	25-40
7-8	55-70
9-10	85-100

For members hired on or after January 1, 2012 that cease 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.

Disability Retirement. A member who is injured in the performance of his duties which totally and permanently prevent him from performing a reasonable range of duties in his department and was the

SUMMARY OF PLAN PROVISIONS VALUED AND/OR CONSIDERED

result of either physical contact with an inmate, responding to a confrontational situation with an inmate or a job-related motor vehicle accident may be retired under accidental disability. A corrections officer who becomes incapacitated for any gainful employment, as the direct and proximate result of performance of duty as a corrections officer, may be retired by the Board of Trustees under total and permanent disability. The amount of pension for both types of disability is 50 percent of average monthly salary.

A member who has a total and permanent disability that prevents the performance of a reasonable range of duties in his department may be retired by the Board of Trustees under an ordinary disability (non-duty related). The amount of the pension is a percentage of normal retirement benefit. The percentage based on credited service divided by 20 (25 for dispatchers).

DROP. Beginning July 1, 2006, the CORP shall offer the Reverse Deferred Retirement Option Plan (Reverse DROP) to members that are eligible for a normal pension (based on service and age) applicable to a membership date that is either prior to, or after January 1, 2012 (who is not awarded an accidental, ordinary or total and permanent disability pension). Under the Reverse DROP, the member must voluntarily and irrevocably elect to terminate employment and receive a normal retirement upon participation in the Reverse DROP. The Reverse DROP date is the first day of the month immediately following completion of required credited service, or a date not more than sixty (60) consecutive months before the date the member elects to participate in the Reverse DROP, whichever is later.

The member's pension will be calculated using the factors of credited service and average monthly benefit compensation in effect on the Reverse DROP Date. The lump sum distribution is credited as though it accrued monthly from the Reverse DROP date to the date the member elected to participate in the Reverse DROP (plus interest equal to the yield on a five (5) year Treasury note as of the first day of the month as published by the Federal Reserve Board).

Survivor Pensions. Payable to the eligible beneficiary of a retired corrections officer or an active corrections officer. An eligible beneficiary is a surviving spouse who was married to the retired or active corrections officer for at least two years. A surviving spouse's pension terminates upon death. The amount of a surviving spouse's pension is 80% of the pension being paid the deceased retired corrections officer and 40% (100% if duty-related) of the average monthly salary of the deceased active corrections officer. Eligible surviving children are paid equal shares of the pension which would have been payable to a surviving spouse if a surviving spouse pension is not being paid. If no pension is payable because of the death of an active member, a refund of twice the member's accumulated contributions is paid to the beneficiary.

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

SUMMARY OF PLAN PROVISIONS VALUED AND/OR CONSIDERED

Post-Retirement Adjustments

For members retired on or before July 1, 2011:

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 PBI reserve is maintained and used to pay for the post-retirement adjustment. The investment return on the PBI 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 PBI 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 the PBI reserve. A post-retirement adjustment is paid as long as there is a positive balance in the PBI reserve.

For members retired on or after August 1, 2011:

A PBI is only paid in a year when the annual return on the market value of assets of the prior fiscal year exceeds 10.5% and the plan is at least 60% funded. 100% of the excess earnings is used to determine whether a PBI can be paid and the size of the PBI for that year. No PBI reserve will accumulate and the present value of that year's PBI 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 PBI, 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.
- In the case of a retired member who became a member of the plan on or after January 1, 2012, if under 55 on July 1, was receiving accidental disability benefits for the preceding 2 years.
- In the case of a member who became a member of the plan on or after January 1, 2012, if the survivor is under 55 on July 1, is the survivor of the member who was killed in the line of duty, and has been receiving a survivor benefits for the preceding 2 years.

SUMMARY OF PLAN PROVISIONS VALUED AND/OR CONSIDERED

The amount of the PBI to be paid is determined as follows:

- Funded ratio is 60-64%, PBI is 2%
- Funded ratio is 65-69%, PBI is 2.5%
- Funded ratio is 70-74%, PBI is 3%
- Funded ratio is 75-79%, PBI is 3.5%
- Funded ratio is 80% or more, PBI is 4%

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:

Member Only		With Dependents		
Not Medicare Eligible	Medicare Eligible	All Not Medicare Eligible	All Medicare Eligible	One With Medicare
$150	$100	$260	$170	$215

Member Contributions. 8.50% of base salary. For fiscal years 2007/2008 and 2008/2009, the member contribution rate is 7.96% pursuant to legislation adopted in 2005. Effective after 9/26/2008, non-dispatcher members contribute 8.41%, or a 50/50 split between employer and employee, whichever is lower, until the Plan is 100% funded. Minimum employee contribution rate of 7.65%, minimum employer contribution rate of 6%. Dispatcher contribution rate is .45% less than the non-dispatcher rate until the plan is 100% funded then rates are equal thereafter.

Employer Contributions. Percent of payroll normal cost plus 30-year (20 years remaining as of June 30, 2016) amortization of unfunded actuarial accrued liability (20-year amortization for credit). The minimum employer contribution rate is 6% for fiscal years beginning with FY 2007/2008 (5% for units under 5% as of June 30, 2005 valuation).

SECTION G

FUNDING POLICY

ACTUARIAL FUNDING POLICY

Introduction

The purpose of this Actuarial Funding Policy is to record the funding objectives and policy set by the Board for the Arizona Public Safety Personnel Retirement System (PSPRS). The Board establishes this Funding Policy to help ensure the systematic funding of future benefit payments for members of the Retirement System.

In 2012, the Governmental Accounting Standards Board (GASB) approved two new financial reporting standards. GASB Statement No. 67, "Financial Reporting for Pension Plans" replaces the requirements of Statement No. 25. GASB Statement No. 68, "Accounting and Financial Reporting for Pensions" replaces the requirements of Statements No. 27 and No. 50. Prior to the changes, the Annual Required Contribution (ARC) rate was used as a basis for funding decisions. The new GASB statements separate accounting cost (expense) from funding cost (contributions), necessitating the creation of this funding policy.

This funding policy shall be reviewed by the Board annually for several years following initial adoption until the next experience study. Subsequently, it shall be reviewed every five years in conjunction with the experience study.

Funding Objectives

1. Maintain adequate assets so that current plan assets plus future contributions and investment earnings are sufficient to fund all benefits expected to be paid to members and their beneficiaries.
2. Maintain stability of employer contribution rates, consistent with other funding objectives.
3. Maintain public policy goals of accountability and transparency. Each policy element is clear in intent and effect, and each should allow an assessment of whether, how and when the funding requirements of the plan will be met.
4. Promote intergenerational equity. Each generation of members and employers should incur the cost of benefits for the employees who provide services to them, rather than deferring those costs to future members and employers.
5. Provide a reasonable margin for adverse experience to help offset risks.
6. Continue progress of systematic reduction of the Unfunded Actuarial Accrued Liabilities (UAAL).

ACTUARIAL FUNDING POLICY

Elements of Actuarial Funding Policy

1. Actuarial Cost Method

a. The Individual Entry Age Normal level percent-of-pay actuarial cost method of valuation shall be used in determining Actuarial Accrued Liability (AAL) and Normal Cost. Differences in the past between assumed experience and actual experience ("actuarial gains and losses") shall become part of the AAL. The Normal Cost shall be determined on an individual basis for each active member.

2. Asset Smoothing Method

a. The investment gains or losses of each valuation period, resulting from the difference between actual investment return and assumed investment return, shall be recognized annually in level amounts over 7 years in calculating the Funding Value of Assets

b. The Funding Value of Assets so determined shall be subject to a 20% corridor relative to Market Value of Assets.

3. Amortization Method

a. The Funding Value of Assets are subtracted from the computed AAL. Any unfunded amount is amortized as a level percent-of-payroll over a closed period. If the Funding Value of Assets exceeds the AAL, the excess is amortized over an open period of 20 years and applied as a credit to reduce the Normal Cost otherwise payable.

4. Funding Target

a. The targeted funded ratio shall be 100%.

b. The maximum amortization period shall be 30 years.

c. If the funded ratio is between 100% and 120%, a minimum contribution equal to the Normal Cost will be made.

ACTUARIAL FUNDING POLICY

Elements of Actuarial Funding Policy

5. Risk Management

a. Assumption Changes

- The actuarial assumptions used shall be those last adopted by the PSPRS Board based on the most recent experience study and upon the advice and recommendation of the actuary. In accordance with best practices, the actuary shall conduct an experience study every five years. The results of the study shall be the basis for the actuarial assumption changes recommended to the PSPRS Board.
- The actuarial assumptions can be updated during the 5-year period if significant plan design changes or other significant events occur, as advised by the actuary.

b. Amortization Method

- The amortization method, Level Percent Closed, will ensure full payment of the UAAL over a finite, systematically decreasing period not to exceed 30 years. The amortization period will be reviewed once the period reaches 15 years.

c. Risk Measures

- The following risk measures will be annually determined to provide quantifiable measurements of risk and their movement over time.

  (i) Classic measures currently determined

  – Funded ratio (assets/liability)

  (ii) UAAL/Total Payroll

  – Measures the risk associated with contribution decreases relative impact on the ability to fund the UAAL. An increase in this measure indicates a increase in contribution risk.

  (iii)Total Liability/Total Payroll

  – Measures the risk associated with the ability to respond to liability experience through adjustments in contributions. An increase in this measure indicates an increase in experience risk.

ACTUARIAL FUNDING POLICY

Glossary

1. **Actuarial Accrued Liability (AAL):** 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.”
2. **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.
3. **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.”
4. **Actuarial 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. For example, if during a given year the assets earn more than the investment return assumption, the amount of earnings above the assumption will cause an unexpected reduction in UAAL, or “actuarial gain” as of the next valuation. These include contribution gains and losses that result from actual contributions made being greater or less than the level determined under the policy.
5. **Actuary:** A person who is trained in the applications of probability and compound interest to 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 (MAAA). The Society of Actuaries (SOA) is an international research, education and membership organization for actuaries in the life and health insurance, employee benefits, and pension fields. The SOA administers a series of examinations leading initially to Associateship and the designation ASA and ultimately to Fellowship with the designation FSA.
6. **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.
7. **Entry Age Normal Actuarial Cost Method:** A funding method that calculates the Normal Cost as a level percentage-of-pay over the working lifetime of the plan’s members.
8. **Experience Study:** An actuarial investigation of demographic and economic experiences of the system during the period studied. The investigation is made for the purpose of updating the actuarial assumptions used in valuing the actuarial liabilities.

ACTUARIAL FUNDING POLICY

9. **Funding Value of Assets**: The value of current plan assets recognized for valuation purposes. Generally based on a phased-in recognition of all or a portion of market related investment return. Sometimes referred to as Actuarial Value of Assets.
10. **Market Value of Assets:** The fair value of plan assets as reported in the plan's audited financial statements.
11. **Normal Cost (NC):** 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.
12. **Unfunded Actuarial Accrued Liability (UAAL):** The positive difference, if any, between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

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 items that the auditor changes so that we may maintain consistency with the Plan's financial statements. Please note Plan reporting under GASB Statement No. 25 has been replaced by GASB Statement No. 67.

INFORMATION REQUIRED BY GASB STATEMENT NO. 67

The Governmental Accounting Standards Board Statement No. 67 (GASB 67) contains certain requirements regarding the accounting and disclosure of financial information. In addition to disclosing the system's fiduciary net position, retirement systems are also required to disclose information regarding the plan's total pension liability, net pension liability, and change in net pension liability from the prior year. In actuarial terms, these are the plan's actuarial accrued liability and unfunded actuarial accrued liability on a market value of asset basis. This section of the report contains information that is part of the Retirement System's disclosure requirements under this accounting standard.

Determination of the Total Pension Liability

The total pension liability shown in this subsection is also shown as of the last date of the pension plan's fiscal year, June 30, 2016.

A single discount rate of 7.50% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.50%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

An exhibit providing the projections and calculations used to determine the single equivalent discount rate under GASB Statement No. 67 can be provided upon request.

Measurement of Net Pension Liability

The net pension liability is to be measured as the total pension liability, less the amount of the pension plan's fiduciary net position. As of the plan year ending June 30, 2016, the net pension liability is $1,378,404,800.

The exhibit on the following page provides information regarding the total pension liability, net pension liability, and change in the net pension liability since the prior plan year (and related ratios).

Schedules of Required Supplementary Information

Schedule of Changes in the Employers' Net Pension Liability and Related Ratios

Last 10 Fiscal Years (which may be built prospectively)

Fiscal year ending June 30,	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Total Pension Liability										
Service Cost	$ 88,759,140	$ 89,411,480	$ 96,352,744							
Interest on the Total Pension Liability	212,374,827	204,874,410	173,964,089							
Benefit and Assumption Changes	120,178,640	-	259,052,776							
Difference between expected and actual experience of the Total Pension Liability	(72,462,458)	(46,823,060)	9,015,638							
Benefit Payments and Refunds	(158,408,275)	(144,771,611)	(137,533,520)							
Net Change in Total Pension Liability	190,441,874	102,691,219	400,851,727							
Total Pension Liability - Beginning	2,740,236,383	2,637,545,164	2,236,693,437							
Total Pension Liability - Ending (a)	$ 2,930,678,257	$ 2,740,236,383	$2,637,545,164							
Plan Fiduciary Net Position										
Employer Contributions	$ 111,279,148	$ 82,577,422	$ 77,797,924							
Employee Contributions	52,129,050	52,909,951	52,202,793							
Pension Plan Net Investment Income	(9,229,418)	32,312,069	160,350,224							
Benefit Payments and Refunds	(158,408,275)	(144,771,611)	(137,533,520)							
Pension Plan Administrative Expense	(1,360,383)	(1,378,245)	(1,437,691)							
Other	17,995,216	20,973,533	15,080,587							
Net Change in Plan Fiduciary Net Position	12,405,338	42,623,119	166,460,317							
Plan Fiduciary Net Position - Beginning	1,539,868,120	1,497,245,001	1,330,784,684							
Plan Fiduciary Net Position - Ending (b)	$ 1,552,273,458	$ 1,539,868,120	$1,497,245,001							
Net Pension Liability - Ending (a) - (b)	1,378,404,799	1,200,368,263	1,140,300,163							
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	52.97 %	56.19 %	56.77 %							
Covered Payroll	$ 599,318,976	$ 616,267,477	$ 625,263,855							
Net Pension Liability as a Percentage of Covered Payroll	230.00 %	194.78 %	182.37 %							

Notes to Schedule:

N/A

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF THE EMPLOYERS' NET PENSION LIABILITY

Last 10 Fiscal Years (which may be built prospectively starting from 2014)

FY Ending June 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
2007			-			
2008			-			
2009			-			
2010			-			
2011			-			
2012			-			
2013			-			
2014	$2,637,545,164	$1,497,245,001	$1,140,300,163	56.77%	$625,263,855	182.37%
2015	2,740,236,383	1,539,868,120	1,200,368,263	56.19%	616,267,477	194.78%
2016	2,930,678,257	1,552,273,458	1,378,404,799	52.97%	599,318,976	230.00%

SCHEDULE OF CONTRIBUTIONS

Last 10 Fiscal Years (which may be built prospectively starting from 2014)

FY Ending June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2007					
2008					
2009					
2010					
2011					
2012					
2013					
2014	$ 77,797,924 **	$ 77,797,924	-	$ 625,263,855	12.44%
2015	82,577,422 **	82,577,422	-	616,267,477	13.40%
2016	111,279,148 **	111,279,148	-	599,318,976	18.57%

** *Actual contributions are based on covered payroll at the time of contribution. It is the actuary's understanding that the Employer's practice is to contribute the percent-of-payroll employer contribution rate (or flat dollar amount if there are no active employees) shown in the actuarial valuation report. Because of this understanding, the Actuarially Determined Contributions shown in the Schedule of Employer contributions are the actual contributions made by the Employer in the fiscal year.*

GASB Statement No. 67 Supplementary Information

Summary of Actuarial Methods and Assumptions Used to Determine Contribution Rates

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, 2016
Actuarial cost method	Entry-Age Normal
Amortization method	Level percent-of-pay, Closed
Remaining amortization period	20 years
Asset valuation method	7-year smoothed market 80%/120% market corridor
Inflation	4.00%; no explicit price inflation assumption is used in this valuation.
Actuarial assumptions:	
Investment rate of return	7.50%
Projected salary increases	4.00% - 7.25%
Payroll growth	4.00%
Retirement Age	Experience-based table of rates that is specific to the type of eligibility condition.
Mortality	RP-2000 mortality table (adjusted by 105% for both males and females).
Assumed Future Permanent Benefit Increases	Members retired on or before July 1, 2011: 2.25% of benefit. Members retired on or after August 1, 2011: 0.5% of benefit.

GASB STATEMENT NO. 43 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.

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)
2007	$ 0	$48,990,212	$48,990,212	0.00%	$515,427,641	9.5%
2008	0	53,700,864	53,700,864	0.00	642,621,478	8.4%
2009	0	68,730,755	68,730,755	0.00	630,824,994	10.9%
2010	0	73,272,493	73,272,493	0.00	616,481,375	11.9%
2011	0	94,105,048	94,105,048	0.00	609,243,354	15.4%
2012	0	90,881,845	90,881,845	0.00	626,223,066	14.5%
2013	0	93,544,324	93,544,324	0.00	604,067,645	15.5%
2014	102,100,399	97,015,208	(5,085,191)	105.24	625,263,855	(0.8)%
2015	111,345,889	100,871,152	(10,474,737)	110.38	616,267,477	(1.7)%
2016	**116,150,082**	**107,001,025**	**(9,149,057)**	**108.55**	**599,318,976**	**(1.5)%**

ANNUAL REQUIRED CONTRIBUTION

Valuation Date June 30	Fiscal Year Ended June 30	Normal Cost (a)	Actuarial Accrued Liability (b)	Total (a+b)	Dollar Amount
2007	2009	0.51%	0.44%	0.95%	$6,245,994
2008	2010	0.43%	0.41%	0.84%	5,178,444
2009	2011	0.61%	0.54%	1.15%	8,074,426
2010	2012	0.62%	0.60%	1.22%	8,371,142
2011	2013	0.39%	0.83%	1.22%	8,194,628
2012	2014	0.33%	0.77%	1.10%	7,594,520
2013	2015	0.34%	0.89%	1.23%	8,113,781
2014	2016	0.33%	(0.11)%	0.22%	1,487,828
2015	2017	0.31%	(0.11)%	0.20%	1,333,110
2016	**2018**	**0.32%**	**(0.10)%**	**0.22%**	**1,426,091**

Fiscal Years prior to 2011 provided by the prior actuary.

Health Insurance Subsidy Payment Reported for FY 2016: $3,727,397

Note: GASB Statement No. 45 Supplementary Information is shown individually in the separate reports for each participating unit.

APPENDIX II

SUMMARY OF POPULATION DATA BY INDIVIDUAL EMPLOYERS

Division Number	Employer Name	Number of Actives	Active Payroll	Number of Retirees	Annual Retiree Benefits	Number of Inactive	Inactive Benefits
575	ADMINISTRATIVE OFFICE OF THE COURTS	2,109	$ 108,624,572	570	$ 21,254,336	387	$ 5,946,939
520	APACHE COUNTY - Detention	18	537,817	5	86,187	15	24,685
506	CITY OF AVONDALE - Detention	8	547,891	1	11,584	3	17,507
562	CITY OF SOMERTON - Dispatchers	4	144,197	1	32,389	2	55,326
525	COCHISE COUNTY - Detention	58	2,041,220	33	521,814	20	129,698
530	COCONINO COUNTY - Detention	84	3,421,091	13	338,807	66	439,894
500	DEPARTMENT OF CORRECTIONS - Detention	7,922	320,490,506	3,012	72,847,987	1,209	18,430,405
501	DEPT OF JUVENILE CORRECTIONS - Detention	390	15,677,288	267	6,907,907	224	2,854,437
563	DEPARTMENT OF PUBLIC SAFETY - Dispatchers	31	1,655,483	13	462,743	5	149,148
564	DEPARTMENT OF PUBLIC SAFETY - Detention	1	53,802	-	-	2	11,887
503	GILA COUNTY - Detention	59	2,206,156	11	184,978	25	335,154
558	GILA COUNTY - Dispatchers	5	242,660	3	80,128	4	55,340
504	GRAHAM COUNTY - Detention	31	1,185,164	5	112,896	18	104,378
560	GRAHAM COUNTY - Dispatchers	4	153,684	-	-	4	63,177
505	MARICOPA COUNTY - Detention	1,994	95,716,407	512	14,915,059	361	5,254,360
535	MOHAVE COUNTY - Detention	112	3,664,408	18	310,337	63	446,652
545	NAVAJO COUNTY - Detention	47	1,576,314	11	207,651	29	99,349
515	PIMA COUNTY - Detention	463	19,993,950	192	5,378,488	139	1,435,311
502	PINAL COUNTY - Detention	151	7,505,961	35	1,038,709	42	711,873
555	PINAL COUNTY - Dispatchers	9	378,595	2	66,819	8	99,263
540	SANTA CRUZ COUNTY - Detention	24	785,446	4	105,711	19	100,423
557	TOWN OF MARANA - Dispatchers	7	397,428	-	-	3	9,488
556	TOWN OF ORO VALLEY - Dispatchers	4	222,308	5	132,788	3	82,009
559	TOWN OF WICKENBURG - Dispatchers	3	131,245	2	30,782	1	2,322
550	YAVAPAI COUNTY - Detention	166	6,716,108	39	793,885	88	733,492
561	YAVAPAI COUNTY - Dispatchers	4	168,873	1	39,324	1	69,069
510	YUMA COUNTY - Detention	138	5,080,402	30	763,119	51	503,319
	TOTAL	13,846	$ 599,318,976	4,785	$ 126,624,428	2,792	$ 38,164,905

APPENDIX III

SUMMARY OF PENSION LIABILITY AND ASSET INFORMATION BY INDIVIDUAL EMPLOYERS

Division Number	Employer Name	Pension AAL	Pension Assets	Reserve for Future Pension Increases	Net Assets	Funded Percent	Unfunded Liability
575	ADMINISTRATIVE OFFICE OF THE COURTS	$ 624,330,850	$ 369,952,804	-	$ 369,952,804	59.30%	$ 254,378,046
520	APACHE COUNTY - Detention	1,809,048	1,346,888	-	1,346,888	74.50%	462,160
506	CITY OF AVONDALE - Detention	1,868,023	1,356,168	-	1,356,168	72.60%	511,855
562	CITY OF SOMERTON - Dispatchers	1,105,591	524,243	-	524,243	47.40%	581,348
525	COCHISE COUNTY - Detention	9,810,851	5,630,385	-	5,630,385	57.40%	4,180,466
530	COCONINO COUNTY - Detention	10,912,638	8,124,824	-	8,124,824	74.50%	2,787,814
500	DEPARTMENT OF CORRECTIONS - Detention	1,529,974,600	855,298,060	-	855,298,060	55.90%	674,676,540
501	DEPT OF JUVENILE CORRECTIONS - Detention	117,211,841	60,441,294	-	60,441,294	51.60%	56,770,547
563	DEPARTMENT OF PUBLIC SAFETY - Dispatchers	13,378,640	9,266,679	-	9,266,679	69.30%	4,111,961
564	DEPARTMENT OF PUBLIC SAFETY - Detention	174,150	109,315	-	109,315	62.80%	64,835
503	GILA COUNTY - Detention	5,569,167	4,526,161	-	4,526,161	81.30%	1,043,006
558	GILA COUNTY - Dispatchers	1,995,703	1,301,597	-	1,301,597	65.20%	694,106
504	GRAHAM COUNTY - Detention	2,462,381	2,064,667	-	2,064,667	83.80%	397,714
560	GRAHAM COUNTY - Dispatchers	466,619	562,109	-	562,109	120.50%	(95,490)
505	MARICOPA COUNTY - Detention	406,837,116	235,464,948	-	235,464,948	57.90%	171,372,168
535	MOHAVE COUNTY - Detention	6,735,823	7,599,459	-	7,599,459	112.80%	(863,636)
545	NAVAJO COUNTY - Detention	4,326,471	3,553,198	-	3,553,198	82.10%	773,273
515	PIMA COUNTY - Detention	109,504,426	53,814,539	-	53,814,539	49.10%	55,689,887
502	PINAL COUNTY - Detention	32,260,853	25,544,827	-	25,544,827	79.20%	6,716,026
555	PINAL COUNTY - Dispatchers	2,192,823	1,516,474	-	1,516,474	69.20%	676,349
540	SANTA CRUZ COUNTY - Detention	2,512,581	2,336,916	-	2,336,916	93.00%	175,665
557	TOWN OF MARANA - Dispatchers	1,548,120	1,098,276	-	1,098,276	70.90%	449,844
556	TOWN OF ORO VALLEY - Dispatchers	2,524,360	1,257,682	-	1,257,682	49.80%	1,266,678
559	TOWN OF WICKENBURG - Dispatchers	611,459	425,268	-	425,268	69.50%	186,191
550	YAVAPAI COUNTY - Detention	21,538,219	12,368,770	-	12,368,770	57.40%	9,169,449
561	YAVAPAI COUNTY - Dispatchers	1,048,305	689,192	-	689,192	65.70%	359,113
510	YUMA COUNTY - Detention	17,967,599	12,100,265	-	12,100,265	67.30%	5,867,334
	TOTAL	$ 2,930,678,257	$ 1,678,275,008	-	$ 1,678,275,008		$ 1,252,403,249

APPENDIX IV

SUMMARY OF PENSION CONTRIBUTION INFORMATION BY INDIVIDUAL EMPLOYERS

Division Number	Employer Name	Pension ER NC%	Pension UAL Pmt %	Calculated ER Cont	Required ER Cont	Statutory Minimum
575	ADMINISTRATIVE OFFICE OF THE COURTS	7.24%	15.27%	22.51%	22.51%	N/A
520	APACHE COUNTY - Detention	6.40%	5.63%	12.03%	12.03%	N/A
506	CITY OF AVONDALE - Detention	7.54%	6.19%	13.73%	13.73%	N/A
562	CITY OF SOMERTON - Dispatchers	7.43%	26.17%	33.60%	33.60%	N/A
525	COCHISE COUNTY - Detention	6.64%	13.26%	19.90%	19.90%	N/A
530	COCONINO COUNTY - Detention	6.60%	5.37%	11.97%	11.97%	N/A
500	DEPARTMENT OF CORRECTIONS - Detention	7.10%	13.73%	20.83%	20.83%	N/A
501	DEPT OF JUVENILE CORRECTIONS - Detention	7.22%	23.81%	31.03%	31.03%	N/A
563	DEPARTMENT OF PUBLIC SAFETY - Dispatchers	6.64%	16.31%	22.95%	22.95%	N/A
564	DEPARTMENT OF PUBLIC SAFETY - Detention	9.94%	8.34%	18.28%	18.28%	N/A
503	GILA COUNTY - Detention	7.30%	3.16%	10.46%	10.46%	N/A
558	GILA COUNTY - Dispatchers	6.95%	18.87%	25.82%	25.82%	N/A
504	GRAHAM COUNTY - Detention	6.30%	2.16%	8.46%	8.46%	N/A
560	GRAHAM COUNTY - Dispatchers	6.86%	-0.41%	6.45%	6.45%	N/A
505	MARICOPA COUNTY - Detention	7.16%	11.70%	18.86%	18.86%	N/A
535	MOHAVE COUNTY - Detention	6.40%	-0.13%	6.27%	6.40%	N/A
545	NAVAJO COUNTY - Detention	6.34%	3.23%	9.57%	9.57%	N/A
515	PIMA COUNTY - Detention	6.71%	18.15%	24.86%	24.86%	N/A
502	PINAL COUNTY - Detention	7.77%	5.92%	13.69%	13.69%	N/A
555	PINAL COUNTY - Dispatchers	6.63%	11.65%	18.28%	18.28%	N/A
540	SANTA CRUZ COUNTY - Detention	6.89%	1.48%	8.37%	8.37%	N/A
557	TOWN OF MARANA - Dispatchers	6.66%	7.39%	14.05%	14.05%	N/A
556	TOWN OF ORO VALLEY - Dispatchers	6.04%	37.59%	43.63%	43.63%	N/A
559	TOWN OF WICKENBURG - Dispatchers	8.14%	8.38%	16.52%	16.52%	N/A
550	YAVAPAI COUNTY - Detention	6.83%	8.86%	15.69%	15.69%	N/A
561	YAVAPAI COUNTY - Dispatchers	8.27%	14.00%	22.27%	22.27%	N/A
510	YUMA COUNTY - Detention	6.73%	7.49%	14.22%	14.22%	N/A
	TOTAL	7.11%	13.65%	20.76%	20.76%	

APPENDIX V

SUMMARY OF HEALTH LIABILITY AND ASSET INFORMATION BY INDIVIDUAL EMPLOYERS

Division Number	Employer Name	Health AAL	Health Assets	Funded Percent	Unfunded Liability
575	ADMINISTRATIVE OFFICE OF THE COURTS	$ 17,875,906	$ 8,868,140	49.60%	$ 9,007,766
520	APACHE COUNTY - Detention	92,939	174,617	187.90%	(81,678)
506	CITY OF AVONDALE - Detention	59,661	33,520	56.20%	26,141
562	CITY OF SOMERTON - Dispatchers	30,116	18,979	63.00%	11,137
525	COCHISE COUNTY - Detention	353,909	653,083	184.50%	(299,174)
530	COCONINO COUNTY - Detention	424,012	468,299	110.40%	(44,287)
500	DEPARTMENT OF CORRECTIONS - Detention	65,001,096	74,247,347	114.20%	(9,246,251)
501	DEPT OF JUVENILE CORRECTIONS - Detention	4,371,682	6,238,077	142.70%	(1,866,395)
563	DEPARTMENT OF PUBLIC SAFETY - Dispatchers	504,984	165,617	32.80%	339,367
564	DEPARTMENT OF PUBLIC SAFETY - Detention	6,911	1,760	25.50%	5,151
503	GILA COUNTY - Detention	220,622	332,957	150.90%	(112,335)
558	GILA COUNTY - Dispatchers	40,624	86,805	213.70%	(46,181)
504	GRAHAM COUNTY - Detention	64,507	73,800	114.40%	(9,293)
560	GRAHAM COUNTY - Dispatchers	16,359	18,687	114.20%	(2,328)
505	MARICOPA COUNTY - Detention	12,091,137	16,024,258	132.50%	(3,933,121)
535	MOHAVE COUNTY - Detention	252,116	629,940	249.90%	(377,824)
545	NAVAJO COUNTY - Detention	125,473	348,466	277.70%	(222,993)
515	PIMA COUNTY - Detention	3,166,577	3,672,002	116.00%	(505,425)
502	PINAL COUNTY - Detention	929,235	1,380,558	148.60%	(451,323)
555	PINAL COUNTY - Dispatchers	56,943	149,679	262.90%	(92,736)
540	SANTA CRUZ COUNTY - Detention	123,409	212,579	172.30%	(89,170)
557	TOWN OF MARANA - Dispatchers	51,144	39,112	76.50%	12,032
556	TOWN OF ORO VALLEY - Dispatchers	48,337	68,438	141.60%	(20,101)
559	TOWN OF WICKENBURG - Dispatchers	17,687	38,472	217.50%	(20,785)
550	YAVAPAI COUNTY - Detention	634,332	1,133,963	178.80%	(499,631)
561	YAVAPAI COUNTY - Dispatchers	22,268	24,642	110.70%	(2,374)
510	YUMA COUNTY - Detention	419,039	1,046,285	249.70%	(627,246)
	TOTAL	$ 107,001,025	$ 116,150,082		$ (9,149,057)

APPENDIX VI

SUMMARY OF HEALTH CONTRIBUTION INFORMATION BY INDIVIDUAL EMPLOYERS

Division Number	Employer Name	Health ER NC%	Health UAL Pmt %	Calculated ER Cont	Required ER Cont
575	ADMINISTRATIVE OFFICE OF THE COURTS	0.29%	0.54%	0.83%	0.83%
520	APACHE COUNTY - Detention	0.43%	-0.43%	0.00%	0.00%
506	CITY OF AVONDALE - Detention	0.22%	0.31%	0.53%	0.53%
562	CITY OF SOMERTON - Dispatchers	0.29%	0.50%	0.79%	0.79%
525	COCHISE COUNTY - Detention	0.34%	-0.34%	0.00%	0.00%
530	COCONINO COUNTY - Detention	0.27%	0.00%	0.27%	0.27%
500	DEPARTMENT OF CORRECTIONS - Detention	0.34%	0.00%	0.34%	0.34%
501	DEPT OF JUVENILE CORRECTIONS - Detention	0.37%	-0.37%	0.00%	0.00%
563	DEPARTMENT OF PUBLIC SAFETY - Dispatchers	0.19%	1.34%	1.53%	1.53%
564	DEPARTMENT OF PUBLIC SAFETY - Detention	0.36%	0.67%	1.03%	1.03%
503	GILA COUNTY - Detention	0.42%	-0.33%	0.09%	0.09%
558	GILA COUNTY - Dispatchers	0.23%	-0.23%	0.00%	0.00%
504	GRAHAM COUNTY - Detention	0.28%	0.00%	0.28%	0.28%
560	GRAHAM COUNTY - Dispatchers	0.26%	0.00%	0.26%	0.26%
505	MARICOPA COUNTY - Detention	0.29%	-0.27%	0.02%	0.02%
535	MOHAVE COUNTY - Detention	0.35%	-0.35%	0.00%	0.00%
545	NAVAJO COUNTY - Detention	0.34%	-0.34%	0.00%	0.00%
515	PIMA COUNTY - Detention	0.27%	0.00%	0.27%	0.27%
502	PINAL COUNTY - Detention	0.32%	-0.32%	0.00%	0.00%
555	PINAL COUNTY - Dispatchers	0.24%	-0.24%	0.00%	0.00%
540	SANTA CRUZ COUNTY - Detention	0.45%	-0.45%	0.00%	0.00%
557	TOWN OF MARANA - Dispatchers	0.19%	0.20%	0.39%	0.39%
556	TOWN OF ORO VALLEY - Dispatchers	0.16%	-0.16%	0.00%	0.00%
559	TOWN OF WICKENBURG - Dispatchers	0.41%	-0.41%	0.00%	0.00%
550	YAVAPAI COUNTY - Detention	0.32%	-0.32%	0.00%	0.00%
561	YAVAPAI COUNTY - Dispatchers	0.51%	0.00%	0.51%	0.51%
510	YUMA COUNTY - Detention	0.32%	-0.32%	0.00%	0.00%
	TOTAL	0.32%	-0.10%	0.22%	0.22%

GRS
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November 29, 2016

Mr. Jared A. Smout, Administrator
Arizona Corrections Officer Retirement Plan (CORP)
3010 E. Camelback Road, Suite 200
Phoenix, Arizona 85016

Re: Report of the June 30, 2016 Actuarial Valuation of CORP

Dear Mr. Smout:

Enclosed please find five copies of this report.

Any questions or comments you may develop will be welcome.

Sincerely,

James D. Anderson

James D. Anderson, FSA, EA, MAAA

JDA:mrb
Enclosures