

ARIZONA CORRECTIONS OFFICER RETIREMENT PLAN

CONSOLIDATED REPORT

ACTUARIAL VALUATION
AS OF JUNE 30, 2020

CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING JUNE 30, 2022



FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

December 7, 2020

Board of Trustees
Arizona Corrections Officer Retirement Plan
Phoenix, AZ

Re: Actuarial Valuation Report as of June 30, 2020 – Arizona Corrections Officer Retirement Plan

Dear Members of the Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the Arizona Corrections Officer Retirement Plan (CORP). The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year.

This report was prepared at the request of the Board and is intended for use by CORP and those designated or approved by the Board. It documents the valuation of the consolidated plan and provides summary information for CORP participating employers. This report may be provided to parties other than CORP only in its entirety and only with the permission of the Board. Foster & Foster is not responsible for the unauthorized use of this report.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects laws and regulations issued to date pursuant to the provisions of Title 38, Chapter 5, Article 6 of the Arizona Revised Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in this valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

The computed contribution rates shown in the “Contribution Results” section should be considered minimum contribution rates that comply with the Board’s funding policy and Arizona Statutes. 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 Plan in excess of those presented in this report be considered.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of the Plan’s liabilities.

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by CORP through June 30, 2020 and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

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.

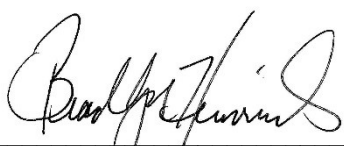
The undersigned are familiar with the immediate and long-term aspects of pension valuations and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the Arizona Corrections Officer Retirement Plan, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Arizona Corrections Officer Retirement Plan. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at 239-433-5500.

Respectfully Submitted,

Foster & Foster, Inc.

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I. SUMMARY OF REPORT

The regular annual actuarial valuation of the Arizona Corrections Officer Retirement Plan, performed as of June 30, 2020, has been completed and the results are presented in this Report. The purpose of this valuation 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 the section entitled “Liability Support.”
- Compare accumulated assets with the liabilities to assess the funded condition. This information is contained in the section entitled “Liability Support.”
- Compute the employers’ recommended contribution rates for the Fiscal Year beginning July 1, 2021. This information is contained in the section entitled “Contribution Results.”

1. Key Valuation Results

The funded status as of June 30, 2020 and the employer contribution amounts applicable to the plan/fiscal year ending June 30, 2022 are as follows:

	Tier 1 & Tier 2 Members			Tier 3 Members *		
	Pension	Health	Total	Pension	Health	Total
Employer Contribution Rate	31.43%	0.10%	31.53%	3.84%	0.09%	3.93%
Funded Status	52.1%	141.0%	54.1%	117.8%	153.0%	118.6%

2. Comparison of Key Results to Prior Year

The chart below compares the results from this valuation with the results of the prior year’s valuation (as of June 30, 2019):

Contribution Rate

Valuation Date	Tier 1 & Tier 2 Members			Tier 3 Members *		
	Pension	Health	Total	Pension	Health	Total
June 30, 2019	30.92%	0.12%	31.04%	4.14%	0.09%	4.23%
June 30, 2020	31.43%	0.10%	31.53%	3.84%	0.09%	3.93%

Funded Status

Valuation Date	Tier 1 & Tier 2 Members			Tier 3 Members		
	Pension	Health	Total	Pension	Health	Total
June 30, 2019	53.1%	140.8%	55.2%	68.9%	92.5%	69.5%
June 30, 2020	52.1%	141.0%	54.1%	117.8%	153.0%	118.6%

* The Tier 3 rates shown are the calculated rates as of the valuation date and do not reflect any Legacy costs that the employer must also contribute.

3. Reasons for Change

Changes in the results from the prior year's valuation can be illustrated in the following tables along with high-level explanations for the entire Plan below:

Contribution Rate

	Tier 1 & Tier 2	
	Pension	Health
Contribution Rate Last Valuation	30.92%	0.12%
Asset Experience	0.43%	0.02%
Payroll Base	(1.78%)	0.02%
Liability Experience	(0.40%)	(0.04%)
COLA	0.00%	0.00%
Assumption/Method Change	1.62%	(0.10%)
Other	<u>0.64%</u>	<u>0.08%</u>
Contribution Rate This Valuation	31.43%	0.10%

Funded Status

	Tier 1 & Tier 2	
	Pension	Health
Funded Status Last Valuation	53.1%	140.8%
Asset Experience	(0.7%)	(2.0%)
Liability Experience	(1.1%)	2.8%
COLA	0.0%	0.0%
Assumption/Method Change	0.0%	0.0%
Other	<u>0.8%</u>	<u>(0.6%)</u>
Funded Status This Valuation	52.1%	141.0%

Assets Experience – Asset gains and losses (relative to the assumed earnings rate) are smoothed over seven years for Tiers 1 and 2 and over five years for Tier 3. The return on the market value of assets for the year ending June 30, 2020 was 2.6% for Tiers 1 and 2 and 0.5% for Tier 3. On a smoothed, actuarial value of assets basis, however, the average return was 5.7% for Tiers 1 and 2 and 5.8% for Tier 3. This fell short of the 2019 assumed earnings rate of 7.3%.

Liability Experience – Experience overall was unfavorable, driven by greater than expected salary increases.

Payroll Base – Under the current amortization policy for Tiers 1 and 2, the contribution rate is developed as a level percentage of payroll. The payroll is expected to increase each year in line with the growth assumption (currently 3.00%). To the extent that actual payroll is lower/greater than expected, the contribution rate will increase/decrease as a result. The payroll increased more than expected, resulting in a decrease in the contribution rate.

Assumption / Method Change – The amortization method for Tiers 1 and 2 was updated to use a layered approach. New bases will be amortized on a Level Dollar basis while the 2019 base will continue to be amortized on a Level Percentage of Payroll basis. The payroll growth assumption was decreased to 3.00%.

Other – This is the combination of all other factors that could impact liabilities year-over-year, with the primary sources being changes resulting from an updated understanding of some data components provided by staff and changes in member data. Note that Tier 3 experience will stabilize as the group matures.

4. Looking Ahead

The continuing effect of prior asset losses was dampened by the asset smoothing reflected in the actuarial value of assets. There remain unrecognized investment losses that will, in the absence of other gains, put upward pressure on the contribution rate next year.

If the June 30, 2020 pension valuation results were based on the market value of assets instead of the actuarial value of assets, the pension funded percentage for Tiers 1 and 2 would be 49.0% (instead of 52.1%) and the pension employer contribution requirement would be 33.22% of payroll (instead of 31.43%).

5. Conclusion

The funded status for Tiers 1 and 2 will continue to improve if assumptions are met and contributions at least equal to the rates determined for each employer are made to the fund. The recent adoption of a layered amortization approach along with a plan to systematically lower the payroll growth assumption was an excellent step to improve funding and ensure the Plan is on a viable path.

The funded status for Tier 3 will stabilize as the population continues to grow, as contributions appear sufficient to keep the liabilities fully funded.

II. CONTRIBUTION RESULTS

Contribution Requirements

Development of Employer Contributions - Tiers 1 & 2 Members				
Valuation Date	June 30, 2020		June 30, 2019	
Applicable to Fiscal Year Ending	2022		2021	
	Rate	Dollar	Rate	Dollar
Pension				
Normal Cost				
Total Normal Cost	13.42%	\$74,722,736	15.13%	\$82,813,430
Employee Cost	<u>(8.41%)</u>	<u>(46,808,166)</u>	<u>(8.40%)</u>	<u>(46,000,055)</u>
Employer (Net) Normal Cost	5.01%	27,914,570	6.73%	36,813,375
Amortization of Unfunded Liability	<u>26.42%</u>	<u>147,097,505</u>	<u>24.19%</u>	<u>132,407,920</u>
Total Employer Cost (Pension)	31.43%	175,012,075	30.92%	169,221,295
Health				
Normal Cost	0.29%	\$1,597,750	0.35%	\$1,900,307
Amortization of Unfunded Liability	<u>(0.19%)</u>	<u>(1,034,172)</u>	<u>(0.23%)</u>	<u>(1,280,962)</u>
Total Employer Cost (Health)	0.10%	563,578	0.12%	619,345
Total Employer Cost (Pension + Health)	31.53%	175,575,653	31.04%	169,840,640
Total Minimum Contribution Requirement (if applicable)	0.00%		0.00%	
Alternate Contribution Rate (ACR) *	26.42%		24.19%	
Underlying Payroll (as of valuation date)		556,832,884		547,363,066

* The Alternate Contribution Rate is the sum of the positive amortization rates for Tiers 1 & 2 Pension and Health and is charged when retirees return to active status.

The results above are shown both prior to and after the application of the statutory minimum contribution requirement of 6% of payroll.

Development of Employer Contributions – Tier 3 Members

Valuation Date	June 30, 2020	June 30, 2019
Applicable to Fiscal Year Ending	2022	2021

Defined Benefit (DB) Retirement Plan ¹

	Rate	Dollar	Rate	Dollar
Pension				
Total Normal Cost	11.95%	\$ 896,428	11.85%	\$ 442,731
Amortization of Unfunded Liability	<u>(0.28%)</u>	<u>(21,004)</u>	<u>0.39%</u>	<u>14,571</u>
Total Pension Cost	11.67%	875,424	12.24%	457,302
Employee (EE) Pension Cost	7.83%	587,117	8.10%	302,440
Employer (ER) Pension Cost	3.84%	288,307	4.14%	154,862
Health				
Total Normal Cost	0.28%	21,004	0.27%	10,088
Amortization of Unfunded Liability	<u>0.00%</u>	<u>0</u>	<u>0.00%</u>	<u>0</u>
Total Health Cost	0.28%	21,004	0.27%	10,088
Employee (EE) Health Cost	0.19%	14,003	0.18%	6,725
Employer (ER) Health Cost	0.09%	7,001	0.09%	3,363
Total				
Total Calculated Tier 3 Required EE Individual Cost	8.02%	601,120	8.28%	309,165
Board Approved Tier 3 Required EE Individual Cost ²	10.18%	763,651	10.18%	380,338
Total Calculated Tier 3 Required ER Individual Cost (before Legacy)	3.93%	295,308	4.23%	158,225
Board Approved Tier 3 Required ER Individual Cost (before Legacy) ²	5.09%	381,826	5.09%	190,169
ER Legacy Cost of Tiers 1 & 2 Amort of Unfunded Liabilities ³	31.57%	2,368,219	28.05%	1,047,984
Total Tier 3 Required ER Defined Benefit Cost	35.50%	2,663,527	32.28%	1,206,209
Total Board Approved Tier 3 Required ER Defined Benefit Cost	36.66%	2,750,045	33.14%	1,238,153
Underlying Payroll (as of valuation date)		7,501,487		3,736,128

¹ Applicable to AOC Probation and Surveillance only.

² The Board decided to keep Tier 3 rates level (as calculated with the June 30, 2019 valuation) for the fiscal year ending June 30, 2022.

³ Pursuant to ARS § 38-891(A), the amortization of positive unfunded liabilities for Tiers 1 & 2 shall be applied to all Tier 3 payroll on a level percent basis. However, while it is statutorily required to present the rates in this manner, these are the minimums where alternate methods for paying down that unfunded liability is at the discretion of each employer. Further, to understand the effects of reform in relation to Tier 3, compare the total rate of Tier 3 before application of those legacy costs.

Development of Employer Contributions – Tier 3 Members

Valuation Date	June 30, 2020	June 30, 2019
Applicable to Fiscal Year Ending	2022	2021

Defined Contribution (DC) Retirement Plan

	Rate	Dollar	Rate	Dollar
Tier 3 DC Only				
Employee Cost	7.00%	\$ 7,924,390	7.00%	\$ 3,755,349
Employee Disability Program Cost	<u>0.49%</u>	<u>554,707</u>	<u>0.65%</u>	<u>348,711</u>
Total Employee Cost	7.49%	8,479,097	7.65%	4,104,060
Employer Cost	5.00%	5,660,278	5.00%	2,682,392
Employer Disability Program Cost	<u>0.49%</u>	<u>554,707</u>	<u>0.65%</u>	<u>348,711</u>
Total Employer Cost (before Legacy)	5.49%	6,214,985	5.65%	3,031,103
ER Legacy Cost of Tiers 1 & 2 Amort of Unfunded Liabilities *	26.42%	29,908,911	24.19%	12,977,415
Total Employer Cost	31.91%	36,123,896	29.84%	16,008,518
Underlying Payroll (as of valuation date)		113,205,567		53,647,849

* Pursuant to ARS § 38-891(A), the amortization of positive unfunded liabilities for Tiers 1 & 2 shall be applied to all Tier 3 payroll on a level percent basis. However, while it is statutorily required to present the rates in this manner, these are the minimums where alternate methods for paying down that unfunded liability is at the discretion of each employer. Further, to understand the effects of reform in relation to Tier 3, compare the total rate of Tier 3 before application of those legacy costs.

Historical Summary of Employer Rates

	Valuation Date June 30	Fiscal Year Ending June 30	Normal Cost	Pension Unfunded Amortization	Total	Normal Cost	Health Unfunded Amortization	Total
TIERS 1 & 2	2018	2020	7.67%	19.92%	27.59%	0.24%	(0.24%)	0.00%
	2019	2021	6.73%	24.19%	30.92%	0.35%	(0.23%)	0.12%
	2020	2022	5.01%	26.42%	31.43%	0.29%	(0.19%)	0.10%
TIER 3 ¹	2018	2020	4.95%	0.00%	4.95%	0.14%	0.00%	0.14%
	2019	2021	4.95%	0.00%	4.95%	0.14%	0.00%	0.14%
	2020 ²	2022	3.98%	(0.14%)	3.84%	0.09%	0.00%	0.09%
	2020	2022	5.09%	(0.14%)	4.95%	0.14%	0.00%	0.14%

¹ Rates shown are Board approved EE/ER rates, unless otherwise noted. Does not reflect Legacy costs that the employer must also contribute.

² Rates shown are calculated EE/ER rates

III. LIABILITY SUPPORT

Liabilities and Funded Ratios by Benefit - Tiers 1 & 2

	June 30, 2020	June 30, 2019
Pension		
Actuarial Present Value of Benefits		
Retirees and Beneficiaries	\$ 2,194,900,043	\$ 2,063,327,851
Vested Members	40,878,094	35,408,975
Active Members	<u>2,488,797,915</u>	<u>2,327,600,007</u>
Total Actuarial Present Value of Benefits	4,724,576,052	4,426,336,833
Actuarial Accrued Liability (AAL)		
All Inactive Members	2,235,778,137	2,098,736,826
Active Members	<u>1,989,288,769</u>	<u>1,785,333,290</u>
Total Actuarial Accrued Liability	4,225,066,906	3,884,070,116
Actuarial Value of Assets (AVA)	2,202,747,086	2,063,352,240
Unfunded Actuarial Accrued Liability		
Gross Unfunded Actuarial Accrued Liability	2,022,319,820	1,820,717,876
Stabilization Reserve	<u>43,966</u>	<u>0</u>
Net Unfunded Actuarial Accrued Liability	2,022,363,786	1,820,717,876
Funded Ratio (AVA / AAL)	52.1%	53.1%
Health		
Present Value of Benefits		
Retirees and Beneficiaries	\$ 46,622,603	\$ 44,318,178
Active Members	<u>58,439,810</u>	<u>60,539,666</u>
Total Present Value of Benefits	105,062,413	104,857,844
Actuarial Accrued Liability (AAL)		
All Inactive Members	46,622,603	44,318,178
Active Members	<u>48,556,705</u>	<u>48,639,661</u>
Total Actuarial Accrued Liability	95,179,308	92,957,839
Actuarial Value of Assets (AVA)	134,233,358	130,925,631
Unfunded Actuarial Accrued Liability	(39,054,050)	(37,967,792)
Funded Ratio (AVA / AAL)	141.0%	140.8%

Liabilities and Funded Ratios by Benefit - Tier 3

	June 30, 2020	June 30, 2019
Pension		
Actuarial Present Value of Benefits		
Retirees and Beneficiaries	0	0
Vested Members	42,399	3,122
Active Members	<u>8,398,018</u>	<u>4,336,933</u>
Total Actuarial Present Value of Benefits	8,440,417	4,340,055
Actuarial Accrued Liability (AAL)		
All Inactive Members	42,399	3,122
Active Members	<u>880,006</u>	<u>348,560</u>
Total Actuarial Accrued Liability	922,405	351,682
Actuarial Value of Assets (AVA)	1,086,471	242,444
Unfunded Actuarial Accrued Liability	(164,066)	109,238
Funded Ratio (AVA / AAL)	117.8%	68.9%
Health		
Present Value of Benefits		
Retirees and Beneficiaries	0	0
Active Members	<u>180,682</u>	<u>91,184</u>
Total Present Value of Benefits	180,682	91,184
Actuarial Accrued Liability (AAL)		
All Inactive Members	0	0
Active Members	<u>20,552</u>	<u>8,173</u>
Total Actuarial Accrued Liability	20,552	8,173
Actuarial Value of Assets (AVA)	31,450	7,560
Unfunded Actuarial Accrued Liability	(10,898)	613
Funded Ratio (AVA / AAL)	153.0%	92.5%

Derivation of Experience (Gain)/Loss

Actual experience will never exactly match assumed experience, except by coincidence. Ideally, gains and losses will 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 sources of the gains and losses.

	Tiers 1 & 2		Tier 3	
	Pension	Health	Pension	Health
(1) Unfunded Actuarial Accrued Liability as of June 30, 2019	1,820,717,876	(37,967,792)	109,238	613
(2) Normal Cost Developed in Last Valuation	36,813,375	1,900,307	442,731	10,088
(3) Actual Contributions	167,010,059	639,397	270,426	22,818
(4) Expected Interest On (1), (2), and (3)	129,611,279	(2,655,853)	30,597	(37)
(5) Expected Unfunded Actuarial Accrued Liability as of June 30, 2020 (1)+(2)-(3)+(4)	1,820,132,471	(39,362,735)	312,140	(12,154)
(6) Changes to UAAL Due to Assumptions, Methods and Benefits	0	0	0	0
(7) Change to UAAL Due to Actuarial (Gain)/Loss	<u>202,231,315</u>	<u>308,685</u>	<u>(476,206)</u>	<u>1,256</u>
(8) Unfunded Actuarial Accrued Liability as of June 30, 2020	2,022,363,786	(39,054,050)	(164,066)	(10,898)

FY 2020 Gains and Losses by Source

	Tiers 1 & 2		Tier 3	
	Pension	Health	Pension	Health
Investment Return	29,092,243	1,875,354	9,320	292
Salary Increases	57,448,894	0	(999)	(16)
Retirement	11,171,641	(2,313,093)	0	0
Turnover	(7,805,467)	(197,536)	26,625	360
Disability	173,387	(29,322)	(10,118)	(631)
Death-In-Service	(3,809,443)	(29,801)	(17,589)	(380)
Retiree Mortality	(2,075,901)	(746,070)	0	0
Other *	<u>118,035,961</u>	<u>1,749,153</u>	<u>(483,445)</u>	<u>1,631</u>
Total	202,231,315	308,685	(476,206)	1,256

* The combination of all other factors that could impact liabilities year-over-year, with the primary sources being changes resulting from an updated understanding of some data components provided by staff and changes in member data.

IV. ASSET SUPPORT

Statement of Changes in Fiduciary Net Position for Year Ended June 30, 2020 Market Value Basis

	Tiers 1 & 2		Tier 3	
	Pension	Health	Pension	Health
Additions				
Contributions				
Member Contributions	\$ 46,151,025	\$ 0	\$ 536,492	\$ 0
Employer Contributions	167,010,059	0	270,426	0
Health Insurance Contributions	<u>0</u>	<u>639,397</u>	<u>0</u>	<u>22,818</u>
Total Contributions	213,161,084	639,397	806,918	22,818
Investment Income				
Net Increase in Fair Value	14,436,837	1,717,282	913	0
Interest and Dividends	16,250,842	1,933,060	1,028	0
Other Income	35,823,718	1,367,974	2,265	0
Less Investment Expenses	<u>(12,090,328)</u>	<u>(1,438,161)</u>	<u>(764)</u>	<u>0</u>
Net Investment Income	54,421,069	3,580,155	3,442	0
Transfers In	226,097	0	0	0
Total Additions	267,808,250	4,219,552	810,360	22,818
Deductions				
Distributions to Members				
Benefit Payments	170,102,004	0	0	0
Health Insurance Subsidy	0	4,546,349	0	0
Refund of Contributions	<u>20,532,931</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Distributions	190,634,935	4,546,349	0	0
Administrative Expenses	2,106,260	138,561	133	0
Transfers Out	780,939	0	0	0
Other	0	0	0	0
Total Deductions	193,522,134	4,684,910	133	0
Net Increase / (Decrease)	74,286,116	(465,358)	810,227	22,818
Net Position Held in Trust				
Prior Valuation	1,996,273,344	126,440,064	239,659	7,483
Beginning of the Year Adjustment	2	(1)	0	0
End of the Year	2,070,559,462	125,974,705	1,049,886	30,301

Development of Pension Actuarial Value of Assets - Tiers 1 & 2

A. Investment Income

A1. Actual Investment Income	\$ 52,314,809
A2. Expected Amount for Immediate Recognition	146,515,782
A3. Amount Subject to Amortization	(94,200,973)

B. Amortization Schedule	Year Ended June 30						
	2020	2021	2022	2023	2024	2025	2026
2020 Experience (A3 / 7)	(13,457,282)	(13,457,282)	(13,457,282)	(13,457,282)	(13,457,282)	(13,457,282)	(13,457,281)
2019 Experience	(5,782,115)	(5,782,115)	(5,782,115)	(5,782,115)	(5,782,115)	(5,782,112)	
2018 Experience	(1,511,828)	(1,511,828)	(1,511,828)	(1,511,828)	(1,511,825)		
2017 Experience	8,429,734	8,429,734	8,429,734	8,429,733			
2016 Experience	(16,290,498)	(16,290,498)	(16,290,497)				
2015 Experience	(9,194,258)	(9,194,260)					
2014 Experience	8,714,004						
Total Amortization	(29,092,243)	(37,806,249)	(28,611,988)	(12,321,492)	(20,751,222)	(19,239,394)	(13,457,281)

C. Actuarial Value of Assets

Total

C1. Actuarial Value of Assets, 06/30/2019	2,063,352,240
C2. Noninvestment Net Cash Flow	21,971,307
C3. Preliminary Actuarial Value of Assets, 06/30/2020 (A2 + B + C1 + C2)	2,202,747,086
C4. Market Value of Assets, 06/30/2020	2,070,559,462
C5. Final Actuarial Value of Assets, 06/30/2020 (C3 Within 20% Corridor of C4)	2,202,747,086

D. Rates of Return

D1. Market Value Rate of Return	2.6%
D2. Actuarial Value Rate of Return	5.7%

Development of Health Actuarial Value of Assets - Tiers 1 & 2

A. Investment Income

A1. Actual Investment Income	\$ 3,441,594
A2. Expected Amount for Immediate Recognition	9,090,033
A3. Amount Subject to Amortization	(5,648,439)

B. Amortization Schedule	Year Ended June 30						
	2020	2021	2022	2023	2024	2025	2026
2020 Experience (A3 / 7)	(806,920)	(806,920)	(806,920)	(806,920)	(806,920)	(806,920)	(806,919)
2019 Experience	(382,214)	(382,214)	(382,214)	(382,214)	(382,214)	(382,213)	
2018 Experience	(81,544)	(81,544)	(81,544)	(81,544)	(81,541)		
2017 Experience	574,691	574,691	574,691	574,693			
2016 Experience	(1,140,445)	(1,140,445)	(1,140,442)				
2015 Experience	(623,076)	(623,078)					
2014 Experience	584,154						
Total Amortization	(1,875,354)	(2,459,510)	(1,836,429)	(695,985)	(1,270,675)	(1,189,133)	(806,919)

C. Actuarial Value of Assets

	Total
C1. Actuarial Value of Assets, 06/30/2019	130,925,631
C2. Noninvestment Net Cash Flow	(3,906,952)
C3. Preliminary Actuarial Value of Assets, 06/30/2020 (A2 + B + C1 + C2)	134,233,358
C4. Market Value of Assets, 06/30/2020	125,974,705
C5. Final Actuarial Value of Assets, 06/30/2020 (C3 Within 20% Corridor of C4)	134,233,358

D. Rates of Return

D1. Market Value Rate of Return	2.8%
D2. Actuarial Value Rate of Return	5.6%

Development of Pension Actuarial Value of Assets - Tiers 3

A. Investment Income

A1. Actual Investment Income	\$ 3,309
A2. Expected Amount for Immediate Recognition	46,429
A3. Amount Subject to Amortization	(43,120)

B. Amortization Schedule	Year Ended June 30				
	2020	2021	2022	2023	2024
2020 Experience (A3 / 5)	(8,624)	(8,624)	(8,624)	(8,624)	(8,624)
2019 Experience	(696)	(696)	(696)	(697)	
2018 Experience	0	0	0		
2017 Experience	0	0			
2016 Experience	0				
Total Amortization	(9,320)	(9,320)	(9,320)	(9,321)	(8,624)

C. Actuarial Value of Assets

Total

C1. Actuarial Value of Assets, 06/30/2019	242,444
C2. Noninvestment Net Cash Flow	806,918
C3. Preliminary Actuarial Value of Assets, 06/30/2020 (A2 + B + C1 + C2)	1,086,471
C4. Market Value of Assets, 06/30/2020	1,049,886
C5. Final Actuarial Value of Assets, 06/30/2020 (C3 Within 20% Corridor of C4)	1,086,471

D. Rates of Return

D1. Market Value Rate of Return	0.5%
D2. Actuarial Value Rate of Return	5.7%

Development of Health Actuarial Value of Assets - Tiers 3

A. Investment Income

A1. Actual Investment Income	\$ 0
A2. Expected Amount for Immediate Recognition	1,364
A3. Amount Subject to Amortization	(1,364)

B. Amortization Schedule	Year Ended June 30				
	2020	2021	2022	2023	2024
2020 Experience (A3 / 5)	(273)	(273)	(273)	(273)	(272)
2019 Experience	(19)	(19)	(19)	(20)	
2018 Experience	0	0	0		
2017 Experience	0	0			
2016 Experience	0				
Total Amortization	(292)	(292)	(292)	(293)	(272)

C. Actuarial Value of Assets

Total

C1. Actuarial Value of Assets, 06/30/2019	7,560
C2. Noninvestment Net Cash Flow	22,818
C3. Preliminary Actuarial Value of Assets, 06/30/2020 (A2 + B + C1 + C2)	31,450
C4. Market Value of Assets, 06/30/2020	30,301
C5. Final Actuarial Value of Assets, 06/30/2020 (C3 Within 20% Corridor of C4)	31,450

D. Rates of Return

D1. Market Value Rate of Return	0.0%
D2. Actuarial Value Rate of Return	5.7%

V. MEMBER STATISTICS

Valuation Data Summary

	June 30, 2020		June 30, 2019	
	Tiers 1 & 2	Tier 3	Tiers 1 & 2	Tier 3
Actives				
Number	10,498	162	11,922	86
Average Current Age	41.3	33.2	40.2	32.3
Average Age at Employment	30.7	32.3	30.7	31.9
Average Past Service	10.6	0.9	9.5	0.4
Average Annual Salary	\$49,615	\$43,794	\$45,559	\$0
Actives (transferred)				
Number	275	1	105	0
Average Current Age	34.5	37.6	32.9	N/A
Average Age at Employment	29.0	36.9	29.0	N/A
Average Past Service	5.5	0.7	3.9	N/A
Average Annual Salary	\$46,584	\$34,219	\$40,123	N/A
Retirees				
Number	5,176	0	4,884	0
Average Current Age	64.3	N/A	64.2	N/A
Average Annual Benefit	\$30,084	N/A	\$29,528	N/A
Beneficiaries				
Number	717	0	691	0
Average Current Age	68.1	N/A	67.7	N/A
Average Annual Benefit	\$21,276	N/A	\$18,741	N/A
Disability Retirees				
Number	156	0	146	0
Average Current Age	58.9	N/A	58.7	N/A
Average Annual Benefit	\$21,971	N/A	\$21,585	N/A
Inactive / Vested				
Number	3,590	14	3,635	4
Average Current Age	38.3	35.0	37.5	37.5
Average Accumulated Contributions	\$7,120	\$2,791	\$7,028	\$780
Total Number	20,412	177	21,383	90
Former Members (transferred)	N/A	N/A	N/A	N/A

Counts and Pay Summary by Service - Tiers 1 & 2

Age	Past Service							Total Count	Total Pay	Average Pay
	0-4	5-9	10-14	15-19	20-24	25-29	30+			
< 25	395	8	0	0	0	0	0	403	16,112,605	39,982
25 - 29	1,131	493	7	0	0	0	0	1,631	69,925,097	42,873
30 - 34	609	902	281	17	0	0	0	1,809	83,118,738	45,947
35 - 39	284	492	538	264	2	0	0	1,580	78,241,159	49,520
40 - 44	190	303	396	438	118	0	0	1,445	75,943,399	52,556
45 - 49	134	271	351	406	221	18	0	1,401	75,619,935	53,976
50 - 54	85	178	247	291	156	69	16	1,042	56,791,941	54,503
55 - 59	63	131	176	225	115	45	43	798	43,030,612	53,923
60 - 64	39	81	109	147	72	26	26	500	26,097,104	52,194
65+	<u>12</u>	<u>33</u>	<u>36</u>	<u>46</u>	<u>20</u>	<u>6</u>	<u>11</u>	<u>164</u>	<u>8,792,953</u>	53,616
Total	2,942	2,892	2,141	1,834	704	164	96	10,773	533,673,543	49,538

Counts and Pay Summary by Service - Tier 3

Age	Past Service							Total Count	Total Pay	Average Pay
	0-4	5-9	10-14	15-19	20-24	25-29	30+			
< 25	18	0	0	0	0	0	0	18	790,922	43,940
25 - 29	54	0	0	0	0	0	0	54	2,424,522	44,899
30 - 34	39	0	0	0	0	0	0	39	1,677,748	43,019
35 - 39	21	0	0	0	0	0	0	21	896,071	42,670
40 - 44	14	0	0	0	0	0	0	14	603,487	43,106
45 - 49	8	0	0	0	0	0	0	8	338,175	42,272
50 - 54	6	0	0	0	0	0	0	6	267,288	44,548
55 - 59	2	0	0	0	0	0	0	2	90,546	45,273
60 - 64	1	0	0	0	0	0	0	1	40,092	40,092
65+	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	0
Total	163	0	0	0	0	0	0	163	7,128,851	43,735

VI. ACTUARIAL ASSUMPTIONS AND METHODS

Interest Rate

7.30% per year. This is the assumed earnings rate on System assets, compounded annually, net of investment and administrative expenses.

Salary Increases

See table below. This is annual increase for individual member's salary. These rates, which are based on a 2017 experience study using actual plan experience, consist of 3.5% for wage inflation with the remaining portion for merit / seniority increases.

<u>Age</u>	<u>Rate</u>
20	6.5%
25	6.1%
30	5.4%
35	4.7%
40	4.2%
45	4.0%
50	3.9%
55	3.7%
60+	3.5%

Inflation

2.50%.

Tier 3 Compensation Limit

\$70,000 for calendar 2020. Assumed increases of 2.00% per year thereafter.

Cost-of-Living Adjustment

1.75%.

Reverse DROP Interest

2.00%.

Mortality Rates

These rates are used to project future decrements from the population due to death.

Active Lives:

PubS-2010 Employee mortality, loaded 125% for males and 115% for females, projected with future mortality improvements reflected generationally using 75% of scale MP-2019. 100% of active deaths are assumed to be in the line of duty.

Inactive Lives

PubS-2010 Healthy Retiree mortality, loaded 125% for males and 115% for females, projected with future mortality improvements reflected generationally using 75% of scale MP-2019.

Beneficiaries:

PubS-2010 Survivor mortality, projected with future mortality improvements reflected generationally using 75% of scale MP-2019.

Disabled Lives:

PubS-2010 Disabled mortality, projected with future mortality improvements reflected generationally using 75% of scale MP-2019.

The mortality assumptions sufficiently accommodate anticipated future mortality improvements.

Retirement

These rates are used to project future decrements from the active population due to retirement. The rates below are based on a 2017 experience study using actual plan experience.

Tier 1 – reaching age 62 before attaining 20 (25 for dispatchers) years of service:

Age-related rates based on age at retirement: 45% per year from age 60 - 74 and 100% assumed at age 75.

Tier 1 – reaching age 62 after attaining 20 (25 for dispatchers) years of service:

Service-related rates based on service at retirement:

<u>Service</u>	<u>Rate</u>
20	30%
21	28%
22	19%
23	17%
24	13%
25-26	26%
27-29	19%
30-31	27%
32-33	40%
34-35	50%
36	60%
37+	100%

Tiers 2 & 3:

Age-related rates based on age at retirement:

<u>Age</u>	<u>Rate</u>
53-54	40%
55	30%
56-57	15%
58-59	30%
60-61	65%
62+	100%

Termination Rate

These rates are used to project future decrements from the active population due to termination. Service-related rates based on service at termination are shown below. The rates below apply to members prior to retirement eligibility and are based on a 2017 experience study using actual plan experience.

<u>Service</u>	<u>Rate</u>
0	23.00%
1	20.00%
2	16.50%
3	14.50%
4	13.00%
5	10.50%
6	9.50%
7	9.00%
8-10	8.50%
11	6.00%
12	5.00%
13	4.50%
14-16	3.00%
17+	2.00%

Disability Rate

These rates are used to project future decrements from the active population due to disability. Sample age-related rates based on age at disability are provided below. These rates are based on a 2017 experience study using actual plan experience. 100% of disablements are assumed to be duty-related.

<u>Age</u>	<u>Rate</u>
20	0.03%
25	0.03%
30	0.03%
35	0.04%
40	0.05%
45	0.06%
50	0.08%
55	0.08%

<u>Marital Status</u>	For active members, 75% of males and 50% of females are assumed to be married. Actual marital status is used, where applicable, for inactive members.
<u>Spouse's Age</u>	Males are assumed to be three years older than females.
<u>Health Care Utilization</u>	For active members, 60% of retirees are expected to utilize retiree health care. Actual utilization is used for inactive members.
<u>Funding Method</u>	Entry Age Normal Cost Method.
<u>Actuarial Asset Method</u>	<p>Method described below. Note that during periods when investment performance exceeds (falls short) of the assumed rate, the actuarial value of assets will tend to be less (greater) than the market value of assets.</p> <p><i>Tiers 1 & 2:</i></p> <p>Each year the assumed investment income is recognized in full while the difference between actual and assumed investment income are smoothed over a 7-year period subject to a 20% corridor around the market value.</p> <p><i>Tier 3:</i></p> <p>Each year the assumed investment income is recognized in full while the difference between actual and assumed investment income are smoothed over a 5-year period subject to a 20% corridor around the market value.</p>
<u>Funding Policy Amortization Method</u>	<p><i>Tiers 1 & 2:</i></p> <p>Any positive UAAL (assets less than liabilities) is amortized using a layered approach beginning with the June 30, 2020 valuation, with new amounts determined according to a Level Dollar method over a closed period of 15 years (phased into from current period of at most 30 years). Initial layer from June 30, 2019 valuation continues to be amortized according to a Level Percentage of Payroll method. Any negative UAAL (assets greater than liabilities) is amortized according to a Level Dollar method over an open period of 20 years.</p> <p><i>Tier 3:</i></p> <p>Any positive UAAL (assets less than liabilities) is amortized according to a Level Dollar method over a closed period of 10 years. No amortization is made of any negative UAAL (assets greater than liabilities).</p>
<u>Payroll Growth</u>	3.00% per year. This is annual increase for total employer payroll.

Stabilization Reserve

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

Changes to Actuarial Assumptions and Methods Since the Prior Valuation

- The amortization method was changed for Tiers 1 and 2 to use a layered amortization approach.
- The payroll growth assumption was lowered from 3.50% to 3.00%.

VII. DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined under various assumption scenarios. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. Whenever possible, the recommended assumptions in this report reflect conservatism to allow for some margin of unfavorable future plan experience. However, it is still possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- **Investment Return:** When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.
- **Salary Increases:** When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.
- **Payroll Growth:** The plan's payroll growth assumption, if one is used, causes a predictable annual increase in the plan's amortization payment in order to produce an amortization payment that remains constant as a percentage of payroll if all assumptions are realized. If payroll does not increase according to the plan's payroll growth assumption, the plan's amortization payment can increase significantly as a percentage of payroll even if all assumptions other than the payroll growth assumption are realized.
- **Demographic Assumptions:** Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment

produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

- **Contribution risk:** This risk results from the potential that actual employer contributions may deviate from actuarially determined contributions, which are determined in accordance with the Board's funding policy. The funding policy is intended to result in contribution requirements that if paid when due, will result in a reasonable expectation that assets will accumulate to be sufficient to pay plan benefits when due. Contribution deficits, particularly large deficits and those that occur repeatedly, increase future contribution requirements and put the plan at risk for not being able to pay plan benefits when due.

Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature plans with a substantial inactive liability. Similarly, mature plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled "Plan Maturity Measures and Other Risk Metrics". Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has decreased for Tiers 1 and 2 from 170.7% on June 30, 2018 to 111.8% on June 30, 2020. This is expected since the plan is closed to new active members. For Tier 3, the Ratio decreased from 2,150.0% on June 30, 2018 to 1,164.3% on June 30, 2020, consistent with the growth of a new group.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 52.9% for Tiers 1 and 2. With a group of this maturity, losses due to lower than expected investment returns or demographic factors will need to be made up for over a shorter time horizon than would be needed for a less mature plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has decreased from 54.1% on June 30, 2018 to 52.1% on June 30, 2020, due mainly to the actuarial transition and assumption changes. For Tier 3, the Ratio increased from 68.9% on June 30, 2019 to 117.8% on June 30, 2020, consistent with a new group with appropriate contribution rates.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments) to the Market Value of Assets, decreased from 1.9% on June 30, 2019 to 1.1% on June 30,

2020, meaning that contributions are not currently covering the group's benefit payments. For Tier 3, the Ratio was 76.9%, which is consistent with a new benefit that is beginning to accumulate assets.

It is important to note that the actuary has identified the risks above as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the reader.

Plan Maturity Measures and Other Risk Metrics

	Tiers 1 & 2			Tier 3		
	06/30/2018	06/30/2019	06/30/2020	06/30/2018	06/30/2019	06/30/2020
Support Ratio						
Total Actives	14,335	12,027	10,773	0	86	163
Total Inactives	8,396	9,356	9,639	0	4	14
Actives / Inactives	170.7%	128.5%	111.8%	N/A	2,150.0%	1,164.3%
Asset Volatility Ratio						
Market Value of Assets (MVA)		1,996,273,344	2,070,559,462		239,659	1,049,886
Total Annual Payroll		547,363,066	533,673,543		3,736,128	7,128,851
MVA / Total Annual Payroll		364.7%	388.0%		6.4%	14.7%
Accrued Liability (AL) Ratio						
Inactive Accrued Liability	1,854,851,192	2,098,736,826	2,235,778,137		3,122	42,399
Total Accrued Liability	3,506,082,771	3,884,070,116	4,225,066,906		351,682	922,405
Inactive AL / Total AL	52.9%	54.0%	52.9%		0.9%	4.6%
Funded Ratio						
Actuarial Value of Assets (AVA)	1,896,970,783	2,063,352,240	2,202,747,086	0	242,444	1,086,471
Total Accrued Liability	3,506,082,771	3,884,070,116	4,225,066,906	0	351,682	922,405
AVA / Total Accrued Liability	54.1%	53.1%	52.1%	N/A	68.9%	117.8%
Net Cash Flow Ratio						
Net Cash Flow *		38,292,853	22,370,431		234,614	806,918
Market Value of Assets (MVA)		1,996,273,344	2,070,559,462		239,659	1,049,886
Net Cash Flow / MVA		1.9%	1.1%		97.9%	76.9%

* Determined as total contributions minus benefit payments. Administrative expenses are typically included but are considered part of the net interest rate assumption for this plan.

VIII. SUMMARY OF CURRENT PLAN

The following is a summary of the benefit provisions provided in Title 38, Chapter 5, Article 6 of the Arizona Revised Statutes.

Membership

Full-time employees of a participating employer in a designated position, whose customary employment is at least 40 hours each week. Includes employees hired after July 1, 2018 only if they are a judiciary probation or surveillance officer who makes the irrevocable election to participate in the plan.

Benefit Tiers

Benefits differ for members based on their hire date:

<u>Tier</u>	<u>Hire Date</u>
1	Hired before January 1, 2012
2	Hired on or after January 1, 2012 but before July 1, 2018
3	Hired on or after July 1, 2018

Salary

Salary is the amount including base salary, shift and military differential pay, and holiday pay, paid to an employee on a regular payroll basis. For Tier 3 members, salary is limited by statutory cap (\$70,000 with adjustments by the Board).

Average Monthly Benefit Salary

Tier 1:

One-thirty-sixth of the highest total salary during a period of thirty-six consecutive months of service within the last one hundred twenty months of service.

Tier 2 & 3:

One-sixtieth of the highest total salary during a period of sixty consecutive months of service within the last one hundred twenty months of service.

Credited Service

Total periods of service, both from service other State plans and those compensated periods of service for which the member made contributions to the fund.

Normal Retirement Date

Tier 1:

First day of the month following attainment of 1) age 62 with 10 years of Credited Service, 2) 20 (25, if dispatcher) years of Credited Service, or 3) age and Credited Service points equal to 80.

	<p><i>Tier 2:</i> First day of month following the attainment of 1) age 52.5 with 25 years of Credited Service, or 2) age 62 with 10 years of Credited Service.</p> <p><i>Tier 3:</i> First day of month following the attainment of age 55 with 10 years of Credited Service.</p>												
Benefit	<p><i>Tier 1:</i> 2.50% times Credited Service (up to 20 years) times Average Monthly Salary. If Credited Service exceeds 20 years, an additional 2.00% accrual is provided for up to five years. If Credited Service exceeds 25 years, the additional accrual for service in excess of 20 years is increased to 2.50%. Maximum benefit equals 80% of Average Monthly Salary.</p> <p><i>Tier 2:</i> 2.50% times Credited Service times Average Monthly Salary (maximum benefit equals 80% of Average Monthly Salary).</p> <p><i>Tier 3:</i> Benefit multiplier (below) times Average Monthly Benefit Salary times Credited Service (maximum benefit of 80% of Average Monthly Benefit Salary):</p> <table> <tr> <th><u>Credited Service</u></th><th><u>Benefit Multiplier</u></th></tr> <tr> <td>10 years, but less than 15</td><td>1.25%</td></tr> <tr> <td>15 years, but less than 20</td><td>1.50%</td></tr> <tr> <td>20 years, but less than 22</td><td>1.75%</td></tr> <tr> <td>22 years, but less than 25</td><td>2.00%</td></tr> <tr> <td>25+ years</td><td>2.25%</td></tr> </table>	<u>Credited Service</u>	<u>Benefit Multiplier</u>	10 years, but less than 15	1.25%	15 years, but less than 20	1.50%	20 years, but less than 22	1.75%	22 years, but less than 25	2.00%	25+ years	2.25%
<u>Credited Service</u>	<u>Benefit Multiplier</u>												
10 years, but less than 15	1.25%												
15 years, but less than 20	1.50%												
20 years, but less than 22	1.75%												
22 years, but less than 25	2.00%												
25+ years	2.25%												
Form of Benefit	For married retirees, an annuity payable for the life of the member with 80% continuing to the eligible spouse upon death. For unmarried retirees, the normal form is a single life annuity.												
<u>Early Retirement</u>	<i>Only applicable to Tier 3 members:</i>												
Date	Attainment of age 52.5 and 10 years of Credited Service.												
Benefit	Actuarial equivalent of Normal Retirement benefit.												
<u>Disability Benefit – Duty-Related</u>													
Eligibility	Total and permanent disability incurred in performance of duty.												

Benefit Amount	The greater of 1) 50% of Average Monthly Salary, and 2) the Normal Retirement pension that the member is entitled to receive.																
<u>Disability Benefit – Ordinary</u>																	
Eligibility	Total and permanent disability not incurred in performance of duty.																
Benefit Amount																	
Dispatchers	Normal Retirement pension that the member is entitled to receive prorated on Credited Service (maximum 25 years) over 25.																
All Others	Normal Retirement pension that the member is entitled to receive prorated on Credited Service (maximum 20 years) over 20.																
<u>Pre-Retirement Death Benefit</u>																	
Payable to Eligible Survivor	Payable to eligible spouse for life; payable to eligible children until adopted, age 18, or age 23 if full-time student.																
Service Incurred	100% of Average Monthly Salary																
Non-Service Incurred	40% of Average Monthly Salary.																
No survivors	Two times member's accumulated contributions.																
<u>Vesting (Termination)</u>																	
Deferred Annuity	<p>Tier 1:</p> <p>For those with 10 or more years of Credited Service, an annuity based on two times member's accumulated contributions, deferred to age 62. Member is not entitled to survivor benefits, benefit increases, or group health insurance subsidy.</p>																
Return of Contributions	<p>Tier 1:</p> <p>Lump sum payment of accumulated contributions, plus additional amount based on years of credited service.</p> <table> <tr> <th><u>Service</u></th><th><u>Additional % of Contributions</u></th></tr> <tr> <td>Less than 5 years</td><td>0%</td></tr> <tr> <td>5 years</td><td>25%</td></tr> <tr> <td>6 years</td><td>40%</td></tr> <tr> <td>7 years</td><td>55%</td></tr> <tr> <td>8 years</td><td>70%</td></tr> <tr> <td>9 years</td><td>85%</td></tr> <tr> <td>10+ years</td><td>100%</td></tr> </table>	<u>Service</u>	<u>Additional % of Contributions</u>	Less than 5 years	0%	5 years	25%	6 years	40%	7 years	55%	8 years	70%	9 years	85%	10+ years	100%
<u>Service</u>	<u>Additional % of Contributions</u>																
Less than 5 years	0%																
5 years	25%																
6 years	40%																
7 years	55%																
8 years	70%																
9 years	85%																
10+ years	100%																

Tiers 2 & 3:

Lump sum payment of accumulated contributions, with interest at rate determined by the Board.

Cost-of-Living Adjustment

Payable to retired member or survivor of retired member

Tiers 1 & 2

Compound cost-of-living adjustment on base benefit. First payment is made on July 1, 2018, with annual adjustments effective every July 1 thereafter.

Cost-of-living adjustment will be based on the average annual percentage change in the Metropolitan Phoenix-Mesa Consumer Price Index published by the United States Department of Labor, Bureau of Statistics. Maximum increase of 2%.

Tier 3

Compound cost-of-living adjustment on base benefit beginning earlier of first calendar year after the 7th anniversary of retirement or when the retired member reaches 60 years of age.

A cost-of-living adjustment shall be paid on July 1 each year that the funded ratio for members hired on or after July 1, 2018 is 70% or more.

The cost-of-living adjustment will be based on the average annual percentage change in the Metropolitan Phoenix-Mesa Consumer Price Index published by the United States Department of Labor, Bureau of Statistics. The cost-of-living adjustment will not exceed:

- 2%, if funded ratio for members who are hired on or after July 1, 2018 is 90% or more;
- 1.5%, if funded ratio for members who are hired on or after July 1, 2018 is 80-90%;
- 1%, if funded ratio for members who are hired on or after July 1, 2018 is 70-80%.

Reverse Deferred Retirement Option
Plan (Reverse DROP):

Eligibility

Tier 1 and eligible for normal pension with at least 24 years of Credited Service (25 years for dispatchers). Must not have been awarded disability pension.

Reverse DROP Date

First day of month immediately following completion of required Credited Service or date not more than 60 consecutive months before the date the member elects to participate in the Reverse DROP, whichever is later.

Benefit Amount	Calculated based on Credited Service and Average Monthly Salary as of the Reverse DROP Date.		
Reverse DROP Lump Sum	Accumulated benefit amounts (with interest) from Reverse DROP date to the date the member elected to participate in Reverse DROP. Interest is equal to the yield on five-year Treasury note as of the first day of the month, as published by the Federal Reserve Board.		
<u>Post-Retirement Health Insurance Subsidy</u>			
Eligibility	Retired member or survivor who elect health coverage provided by the state or participating employer.		
Maximum Subsidy Amounts (monthly)		<u>Member Only</u>	<u>With Dependents</u>
	Medicare Eligible	\$100	\$170
	One w/ Medicare	N/A	\$215
	Not Medicare Eligible	\$150	\$260
<u>Employee Contributions</u>			
	<i>Tiers 1 and 2:</i> Non-dispatchers: 8.41% of salary, or 50/50 split of total employer and employee costs, whichever is lower, until the plan is 100% funded. Minimum contribution of 7.65% of salary. Dispatchers: 0.45% less than non-dispatcher rate until plan is 100% funded; equal thereafter.		
	<i>Tier 3:</i> 66.7% of the Normal Cost plus 50% of a level-dollar amortization of unfunded actuarial accrued liability over a closed period not to exceed 10 years.		
<u>Employer Contributions</u>			
	<i>Tiers 1 & 2:</i> Normal Cost, plus amortization of unfunded actuarial accrued liability over a closed period not to exceed 20 years. Contribution will never be less than 6% of payroll.		
	<i>Tier 3:</i> 33.3% of the Normal Cost plus 50% of a level-dollar amortization of unfunded actuarial accrued liability over a closed period not to exceed 10 years.		

Changes to Benefit Provisions Since the Prior Valuation

None.

IX. ACTUARIAL FUNDING POLICY

The purpose of this Actuarial Funding Policy is to record the funding objectives and policy set by the Board for the Arizona Corrections Officer Retirement Plan. The Board establishes this Funding Policy to help ensure the systematic funding of future benefit payments for members of the Retirement System.

This funding policy was reviewed by the Board annually for several years following initial adoption until the 2017 experience study. Subsequently, it shall be reviewed every five years in conjunction with the experience study, although some adjustments may be warranted sooner to properly reflect Tier 3 benefits and changes to amortization methodology.

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 provides 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 Liability (UAAL).

Elements of Actuarial Funding Policy

1. Actuarial Cost Method

- a. The Entry Age Normal level percent of pay actuarial cost method of valuation shall be used in determining the 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 the actual investment return and assumed investment return, shall be recognized annually in level amounts over seven years in calculating the Actuarial Value of Assets.
- b. The Actuarial Value of Assets so determined shall be subject to a 20% corridor relative to the Market Value of Assets.

3. Amortization Method

- a. The Actuarial 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 Actuarial 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 funding ratio is between 100% and 120%, a minimum contribution equal to the Normal Cost will be made.

5. Risk Management

- a. Assumption Changes
 - i. 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.
 - ii. The actuarial assumptions can be updated during the five-year period if significant plan design changes or other significant events occur, as advised by the actuary.
- b. Amortization Method
 - i. 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
 - i. The following risk measures will be annually determined to provide quantifiable measurements of risk and their movement over time.
 1. Classic measures currently determined
 - Funded ratio (assets / liability)
 2. 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.
 3. 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.

X. GLOSSARY

Actuarial Accrued Liability – Computed differently under different funding methods, the actuarial accrued liability generally represents the portion of the actuarial present value of benefits attributable to service credit earned (or accrued) as of the valuation date.

Actuarial Present Value of Benefits – Amount which, together with future interest, is expected to be sufficient to pay all benefits to be paid in the future, regardless of when earned, as determined by the application of a particular set of actuarial assumptions; equivalent to the actuarial accrued liability plus the present value of future normal costs attributable to the members.

Actuarial Assumptions – Assumptions as to the occurrence of future events affecting pension costs. These assumptions include rates of investment earnings, changes in salary, rates of mortality, withdrawal, disablement, and retirement as well as statistics related to marriage and family composition.

Actuarial Cost Method – A method of determining the portion of the cost of a pension plan to be allocated to each year; sometimes referred to as the "actuarial funding method." Each cost method allocates a certain portion of the actuarial present value of benefits between the actuarial accrued liability and future normal costs.

Actuarial Equivalence – Series of payments with equal actuarial present values on a given date when valued using the same set of actuarial assumptions.

Actuarial Present Value - The amount of funds required as of a specified date to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payments between the specified date and the expected date of payment.

Actuarial Value of Assets – The value of cash, investments, and other property belonging to the pension plan as used by the actuary for the purpose of the actuarial valuation. This may correspond to market value of assets, or some modification using an asset valuation method to reduce the volatility of asset values.

Asset Gain (Loss) – That portion of the actuarial gain attributable to investment performance above (below) the expected rate of return in the actuarial assumptions.

Amortization – Paying off an interest-discounted amount with periodic payments of interest and (generally) principal, as opposed to paying off with a lump sum payment.

Amortization Payment – That portion of the pension plan contribution designated to pay interest and reduce the outstanding principal balance of unfunded actuarial accrued liability. If the amortization payment is less than the accrued interest on the unfunded actuarial accrued liability the outstanding principal balance will increase.

Assumed Earnings Rate – The interest rate used in developing present values to reflect the time value of money.

Decrement – Events which result in the termination of membership in the system such as retirement, disability, withdrawal, or death.

Entry Age Normal (EAN) Funding Method – A standard actuarial funding method whereby each member's normal costs (service costs) are generally level as a percentage of pay from entry age until retirement. The annual cost of benefits is comprised of the normal cost plus an amortization payment to reduce the UAL.

Experience Gain (Loss) – The difference between actual unfunded actuarial accrued liabilities and anticipated unfunded actuarial accrued liabilities during the period between two valuation dates. It is a measurement of the difference between actual and expected experience, and may be related to investment earnings above (or below) those expected or changes in the liability due to fewer (or greater) than expected numbers of retirements, deaths, disabilities, or withdrawals, or variances in pay increases relative to assumed pay increases. The effect of such gains (or losses) is to decrease (or increase) future costs.

Funded Ratio – A measure of the ratio of the actuarial value of assets to liabilities of the system. Typically, the assets used in the measure are the actuarial value of assets as determined by the asset valuation method. The funded ratio depends not only on the financial strength of the plan but also on the asset valuation method used to determine the assets and on the funding method used to determine the liabilities.

Market Value of Assets (MVA) – The value of assets as they would trade on an open market.

Normal Cost – Computed differently under different funding methods, generally that portion of the actuarial present value of benefits allocated to the current plan year.

Unfunded Actuarial Accrued Liability (UAAL) – The excess of the actuarial accrued liability over the valuation assets; sometimes referred to as "unfunded past service liability". UAL increases each time an actuarial loss occurs and when new benefits are added without being fully funded initially and decreases when actuarial gains occur.

APPENDIX A: SUMMARY OF POPULATION DATA BY EMPLOYER - TIERS 1 & 2

Employer		Number of	Active	Number of	Annual Retiree	Number of	Inactive/Vested	Number
Number	Employer Name	Actives	Payroll	Retirees	Benefits	Inactive/ Vested	Accum. Member Contrib.	Transferred Out
500	Department of Corrections - Detention	5,983	275,658,575	3,675	96,045,632	1,374	9,023,058	184
501	Dept of Juvenile Corrections - Detention	250	11,463,793	305	8,382,130	250	1,354,250	9
502	Pinal County - Detention	121	6,268,360	53	1,550,148	32	237,312	3
503	Gila County - Detention	38	1,726,021	14	239,902	33	133,914	2
504	Graham County - Detention	13	520,385	5	121,760	30	132,360	7
505	Maricopa County - Detention	1,701	91,059,661	676	22,153,495	487	4,594,845	30
506	City of Avondale - Detention	9	533,829	1	12,264	5	45,025	1
507	La Paz County - Detention	14	630,000	1	13,441	9	87,885	3
510	Yuma County - Detention	97	4,382,653	33	921,558	82	558,502	9
515	Pima County - Detention	381	19,526,937	231	6,880,024	183	1,318,515	7
520	Apache County - Detention	12	435,258	6	113,376	25	72,400	0
525	Cochise County - Detention	38	1,648,744	38	677,838	36	243,288	4
530	Coconino County - Detention	59	3,112,886	18	513,452	86	460,874	3
535	Mohave County - Detention	60	2,504,878	19	354,479	91	362,453	3
540	Santa Cruz County - Detention	12	407,394	6	143,118	31	247,039	3
545	Navajo County - Detention	22	897,838	13	255,331	44	163,504	7
550	Yavapai County - Detention	108	5,233,080	49	1,080,374	154	873,026	5
555	Pinal County - Dispatchers	5	269,453	4	119,288	9	85,068	0
556	Town of Oro Valley - Dispatchers	3	204,074	5	142,247	4	65,048	0
557	Town of Marana - Dispatchers	6	369,922	1	26,829	2	3,662	0
558	Gila County - Dispatchers	3	141,322	3	87,717	4	29,076	0
559	Town of Wickenburg - Dispatchers	1	50,474	3	48,768	1	2,322	0
560	Graham County - Dispatchers	2	85,260	0	0	3	20,982	0
561	Yavapai County - Dispatchers	1	70,885	3	65,502	1	39,398	0
562	City of Somerton - Dispatchers	2	79,392	2	69,514	2	38,408	0
563	Department of Public Safety - Dispatchers	14	804,512	21	797,140	6	148,002	0
564	Department of Public Safety - Detention	3	183,476	0	0	1	4,266	0
575	Administrative Office of the Courts	1,815	105,404,481	864	33,582,754	605	5,216,310	59
	TOTAL	10,773	533,673,543	6,049	174,398,081	3,590	25,560,792	339

APPENDIX B: SUMMARY OF PENSION FUNDED STATUS BY EMPLOYER - TIERS 1 & 2

Employer Number	Employer Name	Total AAL	Total Assets	Funded Percent	Unfunded Liability
500	Department of Corrections - Detention	2,129,132,992	1,085,491,449	51.0%	1,043,641,543
501	Dept of Juvenile Corrections - Detention	145,294,184	64,053,198	44.1%	81,240,986
502	Pinal County - Detention	49,162,824	32,913,343	66.9%	16,249,481
503	Gila County - Detention	8,255,634	5,762,874	69.8%	2,492,760
504	Graham County - Detention	2,721,130	2,586,480	95.1%	134,650
505	Maricopa County - Detention	626,165,614	329,148,683	52.6%	297,016,931
506	City of Avondale - Detention	3,118,767	2,145,410	68.8%	973,357
507	La Paz County - Detention	2,745,338	1,528,590	55.7%	1,216,748
510	Yuma County - Detention	26,106,509	16,544,086	63.4%	9,562,423
515	Pima County - Detention	155,506,860	72,276,757	46.5%	83,230,103
520	Apache County - Detention	2,887,532	1,798,691	62.3%	1,088,841
525	Cochise County - Detention	13,964,672	7,110,649	50.9%	6,854,023
530	Coconino County - Detention	18,639,670	17,422,951	93.5%	1,216,719
535	Mohave County - Detention	10,097,772	9,087,274	90.0%	1,010,498
540	Santa Cruz County - Detention	2,787,441	2,681,221	96.2%	106,220
545	Navajo County - Detention	5,864,876	4,149,958	70.8%	1,714,918
550	Yavapai County - Detention	33,055,047	19,153,754	57.9%	13,901,293
555	Pinal County - Dispatchers	3,488,132	2,006,387	57.5%	1,481,745
556	Town of Oro Valley - Dispatchers	3,374,933	1,504,732	44.6%	1,870,201
557	Town of Marana - Dispatchers	2,874,535	1,803,213	62.7%	1,071,322
558	Gila County - Dispatchers	2,336,129	1,385,283	59.3%	950,846
559	Town of Wickenburg - Dispatchers	687,374	457,178	66.5%	230,196
560	Graham County - Dispatchers	533,083	621,015	116.5%	(87,932)
561	Yavapai County - Dispatchers	1,294,949	779,809	60.2%	515,140
562	City of Somerton - Dispatchers	1,530,413	728,791	47.6%	801,622
563	Department of Public Safety - Dispatchers	17,116,469	10,756,535	62.8%	6,359,934
564	Department of Public Safety - Detention	481,316	281,123	58.4%	200,193
575	Administrative Office of the Courts	955,842,711	508,567,651	53.2%	447,275,060
	Unallocated		1		(1)
	TOTAL	4,225,066,906	2,202,747,086	52.1%	2,022,319,820

APPENDIX C: SUMMARY OF PENSION CONTRIBUTION BY EMPLOYER - TIERS 1 & 2

Employer Number	Employer Name	ER NC%	UAAL Calculated Required ER		
			Pmt %	ER Cont.	Cont.
500	Department of Corrections - Detention	5.15%	25.73%	30.88%	30.88%
501	Dept of Juvenile Corrections - Detention	4.62%	41.93%	46.55%	46.55%
502	Pinal County - Detention	4.69%	19.58%	24.27%	24.27%
503	Gila County - Detention	5.37%	9.16%	14.53%	14.53%
504	Graham County - Detention	6.28%	0.31%	6.59%	6.65%
505	Maricopa County - Detention	5.54%	23.73%	29.27%	29.27%
506	City of Avondale - Detention	5.00%	11.34%	16.34%	16.57%
507	La Paz County - Detention	4.53%	11.08%	15.61%	16.20%
510	Yuma County - Detention	5.83%	12.57%	18.40%	18.40%
515	Pima County - Detention	5.24%	29.80%	35.04%	35.04%
520	Apache County - Detention	4.62%	15.54%	20.16%	20.16%
525	Cochise County - Detention	5.61%	26.08%	31.69%	31.69%
530	Coconino County - Detention	5.44%	2.94%	8.38%	8.38%
535	Mohave County - Detention	5.73%	2.52%	8.25%	8.25%
540	Santa Cruz County - Detention	6.79%	1.10%	7.89%	7.89%
545	Navajo County - Detention	6.58%	8.61%	15.19%	15.19%
550	Yavapai County - Detention	5.00%	16.77%	21.77%	21.77%
555	Pinal County - Dispatchers	2.07%	46.11%	48.18%	48.18%
556	Town of Oro Valley - Dispatchers	2.55%	76.68%	79.23%	79.23%
557	Town of Marana - Dispatchers	2.72%	24.61%	27.33%	27.65%
558	Gila County - Dispatchers	3.11%	84.65%	87.76%	87.76%
559	Town of Wickenburg - Dispatchers	3.52%	35.64%	39.16%	39.16%
560	Graham County - Dispatchers	3.96%	0.00%	3.96%	3.96%
561	Yavapai County - Dispatchers	3.73%	61.57%	65.30%	68.15%
562	City of Somerton - Dispatchers	4.86%	83.13%	87.99%	87.99%
563	Department of Public Safety - Dispatchers	3.42%	65.84%	69.26%	71.44%
564	Department of Public Safety - Detention	18.40%	7.27%	25.67%	25.96%
575	Administrative Office of the Courts	4.13%	31.35%	35.48%	35.97%
	TOTAL	5.01%	26.42%	31.43%	31.43%

APPENDIX D: SUMMARY OF HEALTH FUNDED STATUS BY EMPLOYER - TIERS 1 & 2

Employer Number	Employer Name	Total AAL	Total Assets	Funded Percent	Unfunded Liability
500	Department of Corrections - Detention	57,711,466	82,712,846	143.3%	(25,001,380)
501	Dept of Juvenile Corrections - Detention	3,543,727	6,811,448	192.2%	(3,267,721)
502	Pinal County - Detention	1,072,755	1,689,402	157.5%	(616,647)
503	Gila County - Detention	201,311	411,184	204.3%	(209,873)
504	Graham County - Detention	62,681	94,938	151.5%	(32,257)
505	Maricopa County - Detention	11,323,412	19,134,367	169.0%	(7,810,955)
506	City of Avondale - Detention	53,410	54,508	102.1%	(1,098)
507	La Paz County - Detention	51,540	13,857	26.9%	37,683
510	Yuma County - Detention	417,410	1,313,884	314.8%	(896,474)
515	Pima County - Detention	2,491,195	4,272,716	171.5%	(1,781,521)
520	Apache County - Detention	71,481	211,253	295.5%	(139,772)
525	Cochise County - Detention	316,111	775,174	245.2%	(459,063)
530	Coconino County - Detention	398,566	546,073	137.0%	(147,507)
535	Mohave County - Detention	197,910	775,134	391.7%	(577,224)
540	Santa Cruz County - Detention	133,979	209,185	156.1%	(75,206)
545	Navajo County - Detention	87,590	434,850	496.5%	(347,260)
550	Yavapai County - Detention	600,451	1,402,542	233.6%	(802,091)
555	Pinal County - Dispatchers	36,650	191,024	521.2%	(154,374)
556	Town of Oro Valley - Dispatchers	48,043	72,662	151.2%	(24,619)
557	Town of Marana - Dispatchers	55,789	55,199	98.9%	590
558	Gila County - Dispatchers	38,044	108,419	285.0%	(70,375)
559	Town of Wickenburg - Dispatchers	3,814	48,636	1275.2%	(44,822)
560	Graham County - Dispatchers	17,705	24,799	140.1%	(7,094)
561	Yavapai County - Dispatchers	51,798	29,251	56.5%	22,547
562	City of Somerton - Dispatchers	18,611	28,067	150.8%	(9,456)
563	Department of Public Safety - Dispatchers	380,588	194,854	51.2%	185,734
564	Department of Public Safety - Detention	10,593	6,308	59.5%	4,285
575	Administrative Office of the Courts	15,782,678	12,610,776	79.9%	3,171,902
	Unallocated		2		(2)
	TOTAL	95,179,308	134,233,358	141.0%	(39,054,050)

APPENDIX E: SUMMARY OF HEALTH CONTRIBUTION BY EMPLOYER - TIERS 1 & 2

Employer Number	Employer Name	ER NC%	UAAL Pmt %	Calculated ER Cont.
500	Department of Corrections - Detention	0.31%	(0.31%)	0.00%
501	Dept of Juvenile Corrections - Detention	0.33%	(0.33%)	0.00%
502	Pinal County - Detention	0.32%	(0.32%)	0.00%
503	Gila County - Detention	0.34%	(0.34%)	0.00%
504	Graham County - Detention	0.26%	(0.20%)	0.06%
505	Maricopa County - Detention	0.26%	(0.26%)	0.00%
506	City of Avondale - Detention	0.24%	(0.01%)	0.23%
507	La Paz County - Detention	0.26%	0.33%	0.59%
510	Yuma County - Detention	0.27%	(0.27%)	0.00%
515	Pima County - Detention	0.24%	(0.24%)	0.00%
520	Apache County - Detention	0.27%	(0.27%)	0.00%
525	Cochise County - Detention	0.29%	(0.29%)	0.00%
530	Coconino County - Detention	0.22%	(0.22%)	0.00%
535	Mohave County - Detention	0.31%	(0.31%)	0.00%
540	Santa Cruz County - Detention	0.18%	(0.18%)	0.00%
545	Navajo County - Detention	0.25%	(0.25%)	0.00%
550	Yavapai County - Detention	0.30%	(0.30%)	0.00%
555	Pinal County - Dispatchers	0.34%	(0.34%)	0.00%
556	Town of Oro Valley - Dispatchers	0.33%	(0.33%)	0.00%
557	Town of Marana - Dispatchers	0.32%	0.00%	0.32%
558	Gila County - Dispatchers	0.36%	(0.36%)	0.00%
559	Town of Wickenburg - Dispatchers	0.28%	(0.28%)	0.00%
560	Graham County - Dispatchers	0.45%	(0.45%)	0.00%
561	Yavapai County - Dispatchers	0.24%	2.61%	2.85%
562	City of Somerton - Dispatchers	0.60%	(0.60%)	0.00%
563	Department of Public Safety - Dispatchers	0.38%	1.80%	2.18%
564	Department of Public Safety - Detention	0.15%	0.14%	0.29%
575	Administrative Office of the Courts	0.27%	0.22%	0.49%
	TOTAL	0.29%	(0.19%)	0.10%