

New Mexico Retiree Health Care Authority (NMRHCA)

Governmental Accounting Standards Board (GASB) 74 Actuarial Valuation for the Other Postemployment Benefits (OPEB) as of June 30, 2017 Revised with Updated Net Position

This report has been prepared at the request of NMRHCA Board to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the NMRHCA Board and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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100 Montgomery Street Suite 500 San Francisco, CA 94104-4308 T 415.263.8200 www.segalco.com

November 20, 2017

Board of Directors New Mexico Retiree Health Care Authority 4308 Carlisle Blvd NE, Suite 104 Albuquerque, NM 87107

Dear Board members:

We are pleased to submit this Governmental Accounting Standards Board (GASB) 74 Actuarial Valuation as of June 30, 2017. It contains various information that will need to be disclosed in order to comply with GASB 74.

This report was prepared in accordance with generally accepted actuarial principles and practices to assist in administering the Plan. The census and financial information on which our calculations were based was prepared by NMRHCA. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. 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; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Thomas Bergman, ASA, MAAA, Enrolled Actuary and Dave Bergerson, FCA, ASA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for NMRHCA.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By:

Gary L. Petersen, FCA, ASA, MAAA Vice President & Consulting Actuary

DTB/bbf

cc: David Archuleta, Executive Director

Dave Bergerson, FCA, ASA, MAAA, EA Vice President & Actuary

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SUPPORTING INFORMATION

Purpose

This report has been prepared by Segal Consulting to present certain disclosure information required by Statement No. 74 of the Governmental Accounting Standards Board as of June 30, 2017. This valuation is based on:

- > The benefit provisions of the Other Postemployment Benefits (OPEB) Plan, as administered by the Board;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2017, provided by NMRHCA;
- > The assets of the Plan as of June 30, 2017, provided by NMRHCA;
- > Economic assumptions regarding future salary increases and investment earnings; and
- > Other (health and non-health) actuarial assumptions, regarding employee terminations, retirement, death, health care trend and enrollment, etc.

General Observations on GASB 74 Actuarial Valuations

The following points should be considered when reviewing this GASB 74 report:

- The Governmental Accounting Standards Board (GASB) rules only define OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for OPEB funding purposes. Employers and plans can still develop and adopt funding policies under current practices.
- > When measuring OPEB liability, GASB uses the Entry Age actuarial cost method and, for benefits that are being fully funded on an actuarial basis, GASB prescribes the derivation of the discount rate used to calculate liabilities.
 - Pursuant to Paragraph 48 of the GASB Statement No. 74 and based on our understanding of subsequent guidance provided in *Implementation Guide No. 2017-2, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, OPEB plans that are not being fully funded on an actuarial basis are required to go through a cross-over test in determining the discount rate that would be used in the valuation.
- The Net OPEB Liability (NOL) is equal to the difference between the Total OPEB Liability (TOL) and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets. The NOL reflects all investment gains and losses as of the measurement date.



Significant Issues in Valuation Year

The following findings were the results of this actuarial valuation.

- > The discount rates used to determine the TOL and NOL as of June 30, 2017 and 2016 were 3.81% and 3.05%. The detailed calculations used in the derivation of the "cross-over date" used in determining the discount rate of 3.81% used in the calculation of the TOL and NOL as of June 30, 2017 can be found in Exhibit 5 of Section 2. Various other information that is required to be disclosed can be found throughout Exhibits 1 through 4 in Section 2.
- The discount rate used in the valuation for financial disclosure purposes as of June 30, 2017 is a blend of the assumed investment return on Plan assets (e.g. 7.25% for the June 30, 2017 valuation) and the rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (e.g. 3.58% as of June 30, 2017). Because NMRHCA is not fully prefunding benefits, Plan assets, when projected in accordance with the method prescribed by GASB 74, are expected to be sufficient to make benefit payment through June 30, 2029. Projected benefit payments are discounted by the Plan investment return assumption of 7.25% until June 30, 2029. Benefit payments after June 30, 2029 are then discounted by the municipal bond rate of 3.58%. The 3.81% is the blended discount rate reflecting benefits discounted by the Plan investment return assumption rate and the bond rate.
- > The NOL has decreased from \$5.469 billion as of June 30, 2016 to \$4.532 billion as of June 30, 2017. The decrease was primarily due to the increase in discount rate from June 30, 2016 to June 30, 2017.

Summary of Key Valuation Results

	2017
Disclosure elements for fiscal year ending June 30:	
1. Service cost ⁽¹⁾	\$265,229,268
2. Total OPEB Liability	5,111,141,659
3. Plan Fiduciary Net Position	<u>579,468,641</u>
4. Net OPEB Liability	\$4,531,673,018
Schedule of contributions for fiscal year ending June 30:	
5. Actuarially determined contributions	\$317,546,941
6. Actual contributions	TBD
7. Contribution deficiency (excess)	TBD
Demographic data for plan year ending June 30:	
8. Number of retired members, beneficiaries, and married dependents	51,208
9. Number of vested terminated members	11,478
10. Number of active members	97,349
Key assumptions as of June 30:	
11. Discount rate	3.81%
12. Medical cost trend rates	
Non-Medicare medical plan	Graded from 8.00% to ultimate 4.50% over 14 years
Medicare medical plans	Graded from 7.50% to ultimate 4.50% over 12 years

⁽¹⁾ The service cost is based on the previous year's valuation, meaning the 2017 value is based on the valuation as of June 30, 2016.

Important Information about Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of an OPEB plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare an actuarial valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- Plan of benefits Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
- Participant data An actuarial valuation for a plan is based on data provided to the actuary by NMRHCA. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- Assets This valuation is based on the market value of assets as of the valuation date, as provided by NMRHCA. The System uses a "valuation value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining contribution requirements.
- Actuarial assumptions In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, termination, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to health care trends and member enrollment in retiree health benefits. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- > The actuarial valuation is prepared at the request of the Board to assist the sponsors of the Fund in preparing items related to the OPEB plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- > If NMRHCA is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the NMRHCA Plan.



General Information – "Financial Statements", Note Disclosures and Required Supplementary Information for a Multiple-Employer Cost Sharing OPEB Plan

Plan Description

Plan administration. The NMRHCA administers the OPEB Plan - a multiple employer cost sharing OPEB plan that is used to provide postemployment benefits other than pensions (OPEB) for retirees who were an employee of participating employer in either the New Mexico Public Employees Retirement Association (PERA) or Educational Retirement Board (ERB), eligible to receive a pension. For employers who "buy-in" to the plan, retirees are eligible for benefits six months after the effective date of employer participation. Retirees not in a PERA enhanced (Fire, Police, Corrections) pension plan who commence benefits on or after January 1, 2020 will not receive any subsidy from NMRHCA before age 55.

Plan membership. All regular full-time employees of the District are members of the Plan, in addition to certain job share and intermittent employees. Eligible employees become members on the first day they are physically on the job. At June 30, 2017, OPEB Plan membership consisted of the following:

Retired members, beneficiaries and married dependents	51,208
Vested terminated members entitled to, but not yet receiving benefits	11,478
Active members	<u>97,349</u>
Total	160,035



Benefits provided

Benefit Types:	Retirees and spouses are eligible for medical and prescription drug benefits. Dental and vision benefits are also available, but were not included in this valuation, since they are 100% retiree-paid. A description of these benefits may be found at www.nmrhca.state.nm.us by clicking on Retirees.
Duration of Coverage:	Employees and dependents are valued for life.
Dependent Benefits:	Same as retirees.
Dependent Coverage:	Same as retirees.
Retiree Contributions:	The retiree contribution is derived on a service based schedule implemented effective $7/1/2001$ and updated annually. The table below shows the anticipated retiree paid portion of claims.

	<u>2018</u>	<u>2019</u>	<u>2020</u>	2021 And Later
Non-Medicare Retiree	33.0%	34.3%	35.5%	36.0%
Non-Medicare Spouse	57.6%	60.5%	63.0%	64.0%
Medicare Retiree	52.7%	50.9%	50.0%	50.0%
Medicare Spouse	79.1%	76.4%	75.0%	75.0%

Retired Before 2020 or in Public Safety Pension Plan

	Percent of full subsidy		Percent of full subsidy
Years of Service	based on service	Years of Service	based on service
5	6.25%	13	56.25%
6	12.50%	14	62.50%
7	18.75%	15	68.75%
8	25.00%	16	75.00%
9	31.25%	17	81.25%
10	37.50%	18	87.50%
11	43.75%	19	93.75%
12	50.00%	20+	100.00%

SECTION 2:	GASB 74 Information for the New Mexico Retiree Health Care Authority
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	Percent of full subsidy		Percent of full subsidy
Years of Service	based on service	Years of Service	based on service
5	4.76%	16	57.14%
6	9.52%	17	61.90%
7	14.29%	18	66.67%
8	19.05%	19	71.43%
9	23.81%	20	76.19%
10	28.57%	21	80.95%
11	33.33%	22	85.71%
12	38.10%	23	90.48%
13	42.86%	24	95.24%
14	47.62%	25+	100.00%
15	52.38%		

Retired After 2019 and Not in Public Safety Pension Plan



EXHIBIT 2	
Net OPEB Liability	
The components of the Net OPEB Liability are as follows:	
	June 30, 2017
Total OPEB Liability	\$5,111,141,659
Plan Fiduciary Net Position	<u>579,468,641</u>
System's Net OPEB Liability	\$4,531,673,018
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	11.34%

The Net OPEB Liability was measured as of June 30, 2017 and 2016. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date:

Discount rate has been calculated as a blend of the investment return on plan assets and municipal bond rate in accordance with GASB 74 and Illustration 2 of Implementation Guide No. 2017-2, Financial Reporting Postemployment Benefit Plans Other Than Pension Plans.

Plan provisions. The plan provisions used in the measurement of the TOL as of June 30, 2017 are outlined in Exhibit II of Section 3.

Actuarial assumptions. The Total OPEB Liability as of June 30, 2017 was determined by an actuarial valuation as of June 30, 2017. The mortality, retirement, disability, turnover and salary increase assumptions are based on the Public Employees Retirement Association (PERA) of New Mexico Annual Actuarial Valuation as of June 30, 2016 and the New Mexico Educational Retirement Board (ERB) Actuarial Experience Study as of June 30, 2016. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation	2.50% for ERB, 2.25% for PERA
Salary increases	Ranges from 3.25% to 12.50% based on years of service, including inflation
Investment rate of return	7.25, net of OPEB plan investment expense and margin for adverse deviation including inflation
Other assumptions	Same as those shown in Exhibit I of this report.
Health care trend	8.0% graded down to 4.5% over 14 years for Non-Medicare medical plan costs and 7.5% graded down to 4.5% over 12 for Medicare medical plan costs



The long-term expected rate of return on OPEB Plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of OPEB Plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, and by adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Investment policy:

Asset Class	Target Allocation	Long-Term Expected Nominal Rate of Return
Large Cap U.S. Equity	20%	9.1%
Mid/Small Cap U.S. Equity	3	9.1
Developed Non-US Equity	12	9.8
Emerging Markets Equity	15	12.2
U.S. Core Fixed Income	20	4.1
Private Equity	10	13.8
Credit & Structured Finance	10	7.3
Absolute Return	5	6.1
Real Estate	5	6.9
Total	100%	

The New Mexico Retiree Health Care Authority's Investment Policy is detailed in the following is the Board's adopted asset allocation policy as of June 30, 2017:

Rate of return. For the year ended June 30, 2017, the annual money-weighted rate of return on investments, net of investment expense and margin for adverse deviation, was assumed to be 7.25 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Municipal Bond Rate: 3.58% and 2.85% based on the 20-year municipal bond rate for the Bond Buyer 20-Bond GO Index as of June 30, 2017 and June 30, 2016 respectively.

Discount rate: The discount rate used to measure the Total OPEB Liability was 3.81% as of June 30, 2017 and 3.05% as of June 30, 2016. The projection of cash flows used to determine the discount rate assumed employer and plan member contributions will be made at the current contribution rate. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the OPEB Plan's assets was projected to be sufficient to make projected future benefit payments for current plan members through June 30, 2029. Payments after that date would be funded by employer assets. Therefore, the long-term expected rate of return on OPEB Plan investments (7.25%) was applied to periods of projected benefit payments through June 30, 2029, and the 20-year municipal bond rate (3.58%) was applied to periods after June 30, 2029 to determine the Total OPEB Liability.



Sensitivity of the Net OPEB Liability to changes in the discount rate. The following presents the Net OPEB Liability of NMRHCA as of June 30, 2017, calculated using the discount rate of 3.81%, as well as what NMRHCA's Net OPEB Liability would be if it were calculated using a discount rate that is 1-percentage-point lower (2.81%) or 1-percentage-point higher (4.81%) than the current rate:

	1% Decrease	Current Discount	1% Increase
	(2.81%)	(3.81%)	(4.81%)
Net OPEB Liability as of June 30, 2017	\$5,496,848,763	\$4,531,673,018	\$3,774,405,896

Sensitivity of the Net OPEB Liability to changes in the trend rate. The following presents the Net OPEB Liability of NMRHCA as of June 30, 2017, calculated using the current trend rates as well as what NMRHCA's Net OPEB Liability would be if it were calculated using a trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

	1% Decrease*	Current Trend*	1% Increase*
Net OPEB Liability as of June 30, 2017	\$3,854,499,980	\$4,531,673,018	\$5,059,700,584

* Current trend rates: 8.0% graded down to 4.5% over 14 years for Non-Medicare medical plan costs and 7.5% graded down to 4.5% over 12 years for Medicare medical plan costs

Schedules of Changes in NMRHCA's Net OPEB Liability – Most Recent Fiscal Year

	2017
Total OPEB Liability	
Service cost	\$265,229,268
Interest	187,563,383
Change of benefit terms	0
Differences between expected and actual experience	-210,435,519
Changes due to experience gain and assumption changes, not including change in discount rate	-247,663,590
Change of discount rate assumption	-711,092,411
Total claims and premiums	-294,107,402
Retirees' contributions offset to claims and premiums	153,464,136
Medicare Part D and rebates offset to claims and premiums	<u>26,944,632</u>
Net change in Total OPEB Liability	-\$830,097,503
Total OPEB Liability – beginning	\$5,941,239,162
Total OPEB Liability – ending (a)	\$5,111,141,659
Plan Fiduciary Net Position	
Contributions – total employer	85,877,446
Contributions – total employee	196,393,352
Net investment income	96,066,163
Benefit payments	-294,393,452
Medicare Part D and rebates offset to benefit payments	26,944,632
Administrative expense	-2,936,860
Other	<u>-956,991</u>
Net change in Plan Fiduciary Net Position	\$106,994,290
Plan Fiduciary Net Position – beginning ⁽¹⁾	\$472,474,351
Plan Fiduciary Net Position – ending (b)	<u>\$579,468,641</u>
Plan's Net OPEB Liability – ending (a) – (b)	\$4,531,673,018
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	11.34%
Covered payroll	\$4,165,647,340
Plan Net OPEB Liability as percentage of covered payroll	108.79%

⁽¹⁾ Net position restricted for postemployment benefits other than pensions reported in NMRHCA 2017 draft financial statements.



Schedule of NMRHCA's Contributions – Last Ten Fiscal Years

Year Ended June 30	Actuarially Determined Contributions ⁽¹⁾⁽²⁾	Contributions in Relation to the Actuarially Determined Contributions ⁽¹⁾	Contribution	Covered Payroll	Contributions as a Percentage of Covered-Employee Payroll
2008	\$275,517,523	\$94,224,026	\$181,293,497	N/A	N/A
2009	286,538,224	96,816,528	189,721,696	\$4,020,508,902	2.41%
2010	297,999,753	114,847,107	183,152,646	N/A	N/A
2011	326,994,988	120,873,224	206,121,764	4,001,802,240	3.02%
2012	340,074,787	142,053,551	198,021,236	N/A	N/A
2013	353,657,828	135,388,449	218,269,379	3,876,220,608	3.49%
2014	367,804,141	149,277,185	218,526,956	N/A	N/A
2015	292,656,765	156,670,251	135,986,514	3,941,587,760	3.97%
2016	303,631,394	159,862,801	143,768,593	N/A	N/A
2017	317,546,941	159,379,195	158,167,747	4,165,647,340	3.83%

See accompanying notes to this exhibit on next page.

⁽¹⁾ Includes an interest adjustment to the end of the year.

⁽²⁾ All "Actuarially Determined Contributions" through June 30, 2017 were determined as the "Annual Required Contribution" under GASB 43.

Notes to Exhibit 4			
Methods and assumptions used to establish "actuarially determined contribution" (ADC) rates:			
Valuation date	Actuarially determined contra	ibution rates are calculated as of June 30.	
Actuarial cost method	Entry Age Cost Method		
Amortization method	Level percent of payroll		
Remaining amortization period	30-year open (non-decreasin	g)	
Asset valuation method	Market value of assets.		
Actuarial assumptions:	PERA	ERB	
Investment rate of return	7.25%	7.25%	
Inflation rate	3.00%	3.00%	
Real across-the-board salary increase	0.50%	0.75%	



Projection of OPEB Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of June 30, 2017

Year Beginning July 1,	Projected Beginning Plan Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan Fiduciary Net Position* (f) = (a) + (b) - (c) - (d) + (e)
2017	\$579,468,641	\$156,266,741	\$135,965,947	\$0	\$42,747,380	\$642,516,815
2018	642,516,815	147,549,952	147,477,542	0	46,585,094	689,174,319
2019	689,174,319	140,369,595	159,015,009	0	49,289,242	719,818,147
2020	719,818,147	133,790,946	168,940,331	0	50,912,650	735,581,412
2021	735,581,412	127,615,713	179,503,967	0	51,448,703	735,141,861
2022	735,141,861	121,891,211	189,779,553	0	50,836,833	718,090,352
2023	718,090,352	116,446,551	200,801,393	0	49,003,687	682,739,197
2024	682,739,197	111,118,372	211,569,205	0	45,857,249	628,145,613
2025	628,145,613	105,869,612	222,919,721	0	41,297,491	552,392,995
2026	552,392,995	100,775,047	234,545,933	0	35,199,298	453,821,407
2027	453,821,407	95,782,258	247,165,574	0	27,414,407	329,852,498
2028	329,852,498	90,897,784	260,363,042	0	17,771,191	178,158,432
2029	178,158,432	86,154,592	273,576,788	0	6,122,432	(3,141,333)

Note: Shown until Projected Plan Fiduciary Net Position goes to zero. The discount rate is determined by discounting the projected benefits financed by the OPEB plan investments (benefit payments until the 2028/2029 plan year) using the 7.25% discount rate and benefit payments beyond the 2028/2029 plan year using the index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.



Projection of OPEB Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of June 30, 2017

(\$ in thousands) - continued

Notes:

- (1) Amounts may not total exactly due to rounding
- (2) Years beyond 2029 have been omitted from this table as the Fiduciary Net Position is zero.
- (3) <u>Column (b)</u>: Projected total contributions are calculated as fixed percentages of payroll. Contributions are assumed to occur halfway through the year on average.
- (4) <u>Column (c)</u>: Projected benefit payments have been determined in accordance with paragraphs 43-47 of GASB Statement No. 74 and are based on the closed group of active, retired members, and beneficiaries as of June 30, 2017.
- (5) <u>Column (d):</u> Projected administrative expenses have been reflected in benefit payments.
- (6) <u>Column (e)</u>: Projected investment earnings are based on the assumed investment rate of return of 7.25% per annum and reflect the assumed timing of benefit payments made at the beginning of each month.
- (7) As illustrated in this Exhibit, the Plan's fiduciary net position was projected to be exhausted by June 30, 2029.



Actuarial Assumptions and Actuarial Cost Method

Data:	Detailed census data and financial data for postemployment benefits were provided by New Mexico Retiree Health Care Authority.
Actuarial Cost Method:	Entry age, level percent of pay, calculated on individual basis.
Measurement Date:	June 30, 2017
Census Date:	January 1, 2017
Discount Rate:	3.81%



Actuarial Assumptions and Actuarial Cost Method (continued)

Assumptions used for PERA members

PERA Post-Retirement Mortality Rates:

After Service Retirement:	RP-2000 Combined Healthy Mortality projected with Scale AA to 2018.
After Disability Retirement:	RP-2000 Disabled Mortality projected with Scale AA to 2018 before attainment of normal retirement age and after normal retirement age RP-2000 Combined Healthy Mortality Projected with Scale AA to 2018.
	The tables shown above were determined so as to reasonably reflect future mortality improvement, based on the June 30, 2015 PERA pension valuation.

PERA Termination Rates before Retirement:

Pre-Retirement Mortality: RP-2000 Employee Mortality Table projected with Scale AA to 2018.

Assumptions used for PERA members

		Stat	e General Male	es	
	Rate	es of Active Mer	nbers Termina	ting During Ye	ear
Sample		Sam	ple Service (Yr.)):	
Ages	2	4	6	8	10+
20	18.76%	10.86%	8.21%	7.78%	5.11%
25	17.72	11.06	8.10	7.07	4.65
30	16.45	11.27	7.97	6.18	4.13
35	15.31	10.81	7.59	5.58	3.89
40	14.30	9.97	7.08	5.40	3.86
45	13.55	9.06	6.63	5.40	3.86
50	13.26	8.45	6.49	5.40	3.86
55	13.26	8.37	6.49	5.40	3.86
60	13.26	8.37	6.49	5.40	3.86

		State	General Fema	les	
	Rate	es of Active Mer	nbers Termina	ting During Ye	ear
Sample		Sam	ple Service (Yr.)):	
Ages	2	4	6	8	10+
20	18.13%	11.95%	8.22%	6.05%	4.83%
25	17.76	11.95	8.02	5.81	4.25
30	17.28	11.89	7.81	5.54	3.55
35	16.34	11.23	7.45	5.28	3.46
40	15.22	10.24	6.99	5.06	3.46
45	14.19	9.20	6.58	4.95	3.46
50	13.52	8.55	6.45	4.80	3.46
55	13.37	8.50	6.45	4.70	3.46
60	13.37	8.50	6.45	4.70	3.46

Actuarial Assumptions and Actuarial Cost Method (continued)

Assumptions used for PERA members

_			cipal General M		
a l	Rate		mbers Termina	0 0	ear
Sample	2	<u> </u>	nple Service (Yr.)): 8	10+
Ages 20	21.70%	<u> </u>	6 11.29%	<u> </u>	<u> </u>
20 25	20.00	13.52	10.26	8.05	7.32
30	17.73	12.04	8.96	6.94	5.69
35	15.77	10.65	8.01	6.20	4.61
40	14.06	9.37	7.29	5.73	3.92
45	12.80	8.39	6.87	5.58	3.65
50	12.20	8.01	6.79	5.58	3.65
55	12.18	8.01	6.79	5.58	3.65
60	12.18	8.01	6.79	5.58	3.65

_		Munici	pal General Fe	males	
	Rate	es of Active Me	mbers Termina	ating During Ye	ear
Sample		San	nple Service (Yr.	.):	
Ages	2	4	6	8	10+
20	24.40%	17.77%	14.41%	11.94%	7.51%
25	21.96	16.06	12.80	10.32	6.38
30	18.85	13.77	10.63	8.16	4.94
35	16.69	11.96	9.08	6.70	4.09
40	15.16	10.49	7.84	5.74	3.67
45	14.28	9.49	6.50	5.31	3.62
50	14.01	9.14	6.50	5.30	3.62
55	14.01	9.14	6.50	5.30	3.62
60	14.01	9.14	6.50	5.30	3.62

Actuarial Assumptions and Actuarial Cost Method (continued)

Assumptions used for PERA members

Service Based Rates of Active Members Terminating During						
	Sample Service (Yr.):					
All Ages	1	3	5	7	10+	
State Police & Corrections	20.00	16.00	9.00	8.00	6.00	
Municipal Detention	22.00	16.00	10.00	10.00	6.00	
Municipal Police	14.00	9.50	6.80	5.15	3.80	
Municipal Fire	10.00	7.50	5.00	3.30	3.00	



Actuarial Assumptions and Actuarial Cost Method (continued)

Assumptions used for PERA members

Rates (%) – Disability Incidence							
	State (General	State Police and	Municipa	l General	Municipal	Municipal
Age	Male	Female	Corrections*	Male	Female	Police	Fire
25	0.02	0.02	0.14	0.05	0.04	0.07	0.02
30	0.04	0.03	0.16	0.08	0.04	0.08	0.02
35	0.08	0.06	0.21	0.12	0.04	0.12	0.02
40	0.13	0.12	0.27	0.17	0.06	0.17	0.08
45	0.24	0.20	0.46	0.25	0.14	0.26	0.08
50	0.41	0.39	0.90	0.40	0.25	0.42	0.33
55	0.57	0.61	1.40	0.65	0.39	0.73	0.33
60	0.74	0.73	1.88	0.80	0.51	1.22	1.17
65	0.75	0.73	1.88	0.82	0.59	1.22	1.17

* Police and Corrections were not identified separately in the census data. We have used the Corrections assumption because the subgroup comprises about 75% of the combined group total.

Actuarial Assumptions and Actuarial Cost Method (continued)

Assumptions used for PERA members

PERA Retirement Rates:

These rates are applicable when employee becomes eligible for retirement based on age/service combination.

Retirement Rates (%)							
_	State (General	_	Municipa	al General		
Retirement Ages	Male	Female	State Police and Corrections*	Male	Female	Municipal Police	Municipa Fire
40	40	35	50	35	35	30	40
45	40	35	50	35	35	30	35
50	40	35	50	40	40	30	30
55	40	35	50	30	25	30	30
60	30	40	50	30	30	30	20
65	30	35	40	35	35	50	50
70	25	30	100	25	25	100	100
75	25	25		25	25		
80	100	100		100	100		

PERA Salary Increases:	Salary increases occur in recognition of (i) individual merit and longevity, (ii)
	inflation-related depreciation of the purchasing power of salaries, and (iii) other factors such as productivity gains and competition from other employers for
	personnel. A schedule of long-term rates of increase is used to project salaries from valuation salaries to final average salaries upon which pensions are based. Sample rates follow:

	Annual Rate	s (%) of Salary	Increase for Sa	ample Years of	f Service
Attributable to:	1	5	10	15	20
General Increase in Wage Level Due to:					
Inflation	2.25	2.25	2.25	2.25	2.25
Other factors	0.5	0.5	0.5	0.5	0.5
Increase Due to Merit/Longevity:					
State General	7.75	1.75	0.50	0.50	0.50
State Police and Corrections	9.75	2.75	1.75	1.75	1.7:
Municipal General	2.25	1.75	0.50	0.50	0.50
Municipal Police	8.25	3.25	2.00	1.25	1.25
Municipal Fire	8.25	3.25	2.00	2.00	2.00



Actuarial Assumptions and Actuarial Cost Method (continued)

Assumptions used for ERB members

ERB Post-Retirement Mortality Rates:

Males:	RP-2000 Combined Healthy Mortality Table with White Collar Adjustment generationally projected with Scale BB.
Females:	GRS Southwest Region Teacher Mortality Table, set back one year, generationally projected with Scale BB.
After Disability Retirement:	RP-2000 Disabled Mortality Table, set back three years for males and no set back for females, projected with Scale BB to 2016.
	The tables shown above were determined so as to reasonably reflect future mortality improvement, based on the June 30, 2016 ERB pension valuation.

Pre-Retirement MortalityRP-2000 Employee Mortality Table, set back two years and scaled 80% for males and
set back five years and scaled 70% for females, projected with Scale BB to 2016.

ERB Termination Rates before Retirement:

	Disability Incidence – Rates(%)				
Age	Males	Females			
25	0.007	0.010			
30	0.007	0.020			
35	0.042	0.050			
40	0.091	0.080			
45	0.133	0.120			
50	0.168	0.168			
55	0.182	0.168			

Actuarial Assumptions and Actuarial Cost Method (continued)

Assumptions used for ERB members

ERB Termination Rates before Retirement (continued):

Active Members Terminating During year – Rates (%)	Active Members	Terminating During ye	ear – Rates (%)
--	-----------------------	------------------------------	-----------------

Completed Service	Males	Females
0	43.4	31.4
1	28.1	23.8
2	19.6	17.2
3	14.3	13.5
4	11.9	10.6
5	10.0	9.8
6	9.1	8.6
7	7.3	7.2
8	6.1	6.3
9	5.7	5.5
10	5.2	5.0
11	4.2	4.7
12	4.0	4.2
13	3.4	3.6
14	3.4	3.5
15	3.1	3.3
16	2.2	2.3
17	2.3	2.7
18	2.3	2.1
19 and over	0.0	0.0



Actuarial Assumptions and Actuarial Cost Method (continued)

Assumptions used for ERB members

ERB Retirement Rates:

Members Hired before July 1, 2010 and Normal Retirement for Members Hired on or After July 1, 2010

			<u>Mal</u> Years of			
Age	0-4	5-9	10-14	15-19	20-24	25+
45	0	0	0	0	0	15
50	0	0	0	0	0	18
55	0	0	0	0	5	20
60	0	0	0	15	20	25
62	0	0	30	30	30	30
65	0	40	35	30	30	30
67	0	25	25	25	30	30
70	100	100	100	100	100	100
			<u>Fema</u> Years of			
Age	0-4	5-9	10-14	15-19	20-24	25+
45	0	0	0	0	0	15
50	0	0	0	0	0	18
55	0	0	0	0	6	23
60	0	0	0	20	15	25
62	0	0	40	30	30	35
65	0	35	40	40	40	40
67	0	25	25	25	30	30
70	100	100	100	100	100	100

Retirement – **Rates(%)**



Actuarial Assumptions and Actuarial Cost Method (continued)

Assumptions used for ERB members

ERB Retirement Rates:

Members Hired on or after July 1, 2010

<u>Retirement – Rates(%)</u>

<u>Males</u> Years of Service						
Age	15-19	20-24	25-29			
55	0	0	5			
60	0	20	20			
62	30	30	30			
65	30	30	30			

<u>Females</u> Years of Service						
Age	15-19	20-24	25-29			
55	0	0	6			
60	0	15	15			
62	30	30	30			
65	40	40	40			



ERB Salary Increases:

General Increase in Wage Level Due to:	
Inflation:	2.50%
Productivity increase rate:	0.75%

Salary increases occur in recognition of (i) individual merit and longevity, (ii) plus step-rate/promotional as shown:

Years of Service	Annual Step-Rate (%)/Promotional Component Rates of Increase	Total Annual Rate (%) of Increase
0	8.75	12.00
1	3.00	6.25
2	2.00	5.25
3	1.50	4.75
4	1.25	4.50
5	1.00	4.25
6	0.75	4.00
7	0.50	3.75
8	0.50	3.75
9	0.50	3.75
10 or more	0.00	3.25



Administrative Expenses:	Non-Medicare:	\$357/year			
	Medicare Supplement:	\$437/year			
	Medicare Advantage:	\$55/year			
	The 2017/2018 non-Medicare administrative expense was assumed to have increase for 3 years, then increase by 2.0% in 2020/2021 and thereafter. The 2017/2018 Medicare Supplement administrative expense was assumed to in 2.0% per year. The 2017/2018 Medicare Advantage administrative expense assumed to have no projected future increases.				
Per Capita Cost Development:	The assumed costs on a composite basis (and other demographic factors such as sex and family status) are the future costs of providing postretirement health care benefit at each age. To determine the assumed costs on a composite basis, historical claims costs are reviewed, and adjusted for increases in the cost of health care services.				
Per Capita Costs:	assumed expenses were dev	nual medical and drug claims costs for the 2017/2018 plan year, excluding sumed expenses were developed actuarially for retirees and spouses at select ages d are shown in the table below. These costs are net of deductibles and other benef in cost sharing provisions.			
Premier Non-Medicare	Value Non-I	l edicare	Non-Medicare Drug Rebates		

	Premier Non-Wedicare				value Non	-weatcar	9	Non-medicare Drug Repates				
	Ret	iree	Spo	ouse	Ret	iree	Spc	ouse	Ret	tiree	Spo	ouse
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
50	\$7,359	\$8,382	\$5,140	\$6,731	\$5,566	\$6,340	\$3,888	\$5,091	-\$399	-\$454	-\$279	-\$365
55	8,740	9,023	6,878	7,791	6,611	6,825	5,203	5,893	-474	-489	-373	-422
60	10,379	9,726	9,208	9,036	7,851	7,357	6,965	6,834	-562	-527	-499	-490
64	11,908	10,318	11,624	10,170	9,007	7,804	8,793	7,692	-645	-559	-630	-551
										I		



	Unit	ed Healtho Adva		icare	1	BCBS Sup	plementa	al	BCE	S (Medica	re Advar	itage)
	Ret	iree	Spo	ouse	Retiree Spouse		Retiree		Spouse			
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
65	\$1,719	\$1,461	\$1,719	\$1,461	\$4,747	\$4,035	\$4,747	\$4,035	\$1,031	\$876	\$1,031	\$876
70	1,992	1,575	1,992	1,575	5,502	4,348	5,502	4,348	1,195	944	1,195	944
75	2,147	1,695	2,147	1,695	5,929	4,681	5,929	4,681	1,288	1,017	1,288	1,017
80	2,312	1,827	2,312	1,827	6,385	5,046	6,385	5,046	1,387	1,096	1,387	1,096
	Presbyterian Medicare Advantage			M	edicare Dr	ug Rebat	tes	М	edicare Dr	ug Subsi	idy	
	Ret	iree	Ret	iree	Ret	iree	Spouse		Retiree Spouse		ouse	
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
65	\$1,911	\$1,624	\$1,911	\$1,624	-\$1,309	-\$1,113	-\$1,309	-\$1,113	-\$128	-\$109	-\$128	-\$109
70	2,215	1,750	2,215	1,750	-1,517	-1,199	-1,517	-1,199	-148	-117	-148	-117
75	2,387	1,884	2,387	1,884	-1,635	-1,291	-1,635	-1,291	-160	-126	-160	-126
80	2,570	2,031	2,570	2,031	-1,761	-1,391	-1,761	-1,391	-172	-136	-172	-136
Drug	Increase	Rebate As	sumption	proje The 2	cted futur 2017/2018	e increases 3 annual dr	ug rebate	for Medica	are retiree	tirees was s with BCI ure increas	BS Medic	
	care Part dy Assum			that th Medic	e Plan is e are PDP.	eligible to t The subsid	receive be ly shown a	cause the l	Plan has b eligible re	ion drug pla been determ etiree or spo reafter.	nined to b	e a

Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male. For active participants with unknown dates of birth, we assumed their age at entry was that of the average for actives with date of birth.
Spouse Coverage:	55% male, 30% female.
Age of Spouse:	Wives are 3 years younger than their husbands.



Future Benefit Accruals:	1.0 year of service per year.					
Participation and Election:	75% of the active participants are assumed to continue coverage at retirement. 25% of employees terminating prior to retiring, and eligible, are assumed to elect NMRHCA benefits at retirement.					
	Future retirees are assumed to elect medical carriers in the same proportion as current retirees:					
	Non-Medicare Plan Medical Election %					
	Premier	86%				
	Value Plan	14%				
	Medicare Plan	Medical Election %				
	BCBS Medicare Supplement	64%				
	BCBS Senior Plan I or II	11%				
	Presbyterian Senior Plan I or II	17%				
	United Healthcare Plan I or II	8%				
Former Vested Retirement Age:	Former vested members are assumed to b age 60.	egin receiving retiree health benefits at				
Actuarial Value of Assets*:	The actuarial value of assets is equal to the	he market value of assets.				
Actuarial Cost Method:	Entry Age Actuarial Cost Method. Entry Age is the age at the member's hire date. Actuarial Accrued Liability is calculated on an individual basis and is based on costs allocated as a level percentage of compensation.					
	* The assets as of June 30, 2017 were drafts p	provided by the auditor.				

Actuarial Assumptions and Actuarial Cost Method (continued)

Health Care Cost Subsidy Trend Rates:

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. Trend rates are used to increase the stated subsidies into the future. For example, the projected per capita cost for a male retiree age 64 covered under the Premier Plan in the year July 1, 2018 through June 30, 2019 would be determined with the following formula: $[\$11,908 \times (1 + 8.0\%)] = \$12,861$.

	Rates (%)	
Plan Year Ended June 30,	All Non-Medicare Plans	All Medicare Plans
2018	8.00	7.50
2019	7.75	7.25
2020	7.50	7.00
2021	7.25	6.75
2022	7.00	6.50
2023	6.75	6.25
2024	6.50	6.00
2025	6.25	5.75
2026	6.00	5.50
2027	5.75	5.25
2028	5.50	5.00
2029	5.25	4.75
2030	5.00	4.50
2031	4.75	4.50
2032 & Later	4.50	4.50



Funding Policy:	Retiree benefits are funded from a combination of employer contributions as a percentage (2.50% for Public Safety, and 2.00% for Other Occupations) of compensation and member contributions as a percentage (1.25% for Public Safety and 1.00% for Other Occupation) of compensation to fund the cost of the subsidy, with the remaining cost funded by retiree contributions, RHCA Statutory Distribution, investment income and the Retiree Drug Subsidy from CMS.		
Plan Design:	Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.		
Changes in Assumptions:	The PERA salary scale, inflation and payroll assumptions were updated to reflect assumptions used in the PERA June 30, 2016 pension valuation.		
	The ERB salary scale, inflation and payroll assumptions were updated to reflect changes used in the ERB June 30, 2016 experience study pension valuation.		
	Per capita costs were updated.		
	Future trend for health costs were updated.		
	Medical election assumptions were updated.		



Summary of Plan

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

Eligibility:	A retiree who was an employee of either New Mexico PERA or an ERB eligible to receive a pension, is eligible for retiree health benefits.			
	For employers who "buy-in" to the plan, retirees are eligible for benefits six months after the effective date of employer participation.			
	Retirees not in a PERA enhanced (Fire, Police, Corrections) pension plan who commence benefits on or after January 1, 2020 will not receive any subsidy from NMRHCA before age 55.			
Benefit Types:	Retirees and spouses are eligible for medical and prescription drug benefits.			
	For Calendar years 2017 and prior there was a NMRHCA-paid Basic Life benefit of \$6000 for all retirees who commenced benefits on or before December 31, 2012. The \$6000 benefit decreases \$1500 per year commencing January 1, 2018 until January 1, 2021 at which time retirees must pay 100% of the premium cost.			
	Dental and vision benefits are also available, but were not included in this valuation, since they are 100% retiree-paid.			
	A description of these benefits may be found at www.nmrhca.state.nm.us by clicking on Enrolled Participants.			
Duration of Coverage:	Employees and dependents are valued for life.			



Summary of Plan (continued)

Retiree Contributions:The retiree contribution is derived on a service based schedule implemented effective
7/1/2001 and updated annually. The table below shows the anticipated employee paid
portion of claims.

	<u>2018</u>	<u>2019</u>	<u>2020</u>	2021 And Later
Non-Medicare Retiree	33.0%	34.3%	35.5%	36.0%
Non-Medicare Spouse	57.6%	60.5%	63.0%	64.0%
Medicare Retiree	52.7%	50.9%	50.0%	50.0%
Medicare Spouse	79.1%	76.4%	75.0%	75.0%

Retired Before 2020 or in Public Safety Pension Plan

	Percent of full subsidy		Percent of full subsidy
Years of Service	<u>based on service</u>	Years of Service	<u>based on service</u>
5	6.25%	13	56.25%
6	12.50%	14	62.50%
7	18.75%	15	68.75%
8	25.00%	16	75.00%
9	31.25%	17	81.25%
10	37.50%	18	87.50%
11	43.75%	19	93.75%
12	50.00%	20+	100.00%

Summary of Plan (continued)

Retired After 2019 and Not in Public Safety Pension Plan						
Years of Service	<u>Percent of full subsidy</u> based on service	Years of Service	<u>Percent of full subsidy</u> based on service			
5	4.76%	16	57.14%			
6	9.52%	17	61.90%			
7	14.29%	18	66.67%			
8	19.05%	19	71.43%			
9	23.81%	20	76.19%			
10	28.57%	21	80.95%			
11	33.33%	22	85.71%			
12	38.10%	23	90.48%			
13	42.86%	24	95.24%			
14	47.62%	25+	100.00%			
15	52.38%					

Summary of Plan (continued)

Dental	
Eligibility	This benefit was not included in the valuation, because retirees pay 100% of the cost.
Vision	
Eligibility	This benefit was not included in the valuation, because retirees pay 100% of the cost.
Life	
Eligibility	For Calendar years 2017 and prior there was a NMRHCA-paid Basic Life benefit of \$6000 for all retirees who commenced benefits on or before December 31, 2012. The \$6000 benefit decreases \$1500 per year commencing January 1, 2018 until January 1, 2021 at which time retirees must pay 100% of the premium cost.

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