

New Mexico Judicial Retirement Fund

Annual Actuarial Valuation - Funding
As of June 30, 2023





October 26, 2023

The Retirement Board
Public Employees Retirement Association
33 Plaza La Prensa
Santa Fe, NM 87507

Re: Actuarial Valuation for Funding Purposes as of June 30, 2023

Members of the Board:

We certify that the information contained in this report is accurate and fairly presents the actuarial position of the New Mexico Judicial Retirement Fund (Judicial Fund) as of June 30, 2023. This report was prepared at the request of the Board and is intended for use by the Public Employees Retirement Association (PERA) staff and those designated or approved by the Board. This report may be provided to parties other than PERA only in its entirety and only with the permission of the Board.

Actuarial Valuation

The primary purposes of the actuarial valuation report are to determine the adequacy of the current State and employer contributions, describe the current financial condition of the Judicial Fund, analyze changes in the condition of the Judicial Fund, and provide various summaries of the data.

Plan Provisions

Our actuarial valuation as of June 30, 2023 reflects the benefit and contribution provisions that were in effect as of June 30, 2023. The current plan provisions are outlined in Section E of this report.

Actuarial Assumptions and Methods

The assumptions and methods applied in this actuarial valuation were adopted by the Board of Trustees based on the experience investigation that covered the four-year period from July 1, 2015 through June 30, 2019. The current actuarial assumptions and methods are outlined in Section F of this report.

Data

This valuation was based upon information as of June 30, 2023, furnished by the PERA staff, concerning system benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal 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 PERA staff.

Certification

All of our work conforms with generally accepted actuarial principles and practices, and to the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of, where applicable, the Internal Revenue Code and ERISA.

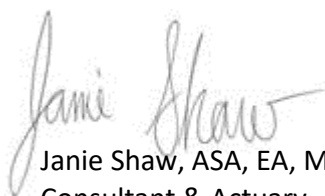
The signing actuaries are independent of the plan sponsor. The undersigned are Members of the American Academy of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries. Finally, each of the undersigned are experienced in performing valuations for large public retirement systems.

Respectfully submitted,

Gabriel, Roeder, Smith & Company



Paul Wood, ASA, MAAA
Senior Consultant & Actuary



Janie Shaw, ASA, EA, MAAA
Consultant & Actuary

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SECTION A

EXECUTIVE SUMMARY

Executive Summary

Item	2023	2022
Membership		
• Number of		
- Active members	129	131
- Retirees, beneficiaries, and disabled	212	204
- Inactive, vested	26	27
- Inactive, nonvested	5	1
- Total	372	363
• Valuation Payroll	\$ 22,363,621	\$ 21,443,202
Statutory contribution rates	FY 2024	FY 2023
• Members	10.50%	10.50%
• Employer	15.00%	15.00%
Anticipated Annual Docket Fees	2,500,000	2,500,000
Additional Annual Appropriation	1,200,000	1,200,000
Assets		
• Market value (MVA)	\$ 112,660,986	\$ 111,599,592
• Actuarial value (AVA)	\$ 116,320,787	\$ 114,524,130
• Return on market value	5.3%	-3.7%
• Return on actuarial value	5.8%	6.0%
Actuarial Information on AVA (smoothed)		
• Normal cost %	21.44%	21.65%
• Actuarial accrued liability	\$ 192,336,263	\$ 187,176,043
• Unfunded actuarial accrued liability (UAAL)	\$ 76,015,476	\$ 72,651,913
• Funded ratio	60.5%	61.2%
Actuarially Determined Contribution (ADC)		
• ADC Rate	43.87%	44.01%
• ADC Amount	\$ 9,810,921	\$ 9,437,153
Total Anticipated Contribution Amount	\$ 9,402,723	\$ 9,168,017
(Excess)/Deficiency of Anticipated Contributions	\$ 408,198	\$ 269,136
Amortization Period	N/A	107 years
Actuarial Information on MVA		
• Unfunded actuarial accrued liability (UAAL)	\$ 79,675,277	\$ 75,576,451
• Funded ratio	58.6%	59.6%

SECTION B

DISCUSSION

Discussion

Introduction

This report presents the results of the June 30, 2023 actuarial valuation of the Judicial Fund.

The primary purposes of this actuarial valuation report are to determine the adequacy of the current State contributions, describe the current financial condition of the Judicial Fund, analyze the changes in condition of the Judicial Fund, and provide various summaries of the data.

All of the tables referenced in the following discussion appear in Section C of this report.

Funding Adequacy

The Actuarially Determined Contribution (ADC) according to the funding policy is the contribution rate necessary to fund the annual normal cost of the Judicial Fund and fully amortize the UAAL over 25 years. The amount calculated is expected to remain a constant percentage of payroll over the remaining amortization period. The ADC determined by this valuation is 43.87% of pay. This ADC is reasonable as of the valuation date. As described below, the current State contribution rate is less than the ADC. This means that the funding period is in excess of the 25-year target set by the Board.

The State currently contributes 15.0% of pay, a portion of docket fees, and \$100,000 every month until the Judicial Fund is 100% funded. The State contribution is expected to be approximately 31.54% of pay for FY2024. However, the \$100,000 monthly contribution and the docket fees are not expected to increase in the future so it is expected that the State contribution will decrease *as a percentage of payroll* in future years. Members contribute 10.5% of salary, for a total expected contribution equal to 42.04% of pay for FY2024.

The docket fees contributed to the Judicial Fund have been significantly impacted by the pandemic over the past few years. As a result, we have based our long-term projected contributions on the docket fees contributed to the Judicial Fund for FY2020 of approximately \$2.5 million. If docket fees do not increase back to the level they were at in FY2020, future assumed docket fees will need to be reduced to their current level, or approximately \$1.9 million.

It is important for the Board to understand that the currently scheduled contributions are not expected to accumulate sufficient assets in order to pay all of the currently scheduled benefits when due.

The unfunded actuarial accrued liability (UAAL) increased from \$72.7 million as of June 30, 2022 to \$76.0 million as of June 30, 2023. Additionally, the funded ratio—actuarial value of assets divided by the actuarial accrued liability—decreased from 61.2% to 60.5%, as of June 30, 2023. This decrease in the funded ratio was primarily due to asset losses on the actuarial value of assets.

The funded status is one of many metrics used to show trends and develop future expectations about the health of a retirement system. The funded status measure itself is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations or assessing the need for or the amount of future contributions since it does not reflect normal cost contributions, the timing of amortization payments, or future experience other than expected.



Plan Provisions

There were no changes to plan provisions for this actuarial valuation. The current plan provisions are outlined in Section E of this report.

Actuarial Assumptions and Methods

The assumptions and methods applied in this actuarial valuation were adopted by the Board of Trustees based on the experience investigation that covered the four-year period from July 1, 2015 through June 30, 2019. We believe the assumptions are internally consistent and are reasonable, based on the actual experience of the Judicial Fund.

The results of the actuarial valuation are dependent upon the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. A review of the impact of a different set of assumptions on the funded status of the Judicial Fund is outside the scope of this actuarial valuation. The current actuarial assumptions and methods are outlined in Section F of this report.

System Assets

This report contains several tables that summarize key information with respect to the Judicial Fund assets.

The total market value of assets increased from \$111.6 million to \$112.7 million as of June 30, 2023. Table 5 reconciles the changes in the fund during the year. Outside of the one-time \$20 million appropriation made to the Judicial Fund during fiscal year 2022, the total contributions increased from \$7.6 million to \$8.6 million.

Table 6 shows the development of the Actuarial Value of Assets (AVA). The current AVA method recognizes each year's gain or loss over a closed four-year period. The AVA increased from \$114.5 million to \$116.3 million, as of June 30, 2023.

When measured on a market value, the approximate investment return for the fiscal year ending June 30, 2023 was 5.3%. When measured on an actuarial value, the net investment return was 5.8%. Table 7 shows a history of return rates. The Judicial Fund ten-year average market return is 6.6%.

Table 8 provides a history of the contributions paid into the Judicial Fund and the administrative expenses and benefit payments paid out of the Judicial Fund. The Judicial Fund paid administrative expenses and benefit payments, in excess of contributions received, of \$5.6 million (or 5.0% of assets) in fiscal year 2022 (excluding the one-time \$20 million appropriation) and \$4.7 million (or 4.2% of assets) in fiscal year 2023. PERA should continue to monitor this deficit as it could impact future liquidity needs.

Data

This valuation was based upon information as of June 30, 2023, furnished by PERA staff, concerning system benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal 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 PERA staff. The tables in Section G show key census statistics for the various groups included in the valuation.



SECTION C

TABLES

Table 1
Development of Employer Cost

	<u>June 30, 2023</u>	<u>June 30, 2022</u>
1. Payroll		
a. Annual Payroll	\$ 21,089,910	\$ 18,747,165
b. Valuation Payroll	22,363,621	21,443,202
2. Actuarial Accrued Liability for Active Members		
a. Present value of future benefits for active members	\$ 82,541,833	\$ 78,547,482
b. Less: present value of future normal costs	<u>(29,519,319)</u>	<u>(28,407,761)</u>
c. Actuarial accrued liability	\$ 53,022,514	\$ 50,139,721
3. Total Actuarial Accrued Liability for:		
a. Retirees and beneficiaries	\$ 131,848,761	\$ 128,450,823
b. Inactive members	7,464,988	8,585,499
c. Active members (Item 2c)	<u>53,022,514</u>	<u>50,139,721</u>
d. Total	\$ 192,336,263	\$ 187,176,043
4. Actuarial Value of Assets	\$ 116,320,787	\$ 114,524,130
5. Unfunded Actuarial Accrued Liability (UAAL) (Item 3d - Item 4)	\$ 76,015,476	\$ 72,651,913
6. Actuarially Determined Contribution (ADC)		
a. Gross normal cost rate	21.44%	21.65%
b. Administrative expenses	0.50%	0.50%
c. 25-Year Amortization of UAAL	<u>21.93%</u>	<u>21.86%</u>
d. Total ADC Rate (Items 6a + 6b + 6c)	43.87%	44.01%
e. Total ADC Amount (Item 1b * 6d)	\$ 9,810,921	\$ 9,437,153
7. Statutory and Appropriated Contributions		
a. Employer Contribution Rate	15.00%	15.00%
b. Member Contribution Rate	10.50%	10.50%
c. Anticipated Annual Docket Fees	\$ 2,500,000	\$ 2,500,000
d. Additional Annual Appropriation	\$ 1,200,000	\$ 1,200,000
e. Total Anticipated Contribution Amount	\$ 9,402,723	\$ 9,168,017
8. ADC Comparison to Anticipated Contributions		
a. (Excess)/Deficiency of Anticipated Contributions	\$ 408,198	\$ 269,136
b. (Excess)/Deficiency in Contribution Rate	1.83%	1.26%
9. Amortization Period	N/A	107 years

Table 2
Actuarial Present Value of Future Benefits

	<u>June 30, 2023</u>	<u>June 30, 2022</u>
1. Active Members		
a. Service Retirement	\$ 71,912,872	\$ 68,789,122
b. Disability Benefits	0	0
c. Death Before Retirement	3,041,346	2,788,135
d. Termination	<u>7,587,615</u>	<u>6,970,225</u>
e. Total	\$ 82,541,833	\$ 78,547,482
2. Inactive Members		
a. Vested Terminations	\$ 7,278,489	\$ 8,568,277
b. Non-Vested Terminations	<u>186,499</u>	<u>17,222</u>
c. Total	\$ 7,464,988	\$ 8,585,499
3. Annuitants		
a. Service Retirements	\$ 113,130,852	\$ 109,854,379
b. Beneficiaries	18,395,174	17,769,246
d. Disability Retirements	<u>322,735</u>	<u>827,198</u>
e. Total	\$ 131,848,761	\$ 128,450,823
4. Total Actuarial Present Value of Future Benefits	\$ 221,855,582	\$ 215,583,804

Table 3

Analysis of Normal Cost

	<u>June 30, 2023</u>	<u>June 30, 2022</u>
1. Gross Normal Cost Rate		
a. Service Retirement	16.78%	16.98%
b. Disability Benefits	0.00%	0.00%
c. Death Before Retirement	1.01%	1.01%
d. Termination	3.65%	3.66%
e. Total	<u>21.44%</u>	<u>21.65%</u>
2. Administrative Expenses	0.50%	0.50%
3. Total Normal Cost	21.94%	22.15%
4. Less: Member Rate	10.50%	10.50%
5. Employer Normal Cost Rate	11.44%	11.65%

Table 4
Historical Summary of Active Member Data

Valuation as of June 30,	Active Members		Covered Payroll		Average Salary		Average Age	Average Service
	Number	Percent Increase	\$ Amount	Percent Increase	\$ Amount	Percent Increase		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2014	121	-1.6%	13,163,305	-0.5%	108,788	1.2%	56.6	10.7
2015	127	5.0%	15,084,263	14.6%	118,774	9.2%	56.0	10.4
2016	127	0.0%	15,078,274	0.0%	118,727	0.0%	56.6	10.5
2017	124	-2.4%	14,721,304	-2.4%	118,720	0.0%	56.4	10.9
2018	125	0.8%	15,817,424	7.4%	126,539	6.6%	56.1	11.1
2019	124	-0.8%	15,621,802	-1.2%	125,982	-0.4%	54.7	9.8
2020	123	-0.8%	16,490,136	5.6%	134,066	6.4%	55.0	10.1
2021	128	4.1%	17,165,992	4.1%	134,109	0.0%	54.7	9.1
2022	131	2.3%	18,747,165	9.2%	143,108	6.7%	54.9	7.8
2023	129	-1.5%	21,089,910	12.5%	163,488	14.2%	54.9	8.1

Table 5

Reconciliation of Plan Net Assets

	Year Ending	
	June 30, 2023 (1)	June 30, 2022 (2)
1. Market value of assets at beginning of year	\$ 111,599,592	\$ 101,226,570
2. Revenue for the year		
a. Contributions for the year		
i. Member Contributions	\$ 2,286,017	\$ 1,955,817
ii. Employer Contributions	3,265,742	2,794,036
iii. Docket Fees	1,886,703	1,624,996
iv. State Appropriations	1,200,000	21,200,000
v. Service Purchases	0	0
vi. Total	\$ 8,638,462	\$ 27,574,849
b. Net investment income	\$ 5,808,887	\$ (4,033,191)
c. Total revenue	\$ 14,447,349	\$ 23,541,658
3. Disbursements for the year		
a. Benefit payments	\$ 13,296,526	\$ 13,080,465
b. Refunds of member contributions	0	0
c. Administrative expenses	89,429	88,171
d. Total expenditures	\$ 13,385,955	\$ 13,168,636
4. Increase in net assets (Item 2c - Item 3d)	\$ 1,061,394	\$ 10,373,022
5. Market value of assets at end of year (Item 1 + Item 4)	\$ 112,660,986	\$ 111,599,592
6. Estimated Rate of Return on Market Value of Assets	5.3%	-3.7%

Table 6

Development of Actuarial Value of Assets

	Year Ending June 30, 2023	
1. Actuarial value of assets at beginning of year	\$	114,524,130
2. Net new investments		
a. Contributions for the year (Table 5: Item 2a.vi)	\$	8,638,462
b. Disbursements for the year (Table 5: Item 3d)		(13,385,955)
c. Subtotal	\$	(4,747,493)
3. Assumed investment return rate for fiscal year		7.25%
4. Expected return on Actuarial value	\$	8,130,903
5. Actual net earnings on Market value (Table 5: Item 2b)	\$	5,808,887
6. Expected Actuarial value of assets (Item 1 + Item 2c + Item 4)	\$	117,907,540
7. Excess return (Item 5 - Item 4)	\$	(2,322,016)
8. Development of amounts to be recognized as of June 30, 2023:		
	Original Deferrals of	
Fiscal Year	Excess (Shortfall) of	Portion
End	Investment Income	Recognized
	(1)	(2)
		(3) = (1) * (2)
2020	\$ (7,724,043)	25%
2021	15,071,271	25%
2022	(11,372,222)	25%
2023	(2,322,016)	25%
Total		\$ (1,586,753)
9. Actuarial value of assets as of June 30, 2023 (Item 6 + Item 8, Column 3)	\$	116,320,787
10. Market value of assets as of June 30, 2023 (Table 5: Item 5)	\$	112,660,986
11. Ratio of actuarial value to market value		103.2%

Table 7
History of Investment Return Rates

Year Ending June 30 of	Market	Actuarial
(1)	(2)	(3)
2011	22.1%	0.7%
2012	-0.6%	0.5%
2013	12.6%	10.6%
2014	16.5%	12.4%
2015	1.7%	7.6%
2016	0.3%	7.3%
2017	10.9%	6.4%
2018	6.9%	4.7%
2019	6.2%	5.8%
2020	-1.4%	5.4%
2021	26.1%	8.9%
2022	-3.7%	6.0%
2023	5.3%	5.8%
Average Returns		
Last Five Years:	6.0%	6.4%
Last Ten Years:	6.6%	7.0%

Table 8
History of Cash Flow

Year Ending June 30,	Distributions and Expenditures				External Cash Flow for the Year	Market Value of Assets	External Cash Flow as Percent of Market Value
	Contributions	Benefit Payments and Refunds	Administrative Expenses	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2014	\$ 4,826.4	\$ (8,822.7)	\$ (63.6)	\$ (8,886.3)	\$ (4,059.9)	\$ 91,141	-4.5%
2015	5,775.5	(9,413.3)	(60.0)	(9,473.3)	(3,697.8)	88,988	-4.2%
2016	5,819.1	(9,858.3)	(64.3)	(9,922.6)	(4,103.5)	84,932	-4.8%
2017	6,159.8	(10,106.8)	(69.1)	(10,175.9)	(4,016.1)	89,616	-4.5%
2018	6,355.1	(10,585.1)	(75.1)	(10,660.2)	(4,305.1)	91,331	-4.7%
2019	6,422.3	(11,452.2)	(79.4)	(11,531.6)	(5,109.3)	91,759	-5.6%
2020	6,466.4	(12,020.9)	(81.9)	(12,102.8)	(5,636.4)	84,871	-6.6%
2021	7,464.6	(12,539.3)	(71.0)	(12,610.3)	(5,145.7)	101,227	-5.1%
2022	7,574.8	(13,080.4)	(88.2)	(13,168.6)	(5,593.8)	111,600	-5.0%
2023	8,638.5	(13,296.6)	(89.4)	(13,386.0)	(4,747.5)	112,661	-4.2%

Amounts in thousands

Contributions for FY2022 exclude a one-time appropriation of \$20 million.

Table 9
Total Experience Gain or Loss

Item (1)	Year Ending	
	June 30, 2023 (2)	June 30, 2022 (3)
A. Calculation of total actuarial gain or loss		
1. Unfunded actuarial accrued liability (UAAL), previous year	\$ 72,651,913	\$ 82,510,576
2. Normal cost (incl. admin) for the previous year	\$ 4,731,882	\$ 3,733,987
3. Less: expected contributions for the year	\$ (9,168,017)	\$ (8,334,272)
4. Interest at 7.25%		
a. On UAAL	\$ 5,267,264	\$ 5,982,017
b. On normal cost	171,531	135,357
c. On contributions	(332,341)	(302,117)
d. Total	\$ 5,106,454	\$ 5,815,257
5. Expected UAAL (Sum of Items 1 - 4)	\$ 73,322,232	\$ 83,725,548
6. Actual UAAL	\$ 76,015,476	\$ 72,651,913
7. Total gain (loss) for the year (Item 5 - Item 6)	\$ (2,693,244)	\$ 11,073,635
B. Source of gains and (losses)		
8. Contribution (Shortfall)/Surplus with interest	\$ (548,751)	\$ 19,938,048
9. Asset gain (loss) for the year	(1,586,753)	(1,246,028)
10. Liability experience gain (loss) for the year	(557,740)	(7,618,385)
11. Assumption change	0	0
12. Benefit change	0	0
13. Total	\$ (2,693,244)	\$ 11,073,635

Table 10
Solvency Test

Year Ending June 30, (1)	Actuarial Liability For				Total Actuarial Liability (AAL) (5)	Actuarial Value of Assets (6)	Cumulative portion of AAL covered		
	Total Active Member Contributions (2)	Retirees, Beneficiaries and Inactive Members (3)	Active Members (Employer Financed) (4)				Total Active Member Contributions (7)	Retirees, Beneficiaries and Inactive Members (8)	Active Members (Employer Financed) (9)
2014	\$ 10,878,347	\$ 93,176,816	\$ 29,291,252		\$ 133,346,415	\$ 85,577,431	100%	80%	0%
2015	11,063,301	97,761,695	32,456,159		141,281,155	88,249,418	100%	79%	0%
2016	11,641,376	103,610,547	31,682,987		146,934,910	90,471,110	100%	76%	0%
2017	12,589,634	106,164,363	30,658,789		149,412,786	92,137,316	100%	75%	0%
2018	12,916,868	116,119,124	34,347,300		163,383,292	92,022,272	100%	68%	0%
2019	11,618,040	125,839,968	29,740,527		167,198,535	92,081,178	100%	64%	0%
2020	12,600,961	129,838,667	28,316,019		170,755,647	91,269,164	100%	61%	0%
2021	12,643,172	138,728,163	25,164,155		176,535,490	94,024,914	100%	59%	0%
2022	14,016,425	137,036,322	36,123,296		187,176,043	114,524,130	100%	73%	0%
2023	15,106,629	139,313,749	37,915,885		192,336,263	116,320,787	100%	73%	0%

SECTION D

RISKS ASSOCIATED WITH MEASURING THE ACCRUED LIABILITY AND ACTUARIALLY DETERMINED CONTRIBUTION

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

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 due to changing conditions; 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.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability mismatch** – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. **Salary and Payroll risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. **Longevity risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
6. **Other demographic risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The ADC developed on Table 1 may be considered as a minimum contribution that complies with the Board's funding policy and State statute. The timely receipt of the ADC is critical to support the financial health of the System. Users of this report should be aware that contributions made consistent with the ADC do not necessarily guarantee benefit security.

Plan Maturity Measures

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Ratio of the market value of assets to total payroll	5.3	6.0	5.9	5.1	5.9	5.8	6.1	5.6	5.9	6.9
Ratio of actuarial accrued liability to payroll	9.1	10.0	10.3	10.4	10.7	10.3	10.1	9.7	9.4	10.1
Ratio of actives to retirees and beneficiaries	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9
Ratio of net cash flow to market value of assets	-4.2%	-5.0%	-5.1%	-6.6%	-5.6%	-4.7%	-4.5%	-4.8%	-4.2%	-4.5%
Duration of the actuarial accrued liability*	8.3	8.5	8.3							

*Duration measure not available before 2021

Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

Ratio of Actives to Retirees and Beneficiaries

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.



Duration of Actuarial Accrued Liability

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, duration of 10 indicates that the actuarial accrued liability would increase approximately 10% if the assumed rate of return were lowered 1%.

Risks Associated with the Level of Docket Fees

As mentioned earlier, the docket fees contributed to the Judicial Fund have been significantly impacted by the pandemic over the past few years. As a result, we have based our long-term projected contributions on the docket fees contributed to the Judicial Fund for FY2020 of approximately \$2.5 million. Even based on the higher FY2020 docket fee amount, the Fund is not expected to reach full funding. This means that additional contributions will be needed to improve the funding levels in the future. To the extent that docket fees do not increase to at least the FY2020 levels in a relatively short period of time, even more contributions will be needed for improvement over time.

Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

Risks Measures – Low Default Risk Obligation Measure

Introduction

In December 2021, the Actuarial Standards Board (ASB) adopted a revision to Actuarial Standard of Practice (ASOP) No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions. The revised ASOP No. 4 requires the calculation and disclosure of a liability referred to by the ASOP as the “Low-Default-Risk Obligation Measure” (LDROM). The rationale that the ASB cited for the calculation and disclosure of the LDROM was included in the Transmittal Memorandum of ASOP No. 4 and is presented below (emphasis added):

“The ASB believes that the calculation and disclosure of this measure provides **appropriate, useful information for the intended user regarding the funded status of a pension plan**. The calculation and disclosure of this additional measure is **not intended to suggest that this is the “right” liability measure** for a pension plan. However, the ASB does believe that **this additional disclosure provides a more complete assessment of a plan’s funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date.**”

Comparing the Accrued Liabilities and the LDROM

One of the fundamental financial objectives of the New Mexico Judicial Retirement Fund (Judicial Fund) is to finance each member’s retirement benefits over the period from the member’s date of hire until the member’s projected date of retirement (entry age actuarial cost method) as a level percentage of payroll. To fulfill this objective, the discount rate that is used to value the accrued liabilities of the Judicial Fund is set equal to the expected return on the Fund’s diversified portfolio of assets (referred to sometimes as the investment return assumption). For the Judicial Fund, the investment return assumption is 7.25%.

The LDROM is meant to approximately represent the lump sum cost to a plan to purchase low-default-risk fixed income securities whose resulting cash flows essentially replicate in timing and amount the benefits earned (or the costs accrued) as of the measurement date. The LDROM is very dependent upon market interest rates at the time of the LDROM measurement. The lower the market interest rates, the higher the LDROM, and vice versa. The LDROM results presented in this report are based on the entry age actuarial cost method and discount rates based upon the intermediate rate from the FTSE Pension Discount Curve and Liability Index published by the Society of Actuaries. This rate is 4.90% as of June 30, 2023. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan’s benefit obligation.

The difference between the two measures (Valuation and LDROM) is one illustration of the savings the sponsor anticipates by taking on risk in a diversified portfolio.

Valuation Accrued Liabilities	LDROM
\$192,336,263	\$241,695,481

SECTION E

SUMMARY OF PLAN PROVISIONS

Summary of Plan Provisions for

Membership

Includes Metropolitan judges and all judges of district courts and justices of the Supreme Court and Court of Appeals. Judges in office on or before July 1, 1980 had the opportunity to choose coverage under the post July 1, 1980 plan upon filing of an irrevocable election prior to December 1, 1980.

Voluntary Retirement

A judge may voluntarily retire:

- 1) At age 65 with 5 or more years of service.
- 2) At age 60 with 15 or more years of service.

For members hired after July 1, 2005:

- 1) At age 65 with 5 or more years of service.
- 2) At age 55 with 16 or more years of service.

For members hired after June 30, 2014:

- 1) At age 65 with 8 or more years of service.
- 2) At age 60 with 15 or more years of service.

Retirement Pension

Pre 7-1-80 plan: 37.5% of one-year final average salary plus 7.5% of one-year final average salary for each year of service in excess of 5 years. Maximum is 75% of one-year final average salary (10 or more years of service). For service credit earned on or after July 1, 2014, 3.5% of five-year final average salary with a maximum of 85% of five-year final average salary.

Post 7-1-80 plan: 75% of one-year final average salary x 5% x (years of service prior to 7/1/2014 (not exceeding 15) plus 5). Maximum is 75% of one-year final average salary (15 or more years of service). For service credit earned on or after July 1, 2014, 3.5% of five-year final average salary with a maximum of 85% of five-year final average salary.

Post 7-1-05 plan: 3.75% of one-year final average salary for each year of service. Maximum is 75% of one-year final average salary (20 or more years of service). For service credit earned on or after July 1, 2014, 3.5% of five-year final average salary with a maximum of 85% of five-year final average salary.

Post 7-1-14 plan: 3.25% of five-year final average salary for each year of service. Maximum is 85% of five-year final average salary.

Total benefit is limited to 85% of five-year final average salary.

Early Retirement Pension

Applicable to judges between the ages of 50 and 60 with 18 or more years of service. The pension is equal to 70% of FAS plus ½% of FAS multiplied by the number of complete years the age at retirement exceeds age 50. Members hired after July 1, 2005 are not eligible for early retirement.

Final Average Salary

For service credit earned before June 30, 2014, the salary received during the last one year in office prior to retirement. For service credit earned on or after July 1, 2014, the average salary received for the highest five-year consecutive period.

Deferred Retirement Pension

If judicial service terminates after 5 years of such service, the judge and spouse retain entitlement to benefits of the Fund. Five-year service requirement is waived if the result of a duty-related disability.

Pre 7-1-80 plan: 37.5% of one-year final average salary plus 7.5% of one-year final average salary for each year of service in excess of 5 years. Maximum is 75% of one-year final average salary (10 or more years of service). For service credit earned on or after July 1, 2014, 3.5% of five-year final average salary with a maximum of 85% of five-year final average salary.

Post 7-1-80 plan: 75% of one-year final average salary x 5% x (years of service prior to 7/1/2014 (not exceeding 15) plus 5). Maximum is 75% of one-year final average salary (15 or more years of service). For service credit earned on or after July 1, 2014, 3.5% of five-year final average salary with a maximum of 85% of five-year final average salary.

Post 7-1-05 plan: 3.75% of one-year final average salary for each year of service. Maximum is 75% of one-year final average salary (20 or more years of service). For service credit earned on or after July 1, 2014, 3.5% of five-year final average salary with a maximum of 85% of five-year final average salary.

Post 7-1-14 plan: 3.25% of five-year final average salary for each year of service. Maximum is 85% of five-year final average salary.

Total benefit is limited to 85% of five-year final average salary.

Payment of the judge's pension commences upon reaching the age and service requirement for voluntary retirement.

Survivor's Pension – Retired Judges

The surviving spouse of a retired judge hired prior to July 1, 2014 receives a pension of 75% of the judge's retirement pension until death. Pension is payable to deceased judge's minor and dependent children if there is no eligible surviving spouse. For a judge hired on or after July 1, 2014, any benefit the surviving spouse receives depends on the payment form elected by the judge at retirement.

Survivor's Pension – Active Judges

Applicable if judge had 5 (8 if hired after June 30, 2014) or more years of service. The surviving spouse of a judge hired prior to July 1, 2014 would receive 75% of the judge's vested pension until death. The surviving spouse of a judge hired after June 30, 2014 would receive the greater of 30% of final average salary or the accrued normal retirement pension under the 100% joint and survivor payment form. Pension is payable to deceased judge's minor and dependent children if there is no eligible surviving spouse.

Disability

Applicable if judge has 5 (8 if hired after June 30, 2014) or more years of service and becomes incapacitated to perform duties of office. The amount of the disability pension is equal to the judge's accrued vested benefit.

Cost of Living Increases

Effective July 1, 2014, there will be no COLA increases for 2014 and 2015. Starting July 1, 2016, annual 2% COLA increases will be subject to PERA's certification based on the Fund's current year and projected next year funded ratio being equal to or greater than 100%. At a minimum, a 2% COLA increase will be granted every third year. COLA increases are subject to the following eligibility periods:

- If member retires prior to July 1, 2014, COLA is payable after retirement has been in effect for at least 2 full calendar years.
- If member retires on or after July 1, 2014 but prior to July 1, 2015, COLA is payable after retirement has been in effect for at least 3 full calendar years.
- If member retires on or after July 1, 2015 but prior to July 1, 2016, COLA is payable after retirement has been in effect for at least 4 full calendar years.
- If member retires on or after July 1, 2016, COLA is payable after retirement has been in effect for at least 7 full calendar years.

If retired on account of disability or if at least age 65, the above waiting period is reduced to 1 full calendar year.

Judge's Contributions

Members contribute 10.5% of salary.

Refund of Judge's Contributions

If a judge leaves service or dies and no pension becomes payable, the accumulated contributions are refunded or paid to the designated beneficiary.

Public Payments

Payroll based contributions: 15.0% of salary. Dollar Contributions: \$38.00 from each civil case docket fee paid in the district court (increased from \$27.25 effective June 19, 1987) plus \$25.00 from each civil case docket fee and \$10.00 from each civil action jury fee paid in the metropolitan courts. The State contributes \$100,000 every month until the Judicial Fund is 100% funded.

Other Service

PERA, MRA and ERA service may be combined with Judicial service for purposes of satisfying age and service requirements once a member has attained one month of Judicial service. When combining service, members may retire under the JRA after satisfying either the JRA or PERA age and service requirements for immediate benefits.

SECTION F

ACTUARIAL ASSUMPTIONS AND METHODS

Summary of Actuarial Assumptions and Methods

The assumptions and methods applied in this actuarial valuation were adopted by the Board of Trustees based on the experience investigation that covered the four-year period from July 1, 2015 through June 30, 2019.

I. Valuation Date

The valuation date is June 30 of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. Actuarial Cost Method

The actuarial valuation is used to determine the adequacy of the State contribution rate and employer contribution rate (both established by statute) and to describe the current financial condition of the New Mexico Judicial Retirement Fund.

The actuarial valuation uses the Entry Age Normal actuarial cost method. Under this method, the first step is to determine the contribution rate (level as a percentage of pay) required to provide the benefits to each member, or the normal cost rate. The normal cost rate consists of two pieces: (i) the member's contribution rate, and (ii) the remaining portion of the normal cost rate which is the employer's normal cost rate. The total normal cost rate is based on the benefits payable to each individual active member.

The Unfunded Actuarial Accrued Liability (UAAL) is the liability for future benefits which is in excess of (i) the actuarial value of assets, and (ii) the present value of future normal costs. The employer contribution provided in excess of the employer normal cost is applied to amortize the UAAL.

The funding period is calculated as the number of years required to fully amortize the UAAL, assuming that: (a) future market earnings, net of investment-related expenses, will equal 7.25% per year, (b) there will be no liability gains/losses or changes in assumptions, (c) the other active members who leave employment will be replaced by new entrants each year, (d) the total normal cost rate is based on the benefits payable to each individual active member, and (e) employer contributions will remain at current statutory levels.

The Entry Age actuarial cost method is an "immediate gain" method (i.e., experience gains and losses are separately identified as part of the UAAL). However, they are amortized over the same period applied to all other components of the UAAL.

III. Actuarial Value of Assets

The actuarial value of assets is derived as follows: prior year actuarial value of assets is increased by contributions and expected income and reduced by refunds, benefit payments and expenses. To this amount, 25% of the difference between the expected investment income of the actuarial value and actual investment income on the market value for each of the previous four years is added. The returns are computed net of investment-related expenses.

IV. Actuarial Assumptions

Investment Return: 7.25% per year, net of investment-related expenses (composed of an assumed 2.50% inflation rate and a 4.75% real rate of return)

Administrative Expenses: 0.50% of valuation payroll per year

Salary Increases: Annual salaries of active members are assumed to increase at an annual rate of 3.25%.

Payroll Growth: 3.00% per year

Decrement Timing: All decrements – mortality, service retirement, disability retirement, and termination of employment for reasons other than death or retirement – are assumed to occur at the middle of the valuation year.

Mortality Decrements:

RPH-2014 Blue Collar mortality table with female ages set forward one year. Future improvement in mortality rates is assumed using 60% of the MP-2017 projection scale generationally.

Sample Mortality Rates (Base Rates)								
Pre-Commencement			Post-Commencement			Post-Commencement		
Age	Male	Female	Age	Male	Female	Age	Male	Female
25	0.000733	0.000244	35	0.001793	0.001169	80	0.053460	0.042932
30	0.000717	0.000317	40	0.002156	0.001611	85	0.088524	0.072752
35	0.000797	0.000417	45	0.003275	0.002671	90	0.146859	0.125111
40	0.000958	0.000598	50	0.005604	0.004235	95	0.223428	0.197901
45	0.001455	0.001013	55	0.007342	0.005165	100	0.313988	0.291040
50	0.002490	0.001685	60	0.009893	0.006890	105	Disabled retirees use the same assumption as healthy lives.	
55	0.004071	0.002510	65	0.014089	0.010092	110		
60	0.006743	0.003606	70	0.021101	0.016038	115		
65	0.011612	0.005456	75	0.032952	0.026199	120		

Rates of Retirement

These rates are used to measure the probability of an eligible judge retiring at the indicated ages.

Sample Ages	Percent Retiring During Year Following Attainment of Indicated Ages
50-54	15 %
55-61	20
62	25
63-74	20
75+	100

A judge was assumed to be eligible for retirement after satisfying the following conditions:

	Pre 7/2005 Hire Date	Post 7/2005 Hire Date	Post 7/2014 Hire Date
Early Retirement Eligibility	Age 50 with 18 years of service	N/A	N/A
Normal Retirement Eligibility	Age 60 with 15 years of service; or age 65 with 5 years of service	Age 55 with 16 years of service; or age 65 with 5 years of service	Age 60 with 15 years of service; or age 65 with 8 years of service

Rates of Disability

There are assumed to be no future disabled retirees.

Rates of Separation from Active Membership

The rates are used to measure probabilities of active members terminating that status for a reason other than disability or death. The rates do not apply to judges who are eligible for retirement.

Sample Ages	Percent of Active Judges Separating Within the Next Year
20-34	1.00 %
37	2.00
42	2.50
47	3.00
52	3.50
57	4.00
62	4.50
65	4.50

Marriage Assumption: All members are assumed to be married for purposes of death-in-service benefits. At retirement, 86% of members are assumed to be married for purposes of valuing death after retirement benefits.

Beneficiary Characteristics: Males are assumed to be three years older than females.

Census Data and Assets

- The valuation was based on members of the New Mexico Judicial Retirement Fund as of June 30, 2023 and does not take into account future members, with the exception of determining the funding period.
- All census data was supplied by PERA and was subject to reasonable consistency checks.
- There were data elements that were modified for some members as part of the valuation in order to make the data complete. However, the number of missing data items was immaterial.
- Asset data was supplied by PERA.

Other Actuarial Valuation Procedures

- No provision was made in this actuarial valuation for the limitations of Internal Revenue Code Sections 415 or 401(a)17.

Actuarial Model

This report was prepared using ProVal's valuation model, a software product of Winklevoss Technologies. We are relying on the ProVal model. We performed tests of the ProVal model with this assignment and made a reasonable attempt to understand the developer's intended purpose of, general operation of, major sensitivities and dependencies within, and key strengths and limitations of the ProVal model. In our professional judgment, the ProVal valuation model has the capability to provide results that are consistent with the purposes of the valuation.

SECTION G

DETAILED SUMMARIES OF MEMBERSHIP DATA

Table A

Summary of Membership Data

	<u>June 30, 2023</u>	<u>June 30, 2022</u>
<u>Actives</u>		
a. Number	129	131
b. Total annual payroll	\$ 21,089,910	\$ 18,747,165
c. Average salary	\$ 163,488	\$ 143,108
d. Average age	54.9	54.9
e. Average service	8.1	7.8
<u>Vested inactive members</u>		
a. Number	26	27
b. Average Age	57.3	58.5
c. Total annualized deferred monthly benefits	\$ 910,886	\$ 1,012,248
d. Average annualized deferred monthly benefit	\$ 35,034	\$ 37,491
<u>Nonvested inactive members</u>		
a. Number	5	1
b. Refunds due	\$ 186,499	\$ 17,222
c. Average refund due	\$ 37,300	\$ 17,222
<u>Service retirees*</u>		
a. Number	161	154
b. Average Age	73.0	72.5
c. Total annualized monthly benefits	\$ 11,003,542	\$ 10,507,600
d. Average annualized monthly benefit	\$ 68,345	\$ 68,231
<u>Disabled retirees</u>		
a. Number	1	2
b. Average Age	74.9	70.8
c. Total annualized monthly benefits	\$ 33,081	\$ 76,152
d. Average annualized monthly benefit	\$ 33,081	\$ 38,076
<u>Beneficiaries</u>		
a. Number	50	48
b. Average Age	75.8	75.7
c. Total annualized monthly benefits	\$ 2,434,077	\$ 2,356,891
d. Average annualized monthly benefit	\$ 48,682	\$ 49,102

*Includes 12 co-payees

Table B**Active Members – Distribution by Age and Service**

Nearest Age	Years of Credited Service at Retirement							Total
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+	
Under 20								
20 to 24								
25 to 29								
30 to 34	1							1
35 to 39	2							2
40 to 44	17	3						20
45 to 49	11	8	2					21
50 to 54	7	8	4	3				22
55 to 59	5	7	2	3				17
60 & Over	13	5	14	10	3	1		46
Total	56	31	22	16	3	1	0	129

Table C**Number of Annual Retirement Allowances of Benefit Recipients**

Type of Pension	Number	Total Annual Benefits	Average Annual Pension
<u>Normal Retirement Pensions</u>			
Two Life 75% Survivor Pension			
Retired Member Recipient	149	\$ 10,697,328	\$ 71,794
Survivor Recipient	45	2,179,855	48,441
Co-Payee Recipient	12	306,214	25,518
Total Normal Retirement Pensions	206	\$ 13,183,396	\$ 63,997
<u>Disability Retirement Pensions</u>			
Duty Disability	1	\$ 33,081	\$ 33,081
Non-Duty Disability	0	0	0
Survivor Recipient	0	0	0
Co-Payee Recipient	0	0	0
Total Disability Retirement Pensions	1	\$ 33,081	\$ 33,081
<u>Pre-Retirement Survivor Pensions</u>			
Survivor Spouse Recipient	5	\$ 254,222	\$ 50,844
Survivor Child Recipient	0	0	0
Total Pre-Retirement Survivor Pensions	5	\$ 254,222	\$ 50,844
Total Pensions Being Paid	212	\$ 13,470,700	\$ 63,541

Table D

Schedule of Retirants Added to and Removed from Rolls

Number Added	Increase Annual Allowance	Number Removed	Decrease Annual Allowance	Net Change Annual Allowance	Total Retirees & Beneficiaries	Annual Allowance	Increase in Annual Allowance	Average Annual Allowance	% Change in Average Allowance
11	\$ 700,430	3	\$ 170,373	\$ 530,057	212	\$ 13,470,700	4.10%	\$ 63,541	0.17%

Table E

Distribution of Retirees by Years of Service at Retirement

Division	Years of Credited Service at Retirement								Total
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+		
Average Monthly Benefit*	\$ 5,563	\$ 3,934	\$ 5,468	\$ 7,088	\$ 6,005	\$ 8,217	\$ 7,514	\$ 5,980	
Number of Retirees*	19	23	34	43	15	4	10	148	

*Does not include 1 retiree with missing years of service at retirement

Table F

Distribution of Recent Retiree Ages at Retirement

Division	2022-23 Retirees	All Current Retirees
Number	9	149
Average Monthly Benefit at Retirement	\$ 5,354	\$ 5,983
Average Age at Retirement	66.19	62.94

SECTION H

GLOSSARY

Glossary

Actuarial Accrued Liability (AAL): That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of Future Plan Benefits which is not provided for by future Normal Costs. It is equal to the Actuarial Present Value of Future Plan Benefits minus the actuarial present value of future Normal Costs.

Actuarial Assumptions: Assumptions as to future experience under the Fund. These include assumptions about the occurrence of future events affecting costs or liabilities, such as:

- mortality, withdrawal, disablement, and retirement;
- future increases in salary;
- future rates of investment earnings and future investment and administrative expenses;
- characteristics of members not specified in the data, such as marital status;
- characteristics of future members;
- future elections made by members; and
- other relevant items.

Actuarial Cost Method or Funding Method: A procedure for allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability. These items are used to determine the ADC.

Actuarial Gain or Actuarial 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. Through the actuarial assumptions, rates of decrements, rates of salary increases, and rates of fund earnings have been forecasted. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., the Fund's assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results that produce actuarial liabilities which are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.

Actuarially Equivalent: Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.

Actuarial Present Value (APV): The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:

- a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.),
- b. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
- c. discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Actuarial Present Value of Future Plan Benefits: The Actuarial Present Value of those benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members either entitled to a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would be provide sufficient assets to pay all projected benefits and expenses when due.

Actuarial Valuation: The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB.

Actuarial Value of Assets or Valuation Assets: The value of the Fund's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly actuaries use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ADC.

Actuarially Determined: Values which have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.

Amortization Method: A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.

Amortization Payment: That portion of the pension plan contribution or ADC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC): A calculated contribution for a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically, the calculated contribution has a normal cost payment and an amortization payment.

Closed Amortization Period: A specific number of years that is counted down by one each year and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Funding Period and Open Amortization Period.

Decrements: Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or termination.

Defined Benefit Plan: An employer-sponsored retirement benefit that provides workers, upon attainment of designated age and service thresholds, with a monthly benefit based on the employee's salary and length of service. The value of a benefit from a defined benefit plan is generally not affected by the return on the assets that are invested to fund the benefit.



Defined Contribution Plan: A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, and the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.

Employer Normal Cost: The portion of the Normal Cost to be paid by the employers. This is equal to the Normal Cost less expected member contributions.

Experience Study: A periodic review and analysis of the actual experience of the Fund which may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.

Funded Ratio: The ratio of the actuarial value of assets (AVA) to the actuarial accrued liability (AAL). Plans sometimes calculate a market funded ratio, using the market value of assets (MVA), rather than the AVA.

Funding Period or Amortization Period: The term "Funding Period" is used in two ways. In the first sense, it is the period used in calculating the Amortization Payment as a component of the ADC. This funding period is chosen by the Board of Trustees. In the second sense, it is a calculated item: the number of years in the future that will theoretically be required to amortize (i.e., pay off or eliminate) the Unfunded Actuarial Accrued Liability, based on the statutory employer contribution rate, and assuming no future actuarial gains or losses.

GASB: The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.

Normal Cost: That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits which are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated. Under the entry age normal cost method, the Normal Cost is intended to be the level cost (when expressed as a percentage of pay) needed to fund the benefits of a member from hire until ultimate termination, death, disability or retirement.

Open Amortization Period: An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.

Unfunded Actuarial Accrued Liability: The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus.

Valuation Date or Actuarial Valuation Date: The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date

