NEBRASKA RETIREMENT SYSTEMS COMMITTEE

2016

Report on Political Subdivision Underfunded Defined Benefit Retirement Plans

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Summary of Underfunded Political Subdivision Defined Benefit Plan Reports

Background

In 2014 Senator Mello introduced LB 759 which was passed by the Legislature. The legislative intent behind this reporting requirement is to provide additional state oversight of defined benefit plans offered by political subdivisions.

LB 759, codified at Neb. Rev. Stat. 13-2402, requires any governing entity that offers a defined benefit plan to file a report with the Nebraska Retirement Systems Committee if the most recent actuarial valuation report indicates that (1) the contributions do not equal the actuarial requirement for funding or (2) the funded ratio of the plan is less than eighty percent. The report must include, at a minimum, an analysis of the future benefit changes, contribution changes, or other proposed corrective action to improve the plan's funding condition.

The Nebraska Retirement Systems Committee may require the entity to present the report to the Committee at a public hearing. If a governmental entity fails to file the required information with the Committee, the State Auditor is authorized to audit the public pension system, or cause it to be audited at the political subdivision's own expense. The annual reporting requirement began November 1, 2014. In 2015, the reporting date was changed to October 15 of each year.

2016 Underfunded Pension Plans

In 2015, there were five defined benefit plans funded below the threshold 80% funding level:

- Omaha Civilian Employees
- Omaha Police and Fire
- Lincoln Police and Fire
- Douglas County Employees
- Eastern Nebraska Health Agency

This year two additional subdivisions, Omaha Public Power District and Metro Area Transit Hourly Employees Plans, were identified as plans funded below the 80% funding threshold.

POLITICAL SUBDIVISION	2016 FUNDING STATUS	2015 FUNDING STATUS
Omaha Civilian Employees	56.0%	56.0%
Omaha Police and Fire	49.0%	50.0%
Lincoln Police and Fire	64.0%	66.0%
Douglas County Employees	67.3%	66.8%
Omaha Public Power District	72.4%	73.9%
Eastern Nebraska Health Agency	71.0%	76%
Metro Area Transit Hourly Employees	72.0%	76.0%

Summary of Changes from the Previous Year

Omaha Civilian Employees: Under the collective bargaining agreement in 2014 among other benefit changes, the City implemented a Cash Balance Plan for employees hired after March 1, 2015. Though future savings are expected, the funding status of the 2016 Plan year remained unchanged from the previous year at 56%. The investment return for the Plan year was 3.1%. Omaha paid 84.5% of its ARC. The current assumptions remain unchanged though an Experience Study will be conducted in 2017 at which time the assumed rate will be reviewed. The current assumed rate of return in 8%.

Omaha Police & Fire: The employees in this plan are represented by four bargaining groups. Three of the groups have collective bargaining agreements in place through 2017; the fourth group, the Omaha Police Officers Association, is without a collective bargaining agreement which expired in 2013 and was extended through 2014. There is a case pending before the Commission of Industrial Relations which is scheduled for trial in late November 2016.

The funding status decreased from 50% to 49%. The investment return was .2%. The City paid 100% of its ARC. The current assumptions remain unchanged though an Experience Study will be conducted in 2017 at which time the assume rate will be reviewed. The current assumed rate of return in 8%.

Lincoln Police and Fire: In 2015 Cavanaugh Macdonald was retained as the Plan's actuary and the Pension Review Committee was formed. In response to the review, the city merged the assets of the 13th Check COLA Pool fund with the assets of the Plan and the actuary recommended lowering the investment return assumption from 6.75% to 6.4% to better reflect the expected impact of the transfers to the 13th Check COLA Pool Fund. The funding status decreased from 66% to 64% in the most recently completed valuation report even though 101% of the ARC was paid last year. The investment return was -2.76%.

Douglas County: Despite the County's payment of over 113% of the ARC, the funding status decreased slightly from 66.8% to 67.3%. The investment return was 2.3%.

Omaha Public Power District: The investment return was -1.07%. The funding status decreased from 73.9% to 72.4%. OPPD has consistently paid 100% of its ARC in each of the previous five reporting years. An Experience Study was conducted in 2016 and several assumptions were changed including the adoption of an updated mortality table and a reduction in the assumed rate of return from 7.75% to 7.0%

Eastern Nebraska Health Agency: The Agency paid 100% of its ARC in the previous year yet the funding status declined from 76% to 71%. The investment return was just 0.2%.

Metro Area Transit Hourly Employees: This is the first year this Plan has filed its reports with the Committee. The current investment return was 5.5%. The funding status of the Plan was 65% in 2012 when the assumed rate for the plan was 7.5%. Metro decreased the assumed rate to 7.0% in 2015 and dropped it again in 2016 to 6.75%. The Plan is currently funded at 72%. During this same time period Metro has paid between 80% and 88% of its ARC.

Required Reporting Information

In 2015, the Committee created a Reporting Form and asked each political subdivision to provide the information provided on the Form. Each political subdivision completed the Form and presented the information to the Committee at a public hearing on November 22, 2015. The Reporting Form required each entity to report the following information:

1. Please list the following information for the **current and previous plan year:**
   a. Funding status
   b. Assumed rate of return
   c. Actual investment return
   d. Member and employer contribution rates -- percentage
   e. Normal cost – percentage
   f. Actuarially required contribution (ARC) – percentage & dollar amount
   g. Actuarially required contribution (ARC) – actual dollars contributed & percentage of ARC actually contributed

2. Please provide a brief narrative of the circumstances that led to the current underfunding of the retirement plan.

3. Have there been any changes in the actuarial methods and/or assumptions since the previous actuarial valuation report? If so, please describe.

4. Please provide a description of corrective actions implemented to improve the funding status of the plan including, but not limited to, benefit changes, increased contribution rates and/or employer contributions. Please include any actuarial projections based on these changes and attach a copy of the actuarial projections.

5. Please describe any recent or ongoing negotiations with bargaining groups that may impact the funding of the plan.

6. When was the most recent Actuarial Experience Study conducted on the plan? Please attach a copy of the most recent Actuarial Experience Study.

7. What is the current assumed rate of return? If the rate has been changed in the past year, or if there are plans to review the rate in the upcoming year, please describe.

8. Please attach the most recent actuarial valuation report. If the valuation report is completed biannually (or less often) please include an updated report for the interim year/s, if available.

These reporting materials provided by each governmental entity are included in the Appendices to this Report.

Summary Charts of 2012-2016
Actuarial and Investment Information

Douglas County Employees Plan

YEAR Jan-Dec	FUNDED RATIO	ASSUMED INVEST. RATE	ACTUAL INVESTMENT. RETURN	NORMAL COST	TOTAL ARC %	EMPLOYEE RATES	COUNTY RATES	% OF ARC PAID
2016	67.3%	7.5%	2.3%	10.7%	15.8%	8.5%	8.5%	107.5%
2015	66.8%	7.5%	5.2%	11.3%	16.5%	8.5%	8.5%	113.9%
2014	64.6%	7.5%	18.9%	11.5%	17.0%	8.5%	8.5%	104%
2013	60.6%	7.5%	10.3%	11.4%	17.2%	8.5%	8.5%	99%
2012	60.0%	7.5%	.5%	11.4%	16.9%	8.5%	8.5%	91%

Eastern Nebraska Health Agency Plan

YEAR Jan-Dec	FUNDED RATIO	ASSUMED INVEST. RATE	ACTUAL INVESTMENT. RETURN	NORMAL COST	TOTAL ARC %	EMPLOYEE RATES	AGENCY RATES	% OF ARC PAID
2016*	71%	7%	0.2%	7.0%	11.55%	2.75%	8.5%	97.4%
2015	76%	7%	15.6%	7.1%	10.8%	2.75%	7.5%	100.4%
2014		7%	9,1%	6.6%	11.8%	2.75%	7.0%	84.6%
2013	64%	7%	.8%	6.8%	11.9%	2.75%	6.5%	79.4%
2012		7%		7.8%	11.7%	2.75%	6.0%	76.2^

*The Eastern Nebraska Human Services Agency Actuarial Valuations are conducted every other year.

Lincoln Police and Fire Plan

YEAR Sept-Aug	FUNDED RATIO	ASSUMED INVEST. RATE	ACTUAL INVESTMENT. RETURN	NORMAL COST	TOTAL ARC %	EMPLOYEE RATES	CITY RATES	% OF ARC PAID
2016	64%	6.4%	-2.76%	21.11%	27.42%	6.88%	18.98%	
2015	66%	6.75%	16.49%	18.33%	24.44%	6.75%	20.76%	101%
2014	72%	7.5%	12.03%	19.13%	21.19%	6.82%	16.92%	96%
2013	77%	7.5%	5.60%	19.01%	19.49%	6.75%	16.67%	109%
2012	81%	7.5%	12.48%	18.89%	18.02%	6.63%	12.12%	93%

*The Lincoln Fire & Police Plan year ends August 31 so the 2016 Valuation Report is not yet available.

Metro Area Transit Hourly Employees

YEAR Jan-Dec	FUNDED RATIO	ASSUMED INVEST. RATE	ACTUAL INVESTMENT. RETURN	NORMAL COST	TOTAL ARC %	EMPLOYEE RATES	AGENCY RATES	% OF ARC PAID
2016	72%	6.75%	5.5%	7.91%	21.4%	6.0%	6.5%	
2015	76%	7.0%	8.1%	7.36%	20.86%	6.0%	6.5%	88.3%
2014	68%	7.5%	9.3%	7.33%	20.83%	6.0%	6.5%	84.3%
2013	65%	7.5%	7.7%	7.51%	21.01%	6.0%	6.5%	85.7%
2012	65%	7.5%		7.9%	21.4%	6.0%	6.5%	80.3%

Omaha Civilian Employees Plan

YEAR Jan-Dec	FUNDED RATIO	ASSUMED INVEST. RATE	ACTUAL INVESTMENT. RETURN	NORMAL COST	TOTAL ARC %	EMPLOYEE RATES	CITY RATES	% OF ARC PAID
2016	56%	8%	3.1%	9.843%	27.526%	10.075%	18.775%	84.50%
2015	56%	8%	4.7%	9.881%	33.724%	10.075%	18.775%	71.82%
2014	54%	8%	16%	13.231%	38.454%	10.075%	17.775%	68%
2013	54%	8%	11%	13.231%	38.454%	10.075%	13.77%	41.33%
2012	56%	8%	-0.8%	13.730%	42.561%	10.075%	11.775%	46.09%

Omaha Police and Fire Plan

YEAR Jan-Dec	FUNDED RATIO	ASSUMED INVEST. RATE	ACTUAL INVESTMENT. RETURN	NORMAL COST	TOTAL ARC %	EMPLOYEE RATES	CITY RATES	% OF ARC PAID
2016*	49%	8%	.2%	22.14%	50.097%	15.35%-17.23%	32.97%-33.67%	100.54%
2015	50%	8%	4.4%	22.191%	50.031%	16.195%	34.386%	96%
2014	47%	8%	18%	23.103%	52.138%	15.35%-17.23%	32.98 – 33.67%	83%
2013	45%	8%	12.6%	23.525%	62.272%	16.695%	33.366%	65%
2012	43%	8%	-0.2%	25.851%	65.257%	15.896%	27.620%	62%

Omaha Public Power District

YEAR Jan-Dec	FUNDED RATIO	ASSUMED INVEST. RATE	ACTUAL INVESTMENT. RETURN	NORMAL COST	TOTAL ARC %	EMPLOYEE RATES	DISTRICT RATES	% OF ARC PAID
2016	72.4%	7.0%	-1.07%	11.83%	23.73%	6.2%	17.53%	100%
2015	73.9%	7.75%	3.85%	11.59%	27.31%	6.2%	21.11%	100%
2014	71.9%	7.75%	11.94%	11.75%	27.77%	6.2%	21.57%	100%
2013	69.7%	7.75%	13.16%	12.01%	27.82%	6.2%	21.62%	100%
2012	72.4%	7.75%	-1.07%	11.83%	23.73%	6.2%	17.53%	100%

Conclusion

In 2016 two additional political subdivisions, Omaha Public Power District and Metro Area Transit Hourly Employees, were identified as plans that are funded below the 80% funding threshold -- Plans.

The funding status decreased between 2015 and 2016 for six of the seven reporting entities. Omaha Civilian Employees Plan remained unchanged at 56%. Among the plans, Omaha Police and Fire Plan is funded at the lowest level at 49%.

Investment returns for all plans were well below each plan's assumed rate of return. The investment returns ranged from a low of -2.76% (Lincoln Police & Fire) to a high of 3.1% (Omaha Civilian Employees). Several plans conducted an Experience Study and the assumed rate was reduced recommended reducing the assumed rate of return. An Experience Study has been scheduled in 2017 for two plans. Both plans indicate that they expect a reduction in the assumed rate of return.

Four of the plans have made at least 100% of the ARC payment Omaha Police & Fire, Lincoln Police & Fire, OPPD, Douglas County), one plan (Eastern Nebraska Health Agency) has paid over 97% of its ARC and two of the plans have paid more than 80% of their ARC; Omaha Civilian Employees paid 84% and Metra Area Transit Hourly Employees paid 88%.

Plan sponsors are continuing to work with their members and collective bargaining units to take corrective actions to reduce future liabilities and to improve the funding status of the plans.

The Committee will continue to monitor the funding progress of each plan and the political subdivision's corrective actions to assure a continued commitment to adequate funding so these obligations are not shifted on to future generations.

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APPENDICES

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Appendix A

Douglas County Employees Retirement Plan Information

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Douglas County

2016 Pension Plan Reporting Form

1)

	2016	2015
a) Funding Status	67.3%	66.8%
b) Assumed Rate of Return	7.5%	7.5%
c) Actual Investment Return -Actuarial	5.6%	9.0%
-Market	2.3%	5.2%
d) Member & Employer Contribution Rates	8.5%	8.5%
e) Normal Cost	10.7%	11.3%
f) Actuarial Required Contribution (ARC)	$18.7MM(15.8%)	$18.7MM(16.5%)
g) ARC-actual dollars contributed	$20.1MM expected	$21.3MM actual
Percentage of ARC Contributed	107.5%	113.9%

2) See attached narrative.

3) In July 2015, the long-term disability benefit provision was removed from the Pension Plan and has been replaced by a separate fully-insured long-term disability plan. On January 1, 2016 the interest crediting rate on member contributions was changed from 5.0% to the 10-year treasury rate in effect on the 1st of November of the preceding plan year. The combined impact of these two changes was a $3.6 million decrease in the actuarial accrued liability and a 0.6% increase to the Plan's funded ratio.

4) See attached narrative.

5) There are no impacts on the Douglas County Pension Plan from any recent or ongoing labor negotiations.

6) The April 2015 Actuarial Experience Analysis is attached.

7) The assumed rate of return of the plan is 7.5%. No changes have been made in the past year and none are contemplated in the near future.

8) The January 1, 2016 Actuarial Valuation Report is attached.

Douglas County, Nebraska
Analytical Report on Defined Benefit Pension Plan

The most recent actuarial valuation was performed by the Silverstone Group for the Douglas County Employees' Defined Benefit Pension Plan as of January 1, 2016. The report showed the plan was 67.3% funded, had net assets on an actuarial basis of $274.9 million, and had an unfunded actuarial accrued liability of $133.8 million. The plan had 3,518 participants and an equal member and employer contribution rate of 8.5% of pay. The normal cost was $12.6 million and the actuarial required contribution was $18.7 million. The funded ratio has increased from 66.8% on January 1, 2015.

To understand why the Douglas County DB Plan is only 67.3% funded, it is important to look at the recent history of changes to the Plan. In 1996, the Plan was 97.8% funded. In 1996 for law enforcement and in 1997 for all other plan participants, the following changes were made:

- Unreduced benefit upon Rule of 75.
- Benefit formula increased from 1.5% of pay per year of service to 2% of pay per year of service.

In 1998 a 3% COLA was approved, in 2000 a 4% COLA was approved, and in 2002 a 3% COLA was approved. By 2004, the funding ratio had fallen to 64.8%. The Plan is a contributory plan with the County's contribution equal to the Member's contribution. The County and Member contributions each increased from 5.5% of pay in 2005 to the present level of 8.5% of pay by 2008. Poor stock market performance during the Great Recession also negatively impacted the Plan's funded ratio which reached a low point of 57.8% in 2010.

The members of the Pension Committee and the County Board of Commissioners recognized that substantive changes had to be made to the Plan rules to ensure the financial viability of the Plan for its current participants. Accordingly, effective for all employees hired after December 31, 2011, the following pension provisions were put in place:

- No rule of 75.
- Benefit formula was reduced from 2% of pay per year of service to 1.5% of pay per year of service.
- Maximum retirement income was reduced from 60% of participant's final average compensation to 45%.

Sheriff Deputies (who account for about 10% of total plan participants) have slightly different plan provisions which provide for increased benefits with early retirement.

These plan changes, along with no COLA increases being given since 2002, have increased the plan funding ratio by 9.5 percentage points from its low point in 2010 to 67.3% as of January 1, 2016. These plan changes have also materially impacted the Plan's forecast of funded percentage so that the forecast now projects the plan achieving acceptable funded levels in the future as shown in the following forecast developed by Silverstone in January, 2016:

Estimated Funded Percentage*

2016	67.3%
2021	70.4%
2026	75.2%
2031	82.4%
2036	93.8%

**Forecast based on current plan assumptions.*

In July 2015, the Long-Term Disability (LTD) program was removed from the Pension Plan and put into a separate fully-insured benefit plan. On January 1, 2016 the interest crediting rate on member contributions was changed from 5.0% to the 10-year Treasury Rate in effect on November 1st of the preceding plan year. The combined impact of these two changes was a $3.6 million decrease in the actuarial accrued liability and a 0.6% increase to the Plan's funded ratio. No recent or ongoing negotiations with any employee labor groups are expected to impact the funding of the pension plan.

The Douglas County Pension Committee, Board of Commissioners, and administrative staff believe the aforementioned combination of actions will significantly improve the financial condition of the Douglas County Employee Defined Benefit Pension Plan and ensure the financial viability and payment of benefits to participants going forward.

Douglas County
Employees' Retirement Plan

2015 Experience Analysis

April 2015

SilverStone GROUP

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Overview

A Plan Experience Analysis was performed to compare actual plan experience to the expected experience based on the Plan's actuarial assumptions.

The assumptions analyzed were:

- Rates of Termination
- Rates of Retirement
  - Rule of 75
  - Other than Rule of 75
- Rates of Salary Increases
- Rates of Mortality
- Rates of Investment Return

Actuarial Assumptions Recommendation

Based on a review of actual and expected experience over the past several years revisions to the actuarial assumptions are not recommended.

Rates of Termination

No changes recommended

Rates of Retirement

Rule of 75

No changes recommended

Other than Rule of 75

No changes recommended

Rates of Salary Increases

No changes recommended

Rates of Mortality

No changes recommended

Rates of Investment Return

No changes recommended

Comparison of Actual and Expected Rates

Terminations

Age Group	2014 Terminations			2013 Terminations			2012 Terminations		
	Number of Terminations	Expected Terminations	Ratio of Actual to Expected	Number of Terminations	Expected Terminations	Ratio of Actual to Expected	Number of Terminations	Expected Terminations	Ratio of Actual to Expected
20-24	14	7	202%	9	8	119%	7	7	99%
25-29	26	28	92%	24	27	89%	26	28	92%
30-34	26	30	86%	24	32	74%	22	31	71%
35-39	24	26	93%	12	25	48%	23	27	84%
40-44	17	27	64%	17	27	62%	9	28	32%
45-49	19	19	101%	16	20	81%	14	18	77%
50-54	6	10	60%	10	10	98%	6	11	56%
55-59	12	2	518%	8	3	311%	8	2	322%
60-62	3	0	3393%	3	0	2835%	4	0	3603%
Total	**147**	**149**	**98%**	**123**	**152**	**81%**	**119**	**153**	**78%**

Comparison of Actual and Expected Rates

(continued)

Rule of 75 Retirements

Age	2014 Active Service Retirements			2013 Active Service Retirements			2012 Active Service Retirements		
	Number of Retirements	Expected Retirements	Ratio of Actual to Expected	Number of Retirements	Expected Retirements	Ratio of Actual to Expected	Number of Retirements	Expected Retirements	Ratio of Actual to Expected
50	4	2.70	148%	5	2.40	208%	2	1.80	111%
51	1	3.75	27%	0	1.65	0%	3	1.95	154%
52	1	2.10	48%	4	2.85	140%	1	1.80	56%
53	1	1.50	67%	1	3.00	33%	2	1.80	111%
54	2	2.40	83%	2	1.20	167%	4	2.85	140%
55	1	1.50	67%	0	2.10	0%	4	2.10	190%
56	1	3.00	33%	2	2.55	78%	0	2.10	0%
57	2	2.55	78%	1	2.10	48%	2	2.25	89%
58	3	2.55	118%	4	3.15	127%	2	2.25	89%
59	1	2.25	44%	0	2.10	0%	1	3.00	33%
60	2	2.55	78%	5	3.60	139%	3	5.10	59%
61	4	3.45	116%	7	4.05	173%	3	1.95	154%
62	6	8.90	67%	4	4.90	82%	3	5.80	52%
63	2	2.70	74%	3	3.90	77%	0	5.40	0%
64	2	3.60	56%	0	6.00	0%	3	5.10	59%
65	0	0.00		0	0.00		0	0.00	
66	0	0.00		0	0.00		0	0.00	
67	0	0.00		0	0.00		0	0.00	
68	0	0.00		0	0.00		0	0.00	
69	0	0.00		0	0.00		0	0.00	
Total	33	45.50	73%	38	45.55	83%	33	45.25	73%

Comparison of Actual and Expected Rates

(continued)

Early and Normal Retirements

Age	2014 Active Service Retirements			2013 Active Service Retirements			2012 Active Service Retirements		
	Number of Retirements	Expected Retirements	Ratio of Actual to Expected	Number of Retirements	Expected Retirements	Ratio of Actual to Expected	Number of Retirements	Expected Retirements	Ratio of Actual to Expected
<=60	1	0.75	133%	2	0.90	222%	3	0.70	429%
61	2	0.85	235%	2	0.70	286%	1	0.55	182%
62	2	2.40	83%	0	1.20	0%	5	2.40	208%
63	0	0.50	0%	0	0.80	0%	1	0.90	111%
64	0	0.70	0%	1	0.70	143%	0	0.60	0%
65	3	2.70	111%	6	2.00	300%	8	2.40	333%
66	6	1.50	400%	3	1.50	200%	0	1.30	0%
67	3	1.20	250%	1	1.20	83%	1	1.50	67%
68	2	1.10	182%	4	1.40	286%	1	0.50	200%
69	1	1.00	100%	0	0.40	0%	3	0.70	429%
Subtotal	**20**	**12.70**	**157%**	**19**	**10.80**	**176%**	**23**	**11.55**	**199%**
70+	3	16.00	19%	1	14.00	7%	2	14.00	14%
Total	**23**	**28.70**	**80%**	**20**	**24.8**	**81%**	**25**	**25.55**	**98%**

Comparison of Actual and Expected Rates

(continued)

Salary Increases

Age Group	2014 Salary Increases			2013 Salary Increases			2012 Salary Increases		
	Average Salary Increase	Expected Salary Increase	Ratio of Actual to Expected	Average Salary Increase	Expected Salary Increase	Ratio of Actual to Expected	Average Salary Increase	Expected Salary Increase	Ratio of Actual to Expected
20-24	7.39%	5.50%	134%	4.74%	5.50%	86%	7.72%	5.50%	140%
25-29	7.26%	5.50%	132%	4.83%	5.50%	88%	8.62%	5.50%	157%
30-34	5.78%	5.50%	105%	3.82%	5.50%	69%	6.48%	5.50%	118%
35-39	5.07%	5.50%	92%	2.84%	5.50%	52%	5.04%	5.50%	92%
40-44	4.28%	5.50%	78%	3.60%	5.50%	65%	4.36%	5.50%	79%
45-49	4.23%	5.00%	85%	2.75%	5.00%	55%	4.61%	5.00%	92%
50-54	3.88%	5.00%	78%	2.36%	5.00%	47%	4.92%	5.00%	98%
55-59	3.55%	4.50%	79%	2.38%	4.50%	53%	4.59%	4.50%	102%
60-65	3.73%	4.50%	83%	2.18%	4.50%	48%	4.81%	4.50%	107%
65+	2.87%	4.50%	64%	1.50%	4.50%	33%	3.98%	4.50%	88%
Totals	**4.58%**	**5.12%**	**89%**	**3.03%**	**5.12%**	**59%**	**4.62%**	**5.13%**	**90%**

Comparison of Actual and Expected Rates

(continued)

Mortality for Retired and Terminated Vested Participants

Age Group	2014 Mortality			2013 Mortality			2012 Mortality		
	Actual Death	Expected Death	Ratio of Actual to Expected	Actual Death	Expected Death	Ratio of Actual to Expected	Actual Death	Expected Death	Ratio of Actual to Expected
<60	2	1.00	201%	2	0.91	220%	3	0.96	314%
60-64	4	1.54	261%	2	1.50	134%	2	1.45	138%
65-69	2	2.47	81%	2	2.49	80%	5	2.39	209%
70-74	4	3.82	105%	2	3.34	60%	3	3.16	95%
75-79	6	4.21	143%	5	4.13	121%	6	4.60	130%
80-84	9	7.67	117%	2	7.21	28%	16	7.81	205%
85-89	7	8.83	79%	7	8.82	79%	15	8.07	186%
90-94	8	7.91	101%	9	7.46	121%	5	6.70	75%
>=95	2	2.20	91%	5	2.77	180%	4	3.23	124%
Total	**44**	**40**	**111%**	**36**	**39**	**93%**	**59**	**38**	**154%**

Historical Rates of Investment Return

Year	Annual Return on Market Value of Assets	Annual Return on Actuarial Value of Assets
1984	8.9%	N/A
1985	20.6%	N/A
1986	15.5%	N/A
1987	4.4%	N/A
1988	11.5%	N/A
1989	15.5%	N/A
1990	6.7%	N/A
1991	15.5%	N/A
1992	7.9%	N/A
1993	10.4%	N/A
1994	2.4%	N/A
1995	17.2%	N/A
1996	10.6%	N/A
1997	13.3%	N/A
1998	7.7%	N/A
1999	7.3%	N/A
2000	2.3%	6.2%
2001	1.3%	2.4%
2002	-4.6%	0.0%
2003	15.7%	7.3%
2004	10.0%	8.7%
2005	7.1%	7.8%
2006	12.1%	10.0%
2007	4.9%	7.2%
2008	-18.7%	-6.4%
2009	16.0%	3.8%
2010	11.0%	9.7%
2011	0.5%	5.0%
2012	10.3%	7.6%
2013	18.9%	13.2%
2014	5.2%	9.1%
Average	8.6% (31 yrs) 6.1% (15 yrs)	6.1% (15 yrs)

Historical Market and Actuarial Value of Assets

Year	Market Value of Assets	Actuarial Value of Assets	AVA as % of MVA
2000	123,913,647	117,625,992	94.9%
2001	125,752,053	123,971,024	98.6%
2002	126,751,547	126,336,366	99.7%
2003	119,929,319	125,237,848	104.4%
2004	137,080,947	132,768,961	96.9%
2005	148,916,100	142,402,678	95.6%
2006	157,653,656	151,686,147	96.2%
2007	175,115,759	165,309,144	94.4%
2008	184,386,700	177,833,982	96.4%
2009	151,275,593	167,993,744	111.1%
2010	179,166,378	177,797,061	99.2%
2011	199,988,291	196,119,468	98.1%
2012	200,860,360	205,795,168	102.5%
2013	219,605,063	219,494,329	99.9%
2014	258,340,593	245,830,308	95.2%
2015	267,549,482	263,768,442	98.6%

Actuarial Assumptions

Interest Rate

7.5%

Salary Scale

Salaries were assumed to increase at an annual rate compounded annually following the valuation date varying by age, as illustrated below.

Age	Percentage Increase
18-44	5.50%
45-54	5.00%
55+	4.50%

Mortality Rates

IRS 2007.

Disability Rates

Based on an Industry Experience Table

	Annual Disabilities Per 100 Members	
Age	Males	Females
35	0.11	0.20
40	0.16	0.29
45	0.27	0.39
50	0.48	0.53
55	0.87	0.73
60	1.30	0.99

Withdrawal Rates

Based on rates as illustrated below:

Age	Number
22	16.6
27	15.8
32	12.8
37	10.8
42	9.0
47	6.3
52	3.6
57	0.9

Accrued Sick Leave

7 days per year.

Actuarial Assumptions
(continued)

Retirement Rate

Age	Rule of 75	Other
50	30%	5%
51-54	15%	2%
55-61	15%	5%
62	40%	20%
63-69	30%	10%
70	100%	100%

Retirement rate is 30% the first year a Member is eligible for Rule of 75.

Age	Sheriffs Hired after June 30, 2011
53-54	5%
55	25%
56-57	15%
58	20%
59-61	25%
62	30%
63	35%
64	40%
65	100%

Retirement rate is 100% for sheriffs hired after June 30, 2011 at 30 years of service.

Administrative Expenses

Annual administrative expenses have been estimated as 3/10 of 1% of plan assets.

DOUGLAS COUNTY
EMPLOYEES' RETIREMENT PLAN

Actuarial Valuation Report

January 1, 2016

Revised

Wisdom at Work.

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SilverStone GROUP

May 20, 2016

PERSONAL AND CONFIDENTIAL

Ms. Kathy Adair
Insurance and Pension Coordinator
Omaha Douglas Civic Center
1819 Farnam Street, Suite 505
Omaha, NE 68183

RE: 2016 Actuarial Valuation Report – Revised

Dear Kathy:

Enclosed are fifteen copies of the revised January 1, 2016 Actuarial Valuation Report for the Douglas County Employees' Retirement Plan. The report was revised to reflect the $415,165 of accrued employee contributions in transit. The valuation was based on plan provisions and assumptions consistent with those used in the January 1, 2015 valuation except for two changes:

- The disability provision for active members was removed from the Plan
- The interest crediting rate on employee contributions was changed from 5% to the 10-year Treasury rate for November prior to the valuation date (2.26% used in valuation)

If you have any questions about the information provided in the report, please give me a call.

Sincerely,

Glen C. Gahan, FSA
Principal

GCG/km

Enclosures

11516 MIRACLE HILLS DRIVE, SUITE 100
OMAHA, NEBRASKA 68154
PHONE 402.964.5400
TOLL FREE 800.288.5501
FAX 402.964.5454
SILVERSTONEGROUP.COM

SilverStone GROUP

May 20, 2016

Actuarial Certification

Employees' Retirement Committee
Omaha Douglas Civic Center
1819 Farnam Street, Suite 505
Omaha, NE 68183

Dear Committee Members:

An actuarial valuation was performed for the Douglas County Employees' Retirement Plan as of January 1, 2016. The valuation was prepared to determine the value of accrued benefits and annual costs. The results of the valuation are contained in the accompanying report.

The valuation is based on eligible employees and summary of assets submitted by Douglas County and data concerning retired employees submitted by United of Omaha. Summaries of the data and the calculations contained in the valuation were performed by our Firm from this data.

To the best of my knowledge, the information supplied in this report is complete and accurate and, in my opinion, the assumptions are reasonably related to the experience of the plan and to reasonable expectations and represent my best estimate of anticipated experience under the Plan. The undersigned meets the qualification standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Sincerely,

Glen C. Gahan, FSA
Principal
Member of American Academy of Actuaries
Enrolled Actuary No. 14-04875

GCG/km

Enclosure

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Table of Contents

Definition of Terms

This section of the report provides a brief description of terms used throughout this report.

Annual Contributions: Anticipated Member Contributions is equal to 8.50% of the covered payroll (Sheriff members contribute less after 32 years of service). County Contributions are equal to the Anticipated Member Contributions.

Actuarially Determined Contribution: Consists of the annual normal cost plus an amount equal to the 30-year amortization as a level percent of pay of the unfunded actuarial accrued liability.

Market Value of Plan Assets: Plan assets are amounts that have accumulated and will be used to meet future benefit obligations. In this exhibit, trust fund transactions reported by the trustee are traced from the prior valuation date to the current valuation date.

Actuarial Value of Plan Assets: Plan assets calculated with expected interest and adjusted by one half of the excess of the Market Value over the preliminary Actuarial Value.

Actuarial Accrued Liability: The actuarial accrued liability is equal to the sum of individual accrued liabilities for all participants. Each participant's accrued liability equals the actuarial present value of all future benefits less the present value of all future normal costs.

Unfunded Actuarial Accrued Liability: The unfunded actuarial accrued liability on the valuation date is equal to the excess of the Plan's actuarial accrued liability over the Plan's actuarial value of assets.

Annual Normal Cost: The annual normal cost is the portion of total Plan costs assigned to the current plan year by the actuarial cost method.

Financial Highlights

This section displays a summary of the results of the actuarial valuations performed for the 2014, 2015 and 2016 plan years. Additional supporting detail and history is available in other sections of the report.

	Plan Year Beginning January 1		
	2014	2015	2016
Annual Contributions			
Anticipated Member Contributions	$9,418,032	$9,636,451	$10,029,713
County Contributions	9,418,032	9,636,451	10,029,713
Actual Total Contributions	$19,560,273	$21,308,436	N/A
Actuarially Determined Contribution	$18,819,563	$18,702,731	$18,697,387
Value of Plan Assets			
Market Value	258,340,593	267,549,482	269,935,429
(Rate of Return)	18.9%	5.2%	2.3%
Actuarial Value	245,830,308	263,789,654	274,877,630
(Rate of Return)	13.2%	9.0%	5.6%
Actuarial Accrued Liability	380,727,971	394,847,033	408,661,878
(Funded Ratio)[1]	64.6%	66.8%	67.3%
Annual Covered Payroll	110,800,382	113,370,010	117,996,629
Annual Normal Cost	12,698,811	12,756,226	12,627,155
(As a percent of covered payroll)	11.5%	11.3%	10.7%
Number of Participants			
Active	2,072	2,081	2,122
Retirees and Beneficiaries	1,123	1,164	1,206
Vested Terminated	108	117	119
Terminated Non-Vested	110	84	46
Disabled Participants	30	26	25
Total	3,443	3,472	3,518

[1]Funded Ratio - Expressed as the ratio of Actuarial Value of Assets to Actuarial Accrued Liability.

Comments on the Valuation

Covered Employees

Ages of Active Participants - The average age of active participants included in the valuation remained unchanged from 45.0 for the prior year to 45.0 for the current year.

Covered Payroll and Participants - Total covered payroll increased from $115,103,816 to 120,063,734, a 4.3% increase. The number of active participants increased from 2,081 in 2015 to 2,122 in 2016.

Average Annual Compensation - The average covered compensation of active participants increased at a rate of 2.3% per year compared to an assumed annual salary increase assumption of 5.5% between ages 18-44, 5.0% between 45-54, and 4.5% for ages 55 and greater. The average covered compensation of all active participants was $55,312 for 2015 and $56,580 for 2016.

Investment Return

The plan's investment return was lower than the assumed rate. The approximate annual investment return was 5.6% on the actuarial value of assets for the 2015 plan year, compared to a 7.5% assumption.

Actuarial Assumptions and Methods

The actuarial methods and assumptions are consistent with those used in the 2015 valuation except for a slight increase in the withdrawal rates as the prior year's assumed disability rates were added into the withdrawal rates to reflect the removal from the plan of the active disability benefit. The actuarial methods and assumptions are described on pages 19-21 of the Report.

Plan Provisions

The plan provisions are consistent with those used in the 2015 valuation except for the following changes:

The disability provision for active members was removed from the Plan effective July 1, 2015 and the interest crediting rate on employee contributions was changed from 5% to the 10-Year Treasury rate for November prior to the valuation date effective January 1, 2016.

Market Value of Plan Assets

Summary of Changes in Value of Plan Assets

Market Value of Plan Assets on January 1, 2015		$267,549,482
Plus Increases		
Employee Contributions	10,673,655 *	
County Contributions	10,634,781	
Investment Experience	6,004,305	
		27,312,741
Less Decreases		
Pensions Paid to Retirees	21,416,482	
Refunds to Terminated EEs	2,551,439	
Disability Premiums/Administration	131,187	
Administrative Expenses	827,686	
		24,926,794
Market Value of Plan Assets on January 1, 2016		$269,935,429
Approximate Rate of Return		2.3%

Plan Investments	**% of Total**	**Market Value**
US Bank		
Operating Account - Cash and Cash Equivalents	1.7%	$4,889,285
Deposit in Transit	0.2%	415,165
Atlanta Capital	12.0%	32,305,800
State Street - Fixed Income Portfolio	3.0%	7,984,491
JP Morgan	4.5%	12,132,524
Winslow - Capital Management	7.6%	20,464,207
Sanderson International	3.6%	9,745,073
Harding Loevner	5.2%	14,094,358
Herndon International	7.7%	20,660,931
Wells Cap Emerging	3.8%	10,234,241
Delaware	6.2%	16,660,200
Total		149,586,275
United of Omaha Insurance Company		
Retired Contract #6148 - Annuity Program	25.6%	69,422,058
Retired Contract #12795 - Annuity Program	1.6%	4,241,008
Small Company Fund	3.7%	9,884,513
Institutional Index 500	13.6%	36,801,575
Total		120,349,154
Grand Total	100.0%	$269,935,429

*Includes employee contributions receivable of $415,165.

Actuarial Value of Plan Assets

Actuarial Value of Plan Assets on January 1, 2015		$263,789,654
Plus Increases		
Employee Contributions	10,673,655	
County Contributions	10,634,781	
Expected Interest	19,648,536	
		40,956,972
Less Decreases		
Pensions Paid to Retirees	21,416,482	
Refunds to Terminated EEs	2,551,439	
Disability Premiums/Administration	131,187	
Administrative Expenses	827,686	
		24,926,794
Adjusted Value on January 1, 2016		279,819,832
Market Value on January 1, 2016		269,935,429
One-Half Excess, Market Value Less Adjusted Value		(4,942,202)
Actuarial Value of Plan Assets on January 1, 2016		$274,877,630
Approximate Rate of Return		5.6%
Actuarial Value as a % of Market Value		101.8%

Valuation Results

	Plan Year Beginning January 1 2014	2015	2016
Actuarial Accrued Liability			
1. Active	$178,296,658	$182,155,802	$185,550,116
2. Vested Terminated Participants	5,947,577	6,622,371	6,159,172
3. Terminated Non-Vested*	765,808	1,045,712	338,263
4. Disabled Participants	3,278,138	2,549,704	2,580,079
5. Retirees	192,439,790	202,473,444	214,034,248
6. Total (1) + (2) + (3) + (4) + (5)	380,727,971	394,847,033	408,661,878
Unfunded Actuarial Accrued Liability			
1. Actuarial Accrued Liability	380,727,971	394,847,033	408,661,878
2. Actuarial Value of Plan Assets	245,830,308	263,789,654	274,877,630
3. Unfunded Accrued Liability (1) - (2)	134,897,663	131,057,379	133,784,248
4. Ratio of Assets to Accrued Benefits (2) / (1)	64.6%	66.8%	67.3%
Annual Normal Cost			
• Retirement, Death, Termination and Disability	11,723,789	11,653,578	11,817,349
• Immediate Disability Benefit	200,000	300,000	0
• Annual Administrative Expense	775,022	802,648	809,806
Total	12,698,811	12,756,226	12,627,155

* Amount equal to expected refund of member contributions.

Actuarially Determined Contribution

The Members contribute 8.5% of covered payroll annually to the Plan, with Sheriff members hired after July 1, 2011 contributing less after 32 years of service. The County contributes an annual amount equal to the Member contributions.

For illustrative purposes, this actuarially determined contribution provides a measure of the amount of contributions to fund the benefits earned in the current year and provide for the 30-year amortization of the unfunded accrued liability. The Plan is not currently being funded on this basis.

	Plan Year Beginning January 1		
	2014	2015	2016
Annual Normal Cost	$12,698,811	$12,756,226	$12,627,155
30-Year Amortization of the Unfunded Accrued Liability	6,120,752	5,946,505	6,070,232
Actuarially Determined Contribution	18,819,563	18,702,731	18,697,387

Actuarial Methodology

Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level Percent of Pay
Amortization Period	30 Years, Open Period
Actuarial Assumptions	Same, as described in report

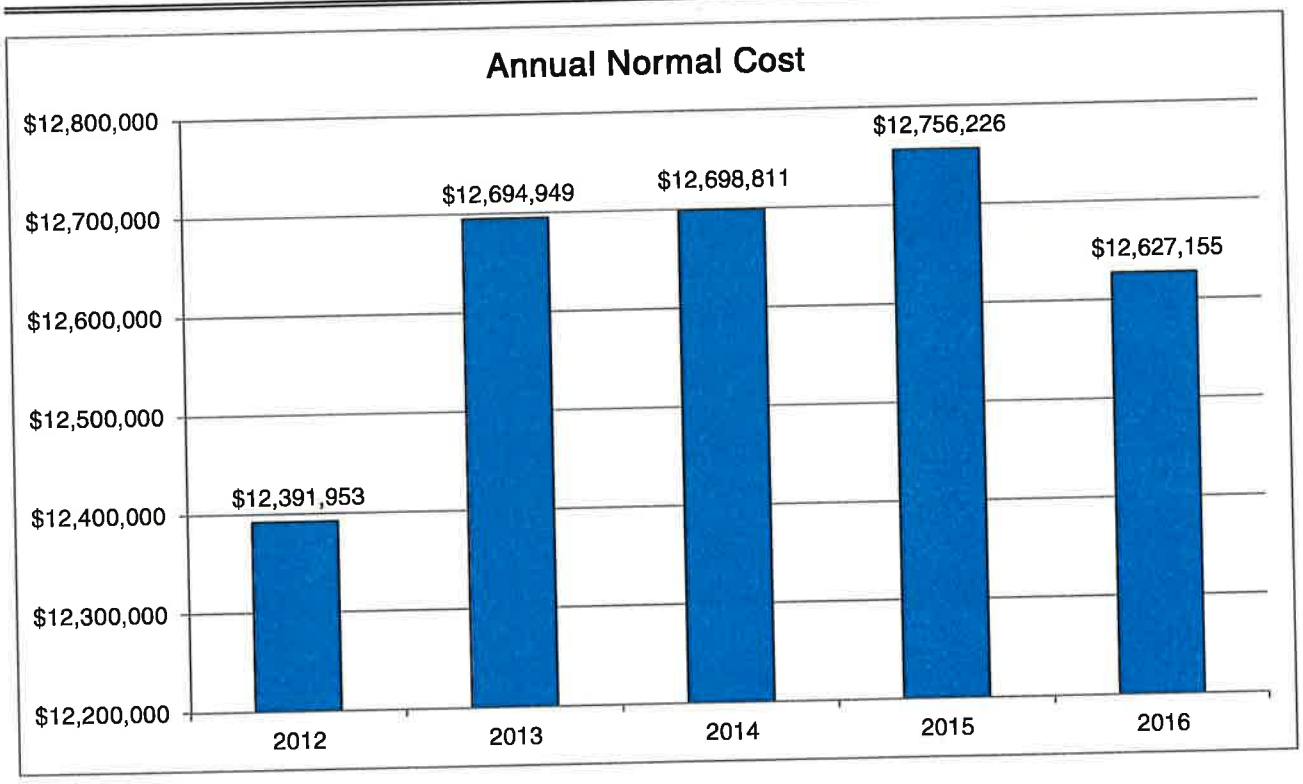
Amortization of Unfunded Accrued Liability

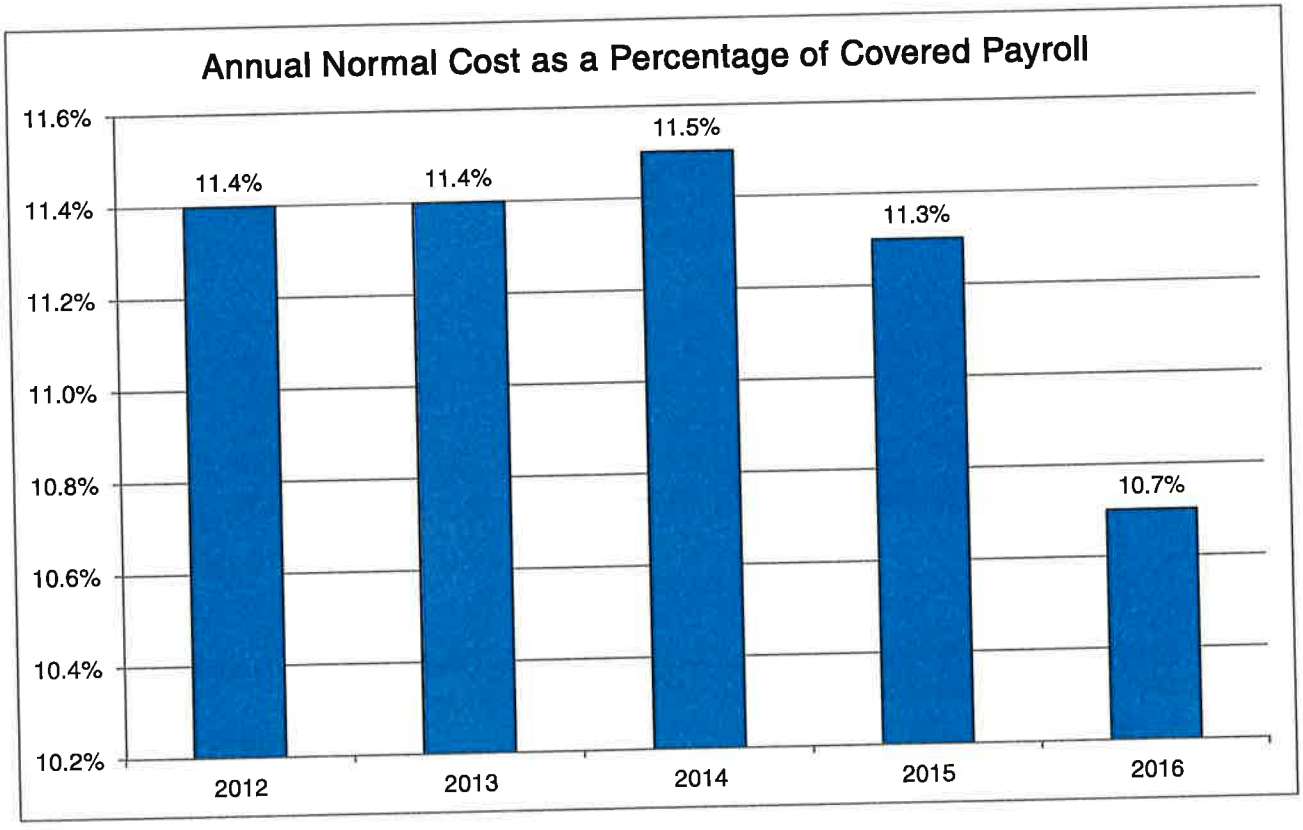
The annual contribution rate to the Employees' Retirement Plan increased from 5.5% of reported earnings to 6.5% in 2006, 7.5% in 2007 and 8.5% in 2008 and thereafter for both Members and the County. Contributions for Members of the Sheriffs department hired after July 1, 2011 will decrease after 32 years of service.

As valued as of January 1, 2016, the Accrued Liability exceeds the Actuarial Value of Plan Assets by $133,784,248. The amount of expected annual contributions exceeds the Annual Normal Cost by $7,432,271. Favorable plan experience following the valuation date will reduce the UAL. Unfavorable plan experience will increase the UAL.

	Plan Year Beginning January 1		
	2014	2015	2016
Plan Contributions			
Anticipated Member Contributions	$9,418,032	$9,636,451	$10,029,713
Anticipated County Contributions	9,418,032	9,636,451	10,029,713
Contribution Available to Reduce UAL			
Total County and Member Contributions	18,836,064	19,272,902	20,059,426
Annual Normal Cost	12,698,811	12,756,226	12,627,155
Amount Available to Reduce UAL	6,137,253	6,516,676	7,432,271
Unfunded Accrued Liability	134,897,663	131,057,379	133,784,248
Years Required to Amortize the UAL			
• as a level percent of pay	29.9	26.4	22.8
• as a level dollar amount	Unable to Amortize	Unable to Amortize	Unable to Amortize

Summary of Historical Valuation Results





Summary of Historical Valuation Results

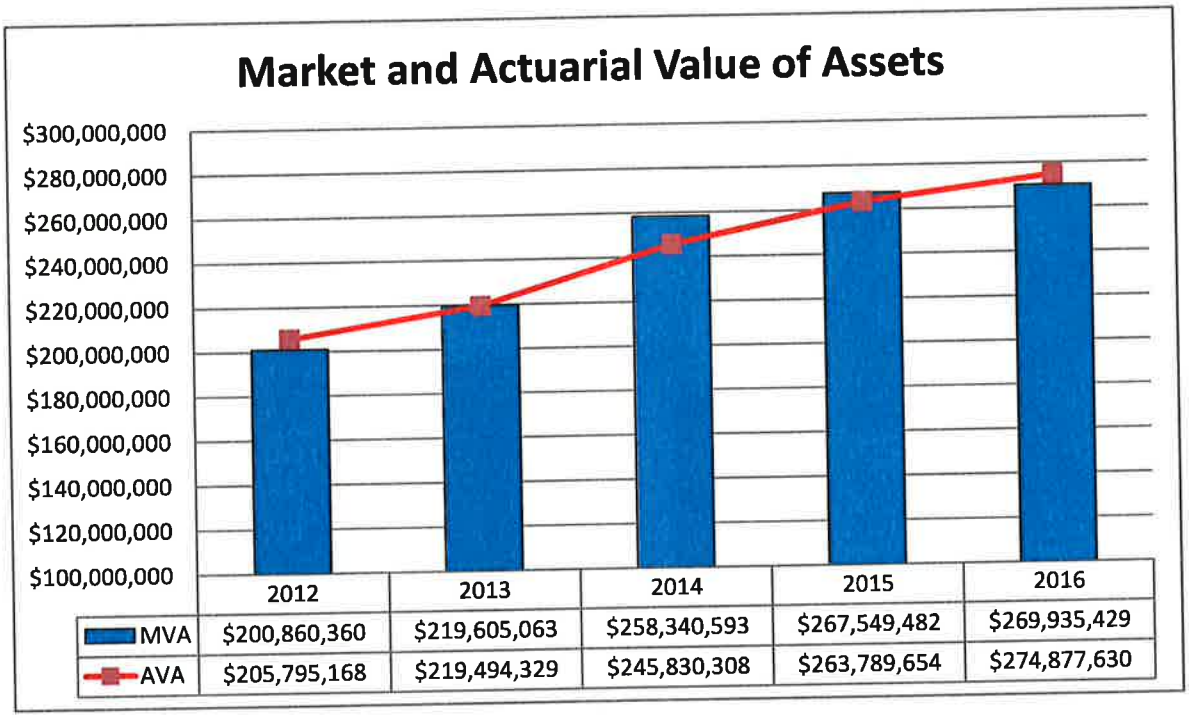
(continued)

Year	Annual Return on Market Value of Assets	Annual Return on Actuarial Value of Assets
2015	2.3%	5.6%
2014	5.2%	9.0%
2013	18.9%	13.2%
2012	10.3%	7.6%
2011	0.5%	5.0%
2010	11.0%	9.7%
2009	16.0%	3.8%
2008	-18.7%	-6.4%
2007	4.9%	7.2%
2006	12.1%	10.0%
2005	7.1%	7.8%
2004	10.0%	8.7%
2003	15.7%	7.3%
2002	-4.6%	0.0%
2001	1.3%	2.4%
2000	2.3%	6.2%
1999	7.3%	N/A
1998	7.7%	N/A
1997	13.3%	N/A
1996	10.6%	N/A
1995	17.2%	N/A
1994	2.4%	N/A
1993	10.4%	N/A
1992	7.9%	N/A
1991	15.5%	N/A
1990	6.7%	N/A
1989	15.5%	N/A
1988	11.5%	N/A
1987	4.4%	N/A
1986	15.5%	N/A
1985	20.6%	N/A
1984	8.9%	N/A
Average	5.9% (16 yrs) 8.4% (32 yrs)	6.1% (16 yrs)

The Plan's Asset Method was changed to Actuarial Value in 2000. The annual return on the Actuarial Value of Assets was not calculated prior to this change.

Summary of Historical Valuation Results

(continued)

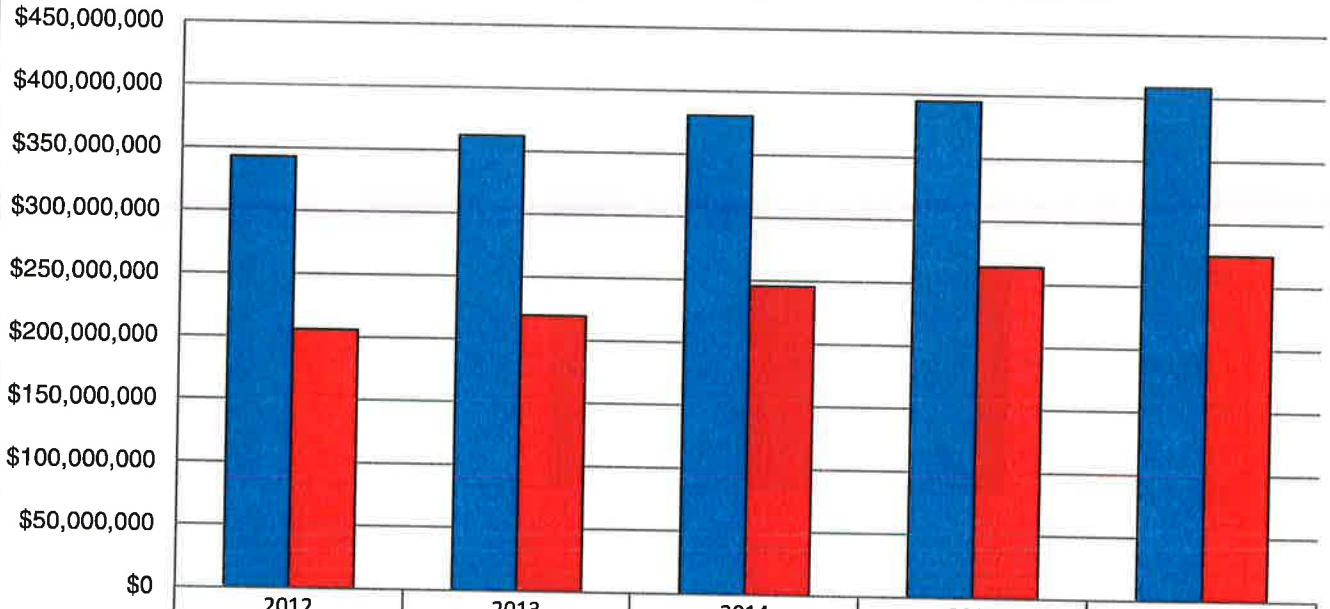


	2012	2013	2014	2015	2016
MVA	$200,860,360	$219,605,063	$258,340,593	$267,549,482	$269,935,429
AVA	$205,795,168	$219,494,329	$245,830,308	$263,789,654	$274,877,630

Summary of Historical Valuation Results

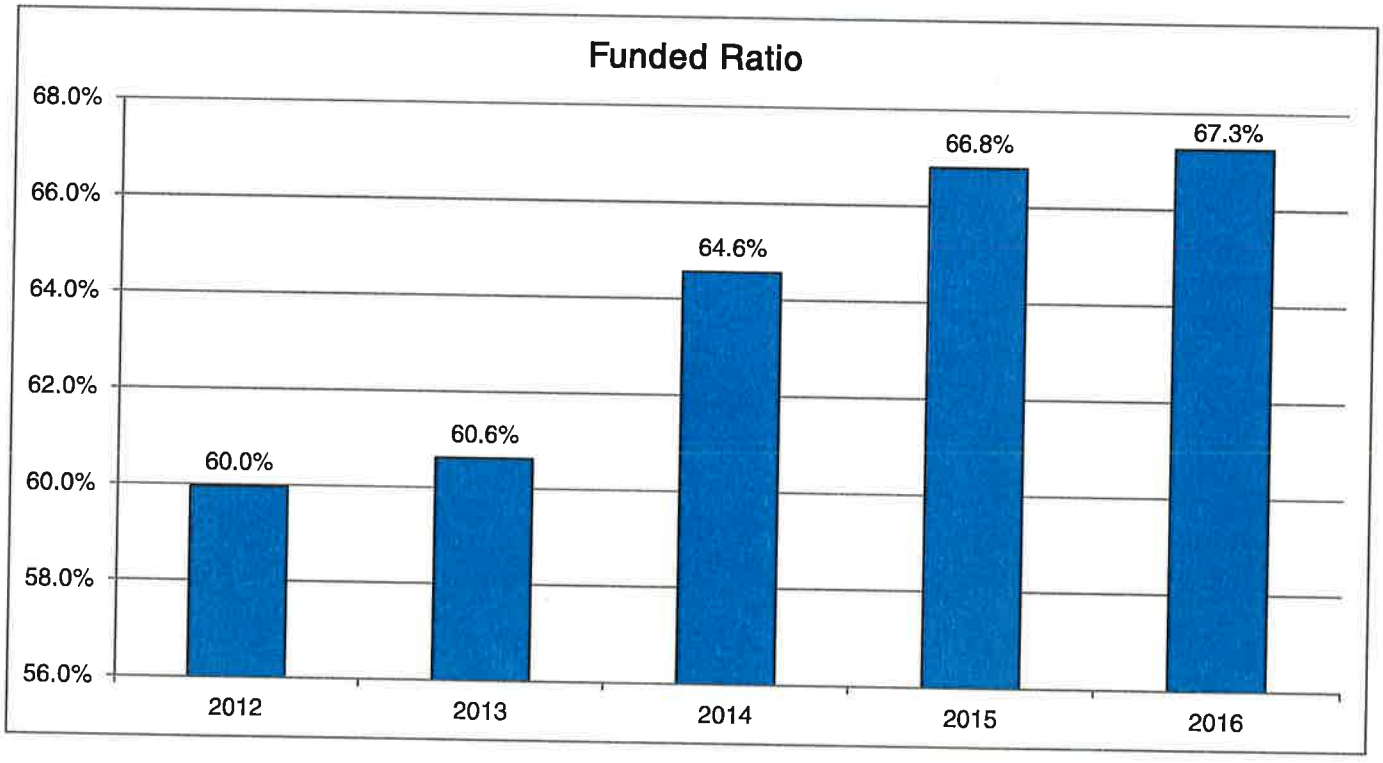
(continued)

Actuarial Accrued Liability vs. Actuarial Value of Assets



	2012	2013	2014	2015	2016
AAL	$343,178,126	$362,117,407	$380,727,308	$394,847,033	$408,661,878
AVA	$205,795,168	$219,494,329	$245,830,308	$263,789,654	$274,877,630

Funded Ratio



Historical Market and Actuarial Value of Assets

Year	Market Value of Assets	Actuarial Value of Assets	AVA as % of MVA
2016	269,935,429	274,877,630	101.8%
2015	267,549,482	263,789,654	98.6%
2014	258,340,593	245,830,308	95.2%
2013	219,605,063	219,494,329	99.9%
2012	200,860,360	205,795,168	102.5%
2011	199,988,291	196,119,468	98.1%
2010	179,166,378	177,797,061	99.2%
2009	151,275,593	167,993,744	111.1%
2008	184,386,700	177,833,982	96.4%
2007	175,115,759	165,309,144	94.4%
2006	157,653,656	151,686,147	96.2%
2005	148,916,100	142,402,678	95.6%
2004	137,080,947	132,768,961	96.9%
2003	119,929,319	125,237,848	104.4%
2002	126,751,547	126,336,366	99.7%
2001	125,752,053	123,971,024	98.6%
2000	123,913,647	117,625,992	94.9%

History of Plan Funding

Year	Actuarial Value Of Assets ($1,000s)	Actuarial Accrued Liability Before Changes ($1,000s)	Actuarial Accrued Liability After Changes ($1,000s)	Funded Ratio Before Changes	Funded Ratio After Changes
2016	$274,878	$412,283	$408,662	66.7%	67.3%
2015	263,790	394,847	394,847	66.8%	66.8%
2014	245,830	380,727	380,727	64.6%	64.6%
2013	219,494	362,117	362,117	60.6%	60.6%
2012	205,795	343,542	343,178	59.9%	60.0%
2011	196,119	321,700	321,700	61.0%	61.0%
2010	177,797	307,407	307,407	57.8%	57.8%
2009	167,994	290,127	290,127	57.9%	57.9%
2008	177,834	269,970	270,351	65.9%	65.8%
2007	165,309	253,386	248,986	65.2%	66.4%
2006	151,686	239,229	239,602	63.4%	63.3%
2005	142,403	221,642	221,642	64.2%	64.2%
2004	132,769	204,952	204,952	64.8%	64.8%
2003	125,238	188,697	188,697	66.4%	66.4%
2002	126,336	167,690	172,615	75.3%	73.2%
2000	117,626	124,906	127,011	94.2%	92.6%
1998	97,626	107,071	108,391	91.2%	90.1%
1996	81,626	78,202	83,472	104.4%	97.8%
1994	69,860	71,242	72,869	98.1%	95.9%
1992	60,912	59,747	66,161	101.9%	92.1%
1990	48,387	47,474	48,717	101.9%	99.3%
1988	37,662	36,212	37,390	104.0%	100.7%
1986	30,161	27,830	30,455	108.4%	99.0%
1984	21,752	20,912	22,203	104.0%	98.0%
1982	16,115	16,687	17,828	96.6%	90.4%
1980	11,468	15,229	15,597	75.3%	73.5%

Retiree Benefit Increase

This valuation summary does not include a retiree benefit increase since the funded ratio on the valuation date did not exceed the target funding ratio established in 2004. The January 1, 2016 target funded ratio was 85.8%, while the actual funded ratio was 67.3%.

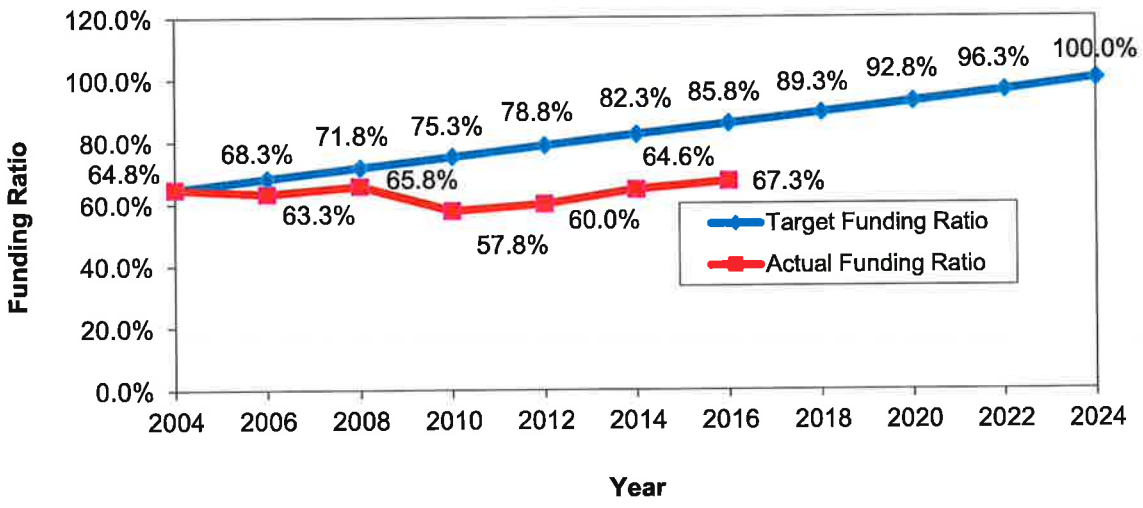
Increases in the monthly benefit paid to retirees were granted in some prior years following a review of the funded position of the Pension Plan. The last increase was granted in 2002. The monthly retiree benefits were increased by 3% but not less than $5 per month.

As the funded status was being discussed in 2004 the Pension Committee considered a policy related to granting increases to retirees when the funded percentages were less than 100%. Forecasts of the funded position completed at that time indicated the funded percentage would remain below 100% for more than 20 years.

The policy that was discussed would give the Committee the discretion to consider an increase if the funded percentage was on track and ahead of schedule. The funding would be on track and ahead of schedule if the funded percentage fell above a straight line drawn from the funded percentage of 64.8% in 2004 to 100% by 2024. While this standard was outlined and discussed on other occasions since 2004, the Committee has not taken a formal position on the policy.

So that the Committee can review the status of funding since 2004 related to this policy, the following display has been updated. As indicated, the funded position has not increased to be on track and ahead of schedule since 2004.

Target Funding Ratio - Retiree Benefit Increase



History of Plan Changes

2016 Long Term Disability provision for active members was eliminated from the Plan as of 7/1/2015. LTD is provided by insurance outside of the pension plan. The interest crediting rate on employee contributions was changed from 5% to the 10-Year Treasury rate for November prior to the valuation date as of 1/1/2016.

2012 Certain bargaining employees hired after June 30, 2011 and all non-bargaining employees hired after December 31, 2011. It is anticipated that all bargaining units will be under these same benefit provisions after their next contract is negotiated.

- 1.5% of pay per year of service (45% maximum)
- No Rule of 75
- 8.5% contribution rate
- Early Retirement at age 50 and 10 years of service or age 60 and 5 years of service
- Early Retirement reduction of 5% per year

Sheriff Deputies hired after June 30, 2011

- Benefit formula changed to the following:
  - 1.0% of pay for 1 to 10 years of service
  - 2.0% of pay for 11 to 20 years of service
  - 2.5% of pay for 21 to 32 years of service
- Contribution rate changed to the following:
  - 8.5% for 1-32 years of service
  - 7.5% at 33 years of service
  - 6.5% at 34 years of service
  - 5.5% at 35+ years of service
- Early Retirement at age 53
- Early Retirement reduction of 4.8% per year
- No Early Retirement reduction if 30 or more years of service

2008 Member and County contribution rate increased from 7.5% to 8.5%

2007 Member and County contribution rate increased from 6.5% to 7.5%

2006 Member and County contribution rate increased from 5.5% to 6.5%

2003 Beginning March 2003 all new retirees have their pension benefit paid from plan assets but not covered under an insurance contract.

2002 Increase retiree pension by 3%, but not less than $5 a month

2000 Increase retiree pension by 4%, but not less than $5 a month

1998 Increase retiree pension by 3%, but not less than $5 a month

History of Plan Changes

(continued)

1997

- Rule of 75 for other than law enforcement
  - Unreduced benefit upon Rule of 75
  - 2.0% benefit formula after January 1, 1962
  - 5.5% member contributions

1996

- Rule of 75 for law enforcement
  - Unreduced benefit upon Rule of 75
  - 2.0% benefit formula after January 1, 1962
  - 5.5% member contributions
- Participation begins on first day of employment
- Increase retiree pension by 4% but not less than $10 a month

1994

- Benefit formula change to the following:
  - 1% of pay for service before January 1, 1962
  - 1.5% of pay for service after January 1, 1962
- Decrease in interest rate on employee contributions to 5% effective July 1, 1994
- Increase retiree pension by 3%

1992

- Early Retirement Incentive Program (112 members elected benefit)
- Early Termination of Employment Incentive Program (188 members elected benefit)
- Increase retiree pension by 3%

1990

- Benefit formula change to the following:
  - 1% of pay for service before January 1, 1962
  - 1.4625% of pay for service after January 1, 1962
- Increase retiree pension by 4%
- Vesting changed from 25% after 5 graded to 100% after 15 to 25% after 5 increased 15% a year up to 10
- Maximum Disability Benefit increased from $36,000 to $57,600

1988

- Benefit formula change to the following:
  - 1% of pay for service before January 1, 1962
  - 1.425% of pay for service after January 1, 1962
- Increase retiree pension by 4%, but no less than $5 a month
- Changed eligibility requirements to include participants hired after age 60

1986

- Benefit formula change to the following:
  - 1% of pay for service before January 1, 1962
  - 1.2% of pay for service from January 1, 1962 to January 1, 1972
  - 1.4% of pay for service after January 1, 1972
- Increase retiree pension by 6% but not less than $5 a month

History of Plan Changes

(continued)

1984	• Increased benefit formula from 1.1% of pay to 1.2% for service after January 1, 1974 • Increase retiree pension by 6%, but not less than $5 a month
1982	• Added Special Early Retirement • Benefit formula change from 1% of pay to 1.1% of pay for service after January 1, 1972 • Increase retiree pension by 6%, but not less than $10 a month • Changes in disability retirement provisions • Changes in actuarial assumptions • Special provisions for county employees change to state employees
1980	• Special Early Retirement • Change in service definition – unlimited sick leave • $10/month increase in pension to retirees • Added Late Retirement Benefit

Actuarial Cost Method

Annual costs were calculated using the Projected Unit Credit Actuarial Cost Method. Projected Unit Credit is one of the Accrued Benefit Actuarial Cost Methods. Using Projected Unit Credit, annual costs equal the sum of the normal cost and an amount to amortize the unfunded accrued liability. The normal cost is defined as the actuarial value of retirement and ancillary benefits that are allocated to the current year.

The unfunded accrued liability is equal to the accrued liability reduced by the actuarial value of plan assets. The accrued liability is defined as the actuarial value of retirement and ancillary benefits that have been allocated to years of service prior to the current year.

The method allocates an equal amount of a participant's projected retirement benefit to each year of service. The benefit at normal retirement is projected assuming salaries increase at the assumed rates. The projected retirement benefit is then divided by the participant's years of service to determine the portion of the retirement benefit allocated to each year. Service includes years following the later of the date of hire and July 1, 1952 (January 1, 1955 for former Board of Health participants) and prior to the assumed retirement age.

As experience develops under the Retirement Plan, actuarial gains and losses will result. Actuarial gains and losses indicate the extent to which actual experience is deviating from that expected on the basis of the actuarial assumptions. Actuarial gains result from experience more favorable than assumed and reduce the unfunded accrued liability. Actuarial losses result from experience less favorable than assumed and increase the unfunded accrued liability. All actuarial gains and losses are included in the determination of the unfunded accrued liability as of the valuation date.

An estimate of the annual administrative expenses is included in the annual normal cost.

Asset Valuation Method

The Actuarial Value of Plan Assets held in the pension trusts was calculated as the sum of the following:

- Adjusted Value of Plan Assets
- One-half of the excess of Market Value over the Adjusted Value of Plan Assets

The Adjusted Value of Plan Assets equals:

- Actuarial Value of Plan Assets on the prior valuation date, plus contributions and expected interest, less
- Pensions paid, refunds and other disbursements with expected interest

Actuarial Assumptions

Investment Return

7.5% compounded annually.

Salary Scale

Salaries were assumed to increase at an annual rate compounded annually following the valuation date varying by age, as illustrated below.

Age	Percentage Increase
18-44	5.50%
45-54	5.00%
55+	4.50%

Mortality Rates

The static, combined healthy lives RP-2000 mortality tables projected to 2007 and further projected 7 years for annuitants and 15 years for non-annuitants. Separate tables are used for annuitants and non-annuitants as well as for male and female.

Disability Rates

None.

Withdrawal Rates

Based on rates as illustrated below:

Age	Males	Females
22	16.7%	16.7%
27	15.9%	15.9%
32	12.9%	12.9%
37	11.0%	11.1%
42	9.1%	9.3%
47	6.6%	6.7%
52	4.2%	4.2%
57	1.9%	1.7%

Accrued Sick Leave

7 days per year.

Actuarial Assumptions

(continued)

Retirement Rates

Age	Rule of 75	Other
50	30%	5%
51-54	15%	2%
55-61	15%	5%
62	40%	20%
63-69	30%	10%
70	100%	100%

Retirement rate is 30% the first year a Member is eligible for Rule of 75.

Age	Sheriffs Hired after June 30, 2011
53-54	5%
55	25%
56-57	15%
58	20%
59-61	25%
62	30%
63	35%
64	40%
65	100%

Retirement rate is 100% for sheriffs hired after June 30, 2011 at 30 years of service.

Interest Rate on Employee Contributions

2.26% per annum.

Administrative Expenses

Annual administrative expenses have been estimated as 3/10 of 1% of plan assets.

Summary of Plan Provisions

Effective Date	January 1, 1963
Plan Year	January 1 through December 31.
Participation	First day of continuous employment.
Definitions	
Member	Any employee who participates in the Plan as an active participant or a non-active participant entitled to a disability pension, a deferred vested retirement benefit or a current retirement benefit.
Benefit Service	Years of service following the later of July 1, 1952 and the date of hire and prior to the normal retirement date. Years of service prior to January 1, 1955 are not considered for members who were participants of the Omaha-Douglas County Board of Health Retirement Plan.
Final Average Compensation	Average monthly compensation paid during the 60 consecutive months of the last 120 months of service that produces the largest average monthly compensation. The average monthly compensation is limited for members who were participants of the Omaha-Douglas County Board of Health Retirement Plan prior to 1975.
Normal Retirement Date	First day of calendar month coinciding with or next following the 65th birthday (age 55 for sheriff deputies hired after June 30, 2011).
Rule of 75 Retirement	First day of calendar month coincident with or next following the attainment of age 50, and completion of a sufficient number of years of service so that when such years are added to the members attained age, the total equals or exceeds 75. Such service must be exclusive of accumulated sick leave. There is no Rule of 75 Retirement for bargaining employees hired after June 30, 2011 (or later date based on applicable bargaining unit contract) and all non-bargaining employees hired after December 31, 2011.

Early Retirement

Following attainment of age 55 and 20 years of service, or age 60 and 5 years of service. Age 53 for sheriff deputies hired after June 30, 2011. Age 50 and 10 years of service or age 60 and 5 years of service for bargaining employees hired after June 30, 2011 (or later date based on applicable bargaining unit contract) and all non-bargaining employees hired after December 31, 2011.

Benefits

Normal Retirement

For participants who were actively employed on October 4, 1997 and retire thereafter, a monthly income equal to the sum of (1) and (2), not to exceed 60% of the participant's final Average Compensation:

(1) 1% of Final Average Compensation, multiplied by years of benefit service prior to January 1, 1962, plus

(2) 2.0% of Final Average Compensation multiplied by years of benefit service following January 1, 1962.

For bargaining employees hired after June 30, 2011 (or later date based on applicable bargaining unit contract) and all non-bargaining employees hired after December 31, 2011, a monthly income equal to 1.5% for each year of service not to exceed 45% of the participant's final Average Compensation.

For sheriff deputies hired after June 30, 2011, a monthly income equal to the sum of (1), (2) and (3), not to exceed 60% of the participant's final Average Compensation:

(1) 1.0% of Final Average Compensation multiplied by 1-10 years of benefit service.

(2) 2.0% of Final Average Compensation multiplied by 11-20 years of benefit service.

(3) 2.5% of Final Average Compensation multiplied by 21-32 years of benefit service.

Early Retirement	Monthly income computed in the same manner as normal retirement, based on benefit service and final average compensation at the early retirement date, and reduced by 1/4 of 1% for each full calendar month that the initial retirement payment precedes the normal retirement date. Reduced by .4167% for each full calendar month that the initial retirement payment precedes the normal retirement date for bargaining employees hired after June 30, 2011 (or later date based on applicable bargaining unit contract) and all non-bargaining employees hired after December 31, 2011. Reduced by .4% for each full calendar month that the initial retirement payment precedes the normal retirement date for sheriff deputies hired after June 30, 2011.
Rule of 75 Retirement	If the eligibility requirements for Rule of 75 Retirement are met, the early retirement benefit will not be reduced for the period that retirement precedes the normal retirement date.
Late Retirement	A member who attains the age of 65 after December 31, 1987, shall be entitled to the Normal Retirement Benefit based on Years of Service and Final Average Compensation determined as of the late Retirement Date.
Death	A benefit of 60% of earned pension is payable until death of the spouse if an employee has completed 8 years of service at the date of death. The earned pension is based on length of service and final average compensation to the date of death. The participant and spouse must be married for at least one year prior to date of death. If the employee is not survived by dependents or does not qualify for the spouse benefit, the employee's contributions, plus accumulated interest is paid to the beneficiary upon death.

Termination Benefit

Deferred monthly income equal to the earned benefit based on service and compensation to the date of termination and multiplied by a vesting factor:

Completed Years of Service on Date of Termination	Vesting Factor
Less than 5	0.00
5	0.25
6	0.40
7	0.55
8	0.70
9	0.85
10 Years and Over	1.00

If a member's employment is terminated due to a change in employment status as provided by the Nebraska Legislature to that of a state employee, such member's Vested Factor will be 1.00. The termination benefits to which he is entitled shall be based on the average monthly compensation of the member during Douglas County employment and/or state employment which immediately follows Douglas County employment.

Upon termination prior to qualifying for a vested pension or in lieu of the vested pension, the employee may withdraw his contributions increased by interest. Effective July 1, 1994, the interest rate credited is 5% compounded annually. This interest rate credit was changed to the 10-year treasury rate for the month of November, preceding the plan year, as of January 1, 2016.

Form of Annuity

Normal Form

Joint life annuity, 60% continuing to spouse or dependent children.

Five years certain and life, if no eligible dependents.

Contribution

Participant

Members contributed 5.5% of total earnings prior to January 1, 2006. The annual contribution rate increased to 6.5% as of January 1, 2006, 7.5% as of January 1, 2007 and 8.5% as of January 1, 2008 and thereafter.

Sheriff deputies hired after June 30, 2011 contribute according the following schedule:

Years of Service	Percentage
Less than 33	8.50%
33	7.50%
34	6.50%
35 or more	5.50%

Effective July 1, 1985, the Employee contribution is "picked up" and contributed to the Plan by Douglas County.

County

The County pays the balance of the cost of the plan. By law, the County cannot contribute more than the participants for pension earned after the effective date of the plan. The County pays for all benefits earned for service before the plan was effective.

Participant Census Statistics

	Plan Year Beginning January 1		
	2014	2015	2016
Active Participants			
Number	2,072	2,081	2,122
Average Attained Age	45.1	45.0	45.0
Average Past Service	10.5	10.6	10.6
Total Annual Compensation	$106,622,242	$109,523,822	$114,241,647
Average Annual Compensation	51,459	52,630	53,837
Non-Active Participants			
Number	1,371	1,391	1,396
Average Attained Age	66.7	66.9	67.8
Total Annual Benefits	22,460,956	23,945,709	24,544,766
Average Annual Benefit	16,383	17,215	17,582

Participant Census Statistics

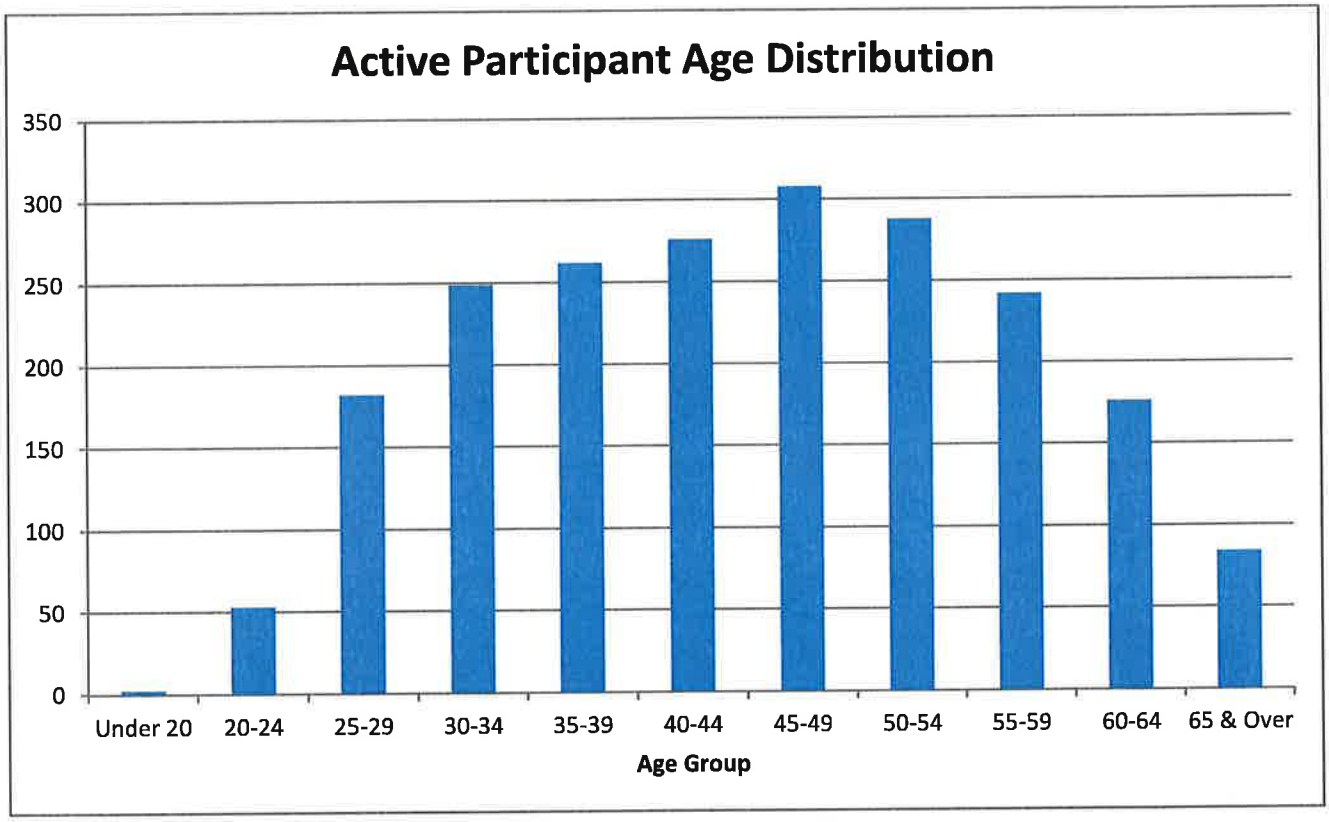
(continued)

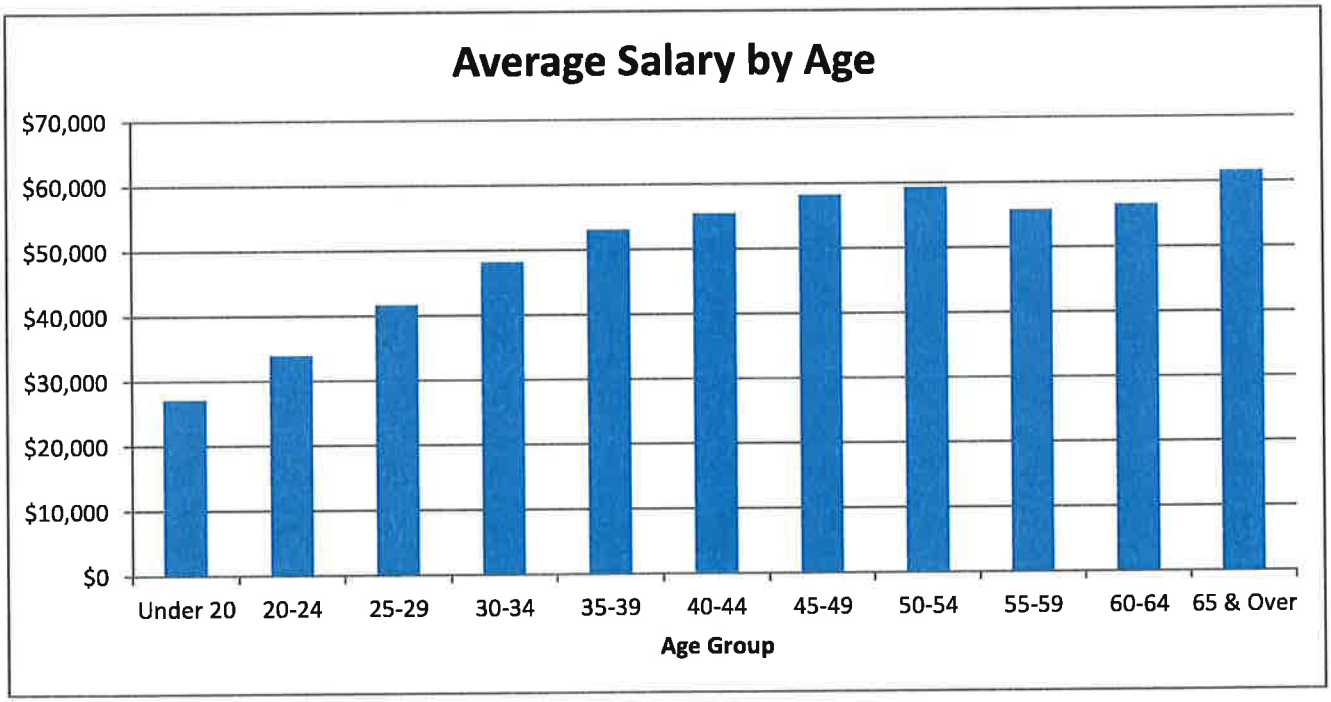
January 1, 2016

Active Participants Included in Valuation

Age at Valuation Date	Years of Service									Average Salary
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total	
Under 20	2	0	0	0	0	0	0	0	2	27,102
20-24	53	0	0	0	0	0	0	0	53	33,926
25-29	149	33	0	0	0	0	0	0	182	41,596
30-34	137	90	22	0	0	0	0	0	249	48,129
35-39	95	72	71	24	0	0	0	0	262	53,083
40-44	64	61	68	72	10	1	0	0	276	55,440
45-49	49	56	55	84	40	24	0	0	308	58,214
50-54	48	58	56	48	34	36	7	1	288	59,308
55-59	37	48	45	49	21	21	16	5	242	55,743
60-64	25	45	31	30	25	10	5	5	176	56,537
65 & Over	10	12	19	17	10	3	6	7	84	61,604
Total	669	475	367	324	140	95	34	18	2,122	
Average Salary	43,289	54,442	55,464	61,230	64,668	66,908	71,537	76,985		53,837

Average Salary - based on reported compensation for calendar 2015.


Active Participant Age Distribution
350
300
250
200
150
100
50
0
Under 20
20-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65 & Over
Age Group


Average Salary by Age
$70,000
$60,000
$50,000
$40,000
$30,000
$20,000
$10,000
$0
Under 20
20-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65 & Over
Age Group

Participant Census Statistics

(continued)

January 1, 2016
Non-Active Participants Included in Valuation

	Number	Total Annual Benefit	Average Annual Benefit	
Retired & Beneficiary	1,206	$22,353,567	$18,535	
Vested Terminated	119	1,106,570	9,299	
Terminated Non-Vested	46	338,263	7,354	*
Disabled Participants	25	746,366	29,855	
Total	1,396	24,544,766	17,582	

* Amount equal to expected refund of member contributions.

Retired & Beneficiary Participants in Pay Status

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 50	12	$135,756	$11,313
50-54	45	1,508,083	33,513
55-59	92	2,691,465	29,255
60-64	203	5,157,552	25,407
65-69	262	5,519,973	21,069
70-74	192	3,216,551	16,753
75-79	133	1,732,712	13,028
Over 79	267	2,391,475	8,957
Total	1,206	22,353,567	18,535

Disabled Participants in Pay Status**

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 45	1	$600	$600
45-49	3	35,057	11,686
50-54	4	56,046	14,012
55-59	3	38,355	12,785
Over 59	3	39,103	13,034
Total	14	169,161	12,083

**Disability payments are paid from the Plan for the first 5 years. Payments after five years are paid under the disability insurance contract for eligible disabled participants prior to July 1, 2015.

Participant Census Statistics

(continued)

	Active	Non-Active				Total
		Deferred	Disabled	Retired	Beneficiary	
Number on January 1, 2015	2,081	201	26	957	207	3,472
Terminated						
Non-Vested	-2	0	0	0	0	-2
Vested - Lump Sum	-89	-61	-2	0	0	-152
Vested - Deferred	-47	+48	-1	0	0	0
Disabled	-5	0	+5	0	0	0
Deceased						
Vested - Lump Sum	0	0	0	0	0	0
Vested - Beneficiary	-2	0	0	-12	+17	+3
No Additional Benefit	0	0	0	-15	-16	-31
Retired						
Monthly Benefit	-61	-6	-3	+70	0	0
Lump Sum	0	0	0	0	0	0
Certain Period Expired	0	0	0	0	-2	-2
Return to Active	+17	-17	0	0	0	0
New Entrants or Prior Omissions During Plan Year	+230	0	0	0	0	+230
Number on January 1, 2016	2,122	165	25	1000	206	3,518

Non-Active Participants	Number	Annual Benefit
Deferred Participants		
Vested Participants	119	$1,106,570
Non-vested Participants	46	338,263 *
Disabled Participants	25	746,366
Retired & Beneficiary Participants	1,206	22,353,567

* Amount equal to expected refund of member contributions.

Appendix B

Eastern Nebraska Health Agency
Employees Retirement Plan Information

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LB 759 - 2016 Report
Eastern Nebraska Human Services Agency Employees Retirement Plan

1. **Information for the current and previous plan year:**

	Most Current Valuation (2016)	Prior Valuation (2014)
Funding Status	71%	76%
Assumed rate of return	7%	7%
Actual investment return	0.2% (2015) 6.4% (2014)	15.6% (2013) 9.1% (2012)
Member contribution rates – % of pay	2.75%	2.75%
Employer contribution rates – % of pay	8.5%	7.5%
Normal cost – % of pay	7.0%	7.1%
ARC – % of pay	ER: 8.80%; EE: 2.75%	ER: 8.02%; EE: 2.75%
ARC – in dollars	$2,603,684	$2,197,946
Contribution – in dollars	$2,536,389 (2016 total expected)	$2,246,729
Contribution – % of ARC	97.4%	102.2%

2. **Circumstances that led to the current underfunding of the retirement plan:** Investment return on plan assets since the prior valuation was lower on average than the assumed 7.0% rate. Changes in assumptions (described in the next question) also reduced the funding status.

3. **Changes in the actuarial methods and/or assumptions since the previous actuarial valuation report:** For the 2016 actuarial valuation, the mortality table was updated to the Static IRS 2016 annuitant-distinct mortality table. Based on the results of an experience study completed this year, the salary scale assumption was increased from 2.0% to 2.5%. There was no change in the actuarial method from that applied in the 2014 valuation.

4. **Corrective actions implemented to improve the funding status of the plan:** The agency has been increasing employer contributions by one-half percent annually. The most recent forecast study was completed in June 2015 (submitted here). At this time, the agency intends to continue with one-half percent annual increases until attaining 9.50% of pay in 2018.

5. **Negotiations with bargaining groups:** The majority of the agency's employees are covered under a collective bargaining agreement. The agency is in negotiations at the present time. An agency proposal to increase employer contributions to 9.0% effective January 1, 2017, has been presented. Historically, these types of increases have been approved without problems.

6. **The most recent Actuarial Experience Study was completed in July 2016 and is submitted here.**

7. **The current assumed rate of return is 7%.** This assumption has not been changed since inception of the Plan. The rate is reviewed in the Actuarial Experience Study conducted every four years.

8. **The report for the January 1, 2016 actuarial valuation is submitted here.**

SilverStone GROUP

June 26, 2015

Mr. Bob Brinker
Eastern Nebraska Human Services Agency
900 South 74th Plaza, Suite 200
Omaha, NE 68114-4675

RE: Employees Retirement Plan Forecast Study

Dear Bob:

We have estimated the funded ratios for the Retirement Plan for the next 15 years. Please note, the values presented are only estimates, as the actual amounts will be based on annual census data and plan experience, actual asset values and assumptions applied in future years, as well as other variables.

The funded ratio is the ratio of the plan assets to the actuarial accrued liability. For active participants, the latter amount is the actuarial measure of benefits based on service to date and pay projected to retirement. For all other participants, it is the measure of their actual vested benefit.

Forecast Results

The forecast applies three different employer contribution schedules. Scenario 1 assumes the current 2015 employer contribution of 8% will continue each year following. Scenario 2 assumes the employer contribution will increase to 8.25% in 2016 and then remain level. Under the assumptions applied, this contribution schedule provides a funded ratio above 85% in 2025. The 85% target is consistent with the forecast study completed in 2010. Scenario 3 assumes the employer will continue the contribution schedule recommended in the 2010 forecast study, increasing contributions by 50 basis points each year through 2018 and then remaining level at 9.50%. This scenario shows continued improvement in the funded ratio on a path to 100%. For all scenarios, the employee contribution remains level at 2.75% of compensation. The results of the three scenarios are summarized in the table on the following page.

Assumptions

All assumptions are consistent with those applied to complete the 2014 valuation. Refer to these assumptions on the last page. Each forecast begins with the census and valuation results as of January 1, 2014. Refer to the valuation report for a summary of the census and funding results. Assets are projected beginning with total assets as of December 31, 2014. The estimated funded ratios will be less if plan asset performance is less than the 7% rate of return assumption, and if experience is other than assumed. Consideration was not given for the potential necessary change to the new mortality

tables recommended by the Society of Actuaries (RP-2014 with projection scale MP-2014). Measuring liabilities with these tables may decrease the funded ratio in the range of 5 to 10 percentage points.

Please call me at 402.964.5439 to discuss the results or for any alternative assumptions or contribution rates.

Sincerely,

Renee A. Nolte

Renee A. Nolte, ASA, MAAA
Senior Consultant

RN/rb

Enclosure

Eastern Nebraska Human Services Agency
Employees Retirement Plan
Estimated Funded Ratios

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Scenario 1 - Level Contribution Percent Beginning 2015																
Funding Basis	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
Total Contribution Percent	10.25%	10.75%	10.75%	10.75%	10.75%	10.75%	10.75%	10.75%	10.75%	10.75%	10.75%	10.75%	10.75%	10.75%	10.75%	10.75%
Employer Contribution Percent	7.50%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Employer Contribution (000's)	1,638	1,782	1,818	1,855	1,892	1,929	1,968	2,007	2,048	2,088	2,130	2,173	2,216	2,261	2,306	2,352
Funded Ratio	75.6%	76.6%	78.1%	79.4%	80.6%	81.6%	82.5%	83.2%	83.8%	84.3%	84.6%	84.8%	84.9%	84.8%	84.6%	84.3%
Scenario 2 - Level Contribution Percent Beginning 2016																
Funding Basis	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
Total Contribution Percent	10.25%	10.75%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%
Employer Contribution Percent	7.50%	8.00%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%
Employer Contribution	1,638	1,782	1,875	1,912	1,951	1,990	2,030	2,070	2,112	2,154	2,197	2,241	2,286	2,331	2,378	2,425
Funded Ratio	75.6%	76.6%	78.1%	79.5%	80.8%	82.0%	83.0%	83.8%	84.5%	85.1%	85.5%	85.8%	86.1%	86.1%	86.0%	85.9%
Scenario 3 - Level Contribution Percent Beginning 2018 (Consistent with 2010 Forecast)																
Funding Basis	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
Total Contribution Percent	10.25%	10.75%	11.25%	11.75%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Employer Contribution Percent	7.50%	8.00%	8.50%	9.00%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%
Employer Contribution	1,638	1,782	1,932	2,086	2,246	2,291	2,337	2,384	2,431	2,480	2,530	2,580	2,632	2,685	2,738	2,793
Funded Ratio	75.6%	76.6%	78.1%	79.7%	81.3%	83.0%	84.6%	86.0%	87.3%	88.5%	89.5%	90.4%	91.2%	91.8%	92.4%	92.8%

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6/26/2015

Actuarial Assumptions

Interest Rate

7.0% compounded annually.

Salary Scale

Salaries were assumed to increase at an annual rate of 2.0% compounded annually following the valuation date.

Mortality Rates

The mortality rates are based on the static IRS 2014 annuitant-distinct mortality table.

Turnover Rates

Based on years of service and age as follows:

Years of Service	Annual Rate
0	54.0%
1	25.5%
2	15.0%
3 or more	150% of Scale T-7 of the Actuary's Pension Handbook

Elected Form of Distribution

	Percent Electing	
Age	Deferred Annuity	Employee Contributions
Under 55	25%	75%
55 and over	100%	0%

Retirement Rate

Participants are assumed to retire in accordance with the following schedule:

Normal Retirement Age	Annual Rate of Retirement
62 with 30 years	15%
63 with 30 years	5%
64 with 30 years	5%
65	100%

Normal Retirement Age

Age 65 or Age 62 with 30 years of service earned as of the valuation date.

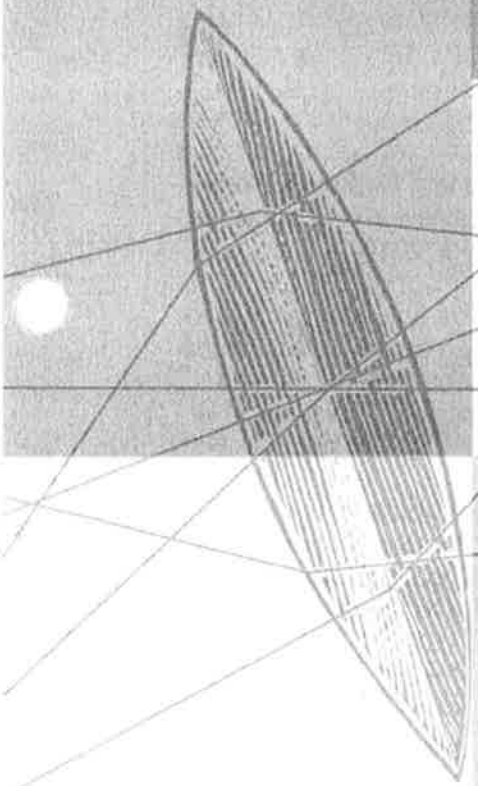
Marriage Rate

75% of the participants were assumed to be married at retirement. Female spouses are assumed to be 3 years younger than male spouses.

EASTERN NEBRASKA HUMAN SERVICES AGENCY EMPLOYEES RETIREMENT PLAN

Actuarial Valuation Report

January 1, 2016



Wisdom at Work.

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August 4, 2016

PERSONAL & CONFIDENTIAL

Mr. Bob Brinker
Eastern Nebraska Human Services Agency
900 South 74th Plaza, Suite 200
Omaha, NE 68114-4675

RE: Employees Retirement Plan

Dear Bob:

We have completed our work on the actuarial valuation for the Eastern Nebraska Human Services Agency Employees Retirement Plan. Enclosed for your review are 15 copies of the Actuarial Valuation Report for the plan year beginning January 1, 2016.

The Report Highlights section summarizes the valuation results. The actuarial formula to determine the Recommended Employer Contribution is based on an amount equal to the excess of the plan's Normal Cost over the anticipated employee contributions, plus an amount to amortize the unfunded accrued liability over a 30-year period. This method is consistent with the 2014 funding method.

The valuation recognizes the updated participant and plan asset information as of January 1, 2016. The mortality table was updated from the IRS 2014 table to the IRS 2016 table. The salary scale assumption was increased from 2.0% to 2.5%. All other actuarial methods and assumptions are the same as those used for the prior valuation. In our opinion, these methods and assumptions are appropriate.

Please call if we can provide additional information.

Sincerely,

Renee A. Nolte

Renee A. Nolte, ASA, MAAA
Senior Consultant

RAN/je

Enclosures

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SilverStone GROUP

August 4, 2016

ACTUARIAL CERTIFICATION

Pension Committee
Eastern Nebraska Human Services Agency
900 South 74th Plaza, Suite 200
Omaha, NE 68114-4675

Committee Members:

An actuarial valuation was performed for the Eastern Nebraska Human Services Agency Employees Retirement Plan as of January 1, 2016. The valuation was prepared to determine the value of accrued benefits and annual costs. The results of the valuation are contained in the accompanying report.

The valuation is based on eligible employees submitted by your office. A statement of plan assets was furnished by United of Omaha, American Funds and Stichler Wealth Management. We have not made an independent audit of this data, but have relied on the accuracy of the information that was supplied.

To the best of my knowledge, the information supplied in this report is complete and accurate and in my opinion, the assumptions are reasonably related to the experience of the Plan and to reasonable expectations and represent my best estimate of anticipated experience under the Plan. The undersigned meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Sincerely,

Renee A. Nolte, ASA, MAAA
Senior Consultant

Glen C. Gahan, FSA, MAAA
Principal

RAN/GCG/je

Enclosures

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Financial Highlights

	2014	2015	2016
Annual Contributions			
Recommended	2,197,946	2,197,946	2,603,684
Actual	2,246,729	2,427,556	N/A
Plan Assets	30,908,402	33,122,810	33,595,512
Prior Year Investment Return	15.6%	6.4%	0.2%
Funding Basis			
Actuarial Accrued Liability	40,889,551		47,305,934
Plan Assets	30,908,402		33,595,512
Unfunded Actuarial Accrued Liability	9,981,149		13,710,422
Accrued Benefit Basis			
Vested Benefit Value	38,311,097		43,521,210
Accrued Benefit Value	39,225,947		44,386,988
Funded Ratios*			
Funding Basis	76%		71%
Accrued Benefit Basis	79%		76%
Normal Cost	1,446,222		1,571,092
As a percent of covered payroll	7.1%		7.0%
Interest Rates			
Funding Basis	7.00%		7.00%
Accrued Benefit Basis	7.00%		7.00%
Annual Covered Payroll	20,402,867		22,545,677
Number of Participants			
Active and Disabled	650		678
Retired and Beneficiary	181		216
Vested Terminations and Transfers	66		77
Total	897		971

* Ratio of plan assets to applicable actuarial liability.

Comments on the Valuation

The results of the actuarial valuation prepared for the Eastern Nebraska Human Services Agency Employees Retirement Plan as of January 1, 2016 are summarized in this report. The following observations are provided regarding the report.

Plan Experience

Examining the overall plan experience since the last valuation on January 1, 2014, we note:

- Since the prior valuation, the number of active participants has increased from 650 to 678. Annual covered payroll for participants under Normal Retirement Age increased from $20,402,867 to $22,545,677, a 10.5% increase. The average salary for participants under Normal Retirement Age increased from $33,229 to $35,394, a 6.5% increase.

- For active participants included in the valuation, average age decreased from 45.5 to 45.0 years and average service decreased from 11.0 to 10.4 years.

- The investment return on plan assets since the prior valuation was lower on average than the assumed 7.0% rate. The approximate investment return rate for 2014 was 6.4%, and for 2015 was 0.2%.

- On the same actuarial basis as used in 2014, the Unfunded Accrued Liability (UAL) increased by $3,080,000, from $9,980,000 to $13,060,000. Contributing factors were:

    - Investment return rates less than expected increased the UAL by approximately $2,460,000.

    - Contributions more than the Normal Cost plus interest on the UAL subtracted about $230,000 from the UAL.

    - Net actuarial losses from other sources increased the UAL by approximately $850,000.

Comments on the Valuation

Actuarial Assumptions

The mortality table was updated to the static IRS 2016 annuitant-distinct mortality table. The effect of this change increased the UAL by $129,879. The corresponding increase in the normal cost was $3,571.

The salary scale assumption was changed from 2.0% to 2.5%. The effect of this assumption change increased the UAL by $518,415. The corresponding increase in the normal cost was $43,273.

The net effect of the mortality table and salary scale assumption changes increased the UAL by $648,294. The net increase in the normal cost was $46,844.

All other assumptions are the same as those used in the 2014 valuation.

Recommended Contribution

The recommended contribution consists of the plan's normal cost plus a 30-year amortization payment of the unfunded accrued liability.

We recommend ENHSA increase the total contribution to the plan to $2,603,684 for 2016. Plan contributions include amounts contributed by the employees and by the employer. For 2016, the anticipated employee contributions at the current rate of 2.75% are $620,006 and the anticipated employer contribution at the current rate of 8.5% are $1,916,383 for a total of $2,536,389. The shortfall can be funded by increased contributions by the employees, ENHSA, or both.

Annual Contributions

Annual contributions to the Retirement Plan as illustrated herein are comprised of employee contributions equal to a percentage of expected compensation as of the valuation date and an amount payable by the employer.

		January 1, 2016	
	January 1, 2014	Before Assumption Changes	After Assumption Changes*
Recommended Contribution			
Normal Cost	$1,446,222	$1,524,248	$1,571,092
Unfunded Accrued Liability Payment	751,724	983,766	1,032,592
Total	2,197,946	2,508,014	2,603,684
Expected Employee Contribution			
Employee Contribution Rate	2.75%	2.75%	2.75%
Covered Payroll	20,402,867	22,545,677	22,545,677
Expected Employee Contribution	561,079	620,006	620,006
Recommended Employer Contribution			
Normal Cost less Employee Contribution	885,143	904,242	951,086
Employer Contribution as a Percent of Pay	4.34%	4.01%	4.22%
Total Contribution less Employee Contribution	1,636,867	1,888,008	1,983,678
Employer Contribution as a Percent of Pay	8.02%	8.37%	8.80%

* The mortality table and the salary scale assumptions were changed as shown in the Actuarial Assumptions section.

Valuation Results

A summary of the results of the actuarial valuations performed as of January 1, 2014 and January 1, 2016 is displayed below:

		January 1, 2016	
	January 1, 2014	Before Assumption Changes	After Assumption Changes*
Unfunded Accrued Liability			
Accrued Liability	$40,889,551	$46,657,640	$47,305,934
Less: Plan Assets	30,908,402	33,595,512	33,595,512
Unfunded Accrued Liability	$9,981,149	$13,062,128	$13,710,422
Ratio of Assets to Accrued Liability	76%	72%	71%
Annual Normal Cost			
Retirement, Death, Termination and Deferred Disability Benefits	$1,423,712	$1,500,039	$1,546,883
Administrative Expense Load	22,510	24,209	24,209
Total	$1,446,222	$1,524,248	$1,571,092

* The mortality table and the salary scale assumptions were changed as shown in the Actuarial Assumptions section.

Plan Assets

All future plan benefits will be derived from plan assets on the valuation date, future contributions and investment income on these amounts. The changes in the value of plan assets since the last valuation and the value of plan assets on the current valuation date are displayed below.

Changes in Value of Plan Assets

Market Value of Assets on January 1, 2014	$30,908,402
Contribution Receivable	0
Adjusted Plan Assets on January 1, 2014	$30,908,402
Employer Contributions	1,645,419
Employee Contributions	601,310
Investment Income	1,999,320
Monthly Benefit Payments	(1,635,908)
Lump Sum Distributions	(372,064)
Administrative Charges	(23,669)
Market Value of Assets on January 1, 2015	$33,122,810
Contribution Receivable	0
Adjusted Plan Assets on January 1, 2015	$33,122,810
Employer Contributions	1,795,041
Employee Contributions	632,515
Investment Income	102,263
Monthly Benefit Payments	(1,768,539)
Lump Sum Distributions	(264,369)
Administrative Charges	(24,209)
Market Value of Assets on January 1, 2016	$33,595,512
Contribution Receivable	0
Adjusted Plan Assets on January 1, 2016	$33,595,512

Asset Allocation

Employee Funds - Annuity Contract	$4,101,626
Employee Funds - Equities	5,379,953
Employer Funds - Annuity Contract	8,454,480
Employer Funds - Equities	15,659,453
	$33,595,512

Plan Financial Information

Another objective of preparing the actuarial valuation is to evaluate the funding status of the Plan. The following display compares the funding status of the Plan for the two most recent actuarial valuations.

	January 1, 2014	January 1, 2016
1. Actuarial Present Value of Vested Accrued Benefits		
Retirees and Beneficiaries of Deceased Participants	$14,849,045	$17,757,931
Vested Terminated Participants	1,344,111	1,695,034
Active Participants	22,117,941	24,068,245
Total	$38,311,097	$43,521,210
2. Actuarial Present Value of Non-Vested Accrued Benefits for Active Participants	$914,850	$865,778
3. Actuarial Present Value of Accrued Benefits (1) + (2)	$39,225,947	$44,386,988
4. Value of Assets	$30,908,402	$33,595,512
5. Funded Ratio*		
Vested Accrued Benefits	81%	77%
Accrued Benefits	79%	76%
Interest Rate	7.00%	7.00%

The actuarial present value of vested and non-vested benefits has been determined based on the actuarial assumptions shown in the Actuarial Assumptions section.

* Ratio of plan assets to applicable actuarial present value.

Actuarial Cost Method

Annual costs were calculated using the Projected Unit Credit Actuarial Cost Method. Projected Unit Credit is one of the Accrued Benefit Actuarial Cost Methods. Using Projected Unit Credit, annual costs equal the sum of the normal cost and an amount to amortize the unfunded accrued liability. The normal cost is defined as the actuarial value of retirement and ancillary benefits that are allocated to the current year.

The unfunded accrued liability is equal to the accrued liability reduced by the actuarial value of plan assets. The accrued liability is defined as the actuarial value of retirement and ancillary benefits that have been allocated to years of service prior to the current year.

The method allocates an equal amount of a participant's projected retirement benefit to each year of service. The benefit at normal retirement is projected assuming salaries increase at the assumed rates. The projected retirement benefit is then divided by the participant's years of service to determine the portion of the retirement benefit allocated to each year.

At the end of each year, a determination of actuarial gains and losses is made. Actuarial gains and losses indicate the extent to which actual experience is deviating from that expected on the basis of the actuarial assumptions. Actuarial gains result from experience more favorable than assumed and reduce the unfunded accrued liability. Actuarial losses result from experience less favorable than assumed and increase the unfunded accrued liability. All actuarial gains and losses are included in the determination of the unfunded accrued liability as of the valuation date.

Asset Valuation Method

The value of plan assets is based on the contract value of assets held at United of Omaha and the market value of assets held at American Funds and Stichler Wealth Management

Actuarial Assumptions

Interest Rate

7.0% compounded annually.

Salary Scale

Salaries were assumed to increase at an annual rate of 2.5% compounded annually following the valuation date.

Mortality Rates

The mortality rates are based on the static IRS 2016 annuitant-distinct mortality table.

Turnover Rates

Based on years of service and age as follows:

Years of Service	Annual Rate
0	54.0%
1	25.5%
2	15.0%
3 or more	150% of Scale T-7 of the Actuary's Pension Handbook

Elected Form of Distribution

	Percent Electing	
Age	Deferred Annuity	Employee Contributions
Under 55	25%	75%
55 and over	100%	0%

Retirement Rate

Participants are assumed to retire in accordance with the following schedule:

Normal Retirement Age	Annual Rate of Retirement
62 with 30 years	15%
63 with 30 years	5%
64 with 30 years	5%
65	100%

Normal Retirement Age

Age 65 or Age 62 with 30 years of service earned as of the valuation date.

Actuarial Assumptions
(continued)

Marriage Rate	75% of the participants were assumed to be married at retirement. Female spouses are assumed to be 3 years younger than male spouses.
Administrative Expenses	Equal to prior plan year actual expense.

Summary of Plan Provisions

Effective Date	January 1, 1982.
Plan Year	January 1 through December 31.
Participation	Full-time employees are eligible to participate on January 1 or July 1 coinciding with or next following the completion of 6 months of service.
Definitions	
Service	Any period of time the Employee is in the employ of the Employer as a full-time Employee.
Year of Service	A consecutive 12 month period during which 2,000 hours of service has been completed. For purposes of retirement benefits, a Year of Service shall include the fractional portion of the year from the most recent employment anniversary to date of termination.
Average Monthly Compensation	Average of monthly compensation during the five consecutive years of the last ten years of service which produces the highest average.
Normal Retirement Date	First day of the month coinciding with or next following the attainment of age 65, or age 62 with 30 years of service.
Early Retirement Date	First day of any month following the attainment of age 55 and completion of 10 years of service, or age 60 and 5 years of service.
Late Retirement Date	Anytime following Normal Retirement Date.
Disability Retirement	If a participant has completed five years of service and becomes disabled, they will remain active in the plan until their Normal Retirement Date. Mandatory employee contributions will be waived.

Summary of Plan Provisions
(continued)

Benefits

Normal Retirement	Monthly annuity equal to 1.75% of Average Monthly Compensation multiplied by the number of Years of Service.
Early Retirement	Monthly annuity computed in the same manner as the Normal Retirement Benefit but based on the service and Average Monthly Compensation as of the Early Retirement Date and reduced by 0.25% for each full month that the Early Retirement Date precedes the Normal Retirement Date.
Late Retirement	Monthly annuity computed in the same manner as the Normal Retirement Benefit but based on the service and Average Monthly Compensation earned as of the Late Retirement Date.
Disability	Monthly annuity payable at Normal Retirement Age computed in the same manner as the Normal Retirement Benefit assuming that compensation as of the date of Disability and service continued to the Normal Retirement Date.
Preretirement Death Benefit	A benefit is payable at the death of an active participant. Death Prior to Early Retirement Date - A lump sum equal to the participant's contributions plus accumulated interest is payable to a designated beneficiary. Death After Early Retirement Date - A monthly income payable to a surviving spouse or dependent children equal to 60% of the earned benefit determined at the participant's death. This amount is payable beginning at the participant's Normal Retirement Date. A reduced monthly income may be selected by the surviving spouse or the dependent children to be payable beginning at any date following the participant's Early Retirement Date. The monthly income is payable for the life of the surviving spouse. If paid to the dependent children, the monthly income will continue until the youngest child attains age 21. If the participant is not survived by an eligible spouse or dependent children a lump sum equal to the participant's contributions plus accumulated interest is payable to a designated beneficiary.

Summary of Plan Provisions
(continued)

Termination Benefit

Benefit upon termination equal to a vested interest in the earned pension as of the date of termination determined according to the following schedule:

Years of Service	Vesting %
Less than 5 years	0%
5	50%
6	60%
7	70%
8	80%
9	90%
10 or more years	100%

Normal Forms of Annuity

Married Participant

Joint and 60% Survivor annuity.

Single Participant

Five Year Certain & Life annuity.

Contributions

Participant

A monthly amount equal to 2.75% of monthly compensation. The contributions are picked up by the employer effective July 1, 2013.

Employer

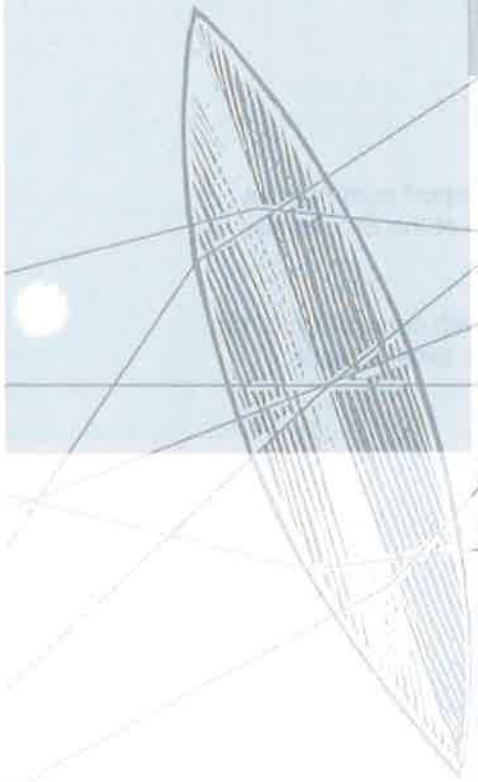
An amount necessary to provide the benefits under the plan based upon the recommendations of periodic actuarial valuations. Currently, the employer has scheduled the following contribution rates as a percentage of payroll:

2010	5.5%
2011	6.0%
2012	6.5%
2013	7.0%
2014	7.5%
2015	8.0%
2016	8.5%

EASTERN NEBRASKA HUMAN SERVICES AGENCY EMPLOYEES RETIREMENT PLAN

Actuarial Experience Review

July 5, 2016



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July 5, 2016

PERSONAL AND CONFIDENTIAL

Mr. Bob Brinker
Eastern Nebraska Human Services Agency
900 South 74th Plaza, Suite 200
Omaha, NE 68114

RE: Actuarial Experience Review

Dear Bob:

Enclosed are 15 copies of the Actuarial Experience Review. This report summarizes salary, turnover, benefit election and investment return experience of the Employees Retirement Plan. Mortality experience is also briefly addressed.

After the assumptions are confirmed, our next step is to proceed with completion of the actuarial valuation. Please call to discuss, or we would be happy to meet at your convenience.

Sincerely,

Renee A. Nolte

Renee A. Nolte, ASA, MAAA
Senior Consultant

RAN/ck

Enclosures

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Discussion of Results

SilverStone Group has conducted an actuarial study of the salary, turnover, benefit election and investment return experience for the Eastern Nebraska Human Services Agency (ENHSA) Employees Retirement Plan (Plan). The study includes data from the 2012 through 2015 plan years. In addition, the results from previous studies conducted on the 2006 through 2011 plan years have been included for comparison.

Experience has been analyzed on annual periods based on the census and asset data provided by ENHSA. An analysis of experience involves:

- Calculation of actual rates of increase (decrease).
- Calculation of expected rates of increase (decrease).
- Comparison of the actual rates to the expected rates (i.e., on absolute terms).
- Comparison of the actual rates divided by the expected rates (i.e., on relative terms).

Salary Experience

The salary change rate was calculated two ways. First, salaries were compared in the aggregate from one year to the next for the last 10 years. This comparison often forms the basis of the assumed rate of salary increase used in an actuarial valuation. These historical annual salary increases were then compared to the current assumed salary rate of 2.0%. Salary rates over the last three years were also analyzed by five-year age brackets.

Experience indicates that an increase in the salary rate assumption may be considered. The average over the last 10 years is 2.99%; the average over the last five years is 2.69%. The salary rate assumption was decreased from 4.0% to 2.0% effective with the 2012 valuation. Increasing the assumed salary rate slightly to 2.50% would seem reasonable.

Turnover Experience

The current turnover assumption consists of rates that vary by age and service. The turnover rates do not depend on age during the first three years of service. After three years of service, the rates are a function of age only.

Because the turnover rate is dependent upon both years of service and age, the turnover rate was calculated two ways. First, turnover rates were calculated for employees who have less than three years of service with ENHSA. Second, employees were grouped in five-year age brackets. The turnover rate was calculated based on the number of employees in each age group ending their employment with ENHSA.

The turnover rate assumption was reduced 25% in 2006. The experience from 2010 through 2015 shows that overall, actual turnover experience remains slightly below expected. Each year, the actual turnover rate increased closer to the expected rates. (77% for 2010 – 2011; 85% for 2012 – 2013 and 93% for 2014 – 2015)

The graphs on pages 7 and 8 analyze turnover by years of service. The graphs on pages 9 and 10 analyze turnover by five-year age brackets. For the most recent experience, the largest variances from expected are for years of service less than 1 (56% of expected) and for age 65 and over (36% of expected). Experience was similar for these segments over the prior two periods. In addition, the age group from 55 to 59 has experienced turnover 52% higher than expected with similar experience over the prior two periods.

For turnovers with less than one year of service, our test results may be lower than actual since our data does not track a new hire and termination that occurs within the same plan year, only those that cross over to the next plan year.

A turnover/retirement age assumption beyond age 65 would be atypical for this size and type of plan. An increase to the turnover rate assumption for early retirement beginning at age 55 would be justified, but this would cause the overall turnover rate assumption to be even higher than the actual experience. Therefore, we suggest no change to the assumed turnover rates.

Form of Benefit Election Experience

For those participants who terminated with a vested deferred annuity option, actual experience was tabulated to determine the percent who elected to forego the annuity option and elect return of their contributions plus interest.

Actual experience for the most recent two-year periods has been both above and below the expectation that 75% of those under age 55 elect return of contributions (81% elected a return of contributions in 2012 – 2013 and 60% in 2014 – 2015). For those 55 and over, there were two participants who elected a return of contributions in the 2012 – 2013 period and no participants made this election in the 2014 – 2015 period. The assumption for this age group is that no participants will elect the return of contributions. Therefore, we suggest no change to the current assumption.

Investment Return Experience

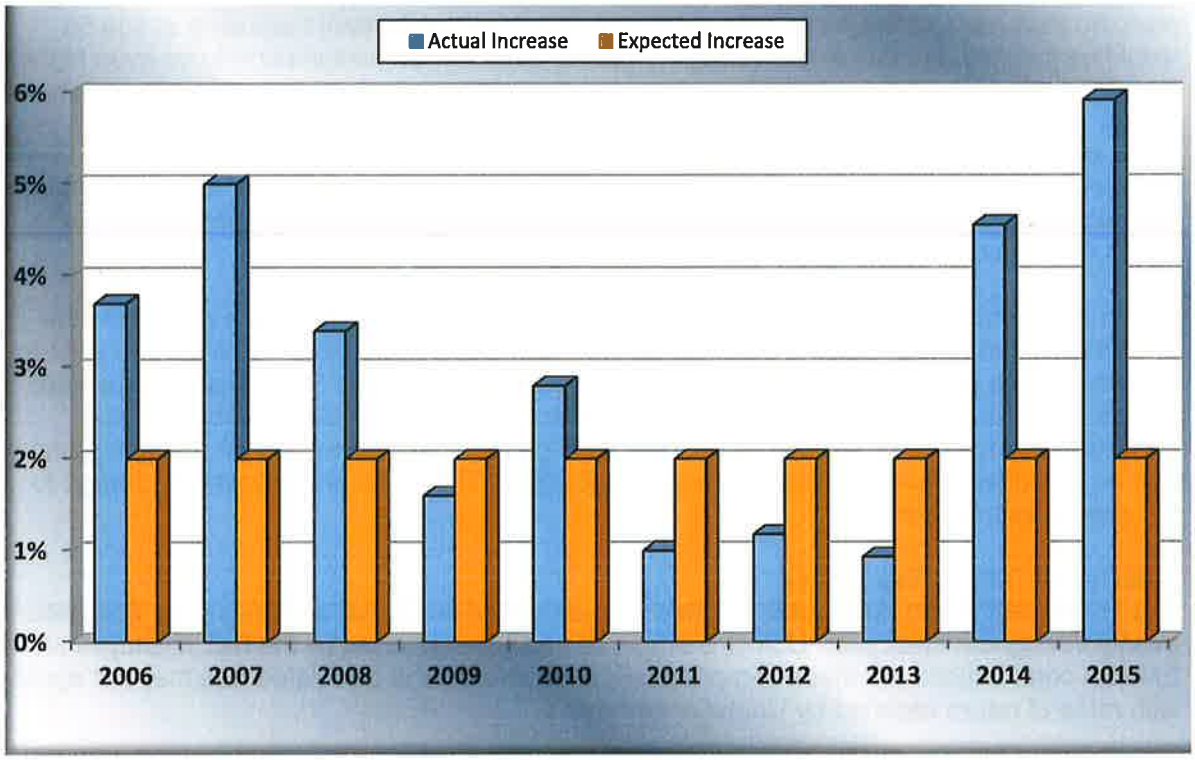
The investment return rate was calculated on a simplified basis that assumes cash flow occurs evenly throughout each year. Use of a simplified basis is supported by the fact employee and ENHSA contributions are made bi-monthly. For this reason, the calculated rate may not agree with rates of return reported by United of Omaha.

The investment return rate has averaged 4.8% on a compound basis over the 10-year period from 2006 through 2015. For the five-year period from 2011 through 2015, the average return rate is 6.3%. The investment return rate exceeded the 7% assumption during 4 of the 10 years displayed. The rate of investment return assumption has been 7.0% since prior to 1997. Considering the investment mix of equities and fixed income, 7.0% remains an acceptable assumption.

Mortality Experience

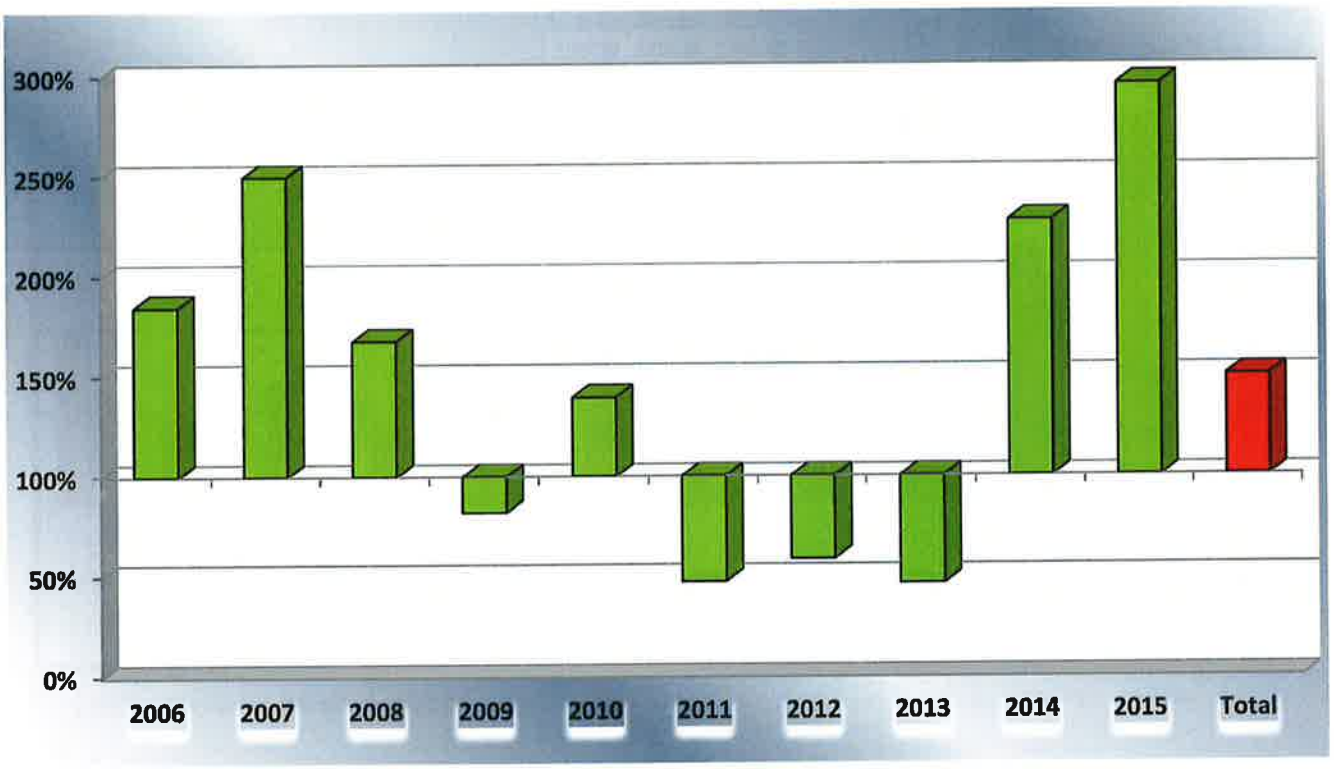
The number of participants in this Plan is not large enough to rely on actual mortality experience. However, it may be helpful to note that there were 16 total deaths over the 2012 to 2015 plan years (seven in 2012 – 2013 and nine in 2014 – 2015). Based on the mortality table in effect for the 2016 plan year (IRS 2016 annuitant-distinct mortality table), 6.2 total deaths are expected over the same years. Our test data for this experience review only includes active employees. Results would be different if we were to include retiree deaths. However, the actual mortality experience would indicate that the recent table released by the Society of Actuaries late last year (RP 2014 with MP 2015 generational improvement) would not be more appropriate for this Plan since it would result in assuming fewer deaths than the static IRS 2016 mortality table.

Salary Experience from 2006 to 2015



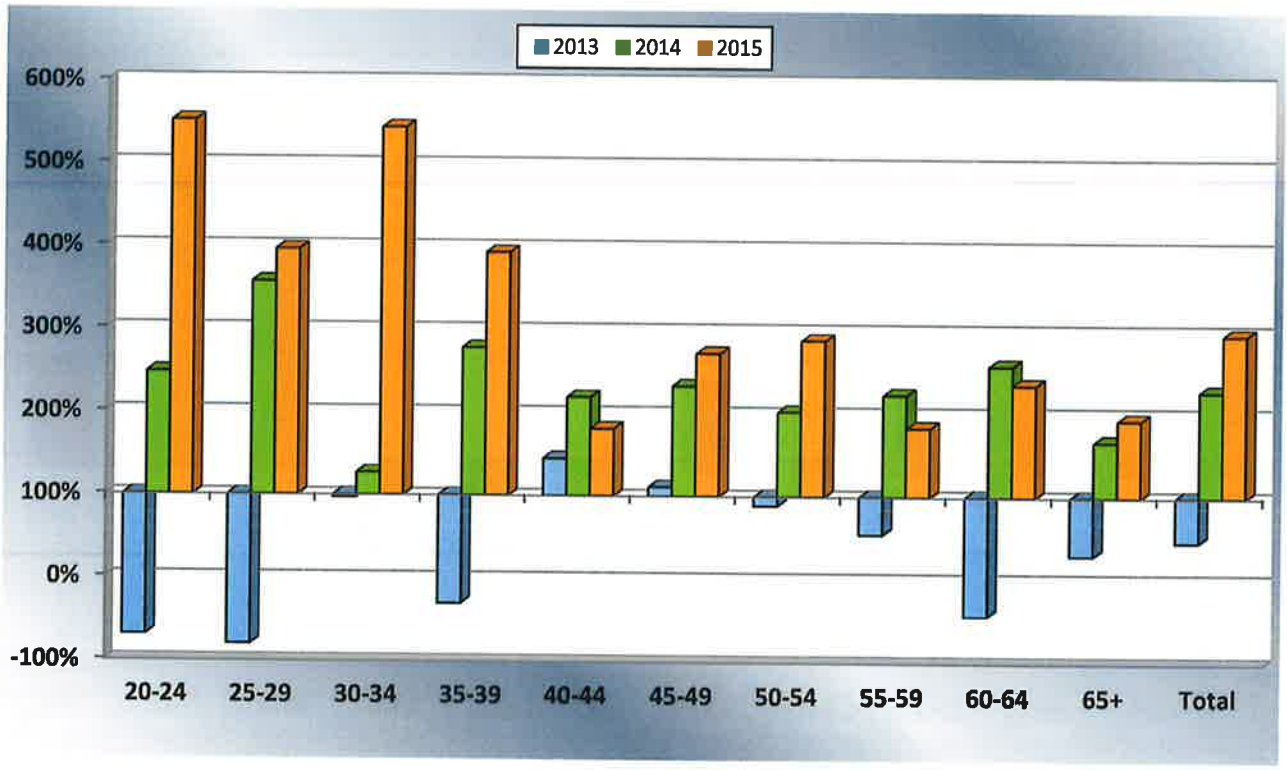
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Actual Increase	3.7%	5.0%	3.4%	1.6%	2.8%	1.0%	1.2%	0.9%	4.6%	5.9%
Expected Increase	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

Salary Experience from 2006 to 2015
Ratio of Actual vs. Expected Salary Increase



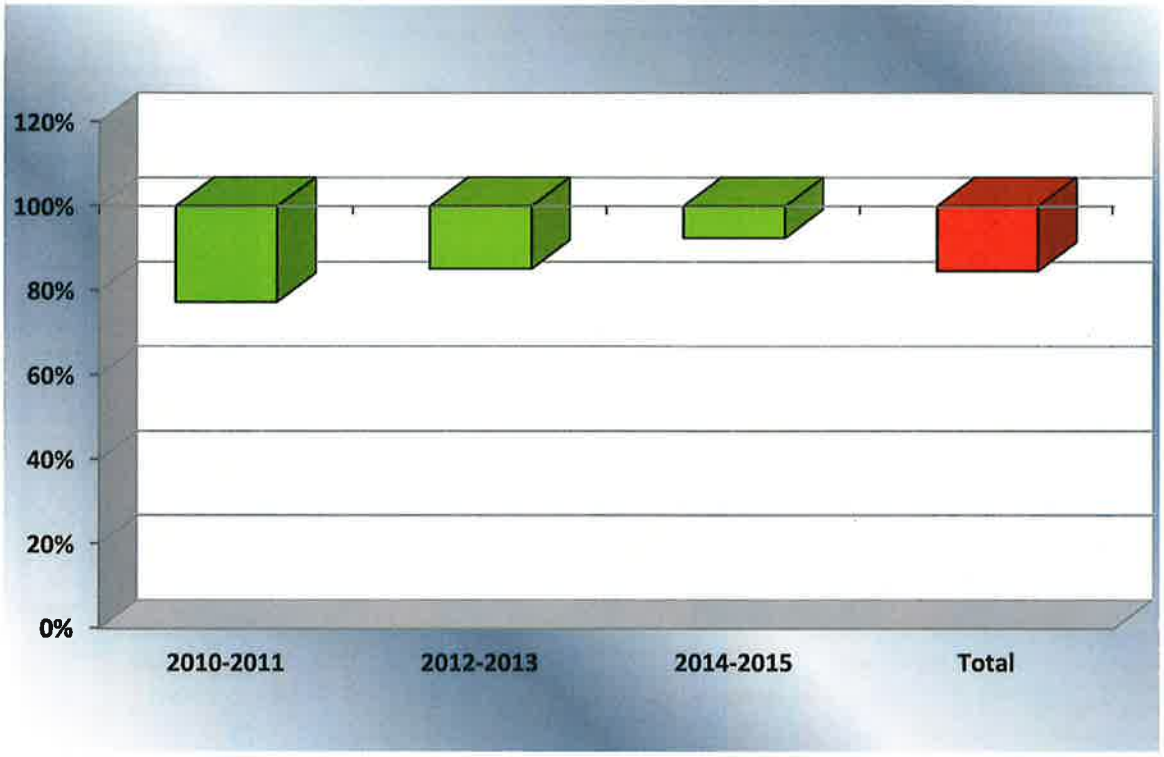
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Actual Increase	3.7%	5.0%	3.4%	1.6%	2.8%	1.0%	1.2%	0.9%	4.6%	5.9%	3.0%
Expected Increase	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Actual vs. Expected	185.0%	250.0%	168.0%	82.3%	139.5%	47.5%	58.8%	46.5%	227.7%	295.8%	150.1%

Salary Experience from 2013 to 2015
Ratio of Actual to Expected Salary Increase by Age Group



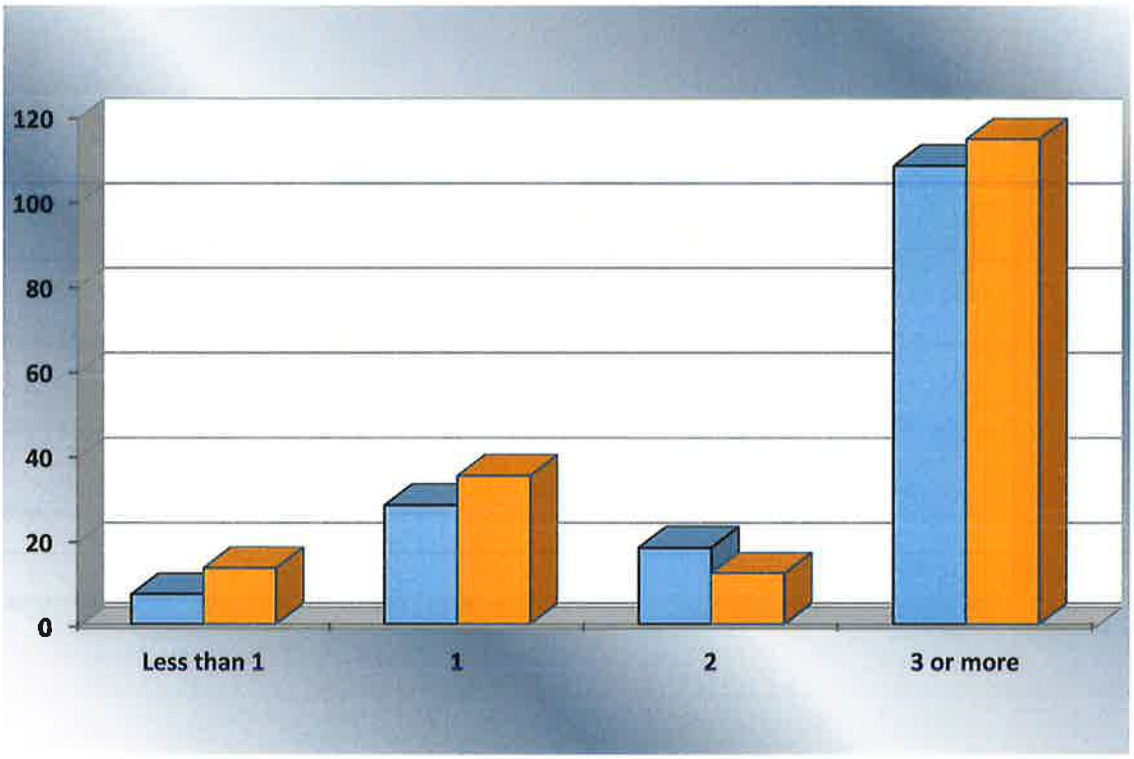
Age	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Total
Actual Increase vs. Expected Increase											
2013	-69%	-80%	97%	-30%	145%	111%	89%	55%	-43%	30%	47%
2014	248%	357%	127%	278%	219%	233%	202%	223%	258%	167%	228%
2015	551%	396%	543%	393%	181%	272%	288%	183%	235%	193%	296%

Turnover Experience from 2010 to 2015
Ratio of Actual to Expected Turnover



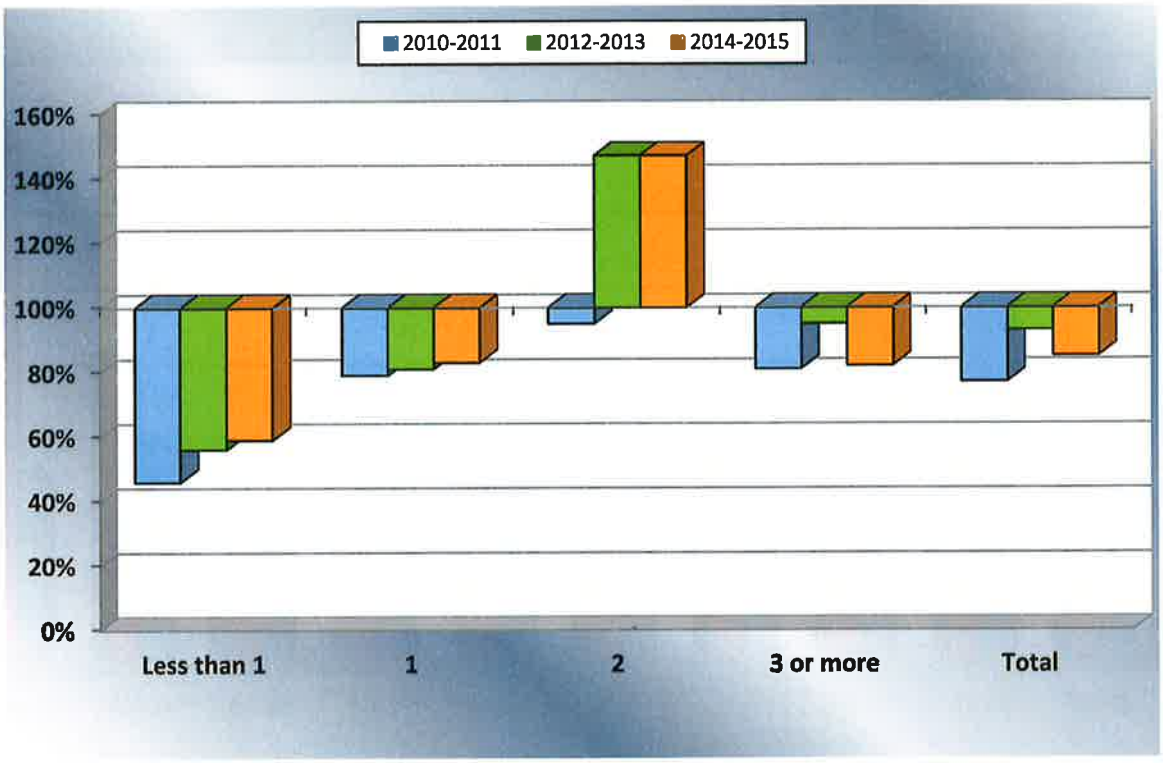
Year	2010-2011	2012-2013	2014-2015	Total
Actual Turnover	157	170	165	492
Expected Turnover	203	200	178	581
Actual vs. Expected	77%	85%	93%	85%

Turnover Experience for 2014 and 2015
Ratio of Actual to Expected Turnover by Years of Service



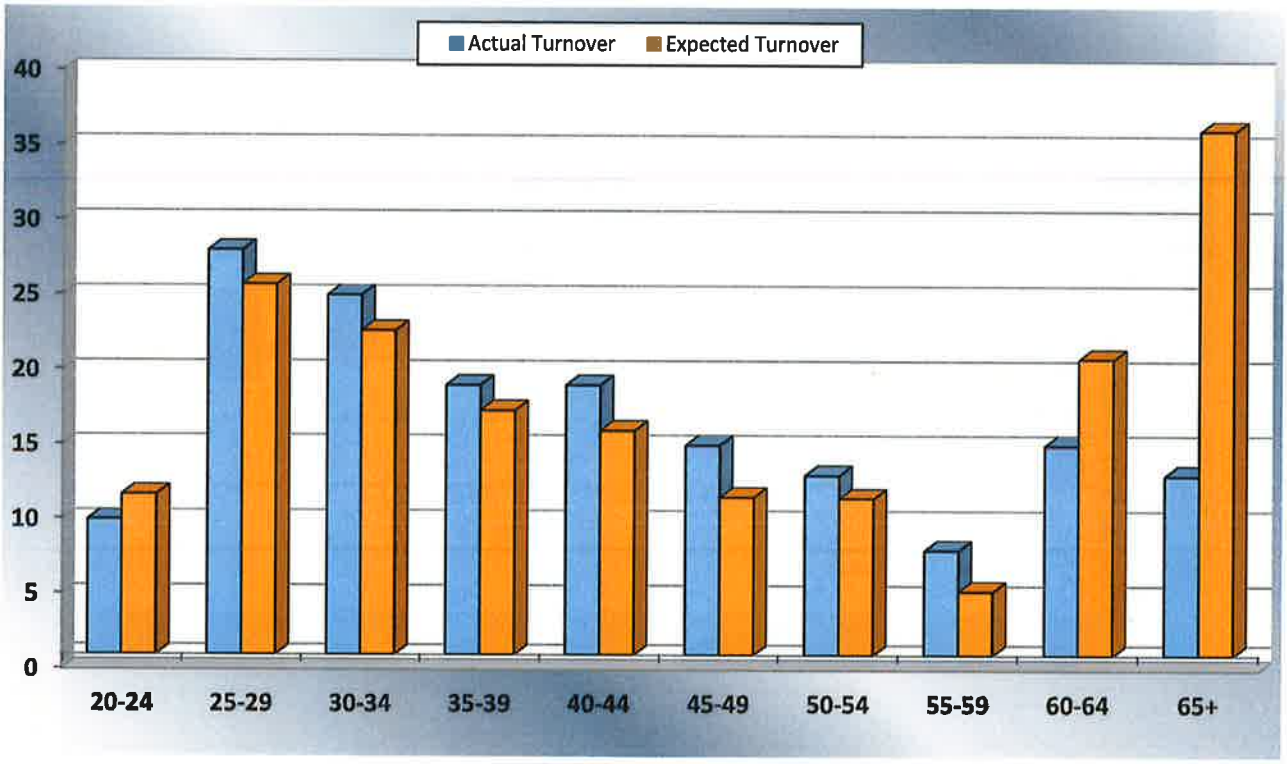
Years of Service	Less than 1	1	2	3 or more	Total
Actual Turnover	8	29	19	109	165
Expected Turnover	14	36	13	115	178
Actual vs. Expected	56%	81%	147%	95%	93%

Turnover Experience from 2010 to 2015
Ratio of Actual to Expected Turnover by Years of Service



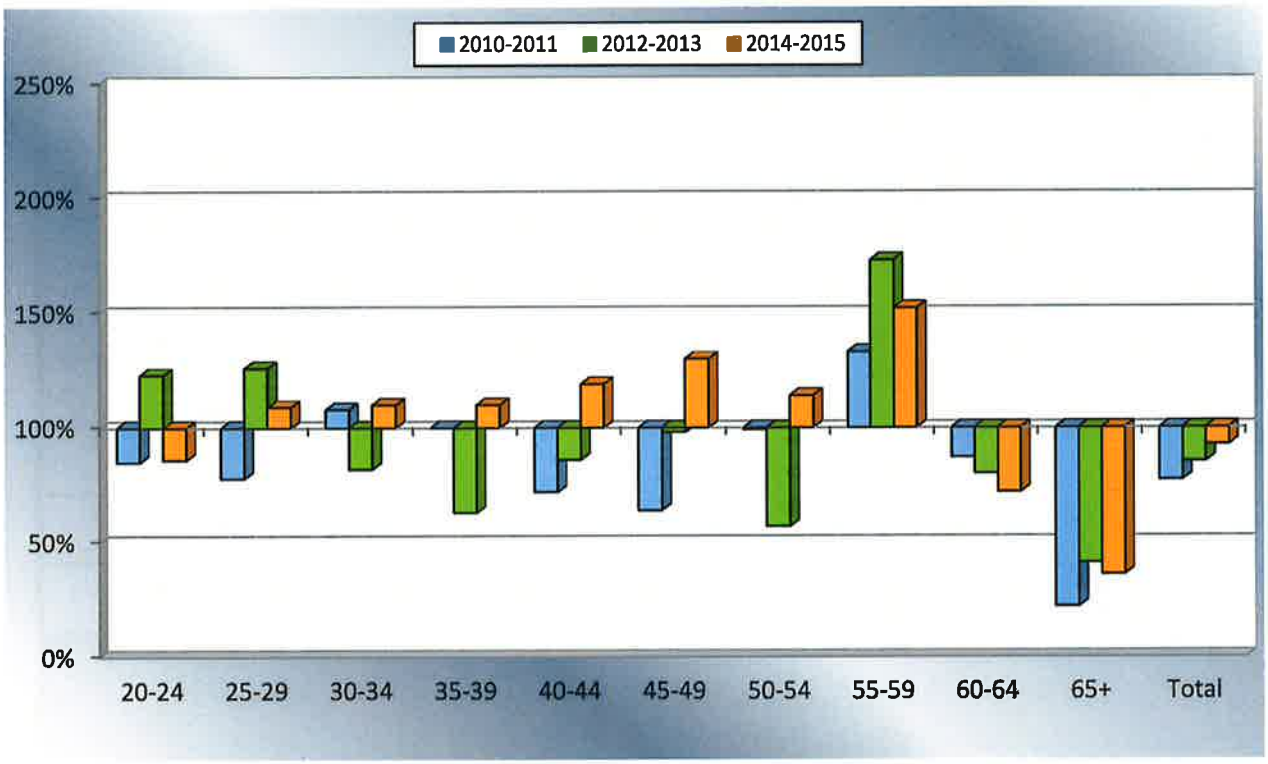
Years of Service	Less than 1	1	2	3 or more	Total
Actual Turnover vs. Expected Turnover					
2010-2011	46%	79%	95%	81%	77%
2012-2013	59%	83%	147%	82%	85%
2014-2015	56%	81%	147%	95%	93%

Turnover Experience for 2014 and 2015
Incidence of Turnover by Age Group



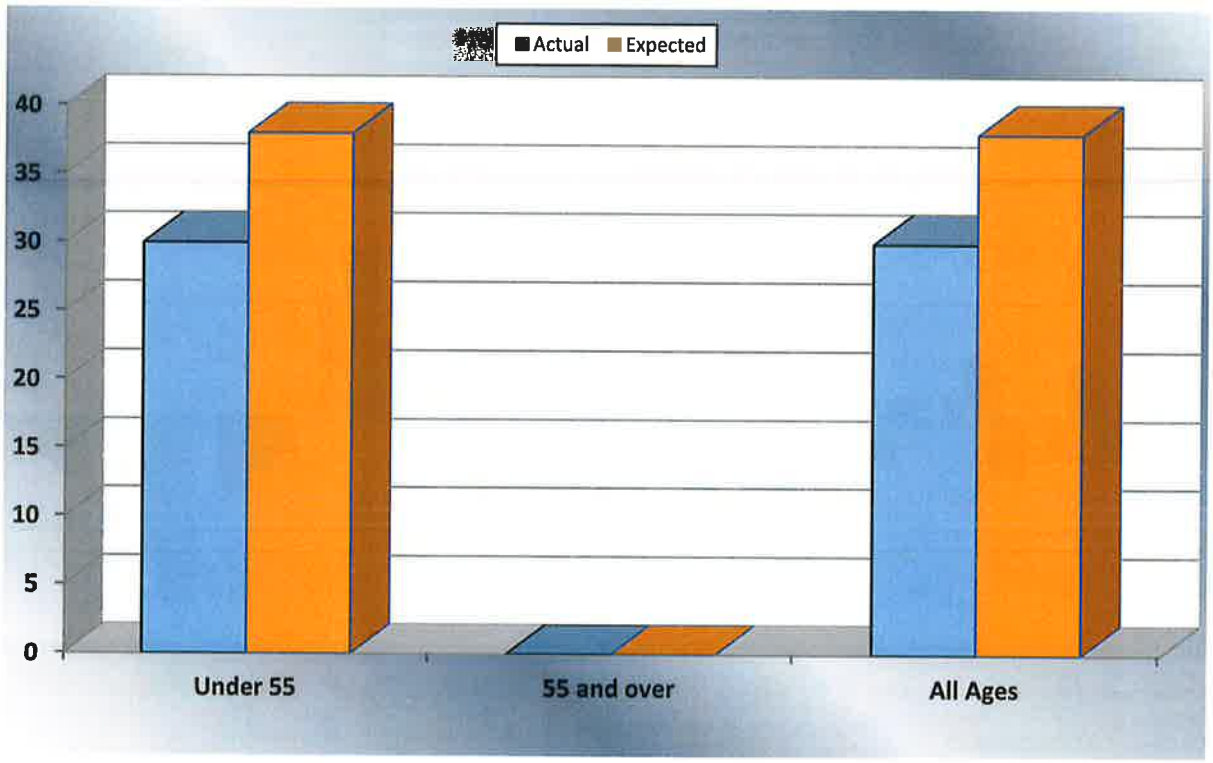
Age	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Total
Actual Turnover	10	28	25	19	19	15	13	8	15	13	165
Expected Turnover	12	26	23	17	16	12	11	5	21	36	178

Turnover Experience from 2010 to 2015
Ratio of Actual to Expected Turnover by Age Group



Age	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Total
Actual Turnover vs. Expected Turnover											
2010-2011	85%	78%	108%	100%	72%	64%	99%	133%	87%	22%	77%
2012-2013	123%	126%	82%	63%	86%	98%	57%	173%	80%	41%	85%
2014-2015	86%	109%	110%	110%	119%	130%	114%	152%	72%	36%	93%

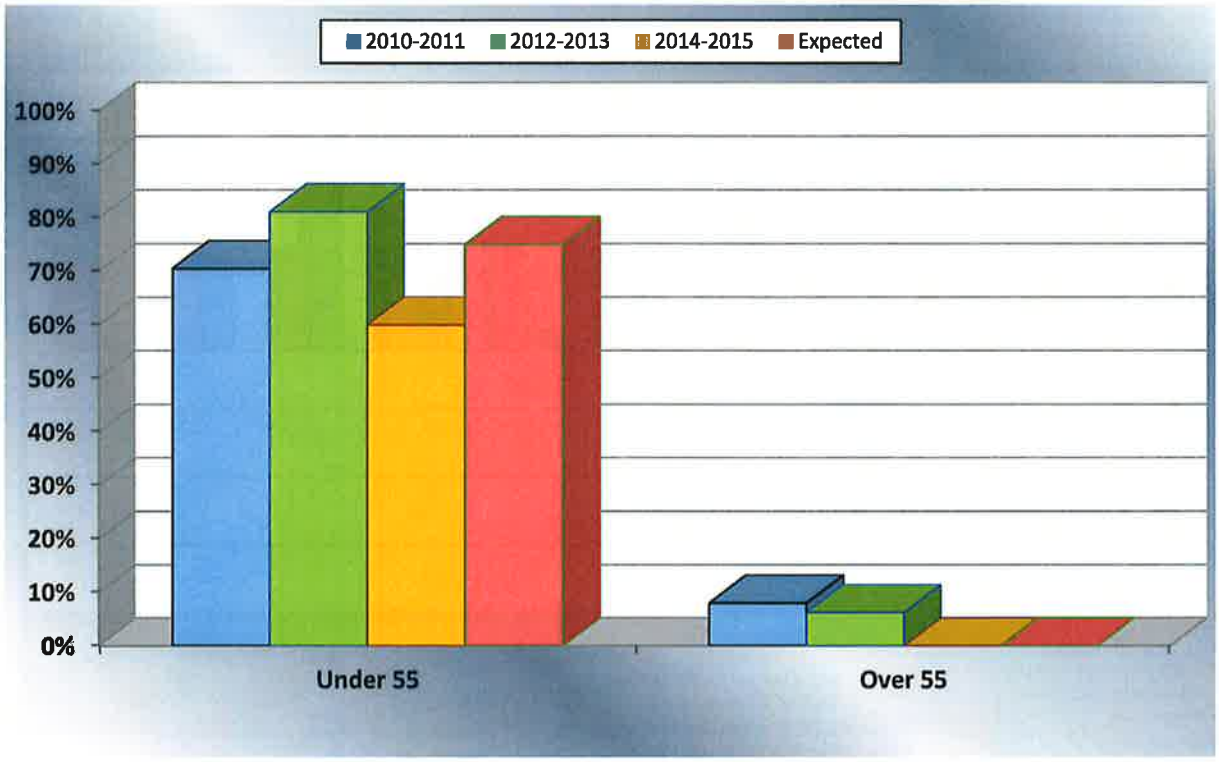
Benefit Election Experience for 2014 and 2015
Incidence of Election to Return Contributions



Age	Under 55	55 and over	All Ages
Number Electing Return of Contributions*			
Actual	30	0	30
Expected	38	0	38
Actual vs. Expected	79%	N/A	79%

* Excludes those withdrawing before the opportunity to vest in a deferred annuity.

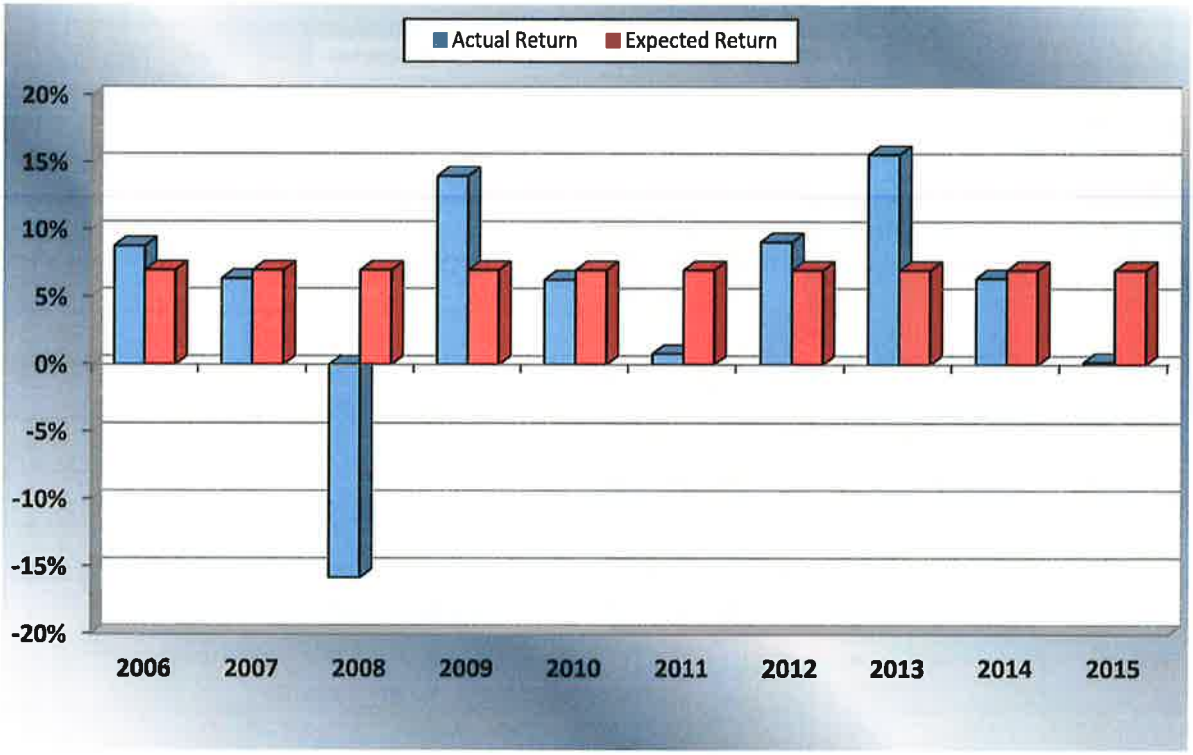
Benefit Election Experience from 2010 to 2015
Percent Electing Return of Contributions



Age	Under 55	Over 55	All Ages
Percent Electing Return of Contributions*			
2010-2011	70%	8%	53%
2012-2013	81%	6%	46%
2014-2015	60%	0%	38%
Expected	75%	0%	N/A

* Excludes those withdrawing before the opportunity to vest in a deferred annuity.

Investment Experience from 2006 to 2015



Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Actual Return	8.8%	6.4%	-15.8%	14.0%	6.3%	0.8%	9.1%	15.6%	6.4%	0.2%
Expected Return	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%

Actuarial Assumptions

The actuarial assumptions included in the experience study are summarized below:

Salary Increase Rate

2.0% compounded annually

Turnover Rates

Rates in the first three years are:

Years of Service	Rate
0	54.0%
1	25.5
2	15.0

After three years, sample rates are as follows:

Age	Rate
25	14.5%
30	14.0
35	13.1
40	11.6
45	9.5
50	6.3
55	2.3
60	0.2

Elected Form of Distribution

Under Age 55	75% Return of Contribution 25% Deferred Annuity
Over age 55	100% Deferred Annuity

Retirement Rates

Age	Rate
62	15%
63	5%
64	5%
65+	100%

Investment Return Rate

7.0% compounded annually

Salary Experience Analysis from 2014 to 2015 [3]

Age Group	2014 Salary	2015 Salary	Actual Increase [1]	Expected Increase [2]	Actual/ Expected
20-24	27,735	30,791	11.02%	2.00%	551%
25-29	29,564	31,908	7.93%	2.00%	396%
30-34	30,201	33,479	10.86%	2.00%	543%
35-39	33,115	35,718	7.86%	2.00%	393%
40-44	38,097	39,476	3.62%	2.00%	181%
45-49	36,231	38,199	5.43%	2.00%	272%
50-54	37,808	39,985	5.76%	2.00%	288%
55-59	37,601	38,976	3.66%	2.00%	183%
60-64	38,203	39,995	4.69%	2.00%	235%
65+	36,641	38,058	3.87%	2.00%	193%
Total	35,221	37,304	5.92%	2.00%	296%

Salary Experience Analysis from 2013 to 2014 [3]

Age Group	2013 Salary	2014 Salary	Actual Increase [1]	Expected Increase [2]	Actual/ Expected
20-24	26,424	27,735	4.96%	2.00%	248%
25-29	27,592	29,564	7.15%	2.00%	357%
30-34	29,452	30,201	2.54%	2.00%	127%
35-39	31,370	33,115	5.56%	2.00%	278%
40-44	36,500	38,097	4.37%	2.00%	219%
45-49	34,619	36,231	4.66%	2.00%	233%
50-54	36,340	37,808	4.04%	2.00%	202%
55-59	35,996	37,601	4.46%	2.00%	223%
60-64	36,329	38,203	5.16%	2.00%	258%
65+	35,457	36,641	3.34%	2.00%	167%
Total	33,687	35,221	4.55%	2.00%	228%

[1] The percentage is based on the aggregate amounts.

[2] Rate used in actuarial valuations since 2012.

[3] Results derived from 2016 valuation census.

Salary Experience Analysis from 2012 to 2013 [3]

Age Group	2012 Salary	2013 Salary	Actual Increase [1]	Expected Increase [2]	Actual/ Expected
20-24	25,775	25,421	-1.37%	2.00%	-69%
25-29	29,197	28,728	-1.61%	2.00%	-80%
30-34	29,575	30,152	1.95%	2.00%	97%
35-39	33,729	33,526	-0.60%	2.00%	-30%
40-44	32,319	33,259	2.91%	2.00%	145%
45-49	32,895	33,624	2.22%	2.00%	111%
50-54	36,691	37,341	1.77%	2.00%	89%
55-59	36,600	37,006	1.11%	2.00%	55%
60-64	35,548	35,244	-0.86%	2.00%	-43%
65+	33,412	33,610	0.59%	2.00%	30%
Total	33,317	33,627	0.93%	2.00%	47%

Salary Experience Analysis from 2011 to 2012 [3]

Age Group	2011 Salary	2012 Salary	Actual Increase [1]	Expected Increase [2]	Actual/ Expected
20-24	27,264	25,775	-5.46%	2.00%	-273%
25-29	28,238	29,197	3.40%	2.00%	170%
30-34	29,327	29,575	0.85%	2.00%	42%
35-39	32,713	33,729	3.11%	2.00%	155%
40-44	31,784	32,319	1.68%	2.00%	84%
45-49	33,178	32,895	-0.85%	2.00%	-43%
50-54	36,315	36,691	1.03%	2.00%	52%
55-59	36,144	36,600	1.26%	2.00%	63%
60-64	34,817	35,548	2.10%	2.00%	105%
65+	33,376	33,412	0.11%	2.00%	5%
Total	32,930	33,317	1.18%	2.00%	59%

[1] The percentage is based on the aggregate amounts.

[2] Rate used in actuarial valuations since 2012.

[3] Results derived from 2014 valuation census.

Turnover and Early Retirement Experience

Turnover Experience for 2014 and 2015

Years of Service	Actual Turnover	Expected Turnover	Actual/ Expected
0	8	14	56%
1	29	36	81%
2	19	13	147%
3 or More	109	115	95%
Total	**165**	**178**	**93%**

Age Group	Actual Turnover	Expected Turnover	Actual/ Expected
20-24	10	12	86%
25-29	28	26	109%
30-34	25	23	110%
35-39	19	17	110%
40-44	19	16	119%
45-49	15	12	130%
50-54	13	11	114%
55-59	8	5	152%
60-64	15	21	72%
65+	13	36	36%
Total	**165**	**178**	**93%**

Early Retirement Experience for 2014 and 2015

Age Group	Actual Retirement	Expected Retirement	Actual/ Expected
61 and Under	4	1	381%
62	3	3	92%
63	3	1	220%
64	4	14	29%
65+	13	36	36%
Total	**27**	**56**	**48%**

Turnover and Early Retirement Experience (continued)

Turnover Experience for 2012 and 2013

Years of Service	Actual Turnover	Expected Turnover	Actual/ Expected
0	15	25	59%
1	27	33	83%
2	26	18	147%
3 or More	102	124	82%
Total	**170**	**200**	**85%**

Age Group	Actual Turnover	Expected Turnover	Actual/ Expected
20-24	23	19	123%
25-29	38	30	126%
30-34	20	24	82%
35-39	12	19	63%
40-44	14	16	86%
45-49	14	14	98%
50-54	8	14	57%
55-59	11	6	173%
60-64	14	18	80%
65+	16	39	41%
Total	**170**	**200**	**85%**

Early Retirement Experience for 2012 and 2013

Age Group	Actual Retirement	Expected Retirement	Actual/ Expected
61 and Under	5	3	159%
62	1	2	43%
63	6	1	473%
64	2	10	20%
65+	14	39	36%
Total	**28**	**56**	**50%**

Benefit Election Experience

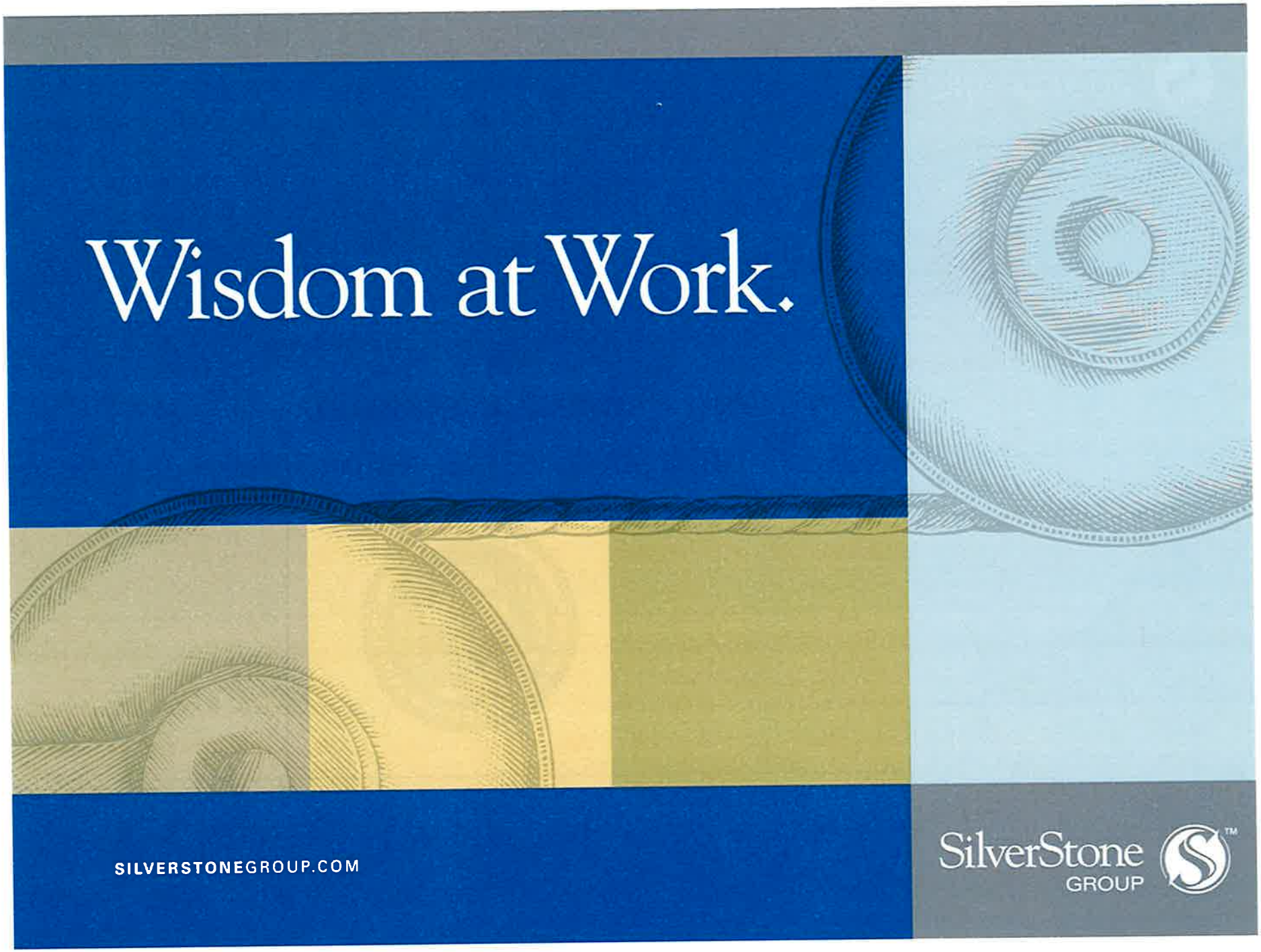
Elected Form of Distribution for 2014 and 2015

Age Group	Participants with Annuity Option	Number Electing Return of Contributions	Expected	Actual/ Expected	Percent Electing Return of Contributions	Percent Expected
Under 55	50	30	38	79%	60%	75%
55 and over	30	0	0	N/A	0%	0%
Total	**80**	**30**	**38**	**79%**	**38%**	**48%**

Elected Form of Distribution for 2012 and 2013

Age Group	Participants with Annuity Option	Number Electing Return of Contributions	Expected	Actual/ Expected	Percent Electing Return of Contributions	Percent Expected
Under 55	37	30	28	107%	81%	75%
55 and over	32	2	0	N/A	6%	0%
Total	**69**	**32**	**28**	**114%**	**46%**	**41%**

Wisdom at Work.



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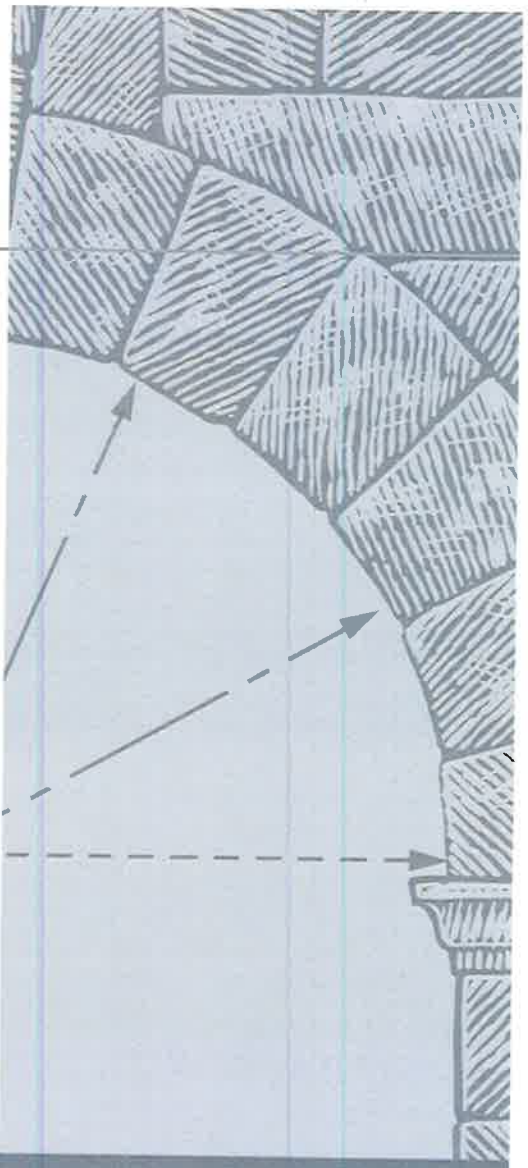
Welcome

Employees' Retirement Plan
Actuarial Review
as of January 1, 2016

April 28, 2016



Wisdom at Work.
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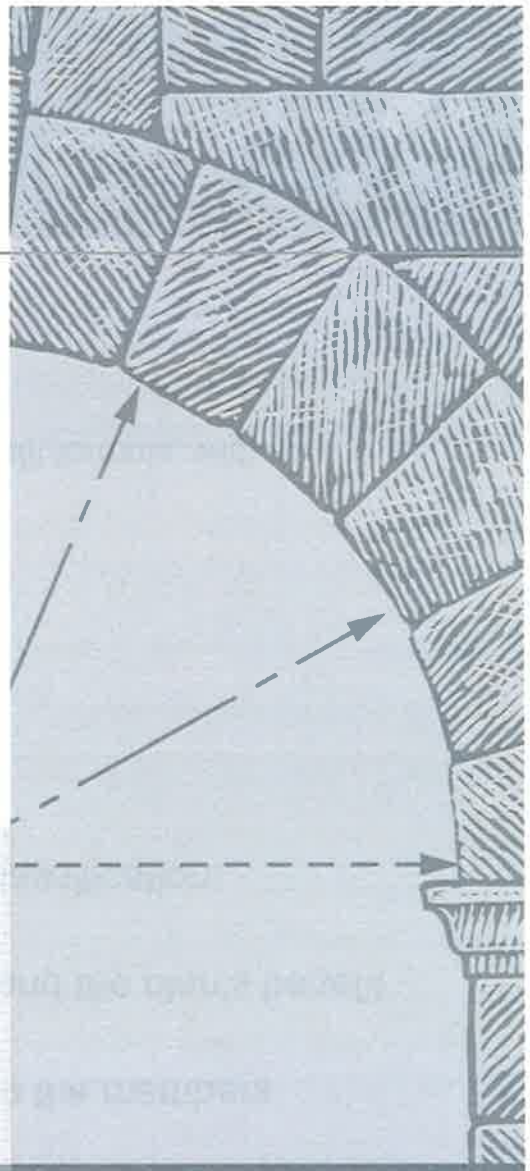
Actuarial Valuation Overview

An actuarial valuation is performed annually to report on the financial health of the Retirement Plan, including:

- Funded Percentage
- Summary of Plan Liabilities and Assets
- Value of Earned Benefits
- Summary of County and Employee Contributions



Plan Provisions

- Monthly Annuity – the plan provides monthly benefits payable to the members and beneficiaries
- Amount of Benefit – determined by the member's pay, service and the plan's benefit formula. Pay is averaged over five years.
- Benefit Formula – depends on the member's date of hire and classification:
  - All prior to June 30, 2011
    - 2% of Average Pay times Years of Service
    - Maximum of 60% of Average Pay
    - Eligible for Rule of 75 Retirement
  - Generally, those hired after December 31, 2011
    - 1.5% of Average Pay times Years of Service
    - Maximum of 45% of Average Pay
    - Not eligible for Rule of 75
  - Sheriff deputies hired after June 30, 2011 have a service-graded benefit formula, with a maximum benefit of 60% of Average Pay
    - No Rule of 75
    - Unreduced benefit after 30 years of service

Plan Provisions (continued)

Full retirement benefits (unreduced) are payable:

	Hired Prior to 2012	Hired After 2011	Sheriff Deputies Hired After 2011
Normal Retirement Date	65	65	55
Rule of 75	50 with Age + Svc > 75	N/A	N/A

Early Retirement – a reduced pension payable after:

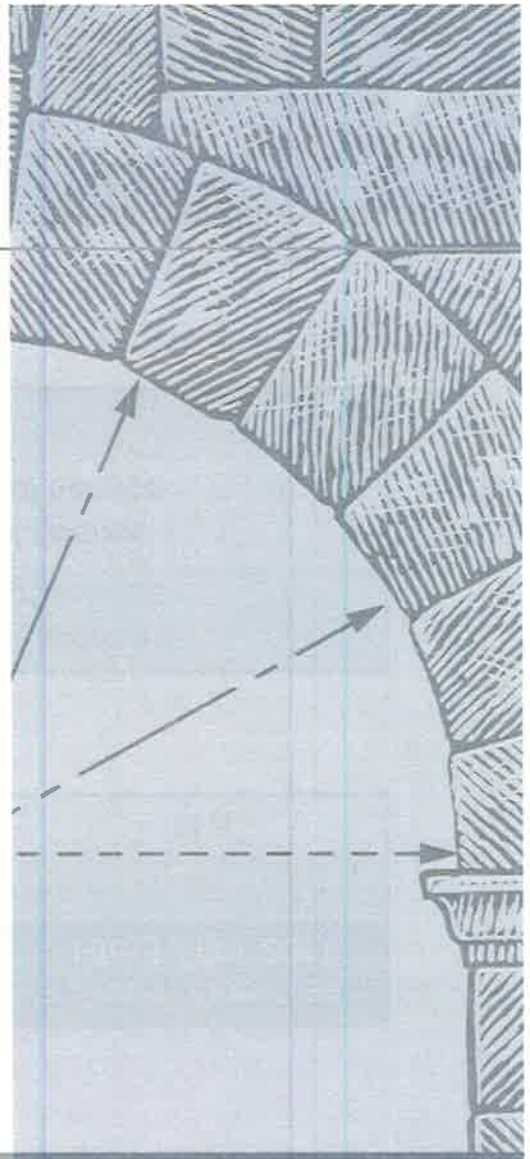
Hired Prior to 2012	▪ Age 55 with 20 years of service ▪ Age 60 with five years of service
Hired After 2012	▪ Age 50 with 10 years of service ▪ Age 60 with five years of service
Sheriff Deputies Hired After 2011	▪ Age 53

Other Benefits – may be payable upon death

Plan Provisions (continued)

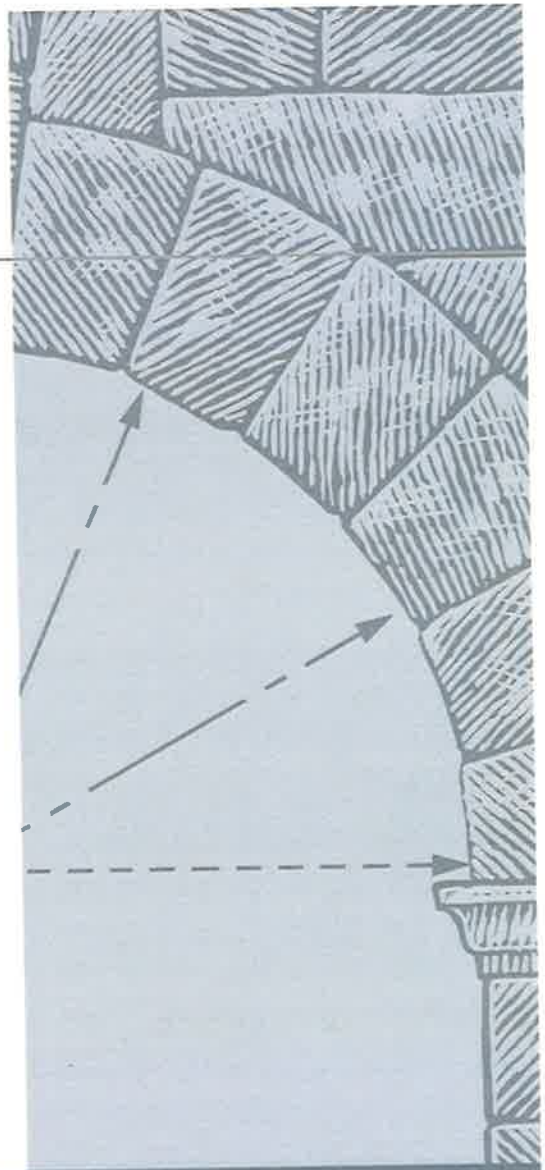
- Vesting Schedule – a deferred pension is earned based on the vesting schedule

Years of Service	Vesting Percentage
Less than 5	0%
5	25%
6	40%
7	55%
8	70%
9	85%
10 +	100%



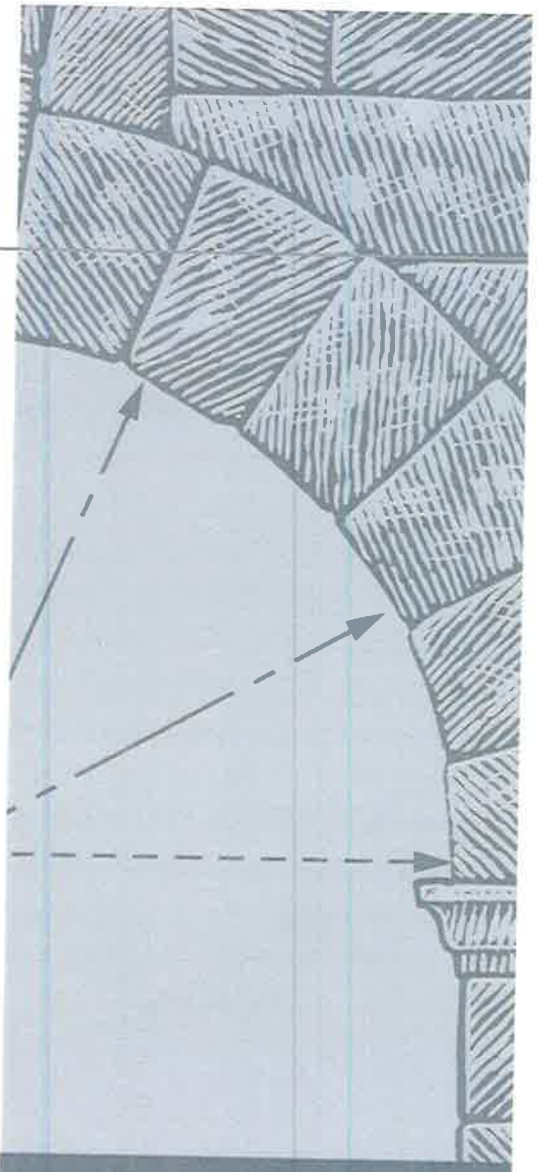
Plan Changes

- Disability Benefits – The disability provision for active members was removed from the Plan as of July 1, 2015. Disabilities occurring after this date are covered under an insurance contract separate from the pension plan.
- Interest on Member Contributions – Effective January 1, 2016, the interest crediting rate on Member Contributions was changed from 5.0% to the 10-year Treasury rate for the November preceding the Plan Year.
- Impact of Changes – The combined impact of these two changes was a $3.6 million decrease in the actuarial accrued liability and a 0.6% increase to the Plan's Funded Ratio.



Plan Members

Number of Members	2015	2016
Actives	2,081	2,122
Retirees and Beneficiaries	1,164	1,206
Vested Terminated	117	119
Terminated Non-Vested	84	46
Disabled	26	25
Total	3,472	3,518



Actuarial Assumptions

Investment Return — 7.5% per year

Salary Increases

Age	Annual Increase
18 – 44	5.5%
45 – 54	5.0%
55 +	4.5%

Mortality Table — RP 2000 projected to 2014 for Annuitants and 2022 for Non-Annuitants

Withdrawal Rates (Sample)

Age	Female	Male
22	16.7%	16.7%
32	12.9%	12.9%
42	9.3%	9.1%
52	4.2%	4.2%

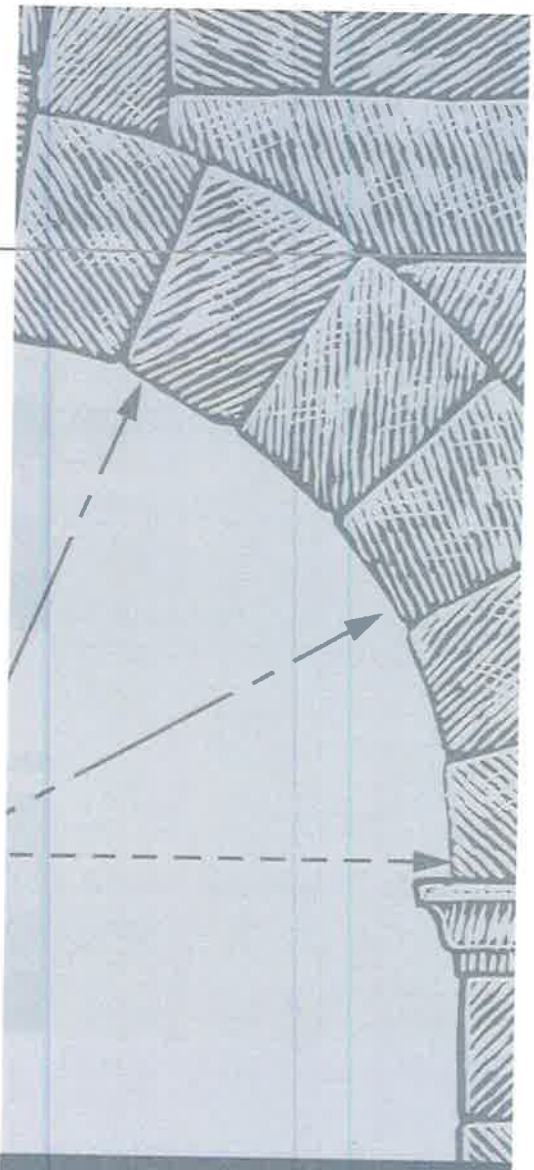
- Member Contributions — 8.5% of Pay
- County Contributions — Same amount as members

Actuarial Assumptions (continued)

Retirement Rates*

Age	Rule of 75	Other
50	30%	5%
51 – 54	15%	2%
55 – 61	15%	5%
62	40%	20%
62 – 69	30%	10%
70+	100%	100%

*30% assumed to retire upon eligibility for Rule of 75.

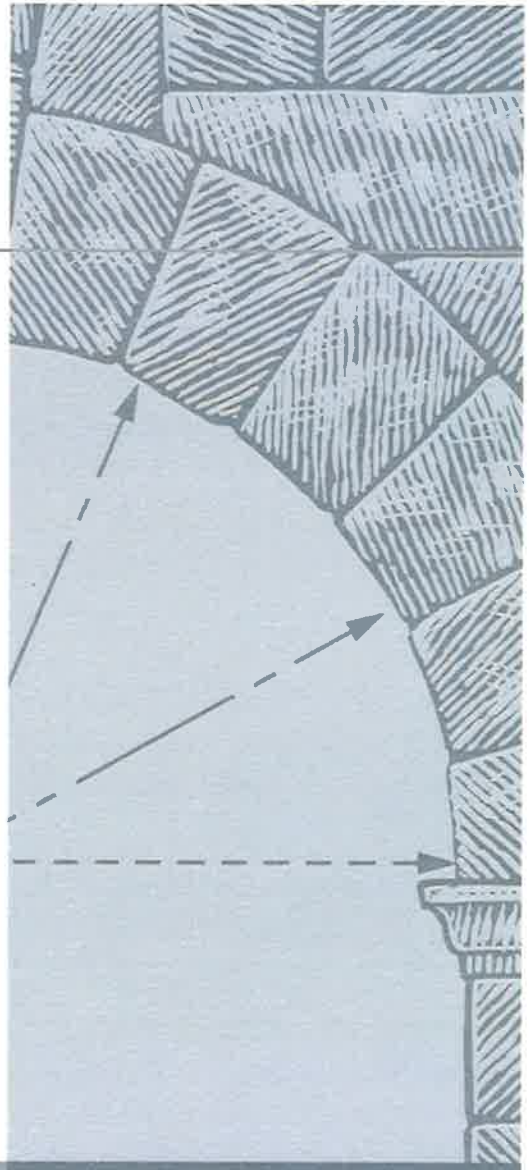


Actuarial Assumptions (continued)

Retirement Rates* – Sheriffs hired after June 30, 2011:

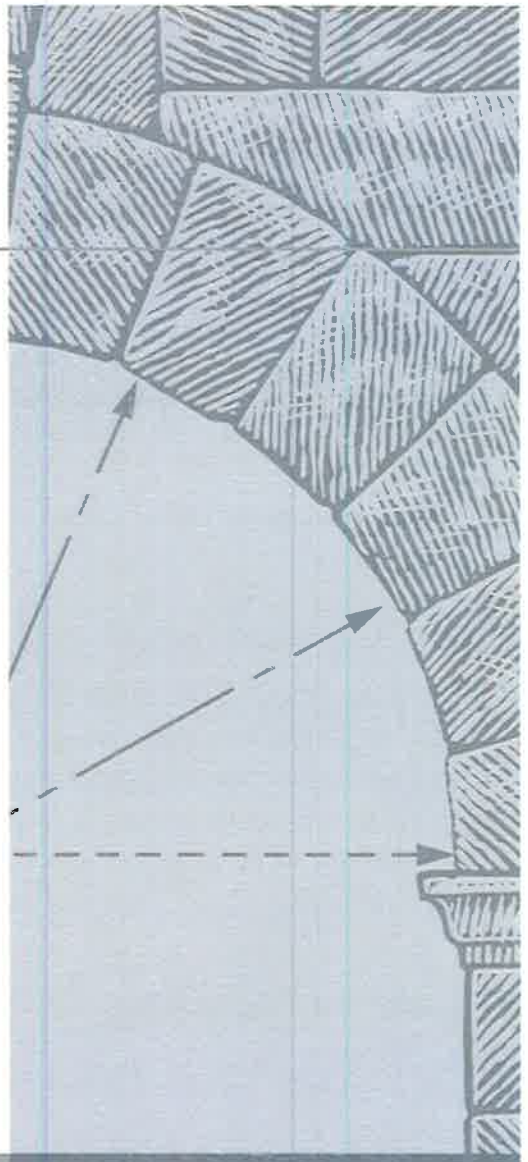
Age	Rate
53 – 54	5%
55	25%
56 – 57	15%
58	20%
59 – 61	25%
62	30%
63	35%
64	40%
65+	100%

*100% assumed to retire at 30 years of service



Actuarial Measurements (thousands)

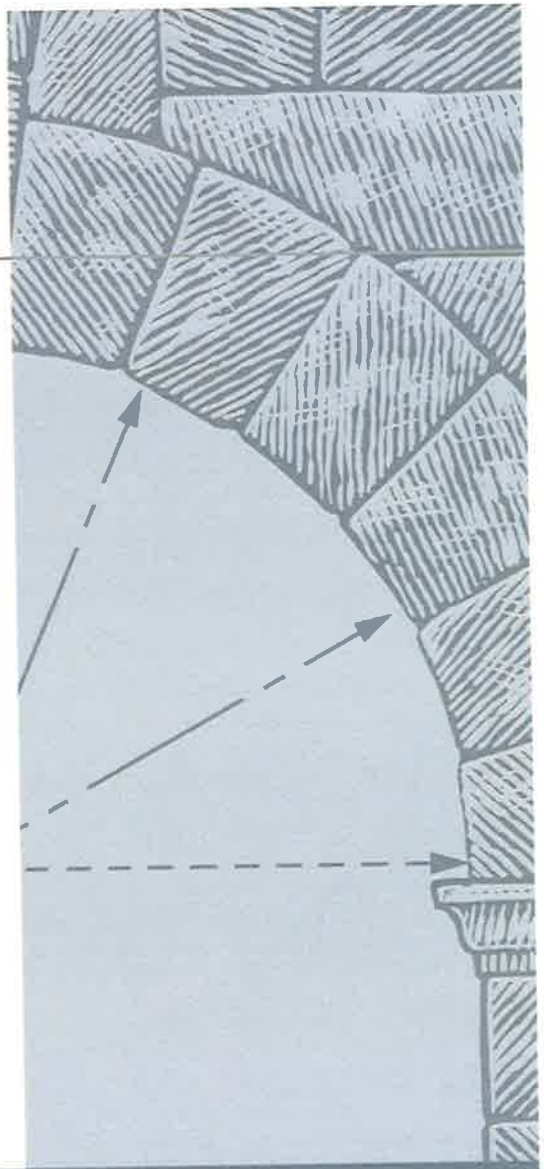
	2015	2016
Actuarial Accrued Liability	$394,847	$408,662
Actuarial Value of Assets	$263,790	$274,455
Funded Percentage	66.8%	67.2%
Unfunded Liability	$131,057	$134,207



Actuarial Measurements

	2015	2016
Expected Member Contributions	$9,637	$10,030
Expected County Contributions	$9,636	$10,029
Total	**$19,273***	**$20,059**
Actuarial Determined Contribution		
▪ Normal Cost (Value Of Benefits Earned In The Year)	$12,756	$12,626
▪ 30-Year Amortization of Unfunded Liability	$5,947	$6,089
Total	**$18,703**	**$18,715**

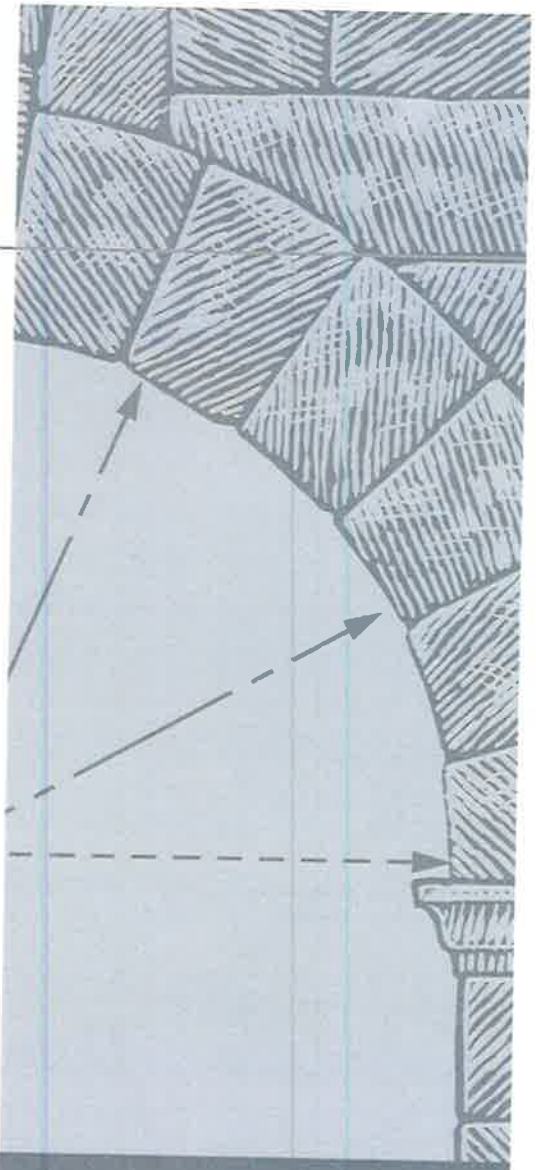
*Actual total for 2015 was $20,893,271



Plan Asset History

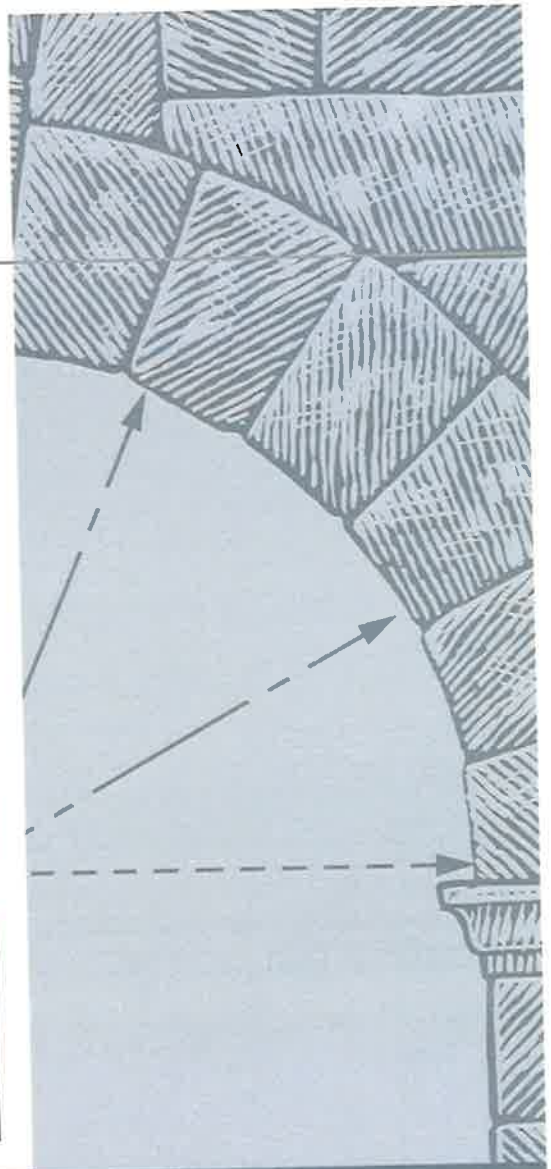
Year	Market Value of Assets	Rate of Return Prior Year
2016	$269,520,264	2.3%
2015	$267,549,482	5.2%
2014	$258,340,593	18.9%
2013	$219,605,063	10.3%
2012	$200,860,360	0.5%
2011	$199,988,291	11.0%
2010	$179,166,378	16.0%
2009	$151,275,593	-18.7%
2008	$184,386,700	4.9%
2007	$175,115,759	12.1%
2006	$157,653,656	7.1%
2005	$148,916,100	10.0%
2004	$137,080,947	15.7%

13-year geometric average return of 6.9%



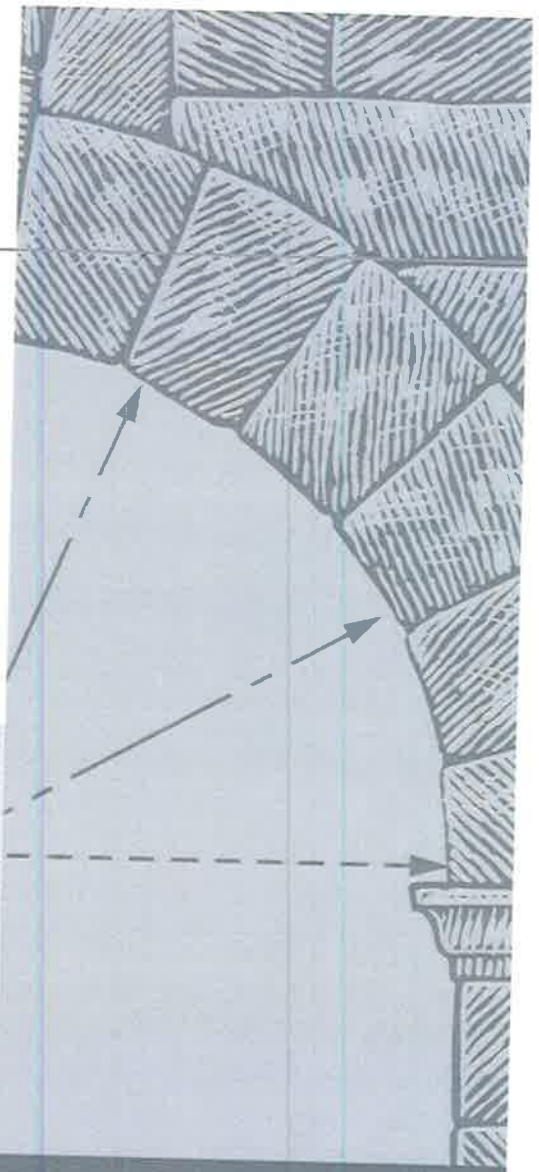
Historical Funded Percentage

Year	Actuarial Value of Assets ($1,000s)	Actuarial Accrued Liability ($1,000s)	Funded Ratio
2016	$274,455	$408,662	67.2%
2015	$263,790	$394,847	66.8%
2014	$245,830	$380,727	64.6%
2013	$219,494	$362,117	60.6%
2012	$205,795	$343,178	60.0%
2011	$196,119	$321,700	61.0%
2010	$177,797	$307,407	57.8%
2005	$142,403	$221,642	64.2%
2000	$117,626	$127,011	92.6%
1996	$81,626	$83,472	97.8%



Looking Forward

- Funding Policy
- GASB Accounting Changes
- Mortality Table Update
- Forecasts of Funding Percentage



Funding Policy

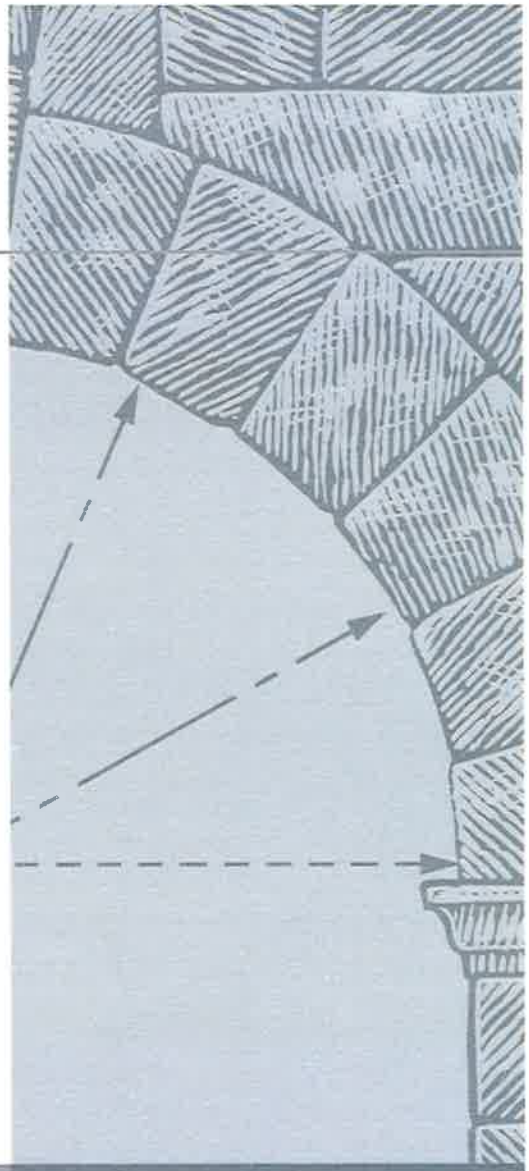
The County's funding policy is to contribute amounts to the plan necessary to fund benefits earned under the plan, along with members' contributions, based on the Contribution Rates below.

Nebraska State statue limits the County's contribution to no more than the amounts contributed by the members.

Member Contributions 8.5% of Pay

- For all members, regardless of date of hire or classification
  - Except for sheriff deputies, reduced at 33 years of service

County Contributions Same Amount as Members



GASB Accounting Changes

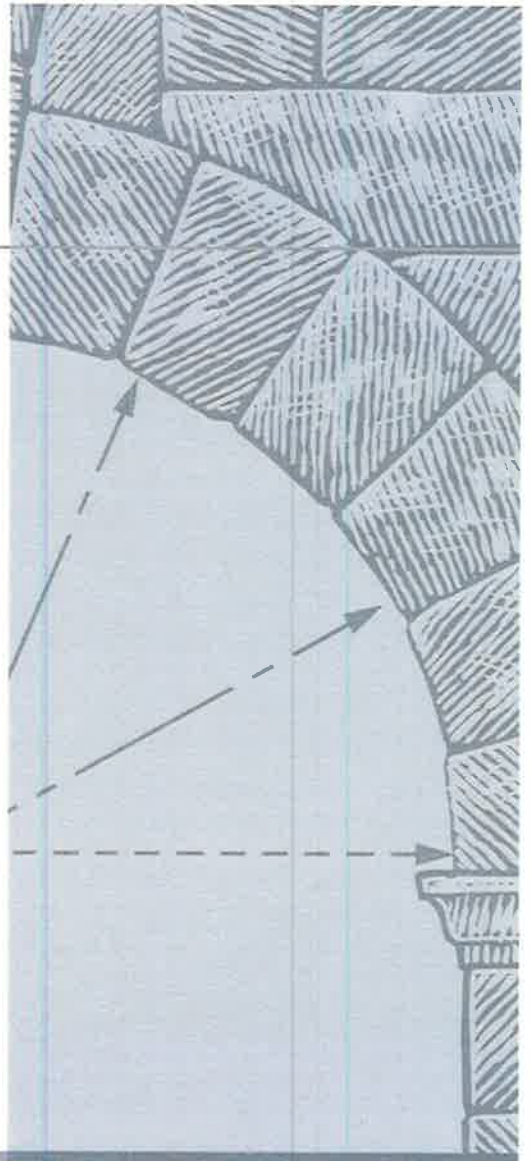
Two new GASB accounting standards apply to the pension plan, increasing the amount of information for financial reporting purposes.

- GASB 67 — Effective FYE December 31, 2014

  Financial reporting for pension plans discloses net pension liability

- GASB 68 — Effective FYE December 31, 2015

  Financial reporting for employers defines new pension expense

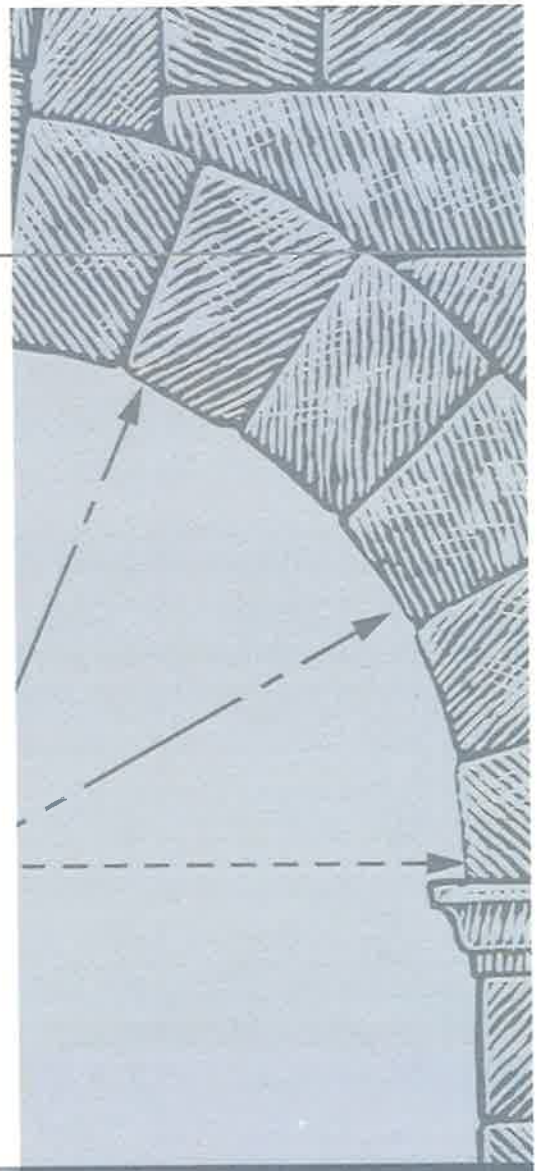


Mortality Table Update

There is ongoing discussion of a new standard mortality table for pension plans. The RP-2000 mortality table is used now, which is the current standard.

The RP-2014 table with MP-2014 mortality improvement scale was published in 2014. It is expected to become the new standard in 2017 for private corporation-sponsored plans. Governmental plans expect to adopt mortality tables based more on their own mortality experience, but an increasing number of plans are adopting a generational mortality improvement scale. This may delay adoption of the RP/MP 2014 table for governmental plans; however, adoption of an improvement scale should be considered.

If the RP/MP 2014 tables were adopted, the impact would be a $22.7 million (5.6%) increase in plan liabilities at January 1, 2016 which would decrease the funded ratio from 67.2% to 63.6%.



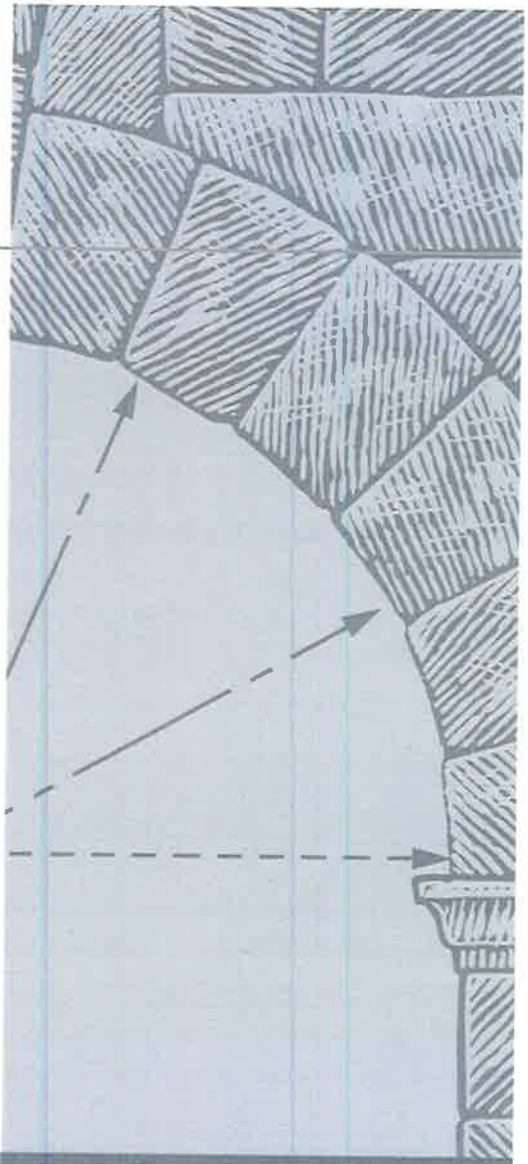
Forecast of Funded Percentage

Forecast Period	Year	Estimated Funded Percentage
Current – Actual	2016	67.2%
5 Years	2021	70.3%
10 Years	2026	75.1%
15 Years	2031	82.3%
20 Years	2036	93.7%

Assumptions

Investment Return	7.5%
Salary Scale	Graded 4.5% – 5.5%
Mortality Table	RP2000 Projected to 2014 for Annuitants and 2022 for Non-Annuitants
Actuarial Cost Method	Projected Unit Credit
Member Growth Rate	0%
Plan Provisions	Same as Current
Other Assumptions	Consistent with Valuation

Forecasts are intended for illustrative purposes as an indication of future trends. Actual future funded percentages will differ from these forecasts as actual plan experience differs from the assumptions.



Thank you!

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Appendix C

Lincoln Police and Fire Retirement Plan Information

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LB 759 Reporting Form

City Lincoln, Nebraska Police and Fire Pension Plan

1. We have included historical information from 1991 forward to the most recent actuarial valuation (August 31, 2015) in Table 1 as we believe it provides a more comprehensive perspective of the retirement system's long term funding.

2. As of August 31, 2015 the Lincoln Police and Fire Pension Plan was 64% funded (actuarial assets divided by actuarial accrued liability). However, historically the Pension Plan has been well funded. The August 31, 2008 valuation indicated that the Plan was 100% funded and it had been at least 95% funded in each of the prior 25 years. As a result of the financial crisis and the Great Recession, the rate of return on the Plan's assets for fiscal year end 2008 was -6.62% and for fiscal year 2009 was -16.68%. These returns are significantly below the Plan's expected annual rate of return of 7.50% at that time. Over that two year period, the plan assets declined significantly and were about 33% lower than the expected value of assets (if the actuarial investment return assumption had been met). Although the plan has had returns above the 7.5% assumption in some years since 2009, the current market value of assets is still lower than if the plan had earned the 7.5% actuarial assumed rate of return.

3. The previous report presented to the Committee was prepared as of August 31, 2014. The most recent valuation report was prepared as of August 31, 2015. While benefit provisions did not change, there was one change to the actuarial assumptions. Cavanaugh Macdonald Consulting was retained as the Plan's actuary in 2015 and the August 31, 2015 valuation was the first report prepared by the firm. Based on their analysis, Cavanaugh Macdonald recommended the investment return assumption be lowered from 6.75% to 6.4% to better reflect the expected impact of the transfers to the 13th Check COLA Pool Fund.

   <u>Please see below for an explanation of the 13th Check program and the impact of asset transfers to the Fund on the investment return assumption.</u>

   Firefighters and Police Officers are paid monthly retirement benefits in 12 checks from the general Police and Fire Pension Fund. A 13th Check COLA Pool Fund was instituted in 1991 to pay an additional benefit in September 1992. (LMC chapters 2.62.140, 2.65.140, 2.66.140.) The 13th Check was established to provide a "13th check" every September in lieu of a traditional cost of living adjustment.

New deposits (transfers from the general Police and Fire Pension Fund) to the 13th Check COLA Pool Fund occurred only when the general Police and Fire Pension Fund earned a rate of return higher than the actuarially assumed rate of return. The new deposits were determined by multiplying the total amount of earnings in excess of the assumed investment return times the ratio of retiree liability to total actuarial accrued liability.

Payment of 13th Check benefits were not guaranteed, but rather were contingent on the existence of 13th Check COLA Pool assets to pay them. The 13th Check benefits started at $600 to be increased by the lessor of 3% or the CPI-U for the previous calendar year end. In 1995, the base amount was increased by the City Council to $750 with increases via the CPI-U methodology.

Benefit payments are made every September to pensioned employees or their survivor beneficiary that have been in pay status for at least 12 months. The full benefit is paid to all Age and Service and Duty Disability Retirees or their survivor beneficiary. A pro-rata portion of the full payment, based on completed years of service, is paid to Deferred Annuity, Partial Annuity, or Non-Duty Disability Retirees or their survivor beneficiary.

4. Corrective actions taken to improve the funding of the Plan are two-fold.

The first corrective action has been to increase contributions. For example, total contributions by the City of Lincoln to the retirement system for the five-year period from September 1, 2005 to August 31, 2010 were $17,379,997. The total contributions by the City of Lincoln for the last five years (September 1, 2010 through August 31, 2015) were $32,743,525, an increase of approximately 88%. The unfunded actuarial accrued liability is being funded over a 30-year closed period (29 years remaining as of Aug. 31, 2015). Improvements in the funded ratio as the result of increased contributions are expected to occur slowly over time.

The second corrective action followed the completion of a report issued by the Pension Review Committee jointly created by Mayor Beutler and Trent Fellers of the Lincoln City Council.

The corrective action, completed by City of Lincoln Ordinance #20343 [06/27/16], merged the assets of the 13th Check COLA Pool Fund with the assets of the Police and Fire Pension Fund and provided that 13th Check benefits be paid directly from the Police and Fire Pension.

As discussed earlier, the 13th Check COLA Pool Fund derived its funding from part of the investment return of the general Pension Fund when investment returns were in excess of the actuarially assumed return. Merging the two funds eliminates any future transfers and allows the general Pension Fund to retain the full amount of the investment return earned in all years.

As part of the work for the Citizen's Committee, the Plan's actuary, Cavanaugh Macdonald, prepared an estimate of the financial effects of the COLA Fund merger using the most recent actuarial valuation (August 31, 2015). Due to the 13th Check transfers, the assumed investment return for the 8/31/14 valuation had been reduced from 7.5% to 6.75% and for the 8/31/15 valuation it was further reduced from 6.75 to 6.40%. However, in estimating the cost impact of merging the two Funds, the "gross assumed rate of return" of 7.5% (the rate prior to adjustments made to reflect the expected impact of the transfers to the 13th Check COLA Pool Fund) was used to model the cost impact. The Unfunded Accrued Liability was estimated to decrease from $103 million to $52 million, improving the funded ratio of the Plan from 64% to 80%, thereby reducing the City's recommended contribution from $12 million to $7.8 million. Better funding and lower City contributions were estimated to continue in future years, if all actuarial assumptions are met.

The full report of the Pension Committee can be found online at:
http://lincoln.ne.gov/city/mayor/boards/pension/20160505-pension-review-committee-report.pdf

5. There have been no recent or ongoing negotiations with bargaining groups that may impact the funding of the plan.

6. The most recent Experience Study covered the five year period ending August 31, 2014 and was completed in December, 2014. A copy of the most recent Experience Study is attached.

7. The assumed rate of return in the August 31, 2015 actuarial valuation was 6.4%. Given the merger of the 13th Check COLA Pool Fund with the general Police and Fire Pension Fund, the assumed rate of return will be reviewed again for the August 31, 2016 valuation report. The expectation is that the investment return assumption will revert to 7.5%; the rate used before it was lowered to reflect the expected impact of the transfers to the 13th Check COLA Pool Fund.

8. A copy of the most recent actuarial valuation report, prepared as of August 31, 2015, is attached. The August 31, 2016 actuarial valuation report will not be completed until December of 2016.

Lincoln Police and Fire Pension Plan

LB 759 Reporting - November 22, 2016

Valuation Date	Funded Status	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Rate of Return		Total Actuarial Contribution Rate			Contribution Rate		Employer Contributions	
					Assumed	Market	Normal Cost	UAAL Rate	Total	Member	Employer	Actuarial	Actual
8/31/1991	116%	59,149,097	68,390,097	(9,241,000)	7.00%	13.09%	17.33%	-6.35%	10.98%	4.33%	3.92%	1,316,078	593,906
8/31/1992	123%	63,407,312	77,980,254	(14,572,942)	7.00%	14.60%	17.30%	-5.42%	11.88%	4.38%	4.28%	1,031,541	657,148
8/31/1993	128%	67,910,183	86,583,104	(18,672,921)	7.00%	17.10%	17.34%	-9.05%	8.29%	4.69%	2.50%	1,193,626	418,423
8/31/1994	118%	70,517,314	83,307,827	(12,790,513)	7.00%	-6.60%	17.11%	-11.52%	5.59%	5.81%	2.20%	580,796	388,813
8/31/1995	116%	79,202,449	92,235,349	(13,032,900)	7.00%	18.20%	17.69%	-8.12%	9.57%	5.84%	2.16%	0	400,022
8/31/1996	116%	81,583,068	94,347,990	(12,764,922)	7.00%	3.20%	18.11%	-8.69%	9.42%	6.58%	2.18%	695,015	419,583
8/31/1997	111%	91,022,617	101,475,648	(10,453,031)	7.00%	13.60%	18.36%	-9.16%	9.20%	6.57%	2.06%	545,702	430,884
8/31/1998	115%	94,847,667	109,213,474	(14,365,807)	7.00%	14.80%	18.86%	-7.81%	11.05%	6.67%	2.25%	530,891	491,945
8/31/1999	109%	104,691,766	113,902,477	(9,210,711)	7.50%	-1.28%	19.33%	-11.87%	7.46%	7.05%	3.85%	961,584	908,234
8/31/2000	105%	115,671,249	121,404,314	(5,733,065)	7.50%	10.07%	18.34%	-8.47%	9.87%	6.65%	3.65%	91,814	941,282
8/31/2001	104%	122,660,542	128,069,831	(5,409,289)	7.50%	2.84%	18.39%	-4.82%	13.57%	6.64%	3.94%	820,610	1,111,434
8/31/2002	98%	130,875,473	128,319,145	2,556,328	7.50%	3.37%	18.49%	-4.16%	14.33%	6.79%	5.79%	1,877,926	1,541,649
8/31/2003	96%	137,507,824	132,577,506	4,930,318	7.50%	7.42%	18.42%	2.10%	20.52%	7.69%	6.49%	2,233,836	1,780,604
8/31/2004	95%	144,178,758	136,973,679	7,205,079	7.50%	10.33%	18.52%	-2.11%	16.41%	7.77%	7.08%	3,297,577	1,991,672
8/31/2005	96%	151,978,408	145,730,472	6,247,936	7.50%	13.44%	18.55%	2.81%	21.36%	7.79%	8.88%	3,684,264	2,562,850
8/31/2006	98%	161,583,285	157,527,392	4,055,893	7.50%	9.13%	18.61%	2.36%	20.97%	7.89%	9.42%	4,077,037	2,892,711
8/31/2007	101%	169,587,458	171,391,103	(1,676,333)	7.50%	12.33%	18.63%	1.42%	20.05%	7.90%	11.44%	4,056,195	3,494,590
8/31/2008	100%	179,376,149	179,390,472	(14,323)	7.50%	-6.62%	18.63%	-0.62%	18.01%	7.88%	10.71%	4,076,536	3,456,424
8/31/2009	95%	187,292,374	177,526,641	9,765,733	7.50%	-16.68%	18.68%	1.52%	13.34%	6.86%	10.53%	3,316,464	3,521,858
8/31/2010	88%	195,206,353	172,317,463	22,888,890	7.50%	3.99%	18.83%	3.48%	15.62%	6.69%	11.73%	3,752,124	4,014,414
8/31/2011	81%	204,990,324	165,436,361	39,553,963	7.50%	12.48%	18.89%	5.76%	18.02%	6.63%	12.12%	4,651,872	4,333,811
8/31/2012	77%	214,878,992	164,500,414	50,378,578	7.50%	5.60%	19.01%	7.23%	19.49%	6.75%	16.67%	5,574,482	6,052,020
8/31/2013	72%	229,192,937	164,189,914	65,003,023	7.50%	12.03%	19.13%	8.88%	21.19%	6.82%	16.92%	6,718,467	6,446,472
8/31/2014	66%	262,918,401	174,569,411	88,348,990	6.75%	16.49%	18.33%	12.86%	24.44%	6.75%	20.76%	7,377,763	7,865,929
8/31/2015	64%	286,493,673	174,569,411	103,482,399	6.40%	(2.76)	21.11%	13.19%	27.42%	6.88%	18.98%	8,418,199	8,045,293

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

City of Lincoln Police and Fire Pension Fund

Actuarial Valuation Report
as of August 31, 2015

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TABLE OF CONTENTS

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

January 7, 2016

The City Council
City of Lincoln
555 South 10th Street, Room 201
Lincoln, NE 68508

Re: City of Lincoln Police and Fire Pension Fund

Dear Council Members:

At your request, we have performed an actuarial valuation of the City of Lincoln Police and Fire Pension Fund as of August 31, 2015 for determining the actuarial contribution rate for fiscal year 2017. The major findings of the valuation are contained in this report. This report reflects the benefit provisions in effect as of August 31, 2015 which did not change from the prior valuation. However, there was one change to the actuarial assumptions from the prior valuation. The investment return assumption was lowered from 6.75% to 6.40% to better reflect the expected impact of the transfers to the COLA Pool fund. This change is discussed in more detail in the Executive Summary section of our report.

This is the first actuarial valuation report prepared by Cavanaugh Macdonald Consulting, LLC (CMC). As part of our transition work, we replicated the August 31, 2014 actuarial valuation. Results were within acceptable limits, but as is typical in a takeover situation, there were some differences in the key valuation measurements. Based on our experience, these differences are neither unusual nor significant. The details of the replication results were reported to the Plan Administrator in our letter dated November 30, 2015.

In preparing this report, we relied, without audit, on information (some oral and some written) supplied by the Plan's staff. This information includes, but is not limited to, plan provisions, member data and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete, our results may be different and our calculations may need to be revised.

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All costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the Plan.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; 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 the plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not present herein.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the Plan. The calculations in the enclosed report have been made on a basis consistent with our understanding of the Plan's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the plan provisions described in Appendix B of this report. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes. Actuarial computations for purposes of fulfilling financial accounting requirements for the Plan under Governmental Account Standard No. 67 are provided in a separate report addressed to the City Interim Finance Director.

This is to certify that the independent consulting actuaries have experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement plan and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the Plan. We, Patrice A. Beckham, FSA and Bryan K. Hoge, FSA, are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. We are available to answer any questions on the material contained in this report or to provide explanations or further details as may be appropriate.

We herewith submit the following report and look forward to discussing it with you.

Respectfully Submitted,

Patrice Beckham

Patrice A. Beckham, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

Bryan K. Hoge, FSA, EA, FCA, MAAA
Senior Actuary

SECTION I – EXECUTIVE SUMMARY

OVERVIEW

This report presents the results of the August 31, 2015 actuarial valuation of the City of Lincoln Police and Fire Pension Fund (Plan). The primary purposes of performing a valuation are to:

- determine the employer contribution rate required to fund the Plan on an actuarial basis,
- disclose asset and liability measures as of the valuation date,
- determine the experience of the Plan since the last valuation date, and
- analyze and report on trends in contributions, assets, and liabilities over the past several years.

This is the first actuarial valuation report prepared by Cavanaugh Macdonald Consulting, LLC (CMC). As part of our transition work, we independently replicated the August 31, 2014 actuarial valuation. Results were within acceptable limits, but as is typical in a takeover situation, there were some differences in the key valuation measurements. In addition, during the replication process we identified several changes that we believe will result in a better estimate of future liabilities and costs. As a result, our liability measurements and normal cost rate were slightly different than those in the formal 2014 valuation. Based on our experience, these differences are neither unusual nor significant. For additional information on the replication of the 2014 valuation, please refer to our letter to the City dated November 30, 2015. A summary of the key actuarial measurements in the replication is shown in the following table:

	August 31, 2014 Valuation Results ($M)		
	CMC	Milliman	CMC/Milliman
Present Value of Future Benefits	$329.9	$330.1	99.9%
Actuarial Accrued Liability	$256.5	$262.9	97.5%
Normal Cost Rate	19.16%	18.32%	104.6%
UAAL Contribution Rate	11.93%	12.86%	92.8%
Actuarial Contribution Rate	31.09%	31.18%	99.7%

Under Actuarial Standards of Practice (ASOP), the actuary must review all of the assumptions used in the actuarial valuation to ensure they are reasonable, as defined by the applicable ASOPs. Our review and analysis of the current investment return assumption of 6.75% indicated that, given the impact of the transfers to the COLA Pool when the rate of return exceeds the assumed rate of return, the assumption was not our "best estimate' as defined in ASOP 27, *Selection of Economic Assumptions for Measuring Pension Obligations*. As a result, we recommended that the assumed rate of return be lowered to 6.40% which increased liabilities and costs as shown in the following table:

	August 31, 2015 Valuation Results		
	6.40% Return	6.75% Return	Difference
Present Value of Future Benefits	$380.7	$359.4	$21.3M
Actuarial Accrued Liability	286.5	274.8	11.7M
Actuarial Value of Assets	183.0	183.0	0.0M
Unfunded Actuarial Accrued Liability	$103.5	$ 91.8	$11.7M
Normal Cost Rate	21.11%	19.48%	1.63%
UAAL Contribution Rate	13.19%	11.70%	1.49%
Actuarial Contribution Rate	34.30%	31.18%	3.12%
Employee Contribution	(6.88%)	(6.88%)	0.00%
Employer Contribution	27.42%	24.30%	3.12%

The valuation results provide a "snapshot" view of the Plan's financial condition on August 31, 2015. The unfunded actuarial accrued liability (UAAL) increased from $88.3 million last year to $103.5 million in this year's valuation. The funded ratio (actuarial assets divided by actuarial accrued liability) declined from 66% in last year's valuation to 64% in the current valuation. In addition, the employer actuarial contribution rate increased by 2.98% from 24.44% in last year's valuation to 27.42% in the 2015 valuation.

The valuation results reflect net unfavorable experience for the past plan year as demonstrated by an UAAL that was higher than expected, after taking into account adjustments for the changes resulting from the replication valuation and the lower investment return assumption. The unfavorable experience was due to the combined impact of an experience loss on both assets and liabilities. The rate of return on the market value of assets for the prior year was -2.76%, but the asset smoothing method only recognizes some of the shortfall between the assumed and actual returns. Due to the smoothing of experience in FY 2015 and the recognition of some of the unrecognized investment gains from prior years, the return on the actuarial value of assets (smoothed value) was 6.32%. This generated an experience loss of $0.8 million on the actuarial valuation of assets. There was also an experience loss of $7.2 million on liabilities, largely as the result of a correction in how the reported salary in the census data is used in the valuation process. The prior actuary used the salary amounts reported as if they represented rates of pay for the 12 months following the valuation date. Based on information provided by the City, the reported salary amounts are the actual salary amounts for the year ending on the valuation date. As a result of the change in how reported salaries were used, the actuarial accrued liability increased $5.3 million. The remaining experience loss from all other demographic experience was $1.9 million. A detailed analysis of the change in the unfunded actuarial accrued liability from August 31, 2014 to August 31, 2015 is shown on page 5.

Effective October 1992, the Pension Fund Ordinance provides for cost of living (COLA) benefits to pensioners. The source of funding for the COLA benefits is not guaranteed. The City has indicated that the payment of a COLA is not guaranteed and has chosen not to pre-fund this benefit.

Therefore, COLA benefits and the corresponding pool of assets were not included in this valuation of the Pension Fund or in the determination of the employer contribution.

ASSETS

In September of each year, eligible retired members will receive a "13th Check" payable from funds set aside referred to in this report as the "COLA Pool". The 13th Check payments are made from the COLA Pool, which is invested with other pension assets. The COLA Pool is funded by the earnings differential between the pension fund's market value rate of return and the actuarially assumed rate of return, multiplied by a ratio of retirant and beneficiary liability over total liability. All such annual additions to the pool plus earnings applicable to the amount allocated to the pool constitute the pool. The net effect of these transfers from the Pension Fund to the COLA Pool is effectively a reduction in the realized rate of return on Pension Fund Assets.

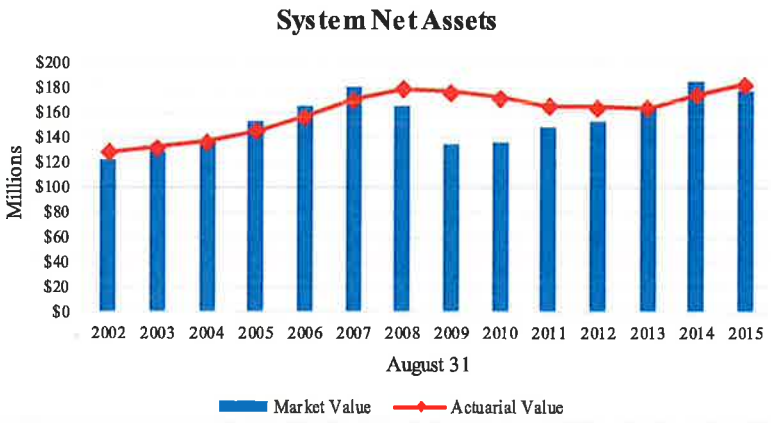
As of August 31, 2015, the Plan had total assets (excluding the COLA Pool assets) of $176.8 million, when measured on a market value basis. This is a decrease of $8.0 million from the August 31, 2014 amount of $184.8 million. The market value of assets is not used directly in the actuarial valuation. An asset valuation method, which smoothes the effect of market fluctuations, is used to determine the value of assets used in the valuation (called the "actuarial value of assets"). Differences between the actual return on the market value of assets and the assumed return on the actuarial value of assets are phased-in equally over a five-year period.

See Table 4 on page 15 for a detailed development of the actuarial value of assets. The components of the change in the market and actuarial value of assets for the Retirement Plan (in millions) are set forth in the following table.

	Market Value ($M)	Actuarial Value ($M)
Assets, August 31, 2014	$184.8	$174.6
• City and Member Contributions	10.6	10.6
• Benefit Payments and Refunds	(13.2)	(13.2)
• Administrative Expenses	(0.4)	(0.4)
• Investment Income, Net of Expenses	(5.0)	11.4
Assets, August 31, 2015	$176.8	$183.0

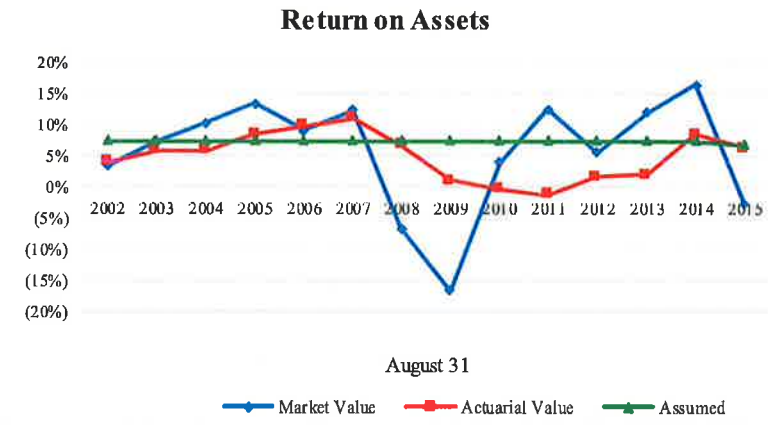
The annualized dollar-weighted rate of return, measured on the actuarial value of assets, was 6.32% and, measured on the market value of assets, was -2.76%. The actuarial value of assets as of August 31, 2015 was $183.0 million, which reflects an actuarial loss of $0.8 million resulting from the phase-in of investment returns from the current and preceding four years. Due to the asset smoothing method, the actuarial value of assets is now $6.2 million higher than the market

value of assets, a change from the 2014 valuation when the market value exceeded the actuarial value of assets by $10.2 million.



The actuarial value of assets has been both above and below the market value during this period. This is to be expected when using an asset smoothing method.

Note: Results for years before 2015 were prepared by prior actuaries.



The rate of return on the actuarial value of assets has been less volatile than the market value return, which is the main reason for using an asset smoothing method.

LIABILITIES

The actuarial accrued liability is that portion of the present value of future benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and the asset value at the same date is referred to as the unfunded actuarial accrued liability (UAAL), or surplus if the asset value exceeds the actuarial accrued liability. The unfunded actuarial accrued liability will be reduced if the employer's contributions exceed the employer's normal cost for the year, after allowing for interest earned on the previous balance of the unfunded actuarial accrued liability. Benefit improvements, experience gains and losses, and changes in actuarial assumptions and procedures will also impact the total actuarial accrued liability and the unfunded portion thereof.

The Unfunded Actuarial Accrued Liability for the Plan as of August 31, 2015 is:

Actuarial Accrued Liability	$286,493,673
Actuarial Value of Assets	183,011,274
Unfunded Actuarial Accrued Liability	$103,482,399

Between August 31, 2014 and August 31, 2015, the components of the change in the unfunded actuarial accrued liability (UAAL) for the Plan are shown in the following table:

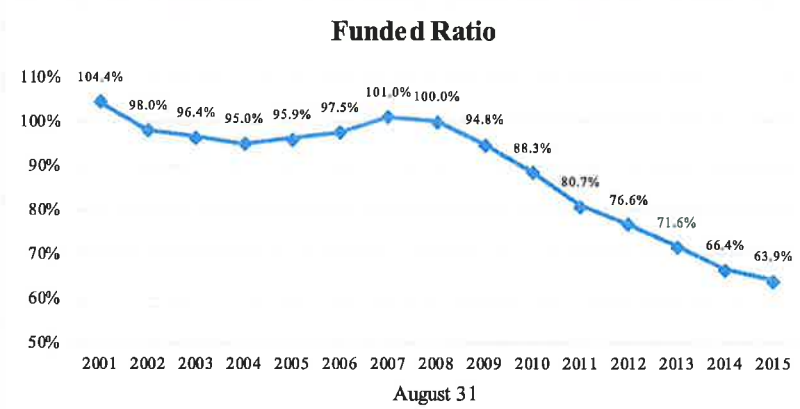
	$ millions
Unfunded Actuarial Accrued Liability, September 1, 2014	$88.3
· Effect of contributions below the actuarial rate	0.0
· Expected increase due to amortization method	1.3
· Investment experience	0.8
· Liability experience*	1.9
· Change in use of "reported salary"	5.3
· Change to assumed investment return of 6.40%	12.0
· Change due to replication valuation	(6.4)
· Other experience	0.3
Unfunded Actuarial Accrued Liability, September 1, 2015	$103.5

* Liability loss is about 0.7% of total actuarial accrued liability.

The overall experience loss for the last plan year of $8.0 million was the result of an actuarial loss of $0.8 million on Plan assets (actuarial value) and a $7.2 million actuarial loss on Plan liabilities. The unfavorable experience on the Plan liabilities was due primarily due to a correction in the way reported salaries were being treated in the valuation process. The prior actuary used the salary amounts reported by the City in the census data as if they represented pay rates for the 12 months immediately following the valuation date. After confirming with the City that the reported salaries in the census data represent the salary amounts actually received during the 12 months immediately preceding the valuation date, we programmed our valuation software in a consistent manner. As a result of the adjustment, Plan liabilities increased by $5.3 million. The experience loss from all other demographic experience was $1.9 million.

Analysis of the unfunded actuarial accrued liability strictly as a dollar amount can be misleading. Another way to evaluate the unfunded actuarial accrued liability and the progress made in its funding is to track the funded status, the ratio of the actuarial value of assets to the actuarial accrued liability. This information for recent years is shown in the following table (in millions). Historical information from the five most recent valuations is shown in the graph following the chart:

	8/31/11	8/31/12	8/31/13	8/31/14	8/31/15
Actuarial Value of Assets ($M)	$165.4	$164.5	$164.2	$174.6	$183.0
Actuarial Accrued Liability ($M)	$205.0	$214.9	$229.2	$262.9	$286.5
Funded Ratio (Actuarial Assets/AAL)	81%	77%	72%	66%	64%
Market Value of Assets ($M)	$148.3	$153.5	$164.6	$184.8	$176.8
Actuarial Accrued Liability ($M)	$205.0	$214.9	$229.9	$262.9	$286.5
Funded Ratio (MVA/AAL)	72%	71%	72%	70%	62%



Over the past decade, the funded ratio steadily declined due to changes in assumptions, market returns less than expected, and contributions less than the full actuarial rate.

Note: Results for years prior to 2015 were prepared by prior actuaries.

As mentioned earlier in this report, due to the asset smoothing method there is about $6.2 million difference between the actuarial and market value of assets. This deferred investment loss will flow through the asset smoothing method over the next four years. If all actuarial assumptions are met in the future and favorable investment experience does not occur, the funded ratio will decrease as the asset smoothing method recognizes the deferred investment loss. The Plan's funded status will continue to be heavily dependent on future investment returns.

CONTRIBUTION RATES

Generally, contributions to the Plan consist of:

- a "normal cost" for the portion of projected liabilities allocated by the actuarial cost method to service of members during the current year; and

- an "unfunded actuarial accrued liability contribution" for the excess of the portion of projected liabilities allocated to service to date over the actuarial value of assets.

Contribution rates are computed with the objective of developing costs that are level as a percentage of covered payroll. The contribution rate for the fiscal year 2017 is computed based on the August 31, 2015 valuation.

By ordinance, the City is required to contribute no less than the employer normal cost plus administrative expenses. However, sound funding of a retirement system requires consistent funding of the full actuarial contribution rate. Given the Plan's funded status and the unrecognized losses, we recommend the City contribute the full actuarial employer contribution rate of 27.42% of covered payroll. Due to a number of factors including actual versus expected Plan experience, the change in the investment return assumption, and changes made during the replication process, the employer contribution rate increased by 2.98% from the 2014 to the 2015 valuation, as shown in the following table:

	Actuarial Valuation	
Actuarial Contribution Rate	**8/31/2015**	**8/31/2014**
1) a. Total Normal Cost	21.11%	18.33%
b. Member Financed	6.88%	6.75%
c. Employer Portion (1a) - (1b)	14.23%	11.58%
2) UAAL/(Surplus) Contribution	13.19%	12.86%
3) Employer Contribution Rate	27.42%	24.44%
4) Projected Covered Payroll	$42,381,059	$37,887,505
5) Recommended Employer Contribution*	12,065,465	9,666,852

* Includes administrative expenses. See Table 12 for details.
Note: The 2014 valuation results were prepared by the prior actuary.

COMMENTS

As of August 31, 2015, the actuarial accrued liability was $286.5 million and the actuarial value of assets was $183.0 million, resulting in a funded ratio of 64%, down from the funded ratio of 66% last year. Using the market value of assets, the funded ratio is 62%. These results were impacted by several items other than the actual experience of the Plan compared to that expected including: (1) lowering the investment return assumption from 6.75% to 6.40%, (2) adjusting how the reported salary amounts are used in the valuation, and (3) adjustments from the replication valuation. Overall, these changes increased the UAAL by $10.9 Million and increased the City contribution rate by 3.47% of payroll (1.29% for UAAL payment and 2.18% for Normal Cost).

Retirement plans use several mechanisms to provide more stability in the contribution levels. These include an asset smoothing method, which smoothes out the volatility in the investment returns, and amortization of any actuarial gains or losses over a period of years. The Plan utilizes an asset smoothing method that spreads the difference between expected and actual return over a five-year period. The rate of return on the actuarial value of assets for the plan year ending in 2015 was 6.32% as compared to -2.76% return on the pure market value of assets. The increase in the unfunded actuarial accrued liability from the experience loss in FY 2015 is amortized over a 29-year period, which mitigates the impact of the unfavorable experience on the actuarial contribution rate.

As of August 31, 2015, the deferred investment loss (actuarial value less market value of assets) is $6.2 million. Absent investment gains in future years, the deferred investment loss of $6.2 million will eventually be reflected in the actuarial value of assets in future years. While the use of an asset smoothing method is a common procedure for public retirement systems, it is important to identify the potential impact of the deferred investment experience. This is accomplished by comparing the key valuation results from the August 31, 2015 actuarial valuation using both the actuarial and market value of assets.

	Using Actuarial Value of Assets	Using Market Value of Assets
Actuarial Accrued Liability (AAL)	$286,493,673	$286,493,673
Asset Value	183,011,274	176,828,083
Unfunded Actuarial Accrued Liability (UAAL)	$103,482,399	$109,665,590
Funded Ratio	64%	62%
Normal Cost Rate	21.11%	21.11%
UAAL Contribution Rate	13.19%	13.98%
Total Actuarial Contribution Rate	34.30%	35.09%
Member Contribution Rate	6.88%	6.88%
Employer Actuarial Contribution Rate	27.42%	28.21%

A summary of key data elements and valuation results as of August 31, 2015 and August 31, 2014 are presented on the following page. More detail on each of these elements can be found in the following sections of this report.

Lincoln

	8/31/2015 Valuation	8/31/2014 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	576	555	3.8%
DROP Members	42	52	(19.2)%
Retirees, Disabled Members and Beneficiaries	486	465	4.5%
Inactive Vested Members	28	27	3.7%
Total Members	1,132	1,099	3.0%
Projected Valuation Salaries of Active Members**	$ 42,381,059	$ 37,887,505	11.9%
Annual Retirement Payments for DROP Members, Disabled Members, Retirees and Beneficiaries	$ 12,890,462	$ 12,354,404	4.3%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Accrued Liability	$286,493,673	$262,918,401	9.0%
b. Market Value of Assets*	176,828,083	184,834,762	(4.3)%
c. Actuarial Value of Assets*	183,011,274	174,569,411	4.8%
d. Unfunded Actuarial Accrued Liability (a) - (c)	$103,482,399	$ 88,348,990	17.1%
e. Funded Ratio - Actuarial Value (c) / (a)	64%	66%	(3.0)%
f. Funded Ratio - Market Value (b) / (a)	62%	70%	(11.4)%
3. ACTUARIAL CONTRIBUTION RATE			
a. Normal Cost	21.11%	18.33%	15.2%
b. UAAL Amortization	13.19%	12.86%	2.6%
c. Total Actuarial Contribution Rate (a) + (b)	34.30%	31.19%	10.0%
d. Effective Employee Contribution Rate	(6.88%)	(6.75%)	1.9%
e. Employer Actuarial Contribution Rate (c) - (d)	27.42%	24.44%	12.2%

* Excludes the COLA Pool Fund
** For the 8/31/2014 valuation, these were actual FY 2013-2014 salaries, not projected.

SECTION II – SCOPE OF THE REPORT

This report presents the results of the actuarial valuation of the City of Lincoln Police and Fire Pension Fund as of August 31, 2015. This valuation was prepared at the request of the City.

Please pay particular attention to our actuarial certification letter, where the guidelines employed in the preparation of this report are outlined. We also comment on the sources and reliability of both the data and the actuarial assumptions upon which our findings are based. Those comments are the basis for our certification that this report is complete and accurate to the best of our knowledge and belief.

A summary of the findings which result from this valuation is presented in the previous section. Section 3 describes the assets and investment experience of the Plan. Section 4 and 5 describe how the obligations of the Plan are to be met under the actuarial cost method in use. Section 6 includes some historical funding and other information.

This report includes several appendices:

- Appendix A — Schedules of valuation data classified by various categories of members.
- Appendix B — A summary of the current benefit structure, as determined by the provisions of governing law on August 31, 2015.
- Appendix C — A summary of the actuarial methods and assumptions used to estimate liabilities and determine contribution rates.
- Appendix D — A glossary of actuarial terms.

SECTION III– ASSETS

In many respects, an actuarial valuation can be thought of as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is August 31, 2015. On that date, the assets available for the payment of benefits are appraised. The assets are compared with the liabilities of the Plan, which are generally in excess of assets. The actuarial process then leads to a method of determining the contributions needed by members and the employer in the future to balance the Plan assets and liabilities.

Market Value of Assets

The current market value represents the "snapshot" or "cash-out" value of Plan assets as of the valuation date. In addition, the market value of assets provides a basis for measuring investment performance from time to time. Table 1 is a comparison, at market values, of Plan assets as of August 31, 2015, and August 31, 2014, in total and by investment category. Table 2 summarizes the change in the market value of assets from August 31, 2014 to August 31, 2015.

Actuarial Value of Assets

Neither the market value of assets, representing a "cash-out" value of Plan assets, nor the book value of assets, representing the cost of investments, may be the best measure of the Plan's ongoing ability to meet its obligations.

To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens swings in the market value while still indirectly recognizing market values. Under the asset smoothing methodology, the difference between the actual investment return on the market value of assets and assumed investment return on the actuarial value of assets is recognized evenly over a five-year period.

Table 4 shows the development of the actuarial value of assets (AVA) as of the valuation date.

Cost-of-Living Adjustments

In September of each year, eligible retired members will receive a "13th Check" payable from funds set aside referred to in this report as the "COLA Pool". The 13th Check payments are made from the COLA Pool, which is invested with other pension assets. The COLA Pool is funded by the earnings differential between the pension fund's market value rate of return and the actuarially assumed rate of return, multiplied by a ratio of retirant and beneficiary liability over total liability. All such annual additions to the pool plus earnings applicable to the amount allocated to the pool constitute the pool. The net effect of these transfers from the Pension Fund to the COLA Pool is effectively a reduction in the realized rate of return on Pension Fund Assets.

The source of funding for the COLA benefits is not guaranteed. The City has indicated that the payment of a COLA is not guaranteed and has chosen not to pre-fund this benefit. Therefore, neither the liabilities associated with the COLA benefits nor the corresponding pool of assets were included in this valuation of the Pension Fund which was prepared to address the funding of the Plan.

TABLE 1

STATEMENT OF NET PLAN ASSETS AT MARKET VALUE

	Market Value	
	August 31, 2015	August 31, 2014
Cash & Equivalents	$ 4,345,821	$ 9,668,120
Accrued Interest & Dividends	26	71,140
Receivables	0	0
Alternative Investments*	0	46,141,565
Fixed Income	43,067,668	33,197,625
Equity	111,725,895	124,264,365
Hedge Funds*	10,663,198	0
Private Equity*	765,515	0
Real Estate*	33,427,148	0
Total Assets	$ 203,995,271	$ 213,342,815
Accounts Payable	0	0
Interim Plan Assets	203,995,271	213,342,815
COLA Pool	(27,167,188)	(28,508,053)
Net Assets Available for Benefits	$ 176,828,083	$ 184,834,762

** Hedge Funds, Private Equity and Real Estate were included in Alternative Investments for the August 31, 2014 valuation.*

TABLE 2

STATEMENT OF CHANGES IN NET ASSETS*
DURING YEAR ENDED AUGUST 31, 2015
(Market value)

1. Market Value of Assets as of August 31, 2014	$	213,342,815
2. Contributions:		
a. Members	$	2,604,101
b. City		8,045,293
c. Total (2a) + (2b)	$	10,649,394
3. Investment Income		
a. Interest and Dividends	$	6,530,618
b. Realized Gains/(Losses)		9,180,972
c. Investment Expenses		(186,535)
d. Short and Long Term Capital Gains		4,669,987
e. Unrealized Gains/(Losses)		(26,038,597)
f. Total (3a) + (3b) + (3c) + (3d) + (3e)	$	(5,843,555)
4. Expenditures		
a. Refunds of Member Contributions	$	571,018
b. Benefits Paid:		
(1) Base Pension and Compensation Payments	$	10,642,340
(2) DROP Payments		1,941,896
(3) Temporary Total Disability		0
(4) COLA Pool Payments		553,551
c. Administrative Expenses		444,578
d. Total (4a) + (4b) + (4c)	$	14,153,383
5. Changes and Adjustments	$	0
6. Net Change (2d) + (3f) - (4d) + (5)	$	(9,347,544)
7. Market Value of Assets as of August 31, 2015	$	203,995,271
8. Net Return on Market Value of Assets		(2.76%)

** Includes COLA pool assets of $27,167,188*

TABLE 3

STATEMENT OF CHANGES IN COLA POOL ASSETS FOR THE YEAR ENDED AUGUST 31, 2015

(Market Value)

1. Market Value of COLA Pool as of August 31, 2014	$	28,508,053
2. Additions to COLA Pool	$	0
3. Investment Income on COLA Pool	$	(787,314)
4. COLA Pool Payments		
a. Retirants and Beneficiaries	$	510,453
b. DROP Members		43,098
c. Total	$	553,551
5. Net Change (2) + (3) - (4c)	$	(1,340,865)
6. Market Value of COLA Pool as of August 31, 2015	$	27,167,188

Cost-of-Living Adjustments

In September of each year, eligible retired members will receive a "13th Check" payable from funds set aside referred to in this report as the "COLA Pool". The 13th Check payments are made from the COLA Pool, which is invested with other pension assets. The COLA Pool is funded by the earnings differential between the pension fund's market value rate of return and the actuarially assumed rate of return, multiplied by a ratio of retirant and beneficiary liability over total liability. All such annual additions to the pool plus earnings applicable to the amount allocated to the pool constitute the pool. The net effect of these transfers from the Pension Fund to the COLA Pool is effectively a reduction in the realized rate of return on Pension Fund Assets.

The source of funding for the COLA benefits is not guaranteed. The City has indicated that the payment of a COLA is not guaranteed and has chosen not to pre-fund this benefit. Therefore, neither the liabilities associated with the COLA benefits nor the corresponding pool of assets were included in this valuation of the Pension Fund which was prepared to address the funding of the Plan.

TABLE 4

DEVELOPMENT OF ACTUARUAL VALUE OF ASSETS

	Year End			
	8/31/2012	8/31/2013	8/31/2014	8/31/2015
1. Actuarial Value of Assets, Beginning of Year	$ 165,436,361	$ 164,500,414	$ 164,189,914	$ 174,569,411
2. Contributions During Year				
(a) Member	$ 2,418,690	$ 2,540,604	$ 2,613,971	$ 2,604,101
(b) City	6,052,020	6,446,472	7,865,929	8,045,293
(c) Total	$ 8,470,710	$ 8,987,076	$ 10,479,900	$ 10,649,394
3. Benefit Payments and Expenses	$ 12,332,500	$ 12,670,201	$ 13,837,309	$ 13,599,832
4. Expected Investment Income on (1), (2) and (3)	$ 12,265,528	$ 12,201,911	$ 12,190,617	$ 11,685,484
5. Actual Return on Market Value, Net of Investment Expenses	$ 9,061,098	$ 14,753,906	$ 23,574,412	$ (5,056,241)
6. Return to be Spread, End of Year (5) - (4)	$ (3,204,430)	$ 2,551,995	$ 11,383,795	$ (16,741,725)

** COLA Pool payments were included in Benefit Payments and Expenses for years prior to 2015.*
Note: Information prior to 2015 was produced by the prior actuary.

TABLE 4
(continued)

7. Return to be Spread

Plan Year Ending	Return to be Spread	Unrecognized Percent	Unrecognized Return
2015	($16,741,725)	80%	($13,393,380)
2014	11,383,795	60%	6,830,277
2013	2,551,995	40%	1,020,798
2012	(3,204,430)	20%	(640,886)
			($6,183,191)

8. Total Market Value of Assets as of September 1, 2015	$176,828,083
9. Total Actuarial Value of Assets as of September 1, 2015 (8) - (7)	$183,011,274
10. Asset Ratios	
(a) Actuarial Value to Market Value (9) / (8)	103.50%
(b) Market Value to Actuarial Value (8) / (9)	96.62%
11. Return on Actuarial Value of Assets, Net of Expenses	6.32%

SECTION IV– PLAN LIABILITIES

In the previous section, an actuarial valuation was compared with an inventory process, and an analysis was given of the inventory of assets of the City as of the valuation date, August 31, 2015. In this section, the discussion will focus on the commitments (future benefit payments) of the Plan, which are referred to as its liabilities.

Table 5 contains an analysis of the actuarial present value of all future benefits (PVFB) for contributing members, inactive members, retirees and their beneficiaries.

The liabilities summarized in Table 5 include the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member, this value includes measurement of both benefits already earned and future benefits to be earned. For all members, active and retired, the value extends over benefits earnable and payable for the rest of their lives and for the lives of the surviving beneficiaries.

All liabilities reflect the benefit provisions in place as of August 31, 2015. No liabilities have been included in this valuation for any future COLA payments to be made from the COLA pool.

Actuarial Accrued Liability

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. An actuarial cost method is a mathematical technique that allocates the present value of future benefits into annual costs. In order to do this allocation, it is necessary for the funding method to "breakdown" the present value of future benefits into two components:

(1) that which is attributable to the past, and

(2) that which is attributable to the future.

Actuarial terminology calls the part attributable to the past the "past service liability" or the "actuarial accrued liability". The portion allocated to the future is known as the present value of future normal costs, with the specific piece of it allocated to the current year being called the "normal cost". Table 7 contains the calculation of actuarial accrued liability for the Plan. The Entry Age Normal actuarial cast method is used to develop the actuarial accrued liability.

TABLE 5

PRESENT VALUE OF FUTURE BENEFITS (PVFB) AS OF AUGUST 31, 2015

1. Active Employees	
a. Retirement Benefits	$ 210,298,627
b. Pre-Retirement Death Benefits	4,046,324
c. Termination Benefits	10,350,937
d. Disability Benefits	4,593,466
e. Total	$ 229,289,354
2. Inactive Vested Members	$ 3,935,494
3. In Pay Members	
a. Retirees	$ 101,884,784
b. Disabled Members	13,842,209
c. DROP Members	24,482,711
d. Beneficiaries	7,268,559
e. Total	$ 147,478,263
4. Total Present Value of Future Benefits (1e) + (2) + (3e)	$ 380,703,111

TABLE 6

ACTUARIAL ACCRUED LIABILITY
AS OF AUGUST 31, 2015

1. Active Employees		
a. Present Value of Future Benefits	$	229,289,354
b. Present Value of Future Normal Costs		94,209,438
c. Actuarial Accrued Liability (1a) - (1b)	$	135,079,916
2. Inactive Vested Members	$	3,935,494
3. In Pay Members		
a. Retirees	$	101,884,784
b. Disabled Members		13,842,209
c. DROP Members		24,482,711
d. Beneficiaries		7,268,559
e. Total (3a) + (3b) + (3c) + (3d)	$	147,478,263
4. Total Actuarial Accrued Liability (1c) + (2) + (3e)	$	286,493,673
5. Actuarial Value of Assets	$	183,011,274
6. Unfunded Actuarial Accrued Liability (4) - (5)	$	103,482,399

TABLE 7

ACTUARIAL BALANCE SHEET
AS OF AUGUST 31, 2015

ASSETS

Actuarial Value of Assets	$ 183,011,274
Present Value of Future Normal Costs	$ 94,209,438
Present Value of Future Payments on the Unfunded Actuarial Accrued Liability	$ 103,482,399
Total Assets	$ 380,703,111

LIABILITIES

Active Employees:		
a. Retirement Benefits	$ 210,298,627	
b. Pre-Retirement Death Benefits	4,046,324	
c. Termination Benefits	10,350,937	
d. Disability Benefits	4,593,466	
e. Total		$ 229,289,354
Inactive Vested Members		$ 3,935,494
In Pay Members		
a. Retirees	$ 101,884,784	
b. Disabled Members	13,842,209	
c. DROP Members	24,482,711	
d. Beneficiaries	7,268,559	
e. Total		$ 147,478,263
Total Liabilities		$ 380,703,111

TABLE 8

ACTUARIAL GAIN/(LOSS)

Liabilities		
1. Actuarial Accrued Liability as of September 1, 2014	$	262,918,401
2. Normal Cost for Plan Year Ending August 31, 2015		6,895,359
3. Benefit Payments During Plan Year Ending August 31, 2015		13,155,254
4. Change due to Replication Valuation		(6,442,226)
5. Interest at 6.75%		17,340,838
6. Change in use of "reported salary"		5,336,001
7. Change to Assumed Investment Return of 6.40%		11,661,875
8. Expected Actuarial Accrued Liability as of August 31, 2015 (1) + (2) - (3) + (4) + (5) + (6) + (7)	$	284,554,994
9. Actuarial Accrued Liability as of August 31, 2015	$	286,493,673
Assets		
10. Actuarial Value of Assets as of September 1, 2014	$	174,569,411
11. Contributions During Plan Year Ending August 31, 2015		10,649,394
12. Benefit Payments During Plan Year Ending August 31, 2015		13,155,254
13. Interest on Items (9), (10) and (11)		11,700,243
14. Expected Actuarial Value of Assets as of August 31, 2015 (10) + (11) - (12) + (13)	$	183,763,794
15. Actuarial Value of Assets as of August 31, 2015	$	183,011,274
Gain / (Loss)		
16. Expected Unfunded Actuarial Accrued Liability (8) – (14)	$	100,791,200
17. Unfunded Actuarial Accrued Liability (9) – (15)	$	103,482,399
18. Actuarial Gain / (Loss) (16) – (17)	$	(2,691,199)
19. Actuarial Gain / (Loss) on Actuarial Value of Assets (15) – (14)	$	(752,520)
20. Actuarial Gain / (Loss) on Actuarial Accrued Liability (8) – (9)	$	(1,938,679)

TABLE 9

PROJECTED BENEFIT PAYMENTS

The chart below shows estimated benefits expected to be paid over the next twenty years, based on the assumptions used in this valuation. The "In-Pay" column shows benefits expected to be paid to members currently receiving benefit payments as of August 31, 2015. The "Not In-Pay" column shows benefits expected to be paid to all other members. This included those who, as of August 31, 2015, are active or have terminated employment and are entitled to a deferred vested benefit. No future members are reflected.

Year Ending August 31	Not In-Pay	In-Pay	Total
2016	$ 692,000	$ 13,102,000	$ 13,794,000
2017	1,397,000	12,942,000	14,339,000
2018	2,283,000	12,834,000	15,117,000
2019	3,098,000	12,686,000	15,784,000
2020	3,972,000	12,565,000	16,537,000
2021	4,999,000	12,370,000	17,369,000
2022	6,073,000	12,214,000	18,287,000
2023	7,261,000	12,056,000	19,317,000
2024	8,433,000	11,889,000	20,322,000
2025	9,661,000	11,648,000	21,309,000
2026	10,935,000	11,423,000	22,358,000
2027	12,396,000	11,142,000	23,538,000
2028	13,829,000	10,886,000	24,715,000
2029	15,307,000	10,600,000	25,907,000
2030	16,799,000	10,283,000	27,082,000
2031	18,336,000	9,954,000	28,290,000
2032	19,866,000	9,611,000	29,477,000
2033	21,329,000	9,262,000	30,591,000
2034	22,830,000	8,901,000	31,731,000
2035	24,458,000	8,530,000	32,988,000

Note: Cash flows are the expected future non-discounted payments to current members. These numbers exclude refund payouts to current nonvested inactives and assume future retirees elect the normal form of payment and future withdrawals elect refunds according to valuation assumptions.

SECTION V– EMPLOYER CONTRIBUTIONS

The previous two sections were devoted to a discussion of the assets and liabilities of the Plan. A comparison of Tables 4 and 5 indicates that current assets fall short of meeting the present value of future benefits (total liability). This is expected in all but a completely closed fund, where no further contributions are anticipated. In an active Plan, there will almost always be a difference between the actuarial value of assets and total liabilities. This deficiency has to be made up by future contributions and investment returns. An actuarial valuation sets out a schedule of future contributions that will deal with this deficiency in an orderly fashion.

The method used to determine the incidence of the contributions in various years is called the actuarial cost method. Under an actuarial cost method, the contributions required to meet the difference between current assets and current liabilities are allocated each year between two elements: (1) the normal cost rate and (2) the unfunded actuarial accrued liability contribution rate.

The term "fully funded" is often applied to a Plan in which contributions at the normal cost rate are sufficient to pay for the benefits of existing employees as well as for those of new employees. More often than not, Plans are not fully funded, either because of past benefit improvements that have not been completely funded or because of actuarial deficiencies that have occurred because experience has not been as favorable as anticipated. Under these circumstances, an unfunded actuarial accrued liability (UAAL) exists. Likewise, when the actuarial value of assets is greater than the actuarial accrued liability, a surplus exists.

Description of Contribution Rate Components

The Entry Age Normal (EAN) actuarial cost method is used for the valuation. Under that method, the normal cost for each year from entry age to assumed exit age is a constant percentage of the member's year by year projected compensation. The portion of the present value of future benefits not provided by the present value of future normal costs in the actuarial accrued liability. The unfunded actuarial accrued liability/(surplus) represents the difference between the actuarial accrued liability and the actuarial value of assets as of the valuation date. The unfunded actuarial accrued liability is calculated each year and reflects experience gains/losses.

In general, contributions are computed in accordance with a level percent-of-payroll funding objective. The contribution rate developed in the August 31, 2015 actuarial valuation will be used to determine the actuarial required employer contribution rate to the City of Lincoln Police and Fire Pension Fund for fiscal year end 2017. In this context, the term "contribution rate" means the percentage, which is applied to a particular active member payroll to determine the actual employer contribution amount (i.e., in dollars) for the group.

As of August 31, 2015 the actuarial accrued liability was greater than the valuation assets so an unfunded actuarial accrued liability (UAAL) exists. The UAAL is amortized, as a level percent of payroll, over a closed 30-year period that began on August 31, 2014. There are 29 years remaining as of the August 31, 2015 valuation.

Contribution Rate Summary

In Table 10, the amortization payment related to the unfunded actuarial accrued liability, as of August 31, 2015, is developed. Table 11 develops the actuarial contribution rate for the employer.

The actuarial contribution rates shown in this report are based on the actuarial assumptions and cost methods described in Appendix C.

TABLE 10

DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITY CONTRIBUTION RATE

1. Actuarial Accrued Liability	$ 286,493,673
2. Actuarial Value of Assets	$ 183,011,274
3. Unfunded Actuarial Accrued Liability	$ 103,482,399
4. Amortization Factor (29 years remaining)*	19.0920
5. Amortization Payment (3) / (4) x $(1.064)^{.5}$	$ 5,590,953
6. Total Projected Payroll for FY 2015-16	$ 42,381,059
7. UAAL Amortization Payment as a Percent of Payroll (5) / (6)	13.19%

** Based on level percentage of payroll, assuming payroll increases 3.0% per year in the future.*

TABLE 11

EMPLOYER ACTUARIAL CONTRIBUTION RATE

	Valuation Date 8/31/2015	8/31/2014
Normal Cost		
Retirement benefits	17.75%	14.24%
Pre-retirement death benefits	0.61%	0.88%
Termination benefits	2.02%	2.70%
Disability benefits	0.73%	0.50%
Total Normal Cost	21.11%	18.33%
Total UAAL Amortization Payment	13.19%	12.86%
Total Actuarial Contribution Rate	34.30%	31.19%
Member portion	6.88%	6.75%
City portion	27.42%	24.44%

Note: The 2015 valuation results reflect an investment return assumption of 6.40% while the 2014 valuation reflects an assumed rate of return of 6.75%.

TABLE 12

FIVE-YEAR BUDGET REQUEST ESTIMATE

The Mandated City Contribution, per City Ordinance 18732, requires the City's normal cost contributions inclusive of administrative expenses be contributed to the Plan. The calculation of the Employer Normal Cost Contribution and Administrative Expenses follow historical calculation procedures and are being performed at the City's direction. We believe these calculation methodologies should be reviewed before the 2016 funding valuation (FY 2017-18 budget estimate) is performed.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Fiscal Year	Total Payroll*	Employer Normal Cost Percent	Employer Normal Cost Contribution (1) * (2)	Admin. Expenses**	**Mandated City Contribution (3) + (4)**	Recommended UAAL Contribution Percent	Recommended UAAL Contribution (1) * (6)	**Budget Request (5) + (7)**
2016-17	42,381,059	14.23%	6,030,825	444,578	**6,475,403**	13.19%	5,590,062	**12,065,465**
2017-18	43,652,491	14.13%	6,168,097	455,692	6,623,789	13.58%	5,928,008	12,551,797
2018-19	44,962,066	14.03%	6,308,178	467,084	6,775,262	13.73%	6,173,292	12,948,554
2019-20	46,310,928	13.93%	6,451,112	478,761	6,929,873	13.94%	6,455,743	13,385,616
2020-21	47,700,256	13.83%	6,596,945	490,730	7,087,675	14.42%	6,878,377	13,966,052

Note: Assumes all actuarial assumptions are met in future years, including a 6.40% net return on the market value of assets.

** Total payroll projected for FY 2015-16 is used for the FY 2016-17 budget estimate. Total payroll is projected to increase at 3.00% per year for future years.*

*** Administrative expenses incurred for FY 2014-15 are used for the FY 2016-17 budget estimate. These are assumed to increase with price inflation of 2.50% per year.*

HISTORICAL FUNDING AND OTHER INFORMATION

This section of the report provides a historical perspective on the Plan's funding and contribution practices, along with other information that may be of interest.

In the past, Governmental Accounting Standards Board (GASB) Statements No. 25, *Financial Reporting for Defined Benefit Pension Plans*, and Statement No. 27, *Accounting for Pensions by State and Local Governmental Employers*, applied to the preparation of financial reports of pension plans for state and local governments and sponsoring employers.

GASB 67, which is effective for plan years ending on or after June 15, 2014, replaced GASB 25 and represents a significant departure from the requirements of that older statement. GASB 25 was issued as a "funding friendly" statement that required pension plans to report items consistent with the results of the plan's actuarial valuations, as long as those valuations met certain parameters. GASB 67 basically separates accounting from funding by creating disclosure and reporting requirements that may or may not be consistent with the basis used for funding the Plan. A separate report that contains all of the information and exhibits of an actuarial nature that are necessary for the Plan's financial reporting under GASB 67 will be issued.

GASB Statement No. 27 established standards for the measurement, recognition, and display of pension expense and related liabilities. GASB 68 replaced GASB 27, and is effective for fiscal year end 2016 for the City of Lincoln. A separate report containing all of the pertinent information will also be prepared for GASB 68 reporting.

TABLE 13

SCHEDULE OF FUNDING PROGRESS

Two tests of funding progress based on the relationship between valuation assets and actuarial accrued liabilities are shown on the following pages. These tests are based upon the actuarial cost method used in the valuation.

The Ratio of Valuation Assets to Actuarial Accrued Liabilities is a traditional measure of a Plan's funding progress. Except in years when the benefit provisions are amended or actuarial assumptions are revised, the ratio can be expected to gradually tend toward 100%, assuming recommended contribution amounts are received by the plan.

The Ratio of Unfunded Actuarial Accrued Liabilities to Valuation Payroll is another relative index of condition. In an inflationary economy, the value of dollars is decreasing. This environment results in employee salaries increasing in dollar amounts, retirement benefits increasing in dollar amounts, and then, unfunded actuarial accrued liabilities increasing in dollar amounts – all at a time when the actual substance of these items may be decreasing. When looking at dollar amounts, the effects of inflation can hide the actual funding progress from year to year. Unfunded actuarial accrued liability dollars divided by active employee payroll dollars provides an index which attempts to eliminate the misleading effects of inflation. The smaller the ratio of unfunded liabilities to active member payroll, the stronger the Plan. Observation of this relative index over a period of years will provide an indication of whether the Plan is becoming financially stronger or weaker.

TABLE 13 (continued)

Actuarial Valuation Date	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL)	(3) Percent Funded (1) / (2)	(4) Unfunded AAL (2) - (1)	(5) Total Payroll*	(6) Unfunded AAL as a Percentage of Payroll (4) / (5)
8/31/1991	$68,390,000	$59,149,000	116.00%	($9,241,000)	$15,157,000	(61.00%)
8/31/1992	77,980,000	63,407,000	123.00%	(14,573,000)	15,365,000	(95.00%)
8/31/1993	86,583,000	67,910,000	127.00%	(18,673,000)	16,722,000	(112.00%)
8/31/1994	83,307,827	70,517,314	118.14%	(12,790,513)	17,698,377	(72.27%)
8/31/1995	92,235,349	79,202,449	116.46%	(13,032,900)	18,561,302	(70.22%)
8/31/1996	94,347,990	81,583,068	115.65%	(12,764,922)	19,224,719	(66.40%)
8/31/1997	101,475,648	91,022,617	111.48%	(10,453,031)	20,908,549	(49.99%)
8/31/1998	109,213,474	94,847,667	115.15%	(14,365,807)	21,860,493	(65.72%)
8/31/1999	113,902,477	104,691,766	108.80%	(9,210,711)	23,611,284	(39.01%)
8/31/2000	121,404,314	115,671,249	104.96%	(5,733,065)	25,808,088	(22.21%)
8/31/2001	128,069,831	122,660,542	104.41%	(5,409,289)	28,215,685	(19.17%)
8/31/2002	128,319,145	130,875,473	98.05%	2,556,328	26,606,881	9.61%
8/31/2003	132,577,506	137,507,824	96.41%	4,930,318	27,415,330	17.98%
8/31/2004	136,973,679	144,178,758	95.00%	7,205,079	28,124,862	25.62%
8/31/2005	145,730,474	151,978,408	95.89%	6,247,934	29,029,309	21.52%
8/31/2006	157,527,392	161,583,285	97.49%	4,055,893	30,724,333	13.20%
8/31/2007	171,263,791	169,587,458	100.99%	(1,676,333)	30,546,235	(5.49%)
8/31/2008	179,390,472	179,376,149	100.01%	(14,323)	32,265,715	(0.04%)
8/31/2009	177,526,641	187,292,374	94.79%	9,765,733	33,449,977	29.20%
8/31/2010	172,317,463	195,206,353	88.27%	22,888,890	34,233,197	66.86%
8/31/2011	165,436,361	204,990,324	80.70%	39,553,963	35,763,446	110.60%
8/31/2012	164,500,414	214,878,992	76.55%	50,378,578	36,310,880	138.74%
8/31/2013	164,189,914	229,192,937	71.64%	65,003,023	38,107,652	170.58%
8/31/2014	174,569,411	262,918,401	66.40%	88,348,990	37,887,505	233.19%
8/31/2015	183,011,274	286,493,673	63.88%	103,482,399	42,381,059	244.17%

Note: For valuation dates prior to 2015, information shown is from the prior actuary's report.
** Non-DROP Payroll in 2002 and later.*

TABLE 14

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Beginning September 1	Actuarial Valuation Date	Annual Required Contribution*
2003	8/31/2002	$3,297,577
2004	8/31/2003	3,684,264
2005	8/31/2004	4,077,037
2006	8/31/2005	4,056,195
2007	8/31/2006	4,076,536
2008	8/31/2007	3,316,464
2009	8/31/2008	3,752,124
2010	8/31/2009	4,651,872
2011	8/31/2010	5,574,482
2012	8/31/2011	6,718,467
2013	8/31/2012	7,377,763
2014	8/31/2013	8,418,199
2015	8/31/2014	9,537,497
2016	8/31/2015	11,969,513

** Annual required contribution is equal to the contribution percent times the total payroll projected to the appropriate fiscal year. Administrative expenses are not included. The employer contribution rate from 8/31/02 to 8/31/08 is based on a 10-year amortization of the UAAL/(Surplus). The UAAL is amortized over 30 years effective 8/31/09. The UAAL is amortized over a closed 30 year period effective 8/31/14.*

Note: For valuation dates prior to 2015, information shown is from the prior actuary's report.

APPENDIX A

SUMMARY OF MEMBERSHIP DATA

MEMBER DATA RECONCILIATION
August 31, 2014 to August 31, 2015

The number of members included in the valuation, as summarized in the table below, is in accordance with the data submitted by the Plan for members as of the valuation date.

	Active Participants	DROP Members	Service Retirees	Disabled Retirees	Beneficiaries	Inactive Vested	Total
Members as of 08/31/14	555	52	365	49	51	27	1,099
New Members	45	0	0	0	0	0	45
Terminations							
Refunded	(9)	0	0	0	0	0	(9)
Deferred Vested	(3)	0	0	0	0	3	0
Retirements							
Service	(4)	(17)	23	0	0	(2)	0
Disability	(1)	0	0	1	0	0	0
DROP	(7)	7	0	0	0	0	0
Deaths							
Cashed Out	0	0	0	0	0	0	0
With Beneficiary	0	0	0	(1)	1	0	0
Without Beneficiary	0	0	(3)	0	(2)	0	(5)
Data Adjustments	0	0	(1)	1	2	0	2
Members as of 08/31/15	**576**	**42**	**384**	**50**	**52**	**28**	**1,132**

RETIRANTS AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

Year Ended	Added to Rolls			Removed from Rolls		Rolls End of Year		% Incr. Annual Benefits	Average Annual Benefit
	No.*	Annual Benefits	Post-Ret. Increases	No.	Annual Benefits	No.	Annual Benefits		
Aug. 31, 1991	22#	308,940	42,470	2	7,200	142	1,460,670	30.8%	10,286
Aug. 31, 1992	16	221,944	0	1	3,816	157	1,678,798	14.9%	10,693
Aug. 31, 1993	17	219,974	0	1	10,698	173	1,888,074	12.5%	10,914
Aug. 31, 1994	16	218,777	0	4	17,829	185	2,089,022	10.6%	11,292
Aug. 31, 1995	16	211,219	0	4	37,158	197	2,263,083	8.3%	11,488
Aug. 31, 1996	8	149,099	0	2	16,566	203	2,395,616	5.9%	11,801
Aug. 31, 1997	73##	590,041	0	4	56,890	272	3,042,547	27.0%	11,186
Aug. 31, 1998	10	155,262	0	11	71,670	271	3,126,139	2.7%	11,536
Aug. 31, 1999	23	414,130	0	1	22,889	293	3,517,380	12.5%	12,005
Aug. 31, 2000	17	335,244	0	7	62,014	303	3,790,610	7.8%	12,510
Aug. 31, 2001	14	225,737	0	16	105,022	301	3,911,325	3.2%	12,994
Aug. 31, 2002	18	278,160	0	14	115,340	305	4,074,145	4.2%	13,358
Aug. 31, 2003	15	219,569	0	11	119,499	309	4,174,215	2.5%	13,509
Aug. 31, 2004	12	175,551	0	5	74,835	316	4,274,931	2.4%	13,528
Aug. 31, 2005	30	702,721	0	12	73,072	334	4,904,580	14.7%	14,684
Aug. 31, 2006	10	262,420	0	4	36,362	340	5,130,638	4.6%	15,090
Aug. 31, 2007	38	1,101,713	0	8	55,280	370	6,177,071	20.4%	16,695
Aug. 31, 2008	24	621,708	0	10	128,736	384	6,670,043	8.0%	17,370
Aug. 31, 2009	20	560,105	0	2	28,641	402	7,185,166	7.7%	17,874
Aug. 31, 2010	14	408,351	0	8	66,170	408	7,477,874	4.1%	18,328
Aug. 31, 2011	15	455,866	0	8	84,553	415	7,846,879	4.9%	18,908
Aug. 31, 2012	30	1,083,442	0	7	101,972	438	8,828,349	12.5%	20,156
Aug. 31, 2013	21	700,308	0	11	165,739	448	9,362,919	6.1%	20,899
Aug. 31, 2014	20	771,356	0	3	21,973	465	10,112,391	8.0%	21,747
Aug. 31, 2015	27	1,045,339	0	6	106,230	486	11,051,500	9.3%	22,740

** Includes Retirements from DROP*

 # Includes one member not previously reported

Includes the addition of "Old Plan" members

Note: For valuation dates prior to 2015, information shown is from the prior actuary's report.

SUMMARY OF ACTIVE MEMBERS

NOT IN-PAY MEMBERS INCLUDED IN VALUATION

Valuation Date	Active Members	Inactive Vested Members	Total Payroll**	Average			% Increase
				Age	Service	Pay	
Aug. 31, 1991	490	36	15,157,150	39.3	14.4	30,933	5.1%
Aug. 31, 1992	471	37	15,364,976	40.0	15.0	32,622	5.5%
Aug. 31, 1993	516	38	16,721,658	39.3	14.5	32,406	(0.7%)
Aug. 31, 1994	521	42	17,698,377	39.0	13.4	33,970	4.8%
Aug. 31, 1995	526	41	18,561,302	39.1	14.5	35,288	3.9%
Aug. 31, 1996	545	42	19,224,719	39.1	14.3	35,275	0.0%
Aug. 31, 1997	549	43	20,908,549	38.9	13.3	38,085	8.0%
Aug. 31, 1998	561	47	21,860,493	38.8	13.2	38,967	2.3%
Aug. 31, 1999	545	48	23,611,284	39.1	13.5	43,323	11.2%
Aug. 31, 2000	543	45	25,808,088	39.5	13.8	47,529	9.7%
Aug. 31, 2001	584	41	28,215,685	39.3	13.3	48,315	1.7%
Aug. 31, 2002	536	36	26,606,881	38.4	12.3	49,640	2.7%
Aug. 31, 2003	535	31	27,415,330	38.7	12.5	51,244	3.2%
Aug. 31, 2004	533	25	28,124,862	38.8	12.5	52,767	3.0%
Aug. 31, 2005	533	25	29,029,309	39.1	12.9	54,464	3.2%
Aug. 31, 2006	558	25	30,724,333	39.2	12.8	55,062	1.1%
Aug. 31, 2007	531	28	30,546,235	39.5	13.0	57,526	4.5%
Aug. 31, 2008	549	30	32,265,715	39.3	12.7	58,772	2.2%
Aug. 31, 2009	553	27	33,449,977	39.3	12.6	60,488	2.9%
Aug. 31, 2010	561	26	34,233,197	39.4	12.4	61,022	0.9%
Aug. 31, 2011	562	28	35,763,446	39.6	12.7	63,636	4.3%
Aug. 31, 2012	559	26	36,310,880	39.5	12.6	64,957	2.1%
Aug. 31, 2013	573	24	38,107,652	39.4	12.4	66,506	2.4%
Aug. 31, 2014	555	27	37,887,505	39.6	12.5	68,266	2.6%
Aug. 31, 2015	576	28	42,381,059	39.4	12.3	73,578	7.8%

** Reflects Non-DROP projected payroll in 2002 and later*

Note: For valuation dates prior to 2015, information shown is from the prior actuary's report.

MEMBERSHIP DATA – AUGUST 31, 2015

Active Members (Not Participating in DROP)

Group	Count	Employee Contribution Rate	Effective Employee Contribution Percentage	Projected Annual Payroll	Average Age	Average Service	Average Salary
Police							
- Old Plan	2	7.60%	7.60%	$ 146,113	46.8	22.6	$ 73,057
- Plan A	270	8.00%	8.00%	18,361,889	36.6	10.6	68,007
- Plan B*	23	7.60%	0.02%	1,935,370	48.5	24.6	84,147
- Plan C*	6	7.00%	0.00%	523,282	62.3	40.2	87,214
Fire							
- Plan A	237	8.00%	8.00%	17,933,573	39.2	10.0	75,669
- Plan B*	38	7.60%	0.00%	3,480,832	51.5	26.3	91,601
Total	576	7.94%	6.88%	$ 42,381,059	39.4	12.3	$ 73,578

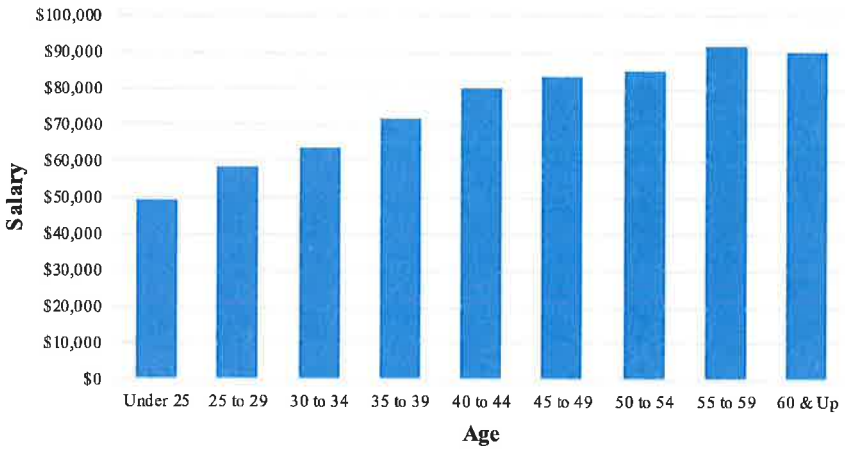
**Employee contributions stop after 21 years of service for this group, therefore the total employee contribution rate will be reduced because not all employees are contributing.*

SUMMARY OF ACTIVE MEMBERS
As of August 31, 2015

Fire

Age	Number			Annual Reported Compensation		
	Male	Female	Total	Male	Female	Total
Under 25	8	1	9	$ 396,418	$ 47,098	$ 443,516
25 to 29	20	1	21	1,169,047	55,629	1,224,676
30 to 34	44	7	51	2,768,828	474,054	3,242,882
35 to 39	49	1	50	3,512,554	67,873	3,580,427
40 to 44	47	4	51	3,785,819	289,762	4,075,581
45 to 49	41	2	43	3,421,026	155,913	3,576,939
50 to 54	37	2	39	3,115,930	187,880	3,303,810
55 to 59	7	0	7	642,944	0	642,944
60 & Up	4	0	4	359,853	0	359,853
Total	257	18	275	$ 19,172,419	$ 1,278,209	$ 20,450,628

Average Salary by Age

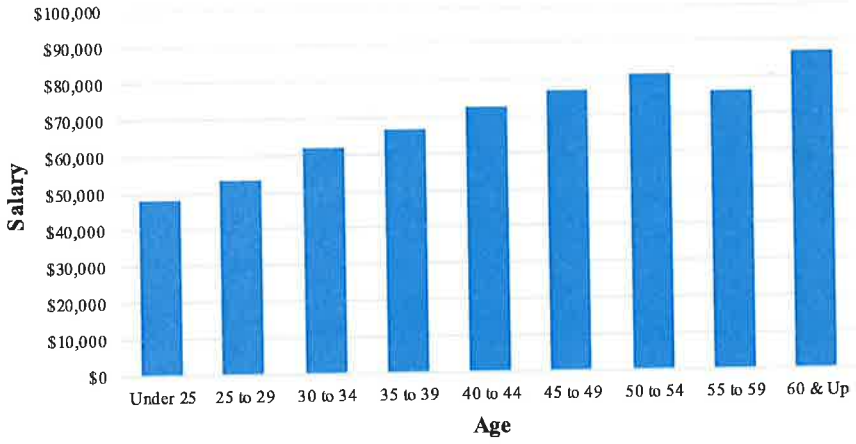


SUMMARY OF ACTIVE MEMBERS
As of August 31, 2015

Police

Age	Number			Annual Reported Compensation		
	Male	Female	Total	Male	Female	Total
Under 25	9	2	11	$ 428,231	$ 98,662	$ 526,893
25 to 29	44	10	54	2,341,801	521,372	2,863,173
30 to 34	51	8	59	3,148,288	500,315	3,648,603
35 to 39	42	8	50	2,796,950	541,742	3,338,692
40 to 44	46	9	55	3,291,581	679,514	3,971,095
45 to 49	47	5	52	3,632,321	350,546	3,982,867
50 to 54	11	1	12	899,104	70,211	969,315
55 to 59	1	2	3	71,914	155,666	227,580
60 & Up	4	1	5	319,137	114,537	433,674
Total	255	46	301	$ 16,929,327	$ 3,032,565	$ 19,961,892

Average Salary by Age

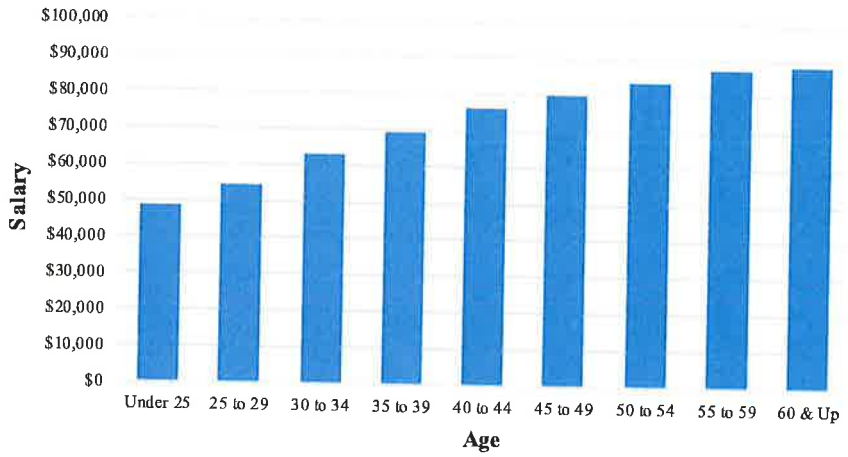


SUMMARY OF ACTIVE MEMBERS
As of August 31, 2015

Total

Age	Number			Annual Reported Compensation		
	Male	Female	Total	Male	Female	Total
Under 25	17	3	20	$ 824,649	$ 145,760	$ 970,409
25 to 29	64	11	75	3,510,848	577,001	4,087,849
30 to 34	95	15	110	5,917,116	974,369	6,891,485
35 to 39	91	9	100	6,309,504	609,615	6,919,119
40 to 44	93	13	106	7,077,400	969,276	8,046,676
45 to 49	88	7	95	7,053,347	506,459	7,559,806
50 to 54	48	3	51	4,015,034	258,091	4,273,125
55 to 59	8	2	10	714,858	155,666	870,524
60 & Up	8	1	9	678,990	114,537	793,527
Total	512	64	576	$ 36,101,746	$ 4,310,774	$ 40,412,520

Average Salary by Age

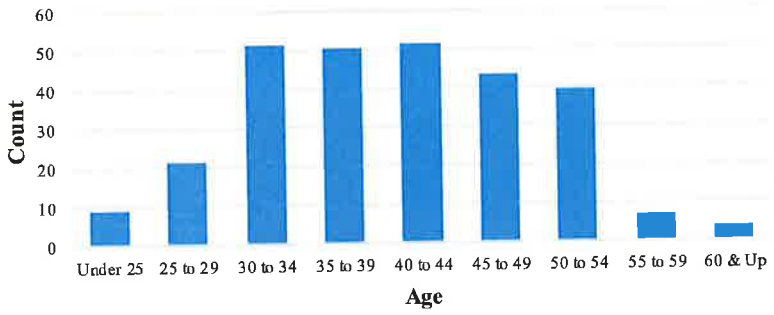


DISTRIBUTION OF ACTIVE MEMBERS
As of August 31, 2015

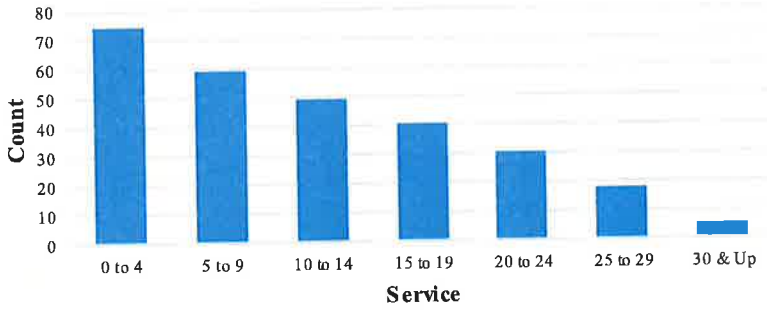
Fire

Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	Total
Under 25	9	0	0	0	0	0	0	9
25 to 29	19	2	0	0	0	0	0	21
30 to 34	28	21	2	0	0	0	0	51
35 to 39	14	17	18	1	0	0	0	50
40 to 44	2	14	15	17	3	0	0	51
45 to 49	2	3	6	12	14	6	0	43
50 to 54	0	1	7	6	12	12	1	39
55 to 59	0	1	1	3	1	0	1	7
60 & Up	0	0	0	1	0	0	3	4
Total	74	59	49	40	30	18	5	275

Age Distribution



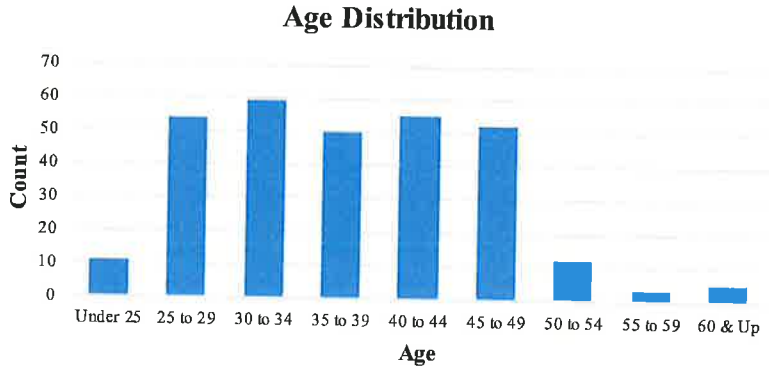
Service Distribution

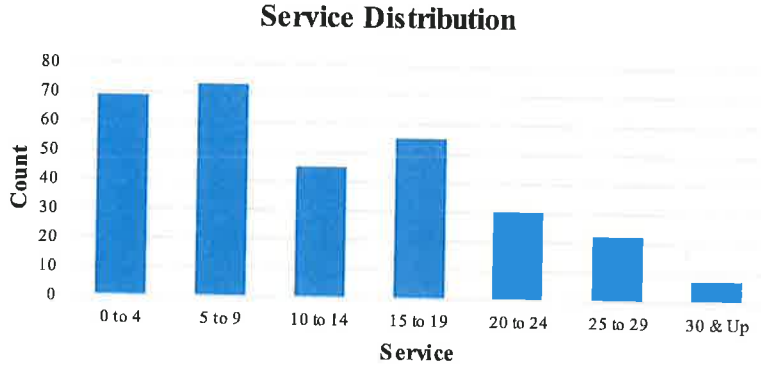


DISTRIBUTION OF ACTIVE MEMBERS
As of August 31, 2015

Police

Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	Total
Under 25	11	0	0	0	0	0	0	11
25 to 29	44	10	0	0	0	0	0	54
30 to 34	9	43	7	0	0	0	0	59
35 to 39	5	17	18	10	0	0	0	50
40 to 44	0	2	17	32	4	0	0	55
45 to 49	0	1	2	11	23	15	0	52
50 to 54	0	0	1	2	2	7	0	12
55 to 59	0	0	0	0	1	0	2	3
60 & Up	0	0	0	0	0	0	5	5
Total	69	73	45	55	30	22	7	301



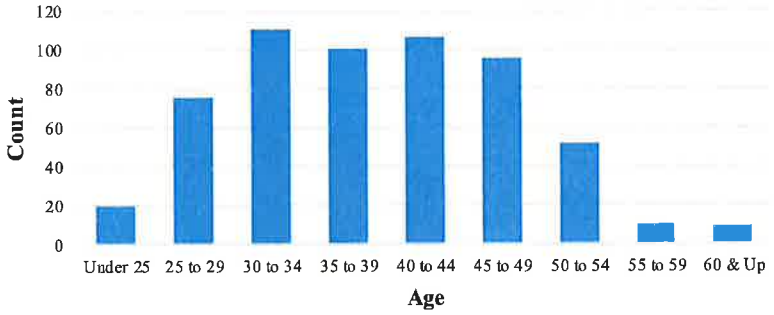


DISTRIBUTION OF ACTIVE MEMBERS
As of August 31, 2015

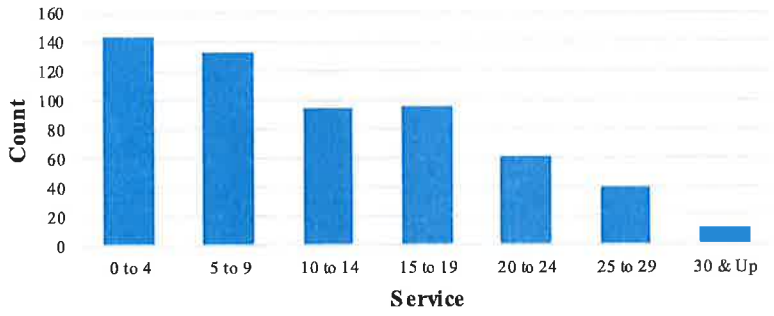
Total

Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	Total
Under 25	20	0	0	0	0	0	0	20
25 to 29	63	12	0	0	0	0	0	75
30 to 34	37	64	9	0	0	0	0	110
35 to 39	19	34	36	11	0	0	0	100
40 to 44	2	16	32	49	7	0	0	106
45 to 49	2	4	8	23	37	21	0	95
50 to 54	0	1	8	8	14	19	1	51
55 to 59	0	1	1	3	2	0	3	10
60 & Up	0	0	0	1	0	0	8	9
Total	143	132	94	95	60	40	12	576

Age Distribution



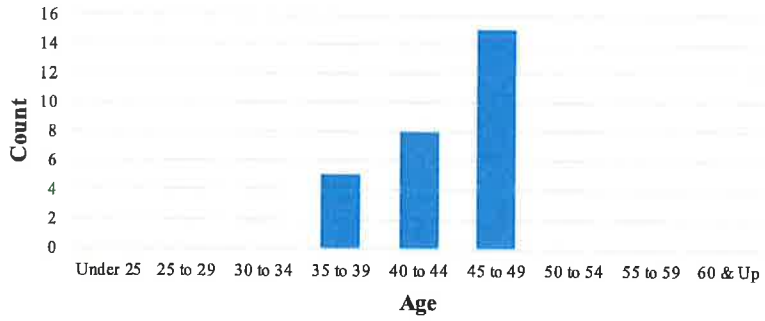
Service Distribution



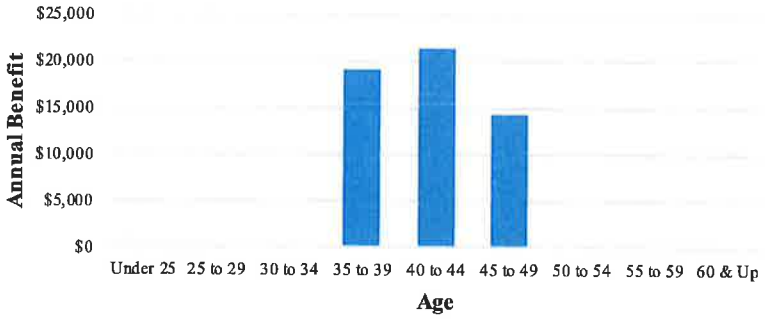
SUMMARY OF INACTIVE VESTED MEMBERS
As of August 31, 2015

Age	Number			Annual Benefit at Retirement		
	Male	Female	Total	Male	Female	Total
Under 25	0	0	0	$ 0	$ 0	$ 0
25 to 29	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0
35 to 39	4	1	5	75,521	19,521	95,042
40 to 44	7	1	8	155,780	15,225	171,005
45 to 49	8	7	15	115,623	97,171	212,794
50 to 54	0	0	0	0	0	0
55 to 59	0	0	0	0	0	0
60 & Up	0	0	0	0	0	0
Total	19	9	28	$ 346,924	$ 131,917	$ 478,841

Age Distribution



Average Benefit

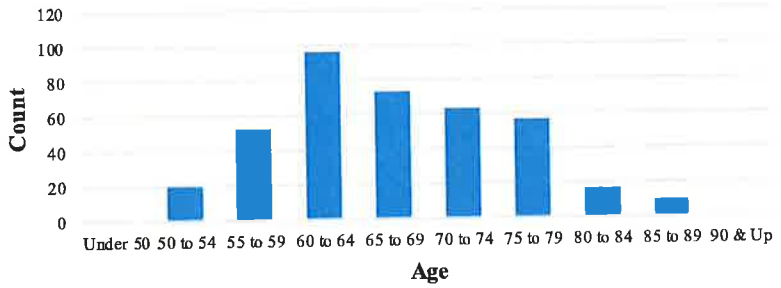


SUMMARY OF RETIRED MEMBERS
As of August 31, 2015

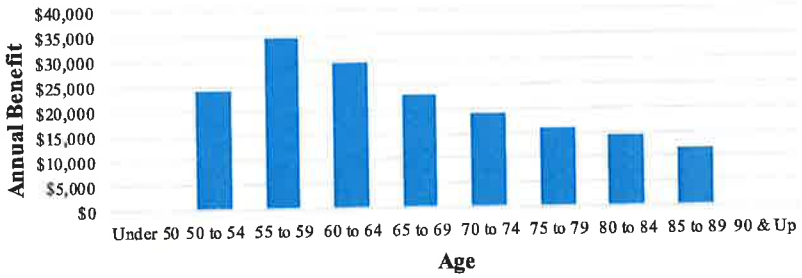
Service Retirees

Age	Number			Annual Benefit		
	Male	Female	Total	Male	Female	Total
Under 50	0	0	0	$ 0	$ 0	$ 0
50 to 54	14	5	19	367,062	85,373	452,435
55 to 59	46	6	52	1,576,855	215,867	1,792,722
60 to 64	93	3	96	2,730,418	83,062	2,813,480
65 to 69	72	1	73	1,649,568	16,250	1,665,818
70 to 74	62	1	63	1,169,536	18,178	1,187,714
75 to 79	54	2	56	868,146	24,359	892,505
80 to 84	16	0	16	230,344	0	230,344
85 to 89	9	0	9	104,463	0	104,463
90 & Up	0	0	0	0	0	0
Total	366	18	384	$ 8,696,392	$ 443,089	$ 9,139,481

Age Distribution



Average Benefit

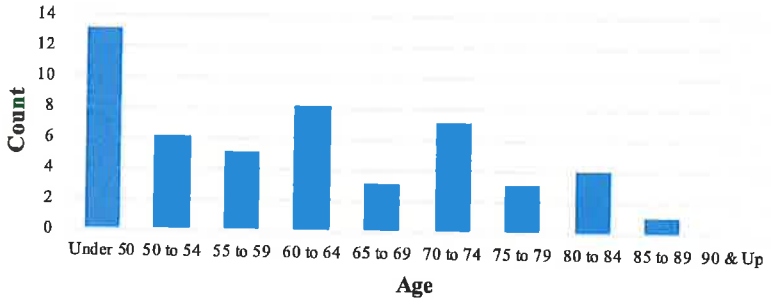


SUMMARY OF RETIRED MEMBERS
As of August 31, 2015

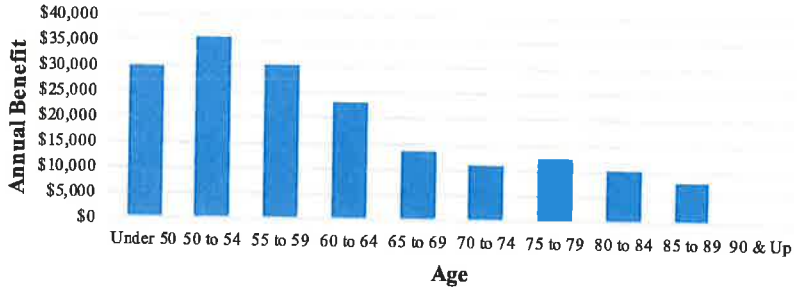
Disabled Retirees

Age	Number			Annual Benefit		
	Male	Female	Total	Male	Female	Total
Under 50	10	3	13	$ 318,954	$ 70,227	$ 389,181
50 to 54	5	1	6	195,821	18,177	213,998
55 to 59	5	0	5	151,221	0	151,221
60 to 64	7	1	8	174,809	9,812	184,621
65 to 69	3	0	3	40,408	0	40,408
70 to 74	7	0	7	76,217	0	76,217
75 to 79	3	0	3	36,772	0	36,772
80 to 84	4	0	4	41,008	0	41,008
85 to 89	1	0	1	7,983	0	7,983
90 & Up	0	0	0	0	0	0
Total	45	5	50	$ 1,043,193	$ 98,216	$ 1,141,409

Age Distribution



Average Benefit

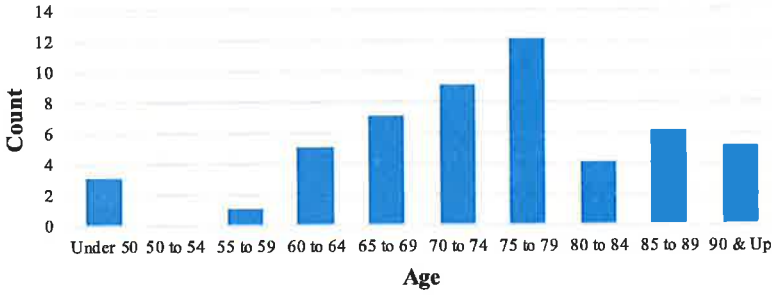


SUMMARY OF RETIRED MEMBERS
As of August 31, 2015

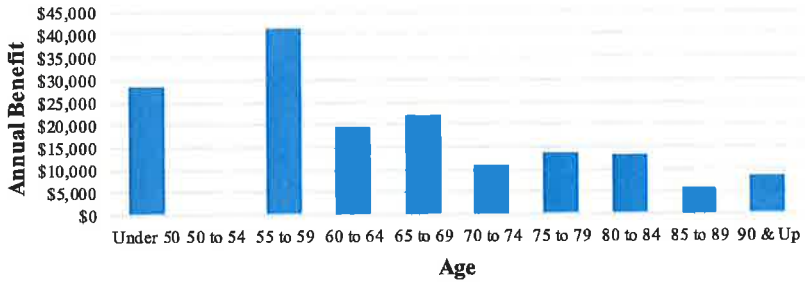
Beneficiaries

Age	Number			Annual Benefit		
	Male	Female	Total	Male	Female	Total
Under 50	1	2	3	$ 33,266	$ 52,028	$ 85,294
50 to 54	0	0	0	0	0	0
55 to 59	0	1	1	0	41,387	41,387
60 to 64	0	5	5	0	97,880	97,880
65 to 69	1	6	7	9,206	146,418	155,624
70 to 74	1	8	9	4,014	94,181	98,195
75 to 79	2	10	12	26,644	136,575	163,219
80 to 84	0	4	4	0	52,699	52,699
85 to 89	1	5	6	4,104	31,302	35,406
90 & Up	1	4	5	3,870	37,036	40,906
Total	7	45	52	$ 81,104	$ 689,506	$ 770,610

Age Distribution



Average Benefit

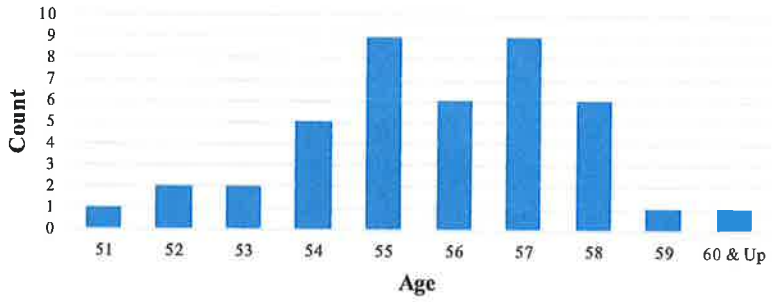


SUMMARY OF RETIRED MEMBERS
As of August 31, 2015

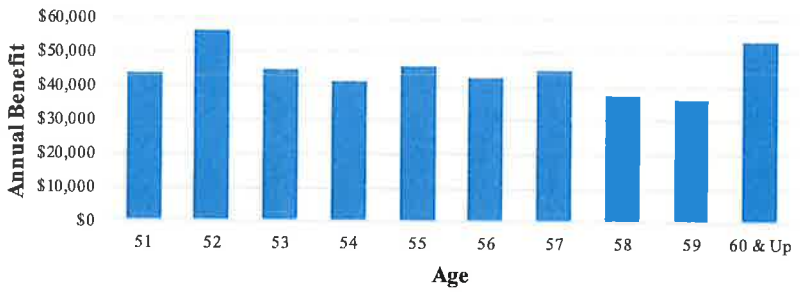
DROP Members

Age	Number			Annual Benefit		
	Male	Female	Total	Male	Female	Total
51	0	1	1	$ 0	$ 43,811	$ 43,811
52	2	0	2	112,585	0	112,585
53	2	0	2	89,807	0	89,807
54	4	1	5	158,655	48,209	206,864
55	9	0	9	414,857	0	414,857
56	5	1	6	205,741	48,087	253,828
57	8	1	9	337,472	65,933	403,405
58	6	0	6	224,335	0	224,335
59	1	0	1	36,128	0	36,128
60 & Up	1	0	1	53,342	0	53,342
Total	38	4	42	$ 1,632,922	$ 206,040	$ 1,838,962

Age Distribution



Average Benefit



APPENDIX B

SUMMARY OF BENEFIT PROVISIONS

Plan A is applicable to members who were hired on/after April 1, 1995 or who were hired prior to that date, but elected Plan A coverage.

Plan B is applicable to members who were employed on/after April 11, 1984 or who, prior to April 11, 1984, elected Plan B coverage.

Plan C is applicable to members who were employed before April 11, 1984 and did not elect to move to Plan B or A.

Regular Pay

All plans: Member's base pay and City's contributions to the Post-Employment Health Plan for the last consecutive 26 bi-weekly pay periods. In case of a demotion, or out of class pay, it shall mean the highest consecutive 26 bi-weekly pay periods.

Normal Retirement Age

Plan A:	Age 50
Plans B and C:	Age 53

Normal Retirement

Eligibility – Plan A:	Normal retirement age and 25 years of service.
Plans B and C:	Normal retirement age and 21 years of service.

Amount of Pension – Plan A: 2.56% of regular pay times years of service to a maximum of 64% of regular pay.

Plan B: 58% of regular pay with 21 years of service plus 2% of regular pay for each year of service rendered after becoming eligible for retirement to a maximum increase of 10%.

Plan C: 54% of regular pay with 21 years of service plus 2% of regular pay for each year of service rendered after becoming eligible for retirement to a maximum increase of 10%.

Early Retirement

Eligibility – All Plans: Age 50 and 21 years of service.

Amount of Pension – Plan A: 2.56% of regular pay times years of service up to a maximum of 64% of regular pay.

Plan B: 52% of regular pay plus 2% of regular pay for each year of service rendered after becoming eligible to a maximum increase of 6%.

Plan C: 48% of regular pay plus 2% of regular pay for each year of service rendered after becoming eligible to a maximum increase of 6%.

Partial Annuity

Eligibility – all plans: Normal Retirement Age and 10 years of service until eligible for early retirement.

Amount of Pension – Plan A: 2.56% of regular pay times years of service.

Plan B: 58% of regular pay with 21 years of service. Members with less than 21 years of service receive a ratio of years of service to 21 years of 58% of regular pay.

Plan C: 54% of regular pay with 21 years of service. Members with less than 21 years of service receive a ratio of years of service to 21 years of 54% of regular pay.

Deferred Annuity (Vested Termination)

Eligibility – all plans: 10 years of service.

Amount of Pension – Plan A: 2.56% of regular pay times years of service.

Plan B: 58% of regular pay with 21 years of service. Members with less than 21 years of service receive a ratio of years of service to 21 years of 58% of regular pay.

Plan C: 54% of regular pay with 21 years of service. Members with less than 21 years of service receive a ratio of years of service to 21 years of 54% of regular pay.

Duty-Related Disability

Eligibility – all plans: Permanent inability to perform the duties of position from a cause occurring while in line of duty.

Amount of Pension – Plan A: 58% of regular pay.

Plan B and C: A pension equal to 58% or 54% of regular pay respectively, plus 2% of regular pay for each year of service rendered after becoming eligible for retirement, to a maximum increase of 10% of regular pay.

Such pension shall continue after the member's death to the member's surviving spouse, until death or remarriage, minor children or designated Option A beneficiary (a reduced amount in this case). The above amounts are subject to deduction of the amount received from worker's compensation.

Non-Duty Disability

Eligibility – all plans: Permanent inability to perform duties of position from a cause not occurring in the line of duty

Amount of Pension: A pension equal to the following percent of regular pay:

Years of Service (YOS)	Plan A	Plan B	Plan C
$5 \leq YOS < 10$	23%	23%	21%
$10 \leq YOS < 15$	39%	39%	36%
$YOS \geq 15$	53%	53%	49%

Duty-Related Death

Eligibility – all plans: Active member dies in the line of duty or as a result of injuries received while in the line of duty.

Amount of Pension: Spouse beneficiary paid at Duty Related Disability rate until remarriage or death. Upon spouse's remarriage or death, dependent children paid prorate at the same rate until age 19. Non-spouse beneficiary paid at 100% survivor rate for lifetime.

The above amounts are subject to deduction of the amount received from worker's compensation.

Non-Duty Death

Eligibility – All Plans: 5 years of service.

Amount of Pension: Pension which would have been payable as a Non-Duty Disability awarded the day prior to death and elected Option A (joint & 100% survivor).

Death After Retirement – Remainder Refund

Eligibility – all plans: Employed on January 1, 1992 or hired between January 1, 1992 and March 31, 2010.

Amount of Benefit: Upon retirement, the member's balance of contributions plus accrued interest is reduced each month by a level amount equal to the member's balance divided by the expected number of payments. Once both the member and, if applicable, their joint annuitant have died, the remaining balance is paid as a lump sum to a designated beneficiary.

The expected number of monthly payments is established in the Internal Revenue Code in effect April 1, 2010 and depends on the age of the retiree at retirement, or the combined ages of the retiree and joint annuitant.

Non-Vested Termination

Eligibility – all plans: Termination of employment and no pension is or will become payable.

Amount of Benefit: Refund of member's contributions plus annual interest.

Employee Contributions

Plan A:	8.0% of pay.
Plan B:	7.6% of pay.
Plan C:	7.0% of pay.

Upon reaching 21 years of service, member contributions are discontinued for Plan B and Plan C members. Members participating in Old Plan B or Old Plan C contribute until reaching 26 years of service.

Deferred Retirement Option Plan (DROP)

Eligibility for the DROP:

Members of Plan B and C may join the DROP within 1 year of becoming eligible for normal retirement benefits as described earlier in this section.

Grandfather provision allows members of Plan B and C who were eligible to retire on the date of DROP implementation, a one-time opportunity to join the DROP.

Members of Plan A may join the DROP at any time after meeting the eligibility conditions for normal retirement.

DROP benefits:

100% of the member's accrued benefit at the time of DROP will be contributed to the member's DROP account.

If the member elects annuity withdrawal (available to members of Plans B and C) the lump sum payment and corresponding reduced annuity will be credited to the member's DROP account.

DROP funding Period:

Both the City and the employee will contribute (in accordance with the provisions of each Plan) until the employee enters the DROP. No contributions are made on the payroll of DROP members.

DROP Period:

Maximum of 5 years.

APPENDIX C

ACTUARIAL ASSUMPTIONS AND METHODS

Investment Return: 6.40% compounded annually, net of investment expenses. (effective August 31, 2015)

Inflation Rate: 2.50% compounded annually

Salary Increases: These assumptions are used to project current salaries to those upon which benefits will be based.

Sample Ages	Annual Rate of Pay Increase for Sample: Base (Economic)	Merit and Longevity	Total
20	3.0%	4.3%	7.3%
25	3.0%	3.6%	6.6%
30	3.0%	3.1%	6.1%
35	3.0%	2.8%	5.8%
40	3.0%	1.5%	4.5%
45	3.0%	1.1%	4.1%
50	3.0%	0.5%	3.5%
55	3.0%	0.5%	3.5%

Payroll Growth: 3.0% per year

Mortality:

Actives and Inactive Vested Members: RP-2000 Employees mortality table with generational mortality improvement using Scale AA.

Healthy Retirees and Beneficiaries: RP-2000 Healthy Annuitant mortality table with generational mortality improvement using Scale AA.

Disabled Retirees: RP-2000 Disabled Retiree mortality table with generational mortality improvement using Scale AA.

Termination:

Sample Ages	Years of Service	% Separating within Next Year	
		Police	Fire
ALL	0	12.00%	8.00%
	1	8.00%	6.00%
	2	7.00%	4.50%
	3	6.00%	3.00%
	4	5.00%	2.00%
25	5 & Over	4.50%	2.00%
30		4.35%	1.40%
35		3.50%	1.00%
40		2.10%	0.80%
45		1.00%	0.60%
50		0.62%	0.10%
55		0.50%	0.10%

Disability:

Sample Ages	% Becoming Disabled Within Next Year
20	0.05%
25	0.05%
30	0.06%
35	0.09%
40	0.14%
45	0.23%
50	0.40%
55	0.60%
60	0.80%

50% of assumed liabilities were assumed to be duty related and 50% were assumed to be non-duty related.

Retirement and DROP Entry:

		Rates of Retirement and/or DROP Entry			
	Old Plan	Plan A		Plan B & C	
Ages		Police	Fire	Police	Fire
50	35%	15%	10%	5%	6%
51	15%	15%	10%	5%	6%
52	15%	15%	10%	5%	6%
53	15%	25%	20%	25%	24%
54	15%	35%	20%	35%	35%
55	40%	35%	20%	35%	35%
56	15%	25%	20%	25%	18%
57	15%	10%	20%	10%	30%
58	15%	10%	20%	10%	42%
59	15%	10%	15%	10%	15%
60	100%	10%	15%	10%	15%
61	100%	10%	15%	10%	15%
62	100%	35%	35%	35%	35%
63	100%	20%	25%	20%	15%
64	100%	20%	25%	20%	15%
65	100%	100%	100%	100%	100%

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption: 100% of both males and females are assumed to be married for purposes of death-in-service benefits.

Decrement Timing: All decrements are assumed to occur mid-year.

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

Benefit Service: Exact fractional service on the decrement date is used to determine the amount of benefit payable.

Decrement Operation: Disability decrements to not operate during the first five years of service. They also do not operate during retirement eligibility.

Normal Form of Benefit: The assumed normal form of benefit is the straight life form.

Incidence of Contributions: Contributions are assumed to be received continuously throughout the applicable fiscal year based upon the contribution rate shown in this report, and the actual payroll at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.

Funding Period: Both the City and employee contribute (in accordance with the provisions of each plan) until the employee enters the DROP or otherwise exits the Plan.

ACTUARIAL METHODS

Funding Method

Under the Entry Age Normal (EAN) cost method, the actuarial present value of each member's projected benefits is allocated on a level basis over the member's compensation between the entry age of the member and the assumed exit ages. The portion of the actuarial present value allocated to the valuation year is called the normal cost. The actuarial present value of benefits allocated to prior years of service is called the actuarial accrued liability. The unfunded actuarial accrued liability (UAAL) represents the difference between the actuarial accrued liability and the actuarial value of assets as of the valuation date. The unfunded actuarial accrued liability is calculated each year and reflects experience gains/losses.

The UAAL is amortized as a level percentage of payroll. The payroll growth assumption is 3.00% so the annual amortization payments are expected to increase 3.00% each year because the UAAL is amortized over a closed 30-year period. There are 29 years remaining as of the August 31, 2015 valuation.

Asset Valuation Method

The actuarial value of assets is based on a five-year smoothing method and is determined by spreading the effect of each year's investment return in excess of or below the expected return. The Market Value of assets as of the valuation date is reduced by the sum of the following:

i. 80% of the return to be spread during the first year preceding the valuation date,
ii. 60% of the return to be spread during the second year preceding the valuation date,
iii. 40% of the return to be spread during the third year preceding the valuation date, and
iv. 20% of the return to be spread during the fourth year preceding the valuation date.

The return to be spread is the difference between (1) the actual investment return on Market Value and (2) the expected return on Actuarial Value.

APPENDIX D

GLOSSARY OF TERMS

Actuarial Accrued Liability — The difference between the actuarial present value of Plan benefits and the actuarial value of future normal costs. Also referred to as "accrued liability" or "actuarial liability".

Actuarial Assumptions — Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover, and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Accrued Service — Service credited under the Plan which was rendered before the date of the actuarial valuation.

Actuarial Equivalent — A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate assumptions.

Actuarial Cost Method — A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement Plan benefit between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding method".

Experience Gain (Loss) — The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.

Actuarial Present Value — The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.

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

Normal Cost	The actuarial present value of retirement Plan benefits allocated to the current year by the actuarial cost method.
Unfunded Actuarial Accrued Liability	The difference between actuarial accrued liability and the valuation assets. Sometimes referred to as "unfunded actuarial liability" or "unfunded accrued liability". Most retirement Plans have an unfunded actuarial accrued liability. They arise each time new benefits are added and each time an actuarial loss is realized.

Five Year Experience Study
For period ending August 31, 2014

City of Lincoln Police and Fire Pension Fund

October 2015

Prepared by:

Milliman, Inc.
1120 South 101st Street, Suite 400
Omaha, NE 68124

TABLE OF CONTENTS

This work product was prepared solely for the City of Lincoln Police and Fire Pension Fund for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

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October 14, 2015

The City Council
City of Lincoln
555 South 10th Street, Room 201
Lincoln, NE 68508

Re: City of Lincoln Police and Fire Pension Fund

Dear Council Members:

It is a pleasure to submit this report of our investigation of the experience of the City of Lincoln Police and Fire Pension Fund (Pension Fund) for the period of September 1, 2010 through August 31, 2014.

The purpose of this report is to communicate the results of our review of the actuarial methods and the economic and demographic assumptions that were used in the completion of the August 31, 2014 actuarial valuation report. A few of our recommendations represent changes from the prior assumptions, and are designed to better anticipate the emerging experience of the Plan. Actual future experience, however, may differ from these assumptions.

In preparing this report, we relied without audit on information supplied by City of Lincoln staff. In our examination, we have found the data to be reasonably consistent and comparable with data used for other purposes. It should be noted that if any data or other information is inaccurate or incomplete, our calculations might need to be revised. We would like to acknowledge the help given by City of Lincoln staff in the preparation of this report.

We hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

We further certify that the assumptions developed in this report satisfy ASB Standards of Practice, in particular, No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations* and No. 35, *Selection of Demographic and Other Non-economic Assumptions for Measuring Pension Obligations*.

Milliman has been engaged by the City of Lincoln as an independent actuary. Any distribution of this report must be in its entirety, including this cover letter, unless prior written consent is obtained from Milliman.

Milliman's work product was prepared exclusively for the use or benefit of City of Lincoln and the City of Lincoln Police and Fire Pension Fund for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning Pension Fund operations, and uses the Pension Fund's data, which Milliman has not audited. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

We look forward to our discussions and the opportunity to respond to your questions and comments.

I, Gregg Rueschhoff, am a member of the American Academy of Actuaries, an Enrolled Actuary and an Associate of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Gregg Rueschhoff, ASA, EA, MAAA
Principal & Consulting Actuary

Section 1

Introduction

The purpose of an actuarial valuation is to provide a timely best estimate of the ultimate costs of a retirement system. Actuarial valuations of the City of Lincoln Police and Fire Pension Fund historically have been prepared annually to determine the actuarial contribution rate to fund the Pension Fund on an actuarial reserve basis, i.e. the current assets plus future contributions, along with investment earnings will be sufficient to provide the benefits promised by the Pension Fund. The valuation requires the use of certain assumptions with respect to the occurrence of future events, such as rates of death, termination of employment, retirement age and salary changes to estimate the obligations of the Pension Fund.

The basic purpose of an experience study is to determine whether the actuarial assumptions currently in use have accurately predicted actual emerging experience. This information, along with the professional judgment of Pension Fund personnel and advisors, is used to evaluate the appropriateness of continued use of the current actuarial assumptions. When analyzing experience and assumptions, it is important to realize that actual experience is reported short term while assumptions are intended to be long term estimates of experience.

At the request of the City of Lincoln, Milliman, Inc. performed a study of the experience of the City of Lincoln Police and Fire Pension Fund, during the period September 1, 2009 through August 31, 2014. This report presents the results and recommendations of our study, which were implemented in our August 31, 2014 Actuarial Valuation Report for the Plan.

These assumptions have been developed in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the applicable Standards of Practice adopted by the Actuarial Standards Board of the American Academy of Actuaries.

SCOPE OF THIS REPORT

The actuarial valuation utilizes various actuarial methods and two different types of assumptions: economic and demographic. Economic assumptions are related to the general economy and its impact on City of Lincoln Police and Fire Pension Fund. Demographic assumptions are based on the emergence of the specific experience of City of Lincoln Police and Fire Pension Fund members.

Section 2
Executive Summary

This is the first in depth Experience Study that Milliman, Inc. has performed for the Pension Fund. The setting of assumptions is as much art as science. It involves subjective judgment, especially for economic assumptions. A great deal of the final recommendations of assumptions rests with the actuarial judgment of the actuary. Since this is the first time actual experience has been studied, it can be expected that a number of changes in assumptions may occur.

The following changes are recommended and were included in the preparation of the August 31, 2014 actuarial valuation report:

1) Expected future investment returns have been reduced from 7.50% to 6.75% compounded annually.

2) Assumed salary increase rates have been reduced as shown in Appendix A.

3) Mortality tables have been updated to the RP2000 Mortality table with generational improvement.

4) Assumed rates of retirement have been updated as shown in Appendix A.

5) The payroll growth assumption has been reduced from 4.25% to 3.00%.

Financial Impact

The estimated financial impact of these changes, based on results of the August 31, 2014 actuarial valuation, is summarized below.

	August 31, 2014 Results			
	Before Changes		After Changes	
	Actuarial Value of Assets	Market Value of Assets	After Change[1]	% Change
Actuarial Liability	$240.2	$240.2	$262.9	9.5%
Asset Value	174.6	184.8	174.6	
Unfunded Actuarial Liability	65.6	55.4	88.3	34.6%
Funded Ratio	73%	77%	66%	
Normal Cost Rate	19.15%	19.15%	18.33%	-4.3%
UAL Contribution Rate	9.03%	7.63%	12.86%	
Total Actuarial Contribution Rate	28.18%	26.78%	31.19%	
Member Contribution Rate	(6.75%)	(6.75%)	(6.75%)	
ER Actuarial Contribution Rate	21.43%	20.03%	24.44%	14.0%

[1] Based on Actuarial Value of Assets

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Section 3

Economic Assumptions

Actuarial Standard of Practice (ASOP) No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations* provides guidance to actuaries giving advice on the selection of economic assumptions for measuring obligations under defined benefit plans, such as City of Lincoln Police and Fire Pension Fund. Because no one knows what the future holds, the best an actuary can do is to use professional judgment to estimate possible future economic outcomes. These estimates are based on a mixture of past experience, future expectations, and professional judgment. The actuary should consider a number of factors, including the purpose and nature of the measurement, and appropriate recent and long-term historical economic data. However, the standard explicitly advises the actuary not to give undue weight to recent experience.

Recognizing that there is not one "right answer", the standard calls for the actuary to develop a best estimate range for each economic assumption, and then recommend a specific point within that range. Each economic assumption should individually satisfy this standard. Furthermore, with respect to any particular valuation, each economic assumption should be consistent with all other economic assumptions over the measurement period.

An actuary's best-estimate range with respect to a particular measurement of pension obligations may change from time to time due to changing conditions or emerging plan experiences. The actuary may change assumptions frequently in certain situations, even if the best-estimate range has not changed materially, and less frequently in other situations. Even if assumptions are not changed, the actuary needs to be satisfied that each of the economic assumptions selected for a particular measurement complies with the Actuarial Standard of Practice No. 27.

The remaining section of this report will address the relevant types of economic assumptions used in the actuarial valuation to determine the obligations of City of Lincoln Police and Fire Pension Fund. In our opinion, the economic assumptions recommended in this report have been developed in accordance with ASOP No. 27. Based on our review and this study, we believe the recommended economic assumptions reflect a reasonable set of assumptions. The following table summarizes the economic assumptions:

	Current Assumptions	Recommended Assumptions
A. Investment Return	7.50%	6.75%
B. Payroll Growth	4.25%	3.0%

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INVESTMENT RETURN

Use In The Valuation: The investment return assumption is one of the primary determinants in the allocation of the expected cost of the Pension Fund's benefits, providing a discount of the estimated future benefit payments to reflect the time value of money. The valuation interest rate should represent the long-term rate of return on the actuarial value of assets, considering the fund's asset allocation policy, expected long term real rates of return on the specific asset classes, the underlying inflation rate, and investment and administrative expenses.

The current assumption for investment return is 7.5% per year net of administrative expenses. The 7.5% rate of return is referred to as the nominal rate of return and is composed of two components. The first component is inflation. Any excess return over inflation is referred to as the real rate of return.

The Actuarial Standards Board Statement on selecting economic assumptions, referred to earlier, lists specific factors that can be considered in constructing the best-estimate investment return range and/or selecting an investment return assumption within the range. Such factors are:

1. **The purpose of the measurement.** The measurement of obligations for an ongoing plan will differ from those of a terminating or frozen plan. An ongoing plan such as City of Lincoln Police and Fire Pension Fund may reflect a longer time horizon and a more diversified investment portfolio.

   For a governmental plan, benefit security is tied to the funding agency's ability to provide the required funding. Since all governmental funding sources are ultimately some type of tax, the funding of the retirement system is dependent on the ability to increase or decrease allocated tax revenues to the system. Given the normal processes, it is much easier to lower the required funding allocations than to increase it, as it is easy enough to either lower the tax income or reallocate it to another need. A primary funding goal of most governmental plans is a stable contribution rate so that the budgeting and allocation of tax revenues are not subject to a great deal of fluctuations.

   It is reasonable, when setting actuarial assumptions for a governmental plan to consider the impact not only on its membership, but on the taxpayers, and the agency's ability to provide sufficient income to maintain and secure a stable funding for the benefit security of the membership. This is sometimes reflected in a more conservative approach, as experience gains are more easily absorbed into the funding than are experience losses which may result in a required increase in funding.

2. **Investment policy.** This usually refers to the plan's current asset allocation, the types of securities the system is eligible to invest in, and the target allocation, if different. It may also reflect the investment philosophy regarding risk tolerance and social investing.

3. **Reinvestment Risk**. This should reflect the reinvestment of moneys not immediately required to pay plan benefits.

4. **Investment Volatility.** If a system is required to liquidate assets at depressed values to meet benefit obligations, a higher risk is present. Also some assets carry a higher default risk. We do not believe this is a significant factor for City of Lincoln Police and Fire Pension Fund.

5. **Investment Manager Performance.** Few investment managers consistently out perform the market. Those who consistently under perform may be replaced. We do not believe this is a significant factor to consider for City of Lincoln Police and Fire Pension Fund.

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6. **Administrative Expenses.** Investment returns are assumed both with and without expenses. Actual expenses are measured periodically and taken into account when setting the City of Lincoln Police and Fire Pension Fund investment assumption.

7. **Cash Flow Timing.** The expected stream of contributions and benefit payments may affect the liquidity of a plan's investment opportunities. Currently, benefit payments exceed contributions. This is likely to continue in the foreseeable future and the difference will grow. The impact of this item may become more significant over time.

8. **Benefit Volatility.** This is a consideration for small plans, plans with full lump sum payment options and supplemental benefits. The concern with these factors is a need to liquidate securities at depressed values. We do not expect benefit volatility to be a factor in considering the City of Lincoln Police and Fire Pension Fund investment return assumption.

Historical Perspective: Based on City of Lincoln Police and Fire Pension Fund's current target asset allocation and estimated real rates of return set by this independent investment consultant, the nominal expected rate of return (ignoring expenses) is 7.73%. This value is developed based on the following capital market assumptions:

Asset Category	Asset Allocation	Expected Real Rate of Return
Cash and Accrued Interest & Dividends	1.0%	-1.50%
Alternate Investments	31.0%	5.06%
Core Fixed Income	21.6%	1.32%
Core Equity	46.4%	7.31%
Total	100.0%	
	Portfolio Real Mean Return:	5.23%
	Plus Assumed Inflation Rate:	2.50%
	Portfolio Arithmetic Mean Return:	7.73%

Based on the capital market assumptions outlined above, the expected rate of return before reduction for administrative expenses and before further reductions for funds transferred to the COLA pool is 7.73%.

Administrative Expenses

The investment return is assumed to be net of administrative expenses. The table below shows the ratio of administrative expenses to assets over the last five years. The expense ratio is calculated as the total expenses divided by the beginning asset balance.

	Administrative Expenses	Market Value Assets ($M) BOY	Administrative Exp Ratio
2010	$.228	$148.6	.15%
2011	.324	149.6	.22%
2012	.281	163.3	.17%
2013	.371	168.9	.22%
2014	.407	185.8	.22%

Based on this data, it seems reasonable to assume that administrative expenses represent about 0.22% of the Pension Fund's assets.

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COLA Pool Transfers: In September of each year, eligible retired members will receive a "13th Check" payable from funds set aside referred to in this report as the "COLA Pool". The 13th Check payments are made from the COLA Pool, which is invested with other pension assets. The COLA Pool is funded by the earnings differential between the pension fund's market value rate of return and the actuarially assumed rate of return, multiplied by a ratio of retirant and beneficiary liability over total liability. All such annual additions to the pool plus earnings applicable to the amount allocated to the pool constitute the pool. The market value of the 13th Check COLA pool as of August 31, 2014 was $28,508,053.

The net effect of these transfers from the Pension Fund to the COLA Pool is effectively a reduction in the realized rate of return on Pension Fund Assets. Based on a review of historical transfers to the COLA Pool it can be expected that the long term annual rate of return on the Pension Fund assets will be reduced by approximately .75% to reflect the transfers to the COLA pool.

We recommend that the net investment return assumption be reduced from 7.5% to 6.75%. As we discussed earlier, we can expect an annual gross rate of return of 7.73% based on the analysis of the independent investment adviser. If we subtract .22% for administrative expenses and .75% to reflect the anticipated COLA Pool transfers, we get to about 6.75% as a reasonable rate of return assumption.

PAYROLL GROWTH

Use in the Valuation: Estimates of future salaries are based on two types of assumptions. Rates of increase in the general wage level of the membership are directly related to inflation while individual salary increases due to promotion and longevity (referred to as the merit scale) occur even in the absence of inflation. The merit scale will be reviewed with the other demographic assumptions.

As part of determining the Pension Fund's funding, the payment on the unfunded actuarial liability is determined, based on amortization payments developed as a level percent of payroll. The general wage increase assumption is used to project covered payroll in future years which determines the amortization payment of the UAL.

The current wage growth assumption is 4.25% per year. Significant reductions in inflation rates and general expectations of future merit increase have occurred since the last time this assumption was changed. **We recommend the future wage growth assumption be reduced to 3.0%.**

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Section 4

Demographic Assumptions

Actuarial Standard of Practice (ASOP) No. 35 Selection of Demographic Assumptions governs the selection of demographic and other non-economic assumptions for measuring pension obligations. ASOP 35 states that the actuary should use professional judgment to estimate possible future outcomes based on past experience and future expectations, and select assumptions based upon application of that professional judgment. The actuary should select reasonable demographic assumptions in light of the particular characteristics of the defined benefit plan that is the subject of the measurement. A reasonable assumption is one that is expected to appropriately model the contingency being measured and is not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

ASOP 35 General Considerations and Application

Each individual demographic assumption should satisfy the criteria of ASOP 35. In selecting demographic assumptions the actuary should also consider: the internal consistency between the assumptions, materiality, cost effectiveness, and the combined effect of all assumptions. At each measurement date the actuary should consider whether the selected assumptions continue to be reasonable, but the actuary is not required to do a complete assumption study at each measurement date. In our opinion, the demographic assumptions recommended in this report have been developed in accordance with ASOP 35.

Overview of Analysis

The purpose of a study of demographic experience is to compare what actually happened to the individual members of the Plan during the study period (September 1, 2009 to August 31, 2014) with what was expected to happen based on the actuarial assumptions. Five years is a relatively short observation period for plan experience so professional judgment must be used to evaluate the credibility of the observed data and the extent to which it is reflected in the final assumptions. In addition, it takes a fair amount of data to perform a credible study of demographic assumptions. Because the number of participants in this Plan is relatively small, judgment must be used to determine how much credibility to assign to the experience.

In general, if the actual experience differs significantly from the overall expected results, or if the pattern of actual decrements, or rates of decrement, by age, sex, or duration deviates significantly from the expected pattern, new assumptions are considered. Recommended revisions are normally not an exact representation of the experience during the observation period. Judgment is required to predict future experience from past trends and current evidence, including a determination of the amount of weight to assign to the most recent experience.

Revised rates of decrement are tested by using them to recalculate the expected number of decrements during the study period, and the results are shown as revised A/E Ratios.

Salary adjustments, other than the economic assumption for wage inflation, are treated as demographic assumptions. However, the method of investigation needed for salaries is different from that used for the decrements.

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Section 5

Mortality

One of the most important demographic assumptions is mortality because this assumption predicts when retirement payments will stop. The life expectancies of current and future retirees are predicated on the assumed rates of mortality at each age. It is commonly known that rates of mortality have been declining throughout this century, which means people, in general, are living longer.

The valuation currently uses separate mortality assumptions for male and female members. The 1994 Group Annuity Mortality Table set forward two years for males and one year for females is used to predict the probability of death.

Due to the size of the study population and the scope of this project, rates of mortality among retirees and City employees were not studied in detail. As we discussed with City staff, we believe that a newer mortality table would be appropriate for use in the annual valuation of the Pension Fund. We recommend the RP2000 Mortality Table with Scale AA full generational improvement projection scale.

Summary of Life Expectancies under the Current and Proposed Tables

	Future Life Expectancy (Years)				
	Men			Women	
Sample Ages	Current[1]	Proposed[2]		Current[1]	Proposed[2]
55	24.43	29.23		29.28	30.71
60	20.23	24.29		24.74	25.93
65	16.41	19.68		20.50	21.44
70	13.02	15.48		16.58	17.32
75	10.00	11.68		12.94	13.59
80	7.48	8.45		9.76	10.28

[1] Current table – The 1994 Group Annuity Mortality Table set forward two years for males and 1 year for females.

[2] Proposed table – RP2000 mortality table w/Scale AA full generational improvement projection scale.

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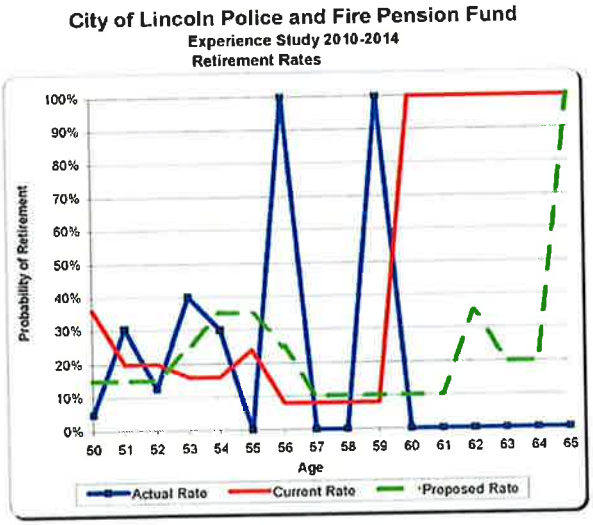
Section 6

Retirement

Service retirement measures the change in status from active membership directly to retirement. The following charts show the results of the retirement rates analysis for the period 2010 through 2014.

PLAN A - POLICE

Age	Exp	Actual Retmnts	Police or Fire Plan Actual Rate	P A Current Rate	Proposed Rate
			Actual Rat	urrent Ra	oposed Rate
50	20	1	5.0%	36.00%	15.00%
51	23	7	30.4%	20.00%	15.00%
52	16	2	12.5%	20.00%	15.00%
53	15	6	40.0%	16.00%	25.00%
54	10	3	30.0%	16.00%	35.00%
55	6	-	0.0%	24.00%	35.00%
56	6	6	100.0%	8.00%	25.00%
57	-	-	0.0%	8.00%	10.00%
58	1	-	0.0%	8.00%	10.00%
59	1	1	100.0%	8.00%	10.00%
60	-	-	0.0%	100.00%	10.00%
61	-	-	0.0%	100.00%	10.00%
62	-	-	0.0%	100.00%	35.00%
63	-	-	0.0%	100.00%	20.00%
64	-	-	0.0%	100.00%	20.00%
65	-	-	0.0%	100.00%	100.00%
66	-	-	0.0%	100.00%	100.00%
67	-	-	0.0%	100.00%	100.00%
68	-	-	0.0%	100.00%	100.00%
69	-	-	0.0%	100.00%	100.00%
70	-	-	0.0%	100.00%	100.00%
71	-	-	0.0%	100.00%	100.00%
72	-	-	0.0%	100.00%	100.00%
73	-	-	0.0%	100.00%	100.00%
74	-	-	0.0%	100.00%	100.00%
75	-	-	0.0%	100.00%	100.00%
76	-	-	0.0%	100.00%	100.00%
77	-	-	0.0%	100.00%	100.00%
78	-	-	0.0%	100.00%	100.00%
79	-	-	0.0%	100.00%	100.00%
80	-	-	0.0%	100.00%	100.00%
	98	26			



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Total Count	26	21	20
Actual/Expected		124%	130%

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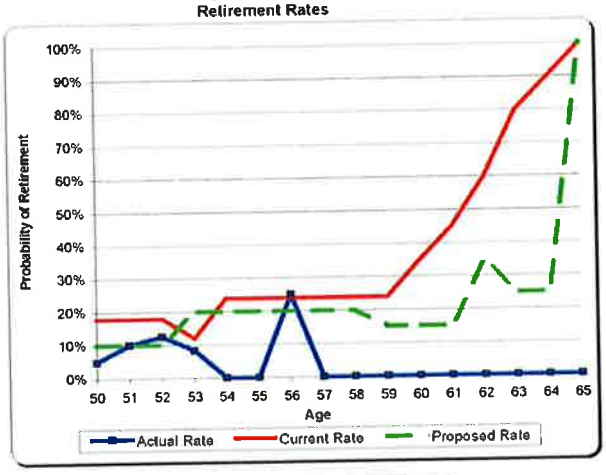
PLAN A - FIRE

Age	Exp	Actual Retmnts	Police or Fire Plan Actual Rate	F A Current Rate	Proposed Rate
			Actual Rat	urrent Ra	oposed Rate
50	20	1	5.0%	18.00%	10.00%
51	20	2	10.0%	18.00%	10.00%
52	16	2	12.5%	18.00%	10.00%
53	12	1	8.3%	12.00%	20.00%
54	6	-	0.0%	24.00%	20.00%
55	5	-	0.0%	24.00%	20.00%
56	4	1	25.0%	24.00%	20.00%
57	1	-	0.0%	24.00%	20.00%
58	1	-	0.0%	24.00%	20.00%
59	1	-	0.0%	24.00%	15.00%
60	1	-	0.0%	35.00%	15.00%
61	1	-	0.0%	45.00%	15.00%
62	1	-	0.0%	60.00%	35.00%
63	-	-	0.0%	80.00%	25.00%
64	-	-	0.0%	90.00%	25.00%
65	-	-	0.0%	100.00%	100.00%
66	-	-	0.0%	100.00%	100.00%
67	-	-	0.0%	100.00%	100.00%
68	-	-	0.0%	100.00%	100.00%
69	-	-	0.0%	100.00%	100.00%
70	-	-	0.0%	100.00%	100.00%
71	-	-	0.0%	100.00%	100.00%
72	-	-	0.0%	100.00%	100.00%
73	-	-	0.0%	100.00%	100.00%
74	-	-	0.0%	100.00%	100.00%
75	-	-	0.0%	100.00%	100.00%
76	-	-	0.0%	100.00%	100.00%
77	-	-	0.0%	100.00%	100.00%
78	-	-	0.0%	100.00%	100.00%
79	-	-	0.0%	100.00%	100.00%
80	-	-	0.0%	100.00%	100.00%
	89	7			



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Total Count	7	17	12
Actual/Expected		41%	58%

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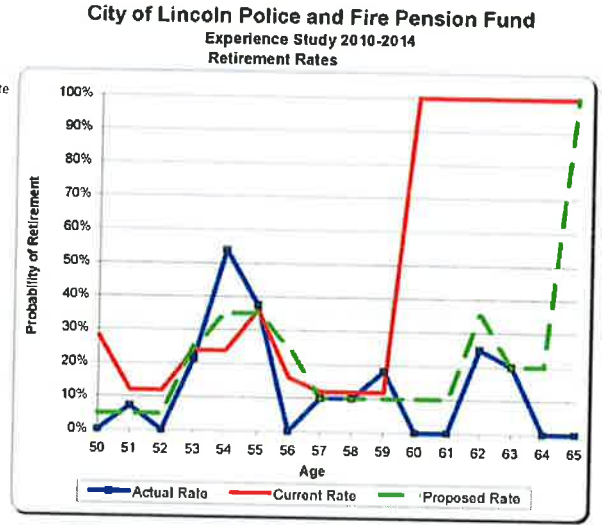
OLD PLAN, PLANS B & C POLICE

Age	Exp	Actual Retmnts	Actual Rate	Current Rate	Proposed Rate
			Actual Rat	urrent Rat	oposed Rate
50	12	-	0.0%	26.00%	5.00%
51	14	1	7.1%	12.00%	5.00%
52	12	-	0.0%	12.00%	5.00%
53	14	3	21.4%	24.00%	25.00%
54	13	7	53.8%	24.00%	35.00%
55	8	3	37.5%	36.00%	35.00%
56	7	-	0.0%	16.00%	25.00%
57	10	1	10.0%	12.00%	10.00%
58	10	1	10.0%	12.00%	10.00%
59	11	2	18.2%	12.00%	10.00%
60	10	-	0.0%	100.00%	10.00%
61	9	-	0.0%	100.00%	10.00%
62	8	2	25.0%	100.00%	35.00%
63	5	1	20.0%	100.00%	20.00%
64	4	-	0.0%	100.00%	20.00%
65	3	-	0.0%	100.00%	100.00%
66	1	-	0.0%	100.00%	100.00%
67	1	1	100.0%	100.00%	100.00%
68	-	-	0.0%	100.00%	100.00%
69	-	-	0.0%	100.00%	100.00%
70	-	-	0.0%	100.00%	100.00%
71	-	-	0.0%	100.00%	100.00%
72	-	-	0.0%	100.00%	100.00%
73	-	-	0.0%	100.00%	100.00%
74	-	-	0.0%	100.00%	100.00%
75	-	-	0.0%	100.00%	100.00%
76	-	-	0.0%	100.00%	100.00%
77	-	-	0.0%	100.00%	100.00%
78	-	-	0.0%	100.00%	100.00%
79	-	-	0.0%	100.00%	100.00%
80	-	-	0.0%	100.00%	100.00%
	152	22			

Police or Fire P
Plan <>A



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Total Count	21	60	27
Actual/Expected		35%	78%

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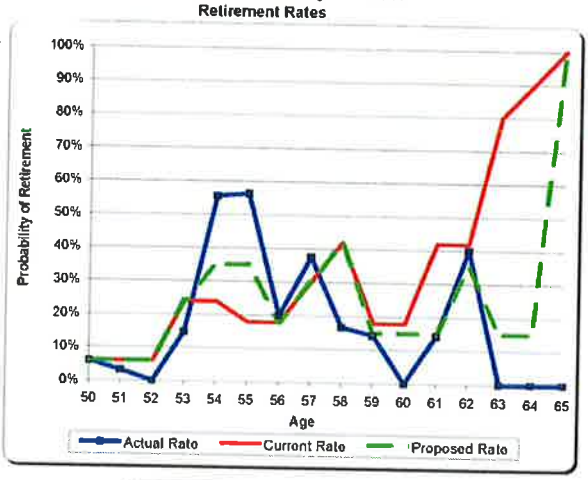
OLD PLAN, PLANS B & C FIRE

Age	Exp	Actual Retmnts	Actual Rate	Current Rate	Proposed Rate
			Actual Rat	urrent Rat	oposed Rate
50	34	2	5.9%	6.00%	6.00%
51	32	1	3.1%	6.00%	6.00%
52	35	-	0.0%	6.00%	6.00%
53	34	5	14.7%	24.00%	24.00%
54	36	20	55.6%	24.00%	35.00%
55	16	9	56.3%	18.00%	35.00%
56	10	2	20.0%	18.00%	18.00%
57	8	3	37.5%	30.00%	30.00%
58	6	1	16.7%	42.00%	42.00%
59	7	1	14.3%	18.00%	15.00%
60	6	-	0.0%	18.00%	15.00%
61	7	1	14.3%	42.00%	15.00%
62	5	2	40.0%	42.00%	35.00%
63	2	-	0.0%	60.00%	15.00%
64	1	-	0.0%	90.00%	15.00%
65	-	-	0.0%	100.00%	100.00%
66	-	-	0.0%	100.00%	100.00%
67	-	-	0.0%	100.00%	100.00%
68	-	-	0.0%	100.00%	100.00%
69	-	-	0.0%	100.00%	100.00%
70	-	-	0.0%	100.00%	100.00%
71	-	-	0.0%	100.00%	100.00%
72	-	-	0.0%	100.00%	100.00%
73	-	-	0.0%	100.00%	100.00%
74	-	-	0.0%	100.00%	100.00%
75	-	-	0.0%	100.00%	100.00%
76	-	-	0.0%	100.00%	100.00%
77	-	-	0.0%	100.00%	100.00%
78	-	-	0.0%	100.00%	100.00%
79	-	-	0.0%	100.00%	100.00%
80	-	-	0.0%	100.00%	100.00%
	239	47			

Police or Fire F
Plan <>A



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Total Count	47	42	44
Actual/Expected		112%	107%

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Based on our analysis, we recommend a change to the retirement rates as summarized on the last page of Appendix A.

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Section 7
Merit Salary Scale

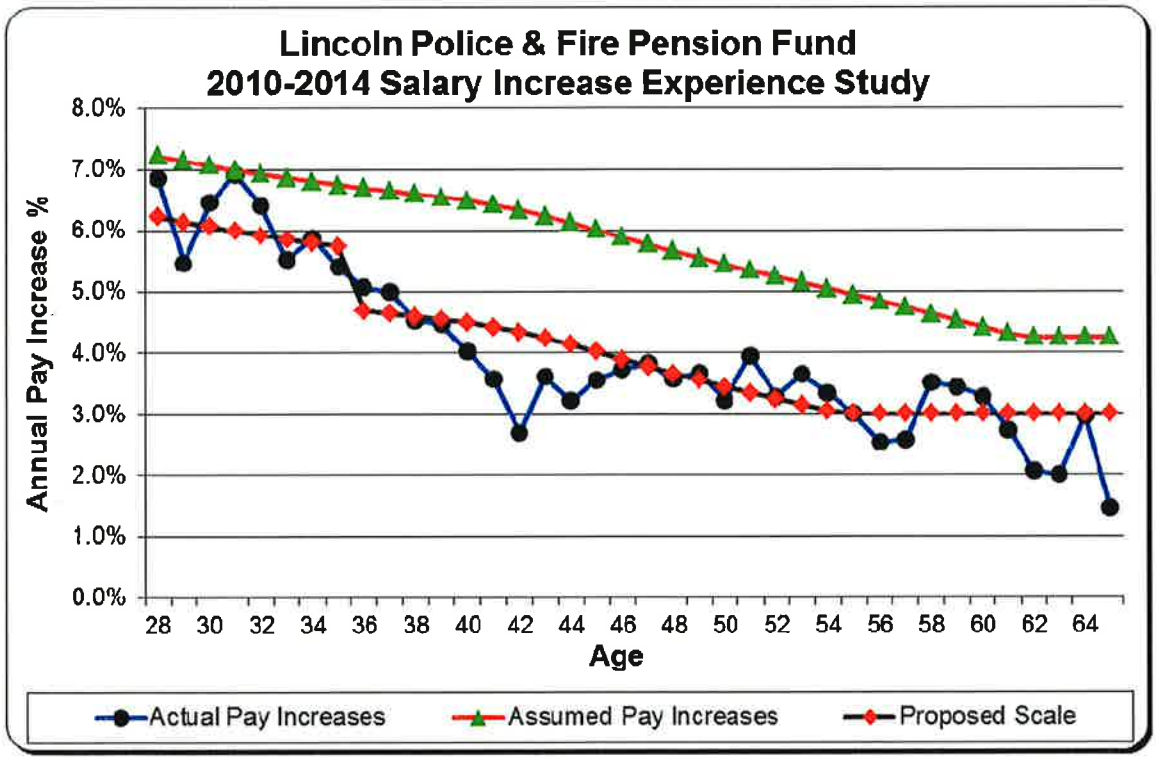
Estimates of future salaries are based on assumptions for two types of increases:

1. Increases in each individual's salary due to promotion or longevity (often called merit scale), and

2. Increases in the general wage level of the membership, which are directly related to price and wage inflation.

Although future salary increases are the result of two components, it is difficult, if not impossible, to distinguish the true salary adjustments due to inflation, productivity and merit. Therefore, the experience study reviewed total salary increases for the period. Typically, the percentage attributable to general wage growth is eliminated in an attempt to isolate the merit scale. The general wage growth for the period is usually identified by reviewing actual salary increases by duration (years of service). Those members with a high number of years of service are assumed to have a reduced merit scale applied. Therefore, most all of their salary increase is assumed attributable to increases in the general wage level.

We compared individual salary increases for all members active in any two consecutive periods (e.g. 2010, 2011, 2012 and 2013, etc.). The overall combined results for the five years studied are shown in the chart below:



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Based on the analysis, we recommend the following changes to the Salary Increase Assumption.

Sample Ages	Current Annual Rate of Pay Increase Assumption			Proposed Change
	Base (Economic)	Merit and Longevity	Total	
20	4.25%	4.00%	8.25%	7.25%
25	4.25%	3.30%	7.55%	6.55%
30	4.25%	2.80%	7.05%	6.05%
35	4.25%	2.50%	6.75%	5.75%
40	4.25%	2.20%	6.45%	4.45%
45	4.25%	1.80%	6.05%	4.05%
50	4.25%	1.20%	5.45%	3.45%
55	4.25%	0.70%	4.95%	3.00%

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APPENDIX A

Comparison of Current and Proposed Actuarial Assumptions

	Current	Proposed
1. Rate of Investment Return	7.5%	6.75%
2. Rates of Mortality		
▪ Active & Service Retirements	The 1994 Group Annuity Mortality Table set forward two years for males and 1 year for females	RP2000 (Generational) Scale AA
▪ Disabled	The 1994 Group Annuity Mortality Table set forward two years for males and 1 year for females	RP2000 Disabled Tables (Generational) Scale AA

3. Annual Pensionable Pay Increases

Annual rate of Pay Increase For Sample Ages

Current				Proposed			
Sample Age	Base (Economic)	Merit and Longevity	Total	Sample Age	Base (Economic)	Merit and Longevity	Total
20	4.25%	4.00%	8.25%	20	3.0%	4.25%	7.25%
25	4.25%	3.30%	7.55%	25	3.0%	3.55%	6.55%
30	4.25%	2.80%	7.05%	30	3.0%	3.05%	6.05%
35	4.25%	2.50%	6.75%	35	3.0%	2.75%	5.75%
40	4.25%	2.20%	6.45%	40	3.0%	1.45%	4.45%
45	4.25%	1.80%	6.05%	45	3.0%	1.05%	4.05%
50	4.25%	1.20%	5.45%	50	3.0%	0.45%	3.45%
55	4.25%	0.70%	4.95%	55	3.0%	0.00%	3.00%

APPENDIX A

Current **Proposed**

4. Retirement Rates

Old Plan		Rates of Retirement and/or DROP Entry			
		Plan A		Plans B & C	
Ages		Police	Fire	Police	Fire
50	35%	36%	18%	28%	6%
51	15	20	18	12	6
52	15	20	18	12	6
53	15	16	12	24	24
54	15	16	24	24	24
55	40	24	24	36	18
56	15	8	24	16	18
57	15	8	24	12	30
58	15	8	24	12	42
59	15	8	24	12	18
60	100	100	35	100	18
61	100	100	45	100	42
62	100	100	60	100	42
63	100	100	80	100	80
64	100	100	90	100	90
65	100	100	100	100	100

Old Plan		Rates of Retirement and/or DROP Entry			
		Plan A		Plans B & C	
Ages		Police	Fire	Police	Fire
50	35%	15.0%	10.0%	5.0%	6.0%
51	15	15.0%	10.0%	5.0%	6.0%
52	15	15.0%	10.0%	5.0%	6.0%
53	15	25.0%	20.0%	25.0%	24.0%
54	15	35.0%	20.0%	35.0%	35.0%
55	40	35.0%	20.0%	35.0%	35.0%
56	15	25.0%	20.0%	25.0%	18.0%
57	15	10.0%	20.0%	10.0%	30.0%
58	15	10.0%	20.0%	10.0%	42.0%
59	15	10.0%	15.0%	10.0%	15.0%
60	100	10.0%	15.0%	10.0%	15.0%
61	100	10.0%	15.0%	10.0%	15.0%
62	100	35.0%	35.0%	35.0%	35.0%
63	100	20.0%	25.0%	20.0%	15.0%
64	100	20.0%	25.0%	20.0%	15.0%
65	100	100.0%	100.0%	100.0%	100.0%

	Current	Proposed
5. Increase in total annual Payroll	4.25%	3.0%

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PENSION REVIEW COMMITTEE

Examination of Lincoln Police & Fire Defined Benefit Plan

May 2016

Committee Members:

Richard Evnen, *Former business owner & Committee Chair*
Trent Fellers, *Chair of Lincoln City Council*
Don Herz, *former City of Lincoln Finance Director*
Kyle Kollmorgen, *Kollmorgen & Associates, Inc.*
Dan Marvin, *President of Marvin Investment Management, Co.*
Gina Simpson, *Director - Wealth Management, Ameritas*
Lincoln Zehr, *CEO, Hampton Enterprises*

Police and fire public pensions are a difficult topic. These pensions are in trouble, for a variety of reasons, all over the country. There are exceptions but in many places public safety pensions are significantly underfunded—meaning they may not be counted to make good on retirement benefits promised to police officers and firefighters. The scale of pension problems is enormous. In some cities pension problems were dealt with through bankruptcy. Some cities have slashed other spending to sink more money into their pension funds. Some places haven't dealt with their pension problems at all and continue to "kick the can down the road".

It's not surprising good or easy solutions to pension issues are elusive. Depending on the severity of a pension fund's problems its fixes are not universally acceptable. Solutions are inherently controversial. Underfunded plans often need infusions of significant amounts of hard-to-find money to reach proper funding levels. Lincoln is not exempt from these realities though our police and fire pension problems are not as severe as some.

Even so, **Lincoln's Police and Fire pension fund is underfunded by *103 million dollars***. This doesn't mean an additional $103 million is needed right now. It does mean if we don't put a reasonable plan into place to fix our funding issues we are being willfully unresponsive to a problem that will continue to grow to the serious detriment of our community.

Being increasingly concerned about Lincoln's pension issues, Mayor Chris Beutler and City Council Chair Trent Fellers organized a committee of citizens to evaluate Lincoln's pension issues and report on its findings. The Committee, which operated in accordance with the Open Meetings Law, was meant to function as a blue-ribbon panel: a group of capable and objective citizens, all but Council Chair Fellers independent and distanced from political processes, who would study the pension issue in earnest and issue a straight-forward report for use by others in understanding the problem and its solutions. "Others" includes elected officials and union leaders—people empowered to show leadership and take action.

The authority to deal with pension issues unilaterally is limited. Pension plan participants are represented by the Lincoln Police Union and the IAFF Local 644 (Lincoln Firefighters Union). These unions bargain with the City for the terms and conditions of their members' employment. Because they are comprised of public safety employees these unions are not allowed to strike. In part as an offset to the prohibition of striking, the Nebraska Commission of Industrial Relations (CIR) provides protections to unions in determining and resolving issues related to the fair compensation of public safety employees. The CIR doesn't get used much; it's expensive to make or defend a case and results are hard to predict. It's better for cities and unions to resolve their issues without turning to the CIR and mostly they do. But the threat of the CIR process, and its uncertainty, looms large.

Pensions are constitutionally protected long term contracts. Nebraska courts have interpreted this protection as preventing governing bodies from detrimentally changing pension terms without offering a corresponding benefit. While the CIR does not have jurisdiction to rule on whether a governing body violated the Constitution, it can, however, offset wages to account for a pension that is not in line with comparable cities. The sum of the CIR and case law is that Lincoln can't just go "fix" many of its pension problems by making changes that are not otherwise agreed to by the unions. Negotiations to make some, but not all, of the changes recommended by this

Committee are required for their lawful implementation. Such negotiations are difficult but possible.

The City, and the police and fire unions, while regularly negotiating other terms of employment and compensation, do not often address pension issues. In fairness, pensions are long term matters and ought not be subject to frequent changes or political winds. But they do need to be looked after, in the context of their perpetual life, with a willingness to make changes necessary to meet obligations and sustain funding.

Lincoln's police and fire pension plans are defined benefit plans. They promise police and firefighters retirement, death and disability benefits. In the private sector there has been a huge move away from defined benefit pension plans in favor of defined contribution plans. 401(k) and similar plans are today the standard retirement benefit in the private sector. Defined contribution plans vary in design and quality but they share a common and important characteristic: employee and employer make agreed-to contributions to an employee's retirement account but benefits and investment results are not guaranteed. This is the kind of arrangement in place for most of Lincoln's private sector employees, many of its public sector employees and most taxpayers who have a work-related retirement plan.

In the public sector there has also been movement away from defined benefit plans including for many public safety employees. Nebraska state law mandates that retirement plans for municipal public safety employees be defined contribution plans except for Lincoln and Omaha. It is possible to close existing defined benefit plans to new entrants but doing so is considered a drastic measure. Many traditional defined benefit pension plans for public safety employees around the country remain in place.

Police and firefighters maintain their work is special duty: physically demanding, potentially debilitating, sometimes dangerous, often stressful, requiring bravery and essential to citizen safety. Traditionally these factors, coupled with other considerations voiced in advocacy of police and firefighters, have resonated with the public and elected officials. Additionally, public safety unions are politically active in the representation of their members' interests. Unions want traditional pensions for their members because they feel deserving of such benefits, have been promised these benefits and believe it is fair for them to be in place. They act politically in ways they judge to be in their members' best interests.

An important consideration: the cost to close Lincoln's pension plan to new entrants and offer instead a defined contribution plan is calculated to be substantially more expensive than Lincoln's existing plan over the next thirty years—to the tune of an **additional $78 million**. Studies further indicate that defined benefit plans are more efficient, and cost less, than defined contribution plans providing the same benefit. This is disappointing to some who very much want Lincoln to move toward a defined contribution plan. Yet the unanimous belief of the Pension Review Committee is that we should retain Lincoln's defined benefit pension plan provided important changes are made to make it more affordable and sustainable.

Here are the basics of how Lincoln's police and fire pension plan works. There are some variations depending on when a plan participant entered the plan but to keep it simple we will illustrate the most current version of the pension plan and the one with the most participants.

An individual police officer or firefighter contributes 8% of their salary.[1] They are opted out of Social Security and neither make contributions to Social Security nor are eligible for Social Security benefits.

The City contributes all the rest of what is needed to fund the plan. The table below shows public safety employees and City contributions for an eight year period and the percentage of payroll represented:

Year	*Employees*		*City*	
2010	$2,296,533	6.87%	$4,014,414	12.00%
2011	$2,373,463	6.93%	$4,333,811	12.66%
2012	$2,418,690	6.76%	$6,052,202	16.92%
2013	$2,540,604	7.00%	$6,446,472	17.75%
2014	$2,613,971	6.86%	$7,865,292	20.64%
2015	$2,604,101	6.87%	$8,045,293	21.23%
2016	$2,915,817	6.88%	$8,000,000	19.66%
2017	$3,068,770	7.03%	$12,065,465	28.47%

2016 and 2017 are estimated numbers.

The City's Actuarial Recommended Contribution (ARC)[2] is contained in an annual valuation report prepared by an independent actuary. The City's contribution includes the cost of benefits allocated to the current plan year (Normal Cost) and administrative expenses, and also an amortized amount needed to make up the Unfunded Actuarial Liability (UAL). This added amount (UAL) needed to catch up the plan's funding is principally the result of the City not always contributing what it should, investment results below plan assumptions, and changes in life expectancy and other calculations made by the actuary.

See how the City's contribution increases substantially over the eight year period? Remember the amount currently contributed by the plan participants is fixed at 8%, while the City makes up all the difference. The City's recommended contribution has grown significantly and become a burdensome amount. Hence, the formation of the Pension Review Committee.

A firefighter or police officer is eligible to retire after 25 years of service and age 50. At retirement, and for the rest of their life, they have the option of receiving a monthly benefit equal to 64% of their final year's pay. Alternatively, they can receive a smaller monthly amount for the rest of their life and a beneficiary can continue to receive the same amount until they die. Guaranteed. There are rules in place which prohibit unfair manipulation (i.e., pension spiking) of

[1] 8% is the amount for most participants but the aggregate of all participants" contributions is a lower percentage due to earlier plans having less than an 8% contribution rate.

[2] For purposes of this report the term ARC is utilized. Other terms such as Actuarially Determined Contribution (ADC) are now used in place of ARC but are essentially equivalent to ARC as it's used in this report.

the final year's pay. Lincoln's plan design is not especially rich or poor compared to that of other cities.

Some pension plans for police and firefighters include a cost of living adjustment (COLA). Lincoln does not have such a provision. Instead in Lincoln there is a kind of *faux* COLA, called a "13th Check". It's an annual additional payment to retirees, currently $1174, paid once a year and meant to boost the pension benefit over time to compensate for inflation. The 13th Check payment is a function of City ordinance conditioned on a sufficient balance existing in the 13th Check fund. The 13th Check fund in Lincoln derives its funding from the investment return of the main pension fund by siphoning off excess investment returns in good years and adding them to a separate 13th Check fund.

Lincoln's 13th Check fund has much more money than it is projected to need. This is thought to be by design, however. The Committee heard testimony that the growing balance of the 13th Check fund was meant to someday help start a true COLA. COLAs are in some pension plans but not others, the public safety unions in Lincoln would like to have a COLA as part of their members' pension plan.

The Committee recommends Lincoln's separate 13th Check fund and its balance be merged into the main pension fund. The 13th Check payment will continue to be made just as it has since its inception, except that the the City will be obligated to make such a payment every year.

There is substantial one-time and ongoing financial benefit to combining the 13th Check fund into the primary pension fund. Because of the way projected investment returns are actuarially calculated for the pension fund, and because there is a significant surplus in the current 13th Check fund that would be immediately realized, the underfunded amount of Lincoln's pension fund would reduce from **$103 million to approximately $51.5 million**. This represents a funded percentage improvement from 64% to 80%. Such improvement in the pension's funding level will help Lincoln maintain its AAA bond rating, which might otherwise be at risk due to a lower funded percentage.

This single change, which the Committee believes can be done by amending the pension ordinances, would lower the 2017 recommended contribution from **$12 million to approximately $7.8 million**. This reduction of $4.2 million changes the total percentage of salary contributed by the City from approximately **28% to 17%**. This change will have a lasting effect by lowering contributions made by the City because actuarially projected investment returns would no longer be subject to excess returns being diverted to the 13th Check fund.

Now that the scale of the problem has been given some context, let's expand a little on how the City got into this situation of being so seriously underfunded in the first place. It is the result of a number of things that are useful to identify so we don't repeat the mistakes of the past.

Investment returns have been a big factor. Every investor knows that investment markets took a big hit beginning in 2008. Lincoln's plan has suffered from lower than expected returns. While the Committee was not charged with evaluating investment results or the financial management of Lincoln's pension funds, we noted the change of investment advisors in 2014 and movement

toward what seems like a more coherent and balanced investment strategy. The Committee recommends regular evaluation of the investment advisor's performance compared to benchmarks. The Committee also recommends that the Investment Board, which evaluates and approves investment decisions, including allocations and selection of managers, not micro-manage the work of the advisor. There is no way to accurately identify how much of our underfunded status is due to lackluster investment results but an internal Committee study determined had the fund returned the targeted investment results over the last ten years the improvement in our fund balance might be as much as $34 million.

The actuarial assumptions play a crucial role in the bottom line, as a change in assumptions can increase the employer's obligation by millions of dollars. Assumptions are made regarding many aspects of the Pension including the assumed earnings rate, salary rates and life expectancy. People are living longer and we have to account for it when we calculate our future obligations. In 2014, the City approved necessary changes to the assumptions including a decrease from 7.5% to 6.75% to the assumed earnings rate. The net result of the 2014 changes was a $23 million increase to the UAL.

The Committee discussed the actuarially assumed earnings rate of 7.5%, which will be the rate for Lincoln's plan if the 13th Check fund is merged into the primary pension fund. 7.5% is consistent with the rate used for many pension plans. There are indications that assumed earnings rates are expected to be lower in the future. If Lincoln decides it is appropriate to reduce its rate, which the Committee does not recommend at this time but which may be appropriate in the future, new actuarial valuations will reflect a significant difference in funding requirements.

The last eight years the City contributed 99% of the recommended amount, however, the City made less than the recommended contribution in **19 of the last 26 years**. For 11 of these 19 years the pension was at a funded level of 100% or more. (A few times the City actually made contributions in excess of what was recommended.) Since 1990 the City has contributed approximately $7 million less than the recommended contributions. We don't know for certain why the City didn't make these payments. When the plan was fully funded or nearly fully funded perhaps our elected leaders felt they could contribute less than what was recommended. Certainly it was a way to balance the City's budget in the short run. Whatever the reasons, the City's pension contribution was shortchanged too often. The Committee thinks that's just bad policy and strongly recommends a funding policy requiring the pension plan be funded every year at either the Normal Cost or the ARC, whichever is greater.

As it is, the recommendations of this Committee offer substantial improvement to the funded status of Lincoln's pension plan, reduce its cost, endorse additional savings by way of negotiated plan changes and create sustainability. None of this works, however, if the City does not make its recommended contributions year after year. If we can't afford it, or are unwilling to commit the resources necessary to fund it properly, then the City's leaders must find a way to reduce our obligation. Not funding the City's obligation to the pension plan may also negatively impact the City's credit ratings for municipal bonds, a needed funding source for many projects. One thing on which all sides agree: the City must fund its obligation. Period.

The committee looked at other measures, mostly in the form of plan changes requiring a negotiation between the City and the unions, which are described below. Let's first reflect on why the unions might be willing to negotiate. After all, they have a pretty tight arrangement. They kick in 8% of salary and the City pays all the rest under the current plan. The unions are not obligated to negotiate changes to the pension plan—changes which will reduce pension costs but may also end up reducing benefits to their members.

Union members are also members of our community. They serve the community every day in ways that are extraordinary. Yes, it is their job to do so. But one hopes that they also serve out of a love for Lincoln and with a desire to keep Lincoln not only safe but also a great place to live. It's asking a lot but we believe those charged with public safety in Lincoln will negotiate in good faith knowing that Lincoln's pension is in trouble and needs modification. They may have to give up some plan features coincidental with the City's taxpayers making a commitment to increased funding of pensions. The amount of funding required of the City means difficult choices have to be made about funding sources and the entire City budget—not a pleasant task.

Frankly, it's possible to argue that the pension received by police officers and firefighters is a good financial deal for them notwithstanding the notion that it's also good public policy, and fair, for them to receive it. However, if the police and fire pension benefit and cost to the City was more widely understood by Lincoln's voters it's possible there would be strong pushback against its funding. The City's citizens, including other City employees who do not receive a defined benefit pension, might find the police and fire pension plan out-of-step with their own retirement benefits. Are citizens willing to pay higher taxes or reduce other services or capital projects to pay for police and fire pensions? The unions should be sensitive to negative exposure around their pensions and negotiate with the City for changes that reduce its cost.

Remember that police and fire pension plan participants currently contribute 8% of their salary in return for a life-long retirement benefit. Here is another important fact about the contributions made by police and fire employees: they don't pay any Social Security tax. They are opted out of Social Security. For only two percent more than police and firefighters would be putting into Social Security—and for far less than the combined cost of Social Security and a typical contribution to a defined contribution plan—they are receiving a significant retirement benefit. They don't receive Social Security benefits, however, unless they have other employment. Even then, their Social Security benefit is reduced because of their opted-out status. Still, the retirement benefit coming from the police and fire pension is an incredibly good deal—far better than what most people in Lincoln receive in retirement benefits.

Another reason the union might negotiate changes to the plan is that there may be things for them to gain—such as a true COLA. COLAs are expensive and can be a factor in the undoing of an otherwise well-funded pension plan. But if a COLA is carefully designed to be affordable, limited and as part of a package of changes recommended by this Committee for negotiation, the unions would have some incentive to make otherwise unappealing changes. A few years ago the City Council considered, and rejected, a COLA for the police and fire pension fund. At that time the firefighters' union was amenable to increasing their contribution to the pension fund by an additional 4% of their salary.

Ultimately, if pension issues in Lincoln cannot be resolved and if pension funding isn't deemed sustainable, there may well be increasing pressure to do away with a defined benefit plan altogether despite the costs of doing so. Or, perhaps more likely, pressure will be put on state government to make changes which allow cities to make modifications to pension plans more easily. Politically speaking it does seem like Nebraska's state government might be disposed to make such changes if business, community and City leaders in Lincoln and Omaha pressed for them.

Ultimately the biggest problem for Lincoln relates to its assumption of risk. The way Lincoln's police and fire pension plan is structured right now essentially all the risk is on the backs of the City and its taxpayers. Whatever is needed to fund the pension plan in excess of the 8% contributed by fire and police employees presently has to come from the City. Public safety employees take on no risk. If the markets don't perform well or if the actuarial assumptions about longevity and other variables create additional funding requirements its currently all on the City to make up the difference. In this regard it is a one-sided arrangement.

The last thing the Committee members want is for the City to have to reconvene another panel to address these same issues in ten years. The Committee believes its recommendations will go a long way toward making the police and fire pension funding sustainable. Even so, we cannot be certain of it. There are simply too many variables—especially related to investment performance.

The Committee recommends changing the way contributions are determined for Lincoln's plan. Instead of police and fire employees contributing a fixed amount—currently 8%—they would contribute a percentage of the total annual costs of the plan, with the City also contributing a percentage. This is an arrangement found in other plans. Some plans split the cost 50/50. Others are 60/40 or some other amount. If, for example, the pension plan cost was split with 60% paid by the City and 40% paid by public safety employees, the employee contribution could be about 10.25%--a small increase. The City's contribution could be reduced a like amount.

But something more important happens under this scenario. The cost of the plan becomes relevant to both employees and the City. Right now the cost of the plan is really of no relevance to public safety employees. If contributions are not fixed but rather split as a percentage of total cost, and the cost of the plan escalates for any reason, public safety employees and the City will be in the same boat. They would have common interests in addressing plan design and the cost of the plan. They would have every reason to work together. Risk would be shared and no longer be solely on the back of the City. In thinking about the sustainability of Lincoln's pension plan this is an idea that could have real and lasting impact.

Some members of the Committee were reluctant to sign on to this idea. They saw it as asking too much of the unions to agree to such a change. The idea of only asking to share the risk of incrementally increased cost due to longevity or related calculations was proposed by some Committee members. One Committee member argued that unless such a shared arrangement could be achieved that the plan should be transformed into a defined contribution plan. The majority of Committee members, however, approved a recommendation urging the City and the unions to negotiate a percentage split of the annual costs as a way to share risk and promote sustainability of Lincoln's police and fire pension plan.

Recommendations

To assist the Committee, the actuarial firm, Cavanaugh Macdonald, completed several cost proposals. These proposals are attached as exhibits.

The Committee notes that one cost proposal investigated placing new hires into a defined contribution plan. While the Committee has heard from many community members advocating for such a move, the Committee finds that this is not a fiscally responsible option and is not recommending this change. (Exhibit 1)

1. 13th Check: The 13th Check fund should be pooled with the regular Pension fund. Doing so would reduce the City's recommended contribution from $12 million to $7.8 million. The funded ratio would increase from 64% to 80%. (Exhibit 2)

2. Funding Policy: The City should establish a funding policy that follows objectives and recommendations consistent with the Government Finance Officers Association and the actuarial community. Funding should be at the greater of the ARC or Normal Cost. The policy should include amortization periods for future unfunded liabilities that do not exceed 20 years.

3. City Contribution: The City should fully fund the Pension according to the Funding Policy.

4. Reporting: City staff currently provide the Mayor and City Council with the Annual Actuarial Valuation Report. City staff should also provide Investment Board meeting minutes and quarterly investment reports. The entire pension plan and its funding status should be reviewed from time to time in a similar manner as the work undertaken by this Committee.

The Committee recommends that the City and Police and Fire unions negotiate changes to the Pension. The following items should be considered in the negotiations. They are meant as guidelines and examples and were used as the basis for the analysis provided by the actuary. The Committee understands a negotiation may yield somewhat different results.

5. Modify the benefit formula to provide a full retirement benefit after 30 years of service rather than 25 years of service: Assuming the 13th Check fund is pooled into the regular fund, this change would lower the City's current recommended contribution by $407,093 and $25,447,551 over approximately 30 years. (Exhibit 3)

6. Implement a three-year final average salary instead of a one-year final average salary when determining regular pay: Assuming the 13th Check fund is pooled into the regular fund, this change would lower the City's current recommended contribution by $285,384 and $17,079,407 over approximately 30 years. (Exhibit 4)

7. Elimination of Deferred Retirement Option Plan (DROP): Allows a member to retire for pension purposes but continue to work for up to five years. Assuming the 13th Check fund is pooled into the regular fund, this change would lower the City's current recommended contribution by $371,581 and $5,790.683 over approximately 30 years. (Exhibit 5)

8. Provide a true 1% Compound COLA beginning five years after retirement for new and active members: Assuming the 13th Check fund is pooled into the regular fund, this change would increase the City's current recommended contribution by $332,204 and $23,554,962 over approximately 30 years. (Exhibit 6)

9. The City and the unions share the total annual contribution according to a percentage split.

Acknowledgement

The Committee wishes to thank City staff and others who presented oral and written information to the Committee. The Committee was impressed with the presenters' depth of knowledge and commitment to Lincoln's citizens. This information was critical to the Committee's understanding and analysis of the issues, and ultimately in the formation of recommendations. Specifically, the Committee thanks the following staff and presenters:

Molly Burton, *Mayoral Aid*
Jeff Kirkpatrick, *City Attorney*
Douglas McDaniel, *Human Resources Director*
Paul Lutomski, *Pension Officer*
Patrice Beckham and Bryan Hoge, *Actuaries, Cavanaugh Macdonald Consulting*
Dan Marvin, *Committee Member*
John Hewitt, *Attorney, Hewitt, Cline Williams Wright Johnson & Oldfather*
John Corrigan, *Attorney, Dowd, Howard & Corrigan*
Steve Hubka, *Interim Finance Director, City of Lincoln*
Rick Hoppe, *Chief of Staff, Mayor Chris Beutler*
Chuck Reed, *Former Mayor of San Jose, CA, Member of the Board of Directors, Retirement Security Initiative*
Flick Fornia, *President, Pension Trustee Advisors*
Ron Saathoff, *Director of Pension Resources, International Association of Fire Fighters Fighters*
Ron Trouba, *President, IAFF Local 644*
John E. Cripe, *President, John E. Cripe and Associates*

Exhibits

Exhibit A

City of Lincoln Police and Fire Pension Fund

Baseline (Excludes COLA Pool Assets and Liabilities, 6.40% Assumed Rate of Return)
vs.
New Hires in Defined Contribution Plan/Current Members Remain in Defined Benefit Plan

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
			Baseline			New Hires in DC Plan								
						DB Plan			DC Plan			Total Combined Plan		
Valuation Date	Total Covered Payroll Current	New	City NC Rate	UAAL Rate	Total Rate	City NC Rate	UAAL Rate	Total Rate	City NC Rate	UAAL Rate	Total Rate	City NC Rate	UAAL Rate	Total Rate
8/31/2015	$ 42,381,058	$ -	14.23%	13.19%	27.42%	17.44%	15.29%	32.73%	16.05%	15.29%	31.34%	17.44%	15.29%	32.73%
8/31/2016	41,941,895	1,597,689	14.10%	13.67%	27.77%	17.38%	16.07%	33.45%	16.05%	16.07%	32.12%	17.33%	16.07%	33.40%
8/31/2017	41,726,872	3,105,451	14.05%	13.80%	27.85%	17.42%	16.19%	33.61%	16.05%	16.19%	32.24%	17.32%	16.19%	33.51%
8/31/2018	41,293,873	4,770,436	13.96%	14.02%	27.98%	17.40%	16.39%	33.79%	16.05%	16.39%	32.44%	17.26%	16.39%	33.65%
8/31/2019	40,975,850	6,429,279	13.89%	14.51%	28.40%	17.43%	16.86%	34.29%	16.05%	16.86%	32.91%	17.24%	16.86%	34.10%
8/31/2020	40,598,973	8,165,709	13.85%	14.61%	28.46%	17.49%	16.94%	34.43%	16.05%	16.94%	32.99%	17.24%	16.94%	34.18%
8/31/2021	39,954,107	10,116,418	13.79%	14.70%	28.49%	17.52%	17.02%	34.54%	16.05%	17.02%	33.07%	17.23%	17.02%	34.25%
8/31/2022	39,290,285	12,135,412	13.74%	14.78%	28.52%	17.57%	17.07%	34.64%	16.05%	17.07%	33.12%	17.21%	17.07%	34.28%
8/31/2023	38,479,716	14,317,106	13.69%	14.85%	28.54%	17.62%	17.13%	34.75%	16.05%	17.13%	33.18%	17.19%	17.13%	34.32%
8/31/2024	37,656,723	16,578,512	13.65%	14.91%	28.56%	17.67%	17.17%	34.84%	16.05%	17.17%	33.22%	17.17%	17.17%	34.34%
8/31/2025	36,784,136	18,933,051	13.62%	14.97%	28.59%	17.74%	17.20%	34.94%	16.05%	17.20%	33.25%	17.16%	17.20%	34.36%
8/31/2026	35,751,806	21,453,145	13.61%	15.04%	28.65%	17.82%	17.25%	35.07%	16.05%	17.25%	33.30%	17.16%	17.25%	34.41%
8/31/2027	34,490,061	24,173,791	13.61%	15.13%	28.74%	17.91%	17.30%	35.21%	16.05%	17.30%	33.35%	17.15%	17.30%	34.45%
8/31/2028	33,175,943	27,000,667	13.60%	15.21%	28.81%	18.01%	17.35%	35.36%	16.05%	17.35%	33.40%	17.13%	17.35%	34.48%
8/31/2029	31,761,421	29,969,299	13.60%	15.30%	28.90%	18.11%	17.40%	35.51%	16.05%	17.40%	33.45%	17.11%	17.40%	34.51%
8/31/2030	30,277,771	33,069,419	13.60%	15.38%	28.98%	18.20%	16.50%	34.70%	16.05%	16.50%	32.55%	17.08%	16.50%	33.58%
8/31/2031	28,722,977	36,307,289	13.60%	15.46%	29.06%	18.29%	16.44%	34.73%	16.05%	16.44%	32.49%	17.04%	16.44%	33.48%
8/31/2032	27,175,609	39,626,421	13.60%	15.53%	29.13%	18.37%	16.44%	34.81%	16.05%	16.44%	32.49%	16.99%	16.44%	33.43%
8/31/2033	25,652,237	43,024,316	13.60%	15.60%	29.20%	18.43%	16.44%	34.87%	16.05%	16.44%	32.49%	16.94%	16.44%	33.38%
8/31/2034	24,028,284	46,567,631	13.61%	15.67%	29.28%	18.48%	16.44%	34.92%	16.05%	16.44%	32.49%	16.88%	16.44%	33.32%
8/31/2035	22,158,001	50,333,053	13.62%	15.76%	29.38%	18.53%	16.45%	34.98%	16.05%	16.45%	32.50%	16.81%	16.45%	33.26%
8/31/2036	20,295,523	54,183,208	13.64%	15.85%	29.49%	18.60%	16.44%	35.04%	16.05%	16.44%	32.49%	16.74%	16.44%	33.18%
8/31/2037	18,339,227	58,174,905	13.65%	15.96%	29.61%	18.66%	16.43%	35.09%	16.05%	16.43%	32.48%	16.67%	16.43%	33.10%
8/31/2038	16,196,620	62,373,106	13.68%	16.07%	29.75%	18.71%	16.42%	35.13%	16.05%	16.42%	32.47%	16.60%	16.42%	33.02%
8/31/2039	14,101,450	66,612,318	13.70%	16.20%	29.90%	18.78%	16.38%	35.16%	16.05%	16.38%	32.43%	16.53%	16.38%	32.91%
8/31/2040	12,106,480	70,868,653	13.72%	16.34%	30.06%	18.81%	16.01%	34.82%	16.05%	16.01%	32.06%	16.45%	16.01%	32.46%
8/31/2041	10,292,635	75,115,305	13.73%	16.52%	30.25%	18.85%	15.82%	34.67%	16.05%	15.82%	31.87%	16.39%	15.82%	32.21%
8/31/2042	8,588,284	79,350,621	13.75%	16.82%	30.57%	18.85%	15.66%	34.51%	16.05%	15.66%	31.71%	16.32%	15.66%	31.98%
8/31/2043	7,156,524	83,455,668	13.76%	17.56%	31.32%	18.86%	15.46%	34.32%	16.05%	15.46%	31.51%	16.27%	15.46%	31.73%
8/31/2044	5,922,982	87,471,604	13.77%	1.22%	14.99%	18.87%	0.00%	18.87%	16.05%	0.00%	16.05%	16.23%	0.00%	16.23%

Note: All assumptions, including the rate of return, are assumed to be met each year in the future. Unfunded actuarial liability is funded over total payroll (DC + DB).

Defined Contribution Plan Normal Cost Rate: 16.05% (9.00% ER match, 6.20% Social Security, 0.85% Duty disability and death benefit).

Assumed Return: Baseline is 6.40% in all years.
The DC Plan Study is 6.40% through 2029, 5.50% from 2030 through 2039 and 4.50% from 2040 forward.
Investment return assumption reduces over time in the DC Plan study to account for the assumed change to the asset allocation due to closure of DB Plan and impact on cash flows.

4/15/2016

Exhibit B

City of Lincoln Police and Fire Pension Fund

Baseline (Excludes COLA Pool Assets and Liabilities, 6.40% Assumed Rate of Return)
vs.
New Hires in Defined Contribution Plan/Current Members Remain in Defined Benefit Plan

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
			Baseline		New Hires in DC Plan						
					DB Plan		DC Plan		Total Combined Plan		City Contribution Amount
Valuation Date	Total Covered Payroll Current	New	City Rate	City Amount	City Rate	City Amount	City Rate	City Amount	City Rate	City Amount	Difference
8/31/2015	$ 42,381,058	$ -	27.42%	$ 12,065,465	32.73%	$ 14,316,974	31.34%	$ -	32.73%	$ 14,316,974	$ 2,251,509
8/31/2016	41,941,895	1,597,689	27.77%	12,551,768	33.45%	14,471,260	32.12%	529,981	33.40%	15,001,241	2,449,473
8/31/2017	41,726,872	3,105,451	27.85%	12,960,928	33.61%	14,462,737	32.24%	1,033,868	33.51%	15,496,605	2,535,677
8/31/2018	41,293,873	4,770,436	27.98%	13,373,274	33.79%	14,389,599	32.44%	1,597,839	33.65%	15,987,438	2,614,165
8/31/2019	40,975,850	6,429,279	28.40%	13,962,582	34.29%	14,483,057	32.91%	2,183,739	34.10%	16,666,796	2,704,214
8/31/2020	40,598,973	8,165,709	28.46%	14,390,853	34.43%	14,405,357	32.99%	2,780,170	34.18%	17,185,527	2,794,674
8/31/2021	39,954,107	10,116,418	28.49%	14,797,152	34.54%	14,225,569	33.07%	3,452,754	34.25%	17,678,323	2,881,171
8/31/2022	39,290,285	12,135,412	28.52%	15,211,657	34.64%	14,026,750	33.12%	4,148,276	34.28%	18,175,026	2,963,369
8/31/2023	38,479,716	14,317,106	28.54%	15,630,814	34.75%	13,780,808	33.18%	4,903,135	34.32%	18,683,943	3,053,129
8/31/2024	37,656,723	16,578,512	28.56%	16,069,945	34.84%	13,522,328	33.22%	5,684,697	34.34%	19,207,025	3,137,080
8/31/2025	36,784,136	18,933,051	28.59%	16,531,226	34.94%	13,246,280	33.25%	6,498,265	34.36%	19,744,545	3,213,319
8/31/2026	35,751,806	21,453,145	28.65%	17,009,399	35.07%	12,924,459	33.30%	7,374,686	34.41%	20,299,145	3,289,746
8/31/2027	34,490,061	24,173,791	28.74%	17,492,831	35.21%	12,517,805	33.35%	8,323,157	34.45%	20,840,962	3,348,131
8/31/2028	33,175,943	27,000,667	28.81%	17,993,985	35.36%	12,091,282	33.40%	9,311,163	34.48%	21,402,445	3,408,460
8/31/2029	31,761,421	29,969,299	28.90%	18,514,261	35.51%	11,623,217	33.45%	10,351,201	34.51%	21,974,418	3,460,157
8/31/2030	30,277,771	33,069,419	28.98%	19,049,425	34.70%	10,837,718	32.55%	11,125,677	33.58%	21,963,395	2,913,970
8/31/2031	28,722,977	36,307,289	29.06%	19,613,141	34.73%	10,290,274	32.49%	12,194,549	33.48%	22,484,823	2,871,682
8/31/2032	27,175,609	39,626,421	29.13%	20,197,724	34.81%	9,758,656	32.49%	13,310,513	33.43%	23,069,169	2,871,445
8/31/2033	25,652,237	43,024,316	29.20%	20,810,922	34.87%	9,226,845	32.49%	14,452,759	33.38%	23,679,604	2,868,682
8/31/2034	24,028,284	46,567,631	29.28%	21,448,738	34.92%	8,656,613	32.49%	15,644,056	33.32%	24,300,669	2,851,932
8/31/2035	22,158,001	50,333,053	29.38%	22,106,390	34.98%	7,996,827	32.50%	16,915,763	33.26%	24,912,591	2,806,201
8/31/2036	20,295,523	54,183,208	29.49%	22,796,359	35.04%	7,336,781	32.49%	18,205,800	33.18%	25,542,581	2,746,221
8/31/2037	18,339,227	58,174,905	29.61%	23,505,567	35.09%	6,638,571	32.48%	19,542,890	33.10%	26,181,461	2,675,894
8/31/2038	16,196,620	62,373,106	29.75%	24,253,571	35.13%	5,871,279	32.47%	20,949,088	33.02%	26,820,367	2,566,796
8/31/2039	14,101,450	66,612,318	29.90%	25,037,202	35.16%	5,116,428	32.43%	22,348,219	32.91%	27,464,647	2,427,445
8/31/2040	12,106,480	70,868,653	30.06%	25,875,820	34.82%	4,351,292	32.06%	23,515,523	32.46%	27,866,814	1,990,994
8/31/2041	10,292,635	75,115,305	30.25%	26,798,471	34.67%	3,684,000	31.87%	24,782,478	32.21%	28,466,477	1,668,006
8/31/2042	8,588,284	79,350,621	30.57%	27,873,928	34.51%	3,060,262	31.71%	26,053,173	31.98%	29,113,435	1,239,507
8/31/2043	7,156,524	83,455,668	31.32%	29,395,431	34.32%	2,536,454	31.51%	27,233,708	31.73%	29,770,162	374,732
8/31/2044	5,922,982	87,471,604	14.99%	15,047,030	18.87%	1,184,109	16.05%	15,020,427	16.23%	16,204,536	1,157,506
				$ 572,365,857						$ 650,501,145	$ 78,135,288

Note: All assumptions, including the rate of return, are assumed to be met each year in the future. Unfunded actuarial liability is funded over total payroll (DC + DB).
Employer Contribution Amount includes Administrative Expenses.

Defined Contribution Plan Normal Cost Rate: 16.05% (9.00% ER match, 6.20% Social Security, 0.85% Duty disability and death benefit).

Assumed Return: Baseline is 6.40% in all years.
The DC Plan Study is 6.40% through 2029, 5.50% from 2030 through 2039 and 4.50% from 2040 forward.
Investment return assumption reduces over time in the DC Plan study to account for the assumed change to the asset allocation due to closure of DB Plan and impact on cash flows.

4/15/2016

Exhibit C

City of Lincoln Police and Fire Pension Fund

Baseline (Excludes COLA Pool Assets and Liabilities, 6.40% Assumed Rate of Return)
vs.
New Hires in Defined Contribution Plan/Current Members Remain in Defined Benefit Plan

	Baseline: Excludes COLA Pool Assets and Liabilities, 6.40% Assumed Rate of Return				DC Plan: Excludes COLA Pool Assets and Liabilities, 6.40% grading to 4.50% Assumed Rate of Return, New members to DC			
Valuation Date	Actuarial Liability	Actuarial Assets	Unfunded Actuarial Liability	Funded Ratio	Actuarial Liability	Actuarial Assets	Unfunded Actuarial Liability	Funded Ratio
8/31/2015	$ 286,493,673	$ 183,011,274	$ 103,482,399	63.9%	$ 302,980,343	$ 183,011,274	$ 119,969,069	60.4%
8/31/2016	299,576,557	191,719,383	107,857,174	64.0%	318,475,449	191,719,383	126,756,066	60.2%
8/31/2017	313,226,395	203,591,927	109,634,468	65.0%	334,382,778	205,794,781	128,587,997	61.5%
8/31/2018	327,174,839	215,457,799	111,717,040	65.9%	350,446,815	219,837,524	130,609,291	62.7%
8/31/2019	341,622,516	225,607,146	116,015,370	66.0%	366,830,687	232,028,885	134,801,802	63.3%
8/31/2020	356,498,943	239,503,888	116,995,055	67.2%	383,454,244	247,791,288	135,662,956	64.6%
8/31/2021	371,722,844	254,223,693	117,499,151	68.4%	400,204,726	264,194,758	136,009,968	66.0%
8/31/2022	387,266,996	269,556,687	117,710,309	69.6%	416,992,021	280,990,975	136,001,046	67.4%
8/31/2023	403,009,405	285,395,960	117,613,445	70.8%	433,662,024	298,016,687	135,645,337	68.7%
8/31/2024	419,005,248	301,790,611	117,214,637	72.0%	450,214,800	315,285,550	134,929,250	70.0%
8/31/2025	435,291,191	318,743,096	116,548,095	73.2%	466,646,255	332,753,194	133,893,061	71.3%
8/31/2026	451,841,273	336,266,783	115,574,490	74.4%	482,850,396	350,357,766	132,492,630	72.6%
8/31/2027	468,519,409	354,271,848	114,247,561	75.6%	498,618,120	367,952,990	130,665,130	73.8%
8/31/2028	485,365,949	372,804,794	112,561,155	76.8%	513,902,218	385,504,669	128,397,549	75.0%
8/31/2029	502,369,431	391,888,630	110,480,801	78.0%	528,620,958	402,949,567	125,671,391	76.2%
8/31/2030	519,577,605	411,590,448	107,987,157	79.2%	542,739,504	420,283,552	122,455,952	77.4%
8/31/2031	536,970,866	431,939,361	105,031,505	80.4%	551,347,066	433,702,965	117,644,101	78.7%
8/31/2032	554,594,933	453,004,913	101,590,020	81.7%	558,834,562	445,976,212	112,858,350	79.8%
8/31/2033	572,547,079	474,927,348	97,619,731	82.9%	565,211,919	457,640,275	107,571,644	81.0%
8/31/2034	590,818,362	497,748,154	93,070,208	84.2%	570,380,707	468,691,116	101,689,591	82.2%
8/31/2035	609,276,603	521,409,370	87,867,233	85.6%	574,101,217	478,972,074	95,129,143	83.4%
8/31/2036	627,985,119	546,016,046	81,969,073	86.9%	576,310,772	488,464,010	87,846,762	84.8%
8/31/2037	646,964,521	571,647,058	75,317,463	88.4%	576,946,209	497,107,766	79,838,443	86.2%
8/31/2038	666,119,200	598,293,236	67,825,964	89.8%	575,802,651	504,782,262	71,020,389	87.7%
8/31/2039	685,471,423	626,015,230	59,456,193	91.3%	572,842,079	511,471,476	61,370,603	89.3%
8/31/2040	705,131,391	655,012,545	50,118,846	92.9%	568,141,619	517,256,455	50,885,164	91.0%
8/31/2041	725,295,635	685,546,256	39,749,379	94.5%	556,356,737	517,265,550	39,091,187	93.0%
8/31/2042	746,044,519	717,817,622	28,226,897	96.2%	542,934,344	516,181,489	26,752,855	95.1%
8/31/2043	767,453,081	752,028,968	15,424,113	98.0%	528,085,630	514,384,651	13,700,979	97.4%
8/31/2044	789,589,444	788,485,310	1,104,134	99.9%	512,004,103	512,122,159	(118,056)	100.0%

Note: All assumptions, including the rate of return, are assumed to be met each year in the future. Unfunded actuarial liability is funded over total payroll (DC + DB).

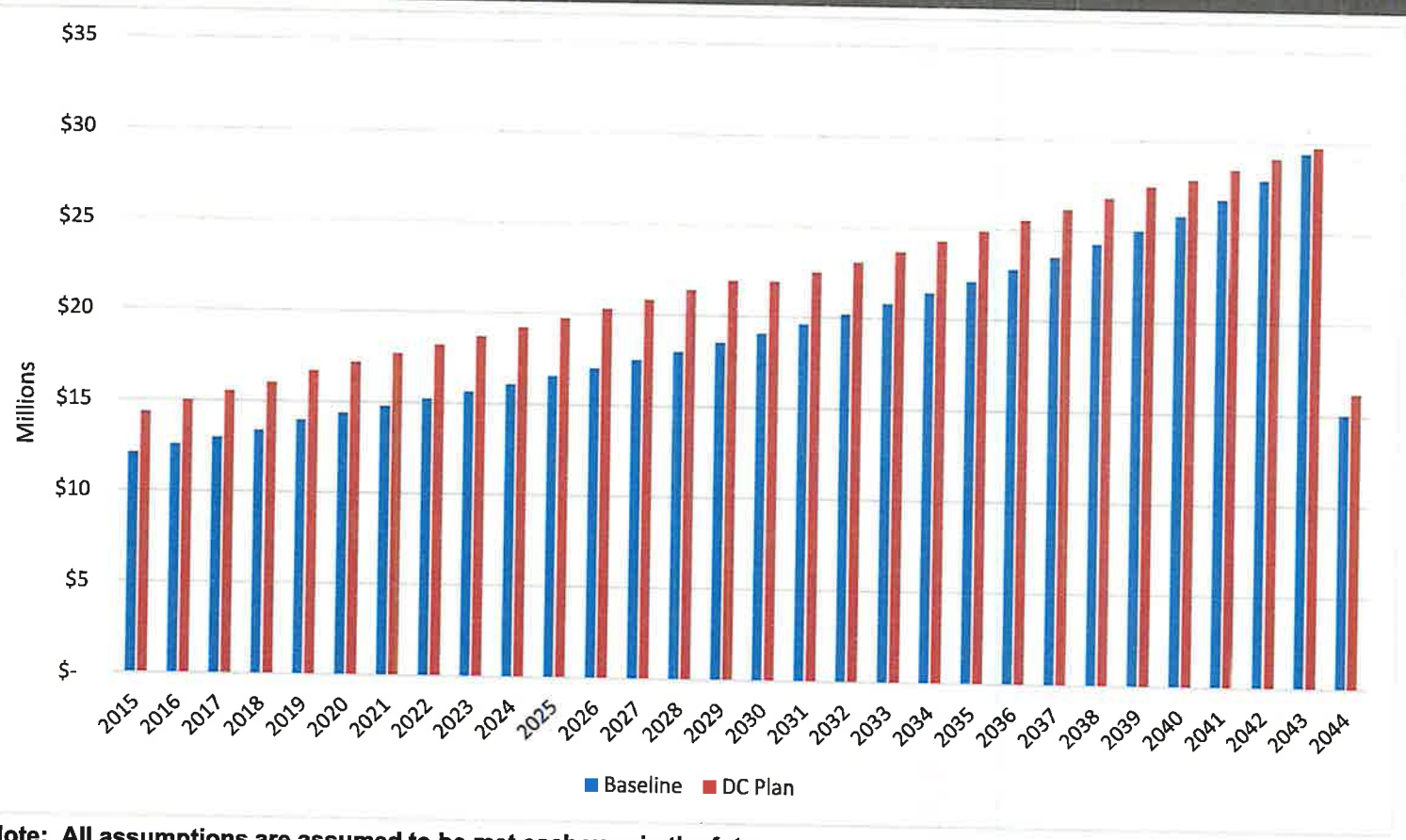
Defined Contribution Plan Normal Cost Rate: 16.05% (9.00% ER match, 6.20% Social Security, 0.85% Duty disability and death benefit).

Assumed Return: Baseline is 6.40% in all years.
The DC Plan Study is 6.40% through 2029, 5.50% from 2030 through 2039 and 4.50% from 2040 forward.
Investment return assumption reduces over time in the DC Plan study to account for the assumed change to the asset allocation due to closure of DB Plan and impact on cash flows.

4/15/2016

City Contribution Amounts

Exhibit 1, page 4



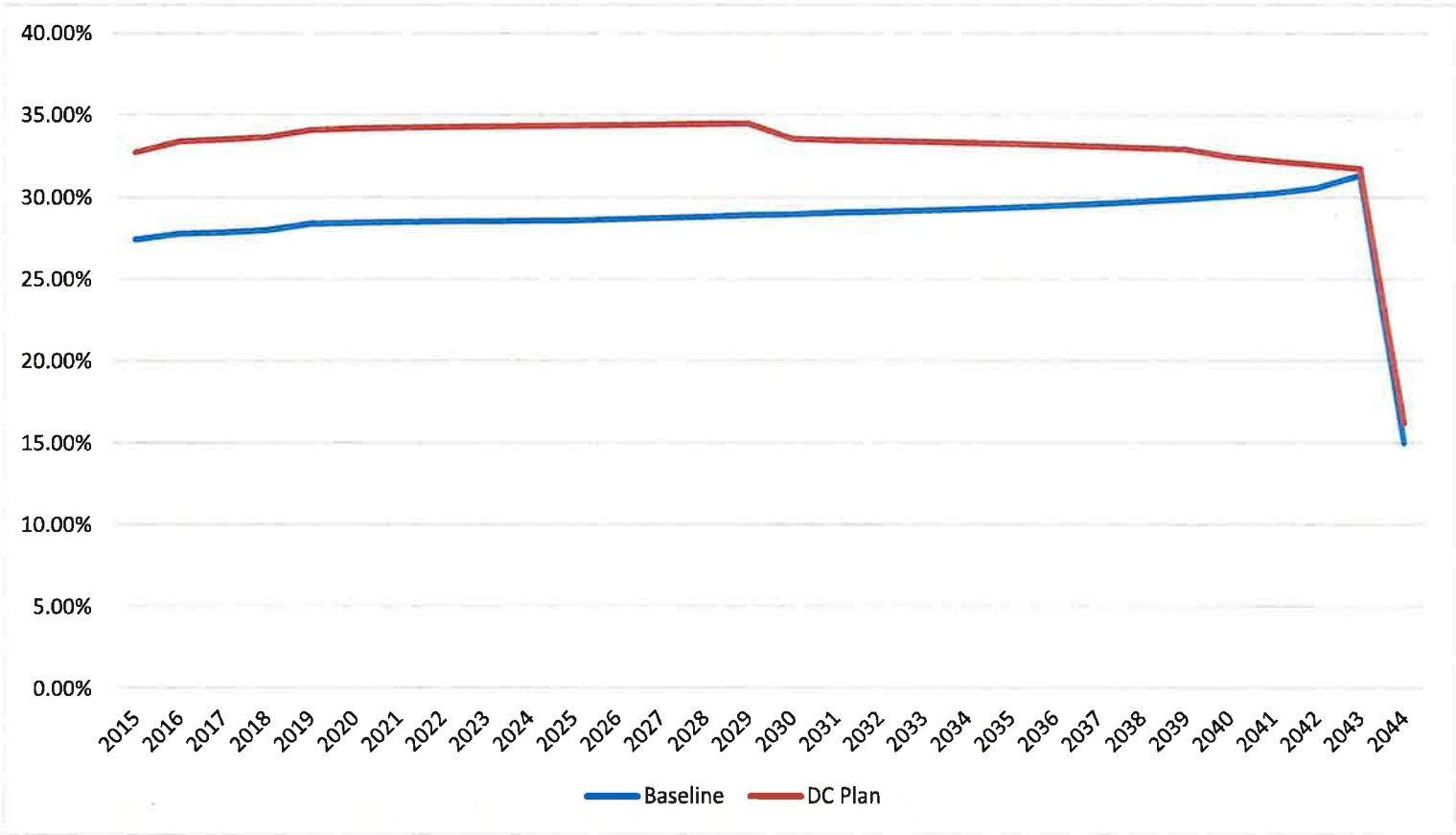
Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Baseline: Excludes COLA Pool assets and liabilities; 6.40% Assumed Rate of Return

DC Plan: Excludes COLA Pool asset and liabilities; 6.40% grading to 4.50% Assumed Rate of Return; New members to DC

City Contribution Rates

Exhibit 1, page 5



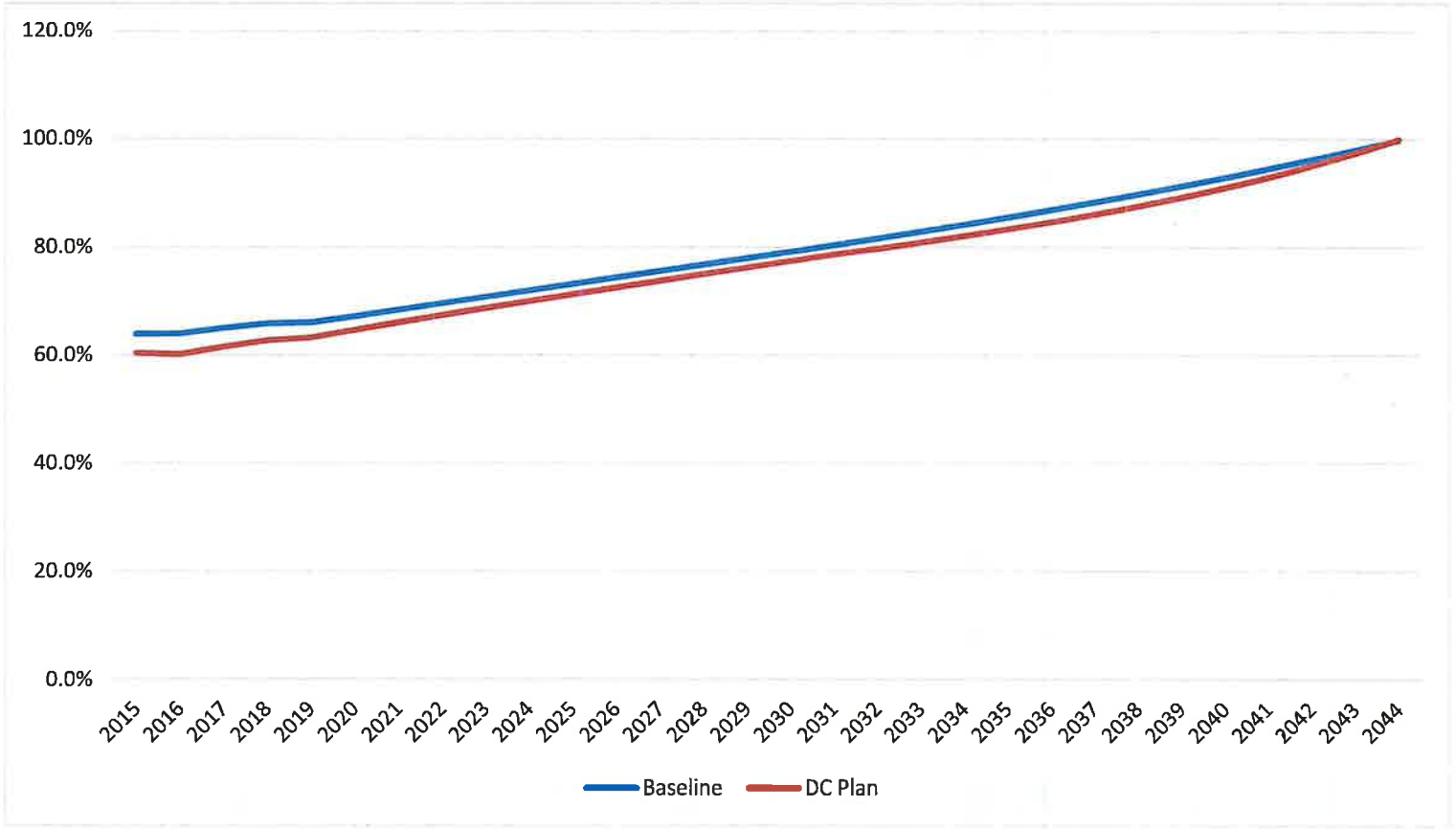
Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Baseline: Excludes COLA Pool assets and liabilities; 6.40% Assumed Rate of Return

DC Plan: Excludes COLA Pool asset and liabilities; 6.40% grading to 4.50% Assumed Rate of Return; New members to DC

Funded Ratio

Exhibit 1, page 6



Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Baseline: Excludes COLA Pool assets and liabilities; 6.40% Assumed Rate of Return

DC Plan: Excludes COLA Pool asset and liabilities; 6.40% grading to 4.50% Assumed Rate of Return; New members to DC

Exhibit A

Exhibit 2, page 1

City of Lincoln Police and Fire Pension Fund

Baseline (Excludes COLA Pool Assets and Liabilities, 6.40% Assumed Rate of Return)
vs.
Modified Baseline (Includes COLA Pool Assets and Liabilities, 7.50% Assumed Rate of Return)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Valuation	Total	Actuarial Contribution Rate		Employee Contribution Rate		City Contribution Rate		City Contribution Amount		
Date	Covered Payroll	Baseline	Modified	Baseline	Modified	Baseline	Modified	Baseline	Modified	Difference
8/31/2015	$ 42,381,058	34.30%	24.30%	6.88%	6.88%	27.42%	17.42%	$ 12,065,465	$ 7,829,103	$ (4,236,362)
8/31/2016	43,539,584	34.80%	24.22%	7.03%	7.03%	27.77%	17.19%	12,551,768	7,943,662	(4,608,106)
8/31/2017	44,832,323	34.98%	24.35%	7.13%	7.13%	27.85%	17.22%	12,960,928	8,194,123	(4,766,805)
8/31/2018	46,064,309	35.24%	24.60%	7.26%	7.26%	27.98%	17.34%	13,373,274	8,470,110	(4,903,164)
8/31/2019	47,405,129	35.76%	25.15%	7.36%	7.36%	28.40%	17.79%	13,962,582	8,933,491	(5,029,091)
8/31/2020	48,764,682	35.91%	25.28%	7.45%	7.45%	28.46%	17.83%	14,390,853	9,207,706	(5,183,147)
8/31/2021	50,070,525	36.05%	25.38%	7.56%	7.56%	28.49%	17.82%	14,797,152	9,455,109	(5,342,043)
8/31/2022	51,425,697	36.17%	25.47%	7.65%	7.65%	28.52%	17.82%	15,211,657	9,708,932	(5,502,724)
8/31/2023	52,796,822	36.27%	25.54%	7.73%	7.73%	28.54%	17.81%	15,630,814	9,962,234	(5,668,580)
8/31/2024	54,235,235	36.35%	25.59%	7.79%	7.79%	28.56%	17.80%	16,069,945	10,233,087	(5,836,858)
8/31/2025	55,717,187	36.43%	25.64%	7.84%	7.84%	28.59%	17.80%	16,531,226	10,514,731	(6,016,495)
8/31/2026	57,204,951	36.52%	25.68%	7.87%	7.87%	28.65%	17.81%	17,009,399	10,808,500	(6,200,899)
8/31/2027	58,663,852	36.63%	25.74%	7.89%	7.89%	28.74%	17.85%	17,492,831	11,105,042	(6,387,790)
8/31/2028	60,176,610	36.73%	25.81%	7.92%	7.92%	28.81%	17.89%	17,993,985	11,418,870	(6,575,115)
8/31/2029	61,730,720	36.84%	25.86%	7.94%	7.94%	28.90%	17.92%	18,514,261	11,739,783	(6,774,479)
8/31/2030	63,347,190	36.93%	25.92%	7.95%	7.95%	28.98%	17.97%	19,049,425	12,073,891	(6,975,534)
8/31/2031	65,030,266	37.03%	25.96%	7.97%	7.97%	29.06%	17.99%	19,613,141	12,416,083	(7,197,058)
8/31/2032	66,802,030	37.11%	26.01%	7.98%	7.98%	29.13%	18.03%	20,197,724	12,782,247	(7,415,477)
8/31/2033	68,676,553	37.19%	26.06%	7.99%	7.99%	29.20%	18.07%	20,810,922	13,167,521	(7,643,402)
8/31/2034	70,595,915	37.27%	26.10%	7.99%	7.99%	29.28%	18.11%	21,448,738	13,561,962	(7,886,776)
8/31/2035	72,491,054	37.38%	26.16%	8.00%	8.00%	29.38%	18.16%	22,106,390	13,970,263	(8,136,127)
8/31/2036	74,478,731	37.49%	26.23%	8.00%	8.00%	29.49%	18.23%	22,796,359	14,407,440	(8,388,919)
8/31/2037	76,514,132	37.61%	26.30%	8.00%	8.00%	29.61%	18.30%	23,505,567	14,854,211	(8,651,355)
8/31/2038	78,569,726	37.75%	26.38%	8.00%	8.00%	29.75%	18.38%	24,253,571	15,321,235	(8,932,335)
8/31/2039	80,713,768	37.90%	26.46%	8.00%	8.00%	29.90%	18.46%	25,037,202	15,806,691	(9,230,511)
8/31/2040	82,975,133	38.06%	26.55%	8.00%	8.00%	30.06%	18.55%	25,875,820	16,324,760	(9,551,060)
8/31/2041	85,407,940	38.25%	26.67%	8.00%	8.00%	30.25%	18.67%	26,798,471	16,900,337	(9,898,134)
8/31/2042	87,938,905	38.57%	26.85%	8.00%	8.00%	30.57%	18.85%	27,873,928	17,561,817	(10,312,110)
8/31/2043	90,612,192	39.32%	27.27%	8.00%	8.00%	31.32%	19.27%	29,395,431	18,479,584	(10,915,847)
8/31/2044	93,394,586	22.99%	18.00%	8.00%	8.00%	14.99%	10.00%	15,047,030	10,386,165	(4,660,865)
								$ 572,365,857	$ 363,538,690	$ (208,827,167)

Note: All assumptions, including the 6.40% (or 7.50%) rate of return, are assumed to be met each year in the future.
Employer Contribution Amount includes Administrative Expenses.

3/30/2016

Exhibit B

City of Lincoln Police and Fire Pension Fund

Baseline (Excludes COLA Pool Assets and Liabilities, 6.40% Assumed Rate of Return)
vs.
Modified Baseline (Includes COLA Pool Assets and Liabilities, 7.50% Assumed Rate of Return)

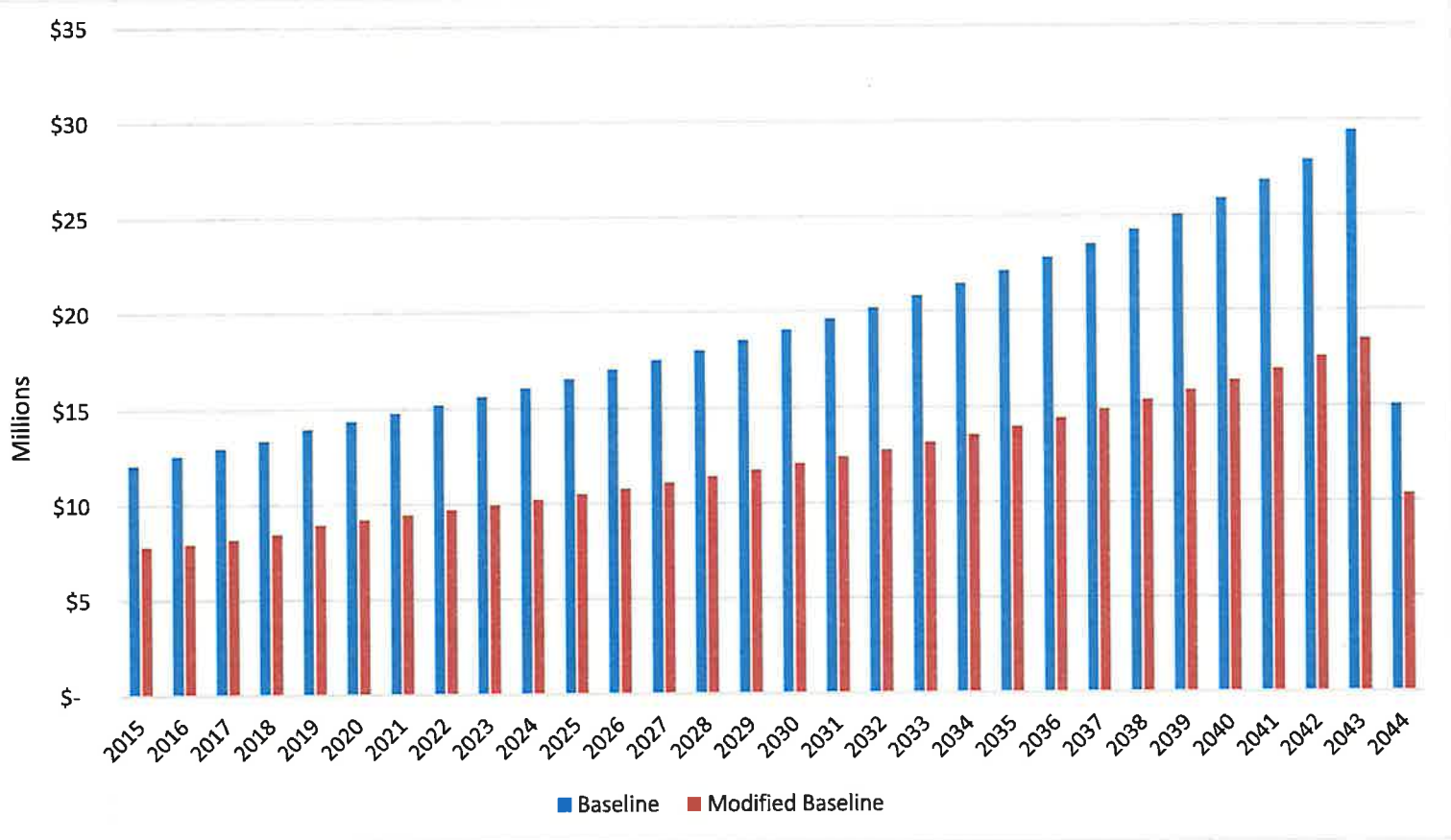
Valuation Date	Baseline: Excludes COLA Pool Assets and Liabilities, 6.40% Assumed Rate of Return				Modified Baseline: Includes COLA Pool Assets and Liabilities, 7.50% Assumed Rate of Return			
	Actuarial Liability	Actuarial Assets	Unfunded Actuarial Liability	Funded Ratio	Actuarial Liability	Actuarial Assets	Unfunded Actuarial Liability	Funded Ratio
8/31/2015	$ 286,493,673	$ 183,011,274	$ 103,482,399	63.9%	$ 261,733,723	$ 210,163,760	$ 51,569,963	80.3%
8/31/2016	299,576,557	191,719,383	107,857,174	64.0%	273,665,275	222,278,506	51,386,769	81.2%
8/31/2017	313,226,395	203,591,927	109,634,468	65.0%	286,140,544	233,498,988	52,641,556	81.6%
8/31/2018	327,174,839	215,457,799	111,717,040	65.9%	298,901,024	244,375,642	54,525,382	81.8%
8/31/2019	341,622,516	225,607,146	116,015,370	66.0%	312,138,906	253,397,595	58,741,311	81.2%
8/31/2020	356,498,943	239,503,888	116,995,055	67.2%	325,788,475	266,025,139	59,763,336	81.7%
8/31/2021	371,722,844	254,223,693	117,499,151	68.4%	339,773,080	279,391,235	60,381,845	82.2%
8/31/2022	387,266,996	269,556,687	117,710,309	69.6%	354,061,147	293,257,766	60,803,381	82.8%
8/31/2023	403,009,405	285,395,960	117,613,445	70.8%	368,533,797	307,508,566	61,025,231	83.4%
8/31/2024	419,005,248	301,790,611	117,214,637	72.0%	383,243,048	322,186,415	61,056,633	84.1%
8/31/2025	435,291,191	318,743,096	116,548,095	73.2%	398,225,190	337,277,298	60,947,892	84.7%
8/31/2026	451,841,273	336,266,783	115,574,490	74.4%	413,457,487	352,785,910	60,671,577	85.3%
8/31/2027	468,519,409	354,271,848	114,247,561	75.6%	428,804,213	368,600,638	60,203,575	86.0%
8/31/2028	485,365,949	372,804,794	112,561,155	76.8%	444,302,753	384,756,470	59,546,283	86.6%
8/31/2029	502,369,431	391,888,630	110,480,801	78.0%	459,941,912	401,264,735	58,677,177	87.2%
8/31/2030	519,577,605	411,590,448	107,987,157	79.2%	475,764,945	418,182,709	57,582,236	87.9%
8/31/2031	536,970,866	431,939,361	105,031,505	80.4%	491,751,223	435,517,531	56,233,692	88.6%
8/31/2032	554,594,933	453,004,913	101,590,020	81.7%	507,941,658	453,326,816	54,614,842	89.2%
8/31/2033	572,547,079	474,927,348	97,619,731	82.9%	524,430,724	471,720,937	52,709,787	89.9%
8/31/2034	590,818,362	497,748,154	93,070,208	84.2%	541,207,487	490,732,034	50,475,453	90.7%
8/31/2035	609,276,603	521,409,370	87,867,233	85.6%	558,138,655	510,276,787	47,861,868	91.4%
8/31/2036	627,985,119	546,016,046	81,969,073	86.9%	575,284,019	530,432,571	44,851,448	92.2%
8/31/2037	646,964,521	571,647,058	75,317,463	88.4%	592,662,144	551,257,188	41,404,956	93.0%
8/31/2038	666,119,200	598,293,236	67,825,964	89.8%	610,175,575	572,720,327	37,455,248	93.9%
8/31/2039	685,471,423	626,015,230	59,456,193	91.3%	627,840,057	594,857,225	32,982,832	94.7%
8/31/2040	705,131,391	655,012,545	50,118,846	92.9%	645,762,568	617,832,242	27,930,326	95.7%
8/31/2041	725,295,635	685,546,256	39,749,379	94.5%	664,133,263	641,873,569	22,259,694	96.6%
8/31/2042	746,044,519	717,817,622	28,226,897	96.2%	683,028,528	667,139,038	15,889,490	97.7%
8/31/2043	767,453,081	752,028,968	15,424,113	98.0%	702,514,783	693,782,706	8,732,077	98.8%
8/31/2044	789,589,444	788,485,310	1,104,134	99.9%	722,659,486	722,020,870	638,616	99.9%

Note: All assumptions, including the 6.40% (or 7.50%) rate of return, are assumed to be met each year in the future.

3/30/2016

City Contribution Amounts

Exhibit 2, page 3



Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

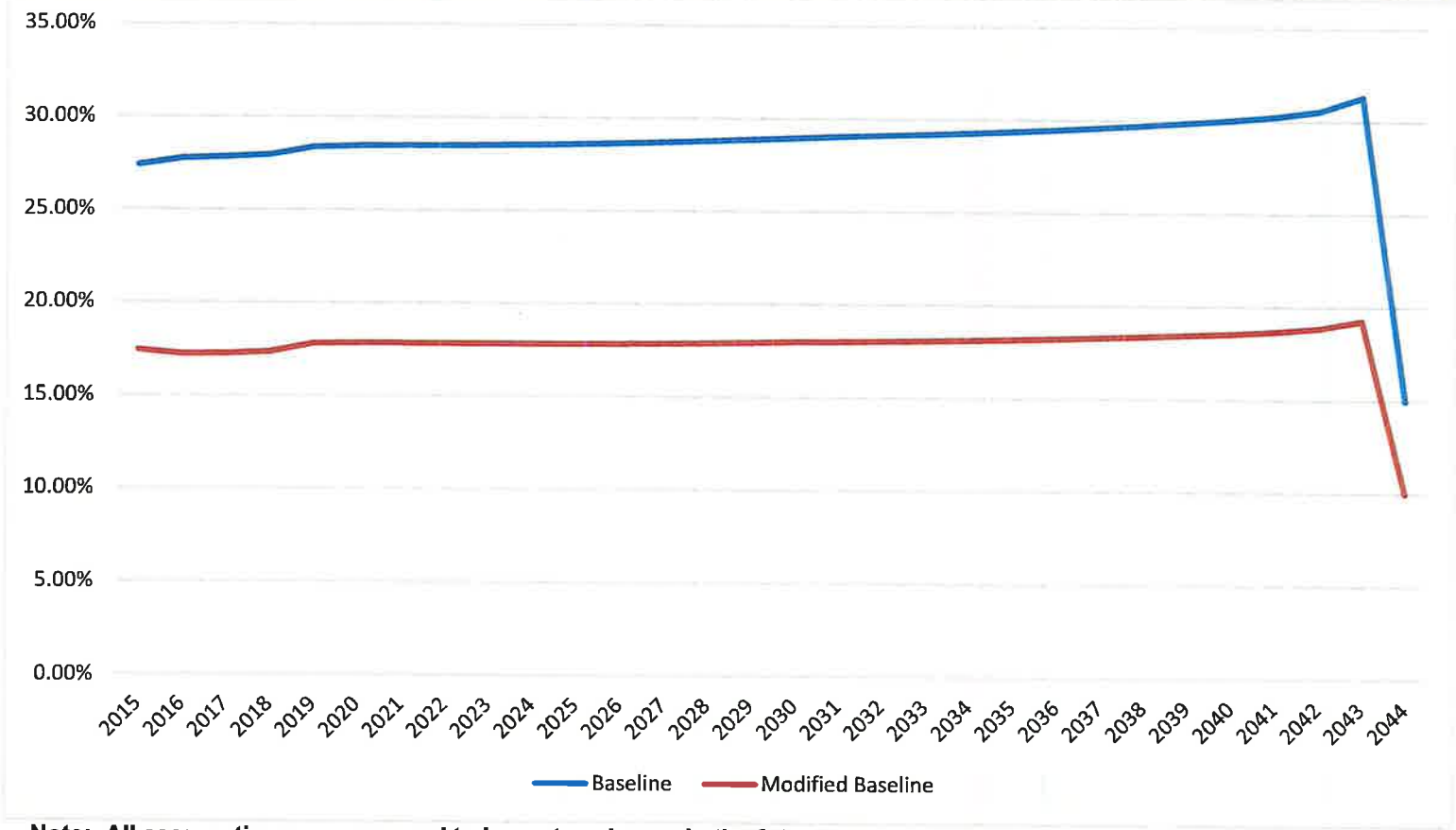
Baseline: Excludes COLA Pool assets and liabilities; 6.40% Assumed Rate of Return

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

Prepared by Cavanaugh Macdonald Consulting LLC

City Contribution Rates

Exhibit 2, page 4



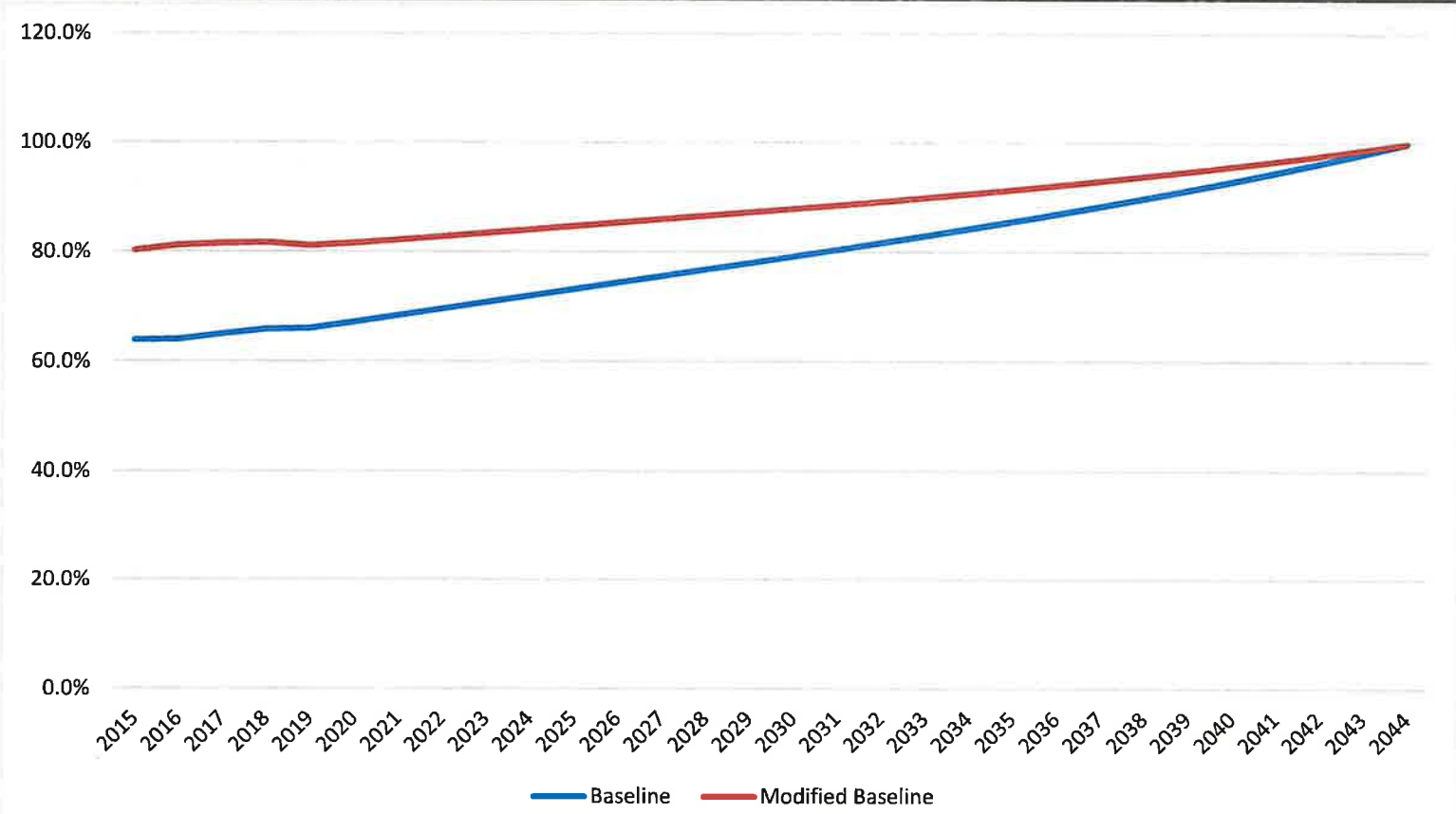
Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Baseline: Excludes COLA Pool assets and liabilities; 6.40% Assumed Rate of Return

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

Funded Ratio

Exhibit 2, page 5



Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Baseline: Excludes COLA Pool assets and liabilities; 6.40% Assumed Rate of Return

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

Exhibit A

Exhibit 3, page 1

City of Lincoln Police and Fire Pension Fund

Modified Baseline
vs.
Formula Change to (2.5% * YOS<=15 + 2.0% * YOS>15) * Final Average Salary, Maximum Benefit 67.5%)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Valuation	Total	Actuarial Contribution Rate		Employee Contribution Rate		City Contribution Rate		City Contribution Amount		
Date	Covered Payroll	Modified Baseline	Formula Change	Modified Baseline	Formula Change	Modified Baseline	Formula Change	Modified Baseline	Formula Change	Difference
8/31/2015	$ 42,381,058	24.30%	23.34%	6.88%	6.88%	17.42%	16.46%	$ 7,829,103	$ 7,422,010	$ (407,093)
8/31/2016	43,539,584	24.22%	23.16%	7.03%	7.03%	17.19%	16.13%	7,943,662	7,482,570	(461,093)
8/31/2017	44,832,323	24.35%	23.24%	7.13%	7.13%	17.22%	16.11%	8,194,123	7,698,503	(495,620)
8/31/2018	46,064,309	24.60%	23.44%	7.26%	7.26%	17.34%	16.18%	8,470,110	7,940,432	(529,677)
8/31/2019	47,405,129	25.15%	23.97%	7.36%	7.36%	17.79%	16.61%	8,933,491	8,378,308	(555,183)
8/31/2020	48,764,682	25.28%	24.06%	7.45%	7.45%	17.83%	16.61%	9,207,706	8,617,736	(589,970)
8/31/2021	50,070,525	25.38%	24.13%	7.56%	7.56%	17.82%	16.57%	9,455,109	8,840,430	(614,679)
8/31/2022	51,425,697	25.47%	24.17%	7.65%	7.65%	17.82%	16.52%	9,708,932	9,059,331	(649,602)
8/31/2023	52,796,822	25.54%	24.20%	7.73%	7.73%	17.81%	16.47%	9,962,234	9,278,304	(683,930)
8/31/2024	54,235,235	25.59%	24.21%	7.79%	7.79%	17.80%	16.42%	10,233,087	9,510,719	(722,368)
8/31/2025	55,717,187	25.64%	24.23%	7.84%	7.84%	17.80%	16.39%	10,514,731	9,764,150	(750,581)
8/31/2026	57,204,951	25.68%	24.25%	7.87%	7.87%	17.81%	16.38%	10,808,500	10,032,272	(776,229)
8/31/2027	58,663,852	25.74%	24.27%	7.89%	7.89%	17.85%	16.38%	11,105,042	10,306,550	(798,492)
8/31/2028	60,176,610	25.81%	24.30%	7.92%	7.92%	17.89%	16.38%	11,418,870	10,587,764	(831,106)
8/31/2029	61,730,720	25.86%	24.33%	7.94%	7.94%	17.92%	16.39%	11,739,783	10,895,830	(843,952)
8/31/2030	63,347,190	25.92%	24.36%	7.95%	7.95%	17.97%	16.41%	12,073,891	11,212,991	(860,900)
8/31/2031	65,030,266	25.96%	24.39%	7.97%	7.97%	17.99%	16.42%	12,416,083	11,532,162	(883,920)
8/31/2032	66,802,030	26.01%	24.42%	7.98%	7.98%	18.03%	16.44%	12,782,247	11,860,132	(922,115)
8/31/2033	68,676,553	26.06%	24.45%	7.99%	7.99%	18.07%	16.46%	13,167,521	12,221,053	(946,468)
8/31/2034	70,595,915	26.10%	24.48%	7.99%	7.99%	18.11%	16.49%	13,561,962	12,592,532	(969,430)
8/31/2035	72,491,054	26.16%	24.52%	8.00%	8.00%	18.16%	16.52%	13,970,263	12,993,267	(976,996)
8/31/2036	74,478,731	26.23%	24.58%	8.00%	8.00%	18.23%	16.58%	14,407,440	13,414,089	(993,352)
8/31/2037	76,514,132	26.30%	24.65%	8.00%	8.00%	18.30%	16.65%	14,854,211	13,829,627	(1,024,584)
8/31/2038	78,569,726	26.38%	24.71%	8.00%	8.00%	18.38%	16.71%	15,321,235	14,259,463	(1,061,772)
8/31/2039	80,713,768	26.46%	24.82%	8.00%	8.00%	18.46%	16.82%	15,806,691	14,716,425	(1,090,266)
8/31/2040	82,975,133	26.55%	24.94%	8.00%	8.00%	18.55%	16.94%	16,324,760	15,175,471	(1,149,290)
8/31/2041	85,407,940	26.67%	25.06%	8.00%	8.00%	18.67%	17.06%	16,900,337	15,690,023	(1,210,314)
8/31/2042	87,938,905	26.85%	25.24%	8.00%	8.00%	18.85%	17.24%	17,561,817	16,296,164	(1,265,654)
8/31/2043	90,612,192	27.27%	25.66%	8.00%	8.00%	19.27%	17.66%	18,479,584	17,152,648	(1,326,936)
8/31/2044	93,394,586	18.00%	16.81%	8.00%	8.00%	10.00%	8.81%	10,386,165	9,330,186	(1,055,979)
								$ 363,538,690	$ 338,091,139	$ (25,447,551)

Note: All assumptions, including the 7.50% rate of return, are assumed to be met each year in the future. Both projections include the COLA Pool assets and liabilities and a 7.50% assumed rate of return. City Contribution Amount includes Administrative Expenses. Retirement rates were adjusted under the proposed change to anticipate a change in retirement behavior, but actual experience may vary significantly from that assumed. If that occurs, actual cost savings may also vary.

Benefit Formula Changes: Members with 15 or more years of service are grandfathered under the current provisions;
Normal Retirement Age for all other members moves from age 50 to age 55;
Benefit multiplier of 2.50% for the first 15 years, then 2.00% thereafter, with a maximum benefit of 67.5%;
Members can elect Early Retirement at age 50 with a 6% per year reduction in their benefit for each year before age 55.

4/14/2016

Exhibit B

City of Lincoln Police and Fire Pension Fund

Modified Baseline
vs.
Formula Change to (2.5% * YOS<=15 + 2.0% * YOS>15) * Final Average Salary, Maximum Benefit 67.5%)

	Modified Baseline: Includes COLA Pool Assets and Liabilities, 7.50% Assumed Rate of Return				Formula Change: Includes COLA Pool Assets and Liabilities, 7.50% Assumed Rate of Return, Benefit Formula Change			
Valuation Date	Actuarial Liability	Actuarial Assets	Unfunded Actuarial Liability	Funded Ratio	Actuarial Liability	Actuarial Assets	Unfunded Actuarial Liability	Funded Ratio
8/31/2015	$ 261,733,723	$ 210,163,760	$ 51,569,963	80.3%	$ 259,648,091	$ 210,163,760	$ 49,484,331	80.9%
8/31/2016	273,665,275	222,278,506	51,386,769	81.2%	271,142,703	222,281,088	48,861,615	82.0%
8/31/2017	286,140,544	233,498,988	52,641,556	81.6%	283,129,079	233,086,296	50,042,783	82.3%
8/31/2018	298,901,024	244,375,642	54,525,382	81.8%	295,336,775	243,458,399	51,878,376	82.4%
8/31/2019	312,138,906	253,397,595	58,741,311	81.2%	307,957,588	251,902,898	56,054,690	81.8%
8/31/2020	325,788,475	266,025,139	59,763,336	81.7%	320,936,786	263,887,967	57,048,819	82.2%
8/31/2021	339,773,080	279,391,235	60,381,845	82.2%	334,207,517	276,566,005	57,641,512	82.8%
8/31/2022	354,061,147	293,257,766	60,803,381	82.8%	347,756,548	289,704,720	58,051,828	83.3%
8/31/2023	368,533,797	307,508,566	61,025,231	83.4%	361,439,519	303,182,951	58,256,568	83.9%
8/31/2024	383,243,048	322,186,415	61,056,633	84.1%	375,313,804	317,030,320	58,283,484	84.5%
8/31/2025	398,225,190	337,277,298	60,947,892	84.7%	389,439,553	331,256,879	58,182,674	85.1%
8/31/2026	413,457,487	352,785,910	60,671,577	85.3%	403,816,791	345,879,098	57,937,693	85.7%
8/31/2027	428,804,213	368,600,638	60,203,575	86.0%	418,369,179	360,848,408	57,520,771	86.3%
8/31/2028	444,302,753	384,756,470	59,546,283	86.6%	433,136,865	376,216,340	56,920,525	86.9%
8/31/2029	459,941,912	401,264,735	58,677,177	87.2%	448,182,393	392,049,365	56,133,028	87.5%
8/31/2030	475,764,945	418,182,709	57,582,236	87.9%	463,647,271	408,495,393	55,151,878	88.1%
8/31/2031	491,751,223	435,517,531	56,233,692	88.6%	479,429,605	425,525,503	53,904,102	88.8%
8/31/2032	507,941,658	453,326,816	54,614,842	89.2%	495,431,203	443,054,581	52,376,622	89.4%
8/31/2033	524,430,724	471,720,937	52,709,787	89.9%	511,790,980	461,210,041	50,580,939	90.1%
8/31/2034	541,207,487	490,732,034	50,475,453	90.7%	528,596,018	480,111,753	48,484,265	90.8%
8/31/2035	558,138,655	510,276,787	47,861,868	91.4%	545,853,769	499,807,235	46,046,534	91.6%
8/31/2036	575,284,019	530,432,571	44,851,448	92.2%	563,628,328	520,405,834	43,222,494	92.3%
8/31/2037	592,662,144	551,257,188	41,404,956	93.0%	581,750,818	541,807,009	39,943,809	93.1%
8/31/2038	610,175,575	572,720,327	37,455,248	93.9%	600,059,141	563,892,524	36,166,617	94.0%
8/31/2039	627,840,057	594,857,225	32,982,832	94.7%	618,478,388	586,615,590	31,862,798	94.8%
8/31/2040	645,762,568	617,832,242	27,930,326	95.7%	636,805,251	609,846,975	26,958,276	95.8%
8/31/2041	664,133,263	641,873,569	22,259,694	96.6%	655,194,543	633,734,895	21,459,648	96.7%
8/31/2042	683,028,528	667,139,038	15,889,490	97.7%	673,865,356	658,557,499	15,307,857	97.7%
8/31/2043	702,514,783	693,782,706	8,732,077	98.8%	692,874,669	684,467,893	8,406,776	98.8%
8/31/2044	722,659,486	722,020,870	638,616	99.9%	712,251,158	711,636,356	614,802	99.9%

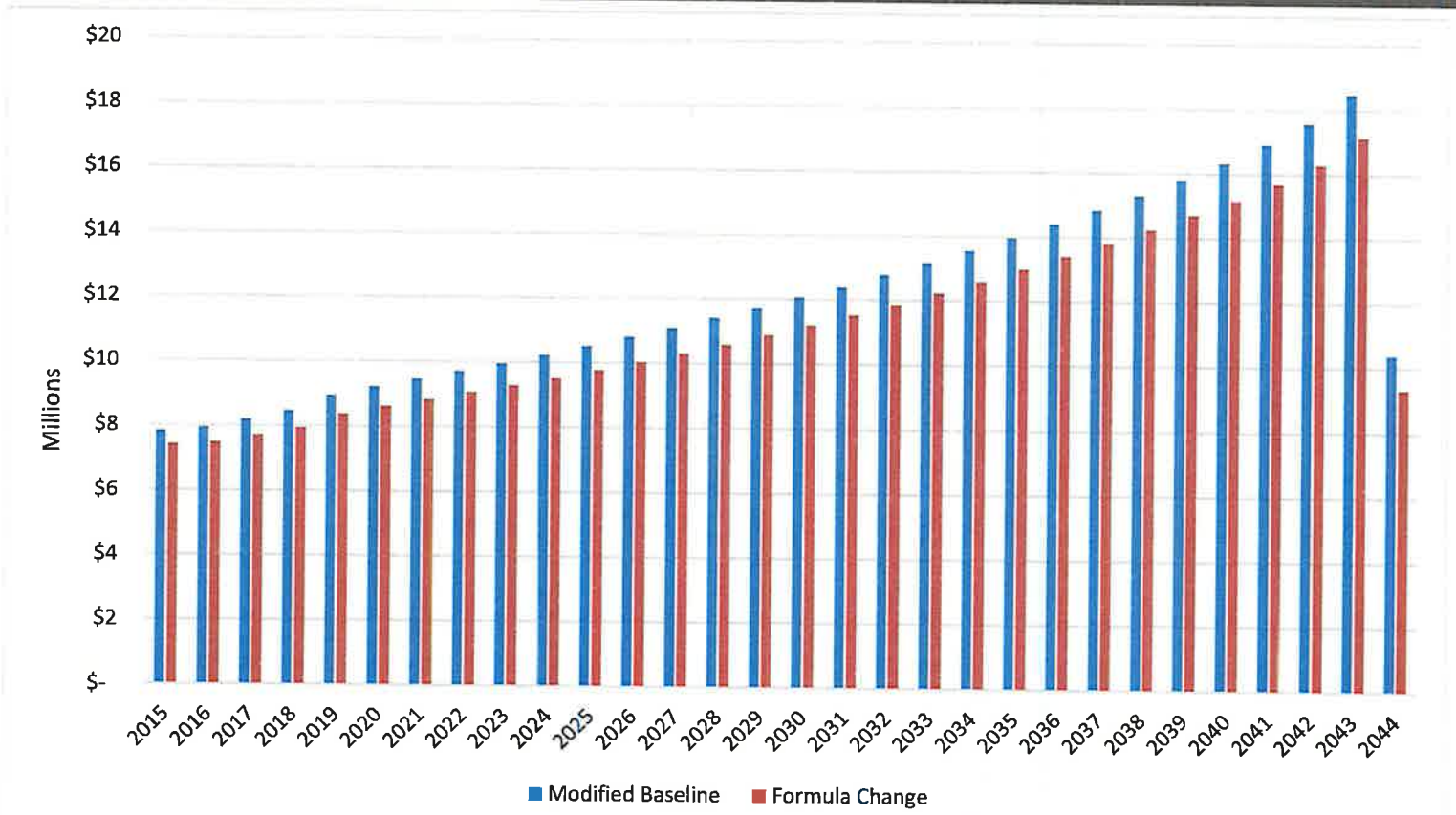
Note: All assumptions, including the 7.50% rate of return, are assumed to be met each year in the future. Both projections include the COLA Pool assets and liabilities and a 7.50% assumed rate of return. City Contribution Amount includes Administrative Expenses. Retirement rates were adjusted under the proposed change to anticipate a change in retirement behavior, but actual experience may vary significantly from that assumed. If that occurs, actual cost savings may also vary.

Benefit Formula Changes: Members with 15 or more years of service are grandfathered under the current provisions;
Normal Retirement Age for all other members moves from age 50 to age 55;
Benefit multiplier of 2.50% for the first 15 years, then 2.00% thereafter, with a maximum benefit of 67.5%;
Members can elect Early Retirement at age 50 with a 6% per year reduction in their benefit for each year before age 55.

4/14/2016

City Contribution Amounts

Exhibit 3, page 3



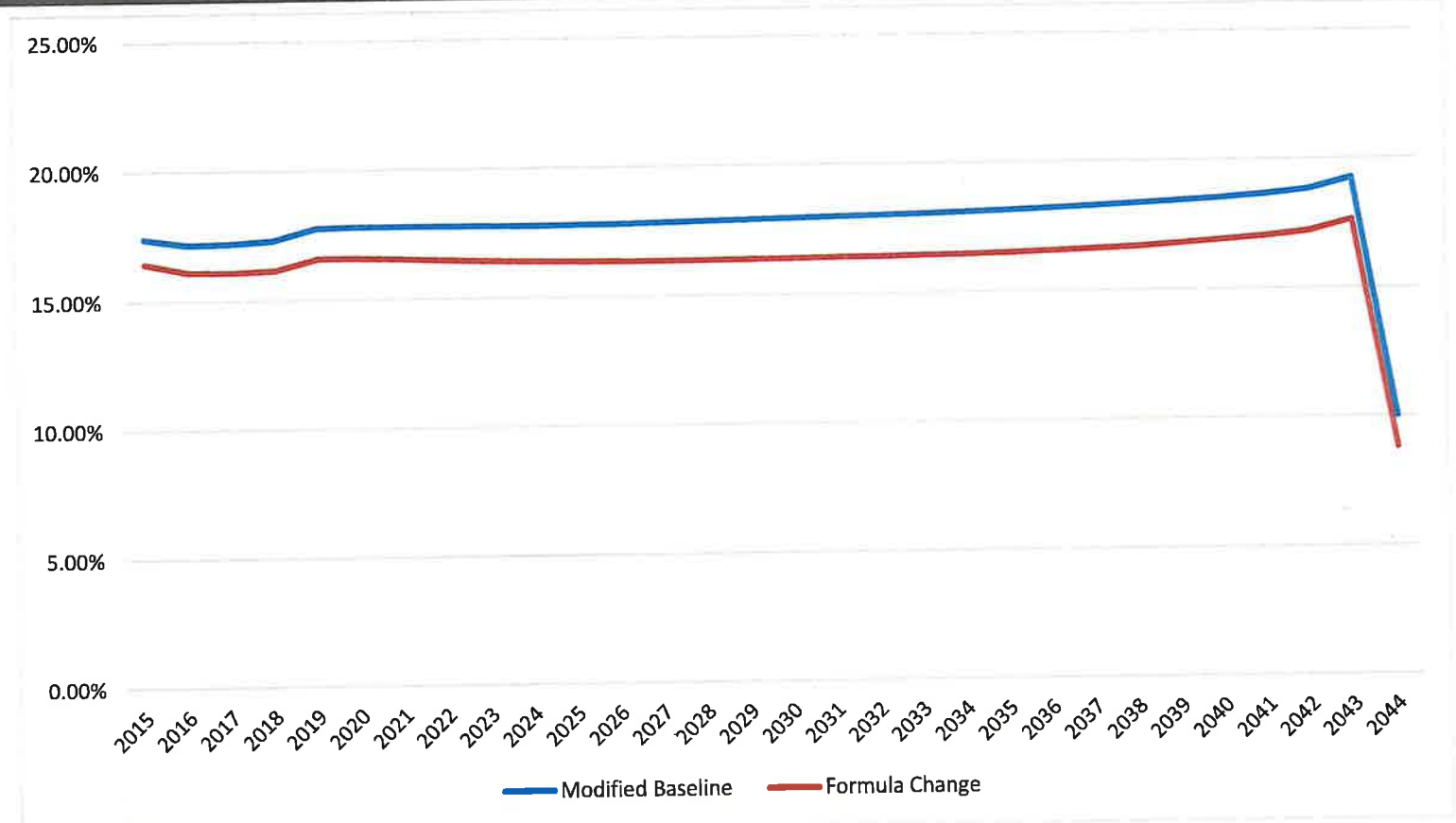
Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

Formula Change: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return, Benefit Formula Change

City Contribution Rates

Exhibit 3, page 4



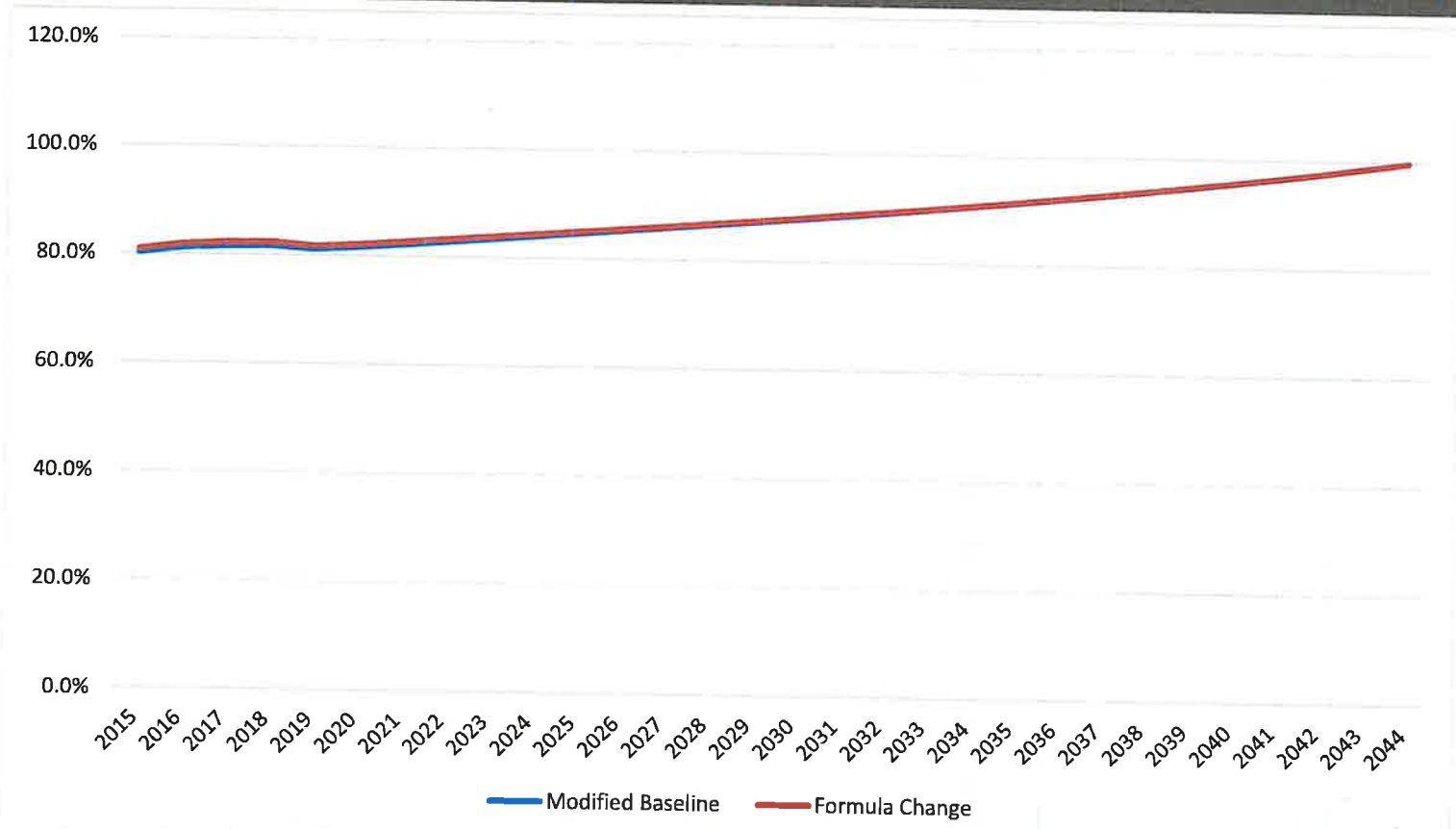
Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

Formula Change: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return, Benefit Formula Change

Funded Ratio

Exhibit 3, page 5



Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

Formula Change: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return, Benefit Formula Change

Exhibit A

Exhibit 4, page1

City of Lincoln Police and Fire Pension Fund

Modified Baseline
vs.
3-year Final Average Salary with phase-in

(1) Valuation Date	(2) Total Covered Payroll	(3) Actuarial Contribution Rate Modified Baseline	(4) Actuarial Contribution Rate 3 Yr FAS	(5) Employee Contribution Rate Modified Baseline	(6) Employee Contribution Rate 3 Yr FAS	(7) City Contribution Rate Modified Baseline	(8) City Contribution Rate 3 Yr FAS	(9) City Contribution Amount Modified Baseline	(10) City Contribution Amount 3 Yr FAS	(11) City Contribution Amount Difference
8/31/2015	$ 42,381,058	24.30%	23.63%	6.88%	6.88%	17.42%	16.75%	$ 7,829,103	$ 7,543,719	$ (285,384)
8/31/2016	43,539,584	24.22%	23.48%	7.03%	7.03%	17.19%	16.45%	7,943,662	7,623,286	(320,376)
8/31/2017	44,832,323	24.35%	23.60%	7.13%	7.13%	17.22%	16.47%	8,194,123	7,857,804	(336,319)
8/31/2018	46,064,309	24.60%	23.82%	7.26%	7.26%	17.34%	16.56%	8,470,110	8,114,244	(355,866)
8/31/2019	47,405,129	25.15%	24.38%	7.36%	7.36%	17.79%	17.02%	8,933,491	8,566,345	(367,146)
8/31/2020	48,764,682	25.28%	24.49%	7.45%	7.45%	17.83%	17.04%	9,207,706	8,824,351	(383,355)
8/31/2021	50,070,525	25.38%	24.57%	7.56%	7.56%	17.82%	17.01%	9,455,109	9,049,985	(405,124)
8/31/2022	51,425,697	25.47%	24.64%	7.65%	7.65%	17.82%	16.99%	9,708,932	9,286,102	(422,830)
8/31/2023	52,796,822	25.54%	24.70%	7.73%	7.73%	17.81%	16.97%	9,962,234	9,521,441	(440,793)
8/31/2024	54,235,235	25.59%	24.74%	7.79%	7.79%	17.80%	16.95%	10,233,087	9,773,492	(459,595)
8/31/2025	55,717,187	25.64%	24.78%	7.84%	7.84%	17.80%	16.94%	10,514,731	10,035,569	(479,162)
8/31/2026	57,204,951	25.68%	24.81%	7.87%	7.87%	17.81%	16.94%	10,808,500	10,309,240	(499,260)
8/31/2027	58,663,852	25.74%	24.87%	7.89%	7.89%	17.85%	16.98%	11,105,042	10,591,241	(513,800)
8/31/2028	60,176,610	25.81%	24.91%	7.92%	7.92%	17.89%	16.99%	11,418,870	10,878,040	(540,830)
8/31/2029	61,730,720	25.86%	24.96%	7.94%	7.94%	17.92%	17.02%	11,739,783	11,182,730	(557,053)
8/31/2030	63,347,190	25.92%	25.00%	7.95%	7.95%	17.97%	17.05%	12,073,891	11,494,356	(579,535)
8/31/2031	65,030,266	25.96%	25.04%	7.97%	7.97%	17.99%	17.07%	12,416,083	11,819,291	(596,792)
8/31/2032	66,802,030	26.01%	25.09%	7.98%	7.98%	18.03%	17.11%	12,782,247	12,167,689	(614,557)
8/31/2033	68,676,553	26.06%	25.12%	7.99%	7.99%	18.07%	17.13%	13,167,521	12,527,154	(640,367)
8/31/2034	70,595,915	26.10%	25.17%	7.99%	7.99%	18.11%	17.18%	13,561,962	12,908,557	(653,405)
8/31/2035	72,491,054	26.16%	25.22%	8.00%	8.00%	18.16%	17.22%	13,970,263	13,290,107	(680,155)
8/31/2036	74,478,731	26.23%	25.29%	8.00%	8.00%	18.23%	17.29%	14,407,440	13,705,447	(701,993)
8/31/2037	76,514,132	26.30%	25.35%	8.00%	8.00%	18.30%	17.35%	14,854,211	14,130,173	(724,038)
8/31/2038	78,569,726	26.38%	25.42%	8.00%	8.00%	18.38%	17.42%	15,321,235	14,566,384	(754,851)
8/31/2039	80,713,768	26.46%	25.51%	8.00%	8.00%	18.46%	17.51%	15,806,691	15,034,944	(771,747)
8/31/2040	82,975,133	26.55%	25.58%	8.00%	8.00%	18.55%	17.58%	16,324,760	15,519,566	(805,194)
8/31/2041	85,407,940	26.67%	25.69%	8.00%	8.00%	18.67%	17.69%	16,900,337	16,064,020	(836,317)
8/31/2042	87,938,905	26.85%	25.86%	8.00%	8.00%	18.85%	17.86%	17,561,817	16,690,966	(870,851)
8/31/2043	90,612,192	27.27%	26.27%	8.00%	8.00%	19.27%	18.27%	18,479,584	17,568,383	(911,201)
8/31/2044	93,394,586	18.00%	17.39%	8.00%	8.00%	10.00%	9.39%	10,386,165	9,814,657	(571,509)
								$ 363,538,690	$ 346,459,283	$ (17,079,407)

Note: All assumptions, including the 7.50% rate of return, are assumed to be met each year in the future. Both projections include the COLA Pool assets and liabilities and 7.5% assumed rate of return.
Employer Contribution Amount includes Administrative Expenses.

Phase-in: Members currently eligible for Normal Retirement (age 50 with 25 YOS) keep the High 1-year average.
Members eligible for Normal Retirement within the next 10 years (age 40 with 15 or more YOS) move to a High 2-year average.
Members not within 10 years of Normal Retirement move to a High 3-year average.
Current Final Average Salary is grandfathered, meaning a members' FAS at retirement will not be less than FAS prior to change.

4/13/2016

Exhibit B

Exhibit 4, page 2

City of Lincoln Police and Fire Pension Fund

Modified Baseline
vs.
3-year Final Average Salary with phase-in

	Baseline: Includes COLA Pool Assets and Liabilities, 7.50% Assumed Rate of Return				3-year FAS: Includes COLA Pool Assets and Liabilities, 7.50% Assumed Rate of Return, 3-year FAS phased in			
Valuation Date	Actuarial Liability	Actuarial Assets	Unfunded Actuarial Liability	Funded Ratio	Actuarial Liability	Actuarial Assets	Unfunded Actuarial Liability	Funded Ratio
8/31/2015	$ 261,733,723	$ 210,163,760	$ 51,569,963	80.3%	$ 259,767,285	$ 210,163,760	$ 49,603,525	80.9%
8/31/2016	273,665,275	222,278,506	51,386,769	81.2%	271,386,122	222,280,857	49,105,265	81.9%
8/31/2017	286,140,544	233,498,988	52,641,556	81.6%	283,519,141	233,213,136	50,306,005	82.3%
8/31/2018	298,901,024	244,375,642	54,525,382	81.8%	295,907,681	243,750,658	52,157,023	82.4%
8/31/2019	312,138,906	253,397,595	58,741,311	81.2%	308,742,952	252,400,685	56,342,267	81.8%
8/31/2020	325,788,475	266,025,139	59,763,336	81.7%	321,959,947	264,619,945	57,340,002	82.2%
8/31/2021	339,773,080	279,391,235	60,381,845	82.2%	335,483,421	277,550,590	57,932,831	82.7%
8/31/2022	354,061,147	293,257,766	60,803,381	82.8%	349,281,151	290,949,865	58,331,286	83.3%
8/31/2023	368,533,797	307,508,566	61,025,231	83.4%	363,235,644	304,696,677	58,538,967	83.9%
8/31/2024	383,243,048	322,186,415	61,056,633	84.1%	377,398,005	318,836,810	58,561,195	84.5%
8/31/2025	398,225,190	337,277,298	60,947,892	84.7%	391,804,139	333,355,436	58,448,703	85.1%
8/31/2026	413,457,487	352,785,910	60,671,577	85.3%	406,431,732	348,256,241	58,175,491	85.7%
8/31/2027	428,804,213	368,600,638	60,203,575	86.0%	421,147,768	363,428,966	57,718,802	86.3%
8/31/2028	444,302,753	384,756,470	59,546,283	86.6%	435,988,651	378,906,946	57,081,705	86.9%
8/31/2029	459,941,912	401,264,735	58,677,177	87.2%	450,944,473	394,707,654	56,236,819	87.5%
8/31/2030	475,764,945	418,182,709	57,582,236	87.9%	466,061,122	410,877,677	55,183,445	88.2%
8/31/2031	491,751,223	435,517,531	56,233,692	88.6%	481,319,724	427,435,563	53,884,161	88.8%
8/31/2032	507,941,658	453,326,816	54,614,842	89.2%	496,762,520	444,433,327	52,329,193	89.5%
8/31/2033	524,430,724	471,720,937	52,709,787	89.9%	512,484,088	461,985,670	50,498,418	90.1%
8/31/2034	541,207,487	490,732,034	50,475,453	90.7%	528,476,389	480,126,384	48,350,005	90.9%
8/31/2035	558,138,655	510,276,787	47,861,868	91.4%	544,612,875	498,769,261	45,843,614	91.6%
8/31/2036	575,284,019	530,432,571	44,851,448	92.2%	560,950,867	518,001,291	42,949,576	92.3%
8/31/2037	592,662,144	551,257,188	41,404,956	93.0%	577,509,222	537,865,895	39,643,327	93.1%
8/31/2038	610,175,575	572,720,327	37,455,248	93.9%	594,194,051	558,339,555	35,854,496	94.0%
8/31/2039	627,840,057	594,857,225	32,982,832	94.7%	611,020,795	579,456,145	31,564,650	94.8%
8/31/2040	645,762,568	617,832,242	27,930,326	95.7%	628,096,201	601,369,372	26,726,829	95.7%
8/31/2041	664,133,263	641,873,569	22,259,694	96.6%	645,605,806	624,315,621	21,290,185	96.7%
8/31/2042	683,028,528	667,139,038	15,889,490	97.7%	663,624,842	648,433,363	15,191,479	97.7%
8/31/2043	702,514,783	693,782,706	8,732,077	98.8%	682,217,925	673,875,281	8,342,644	98.8%
8/31/2044	722,659,486	722,020,870	638,616	99.9%	701,450,871	700,850,024	600,847	99.9%

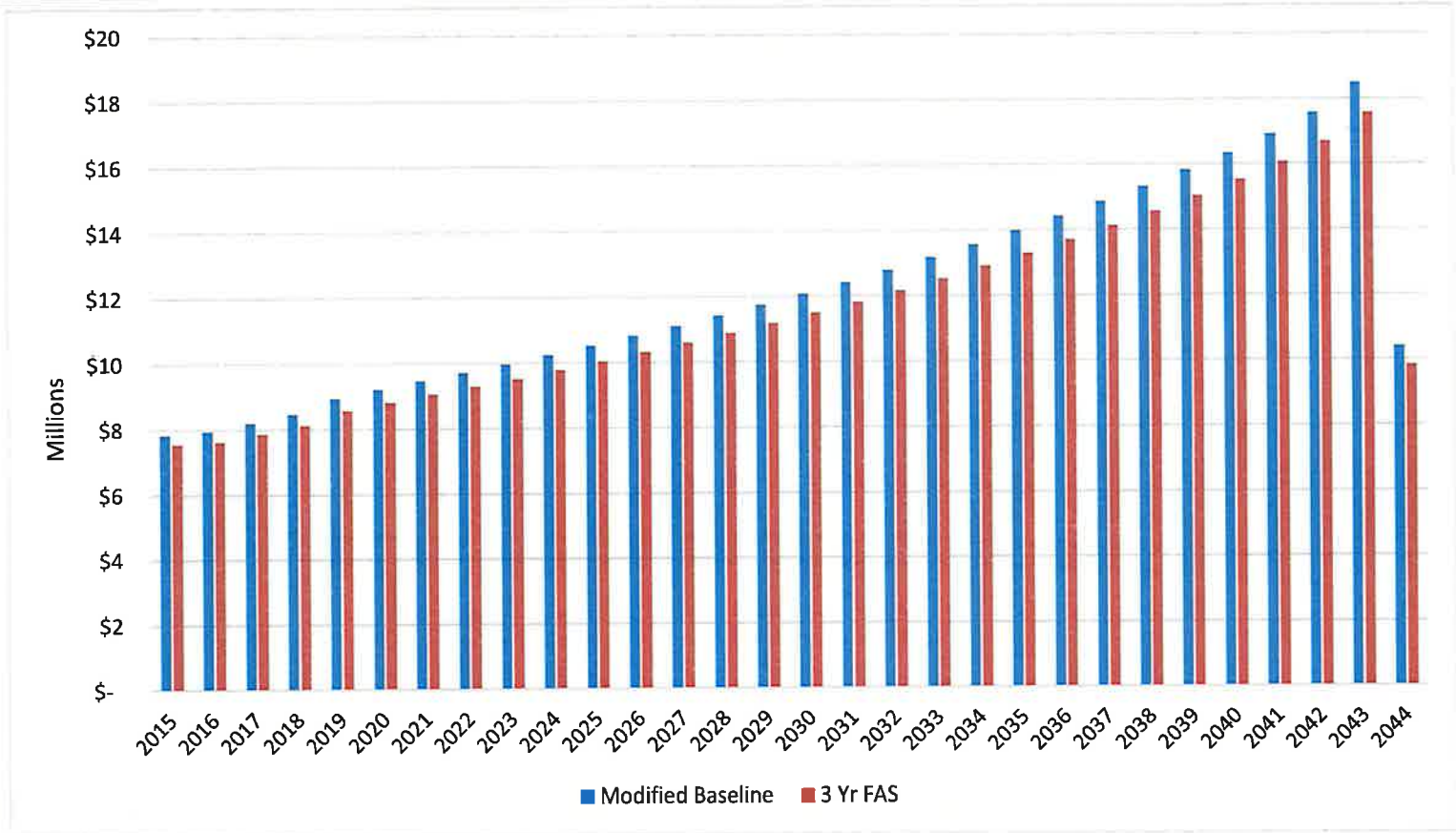
Note: All assumptions, including the 7.50% rate of return, are assumed to be met each year in the future. Both projections include the COLA Pool assets and liabilities and 7.5% assumed rate of return.

Phase-in: Members currently eligible for Normal Retirement (age 50 with 25 YOS) keep the High 1-year average.
Members eligible for Normal Retirement within the next 10 years (age 40 with 15 or more YOS) move to a High 2-year average.
Members not within 10 years of Normal Retirement move to a High 3-year average.
Current Final Average Salary is grandfathered, meaning a members' FAS at retirement will not be less than FAS prior to change.

4/13/2016

City Contribution Amounts

Exhibit 4, page 3



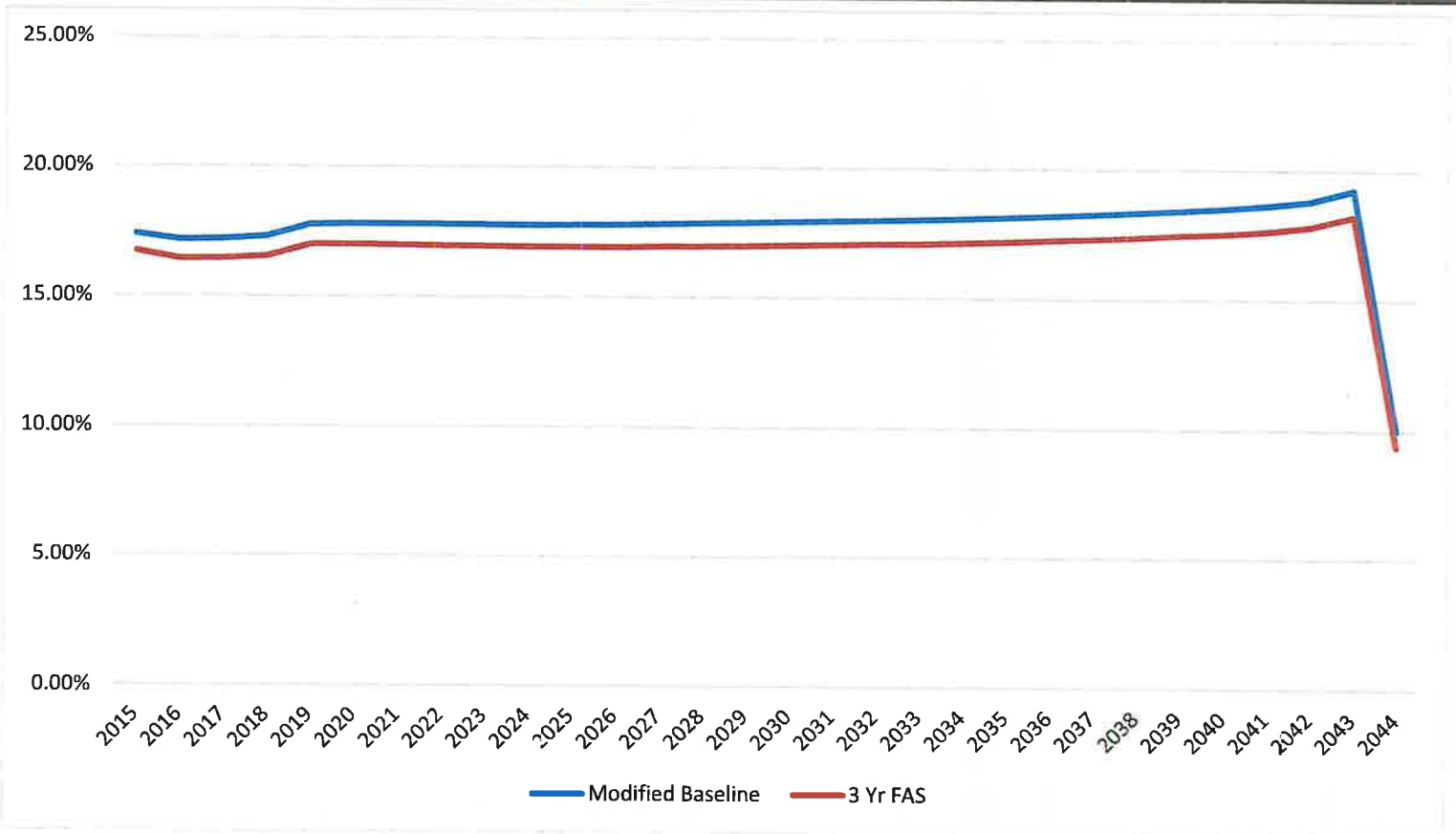
Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

3 Yr FAS: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return, 3-year FAS phase in

City Contribution Rates

Exhibit 4, page 4



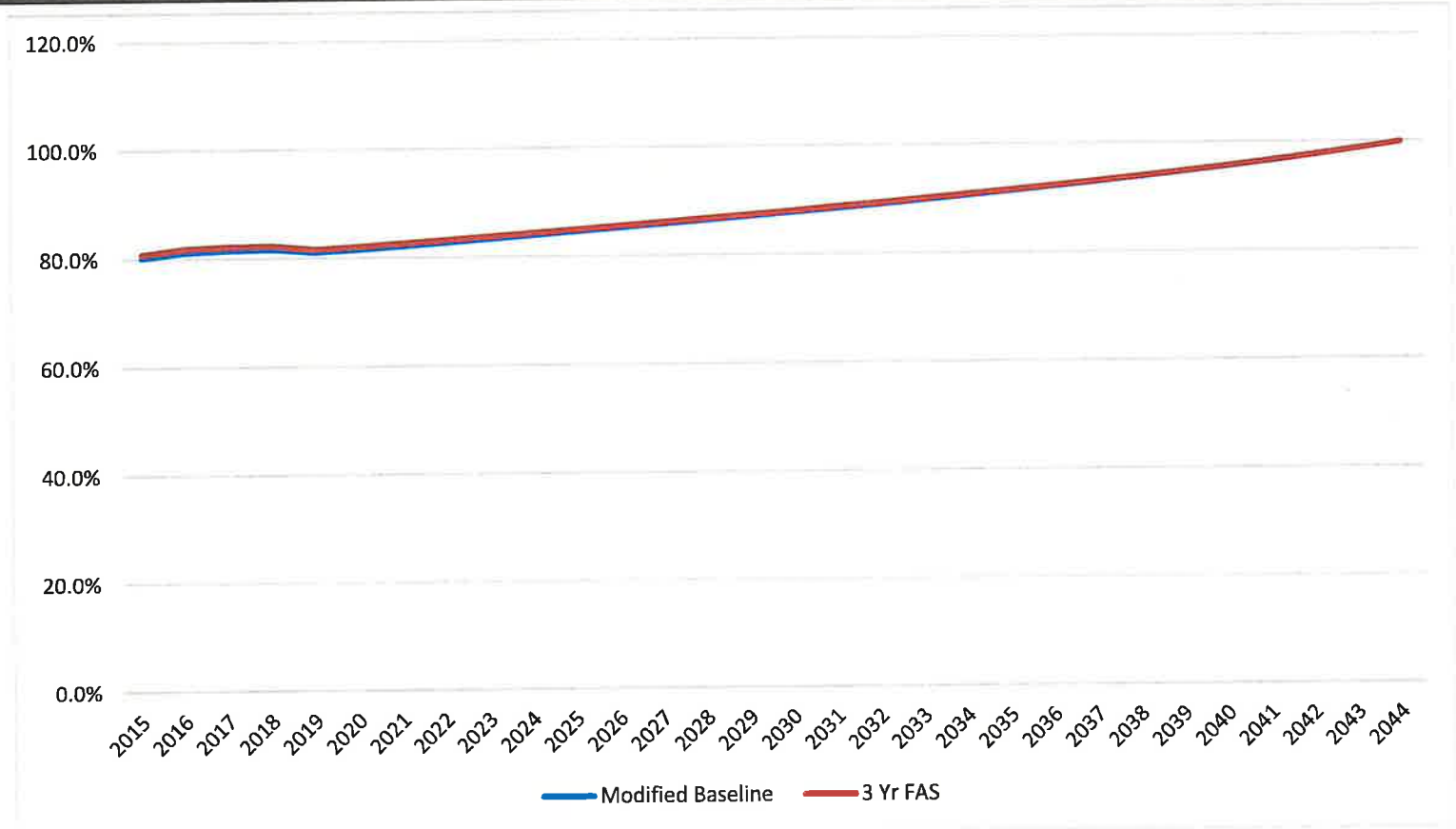
Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

3 Yr FAS: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return, 3-year FAS phase in

Exhibit 4, page 5

Funded Ratio



Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

3 Yr FAS: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return, 3-year FAS phase in

Exhibit A

Exhibit 5, page 1

City of Lincoln Police and Fire Pension Fund

Modified Baseline
vs.
Eliminate DROP Program for Current and Future Actives

(1)	(2) Total Covered Payroll		(3) Actuarial Contribution Rate		(5) Employee Contribution Rate		(7) City Contribution Rate		(9) City Contribution Amount		(11)
Valuation Date	Modified Baseline	Eliminate DROP	Modified Baseline	Eliminate DROP	Modified Baseline	Eliminate DROP	Modified Baseline	Eliminate DROP	Modified Baseline	Eliminate DROP	Difference
8/31/2015	$ 42,381,058	$ 42,381,058	24.30%	23.42%	6.88%	6.88%	17.42%	16.54%	$ 7,829,103	$ 7,457,522	$ (371,581)
8/31/2016	43,539,584	44,458,656	24.22%	23.14%	7.03%	7.03%	17.19%	16.11%	7,943,662	7,618,093	(325,569)
8/31/2017	44,832,323	46,222,024	24.35%	23.20%	7.13%	7.13%	17.22%	16.07%	8,194,123	7,898,063	(296,059)
8/31/2018	46,064,309	48,302,867	24.60%	23.32%	7.26%	7.28%	17.34%	16.04%	8,470,110	8,237,087	(233,023)
8/31/2019	47,405,129	50,440,271	25.15%	23.76%	7.36%	7.38%	17.79%	16.38%	8,933,491	8,761,138	(172,352)
8/31/2020	48,764,682	52,015,899	25.28%	23.87%	7.45%	7.47%	17.83%	16.40%	9,207,706	9,047,124	(160,582)
8/31/2021	50,070,525	53,511,110	25.38%	23.94%	7.56%	7.56%	17.82%	16.38%	9,455,109	9,295,326	(159,783)
8/31/2022	51,425,697	55,036,649	25.47%	24.01%	7.65%	7.65%	17.82%	16.36%	9,708,932	9,549,558	(159,375)
8/31/2023	52,796,822	56,591,248	25.54%	24.05%	7.73%	7.74%	17.81%	16.31%	9,962,234	9,794,656	(167,578)
8/31/2024	54,235,235	58,226,653	25.59%	24.09%	7.79%	7.80%	17.80%	16.29%	10,233,087	10,064,491	(168,596)
8/31/2025	55,717,187	59,957,305	25.64%	24.11%	7.84%	7.85%	17.80%	16.26%	10,514,731	10,344,771	(169,960)
8/31/2026	57,204,951	61,698,479	25.68%	24.14%	7.87%	7.88%	17.81%	16.26%	10,808,500	10,647,023	(161,478)
8/31/2027	58,663,852	63,437,282	25.74%	24.16%	7.89%	7.90%	17.85%	16.26%	11,105,042	10,948,859	(156,183)
8/31/2028	60,176,610	65,170,047	25.81%	24.20%	7.92%	7.92%	17.89%	16.28%	11,418,870	11,261,029	(157,841)
8/31/2029	61,730,720	66,960,544	25.86%	24.24%	7.94%	7.94%	17.92%	16.30%	11,739,783	11,588,026	(151,757)
8/31/2030	63,347,190	68,742,155	25.92%	24.29%	7.95%	7.96%	17.97%	16.33%	12,073,891	11,919,645	(154,246)
8/31/2031	65,030,266	70,606,712	25.96%	24.33%	7.97%	7.97%	17.99%	16.36%	12,416,083	12,267,163	(148,920)
8/31/2032	66,802,030	72,540,899	26.01%	24.37%	7.98%	7.98%	18.03%	16.39%	12,782,247	12,622,144	(160,103)
8/31/2033	68,676,553	74,635,333	26.06%	24.39%	7.99%	7.99%	18.07%	16.40%	13,167,521	12,999,613	(167,908)
8/31/2034	70,595,915	76,786,466	26.10%	24.42%	7.99%	7.99%	18.11%	16.43%	13,561,962	13,394,411	(167,551)
8/31/2035	72,491,054	78,958,524	26.16%	24.47%	8.00%	8.00%	18.16%	16.47%	13,970,263	13,809,016	(161,246)
8/31/2036	74,478,731	81,204,087	26.23%	24.52%	8.00%	8.00%	18.23%	16.52%	14,407,440	14,242,246	(165,194)
8/31/2037	76,514,132	83,462,427	26.30%	24.56%	8.00%	8.00%	18.30%	16.56%	14,854,211	14,677,914	(176,297)
8/31/2038	78,569,726	85,739,920	26.38%	24.63%	8.00%	8.00%	18.38%	16.63%	15,321,235	15,132,189	(189,047)
8/31/2039	80,713,768	88,058,527	26.46%	24.69%	8.00%	8.00%	18.46%	16.69%	15,806,691	15,605,194	(201,498)
8/31/2040	82,975,133	90,461,348	26.55%	24.77%	8.00%	8.00%	18.55%	16.77%	16,324,760	16,102,297	(222,464)
8/31/2041	85,407,940	93,074,403	26.67%	24.85%	8.00%	8.00%	18.67%	16.85%	16,900,337	16,644,439	(255,898)
8/31/2042	87,938,905	95,786,887	26.85%	25.00%	8.00%	8.00%	18.85%	17.00%	17,561,817	17,268,984	(292,833)
8/31/2043	90,612,192	98,629,439	27.27%	25.33%	8.00%	8.00%	19.27%	17.33%	18,479,584	18,110,920	(368,664)
8/31/2044	93,394,586	101,573,096	18.00%	17.25%	8.00%	8.00%	10.00%	9.25%	10,386,165	10,439,065	52,900
									$ 363,538,690	$ 357,748,007	$ (5,790,683)

Note: All assumptions, including the 7.50% rate of return, are assumed to be met each year in the future. Both projections include the COLA Pool assets and liabilities and use a 7.50% assumed rate of return. City Contribution Amount includes Administrative Expenses. Retirement rates were adjusted under the proposed change to anticipate a change in retirement behavior, but actual experience may vary significantly from that assumed. If that occurs, actual cost savings may also vary or even become a cost increase.

4/15/2016

Exhibit B

Exhibit 5, page 2

City of Lincoln Police and Fire Pension Fund

Modified Baseline
vs.
Eliminate DROP Program for Current and Future Actives

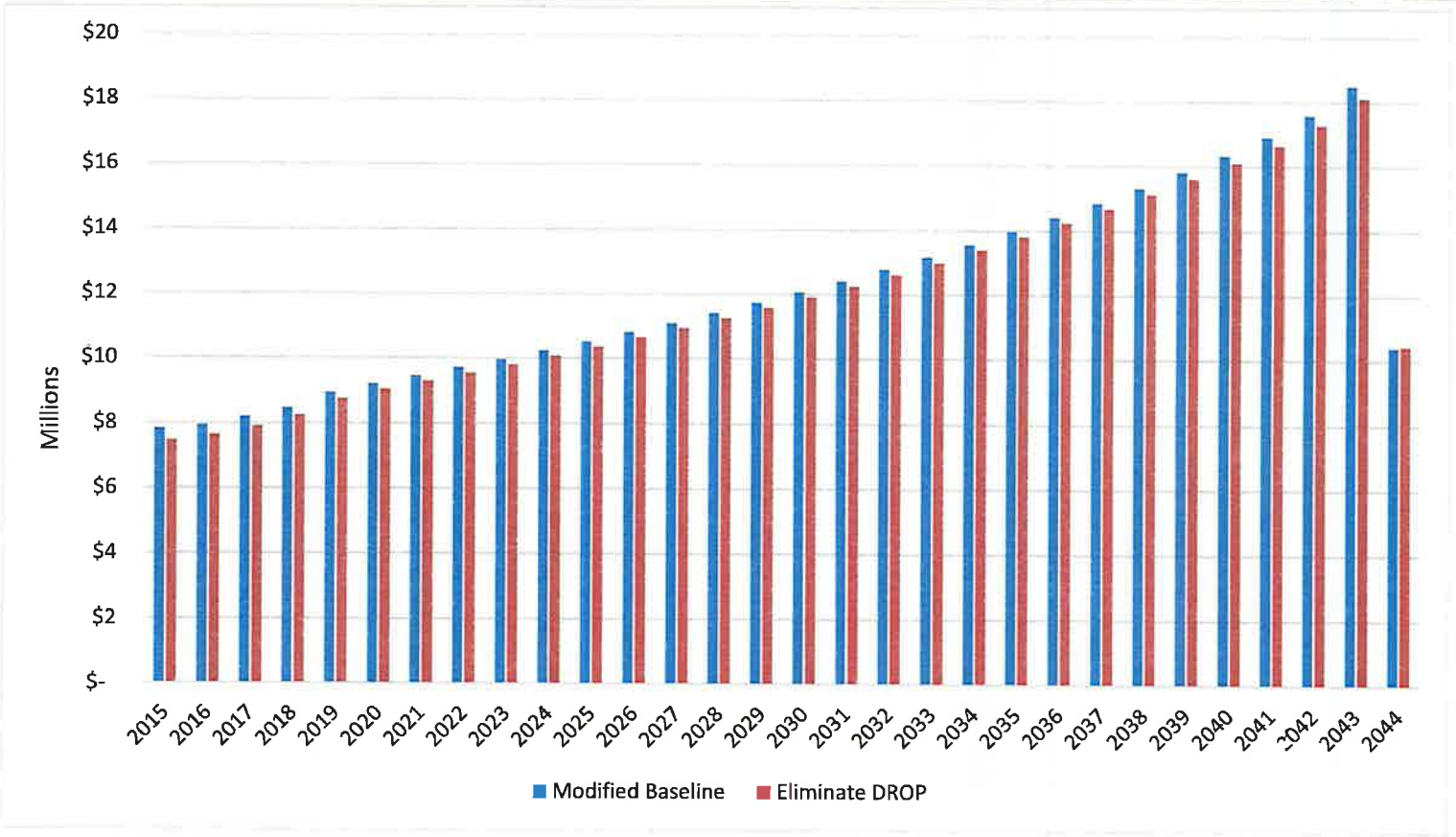
Valuation Date	Modified Baseline: Includes COLA Pool Assets and Liabilities, 7.50% Assumed Rate of Return				Eliminate DROP for current and Future Actives: Includes COLA Pool Assets and Liabilities, 7.50% Assumed Rate of Return			
	Actuarial Liability	Actuarial Assets	Unfunded Actuarial Liability	Funded Ratio	Actuarial Liability	Actuarial Assets	Unfunded Actuarial Liability	Funded Ratio
8/31/2015	$ 261,733,723	$ 210,163,760	$ 51,569,963	80.3%	$ 258,841,691	$ 210,163,760	$ 48,677,931	81.2%
8/31/2016	273,665,275	222,278,506	51,386,769	81.2%	270,427,668	222,333,816	48,093,852	82.2%
8/31/2017	286,140,544	233,498,988	52,641,556	81.6%	282,749,838	233,380,492	49,369,346	82.5%
8/31/2018	298,901,024	244,375,642	54,525,382	81.8%	295,485,346	244,222,194	51,263,152	82.7%
8/31/2019	312,138,906	253,397,595	58,741,311	81.2%	308,894,355	253,373,581	55,520,774	82.0%
8/31/2020	325,788,475	266,025,139	59,763,336	81.7%	322,923,545	266,335,358	56,588,187	82.5%
8/31/2021	339,773,080	279,391,235	60,381,845	82.2%	337,390,201	280,190,217	57,199,984	83.0%
8/31/2022	354,061,147	293,257,766	60,803,381	82.8%	352,229,809	294,621,268	57,608,541	83.6%
8/31/2023	368,533,797	307,508,566	61,025,231	83.4%	367,321,037	309,496,857	57,824,180	84.3%
8/31/2024	383,243,048	322,186,415	61,056,633	84.1%	382,729,197	324,876,277	57,852,920	84.9%
8/31/2025	398,225,190	337,277,298	60,947,892	84.7%	398,531,972	340,769,793	57,762,179	85.5%
8/31/2026	413,457,487	352,785,910	60,671,577	85.3%	414,758,440	357,242,176	57,516,264	86.1%
8/31/2027	428,804,213	368,600,638	60,203,575	86.0%	431,292,087	374,193,361	57,098,726	86.8%
8/31/2028	444,302,753	384,756,470	59,546,283	86.6%	448,142,843	391,653,211	56,489,632	87.4%
8/31/2029	459,941,912	401,264,735	58,677,177	87.2%	465,274,170	409,595,101	55,679,069	88.0%
8/31/2030	475,764,945	418,182,709	57,582,236	87.9%	482,689,422	428,038,951	54,650,471	88.7%
8/31/2031	491,751,223	435,517,531	56,233,692	88.6%	500,325,964	446,955,219	53,370,745	89.3%
8/31/2032	507,941,658	453,326,816	54,614,842	89.2%	518,216,394	466,385,538	51,830,856	90.0%
8/31/2033	524,430,724	471,720,937	52,709,787	89.9%	536,492,997	486,475,466	50,017,531	90.7%
8/31/2034	541,207,487	490,732,034	50,475,453	90.7%	555,195,380	507,292,697	47,902,683	91.4%
8/31/2035	558,138,655	510,276,787	47,861,868	91.4%	574,234,297	528,794,695	45,439,602	92.1%
8/31/2036	575,284,019	530,432,571	44,851,448	92.2%	593,683,952	551,088,012	42,595,940	92.8%
8/31/2037	592,662,144	551,257,188	41,404,956	93.0%	613,517,657	574,195,826	39,321,831	93.6%
8/31/2038	610,175,575	572,720,327	37,455,248	93.9%	633,604,635	598,041,236	35,563,399	94.4%
8/31/2039	627,840,057	594,857,225	32,982,832	94.7%	653,897,198	622,595,049	31,302,149	95.2%
8/31/2040	645,762,568	617,832,242	27,930,326	95.7%	674,427,550	647,946,398	26,481,152	96.1%
8/31/2041	664,133,263	641,873,569	22,259,694	96.6%	695,390,904	674,315,030	21,075,874	97.0%
8/31/2042	683,028,528	667,139,038	15,889,490	97.7%	716,878,593	701,868,345	15,010,248	97.9%
8/31/2043	702,514,783	693,782,706	8,732,077	98.8%	738,900,460	730,689,797	8,210,663	98.9%
8/31/2044	722,659,486	722,020,870	638,616	99.9%	761,490,057	760,955,222	534,835	99.9%

Note: All assumptions, including the 7.50% rate of return, are assumed to be met each year in the future. Both projections include the COLA Pool assets and liabilities and use a 7.50% assumed rate of return. City Contribution Amount includes Administrative Expenses. Retirement rates were adjusted under the proposed change to anticipate a change in retirement behavior, but actual experience may vary significantly from that assumed. If that occurs, actual cost savings may also vary or even become a cost increase.

4/15/2016

City Contribution Amounts

Exhibit 5, page 3



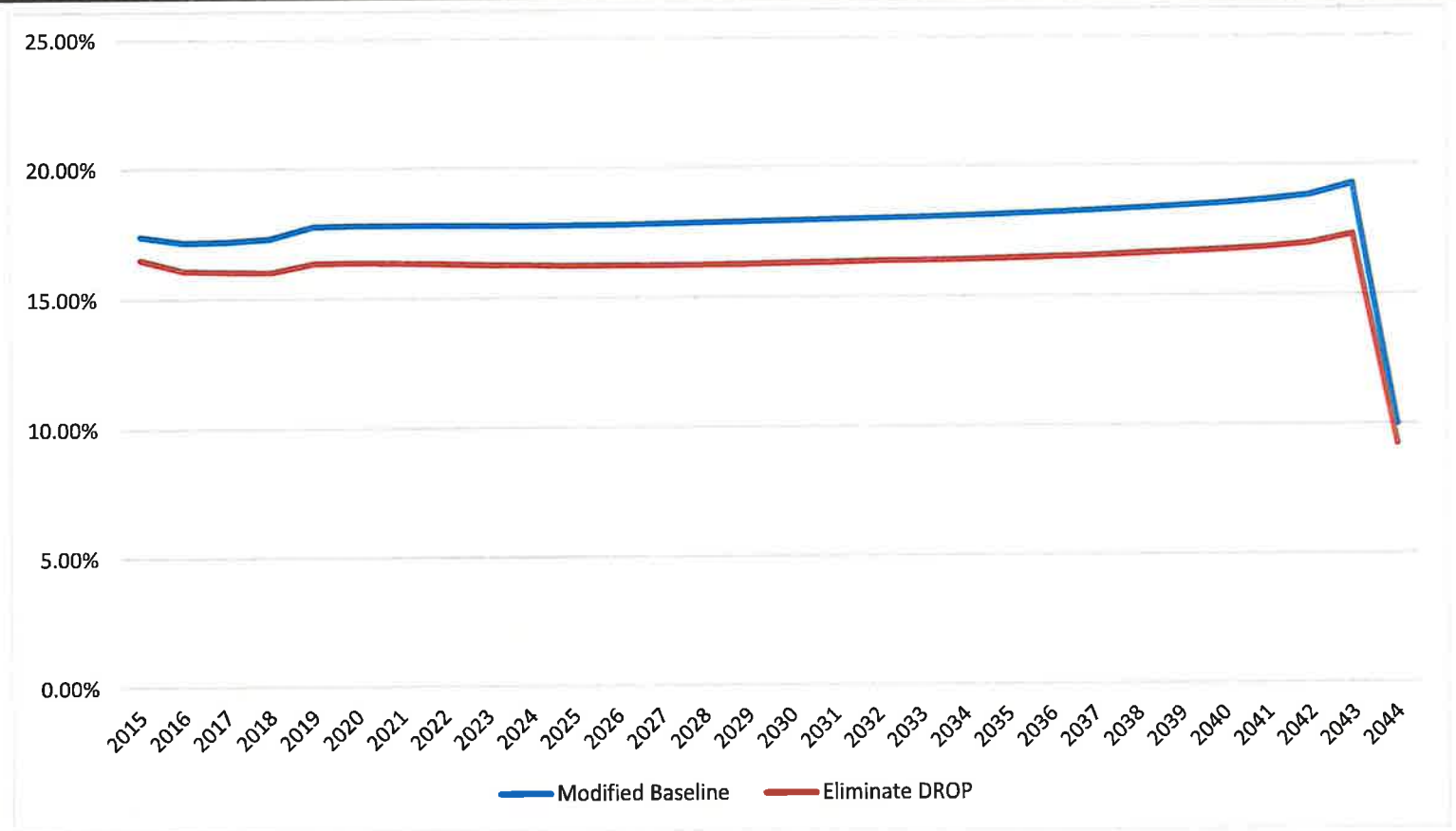
Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

Eliminate DROP: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return, Eliminate DROP Program

Exhibit 5, page 4

City Contribution Rates



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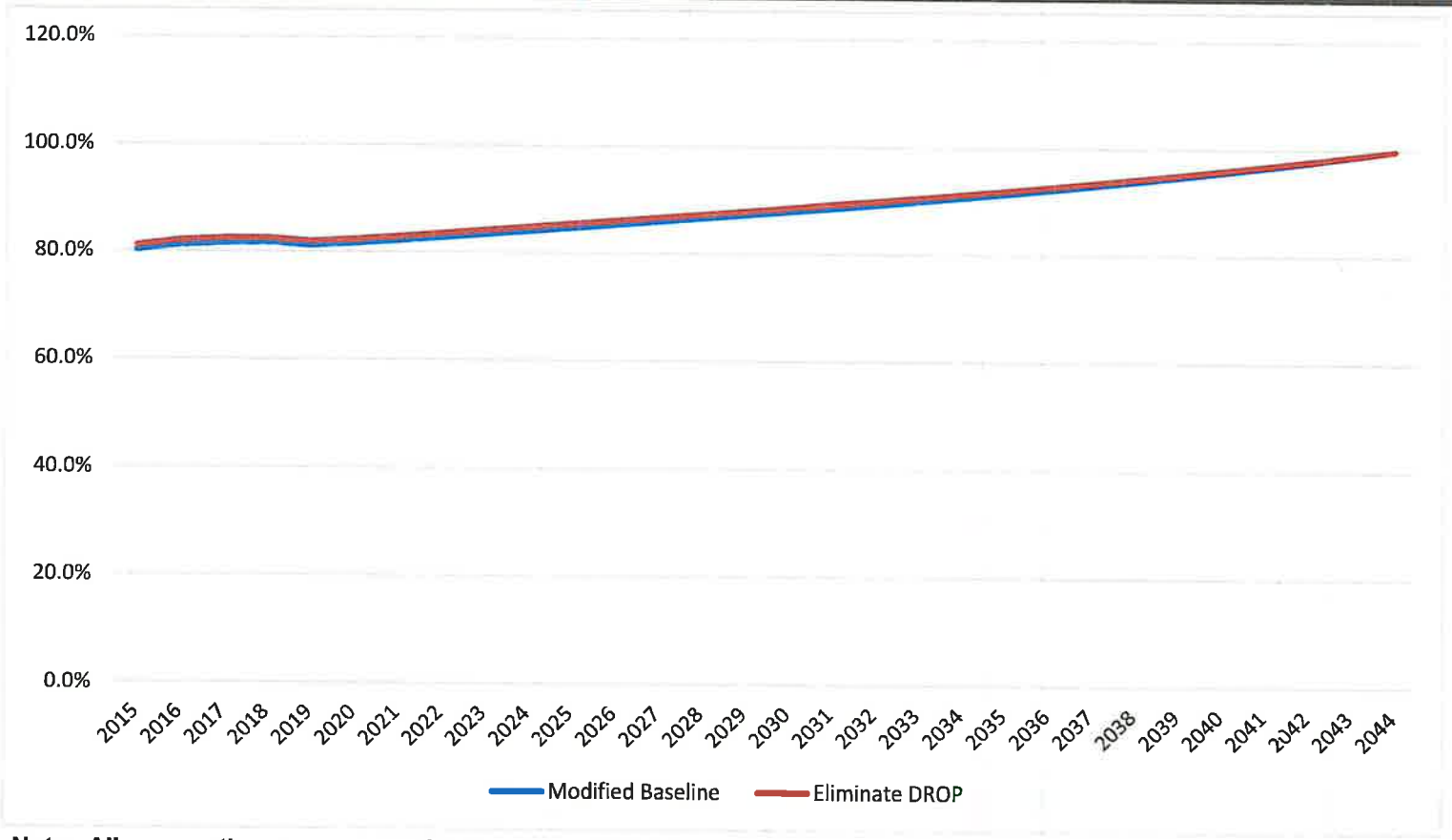
Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

Eliminate DROP: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return, Eliminate DROP Program

Funded Ratio

Exhibit 5, page 5



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Actual costs will vary to the extent actual experience differs from that projected.

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

Eliminate DROP: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return, Eliminate DROP Program

Exhibit A

City of Lincoln Police and Fire Pension Fund

Modified Baseline
vs.
1% Compound COLA for Actives Only, Commencing 5 years after Retirement/End of DROP

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Valuation	Total	Actuarial Contribution Rate		Employee Contribution Rate		City Contribution Rate		City Contribution Amount		
Date	Covered Payroll	Modified Baseline	1% COLA	Modified Baseline	1% COLA	Modified Baseline	1% COLA	Modified Baseline	1% COLA	Difference
8/31/2015	$ 42,381,058	24.30%	25.09%	6.88%	6.88%	17.42%	18.21%	$ 7,829,103	$ 8,161,307	$ 332,204
8/31/2016	43,539,584	24.22%	25.06%	7.03%	7.03%	17.19%	18.03%	7,943,662	8,312,317	368,655
8/31/2017	44,832,323	24.35%	25.21%	7.13%	7.13%	17.22%	18.08%	8,194,123	8,582,172	388,049
8/31/2018	46,064,309	24.60%	25.46%	7.26%	7.26%	17.34%	18.20%	8,470,110	8,872,190	402,080
8/31/2019	47,405,129	25.15%	26.04%	7.36%	7.36%	17.79%	18.68%	8,933,491	9,360,148	426,657
8/31/2020	48,764,682	25.28%	26.19%	7.45%	7.45%	17.83%	18.74%	9,207,706	9,655,669	447,964
8/31/2021	50,070,525	25.38%	26.31%	7.56%	7.56%	17.82%	18.75%	9,455,109	9,924,987	469,879
8/31/2022	51,425,697	25.47%	26.42%	7.65%	7.65%	17.82%	18.77%	9,708,932	10,207,318	498,386
8/31/2023	52,796,822	25.54%	26.51%	7.73%	7.73%	17.81%	18.78%	9,962,234	10,485,444	523,210
8/31/2024	54,235,235	25.59%	26.58%	7.79%	7.79%	17.80%	18.79%	10,233,087	10,782,160	549,073
8/31/2025	55,717,187	25.64%	26.65%	7.84%	7.84%	17.80%	18.81%	10,514,731	11,091,138	576,407
8/31/2026	57,204,951	25.68%	26.72%	7.87%	7.87%	17.81%	18.85%	10,808,500	11,413,827	605,327
8/31/2027	58,663,852	25.74%	26.80%	7.89%	7.89%	17.85%	18.91%	11,105,042	11,740,853	635,811
8/31/2028	60,176,610	25.81%	26.89%	7.92%	7.92%	17.89%	18.97%	11,418,870	12,087,148	668,278
8/31/2029	61,730,720	25.86%	26.97%	7.94%	7.94%	17.92%	19.03%	11,739,783	12,442,320	702,537
8/31/2030	63,347,190	25.92%	27.05%	7.95%	7.95%	17.97%	19.10%	12,073,891	12,813,077	739,186
8/31/2031	65,030,266	25.96%	27.11%	7.97%	7.97%	17.99%	19.14%	12,416,083	13,194,330	778,247
8/31/2032	66,802,030	26.01%	27.19%	7.98%	7.98%	18.03%	19.21%	12,782,247	13,601,778	819,531
8/31/2033	68,676,553	26.06%	27.25%	7.99%	7.99%	18.07%	19.26%	13,167,521	14,023,845	856,324
8/31/2034	70,595,915	26.10%	27.33%	7.99%	7.99%	18.11%	19.34%	13,561,962	14,471,407	909,445
8/31/2035	72,491,054	26.16%	27.42%	8.00%	8.00%	18.16%	19.42%	13,970,263	14,922,153	951,891
8/31/2036	74,478,731	26.23%	27.51%	8.00%	8.00%	18.23%	19.51%	14,407,440	15,403,319	995,879
8/31/2037	76,514,132	26.30%	27.61%	8.00%	8.00%	18.30%	19.61%	14,854,211	15,897,511	1,043,300
8/31/2038	78,569,726	26.38%	27.72%	8.00%	8.00%	18.38%	19.72%	15,321,235	16,416,591	1,095,356
8/31/2039	80,713,768	26.46%	27.85%	8.00%	8.00%	18.46%	19.85%	15,806,691	16,970,094	1,163,403
8/31/2040	82,975,133	26.55%	27.99%	8.00%	8.00%	18.55%	19.99%	16,324,760	17,558,987	1,234,227
8/31/2041	85,407,940	26.67%	28.16%	8.00%	8.00%	18.67%	20.16%	16,900,337	18,220,370	1,320,033
8/31/2042	87,938,905	26.85%	28.42%	8.00%	8.00%	18.85%	20.42%	17,561,817	18,993,311	1,431,493
8/31/2043	90,612,192	27.27%	29.08%	8.00%	8.00%	19.27%	21.08%	18,479,584	20,163,335	1,683,751
8/31/2044	93,394,586	18.00%	18.97%	8.00%	8.00%	10.00%	10.97%	10,386,165	11,324,545	938,380
								$ 363,538,690	$ 387,093,652	$ 23,554,962

Note: All assumptions, including the 7.50% rate of return, are assumed to be met each year in the future. Modified baseline includes COLA assets and liabilities and 7.5% assumed rate of return.
Employer Contribution Amount includes Administrative Expenses.

DROP Assumptions: 80% of members elect DROP.
Members electing to enter DROP remain in DROP for 3.5 years.

4/13/2016

Exhibit B

City of Lincoln Police and Fire Pension Fund

Modified Baseline
vs.
1% Compound COLA for Actives Only, Commencing 5 years after Retirement/End of DROP

	Modified Baseline: Includes COLA Pool Assets and Liabilities, 7.50% Assumed Rate of Return				1% COLA: Includes COLA Pool Assets and Liabilities, 7.50% Assumed Rate of Return, 5-year delayed 1% compound COLA for Actives only			
Valuation Date	Actuarial Liability	Actuarial Assets	Unfunded Actuarial Liability	Funded Ratio	Actuarial Liability	Actuarial Assets	Unfunded Actuarial Liability	Funded Ratio
8/31/2015	$ 261,733,723	$ 210,163,760	$ 51,569,963	80.3%	$ 264,327,980	$ 210,163,760	$ 54,164,220	79.5%
8/31/2016	273,665,275	222,278,506	51,386,769	81.2%	276,658,463	222,289,366	54,369,097	80.3%
8/31/2017	286,140,544	233,498,988	52,641,556	81.6%	289,594,672	233,883,338	55,711,334	80.8%
8/31/2018	298,901,024	244,375,642	54,525,382	81.8%	302,883,994	245,221,933	57,662,061	81.0%
8/31/2019	312,138,906	253,397,595	58,741,311	81.2%	316,728,098	254,783,347	61,944,751	80.4%
8/31/2020	325,788,475	266,025,139	59,763,336	81.7%	331,069,708	268,030,837	63,038,871	81.0%
8/31/2021	339,773,080	279,391,235	60,381,845	82.2%	345,842,539	282,116,787	63,725,752	81.6%
8/31/2022	354,061,147	293,257,766	60,803,381	82.8%	361,023,762	296,807,711	64,216,051	82.2%
8/31/2023	368,533,797	307,508,566	61,025,231	83.4%	376,504,388	311,998,007	64,506,381	82.9%
8/31/2024	383,243,048	322,186,415	61,056,633	84.1%	392,337,644	327,739,525	64,598,119	83.5%
8/31/2025	398,225,190	337,277,298	60,947,892	84.7%	408,564,692	344,018,580	64,546,112	84.2%
8/31/2026	413,457,487	352,785,910	60,671,577	85.3%	425,161,799	360,838,710	64,323,089	84.9%
8/31/2027	428,804,213	368,600,638	60,203,575	86.0%	441,998,669	378,094,447	63,904,222	85.5%
8/31/2028	444,302,753	384,756,470	59,546,283	86.6%	459,110,230	395,821,494	63,288,736	86.2%
8/31/2029	459,941,912	401,264,735	58,677,177	87.2%	476,483,179	414,032,460	62,450,719	86.9%
8/31/2030	475,764,945	418,182,709	57,582,236	87.9%	494,162,694	432,786,886	61,375,808	87.6%
8/31/2031	491,751,223	435,517,531	56,233,692	88.6%	512,124,487	452,092,412	60,032,075	88.3%
8/31/2032	507,941,658	453,326,816	54,614,842	89.2%	530,402,665	472,003,785	58,398,880	89.0%
8/31/2033	524,430,724	471,720,937	52,709,787	89.9%	549,082,103	492,626,608	56,455,495	89.7%
8/31/2034	541,207,487	490,732,034	50,475,453	90.7%	568,148,660	513,990,533	54,158,127	90.5%
8/31/2035	558,138,655	510,276,787	47,861,868	91.4%	587,461,475	535,999,818	51,461,657	91.2%
8/31/2036	575,284,019	530,432,571	44,851,448	92.2%	607,055,456	558,732,456	48,323,000	92.0%
8/31/2037	592,662,144	551,257,188	41,404,956	93.0%	626,928,164	582,216,547	44,711,617	92.9%
8/31/2038	610,175,575	572,720,327	37,455,248	93.9%	646,960,081	606,404,640	40,555,441	93.7%
8/31/2039	627,840,057	594,857,225	32,982,832	94.7%	667,158,530	631,330,381	35,828,149	94.6%
8/31/2040	645,762,568	617,832,242	27,930,326	95.7%	687,614,580	657,154,339	30,460,241	95.6%
8/31/2041	664,133,263	641,873,569	22,259,694	96.6%	708,502,673	684,109,526	24,393,147	96.6%
8/31/2042	683,028,528	667,139,038	15,889,490	97.7%	729,887,969	712,348,937	17,539,032	97.6%
8/31/2043	702,514,783	693,782,706	8,732,077	98.8%	751,859,201	742,067,434	9,791,767	98.7%
8/31/2044	722,659,486	722,020,870	638,616	99.9%	774,499,220	773,530,280	968,940	99.9%

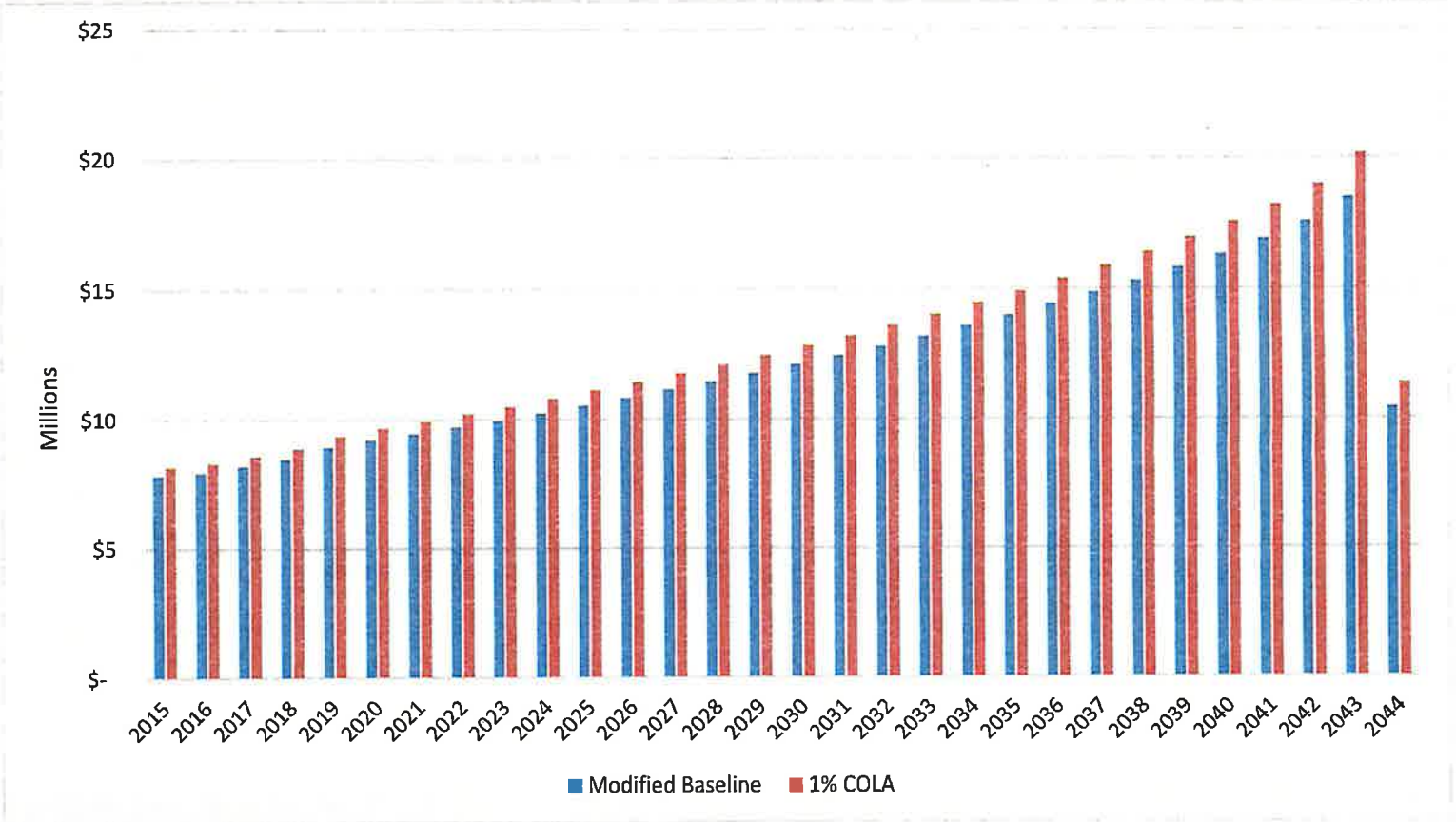
Note: All assumptions, including the 7.50% rate of return, are assumed to be met each year in the future. Modified baseline includes COLA assets and liabilities and 7.5% assumed rate of return.

DROP Assumptions: 80% of members elect DROP.
Members electing to enter DROP remain in DROP for 3.5 years.

4/13/2016

City Contribution Amounts

Exhibit 6, page 3



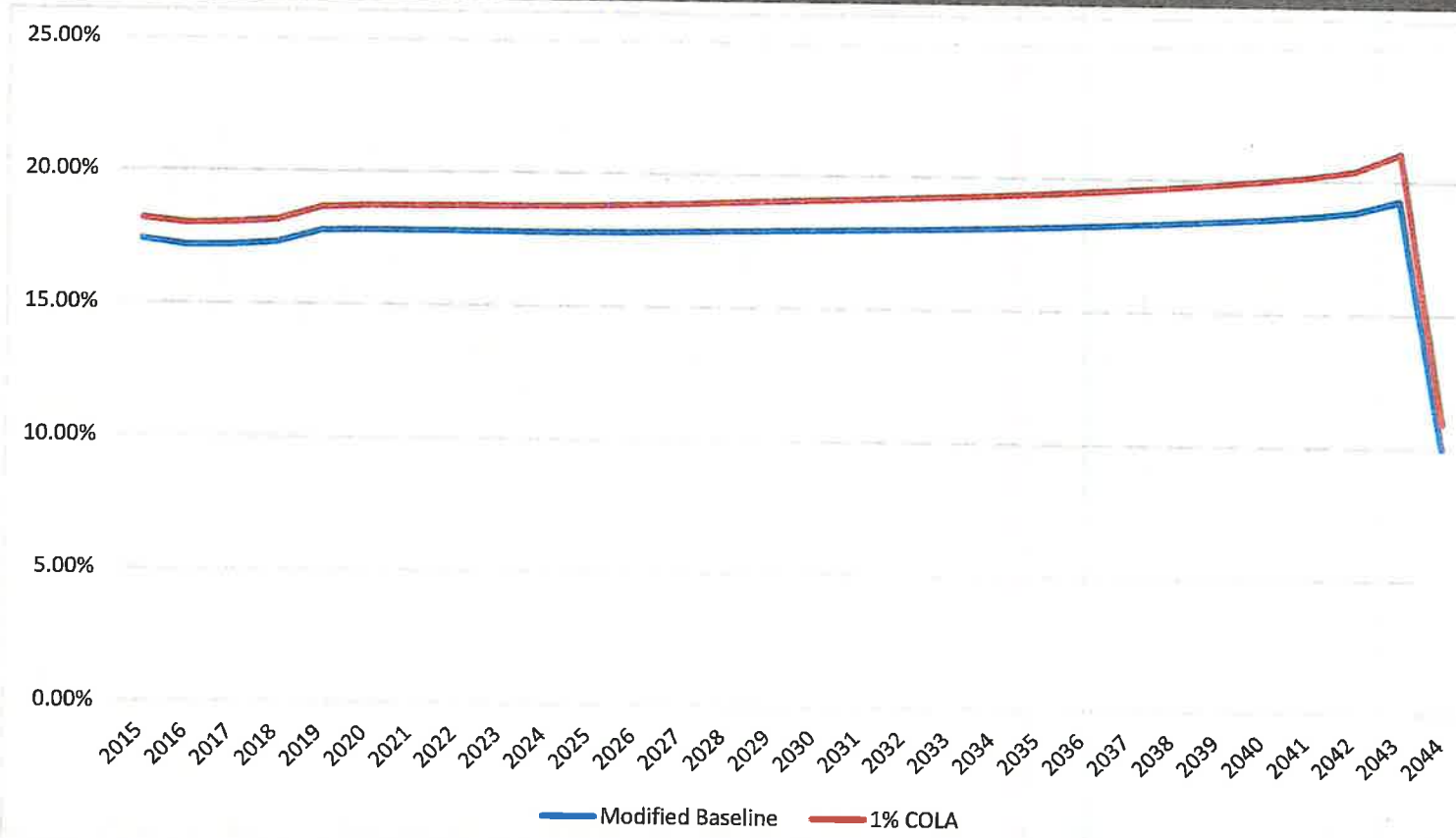
Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

1% COLA: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return, 5-year delayed compound COLA

City Contribution Rates

Exhibit 6, page 4



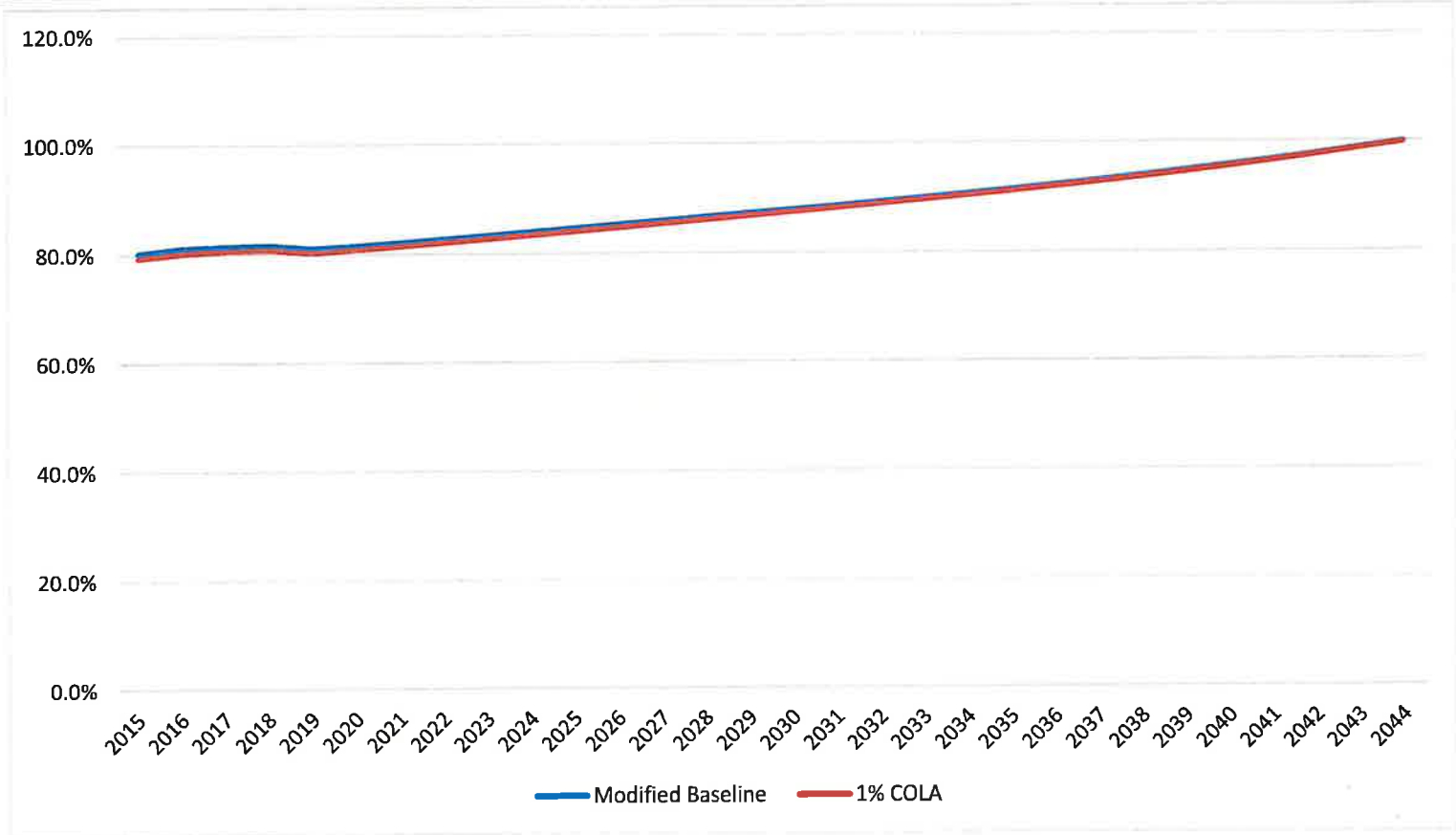
Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

1% COLA: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return, 5-year delayed compound COLA

Exhibit 6, page 5

Funded Ratio



Note: All assumptions are assumed to be met each year in the future.
Actual costs will vary to the extent actual experience differs from that projected.

Modified Baseline: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return

1% COLA: Includes COLA Pool asset and liabilities; 7.50% Assumed Rate of Return, 5-year delayed compound COLA

Exhibit 7, page 1

Lincoln Police and Fire Pension Fund

Benefit Structure Benchmark Study

	Contribution Rates		NC Rate	UAAL Rate	Funded Status	Assumed Rate of Return	Comments
	Employee	Employer					
Iowa 411 System	9.40%	25.92%	18.79%	16.53%	77.81%	7.50%	Actuarially determined contribution
Wichita P&F	7.00%	18.80%	22.50%	3.30%	95.09%	7.75%	Actuarially determined contribution
Kansas P&F	7.15%	19.03%	15.07%	11.11%	74.07%	8.00%	Actuarially determined contribution
Kansas City Police	11.55%	27.71%	26.20%	13.06%	77.48%	7.50%	Actuarially determined contribution
Tier I							
Tier II							
Kansas City Firefighters	10.55%	27.91%	24.14%	14.32%	77.57%	7.50%	Actuarially determined contribution
Tier I							
Tier II							
Omaha P&F							
Police:	14.35%	33.67%	22.19%	27.84%	49.64%	8.00%	Contract
Legacy >20YOS							
Legacy < 20YOS							
Hired > 1/1/2010							
Fire:	17.15%	32.97%	22.19%	27.84%	49.64%	8.00%	Contract
Legacy >15YOS							
Legacy < 15YOS							
New hires > 1/1/2013							
South Dakota Ret System	8.00%	8.00%	10.81%	0.00%	100.00%	7.25%/7.50% at 2017+	Statute
Minnesota PERA P&F	10.80%	16.20%	22.04%	10.25%	83.64%	8.00%	Statute
Colorado FPPA	8.50%	8.00%	15.16%	0.00%	100.86%	7.50%	Statute. Member rate increasing by .5% to 12% in 2022
Wisconsin Ret System	6.60%	13.20%	19.80%	0.20%	~100%	5.5% in total; 5.0% inactive/7.2% active	Actuarially determined contribution
Range	6.6 to 17.15%	8 to 33.67%	10.8 to 26.2%	0 to 27.84%	49.6 to 100.9%	5.50 to 8.00%	
Average	10.10%	18.50%	20.40%	12.50%	80.50%	7.50%	
Lincoln P&F							
Plan A	8.00%	27.42%	21.11%	13.19%	63.88%	7.50%/6.40% after COLA	Actuarially determined contribution

Lincoln Police and Fire Pension Fund

Benefit Structure Benchmark Study

	Final Average Salary			Benefit Formula				
	Highest	Of Last		Base Multiplier	Period	Maximum Benefit	YOS for Max	Benefit at 25 YOS
Iowa 411 System	3			3.0%	22			72.0%
				2.0%	8	82%	30	
Wichita	3		10	2.5%		75%	30	62.5%
KP&F	3		5	2.5%		90%	36	62.5%
Kansas City Police								
Tier I	2			2.5%		80%	32	62.5%
Tier II	3			2.5%		80%	32	62.5%
Kansas City Fire								
Tier I	2		10	2.50%		80%	32	62.5%
Tier II	2		10	2.50%		80%	32	62.5%
Omaha P&F								
Police:								
Legacy >20YOS	3	COTA	5	Non-level		75%	25	75.0%
Legacy < 20YOS	3	COTA	5	Non-level		75%	25	70.0%
Hired > 1/1/2010	3	No OT	5	Non-level		75%	30	65.0%
Fire:								
Legacy >15YOS	3	COTA	5	Non-level		75%	25	75.0%
Legacy < 15YOS	3	COTA	5	Non-level		75%	25	70.0%
Hired > 1/1/2013	3	No OT	5	Non-level		65%	30	55.0%
South Dakota Ret System	3		10	2.4% 2.0%	YOS<7/1/2008 YOS>7/1/2008			50.0%
Minnesota PERA P&F	5			3.0%		100%	33.3	75.0%
Colorado FPPA	3			2.0% 2.5%	YOS<=10 YOS>10	100%	42	57.5%
Wisconsin Ret System	3			2.7% 2.5%	YOS<1/1/00 YOS>1/1/00	85%	34	62.5%
Most Common	3			2.5%	all YOS	83%		62.5%
Lincoln P&F								
Plan A	1			2.56%		64%	25	64%

Lincoln Police and Fire Pension Fund

Benefit Structure Benchmark Study

	Form of Payment	Postret Benefit Adjustment (COLA)			
		Guar	Amount	Type	Other
Iowa 411 System	J&50%S	Yes	1.50%	Compound	Additional $15-35/month depending on yrs retired
Wichita	J&66%S	Yes	2.00%	Simple	Commencement delayed 3 years
KP&F	MCR	No			
Kansas City Police					
Tier I	J&80%S	No	max 3%	Simple	Ad hoc by Board-depends on funded status. Supp ben = $420/mo
Tier II	J&50%S	No	max 3%	Simple	Starts at date of 32 YOS. Ad hoc by Board-depends on funded status. Supp ben=$200/mo
Kansas City Fire					
Tier I	J&50%S	Yes	max 3%	Simple	
Tier II	J&50%S	Yes	max 2.5%	Simple	Only if funded ratio >= 80%.
Omaha P&F					
Police:					
Legacy >20YOS	J&75%S	Yes	$50/mo		
Legacy < 20YOS	J&75%S		$50/mo		
Hired > 1/1/2010	J&50%S		$50/mo		
Fire:					
Legacy >15YOS	J&90%S	Yes	$65/mo		
Legacy < 15YOS	J&90%S		$65/mo		
New hires > 1/1/2013	J&50%S		$65/mo		
South Dakota Ret System	J&60%S	Yes	2.1-3.1%	Compound	Depends on funded status
Minnesota PERA P&F	MCR	Yes	1.00%	Compound	Delayed 31-42 months after ret. COLA is 2.5% once System is 90% funded
Colorado FPPA	MCR	No	0-3%	Compound	Granted by Board
Wisconsin Ret System	MCR	No		Variable	Adjusts both up and down depending on investment return
Most common	J&50%S	Yes	1.50%	Compound	COLAs vary significantly from plan to plan
Lincoln P&F					
Plan A	MCR	No	Flat $ amt	Inc with CPI	13th check payable only if monies available

Lincoln Police and Fire Pension Fund

Benefit Structure Benchmark Study

	Normal Retirement			DROP Provision				
	Age	YOS	Rule of	Available	Ee Contr	Er Contr	Funding?	Other
Iowa 411 System	55	4		Yes	Yes	Yes	Yes	Must delay start 2 yrs to get full benefit into DROP. Forfeit 25% of DROP acct if leave early
Wichita	50	20		Yes	Yes	Yes	Yes	BackDROP
	55	10						
	0	30						
KP&F	50	25		No				
	55	20						
	60	15						
Kansas City Police								
Tier I	0	25		No				
	60	10						
Tier II	0	27		No				
	60	15						
Kansas City Fire								
Tier I	0	25		No				
Tier II	0	27		No				
Omaha P&F								
Police:				Yes	Yes	Yes	Yes	Designed to be actuarially neutral
Legacy >20YOS	45 (55)	20 (10)						
Legacy < 20YOS	45 (55)	20 (10)						
Hired > 1/1/2010	55	10						
	50	30						
Fire:				Yes	Yes	Yes	Yes	Designed to be actuarially neutral
Legacy >15YOS	45 (55)	25 (10)						
Legacy < 15YOS	45 (55)	25 (10)						
New hires > 1/1/2013	55	10						
	50	30						
South Dakota Ret System	55	3	75	No				
Minnesota PERA P&F	55	3		No				
Colorado FPPA	55	25		Yes	Yes		No	
Wisconsin Ret System	53	25		No				
	54	<25						
Most common	55	25		Very close	Yes	Yes	Yes	
Lincoln P&F								
Plan A	50	25		Yes	No	No		Designed to be actuarially neutral. Employee self-directs investments of DROP account.

Segal Consulting

Public Sector Letter

Benefits, Compensation and HR Consulting OCTOBER 2014

Actuarial Funding Policy Guidance: Comparison of Recommendations Reveals Considerable Consensus — and a Few Notable Differences

As readers of Segal Consulting's *Public Sector Letters* are well aware, the funding of U.S. public sector pension plans has become a high-profile topic in recent years. This has been due to many factors, including historically high volatility of investment returns, budgeting pressures experienced by the sponsoring entities, and increased scrutiny of plans that have not properly funded their pension obligations. Another important influence is that the Governmental Accounting Standards Board (GASB) has clarified that financial reporting standards do not constitute funding policy guidance, leaving something of a regulatory vacuum when it comes to public pension funding policies.

This is leading many public pension plans to review their existing funding policies and, for the first time in many cases, to record them in a comprehensive statement of funding policy used for setting an "actuarially determined contribution" (ADC). Organizations within the public pension industry (including three of the major professional actuarial groups) have responded to these developments by issuing guidance for establishing and maintaining actuarially responsible funding policies for these plans. While this effort is ongoing, we have seen the following guidance to date:

"GASB has clarified that financial reporting standards do not constitute funding policy guidance."

- An October 2014 "White Paper" by the Conference of Consulting Actuaries Public Plans "Community" (the CCA PPC White Paper),[1]
- A February 2014 Issue Brief published by the American Academy of Actuaries (the AAA Issue Brief),[2]
- A report published in February 2014 by an independent "Blue Ribbon Panel" commissioned by the Society of Actuaries (the BRP/SOA Report),[3] and
- A March 2013 "Best Practice" published by the Government Finance Officers Association (GFOA) (the GFOA Best Practice).[4]

This *Public Sector Letter* discusses the similarities among these policy papers and points out notable differences.

IN THIS ISSUE:

Considerable Consensus

There is considerable consensus on the recommendations outlined in each of the reports and, for the most part, the suggested guidelines are in line with current actuarial practice in the public sector.[5]

[1] CCA PPC White Paper, "Actuarial Funding Policies and Practices for Public Pension Plans," is available from the CCA website: http://www.ccactuaries.org/publications/news/cca-ppc-white-paper.cfm. Note that the significant change from the CCA PPC's earlier "Discussion Draft" was to limit the scope of the guidance to pension plans rather than to also include OPEB plans.

[2] The AAA Issue Brief, "Objectives and Principles for Funding Public Sector Pension Plans," is available from the AAA website: http://www.actuary.org/files/Public-Plans_IB-Funding-Policy_02-18-2014.pdf

[3] The "Report of the Blue Ribbon Panel on Public Pension Plan Funding" is accessible from the SOA website: http://www.soa.org/blueribbonpanel

[4] This GFOA Best Practice, "Core Elements of a Funding Policy," is available on the GFOA website: http://www.gfoa.org/core-elements-funding-policy. There are other relevant Best Practices (Guidelines for Funding Defined Benefit Pensions, Sustainable Funding Practices of Defined Benefit Pension Plans & Reviewing, Understanding and Using the Actuarial Valuation Report and Its Role in Plan Funding).

[5] Segal's November 2011 *Public Sector Letter*, "Planning a Successful Pension Funding Policy" (http://www.segalco.com/publications/publicsectorletters/nov2011.pdf), also addresses funding policy issues; the subsequent guidance is fully consistent with the policies developed and discussed in that publication.

Segal Consulting is a member of The Segal Group (www.segalgroup.net), which is celebrating its 75th anniversary this year.

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In comparing these reports, it is helpful to consider *Funding Policy Objectives* separately from *Specific Funding Policy Elements*.

Funding Policy Objectives

The greatest area of consensus among these reports is in the objectives of an actuarial funding policy. The most important policy objectives common to all the documents are that a public sector plan should be funded in accordance with an actuarially determined funding policy and that a plan's funding policy should target to fund 100 percent of the plan's actuarial liabilities over a reasonable period. There is also agreement among the recommendations that funding policy should be structured so that the annual contributions reasonably match the cost of benefits to the years in which the benefits are earned, and that the contributions should be stable and predictable for budgeting purposes.

Table 1 highlights several of the key policy objectives common to two or more of the reports. Each report uses its own terms to describe these objectives, and the descriptions in Table 1 reflect a composite of those descriptions.

Table 1: Considerable Consensus on Funding Policy Objectives: How the Three Actuarial Organizations Compare to One Another and to the GFOA Best Practice

Objective	CCA PPC White Paper	AAA Issue Brief	BRP/SOA Report	GFOA Best Practice
Fund the expected cost of all promised benefits (*i.e.*, fund normal cost plus 100% of any unfunded actuarial liabilities).	✓	✓	✓	✓
Match annual contributions to fund the cost of benefits to years of service (*i.e.*, target demographic matching or generational equity).	✓	✓	✓	✓
Have costs emerge stably and predictably (*i.e.*, manage contribution volatility).	✓	✓	✓	✓
Balance competing funding-policy objectives.	✓[1]	✓	✓	✓
Identify risks[2] that could make it difficult to achieve funding objectives.	✓	✓	✓	
Communicate how the funding-policy objectives will be achieved by the contribution allocation procedure (accountability and transparency).	✓	✓		✓
Establish an enforcement mechanism for making contributions on a consistent, actuarially determined basis: actually fund the "actuarially determined contribution" (ADC).	✓[3]	✓	✓	✓

[1] The CCA PPC White Paper talks specifically about a balance between targeting generational equity and managing contribution volatility.

[2] The CCA PPC White Paper focuses on agency risk, which refers to the possibility that interested parties (agents) may try to "influence cost calculations in directions viewed as consistent with their particular interests." The AAA Issue Brief also cites agency risk, but adds investment, demographic and "other" risks. The BRP/SOA Report focuses primarily on investment risk and related disclosures.

[3] Although the CCA PPC White Paper does not mention an explicit enforcement mechanism, all of its guidance is developed under the presumption that the plan will be funded in accordance with its actuarial funding policy.

"The greatest area of consensus among these reports is in the objectives of an actuarial funding policy."

Specific Funding Policy Elements

In addition to the general policy objectives discussed above, there is also significant agreement as to the specific funding policy elements of the actuarial cost method, asset smoothing and unfunded liability amortization. The Entry Age (sometimes called Entry Age Normal) actuarial cost method is recommended by the three reports that discuss specific funding policies: the CCA PPC White Paper, the BRP/SOA Report, and GFOA Best Practice.[6] In addition, all three reports approve of asset smoothing for periods of five years. The reports are also consistent on approving the use of a level percent of pay method for amortization of unfunded liabilities.

Some areas where the documents differ are in the structure and length of amortization periods by source of unfunded liability, and the application of "market value corridors" (*i.e.*, a corridor that constrains the difference between the smoothed value of assets and the market value) that should be included in the asset smoothing methodology. For asset smoothing, the CCA White Paper specifies the maximum corridors that should be used for various smoothing periods. The GFOA Best Practice specifies that a market corridor should be used if the asset smoothing period is longer than five years. The BRP/SOA report does not discuss market value corridors at all, and recommends that asset smoothing — if used — should be limited to five years.

"Areas where the documents differ are in the structure and length of amortization periods by source of unfunded liability, and the application of 'market value corridors.'"

As to amortization of the unfunded actuarial accrued liability (UAAL), all three reports agree that 15 to 20 years is the preferred range for UAAL amortization periods. Both the GFOA Best Practice and the CCA PPC White Paper prefer fixed period "layered" amortization (*i.e.*, amortize each portion of the UAAL over a separate fixed period as it emerges), while the BRP/SOA report provides limited guidance on the structure of the UAAL amortization payments.

"All three reports agree that 15 to 20 years is the preferred range for UAAL amortization periods."

As discussed in the next section, the BRP/SOA Report also recommends a "Standardized Contribution Benchmark" that employs a rolling 15-year UAAL amortization period.

Tables 2–4 highlight the specific actuarial funding policy elements recommended in the reports (except for the AAA Issue Brief, which does not include detailed policy recommendations). Table 2 on the next page compares recommendations for the actuarial cost method. Table summarizes the recommendations for asset smoothing. Table 4 on page 5 focuses on recommendations for UAAL amortization.

Notable Differences

Some differences among the recommendations can be attributed to differences in intended scope. As noted earlier, the AAA Issue Brief is more general and does not address specific policy details but is consistent in principle with the other documents. The CCA White Paper has by far the most comprehensive and detailed discussion of specific policy alternatives, with recommendations that are generally consistent with the GFOA Best Practice.

One notable difference is that the BRP/SOA Report recommends that public pension plans disclose to outside entities a variety of standardized 30-year projections under alternative actuarial assumptions, investment returns and even contribution amounts relative to the actuarially determined contribution. Perhaps the most controversial recommendation would be to disclose current and projected results using a "standardized contribution benchmark" based on a

"The CCA White Paper has by far the most comprehensive and detailed discussion of specific policy alternatives, with recommendations that are generally consistent with the GFOA Best Practice."

Continued on page 5.

[6] The AAA Issue Brief, in contrast, discusses only policy objectives, and not specific policy elements. Also note that, rather than recommending only certain policy practices, the CCA PPC White Paper uses categories including Model, Acceptable, Acceptable with Conditions, Non-recommended and Unacceptable. This discussion focuses primarily on its Model practices.

Exhibit 8, page 4

Table 2: Specific Actuarial Funding Policy Recommendations for Actuarial Cost Method: How Two of the Actuarial Organizations Compare to Each Other and to the GFOA Best Practice

	Actuarial Cost Method
CCA PPC White Paper	Entry Age cost method with level percentage of pay Normal Cost.* For multiple tiers, Normal Cost is based on each participant's benefit (not "Ultimate Entry Age"). For benefit formula changes within a tier (generally after a fixed date), Normal Cost is based on current benefit structure ("Replacement Life" Entry Age). Entry Age Normal Cost averaged over career is also "acceptable." Aggregate, Frozen Initial Liability and Projected Unit Credit are "acceptable with conditions."
BRP/SOA Report	Individual Entry Age method used for "Standardized Contribution Benchmark."
GFOA Best Practice	Entry Age cost method with level percentage of pay Normal Cost is "especially well suited" to achieving the policy objectives.

* Normal Costs are level even if benefit accrual or eligibility changes with age or service. All types and incidences of benefits are funded over a single measure of expected future service. The Normal Cost for a tier of benefits is the sum of the individually determined Normal Costs for all participants in that tier. For plans with benefits unrelated to compensation, the Entry Age method with level dollar Normal Cost may be more appropriate.

Table 3: Specific Actuarial Funding Policy Recommendations for Asset Smoothing: How Two of the Actuarial Organizations Compare to Each Other and to the GFOA Best Practice

	Asset Smoothing
CCA PPC White Paper	Deferrals based on total return gain/loss relative to assumed earnings rate and recognized over fixed smoothing periods not less than three years. Maximum market value corridors for various smoothing periods: 5 years: 50%/150% corridor 7 years: 60%/140% corridor 10 years with 70%/130% corridor is "acceptable." Combine smoothing amounts only to manage "tail volatility."*
BRP/SOA Report	Asset smoothing periods should be limited to five years or less. No discussion of market value corridors. Five-year smoothing with no corridor used for "Standardized Contribution Benchmark." Encourages the consideration of "direct rate smoothing" and other asset and liability cash flow modeling techniques.
GFOA Best Practice	Fixed period asset smoothing with periods of ideally 5 years or less but never longer than 10 years. Smoothing periods longer than 5 years should include a market value corridor.

* Appropriate when the net deferral amount is relatively small (*i.e.*, the smoothed and market values are very close together). The net deferral amount and the period over which the net deferral amount is fully recognized are unchanged as of the date of the adjustment. Avoid using frequent restart of smoothing to achieve *de facto* rolling smoothing. Avoid restarting smoothing only to accelerate recognition of deferred gains (*i.e.*, only when the market value is greater than the smoothed value).

Table 1: Specific Actuarial Funding Policy Recommendations for UAAL Amortization: How Two of the Actuarial Organizations Compare to Each Other and to the GFOA Best Practice

	UAAL Amortization
CCA PPC White Paper	Layered fixed period amortization by source of UAAL; level percent of pay. Model amortization periods: 15 to 20 years for gains and losses 15 to 25 for assumption or method changes Demographic* for plan changes; or 15 for actives, 10 for retirees Combine gain/loss (and other) layers** or restart amortization only to avoid "tail volatility."
BRP/SOA Report	Amortization of gains/losses should be completed over a period of no more than 15 to 20 years. 15-year rolling, level percent of pay amortization used for "Standardized Contribution Benchmark."
GFOA Best Practice	Layered fixed period amortization by source of UAAL; level percent of pay or level dollar. Ideally use a 15 to 20 year range, but never exceed 25 years. Special considerations (*e.g.*, longer periods) for amortizing a surplus.

* Use average future service for actives or average life expectancy for retirees. The amortization period should also be short enough to avoid negative cash flow, where the additional amortization payments are less than the additional benefit payments.

** Combining layers should result in substantially the same current amortization payment. Avoid using restart of amortization to achieve *de facto* rolling amortization. Restart amortization layers when moving from surplus to UAAL condition.

discount rate specified in the BRP/SOA Report. The specified rate would be substantially lower than even the more conservative public pension plan investment return assumptions currently in use.[7]

While some additional sensitivity and risk related disclosures may be appropriate, Segal does not support the disclosure by all public pension plans of the uniformly standardized contribution benchmark proposed by the BRP/SOA Report. Standardized financial reporting is already required by the GASB, based on a discount rate that is adjusted to reflect the projected funding of future benefits.

Conclusion

Actuarial funding policy is a crucial part of pension fund governance, and policymakers and administrators of public pension systems should be prepared to respond to inquiries regarding this recent funding policy guidance.

"Policymakers and administrators of public pension systems should be prepared to respond to inquiries regarding this recent funding policy guidance."

Many plans will find that many of the recommendations are already in place. Sponsors of plans that are not following all of the recommendations may benefit from considering the guidance summarized in this *Public Sector Letter*, including consideration of any justifiable policy differences. Knowing how their plans compare

[7] The BRP/SOA Report states incorrectly that "the primary difference between [the BRP/SOA's] long-term rate of return and the rate used by many plans is that many plans use a historical average return for their discount rate. Other plans assume forward-looking rates, but based on historical average nominal returns, which factor in many different interest rate and inflation environments." In fact, it would be unusual for a public pension plan to set a long-term assumed rate of return in either of these ways. The main reason that the BRP/SOA discount rate is comparatively low is that it uses a particular model for estimating long-term investment returns, one based heavily on current U.S. Treasury security market prices and yield curves.

with the recommendations will help sponsors respond to any questions that may arise, as well as to identify possible policy changes.

■ ■ ■

Segal Consulting can help plan sponsors that have not recently reviewed their funding policy to analyze their policies to ensure that they meet the risk profiles and policy objectives of the plan stakeholders. For more information about funding policy reviews, contact your Segal consultant or one of the following experts:

- *Kim M. Nicholl, FSA, FCA, MAAA, EA*
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"Knowing how their plans compare with the recommendations will help sponsors respond to any questions that may arise, as well as to identify possible policy changes."

Segal Consulting

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Appendix D

Metro Area Transit Hourly Employees Retirement Plan Information

Metro Area Transit Hourly

LB 759 REPORTING FORM (HOURLY PLAN)

1.

	Most Current Valuation (2016)	Prior Valuation (2015)
Funding Status	72%	76%
Net Assets	20,822,382	21,584,788
Unfunded Actuarial Accrued Liability	10,885,560	10,912,605
Normal Cost	890,835	907,128
Member Contribution Rates	6.0%	6.0%
Employer Contribution Rates	6.5%	6.5%
Actuarial Required Contribution	901,256	847,243

2. **Circumstances That Led to Under Funding the Plan:**
In prior periods, investment returns did not meet the return assumptions. In addition, due to lower capital market expectations, the interest rates used to value liabilities have been decreased several times in the last nine years (see below) and by 25 basis points in the latest valuation.

2009 reduced from 8% to 7.5%
2015 reduced from 7.5% to 7.0%
2016 reduced from 7.0% to 6.75%

3. **Changes in Actuarial Methods/Assumptions:**

The interest rate (the assumed actuarial rate of return) used to value liabilities from 7.0% to 6.75%. The annual salary increase assumption was decreased from 4.5% to 4.0%. These changes were made to reflect a more representative anticipated yield. The retirement rates were also changed as follows:

2015 Rates of Retirement

Age	<30YOS	>30YOS
58-61	5%	25%
62-64	25	25
65	100	100

2016 Rates of Retirement

Age	<30YOS	>30YOS
58	5%	20%
59	5	20
60	5	20
61	5	20
62	25	25
63-64	25	25
65-66	50	50
67	100	100

4. **Description of Corrective Actions Implemented to Improve the Funding Status of the Plan:**
The Hourly Pension Committee members have amended the plan document to increase the employer and employee contribution rates. The Pension Committee is comprised of bargaining unit employees, management representatives and a Metro Transit Board member. The actuarial assumptions are reviewed annually to give committee members a data regarding plan performance. The Committee meets a minimum of once per year to review plan performance, assumptions, asset allocations and potential plan changes. The interest rate (the assumed actuarial rate of return)

used on the actuarial report has been lowered.

In addition, to reflect the increasing average age of the Plan participants, the asset allocation has been modified to reduce the volatility of returns. To increase net investment returns, the entire portfolio has been indexed, reducing Plan investment management fees from 71 basis points to 9 basis points.

5. **Recent or Ongoing Negotiations:**
The collective bargaining agreement between Metro and the Transport Workers Union is currently being renegotiated. Pension funding, is one of the major components of these negotiations. Past and future negotiations include reopeners in each year in order to address required matters that might arise prior to expiration of the bargaining agreement.

6. **Most Recent Actuarial Valuation Report:**
Attached please find the most recent valuation dated January 1, 2016. The valuations are completed every year with the next one due January 1, 2017.

7. **Most Recent Actuarial Experience:**
There has not been an experience study done in recent years. Due to the very small size of the participant population, it has been felt that preparation of a formal experience study would not add credible insight in our demographic assumptions. Rather, from time to time we have prepared short analysis of prior termination and retirement rates, as well as anecdotal analysis of compensation increase assumptions and mortality table assumptions and have modified actuarial assumptions as was felt appropriate.

Milliman

Metro Area Transit Hourly Employees' Pension Plan

Actuarial Valuation as of January 1, 2016

Prepared by:

Gregg Rueschhoff, A.S.A.
Principal and Consulting Actuary

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May 17, 2016

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(a) The Plan Sponsor may provide a copy of Milliman's work, in its entirety, to the Plan Sponsor's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Plan.

(b) The Plan Sponsor may distribute certain work product that Milliman and the Plan Sponsor mutually agree is appropriate as may be required by the Pension Protection Act of 2006.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

I, Gregg Rueschhoff A.S.A., am a member of the American Academy of Actuaries and an Associate of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

I respectfully submit the following report and look forward to discussing it with you.

Sincerely,
MILLIMAN, Inc.

Gregg Rueschhoff, A.S.A.
Principal and Consulting Actuary
Member of the American Academy of Actuaries
Enrolled Actuary No. 14-4349

VALUATION SUMMARY

This work product was prepared solely for the Metro Area Transit Hourly Employees' Pension Plan for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

REPORT SUMMARY (Continued)

C. Factors Affecting the Actuarial Valuation Results

Covered Employees

Ages of Active Participants — The average age of active participants in the valuation was 53.1 for the current actuarial valuation and 52.7 for the prior actuarial valuation.

Reported Compensation — Total covered pay for active participants decreased from $11,514,912 in 2015 to $11,390,621 in 2016. The number of active participants decreased from 223 to 208.

Average Salary — The average covered salary of active participants included in the valuation increased at an annualized rate of 6.06% per year as compared to an assumed annual salary increase assumption of 4.0%. The average annual covered salary reported for 2015 was $51,636 and $54,763 for 2016.

D. Changes in Actuarial Assumptions

For the January 1, 2016 actuarial valuation, the following changes in actuarial assumptions were made:

Interest Rate – The interest rate was decreased from 7.0% to 6.75%.

Salary Increase Assumption - The annual salary increase assumption was decreased from 4.5% to 4.0%

Retirement Rates – The assumed rates of retirement were revised to reflect the previouse later retirements of members.

Please see page 11 for the full detail of the actuarial assumptions used.

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VALUATION DETAIL

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VALUATION RESULTS

A summary of the results of the actuarial valuations performed as of January 1, 2015 and January 1, 2016 is displayed below:

	Plan Year Beginning January 1 2015	2016
Value of Plan Assets		
Cash & Equivalents	$ 559,165	$ 479,658
U. S. Government Securities and Treasury Bills	0	0
Convertible Securities	1,079,780	1,025,491
Corporate Bonds	8,281,507	7,929,555
Common Stock	11,724,613	11,382,466
Payable Transfer to Salaried Plan	0	0
Unsettled Trades	(60,277)	5,212
Receivable Transfer (contributed to wrong account)	0	0
Contribution Receivable	0	0
Market Value of Plan Assets	21,584,788	20,822,382
Actuarial Value of Plan Assets	20,939,210	21,663,121
Unfunded Accrued Liability		
1. Accrued Liability	$31,851,815	$32,548,681
2. Actuarial Value of Plan Assets	20,939,210	21,663,121
3. Unfunded Accrued Liability	10,912,605	10,885,560
Annual Normal Cost (including expenses)	$907,128	$890,835

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Additional background regarding the Plan Financial Information:

1. Plan assets are valued at their market value.

2. A comparison of the actuarial present value of accrued benefits with the value of assets provides a measure under an active plan of the progress being made toward funding the benefits which are accruing, according to measurement methods reasonably consistent for all plans. Other actuarial calculations are made to determine year-to-year contribution levels.

3. The actuarial values which would apply in the event the plan terminated would differ from those shown, for many reasons including, but not necessarily limited to, the following:

   a. Certain plan provisions which may apply in the event of partial or complete plan termination are not reflected in the benefits valued nor in the actuarial assumptions employed.

   b. Vested benefits may be limited with reference to the value of the assets of the fund.

   c. Actuarial computations under actuarial assumptions other than those specified herein may be required as a basis for determining plan benefits in the event of a partial or complete termination of the plan.

   d. Benefits deemed already earned may not be the same as those underlying the actuarial values shown.

4. The benefits reflected above have been determined on the basis of the plan provisions in effect on the respective dates. Benefits payable at retirement, death, disability, and vested termination of employment are included, to the extent that they are deemed to have accrued as of the computation dates.

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METRO AREA TRANSIT HOURLY EMPLOYEES' PENSION PLAN

Schedule of Employer Contributions
In accordance with Statement No. 25 of the Government Accounting Standards Board

Fiscal Year Ending	Annual Required Contribution (ARC) (a)	Total Employer Contribution (b)	Percentage of ARC Contribution (b / a)
12/31/2015	847,243	748,129	88.3%
12/31/2014	833,212	702,245	84.3%
12/31/2013	847,072	726,238	85.7%
12/31/2012	895,706	719,065	80.3%
12/31/2011	871,783	703,006	80.6%
12/31/2010	888,807	689,756	77.6%
12/31/2009	918,023	685,452	74.7%
12/31/2008	667,122	619,335	92.8%
12/31/2007	716,682	475,712	66.4%
12/31/2006	476,910	385,084	80.7%
12/31/2005	478,962	371,889	77.6%
12/31/2004	475,125	371,748	78.2%
12/31/2003	439,300	372,952	84.9%
12/31/2002	337,478	345,694	102.4%
12/31/2001	285,953	304,247	106.4%
12/31/2000	334,609	294,606	88.0%
12/31/1999	176,601	186,720	105.7%
12/31/1998	164,407	227,725	138.5%
12/31/1997	174,697	285,661	163.5%
12/31/1996	213,870	288,922	135.1%

Notes to Required Schedules:

1. The cost method used to determine the ARC is the Entry Age Cost Method.
2. The actuarial value of assets is equal to the market value. Beginning in 1998, the actuarial value of assets is determined based on a method that smoothes the effects of short term volatility in the market value of investments. The actuarial value is equal to the expected value, based on the assumed rate of return, plus 25% of the difference between market and expected value.
3. Economic assumptions are as follows: Investment return of 7.0%
   Salary increase rate of 4.50%
   Increases in UAL are amortized over 30 years beginning 1/1/12

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ACTUARIAL METHODS

Actuarial Cost Method
The costs in this report were prepared using the Individual Entry Age Normal cost method.

Under this Method, the Normal Cost is computed as the dollar amount which, if paid from the earliest time each participant joined the plan (thus, entry age) until his retirement or termination, would accumulate with interest at the rate assumed in the valuation to a fund sufficient to pay all benefits under the plan. The normal cost for the plan is determined by summing the normal costs of all participants.

The Actuarial Accrued Liability under this method at any point in time is the theoretical amount of the fund that would have been accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date). The Unfunded Actuarial Liability is the excess of the Actuarial Accrued Liability over the plan assets actually on hand on the valuation date.

Under this method, experience gains or losses, i.e., decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions adjust the unfunded actuarial liability.

As experience develops with the plan, so-called actuarial gains and actuarial losses result. These actuarial gains and losses indicate the extent to which actual experience is deviating from that expected on the basis of the actuarial assumptions. All gains and losses, including those from the interest assumption, affect the plan's unfunded accrued liability and are amortized over future years.

The annual accrued liability payment is the portion of the unfunded accrued liability that is amortized for the year.

Asset Valuation
The value of plan assets is based on a smoothing technique that will spread out the effect of volatility in the rate of investment return. A detailed description of the asset valuation method is provided on page 4.

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SUMMARY OF PLAN PROVISIONS

Original Effective Date
July 1, 1979.

Plan Year
January 1 through December 31.

Participation
First day of the month next following completion of 120 days of service.

Definitions

Year of Service
A Year of Service generally means a twelve consecutive month period beginning with the person's employment date during which he has worked not less than 1,000 hours.

Final Average Annual Compensation
Average Monthly Compensation paid during the five highest paid years out of the last ten years of employment preceding cessation of employment.

Compensation
Regular compensation plus overtime but excluding reimbursed expenses, bonuses, commissions, deferred compensation and other extra or unusual compensation.

Age and Service Requirements for Benefits

Normal Retirement
Age 65.

Early Retirement
Age 58 with 20 or more years of service or any age with 30 or more years of service.

Late Retirement
The first of any month after normal retirement date.

Vesting
Based on the following schedule:

Years of Service	Vesting %
Less than 5	0%
5	50%
6	60%
7	70%
8	80%
9	90%
10 or more	100%

Spouse's Benefits
Married and completed ten years of service.

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PARTICIPANT CENSUS DATA

AS OF JANUARY 1, 2016

ACTIVE PARTICIPANTS INCLUDED IN VALUATION

Age at Valuation Date	Male	Female	Total
Under 20	0	0	0
20 - 24	0	0	0
25 - 29	2	0	2
30 - 34	6	1	7
35 - 39	9	2	11
40 - 44	20	4	24
45 - 49	20	5	25
50 - 54	34	5	39
55 - 59	32	9	41
60 - 64	45	5	50
65 & Over	8	1	9
	176	32	208

NON-ACTIVE PARTICIPANTS INCLUDED IN VALUATION

	Number	Annual Benefit
Retired Participants or Beneficiaries	174	$1,767,084
Vested Terminated Participants	45	196,980
Total	219	$1,964,064

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Milliman Client Report

Milliman

Metro Area Transit Hourly Employees' Pension Plan

Actuarial Valuation as of January 1, 2015

Prepared by:

Gregg Rueschhoff, A.S.A.
Principal and Consulting Actuary

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April 10, 2015

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I, Gregg Rueschhoff A.S.A., am a member of the American Academy of Actuaries and an Associate of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

I respectfully submit the following report and look forward to discussing it with you.

Sincerely,
MILLIMAN, Inc.

Gregg Rueschhoff, A.S.A.
Principal and Consulting Actuary
Member of the American Academy of Actuaries
Enrolled Actuary No. 14-4349

VALUATION SUMMARY

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REPORT SUMMARY (Continued)

C. Factors Affecting the Actuarial Valuation Results

Covered Employees

Ages of Active Participants — The average age of active participants in the valuation was 52.7 for the current actuarial valuation and 52.2 for the prior actuarial valuation.

Reported Compensation — Total covered pay for active participants increased from $11,362,603 in 2014 to $11,514,912 in 2015. The number of active participants increased from 220 to 223.

Average Salary — The average covered salary of active participants included in the valuation decreased at an annualized rate of 0.02% per year as compared to an assumed annual salary increase assumption of 4.5%. The average annual covered salary reported for 2014 was $51,648 and in 2015 was $51,636.

D. Changes in Actuarial Assumptions & Methods

Plan Provisions and Methods used were the same as those used in the 2014 valuation.

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VALUATION DETAIL

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VALUATION RESULTS

A summary of the results of the actuarial valuations performed as of January 1, 2014 and January 1, 2015 is displayed below:

	Plan Year Beginning January 1 2014	2015
Value of Plan Assets		
Cash & Equivalents	$ 490,454	$ 559,165
U. S. Government Securities and Treasury Bills	0	0
Convertible Securities	1,048,782	1,079,780
Corporate Bonds	7,878,975	8,281,507
Common Stock	11,454,801	11,724,613
Payable Transfer to Salaried Plan	0	0
Unsettled Trades	0	(60,277)
Receivable Transfer (contributed to wrong account)	0	0
Contribution Receivable	0	0
Market Value of Plan Assets	20,873,012	21,584,788
Actuarial Value of Plan Assets	19,886,881	20,939,210
Unfunded Accrued Liability		
1. Accrued Liability	$31,038,929	$31,851,815
2. Actuarial Value of Plan Assets	19,886,881	20,939,210
3. Unfunded Accrued Liability	11,152,048	10,912,605
Annual Normal Cost (including expenses)	$884,755	$907,128

This work product was prepared solely for the Metro Area Transit Hourly Employees' Pension Plan for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

Additional background regarding the Plan Financial Information:

1. Plan assets are valued at their market value.

2. A comparison of the actuarial present value of accrued benefits with the value of assets provides a measure under an active plan of the progress being made toward funding the benefits which are accruing, according to measurement methods reasonably consistent for all plans. Other actuarial calculations are made to determine year-to-year contribution levels.

3. The actuarial values which would apply in the event the plan terminated would differ from those shown, for many reasons including, but not necessarily limited to, the following:

   a. Certain plan provisions which may apply in the event of partial or complete plan termination are not reflected in the benefits valued nor in the actuarial assumptions employed.

   b. Vested benefits may be limited with reference to the value of the assets of the fund.

   c. Actuarial computations under actuarial assumptions other than those specified herein may be required as a basis for determining plan benefits in the event of a partial or complete termination of the plan.

   d. Benefits deemed already earned may not be the same as those underlying the actuarial values shown.

4. The benefits reflected above have been determined on the basis of the plan provisions in effect on the respective dates. Benefits payable at retirement, death, disability, and vested termination of employment are included, to the extent that they are deemed to have accrued as of the computation dates.

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METRO AREA TRANSIT HOURLY EMPLOYEES' PENSION PLAN

Schedule of Employer Contributions
In accordance with Statement No. 25 of the Government Accounting Standards Board

Fiscal Year Ending	Annual Required Contribution (ARC) (a)	Total Employer Contribution (b)	Percentage of ARC Contribution (b / a)
12/31/2014	833,212	702,245	84.3%
12/31/2013	847,072	726,238	85.7%
12/31/2012	895,706	719,065	80.3%
12/31/2011	871,783	703,006	80.6%
12/31/2010	888,807	689,756	77.6%
12/31/2009	918,023	685,452	74.7%
12/31/2008	667,122	619,335	92.8%
12/31/2007	716,682	475,712	66.4%
12/31/2006	476,910	385,084	80.7%
12/31/2005	478,962	371,889	77.6%
12/31/2004	475,125	371,748	78.2%
12/31/2003	439,300	372,952	84.9%
12/31/2002	337,478	345,694	102.4%
12/31/2001	285,953	304,247	106.4%
12/31/2000	334,609	294,606	88.0%
12/31/1999	176,601	186,720	105.7%
12/31/1998	164,407	227,725	138.5%
12/31/1997	174,697	285,661	163.5%
12/31/1996	213,870	288,922	135.1%

Notes to Required Schedules:

1. The cost method used to determine the ARC is the Entry Age Cost Method.
2. The actuarial value of assets is equal to the market value. Beginning in 1998, the actuarial value of assets is determined based on a method that smoothes the effects of short term volatility in the market value of investments. The actuarial value is equal to the expected value, based on the assumed rate of return, plus 25% of the difference between market and expected value.
3. Economic assumptions are as follows: Investment return of 7.0%
   Salary increase rate of 4.50%
   Increases in UAL are amortized over 30 years beginning 1/1/12

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ACTUARIAL METHODS

Actuarial Cost Method
The costs in this report were prepared using the Individual Entry Age Normal cost method.

Under this Method, the Normal Cost is computed as the dollar amount which, if paid from the earliest time each participant joined the plan (thus, entry age) until his retirement or termination, would accumulate with interest at the rate assumed in the valuation to a fund sufficient to pay all benefits under the plan. The normal cost for the plan is determined by summing the normal costs of all participants.

The Actuarial Accrued Liability under this method at any point in time is the theoretical amount of the fund that would have been accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date). The Unfunded Actuarial Liability is the excess of the Actuarial Accrued Liability over the plan assets actually on hand on the valuation date.

Under this method, experience gains or losses, i.e., decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions adjust the unfunded actuarial liability.

As experience develops with the plan, so-called actuarial gains and actuarial losses result. These actuarial gains and losses indicate the extent to which actual experience is deviating from that expected on the basis of the actuarial assumptions. All gains and losses, including those from the interest assumption, affect the plan's unfunded accrued liability and are amortized over future years.

The annual accrued liability payment is the portion of the unfunded accrued liability that is amortized for the year.

Asset Valuation
The value of plan assets is based on a smoothing technique that will spread out the effect of volatility in the rate of investment return. A detailed description of the asset valuation method is provided on page 4.

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SUMMARY OF PLAN PROVISIONS

Original Effective Date
July 1, 1979.

Plan Year
January 1 through December 31.

Participation
First day of the month next following completion of 120 days of service.

Definitions

Year of Service
A Year of Service generally means a twelve consecutive month period beginning with the person's employment date during which he has worked not less than 1,000 hours.

Final Average Annual Compensation
Average Monthly Compensation paid during the five highest paid years out of the last ten years of employment preceding cessation of employment.

Compensation
Regular compensation plus overtime but excluding reimbursed expenses, bonuses, commissions, deferred compensation and other extra or unusual compensation.

Age and Service Requirements for Benefits

Normal Retirement
Age 65.

Early Retirement
Age 58 with 20 or more years of service or any age with 30 or more years of service.

Late Retirement
The first of any month after normal retirement date.

Vesting
Based on the following schedule:

Years of Service	Vesting %
Less than 5	0%
5	50%
6	60%
7	70%
8	80%
9	90%
10 or more	100%

Spouse's Benefits
Married and completed ten years of service.

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PARTICIPANT CENSUS DATA

AS OF JANUARY 1, 2015

ACTIVE PARTICIPANTS INCLUDED IN VALUATION

Age at Valuation Date	Male	Female	Total
Under 20	0	0	0
20 - 24	0	0	0
25 - 29	2	0	2
30 - 34	7	1	8
35 - 39	9	2	11
40 - 44	21	5	26
45 - 49	19	7	26
50 - 54	39	4	43
55 - 59	45	11	56
60 - 64	36	5	41
65 & Over	9	1	10
	187	36	223

NON-ACTIVE PARTICIPANTS INCLUDED IN VALUATION

	Number	Annual Benefit
Retired Participants or Beneficiaries	174	$1,762,116
Vested Terminated Participants	44	156,168
Total	218	$1,918,284

This work product was prepared solely for the Metro Area Transit Hourly Employees' Pension Plan for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

Appendix E

Omaha Civilian Employees Retirement Plan Information

Omaha Civilian

City of Omaha
Jean Stothert, Mayor

Finance Department
Omaha/Douglas Civic Center
1819 Farnam Street, Suite 1004
Omaha, Nebraska 68183-1004
(402) 444-5416
Telefax (402) 546-1150

Stephen B. Curtiss
Finance Director

Allen Herink
City Comptroller

October 14, 2016

Senator Mark Kolterman, Chairperson
Nebraska Retirement Systems Committee
PO BOX 94604
State Capitol
Lincoln, NE 68509-4604

Dear Senator Kolterman:

Neb. Rev. Stat § 13-2402(3) requires a governing entity that offers a defined benefit retirement plan to file a report if contributions do not equal the actuarial requirement for funding or the funded ratio is less than eighty percent. The City of Omaha is submitting this report regarding the City of Omaha Employees Retirement System (COERS) because the funded ratio is less than eighty percent.

The City through its negotiations with the bargaining agents has made efforts to address the funding shortfall in COERS. Some of those efforts are addressed below. The table below compares the actuarial data for the current and previous plan years:

ITEM	2015	2016
Funding Status	56%	56%
Assumed Rate of Return	8%	8%
Actual Return	4.7%	3.1%
Net Assets (actuarial value)	$242,248,074	$243,516,453
Unfunded Actuarial Accrued Liability	$188,911,964	$193,616,559
Normal Cost (%)	$5,822,238(9.881%)	$6,149,062(9.843%)
Member Contribution Rate	10.075%	10.075%
Employer Contribution Rate	18.775%	18.775%
Actuarial Required Contribution (ARC)	$17,162,883 (2014)	$14,676,786(2015)
Actuarial Contribution Rate	33.724%	27.526%
Contribution Shortfall/(Margin)	4.874%	(1.324%)
Employer Actual Dollars Contributed	$12,326,643 (2014)	$12,401,231 (2015)
% of ARC by Employer Contributions	71.82%	84.50%

COERS has been underfunded for a number of years and the circumstances leading to it being underfunded are varied. When the system was fully funded in the late 1990s, benefits were increased and even though the actuarial cost was calculated, the benefits appear to have exceeded those costs. There also have been some years where the investment loss was historically large. Other factors include

reduction in the number of civilian employees over the past 20 years, lack of wage increases in some instances, and the delay in replacing retired personnel.

The actuarial assumptions are unchanged from the prior valuation. There was a change to one of the actuarial methods. The Unfunded Actuarial Liability as of January 1,2016 was reestablished and amortized over a 25-year period on a level-percent of pay basis. In addition, in an effort to improve the condition of the system, the City entered into new labor agreements with all its civilian bargaining groups at the end of 2014/beginning of 2015. These bargaining agreements addressed 2013 through 2017 and included increased contributions by the City for wages paid 2013 until the contracts became effective.

The summary of some of the changes in the agreements addressing civilian employees are:

- Contributions by the City increased 7% over the four years of the agreements from 11.775% to 18.775%.
- Existing employees will receive 1.9% per year for future years of service instead of 2.25%.
- The City went from the Rule of 80 to the Rule of 85 and raised the minimum retirement age with some grandfathering of these provisions. The retirement age went from 60 to 65 over the course of the agreements.
- The smoothing of the salary on which a person's pension was calculated from a highest one year in your last five years to the average of your last five years of employment.
- Dramatically decreased the disability benefit for the existing employees.
- Implementing a Cash Balance Plan for employees hired on or after 3/1/2015. A cash balance plan is a type of defined benefit plan which allows for the employer and employee to share some of the risk of poor investment returns. The pay credit for the plan starts at 13% and goes up 1% for each 8 years of service. The interest credit is guaranteed at 4% with an additional amount being three quarters of the amount earned by the Plan over 7% on a 5 year rolling average, with the interest credit being capped at 7%. One has to have 10 years of service to vest.

As of January 1, 2016, the system had a market value of $239 million in assets and a funded ratio of 56%. It had a funded ratio of 56% in 2015 and 54% in 2014. The actuarial contribution to the system has improved significantly, resulted in the contribution exceeding the actuarial required contribution by 1.324% after having a shortfall of 4.874% in 2015 and 10.604% in 2014. Additional savings should be seen in the future years as members covered by the provisions of the Cash Balance Plan begin. The most recent projections show the system will reach fully funded status in about 25 years. The assumed rate of return for the system is 8%. An Actuarial Experience study will be done in 2017 and the rate of return will be reviewed.

As requested, we enclose the most recent Actuarial Experience Study which was submitted in January, 2013 and the most recent Actuarial Valuation Report which was completed in September, 2016.

If you or the Committee should have any questions regarding this report please let me know.

Sincerely,

Allen Herink

Allen R. Herink
City Comptroller

Enclosures

Hearing handout
Nov. 22. 2016

Civilian Pension System

Prepared by:

CITY OF OMAHA
Finance Department

November 18, 2016

REPORT TO MEMBERS OF THE CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
YEAR ENDING DECEMBER 31, 2015

Your individual Statements of Contribution, including interest, to the Employees' Retirement System Fund as of December 31, 2015 were posted on-line in 2016.

The City of Omaha Employees' Retirement System became effective on January 1, 1949. Certain of its provisions, which are governed by Chapter 22.21 of the Omaha Municipal Code, are summarized herein.

All City employees except the following are covered by the plan: police officers, firefighters, persons paid on a contractual or fee basis; seasonal, temporary, and part-time employees; and elective officials who do not make written application to the plan.

Employee Contributions by payroll deduction and the City's contributions in 2015 were made as follows:

	Civilian Barg	Functional	CMPTEC	AEC
Employee Contributions	10.075%	10.075%	10.075%	10.075%
City Contributions	18.775%	18.775%	18.775%	18.775%

The City implemented the "cash balance" pension plan for new employees hired on or after March 1, 2015. The detiails of the cash balance pension plan will be found in the contracts.

Civilian Employees' Retirement System
Cash Flow Analysis - Last Five Fiscal Years

Receipts:	2011	2012	2013	2014	2015
Employee Contributions	$ 5,628,888	$ 6,201,924	$ 6,173,254	$ 6,321,141	$ 6,584,338
Employer Contributions	$ 6,618,110	$ 7,216,050	$ 7,194,482	$ 12,326,643	$ 12,401,231
Investment Income	$ (401,034)	$ 24,485,826	$ 35,570,292	$ 14,194,059	$ 8,530,000
Security Lending Income	$ 16,808	$ 44,131	$ 17,748	$ (1,817,507)	$ -
	$ 11,862,772	$ 37,947,931	$ 48,955,776	$ 31,024,336	$ 27,515,570
Disbursements:					
Retirement Pensions	$ 29,426,983	$ 28,024,628	$ 29,426,983	$ 30,458,477	$ 31,669,607
Death Benefits	$ 105,000	$ 201,667	$ 105,000	$ 189,286	$ 169,517
Refunds	$ 945,190	$ 557,950	$ 945,190	$ 668,480	$ 930,741
Investment Counseling Fees	$ 1,368,324	$ 1,364,199	$ 1,368,324	$ 1,318,321	$ 1,316,926
Other Expenditures	$ 553	$ 1,183	$ 553	$ 2,141	$ 2,430
	$ 31,846,050	$ 30,149,626	$ 31,846,050	$ 32,636,704	$ 34,089,221
Excess of Receipts Over Disbursements	$ (19,983,278)	$ 7,798,304	$ 17,109,726	$ (1,612,368)	$ (6,573,651)

Financial Information - Last Five Fiscal Years

	2011	2012	2013	2014	2015
System Total Assets	$ 215,434,784	$ 223,233,089	$ 240,342,815	$ 238,730,446	$ 232,156,795
Employee Contributions	$ 5,628,888	$ 6,201,924	$ 6,173,254	$ 6,321,141	$ 6,584,338
Employer Contributions	$ 6,618,110	$ 7,216,050	$ 7,194,482	$ 12,326,643	$ 12,401,231

Percentage Distribution of Receipts

	2011	2012	2013	2014	2015
Employee Contributions	N/A	16.3	12.6	20.4	23.9
Employer Contributions	N/A	19.0	14.7	39.7	45.1
Investment Income	N/A	64.7	72.7	39.9	31.0
	N/A	100.0	100.0	100.0	100.0

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM

RETIRED MEMBERSHIP

	3100	3200	3300	3400	3500	3600	3700	3800	3900	4000	4100	
	Service Retirees	Surviving Spouse	Service Disability	Non-Service Disability	Children	Ex-Spouse	Age 65 Conv.	Service Disability Widow	Service Disability Child	Non-Service Disability Widow	Non-Service Disability Child	TOTAL
January 1, 2015	**1019**	**207**	**44**	**31**	**7**	**14**	**39**	**3**	**0**	**33**	**3**	**1400**
	31	**9**	**1**	**3**	**2**					**1**		**47**
Pensions Granted												0
Pensions Ceased:												
Deaths	-26	-11	-2	-2	-2					-3		-46
Corrections												0
Other			-3				3					0
December 31, 2015 TOTAL:	**1024**	**205**	**40**	**32**	**7**	**14**	**42**	**3**	**0**	**31**	**3**	**1401**

Respectfully submitted,

Allen Herink
City Comptroller

Board of Trustees:

Buster Brown, Chairperson
Donna Waller, Vice-Chairperson
Kenny Toliver-Humpal, Secretary
Aimee melton, City Councilmember
Dave Felber MD, Trustee
Mikki Frost, Human Resources Director
Allen Herink, City Comptroller
Janine Kirk, Recording Secretary

Allocation Study

		NEW POTENTIAL ALLOCATIONS		
				Allocation Selected
Investment Type	**Current**	1	2	3
Large Cap Stocks	10	10	10	10
Mid Cap Stocks	5	5	5	5
Small Cap Stocks	9.8	8	8	8
International Equities	5	7.5	5.5	5
International Small Cap	7.5	0	0	0
Emerging Markets	2.5	10	10	10
Commodities	5	3.5	5	3.5
Intermediate Bonds	10.5	7.5	7.5	6
Short Bonds	0	2.5	2.5	2.5
High Yield	10	6	8.5	8.5
Hedge Funds - Conservative	8	10	8	10
Private Real Estate	18	20	20	20
Private Equity	8.7	10	10	11.5
Equities	39.8	40.5	38.5	38
Fixed Income	20.5	16	18.5	17
Alts	39.7	43.5	43	45
	100	100	100	100
Strategic				
Expected Return	7.34	7.67	7.65	7.73
St. Dev.	11.47	11.54	11.43	11.47
Geo. Return	6.72	7.05	7.04	7.12
Sharpe	0.59	0.61	0.62	0.62
Secular				
Expected Return	8.92	8.97	8.99	9.02
St. Dev.	10.14	10.21	10.10	10.14
Geo. Return	8.45	8.50	8.52	8.55
Sharpe	0.83	0.83	0.84	0.84

Civilian Pension Total Fund Performance Review

Performance & Benchmarks

9/30/2016

	One Quarter (%)	Year To Date (%)	One Year (%)	Three Years (%)	Five Years (%)	Ten Years (%)	Since Inception 3Q 1980 (%)
Domestic Equity	**9.5**	**10.0**	**15.6**	**8.5**	**15.8**	**7.0**	
Core	10.0	5.2	15.4	15.3	19.3		
Specialty Large	5.9	18.2	24.6	7.7	15.3	6.2	
Specialty Small	10.9	8.8	12.5	6.6	14.9	8.0	
International Equity	**6.5**	**5.6**	**10.8**	**3.6**	**9.7**	**3.7**	
Large Cap	2.9	0.5	3.3	1.7			
Emerging Markets	8.9	24.0	23.6	(1.2)	3.5		
Domestic Fixed Income	**2.5**	**8.7**	**8.6**	**5.2**	**4.2**	**5.7**	
Intermediate Term	0.6	6.9	6.4	4.7	3.8	5.6	
High Yield	4.3	10.5	10.7	5.8			
Domestic Real Estate	**2.4**	**8.4**	**12.4**	**15.3**	**14.6**	**6.2**	
Domestic Private Equity	**1.7**	**8.8**	**11.1**	**17.1**	**14.6**		
Domestic Commodities	**(3.3)**	**9.1**	**(2.3)**	**(11.9)**	**(9.1)**		
Global Hedge Funds	**1.0**	**0.7**	**1.3**	**(0.6)**			
Domestic Cash	**0.1**	**0.1**	**0.1**	**1.1**	**1.4**	**2.6**	
Total Fund	**4.1 %**	**7.8 %**	**10.5 %**	**7.5 %**	**9.9 %**	**5.4 %**	**9.2 %**
Absolute Objective[1]	**1.9**	**5.9**	**8.0**	**8.0**	**8.0**	**7.9**	**7.4**
Relative Objective[2]	**3.8**	**8.2**	**9.4**	**6.3**	**8.7**	**5.0**	

Source: Demarche Associates, Inc.

[1] + 8% - Objective has changed since inception

[2] 10% R1000, 5% RusMc, 8% R2000, 5% EAFE, 10% EM, 3.5% BB Comm, 6% BB GC, 2.5% BB GC 1-3, 8.5% ML HY, 10% HFR Cns, 20% NCREIF, 11.5% CivPE - Objective has changed since inception

Key Valuation Measurement

	2016	2015	2014
Actuarial Liability ($M)	$ 437.10	$ 431.20	$ 442.80
Actuarial Assets ($M)	$ 243.50	$ 242.20	$ 237.60
Unfunded Actuarial Liability	$ 193.60	$ 188.90	$ 205.20
Funded Ratio (Actuarial Assets)	56%	56%	54%
Funded Ration (Market Assets)	53%	55%	54%
Scheduled Rate (Total)*	28.850%	28.850%	27.850%
Actuarial Contribution Rate	-27.526%	-33.724%	-38.454%
Contribution Surplus / Shortfall -	1.324%	-4.874%	-10.604%

* Includeds City Contribution Rate moving from 17.775% in 2014 to 18.775% in 2015 and beyond

Note: numbers may not add due to rounding

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

The City of Omaha Employees' Retirement System

Actuarial Valuation as of January 1, 2016

www.CavMacConsulting.com

Actuarial computations presented in this report are for purposes of determining the actuarial contribution rates for funding the System. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes. For example, actuarial computations for purposes of fulfilling financial accounting requirements for the System under Governmental Accounting Standards No. 67 and No. 68 are provided in a separate report.

The consultants who worked on this assignment are pension actuaries. CMC's advice is not intended to be a substitute for qualified legal or accounting counsel.

This is to certify that the independent consulting actuaries are members of the American Academy of Actuaries, have experience in performing valuations for public retirement plans, and meet the qualification standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board and the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures based on the current provisions of the retirement plan and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix B.

We respectfully submit the following report and look forward to discussing it with you.

Sincerely,

Patrice Beckham

Brent A. Banister

Patrice A. Beckham, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

Brent A. Banister, PhD, FSA, EA, FCA, MAAA
Chief Pension Actuary

EXECUTIVE SUMMARY

This report presents the results of the January 1, 2016 actuarial valuation of the City of Omaha Employees' Retirement System. The primary purposes of performing the valuation are:

- to estimate the liabilities for the future benefits expected to be paid by the System;
- to determine the actuarial contribution rate, based on the System's funding policy;
- to measure and disclose various asset and liability measures;
- to monitor any deviation between actual System experience and experience predicted by the actuarial assumptions so that recommendations for assumption changes can be made when appropriate;
- to analyze and report on any significant trends in contributions, assets and liabilities over the past several years.

The actuarial assumptions and benefit provisions are unchanged from the prior valuation, but one of the actuarial methods was changed in this valuation. The Unfunded Actuarial Liability (UAL) as of January 1, 2016 was re-established and amortized over a closed 25-year period on a level-percent of pay basis. In future years, new "pieces" of UAL will be amortized over a new closed 20-year period beginning on each valuation date, using the same methodology as was adopted in the last Experience Study. This change was made to better reflect the long-term financing structure now in place (changes to both benefit provisions and contributions) to eliminate the UAL. As a result of this change, the UAL contribution rate decreased by 6.226% and there is now a contribution margin of 1.324%.

The actuarial valuation results provide a "snapshot" view of the System's financial condition on January 1, 2016. The unfunded actuarial liability (UAL) in the current valuation is $194 million, an increase of $5 million from last year's UAL of $189 million. Also, we would note that this is the first valuation that includes members covered under the cash balance benefit structure (applicable to those hired on or after March 1, 2015). As of January 1, 2016, 121 out of 1,194 active members are covered under the cash balance benefit structure, or about 10%.

The valuation results reflect net unfavorable experience for the past plan year as demonstrated by an unfunded actuarial liability that was higher than expected, based on the actuarial assumptions used in the January 1, 2015 actuarial valuation. Unfavorable experience on the actuarial value of assets resulted in a loss of $3.8 million and unfavorable experience on liabilities resulted in an experience loss of $0.4 million. Actual contributions during 2015 were lower than the actuarial contribution rate which increased the unfunded actuarial liability by $2.4 million. This report reflects a change to the valuation methodology for records with a Qualified Domestic Relations Order (QDRO). When a new QDRO is approved, a new record is created in the data for the alternate payee which includes the amount of their benefit. In the past, this benefit amount has been valued as a system obligation. During our review of this year's data, we became aware of the fact that the member's record reflects the total benefits to be paid to both the member and the alternate payee, so the benefit amount for the alternate payee should not be valued separately. This change reduced the actuarial liability by $1.2 million (and the beneficiary count by 14).

The System uses an asset smoothing method in the valuation process. As a result, the System's funded status and the actuarial contribution rate are based on the actuarial (smoothed) value of assets – not the pure market value. The investment return, net of expenses, on the market value of assets during 2015 was 3.1%. Coupled with the deferred investment experience from the 2015 valuation, the rate of return on the actuarial value of assets was 6.4% for 2015. Because that rate is lower than the assumed 8.0% return, it generated an actuarial loss of $3.8 million. The actuarial value of assets exceeds the market value by $11.3 million or 4.9% of the market value. Actual market returns over the next few years will determine

The components of the change in the market value and actuarial value of assets are shown below:

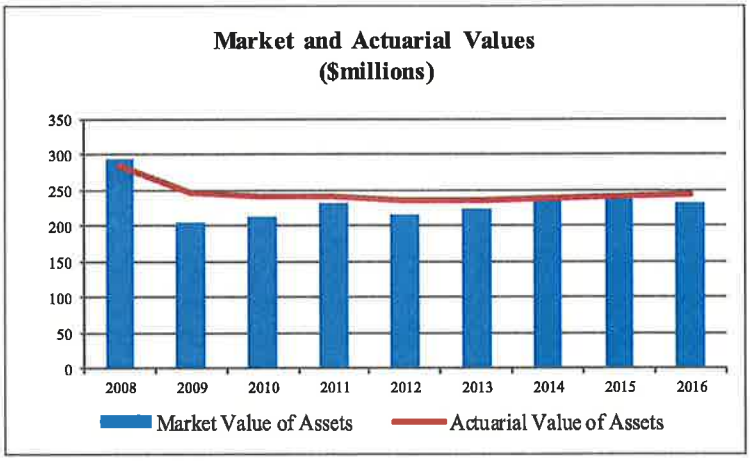
	Market Value ($M)		Actuarial Value ($M)	
Net Assets, January 1, 2015	$	238.7	$	242.2
City and Member Contributions	+	19.0	+	19.0
Benefit Payments and Refunds	-	32.8	-	32.8
Investment Gain/(Loss)	+	7.3	+	15.1
Net Assets, January 1, 2016		232.2		243.5
Estimated Rate of Return		3.1%		6.4%

The net investment loss that is not recognized as of January 1, 2016 is $11.3 million, compared with a $3.5 million unrecognized loss in last year's valuation. The unrecognized losses of $11.3 million will be reflected in the determination of the actuarial value of assets for funding purposes over time, to the extent they are not offset by future gains. This means that earning the assumed rate of investment return of 8.0% per year (net of investment expenses) on a market value basis will result in small actuarial losses on the actuarial value of assets in the future.

The unrecognized investment losses represent 4.9% of the market value of assets (compared to deferred losses equal to 1.5% of the market value in the 2015 valuation). If the deferred losses were recognized immediately in the actuarial value assets, the unfunded actuarial liability would increase by $11.3 million to $204.9 million, the funded ratio would decrease to 53%, the actuarial contribution rate would increase from 27.526% to 28.563%, and the contribution margin would decrease to 0.287%.

A comparison of asset values on both a market and actuarial basis for the last five years is shown in the following table.

	January 1 ($M)				
	2016	2015	2014	2013	2012
Actuarial Value of Assets	$244	$242	$238	$236	$237
Market Value of Assets	$232	$239	$240	$223	$215
Actuarial Value/Market Value	105%	101%	99%	106%	110%



An asset smoothing method is used to mitigate the volatility in the market value of assets. By using a smoothing method, the actuarial (or smoothed) value can be either above or below the pure market value

The change in the unfunded actuarial liability between January 1, 2015 and January 1, 2016 is shown below (in millions):

Unfunded Actuarial Liability, January 1, 2015	189
• Expected change in UAL	(1)
• Contribution shortfall in 2015	2
• Investment experience	4
• Demographic experience	0
• Change in valuation methodology for QDROs	(1)
• Other experience	1
Unfunded Actuarial Liability, January 1, 2016	194

The amortization of the UAL was re-established on January 1, 2016 and amortized over a closed 25-year period. New "pieces" of UAL in future years will continue to be amortized over a separate 20-year period beginning on the valuation date, as adopted by the Board based on the last Experience Study. This change was made to better reflect the long-term financing structure now in place to eliminate the UAL.

CONTRIBUTION LEVELS

The actuarial contribution rate of the System is composed of two parts:

(1) Normal cost (which is the allocation of costs attributed to the current year's membership service) and,
(2) Amortization payment on the Unfunded Actuarial Liability (UAL).

The normal cost rate is independent of the System's funded status and represents the cost, as a percent of payroll, of the benefits provided by the System which is allocated to the current year of service. The total normal cost for the System is 9.843% of pay, or $6.1 million this year. The normal cost rate represents the long-term cost of the benefit structure for the current active members.

The System's total actuarial contribution rate (payable as a percentage of member payroll) decreased by 6.198% of pay, to 27.526% on January 1, 2016, from 33.724% on January 1, 2015. The primary components of the change in the actuarial contribution rate are shown in the following table:

	Rate	
Total Actuarial Contribution Rate, January 1, 2015	33.724	%
• Actuarial (Gain) / Loss - Investment Experience	0.346	
• Actuarial (Gain) / Loss - Demographic Experience	0.038	
• Contributions Less Than Actuarial Rate	0.216	
• Change in Normal Cost Rate	(0.038)	
• Payroll Growth Higher than Expected	(0.402)	
• Change in Valuation Methodology for QDROs	(0.106)	
• Resetting the UAL Amortization Period	(6.226)	
• Other Experience	(0.026)	
Total Actuarial Contribution Rate, January 1, 2016	27.526	%

	$ Millions	
	Using Actuarial Value of Assets	Using Market Value of Assets
Actuarial Liability	$437.1	$437.1
Asset Value	243.5	232.2
Unfunded Actuarial Liability	$193.6	$204.9
Funded Ratio	55.7%	53.1%
Normal Cost Rate	9.843%	9.843%
UAL Contribution Rate	17.683%	18.720%
Actuarial Contribution Rate	27.526%	28.563%
Employee Contribution Rate	(10.075%)	(10.075%)
City Contribution Rate	(18.775%)	(18.775%)
Contribution Shortfall/(Margin)	(1.324%)	(0.287%)

EXHIBIT 1

SUMMARY OF FUND ACTIVITY

(Market Value Basis)

For Year Ended December 31, 2015

Assets at January 1, 2015	$	238,730,446
Receipts:		
City Contributions		12,401,231
Employee Contributions		6,584,338
Investment Earnings, Net of Expenses		7,213,515
Total Receipts		26,199,084
Disbursements:		
Benefit Payments		31,839,124
Refund of Contributions		930,741
Administrative Expenses		2,430
Total Disbursements		32,772,295
Assets as of December 31, 2015	$	232,157,235
Annualized Net Yield		3.1%

EXHIBIT 2 (continued)

A historical comparison of the market and actuarial value of assets is shown below:

Date	Market Value of Assets (MVA)	Actuarial Value of Assets (AVA)	AVA / MVA
1/1/2008	$294,658,022	$283,243,750	96.13%
1/1/2009	204,452,506	245,343,007	120.00%
1/1/2010	213,219,632	240,109,413	112.61%
1/1/2011	232,346,583	240,291,310	103.42%
1/1/2012	215,434,784	236,741,347	109.89%
1/1/2013	223,233,088	235,591,941	105.54%
1/1/2014	240,342,815	237,579,690	98.85%
1/1/2015	238,730,446	242,248,074	101.47%
1/1/2016	232,157,235	243,516,453	104.89%

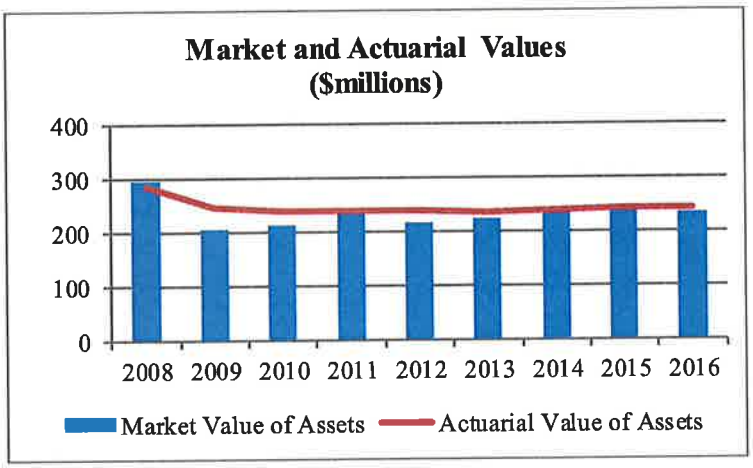


EXHIBIT 4

UNFUNDED ACTUARIAL LIABILITY

As of January 1, 2016

The actuarial liability is the portion of the present value of future benefits which will not be paid by future normal costs. The actuarial value of assets is subtracted from the actuarial liability to determine the unfunded actuarial liability.

1.	Present Value of Future Benefits	$ 484,822,629
2.	Present Value of Future Normal Costs	47,689,617
3.	Actuarial Liability (1) – (2)	437,133,012
4.	Actuarial Value of Assets	243,516,453
5.	Unfunded Actuarial Liability (3) – (4)	$ 193,616,559
6.	Funded Ratio (4) / (3)	55.71%

EXHIBIT 6

DEVELOPMENT OF 2016 ACTUARIAL CONTRIBUTION RATE

The actuarial cost method used to determine the required level of annual contributions to support the expected benefits is the Entry Age Normal Cost Method. Under this method, the total cost is comprised of the normal cost rate and the unfunded actuarial liability (UAL) payment. The System is financed by contributions from the employees and the City.

1. (a)	Normal Cost	$	6,149,062
(b)	Expected Payroll in 2016 for Current Actives	$	62,471,369
(c)	Normal Cost Rate (a) / (b)		9.843%
2.	Unfunded Actuarial Liability at Valuation Date	$	193,616,559
3.	Unfunded Actuarial Liability Payment	$	12,202,087
4.	Total Projected Payroll for 2016	$	69,005,865
5.	Unfunded Actuarial Liability Payment as Percent of Pay (3) / (4)		17.683%
6.	Total Contribution Rate (1c) + (5)		27.526%
7.	Employee Contribution Rate		10.075%
8.	City Contribution Rate		18.775%
9.	Contribution Shortfall/(Margin) (6) – (7) – (8)		(1.324%)

EXHIBIT 8

ANALYSIS OF EXPERIENCE

The purpose of conducting an actuarial valuation of a retirement plan is to estimate the costs and liabilities for the benefits expected to be paid from the plan, to determine the annual level of contributions for the current plan year that should be made to support these benefits, and finally, to analyze the plan's experience. The costs and liabilities of this retirement plan depend not only upon the benefit formula and plan provisions but also upon factors such as the investment return on the system assets, mortality rates among active and retired members, withdrawal and retirement rates among active members, and rates at which salaries increase.

The actuarial assumptions employed as to these and other contingencies in the current valuation are set forth in Appendix B of this report.

Since the overall results of the valuation will reflect the choice of assumptions made, periodic studies of the various components comprising the plan's experience are conducted in which the experience for each component is analyzed in relation to the assumption used for that component (called an experience study). This summary is not intended to be an actual "experience study" but rather an analysis of sources of gain and loss in the past plan year.

Gain/(Loss) By Source

The System experienced a net actuarial loss on liabilities of 412,000 during the plan year ended December 31, 2015, and an actuarial loss on assets of $3,786,000. The net actuarial loss was $4,198,000. The major components of this net actuarial experience gain are shown below:

Liability Sources		**Gain/(Loss)**
Salary Increases	$	927,000
Mortality		259,000
Terminations		(511,000)
Retirements		396,000
Disability		(822,000)
New Entrants/Rehires		(259,000)
Miscellaneous		(402,000)
Total Liability Gain/(Loss)	$	(412,000)
Asset Gain/(Loss)	$	(3,786,000)
Total Actuarial Gain/(Loss)	$	(4,198,000)

EXHIBIT 9

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ending	Annual Required Contribution* (a)	Total Employer Contribution* (b)	Percentage of ARC Contributed* (b/a)
12/31/2005	$ 6,877,913	$ 4,500,192	65.43%
12/31/2006	6,213,801	4,145,033	66.71%
12/31/2007	8,883,617	4,975,039	56.00%
12/31/2008	9,212,669	5,374,082	58.33%
12/31/2009	12,893,331	5,310,754	41.19%
12/31/2010	14,149,386	5,717,610	40.41%
12/31/2011	14,564,847	6,618,110	45.44%
12/31/2012	15,658,045	7,216,050	46.09%
12/31/2013	17,406,168	7,194,482	41.33%
12/31/2014	17,162,883	12,326,643	71.82%
12/31/2015	14,676,786	12,401,231	84.50%

*Information prior to 2011 was provided by the prior actuary and has not been reviewed or verified by Cavanaugh Macdonald Consulting.

APPENDIX A

SUMMARY OF PLAN PROVISIONS

Effective Date: Section 22 - 21	January 1, 1949
Active Member: Section 22 – 24 and 25	All City employees except: policemen, firemen, persons paid on a contractual or fee basis, seasonal, temporary and part-time employees, and elected officials who do not make written application.
Final Average Compensation (FAC): Section 22 - 32	Highest 78 pay periods in the employee's last 130 pay periods of employment divided by three for members who are within five years of normal retirement as of March 1, 2015 under the eligibility criteria set forth in the 2009 through 2012 labor agreements; or the last 130 pay periods divided by five for all other employees. Minimum FAC, regardless of retirement date, shall never be less than the FAC determined as of 2/28/2015 (highest consecutive 26 pay periods in 130 pay periods prior to 2/28/2015).
Member Contributions: Section 22 – 26(a)	Each member will contribute 10.075% of total compensation.
City of Omaha Contributions: Section 22 – 26(e)	The City will contribute a percentage of each member's total compensation as shown in the following table.

Year	Percent Contributed
2013	13.775%
2014	17.775%
2015	18.775%

Service Credits Section 22 – 28 and 29	The member shall receive membership service credit for each full pay period of employment. Intervening periods of military service in time of emergency shall be counted, provided the member is honorably discharged and returns to work within 90 days after such discharge. Membership credits shall be earned by those receiving a disability pension. However, the total credited service will not exceed 30, unless more than 30 years were earned as an active member.

APPENDIX A

SUMMARY OF PLAN PROVISIONS
(continued)

Interest Credits and Dividends: On the last day of each plan year, each cash balance account shall receive an interest credit equal to 4.0% of the balance at the beginning of the plan year. Additionally, each account may be credited with a dividend equal to 75% of the System's investment return, on a market value basis, that is over 7.0% on a rolling five-year return. The dividend is capped at 3.0% until January 1, 2020.

Pay Credits: On the last day of each plan year, each cash balance account shall receive a pay credit equal to the following percentages of the member's pensionable earnings for the plan year:

Years of Service	Percentage
Less Than 8	13.0%
8 – 15	14.0%
16 – 23	15.0%
24 or More	16.0%

Disability Benefits:

1. Non-Service Related
   Section 22 - 35

An employee who sustains an injury or illness not in the line of duty and as a result becomes unfit for active duty shall be granted a non-service-connected disability retirement of 1.50% multiplied by the employee's years of service multiplied by their Final Average Compensation. Members who were hired before March 1, 2015 are eligible for this benefit with five years of service. Members who were hired on or after March 1, 2015 are eligible for this benefit with ten years of service.

2. Service-Related
   Section 22 - 35

An employee who is a member of the system who sustains an injury or illness in the line of duty and as a result becomes unfit for active duty shall be granted a service-connected disability retirement of 1.75% multiplied by the employee's years of service multiplied by their Final Average Compensation. This benefit is available only if the member has served a minimum of six months of service.

APPENDIX A

SUMMARY OF PLAN PROVISIONS
(continued)

Lump Sum Death Benefits:

1. Active Member without Eligible Dependents Section 22 - 37	Accumulated member's contributions, plus $5,000.
2. Retired Member without Eligible Dependents Section 22 - 37	Accumulated member's contribution less previous pension payments made, plus $5000.
3. Active Member with Eligible Dependents: Section 22 - 37	$5,000
4. Retired Member with Eligible Dependents Section 22 - 37	$5,000
Vesting: Section 22 – 39	For members who were hired before March 1, 2015, upon severance of employment with less than five years of service and prior to obtaining eligibility under Section 22 – 30, a refund of such member's accumulated contributions, including credited interest, will be paid. For members who were hired on or after March 1, 2015, upon severance of employment with less than ten years of service and prior to obtaining eligibility under Section 22 – 30, a refund of such member's accumulated contributions, including 4.0% interest, will be paid.
Section 22 – 40	For members who were hired before March 1, 2015, upon severance of employment with more than five years of service and prior to obtaining eligibility for retirement, the member may elect, in lieu of receiving a refund of contributions, to receive a monthly pension, reduced for early retirement if applicable. Such deferred pension shall be based on service credited to the date of severance.

APPENDIX B

ACTUARIAL METHODS AND ASSUMPTIONS

Actuarial Cost Method

Valuation of the System uses the *"entry age-normal"* cost method. Under this actuarial method, the value of future costs attributable to future employment of participants is determined. This is called present value of future normal costs. The following steps indicate how this is determined for benefits expected to be paid upon normal retirement.

1. The expected pension benefit at normal retirement is determined for each participant.

2. A normal cost, as a level percent of pay, is determined for each participant assuming that such level percent is paid from the employee's entry age into employment to his normal retirement. This normal cost is determined so that its accumulated value at normal retirement is sufficient to provide the expected pension benefits.

3. The sum of the normal costs for all participants for one year determines the total normal cost of the System for one year.

4. The value of future payments of normal cost in future years is determined for each participant based on his years of service to normal retirement age.

5. The sum of the value of future payments of normal cost for all participants determines the present value of future normal costs.

The value of future costs attributable to past employment of participants, which is called the actuarial liability, is equal to the present value of benefits less the present value of future normal costs. The unfunded actuarial liability is equal to the excess of the actuarial liability over assets.

As experience develops with the System, actuarial gains and losses result. These actuarial gains and losses indicate the extent to which actual experience is deviating from that expected on the basis of the actuarial assumptions. In each year, as they occur, actuarial gains and losses are recognized in the unfunded actuarial liability as of the valuation date.

Actuarial Value of Assets

The actuarial value of assets is equal to the expected asset value (based on last year's actuarial value of assets, net cash flows and a rate of return equal to the actuarial assumed rate of 8.0%) plus 1/4 of the difference between the actual market value and the expected asset value. The actuarial value of assets cannot exceed 120% or fall below 80% of the market value of assets.

Unfunded Actuarial Liability Amortization Method

The unfunded actuarial liability (UAL) is funded on a "layered" basis, with the intial base being funded as a level-percent of payroll over a 25-year closed period that began January 1, 2016. A new base is created each valuation and is equal to the additional UAL created in that year. Each base is funded as a level percent of payroll over a 20-year closed period.

APPENDIX B

ACTUARIAL METHODS AND ASSUMPTIONS (continued)

Members within 6-10 Years of Unreduced Retirement Eligibility as of March 1, 2015

Eligible for Unreduced Retirement		
Age	1st Year Eligible	Subsequent Years
50-53	40%	25%
54-60	40%	20%
61	35%	20%
62	35%	30%
63-64		25%
65-69		30%
70		100%

Members eligible for Early, but not Unreduced Retirement, are assumed to retire at a rate of 5% per year from age 57 to 61.

Members more than 10 Years from Unreduced Retirement Eligibility as of March 1, 2015

Eligible for Unreduced Retirement		
Age	1st Year Eligible	Subsequent Years
50-53	40%	25%
54-61	40%	20%
62	40%	30%
63-64	35%	25%
65	35%	30%
66-69		30%
70		100%

Members eligible for Early, but not Unreduced Retirement, are assumed to retire at a rate of 5% per year from age 60 to 64.

APPENDIX B

ACTUARIAL METHODS AND ASSUMPTIONS
(continued)

Termination:

SAMPLE RATES

Years of Service	Annual Rate
1	11.00%
5	6.00%
10	4.25%
15	3.00%
17+	2.50%

Vested Terminations Electing Refund:

Age	Percent
34 and Below	100%
35-41	70%
42-46	50%
47	40%
48	30%
49	20%
50 and Above	0%

For members hired on or after March 1, 2015, everyone who becomes vested is expected to take a deferred annuity.

MEMBERSHIP DATA FOR VALUATION

The summary of employee characteristics presented below covers the employee group as of January 1, 2016. The schedules at the end of the report show the distribution of the various employee groups by present age along with other pertinent data.

Total number of employees in valuation:

(a) Active employees	1,194
(b) Deferred vested employees	77
(c) Disabled employees	112
(d) Retired employees, spouses and children receiving benefits	1,274
(e) Total employees in valuation	2,657

Average age of employees in valuation:

(a) Active employees	
Attained Age	46.5
Hire Age	36.7
(b) Deferred vested employees	48.2
(c) Disabled employees	62.7
(d) Retired employees	69.4
(e) Spouses and children receiving benefits	72.5

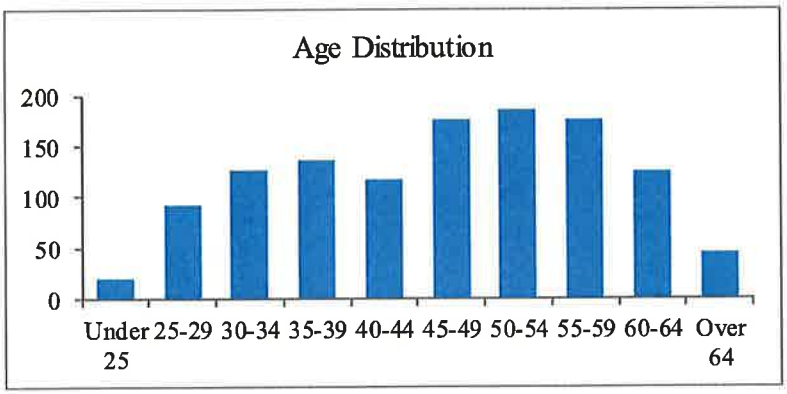
Active employees eligible for vested benefits as of January 1, 2016:

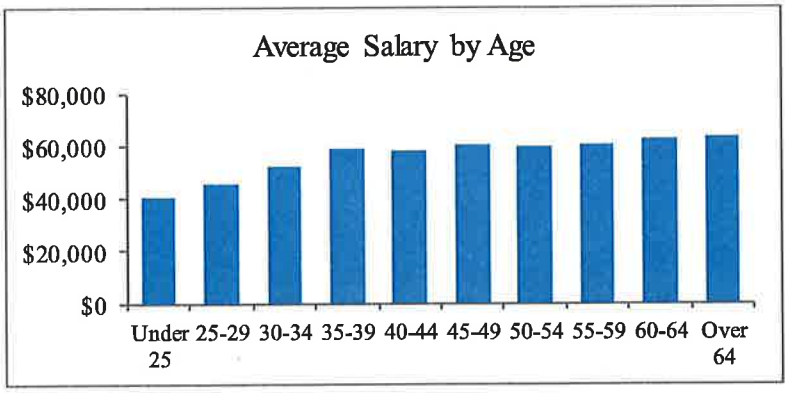
(a) Employees under age 55 with 5 or more years of service – eligible for deferred vested benefits	481
(b) Employees age 55 and over with 5 or more years of service – eligible for early or normal retirement benefits	295
(c) Employees eligible for refund of contributions only	418
(d) Total	1,194

SCHEDULE I

ACTIVE MEMBERS AS OF JANUARY 1, 2016
(Total)

	Count of Members			Valuation Salaries of Members		
Age	Males	Females	Total	Males	Females	Total
Under 25	16	3	19	$ 638,232	$ 128,876	$ 767,108
25-29	61	31	92	2,794,883	1,377,196	4,172,079
30-34	76	50	126	3,905,743	2,651,496	6,557,239
35-39	91	44	135	5,325,143	2,652,100	7,977,243
40-44	86	31	117	5,151,038	1,654,979	6,806,017
45-49	135	40	175	8,333,118	2,173,236	10,506,354
50-54	131	53	184	7,932,785	2,970,597	10,903,382
55-59	118	58	176	7,384,941	3,255,621	10,640,562
60-64	78	47	125	4,879,644	2,966,557	7,846,201
Over 64	33	12	45	2,229,238	600,442	2,829,680
Total	825	369	1,194	$48,574,765	$20,431,100	$69,005,865

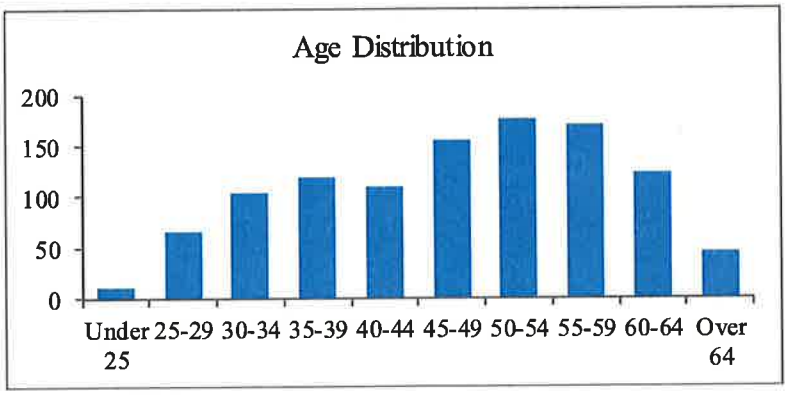


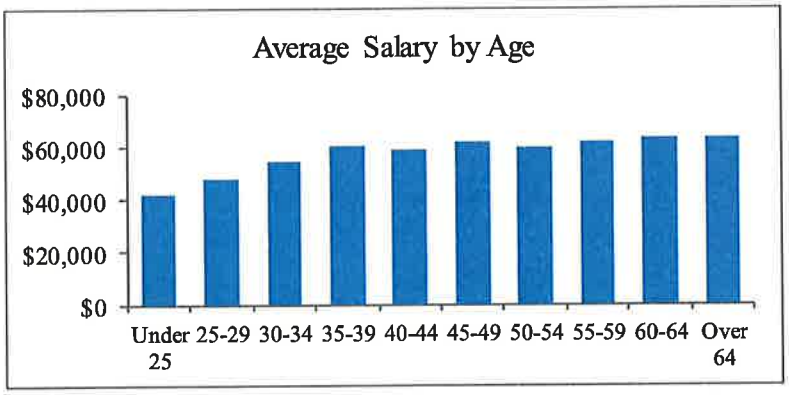


SCHEDULE I (continued)

ACTIVE MEMBERS AS OF JANUARY 1, 2016
(Hired before March 1, 2015)

	Count of Members			Valuation Salaries of Members		
Age	Males	Females	Total	Males	Females	Total
Under 25	9	2	11	$ 373,488	$ 86,382	$ 459,870
25-29	43	22	65	2,050,512	1,067,083	3,117,595
30-34	63	40	103	3,352,184	2,236,621	5,588,805
35-39	80	39	119	4,774,953	2,432,780	7,207,733
40-44	80	29	109	4,838,002	1,562,986	6,400,988
45-49	124	31	155	7,857,331	1,700,890	9,558,221
50-54	124	51	175	7,536,765	2,904,245	10,441,010
55-59	114	55	169	7,234,148	3,163,718	10,397,866
60-64	78	45	123	4,879,644	2,910,789	7,790,433
Over 64	33	11	44	2,229,238	556,691	2,785,929
Total	748	325	1,073	$45,126,265	$18,622,185	$63,748,450

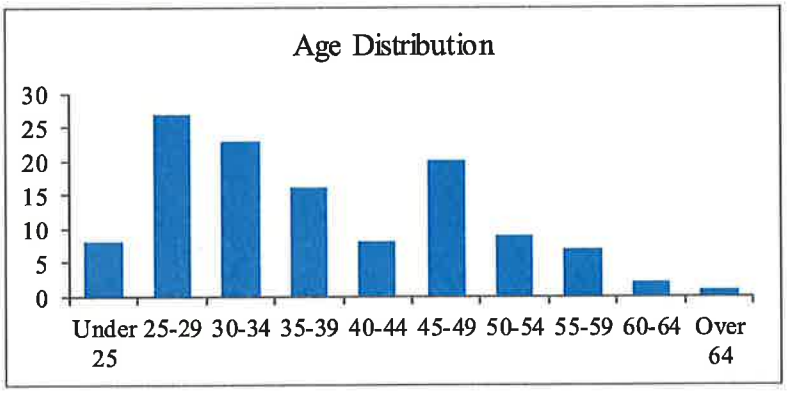


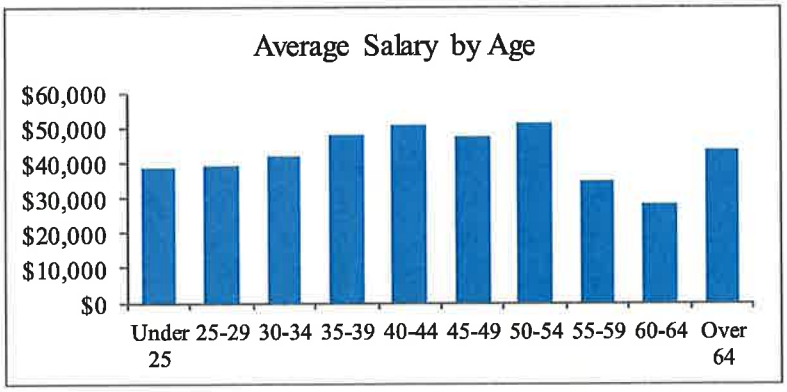


SCHEDULE I (continued)

ACTIVE MEMBERS AS OF JANUARY 1, 2016
(Hired on or after March 1, 2015)

	Count of Members			Valuation Salaries of Members		
Age	Males	Females	Total	Males	Females	Total
Under 25	7	1	8	$ 264,744	$ 42,494	$ 307,238
25-29	18	9	27	744,371	310,113	1,054,484
30-34	13	10	23	553,559	414,875	968,434
35-39	11	5	16	550,190	219,320	769,510
40-44	6	2	8	313,036	91,993	405,029
45-49	11	9	20	475,787	472,346	948,133
50-54	7	2	9	396,020	66,352	462,372
55-59	4	3	7	150,793	91,903	242,696
60-64	0	2	2	0	55,768	55,768
Over 64	0	1	1	0	43,751	43,751
Total	77	44	121	$3,448,500	$1,808,915	$5,257,415

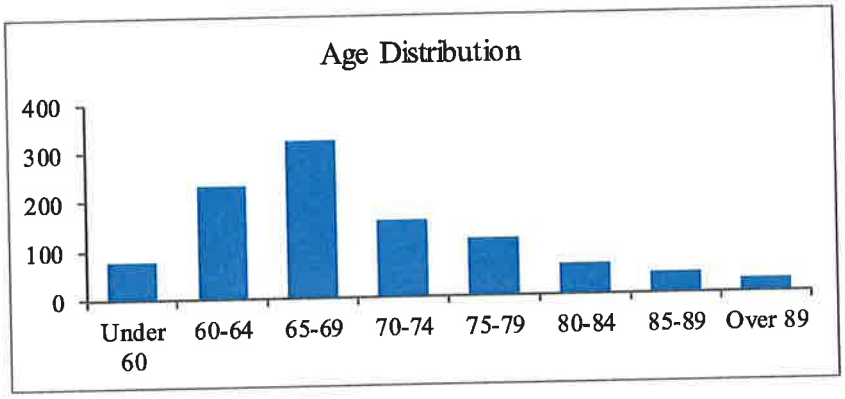


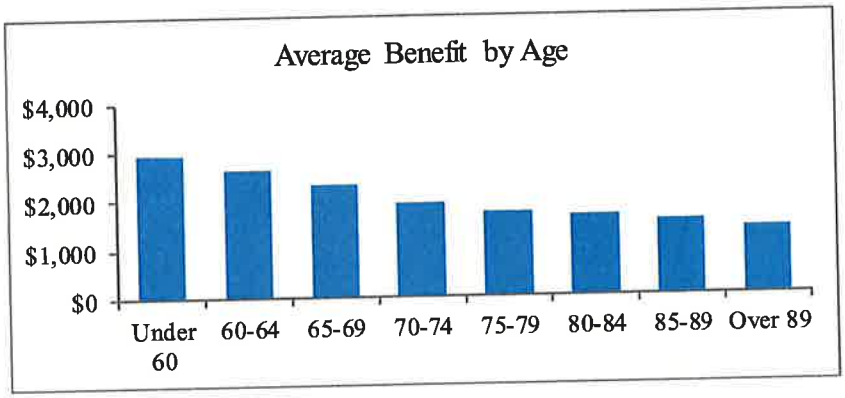


SCHEDULE II

RETIRED MEMBERS AS OF JANUARY 1, 2016

	Count of Retirees			Current Monthly Benefits		
Age	Males	Females	Total	Males	Females	Total
Under 60	41	34	75	$ 122,992	$98,369	$ 221,361
60-64	148	82	230	407,181	191,649	598,830
65-69	217	106	323	537,022	210,981	748,003
70-74	109	47	156	216,619	81,437	298,056
75-79	84	30	114	153,938	38,894	192,832
80-84	41	18	59	74,291	22,009	96,300
85-89	29	11	40	49,252	11,901	61,153
Over 89	13	13	26	23,796	11,835	35,631
Total	682	341	1,023	$1,585,091	$667,075	$2,252,166





SCHEDULE IV

DEFERRED VESTED MEMBERS AS OF JANUARY 1, 2016

	Count of Members			Expected Monthly Benefit		
Age	Males	Females	Total	Males	Females	Total
Under 25	0	0	0	$ 0	$ 0	$ 0
25-29	0	0	0	0	0	0
30-34	2	5	7	1,275	2,875	4,150
35-39	3	2	5	3,729	1,508	5,237
40-44	4	7	11	3,991	6,563	10,554
45-49	12	5	17	10,614	5,669	16,283
50-54	9	6	15	9,336	6,537	15,873
55-59	7	11	18	7,443	12,972	20,415
Over 59	2	2	4	2,490	1,006	3,496
Total	39	38	77	$38,878	$37,130	$76,008

Appendix F

Omaha Police and Fire Retirement Plan Information

Omaha Police+Fire

City of Omaha
Jean Stothert, Mayor

Finance Department
Omaha/Douglas Civic Center
1819 Farnam Street, Suite 1004
Omaha, Nebraska 68183-1004
(402) 444-5416
Telefax (402) 546-1150

Stephen B. Curtiss
Finance Director

Allen Herink
City Comptroller

October 14, 2016

Senator Mark Kolterman, Chairperson
Nebraska Retirement Systems Committee
PO BOX 94604
State Capitol
Lincoln, NE 68509-4604

Dear Senator Kolterman:

Neb. Rev. Stat § 13-2402(3) requires a governing entity that offers a defined benefit retirement plan to file a report if contributions do not equal the actuarial requirement for funding or the funded ratio is less than eighty percent. The City of Omaha is submitting this report regarding the City of Omaha Police & Fire Retirement System (COPFRS) because the funded ratio is less than eighty percent.

The City through its negotiations with the public safety bargaining agents has made efforts to address the funding shortfall in COPFRS. Some of those efforts are addressed below. The table below compares the actuarial data for the current and previous plan years:

ITEM	2015	2016
Funding Status	50%	49%
Assumed Rate of Return	8%	8%
Actual Return	4.4%	0.2%
Net Assets (actuarial value)	$590,191,585	$621,403,975
Unfunded Actuarial Accrued Liability	$598,810,636	$602,562,135
Normal Cost (%)	$26,946,719(22.191%)	$27,426,921(22.146%)
Member Contribution Rate	15.35%-17.23%	15.35%-17.23%
Employer Contribution Rate	32.97%-33.67%	32.97%-33.67%
Actuarial Required Contribution(ARC)	$43,524,890 (2014)	$41,910,737 (2015)
Blended Combined Contribution Rate	50.581%	50.543%
Actuarial Contribution Rate	50.031%	50.097%
Contribution Shortfall/(Margin)	(0.550%)	(0.446%)
Employer Actual Dollars Contributed	$41,851,986(2014)	$42,138,403(2015)
% of ARC by Employer Contributions	96.16%	100.54%

There were no changes in valuation methodology or actuarial assumptions for 2016. In 2015, the Actuarial Committee elected to change the valuation methodology for the members who are currently

participating or are expected to participate in the Deferred Retirement Option Plan (DROP) in the future. Under the methodology, the Entry Age Normal Cost calculation spreads the cost of benefits over the member's entire career. As part of the change in methodology, certain actuarial assumptions related to the DROP were developed. These include the percentage of eligible members assumed to elect to participate in the DROP, the DROP period, and the interest rate assumed to be credited to the DROP account.

There are numerous circumstances that led to the current underfunding. When the system was funded in the late 1990s, benefits were increased and even though the actuarial cost was calculated, the benefits appear to have exceeded those costs. There also have been some years where the investment loss was historically large. During the economic downturn of early 2000s, there were some additional benefits (comp time) negotiated as part of wage and other compensation deferments. It was anticipated that people would take advantage of the additional time off, but many did not, resulting in an increase in the compensation amount upon which the pension was calculated. Another factor has been that wages have not increased at the rate in the actuarial assumptions.

Significant efforts were made to address the funding status of COPFRS starting in 2008. In 2008, then Mayor Mike Fahey established the Bates Commission to examine the issue. The Bates Commission, made up of business leaders, union leaders, and City leaders, made a number of recommendations in their final report. The report was the impetus for collaborative efforts between the City and its unions to address the funding issue in labor negotiations. In an effort to improve the funding status, the City increased contributions and modified pension benefits through labor agreements with the police union in October, 2010 and with the fire union in December, 2012. The changes in contributions and benefits included:

- Changing minimum retirement age from 45 to 50
- Requiring 30 years of service instead of 25 years to get the maximum benefit
- Implementing a Career Overtime Average (COTA) so that employees could not artificially enhance their pension by working a lot of overtime or selling comp time in their last year of employment
- Smoothing the salary on which a pension calculation was based from highest 1 year to highest 3 years
- Pensions for new hires was based only on base salary
- For all groups excluding the police union, capping pension for new hires at 65% and requiring 30 years of service
- Increased City contributions to the system by 13% to 14%

We believe some of the changes described above are starting to see a positive effect. As of January 1, 2016, the system had market assets of approximately $620 million and a funded ratio of 49%. Though the funded ration decreased in 2015 due to poor investment results, the actuarial value of assets increased $30 million. It had a funded ratio of 49% in 2014 and 44% in 2013. The actuarial contribution rate needed for the system on 1/1/2016 was 50.097% and the total amount being contributed was 50.543% demonstrating that the amount being put is sufficient for the second consecutive year. The most recent projection had the system fully funded in approximately 21 to 22 years. The assumed rate of return for the system is 8%. An Actuarial Experience study will be done in 2017 and the rate of return will be reviewed.

The employees who are part of the COPFRS are from four (4) bargaining groups. Three of those bargaining groups have collective bargaining agreements in place through the end of 2017. The fourth group, the Omaha Police Officers Association, is without a collective bargaining agreement since their agreement expired at the end of 2013 and was extended through the end of 2014. There is a case pending in the Commission of Industrial Relations for 2015 which is scheduled for trial in late November, 2016.

As requested, we enclosed the most recent Actuarial Experience Study which was submitted in September 2013and the most recent Actuarial Valuation Report which was completed in September, 2016.

If you or the Committee should have any questions regarding this report please let me know.

Sincerely,

Stephen B. Curtiss
Finance Director

Hearing handout
Nov 22, 2016

Police & Fire Pension System

Prepared by:

CITY OF OMAHA
Finance Department

November 18, 2016

REPORT TO MEMBERS OF THE POLICE AND FIRE RETIREMENT SYSTEM
YEAR ENDING DECEMBER 31, 2015

Your individual Statements of Contribution, including interest, to the Police & Fire Retirement System Fund as of December 31, 2015 were posted on-line in 2016

The City of Omaha Police & Fire Retirement System became effective on January 1, 1961. Certain of its provisions, which are governed by Chapter 22; Article III of the Omaha Municipal Code and by current labor contracts, are summarized herein.

Membership in the plan is limited to and shall include only probationary and regular uniformed personnel of the Police & Fire Departments. In addition to contributions itemized below, the City contributes $1,327,600 annually to liquidate accrued liability for prior service credit.

Fire Bargaining employees contribute by payroll deduction 17.15% of their total bi-weekly salary. The City contibutes 32.965% of each member's total bi-weekly salary.

Fire Management employees contribute by payroll deduction 17.23% of their total bi-weekly salary. The City contributes 33.17% of each member's total bi-weekly salary.

Police Bargaining employees contribute by payroll deduction 15.35% of their bi-weekly salary. The City contributes 33.67% of each member's bi-weekly salary.

Police Management employees contribute by payroll deduction 16.35% of their bi-weekly salary. The City contributes 33.17% of each member's bi-weekly salary.

Police and Fire Retirement System
Cash Flow Analysis - Last Five Fiscal Years

	2011	2012	2013	2014	2015
Receipts:					
Employee Contributions	$ 16,916,367	$ 19,641,660	$ 21,659,947	$ 19,623,633	$ 19,704,991
Employer Contributions	$ 29,447,968	$ 33,974,437	$ 42,511,150	$ 40,524,386	$ 40,810,803
Prior Service Contributions	$ 1,327,600	$ 1,327,600	$ 1,327,600	$ 1,327,600	$ 1,327,600
Investment Income	$ 1,473,015	$ 57,435,625	$ 90,514,372	$ 28,486,311	$ 4,146,075
Security Lending Income	$ 108,677	$ 96,605	$ 50,328	$ 8,484	$ -
	$ 49,273,627	$ 112,475,927	$ 156,063,397	$ 89,970,414	$ 65,989,469
Disbursements:					
Retirement Pensions	$ 58,101,622	$ 59,622,531	$ 62,548,572	$ 64,781,852	$ 66,441,438
Death Benefits	$ 25,500	$ 148,885	$ 16,208	$ 240,605	$ 170,454
Refunds	$ 295,730	$ 585,861	$ 559,981	$ 1,174,594	$ 1,529,544
Investment Management Fees	$ 2,435,175	$ 2,459,489	$ 2,813,925	$ 2,966,034	$ 3,210,418
Other Expenditures	$ 626,511	$ 288,413	$ 430,200	$ 374,813	$ 386,284
	$ 61,484,538	$ 63,105,179	$ 66,368,886	$ 69,537,898	$ 71,738,138
Excess of Receipts Over Disbursements	$ (12,210,911)	$ 49,370,747	$ 89,694,512	$ 20,432,516	$ (5,748,668)

Financial Information - Last Five Fiscal Years

	2011	2012	2013	2014	2015
System Total Assets	$ 440,429,393	$ 489,800,140	$ 579,494,652	$ 599,927,167	$ 594,178,499
Employee Contributions	$ 16,916,367	$ 19,641,660	$ 21,659,947	$ 19,623,633	$ 19,704,991
Employer Contributions	$ 29,447,968	$ 33,974,437	$ 42,511,150	$ 40,524,386	$ 40,810,803

Percentage Distribution of Receipts

	2011	2012	2013	2014	2015
Employee Contributions	34.3	17.5	13.9	21.8	29.8
Employer Contributions	62.5	31.4	28.1	46.5	63.9
Investment Income	3.2	51.2	58.0	31.7	6.3
	100.0	100.0	100.0	100.0	100.0

POLICE & FIRE EMPLOYEES' RETIREMENT SYSTEM

RETIRED MEMBERSHIP

132016

POLICE:

	3100 Service Retirees	3200 Surviving Spouse	3300 Service Disability	3400 Non-Service Disability	3500 Children	3600 Ex-Spouse	3800 Service Disability Widow	3900 Service Disability Child	4000 Non-Service Disability Widow	4100 Non-Service Disability Child	
January 1, 2015	**484**	**71**	**127**	**11**	**11**	**14**	**53**	**10**	**6**	**0**	**787**
Pensions Granted	15	7				3	1	1			27
Pensions Ceased:											
Deaths	-9	-3					-2				-14
Corrections											0
Other	-1		1								0
December 31, 2015 TOTAL:	**489**	**75**	**128**	**11**	**11**	**17**	**52**	**11**	**6**	**0**	**800**

132015

FIRE:

	Service Retirees	Surviving Spouse	Service Disability	Non-Service Disability	Children	Ex-Spouse	Service Disability Widow	Service Disability Child	Non-Service Disability Widow	Non-Service Disability Child	
January 1, 2015	**490**	**61**	**77**	**7**	**5**	**21**	**44**	**3**	**6**	**0**	**714**
Pensions Granted	5	9	2			1	1				18
Pensions Ceased:											
Deaths	-10	-3	-2				-1		-1		-17
Corrections											0
Other											0
December 31, 2015 TOTAL:	**485**	**67**	**77**	**7**	**5**	**22**	**44**	**3**	**5**	**0**	**715**
	974	**142**	**205**	**18**	**16**	**39**	**96**	**14**	**11**	**0**	**1515**

Respectfully submitted,

Stephen Curtiss
Finance Director

Board of Trustees:

Jim Sklenar, Chairperson
Michael Henrich, Vice-Chairperson
Aaron Hanson, Secretary
Franklin Thompson, City Councilmember
Robert A Mooney, Citizen Representative
Mikki Frost, Human Resources Director
Stephen Curtiss, Finance Director
Janine Kirk, Recording Secretary

Police & Fire Pension Total Fund Performance Review

Performance & Benchmarks

9/30/2016

	One Quarter (%)	Year To Date (%)	One Year (%)	Three Years (%)	Five Years (%)	Ten Years (%)	Since Inception 2Q 1980 (%)
Domestic Equity	**5.6**	**5.3**	**10.9**	**6.3**	**14.2**	**6.6**	
International Equity	**7.4**	**12.4**	**15.2**	**1.8**	**7.9**	**2.4**	
Domestic Fixed Income	**2.5**	**9.1**	**8.9**	**5.7**	**6.7**	**7.0**	
Domestic Real Estate	**2.3**	**8.1**	**12.0**	**14.7**	**13.7**	**6.1**	
Domestic Timberland	**(0.1)**	**1.0**	**(2.0)**	**0.2**	**0.4**		
Domestic Hedge Funds	**3.1**	**0.5**					
Domestic Commodities	**(2.5)**	**12.3**	**(1.2)**	**(15.5)**	**(10.9)**		
Domestic Private Equity	**2.5**	**3.6**	**7.7**	**16.2**			
Domestic Cash	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**		
Total Fund	**4.2 %**	**7.9 %**	**10.6 %**	**6.2 %**	**10.0 %**	**5.3 %**	**9.3 %**
Absolute Objective[1]	**1.9**	**5.9**	**8.0**	**8.0**	**8.0**	**8.0**	**8.0**
Relative Objective[2]	**4.3**	**7.5**	**10.2**	**6.0**	**9.7**	**5.7**	
Russell 1000	4.0	7.9	14.9	10.8	16.4	7.4	
Russell 2000	9.0	11.5	15.5	6.7	15.8	7.1	
MSCI EAFE	6.4	1.7	6.5	0.5	7.4	1.8	
MSCI EAFE Small Cap	8.6	5.2	12.3	5.1	11.1	4.4	
MSCI Emerging Markets	9.0	16.0	16.8	(0.6)	3.0	3.9	
BlmBarc Govt/Credit	0.4	6.7	5.9	4.2	3.2	4.9	
Merrill Lynch US High Yield Cash Pay	5.5	15.2	12.8	5.2	8.2	7.5	
NCREIF Property	1.8	6.1	9.2	11.3	11.2	7.2	
NCREIF Timberland	0.7	1.4	3.3	7.6	6.9	6.4	
Bloomberg Commodity Index	(3.9)	8.9	(2.6)	(12.3)	(9.4)	(5.3)	
HFR - FOF Diversified	2.0	(0.5)	(0.1)	2.2	3.1	1.8	
Omaha Police & Fire PE	2.5	3.6	7.7	16.2			

Source: DeMarche Associates, Inc.

[1] + 8%

[2] 11% R1000, 12% R2000, 7% EAFE, 5% EAFE SC, 10% EM, 5% BB GC, 5% ML HY, 20% NCREIF, 5% Timberld, 3% BB Comm, 3.5% HFR Divrsfd, 13.5% PF PE - Objective has changed since inception

Key Valuation Measurement

	2016	2015	2014
Actuarial Liability ($M)	$ 1,224	$ 1,189	$ 1,171
Actuarial Assets ($M)	$ 621	$ 590	$ 548
Unfunded Actuarial Liability	$ 603	$ 599	$ 623
Funded Ratio (Actuarial Assets)	51%	50%	47%
Funded Ration (Market Assets)	49%	50%	49%
Scheduled Rate (Total)*	50.543%	50.581%	50.594%
Actuarial Contribution Rate	-50.097%	-50.031%	-52.138%
Contribution Surplus / Shortfall -	0.446%	0.550%	-1.544%

Note: numbers may not add due to rounding

Amortization period reset to 30 years in 2014 valuation

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

The City of Omaha
Police & Fire Retirement System

Actuarial Valuation as of
January 1, 2016

www.CavMacConsulting.com

The consultants who worked on this assignment are pension actuaries. CMC's advice is not intended to be a substitute for qualified legal or accounting counsel.

This is to certify that the independent consulting actuaries are members of the American Academy of Actuaries, have experience in performing valuations for public retirement plans, and meet the qualification standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board and the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement plan and on actuarial assumptions that are internally consistent and reasonable based on the actual experience of the System and future expectations. However, the Board of Trustees has the final decision regarding the selection of the assumptions and adopted them as indicated in Appendix B.

We respectfully submit the following report and look forward to discussing it with you.

Sincerely,

Patrice Beckham

Patrice A. Beckham, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

Brent A. Banister

Brent A. Banister, PhD, FSA, EA, FCA, MAAA
Chief Pension Actuary

EXECUTIVE SUMMARY

This report presents the results of the January 1, 2016 actuarial valuation of the City of Omaha Police and Fire Retirement System. The primary purposes of performing the valuation are:

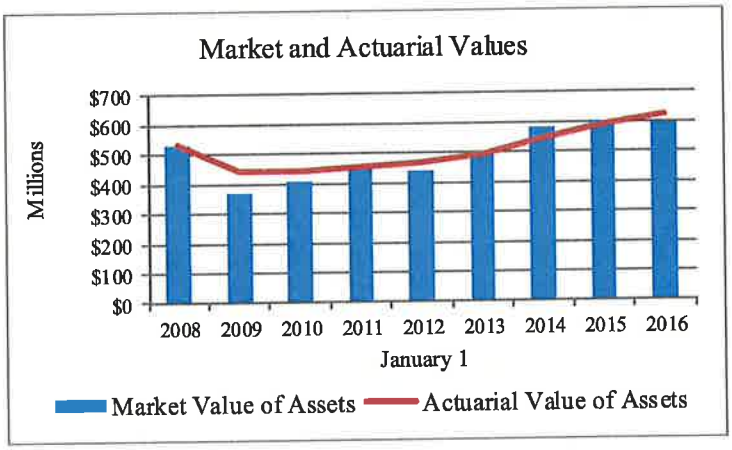
- to estimate the liabilities for the future benefits expected to be paid by the System;
- to determine the actuarial contribution rate, based on the System's funding policy;
- to measure and disclose various asset and liability measures;
- to monitor any deviation between actual plan experience and experience predicted by the actuarial assumptions so that recommendations for assumption changes can be made when appropriate;
- to analyze and report on any significant trends in contributions, assets and liabilities over the past several years.

There have been no changes to the plan provisions, actuarial assumptions, or actuarial methods since the prior valuation. There was no labor agreement in place with the Police bargaining unit for 2015 so the actual reported salaries for 2015 in the valuation data reflected the 2014 pay schedules. For valuation purposes, active salary amounts for 2015 were increased by 2% to approximate the higher pay rates that might occur once an agreement is reached. While the actual salary increase amount for 2015 in the final labor agreement may differ from that assumed, this methodology should reduce the likelihood of an actuarial gain from salary experience in the 2016 valuation, followed by an actuarial loss in the 2017 valuation.

The actuarial valuation results provide a "snapshot" view of the System's financial condition on January 1, 2016. The unfunded actuarial liability (UAL) in the current valuation is $603 million, an increase of $4 million from last year's UAL of $599 million.

The valuation results reflect net unfavorable experience for the past plan year as is demonstrated by an unfunded actuarial liability that was higher than expected, based on the actuarial assumptions used in the January 1, 2015 actuarial valuation. Unfavorable experience on the actuarial value of assets resulted in a loss of $9 million, and favorable demographic experience produced an actuarial gain on liabilities of $7 million. Based on the amortization methodology and period, the UAL was expected to increase by $11 million. This report reflects a change to the valuation methodology for records with a Qualified Domestic Relations Order (QDRO). When a new QDRO is approved, a new record is created in the data for the alternate payee's benefit amount. In the past, this benefit amount has been valued as a system obligation. During our review of this year's data, we became aware of the fact that the member's record reflects the total benefits to be paid to both the member and the alternate payee, so the benefit amount for the alternate payee should not be valued separately. This change reduced the actuarial liability by $9 million (and the beneficiary count by 35).

The System uses an asset smoothing method in the valuation process. As a result, the System's funded status and the actuarial contribution rate are based on the actuarial (smoothed) value of assets – not the pure market value. The investment return on the market value of assets during 2015, net of expenses, was 0.2%, lower than the assumed rate of 8.0%. However, due to deferred favorable investment experience from prior years, the rate of return on the actuarial value of assets for the 2015 plan year was 6.5%. The System's deferred investment experience went from a $10 million deferred gain in last year's valuation to a $27 million deferred loss in the current valuation (actuarial value of assets greater than market value). Actual returns over the next few years will determine the rate at which the deferred investment loss of $27 million is recognized. With the current deferred losses, a return of 13% on the market value of assets in 2016 would result in an 8% return on the actuarial value of assets.



An asset smoothing method is used to mitigate the volatility in the market value of assets. By using a smoothing method, the actuarial (or smoothed) value is expected to be both above and below the pure market value at different points in time. The significant investment losses in 2008 resulted in the actuarial value of assets exceeding the market value from 2009 through 2013. In the current valuation, the actuarial value of assets is again larger than the market value of assets due to the 2015 investment loss.

LIABILITIES

The first step in determining the contribution level for the System is to calculate the liabilities for all expected future benefit payments. These liabilities represent the present value of future benefits (PVFB) expected to be earned by the current members, assuming that all actuarial assumptions are realized. Thus, the PVFB reflects service and salary increases that are expected to occur in the future before benefit payments commence. The various components of the PVFB can be found in the liabilities portion of the valuation balance sheet (see Exhibit 3).

The other critical measurement of System liabilities in the valuation process is the actuarial liability (AL). This is the portion of the PVFB that will not be paid by the future normal costs (i.e. it is the portion of the PVFB that is allocated to past service).

The following chart compares the Actuarial Liability (AL) and assets for the current and prior valuation.

	As of January 1	
	2016	2015
Actuarial Liability (AL)	$ 1,223,966,110	$ 1,189,002,221
Assets at Actuarial Value	621,403,975	590,191,585
Unfunded Actuarial Liability (Actuarial Value)	$ 602,562,135	$ 598,810,636
Funded Ratio (Actuarial Value)	51%	50%
Assets at Market Value	$ 594,178,499	$ 599,927,168
Unfunded Actuarial Liability (Market Value)	$ 629,787,611	$ 589,075,053
Funded Ratio (Market Value)	49%	50%

Note that the funded ratio does not indicate whether or not the System assets are sufficient to settle benefits earned to date. The funded ratio by itself also may not be indicative of future funding requirements.

		January 1, 2016	January 1, 2015	% Chg
1.	Normal Cost Rate	22.146%	22.191%	(0.2)
2.	UAL Contribution Rate	27.951%	27.840%	0.4
3.	Total Contribution Rate (1) + (2)	50.097%	50.031%	0.1
4.	Less Employee Contribution Rate	(16.177%)	(16.195%)	(0.1)
5.	Less City Contribution Per Ordinance	(33.342%)	(33.339%)	0.0
6.	Less City Prior Service Payment	(1.024%)	(1.047%)	(2.2)
7.	Contribution Shortfall/(Margin)	(0.446%)	(0.550%)	(18.9)

The total normal cost for the System is 22.146% of pay, or about $27 million this year. When offset by the expected employee contributions, the employer portion of the normal cost is 5.969% of pay, or about $7 million. The normal cost represents the long-term cost of the benefit structure in the System, given the current actuarial assumptions and plan membership. As new members who are covered by a different benefit structure with a lower cost enter the System in future years, the normal cost rate is expected to decline.

The System's total actuarial contribution rate (payable as a percent of member payroll) increased by 0.066% of pay, from 50.031% in the January 1, 2015 valuation to 50.097% in the January 1, 2016 valuation. As a result, there is a contribution margin of 0.446% in the current valuation. The primary components of the change in the total actuarial contribution rate are shown in the following table:

	Rate
Total Actuarial Contribution Rate, January 1, 2015	50.031 %
• Actuarial (Gain) / Loss - Investment Experience	0.397
• Actuarial (Gain) / Loss - Demographic Experience	(0.321)
• Other Experience	(0.006)
• Contributions Above The Actuarial Rate	(0.033)
• Change in Normal Cost Rate	(0.045)
• Payroll Growth Lower than Expected	0.484
• Change in Valuation Methodology for QDROs	(0.410)
Total Actuarial Contribution Rate, January 1, 2016	50.097 %

As the table above shows, the actuarial contribution rate increased from 50.031% to 50.097%. The most significant factor for the increase in the actuarial contribution rate was the lower payroll growth than expected from January 1, 2015 to January 1, 2016, based on actuarial assumptions. The UAL as of January 1, 2016 is $603 million and the resulting UAL payment is 27.951% of pay. As a result, the total contribution rate for 2016 is 50.097% of pay (22.146% + 27.951%). The scheduled contributions for the year are 50.543%, resulting in a contribution margin of 0.446%.

THE CITY OF OMAHA POLICE AND FIRE RETIREMENT SYSTEM

PRINCIPAL VALUATION RESULTS

	January 1, 2016	January 1, 2015	% Chg
MEMBERSHIP			
1. Active Membership			
- Number of Active Members	1,398	1,370	2.0
- Number of DROP Participants	47	51	(7.8)
- Total Employees	1,445	1,421	1.7
- Projected Payroll for Upcoming Fiscal Year	$129,633,658	$126,843,763	2.2
- Average Projected Payroll	$89,712	$89,264	0.5
- Average Active Attained Age	40.9	40.4	1.2
- Average Active Entry Age	28.5	28.5	0.0
2. Inactive Membership			
- Number of Retirees / Beneficiaries	1,249	1,278	(2.3)
- Number of Disabilities	224	222	0.9
- Number of Deferred Vesteds	11	10	10.0
- Average Annual Benefit	$45,569	$44,209	3.1
ASSETS AND LIABILITIES			
1. Net Assets			
- Market Value	$594,178,499	$599,927,168	(1.0)
- Actuarial Value	$621,403,975	$590,191,585	5.3
2. Projected Liabilities			
- Retired Members and Beneficiaries	$672,741,277	$674,225,250	(0.2)
- Disabled Members	82,337,776	80,612,025	2.1
- DROP Participants	52,944,166	53,772,291	(1.5)
- Other Inactive Members	2,283,932	2,950,879	(22.6)
- Active Members, Non-DROP	698,268,037	667,687,486	4.6
- Total Liability	$1,508,575,188	$1,479,247,931	2.0
3. Actuarial Liability	$1,223,966,110	$1,189,002,221	2.9
4. Unfunded Actuarial Liability	$602,562,135	$598,810,636	0.6
5. Funded Ratios			
Actuarial Value Assets / Actuarial Liability	50.77%	49.64%	2.3
Market Value Assets / Actuarial Liability	48.55%	50.46%	(3.8)
CONTRIBUTIONS			
1. Normal Cost Rate	22.146%	22.191%	(0.2)
2. UAL Rate	27.951%	27.840%	0.4
3. Total Contribution Rate (1) + (2)	50.097%	50.031%	0.1
4. Less Employee Contribution Rate	(16.177%)	(16.195%)	(0.1)
5. Less City Contribution Per Ordinance	(33.342%)	(33.339%)	0.0
6. Less City Prior Service Payment	(1.024%)	(1.047%)	(2.2)
7. Contribution Shortfall/(Margin)	(0.446%)	(0.550%)	(18.9)

EXHIBIT 2

DETERMINATION OF ACTUARIAL VALUE OF ASSETS

The actuarial value of assets is used to minimize the impact of annual fluctuations in the market value of investments on the contribution rate. The current asset valuation method is called the "Expected +25% Method."

The "expected value" of assets is determined by applying the investment return assumption to last year's actuarial value of assets and the net difference of receipts and disbursements for the year. The actual market value is compared to the expected value and 25% of the difference (positive or negative) is added to the expected value to arrive at the actuarial value of assets for the current year.

1.	Actuarial Value of Assets as of January 1, 2015	$	590,191,585
2.	Actual Receipts / Disbursements		
	a. Total Contributions		61,843,394
	b. Benefit Payments/Other		(68,509,652)
	c. Net Change		(6,666,258)
3.	Expected Actuarial Value of Assets as of January 1, 2016 [(1) * 1.08] + [(2c) * $1.08^{½}$]		630,479,133
4.	Market Value of Assets as of January 1, 2016		594,178,499
5.	Excess of Market Value over Expected Actuarial Value as of January 1, 2016		(36,300,634)
6.	Preliminary Actuarial Value of Assets as of January 1, 2016 [(3) + 25% of (5)]		621,403,975
7.	Calculation of 20% Corridor		
	a. 80% of (4)		475,342,799
	b. 120% of (4)		713,014,199
8.	Final Actuarial Value of Assets as of January 1, 2016 (6), but not < (7a), nor > (7b)	$	621,403,975
9.	Rate of Return on Actuarial Value of Assets		6.5%

EXHIBIT 3

ACTUARIAL BALANCE SHEET

An actuarial statement of the status of the plan in balance sheet form as of January 1, 2016 is as follows:

Assets

Current assets (actuarial value)		$ 621,403,975
Present value of future normal costs		284,609,078
Present value of future contributions to fund unfunded actuarial liability		602,562,135
Total Assets		$ 1,508,575,188

Liabilities

Present value of future retirement benefits for:

Active employees	$ 683,102,208	
Retired employees, contingent annuitants and spouses receiving benefits	672,741,277	
DROP Participants	52,944,166	
Deferred vested employees	1,816,199	
Inactive employees due refunds	467,733	
Inactive employees – disabled	82,337,776	
Total		$ 1,493,409,359
Present value of future death benefits payable upon death of active members		10,536,759
Present value of future benefits payable upon termination of active members		4,629,070
Total Liabilities		$ 1,508,575,188

EXHIBIT 5

CALCULATION OF ACTUARIAL GAIN / (LOSS)
For Plan Year Ending December 31, 2015

Liabilities	
1. Actuarial liability less prior service payments as of January 1, 2015	$ 1,177,627,792
2. Normal cost for 2015	26,946,719
3. Interest at 8.00% on (1) and (2) to December 31, 2015	96,365,961
4. Benefit payments during 2015	(68,509,652)
5. Interest on benefit payments	(2,687,667)
6. Change in valuation methodology for QDROs	(9,356,078)
7. Expected actuarial liability as of December 31, 2015	$ 1,220,387,075
8. Actuarial liability less prior service payments as of December 31, 2015	$ 1,213,061,410
Assets	
9. Actuarial value of assets as of January 1, 2015	$ 590,191,585
10. Contributions during 2015	61,843,394
11. Benefit payments during 2015	(68,509,652)
12. Interest on items (9), (10) and (11)	46,953,806
13. Expected actuarial value of assets as of December 31, 2015	$ 630,479,133
14. Actual actuarial value of assets as of December 31, 2015	$ 621,403,975
Gain / (Loss)	
15. Expected unfunded actuarial liability (7) – (13)	$ 589,907,942
16. Actual unfunded actuarial liability (8) – (14)	$ 591,657,435
17. Actuarial Gain / (Loss) (15) – (16)	$ (1,749,493)
18. Actuarial Gain / (Loss) on Actuarial Assets (14) – (13)	$ (9,075,158)
19. Actuarial Gain / (Loss) on Actuarial Liability (7) – (8)	$ 7,325,665

EXHIBIT 7

DEVELOPMENT OF 2016 ACTUARIAL CONTRIBUTION RATE

The actuarial cost method used to determine the required level of annual contributions to support the expected benefits is the Entry Age Normal Cost Method. Under this method, the total cost is comprised of the normal cost rate and the unfunded actuarial liability (UAL) payment. The System is financed by contributions from the employees and the City.

1.	(a)	Normal Cost	$ 27,426,921
	(b)	Expected Payroll in 2016 for Current Actives	$ 123,843,261
	(c)	Normal Cost Rate (a) / (b)	22.146%
2.		Unfunded Actuarial Liability Payable from Payroll Related Contributions	$ 591,657,435
3.		Amortization Factor Level Percent of Payroll over 28 Years*	17.61505
4.		Unfunded Actuarial Liability (UAL) Payment [(2) / (3)] x $1.08^{½}$	$ 34,905,859
5.		Prior Service Payment	1,327,600
6.		Total Projected Payroll for the Year, Including DROP Members	$ 129,633,658
7.		UAL and Prior Service Payments as Percent of Pay [(4) + (5)] / (6)	27.951%
8.		Total Contribution Rate (1c) + (7)	50.097%
9.		Employee Contribution Rate	16.177%
10.		City Ordinance Contribution Rate	33.342%
11.		City Prior Service Contribution Rate	1.024%
12.		Contribution Shortfall/(Margin) (8) – (9) – (10) – (11)	(0.446%)

* Assumes all actuarial assumptions are met in the future, including a 4% annual increase in covered payroll.

EXHIBIT 8

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ending	Annual Required Contribution* (a)	Total Employer Contribution* (b)	Percentage of ARC Contributed (b) / (a)
12/31/2005	$ 26,255,804	$ 17,762,209	67.65%
12/31/2006	31,102,053	20,171,610	64.86%
12/31/2007	34,842,280	20,699,211	59.41%
12/31/2008	38,073,021	21,700,806	57.00%
12/31/2009	50,507,561	22,701,608	44.95%
12/31/2010	55,488,062	24,183,493	43.58%
12/31/2011	49,945,979	30,775,568	61.62%
12/31/2012	54,310,693	35,302,037	65.00%
12/31/2013	52,895,180	43,838,750	82.88%
12/31/2014	43,524,890	41,851,986	96.16%
12/31/2015	41,910,737	42,138,403	100.54%

*Information prior to 2011 was provided by the prior actuary and has not been reviewed or verified by Cavanaugh Macdonald Consulting.

APPENDIX A

SUMMARY OF PLAN PROVISIONS

Average Final Monthly Compensation:
Section 22 - 63

Police: Pensionable pay excludes certain overtime pay. For those hired before January 1, 2010, an adjustment is made to include a career average of overtime pay. For those who were age 45 and had at least twenty years of service as of January 1, 2010, highest average monthly compensation is calculated using the highest consecutive twenty-six (26) pay periods out of the last five years of service as a member of the system for which service credit had been earned. All others use the highest seventy-eight (78) pay periods with the final 130 pay periods of service.

Fire: For members who were age 45 and had at least 25 years of service or age 50 with at least 20 years of service as of January 1, 2013, highest average monthly compensation during any consecutive twenty-six (26) pay periods out of the last five years of service as a member of the system for which service credit had been earned. All others use the highest seventy-eight (78) pay periods with the final 130 pay periods of service.

Career Overtime Average (COTA):

All Members: Each hour an employee earns for overtime is computed back to their date of hire or 1991 (whichever is later) and divided by the number of years the employee worked after December 31, 1990. This amount shall be included in the member's pension calculation. COTA is excluded for all Police members hired on or after January 1, 2010 and Fire members hired on or after January 1, 2013.

Member Contributions:
Section 22 – 73(a)
Section 22 - 68

Rates effective January 1, 2014
Police: 15.35% of total monthly salary for police.
Fire: 17.15% of total monthly salary for fire.

City of Omaha Contributions:
Section 22 – 73(b)

Rates effective January 1, 2013
Police: 33.67% of each member's pensionable earnings
Fire: 32.965% of each member's pensionable earnings

In addition, the City shall make contributions of $1,327,600 annually through the year 2028.

Service Retirement Eligibility
Section 22 - 75

Police: After age 55 and 10 years of service or age 45 and 20 years of service. Members hired after January 1, 2010 must be 50 rather than 45. If retiring with less than 30 years of service a 7% reduction is applied for each year prior to age 55.

Fire: Age 55 and 10 years of service or age 50 and 20 years of service. Members hired before 1/1/2013 can also retire at age 45 if they have at least 25 years of service.

APPENDIX A

SUMMARY OF PLAN PROVISIONS
(continued)

For police hired after January 1, 2010, the following schedule applies:

Years of Service	Minimum Age	Percentage of Average Final Monthly Compensation
10 but less than 15	55	20%
15 but less than 20	55	30%
20 but less than 25	50	50%*
25 but less than 30	50	65%**
30 years	50	75%

*50% at 20 years of service, plus 1.5% for each additional six months of service after 20 years and before 25 years. Early retirement reduction applies if less than 30 years of service.

**65% at 25 years of service, plus 1% for each additional six months of service after 25 years and before 30 years. Early retirement reduction applies if less than 30 years of service.

For Fire hired after January 1, 2013, the following schedule applies:

Years of Service	Minimum Age	Percentage of Average Final Monthly Compensation
10 but less than 15	55	20%
15 but less than 20	55	30%
20 but less than 25	50	45%
25 but less than 30	50	55%*
30 years	50	65%

*55% at 25 years of service, plus 2% for each additional year of service after 25 years and before 30 years. Early retirement reduction applies if under age 55, unless the member has 30 years of service.

Cost of Living Adjustment (COLA): The monthly pension shall be increased by the lesser of 3% or $50 ($65 for Fire retirements after June 30, 2007). The increase will be made annually, beginning in the 13th month of retirement.

APPENDIX A

SUMMARY OF PLAN PROVISIONS (continued)

Disability Retirement

1. In Line of Duty
Section 22 - 78

A member shall become entitled to the following benefits while permanently disabled.

Years of Service	Percentage of Average Final Monthly Compensation
Less than 20	50%*
20 or more	Same as Service Retirement Pension, without any reduction for early commencement

* 55% for Fire members who were age 45 and had at least 25 years of service or age 50 with at least 20 years of service as of latest contract effective date.

2. Not in Line of Duty
Section 22 - 79

A member shall become entitled to the following benefits while permanently disabled.

Years of Service	Percentage of Average Final Monthly Compensation
Up to 10 years	10%
10 but less than 15	20%
15 but less than 20	30%
20 or more	Greater of 45% or the Service Retirement Pension without any reduction for early commencement

Note: Not payable while full salary continues

Spouse's pension:

1. Death of Active member in Line of Duty:

A monthly pension equal to 49% (52% Fire members who were age 45 and had at least 25 years of service or age 50 with at least 20 years of service as of most recent contract date) of the member's average final monthly compensation is paid to the surviving spouse if death occurs while the active member has less than 25 years of service. A monthly pension equal to 69% (72% Fire members who were age 45 and had at least 25 years of service or age 50 with at least 20 years of service as of most recent contract date) of the member's average final monthly compensation is paid to the surviving spouse if death occurs after the active member has 25 years or more of service.

APPENDIX A

SUMMARY OF PLAN PROVISIONS
(continued)

Children's Pension
Section 22 - 82

Upon the death of an active or retired member, the following benefit will be paid to the surviving children until age 18.

Number of Dependent Children	Percentage of Average Final Monthly Compensation
1	15%
2	30%
3	45%
4 or more	50%

Lump Sum Death Benefits

1. **Active Member without Eligible Dependents:**
Section 22 – 84(a)

Accumulated member's contributions, or $500 if greater.

2. **Retired Member without Eligible Dependents:**
Section 22 – 84(b)

Accumulated member's contributions, less previous pension payments made, or $500 if greater.

3. **Active Member with Eligible Dependents:**
Section 22 – 84(c)

An amount payable immediately, equal to one year's salary computed on the basis of the maximum monthly rate for patrolmen and firefighters, plus the decreased member's accumulated contributions less pension payments to his dependents, payable to the dependent who last ceases to receive pension benefits.

4. **Retired Member with Eligible Dependents:**
Section 22 – 84(c)

$1,000 ($5,000 for Fire retirements after June 30, 2005) payable immediately, plus the excess over $1,000 ($5,000 for Fire retirements after June 30, 2005) if any, of the deceased member's accumulated contributions less pension payments to the member and his dependents, payable to the dependent who last ceases to receive pension benefits.

APPENDIX B

ACTUARIAL METHODS AND ASSUMPTIONS

Actuarial Cost Method

Valuations of the plan use the *"entry age-normal"* cost method. Under this actuarial method, the value of future costs attributable to future employment of participants is determined. This is called present value of future normal costs. The following steps indicate how this is determined for benefits expected to be paid upon normal retirement or the end of the Deferred Retirement Option Plan (DROP).

1. The expected pension benefit payable at the end of the employee's period in covered employment (later of normal retirement or the end of the DROP, is applicable) is determined for each participant.

2. A normal cost, as a level percent of pay, is determined for each participant assuming that such level percent is paid from the employee's entry age into employment to the end of his covered employment. This normal cost is determined so that its accumulated value at the end of covered employment is sufficient to provide the expected pension benefits.

3. The sum of the normal costs for all participants for one year determines the total normal cost of the plan for one year.

4. The value of future payments of normal cost in future years is determined for each participant based on his years of service to the end of covered employment.

5. The sum of the value of future payments of normal cost for all participants determines the present value of future normal costs.

The value of future costs attributable to past employment of participants, which is called the actuarial liability, is equal to the present value of benefits less the present value of future normal costs. The unfunded actuarial liability is equal to the excess of the actuarial liability over assets.

As experience develops with the plan, actuarial gains and actuarial losses result. These actuarial gains and losses indicate the extent to which actual experience is deviating from that expected on the basis of the actuarial assumptions. In each year, as they occur, actuarial gains and losses are recognized in the unfunded actuarial liability as of the valuation date.

Actuarial Value of Assets

The actuarial value of assets is equal to the expected asset value (based on last year's actuarial value of assets, net cash flows and a rate of return equal to the actuarial assumed rate of 8.0%) plus 1/4 of the difference between the actual market value and the expected asset value. The actuarial value of assets cannot exceed 120% or fall below 80% of the market value of assets.

Unfunded Actuarial Liability Amortization Method

The unfunded actuarial liability is amortized, as a level percentage of payroll, over a closed 30-year period that began on January 1, 2014.

APPENDIX B

ACTUARIAL METHODS AND ASSUMPTIONS
(continued)

SAMPLE RATES

Age on 1/1/2010	Annual Mortality Rates		Current Age	Annual Disability Rates	Annual Turnover Rates
	Males	Females			
20	.03%	.02%	20	.21%	1.41%
30	.05	.03	30	.24	1.69
40	.10	.07	40	.42	.63
50	.19	.15	50	.76	.00
60	.46	.41	60	1.16	.00

Salary Progression - Police

Years of Service	Inflation	Productivity	Merit & Longevity	Total Increase
1	3.25%	0.75%	9.0%	13.0%
5	3.25%	0.75%	2.2	6.2
10	3.25%	0.75%	2.0	6.0
15	3.25%	0.75%	1.0	5.0
20	3.25%	0.75%	0.5	4.5
25	3.25%	0.75%	0.0	4.0

Salary Progression – Fire

Years of Service	Inflation	Productivity	Merit & Longevity	Total Increase
1	3.25%	0.75%	5.0%	9.0%
5	3.25%	0.75%	4.5	8.5
10	3.25%	0.75%	1.0	5.0
15	3.25%	0.75%	1.0	5.0
20	3.25%	0.75%	0.0	4.0

MEMBERSHIP DATA FOR VALUATION

The summary of employee characteristics presented below covers the employee group as of January 1, 2016. The schedules at the end of the report show the distribution of the various employee groups by present age along with other pertinent data.

Total number of employees in valuation:

(a) Active employees	1,398
(b) DROP Participants	47
(c) Deferred vested employees	11
(d) Disabled employees	224
(e) Retired employees, spouses and children receiving benefits	1,249
(f) Total employees in valuation	2,929

Average age of employees in valuation:

(a) Active employees	
Attained Age	40.9
Hire Age	28.5
(b) DROP Participants	53.5
(c) Deferred vested employees	45.8
(d) Disabled employees	67.7
(e) Retired employees	65.1
(f) Spouses and children receiving benefits	68.5

Active employees eligible for vested benefits as of January 1, 2016:

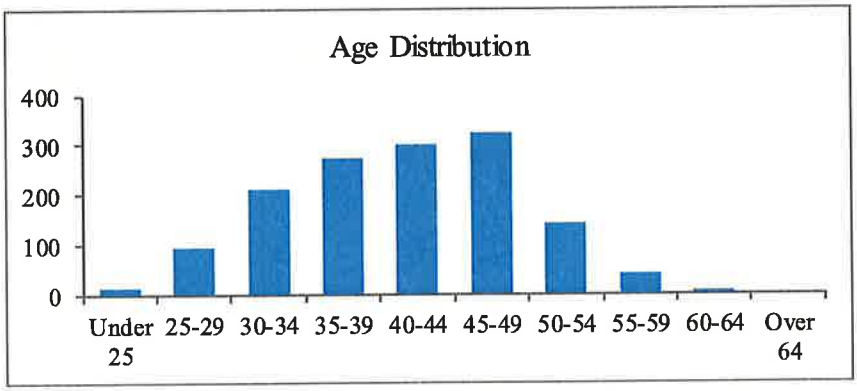
(a) Employees eligible for deferred vested benefits	684
(b) Employees eligible for early or normal retirement benefits	186
(c) Employees eligible for refund of contributions only	528
(d) Total	1,398

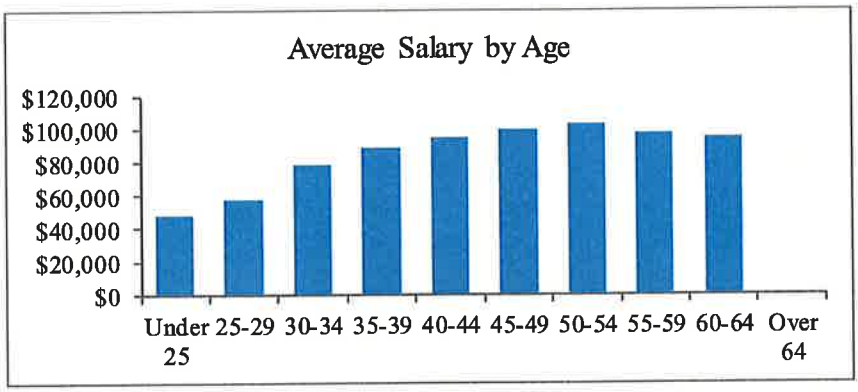
SCHEDULE I

ACTIVE MEMBERS AS OF JANUARY 1, 2016

Total

	Count of Members			Valuation Salaries of Members		
Age	Males	Females	Total	Males	Females	Total
Under 25	13	1	14	$ 657,561	$ 20,435	$ 677,996
25-29	82	13	95	4,770,607	683,776	5,454,383
30-34	186	23	209	14,773,461	1,584,941	16,358,402
35-39	240	33	273	21,236,857	2,822,509	24,059,366
40-44	258	41	299	24,403,578	3,720,422	28,124,000
45-49	280	43	323	27,724,182	4,291,798	32,015,980
50-54	124	18	142	12,710,498	1,843,290	14,553,788
55-59	37	3	40	3,570,213	281,585	3,851,798
60-64	3	0	3	282,518	0	282,518
Over 64	0	0	0	0	0	0
Total	1,223	175	1,398	$110,129,475	$15,248,756	$125,378,231



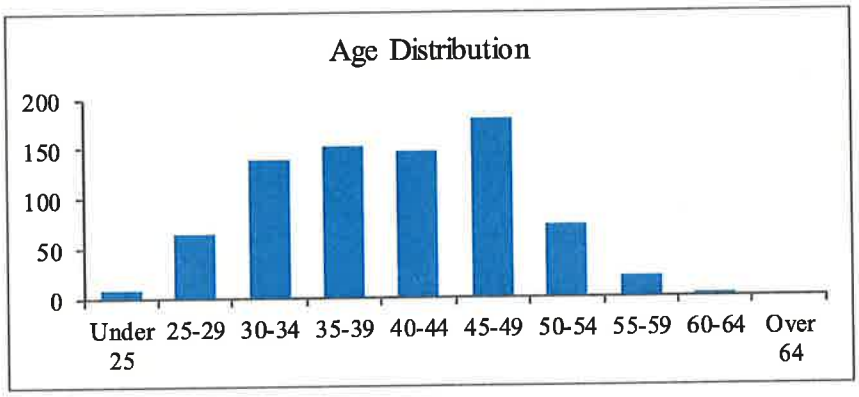


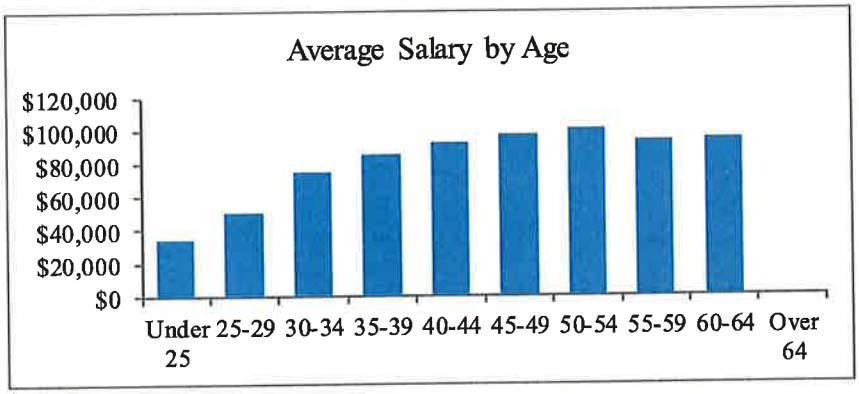
SCHEDULE I (continued)

ACTIVE MEMBERS AS OF JANUARY 1, 2016

All Police Members

	Count of Members			Valuation Salaries of Members		
Age	Males	Females	Total	Males	Females	Total
Under 25	7	1	8	$ 253,676	$ 20,435	$ 274,111
25-29	53	12	65	2,618,670	614,276	3,232,946
30-34	120	19	139	9,210,698	1,249,136	10,459,834
35-39	125	27	152	10,734,158	2,265,968	13,000,126
40-44	112	33	145	10,445,200	2,960,393	13,405,593
45-49	142	36	178	13,627,737	3,578,665	17,206,402
50-54	58	15	73	5,825,132	1,528,131	7,353,263
55-59	16	3	19	1,501,934	281,585	1,783,519
60-64	3	0	3	282,518	0	282,518
Over 64	0	0	0	0	0	0
Total	636	146	782	$54,499,723	$12,498,589	$66,998,312



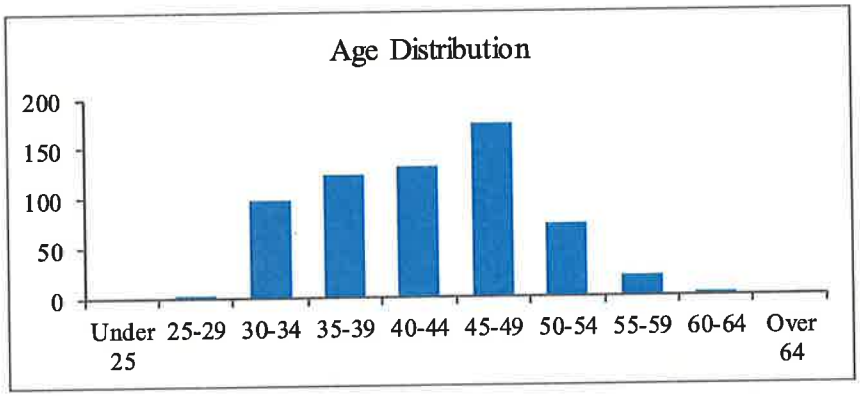


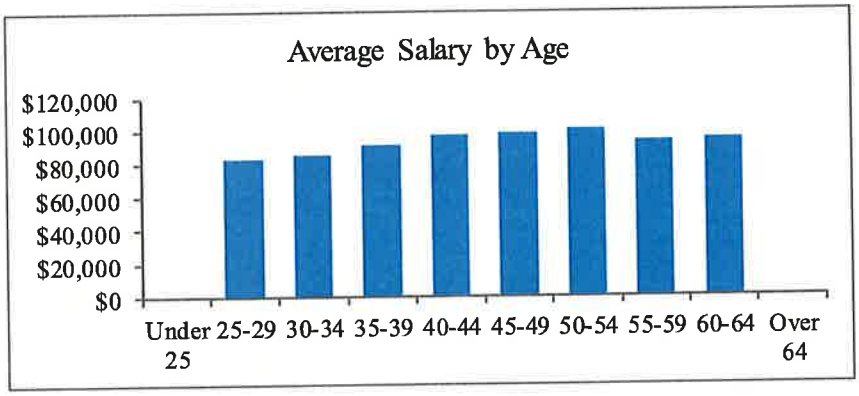
SCHEDULE I (continued)

ACTIVE MEMBERS AS OF JANUARY 1, 2016

Police Members Hired Before January 1, 2010

	Count of Members			Valuation Salaries of Members		
Age	Males	Females	Total	Males	Females	Total
Under 25	0	0	0	$ 0	$ 0	$ 0
25-29	3	0	3	247,985	0	247,985
30-34	86	12	98	7,405,690	972,143	8,377,833
35-39	99	24	123	9,093,984	2,068,545	11,162,529
40-44	100	31	131	9,746,566	2,865,126	12,611,692
45-49	137	36	173	13,368,763	3,578,665	16,947,428
50-54	58	15	73	5,825,132	1,528,131	7,353,263
55-59	16	3	19	1,501,934	281,585	1,783,519
60-64	3	0	3	282,518	0	282,518
Over 64	0	0	0	0	0	0
Total	502	121	623	$47,472,572	$11,294,195	$58,766,767



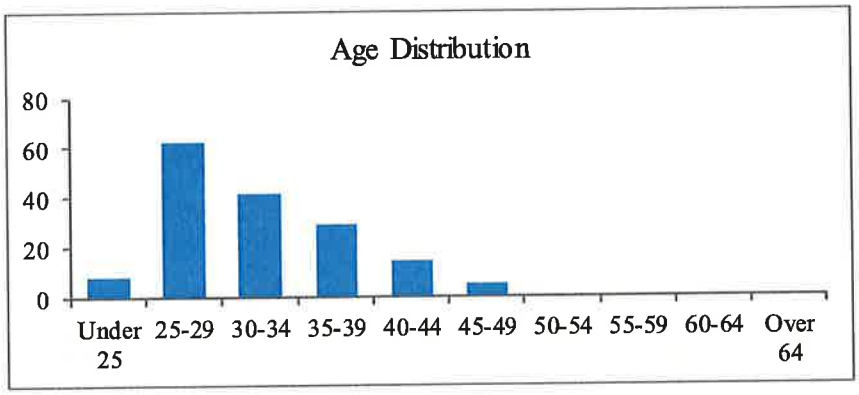


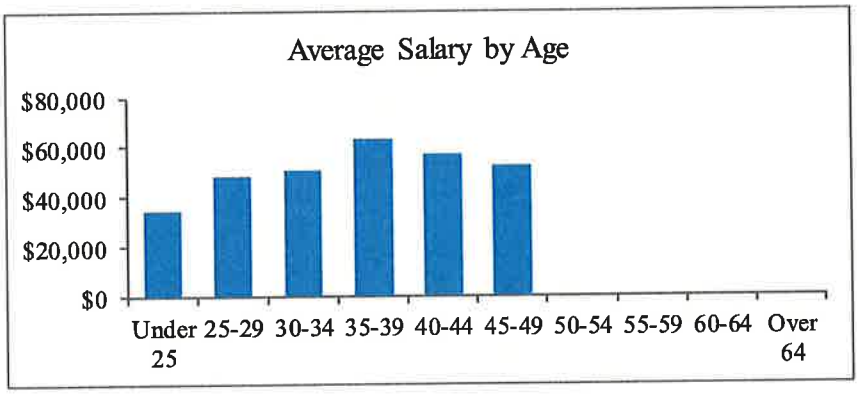
SCHEDULE I (continued)

ACTIVE MEMBERS AS OF JANUARY 1, 2016

Police Members Hired On or After January 1, 2010

	Count of Members			Valuation Salaries of Members		
Age	Males	Females	Total	Males	Females	Total
Under 25	7	1	8	$ 253,676	$ 20,435	$ 274,111
25-29	50	12	62	2,370,685	614,276	2,984,961
30-34	34	7	41	1,805,008	276,993	2,082,001
35-39	26	3	29	1,640,174	197,423	1,837,597
40-44	12	2	14	698,634	95,267	793,901
45-49	5	0	5	258,974	0	258,974
50-54	0	0	0	0	0	0
55-59	0	0	0	0	0	0
60-64	0	0	0	0	0	0
Over 64	0	0	0	0	0	0
Total	134	25	159	$7,027,151	$1,204,394	$8,231,545



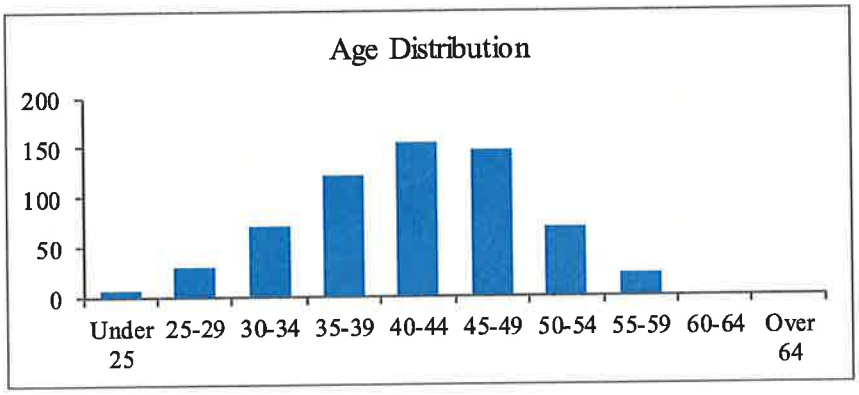


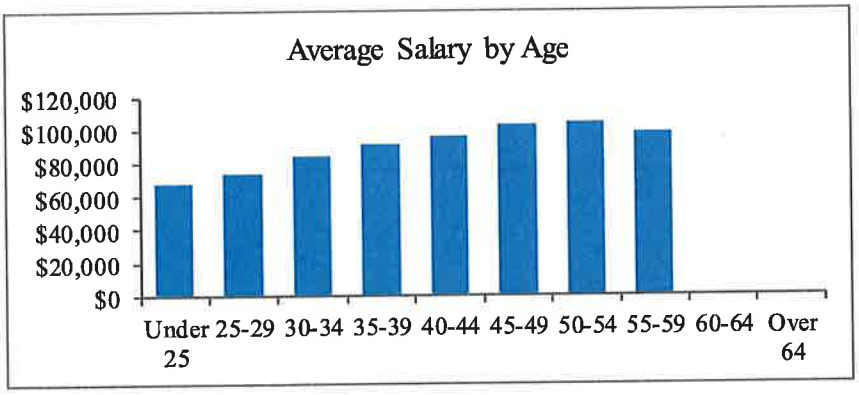
SCHEDULE I (continued)

ACTIVE MEMBERS AS OF JANUARY 1, 2016

All Fire Members

	Count of Members			Valuation Salaries of Members		
Age	Males	Females	Total	Males	Females	Total
Under 25	6	0	6	$ 403,885	$ 0	$ 403,885
25-29	29	1	30	2,151,937	69,500	2,221,437
30-34	66	4	70	5,562,763	335,805	5,898,568
35-39	115	6	121	10,502,699	556,541	11,059,240
40-44	146	8	154	13,958,378	760,029	14,718,407
45-49	138	7	145	14,096,445	713,133	14,809,578
50-54	66	3	69	6,885,366	315,159	7,200,525
55-59	21	0	21	2,068,279	0	2,068,279
60-64	0	0	0	0	0	0
Over 64	0	0	0	0	0	0
Total	587	29	616	$55,629,752	$2,750,167	$58,379,919



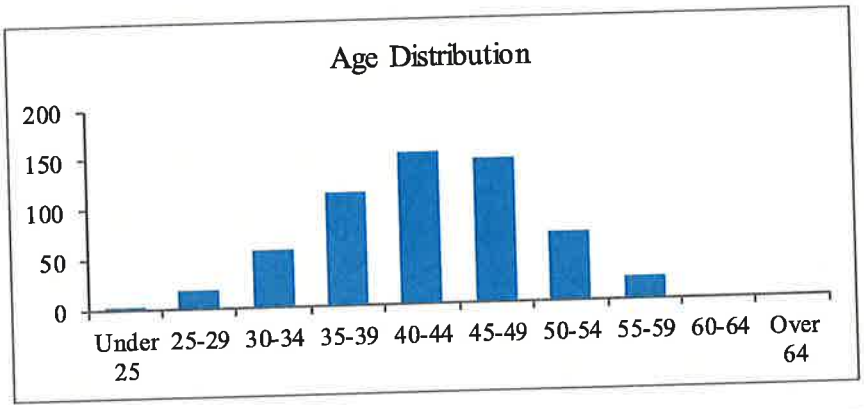


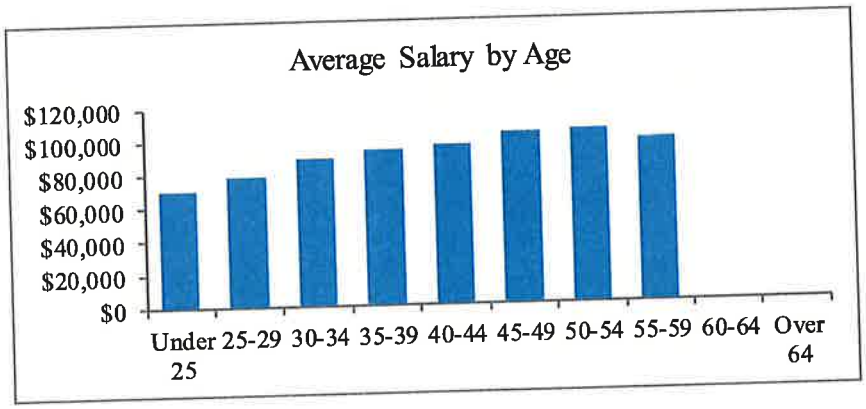
SCHEDULE I (continued)

ACTIVE MEMBERS AS OF JANUARY 1, 2016

Fire Members Hired Before January 1, 2013

	Count of Members			Valuation Salaries of Members		
Age	Males	Females	Total	Males	Females	Total
Under 25	1	0	1	$ 69,515	$ 0	$ 69,515
25-29	16	1	17	1,255,400	69,500	1,324,900
30-34	53	3	56	4,680,911	269,696	4,950,607
35-39	108	5	113	10,034,446	483,069	10,517,515
40-44	143	8	151	13,760,150	760,029	14,520,179
45-49	137	7	144	14,027,075	713,133	14,740,208
50-54	66	3	69	6,885,366	315,159	7,200,525
55-59	21	0	21	2,068,279	0	2,068,279
60-64	0	0	0	0	0	0
Over 64	0	0	0	0	0	0
Total	545	27	572	$52,781,142	$2,610,586	$55,391,728



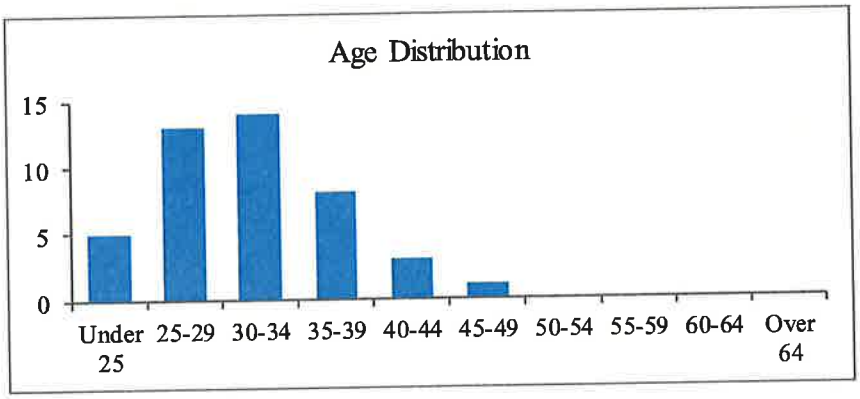


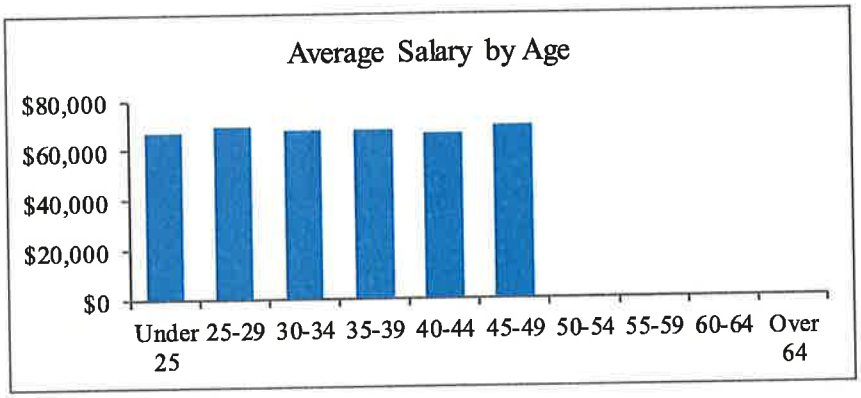
SCHEDULE I (continued)

ACTIVE MEMBERS AS OF JANUARY 1, 2016

Fire Members Hired On or After January 1, 2013

	Count of Members			Valuation Salaries of Members		
Age	Males	Females	Total	Males	Females	Total
Under 25	5	0	5	$ 334,370	$ 0	$ 334,370
25-29	13	0	13	896,537	0	896,537
30-34	13	1	14	881,852	66,109	947,961
35-39	7	1	8	468,253	73,472	541,725
40-44	3	0	3	198,228	0	198,228
45-49	1	0	1	69,370	0	69,370
50-54	0	0	0	0	0	0
55-59	0	0	0	0	0	0
60-64	0	0	0	0	0	0
Over 64	0	0	0	0	0	0
Total	42	2	44	$2,848,610	$139,581	$2,988,191

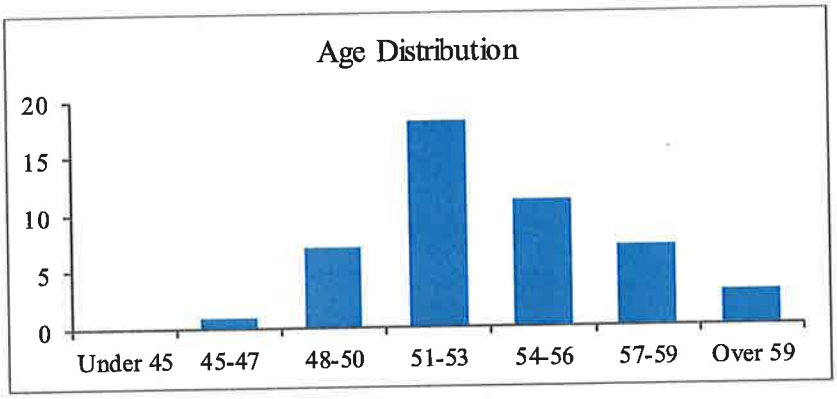


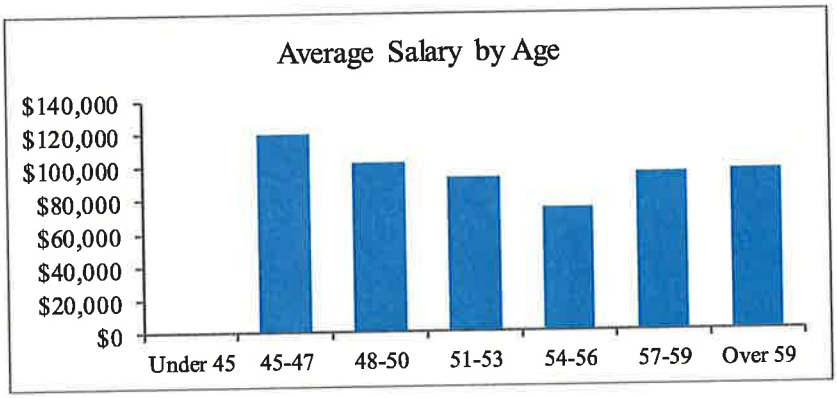


SCHEDULE II

DROP PARTICIPANTS AS OF JANUARY 1, 2016

	Count of Members			Valuation Salaries of Members		
Age	Males	Females	Total	Males	Females	Total
Under 45	0	0	0	$ 0	$ 0	$ 0
45-47	1	0	1	119,396	0	119,396
48-50	7	0	7	708,947	0	708,947
51-53	16	2	18	1,439,301	227,704	1,667,005
54-56	11	0	11	809,226	0	809,226
57-59	6	1	7	584,024	78,073	662,097
Over 59	3	0	3	288,756	0	288,756
Total	44	3	47	$3,949,650	$305,777	$4,255,427

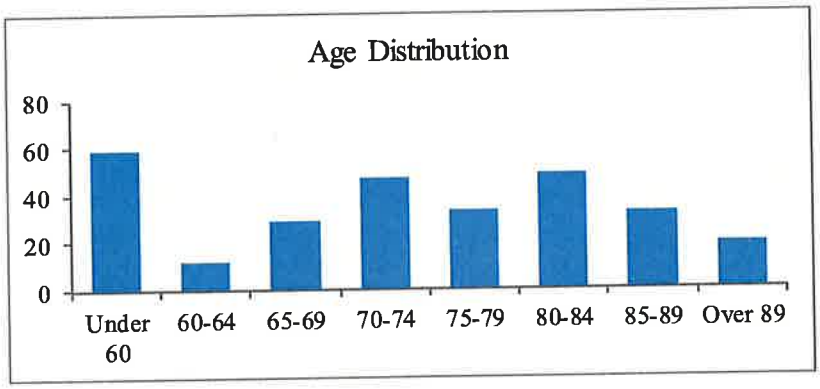


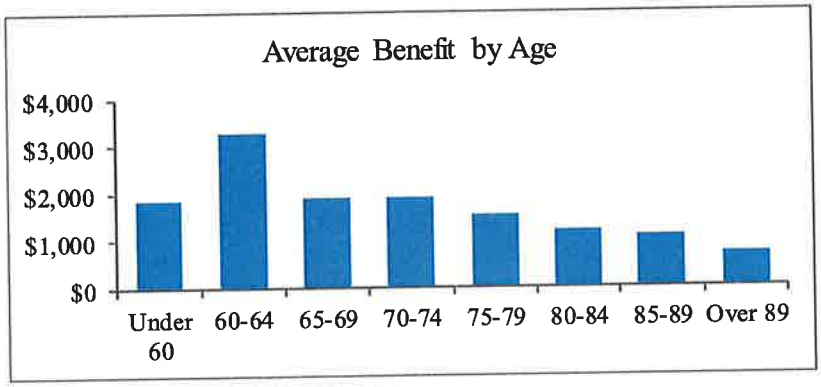


SCHEDULE IV

BENEFICIARIES RECEIVING BENEFITS AS OF JANUARY 1, 2016

	Count of Beneficiaries			Current Monthly Benefits		
Age	Males	Females	Total	Males	Females	Total
Under 60	13	46	59	$17,458	$ 90,656	$108,114
60-64	0	12	12	0	39,288	39,288
65-69	0	29	29	0	54,253	54,253
70-74	0	47	47	0	88,142	88,142
75-79	0	33	33	0	49,818	49,818
80-84	0	48	48	0	56,389	56,389
85-89	0	32	32	0	34,327	34,327
Over 89	0	19	19	0	13,161	13,161
Total	13	266	279	$17,458	$426,034	$443,492





SCHEDULE VI

DISABLED MEMBERS AS OF JANUARY 1, 2016

	Count of Members			Current Monthly Benefits		
Age	Males	Females	Total	Males	Females	Total
Under 30	0	0	0	$ 0	$ 0	$ 0
30-34	0	0	0	0	0	0
35-39	1	0	1	2,794	0	2,794
40-44	4	3	7	14,428	8,616	23,044
45-49	8	3	11	25,201	11,580	36,781
50-54	16	4	20	56,952	11,213	68,165
55-59	11	6	17	30,959	17,568	48,527
60-64	12	2	14	46,577	3,280	49,857
65-69	41	0	41	131,819	0	131,819
70-74	50	0	50	134,028	0	134,028
75-79	30	0	30	75,898	0	75,898
80-84	17	0	17	36,234	0	36,234
85-89	15	0	15	21,413	0	21,413
Over 89	1	0	1	1,251	0	1,251
Total	206	18	224	$577,554	$52,257	$629,811

Appendix G

Omaha Public Power District
Retirement Plan Information

2016 Reporting Form for Underfunded Political Subdivision Pension Plans

Omaha Public Power District

1. Please list the following information for the current and previous plan year:

   NOTE: The January 1, 2016 actuarial valuation report will be completed in late 2016 or early 2017 and will be provided at that time. As a result, the 2016 information is not yet available for some items below.

   a. Funding Status – There are currently multiple ways to identify and value funded status. For your consideration, the district is aware of two and they are as follows:

      i. **Present Value of Accrued Plan Benefits**: present value of benefits based on compensation and service to the date of the actuarial valuation.

Funded Ratio	2015	2016
PVAPB (%)	82.7	Not Yet Available

      ii. **Actuarial Accrued Liability**: present value of retirement benefits adjusted for assumptions for future increases in compensation and service attributable to past accounting periods.

Funded Ratio	2015	2016
AAL (%)	72.4	Not Yet Available

   b. Assumed rate of return – The discount rate of return for the plan was changed in 2016.

	2015	2016
Discount Return %	7.75	7.0

c. Actual investment return – The actual return is itemized in the table below:

	2015	2016
Actual Return %	-1.07	Not Yet Available

d. Member and employer contributions rates - percentage

	2015	2016
Employee Contributions (%)	6.2	6.2

The OPPD percentage rate is calculated by dividing the Annual Required Contribution into the Valuation Compensation as follows:

	2015	2016
Employer Contributions (%)	23.7	Not Yet Available

e. Normal cost – percentage

	2015	2016
Covered Compensation (%)	11.8	Not Yet Available

f. Actuarial required contribution – percentage & dollar amount

Assumed percentage of covered compensation

	2015	2016
ARC (%)	23.7	Not Yet Available

Dollar amount in millions

	2015	2016
ARC ($)	46.6	Not Yet Available

g. Actuarially required contribution - actual dollars contributed and percentage of actuarial required contribution actually contributed

	2015	2016
ARC ($) actually made	46.6	Not Yet Available
ARC Made (%)	100	Not Yet Available

2. Please provide a brief narrative of the circumstances that led to the current underfunding of the retirement plan.

   The primary reasons for the pension's present funding level are lower investment performance from 2000-2008, increase in mortality tables due to longer life expectancy, and reduction of the plan's projected earnings rate (discount rate). All of these items have impacted the funding status for the universe of defined benefit plans.

3. Have there been any changes in the actuarial methods and/or assumptions since the previous actuarial valuation report? If so, please describe.

   Based on the experience study, several assumptions were updated for the 2016 actuarial valuation:

   - The retirement and withdrawal rates were updated.
   - The discount rate was decreased from 7.75% to 7.0%.
   - The retirement age for vested deferred participants was increased.
   - Compensation increases were updated.
   - The spouse age differential was decreased.

   The District also adopted an updated mortality table in 2016.

4. Please provide a description of corrective actions implemented to improve the funding status of the plan including, but not limited to, benefit changes, increased contribution rates and/or employer contributions. Include any actuarial projections based on these changes.

   a. In 2012, the OPPD Board of Directors approved a change in the retirement benefit for employees hired after December 31, 2012. Employees hired on January 1, 2013 and later are no longer eligible for the monthly annuity benefit and are only eligible for a cash balance payment at retirement. In addition to providing more convenience to future employees, there was a decrease in actuarially projected plan costs which is expected to reduce future pension costs.
   b. In 2013, the District changed early retirement eligibility which generally prevents employees from receiving early retirement benefits before the age of 55.

5. Please describe any recent or ongoing negotiations with bargaining groups that may impact the funding of the plan.

   Negotiations occur on an ongoing basis. Currently, the next round of negotiations with the District's unions will start later this year as the union contracts expire in May 2017.

6. When was the most recent Actuarial Experience Study conducted on the plan? Please attach a copy of the most recent Actuarial Experience Study.

   The most recent Actuarial Experience Study was completed in 2016, and the results are attached for your review.

7. What is the current assumed rate of return? If the rate has been changed in the past year, or if there are plans to review the rate for the upcoming year, please describe.

   The discount rate was changed to 7.0% for the 2016 actuarial valuation. An asset liability study was performed to evaluate the reasonableness of the existing discount rate within current market conditions. Please see the attached information from our investment consultant regarding the Retirement Plan's Long-Term Expected Rate of Return.

8. Please attach the most recent actuarial valuation report. If the valuation report is completed biannually (or less often) please include an updated report for the interim year/s, if available.

   The January 1, 2016 actuarial valuation report will be completed in late 2016 and will be provided at that time.

your energy partner

OPPD

Omaha Public Power District

October 14, 2016

Senator Mark Kolterman, Chairperson
Nebraska Retirement Systems Committee
Nebraska Legislature
State Capitol
P. O. Box 94604
Lincoln, NE 68509-4604

RE: Neb. Rev. Stat. § 13-2402 - Reporting Requirements - Defined Benefit Plans

Dear Senator Kolterman:

I am responding on behalf of the Omaha Public Power District ("OPPD") to your letter of September 1, 2016 regarding reporting requirements pursuant to Section 13-2402 of the Nebraska Revised Statutes. This letter, and the enclosed attachments, provide the information requested in your September 1st letter.

OPPD has provided and will continue to disclose information describing the organization's defined benefit Retirement Plan to the Board of Directors, in annual reports, in bond offering documents, and in annual newsletters provided to plan participants. We are pleased to provide similar information to the Nebraska Retirement Systems Committee.

As requested, OPPD's Chief Financial Officer, Edward Easterlin, will appear before the Committee on November 22nd to present the information requested by the Committee and answer questions about OPPD's defined benefit plan status.

If you have any further questions, or need additional information, please do not hesitate to contact me.

Thank you for the opportunity to present this information to the Committee.

Sincerely,

Timothy J. Burke
President and Chief Executive Officer

EMPLOYMENT WITH EQUAL OPPORTUNITY

Segal Rogerscasey

OMAHA PUBLIC POWER DISTRICT

Long-Term Expected Rate of Return

October 2016

Jeffrey C. Boucek, CFA
Senior Vice President

Keith Reynolds
Vice President & Senior Consultant

Alan Peak
Associate

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Methodology

- Omaha Public Power District defined benefit plan's (the Plan) previous discount rate was **7.75%,** but was lowered in 2016 to **7.0%** as a result of an Asset/Liability Study.
- That rate is equal to the estimated rate of return for the Plan given the current target asset allocation.
- This exercise provides rationale for continued support of that rate.

Rate of return

=

Passive return

(Segal Rogerscasey's assumptions)

+

Active return

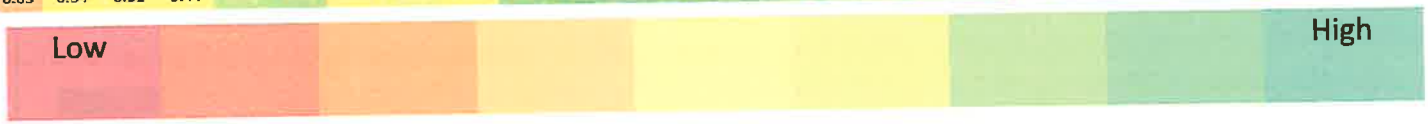
(Alpha based on average of median and top quartile manager performance)

Investment Characteristics of Asset Classes

- Segal Rogerscasey's assumption methodology incorporates a top-down (Capital Asset Pricing Model or "CAPM" reverse optimization) and bottom-up (yield curve for bonds and equity building block for U.S. equities) analyses of asset class characteristics
- Risk, return, and correlations are projected on a forward looking basis in equilibrium, i.e. irrespective of business market cycles
- Asset class returns and risks can be thought of as a summation of multiple factors:
  - Risk free rate
  - Inflation
  - Macro Economic Factors
  - Asset class specific factor
    - Example: liquidity, currency
- Decomposition helps to identify drivers of risk and return
  - Fully understand if an asset class is a true diversifier or not
  - Identifying hedging properties of asset classes

Segal Rogerscasey
2016 Asset Class Correlations

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	Cash	1	-0.06	-0.12	0.07	-0.18	-0.04	-0.21	0.01	-0.12	-0.15	-0.08	-0.03	-0.11	-0.09	-0.03	-0.13	-0.14	-0.16	0.00	0.02	0.11	0.12	0.22	-0.04	-0.03
2	Inflation Linked Bonds	-0.06	1	0.77	0.56	0.42	0.58	0.44	0.67	0.65	0.19	0.26	0.33	0.23	0.34	0.00	0.21	0.21	0.27	0.17	0.34	-0.02	-0.02	-0.29	0.19	0.34
3	Core Fixed Income	-0.12	0.77	1	0.56	0.26	0.48	0.54	0.70	0.93	0.06	0.14	0.16	0.11	0.29	-0.34	0.00	0.00	0.05	0.12	0.06	-0.25	-0.03	-0.15	-0.07	0.31
4	Dev. Mkts. Fixed Income (u)	0.07	0.56	0.56	1	0.25	0.57	0.22	0.97	0.46	0.22	0.41	0.37	0.33	0.39	-0.13	0.10	0.21	0.14	0.29	0.43	-0.17	-0.10	-0.16	0.18	0.44
5	High Yield	-0.18	0.42	0.26	0.25	1	0.72	0.36	0.38	0.17	0.75	0.76	0.75	0.78	0.81	0.67	0.65	0.76	0.82	0.14	0.50	-0.06	-0.16	-0.15	0.53	0.70
6	Emerging Markets Debt (50% LC)	-0.04	0.58	0.48	0.57	0.72	1	0.34	0.69	0.38	0.67	0.78	0.82	0.75	0.80	0.51	0.56	0.69	0.65	0.27	0.58	-0.03	-0.08	-0.06	0.48	0.76
7	Municipal Bonds	-0.21	0.44	0.54	0.22	0.36	0.34	1	0.32	0.49	0.12	0.14	0.14	0.14	0.26	0.01	0.16	0.12	0.22	0.05	-0.05	-0.21	-0.02	-0.21	0.00	0.26
8	Global Fixed Income (u)	0.01	0.67	0.70	0.97	0.38	0.69	0.32	1	0.58	0.32	0.50	0.47	0.43	0.50	-0.04	0.21	0.31	0.26	0.30	0.47	-0.17	-0.09	-0.18	0.23	0.53
9	Long-Term Fixed Income	-0.12	0.65	0.93	0.46	0.17	0.38	0.49	0.58	1	0.00	0.08	0.08	0.04	0.22	-0.35	-0.04	-0.08	-0.03	0.12	-0.02	-0.10	0.05	-0.05	-0.13	0.28
10	US Equity	-0.15	0.19	0.06	0.22	0.75	0.67	0.12	0.32	0.00	1	0.90	0.80	0.97	0.86	0.85	0.72	0.88	0.79	0.23	0.51	0.25	0.00	-0.02	0.59	0.81
11	Developed Equity (u)	-0.08	0.26	0.14	0.41	0.76	0.78	0.14	0.50	0.08	0.90	1	0.89	0.98	0.88	0.80	0.78	0.90	0.83	0.36	0.60	0.17	0.00	0.03	0.62	0.87
12	Emerging Markets Equity	-0.03	0.33	0.16	0.37	0.75	0.82	0.14	0.47	0.08	0.80	0.89	1	0.87	0.82	0.74	0.78	0.91	0.82	0.40	0.65	0.05	-0.06	0.05	0.63	0.82
13	Global Equity (u)	-0.11	0.23	0.11	0.33	0.78	0.75	0.14	0.43	0.04	0.97	0.98	0.87	1	0.89	0.85	0.78	0.92	0.84	0.32	0.59	0.22	-0.01	0.01	0.62	0.87
14	Global REITs	-0.09	0.34	0.29	0.39	0.81	0.80	0.26	0.50	0.22	0.86	0.88	0.82	0.89	1	0.73	0.63	0.78	0.74	0.23	0.50	0.19	-0.07	-0.05	0.49	0.86
15	Private Equity	-0.03	0.00	-0.34	-0.13	0.67	0.51	0.01	-0.04	-0.35	0.85	0.80	0.74	0.85	0.73	1	0.86	0.83	0.83	0.19	0.63	0.56	0.06	0.09	0.63	0.73
16	Hedge Fund of Funds	-0.13	0.21	0.00	0.10	0.65	0.56	0.16	0.21	-0.04	0.72	0.78	0.78	0.78	0.63	0.86	1	0.92	0.92	0.56	0.61	0.26	0.05	0.12	0.62	0.69
17	Equity Long/Short	-0.14	0.21	0.00	0.21	0.76	0.69	0.12	0.31	-0.08	0.88	0.90	0.91	0.92	0.78	0.83	0.92	1	0.93	0.43	0.66	0.13	-0.02	0.06	0.71	0.78
18	Credit-Event -Driven	-0.16	0.27	0.05	0.14	0.82	0.65	0.22	0.26	-0.03	0.79	0.83	0.82	0.84	0.74	0.83	0.92	0.93	1	0.33	0.62	0.12	-0.10	-0.04	0.66	0.73
19	Global Macro	0.00	0.17	0.12	0.29	0.14	0.27	0.05	0.30	0.12	0.23	0.36	0.40	0.32	0.23	0.19	0.56	0.43	0.33	1	0.42	-0.04	0.07	0.29	0.31	0.35
20	Commodities	0.02	0.34	0.06	0.43	0.50	0.58	-0.05	0.47	-0.02	0.51	0.60	0.65	0.59	0.50	0.63	0.61	0.66	0.62	0.42	1	0.21	-0.14	-0.07	0.69	0.48
21	Real Estate	0.11	-0.02	-0.25	-0.17	-0.06	-0.03	-0.21	-0.17	-0.10	0.25	0.17	0.05	0.22	0.19	0.56	0.26	0.13	0.12	-0.04	0.21	1	0.31	0.08	0.14	0.22
22	Timber	0.12	-0.02	-0.03	-0.10	-0.16	-0.08	-0.02	-0.09	0.05	0.00	0.00	-0.06	-0.01	-0.07	0.06	0.05	-0.02	-0.10	0.07	-0.14	0.31	1	0.58	-0.03	-0.03
23	Farmland	0.22	-0.29	-0.15	-0.16	-0.15	-0.06	-0.21	-0.18	-0.05	-0.02	0.03	0.05	0.01	-0.05	0.09	0.12	0.06	-0.04	0.29	-0.07	0.08	0.58	1	-0.10	-0.09
24	Oil & Gas	-0.04	0.19	-0.07	0.18	0.53	0.48	0.00	0.23	-0.13	0.59	0.62	0.63	0.62	0.49	0.63	0.62	0.71	0.66	0.31	0.69	0.14	-0.03	-0.10	1	0.52
25	Infrastructure	-0.03	0.34	0.31	0.44	0.70	0.76	0.26	0.53	0.28	0.81	0.87	0.82	0.87	0.86	0.73	0.69	0.78	0.73	0.35	0.48	0.22	-0.03	-0.09	0.52	1



Disclaimer

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II. Expected Active Return (Alpha)

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Omaha Public Power District
Active Return Estimation (Current)

	Target	Universe Median Excess Return (Gross)*	Universe Top Quartile Excess Return (Gross)*	Universe Median Fee**	Universe Median Excess Return (Net)	Universe Top Quartile Excess Return (Net)
US Large Cap Equity (Passive)	18.0%	N/A	N/A	0.04%	N/A	N/A
US Mid Cap Equity	5.0%	0.15%	1.63%	0.68%	-0.53%	0.95%
US Small Cap Equity	5.0%	1.5%	3.26%	0.85%	0.62%	2.41%
Value	*2.5%*	*2.19%*	*3.96%*	*0.85%*	*1.34%*	*3.11%*
Growth	*2.5%*	*0.75%*	*2.56%*	*0.85%*	*-0.10%*	*1.71%*
Non-US Equity (Developed)	10.0%	0.95%	2.75%	0.72%	0.23%	2.03%
Non-US Small Cap (Developed)	4.0%	2.26%	4.20%	0.90%	1.36%	3.30%
Emerging Markets Equity	10.0%	1.09%	2.90%	0.93%	0.17%	1.98%
Domestic Fixed Income	23.0%	0.16%	0.37%	0.21%	-0.06%	0.16%
Passive	*11.0%*	*N/A*	*N/A*	*0.08%*	*N/A*	*N/A*
Active	*12.0%*	*0.30%*	*0.71%*	*0.34%*	*-0.04%*	*0.37%*
TIPS (Passive)	2.0%	N/A	N/A	0.06%	N/A	N/A
High Yield	3.0%	-0.05%	0.82%	0.50%	-0.55%	0.32%
Global Fixed Income	7.5%	1.22%	2.96%	0.40%	0.82%	2.56%
EM Debt	5.0%	1.00%	2.22%	0.60%	0.40%	1.62%
Core Real Estate***	7.5%	N/A	N/A	N/A	N/A	N/A
	100.0%	**0.55%**	**1.42%**	**0.41%**	**0.14%**	**1.01%**

** Gross of Fee Excess Returns are calculated by averaging the five-year rolling excess returns observed over the past ten years*

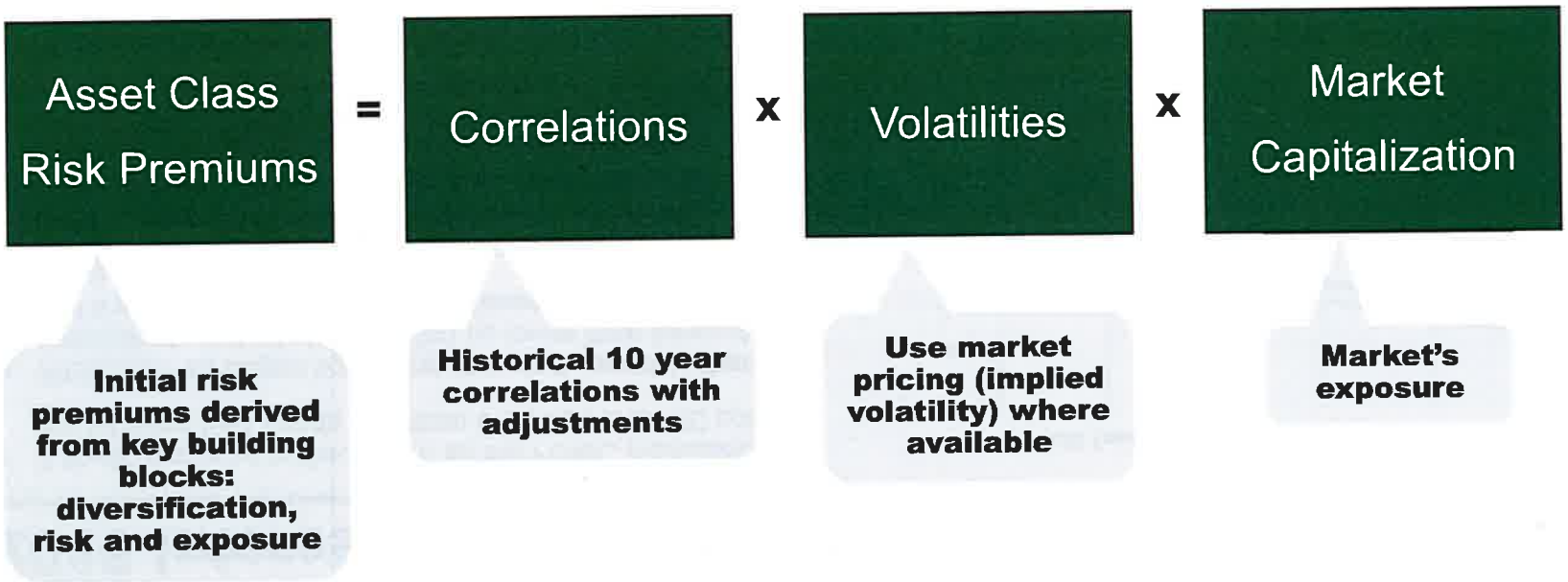
*** For the three passive strategies - SSgA S&P 500 Index, SSgA Passive Bond Market Index, SSgA US TIPS Index - the table displays actual fee paid by OPPD, not universe fee*

**** SRC's Asset Class Assumptions for Real Estate are already reported net of fees.*

- Incorporating US and Non-US Small Cap Equity results in higher alpha expectations for the Plan. Adding Real Estate further improves the passive return assumptions for the Current allocation.
- Segal Rogerscasey calculates the expected total long-term rate of return for the Plan to fall within the range of **6.74% and 7.61%** (6.60% passive + active).
- **Conclusion: The Current allocation, which includes new asset classes of U.S. Small Cap Equity, Non-U.S. Small Cap Equity and Real Estate, suggest that using a 7.0% discount rate is reasonable for the Plan.**

CAPM Reverse Optimization

- Building Block Approach
  - Equity Example: risk-free rate plus risk premium
- Starting point: CAPM / Reverse Optimization
  - Correlations and volatilities are easier to quantify than risk premiums and have less sensitivity to portfolio composition
  - May adjust with subjective opinions regarding absolute and relative value



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2016 Asset Valuation Models

Asset Class	Risk Premium	Risk (Std. Dev.)	Sharpe Ratio
Cash	0.0%	2.0%	0.00
Inflation Linked Bonds	0.3%	5.5%	0.05
Core Fixed Income	0.6%	5.0%	0.12
Dev. Mkts. Fixed Income (u)	-0.4%	10.0%	-0.04
High Yield	3.8%	12.5%	0.30
Emerging Markets Debt (50% LC)	4.0%	10.5%	0.38
Municipal Bonds	2.0%	6.0%	0.33
Global Fixed Income (u)	0.1%	8.2%	0.01
Long-Term Fixed Income	0.5%	11.5%	0.04
US Equity	5.6%	18.5%	0.30
Developed Equity (u)	6.3%	21.0%	0.30
Emerging Markets Equity	8.7%	24.0%	0.36
Global Equity (u)	6.0%	18.9%	0.31
Global REITs	4.9%	20.5%	0.24
Private Equity	10.4%	24.5%	0.42
Hedge Fund of Funds	2.6%	6.3%	0.41
Equity Long/Short	4.8%	10.8%	0.44
Credit-Event -Driven	4.6%	6.1%	0.75
Global Macro	3.0%	7.2%	0.42
Commodities	3.2%	21.0%	0.15
Real Estate	3.4%	12.0%	0.28
Timber	4.7%	10.0%	0.47
Farmland	5.7%	13.0%	0.44
Oil & Gas	9.8%	35.0%	0.28
Infrastructure	5.3%	15.0%	0.35

- The Sharpe Ratio is a measure of risk adjusted returns. A higher number is better
- Current risk premiums and volatilities (Sharpe ratios) represent equilibrium pricing and are reflective of median returns through time

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U.S. Equity Building Block Model (Bottom-Up)

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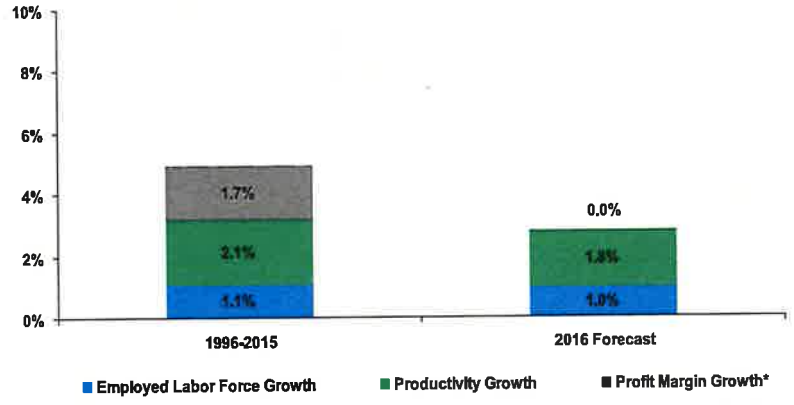
First, Decomposition of Real Earnings Growth

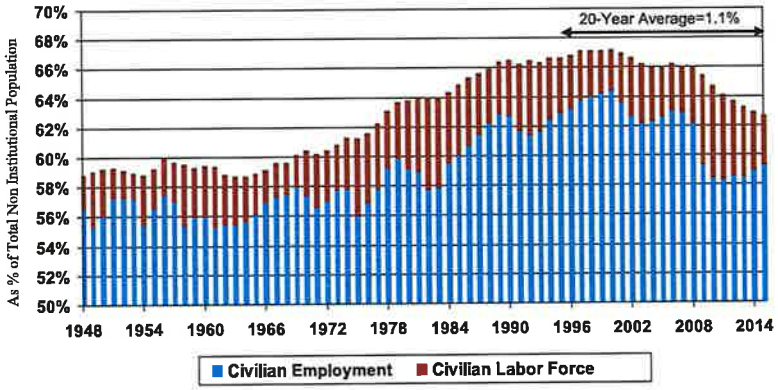
Decomposition of Earnings Growth



* Most recent period ending 9/30/15

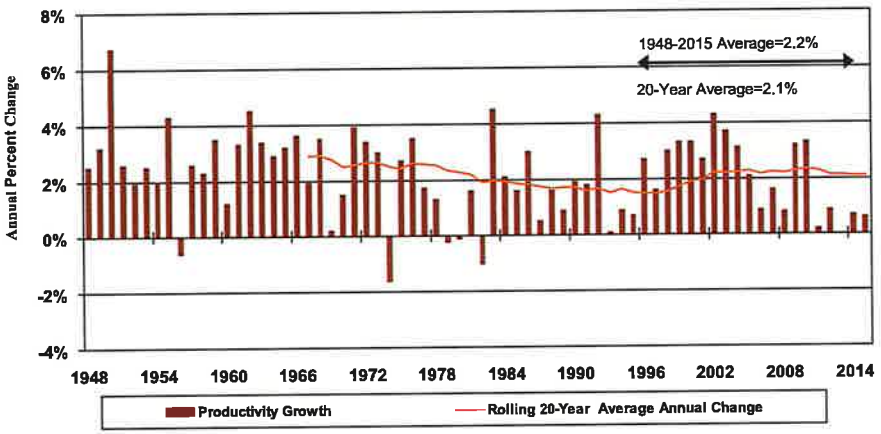
Source: U.S. Department of Labor, BLS

Employed Labor Force Growth



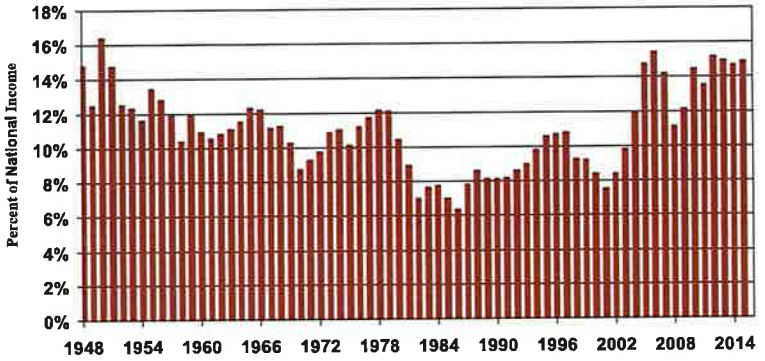
Source: U.S. Department of Labor, BLS

U.S. Non-Farm Business Output Per Hour



Source: U.S. Department of Labor, BLS

Corporate Profits Before Tax as a Share of National Income



Source: U.S. Department of Commerce, BEA

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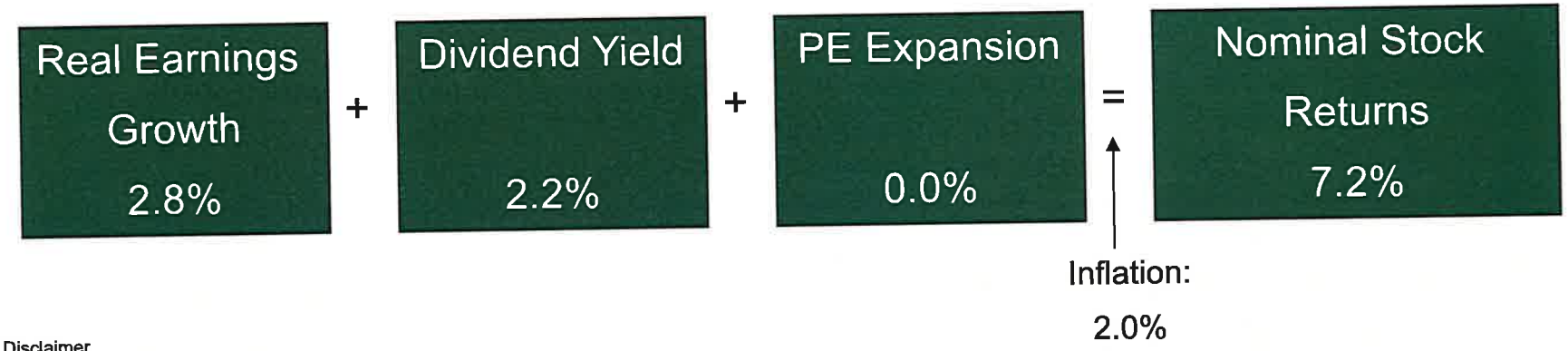
Broad U.S. Equity – Nominal Returns

- The return decomposition approach suggests a 7.5% compound nominal return assumption for U.S. Equity consistent with the following:
  - 2.8% real earnings growth
  - 2.2% dividend yield
  - No assumed P/E expansion or contraction
  - 2.0% inflation (our long-term assumption)

- (1.028)(1.022)(1.000)(1.020) = 1.072

- A 7.2% compound nominal return with a 18.5 % standard deviation of nominal returns assumption suggests an average annual return of 8.8%.



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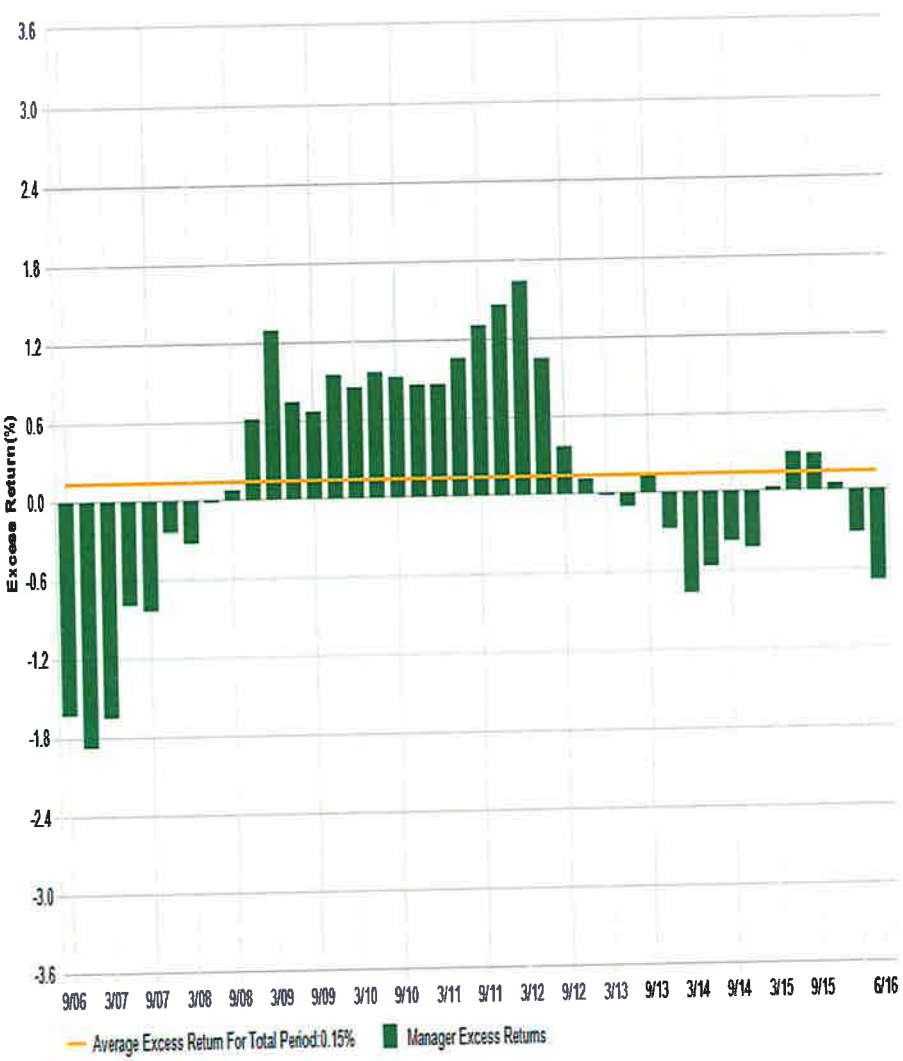
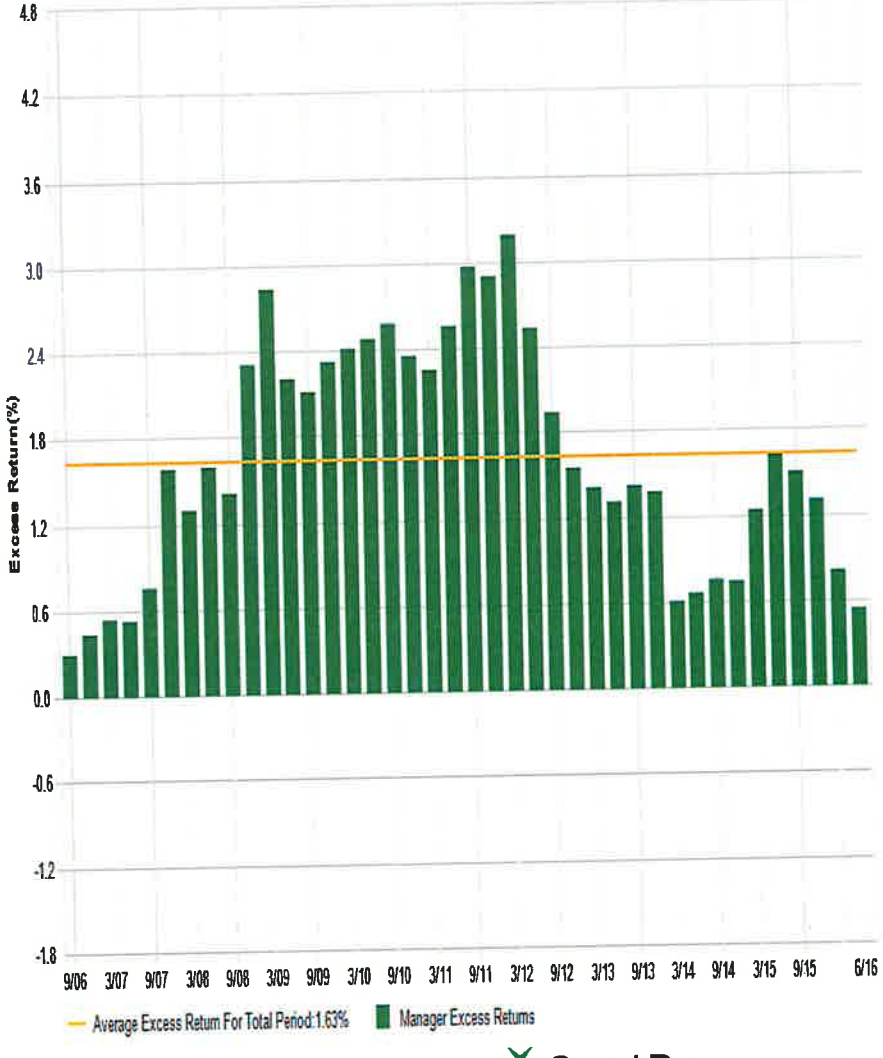
US Mid Cap Equity (Median – left / Top Quartile – right)

IM U.S. Mid Cap Equity (SA + CF) vs. Russell Midcap Index

20 Quarters Rolling Periods From July 1, 2006 To June 30, 2016



20 Quarters Rolling Periods From July 1, 2006 To June 30, 2016

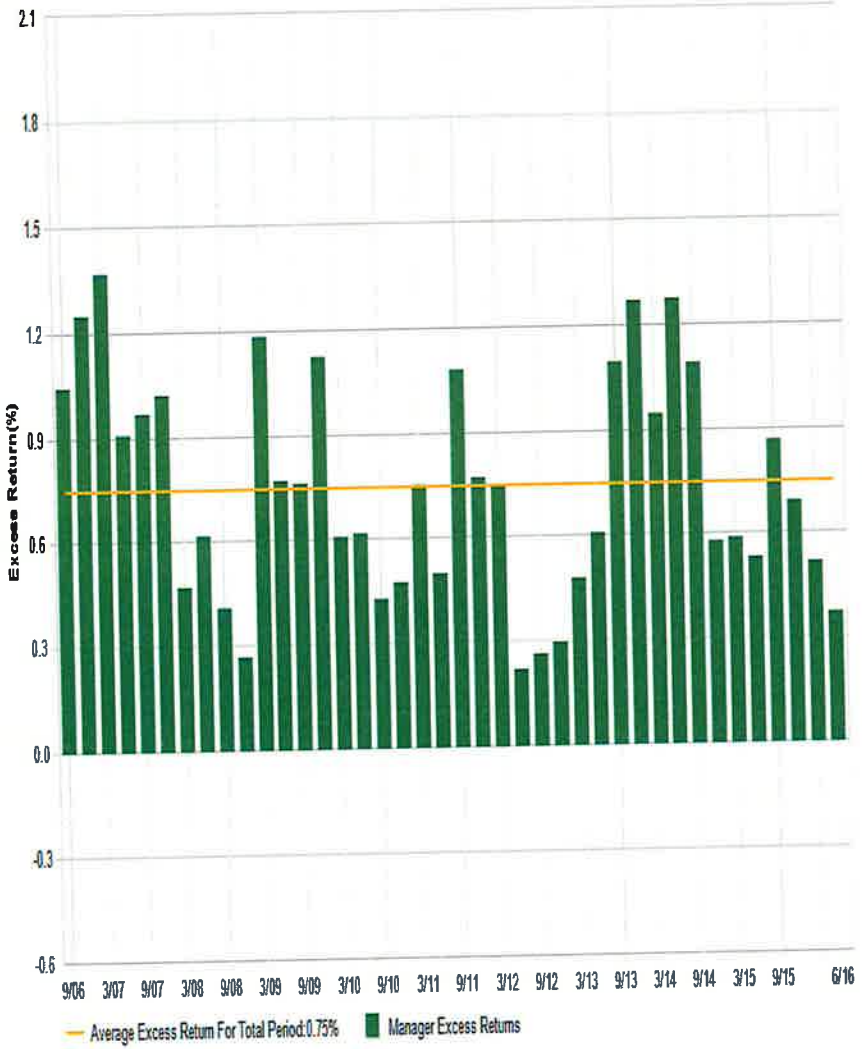


Segal Rogerscasey

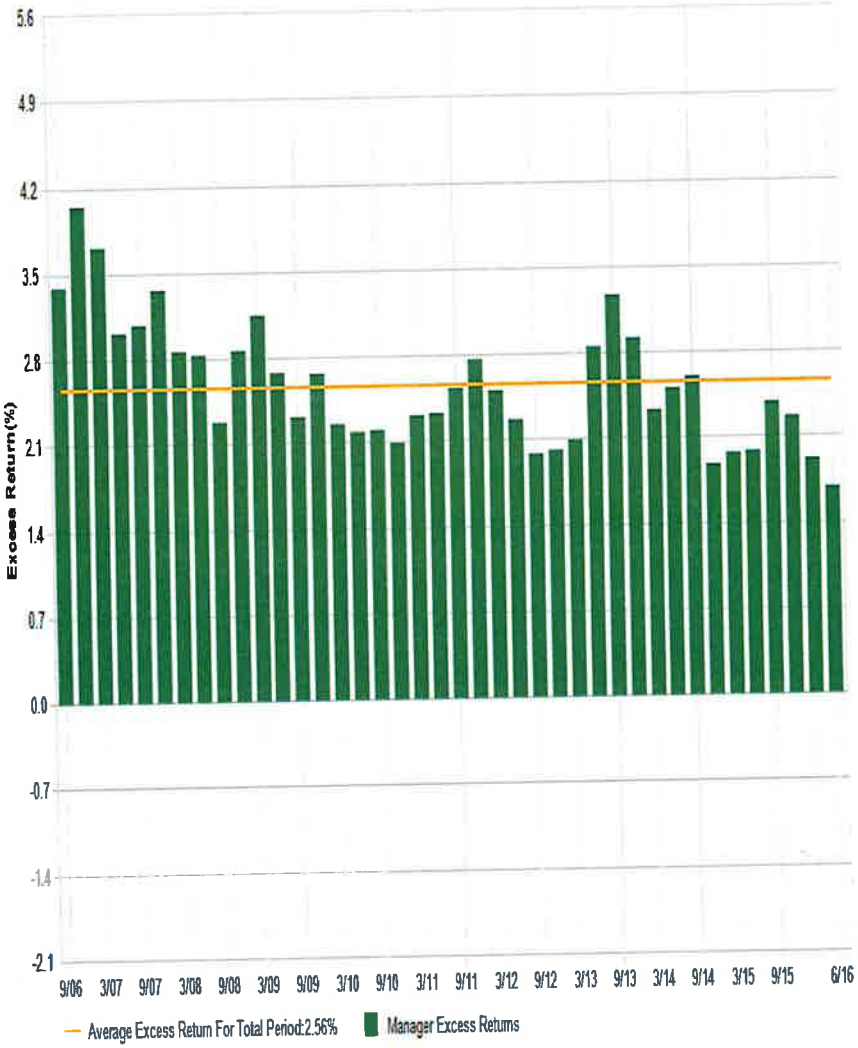
US Small Cap Growth Equity (Median – left / Top Quartile – right)

IM U.S. Small Cap Growth Equity (SA + CF) vs. Russell 2000 Growth Index

20 Quarters Rolling Periods From July 1, 2006 To June 30, 2016



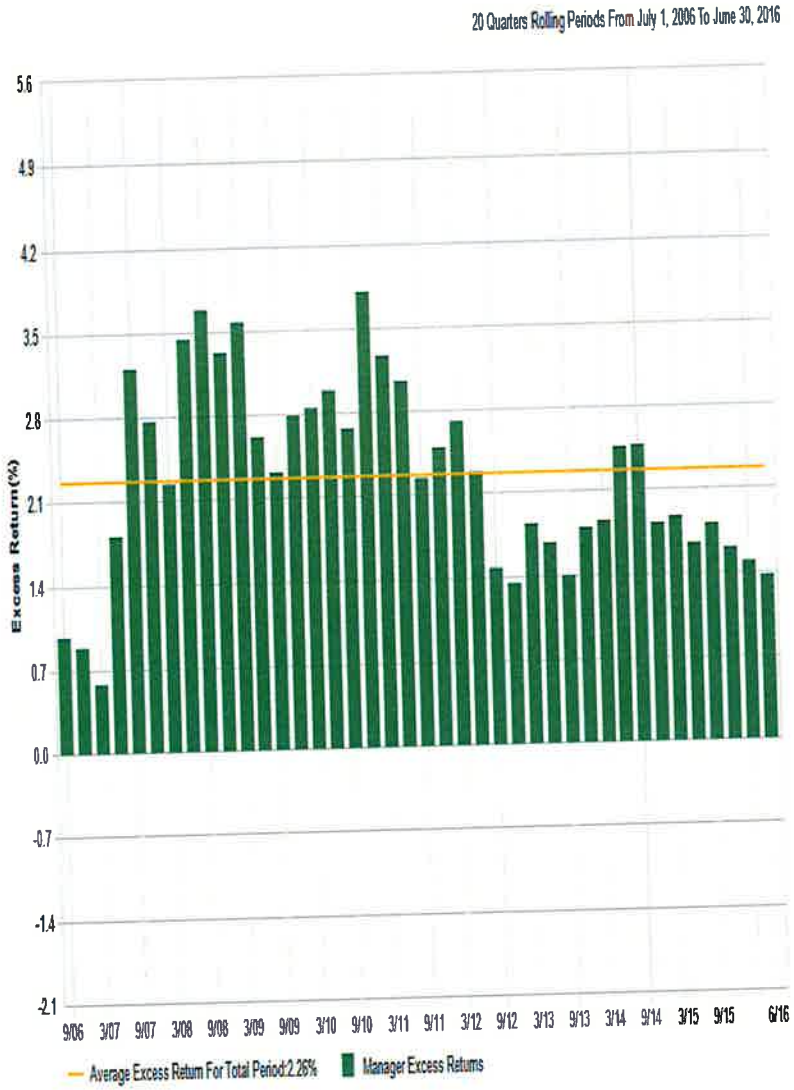
20 Quarters Rolling Periods From July 1, 2006 To June 30, 2016

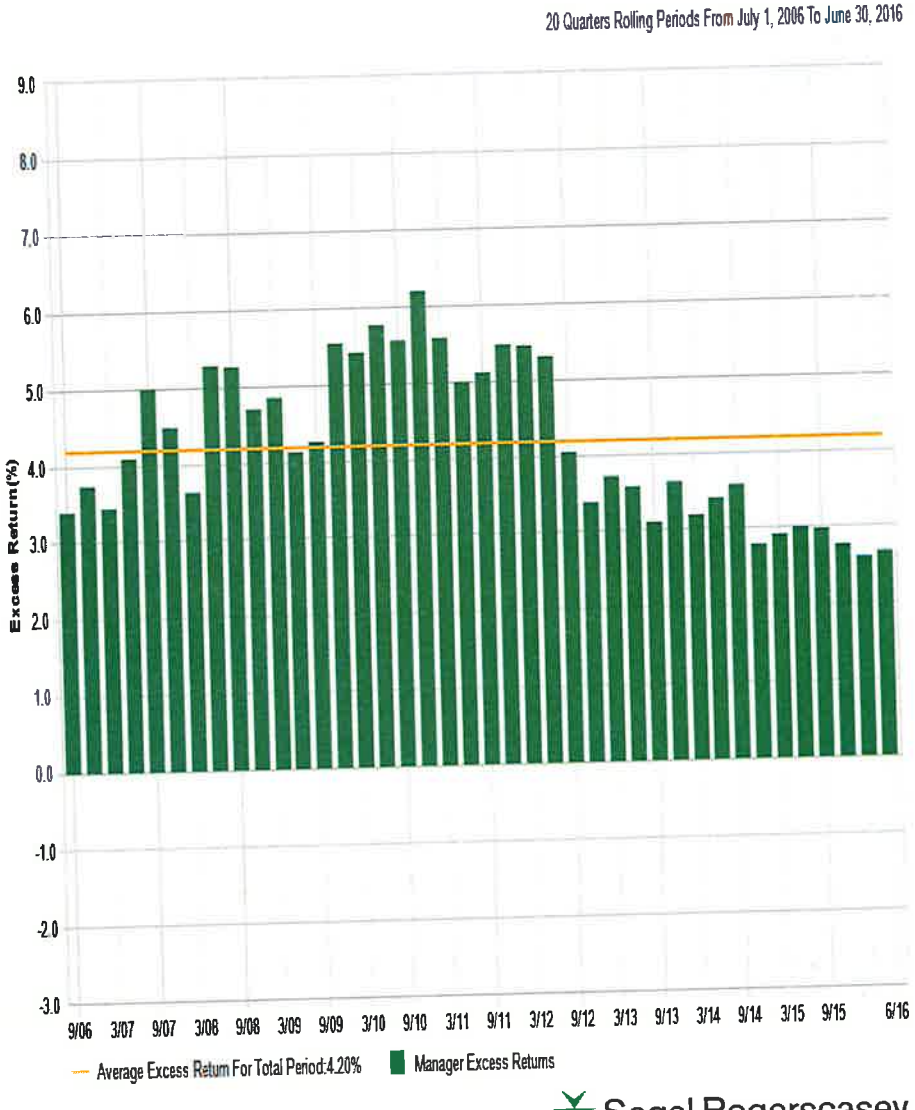


Segal Rogerscasey

Non-US Small Cap Developed Equity (Median – left / Top Quartile – right)

International Small Cap Equity All ex-Emerging Market Equity (SA + CF) vs. MSCI EAFE Small Cap Index





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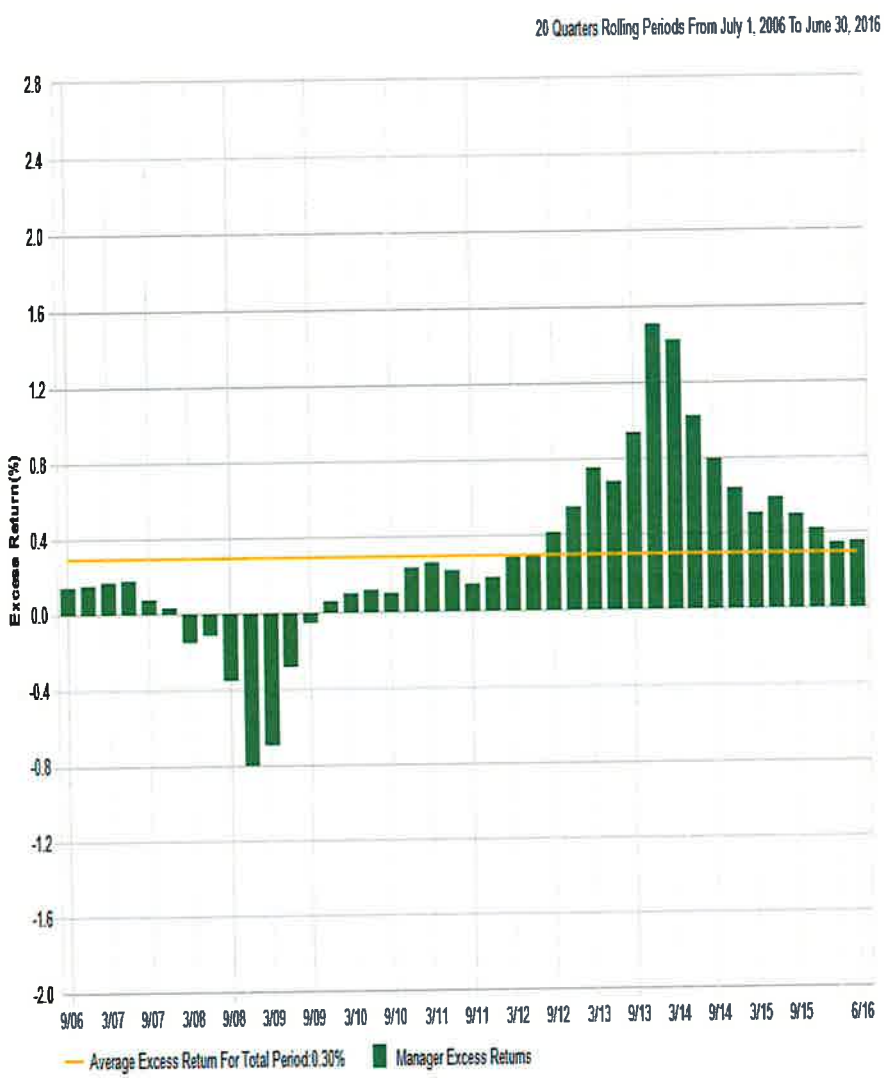
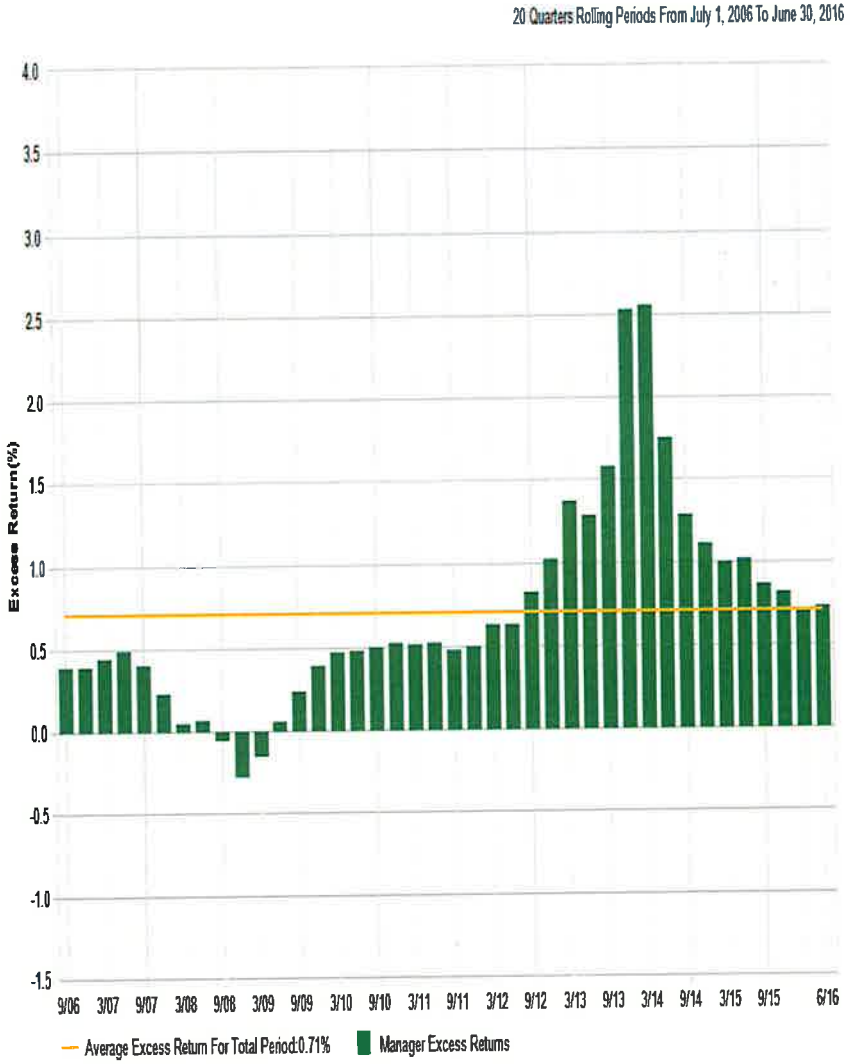
US Broad Fixed Income (Median – left / Top Quartile – right)

IM U.S. Broad Market Core Fixed Income (SA + CF) vs. Citigroup Broad Investment-Grade Bond

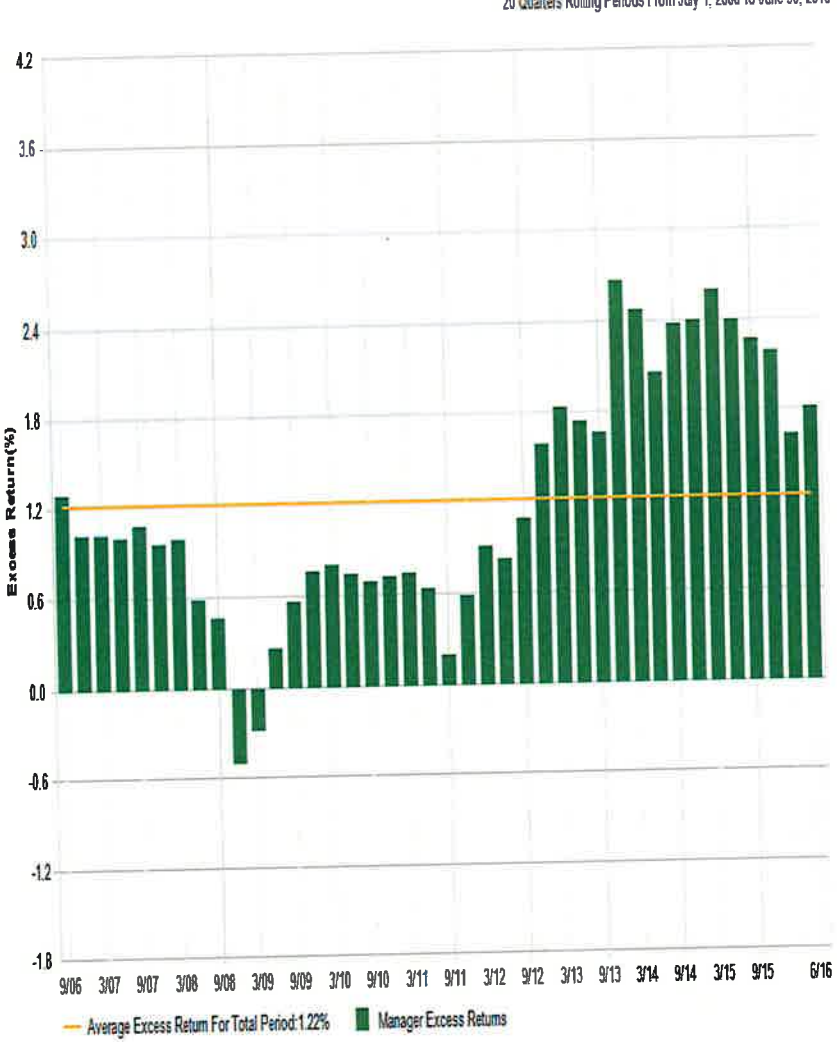


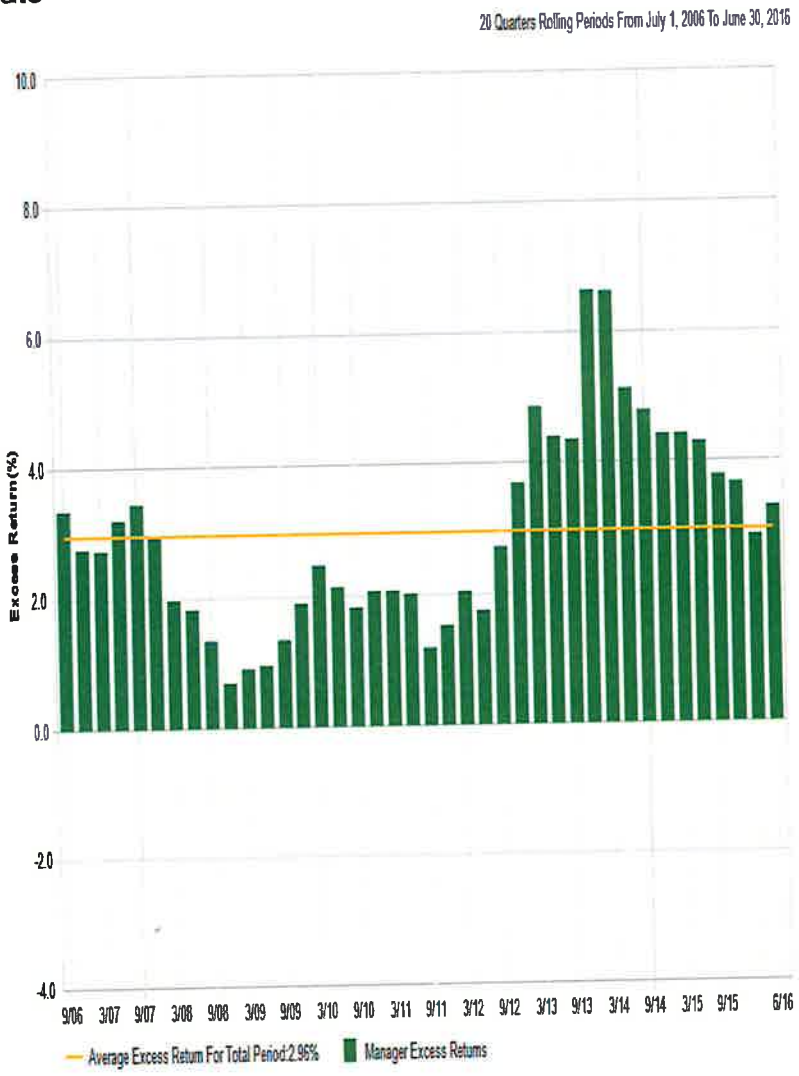


Segal Rogerscasey

Global Fixed Income (Median – left / Top Quartile – right)

IM Global Fixed Income (SA + CF) vs. Barclays Global Aggregate





Active Manager Universe Fees

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Actuarial Assumption Study for OPPD

August 11, 2016

Prepared by Aon Hewitt

Presentation to Omaha Public Power District

AON
Empower Results®

Framework for Assumption Setting

Each assumption must be "individually reasonable"

Data and Background from Various Sources

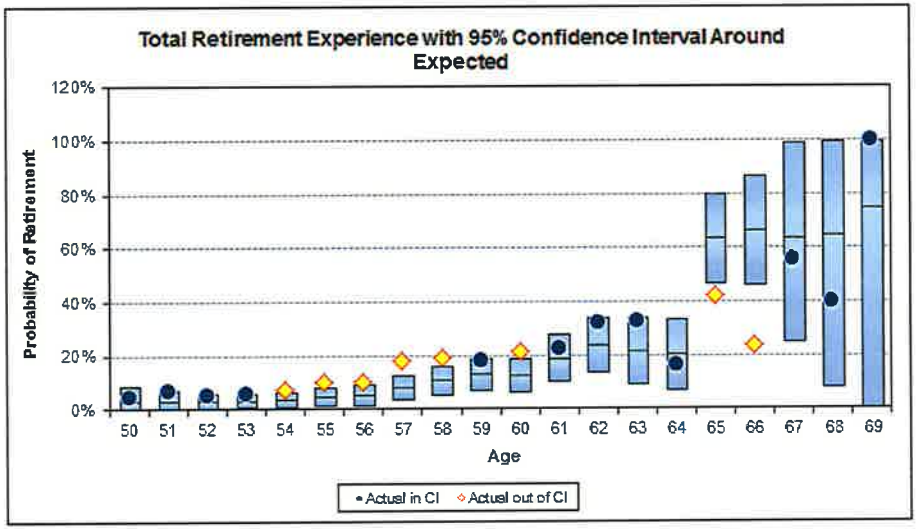
- OPPD
- Documented plan provisions
- Past plan experience
- Industry practice
- The economy
- Expectations for the future

Guidance in Multiple Forms

- IRS
- GASB
- Actuarial Standards Board
- Society of Actuaries
- Auditors
- Aon Hewitt

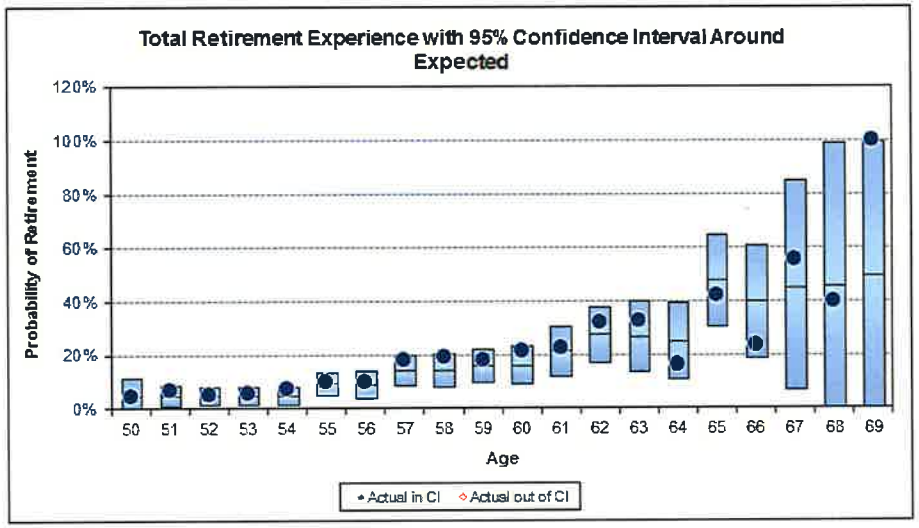
Retirement Rates from Active Status

Current



Ages	# Exposed	Expected	Actual	Lower Bound	Upper Bound
50	63	3.1%	4.8%	0.0%	8.9%
51	115	3.2%	7.0%	0.0%	7.2%
52	160	3.3%	5.0%	0.6%	6.1%
53	181	3.4%	5.5%	0.8%	6.1%
54	171	3.6%	7.6%	0.8%	6.4%
55	169	5.0%	10.1%	1.7%	8.3%
56	140	5.5%	10.0%	1.7%	9.2%
57	147	8.3%	18.4%	3.8%	12.7%
58	130	11.0%	19.2%	5.6%	16.3%
59	132	13.0%	18.2%	7.3%	18.8%
60	111	12.7%	21.6%	6.5%	18.9%
61	79	19.0%	22.8%	10.4%	27.7%
62	71	23.9%	32.4%	14.0%	33.9%
63	43	21.9%	32.6%	9.6%	34.3%
64	36	20.5%	16.7%	7.3%	33.7%
65	33	63.6%	42.4%	47.2%	80.0%
66	21	66.7%	23.8%	46.6%	86.8%
67	9	63.9%	55.6%	24.8%	99.1%
68	5	65.0%	40.0%	8.1%	100.0%
69	1	75.0%	100.0%	0.0%	100.0%

Proposed



Ages	# Exposed	Expected	Actual	Lower Bound	Upper Bound
50	63	4.9%	4.8%	0.0%	11.8%
51	115	4.9%	7.0%	1.0%	8.9%
52	160	4.9%	5.0%	1.5%	8.2%
53	181	4.9%	5.5%	1.7%	8.0%
54	171	4.9%	7.6%	1.7%	8.2%
55	169	9.7%	10.1%	5.2%	14.1%
56	140	9.4%	10.0%	4.6%	14.2%
57	147	14.5%	18.4%	8.8%	20.2%
58	130	14.5%	19.2%	8.4%	20.5%
59	132	16.3%	18.2%	10.0%	22.5%
60	111	16.4%	21.6%	9.5%	23.2%
61	79	21.5%	22.8%	12.4%	30.5%
62	71	27.7%	32.4%	17.3%	38.1%
63	43	26.9%	32.6%	13.6%	40.1%
64	36	25.3%	16.7%	11.1%	39.5%
65	33	47.9%	42.4%	30.8%	64.9%
66	21	40.0%	23.8%	19.1%	60.9%
67	9	45.6%	55.6%	7.3%	85.0%
68	5	46.0%	40.0%	0.0%	99.3%
69	1	50.0%	100.0%	0.0%	100.0%

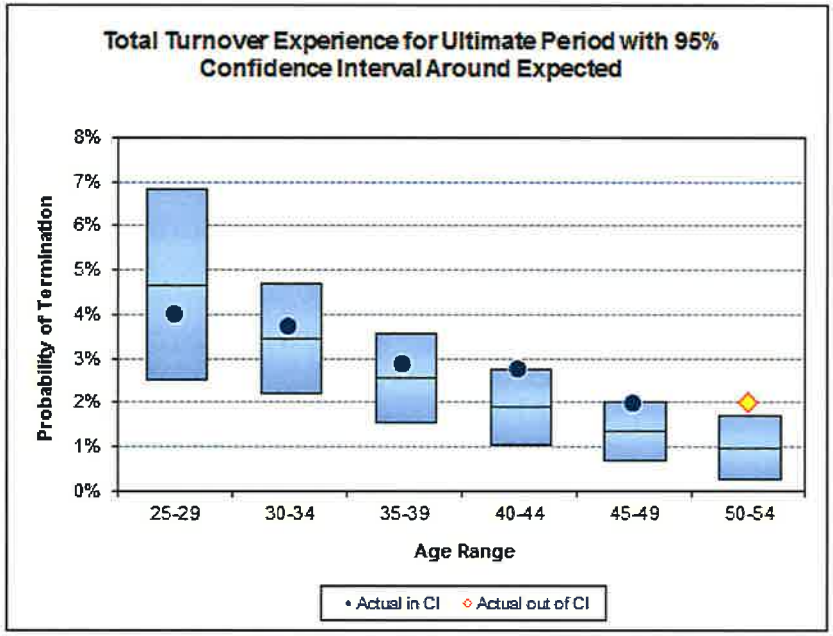
CI = Confidence Interval

Retirement Rates from Active Status—Proposed Rates

	Service														
Age	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
50	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500
51	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500
52	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500
53	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500
54	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500
55	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.5000
56	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.5000	0.5000
57	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.5000	0.5000	0.3000
58	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.5000	0.5000	0.3000	0.3000
59	0.1250	0.1250	0.1250	0.1250	0.1250	0.1250	0.1250	0.1250	0.1250	0.1250	0.5000	0.5000	0.3000	0.3000	0.3000
60	0.1250	0.1250	0.1250	0.1250	0.1250	0.1250	0.1250	0.1250	0.1250	0.5000	0.5000	0.3000	0.3000	0.3000	0.3000
61	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.5000	0.5000	0.3500	0.3500	0.3500	0.3500	0.3500
62	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.5000	0.5000	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500
63	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.5000	0.5000	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500
64	0.1500	0.1500	0.1500	0.1500	0.1500	0.5000	0.5000	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500
65	0.4000	0.4000	0.4000	0.4000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000
66	0.2000	0.2000	0.2000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000
67	0.4000	0.4000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000
68	0.4000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000
69	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000

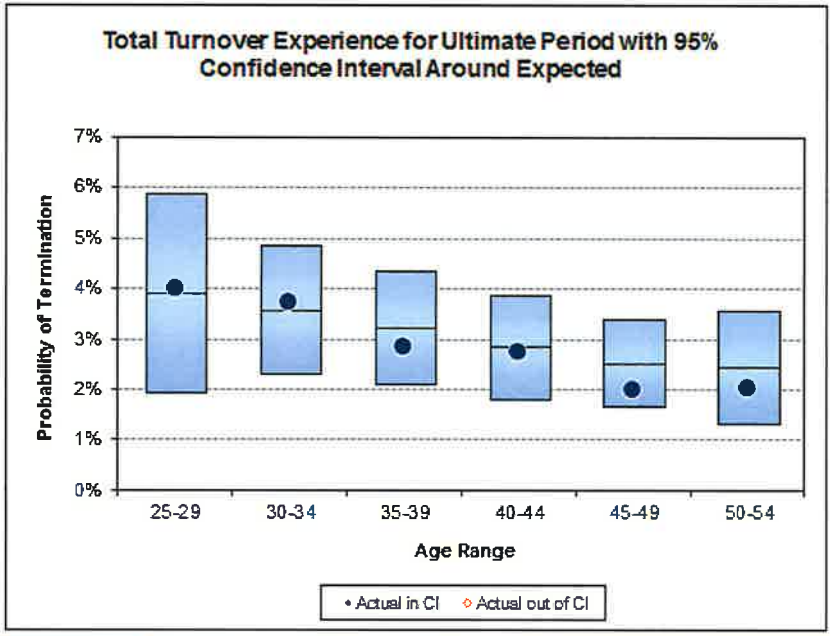
Withdrawal Rates—Ultimate Period

Current



Ages	# Exposed	Expected	Actual	Lower Bound	Upper Bound
25-29	374	4.7%	4.0%	2.6%	6.8%
30-34	829	3.5%	3.7%	2.2%	4.7%
35-39	943	2.6%	2.9%	1.6%	3.6%
40-44	980	1.9%	2.8%	1.1%	2.8%
45-49	1255	1.4%	2.0%	0.7%	2.0%
50-54	742	1.0%	2.0%	0.3%	1.7%

Proposed



Ages	# Exposed	Expected	Actual	Lower Bound	Upper Bound
25-29	374	3.9%	4.0%	2.0%	5.9%
30-34	829	3.6%	3.7%	2.3%	4.9%
35-39	943	3.2%	2.9%	2.1%	4.4%
40-44	980	2.9%	2.8%	1.8%	3.9%
45-49	1255	2.5%	2.0%	1.7%	3.4%
50-54	742	2.5%	2.0%	1.4%	3.6%

Ultimate period withdrawal rates apply to participants that have three or more years of service

Salary Increases

Current Assumption

- Varies by age (samples below)

Age	Increase	Age	Increase
25	9.15%	45	4.85%
30	7.75%	50	4.55%
35	6.05%	55	4.35%
40	5.25%	60	4.15%

Experience

- Experience close to expected in total
- Experience higher than expected at younger age and lower than expected at older ages
- See table below for detail

	Average Increase		Experience	
Ages	Current	Proposed	2012-2016	2013-2016
20-24	10.0%	17.0%	15.8%	24.9%
30-34	7.1%	8.5%	8.1%	8.9%
35-39	5.7%	6.1%	5.7%	6.4%
40-44	5.1%	5.1%	5.4%	6.0%
45-49	4.7%	4.6%	4.2%	4.8%
50-54	4.5%	4.2%	4.2%	4.5%
55-59	4.3%	4.0%	3.6%	4.1%
60-64	4.1%	3.0%	3.3%	3.4%

Proposed Assumption

- Varies by age (samples below)

Age	Increase	Age	Increase
25	13.00%	45	4.80%
30	9.50%	50	4.35%
35	7.00%	55	4.10%
40	5.30%	60	3.00%

About This Material

This material includes a summary of calculations and consulting related to the finances of the OPPD Retirement Plan. The following have been addressed:

- Actuarial assumptions for funding and accounting purposes

The calculations summarized in this report were performed using personnel information and valuation results as of January 1, 2016.

Except as otherwise noted, the assumptions, methods and plan provisions used in this material are the same as those summarized in the 2015 actuarial report

Experience different than anticipated could have a material impact on the ultimate costs of the benefits. In addition, changes in plan provisions or applicable laws could have a significant impact on cost. The scope of our work did not include sensitivity analysis under a range of future experience scenarios or as of other dates. Actual results for 2017 and beyond will be based on actual liabilities and plan assets as of those dates, thus results could vary significantly from the amounts shown in this material.

This analysis is intended to assist with OPPD's review of the associated issues and options, and its use may not be appropriate for other purposes.

Incremental Impact of Assumption Changes as of January 1, 2016

($ millions)	Increase / (Decrease) in Accrued Liability	Normal Cost	Annual Contribution
Retirement Rates Actives	$ 6.0	$ 0.2	$ 0.8
Withdrawal Rates	(12.0)	(1.6)	(2.9)
Salary Scale	(11.3)	0.1	(1.0)
Retirement Age TV	(1.7)	0.0	(0.2)
Spouse Age Differential	(0.6)	0.0	(0.1)
Total Incremental Change	**$ (19.6)**	**$ (1.3)**	**$ (3.4)**
Total Percentage Change	**-1.4%**	**-5.6%**	**-6.9%**

Appendix H

November 22, 2016

Retirement Committee

Hearing Transcript

SENATOR KOLTERMAN: Anybody else have a problem moving forward with that? Then we're going to move forward. We don't run ahead very often so we're going to move forward. (Laughter) So same rules apply. I think most of you were here. So at this time we're going to talk about the political subdivision underfunded pension plans. So, first on the agenda is Omaha civilian employees, Bernard. Pat, are you presenting as well? If you are, we'll get another chair here. Three of you? Good morning. [LR571]

BERNARD in den BOSCH: Good morning. [LR571]

SENATOR KOLTERMAN: For the record, would you please state your names and spell them for us. [LR571]

BERNARD in den BOSCH: Thank you. My name is Bernard in den Bosch; last name is three words. First word is lowercase i-n, second word is lowercase d-e-n, and the third word is B-o-s-c-h, and I'm the deputy city attorney who works for the city of Omaha and also represents the city of Omaha employee retirement system. [LR571]

ALLEN HERINK: My name is Al Herink, A-l-l-e-n H-e-r-i-n-k. I'm the city comptroller and I'm also the administrator of the Civilian Pension Plan. [LR571]

PATRICE BECKHAM: Patrice Beckham, Cavanaugh Macdonald, same information as earlier, actuary to the retirement system. [LR571]

SENATOR KOLTERMAN: Okay. I'd like you just to walk through your report with us and tell us where you're at. [LR571]

BERNARD in den BOSCH: (Exhibit 1) Sure. I thought I'd give a little bit of background. I don't know how much as far as...obviously, we provided you the reports, the various reports that are required, letters required for systems that are underfunded. I'll give you a little bit of background. We've provided an additional handout now which contains some summary information that kind of comes from the other report trying to anticipate maybe some of your questions. But the core system in the city of Omaha is the system for civilian employees. It is governed by a board of

the contribution surplus or the margin, I think as Ms. Beckham spoke about previously, that at this point in time the contributions from the employees and the employer exceed the actuarial contribution rate. That is the first time in many, many years that that's the case and shows the effect, not only the changes but frankly we also (inaudible) some unfunded liability which helped. We anticipate that that will continue as we look forward. The hit on the experience study, you did get a copy of the experience study. That obviously was several years old. We've traditionally done an experience study every five years. Obviously, we're going to be moving that to every three years. But there will be an experience study done in 2017...or move it to at least every four...experience study done in 2017 for the years 2012 to 2016. That study we would expect will be done, finished over the summer and that has traditionally been the time that board obviously looks at the assumptions of the system and evaluates...can evaluate the investment return at any given time and provide instruction on those particular assumptions. But typically the experience study and after receipt of that is when there's a fairly significant review of those particular items. So that's my preliminary remarks. I'll...if Mr. Herink wants to add anything, and then maybe Ms. Beckham can give us... [LR571]

ALLEN HERINK: I think Bernard pretty much covered it all. I will talk about...let's go to page...we'll just run through this handout real quick. There's...he hit on the last two pages. But I do want to point out page 1. This is just a report for your informational purposes and it's a historical perspective of how the fund is doing on kind of a cash basis, this first page. We hand this out to all the members of the pension fund. I'm not going to walk through all this. The second page is just a roster of how the pension fund...the people that are in it. We ended 2014 on January 1, 2015, with 1,400 people we're serving, getting benefits. At the end of '15 we have 1,401 people getting benefits. And that's the different types of benefits in the fund, the fund distributes. But the next sheet I wanted to go through is our asset allocation. We work with DeMarche and Associates to help us with the asset allocation on our part. We think a diversified asset portfolio was important to have. We asked DeMarche...we said we wanted to get an 8 percent return with as least risk as possible. If you take a look at the second column on the left, that's our current allocation targets that we have. And they gave us three options to take. We took the option on the far right. And we just changed the allocation mix just a little bit. We did this last...probably about six months ago. And we look at this every two to three years. And then what we came up with, you can take a look, we have a very diversified asset mix. If you take a

PATRICE BECKHAM: ...16 years. And these plans are funded with a fixed contribution rate. So it seems a little unrealistic to have a really short amortization period getting ever shorter when the fix that was created by the benefit changes intended for about a 25-year period to get to full funding. So the committee, actuarial committee, and the board felt that it was more appropriate or more reflective of the longer term funding needs of the system to reamortize that unfunded over 25 years. Well, it's like any other debt: When you spread it out over a longer period the payment comes down. And that change, again, you know, moving from 16 to 25 as a level percent of payroll has a pretty strong impact. And I believe that the decrease was about 6 percent of pay. So if you sort of look at how we...we had about a minus 5 percent last year and then a margin this year of 1.3 (percent), it's just about the difference. But it was a different...a change in the amortization of the unfunded liability that created really that flip from showing a deficiency to a margin. And again it...the actuarial contribution is not made for these plans. It's the fixed amounts that are in the bargaining agreements. So we feel like that's a better...if you're going to use the actuarial contribution rate as a tool to evaluate your long-term funding, it makes sense that it aligns with what the expectations were when you made these significant changes. [LR571]

BERNARD in den BOSCH: And I think, just to add, I think the other thing is that we do our actual report effective January 1 of each year. So the last one was January 1 of 2015. Prior to the...we did have contributions that were backdated, that's why you see the higher contributions in 2015. But the changes for the reduction in benefits for active employees as well as the change to the cash balance plan for future employees didn't take effect until March 1 of 2015, so after the last actuarial report, the date of it, and obviously nine months before this one. So I think that's another factor for that as I recall Pat's analysis. [LR571]

SENATOR MELLO: So, Pat, as a follow-up then I just want to...maybe it's just an understanding of the state's defined benefit plan differential that we just walked through with our three plans in comparison to the Civilian Plan. And I'm sure these...this will answer the same question I would have for the Police and Fire Plan afterwards, which is, if the city is not paying...if the city is not fulfilling its 100 percent actuarial required contribution, did I just hear you say that that really doesn't serve...that really is more of just a long-term benchmark for the plan in the sense that if they're not meeting that year-over-year, 100 percent required contribution it doesn't really matter

actuarial contribution rate. And once the changes were made and implemented, the thought was it's a better communication tool to set the amortization of the unfunded over a period that is reasonably expected to be met than it's almost misleading to use a short period when we know the fix is a long-term fix. [LR571]

SENATOR MELLO: Okay. [LR571]

PATRICE BECKHAM: Does that make sense? [LR571]

SENATOR MELLO: Uh-huh. [LR571]

BERNARD in den BOSCH: And quite frankly, they could have had you do it over a longer period of time and it would have (inaudible) misleading the other way. [LR571]

PATRICE BECKHAM: Right. [LR571]

BERNARD in den BOSCH: We had that discussion too. [LR571]

PATRICK BECKHAM: Right. [LR571]

SENATOR MELLO: Okay. [LR571]

PATRICE BECKHAM: And the 25-year period on the amortization of the unfunded liability does meet...there are no actuarial standards, per se. But the Conference of Consulting Actuaries has a white paper on retirement plan funding that talks about amortization periods, and this meets that requirement. And the GFOA, the Government Finance Officers Association, also has some recommendations and 25 is the maximum years for that. So the board did not push it beyond 25. And again, that was pretty realistic of where it was when those changes were implemented. [LR571]

SENATOR MELLO: Is that process...I'm sorry. [LR571]

Police, Fire Plan in comparison to our state plans. And then the fixed ratio or the fixed contribution which is I thought somewhat similar to what we do as well, of course we do it by percentages and/or...by statute, so. [LR571]

PATRICE BECKHAM: Yeah. In a way with a fixed contribution rate, you could almost take a different approach that says, okay, here's a measurement of my unfunded liability, here's my payment stream, how long will it take to amortize the unfunded liability? And every year it varies. In fact, way back, because I've worked for Omaha School Retirement System forever and a day, and back in the day we used to do that. That was the metric in the valuation was how years until the UAL was amortized. But with the Governmental Accounting Standards Board reporting and things, things gravitated to those plans needing an actuarial contribution rate. [LR571]

SENATOR MELLO: Okay. [LR571]

PATRICE BECKHAM: And so over, whatever, 25-30 years, that's kind of been the process. So now they all calculate them, but in reality, you know, again the contributions and the benefits are negotiated. So they may change in the future, but nobody knows how they will change. So it's a more practical approach to...like I said, otherwise it appears that you're not meeting your obligations when in fact you are because the obligations were set over a longer period of time. [LR571]

SENATOR MELLO: Okay. So mostly it's just the obligation has been spread out over a longer period of time and that's why... [LR571]

PATRICE BECKHAM: Yes, to help make it affordable. [LR571]

SENATOR MELLO: Understandable. Thank you, Pat. [LR571]

PATRICE BECKHAM: You're welcome. [LR571]

SENATOR KOLTERMAN: In answer to your question, we are not looking at that (laughter) on a state basis. I have a question for you though. And you can make the numbers look how ever you

SENATOR MELLO: Thank you. Thank you, Chairman Kolterman. And maybe it's just a follow-up from Pat in regards to what we usually see as part of our presentation in regards to kind of the bar chart, so to speak, and the graph charts in regards to the percentage of liability that's been funded in the sense of is that something that you have available that you could share with us? I know this was very helpful in regard to looking at more of your investment understanding, but...and kind of to show you to some extent this is just kind of what we're used to seeing in the sense from Cavanaugh Macdonald. [LR571]

ALLEN HERINK: (Inaudible) valuation report at the year end. [LR571]

SENATOR MELLO: Kind of to some extent kind of like the...not just the historical funded ratio but actually going through the actuarially required contributions, what the projections are, as well as then to some extent the 25...since both plans I think are 20 to 25 to be fully funded. Is that something that you could provide us? In the sense that I think Lincoln as well, since they're going to be coming up after Omaha, in the sense of since everyone uses Cavanaugh Macdonald apparently, is that similar to what you could provide us? [LR571]

PATRICE BECKHAM: We certainly can provide that work. We have not been retained by the city of Omaha--I should say by either retirement system--to provide that on an annual basis. [LR571]

SENATOR MELLO: Okay. [LR571]

PATRICE BECKHAM: So when we went through the plan redesign study in 2014... [LR571]

ALLEN HERINK: It hasn't been updated for years. [LR571]

PATRICE BECKHAM: ...we did projections because, remember,... [LR571]

SENATOR MELLO: Okay, yeah. [LR571]

PATRICE BECKHAM: ...it was projected to run out of money in 20 years. [LR571]

SENATOR KOLTERMAN: So that's the $1.3 million? [LR571]

ALLEN HERINK: Yeah. So it's less than 1 percent. But we do all the payroll, the city picks up those costs, Bernard's costs, my costs, the accounting costs. We pay for the actuary studies; that doesn't come out of the plan. So again, those costs are all picked up by the city and not charged to the plan. [LR571]

BERNARD in den BOSCH: So we're saying, the employee, there's obviously an employee cost because we're doing this type of stuff. Out-of-pocket costs, the city, by our code, the city is responsible for paying all the administrative costs of the system. But for the investment, they actually pay for travel if they go to conferences. Those are the only things that come out of the fund. The actual out of pocket of the city, never mind employee time which is probably hard to categorize, is typically less than $50,000 and that includes Ms. Beckham's fee on an annual basis. [LR571]

SENATOR KOLTERMAN: That's above and beyond this $1.3 million? [LR571]

BERNARD in den BOSCH: Correct. [LR571]

ALLEN HERINK: Yeah, well, you know, when we consider we process all their payrolls every month for all the retirees and all that, it's a substantial cost for that if you need a couple per-check costs or something like that. [LR571]

PATRICE BECKHAM: (Inaudible) benefit months. [LR571]

ALLEN HERINK: Yeah. [LR571]

SENATOR KOLTERMAN: Okay. Any other questions? Okay, we're going to move into the...do you want to stay put...? [LR571]

ALLEN HERINK: Thank you. [LR571]

contributions for this system runs anywhere from 32.965 to 33.67 of income; and then the employees, anywhere from 15.35 to 17.23. The benefit reductions we've talked about in the past, so I won't necessarily bring them up. They're described in the letter, but such things as changing the age, how old...how long you can get to the top pension. There was smoothing, something we called per-overtime average (inaudible), and then also some changes for new hires that occurred at the time that limited their pension to based on base pay as opposed to total pay. We did provide a handout to you again, contains a lot of the same summary information. Since Mr. Herink is (inaudible) to correct me, I'll go through all the pages. But the second page is much like Mr. Herink indicated. It's a summary showing the cash on hand that's prepared. You'll see the various rates of contribution by the different bargaining groups at the top of that particular document as well. The second page, much like what you saw previously, this is broken down between police and fire and sworn. But you can see the number of people who are being served by the system who are receiving pensions and the changes that occur through 2015. The third page, much like the one you saw before, was a page from our most recent quarterly report from the DeMarche and Associates showing the performance benchmarks as far as earnings by the system. This particular system has a different investment allocation and you'll notice that, but you can see the year to date, 1-year, 3-year, 5-year, 10-year, and 36-year standards. And obviously the numbers are somewhat similar, a little bit different but somewhat similar types of return. And then the last page touches on some key measurables. There's no question, as the information that we provided you in the report, last year was not a good year for investment returns. I think as I recall the investment return was I think .2 percent. Notwithstanding that, as you look at the funding ratio, at least on an actuarial asset, increased slightly. We still have a contribution margin. I'm not going to use an other word like "excess" or "surplus" because Ms. Beckham made clear that I'm not supposed to. (Laughter) And indicate that at least since the beginning of 2015 that has been the case. And frankly part of the delay was the changes that were made and the delay between the police implementing the reduction and the changes to the pension system and the fire implementing the reductions to the pension system caused a little bit of the delay that we were seeing. So the funded ratio of the system has increased. It was 44 percent in 2013. It's obviously at 49 percent based on what you see here on market assets. That's certainly not anywhere near 90 or 100 (percent) which is where we would like it to be, but we...I think what it does show is the changes that were instituted, even with not necessarily having great investment returns, are showing some positive changes. Much like I talked about, we are

because I can tell you projections that show a retirement system running out of money in 20 years will keep an actuary awake at night, even with three children. So I don't want to be too extreme, but again, as the system's actuary and having kind of walked beside them through the process, I think there needs to be some recognition that current members gave up benefits and essentially paid more. We don't see that very often. And I'm sure it wasn't easy for anybody to make those decisions. But both the city and the membership I think recognized the problem and were willing to step up. And a lot of contribution dollars are going in. Again, it will help but it takes time. And these liabilities are very large numbers. As you can imagine, the retiree liability doesn't change much so we only have part of it that we can kind of improve slowly over time. So it's just going to take time. We likely will be back for a number of years absent something that the market really, really blesses us. But I think they're on a good path. I think the projections will show that and perhaps help the committee understand that dynamic that it's important where you are at that point in time, but how much money is coming in and how the liabilities grow in the next 20 to 30 years is also very important. [LR571]

SENATOR KOLTERMAN: Okay. Questions? Senator Mello. [LR571]

SENATOR MELLO: Just one quick one, thank you, Mr. Chairman. I think you explained...you answered both questions under the Civilian Plan and you're absolutely right. The reforms that were done in 2010 and then arguably mimicked in 2012, we had this conversation the last couple years, have really moved this plan in the right direction. The question I've got was on this addendum that you gave us in regards to the investment management fees which in 2015 was roughly $3.2 million. You have about the same number of plan members in the Police and Fire Plan as you do in the Civilian, yet you've got not quite three times the amount but somewhat close, two and a half times the amount, in regards to the investment management fees. [LR571]

BERNARD in den BOSCH: There's very few the questions I could answer on that, but that's one I think I can. And the investment management fees are a percentage of what you're managing. The Police and Fire Pension System has a $600 million amount. The Civilian System is roughly $240 (million), so. [LR571]

SENATOR MELLO: Purely based on the amount. [LR571]

BERNARD in den BOSCH: Unfortunately, that's the reality, the city can't. [LR571]

SENATOR KOLTERMAN: Because of the bargaining units, different bargaining...? [LR571]

BERNARD in den BOSCH: Because of the bargaining groups, it's a give and take. [LR571]

SENATOR KOLTERMAN: Yeah. Okay. [LR571]

BERNARD in den BOSCH: Yeah, it's a negotiation. And then, you know, the position that I think if it was one raised is we've made substantial reforms four or five years ago, they seem to be working. I think the public safety groups would probably say there isn't a need for it. We, I think, on the mayor and the administration side, of course, would like to see the movement happen more quickly, and for a lot of different reasons. So I...yeah, there's a lot of...that's, to some extent, going to be the...in the prioritization of negotiation and negotiation strategy by whatever mayor administration is there, plays that part. So I think we see the benefit of the cash balance plan with the civilian employees. It does share the risk with...where the employees and the employer share the risk, whereas in the traditional defined benefit system that risk is mostly borne by the employer. So there is some appeal to it. I think that's...we're going to continue to look at it and see if we can make it appealing to the public safety groups as we move forward. In regard to the consolidation and it's an interesting thing and I certainly was not around when the city charter was adopted in the mid '50s which separated the Civilian and the Police and Fire Pension System at that time, and the new systems that were created in 1980 which continued to have that separation. The...and that's why we have the separate funds and appropriate a certain portion of the funds are taxpayer dollars, certain portion...the portion are taxpayer dollars through the employees and they make their contributions. And there may or may not be some advantage to consolidating them. And I think if you look at the rate of returns last year, for example, the Civilian System had a 3.7 (percent) rate or return and the police had a .2 (percent). So obviously, they did far better last year. If you look at the rate of return for this...so far this year, the Police and Fire Pension System has a slightly better rate of return. Historically, the Police and Fire is at 9.3 (percent) and the Civilian is at 9.2 (percent) since 1980, so the Police and Fire has had a slightly better return. They generally also have a larger pool of money to invest. The systems were set up separately. Does that mean they can't have discussion about

Fire Plan which was completely essentially renegotiated six years ago in light of being in a somewhat similar position but they just took a different route instead of the cash balance approach. [LR571]

BERNARD in den BOSCH: Absolutely. There were different approaches and the cash balance plan's concept was not as prevalent five or six years ago when the discussions happened. And there's also no question, even though the Police and Fire Fund was funded at a lower ratio, because of the cash flow issues of the Civilian Plan, the Civilian Plan was in a worse cash flow problem. So I think they're both in some type of...the Civilian was worse. And quite frankly, credit to the negotiators, credit to the administration, the cash balance plan was something that was introduced, discussed, they became educated about, became an important party. And frankly, kudos to the civilian unions that understood how bad a shape the system was and how the sharing of risk which is really one of the biggest elements of the cash balance plan was beneficial to both. Now we took more years to get to the table because the problems with the...I mean the problems with the Civilian Plan and its underfunding were just as much...everyone was just aware of it in 2010 as people were aware of the problems with the Police and Fire Plan, so. [LR571]

SENATOR MELLO: And the maybe it's a point of clarification, if I'm not mistaken, from last year's hearing as you explain this. Part of the difference between the Civilian Plan and the Police and Fire Plan is how they're also funded. And the Civilian Plan is funded in part by fees, city fees. That is different in a sense of the Police and Civilian Plan that's not funded by fees or portions of it being funded by fees. And I believe last year if I'm not mistaken in the record that you mentioned that part of the way of funding the increase of taking care of the unfunded liability for the Civilian Plan was increasing fees in different agencies and departments to help make up their annual required contribution component outside of some of the other benefit changes that were part of the cash balance. I could be mistaken but I did reread last year's testimony in front of this committee before today and I distinctly remember that was part of the difference between the police and fire situation, is that their funding structures just are not the same in light of what the Civilian Plan looks like. [LR571]

PATRICE BECKHAM: I believe that's true. [LR571]

SENATOR KOLOWSKI: ...if I remember. And that goes back to the judges' issue when you're talking about those fees. That's why I asked about those court fees. And we're floating fees in different ways. What happens over time if we can move things around or how acceptable is that as far the long range? I'm just asking rhetorically. I'm not asking for a response right now. [LR571]

SENATOR KOLTERMAN: Okay. Thank you for your reports. [LR571]

PATRICE BECKHAM: Welcome. [LR571]

SENATOR MELLO: Thank you, guys. [LR571]

SENATOR KOLTERMAN: Keep working on it. [LR571]

BERNARD in den BOSCH: Thank you. Take care. And Happy Thanksgiving, everybody. [LR571]

SENATOR MELLO: You as well. Thank you, Bernard. [LR571]

SENATOR KOLTERMAN: You as well. [LR571]

KATE ALLEN: Lincoln. [LR571]

SENATOR KOLTERMAN: Okay. Now we have Lincoln fire and police. Pat, you going to stay here? [LR571]

PATRICE BECKHAM: I am (inaudible). [LR571]

SENATOR KOLTERMAN: Paul. Is Paul here? There he is. Welcome again. [LR571]

previous report presented last year to this committee was as of August 31, 2014. There were no changes in the benefit provisions from the '14 to the '15 valuation. There was, however, a change in the actuarial assumptions. Two thousand fifteen was the first valuation that Cavanaugh Macdonald provided to the retirement plan. And as a result of that, we did a complete review of the assumptions that were being used and we felt that there needed to be an adjustment to the investment return assumption because of the mechanism where, when there was return above the expected actuarial rate, part of that return went to the 13th check COLA pool fund. So it was a little bit of what we call skimming or where we're losing part of the return on the high end and keeping all of it on the low end. When we did our analysis, the sort of net expected return for the pension plan was 6.4 and then prior to that 6.75 had been used. So we recommended to the city that the assumed rate of return be lowered and, indeed, it was for the 2015 valuation. As you well know, lower assumed rates of return result in higher liabilities and costs. I want to spend just a little bit of time on the 13th check program. It's a nuance that is maybe unique to the Lincoln Police and Fire Pension Plan. There are others in the country that have similar programs but I'm not aware of any others in Nebraska anyway. So firefighters and police officers are paid a retirement check monthly, which is pretty standard. But then there is an additional benefit that's paid in September of each year. And it's...the payment comes from this 13th check fund. It was instituted in 1991 in lieu of sort of a traditional COLA. So it's essentially a 13th check. It is funded by transfers from the general Police and Fire Pension Fund, again, when the rate of return is higher than the actuarially assumed rate. A portion of that--it's really the percentage of the retiree liability to the total liability--is then transferred over. So that's the money that comes into the 13th check fund and then the payments that go out are the 13th checks that occur each September. That check started out in 1991 at $600, where everyone that's a full-service retiree receives the same amount. It increased by the lesser of 3 percent or the actual change in CPI-U for the prior calendar year. In 1995 the base amount was increased by the city council to $750, and then keeping pace with actual inflation, not to exceed 3 percent, going forward. One of the specific questions that you sent was a question about corrective actions that have been taken to improve the funded status of the system. And first, there has been a significant increase in the contributions by the city of Lincoln. From September 1 of 2005 through August 31 of 2010, total city contributions were $17.4 million. If we look from September 1, 2010, through August 31, 2015, the amount was almost $33 million. So that's a significant increase in commitment by the city of Lincoln. The unfunded actuarially accrued liability is funded over a closed 30-year

PAUL LUTOMSKI: Payment was made every year. [LR571]

SENATOR KOLOWSKI: Payment was always made. Okay. [LR571]

PATRICE BECKHAM: And I believe the current amount, Paul, do you recall? [LR571]

PAUL LUTOMSKI: I think the latest amount was roughly $1,174 and I think it was...Pat stated the 13th check benefit payment will continue even though the funds have been...the underlying funds have been merged. So it didn't reduce (inaudible). [LR571]

SENATOR KOLTERMAN: So you're just paying it from a different pot. [LR571]

PAUL LUTOMSKI: Right. [LR571]

PATRICE BECKHAM: Right. Before, there were two separate; now it's all together. [LR571]

SENATOR KOLTERMAN: Okay. [LR571]

PATRICE BECKHAM: All the assets are together and all the obligations to pay benefits are together, including the 13th check. [LR571]

SENATOR KOLTERMAN: Does that answer your question? [LR571]

SENATOR KOLOWSKI: And when did that merger take place? [LR571]

PAUL LUTOMSKI: July 2016. [LR571]

SENATOR KOLTERMAN: This year. [LR571]

SENATOR KOLOWSKI: Okay. Thank you very much. Thanks. [LR571]

SENATOR KOLTERMAN: Okay. Any questions? Senator Kolowski? Thank you. [LR571]

PATRICE BECKHAM: You're welcome. [LR571]

SENATOR KOLTERMAN: Appreciate you coming. [LR571]

PATRICE BECKHAM: Thank you. [LR571]

SENATOR KOLTERMAN: Maybe we won't see you next year. Wouldn't that be nice? (Laughter) One off the list. [LR571]

PATRICE BECKHAM: That would be good, huh? [LR571]

SENATOR KOLTERMAN: Okay, Douglas County employees. Are you staying for that one, Pat? [LR571]

PATRICE BECKHAM: No, unfortunately not. [LR571]

SENATOR KOLTERMAN: Thank you. Okay, you must be Joe, huh? [LR571]

JOE LORENZ: Yes. [LR571]

SENATOR KOLTERMAN: Go ahead. [LR571]

JOE LORENZ: (Exhibit 3) I am Joe Lorenz, J-o-e L-o-r-e-n-z. I'm the Douglas County finance director and I'm going to take you through the pension update that you requested. So hopefully you have the handout in front of you and first I'll take you through the statistics of the plan. For the year ended December 31, 2015, the Douglas County Employee Pension Plan was 67.3 percent funded, which was a .5 percent increase from the previous year. Our assumed rate of return is 7.5 percent. It's been that way for several years now with no anticipated change in the near term. Last year our actual investment return from the actuarial sense was 5.6 percent; based on market it was 2.3 percent positive. We have a member and employer contribution rate of 8.5

compensation to 45 percent. These were hard changes. They were fairly dramatic changes. But we really felt that these had to be made to ensure the viability of a defined benefit pension plan going forward. The sheriff deputies who account for 10 percent have slightly different rules which allow for increased benefits with early retirement. So these plan changes, along with not having a COLA increase since 2002, have increased the plan funding level by 9.5 percentage points so that now we're up to 67.3 percent and it's a pretty standard upward trend over these past six years. Like I think I've told this committee before that in my mind when you are trying to turn around a defined benefit pension plan, it's kind of like turning around an aircraft carrier. It takes time and it takes effort. And you know, we feel we're doing that but the results take a while before you can really see them occur. So we made these changes. Like I say, we're up to 67.3 percent and we had Silverstone do a projection going forward to what the forecasted funding levels would be going forward. And then you can see that on the next page it trends up from the 67.3 percent so that within 20 years we'd be at 94 percent, at a fairly comfortable level of funding. So the trend and the assumptions I think are there, that we have dealt with the issue. But we continue to tweak the plan and do everything we can to enhance the funding status of it. And in 2015 we made a couple changes to the plan. We took the long-term disability program, removed it from the pension plan and made it a separate employee benefit that was fully insured. And we also, starting January 1, 2016, changed the interest rate when an employee leaves the county. If they're not fully vested, they have the option of taking their contribution back, the 8.5 percent. And for a few years here we were paying out a 5 percent interest on that but we changed that to a market rate and changed that to we would pay for that year the interest rate on a ten-year Treasury Bill as of Nov 1 of the previous year. So just those two actions with the long-term disability and the changing on the interest credit gave...provided a $3.6 million decrease in the actuarial accrued liability and .6 percent increase to the plan's funded ratio. Like I say, we're always looking at things, how we can tweak it. The thing that we've done this year is on the large cap portion of it we've kind of decided that, at least for a large caps, the market is fairly efficient. And so we've gone to index funds which have a much lower investment management fee and so we implemented that. We're now 75 percent of our money invested in large cap funds are in the index. Again, we're anticipating that that tweak should help us on our funding. There is no recent or ongoing negotiations with any employee labor group that's expected to impact the funding of the pension plan. And the pension committee and the Board of Commissioners believe that these aforementioned combination of actions that we've taken are well underway toward significantly

SENATOR MELLO: Next we will hear from the Omaha Public Power District, presenter Edward Easterlin. [LR571]

EDWARD EASTERLIN: Good morning. [LR571]

SENATOR MELLO: Morning. [LR571]

EDWARD EASTERLIN: Edward Easterlin, vice president and chief financial officer with Omaha Public Power District, last name spelling is E-a-s-t-e-r-l-i-n. With me is John Thurber. John is division manager of finance with OPPD. John's last name is T-h-u-r-b-e-r. So we're here today to basically provide an overview of the information that was submitted to you in October and answer any questions that you may have with regard to the district's pension plan. As you'll recall, we were here earlier in the year, maybe in the spring, to provide an overview of the plan and then we responded to your September 1 letter asking for an additional update. At the highest level we have completed two studies and provided those to you. The first one looks at what the expected rate of return would be on our pension plan given our investment portfolio. We have reduced our discount rate or the expected return from 7.75 percent to 7 percent. And if you look through that study, it would indicate that an active investment...excuse me, a passive investment portfolio with that makeup would be approximately 6.6 percent return. But we do have active management in the portfolio which is expected to have a higher return than just a straight passive. And then that is expected to bring the return from a 6.6 (percent) to a 7 percent. The consultant we used, Segal Rogerscasey, to evaluate historical and projected returns for those investment categories and the portfolio, estimates a expected return of that portfolio between 6.7 (percent) and 7.6 (percent). And so we feel 7 percent falls very nicely within that range of expected outcomes. The second item is we have conducted an experience study and provided that to you. Several of the assumptions that are used in our actuarial calculation were reviewed based on historical assumptions relative to experience and then adjustments were made to try to match up our assumptions with what our experience has been. The retirement and withdrawal rates were updated, so the age of retirement and the withdrawal from the plan, the rates based on each age or categories of age. The retirement age for vested deferred benefits was increased. Compensation increases were updated. What that means is compensation ranges are based on years of experience and generally we try to look at each category of experience or age and look

SENATOR KOLTERMAN: Appreciate it. Okay, now we have the Eastern Nebraska Health Agency. Go ahead. [LR571]

RENEE NOLTE: Thank you for the opportunity today to speak with you, members of the Retirement Committee and Chairman Kolterman. My name is Renee Nolte. I'm the actuary for Eastern Nebraska Human Services Agency Retirement Plan; that's R-e-n-e-e N-o-l-t-e. I've been working on this plan for nine years as an actuary with Silverstone Group. Last year Bob Brinker spoke with you. He's a former employee of Eastern Nebraska and the plan sponsor for the plan. Before he retired, he asked me to represent the plan here today. He's currently enjoying his pension benefit, I'm sure. Give you an idea of the size of the plan, it's 971 participants, 70 percent of those are active employees so it's pretty healthy in that regard. Assets are at...we did a valuation as of the 1st of 2016. They do valuations every other year. And so it's been a busier year for them and for us. Assets are $33.6 million as of the 1st of the year compared to liabilities of $47.3 million yielding a funding status of 71 percent. This plan will see more fluctuations in that funding status because the assets are based on market value of assets. Rather than any...adopting any kind of smoothing or averaging over a certain number of years, it's the exact market value of assets as of 12/31, the day before the valuation date. The funding status has decreased 5 percent since the prior valuation in 2014. We attribute this primarily to the return on assets being less than their 7 percent assumed rate of return in the plan. One percent of that decrease, of that 5 percent, is due to changes in assumptions adopted this year for the plan. We did an experience study in the summer, spring of this year that indicated that their salary return...or salary increase assumption was probably lower than it should be. So they determined to increase that from a 2 percent assumption to 2.5 percent. We also increase automatically the mortality table assumption. Each valuation we adopt the same mortality table that's required for corporate plans. Those mortality tables have been showing longer longevity with each year's update to the mortality table. So both the salary increase assumption and the mortality table help to draw down to that 71 percent funding status, as well as I mentioned the rate of return being less than assumed. As far as making steps towards improving that, they have received a bargaining...through bargaining negotiations to increase the employer's contribution to 9 percent in 2017. Based on an experience...or a forecast study that we did in 2015, they are...they've remained on track with that forecast study and expect to negotiate to increasing the employer's contribution another 50 basis points for 2018. We'll take another look at that at that time, but that

RENEE NOLTE: All right. Senator Kolterman, I just want to thank you for...or commend you on your recognition at Concordia and your service to the community as well. [LR571]

SENATOR KOLTERMAN: Thank you. [LR571]

RENEE NOLTE: I grew up in Seward so that means a lot. [LR571]

SENATOR KOLTERMAN: Yeah. Thank you. Okay, that brings us to our last. So now we have Metro Area Transit. There he is. [LR571]

CURT SIMON: Good morning. [LR571]

SENATOR KOLTERMAN: Good morning. [LR571]

CURT SIMON: I'm Curt Simon, C-u-r-t S-i-m-o-n. I'm the executive director of the Transit Authority of the city of Omaha, Metro Transit. I'm here to answer any questions you have in regard to our responses to the reporting form on LB759. Just as a brief background, the plan is currently funded at 72 percent. This is a negotiated plan between the management of the Transit Authority and the Transport Workers Union of America. The current contribution rates are 6 percent by the members and 6.5 percent by the management. We've done a number of things to lower the amount of the investment returns over the course of the last several years. For example, in 2009 we moved it from 8 percent to 7.5 percent. For this current year that we're in now, we've moved it to 6.75 percent based upon what we actually think we're going to be able to obtain out of it. In 2009 we basically took the entire plan and transitioned it to an index fund plan. Both the asset allocations and the fixed class were moved into that so that we could reduce fees primarily and reduce some of the volatility in the plan. We basically became our own benchmark, if you will, for that. It also significantly reduced the number of fees that we were experiencing because of trades. Again, this is not a plan that's as large as those that you've been talking about today, obviously, but it reduced fees, for example, from $74,000 in 2009 to $19,000 for transaction fees in 2016, which on a plan of this size is very positive. We're currently in labor negotiations with the Transport Workers Union. Obviously, pension is a strong topic that we're discussing both in the form of company contribution and member contributions. I will say that the members and the