Arizona Corrections Officer Retirement Plan Consolidated Report

June 30, 2017

GRS

GRS Retirement Consulting

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December 27, 2017

Board of Trustees
Arizona Corrections Officer Retirement Plan
Phoenix, Arizona

Re: Arizona Corrections Officer Retirement Plan Actuarial Valuation as of June 30, 2017

Dear Board Members:

The results of the June 30, 2017 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 2018-2019 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 other 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, 2017. 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.

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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,

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

MB/JDA/FP:rmn

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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, 2018 is shown below:

Averages	Pension	Health	Total
Employer Contribution Rate	28.77%	0.01%	28.79%
Funded Status	49.5%	120.5%	51.5%

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
6/30/2016	20.76%	0.22%	20.98%
6/30/2017	28.77%	0.01%	28.79%

Please note that the pension contribution rate shown above increased from the June 30, 2016 valuation for most employers. The contribution rate increased in the current valuation primarily due to:

- the November 2016 Hall decision related to PBI, and
- changes in actuarial assumptions, including updated mortality tables and a decrease in the assumed investment return rate.

The reasons for the change in contribution rate and funded status are described in more detail on pages 2-4 of this report.

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	20.76%	0.22%	20.98%
Asset Losses	0.15%	0.01%	0.16%
Tier 2	(0.13)%	(0.02)%	(0.15)%
Payroll Base	(0.03)%	(0.00)%	(0.03)%
PBI	(0.08)%	0.00%	(0.08)%
Benefit Changes	7.41%	0.00%	7.41%
Assumption Changes	0.80%	(0.19)%	0.61%
Other	(0.11)%	(0.01)%	(0.11)%
Contribution Rate This Valuation	28.77%	0.01%	28.79%

Funded Status	Pension	Health	Total
Funded Status Last Valuation	57.3%	108.6%	59.1%
Asset Losses	(0.2)%	(1.1)%	(0.2)%
Tier 2	0.0%	0.0%	0.0%
Payroll Base	0.2%	0.0%	0.2%
PBI	0.1%	0.0%	0.1%
Benefit Changes	(7.8)%	0.0%	(7.7)%
Assumption Changes	(1.5)%	12.0%	(1.4)%
Other	1.4%	1.0%	1.4%
Funded Status This Valuation	49.5%	120.5%	51.5%

Asset Losses – Asset losses are based on 7-year smoothing of assets. The return on market value was 11.9% for the year ending June 30, 2017. However, based on funding value, the average return for the last 7 years is approximately 6.7%.

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 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 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 a PBI for CORP members this year that was less than 2.25%, this resulted in a gain for the Plan with a corresponding decrease in the contribution rate and increase in the funded status.

Benefit Changes – The November 2016 decision in the Hall case substantially increased plan liabilities.

- PBI increases paid in 2013 and 2014 have been recalculated due to a change in the Average Net Asset available to pay PBI increases.
- The assumption regarding future PBI's for Tier 1 members was increased from 0.5% to 2.25%

Assumption Changes – For this valuation, the Board adopted the following assumption changes:

- Decrease the investment return assumption from 7.5% to 7.4%.
- Decrease the wage inflation assumption from 4.0% to 3.5%.
- Updated mortality to the RP-2014 Tables, with 75% of MP-2016 fully generational projection scales.
- Updated withdrawal, disability and retirement assumptions.

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.

4. Plan Experience

Experience during the year ended June 30, 2017 was overall favorable. On a market value basis, the Plan's investment return for the year ended June 30, 2017 was 11.9%. However, as noted above 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 6.7%. 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 $54 million of unrecognized investment losses that will, in the absence of other gains, put upward pressure on the contribution rate next year.

If the June 30, 2017 pension valuation results were based on market value instead of smoothed funding value, the pension funded percent of the plan would be 48.1% (instead of 49.5%), and the pension employer contribution requirement would be 29.42% of payroll (instead of 28.77%).

6. Conclusion

The changes in benefit structure significantly increased contribution rates for most employers, and the changes to actuarial assumptions further increased contribution rates for most employers. In addition the pension funded percent of the plan decreased from 57% to 49%, mostly due to benefit changes.

While the funded percent has decreased to the level noted above, the recent experience study served to strengthen assumptions so that the Plan is on better footing. However, 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 <u>at least</u> 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, 2017 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, 2018. 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, 2018 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, 2016	June 30, 2017
Contribution for Fiscal Year Ending	2018	2019
Pension		
Total normal cost requirement	15.52%	16.16%
Less member contributions	8.41	8.41
Employer normal cost requirement	7.11%	7.75%
Amortization of unfunded liabilities	13.65%	21.02%
Total recommended pension contribution rate	**20.76%**	**28.77%**
Total recommended pension contribution amount	**$ 134,571,179**	**$ 191,073,976**
Health		
Normal cost requirement	0.32%	0.25%
Amortization of unfunded liabilities	(0.10)%	(0.24)%
Total health contribution requirement rate	**0.22%**	**0.01%**
Total health contribution requirement amount	**$ 1,426,091**	**$ 66,414**
Total contribution rate	**20.98%**	**28.78%**

Actuarial accrued liability, $3,724,874,390, exceeded the funding value of assets, which was $1,916,845,158. The unfunded actuarial accrued liabilities were amortized as a level percent-of-payroll over a closed period of 19 years ending on June 30, 2037 and added to the employer normal cost. The 19-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
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
2017	**2019**	**7.75**	**21.02**	**28.77**

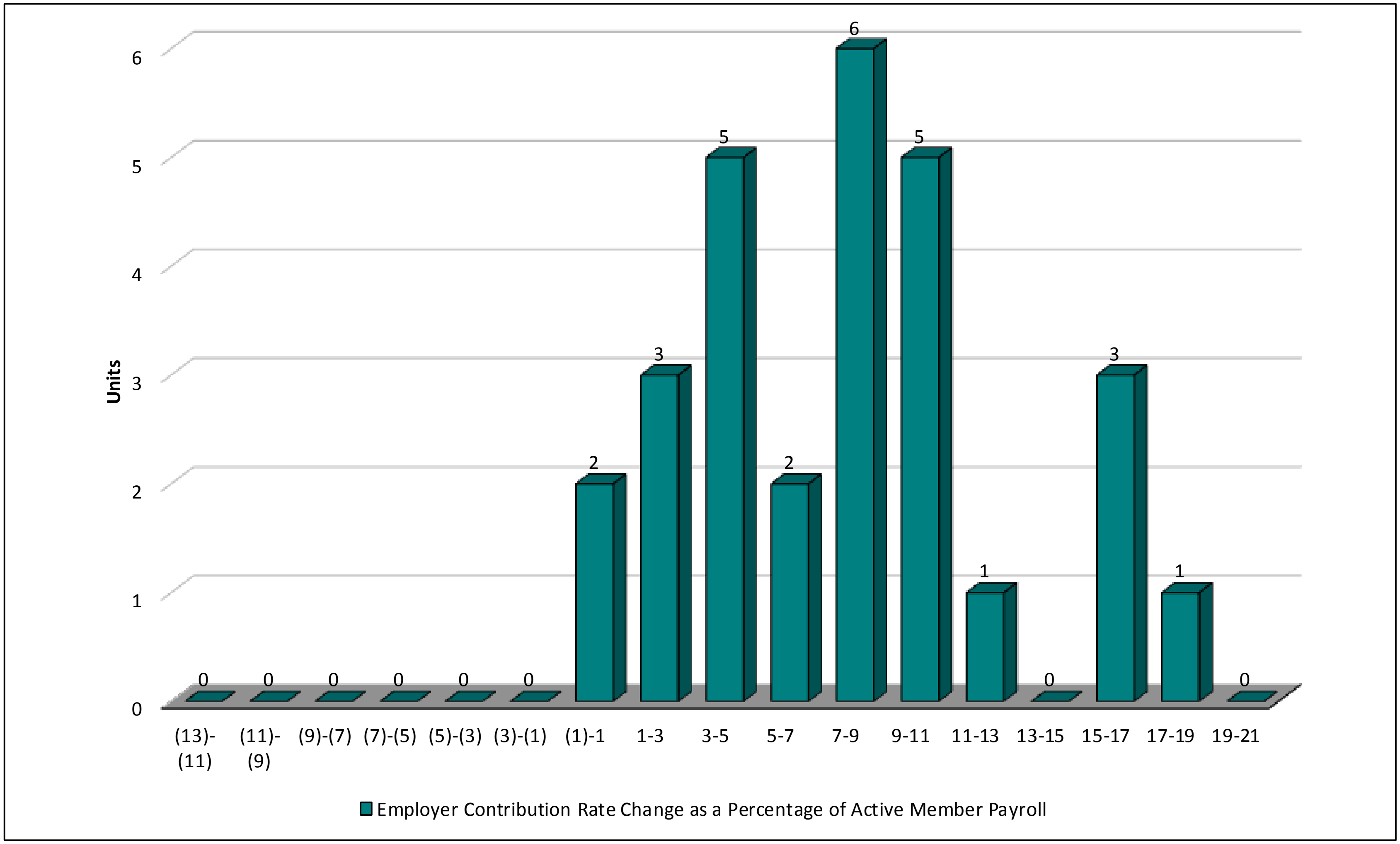
** Beginning with the June 30, 2014 valuation the rates are for pension only.*

Results prior to 2009 were calculated by the prior actuary.

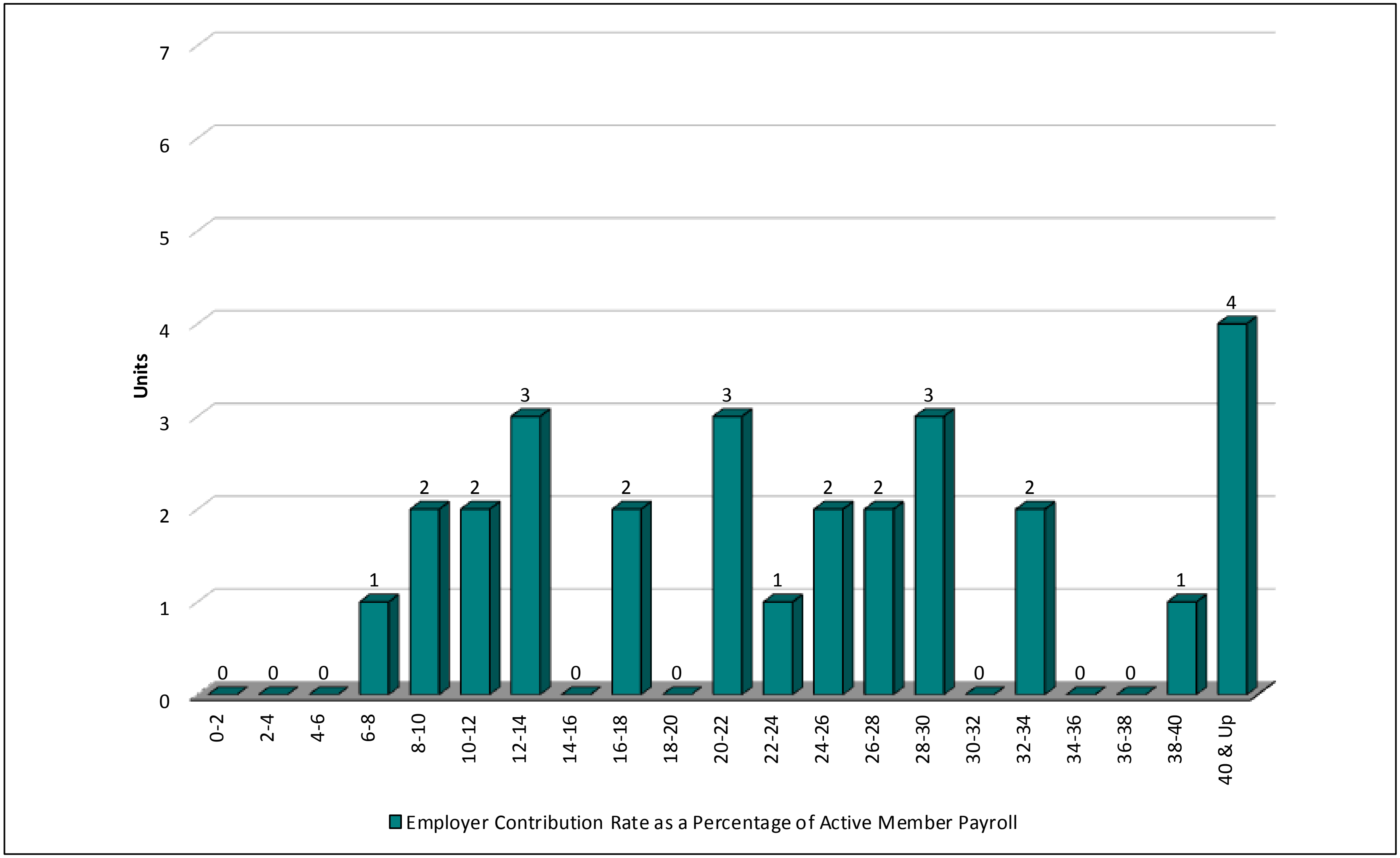
Historical Summary of Employer Health Rates

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
2017	**2019**	**0.25**	**(0.24)**	**0.01**

Employer Contribution Rate Changes at June 30, 2017
All Employers



Employer Contribution Rates - All Employers at June 30, 2017



SECTION B

FUNDING RESULTS

Present Value of Future Benefits and Accrued Liability

	June 30, 2016	June 30, 2017
Pension		
A. Accrued Liability		
1. For retirees and beneficiaries	$ 1,495,286,564	$ 1,845,299,461
2. For vested terminated members	38,164,905	34,795,718
3. For present active members		
a. Value of expected future benefit payments	2,017,714,222	2,387,307,316
b. Value of future normal costs	620,487,434	643,022,613
c. Active member accrued liability: (a) - (b)	1,397,226,788	1,744,284,703
4. Total accrued liability	2,930,678,257	3,624,379,882
B. Present Assets (Funding Value)	1,678,275,008	1,795,711,132
C. Unfunded Accrued Liability: (A.4) - (B)	1,252,403,249	1,828,668,750
D. Stabilization Reserve	876,952	17,446
E. Net Unfunded Accrued Liability: (C) + (D)	$ 1,253,280,201	$ 1,828,686,196
F. Funding Ratio: (B) / (A.4)	57.3%	49.5%
Health		
A. Accrued Liability		
1. For retirees and beneficiaries	$ 41,492,406	$ 47,179,909
2. For present active members		
a. Value of expected future benefit payments	77,468,809	62,566,013
b. Value of future normal costs	11,960,190	9,251,414
c. Active member accrued liability: (a) - (b)	65,508,619	53,314,599
3. Total accrued liability	107,001,025	100,494,508
B. Present Assets (Funding Value)	116,150,082	121,134,026
C. Net Unfunded Accrued Liability: (A.3) - (B)	$ (9,149,057)	$ (20,639,518)
D. Funding Ratio: (B) / (A.3)	108.6%	120.5%

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,	
	2016	2017
(1) UAAL* at start of year	$ 1,168,805,855	$ 1,252,403,249
(2) Normal cost from last valuation	90,119,523	97,866,822
(3) Actual contributions	163,409,188	168,207,111
(4) Interest accrual	88,874,679	91,292,483
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	1,184,391,858	1,273,355,443
(6) Changes from benefit increases, methods and assumptions	120,178,640	557,836,731
(7) Change in reserve for future pension increases	-	-
(8) Expected UAAL after changes: (5) + (6) + (7)	1,304,570,498	1,831,192,174
(9) Actual UAAL at end of year	1,252,403,249	1,828,668,750
(10) Experience Gain/(Loss): (8) -(9)	$ 52,167,249	$ 2,523,424

* *Unfunded Actuarial Accrued Liability.*

FY 2017 Gains and Losses by Source

	Gain/(Loss)	% of Liability
Investment Return	(13,277,944)	-0.4%
Salary Increases	12,294,677	0.4%
Retirement	1,462,039	0.1%
Turnover	(7,436,880)	-0.3%
Disability	861,964	0.0%
Death-in-Service	3,454,772	0.1%
PBI	7,224,052	0.3%
Retiree Mortality	(2,980,212)	-0.1%
Other	920,956	0.0%
Total	$ 2,523,424	0.1%

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)
2008	$ 1,390,363	$ 1,207,026	$ 183,337	86.8%	28 yrs.	$ 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
2017*	**3,624,380**	**1,795,711**	**1,828,669**	**49.5**	**19**	**619,985**	**295.0**	**584.6**

** 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
2017	**100,495**	**121,134**	**(20,639)**	**120.5**	**19**	**619,985**	**(3.3)**	**16.2**

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%
2017*	**417,714**	**1,845,299**	**1,361,367**	**1,795,711**	**100%**	**75%**	**0.0%**

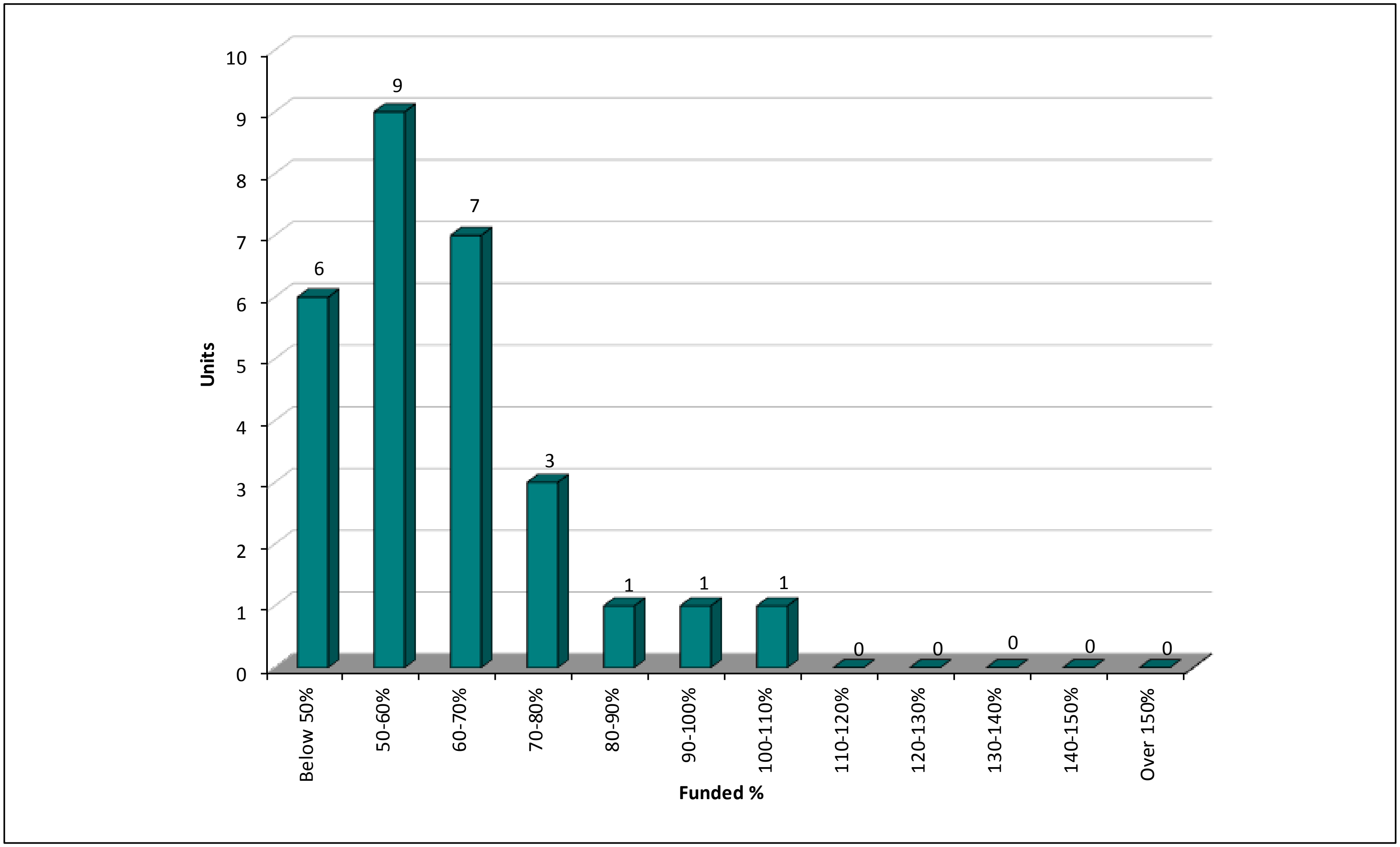
** Pension only beginning with the June 30, 2014 valuation.*

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%
2017	**0**	**47,180**	**53,315**	**121,134**	**100%**	**100%**	**138.7%**

Funded Percents - All Employers at June 30, 2017



Pension Contribution Projection

Fiscal Year Ending June 30	Contribution Rate	Contribution Amount (Estimate)
2019	28.77%	$191,073,976
2020	28.77	197,761,565
2021	28.53	202,975,748
2022	28.36	208,828,109
2023	28.32	215,832,245
2024	28.21	222,518,700
2025	27.90	227,776,010
2026	27.70	234,058,220
2027	27.52	240,676,068
2028	27.32	247,289,412
2029	27.12	254,070,863

Contribution Rate and Amount estimated based on June 30, 2017 valuation data, methods, and assumptions, including 7.40% investment return and 3.5% payroll growth.

SECTION C

FUND ASSETS

Development of Pension Funding Value of Assets (7-Year Smoothing)

Year Ended June 30:	2017	2018	2019	2020	2021	2022	2023
A. Funding Value Beginning of Year	$ 1,678,275,008						
B. Market Value End of Year	1,741,995,663						
C. Market Value Beginning of Year	1,552,273,458						
D. Non Investment Net Cash Flow	4,668,378						
E. Investment Income							
E1. Total: B-C-D	185,053,827						
E2. Amount for Immediate Recognition: (7.50%)	126,045,690						
E3. Amount for Phased-in Recognition: E1-E2	59,008,137						
F. Phased-in Recognition of Investment Income							
F1. Current Year: E3 / 7	8,429,734						
F2. First Prior Year	(16,290,498)	$ 8,429,734					
F3. Second Prior Year	(9,194,258)	(16,290,498)	$ 8,429,734				
F4. Third Prior Year	8,714,006	(9,194,258)	(16,290,498)	$ 8,429,734			
F5. Fourth Prior Year	2,691,222	8,714,006	(9,194,258)	(16,290,498)	$ 8,429,734		
F6. Fifth Prior Year	(17,588,811)	2,691,222	8,714,006	(9,194,258)	(16,290,498)	$ 8,429,734	
F7. Sixth Prior Year	9,960,661	(17,588,811)	2,691,224	8,714,004	(9,194,260)	(16,290,497)	$ 8,429,733
F8. Total Recognized Investment Gain	(13,277,944)	(23,238,605)	(5,649,792)	(8,341,018)	(17,055,024)	(7,860,763)	8,429,733
G. Funding Value End of Year							
G1. Preliminary Funding Value End of Year: (A+D+E2+F1:F7)	1,795,711,132						
G2. Upper Corridor: (120% x B)	2,090,394,796						
G3. Lower Corridor: (80% x B)	1,393,596,530						
G4. End of Year: (G1 subject to max of G2 and min of G3)	1,795,711,132						
H. Difference Between Market Value & Funding Value: (B-G4)	(53,715,469)	(30,476,864)	(24,827,072)	(16,486,054)	568,970	8,429,733	0
I. Market Rate of Return	11.9%						
J. Recognized Rate of Return	6.7%						
K. Ratio of Funding Value to Market Value	103.1%						

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:	2017	2018	2019	2020	2021	2022	2023
A. Funding Value Beginning of Year	$ 116,150,082						
B. Market Value End of Year	117,351,146						
C. Market Value Beginning of Year	107,420,586						
D. Non Investment Net Cash Flow	(2,702,203)						
E. Investment Income							
E1. Total: B-C-D	12,632,763						
E2. Amount for Immediate Recognition: (7.50%)	8,609,924						
E3. Amount for Phased-in Recognition: E1-E2	4,022,839						
F. Phased-in Recognition of Investment Income							
F1. Current Year: E3 / 7	574,691						
F2. First Prior Year	(1,140,445)	$ 574,691					
F3. Second Prior Year	(623,076)	(1,140,445)	$ 574,691				
F4. Third Prior Year	584,150	(623,076)	(1,140,445)	$ 574,691			
F5. Fourth Prior Year	173,946	584,150	(623,076)	(1,140,445)	$ 574,691		
F6. Fifth Prior Year	(1,136,847)	173,946	584,150	(623,076)	(1,140,445)	$ 574,691	
F7. Sixth Prior Year	643,804	(1,136,847)	173,947	584,154	(623,078)	(1,140,442)	$ 574,693
F8. Total Recognized Investment Gain	(923,777)	(1,567,581)	(430,733)	(604,676)	(1,188,832)	(565,751)	574,693
G. Funding Value End of Year							
G1. Preliminary Funding Value End of Year: (A+D+E2+F1:F7)	121,134,026						
G2. Upper Corridor: (120% x B)	140,821,375						
G3. Lower Corridor: (80% x B)	93,880,917						
G4. End of Year: (G1 subject to max of G2 and min of G3)	121,134,026						
H. Difference Between Market Value & Funding Value: (B-G4)	(3,782,880)	(2,215,299)	(1,784,566)	(1,179,890)	8,942	574,693	0
I. Market Rate of Return	11.9%						
J. Recognized Rate of Return	6.7%						
K. Ratio of Funding Value to Market Value	103.2%						

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

	2016	2017
Market Value at the Beginning of Year:	$1,539,868,120	$1,552,273,458
Revenues:		
a. Member contributions	$ 52,129,050	$ 52,987,140
b. Employer contributions	111,279,148	115,134,684
c. Investment income (net of expenses)	9,440,194	185,053,827
d. Net transfers	(674,396)	85,287
e. Total	$ 172,173,996	$ 353,260,938
Disbursements:		
a. Refunds of member contributions	$ 31,456,835	$ 27,732,946
b. Pension benefits (including DROP)	126,951,440	134,160,592
c. Administrative Expenses	1,360,383	1,645,195
d. Totals	$ 159,768,658	$ 163,538,733
Reserve Increase:		
Total revenues minus total disbursements	$ 12,405,338	$ 189,722,205
Market Value at the End of Year:	$1,552,273,458	$1,741,995,663

Health

	2016	2017
Market Value at the Beginning of Year:	$ 109,237,632	$ 107,420,586
Revenues:		
a. Health contributions	1,343,414	1,395,772
b. Interest income (net of expenses)	660,304	12,632,763
c. Total	$ 2,003,718	$ 14,028,535
Disbursements:	$ 3,820,764	$ 4,097,975
Reserve Increase:		
Total revenues minus total disbursements	$ (1,817,046)	$ 9,930,560
Market Value at the End of Year:	$ 107,420,586	$ 117,351,146

SECTION D

CENSUS DATA

June 30, 2017 Valuation Data Summary

For purposes of the June 30, 2017 valuation, information on 21,991 covered persons was furnished. These people may be briefly described as follows:

		Averages			
				Annual Pay or Retirement Allowance	
	No.	Age	Years of Service	2017	2016
Actives	13,958	39.0	8.3	$44,418	$43,285
Retirees & Beneficiaries	5,091	64.1		27,423	26,463
Inactive/Vested	2,942	37.6			
	21,991				

Active Members

Members in Active Service as of June 30, 2017
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	1,135	5						1,140	$ 40,762,924	$35,757
25 - 29	2,092	451	11					2,554	97,695,260	38,252
30 - 34	1,001	781	342	1				2,125	88,642,163	41,714
35 - 39	511	516	647	150	2			1,826	82,708,342	45,295
40 - 44	361	365	506	504	63			1,799	86,922,699	48,317
45 - 49	270	342	408	417	191	14		1,642	81,135,396	49,413
50 - 54	195	213	282	271	129	89	6	1,185	58,596,098	49,448
55 - 59	116	174	233	240	97	58	28	946	46,802,475	49,474
60 - 64	69	95	137	149	49	34	20	553	27,352,774	49,463
65 and over	15	42	57	35	22	10	7	188	9,366,580	49,822
Total	5,765	2,984	2,623	1,767	553	205	61	13,958	$ 619,984,711	$44,418

Inactive/Vested Members

Age	Years of Service					Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 & Up	Count
Under 30	936	25				961
30 - 39	792	123	29	5		949
40 - 44	220	43	15	4		282
45 - 49	187	35	25	10		257
50 - 54	121	16	23	7	1	168
55 - 59	93	27	36	11	1	168
60 - 69	90	18	31	7		146
70 and over	9	1			1	11
Total	2,448	288	159	44	3	2,942

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	5	$ 64,046	1	$ 16,451	6	$ 80,497
25-29	0	0	4	53,250	4	53,250
30-34	2	42,780	4	69,930	6	112,710
35-39	7	137,107	14	209,890	21	346,997
40-44	60	1,535,620	36	789,263	96	2,324,883
45-49	244	6,635,767	125	3,350,229	369	9,985,996
50-54	416	12,363,892	170	5,044,470	586	17,408,362
55-59	455	14,591,004	249	7,877,493	704	22,468,497
60-64	506	16,023,091	294	8,432,550	800	24,455,641
65-69	659	19,838,992	351	8,930,566	1,010	28,769,558
70-74	464	12,522,374	248	5,714,933	712	18,237,307
75-79	267	5,947,786	158	3,027,526	425	8,975,312
80-84	150	2,932,279	97	1,730,840	247	4,663,119
85-89	51	991,223	32	429,276	83	1,420,499
90-94	14	178,804	8	130,254	22	309,058
95-99	0	0	0	0	0	0
100 and Over	0	0	0	0	0	0
Totals	**3,300**	**$93,804,765**	**1,791**	**$45,806,921**	**5,091**	**$139,611,686**

Pension Being Paid		**Number**	**Annual Pensions**	**Average Pensions**
Retired Members	Service Pensions	4,329	$125,440,507	$28,977
	Disability Pensions	138	2,873,932	20,826
Totals		4,467	128,314,439	28,725
Survivors of Members	Spouses	593	10,877,553	18,343
	Children with Guardians	31	419,694	13,539
Total		624	11,297,247	18,105
Total Pension Being Paid		**5,091**	**$139,611,686**	**$27,423**

	Average Age	**Average Service**	**Average Age at Retirement**
Normal Retired Members	64.0	20.1	56.3
Disability Retired Members	57.5	9.6	45.8
Spouse Beneficiaries	67.9	13.1	52.5

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
2017	**5,091**	**139,611,686**	**10.3**	**27,423**	**1,845,299,461**	**362,463**

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 19 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 3.50% 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 7.40% 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 7.40% nominal rate translates to a net real return over wage growth of 3.90% 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. This assumption was first used for the June 30, 2017 valuation of the Plan.

	Salary Increase Assumptions For an Individual Member		
Sample Ages	Merit & Seniority	Base (Economy)	Increase Next Year
20	3.0%	3.5%	6.5%
25	2.6%	3.5%	6.1%
30	1.9%	3.5%	5.4%
35	1.2%	3.5%	4.7%
40	0.7%	3.5%	4.2%
45	0.5%	3.5%	4.0%
50	0.4%	3.5%	3.9%
55	0.2%	3.5%	3.7%
60	0.0%	3.5%	3.5%

Active member payroll is assumed to grow at 3.50% per year.

The price inflation component of the investment return rate and the wage inflation rate is assumed to be 2.50%.

Valuation Assumptions

Mortality Tables. The mortality rates utilized are based upon the RP-2014 tables, as extended, and include a margin for future mortality improvements projected using a fully generational improvement scale. The tables used were as follows:

- **Healthy Pre-Retirement:** The RP-2014 Employee Mortality Tables, extended via cubic spline, adjusted backward to 2006 using scale MP-2014, setting it as the 2017 base year, with future mortality improvements assumed each year using 75% of scale MP-2016.
- **Healthy Post-Retirement:** The RP-2014 Healthy Annuitant Mortality Tables, extended via cubic spline, adjusted backward to 2006 using scale MP-2014, setting it as the 2017 base year,, with future mortality improvements assumed each year using 75% of scale MP-2016.
- **Disability Retirement:** The RP-2014 Disabled Mortality Table, extended via cubic spline, extended via cubic spline, adjusted backward to 2006 using scale MP-2014, setting it as the 2017 base year, with future mortality improvements assumed each year using 75% of scale MP-2016.

This assumption was first used for the June 30, 2017 valuation of the Plan.

Sample Ages in 2017	% Dying Next Year			
	Healthy Post-Retirement		Disability Retirement	
	Males	Females	Males	Females
40	0.2175%	0.1813%	1.5183%	0.7834%
45	0.3404%	0.2439%	2.0850%	1.0611%
50	0.4771%	0.2891%	2.3941%	1.2438%
55	0.6102%	0.3755%	2.4866%	1.5013%
60	0.8211%	0.5942%	2.8111%	1.9459%
65	1.2621%	0.9760%	3.6312%	2.5299%
70	2.0288%	1.5628%	4.8812%	3.4253%
75	3.3113%	2.5057%	6.7010%	4.9120%
80	5.5022%	4.1440%	9.4261%	7.2590%

Sample Ages in 2017	% Dying Next Year	
	Healthy Pre-Retirement	
	Males	Females
50	0.1583%	0.1266%
55	0.2374%	0.1909%
60	0.3963%	0.3075%
65	0.7589%	0.4930%

Valuation Assumptions

Mortality Tables (continued)

Sample Attained Ages	Healthy Post-Retirement Future Life Expectancy (Years)*		Healthy Pre-Retirement Future Life Expectancy (Years)*		Disabled Retirement Future Life Expectancy (Years)*	
	Men	Women	Men	Women	Men	Women
55	28.02	30.54	31.58	33.39	19.75	23.41
60	23.57	25.86	26.68	28.48	16.76	19.87
65	19.32	21.45	22.02	23.73	13.89	16.58
70	15.41	17.32	17.72	19.15	11.27	13.45
75	11.86	13.52	13.79	14.80	8.90	10.59
80	8.76	10.12	10.27	10.72	6.80	8.10

** Based on retirements in 2017. Retirements in future years will reflect improvements in life expectancy.*

Retirement Rates: Age-related rates for members hired before January 1, 2012 are shown below, and was first used for the June 30, 2017 valuation of the Plan:

Age at Retirement	Rates
60	45%
61	45%
62	45%
63	45%
64	45%
65	45%
66	45%
67	45%
68	45%
69	45%
70	45%
71	45%
72	45%
73	45%
74	45%
75	100%

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	30%
21	28%
22	19%
23	17%
24	13%
25	26%
26	26%
27	19%
28	19%
29	19%
30	27%
31	27%
32	40%
33	40%
34	50%
35	50%
36	60%
37	100%

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%

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, 2017 valuation of the Plan.

Sample Ages	Years of Service	% of Active Members Separating within Next Year
All	0	23.00%
	1	20.00%
	2	16.50%
	3	14.50%
	4	13.00%
	5	10.50%
	6	9.50%
	7	9.00%
	8	8.50%
	9	8.50%
	10	8.50%
	11	6.00%
	12	5.00%
	13	4.50%
	14	3.00%
	15	3.00%
	16	3.00%
	17	2.00%
	18	2.00%
	19	2.00%

Rates of disability among active members used in the valuation are shown below, and were first used for the June 30, 2017 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%

Summary of Assumptions Used
June 30, 2017
Miscellaneous and Technical Assumptions

Marriage Assumption:	75% of males and 50% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses 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. 75% of males and 50% of females 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:	60% of future retirees are expected to utilize retiree health care. 75% of males and 50% of females are assumed to be married.
Assumed Future Permanent Benefit Increases (PBI):	Members hired before January 1, 2012: 2.25% of benefit. Members hired on or after January 1, 2012: 0.5% of benefit.

Summary of Assumptions Used
June 30, 2017
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.

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 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 hired before January 1, 2012:

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 hired on or after January 1, 2012:

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. 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 (19 years remaining as of June 30, 2017) amortization of unfunded actuarial accrued liability (19-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.

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 an 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

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
500	DEPARTMENT OF CORRECTIONS - Detention	7,958	$ 332,889,204	3,177	$ 79,356,465	1,248	$ 15,334,486
501	DEPT OF JUVENILE CORRECTIONS - Detention	339	14,195,586	281	7,490,098	244	2,819,566
502	PINAL COUNTY - Detention	147	7,327,652	35	1,057,804	33	305,091
503	GILA COUNTY - Detention	61	2,327,273	10	177,433	32	268,213
504	GRAHAM COUNTY - Detention	33	1,264,421	5	117,271	17	86,389
505	MARICOPA COUNTY - Detention	1,985	96,661,494	550	16,784,841	374	5,155,532
506	CITY OF AVONDALE - Detention	8	521,530	1	11,787	4	22,169
507	LA PAZ COUNTY - Detention	23	635,781	-	-	4	17,126
510	YUMA COUNTY - Detention	143	5,779,152	31	781,109	57	490,162
515	PIMA COUNTY - Detention	487	21,398,743	198	5,793,561	143	1,366,346
520	APACHE COUNTY - Detention	24	698,487	5	89,549	14	28,623
525	COCHISE COUNTY - Detention	63	2,196,774	34	557,189	26	282,856
530	COCONINO COUNTY - Detention	87	3,751,356	15	403,562	68	423,421
535	MOHAVE COUNTY - Detention	106	3,466,038	18	337,401	66	306,479
540	SANTA CRUZ COUNTY - Detention	29	1,005,859	4	109,527	24	197,898
545	NAVAJO COUNTY - Detention	49	1,651,543	11	214,552	35	171,936
550	YAVAPAI COUNTY - Detention	171	7,143,916	42	867,800	108	887,165
555	PINAL COUNTY - Dispatchers	9	416,508	2	68,320	9	145,488
556	TOWN OF ORO VALLEY - Dispatchers	4	232,436	5	136,717	3	82,009
557	TOWN OF MARANA - Dispatchers	7	404,506	-	-	2	3,663
558	GILA COUNTY - Dispatchers	5	216,597	3	84,309	4	55,340
559	TOWN OF WICKENBURG - Dispatchers	3	133,949	2	31,604	1	2,322
560	GRAHAM COUNTY - Dispatchers	4	156,234	-	-	4	63,177
561	YAVAPAI COUNTY - Dispatchers	4	174,660	1	40,937	1	69,069
562	CITY OF SOMERTON - Dispatchers	4	153,847	1	33,721	2	55,326
563	DEPARTMENT OF PUBLIC SAFETY - Dispatchers	29	1,622,659	14	501,080	5	201,349
564	DEPARTMENT OF PUBLIC SAFETY - Detention	1	56,877	-	-	2	11,887
575	ADMINISTRATIVE OFFICE OF THE COURTS	2,175	113,501,629	646	24,565,049	412	5,942,630
	TOTAL	13,958	$ 619,984,711	5,091	$ 139,611,686	2,942	$ 34,795,718

APPENDIX II

SUMMARY OF PENSION LIABILITY AND ASSET INFORMATION BY INDIVIDUAL EMPLOYER

Division Number	Employer Name	Pension AAL	Pension Assets	Net Assets	Funded Percent	Unfunded Liability
500	DEPARTMENT OF CORRECTIONS - Detention	$ 1,876,560,712	$ 910,405,821	$ 910,405,821	48.50%	$ 966,154,891
501	DEPT OF JUVENILE CORRECTIONS - Detention	138,650,823	60,876,735	60,876,735	43.90%	77,774,088
502	PINAL COUNTY - Detention	40,958,105	26,973,882	26,973,882	65.90%	13,984,223
503	GILA COUNTY - Detention	6,910,035	4,948,537	4,948,537	71.60%	1,961,498
504	GRAHAM COUNTY - Detention	2,924,066	2,202,653	2,202,653	75.30%	721,413
505	MARICOPA COUNTY - Detention	507,789,496	254,535,155	254,535,155	50.10%	253,254,341
506	CITY OF AVONDALE - Detention	2,436,051	1,546,426	1,546,426	63.50%	889,625
507	LA PAZ COUNTY - Detention	1,423,408	935,175	935,175	65.70%	488,233
510	YUMA COUNTY - Detention	21,978,467	13,168,064	13,168,064	59.90%	8,810,403
515	PIMA COUNTY - Detention	132,538,239	57,554,515	57,554,515	43.40%	74,983,724
520	APACHE COUNTY - Detention	2,211,729	1,466,557	1,466,557	66.30%	745,172
525	COCHISE COUNTY - Detention	11,580,453	6,024,880	6,024,880	52.00%	5,555,573
530	COCONINO COUNTY - Detention	14,306,977	8,700,334	8,700,334	60.80%	5,606,643
535	MOHAVE COUNTY - Detention	8,069,560	7,923,269	7,923,269	98.20%	146,291
540	SANTA CRUZ COUNTY - Detention	2,837,935	2,470,028	2,470,028	87.00%	367,907
545	NAVAJO COUNTY - Detention	5,284,292	3,812,807	3,812,807	72.20%	1,471,485
550	YAVAPAI COUNTY - Detention	26,706,740	13,609,142	13,609,142	51.00%	13,097,598
555	PINAL COUNTY - Dispatchers	2,806,169	1,647,385	1,647,385	58.70%	1,158,784
556	TOWN OF ORO VALLEY - Dispatchers	3,077,649	1,299,676	1,299,676	42.20%	1,777,973
557	TOWN OF MARANA - Dispatchers	2,006,831	1,254,185	1,254,185	62.50%	752,646
558	GILA COUNTY - Dispatchers	2,348,905	1,356,461	1,356,461	57.70%	992,444
559	TOWN OF WICKENBURG - Dispatchers	760,901	472,213	472,213	62.10%	288,688
560	GRAHAM COUNTY - Dispatchers	605,353	622,799	622,799	102.90%	(17,446)
561	YAVAPAI COUNTY - Dispatchers	1,237,715	741,010	741,010	59.90%	496,705
562	CITY OF SOMERTON - Dispatchers	1,378,969	590,388	590,388	42.80%	788,581
563	DEPARTMENT OF PUBLIC SAFETY - Dispatchers	16,853,550	9,797,277	9,797,277	58.10%	7,056,273
564	DEPARTMENT OF PUBLIC SAFETY - Detention	251,820	125,304	125,304	49.80%	126,516
575	ADMINISTRATIVE OFFICE OF THE COURTS	789,884,932	400,650,454	400,650,454	50.70%	389,234,478
	TOTAL	$ 3,624,379,882	$ 1,795,711,132	$ 1,795,711,132		$ 1,828,668,750

APPENDIX III

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
500	DEPARTMENT OF CORRECTIONS - Detention	7.72%	20.66%	28.38%	28.38%	N/A
501	DEPT OF JUVENILE CORRECTIONS - Detention	8.04%	39.16%	47.20%	47.20%	N/A
502	PINAL COUNTY - Detention	9.24%	13.82%	23.06%	23.06%	N/A
503	GILA COUNTY - Detention	7.58%	6.06%	13.64%	13.64%	N/A
504	GRAHAM COUNTY - Detention	6.27%	4.10%	10.37%	10.37%	N/A
505	MARICOPA COUNTY - Detention	7.88%	18.71%	26.59%	26.59%	N/A
506	CITY OF AVONDALE - Detention	9.02%	12.28%	21.30%	21.30%	N/A
507	LA PAZ COUNTY - Detention	4.90%	5.74%	10.64%	10.64%	N/A
510	YUMA COUNTY - Detention	7.08%	10.83%	17.91%	17.91%	N/A
515	PIMA COUNTY - Detention	7.26%	24.83%	32.09%	32.09%	N/A
520	APACHE COUNTY - Detention	5.85%	7.55%	13.40%	13.40%	N/A
525	COCHISE COUNTY - Detention	6.62%	17.91%	24.53%	24.53%	N/A
530	COCONINO COUNTY - Detention	6.95%	10.77%	17.72%	17.72%	N/A
535	MOHAVE COUNTY - Detention	6.37%	0.33%	6.70%	6.70%	N/A
540	SANTA CRUZ COUNTY - Detention	5.77%	2.62%	8.39%	8.39%	N/A
545	NAVAJO COUNTY - Detention	6.21%	6.42%	12.63%	12.63%	N/A
550	YAVAPAI COUNTY - Detention	7.23%	13.04%	20.27%	20.27%	N/A
555	PINAL COUNTY - Dispatchers	7.66%	19.92%	27.58%	27.58%	N/A
556	TOWN OF ORO VALLEY - Dispatchers	7.00%	54.36%	61.36%	61.36%	N/A
557	TOWN OF MARANA - Dispatchers	7.47%	13.35%	20.82%	20.82%	N/A
558	GILA COUNTY - Dispatchers	8.01%	32.83%	40.84%	40.84%	N/A
559	TOWN OF WICKENBURG - Dispatchers	9.00%	15.48%	24.48%	24.48%	N/A
560	GRAHAM COUNTY - Dispatchers	8.03%	0.00%	8.03%	8.03%	N/A
561	YAVAPAI COUNTY - Dispatchers	9.21%	20.21%	29.42%	29.42%	N/A
562	CITY OF SOMERTON - Dispatchers	8.76%	36.35%	45.11%	45.11%	N/A
563	DEPARTMENT OF PUBLIC SAFETY - Dispatchers	7.67%	31.28%	38.95%	38.95%	N/A
564	DEPARTMENT OF PUBLIC SAFETY - Detention	12.36%	16.00%	28.36%	28.36%	N/A
575	ADMINISTRATIVE OFFICE OF THE COURTS	7.94%	24.49%	32.43%	32.43%	N/A
	TOTAL	7.75%	21.02%	28.77%	28.77%	

Appendix IV

Summary of Health Liability and Asset Information by Individual Employers

Division Number	Employer Name	Health AAL	Health Assets	Funded Percent	Unfunded Liability
500	DEPARTMENT OF CORRECTIONS - Detention	$ 62,734,872	$ 76,598,708	122.10%	$ (13,863,836)
501	DEPT OF JUVENILE CORRECTIONS - Detention	4,311,663	6,376,956	147.90%	(2,065,293)
502	PINAL COUNTY - Detention	858,802	1,470,751	171.30%	(611,949)
503	GILA COUNTY - Detention	200,469	355,038	177.10%	(154,569)
504	GRAHAM COUNTY - Detention	66,528	80,276	120.70%	(13,748)
505	MARICOPA COUNTY - Detention	10,846,325	16,815,703	155.00%	(5,969,378)
506	CITY OF AVONDALE - Detention	52,537	39,332	74.90%	13,205
507	LA PAZ COUNTY - Detention	67,729	-	0.00%	67,729
510	YUMA COUNTY - Detention	389,580	1,113,654	285.90%	(724,074)
515	PIMA COUNTY - Detention	2,855,302	3,819,459	133.80%	(964,157)
520	APACHE COUNTY - Detention	87,737	183,473	209.10%	(95,736)
525	COCHISE COUNTY - Detention	304,706	687,176	225.50%	(382,470)
530	COCONINO COUNTY - Detention	404,016	492,365	121.90%	(88,349)
535	MOHAVE COUNTY - Detention	229,702	664,254	289.20%	(434,552)
540	SANTA CRUZ COUNTY - Detention	152,115	207,499	136.40%	(55,384)
545	NAVAJO COUNTY - Detention	114,964	369,183	321.10%	(254,219)
550	YAVAPAI COUNTY - Detention	558,125	1,202,893	215.50%	(644,768)
555	PINAL COUNTY - Dispatchers	43,809	159,722	364.60%	(115,913)
556	TOWN OF ORO VALLEY - Dispatchers	50,556	69,146	136.80%	(18,590)
557	TOWN OF MARANA - Dispatchers	42,677	43,507	101.90%	(830)
558	GILA COUNTY - Dispatchers	31,995	92,630	289.50%	(60,635)
559	TOWN OF WICKENBURG - Dispatchers	15,648	40,948	261.70%	(25,300)
560	GRAHAM COUNTY - Dispatchers	14,556	20,330	139.70%	(5,774)
561	YAVAPAI COUNTY - Dispatchers	20,245	27,096	133.80%	(6,851)
562	CITY OF SOMERTON - Dispatchers	24,702	21,504	87.10%	3,198
563	DEPARTMENT OF PUBLIC SAFETY - Dispatchers	436,913	181,155	41.50%	255,758
564	DEPARTMENT OF PUBLIC SAFETY - Detention	6,728	1,960	29.10%	4,768
575	ADMINISTRATIVE OFFICE OF THE COURTS	15,571,507	9,999,308	64.20%	5,572,199
	TOTAL	$ 100,494,508	$ 121,134,026		$ (20,639,518)

Appendix V

Summary of Health Contribution Information By Individual Employers

Division Number	Employer Name	Health ER NC%	Health UAL Pmt %	Calculated ER Cont	Required ER Cont
500	DEPARTMENT OF CORRECTIONS - Detention	0.26%	-0.26%	0.00%	0.00%
501	DEPT OF JUVENILE CORRECTIONS - Detention	0.30%	-0.30%	0.00%	0.00%
502	PINAL COUNTY - Detention	0.25%	-0.25%	0.00%	0.00%
503	GILA COUNTY - Detention	0.33%	-0.33%	0.00%	0.00%
504	GRAHAM COUNTY - Detention	0.21%	-0.08%	0.13%	0.13%
505	MARICOPA COUNTY - Detention	0.22%	-0.22%	0.00%	0.00%
506	CITY OF AVONDALE - Detention	0.19%	0.17%	0.36%	0.36%
507	LA PAZ COUNTY - Detention	0.37%	0.80%	1.17%	1.17%
510	YUMA COUNTY - Detention	0.22%	-0.22%	0.00%	0.00%
515	PIMA COUNTY - Detention	0.21%	-0.21%	0.00%	0.00%
520	APACHE COUNTY - Detention	0.32%	-0.32%	0.00%	0.00%
525	COCHISE COUNTY - Detention	0.26%	-0.26%	0.00%	0.00%
530	COCONINO COUNTY - Detention	0.20%	-0.17%	0.03%	0.03%
535	MOHAVE COUNTY - Detention	0.27%	-0.27%	0.00%	0.00%
540	SANTA CRUZ COUNTY - Detention	0.27%	-0.27%	0.00%	0.00%
545	NAVAJO COUNTY - Detention	0.24%	-0.24%	0.00%	0.00%
550	YAVAPAI COUNTY - Detention	0.25%	-0.25%	0.00%	0.00%
555	PINAL COUNTY - Dispatchers	0.21%	-0.21%	0.00%	0.00%
556	TOWN OF ORO VALLEY - Dispatchers	0.11%	-0.11%	0.00%	0.00%
557	TOWN OF MARANA - Dispatchers	0.14%	0.00%	0.14%	0.14%
558	GILA COUNTY - Dispatchers	0.19%	-0.19%	0.00%	0.00%
559	TOWN OF WICKENBURG - Dispatchers	0.29%	-0.29%	0.00%	0.00%
560	GRAHAM COUNTY - Dispatchers	0.19%	-0.19%	0.00%	0.00%
561	YAVAPAI COUNTY - Dispatchers	0.36%	-0.28%	0.08%	0.08%
562	CITY OF SOMERTON - Dispatchers	0.21%	0.12%	0.33%	0.33%
563	DEPARTMENT OF PUBLIC SAFETY - Dispatchers	0.13%	1.08%	1.21%	1.21%
564	DEPARTMENT OF PUBLIC SAFETY - Detention	0.28%	0.58%	0.86%	0.86%
575	ADMINISTRATIVE OFFICE OF THE COURTS	0.22%	0.33%	0.55%	0.55%
	TOTAL	0.25%	-0.23%	0.02%	0.02%

GRS Retirement Consulting
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December 27, 2017

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, 2017 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:rmn
Enclosures