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## City of Lincoln Police and Fire Pension Fund

Actuarial Valuation as of August 31, 2013 - Revised

Prepared by:

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March 28, 2014

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March 28, 2014

The City Council  
City of Lincoln  
555 South 10<sup>th</sup> 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 annual actuarial valuation of the City of Lincoln Police and Fire Pension Fund as of August 31, 2013 for determining the actuarial contribution rate for fiscal year 2014. The major findings of the valuation are contained in this report. This report reflects the benefit provisions in effect as of August 31, 2013. There were no changes in the benefit provisions or assumptions from the prior valuation. Our findings are set forth in this report.

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.

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 measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The City has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the Plan. Actuarial computations presented in this report under GASB Statements No. 25 and 27 are for purposes of fulfilling financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. 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, and of GASB Statements No. 25 and 27. 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.

Milliman's work is prepared solely for the internal business use of the City of Lincoln. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

- (a) The City may provide a copy of Milliman's work, in its entirety, to the City'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 City may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

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.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

On the basis of the foregoing, 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. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

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

Respectfully Submitted,

MILLIMAN, INC.



Gregg Rueschhoff, ASA  
Principal & Consulting Actuary



Charles Erickson, ASA  
Associate Actuary

# Executive Summary

## OVERVIEW

This report presents the results of the August 31, 2013 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.

The valuation results provide a “snapshot” view of the Plan’s financial condition on August 31, 2013. The unfunded actuarial accrued liability increased by approximately \$14.6 million from the last valuation. A detailed analysis of the change in the unfunded actuarial accrued liability from August 31, 2012 to August 31, 2013 is shown on page 3.

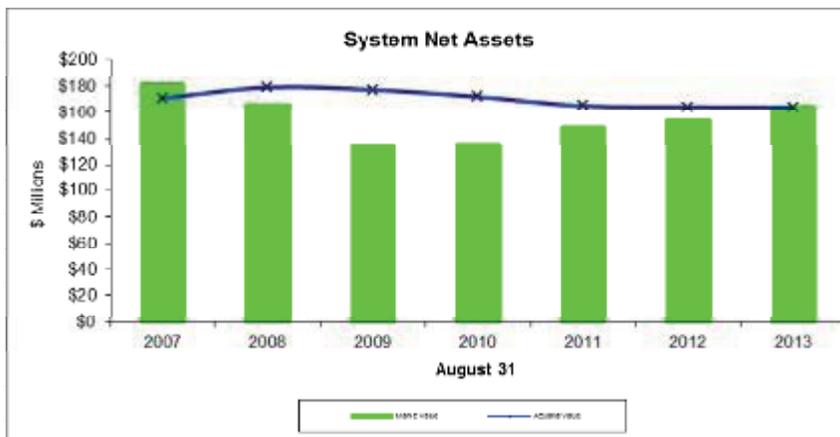
## ASSETS

As of August 31, 2013, the Plan had total assets, when measured on a market value basis, of \$164.6 million (excluding the COLA Pool assets). This was an increase of \$11.1 million from the August 31, 2012 figure of \$153.5 million. The market value of assets is not used directly in the calculation of the actuarial contribution rate. 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 actual return on the market value of assets and the assumed return on the actuarial value of assets are phased-in over a five-year period. Prior to the August 31, 2009 actuarial valuation the gains and losses were phased-in over a four-year period.

See Table 4 on page 12 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, 2012	\$153.5	\$164.5
• City and Member Contributions	9.0	9.0
• Benefit Payments and Refunds	(11.8)	(11.8)
• Administrative Expenses	(0.4)	(0.4)
• Net Investment Income (net of expenses)	14.3	2.9
Assets, August 31, 2013	\$164.6	\$164.2

The annualized dollar-weighted rate of return, measured on the actuarial value of assets was 2.07% and, measured on the market value of assets, was 12.03%. The actuarial value of assets as of August 31, 2013 was \$164.2 million, which reflects an actuarial loss of \$9.2 million resulting from the phase-in of investment returns from the current and preceding four years.



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 2009 were prepared by the prior actuary.

Due to the asset smoothing method, there is a difference of about \$0.4 million between the actuarial value and the market value of assets. This 2013 actuarial valuation reflects the 5<sup>th</sup> and final year of the smoothing recognition of the significant market downturn that occurred in 2008. As you can see in the above chart, the spread between the Market Value and Actuarial Value of Assets converged over the past five years.

**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, 2013 is:

Actuarial Accrued Liability	\$229,192,937
Actuarial Value of Assets	164,189,914
Unfunded Actuarial Accrued Liability	65,003,023

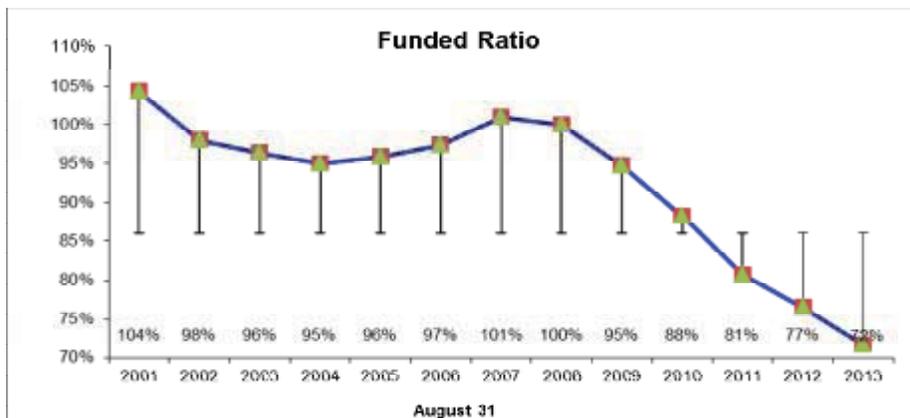
Between August 31, 2012 and August 31, 2013, the change in the unfunded actuarial accrued liability (UAAL) for the Plan was as follows:

	\$(M)
UAAL, August 31, 2012	50.4
+ Normal cost for year	6.4
+ Assumed investment return for year	4.0
- Actual contributions (member + City)	9.0
- Assumed investment return on contributions	0.3
+ Death after retirement liability	4.3
= Expected UAAL, August 31, 2013	55.8
Actual UAAL, August 31, 2013	65.0
Experience gain/(loss) (Expected UAAL – Actual UAAL)	(9.2)

The experience loss for the last plan year of \$9.2 million was the result of an actuarial loss of \$9.2 million on Plan assets (actuarial value) and no actuarial gain or loss on Plan liabilities.

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 below (in millions). Historical information is shown in the graph following the chart.

	8/31/07	8/31/08	8/31/09	8/31/10	8/31/11	8/31/12	8/31/13
Actuarial Value of Assets (\$M)	\$171.3	\$179.4	\$177.5	\$172.3	\$165.4	\$164.5	\$164.2
Actuarial Accrued Liability (\$M)	\$169.6	\$179.4	\$187.3	\$195.2	\$205.0	\$214.9	\$229.2
Funded Ratio (Actuarial Assets/AAL)	101%	100%	95%	88%	81%	77%	72%
Market Value of Assets (\$M)	\$181.1	\$165.9	\$134.9	\$135.8	\$148.3	\$153.5	\$164.6
Actuarial Accrued Liability (\$M)	\$169.6	\$179.4	\$187.3	\$195.2	\$205.0	\$214.9	\$229.9
Funded Ratio (MVA/AAL)	107%	92%	72%	70%	72%	71%	72%



Over the past decade, the funded ratio (actuarial value of assets divided by actuarial accrued liability) has been between 75% and 110%.

Note: Results for years before 2009 were prepared by the prior actuary.

As mentioned earlier in this report, due to the asset smoothing method there is about \$0.4 million difference between the actuarial and market value of assets. This deferred investment experience will flow through the asset smoothing method over the next five years. If all actuarial assumptions are met and unfavorable investment experience does not occur, the funded ratio will continue to be around 72% in five years as the asset smoothing method recognizes the deferred investment experience. 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 to service of members during the year following the valuation date, by the actuarial cost method,
- an “unfunded actuarial accrued liability or (surplus) 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 fiscal year 2015 is computed based on the August 31, 2013 actuarial valuation.

The City is required to contribute no less than the employer normal cost plus administrative expenses. Given the Plan’s funded status and the unrecognized losses, we recommend the City contribute the full actuarial employer contribution rate. The employer contribution rate increased by less than 1% from the 2012 to the 2013 valuation, as shown below:

Actuarial Contribution Rate	Actuarial Valuation	
	8/31/13	8/31/12
1. Normal Cost	19.13%	19.01%
a. Member Financed	6.82%	6.75%
b. Employer Portion	12.31%	12.26%
(1) – (2a)		
2. UAL/(Surplus) Contribution	8.88%	7.23%
3. Employer Contribution Rate	21.19%	19.49%

**COMMENTS**

As of August 31, 2013, the actuarial accrued liability was \$229 million and the actuarial value of assets was \$164 million, resulting in a funded ratio of 72%, down from the funded ratio of 77% last year. Using the market value of assets, the funded ratio is also 72%.

Retirement plans use several mechanisms to provide more stability in the contribution levels. These include an asset smoothing method, which smoothes out the peaks and valleys of 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 2013 was about 2% as compared to 12% on the pure market value. The increase in the unfunded actuarial liability from the actuarial loss resulting from experience in FY13 is amortized over a 30-year period, which mitigates the impact of the unfavorable experience.

Given the size of the investment losses in recent years, an increase in the contribution level could not be avoided, even with the use of these “stability mechanisms”. The normal cost remained fairly stable as a percentage of payroll, but the Plan’s funded status changed from 77% funded to 72%. The unfunded actuarial accrued liability increased by \$15 million. As a result, the City’s actuarial contribution rate increased from 19.49% last year to 21.19% of pay in this year’s valuation.

As mentioned above, the Plan utilizes an asset smoothing method in the valuation process. While this is a common procedure for public retirement Plans, it is important to identify the potential impact of the deferred (unrecognized) investment experience. The key valuation results from the August 31, 2013 actuarial valuation are shown below using both the actuarial value of assets and the pure market value.

	<b><u>Using Actuarial Value of Assets</u></b>	<b><u>Using Market Value of Assets</u></b>
Actuarial Liability	\$ 229,192,937	\$ 229,192,937
Asset Value	164,189,914	164,617,759
Unfunded Actuarial Liability	\$ 65,003,023	\$ 64,575,178
Funded Ratio	72%	72%
Normal Cost Rate	19.13%	19.13%
UAL Contribution Rate	<u>8.88%</u>	<u>8.83%</u>
Total Actuarial Contribution Rate	28.01%	27.96%
Member Contribution Rate	<u>(6.82)%</u>	<u>(6.82)%</u>
Employer Actuarial Contribution Rate	21.19%	21.14%

The valuation includes liability of approximately \$4.3 million pertaining to the “Death After Retirement” lump sum benefit described in Appendix B.

We conclude this Executive Summary with the following exhibit which compares the principal results of the current and prior actuarial valuation.

## SUMMARY OF PRINCIPAL RESULTS

	8/31/2013 <u>Valuation</u>	8/31/2012 <u>Valuation</u>	% <u>Change</u>
<b>1. PARTICIPANT DATA</b>			
Number of:			
Active Members	573	559	2.5 %
DROP Members	48	49	(2.0) %
Retired Members and Beneficiaries	448	438	2.3 %
Inactive Vested Members	24	26	(7.7) %
Total Members	1,093	1,072	2.0 %
Projected Valuation Salaries of Active Members	\$ 38,107,652	\$ 36,310,880	4.9 %
Annual Retirement Payments for DROP Members, Retired Members and Beneficiaries	\$ 11,349,256	\$ 10,809,960	5.0 %
<b>2. ASSETS AND LIABILITIES</b>			
Total Actuarial Accrued Liability	\$ 229,192,937	\$ 214,878,992	6.7 %
Market Value of Assets*	164,617,759	153,546,978	7.2 %
Actuarial Value of Assets*	164,189,914	164,500,414	(0.2) %
Unfunded Actuarial Accrued Liability/(Surplus)	\$ 65,003,023	\$ 50,378,578	29.0 %
Funded Ratio - Actuarial Value	72%	77%	(6.4) %
Funded Ratio - Market Value	72%	71%	0.5 %
* Excludes the COLA Pool Fund			
<b>3. EMPLOYER ACTUARIAL CONTRIBUTION RATE AS A PERCENT OF PAYROLL</b>			
Normal Cost	19.13%	19.01%	0.6 %
Member Financed	6.82%	6.75%	1.0 %
Employer Normal Cost	12.31%	12.26%	0.4 %
Amortization of Unfunded Actuarial Accrued Liability or (Surplus)	8.88%	7.23%	22.8 %
Employer Actuarial Contribution Rate	21.19%	19.49%	8.7 %

# Scope of the Report

This report presents the actuarial valuation of the City of Lincoln Police and Fire Pension Fund as of August 31, 2013. This valuation was prepared at the request of the City.

There was no change in the benefit structure or the actuarial assumptions and methods from the prior valuation.

Please pay particular attention to our cover 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. Sections 4 and 5 describe how the obligations of the Plan are to be met under the actuarial cost method in use. Section 6 includes the information required for the financial reporting standards established by the Governmental Accounting Standards Board (GASB).

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, 2013.
- 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.

# 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, 2013. 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, 2013, and August 31, 2012, in total and by investment category. Table 2 summarizes the change in the market value of assets from August 31, 2012 to August 31, 2013.

**Actuarial Value of Assets**

Neither the market value of assets, representing a “cash-out” value of Plan assets, nor the book values 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 this 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 phased-in over a four year period. Effective with the August 31, 2009 actuarial valuation, the smoothing period was changed prospectively to five years. Table 4 shows the development of the actuarial value of assets (AVA) as of the current valuation date.

**TABLE 1**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND  
STATEMENT OF NET PLAN ASSETS AT MARKET VALUE**

	<b>Market Value</b>	
	<b>August 31, 2013</b>	<b>August 31, 2012</b>
Cash & Equivalents	\$6,820,468	\$5,676,346
Accrued Interest & Dividends	963,763	516,805
Receivables	0	581,461
Alternative Investments	54,560,678	51,737,263
Debt	29,794,972	36,940,793
Equity	93,628,068	73,508,841
Total Assets	\$185,767,949	\$168,961,509
Accounts Payable	0	(38,184)
Interim Plan Assets	185,767,949	168,923,325
COLA Pool	(21,150,190)	(15,376,347)
Net Assets Available for Benefits	\$164,617,759	\$153,546,978

**TABLE 2**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND**

**STATEMENT OF CHANGES IN NET ASSETS\*  
DURING YEAR ENDED AUGUST 31, 2013**

(Market Value)

1. Market Value of Assets as of August 31, 2012	\$ 168,923,325
2. Contributions:	
a. Members	\$ 2,540,604
b. City	6,446,472
c. EMS	0
d. Total	\$ <u>8,987,076</u>
[2(a) + 2(b) + 2(c)]	
3. Investment Income	
a. Interest and Dividends	\$ 4,169,785
b. Realized Gains	2,495,362
c. Investment Expenses	(166,708)
d. Short and Long Term Capital Gains	1,258,831
e. Unrealized Gains	12,362,219
f. Total	\$ <u>20,119,489</u>
[3(a) + 3(b) + 3(c) + 3(d) + 3(e)]	
4. Expenditures	
a. Refunds of Member Contributions	\$ 207,701
b. Benefits Paid:	
(1) Base Pension and Compensation Payments	9,566,197
(2) DROP Payments	2,023,092
(3) COLA Pool Payments	502,500
c. Administrative Expenses	370,711
d. Total	\$ <u>12,670,201</u>
[4(a) + 4(b) + 4(c)]	
5. Changes and adjustments	\$ 408,260
6. Net Change	\$ 16,844,624
[2(d) + 3(e) - 4(d) + (5)]	
7. Market Value of Assets as of August 31, 2013	\$ 185,767,949

\* Includes COLA pool assets of \$21,150,190

**TABLE 3**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND  
STATEMENT OF CHANGES IN COLA POOL ASSETS  
FOR THE YEAR ENDED AUGUST 31, 2013**

(Market Value)

1. Market Value of COLA Pool as of August 31, 2012	\$ 15,376,347
2. Additions to COLA Pool	\$ 4,368,064
3. Investment Income on COLA Pool	\$ 1,908,279
4. COLA Pool Payments	
a. Retirants and Beneficiaries	\$ 463,005
b. DROP Members	39,495
c. Total	\$ <u>502,500</u>
5. Net Change	\$ 5,773,843
6. Market Value of COLA Pool as of August 31, 2013	\$ 21,150,190

**Cost-of-Living Adjustments**

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. If both the benefit and the assets were included in the valuation, the resulting employer contribution would be higher than the figures reported herein. The plan's auditor should review this matter for compliance with GASB Statement No. 25.

**TABLE 4**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND  
DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS**

Year Ended August 31:	2011	2012	2013
Beginning of Year Values			
(1) Market Value	135,835,077	148,347,670	153,546,978
(2) Actuarial Value	172,317,463	165,436,361	164,500,414
(3) Noninvestment Net Cash Flow	(4,779,706)	(3,861,790)	(3,683,125)
(4) Expected Income (7.5%)	12,747,811	12,265,528	12,201,911
(5) Actual Income	17,292,299	9,061,098	14,753,906
(6) Gain/(Loss)	4,544,488	(3,204,430)	2,551,995
(7) Recognized Income			
(a) Expected	12,747,811	12,265,528	12,201,911
(b) Current Year's Base	908,898	(640,886)	510,399
(c) 1 year ago	(1,508,881)	908,898	(640,886)
(d) 2 years ago	(8,098,816)	(1,508,881)	908,898
(e) 3 years ago	(6,150,408)	(8,098,816)	(1,508,881)
(f) 4 years ago	N/A	N/A	(8,098,816)
(g) Total Income Recognized	(2,101,396)	2,925,843	3,372,625
End of Year Values			
(8) Market Value	148,347,670	153,546,978	164,617,759
(9) Actuarial Value	165,436,361	164,500,414	164,189,914
(2) + (3) + (7g)			
Actuarial Value / Market Value	115.5%	107.1%	99.7%
Net Return - Market Value	12.48%	5.42%	12.03%
Net Return - Actuarial Value	-1.24%	1.79%	2.07%

Note: Beginning in 2009, the gain/(loss) is recognized over five years rather than four. Prior years' schedules were unchanged with respect to the amount of gain/(loss) to be recognized in future years.

# 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, 2013. 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 the 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, 2013. 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 cost method is used to develop the actuarial accrued liability.

**TABLE 5**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND**

**PRESENT VALUE OF FUTURE BENEFITS (PVFB)  
AS OF AUGUST 31, 2013**

1. Active employees		
a. Retirement Benefit	\$	173,616,452
b. Pre-Retirement Death Benefit		4,627,745
c. Deferred Vested Benefit		7,848,895
d. Disability Benefit		3,584,311
e. Return of Contributions		904,190
f. Total	\$	<u>190,581,593</u>
2. Inactive Vested Members	\$	2,258,849
3. In Pay Members		
a. Retirees	\$	84,776,518
b. DROP members		22,676,603
c. Beneficiaries		6,220,085
d. Total	\$	<u>113,673,206</u>
4. Total Present Value of Future Benefits (1) + (2) + (3d)	\$	306,513,648

**TABLE 6**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND**

**ACTUARIAL BALANCE SHEET  
AS OF AUGUST 31, 2013**

Actuarial value of assets	\$ 164,189,914
Present value of future normal costs	77,320,711
Present value of future payments on the unfunded actuarial accrued liability	<u>65,003,023</u>
<b>Total Assets</b>	\$ <u>306,513,648</u>
Active employees	\$ 190,581,593
Inactive vested members	2,258,849
In pay members	<u>113,673,206</u>
<b>Total Liabilities</b>	\$ <u>306,513,648</u>

**TABLE 7**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND**

**ACTUARIAL ACCRUED LIABILITY  
AS OF AUGUST 31, 2013**

1. Active employees		
a. Present Value of Future Benefits	\$	190,581,593
b. Present Value of Future Normal Costs		77,320,711
c. Actuarial Accrued Liability	\$	<u>113,260,882</u>
(1a) - (1b)		
2. Inactive Vested Members	\$	2,258,849
3. In Pay Members		
a. Retirees	\$	84,776,518
b. DROP members		22,676,603
c. Beneficiaries		6,220,085
d. Total	\$	<u>113,673,206</u>
4. Total Actuarial Accrued Liability		
(1c) + (2) + (3d)	\$	229,192,937
5. Actuarial Value of Assets	\$	164,189,914
6. Unfunded Actuarial Accrued Liability	\$	65,003,023
(4) - (5)		

**TABLE 8**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND  
DERIVATION OF PLAN EXPERIENCE GAIN/(LOSS)**

	(\$M)	
	<u>Year Ended 08/31/2013</u>	<u>Year Ended 08/31/2012</u>
(1) UAAL* at start of year	50.4	39.6
(2) + Normal cost for year	6.4	6.4
(3) + Assumed investment return on (1) & (2)	4.0	3.2
(4) - Actual contributions (member + city)	9.0	8.5
(5) - Assumed investment return on (4)	0.3	0.3
(6) + Death after retirement liability	4.3	0.0
(7) = Expected UAAL at end of year (1) + (2) + (3) - (4) - (5) + (6)	55.8	40.4
(8) = Actual UAAL at year end	65.0	50.4
(9) = Experience gain (loss) (7) – (8)	(9.2)	(10.0)
(10) = Percent of beginning of year AAL	(4.3%)	(4.9%)

\* *Unfunded Actuarial Accrued Liability/(Surplus).*

Valuation Date	Actuarial Gain (Loss) As % of Beginning Accrued Liabilities
Aug. 31, 2002	(5.3%)
Aug. 31, 2003	(0.5%)
Aug. 31, 2004	(0.3%)
Aug. 31, 2005	1.7%
Aug. 31, 2006	2.3%
Aug. 31, 2007	3.2%
Aug. 31, 2008	(0.8%)
Aug. 31, 2009	(7.1%)
Aug. 31, 2010	(6.6%)
Aug. 31, 2011	(7.9%)
Aug. 31, 2012	(4.9%)
Aug. 31, 2013	(4.3%)

**TABLE 9**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND  
PROJECTED CASH FLOWS**

The chart below shows estimated benefits expected to be paid over the next twenty years, based on the assumptions used in this valuation. The “Actives” column shows benefits expected to be paid to members currently active on August 31, 2013. The “Retirees” column shows benefits expected to be paid to all other members. This includes those who, as of August 31, 2013, are receiving benefit payments or who terminated employment and are entitled to a deferred vested benefit. No future members are reflected.

<b>Year Ending August 31</b>	<b>Actives</b>	<b>Retirees</b>	<b>Total</b>
2014	\$ 912,000	\$ 11,266,000	\$ 12,178,000
2015	1,586,000	11,102,000	12,688,000
2016	2,392,000	10,944,000	13,336,000
2017	3,224,000	10,764,000	13,988,000
2018	4,236,000	10,598,000	14,834,000
2019	5,227,000	10,436,000	15,663,000
2020	6,237,000	10,276,000	16,513,000
2021	7,435,000	10,049,000	17,484,000
2022	8,703,000	9,820,000	18,523,000
2023	10,085,000	9,582,000	19,667,000
2024	11,481,000	9,352,000	20,833,000
2025	12,956,000	9,084,000	22,040,000
2026	14,566,000	8,812,000	23,378,000
2027	16,447,000	8,511,000	24,958,000
2028	18,280,000	8,220,000	26,500,000
2029	19,987,000	7,917,000	27,904,000
2030	21,608,000	7,592,000	29,200,000
2031	23,258,000	7,260,000	30,518,000
2032	24,930,000	6,922,000	31,852,000
2033	26,580,000	6,580,000	33,160,000

# 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 is 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 based on the August 31, 2013 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 2015. 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, 2013, the actuarial accrued liability was greater than the valuation assets so an unfunded actuarial accrued liability (UAAL) exists. The UAAL at August 31, 2013 is amortized, as a level percent of payroll, over a period of 30 years.

### **Contribution Rate Summary**

In Table 10, the amortization payment related to the unfunded actuarial accrued liability, as of August 31, 2014, is developed. Table 11 develops the actuarial contribution rate for the employer.

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

**TABLE 10**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND**

**AUGUST 31, 2013 VALUATION**

**DERIVATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY CONTRIBUTION RATE**

1. Actuarial Accrued Liability	\$	229,192,937
2. Actuarial Value of Assets	\$	164,189,914
3. Unfunded Actuarial Accrued Liability/(Surplus)	\$	65,003,023
4. Amortization Factor (30 years)		19.9079
5. Amortization Payment (3) / (4) x 1.075 <sup>5</sup>	\$	3,385,416
6. Total Payroll for FY 2013	\$	38,107,652
7. Amortization Payment as a Percent of Payroll		8.88%

**TABLE 11**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND**

**EMPLOYER ACTUARIAL CONTRIBUTION RATE**

	Valuation Date	
	8/31/2013	8/31/2012
Normal Cost		
Service pensions	16.29%	16.16%
Pre-retirement death pensions	0.40%	0.40%
Disability pensions	0.60%	0.59%
Termination Benefits	1.84%	1.86%
Total Normal Cost	19.13%	19.01%
Total UAAL Amortization Payment	8.88%	7.23%
Total Actuarial Contribution Rate	28.01%	26.24%
Member Portion	6.82%	6.75%
City Portion	21.19%	19.49%

**TABLE 12**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND  
FIVE YEAR BUDGET REQUEST ESTIMATE**

Fiscal Year	(1) Applicable Valuation Payroll	(2) Employer Normal Cost Percent	(3) Employer Normal Cost Contribution (1) * (2)	(4) Admin. Expenses	(5) <b>Mandated City Contribution (3) + (4)</b>	(6) Recommended UAL Contribution Percent	(7) Recommended UAL Contribution (1) * (6)	(8) <b>Budget Request (5) + (7)</b>
2014-15	38,107,652	12.31%	4,691,052	370,711	<b>5,061,763</b>	8.88%	3,383,959	<b>8,445,722</b>
2015-16	39,727,227	12.21%	4,850,694	381,832	5,232,526	7.75%	3,078,860	8,311,386
2016-17	41,415,634	12.11%	5,015,433	393,287	5,408,720	8.00%	3,313,251	8,721,971
2017-18	43,175,798	12.01%	5,185,413	405,086	5,590,499	8.25%	3,562,003	9,152,502
2018-19	45,010,769	11.91%	5,360,783	417,239	5,778,022	8.50%	3,825,915	9,603,937

# Accounting Information

The actuarial accrued liability is a measure intended to help the reader assess (i) a retirement Plan's funded status on a going concern basis, and (ii) progress being made toward accumulating the assets needed to pay benefits as due. Allocation of the actuarial present value of projected benefits between past and future service was based on service using the Entry Age Normal actuarial cost method. Assumptions, including projected pay increases, were the same as used to determine the Plan's level percent of payroll annual required contribution between entry age and assumed exit age. Entry age was established by subtracting credited service from current age on the valuation date.

The preceding methods comply with the financial reporting standards established by the Governmental Accounting Standards Board.

The Entry Age Normal actuarial accrued liability was determined as part of an actuarial valuation of the plan as of August 31, 2013. The actuarial assumptions used in determining the actuarial accrued liability can be found in Appendix C.

**TABLE 13**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND  
HISTORICAL FUNDING PROGRESS**

<b>Actuarial Valuation Date</b>	<b>Actuarial Accrued Liability (AAL)</b>	<b>Valuation Assets</b>	<b>Unfunded Actuarial Accrued Liability (UAAL)</b>	<b>Actuarial Valuation Assets To AAL</b>	<b>Ratio of UAAL to Valuation Payroll</b>
Dec. 31, 1987	46,239	50,417	(4,178)	109%	-
Dec. 31, 1988	50,820	55,693	(4,873)	110%	-
Dec. 31, 1989	54,676	61,144	(6,468)	112%	-
Dec. 31, 1990 <sup>#@</sup>	55,127	66,511	(11,384)	121%	-
Aug. 31, 1991 <sup>#</sup>	59,149	68,390	(9,241)	116%	-
Aug. 31, 1992 <sup>@</sup>	63,407	77,980	(14,573)	123%	-
Aug. 31, 1993	67,910	86,583	(18,673)	127%	-
Aug. 31, 1994	70,517	83,308	(12,791)	118%	-
Aug. 31, 1995 <sup>#</sup>	79,202	92,235	(13,033)	116%	-
Aug. 31, 1996	81,583	94,348	(12,765)	116%	-
Aug. 31, 1997 <sup>*</sup>	91,023	101,476	(10,453)	111%	-
Aug. 31, 1998	94,848	109,213	(14,365)	115%	-
Aug. 31, 1999 <sup>#@</sup>	104,692	113,902	(9,210)	109%	-
Aug. 31, 2000	115,671	121,404	(5,733)	105%	-
Aug. 31, 2001	122,661	128,070	(5,409)	104%	-
Aug. 31, 2002 <sup>#@</sup>	130,875	128,319	2,556	98%	10%
Aug. 31, 2003	137,508	132,578	4,930	96%	18%
Aug. 31, 2004	144,179	136,974	7,205	95%	26%
Aug. 31, 2005	151,978	145,730	6,248	96%	22%
Aug. 31, 2006	161,583	157,527	4,056	97%	13%
Aug. 31, 2007 <sup>@</sup>	169,587	171,264	(1,677)	101%	-
Aug. 31, 2008	179,376	179,390	(14)	100%	-
Aug. 31, 2009	187,292	177,527	9,766	95%	29%
Aug. 31, 2010	195,206	172,317	22,889	88%	67%
Aug. 31, 2011	204,990	165,436	39,554	81%	111%
Aug. 31, 2012	214,879	164,500	50,379	77%	139%
Aug. 31, 2013	229,193	164,190	65,003	72%	171%

- # After changes in benefit provisions
- @ After changes in actuarial assumptions or methods
- \* After inclusion of "old" plan

Note: Results for years prior to 2009 were taken from the prior actuary's report.

## TABLE 13 (continued)

### CITY OF LINCOLN POLICE AND FIRE PENSION FUND

**Two tests** of funding progress based on the relationship between valuation assets and actuarial accrued liabilities are shown above. These tests are, however, dependent upon the actuarial cost method.

**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 computed 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 pays 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 liabilities 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 give an indication of whether the Plan is becoming financially stronger or weaker.

Analysis of the dollar amounts of actuarial value of assets, actuarial accrued liability, or unfunded actuarial accrued liability in isolation can be misleading. Expressing the actuarial value of assets as a percentage of the actuarial accrued liability provides one indication of the Plan's funded status on a going-concern basis. Analysis of this percentage over time indicates whether the Plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan's funding. The unfunded actuarial accrued liability and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial accrued liability as a percentage of covered payroll approximately adjusts for the effects of inflation and aids analysis of the progress being made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan's funding.

**TABLE 14**

**CITY OF LINCOLN POLICE AND FIRE PENSION FUND  
REQUIRED SUPPLEMENTARY INFORMATION  
SCHEDULE OF FUNDING PROGRESS**

	(1)	(2)	(3)	(4)	(5)	(6)
<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets</b>	<b>Actuarial Accrued Liability (AAL)</b>	<b>Percent Funded (1)/(2)</b>	<b>Unfunded AAL (2) – (1)</b>	<b>Payroll**</b>	<b>Unfunded AAL As a Percentage of Covered Payroll (4)/(5)</b>
8/31/2002	\$128,319,145	\$130,875,473	98.00%	\$2,556,328	\$26,606,881	9.60%
8/31/2003	132,577,506	137,507,824	96.40%	4,930,318	27,415,330	18.00%
8/31/2004	136,973,679	144,178,758	95.00%	7,205,079	28,124,862	25.60%
8/31/2005	145,730,474	151,978,408	95.90%	6,247,934	29,029,309	21.50%
8/31/2006	157,527,392	161,583,285	97.50%	4,055,893	30,724,333	13.20%
8/31/2007	171,263,791	169,587,458	101.00%	(1,676,333)	30,546,235	(5.50%)
8/31/2008	179,390,472	179,376,149	100.00%	(14,323)	32,265,715	0.00%
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%

Note: For valuation dates prior to 2009, information shown is from the prior actuary's report

**SCHEDULE OF EMPLOYER CONTRIBUTIONS**

<b>Fiscal Year Beginning September 1</b>	<b>Actuarial Valuation Date</b>	<b>Annual Required Contribution</b>
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

\* Annual required contribution is equal to the contribution percent times the valuation payroll (item (5)) projected to the appropriate fiscal year. 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.

\*\* Non-DROP payroll in 2002 and later.

## GASB STATEMENTS NO. 25 AND NO. 27

### DISCLOSURE INFORMATION

#### Notes to Financial Statement Summary of Actuarial Methods and Assumptions

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows:

Valuation date:	August 31, 2013
Actuarial cost method:	Entry Age
Amortization method:	30 years, level percent, open
Asset valuation method:	4-year smoothed market (changed prospectively to 5 years in 2009)
Actuarial assumptions:	
Investment rate of return:	7.50%
Projected salary increases*:	4.25% - 8.25%
Cost-of-living adjustments:	none

\*Includes wage inflation of 4.25%

Membership data as of August 31, 2013 is provided in Appendix A of this report.

**TABLE 15**  
**CITY OF LINCOLN POLICE AND FIRE PENSION FUND**  
**DEVELOPMENT OF ANNUAL PENSION COST AND NET PENSION OBLIGATION**  
**UNDER GASB STATEMENT NUMBER 27**

Fiscal Year End	Annual Required Contribution (ARC) (a)	Interest on NPO (b)	ARC Adjustment (c)	Annual Pension Cost (APC) (d)=(a)+(b)-(c)	Employer Actual Contribution (e)	Change in NPO (f)=(d)-(e)	Net Pension Obligation (NPO) at End of Year (g)=sum of (f)
1994	580,796	0	0	580,796	388,813	191,983	191,983
1995	-	13,439	19,801	(6,362)	400,022	(406,384)	(214,401)
1996	695,015	(15,008)	(24,103)	704,110	419,583	284,527	70,126
1997	545,702	4,909	8,680	541,931	430,884	111,047	181,173
1998	530,891	12,682	24,997	518,576	491,945	26,631	207,804
1999	961,584	14,546	32,467	943,663	908,234	35,429	243,233
2000	91,814	17,026	43,928	64,912	941,282	(876,370)	(633,137)
2001	820,610	(44,320)	(137,510)	913,800	1,111,434	(197,634)	(830,771)
2002	1,877,926	(62,308)	(180,434)	1,996,052	1,541,649	454,403	(376,368)
2003	2,233,836	(28,228)	(81,743)	2,287,351	1,780,604	506,747	130,379
2004	3,297,577	9,778	15,300	3,292,055	1,991,672	1,300,383	1,430,762
2005	3,684,264	107,307	167,903	3,623,668	2,562,850	1,060,818	2,491,580
2006	4,077,037	186,869	292,392	3,971,514	2,892,711	1,078,803	3,570,383
2007	4,056,195	267,779	418,991	3,904,983	3,494,590	410,393	3,980,776
2008	4,076,536	298,558	467,152	3,907,942	3,456,424	451,518	4,432,294
2009	3,316,464	332,422	525,583	3,123,303	3,521,858	(398,555)	4,033,739
2010	3,752,124	302,530	478,323	3,576,332	4,014,414	(438,082)	3,595,657
2011	4,651,872	269,674	426,375	4,495,171	4,333,811	161,360	3,757,017
2012	5,574,482	281,776	445,509	5,410,749	6,052,020	(641,271)	3,115,746
2013	6,718,467	233,681	369,467	6,582,681	6,446,472	136,209	3,251,955

Note: Results for years prior to FY2009 were prepared by the prior actuary.

# Appendices

## APPENDIX A

### SUMMARY OF MEMBERSHIP DATA

#### MEMBER DATA RECONCILIATION

August 31, 2012 to August 31, 2013

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	Retirees	Disableds	Beneficiaries	Inactive Vested	Total
Members as of 08/31/12	559	49	343	45	50	26	1,072
New Members	+40	0	0	0	0	0	+40
Terminations							
Refunded	-8	0	0	0	0	0	-8
Deferred Vested	-3	0	0	0	0	+3	0
Retirements							
Service	-5	-8	+18	0	0	-5	0
Disability	0	-1	0	+1	0	0	0
DROP	-8	+8	0	0	0	0	0
Deaths							
Cashed Out	0	0	0	0	0	0	0
With Beneficiary	-2	0	-3	0	+5	0	0
Without Beneficiary	0	0	-8	-1	-2	0	-11
Data Adjustments	0	0	0	0	0	0	0
<b>Members as of 08/31/13</b>	<b>573</b>	<b>48</b>	<b>350</b>	<b>45</b>	<b>53</b>	<b>24</b>	<b>1,093</b>

**APPENDIX A (continued)**

**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	Expected Removals
	No.**	Annual Benefits	Post-Ret. Increases	No.	Annual Benefits	No.	Annual Benefits			
Dec. 31, 1982	8	\$ 84,321	\$	2	\$ 9,043	82	\$ 478,419	18.7%	\$ 5,834	2.0
Dec. 31, 1983	3	21,512		4	17,233	81	482,698	0.9%	5,959	2.2
Dec. 31, 1984	6	75,732		1	3,600	86	554,830	14.9%	6,452	2.1
Dec. 31, 1985	12	102,224		6	26,240	92	630,814	13.7%	6,857	2.1
Dec. 31, 1986	8	89,719		2	4,810	98	715,723	13.5%	7,303	2.2
Dec. 31, 1987	12	123,986		4	21,530	106	818,178	14.3%	7,719	2.4
Dec. 31, 1988	6	109,203		2	11,578	110	915,803	11.9%	8,325	2.5
Dec. 31, 1989	7	114,257		3	10,800	114	1,019,260	11.3%	8,941	2.6
Dec. 31, 1990	11	116,420		3	19,220	122	1,116,460	9.5%	9,151	2.6
Aug. 31, 1991	22 #	308,940	42,470	2	7,200	142	1,460,670	30.8%	10,286	2.9
Aug. 31, 1992	16	221,944		1	3,816	157	1,678,798	14.9%	10,693	3.0
Aug. 31, 1993	17	219,974		1	10,698	173	1,888,074	12.5%	10,914	3.4
Aug. 31, 1994	16	218,777		4	17,829	185	2,089,022	10.6%	11,292	3.9
Aug. 31, 1995	16	211,219		4	37,158	197	2,263,083	8.3%	11,488	4.0
Aug. 31, 1996	8	149,099		2	16,566	203	2,395,616	5.9%	11,801	4.4
Aug. 31, 1997	73 ##	590,041		4	56,890	272	3,042,547	27.0%	11,186	4.8
Aug. 31, 1998	10	155,262		11	71,670	271	3,126,139	2.7%	11,536	9.5
Aug. 31, 1999	23	414,130		1	22,889	293	3,517,380	12.5%	12,005	9.1
Aug. 31, 2000	17	335,244		7	62,014	303	3,790,610	7.8%	12,510	9.3
Aug. 31, 2001	14	225,737		16	105,022	301	3,911,325	3.2%	12,994	9.3
Aug. 31, 2002	18	278,160		14	115,340	305	4,074,145	4.2%	13,358	9.1
Aug. 31, 2003	15	219,569		11	119,499	309	4,174,215	2.5%	13,509	9.1
Aug. 31, 2004	12	175,551		5	74,835	316	4,274,931	2.4%	13,528	9.4
Aug. 31, 2005	30	702,721		12	73,072	334	4,904,580	14.7%	14,684	9.5
Aug. 31, 2006	10	262,420		4	36,362	340	5,130,638	4.6%	15,090	10.3
Aug. 31, 2007	38	1,101,713		8	55,280	370	6,177,071	20.4%	16,695	10.8
Aug. 31, 2008	24	621,708		10	128,736	384	6,670,043	8.0%	17,370	11.2
Aug. 31, 2009	20	560,105		2	28,641	402	7,185,166	7.7%	17,874	11.7
Aug. 31, 2010	14	408,351		8	66,170	408	7,477,874	4.1%	18,328	12.9
Aug. 31, 2011	15	455,866		8	84,553	415	7,846,879	4.9%	18,908	12.7
Aug. 31, 2012	30	1,083,442		7	101,972	438	8,828,349	12.5%	20,156	13.1
Aug. 31, 2013	21	700,308		11	165,739	448	9,362,919	6.06%	20,899	13.6

\*\* Includes retirements from the DROP members

# Includes one member not previously reported

## Includes the addition of "old Plan"

## APPENDIX A (continued)

### CITY OF LINCOLN POLICE AND FIRE PENSION FUND SUMMARY OF ACTIVE MEMBERS

#### NOT-IN-PAY MEMBERS INCLUDED IN VALUATION

Valuation Date	Active Members	Inactive Vested Members	Valuation Payroll**	Average			% Increase
				Age	Service	Pay	
Dec. 31, 1989	496	24	\$13,742,308	39.5	14.7	\$ 27,706	3.4%
Dec. 31, 1990	510	30	15,014,896	39.6	14.7	29,441	6.3%
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%

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

## APPENDIX A (continued)

### ADDITIONS TO AND REMOVALS FROM ACTIVE MEMBERSHIP ACTUAL AND EXPECTED NUMBERS

Year Ended	Number Added During Year		Normal Retirement*		Disability Retirement		Died-In-Service		Terminations		Active Members End of Year
	A	E	A	E	A	E	A	E	A	E	
Aug. 31, 1996	34	15	8	9.2	0	1.2	0	1.4	7	15.8	545
Aug. 31, 1997	31	27	20	8.3	0	1.4	0	1.4	7	16.6	549
Aug. 31, 1998	42	30	8	8.1	0	1.3	0	1.3	22	18.6	561
Aug. 31, 1999	23	39	19	9.4	1	1.3	0	1.3	19	16.8	545
Aug. 31, 2000	29	31	8	12.5	0	0.5	0	0.6	23	13.9	543
Aug. 31, 2001	61	20	6	14.3	3	0.6	0	0.6	11	14.0	584
Aug. 31, 2002	21	69	54	15.7	0	0.6	0	0.6	15	16.5	536
Aug. 31, 2003	21	22	13	11.1	0	0.5	0	0.5	9	15.3	535
Aug. 31, 2004	28	30	19	12.4	0	0.5	0	0.4	11	14.3	533
Aug. 31, 2005	24	24	9	12.7	2	0.5	0	0.4	13	14.6	533
Aug. 31, 2006	42	17	7	14.7	0	0.5	0	0.5	10	14.1	558
Aug. 31, 2007	19	46	23	17.2	3	0.6	1	0.5	19	14.9	531
Aug. 31, 2008	45	27	11	16.4	2	1.0	0	0.4	14	12.3	549
Aug. 31, 2009	32	30	18	15.4	0	0.9	0	0.9	10	12.8	553
Aug. 31, 2010	36	30	17	16.2	2	0.6	0	0.5	9	12.8	561
Aug. 31, 2011	22	30	10	17.0	0	0.6	1	0.4	10	13.2	562
Aug. 31, 2012	28	30	20	19.5	4	0.6	1	0.5	6	12.5	559
Aug. 31, 2013	40	30	13	20.6	0	0.6	2	0.4	11	12.3	573
5-Year Total	158	150	78	88.7	6	3.3	4	2.7	46	63.6	

A: Represents actual number

E: Represents expected number based on assumptions outlined in Section C

\* Includes new retirements and DROP members (from active status) beginning with August 31, 2002 valuation

**APPENDIX A (continued)**

**MEMBERSHIP DATA - AUGUST 31, 2013**

**Active Members (Not Participating in DROP)**

Valuation Division	Number	Employee Contribution Percentage For Those Contributing	Employee Contribution Percentage Total	Annual Payroll Total	Average Age	Average Service	Average Pay
Police							
- Old Plan	2	7.60%	7.60%	\$ 133,333	45.0	21.0	\$ 66,667
- Plan A	257	8.00%	8.00%	15,765,359	36.3	11.1	61,344
- Plan B *	30	7.60%	0.46%	2,247,063	47.8	23.6	74,902
- Plan C *	11	7.00%	0.00%	861,802	60.3	38.8	78,346
Fire							
- Plan A	223	8.00%	8.00%	15,003,837	38.3	9.7	67,282
- Plan B *	50	7.60%	1.42%	4,096,258	50.6	24.7	81,925
Total	573	7.91%	6.82%	\$ 38,107,652	39.4	12.4	\$ 66,506

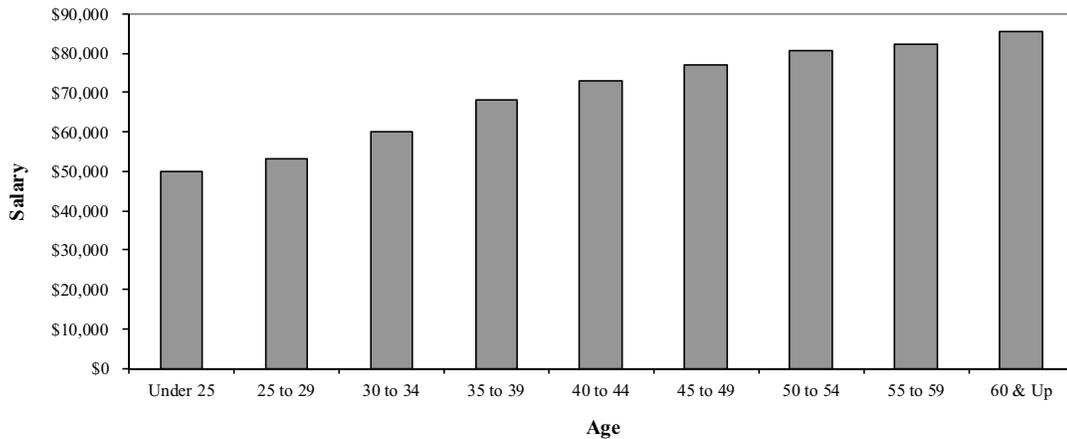
\* Employee contributions stop after 21 years of service for this group, therefore the total employee contribution rate will be reduced because not all employees are contributing.

## APPENDIX A (continued)

### CITY OF LINCOLN POLICE AND FIRE PENSION FUND SUMMARY OF ACTIVE MEMBERS as of August 31, 2013 (Fire)

Age	Number			Annual Reported Compensation		
	Male	Female	Total	Male	Female	Total
Under 25	4	0	4	\$ 200,213	\$ -	\$ 200,213
25 to 29	27	2	29	1,450,717	96,704	1,547,421
30 to 34	30	7	37	1,786,651	441,518	2,228,169
35 to 39	56	5	61	3,844,116	311,779	4,155,895
40 to 44	44	3	47	3,236,363	189,003	3,425,366
45 to 49	41	2	43	3,169,799	149,202	3,319,001
50 to 54	39	1	40	3,121,873	98,491	3,220,364
55 to 59	7	0	7	576,297	-	576,297
60 & Up	5	0	5	427,369	-	427,369
<b>Total</b>	<b>253</b>	<b>20</b>	<b>273</b>	<b>\$ 17,813,398</b>	<b>\$ 1,286,697</b>	<b>\$ 19,100,095</b>

**Average Salary by Age**

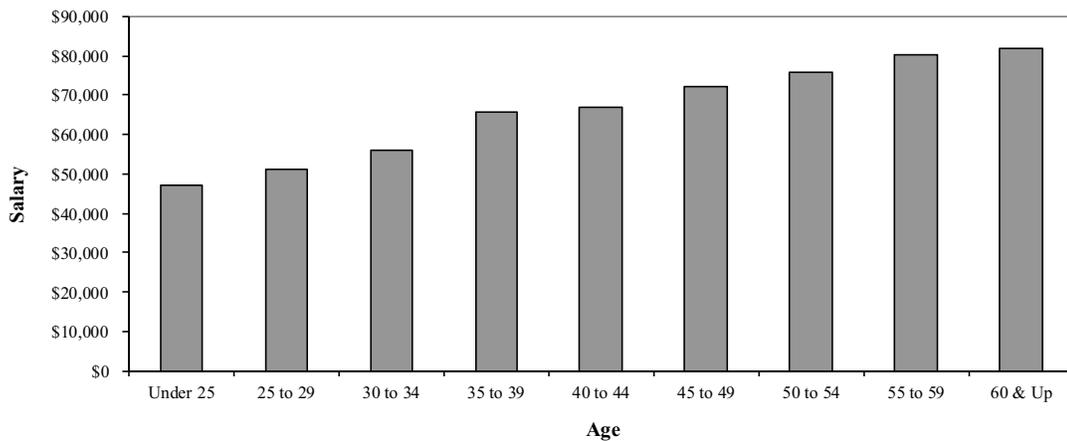


## APPENDIX A (continued)

### CITY OF LINCOLN POLICE AND FIRE PENSION FUND SUMMARY OF ACTIVE MEMBERS as of August 31, 2013 (Police)

Age	Number			Annual Reported Compensation		
	Male	Female	Total	Male	Female	Total
Under 25	6	2	8	\$ 284,255	\$ 92,838	\$ 377,093
25 to 29	48	6	54	2,462,928	302,623	2,765,551
30 to 34	44	11	55	2,482,440	590,746	3,073,186
35 to 39	45	8	53	2,917,238	559,340	3,476,578
40 to 44	41	7	48	2,761,672	455,693	3,217,365
45 to 49	44	6	50	3,181,872	421,094	3,602,966
50 to 54	15	4	19	1,147,968	289,570	1,437,538
55 to 59	4	1	5	292,950	108,063	401,013
60 & Up	7	1	8	546,080	110,187	656,267
<b>Total</b>	<b>254</b>	<b>46</b>	<b>300</b>	<b>\$ 16,077,403</b>	<b>\$ 2,930,154</b>	<b>\$ 19,007,557</b>

**Average Salary by Age**

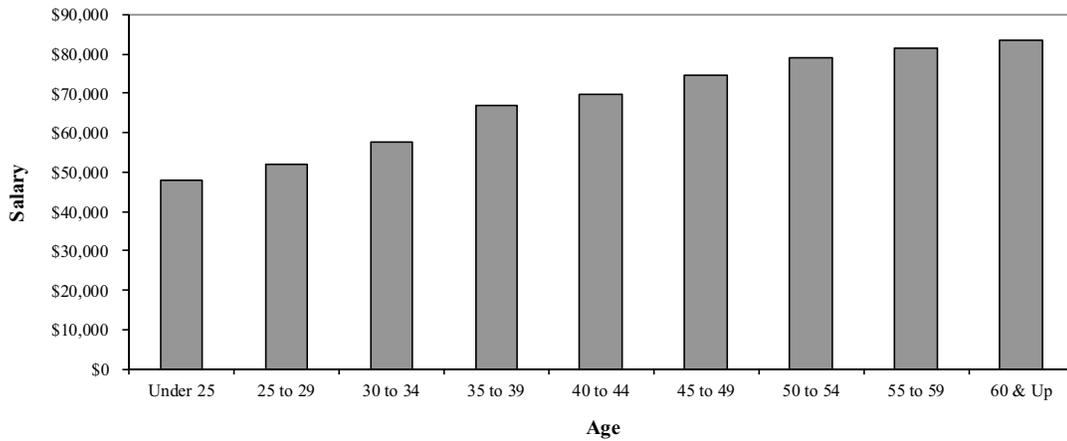


## APPENDIX A (continued)

### CITY OF LINCOLN POLICE AND FIRE PENSION FUND SUMMARY OF ACTIVE MEMBERS as of August 31, 2013 (Combined Fire and Police)

Age	Number			Annual Reported Compensation		
	Male	Female	Total	Male	Female	Total
Under 25	10	2	12	\$ 484,468	\$ 92,838	\$ 577,306
25 to 29	75	8	83	3,913,645	399,327	4,312,972
30 to 34	74	18	92	4,269,091	1,032,264	5,301,355
35 to 39	101	13	114	6,761,354	871,119	7,632,473
40 to 44	85	10	95	5,998,035	644,696	6,642,731
45 to 49	85	8	93	6,351,671	570,296	6,921,967
50 to 54	54	5	59	4,269,841	388,061	4,657,902
55 to 59	11	1	12	869,247	108,063	977,310
60 & Up	12	1	13	973,449	110,187	1,083,636
<b>Total</b>	<b>507</b>	<b>66</b>	<b>573</b>	<b>\$ 33,890,801</b>	<b>\$ 4,216,851</b>	<b>\$ 38,107,652</b>

**Average Salary by Age**

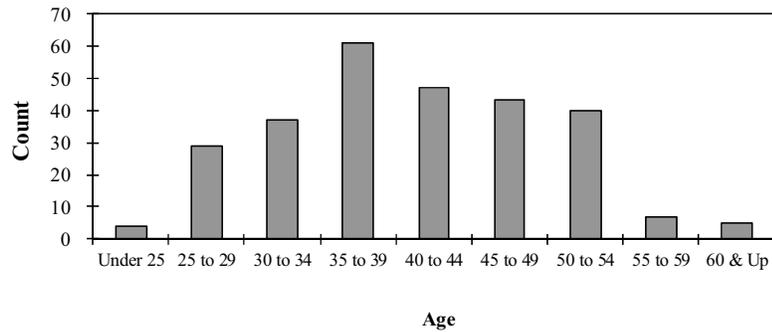


## APPENDIX A (continued)

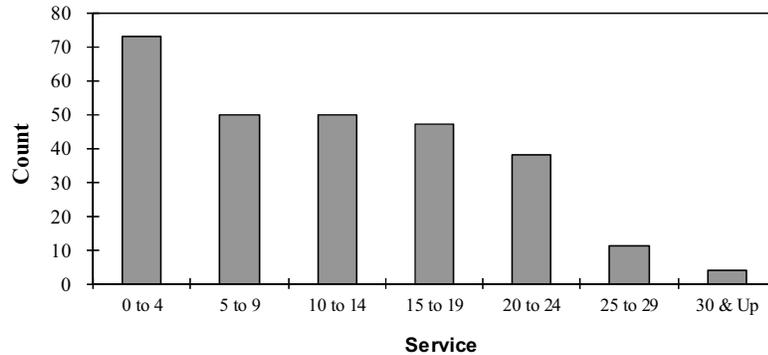
### CITY OF LINCOLN POLICE AND FIRE PENSION FUND DISTRIBUTION OF ACTIVE MEMBERS as of August 31, 2013 (Fire)

Age	Years of Service							Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	4	0	0	0	0	0	0	4
25 to 29	29	0	0	0	0	0	0	29
30 to 34	19	17	1	0	0	0	0	37
35 to 39	14	22	20	5	0	0	0	61
40 to 44	4	8	15	19	1	0	0	47
45 to 49	2	2	7	12	16	4	0	43
50 to 54	0	1	5	8	19	6	1	40
55 to 59	1	0	2	2	1	1	0	7
60 & Up	0	0	0	1	1	0	3	5
<b>Total</b>	<b>73</b>	<b>50</b>	<b>50</b>	<b>47</b>	<b>38</b>	<b>11</b>	<b>4</b>	<b>273</b>

**Age Distribution**



**Service Distribution**

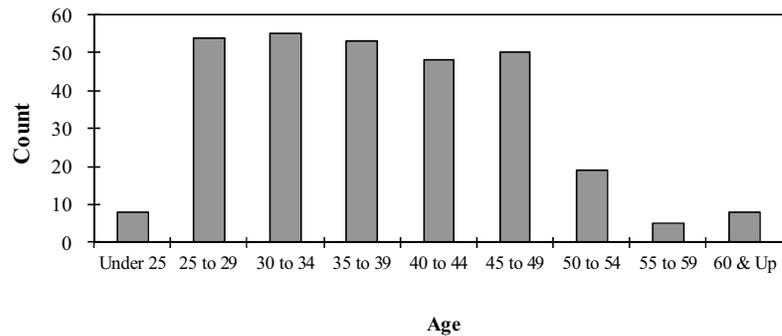


## APPENDIX A (continued)

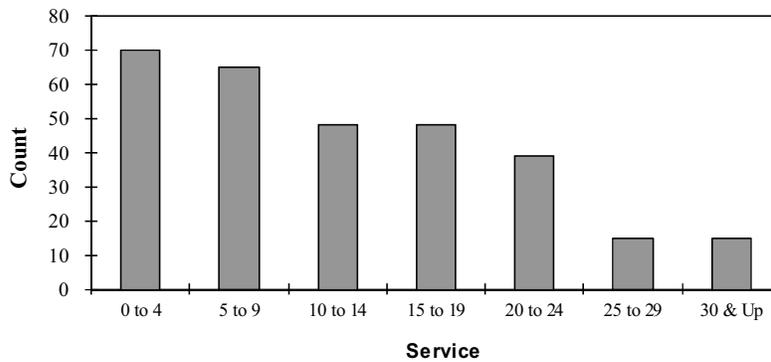
### CITY OF LINCOLN POLICE AND FIRE PENSION FUND DISTRIBUTION OF ACTIVE MEMBERS as of August 31, 2013 (Police)

Age	Years of Service							Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	8	0	0	0	0	0	0	8
25 to 29	39	15	0	0	0	0	0	54
30 to 34	19	32	4	0	0	0	0	55
35 to 39	4	14	25	10	0	0	0	53
40 to 44	0	2	15	26	5	0	0	48
45 to 49	0	1	3	10	31	5	0	50
50 to 54	0	1	1	2	3	10	2	19
55 to 59	0	0	0	0	0	0	5	5
60 & Up	0	0	0	0	0	0	8	8
<b>Total</b>	<b>70</b>	<b>65</b>	<b>48</b>	<b>48</b>	<b>39</b>	<b>15</b>	<b>15</b>	<b>300</b>

**Age Distribution**



**Service Distribution**

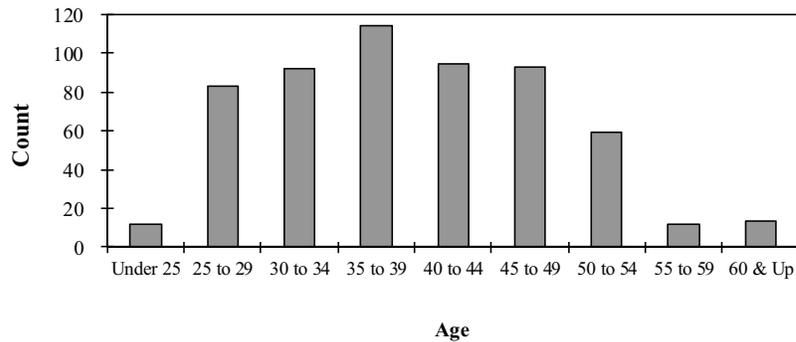


## APPENDIX A (continued)

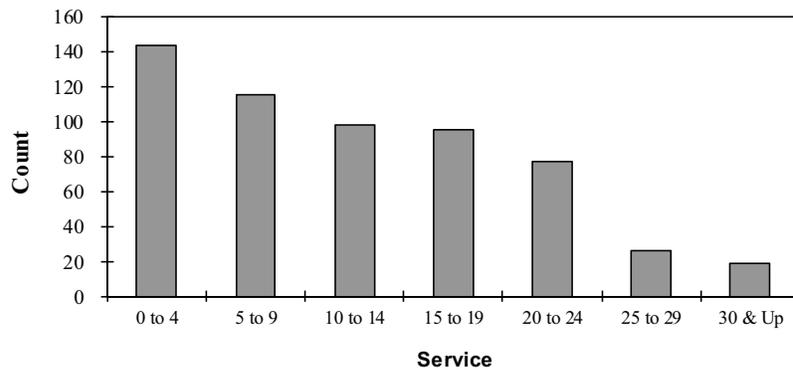
### CITY OF LINCOLN POLICE AND FIRE PENSION FUND DISTRIBUTION OF ACTIVE MEMBERS as of August 31, 2013 (Combined Fire and Police)

Age	Years of Service							Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	12	0	0	0	0	0	0	12
25 to 29	68	15	0	0	0	0	0	83
30 to 34	38	49	5	0	0	0	0	92
35 to 39	18	36	45	15	0	0	0	114
40 to 44	4	10	30	45	6	0	0	95
45 to 49	2	3	10	22	47	9	0	93
50 to 54	0	2	6	10	22	16	3	59
55 to 59	1	0	2	2	1	1	5	12
60 & Up	0	0	0	1	1	0	11	13
<b>Total</b>	<b>143</b>	<b>115</b>	<b>98</b>	<b>95</b>	<b>77</b>	<b>26</b>	<b>19</b>	<b>573</b>

**Age Distribution**



**Service Distribution**

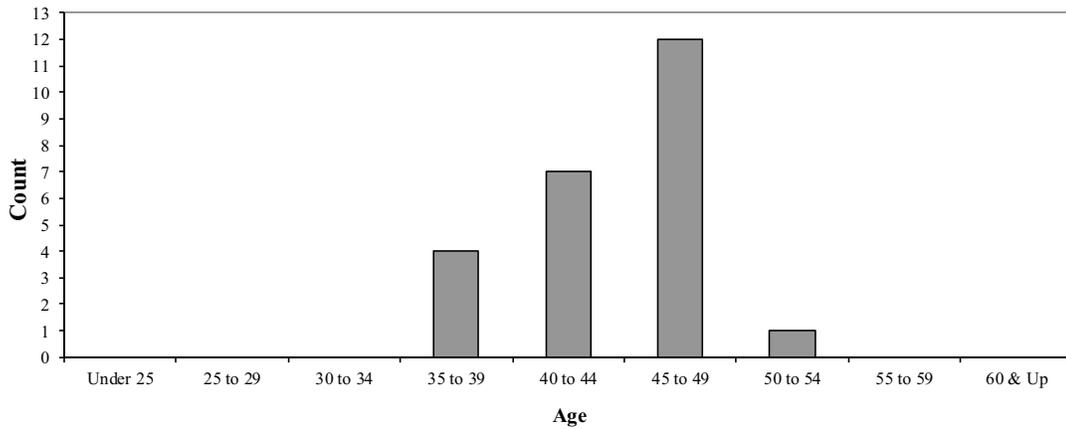


## APPENDIX A (continued)

### CITY OF LINCOLN POLICE AND FIRE PENSION FUND SUMMARY OF INACTIVE VESTED MEMBERS as of August 31, 2013

Age	Number			Annual Benefit at Retirement		
	Male	Female	Total	Male	Female	Total
Under 25	0	0	0	\$ -	\$ -	\$ -
25 to 29	0	0	0	-	-	-
30 to 34	0	0	0	-	-	-
35 to 39	3	1	4	48,039	19,521	67,560
40 to 44	5	2	7	86,245	40,335	126,580
45 to 49	5	7	12	43,095	87,501	130,596
50 to 54	1	0	1	1,919	-	1,919
55 to 59	0	0	0	-	-	-
60 & Up	0	0	0	-	-	-
<b>Total</b>	<b>14</b>	<b>10</b>	<b>24</b>	<b>\$ 179,298</b>	<b>\$ 147,357</b>	<b>\$ 326,655</b>

**Age Distribution**



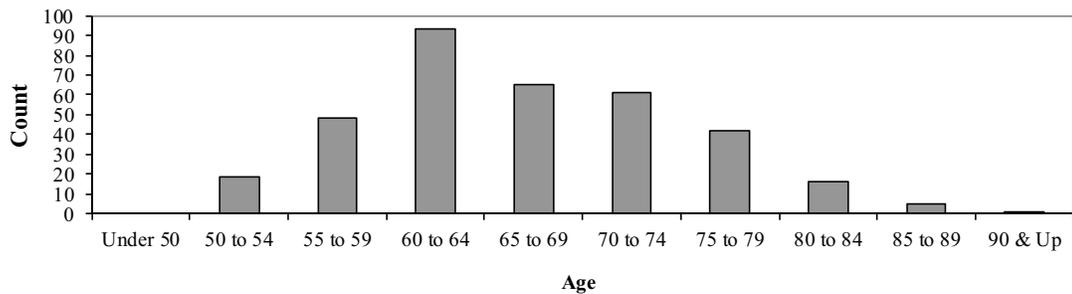
## APPENDIX A (continued)

### CITY OF LINCOLN POLICE AND FIRE PENSION FUND SUMMARY OF RETIRED MEMBERS as of August 31, 2013

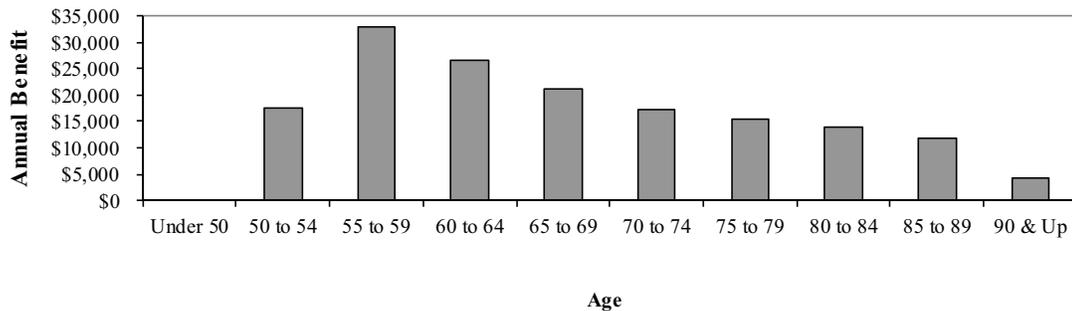
#### Age and Service Retirees

Age	Number			Annual Benefit		
	Male	Female	Total	Male	Female	Total
Under 50	0	0	0	\$ -	\$ -	\$ -
50 to 54	14	5	19	256,051	75,619	331,670
55 to 59	44	4	48	1,471,187	101,728	1,572,916
60 to 64	91	2	93	2,409,057	50,369	2,459,426
65 to 69	65	0	65	1,368,250	-	1,368,250
70 to 74	58	3	61	1,000,452	42,537	1,042,989
75 to 79	42	0	42	652,204	-	652,204
80 to 84	16	0	16	223,618	-	223,618
85 to 89	5	0	5	59,588	-	59,588
90 & Up	1	0	1	4,140	-	4,140
<b>Total</b>	<b>336</b>	<b>14</b>	<b>350</b>	<b>\$ 7,444,546</b>	<b>\$ 270,253</b>	<b>\$ 7,714,800</b>

**Age Distribution**



**Average Benefit**



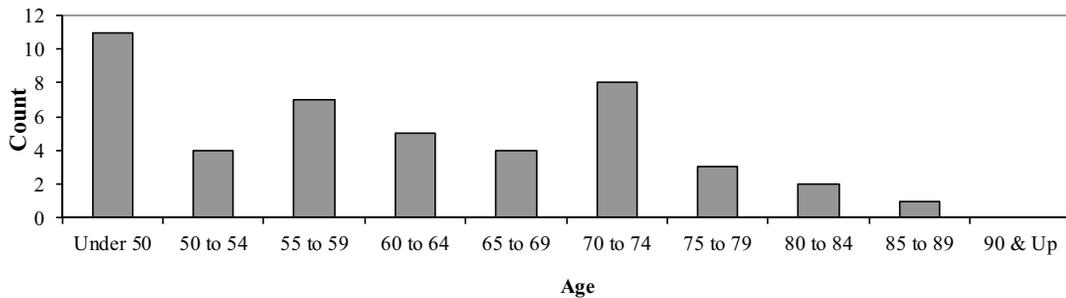
## APPENDIX A (continued)

### CITY OF LINCOLN POLICE AND FIRE PENSION FUND SUMMARY OF RETIRED MEMBERS as of August 31, 2013

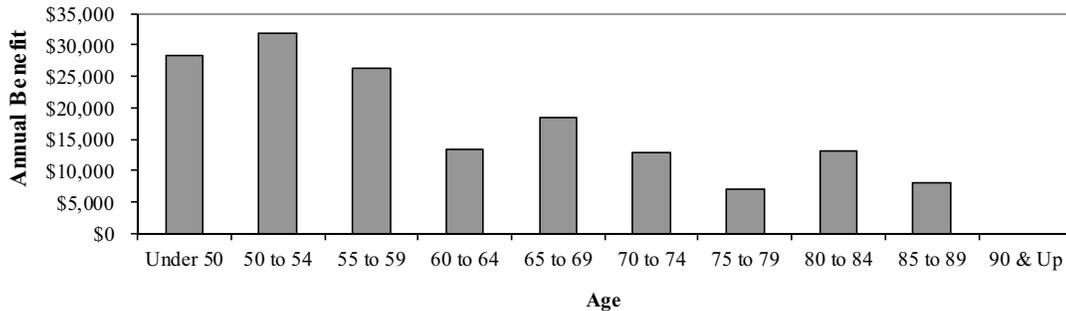
#### Disabled Retirees

Age	Number			Annual Benefit		
	Male	Female	Total	Male	Female	Total
Under 50	8	3	11	\$ 240,497	\$ 70,227	\$ 310,724
50 to 54	3	1	4	109,161	18,177	127,338
55 to 59	6	1	7	175,141	9,812	184,953
60 to 64	5	0	5	67,248	-	67,248
65 to 69	4	0	4	73,762	-	73,762
70 to 74	8	0	8	102,074	-	102,074
75 to 79	3	0	3	21,411	-	21,411
80 to 84	2	0	2	26,498	-	26,498
85 to 89	1	0	1	7,983	-	7,983
90 & Up	0	0	0	-	-	-
<b>Total</b>	<b>40</b>	<b>5</b>	<b>45</b>	<b>\$ 823,775</b>	<b>\$ 98,216</b>	<b>\$ 921,991</b>

#### Age Distribution



#### Average Benefit



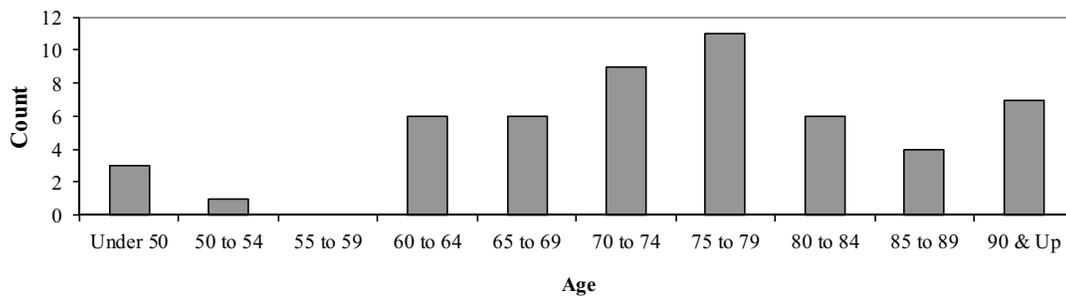
## APPENDIX A (continued)

### CITY OF LINCOLN POLICE AND FIRE PENSION FUND SUMMARY OF RETIRED MEMBERS as of August 31, 2013

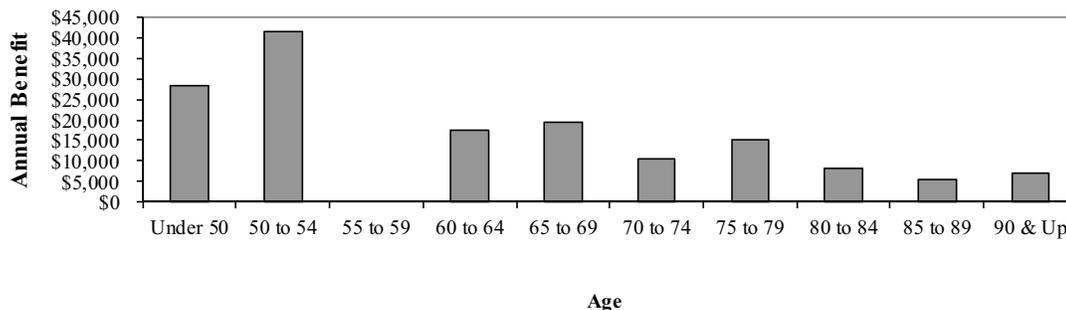
#### Beneficiaries

Age	Number			Annual Benefit		
	Male	Female	Total	Male	Female	Total
Under 50	2	1	3	\$ 71,349	\$ 13,945	\$ 85,294
50 to 54	1	0	1	41,387		41,387
55 to 59	0	0	0			-
60 to 64	0	6	6		105,625	105,625
65 to 69	1	5	6	9,206	107,297	116,503
70 to 74	1	8	9	4,014	89,479	93,493
75 to 79	2	9	11	26,644	139,023	165,667
80 to 84	0	6	6		48,210	48,210
85 to 89	1	3	4	4,104	17,809	21,913
90 & Up	2	5	7	7,992	40,045	48,037
<b>Total</b>	<b>10</b>	<b>43</b>	<b>53</b>	<b>\$ 164,696</b>	<b>\$ 561,432</b>	<b>\$ 726,128</b>

#### Age Distribution



#### Average Benefit



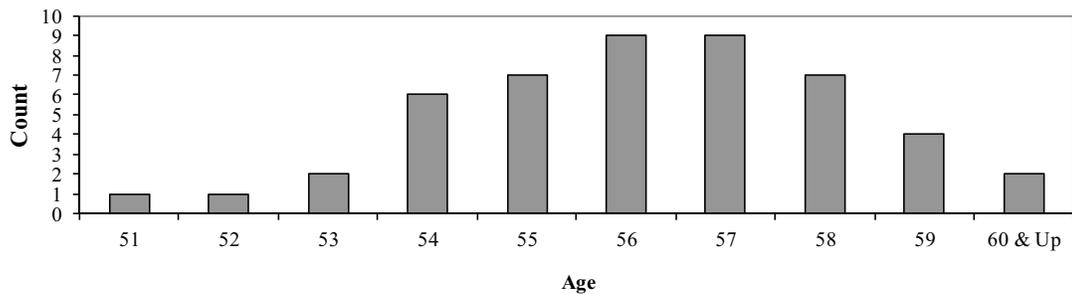
## APPENDIX A (continued)

### CITY OF LINCOLN POLICE AND FIRE PENSION FUND SUMMARY OF RETIRED MEMBERS as of August 31, 2013

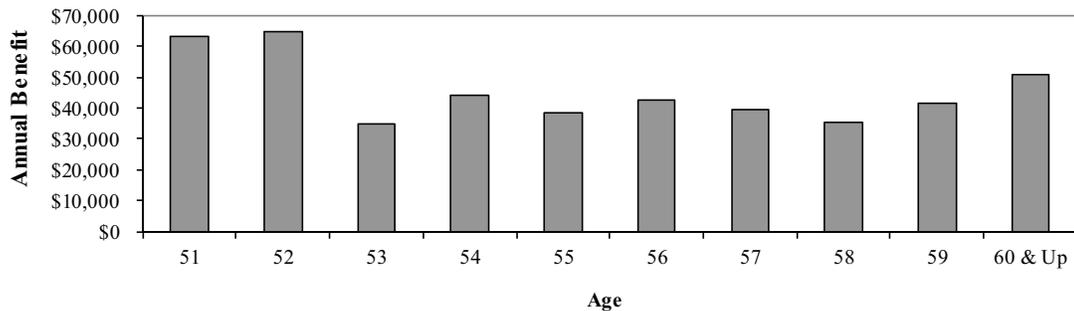
#### DROP Members

Age	Number			Annual Benefit		
	Male	Female	Total	Male	Female	Total
51	1	0	1	\$ 63,437	\$ -	\$ 63,437
52	1	0	1	64,745	-	64,745
53	2	0	2	69,906	-	69,906
54	5	1	6	216,318	47,478	263,796
55	6	1	7	222,661	48,087	270,748
56	9	0	9	381,744	-	381,744
57	8	1	9	288,952	65,339	354,291
58	7	0	7	249,403	-	249,403
59	4	0	4	166,603	-	166,603
60 & Up	2	0	2	101,665	-	101,665
<b>Total</b>	<b>45</b>	<b>3</b>	<b>48</b>	<b>\$ 1,825,434</b>	<b>\$ 160,904</b>	<b>\$ 1,986,337</b>

#### Age Distribution



#### Average Benefit



## APPENDIX B

### CITY OF LINCOLN POLICE AND FIRE PENSION FUND

#### SUMMARY OF BENEFIT PROVISIONS

(AUGUST 31, 2013)

**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.

#### Normal Retirement Age

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

#### Normal Retirement

**Eligibility – All Plans:** Normal retirement age and 10 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%. 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 plus 2% of regular pay for each year of service rendered after becoming eligible for retirement to a maximum increase of 10%. Members with less than 21 years of service receive a ratio of years of service to 21 years of 54% of regular pay.

## APPENDIX B (continued)

### 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 and C:**

Age/Service	Plan B	Plan C
50/21 YOS	52%	48%
51/22 YOS	54%	50%
52/23 YOS	56%	52%

### Deferred Retirement (Vested Termination)

**Eligibility – all plans:** 10 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:** 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%. 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 plus 2% of regular pay for each year of service rendered after becoming eligible for retirement to a maximum increase of 10%. 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, 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.

## APPENDIX B (continued)

### 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
$5 \leq \text{YOS} < 10$	23%	23%	21%
$10 \leq \text{YOS} < 15$	39%	39%	36%
$\text{YOS} \geq 15$	53%	53%	49%

If death results from such disability, the pension shall be paid to the member's surviving spouse until the spouse's death or remarriage, or a reduced pension will be paid to a designated beneficiary.

### 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 – (a) Before Eligible for Normal Retirement:** Surviving spouse receives 58% (or 54% for Plan C) of regular pay. Upon spouse's remarriage or death, the pension is payable to any dependent children under age 19.

**(b) After Eligible for Normal Retirement:** If a member dies after becoming eligible for a normal retirement, his designated beneficiary receives a pension equal to Option A (joint and 100% survivor actuarial equivalent benefit) which would have been payable had the deceased member retired and elected Option A.

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

### Non-Duty Death

**Eligibility – All Plans:** 10 years of service.

**Amount of Pension – All Plans:** Pension which would have been payable had the member retired the day prior to his death and elected Option A (joint & 100% survivor) except any early retirement actuarial reduction shall not be applied.

### Death After Retirement

**Eligibility – all plans:** Monthly benefit may continue to surviving spouse and is dependent on form of payment selected.

After monthly benefits cease a lump sum benefit is payable to survivors of members employed on January 1, 1992 or hired January 1, 1992 to March 31, 2010 equal to the member's unrefunded accumulated contributions and interest multiplied by the ratio of the number of expected payments not received to the number of expected payments. Survivors of other members receive a death benefit after monthly benefits cease, equal to the member's unrefunded accumulated contributions and interest less the sum of monthly benefits received.

## APPENDIX B (continued)

### **Non-Vested Termination**

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

**Amount of Benefit – all plans:** 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.

### **(DROP) Deferred Retirement Option Plan**

#### ***Eligibility for the DROP:***

Members of Plans 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 Plans 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) to the Plan until the employee enters the DROP.

#### ***DROP Period***

Maximum of 5 years.

## APPENDIX C

### CITY OF LINCOLN POLICE AND FIRE PENSION FUND

**Investment Return** (net of investment expenses):

7.5% a year, compounded annually.

**Salary Increases:** These assumptions are used to project current salaries to those upon which benefits will be based. The base economic assumption was first used for the August 31, 2007 valuation.

Sample Ages	Annual Rate of Pay Increase for Sample		
	Base (Economic)	Merit and Longevity	Total
20	4.25%	4.00%	8.25%
25	4.25%	3.30%	7.55%
30	4.25%	2.80%	7.05%
35	4.25%	2.50%	6.75%
40	4.25%	2.20%	6.45%
45	4.25%	1.80%	6.05%
50	4.25%	1.20%	5.45%
55	4.25%	0.70%	4.95%

If the number of active members remains constant, the total active member payroll is eventually expected to increase by 4.25% annually, the base portion of the individual pay increase assumptions. This increasing payroll was recognized in amortizing the unfunded actuarial accrued liability.

**Mortality Table:** The 1994 Group Annuity Mortality table set forward two years for males and 1 year for females. This table was first used for the August 31, 2007 valuation. Sample values follow:

Sample Ages	Actuarial Present Value of \$1 Monthly for Life		Future Life Expectancy (Years)	
	Men	Women	Men	Women
55	\$128.77	\$139.07	24.39	29.24
60	117.81	130.06	20.18	24.70
65	105.49	119.41	16.37	20.46
70	92.10	107.06	12.98	16.54
75	77.51	92.46	9.96	12.90
80	62.98	76.69	7.44	9.71

This assumption is used to measure the probabilities of each benefit payment being made after retirement and was first used in the August 31, 2007 valuation. Fifty percent of the mortality rates in this table were used to determine the probability of members dying before retirement. Fifty percent of the assumed deaths before retirement were assumed to be duty related and 50% were assumed to be non-duty related.

## APPENDIX C (continued)

**Rates of separation from active membership:** The rates do not apply to members eligible to retire and do not include separation on account of death or disability. This assumption measures the probabilities of members remaining in employment.

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%

The rates were first used for the August 31, 2007 valuation.

**Rates of Disability:** These assumptions represent the probabilities of active members becoming disabled as a result of non-duty related causes or as a result of duty related causes.

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%

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

## APPENDIX C (continued)

**Rates of Retirement and DROP Entry:** These rates are used to measure the probabilities of an eligible member retiring and/or “dropping” at the indicated age.

Ages	Old Plan	Rates of Retirement and/or DROP Entry			
		Plan A		Plans B & C	
		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

These rates were first used for the August 31, 2007 valuation.

**Active Member Group Size:** The number of active members was assumed to remain constant. This assumption is unchanged from previous valuations.

## APPENDIX C (continued)

### ACTUARIAL METHODS

#### Funding Method

Under the EAN cost method, the actuarial present value of each member's projected benefits allocates 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 represents the difference between the actuarial 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 UAL is amortized as a level percentage of payroll. The payroll growth assumption is 4.25% so the annual amortization payments will increase 4.25% each year. As a result, if total payroll grows 4.25% per year, as assumed, the amortization payment will remain level as a percentage of total current payroll. The amortization period is 30 years.

#### Asset Valuation Method

For actuarial purposes, assets are valued using an asset smoothing method. The difference between the actual return on the market value of assets and the expected return (based on the actuarial assumed rate of return) on the actuarial value of assets is calculated each year and recognized equally over a five-year period (prior to 2009, the period was four years).

## APPENDIX C (continued)

### MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

<b>Marriage Assumption:</b>	100% of both males and females are assumed to be married for purposes of death-in-service benefits.
<b>Decrement Timing:</b>	All decrements are assumed to occur mid year.
<b>Eligibility Testing:</b>	Eligibility for benefits is determined based upon the age nearest birthday and years of service on the date the decrement is assumed to occur.
<b>Benefit Service:</b>	Exact fractional service on the decrement date is used to determine the amount of benefit payable.
<b>Decrement Operation:</b>	Disability decrements do not operate during the first five years of service. They also do not operate during retirement eligibility.
<b>Normal Form of Benefit:</b>	The assumed normal form of benefit is the straight life form.
<b>Incidence of Contributions:</b>	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.
<b>Funding Period:</b>	Both the City and employee contribute (in accordance with the provisions of each plan) to the Plan until the employee enters the DROP or otherwise exits the Plan.

## APPENDIX D

### GLOSSARY OF TERMS

<b>Actuarial Accrued Liability</b>	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.”
<b>Actuarial Assumptions</b>	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.
<b>Accrued Service</b>	Service credited under the Plan which was rendered before the date of the actuarial valuation.
<b>Actuarial Equivalent</b>	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.
<b>Actuarial Cost Method</b>	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.”
<b>Experience Gain (Loss)</b>	The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.
<b>Actuarial Present Value</b>	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.
<b>Amortization</b>	Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with lump sum payment.
<b>Normal Cost</b>	The actuarial present value of retirement Plan benefits allocated to the current year by the actuarial cost method.

## APPENDIX D (continued)

### **Unfunded Actuarial Accrued Liability**

The difference between actuarial accrued liability and the valuation assets.

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.

The existence of unfunded actuarial accrued liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liability does not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial accrued liability and the trend in its amount.