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PERA

Public Employees
Retirement Association
of New Mexico

INVESTED IN TOMORROW.

**Legislative Division of the
Public Employees Retirement Association of New Mexico
Annual Actuarial Valuation
as of June 30, 2021**





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

October 28, 2021

The Retirement Board
Public Employees Retirement Association
Santa Fe, New Mexico

Members of the Board:

We have conducted the annual actuarial valuation of the Legislative Division of the Public Employees Retirement Association (PERA) of New Mexico as of June 30, 2021; the results of the valuation are contained in the following report. The annual valuation is used to determine the contribution requirement that is necessary to fund the annual normal cost and fully amortize the unfunded actuarial accrued liability with annual payments over a 25-year period. The results of this valuation apply to the fiscal year beginning July 1, 2021 and ending June 30, 2022 (FY 2022). Information contained in our report for plan years prior to June 30, 2010 is based upon valuations performed by the association's prior actuary.

In performing the valuation, we relied on data supplied by the Public Employees Retirement Association (PERA) and performed limited tests on the data for consistency and reasonableness. In determining the Fund's liabilities, future events, such as investment returns, deaths, retirements, etc., are anticipated based upon the set of actuarial assumptions as approved by the Board. Senate Bill 72 established a new COLA structure effective July 1, 2020. Under SB 72, future COLAs beginning at July 1, 2023 are provided through a profit-sharing mechanism using PERA's asset performance. Based on Asset Liability Model (ALM) output, we assume future COLA rates equal the 30-year average COLA rates under the median ALM output, currently 1.60% annually.

Future actuarial results may differ significantly from the current results 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; and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

This actuarial valuation was performed to determine the adequacy of statutory contributions to fund the plan. The asset values used to determine unfunded liabilities and funded ratios are not market values but less volatile market related values. A smoothing technique is applied to market values to determine the market related values. The unfunded liability amounts and funded ratios using the market value of assets would be different. The interest rate used for determining liabilities is based on the expected return on assets. Therefore, liability amounts in this report cannot be used to assess a settlement of the obligation.



Measuring pension obligations and actuarially determined contributions requires the use of assumptions regarding future economic and demographic experience. Whenever assumptions are made about future events, there is risk that actual experience will differ from expected. Appendix D of this report provides a discussion of the risk considerations for this division of PERA in compliance with the guidance provided under Actuarial Standard of Practice Number 51, *Assessment and Disclosure of Risk in Measuring Pension Obligations*, (ASOP 51),

Annual actuarial valuations are performed for PERA which re-measure the assets and liabilities and compute a new actuarially determined contribution. PERA also has experience studies performed every four to five years to analyze the discrepancies between actuarial assumptions and actual experience and determine if the actuarial assumptions need to be changed. Annual actuarial valuations and periodic experience studies are practical ways to monitor and reassess risk.

In order to prepare the results in this report, we have utilized appropriate actuarial models that were developed for this purpose. These models use assumptions about future contingent events along with recognized actuarial approaches to develop the needed results.

We note that as we are preparing this report, the world is in the midst of a pandemic. We have considered available information but do not believe that there is yet sufficient data to warrant the modification of any of our assumptions. We will continue to monitor the situation and advise in the future of any adjustments that we believe would be appropriate.

This is to certify that the undersigned are members of the American Academy of Actuaries and have experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the Plan.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'John J. Garrett'.

John J. Garrett, ASA, FCA, MAAA
Principal and Consulting Actuary

A handwritten signature in blue ink, appearing to read 'Bryan Hoge'.

Bryan Hoge, FSA, EA, FCA, MAAA
Consulting Actuary



TABLE OF CONTENTS

<u>Section</u>	<u>Item</u>	<u>Page No.</u>
I	Board Summary	1
II	Membership Data	3
III	Plan Assets	4
IV	Plan Liabilities	7
V	Actuarial Funding Calculation	10
VI	Additional Disclosure Information	11
 <u>Appendices</u>		
A	Additional Membership Data	14
B	Summary of Actuarial Assumptions and Methods	18
C	Summary of Plan Provisions	23
D	Risk Considerations	26

Section I: Board Summary



The table below summarizes the results of the June 30, 2021 actuarial valuation as compared with the prior year.

Table I-1: Comparative Summary of Principal Results

Valuation Date	June 30, 2021	June 30, 2020
Actuarial Accrued Liability (AAL)		
Active Members	\$ 11,279,660	\$ 12,093,273
Deferred Vested Members	617,886	582,597
Retired Members and Survivors	<u>20,868,986</u>	<u>19,470,195</u>
Total	\$ 32,766,532	\$ 32,146,065
Actuarial Value of Assets (AVA)	\$ 46,180,779	\$ 44,466,366
Funded Ratio	140.9%	138.3%
Unfunded Actuarial Accrued Liability (UAAL) (AAL - AVA)	\$ (13,414,247)	\$ (12,320,301)
Calculation of Required Contribution (Fiscal Year Ending)	June 30, 2022	June 30, 2021
Normal Cost		
Retirement	\$ 965,994	\$ 940,033
Pre-Retirement Survivors	<u>44,436</u>	<u>48,545</u>
Total Normal Cost	\$ 1,010,430	\$ 988,578
Less Expected Member Contribution	<u>68,400</u>	<u>70,800</u>
Employer Normal Cost	\$ 942,030	\$ 917,778
Expected Administrative Expenses	40,000	40,000
UAAL Amortization Amount (25 Years)	<u>(1,137,339)</u>	<u>(1,044,588)</u>
Actuarially Determined Contribution (not less than \$0)	\$ -	\$ -



Section I: Board Summary

Summary of Key Findings

The funding policy for the Plan determines the employer contribution required to fund the annual normal cost plus an amount to fully amortize the unfunded actuarial accrued liability (UAAL) over 25 years. This resulting contribution amount is compared to the expected statutory contribution amount to assess the sufficiency of the statutory contribution. The Plan has a significant surplus of assets over liabilities and the actuarially determined contribution for the Plan in the fiscal year ending June 30, 2022 (FY 2022) is \$0. The employer contribution requirement for FY 2021 was also \$0 as determined in the prior valuation.

The normal cost amount increased from \$988,578 to \$1,010,430. Beginning with the June 30, 2020 valuation, the annual expected administrative expenses of \$40,000 are included in the calculation of the actuarially determined contribution. The UAAL decreased from \$(12.3) million to \$(13.4) million and results in a decrease to the annual amortization amount from \$(1,044,588) to \$(1,137,339). The Plan's funded ratio has increased from 138.3% to 140.9%. We note the following key findings:

- The Plan experienced an actuarial gain on plan assets of \$754,271. This represents a 2.3% increase to the funded ratio. Table III-4 provides the calculation of the actuarial investment loss for this year.
- The Plan experienced a net gain of \$503,083 on plan liabilities due to non-investment related experience, which represents a 2.1% increase to the funded ratio.
- The Plan experienced a net loss of \$116,286 on plan liabilities due to the active legislators' assumed per diem rate increasing by more than the assumed rate. This represents a 0.5% decrease to the funded ratio.

Section II of the report provides summarized information on the membership data used in the valuation. Section III covers the Plan's assets and Section IV covers the Plan's liabilities. The results of the valuation are provided in Section V and the accounting information is in Section VI. The appendices provide additional information on: A) the Plan members, B) the actuarial assumptions and methods, and C) the summary of the benefit provisions of the plan. It is important to note that all information contained in this report for periods prior to June 30, 2010 were produced by a prior actuarial consulting firm.



Section II: Membership Data

Data regarding the membership of the Plan for use in the valuation were furnished by PERA. The following table summarizes the membership data as of June 30, 2021 and is compared with that reported for the prior year.

Table II-1: Summary of Membership Data as of June 30, 2021

Group	June 30, 2021	June 30, 2020
Total Active Members	114	118
Inactive Members*	22	25
Retirees		
Service*	160	155
Disabled	0	0
Beneficiaries	<u>44</u>	<u>40</u>
Total Retirees	204	195
Totals	340	338

* As of June 30, 2021, inactive members include 8 non-vested members with contributions on deposit. Service retirees include 4 co-payees.

Table II-2: Deferred Members, Retired Members and Beneficiaries as of June 30, 2021

Group	Number	Total Annual Benefits	Average Annual Benefits	Average Age
Deferred Vested	14	\$ 90,440	\$ 6,460	55.89
Retirees				
Service*	160	1,763,688	11,023	75.65
Disability	0	0	N/A	N/A
Survivors	<u>44</u>	<u>499,814</u>	11,359	80.89
Retiree Totals	204	\$2,263,502	\$ 11,096	76.78
Total	218	\$2,353,942	\$ 10,798	75.44

* Includes 4 co-payees.

Section III: Plan Assets



The following tables provide information on PERA's market value of assets and the development of the actuarial value of assets. The difference between the Fund's total market and actuarial value is allocated to each Division of PERA in relation to the percent of each Division's market value to the market value of the total Fund.

Table III-1: Total PERA Market Value Reconciliation

	June 30, 2021	June 30, 2020
Beginning of Year Market Value	\$ 14,691,984,206	\$ 15,507,545,549
Audit Adjustment	-	-
Revised Beginning of Year Market Value	\$ 14,691,984,206	\$ 15,507,545,549
Revenues:		
a. Member Contributions	\$ 298,572,637	\$ 289,776,597
b. Employer Contributions	379,184,992	367,524,721
c. Appropriations	-	55,900,000
d. Purchases of Service	10,979,261	7,376,041
e. Investment Income		
1. Interest, dividends, etc.	404,664,374	295,948,452
2. Realized/Unrealized gains (losses)	3,478,447,098	(457,794,648)
3. Security lending and other gains (losses)	2,016,817	3,072,416
f. Other Income	1,990,689	1,645,633
g. Settlement Award	-	-
h. Total Revenues	\$ 4,575,855,868	\$ 563,449,212
Expenditures:		
a. Benefit Payments	\$ 1,314,819,963	\$ 1,255,018,086
b. Refunds of member contributions	40,353,832	44,903,265
c. Investment expenses	85,987,601	64,770,855
d. Administrative expenses	12,730,398	14,318,349
e. Total Expenditures	\$ 1,453,891,794	\$ 1,379,010,555
End of Year Market Value	\$ 17,813,948,280	\$ 14,691,984,206



Section III: Plan Assets

The actuarial value of assets represents a "smoothed" value developed with the purpose of dampening the impact of market volatility on the assets used in determining valuation results. The actuarial value is first determined for the total PERA assets and is calculated by spreading the recognition of unexpected investment income over four years. The amount of unexpected investment income in each year is the difference between expected actuarial value investment income and actual market value investment income. Table III-2 provides the calculation of the actuarial value of assets for PERA.

**Table III-2: Development of Actuarial Value of Assets as of June 30, 2021
(Total PERA Fund Balance)**

1. Actuarial Value Beginning of Year		\$	15,782,305,304
2. Market Value End of Year			17,813,948,280
3. Revised Market Value Beginning of Year			14,691,984,206
4. Cash Flow			
a. Contributions & Appropriations		\$	677,757,629
b. Service Purchases			10,979,261
c. Benefit Payments and Refunds			(1,355,173,795)
d. Administrative Expenses			(12,730,398)
e. Other			1,990,689
f. Net		\$	(677,176,614)
5. Investment Income			
a. Market Total (2 - 3 - 4f)		\$	3,799,140,688
b. Assumed Rate			7.25 %
c. Amount for Immediate Recognition			1,119,669,482
d. Amount for Phased-In Recognition			2,679,471,206
6. Phased-In Recognition of Investment Income			
a. Current Year: 0.25 * 5d		\$	669,867,802
b. First Prior Year (2019/2020)	\$(1,328,985,588) x 25%		(332,246,397)
c. Second Prior Year (2018/2019)	\$ (150,214,662) x 25%		(37,553,666)
d. Third Prior Year (2017/2018)	\$ (73,898,297) x 25%		(18,474,574)
e. Total Recognized Investment Gain		\$	281,593,165
7. Audit Adjustment		\$	-
8. Actuarial Value End of Year			\$ 16,506,391,337
(1 + 4f + 5c + 6e + 7)			
9. Difference Between Market & Actuarial Values (2 - 8)		\$	1,307,556,943
10. Rate of Return on Actuarial Value			9.07 %
11. Actuarial Value as a Percentage of Market Value			92.66 %



Section III: Plan Assets

The actuarial valuation adjustment is the difference between the actuarial value of assets, derived in Table III-2, and the total PERA fund balances at market value. The adjustment is allocated to each division of PERA in proportion to the total PERA fund balance at market value. The portion allocated to the Legislative Division was approximately 0.28% of the total PERA fund balance and is calculated in Table III-3.

Table III-3: Allocation of Actuarial Value of PERA Assets as of June 30, 2021

	Legislative Division	PERA Totals
Member Contribution Fund	\$ 772,206	\$ 2,851,406,582
Employer Contribution Fund	36,112,696	4,423,360,474
Retirement Reserve Fund	12,954,096	10,539,181,224
Total Fund Balances	\$ 49,838,998	\$ 17,813,948,280
Actuarial Valuation Adjustment	(3,658,219)	(1,307,556,943)
Total Actuarial Value of Assets	\$ 46,180,779	\$ 16,506,391,337

The actuarial valuation assumes the rate of investment return on the assets of the Plan is 7.25%. This assumption is based upon the reasonable long-term expected return on the assets. In each year, the Plan will experience actuarial gains and losses due to the actual investment return of the assets. Table III-4 provides the calculation of the gain or loss due to the investment experience on the actuarial value of assets for the year ended June 30, 2021.

Table III-4: Actuarial Investment Gain (Loss) for the Year Ended June 30, 2021

1. Beginning of Year Actuarial Value of Assets (AVA)	\$ 44,466,366
2. Employee and Employer Contributions	111,200
3. Benefit Payments	(2,265,611)
4. Administrative Expenses	(35,645)
5. Other	5,574
6. Interest [1 x 7.25% + (2 + 3 + 4 + 5) x 7.25% x 0.5]	3,144,624
7. Expected End of Year AVA	\$ 45,426,508
8. Actual End of Year AVA	46,180,779
9. Actuarial Investment Gain (Loss) (8 - 7)	\$ 754,271



Section IV: Plan Liabilities

The total actuarial present value of benefits is the value of all future benefits expected to be paid to current members of the Plan as of the valuation date. An actuarial cost method allocates each individual's present value of benefits to past and future years of service. The actuarial accrued liability includes the portion of the active member present value of benefits allocated to past service as well as the entire present value of benefits for retirees, beneficiaries and inactive members. The portion of the actuarial present value allocated to the future service of active members is called the present value of future normal costs. Table IV-1 presents the calculation and allocation of the actuarial present value of benefits.

Table IV-1: Allocation of the Actuarial Present Value of Benefits as of June 30, 2021

	Actuarial Accrued Liability	Present Value of Future Normal Cost	Actuarial Present Value of Benefits
Active Members			
Service Retirement	\$ 10,894,710	\$ 4,679,030	\$ 15,573,740
Disability Retirement	-	-	-
Survivor Benefits	384,950	180,574	565,524
Total for Active Members	\$ 11,279,660	\$ 4,859,604	\$ 16,139,264
Inactive Members	\$ 617,886		\$ 617,886
Retirees and Beneficiaries			
Service Retirements	\$ 17,281,778		\$ 17,281,778
Disability Retirements	-		-
Beneficiaries	3,587,208		3,587,208
Total for Retirees and Beneficiaries	\$ 20,868,986		\$ 20,868,986
Total	\$32,766,532	\$4,859,604	\$37,626,136



Section IV: Plan Liabilities

Under the valuation funding method, an unfunded actuarial accrued liability (UAAL) exists to the extent that the actuarial accrued liability exceeds the actuarial value of assets as presented in Section III. The calculation of the UAAL as of the valuation date is shown in Table IV-2.

Table IV-2: Calculation of the Unfunded Actuarial Accrued Liability and Funded Ratio

	June 30, 2021	June 30, 2020
1. Actuarial Accrued Liability	\$ 32,766,532	\$ 32,146,065
2. Actuarial Value of Assets	<u>46,180,779</u>	<u>44,466,366</u>
3. Unfunded Actuarial Accrued Liability (1 - 2)	\$ (13,414,247)	\$(12,320,301)
Funded Ratio (2 / 1)	140.9%	138.3%

Although the terminology used to describe the excess of the Plan’s actuarial accrued liability over the Plan’s actuarial value of assets is call the “unfunded” actuarial accrued liability, the actuarially determined contribution in the valuation includes an amortization payment amount sufficient to fully amortize the UAAL within 25 years.

The funded ratio of the Plan is the ratio of the actuarial value of assets to the actuarial accrued liability as of the valuation date. As of June 30, 2021, the funded ratio of the Plan is 140.9% as compared to a ratio of 138.3% as of June 30, 2020. The ratio is a commonly used measure of the funding progress and can be useful in reviewing the historical trend of a plan’s funding progress. Such a review should also consider the impact to this measure over the historical period due to changes to plan benefits, changes to the actuarial assumptions and methods, and significant impact that investment experience can have on the ratio over short-term periods. We caution that no single “point in time” measure can provide a universal basis for comparing one plan’s funded status to another.



Section IV: Plan Liabilities

The calculation of the Plan's actuarial assets and liabilities requires the use of several assumptions concerning the future experience of the Plan and its members. In each annual valuation, the latest year of actual experience is compared to that expected by the prior valuation. The differences are actuarial gains and losses which decrease or increase the UAAL. Table IV-3 provides the reconciliation of the UAAL.

Table IV-3: Reconciliation of the UAAL

	UAAL	Funded Ratio
1. Beginning of Year	\$ (12,320,301)	138.3 %
2. Normal Cost	988,578	
3. Expected Contributions	(70,800)	
4. Other Income + Expenses	30,071	
5. Interest [1 x 7.25% + (2 + 3 + 4) x 7.25% x 0.5]	(858,862)	
6. Expected End of Year	\$ (12,231,314)	136.9 %
7. Actuarial Experience (Gain) / Loss		
Additional Contributions (with interest)	\$ (41,865)	0.1 %
Investment Experience	(754,271)	2.3 %
Loss due to Per Diem rate increase more than 3%	116,286	(0.5)%
Liability Experience	(503,084)	2.1 %
Assumption Changes	-	0.0 %
Total Actuarial Experience (Gain) / Loss	\$ (1,182,933)	
8. Actual End of Year (6 + 7)	\$ (13,414,247)	140.9 %



Section V: Actuarial Funding Calculation

Section IV of this report presented the Plan’s actuarial accrued liability as the portion of the present value of benefits allocated to past years of service. The portion of the active members’ present value of benefits allocated to future years of service is funded through annual normal cost contributions comprised of both active member and employer contributions. The portion of the total annual normal cost amount in excess of the expected amount of active member contributions is the employer portion of the Plan’s normal cost. The normal cost amount was developed as of the valuation date and presented in Table V-1.

The employer’s minimum contribution necessary to satisfy the funding policy is the dollar amount required to fund the annual normal cost of the Plan and fully amortize the UAAL over 25 years in constant dollar amounts. The calculation of the contribution requirement is provided in Table V-1.

**Table V-1: Calculation of Required Employer Contribution
for Fiscal Year Ending June 30, 2021**

1. Present Value of Future Benefits	\$ 37,626,136
2. Present Value of Future Normal Costs	4,859,604
3. Actuarial Accrued Liability (1 - 2)	\$ 32,766,532
4. Actuarial Value of Assets	46,180,779
5. Unfunded Actuarial Accrued Liability (UAAL) (3 - 4)	\$ (13,414,247)
6. UAAL Amortization Payment (25 years)	(1,137,339)
7. Total Normal Cost	1,010,430
8. Less: Expected Employee Contribution	68,400
9. Employer Normal Cost (7-8)	942,030
10. Expected Administrative Expenses	40,000
11. Actuarially Determined Contribution (6 + 9 + 10, not less than \$0)	\$ -



Section VI: Additional Disclosure Information

The tables provided in this section present information relevant for the annual financial reporting of the Fund. GASB Statement No. 67 required disclosure information will be provided in a separate supplemental report. Additional disclosure information is provided below.

Table VI-1: Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Plan Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)
6/30/2021	\$ 46,180,779	\$32,766,532	\$(13,414,247)	140.9 %
6/30/2020	44,466,366	32,146,065	(12,320,301)	138.3 %
6/30/2019	43,139,113	31,520,834	(11,618,279)	136.9 %
6/30/2018	42,602,900	30,939,745	(11,663,155)	137.7 %
6/30/2017	42,479,371	28,056,686	(14,422,685)	151.4 %
6/30/2016	40,450,852	27,942,951	(12,507,901)	144.8 %
6/30/2015	36,868,121	26,610,331	(10,257,790)	138.5 %
6/30/2014	33,392,919	25,833,342	(7,559,577)	129.3 %
6/30/2013	28,939,243	25,127,311	(3,811,932)	115.2 %
6/30/2012	25,168,813	27,429,263	2,260,450	91.8 %
6/30/2011	23,508,201	26,347,359	2,839,158	89.2 %
6/30/2010	22,125,806	26,675,356	4,549,550	82.9 %
6/30/2009	21,156,210	24,345,140	3,188,930	86.9 %
6/30/2008	19,999,435	21,414,312	1,414,877	93.4 %
6/30/2007	17,142,953	19,591,914	2,448,961	87.5 %

Section VI: Additional Disclosure Information



Table VI-2: Solvency Test

Valuation Date	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Actuarial Value of Assets		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	(1)	(2)	(3)
6/30/2021	\$ 772,206	\$ 21,486,872	\$ 10,507,454	\$ 46,180,779	100.00%	100.00%	100.00%
6/30/2020	823,365	20,052,792	11,269,908	44,466,366	100.00	100.00	100.00
6/30/2019	751,334	21,102,594	9,666,906	43,139,113	100.00	100.00	100.00
6/30/2018	808,527	18,493,679	11,637,539	42,602,900	100.00	100.00	100.00
6/30/2017	753,758	18,105,164	9,197,764	42,479,371	100.00	100.00	100.00

Table VI-3: Schedule of Retirants Added to and Removed from Rolls

Valuation Date	Added to Rolls		Removed from Rolls		Rolls End of Year		% Increase in Annual Allowances	Average Annual Allowances
	Number Added	Annual Allowances	Number Removed	Annual Allowances	Number	Annual Allowances		
6/30/2021	17	\$ 285,334	8	\$ 139,483	204	\$ 2,263,502	6.89 %	\$ 11,096
6/30/2020	6	87,219	5	44,912	195	2,117,651	2.04 %	10,860
6/30/2019	17	255,728	6	48,710	194	2,075,344	11.08 %	10,698
6/30/2018	5	95,699	8	112,239	183	1,868,326	(0.88)%	10,209
6/30/2017	14	218,597	10	83,281	186	1,884,866	7.73 %	10,134



Table VI-4: Summary of Actuarial Methods and Assumptions

Valuation Date	June 30, 2021
Actuarial cost method	Entry Age Normal
Amortization method	Level Dollar, Open
Remaining amortization period	25 years
Asset valuation method	4-year Smoothed Market
Actuarial assumptions:	
Investment rate of return*	7.25%
Administrative Expenses	\$40,000 annually
Projected increase in per diem rate	3.00%
Post-retirement benefit increases	1.60% compounded annually, based upon 30 year average of median COLA output from latest Asset Liability Model.
	(2.50% for certain retirees and disabled participants age 75 or older or with annual benefits less than \$25,000 and at least 25 years of service at retirement)
* Includes inflation at 2.50%	



Appendix A: Additional Membership Data

Table A-1: Schedule of Active Participant Data as of June 30, 2021

Nearest Age	Completed Years of Service							Total
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+	
Under 30	1							1
30 to 34	1	2						3
35 to 39	4	1						5
40 to 44	8	2						10
45 to 49	6	2	3	1				12
50 to 54	3	4	3					10
55 to 59	5	4	2			1		12
60	1			1	1			3
61	2	2						4
62	1			1	2			4
63	3	2						5
64	2		1		1			4
65		2				1		3
66		1						1
67	1	1	1					3
68	1	2		1		1	1	6
69	1	2	2					5
70	1				1			2
71	2	1	2	2		1		8
72	1	1		2				4
73								
74	2			1		1	1	5
75								
76	1							1
77					1			1
78								
79				1				1
80 & Over	1							1
Total	48	29	14	10	6	5	2	114

Average Age: 58.25

Average Service: 8.44



Appendix A: Additional Membership Data

**Table A-2: Number of Annual Retirement Allowances of Benefit Recipients
as of June 30, 2021**

Type of Pension	Number	Total Annual Benefits	Average Annual Pension
Normal Retirement Pensions			
Single Life Pension Terminating Upon Death	99	\$ 1,020,780	\$ 10,311
Two Life 100% Survivor Pension			
Retired Member Recipient	52	642,416	12,354
Survivor Recipient	25	276,249	11,050
Two Life 50% Survivor Pension			
Retired Member Recipient	11	134,556	12,232
Survivor Recipient	6	30,735	5,123
Total Normal Retirement Pensions	193	\$ 2,104,736	\$ 10,905
Pre-Retirement Survivor Pensions			
Spouse Recipient	11	\$ 158,766	\$ 14,433
Total Pre-Retirement Survivor Pensions	11	\$ 158,766	\$ 14,433
Total Pensions Being Paid	204	\$ 2,263,502	\$ 11,096



Appendix A: Additional Membership Data

Table A-3: Distribution of Participants Receiving Benefits as of June 30, 2021

Attained Age	Retired Member		Survivor Beneficiaries		Totals	
	Number	Annual Pensions	Number	Annual Pensions	Number	Annual Pensions
Under 40			1	\$ 5,352	1	\$ 5,352
40 to 44						
45 to 49	2	\$ 22,315			2	22,315
50 to 54	4	43,032	1	6,982	5	50,014
55 to 59	7	97,329	1	7,586	8	104,915
60 to 64	7	72,796			7	72,796
65 to 69	23	277,043	3	59,075	26	336,118
70 to 74	36	405,867	4	59,477	40	465,344
75 to 79	28	343,715	6	61,948	34	405,663
80 to 84	20	183,220	9	106,311	29	289,531
85 to 89	24	234,489	8	44,142	32	278,631
90 to 94	8	67,838	9	141,523	17	209,361
95 to 99			2	7,418	2	7,418
100 & Over	1	16,044			1	16,044
Total	160	\$ 1,763,688	44	\$ 499,814	204	\$ 2,263,502

Table A-4: Distribution of Retirees by Years of Service at Retirement (not including Disabled Members, Beneficiaries, and Co-Payees)

	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*	\$540	\$465	\$848	\$1,117	\$1,387	\$1,166	\$1,707	\$929
Number of Retirees*	9	34	47	24	20	7	10	151

* Does not include 5 retirees with missing years of service at retirement.



Appendix A: Additional Membership Data

**Table A-5: Distribution of Recent Retiree Ages at Retirement
(not including Disabled Members, Beneficiaries, and Co-Payees)**

	2016-17 Retirees	2017-18 Retirees	2018-19 Retirees	2019-20 Retirees	2020-21 Retirees	All Current Retirees
Number	11	3	12	1	11	156
Average Monthly Benefit at Retirement	\$1,117	\$1,435	\$1,648	\$5,293	\$1,449	\$1,039
Average Attained Age at Retirement	67.70	68.33	64.42	56.42	71.18	64.06

Table A-6: Status Reconciliation

	Active Members	Terminated Members*	Pension Recipients			Total
			Service Retired**	Disability Retired	All Beneficiaries	
June 30, 2020	118	25	155	0	40	338
Increase (Decrease) From:						
Service Retirement	(11)		11			
Disability Retirement						
Deaths	(1)		(8)			(9)
Survivors					4	4
Co-Payee			2			2
Other Pension Terminations						
Vested Terminations						
Non-Vested Terminations		(3)				(3)
New Entrants/Rehires	8					8
Data Adjustments						
June 30, 2021	114	22	160	0	44	340

* Includes 14 deferred vested members, 8 terminated members with contributions on deposit at June 30, 2021.

** Includes 4 co-payees.



Appendix B: Summary of Actuarial Assumptions and Methods

Actuarial Cost Methods Used for the Valuation

An actuarial cost method is a procedure for allocating the actuarial present value of benefits and expenses to time periods. The method used for this valuation is known as the entry age normal level dollar cost method and has the following characteristics:

- i) The total present value of projected benefits of each individual is allocated on a level basis over service from entry age to retirement age. The portion of this present value allocated to the valuation year is the normal cost.
- ii) The actuarial liability is the accumulation of past normal costs on the valuation date.

Board Funding Policy: Amortize the unfunded actuarial accrued liability (the difference between the actuarial accrued liability and accrued assets) over an open 30-year period. This is done in accordance with PERA Board funding objectives adopted October 1996. As of June 30, 2021, funding value of assets exceeded accrued liabilities. The excess was amortized over 25 years and applied as a credit to the computed employer normal cost and expected administrative expenses.

The actuarial value of assets used for funding purposes is derived as follows: prior year total actuarial value of assets for each PERA division is increased by contributions and expected investment income and reduced by refunds, benefit payments and expenses. To this amount 25% of the difference between expected and actual investment income for each of the previous four years is added. The actuarial value of assets for each division is allocated in proportion to the total PERA Fund balance at market value.



Appendix B: Summary of Actuarial Assumptions and Methods

Actuarial Assumptions Used for the Valuation

The rate of investment return (effective June 30, 2018): 7.25% per annum net of investment expenses.

Annual Post-retirement Cost of Living Adjustment rate: 1.60% per year beginning 7/1/2023.

Administrative expenses: \$40,000.

The rates of separation from active membership: None.

The rates of active member disability: None.

The rate of increase in the per diem was 3.0% per annum. This assumption was first used in the June 30, 2004 valuation and was based on an observed trend in the per diem rate prior to that valuation. The current assumed per diem rate is \$194.

The rate of retirement from active membership (effective with the June 30, 2020 valuation): 50% of members were assumed to retire immediately upon satisfying age and service requirements, with 100% assumed to retire at age 80.

It was assumed that any service rendered by a legislator prior to the valuation date and not already purchased would not be purchased.



Appendix B: Summary of Actuarial Assumptions and Methods

Mortality Assumption: 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		



Appendix B: Summary of Actuarial Assumptions and Methods

Miscellaneous and Technical Assumptions

Marriage Assumption:	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing:	N/A.
Decrement Timing:	Decrements are assumed to occur at the beginning of the year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Decrement Relativity:	Decrement rates are used directly from the experience study without adjustment for multiple decrement table effects.
Incidence of Contributions:	Contributions are assumed to be received at the beginning of the year.
Normal Form of Benefit:	Straight life.
Credited Service:	Service nearest the whole year is used to determine the amount of benefit payable.



Appendix B: Summary of Actuarial Assumptions and Methods

Definitions of Technical Terms

Actuarial Accrued Liability. The difference between the actuarial present value of future benefit payments and the actuarial present value of future normal costs.

Actuarial Cost Method. A mathematical procedure for allocating the dollar amount of the “actuarial present value of future benefit payments” between future normal cost and actuarial accrued liability.

Actuarial Present Value. The amount of funds currently required 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 payment.

Amortization. Paying off an amount with periodic payments of interest and principal – as opposed to paying off with a lump sum payment.

Experience Gain (Loss). The difference between actual actuarial costs and anticipated actuarial costs – during the period between two valuation dates.

Normal Cost. The actuarial cost allocated to the current year by the actuarial cost method.

Unfunded Actuarial Accrued Liability. The difference between the actuarial accrued liability and the actuarial value of assets. Sometimes referred to as “unfunded accrued liability.”



Appendix C: Summary of Plan Provisions

Voluntary Retirement

Plan 1 and Plan 1 Enhanced:

Age 65 with 5 or more years of credited service; age 64 with 8 or more years of credited service; age 63 with 11 or more years of credited service; age 60 with 12 or more years of credited service; or any age with 14 or more years of credited service.

Plan 2:

Age 65 with 5 or more years of credited service or any age with 10 or more years of credited service.

Superannuation Annuity

Plan 1: \$250 a year times credited service.

Plan 1 Enhanced: \$500 a year times credited service.

Plan 2: 11% of the per diem rate in effect, pursuant to Section 2-1-8 NMSA on the January 1 of the calendar year that the member retires multiplied by 60 and further multiplied by credited service.

Deferred Annuity

A Legislative member who terminates with 5 or more years of credited service may apply for a superannuation annuity upon reaching voluntary retirement date, provided accumulated contributions are not withdrawn. The annuity is based upon Legislative service credit at time of termination.

Survivor Pensions – Death in the Line of Duty

Pensions are paid to the eligible spouse and eligible children if survivor coverage has not been elected under the Elective Survivor Pension Beneficiary provision. The amount of pension payable for life to an eligible spouse is 80% of the accrued normal retirement pension.



Appendix C: Summary of Plan Provisions

Survivor Pensions – Death Not In the Line of Duty

Requires 5 years of credited service. Benefit applies to members and vested former members who have not elected coverage under the Elective Survivor Pension Beneficiary provision. Pensions are paid to an eligible spouse OR eligible children. The amount of pension payable for the life of an eligible spouse is up to 80% of accrued normal retirement pension. An eligible child pension is paid if there is not an eligible spouse or following the death of an eligible spouse. The amount of pension payable to each eligible child is an equal share of 50% of accrued normal retirement pension. An eligible child is an unmarried natural or adopted child who is under age 18. A child's pension terminates upon death, marriage or reaching age 18. The pension of any remaining eligible children is recalculated whenever a child's pension is terminated.

Member's Contributions

Plan 1: \$100 for each year of credited service.
Plan 1 Enhanced: \$200 for each year of credited service
Plan 2: \$600 for each year of credited service.

Elective Survivor Beneficiary Pension

Applicable to members with 5 or more years of credited service and vested former members who have elected option B and designated a survivor pension beneficiary who has an insurable interest. The amount of pension is the amount of accrued normal retirement pension under optional form of payment B (100% continuation to beneficiary).

Disability Retirement

Applicable to members and vested former members with 5 or more years of credited service. The 5 year credited service requirement is waived if the disability is incurred in the line of duty. The amount of disability pension is the accrued normal retirement pension at time of disability retirement. If the disability is in the line of duty, the credited service used is the amount that would have been acquired when first eligible for normal retirement.

State's Contributions

Annual appropriations to finance portions of benefits not financed by members' contributions, determined by actuarial valuation.



Appendix C: Summary of Plan Provisions

Cost-of-Living Increases

Effective July 1, 2020, there will be no COLA increases for fiscal years 2021, 2022, and 2023 (July 1, 2020, July 1, 2021, and July 1, 2022). In lieu of these COLAs, an annual non-compounding additional payment equal to 2% of annual benefit as of June 30, 2020 (inclusive of all past COLAs) will be payable.

Beginning July 1, 2023 and each July 1 thereafter, the COLA increase will be determined as an amount equal to the smoothed investment rate of return on the actuarial value of assets on June 30 of the preceding calendar year, less the COLA “hurdle rate,*” multiplied by the funded ratio on June 30 of the preceding calendar year; or 0.5%, whichever is greater, subject to the following:

- If the funded ratio of the fund is less than 100% on June 30 of the preceding calendar year, the COLA amount shall not exceed 3.0%.
- If the funded ratio of the fund is greater than or equal to 100% on June 30 of the preceding calendar year, the COLA amount shall not exceed 5.0%.
- The minimum COLA amount for any year will be 0.5%.

Pensions are increased by the COLA amount determined above each July 1 subject to the following eligibility periods:

- Retirees who have been retired for at least 2 full calendar years.
- Retirees who attained at least age 65 and have been retired for at least 1 full calendar year.
- Disabled retirees who have been retired for at least 1 full calendar year.
- Survivor beneficiaries who have received a survivor pension for at least 2 full calendar years.
- Survivor beneficiaries of a deceased retiree who otherwise would have been retired for at least 2 full calendar years.

For certain retirees, pensions are increased each July 1 by 2.5% subject to the eligibility periods listed above, provided the conditions below are met:

- Retirees who retired with at least 25 years of service and whose annual pension is \$25,000 or less.
- Disabled retirees whose annual pension is \$25,000 or less.
- Retirees and survivor beneficiaries who attained at least age 75 prior to July 1, 2020.

*The COLA “hurdle rate” is the investment rate of return required to fund a COLA in excess of 0.5% as determined by the fund’s actuaries.



Appendix D: Risk Considerations

Actuarial Standards of Practice are issued by the Actuarial Standards Board and are binding on credentialed actuaries practicing in the United States. These standards generally identify what the actuary should consider, document and disclose when performing an actuarial assignment. In September, 2017, Actuarial Standard of Practice Number 51, *Assessment and Disclosure of Risk in Measuring Pension Obligations*, (ASOP 51) was issued as final with application to measurement dates on or after November 1, 2018. This ASOP, which applies to funding valuations, actuarial projections, and actuarial cost studies of proposed plan changes, was first applicable for the June 30, 2019 actuarial valuation.

A typical retirement plan faces many different risks, but the greatest risk is the inability to make benefit payments when due. The term “risk” is most commonly associated with an outcome with undesirable results. However, in the actuarial world, risk can be translated as uncertainty. The actuarial valuation process uses many actuarial assumptions to project how future contributions and investment returns will meet the cash flow needs for future benefit payments. Of course, we know that actual experience will not unfold exactly as anticipated by the assumptions and that uncertainty, whether favorable or unfavorable, creates risk. ASOP 51 defines risk as the potential of actual future measurements to deviate from expected results due to actual experience that is different than the actuarial assumptions.

There are a number of risks inherent in the funding of a defined benefit plan. These include:

- economic risks, such as investment return and price inflation;
- demographic risks such as mortality, payroll growth, aging population including impact of baby boomers, and retirement ages;
- external risks such as the regulatory and political environment.

The various risk factors for a given plan can have a significant impact – positive or negative – on the actuarial projection of liability and contribution rates. The following discussion includes a few exhibits which summarize some historical information to help indicate how certain key risk metrics have changed over time. Many are due to the maturing of the retirement system.

The investment return on assets is the most obvious risk – and usually the primary risk – to funding a pension plan.



Appendix D: Risk Considerations

HISTORICAL CASH FLOWS

Plans with negative cash flows will experience increased sensitivity to investment return volatility. Cash flows, for this purpose, are measured as contributions less benefit payments. If the System has negative cash flows and then experiences returns below the assumed rate, there are fewer assets to be reinvested to earn the higher returns that typically follow. While any negative cash flow will produce such a result, it is typically a negative cash flow of more than 5% of MVA that may cause significant concerns. This is a metric the investment consultants usually focus on when evaluating the asset allocation. The maturity of the system is the main contributor to the situation.

Actuarial Valuation Date	Market Value of Assets	Contributions	Benefit Payments and Expenses	Net Cash Flow	Net Cash Flow as a Percent of MVA
6/30/2010	\$ 18,067,287	2,041,200	1,238,536	802,664	4.44%
6/30/2011	\$ 23,737,231	2,646,327	1,282,394	1,363,933	5.75%
6/30/2012	\$ 25,088,375	2,891,627	1,320,655	1,570,972	6.26%
6/30/2013	\$ 29,497,852	2,466,600	1,478,775	987,825	3.35%
6/30/2014	\$ 35,646,813	2,466,800	1,617,774	849,026	2.38%
6/30/2015	\$ 37,243,656	2,462,500	1,634,020	828,480	2.22%
6/30/2016	\$ 38,059,885	2,463,400	1,778,396	685,004	1.80%
6/30/2017	\$ 41,449,421	1,057,700	1,897,287	(839,587)	-2.03%
6/30/2018	\$ 42,366,200	49,600	1,930,078	(1,880,478)	-4.44%
6/30/2019	\$ 43,039,409	96,650	2,020,264	(1,923,614)	-4.47%
6/30/2020	\$ 41,394,406	1,171,586	2,187,495	(1,015,909)	-2.45%
6/30/2021	\$ 49,838,998	111,200	2,295,682	(2,184,482)	-4.38%



Appendix D: Risk Considerations

There is a direct correlation between healthy, well-funded retirement plans and consistent contributions equal to the full actuarial contribution rate each year. Historically, the Fund has been funded with fixed contributions by both employees and the employer. The Fund has maintained a significant surplus of assets over liabilities for the last ten years.

Funding a retirement system with fixed contribution rates creates some unique funding challenges. Given the extreme volatility associated with the underlying investments of the portfolio, wide variations in the actual return on the market value of assets is expected. However, when it occurs it can change the long-term funding outlook from positive to negative or vice versa. By the time a trend has been identified, it is possible for the funded status of the System to have seriously declined, requiring more substantive resources to compensate for the investment losses

A key demographic risk for all retirement systems is improvements in mortality (longevity) greater than anticipated. While the actuarial assumptions reflect small, continuous improvements in mortality experience over time and these assumptions are refined every experience study, the risk arises because there is a possibility of some sudden shift, perhaps from a significant medical breakthrough that could quickly increase liabilities. Likewise, there is some possibility of a significant public health crisis that could result in a significant number of additional deaths in a short time period, as experienced with the COVID-19 pandemic. This type of event is also significant, although more easily absorbed. While either of these events could happen, it represents a small probability and thus represents much less risk than the volatility associated with investment returns.