

**RETIREMENT PLAN FOR EMPLOYEES OF JOB SERVICE
NORTH DAKOTA**

ACTUARIAL VALUATION AS OF JULY 1, 2016

CONTENTS

<u>Section</u>	<u>Page</u>	
		<i>Introduction</i>
A		<i>Valuation Results</i>
	1-2	Comments on the Valuation
	3	Summary of Actuarial Valuation Results
	4	Actuarial Valuation Results – Gain/Loss Analysis
	5	Historical Trends of Funded Ratio
	6	Actuarial Valuation Results Solvency Test
	7	Funded Ratio History
B		<i>Asset Exhibits</i>
	1	Statement of Fiduciary Net Position
	2	Statement of Changes in Fiduciary Net Position
	3	Development of Actuarial Value of Assets
	4	Changes in Actuarial Value of Assets
	5	Historical Comparison of Actuarial Value of Assets to Market Value of Assets
C		<i>Membership Data</i>
	1-2	Summary of Participant Data
	3	Age/Service/Salary
	4	Historical Schedule of Active Member Data
	5	Summary of Active Member Data
	6	Schedule of Members in Pay Status
	7	Schedule of Average Benefit Payments
	8	Schedule of Retirees and Beneficiaries Added to and Removed from the Rolls
D	1-8	<i>GASB Statement No. 67 Schedules</i>
E		<i>Valuation Procedures</i>
	1	Actuarial Assumptions in the Valuation Process
	2-5	Valuation Assumptions
		<i>Benefit Provisions</i>
F	1-4	Brief Summary of Plan Provisions
G	1	<i>Glossary of Terms</i>



October 19, 2016

Board Members
Retirement Plan for Employees of Job Service North Dakota
Bismarck, North Dakota

Members of the Board:

We are pleased to provide our formal annual Actuarial Valuation Report as of July 1, 2016, for the Retirement Plan for Employees of Job Service North Dakota. The actuarial valuation was performed at the request of the Board and is intended for use by the Board and the Retirement Plan for Employees of Job Service North Dakota and those designated by the Board and the Retirement Plan for Employees of Job Service North Dakota. This report may be provided to parties other than the Board and the Retirement Plan for Employees of Job Service North Dakota only in its entirety and only with the permission of the Board and the Retirement Plan for Employees of Job Service North Dakota.

This report provides, among other things, the actuarial employer contribution rate to the Retirement Plan for Employees of Job Service North Dakota for the Plan Year commencing July 1, 2016, and ending on June 30, 2017. This actuarial valuation also provides information required by GASB Statement No. 67. Information required by GASB Statement No. 68 and the employer allocation of the Net Pension Liability are provided in a separate report. This report should not be relied on for any purpose other than the purpose described.

The actuarial valuation was based upon information furnished by North Dakota Public Employees' Retirement System ("NDPERS") Staff, concerning benefits provided by the Retirement Plan for Employees of Job Service North Dakota, financial transactions, plan provisions and census data for active members, terminated members, retirees and beneficiaries as of July 1, 2016. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the NDPERS Staff.

The actuarial assumptions used were based on an experience review for the five-year period ending July 1, 2014, which was performed by the prior actuary, and were first adopted for use commencing with the July 1, 2015, actuarial valuation.

The plan provisions were unchanged from the last actuarial valuation as of July 1, 2015.

To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Retirement Plan for Employees of Job Service North Dakota as of the actuarial valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Lance J. Weiss and Amy Williams are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

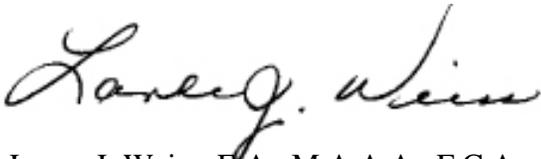
The signing actuaries are independent of the plan sponsor.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

We will be pleased to review this report with you at your convenience.

Respectfully submitted,

Gabriel, Roeder, Smith & Company



Lance J. Weiss, E.A., M.A.A.A., F.C.A.
Senior Consultant and Team Leader



Amy Williams, A.S.A., M.A.A.A., F.C.A.
Consultant

AW:rl

cc: Mr. Sparb Collins, NDPERS
Ms. Sharon Schiermeister, NDPERS
Mr. Bryan Reinhardt, NDPERS

SECTION A
VALUATION RESULTS

COMMENTS ON THE VALUATION

Purpose

At your request, we have performed an actuarial valuation of the Retirement Plan for Employees of Job Service North Dakota as of July 1, 2016.

The purposes of this actuarial valuation are as follows:

- To determine the funding status of the System as of the valuation date;
- To determine the actuarial employer contribution rate for the fiscal year beginning July 1, 2016; and
- To provide other data required by NDPERS.

Pension plan financial reporting under GASB Statement No. 67 is provided in Section D of this report. Employer financial reporting under GASB Statement No. 68 is provided in a separate report.

Membership Data

We received the data from the NDPERS Staff. We performed certain checks for reasonableness and found the data to be complete and reliable for valuation purposes. However, we did not audit the data.

A total of 9 active members were included in the valuation as of July 1, 2016. Between the 2015 and 2016 valuations, the number of active employees decreased by 2 members, or 18.2 percent. The average annual valuation pay increased by 2.4 percent, from \$61,258 to \$62,743 between the 2015 and 2016 valuation. There were 9 active members that were eligible for retirement (normal, optional or early) as of July 1, 2016.

The number of benefit recipients remained at 206, since the last actuarial valuation. The average monthly benefit decreased by 0.1 percent, from \$1,866 to \$1,864. During the year ending June 30, 2016, there were 2 members awarded a benefit.

There was 1 inactive member as of July 1, 2016, who was vested and elected to receive a deferred benefit. The monthly deferred benefit is \$442.

Section C summarizes the membership data.

Plan Provisions

Section F outlines the principal benefit provisions of the System. There were no changes since the previous valuation.

Actuarial Assumptions and Methods

The actuarial assumptions used in the valuation as of July 1, 2016, were based on an experience review for the five-year period ending July 1, 2014, which was performed by the prior actuary. The actuarial assumptions were first adopted for use commencing with the July 1, 2015, valuation.

Section E outlines the actuarial assumptions and methods used in the actuarial valuation.

The actuarial assumption for administrative expenses is equal to the prior years' administrative expenses, adjusted for inflation. In total, this amount has increased from \$31,271 to \$33,382.

COMMENTS ON THE VALUATION (CONTINUED)

Plan Asset Return

On a market value basis, the Retirement Plan for Employees of Job Service North Dakota assets had an investment return of approximately 5.15 percent (net of investment expenses). On an actuarial value of asset basis, the Retirement Plan for Employees of Job Service North Dakota had an estimated net asset rate of return of 8.29 percent, which compares to the assumed rate of return of 7.00 percent.

The actuarial value of assets is currently 84 percent of the market value of assets.

Gain/Loss Analysis

During the plan year ending June 30, 2016, the unfunded actuarial accrued liability (“UAAL”) decreased from (\$15,573,387) as of July 1, 2015, to (\$19,609,202) as of July 1, 2016, which is a decrease of \$4,035,815. The key factors contributing to the decrease in the UAAL was the 0 percent actual COLA granted, compared to the 3 percent expected COLA granted. The unfunded actuarial accrued liability based on the market value of assets is (\$35,162,658).

Funded Ratio

The funded ratio measures the portion of the actuarial accrued liability (calculated based on the actuarial assumptions disclosed in this report) that is currently funded. The funded ratio is 132.0 percent on an actuarial value of assets basis and 157.3 percent on a market value of assets basis.

The funded ratio and unfunded actuarial accrued liability are appropriate for assessing the need for and the amount of future unfunded liability contributions (excludes normal cost contributions). They are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the System's benefit obligations.

Employer Contributions

The “actuarial contribution” under this method is the normal cost plus the payment required to amortize the unfunded initial actuarial accrued liability over a selected period of years. The normal cost is determined by calculating the total present value of all future benefits, subtracting the outstanding balance (if any) of the unfunded initial actuarial accrued liability, subtracting the actuarial value of assets and determining payments (not less than zero) that are a level percent of pay over the future working lifetime of all participants. In the absence of an unfunded initial actuarial accrued liability, the Frozen Initial Liability Actuarial Cost Method is the same as the Aggregate Cost Method.

The “scheduled contribution” will be determined when the plan is not in surplus and will be based on a funding policy adopted by the Employer.

Historical Trends

The funded ratio has increased during the past 10 years from 107.1 percent in 2007 to the current funded ratio of 132.0 percent. There continues to be no actuarial contribution required from the employers.

SUMMARY OF ACTUARIAL VALUATION RESULTS

	Valuation as of July 1, 2015*		Valuation as of July 1, 2016	
	Total	% of Payroll**	Total	% of Payroll**
Active Members				
Number	11		9	
Average Age	61.2		61.6	
Average Years of Benefit Service	38.9		40.1	
Average Years of Vesting Service	38.9		40.1	
Total Payroll	\$ 673,836		\$ 564,684	
Projected Annual Compensation	697,420		371,871	
Present Value of Future Salaries	1,398,693		1,076,616	
Terminated Vested Members				
Number	1		1	
Retired Members and Beneficiaries				
Number	206		206	
Total Benefits	4,613,463		\$ 4,607,049	
Total Membership	218		216	
Present Value of Future Benefits				
Active Members	\$ 7,367,184		\$ 6,403,303	
Terminated Vested Members	11,011		12,096	
Retired Members and Beneficiaries	56,245,104		54,955,897	
Total	63,623,299		61,371,296	
Actuarial Value of Assets	\$ 79,196,686		\$ 80,980,498	
Outstanding Frozen Initial Liability	\$ -		\$ -	
Unfunded Actuarial Accrued Liability	\$ (15,573,387)		\$ (19,609,202)	
Funded Ratio (Actuarial Value of Assets)	124.5%		132.0%	
Annual Gross Normal Cost				
Benefits	\$ -	(0.00%)	\$ -	(0.00%)
Expenses of Administration	31,271	(4.48%)	33,382	(8.98%)
Total	31,271	(4.48%)	33,382	(8.98%)
Actuarial Contribution Requirement				
Employer Portion	\$ -	(0.00%)	\$ -	(0.00%)
Employee Portion	48,819	(7.00%)	26,031	(7.00%)
Total	48,819	(7.00%)	26,031	(7.00%)
Results Based on Market Value of Assets				
Market Value of Assets	\$ 96,282,892		\$ 96,533,954	
Unfunded Actuarial Accrued Liability	\$ (32,659,593)		\$ (35,162,658)	
Funded Ratio (Market Value of Assets)	151.3%		157.3%	

*Results from prior actuary.

**Rates are calculated as a percentage of projected annual compensation.

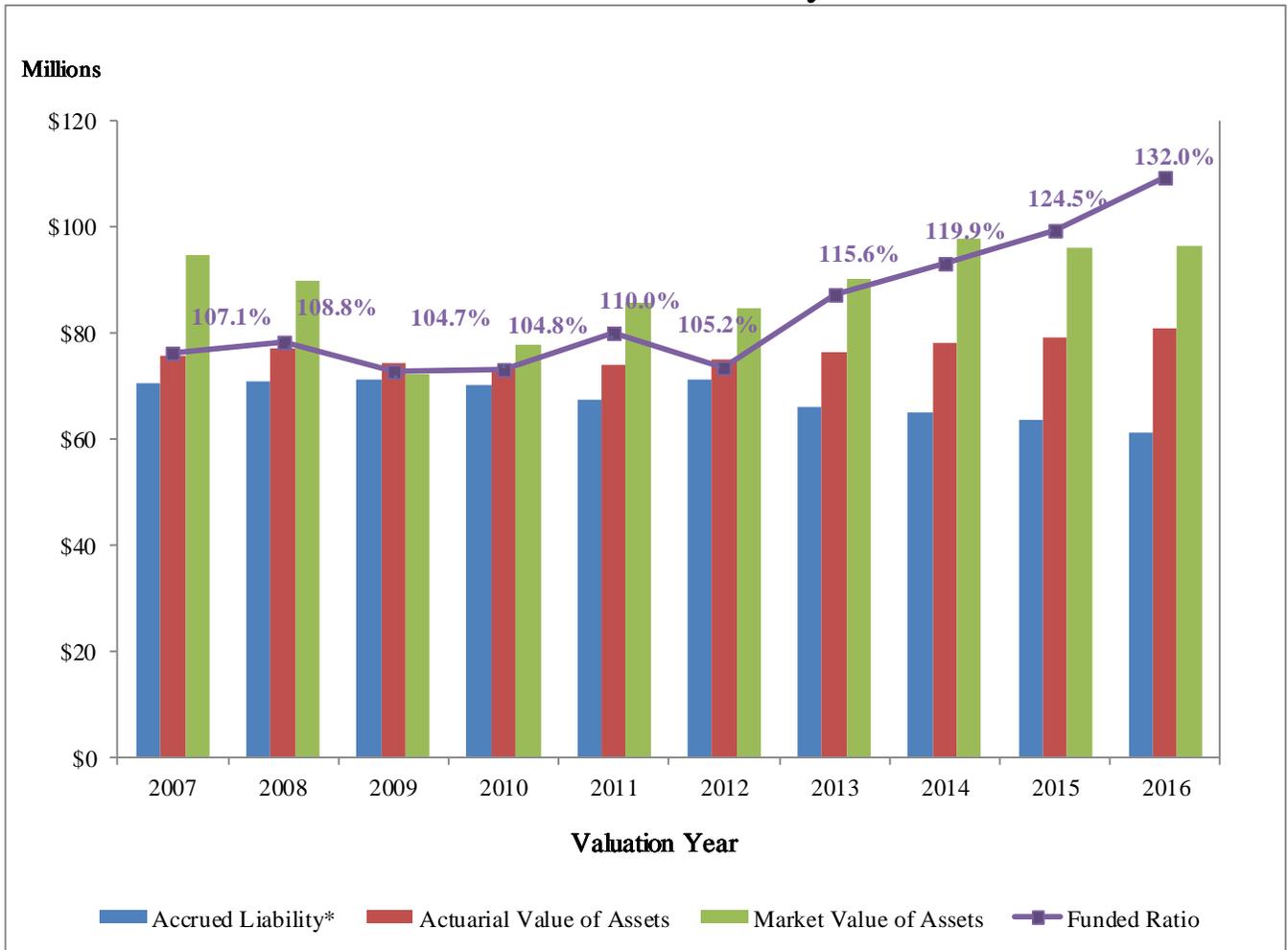
ACTUARIAL VALUATION RESULTS GAIN/LOSS ANALYSIS

Unfunded liability at previous valuation	\$ (15,573,387)
Unfunded liability at previous valuation - GRS replication results	\$ (15,534,859)
<u>Expected unfunded liability at current valuation</u>	
Normal cost for plan year	31,271
Interest on unfunded liability and normal cost	(1,086,364)
Contributions using actuarial rate with interest to current valuation date	<u>34,153</u>
Total expected change in unfunded liability at current valuation	(1,089,246)
Total expected unfunded liability at current valuation	(16,624,105)
Change due to:	
Amount and timing of contributions	(11,545)
Amount and timing of administrative expenses	1,016
Recognition of asset (gains)/losses	(987,223)
Salary experience	15,294
Retirement experience	(73,314)
Withdrawal experience	3,205
Disability experience	3,275
Death in Service experience	12,036
Death After Retirement experience	5,286
New entrants	-
COLA experience, data changes and other experience ¹	(1,953,127)
Change in actuarial assumptions	-
Changes in plan provisions	-
Total change	<u>(2,985,097)</u>
Unfunded liability at current valuation	\$ (19,609,202)

¹Actual COLA granted of 0% compared with expected COLA of 3% resulted in a gain and a decrease in the unfunded liability.

HISTORICAL TRENDS OF FUNDED RATIO

Funded Ratio History



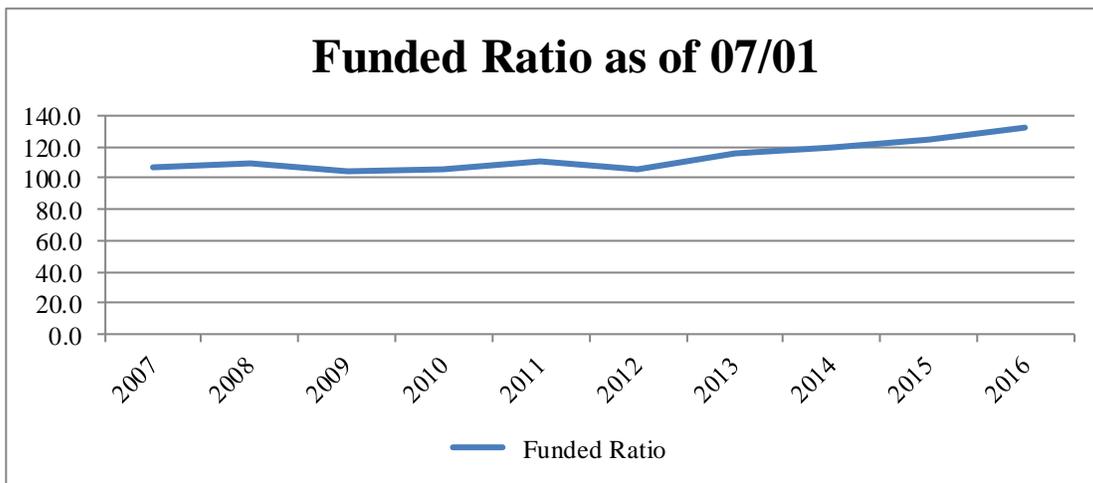
*Prior to 2015, the actuarial accrued liability shown is based on the Entry Age Normal cost method. Beginning with 2015, the actuarial accrued liability shown is equal to the present value of future benefits.

ACTUARIAL VALUATION RESULTS
SOLVENCY TEST (\$ IN MILLIONS)

Valuation Date	Present Value of Future Benefits	(1)	(2)	(3)	Actuarial Value of Assets	Portion (%) of Present Value Covered By Assets		
		Retirees, Term Vested and Beneficiaries	Inactive Vested Employee (Not in Pay Status)	Active Member Contributions		(1)	(2)	(3)
2007	\$71.8	\$53.9	\$0.3	\$17.6	\$75.7	100%	100%	100%
2008	71.9	54.8	0.2	16.9	77.0	100%	100%	100%
2009	72.0	55.3	0.2	16.5	74.5	100%	100%	100%
2010	70.9	55.1	0.2	15.6	73.5	100%	100%	100%
2011	68.2	55.7	0.9	11.6	74.2	100%	100%	100%
2012	72.0	61.1	0.7	10.2	75.1	100%	100%	100%
2013	66.4	56.7	1.9	7.8	76.3	100%	100%	100%
2014	65.5	57.9	0.0	7.6	78.2	100%	100%	100%
2015	63.6	56.2	0.0	7.4	79.2	100%	100%	100%
2016	61.4	55.0	0.0	6.4	81.0	100%	100%	100%

FUNDED RATIO HISTORY

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability* (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)
07/01/2007	\$ 75,749,846	\$ 70,740,512	\$ (5,009,334)	107.1 %
07/01/2008	77,020,934	70,804,863	(6,216,071)	108.8
07/01/2009	74,472,806	71,105,891	(3,366,915)	104.7
07/01/2010	73,458,863	70,094,204	(3,364,659)	104.8
07/01/2011	74,190,381	67,444,219	(6,746,162)	110.0
07/01/2012	75,117,973	71,402,002	(3,715,971)	105.2
07/01/2013	76,325,451	66,049,664	(10,275,787)	115.6
07/01/2014	78,157,302	65,190,192	(12,967,110)	119.9
07/01/2015	79,196,686	63,623,299	(15,573,387)	124.5
07/01/2016	80,980,498	61,371,296	(19,609,202)	132.0



**Prior to 2015, the actuarial accrued liability shown is based on the Entry Age Normal cost method. Beginning with 2015, the actuarial accrued liability shown is equal to the present value of future benefits.*

SECTION B
ASSET EXHIBITS

STATEMENT OF FIDUCIARY NET POSITION

	Fiscal Year Ending	
	June 30, 2015	June 30, 2016
Assets		
Cash	\$ 343	\$ 424
Receivables		
Contribution receivable	3,931	3,296
Interest receivable	106,664	163
Due from other fiduciary funds	1,878	0
Total receivables	<u>112,473</u>	<u>3,459</u>
Investments :		
Equities	37,726,351	39,637,397
Fixed income	57,998,983	56,558,928
Invested cash	560,562	391,845
Total Investments	<u>96,285,896</u>	<u>96,588,170</u>
Capital assets (net of depreciation/ amortization)	<u>12,021</u>	<u>9,893</u>
Total assets	<u>96,410,733</u>	<u>96,601,946</u>
Liabilities		
Accounts payable	127,280	65,187
Due to other fiduciary funds	561	2,805
Total liabilities	<u>127,841</u>	<u>67,992</u>
Net position restricted for pensions	<u>\$ 96,282,892</u>	<u>\$ 96,533,954</u>

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

	Fiscal Year Ending	
	June 30, 2015	June 30, 2016
Additions		
Contributions:		
From employer	\$ -	\$ -
From employee	50,142	44,178
Total contributions	50,142	44,178
Investment income		
Net change in fair value of investments	1,818,431	2,355,614
Interest and dividends	1,721,361	2,650,945
Less investment expense	(279,285)	(166,226)
Net investment income	3,260,507	4,840,333
Total additions	3,310,649	4,884,511
Deductions		
Benefits paid to participants	4,694,171	4,601,196
Refunds	-	-
Transfers to other plans	-	-
	4,694,171	4,601,196
Administrative expenses	30,214	32,253
	4,724,385	4,633,449
Change in net position	(1,413,736)	251,062
Net position restricted for pensions		
Beginning of year	97,696,628	96,282,892
End of year	\$ 96,282,892	\$ 96,533,954

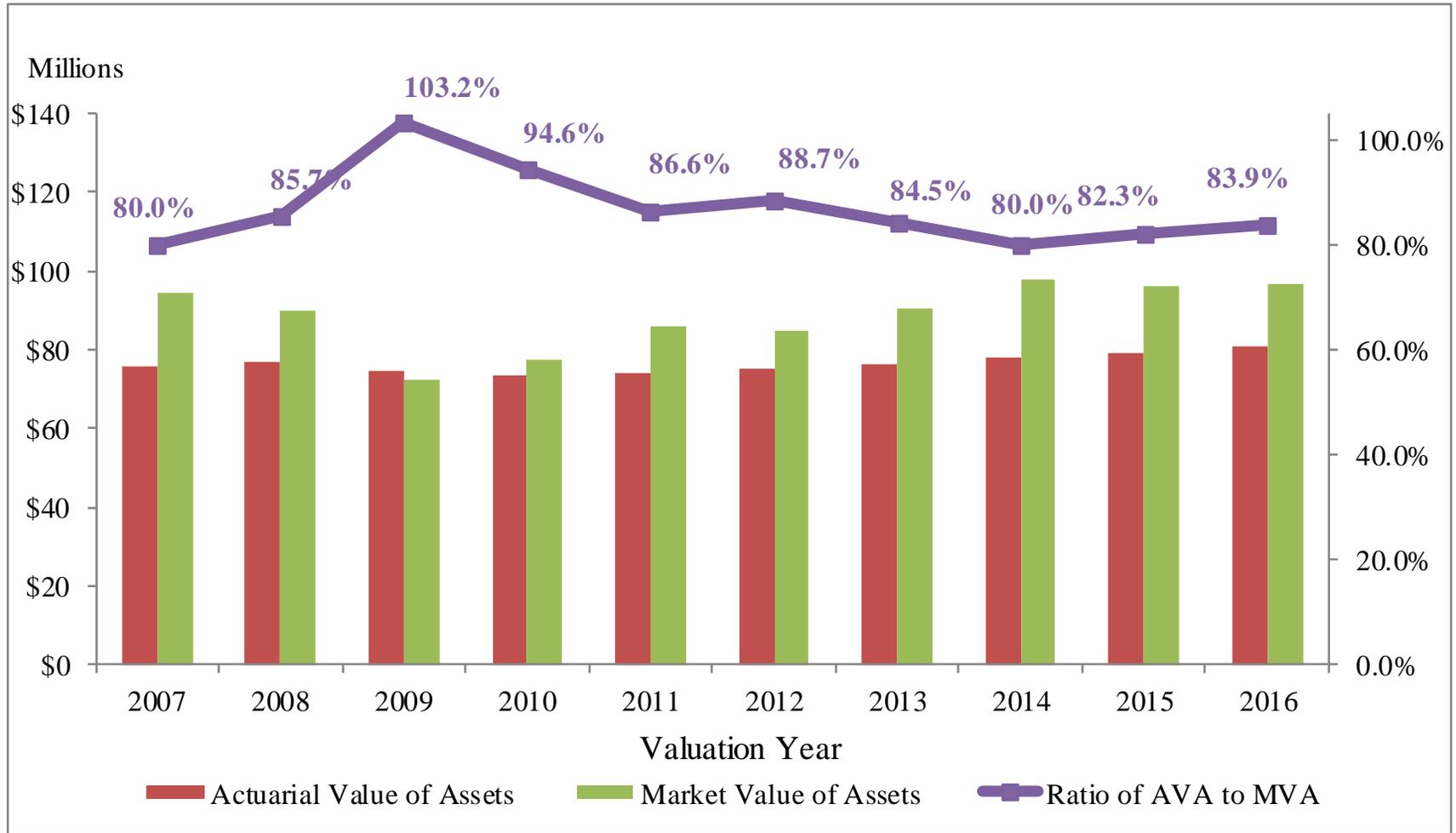
DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

Fiscal Year Ending	2015	2016
Beginning of Year:		
(1) Market Value of Assets	\$ 97,696,628	\$ 96,282,892
(2) Actuarial Value of Assets	78,157,302	79,196,686
End of Year:		
(3) Market Value of Assets	96,282,892	96,533,954
(4a) Contributions (Incl. repurchase svc credit)	50,142	44,178
(4b) Interest and Dividends	1,721,361	2,650,945
(4c) Net Disbursements	4,724,385	4,633,449
(4d) Investment Expense	279,285	166,226
(4e) Net Cash Flow (Excl. change in fair value of investments)		
=(4a)+(4b)-(4c)-(4d)	(3,232,167)	(2,104,552)
(5) Net change in fair value of investments		
=(3)-(1)-(4d)	1,818,431	2,355,614
(6) Projected Rate of Return	7.00%	7.00%
(7) Projected Investment Income		
=(1)x(6)+([1+(6)]^.5-1)x(4a-4b)	6,677,932	6,581,895
(8) Asset Adjustment	0	0
(9) Investment Income		
=(4b)-(4d)+(5)	3,260,507	4,840,333
End of Year:		
(10) Preliminary Actuarial Value of Assets		
=(2)+(4e)	74,925,135	77,092,134
(3) Market Value of Assets	96,282,892	96,533,954
(11) Difference Between Market & Preliminary Actuarial Values = (3) - (10)	21,357,757	19,441,820
(12) Adjustment Toward Market Value = 20%*(11)	4,271,551	3,888,364
(13) Actuarial Value of Assets with Adjustment Toward Market Value = (10) + (12)	79,196,686	80,980,498
(14) Difference Between Market & Actuarial Values	17,086,206	15,553,456
(15) Estimated Market Value Rate of Return on Total Plan Assets	3.42%	5.15%
(16) Actuarial Value Rate of Return	7.54%	8.29%
(17) Ratio of Actuarial Value to Market Value	82.3%	83.9%

CHANGES IN ACTUARIAL VALUE OF ASSETS

Date	Employer Contributions	Member Contributions	Purchase Service Credit	Administrative Expenses	Benefit Payments and Refunds	Investment Income (AVA)	Actuarial Value of Assets at End of Year	Market Value of Assets at End of Year
07/01/2007	\$ -	\$ 132,564	\$ -	\$ (22,811)	\$ (3,400,892)		\$ 75,749,846	\$ 94,687,307
07/01/2008	-	123,718	-	(22,212)	(3,564,811)	4,734,393	77,020,934	89,913,883
07/01/2009	-	119,115	-	(25,101)	(3,759,618)	1,117,476	74,472,806	72,155,658
07/01/2010	-	114,626	-	(24,318)	(3,891,996)	2,787,745	73,458,863	77,661,493
07/01/2011	-	97,591	-	(26,368)	(4,012,707)	4,673,002	74,190,381	85,719,432
07/01/2012	-	83,351	-	(25,980)	(4,170,969)	5,041,190	75,117,973	84,706,540
07/01/2013	-	72,174	-	(30,014)	(4,353,984)	5,519,302	76,325,451	90,378,957
07/01/2014	-	55,748	-	(31,455)	(4,594,462)	6,402,020	78,157,302	97,696,628
07/01/2015	-	50,142	-	(30,214)	(4,694,171)	5,713,627	79,196,686	96,282,892
07/01/2016	-	44,178	-	(32,253)	(4,601,196)	6,373,083	80,980,498	96,533,954
10-Year Total	-	893,207	-	(270,726)	(41,044,806)	42,361,838		

HISTORICAL COMPARISON OF ACTUARIAL VALUE OF ASSETS TO MARKET VALUE OF ASSETS (JOB SERVICE)



SECTION C
MEMBERSHIP DATA

SUMMARY OF PARTICIPANT DATA (JULY 1, 2015 AND JULY 1, 2016)

	Pay Status		Participants Paid From Plan Assets			Pay Status Participants Paid From The Travelers		Total
	Actives	Inactive Vested	Retirees	Alternate Payees	Beneficiaries	Retirees	Beneficiaries	
Participants at 07/01/2015	11	1	134	1	7	47	17	218
Vested Termination								0
Retirements	(2)		2					0
New Beneficiaries					1		3	4
Certain period expired								0
New former spouse								0
Died with beneficiary			(2)			(2)		(4)
Died without beneficiary			(2)			(1)		(3)
Lump sum payouts								0
Data Adjustments				1				1
Participants at 07/01/2016	9	1	132	2	8	44	20	216

SUMMARY OF PARTICIPANT DATA (JULY 1, 2015 AND JULY 1, 2016)

	Valuation as of July 1, 2015	Valuation as of July 1, 2016
Active Members		
Number	11	9
Average Age	61.2	61.6
Average Service	38.9	40.1
Total Payroll	\$ 673,836	\$ 564,684
Inactive Members		
Number	1	1
Disabled Members		
Number	6	6
Total Benefits*	\$ 8,370	\$ 8,924
Retired Members		
Number	175	170
Total Benefits*	\$ 407,638	\$ 397,654
Beneficiaries		
Number	24	28
Total Benefits*	\$ 40,325	\$ 47,742
QDROs (Alternate Payees)		
Number	1	2
Total Benefits*	\$ 1,265	\$ 2,119
Total Membership	218	216

**Excludes benefits paid by Travelers.*

AGE/SERVICE/SALARY AS OF JULY 1, 2016

Total	Vesting Service as of Valuation Date									Valuation Payroll ¹	Contribution Account Balance	
	Current Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 and Over			Totals
Under 20	-	-	-	-	-	-	-	-	-	0	\$ -	\$ -
20-24	-	-	-	-	-	-	-	-	-	0	-	-
25-29	-	-	-	-	-	-	-	-	-	0	-	-
30-34	-	-	-	-	-	-	-	-	-	0	-	-
35-39	-	-	-	-	-	-	-	-	-	0	-	-
40-44	-	-	-	-	-	-	-	-	-	0	-	-
45-49	-	-	-	-	-	-	-	-	-	0	-	-
50-54	-	-	-	-	-	-	-	-	-	0	-	-
55-59	-	-	-	-	-	-	-	2	2	2	86,304	226,350
60-64	-	-	-	-	-	-	-	5	5	5	337,956	941,773
65-69	-	-	-	-	-	-	-	2	2	2	140,424	414,522
70-74	-	-	-	-	-	-	-	-	-	0	-	-
75 and Over	-	-	-	-	-	-	-	-	-	0	-	-
Total	0	0	0	0	0	0	0	9	9	9	\$ 564,684	\$ 1,582,646

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

	Previous Valuation	Current Valuation	Change
Average Age:	61.2	61.6	0.4
Average Vesting Service:	38.9	40.1	1.2
Average Annual Pay:	\$61,258	\$62,743	\$1,485
Average Account Balance:	\$165,484	\$175,850	\$10,366
Vested Participants	11	9	(2)
Nonvested Participants	-	-	0

Current Age	Annualized Salary as of Valuation Date										Totals
	Less Than \$20,000	\$20,000-\$29,999	\$30,000-\$39,999	\$40,000-\$49,999	\$50,000-\$59,999	\$60,000-\$69,999	\$70,000-\$79,999	\$80,000-\$89,999	\$90,000-\$99,999	\$100,000 & Over	
Under 20	-	-	-	-	-	-	-	-	-	-	0
20-24	-	-	-	-	-	-	-	-	-	-	0
25-29	-	-	-	-	-	-	-	-	-	-	0
30-34	-	-	-	-	-	-	-	-	-	-	0
35-39	-	-	-	-	-	-	-	-	-	-	0
40-44	-	-	-	-	-	-	-	-	-	-	0
45-49	-	-	-	-	-	-	-	-	-	-	0
50-54	-	-	-	-	-	-	-	-	-	-	0
55-59	-	-	1	1	-	-	-	-	-	-	2
60-64	-	-	-	-	2	1	-	2	-	-	5
65-69	-	-	-	-	-	1	1	-	-	-	2
70-74	-	-	-	-	-	-	-	-	-	-	0
75 and Over	-	-	-	-	-	-	-	-	-	-	0
Total	0	0	1	1	2	2	1	2	0	0	9

HISTORICAL SCHEDULE OF ACTIVE MEMBER DATA THROUGH JULY 1, 2016

Valuation Date 7/1	Job Service			
	Number	Annual Payroll (\$ in Millions)	Average Annual Pay ¹	% Increase in Avg Pay
2007	40	\$1.8	\$46,079	5.5%
2008	38	1.8	46,385	0.7%
2009	35	1.7	48,841	5.3%
2010	31	1.6	51,975	6.4%
2011	23	1.2	52,208	0.4%
2012	19	1.0	54,892	5.1%
2013	15	0.8	56,173	2.3%
2014	13	0.8	60,819	8.3%
2015	11	0.7	63,402	4.2%
2016	9	0.6	62,743	(1.0)%

¹ Prior to the valuation as of July 1, 2016, annual payroll and average annual pay are based on projected annual compensation for the upcoming year. Beginning with the valuation as of July 1, 2016, annual payroll and average annual pay are based on annualized payroll as of the valuation date.

SUMMARY OF ACTIVE MEMBER DATA AS OF JULY 1, 2016

Summary of Active Member Eligibility for Benefits

Active Members Eligible For:	Total
Retirement	
Normal	2
Optional	7
Early Retirement	<u>0</u>
Total Retirement	9
Deferred Retirement	<u>0</u>
Total Vested	9
Non-Vested	0
Grand Total	9

SCHEDULE OF MEMBERS IN PAY STATUS AS OF JULY 1, 2016

Job Service					
Monthly Amount	Normal	Early	Disability	Beneficiary*	Total
Under \$200	2	0	0	0	2
\$200 - \$400	7	1	0	2	10
\$400 - \$600	5	0	0	2	7
\$600 - \$800	5	0	0	1	6
\$800 - \$1,000	1	0	0	3	4
\$1,000 - \$1,200	3	0	1	2	6
\$1,200 - \$1,400	7	0	2	4	13
\$1,400 - \$1,600	12	0	1	1	14
\$1,600 - \$1,800	7	0	0	5	12
\$1,800 - \$2,000	12	0	2	0	14
\$2,000 - \$2,200	15	0	0	0	15
\$2,200 - \$2,400	11	0	0	1	12
\$2,400 - \$2,600	13	0	0	3	16
\$2,600 - \$2,800	13	0	0	2	15
\$2,800 - \$3,000	13	0	0	1	14
\$3,000 - \$3,200	12	0	0	2	14
\$3,200 - \$3,400	5	0	0	0	5
\$3,400 - \$3,600	4	0	0	1	5
\$3,600 - \$3,800	6	0	0	0	6
\$3,800 - \$4,000	3	0	0	0	3
\$4,000 - \$4,200	6	0	0	0	6
\$4,200 - \$4,400	2	0	0	0	2
\$4,400 - \$4,600	2	0	0	0	2
\$4,600 - \$4,800	0	0	0	0	0
\$4,800 - \$5,000	1	0	0	0	1
\$5,000 and Over	2	0	0	0	2
Total	169	1	6	30	206
Payment Option	Normal	Early	Disability	Beneficiary*	Total
Life	44	1	2	14	61
Joint & 55% Survivor	36	0	4	6	46
Joint & 75% Survivor	19	0	0	6	25
Joint & 100% Survivor	15	0	0	2	17
10 Year C & L	24	0	0	2	26
15 Year C & L	3	0	0	0	3
20 Year C & L	28	0	0	0	28
Total	169	1	6	30	206
Age	Normal	Early	Disability	Beneficiary*	Total
Under 50	0	0	0	0	0
50 - 54	0	0	0	0	0
55 - 59	1	0	1	0	2
60 - 64	15	1	2	1	19
65 - 69	39	0	1	4	44
70 - 74	41	0	1	4	46
75 - 79	25	0	1	4	30
80 - 84	20	0	0	6	26
85 - 89	22	0	0	6	28
90 and Over	6	0	0	5	11
Total	169	1	6	30	206

	Previous Valuation	Current Valuation
Average Age	75.0	75.1
Average Monthly Benefit	\$1,866	\$1,864
Total Members in Pay Status	206	206

* Includes 2 alternate payees.

SCHEDULE OF AVERAGE BENEFIT PAYMENTS

Job Service		Retirement Plan	Travelers Annuitants	Total
2012	Number of Retirees	133	79	212
	Average Monthly Benefit	\$2,340	\$691	\$1,726
2013	Number of Retirees	137	76	213
	Average Monthly Benefit	\$2,289	\$710	\$1,726
2014	Number of Retirees	140	73	213
	Average Monthly Benefit	\$2,359	\$757	\$1,810
2015	Number of Retirees	142	64	206
	Average Monthly Benefit	\$2,361	\$770	\$1,866
2016	Number of Retirees	142	64	206
	Average Monthly Benefit	\$2,360	\$763	\$1,864

**SCHEDULE OF RETIREES AND BENEFICIARIES
ADDED TO AND REMOVED FROM THE ROLLS**

Job Service

Plan Year	Beg of Year		Added to Rolls		Removed from Rolls		End of Year Balance		Average	% Increase
	No.	Ann. Benefits*	No.	Ann. Benefits*	No.	Ann. Benefits*	No.**	Ann. Benefits*	Annual Benefit	in Annual Benefit
Retirement										
2007	221	\$ 3,272,565	4	\$ 111,871	(5)	(\$42,458)	220	\$ 3,459,148	\$ 15,723	5.7%
2008	220	3,459,148	7	195,354	(11)	(99,492)	216	3,555,010	16,458	2.8%
2009	216	3,555,010	4	354,356	(6)	(80,657)	214	3,828,709	17,891	7.7%
2010	214	3,828,709	4	116,464	(7)	(121,601)	211	3,866,281	18,324	1.0%
2011	211	3,866,281	8	229,678	(6)	(96,255)	213	3,999,704	18,778	3.5%
2012	213	3,999,704	9	543,433	(10)	(153,978)	212	4,389,159	20,704	9.7%
2013	212	4,389,159	8	273,087	(7)	(250,470)	213	4,411,776	20,713	0.5%
2014	213	4,411,776	6	300,806	(6)	(86,706)	213	4,625,876	21,718	4.9%
2015	213	4,625,876	2	106,825	(9)	(119,238)	206	4,613,463	22,395	-0.3%
2016	206	4,613,463	7	119,994	(7)	(126,408)	206	4,607,049	22,364	-0.1%

* Includes cost of living adjustment of 3.6% for retirement benefits in pay status as of July 1, 2011 and 1.7% as of July 1, 2015.
Excludes benefits paid by Travelers.

**Includes 2 alternate payees

Results prior to 2016 provided by NDPERS prior actuary.

SECTION D

GASB STATEMENT 67 SCHEDULES

GASB STATEMENT NO. 67

Discussion

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB Statement No. 68 establishes standards for state and local government employers (as well as non-employer contributing entities) to account for and disclose the net pension liability, pension expense and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain non-actuarial information, such as notes regarding accounting policies and investments, is not included in this report and the retirement system and/or plan sponsor will be responsible for preparing and disclosing that information to comply with these accounting standards.

Financial Statements

Pension plans that prepare their own, stand-alone financial statements are required to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position in accordance with GASB Statement No. 67. The *statement of fiduciary net position* presents the assets and liabilities of the pension plan at the end of the pension plan's reporting period. The *statement of changes in fiduciary net position* presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expenses, and net increase or decrease in the fiduciary net position.

Notes to Financial Statements

GASB Statement Nos. 67 and 68 require the notes of the financial statements for the employers and pension plans to include certain additional information. The list of disclosure items should include:

- A description of benefits provided by the plan;
- The type of employees and number of members covered by the pension plan;
- A description of the plan's funding policy, which includes member and employer contribution requirements;
- The pension plan's investment policies;
- The pension plan's fiduciary net position, net pension liability and the pension plan's fiduciary net position as a percentage of the total pension liability;
- The net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes;
- Significant assumptions and methods used to calculate the total pension liability;
- Inputs to the discount rates; and
- Certain information about mortality assumptions and the dates of experience studies.

GASB STATEMENT NO. 67

(CONTINUED)

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with GASB Statement No. 67. This information includes:

- The composition of the pension plan's board and the authority under which benefit terms may be amended;
- A description of how fair value is determined;
- Information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets; and
- Annual money-weighted rate of return.

Required Supplementary Information

GASB Statement No. 67 requires a 10-year fiscal history of:

- Sources of changes in the net pension liability;
- Information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll; and
- A comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. The net pension liability and pension expense should be measured as of the pension plan's fiscal year end (measurement date) on a date that is within the employer's prior fiscal year. If the actuarial valuation used to determine the total pension liability is not calculated as of the measurement date, the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of June 30, 2016, and a measurement date of June 30, 2016.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) a tax-exempt municipal bond rate based on an index of 20-year mixed maturity general obligation bonds with an average Standard & Poor's Corp.'s AA credit rating (which is published by the Bond Buyer Index) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.00%; the municipal bond rate is 2.85% (based on the most recent date available on or before the measurement date of the "20-Bond GO Index" from the Bond Buyer Index); and the resulting Single Discount Rate is 7.00%.

Effective Date and Transition

GASB Statement Nos. 67 and 68 are effective for fiscal years beginning after June 15, 2013, and June 15, 2014, respectively.

GASB STATEMENT NO. 67

Executive Summary as of June 30, 2016

	<u>Job Service</u>
Actuarial Valuation Date	07/01/2016
Measurement Date of the Net Pension Liability	07/01/2016
Plan's Fiscal Year Ending Date (Reporting Date) for GASB 67	06/30/2016
Membership	
Number of	
- Retirees and Beneficiaries	206
- Inactive, Nonretired Members	1
- Active Members	<u>9</u>
- Total	216
Covered Payroll	\$ 564,684
Net Pension Liability	
Total Pension Liability	\$ 61,204,772
Plan Fiduciary Net Position	<u>96,533,954</u>
Net Pension Liability	\$ (35,329,182)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	157.72 %
Net Pension Liability as a Percentage of Covered Payroll	(6,256.45)%
Development of the Single Discount Rate	
Single Discount Rate	7.00 %
Long-Term Expected Rate of Investment Return	7.00 %
Long-Term Municipal Bond Rate*	2.85 %
Last year ending June 30 in the 2016 to 2115 projection period for which projected benefit payments are fully funded	2115

*Source: "20-Bond GO Index" is the Bond Buyer Index, general obligation, 20 years to maturity, mixed quality. In describing this index, the Bond Buyer notes that the bonds' average credit quality is roughly equivalent to Moody's Investors Service's Aa2 rating and Standard & Poor's Corp.'s AA. The rate shown is as of June 30, 2016, the most recent date available on or before the measurement date.

GASB STATEMENT NO. 67

Schedules of Required Supplementary Information Schedule of Changes in Net Pension Liability and Related Ratios Multiyear

Last 10 Fiscal Years (which may be built prospectively)

FY Ending 30-Jun	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll ¹	Net Pension Liability as a % of Covered Payroll
2014	\$65,046,433	\$97,696,628	(32,650,195)	150.20%	842,601	-3874.93%
2015	63,390,014	96,282,892	(32,892,878)	151.89%	790,649	-4160.24%
2016	61,204,772	96,533,954	(35,329,182)	157.72%	564,684	-6256.45%

¹ Prior to the valuation as of July 1, 2016, covered payroll is based on projected annual compensation. Beginning with the valuation as of July 1, 2016, covered payroll is based on annualized payroll as of the valuation date.

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

The following presents the net pension liability/(asset) of the Retirement Plan for Employees of Job Service North Dakota, calculated using the current discount rate of 7.00%, as well as what the Retirement Plan for Employees of Job Service North Dakota's net pension liability/(asset) would be if it were calculated using a discount rate that is 1-percentage point lower (6.00%) or is 1-percentage point higher (8.00%) than the current rate.

Current Single Discount		
1% Decrease	Rate Assumption	1% Increase
6.00%	7.00%	8.00%
\$ (29,386,845)	\$ (35,329,182)	\$ (40,412,093)

GASB STATEMENT NO. 67

Schedule of Changes in Net Pension Liability and Related Ratios Current Report Period Fiscal Year Ended June 30, 2016

Fiscal Year Ending June 30,	2016
Total pension liability	
Service cost	\$ 71,420
Interest on the total pension liability	4,281,440
Changes of benefit terms	0
Difference between expected and actual experience	(2,006,791)
Changes of assumptions ¹	69,885
Benefit payments and refunds	(4,601,196)
Net change in total pension liability	(2,185,242)
Total pension liability - beginning	63,390,014
Total pension liability - ending (a)	\$ 61,204,772
Plan fiduciary net position	
Contributions - Employer	\$ 0
Contributions - Employee	44,178
Contributions - Service credit repurchases	0
Pension plan net investment income	4,840,333
Benefit payments and refunds	(4,601,196)
Pension plan administrative expense	(32,253)
Transfers and Other Income	-
Net change in plan fiduciary net position	251,062
Plan fiduciary net position - beginning	96,282,892
Plan fiduciary net position - ending (b)	\$ 96,533,954
Net pension liability - ending (a) - (b)	\$ (35,329,182)
Plan fiduciary net position as a percentage	
of total pension liability	157.72 %
Covered-employee payroll	\$ 564,684
Net pension liability as a percentage	
of covered-employee payroll	(6,256.45)%

¹ Includes difference in liability due to change in actuary.

GASB STATEMENT NO. 67

System Asset Allocation

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>	<u>Allocation-Weighted Long-Term Expected Real Rate of Return</u>
Domestic Equity	24.00 %	7.16 %	1.72 %
Global Equity	16.00 %	7.11 %	1.14 %
US High Yield	3.00 %	6.13 %	0.18 %
Emerging Market Debt	3.00 %	7.45 %	0.22 %
Core Fixed Income	19.00 %	4.26 %	0.81 %
Limited Duration Fixed Income	19.00 %	3.18 %	0.60 %
Diversified ST Fixed Income	10.00 %	3.54 %	0.35 %
Short Term Corporate Fixed Income	6.00 %	2.48 %	0.15 %
Total	100.00 %		5.18 %

Asset allocation and long term expected returns were provided by investment consultant.

The discount rate used to measure the total pension liability was 7.00%. The projection of cash flows used to determine the discount rate assumed current plan member contributions will be made and no future employer contributions will be made. Based on those assumptions, the pension plan's fiduciary net position was projected to be sufficient to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

GASB STATEMENT NO. 67

Schedule of Contributions Multiyear Last 10 Fiscal Years

FY Ending 30-Jun	Actuarially Determined Contribution*	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll ¹	Actual Contribution as a % of Covered Payroll
2014	\$ -	\$ -	\$ -	\$ 842,601	0.00 %
2015	-	-	-	790,649	0.00 %
2016	-	-	-	564,684	0.00 %

¹ Prior to the valuation as of July 1, 2016, covered employee payroll is based on projected annual compensation. From the valuation as of July 1, 2016, covered employee payroll is based on pensionable payroll for membership data used in the actuarial valuation.

10 fiscal years will be built prospectively.

GASB STATEMENT NO. 67

Valuation Date: July 1, 2016
Notes The actuarially determined contribution amount is calculated as of June 30, 12 months prior to the end of the fiscal year in which the contributions are reported.

Methods and Assumptions Used to Determine Actuarially Determined Contribution Rates:

Actuarial Cost Method Frozen Initial Liability (Aggregate since no Initial Liability remaining)
Amortization Method NA
Assumed annual payroll growth of 4.50%
Asset Valuation Method The asset value is the actuarial value of assets which is calculated by recognizing 100 percent of the current year's interest and dividends and 20 percent of the current year and previous four years' total appreciation/(depreciation). The total appreciation/(depreciation) for a given year is fully recognized after a five-year period. The current asset valuation method has a systematic bias toward the actuarial value of assets being lower than the market value of assets.
Inflation 3.50 percent
COLA 3.00 percent
Salary Increases 3.50 percent
Investment Rate of Return 7.00 percent
Retirement Age Age-based table of rates that are specific to the type of eligibility condition.
Mortality RP 2000 Combined Healthy Mortality table, sex-distinct, with rates set back 2 years for males and 3 years for females. RP 2000 Disabled Mortality table, sex-distinct, with rates set back 1 years for males (no setback for females), with rates multiplied by 125% for post-retirement disabled mortality. Mortality rates are projected from 2014 using the Social Security Administration (SSA) Intermediate Cost scale.

Other Information:

Notes There were no benefit changes during the year.
There were no assumptions changes during the year.
The actuarial assumptions were adopted by the Board and are based on an experience study covering the period July 1, 2009, through June 30, 2014.
The System has assets in excess of the present value of future benefits.
Therefore, no employer contributions are being made.

Methods and Assumptions Used to Determine GASB 67/68 Net Pension Liability:

Actuarial Cost Method Entry Age Normal
Asset Valuation Method Plan Fiduciary Net Position (Market value of assets, no asset smoothing)
Inflation 3.50 percent
COLA 3.00 percent
Salary Increases 3.50 percent
Investment Rate of Return 7.00 percent
Retirement Age Age-based table of rates that are specific to the type of eligibility condition.
Mortality RP 2000 Combined Healthy Mortality table, sex-distinct, with rates set back 2 years for males and 3 years for females. RP 2000 Disabled Mortality table, sex-distinct, with rates set back 1 years for males (no setback for females), with rates multiplied by 125% for post-retirement disabled mortality. Mortality rates are projected from 2014 using the Social Security Administration (SSA) Intermediate Cost scale.

Other Information:

Notes There were no benefit changes during the year.
There were no assumptions changes during the year.
The actuarial assumptions were adopted by the Board and are based on an experience study covering the period July 1, 2009, through June 30, 2014.
The System has assets in excess of the present value of future benefits.
Therefore, no employer contributions are being made.

SECTION E
VALUATION PROCEDURES

ACTUARIAL ASSUMPTIONS IN THE VALUATION PROCESS

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using the *Frozen Initial Liability actuarial cost method* having the following characteristics:

- Future normal costs are defined to be the group present value of future benefits, at the valuation date, less the total assets on hand. Future normal costs are then amortized over the group average working lifetime. Because the accrued liability is equal to the assets, all gains and losses are spread into the future normal cost ; and
- The normal cost tends to be high at plan inception and gradually decreases as a percentage of payroll as the original plan participants with prior service at inception leave active service.

Actuarial Value of Pension Plan Assets. The asset value is the actuarial value of assets which is calculated by recognizing 20 percent of the difference between the Market Value of Assets as of the valuation date and the Actuarial Value of Assets from the prior year plus non-investment cash flow, plus interest and dividends, less investment expenses.

Valuation Assumptions

The contribution and benefit values of the System are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost method described above.

The principal areas of financial risk which require assumptions about future experiences are:

- Long-term rates of investment return to be generated by the assets of the Plan;
- Patterns of pay increases to members;
- Rates of mortality among members, retirees and beneficiaries;
- Rates of withdrawal of active members;
- Rates of disability among members; and
- The age patterns of actual retirement.

In a valuation, the monetary effect of each assumption is calculated for as long as a present covered person survives; a period of time which can be as long as a century.

Actual experience of the Plan will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time-to-time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations). Thus, an experience review of the North Dakota Public Employees' Retirement System for the period July 1, 2009, to July 1, 2014, was performed by the prior actuary to compare the demographic and economic experience against the actuarial assumptions used in the valuations. The actuarial assumptions described in this section were adopted by the Board for use beginning with the July 1, 2015, valuation.

ACTUARIAL ASSUMPTIONS IN THE VALUATION PROCESS (CONTINUED)

Additional information regarding the rationale for the assumptions may be found in the 2015 experience review report. **The experience review was performed by the prior actuary.** All actuarial assumptions are expectations of future experience, not current market measures.

The assumptions were provided by, and are the responsibility of, the NDPERS Board. GRS was unable to judge the reasonableness of the assumptions and methods without performing a substantial amount of additional work beyond the scope of the assignment, and did not do so.

VALUATION ASSUMPTIONS

Current Valuation Assumptions and Methods

The assumed rate of investment return used was 7.00%, net of investment expenses, annually.

The assumed rate of price inflation is 3.50 percent.

Cost of Living Adjustments (COLA) of 3.00 percent per year are assumed to be provided to benefit recipients.

The rate of annual salary increase used for individual members of 3.50 percent per year is assumed. This assumption is used to project a member's current salary to the salaries upon which benefit amounts will be based.

No rates of separation from active membership are assumed (separate rates apply to members for separation on account of death or disability).

Rates of disability:

Before age 65: Males: 20% of OASDI disability incidence rates.
Females: 10% of OASDI disability incidence rates.
Age 65 and later: 0.25% per year.

Rates of disability were as follows:

<u>Age</u>	<u>All Plans</u>	
	<u>Male</u>	<u>Female</u>
20	0.0120%	0.0060%
25	0.0171%	0.0085%
30	0.0220%	0.0110%
35	0.0295%	0.0147%
40	0.0440%	0.0220%
45	0.0719%	0.0360%
50	0.1212%	0.0606%
55	0.2018%	0.1009%
60	0.3254%	0.1627%
65	0.2500%	0.2500%

Rates of retirement for members eligible to retire during the next year were as follows:

<u>Age</u>	<u>Job Service</u>
50-64	15.00%
65+	100.00%

**VALUATION ASSUMPTIONS
(CONTINUED)**

The mortality assumptions are as follows:

	Male Setback	Female Setback
RP-2000 Combined Healthy Mortality Table (healthy mortality)	2 years	3 years
RP-2000 Disabled Retiree Mortality Table (disabled post retirement)*	1 year	0 years

*Rates multiplied by 125 percent.

To provide a margin for future mortality improvements, generational mortality improvements from the year 2014 using the Social Security Administration (SSA) 2014 Intermediate Cost scale were assumed.

Following is a table with the life expectancies by age as of the valuation date.

Age	Healthy Mortality		Disabled Mortality	
	Future Life		Future Life	
	Expectancy (years) in 2016		Expectancy (years) in 2016	
	Men	Women	Men	Women
20	67.65	72.06	32.27	49.75
25	62.25	66.64	30.36	45.90
30	56.86	61.22	28.35	41.98
35	51.49	55.82	26.21	37.97
40	46.17	50.44	23.85	33.83
45	40.91	45.11	21.15	29.52
50	35.70	39.83	18.27	25.27
55	30.58	34.64	15.76	21.51
60	25.63	29.56	13.57	18.22
65	20.97	24.71	11.54	15.22
70	16.74	20.23	9.58	12.45
75	12.92	16.11	7.73	9.95
80	9.60	12.46	6.12	7.79
85	6.86	9.28	4.81	5.97
90	4.78	6.69	3.63	4.49
95	3.40	4.89	2.55	3.40
100	2.59	3.85	1.92	2.76
105	2.15	3.13	1.60	2.14

VALUATION ASSUMPTIONS (CONTINUED)

Assumed Service

Credit: All active members (full time and part time) are assumed to earn one full year of service for each assumed future year of service.

Marital Status:

It is assumed that 85 percent of participants have an eligible spouse at the time of retirement or pre-retirement death. The male spouse is assumed to be four years older than the female spouse. Spouses are assumed to be the opposite sex of the employees and retirees. The relatively low rate of same-sex spouses does not have a material actuarial impact on the actuarial valuation results.

Form of Payment Election Assumption:

Single Life Annuity with 10 Year Certain	55% Contingent Annuitant
55%	45%

Benefit Service:

Exact fractional years of service are used to determine the amount of benefit payable.

Decrement Timing:

Retirement is assumed to occur at the beginning of the year. All decrements are assumed to occur at the middle of the year.

Eligibility Testing:

Eligibility for benefits is determined based upon the age nearest birthday and service on the date the decrement is assumed to occur.

Pay Increase Timing:

Beginning of (fiscal) year.

Expenses:

Assumed administrative expenses were added to the Normal Cost and are based on the prior year's expenses, adjusted for inflation. The assumed amount added to the Normal Cost is:

Expenses	Job Service
Assumed FY 2016	31,271
Actual FY 2016	32,253
Assumed FY 2017	33,382

Changes in Valuation Assumptions and Methods Since the Previous Valuation

There have been no changes in valuation assumptions or methods since the previous valuation as of July 1, 2015.

SECTION F
BENEFIT PROVISIONS

BRIEF SUMMARY OF PLAN PROVISIONS AS OF JULY 1, 2016

Current Valuation Plan Provisions

This section summarizes the major provisions of the plan as included in the valuation. It is not intended to be, nor should it be, interpreted as a complete description of all plan provisions.

Plan status: Frozen to new entrants as of October 1, 1980.

1. Normal Retirement:

Age requirement: 65.

Service requirement: None.

Benefit:

Average monthly earnings multiplied by the sum of:

- a. 1.50% times credited service up to five years, plus
- b. 1.75% times credited service between six and ten years, plus
- c. 2.00% times credited service in excess of ten years.

Average monthly earnings – monthly average earnings during the highest three consecutive years of employment.

2. Optional Retirement:

Age and service requirements:

Age 62 with five years of credited service, or
Age 60 with twenty years of credited service, or
Age 55 with thirty years of credited service.

Benefit:

Accrued normal retirement benefit.

3. Early Retirement:

Age requirement:

Ten years before normal or optional retirement age.

Service requirement:

Same as optional retirement.

Benefit:

Accrued normal retirement benefit, reduced if payments begin before normal or optional retirement.

BRIEF SUMMARY OF PLAN PROVISIONS AS OF JULY 1, 2016
(CONTINUED)

4. Disability Benefit:

Age requirement: None.

Service requirement:

Five years of credited service.

Benefit:

Greater of accrued normal retirement benefit or 40% of average monthly earnings.

5. Deferred Vested Retirement:

Age requirement: None.

Service requirement:

Five years of credited service.

Benefit:

Accrued normal retirement benefit payable at normal or optional retirement. After attainment of early retirement age, reduced benefits may be paid.

Employees who meet the requirements for a vested benefit may elect to receive a return of their accumulated employee contributions (including interest at 4% per year) in lieu of all other benefits under the plan.

6. Pre-retirement Death Benefits:

I. Married participants or single participants with eligible children

Surviving spouse's benefit:

Age requirement: None.

Service requirement:

None.

BRIEF SUMMARY OF PLAN PROVISIONS AS OF JULY 1, 2016
(CONTINUED)

Benefit:

55% of the greater of (a) or (b).

(a) Accrued normal retirement benefit.

(b) The lesser of (1) or (2).

(1) 40% of average monthly earnings.

(2) Normal retirement benefit based on credited service to age 60.

Children's benefit:

Provided for children under age 18 (age 22 if a full-time student) – note: the actuarial valuation does not consider benefits for expected surviving children.

II Single participants with no eligible children

120 payment guarantee:

Age requirement: None.

Service requirement:

Five years of credited service.

Benefit:

Accrued normal retirement benefit payable for 120 months. Not payable if surviving spouse or children's benefit is payable.

III Lump sum benefit

Age requirement:

None.

Service requirement:

None.

Benefit:

Accumulated employee contributions (including interest at 4% per year). Not payable if the surviving spouse, children's benefit or 120 payment guarantee is in effect.

BRIEF SUMMARY OF PLAN PROVISIONS AS OF JULY 1, 2016 (CONTINUED)

7. Refund of Member Contributions:

Employees who do not meet the requirements for a vested benefit will receive a return of their accumulated employee contributions (including interest at 4% per year).

8. Post-retirement Death Benefits:

Based on form of payment elected by the pensioner.

9. Post-retirement Cost-of-Living Adjustment:

Based on the Consumer Price Index as approved by the Board.

10. Participation:

Plan participant before October 1, 1980.

11. Credited Service:

Monthly salaried employment in a probationary or permanent status including only: service for which contributions were made (including purchased service), eligible military service and unused sick leave.

12. Contribution Rate:

Employee:

7% of average monthly earnings (4% picked up by employer).

Employer:

Remaining scheduled contribution, if any.

13. Normal and Optional Forms of Payment:

- Single Life Annuity with 120 month guarantee (Normal);
- Single Life Annuity with 180 month guarantee;
- Single Life Annuity with 240 month guarantee;
- 55% Contingent Annuitant Option;
- 75% Contingent Annuitant Option;
- 100% Contingent Annuitant Option;
- Uniform Income Option.

Changes in Plan Provisions Since the Previous Valuation

There have been no changes in plan provisions since the previous valuation as of July 1, 2015.

SECTION G

GLOSSARY OF TERMS

GLOSSARY OF TERMS

Actuarial Accrued Liability (AAL). The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.”

Actuarial Assumptions. Estimates of future plan experience such as investment return, expected lifetimes and the likelihood of receiving a pension from the Pension Plan. Demographic, or “people” assumptions, include rates of mortality, retirement and separation. Economic, or “money” assumptions, include expected investment return, inflation and salary increases.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

Actuarial Present Value of Future Plan Benefits. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Actuarial Value of Assets (AVA). Smoothed value of assets that recognizes the difference between the expected investment return using the valuation assumption of 7.50 percent and the actual investment return over a five-year period. Dampens volatility of asset value over time.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Annual Required Contribution. The sum of the normal cost and amortization of the unfunded actuarial accrued liability.

Asset Return. The net investment return for the asset divided by the mean asset value. Example: if \$1.00 is invested and yields \$1.08 after a year, the asset return is 8.00 percent.

Funded Ratio. The actuarial value of assets divided by the actuarial accrued liability. Measures the portion of the actuarial accrued liability that is currently funded.

Market Value of Assets (MVA). The value of assets currently held in the trust available to pay for benefits of the Pension Plan. Each of the investments in the trust is valued at market price which is the price at which buyers and sellers trade similar items in the open market.

Normal Cost (NC). The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Unfunded Actuarial Accrued Liability (UAAL). The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”