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***NEBRASKA PUBLIC EMPLOYEES  
RETIREMENT SYSTEM***

**JUDGES RETIREMENT SYSTEM**

**ACTUARIAL VALUATION REPORT  
AS OF JULY 1, 2016**

**Fifty-First Actuarial Report for  
System Plan Year Beginning July 1, 2016  
and  
State Fiscal Year Ending June 30, 2018**







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November 14, 2016

Public Employees Retirement Board  
Nebraska Public Employees Retirement System  
Post Office Box 94816  
Lincoln, NE 68509

Dear Members of the Board:

At your request, we have performed an actuarial valuation of the Judges Retirement System as of July 1, 2016 for the purpose of determining the actuarial required contribution for the plan year ending June 30, 2017. It is our understanding that any required State contribution for this plan year will be made on July 1, 2017 (State fiscal year end 2018). The major findings of the valuation are contained in this report, which reflects the benefit provisions in place on July 1, 2016. There were no changes to the actuarial assumptions and methods from the prior valuation. However, the results of an experience study covering the four-year period ending June 30, 2015 were recently presented to the Board. At their meeting on October 17, 2016, all of the recommended assumptions were adopted and will first be used for the July 1, 2017 actuarial valuation, based on the date of adoption selected by the Board. The benefit provisions are the same as the prior valuation; however, this is the first valuation that includes members who are affected by LB 468, which was passed by the 2015 Nebraska Legislature.

In preparing our report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, member data and financial information. We found this information to be reasonably consistent and comparable with the information received in prior years. 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.

We further certify that all costs, liabilities, rates of interest and other factors for the Judges Retirement System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer the best estimate of anticipated experience affecting the System. Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions. The Public Employees Retirement Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C.

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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.

Actuarial computations presented in this report are for purposes of determining the funding amounts for the System as set out in the Nebraska state statutes. 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.

The consultants who worked on this assignment are pension actuaries. Cavanaugh Macdonald'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 are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.

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

Sincerely,

A handwritten signature in blue ink that reads 'Patrice Beckham'.

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

A handwritten signature in blue ink that reads 'Brent A. Banister'.

Brent A. Banister Ph.D., FSA, EA, MAAA, FCA  
Chief Pension Actuary



## SECTION 1 – BOARD SUMMARY

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This report presents the results of the July 1, 2016 actuarial valuation of the Judges Retirement System. The primary purposes of performing this actuarial valuation are to:

- Determine the level of State contributions for the plan year ending June 30, 2017 that will be sufficient to meet the funding policy set out in the Nebraska statutes.
- Disclose asset and liability measurements as well as the current funded status of the System on the valuation date.
- Compare actual and expected experience under the System during the plan year ended June 30, 2016.
- Analyze and report on trends in System contributions, assets and liabilities over the past several years.

There were no changes in the benefit provisions from the last valuation although we would note that this is the first valuation that includes members whose benefit structure was set by LB 468, which was passed by the 2015 Nebraska Legislature. In the current valuation, there are 7 members covered under the revised benefit provisions of LB 468, which is about 5% of the total active membership. As a result, the revised provisions have a minimal impact on the current valuation. As members covered under LB 468 are hired and replace members covered under the old plan provisions, the System's costs are expected to decline; but it will be many years before the revised provisions have a significant impact on the valuation results.

In addition, there were no changes to the actuarial assumptions and methods from the last valuation. However, the results of an experience study covering the four-year period ending June 30, 2015 were recently presented to the Board. At their meeting on October 17, 2016, all of the recommended assumptions were adopted and will first be used for the July 1, 2017 actuarial valuation, based on the date of adoption selected by the Board. The assumption changes will significantly increase actuarial liabilities in the 2017 valuation. Based on estimates provided in the experience study report, which were based on the July 1, 2015 actuarial valuation, the unfunded actuarial accrued liability is expected to increase by approximately \$15 million, the funded ratio is expected to decline around 5-10%, and some additional State contributions are expected to be required in future years.

The Nebraska statutes require the State to make any additional contribution necessary to meet the actuarial required contribution amount in excess of court fees, member contributions, and any other State appropriations. Based on the results of the July 1, 2016 actuarial valuation, the additional State contribution for the plan year ending June 30, 2017 is \$118,714.

The actuarial valuation results provide a “snapshot” view of the System's financial condition on July 1, 2016. The System's unfunded actuarial accrued liability (UAAL) decreased from \$4.7 million last year to \$3.2 million this year and the funded ratio increased from 97% to 98%.

The valuation results reflect net favorable experience for the past plan year as demonstrated by an UAAL that was lower than expected. The UAAL on July 1, 2016 is \$3.2 million as compared to an expected UAAL of \$4.5 million. The favorable experience was due to the net impact of an experience gain on System liabilities that exceeded the experience loss on the actuarial value of assets. The rate of return on the market value of assets for FY 2016 was 1.6%, as reported by the Nebraska Investment Council. However, the asset smoothing method only recognizes 20% of the shortfall between the 8.0% assumed



**SECTION 1 – BOARD SUMMARY**

rate of return and the actual return. The partial recognition of FY 2016 experience coupled with the recognition of part of the deferred gains from recent years resulted in a rate of return on the actuarial (smoothed) assets of 7.4%. This generated an experience loss of \$1.0 million on the actuarial value of assets. There was an actuarial gain of \$2.3 million on liabilities, largely as the result of a smaller COLA than expected being granted this year to members currently receiving benefits (0.64% actual versus 2.50% expected).

The actuarial required contribution rate decreased from 23.40% of pay last year to 23.11% of pay in this year’s valuation, a decrease of 0.29% of pay. The Judges Retirement System is funded by employee contributions, court fees, and contributions from the State, if needed, to meet the actuarial required contribution. The expected court fees for FY 2017 are \$3.5 million this year (based on the actual court fees for FY 2016) compared to \$3.6M last year. The lower court fees, combined with member contributions, are insufficient to meet the employer actuarial required contribution for the plan year ending June 30, 2017. Therefore, an additional contribution of \$118,714 by the State is required. Note that the court fees available to the System are scheduled to increase effective July 1, 2017, resulting in an additional \$700,000 in annual court fees.

A summary of the key results from the July 1, 2016 actuarial valuation is shown in the following table. Further detail on the valuation results can be found in the following sections of this Executive Summary.

	Valuation Results	
	July 1, 2016	July 1, 2015
Unfunded Actuarial Accrued Liability	\$3,203,387	\$4,726,147
Funded Ratio (Actuarial Assets)	98.09%	97.08%
Normal Cost Rate	22.04%	21.94%
UAAL Amortization Rate	1.07%	1.46%
Total Actuarial Required Contribution	23.11%	23.40%
Member Contribution Rate	(7.57%)	(7.65%)
Additional Required Contribution Rate	15.54%	15.75%
Additional Required Contribution	\$3,577,379	\$3,460,854
Estimated Court Fees	\$3,458,665	\$3,577,205
Additional Required State Contribution	\$118,714	\$0

***EXPERIENCE FOR THE LAST PLAN YEAR***

Numerous factors contributed to the change in the System’s assets, liabilities, and actuarial required contribution rate between July 1, 2015 and July 1, 2016. The components are examined in the following discussion.

**ASSETS**

As of June 30, 2016, the System had net assets of \$159.2 million, when measured on a market value basis. This was a decrease of \$1.6 million from the prior year.



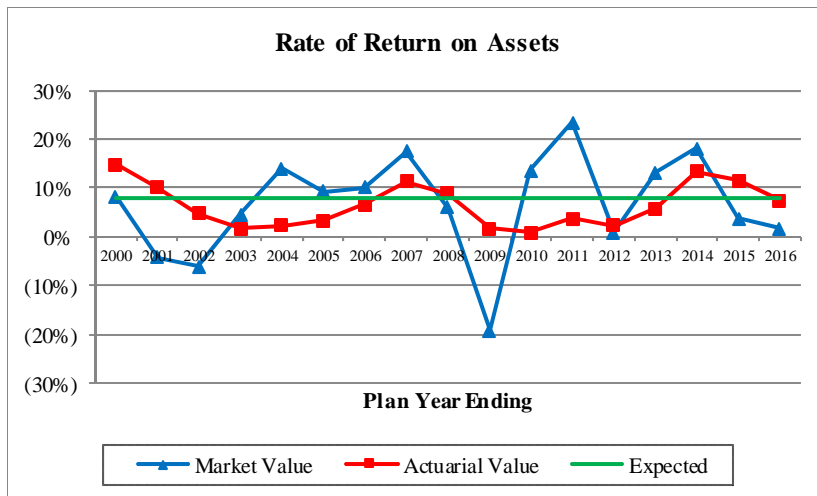


**SECTION 1 – BOARD SUMMARY**

The market value of assets is not used directly in the calculation of the unfunded actuarial accrued liability and the actuarial required contribution rate. An asset valuation method, which smoothes the effect of market fluctuations, is applied to determine the value of assets used in the valuation. The resulting amount is called the actuarial value of assets. In this year’s valuation, the actuarial value of assets is \$164.9 million, an increase of \$7.5 million from the prior year. The components of change in the asset values are shown in the following table:

	Market Value (\$M)		Actuarial Value (\$M)	
<b>Net Assets, June 30, 2015</b>	\$	160.80	\$	157.37
- Employer and Member Contributions	+	5.11	+	5.11
- Benefit Payments	-	9.05	-	9.05
- Net Investment Income	+	2.38	+	11.47
<b>Net Assets, June 30, 2016</b>	\$	159.24	\$	164.90
Estimated Rate of Return		1.6%		7.4%

The rate of return on the actuarial value of assets was 7.4%, which was lower than the 8.0% assumption. As a result, there was an experience loss on assets of \$1.0 million. The investment return on the market value of assets for FY 2016 of 1.6% changed the deferred investment experience from a net deferred gain of \$3.4 million in last year’s valuation to a net deferred loss \$5.7 million in the current valuation. Please see Section 3 of this report for more detailed information on the market and actuarial value of assets.



*The rate of return of the actuarial value of assets has been less volatile than the market value return, illustrating the benefits of 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 normal costs. The difference between this liability and the actuarial value of assets as of the valuation date is called the unfunded actuarial accrued liability (UAAL). The dollar amount of unfunded



**SECTION 1 – BOARD SUMMARY**

actuarial accrued liability is reduced if the contributions to the System exceed the normal cost for the year plus interest on the prior year’s UAAL.

The unfunded actuarial accrued liability is shown as of July 1, 2016 in the following table:

	<b>Actuarial Value of Assets</b>	<b>Market Value of Assets</b>
Actuarial Accrued Liability	\$168,103,750	\$168,103,750
Value of Assets	<u>164,900,363</u>	<u>159,240,849</u>
Unfunded Actuarial Accrued Liability	\$3,203,387	\$8,862,901
Funded Ratio	98.09%	94.73%

See Section 4 of the report for the detailed development of the unfunded actuarial accrued liability.

The net change in the UAAL from July 1, 2015 to July 1, 2016 was a decrease of \$1.5 million. The components of this net change are shown in the following table (in millions):

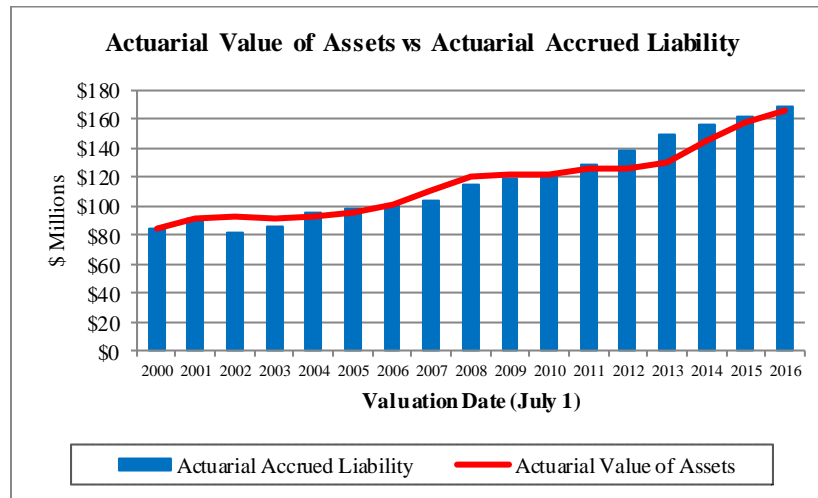
	<b>(\$ Millions)</b>
<b>Unfunded Actuarial Accrued Liability, July 1, 2015</b>	\$4.73
- Expected increase from amortization method	0.04
- Investment experience	0.99
- Liability experience	(2.30)
- Other experience	(0.26)
<b>Unfunded Actuarial Accrued Liability, July 1, 2016</b>	\$3.20

As shown above, various components impacted the UAAL. Actuarial gains (losses), which result from actual experience that is more (less) favorable than anticipated based on the actuarial assumptions, are reflected in the UAAL and are measured as the difference between the expected UAAL and the actual UAAL, taking into account any changes due to actuarial assumptions and methods, or benefit provision changes. Overall, the System experienced a net actuarial gain of \$1.3 million. The net actuarial gain may be explained by considering the separate experience of assets and liabilities. As noted earlier, there was a \$1.0 million loss on the actuarial value of assets. Favorable experience on System liabilities, mainly due to a smaller cost of living adjustment than expected being granted for members currently receiving benefits, resulted in a \$2.3 million gain. A breakdown of the components of experience gains/losses can be found in Table 8 of this report.

As the following graph of historical actuarial assets and accrued liabilities shows, the Judges Retirement System has generally been very well funded over this period with many years at or above the fully funded level. As losses from the market downturn in 2009 were recognized, there were years where the actuarial accrued liability was above the assets. However, the combination of legislation designed to improve the System’s funding status and several years of strong investment returns in recent years have nearly eliminated this difference.



**SECTION 1 – BOARD SUMMARY**



An evaluation of the UAAL on a pure dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both very large numbers) is reflected. Another way to evaluate the UAAL and the progress made in its funding is to track the funded ratio, the ratio of the actuarial value of assets to the actuarial accrued liability. The funded status information, which is based on the actuarial value of assets, is shown below (in millions).

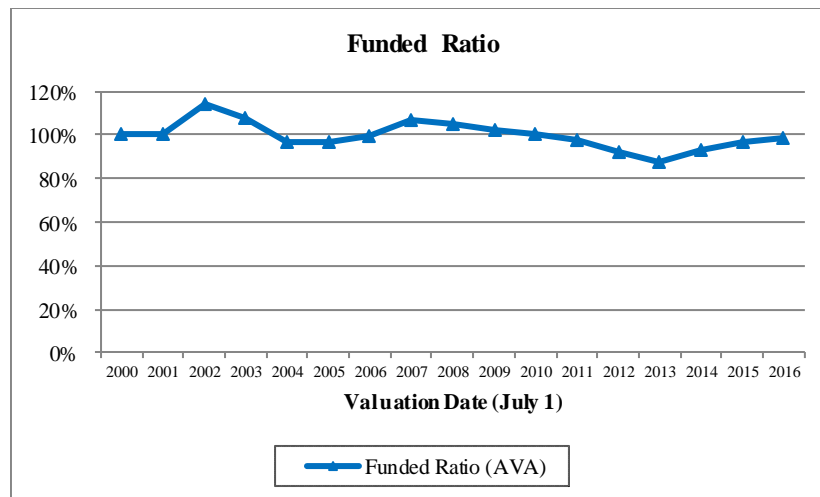
	7/1/2012	7/1/2013	7/1/2014	7/1/2015	7/1/2016
Funded Ratio	91.61%	87.70%	92.58%	97.08%	98.09%
UAAL/(Surplus)	\$11.54	\$18.27	\$11.60	\$4.73	\$3.20

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. If the funded ratios were shown using the market value of assets, the results would differ.

The funded ratio over a longer period of years is shown in the following graph. The System has generally been at or just below 100% funded, other than in some recent years. The changes to the benefit structure for members hired on or after July 1, 2015 as well as the scheduled increases in the court fees that were included in LB 468, passed by the 2015 Legislature, will reduce or possibly eliminate any supplemental State contributions that might be required.



## SECTION 1 – BOARD SUMMARY



### ACTUARIAL REQUIRED CONTRIBUTION RATE

The State’s funding policy is to contribute any additional payments necessary to meet the actuarial required contribution in excess of court fees, member contributions and other State appropriations. The additional State contributions for the plan year are made on the July 1 following the plan year end. The actuarial required contribution rate consists of two components:

- A “normal cost” for the portion of projected liabilities allocated by the actuarial cost method to service of members during the year following the valuation date.
- 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.

The UAAL contribution rate is determined by calculating the amortization payment as a level percentage of payroll. This methodology results in payments that are lower in the initial years of the amortization period, but increase each year in the future with the assumed payroll growth assumption of 4.0%. Because the UAAL contribution rate is determined as a level percent of payroll, the dollar amount of the UAAL contribution is scheduled to increase 4.0% each year in the future, even if all actuarial assumptions are met.

Total expected funding from court fees for FY 2017 is \$3,458,665 (the actual court fees for FY 2016). This amount, when combined with member contributions, is not sufficient to meet the employer actuarial required contribution for the plan year ending June 30, 2017. Therefore, an additional contribution of \$118,714 by the State is required. See Section 5 of the report for the detailed development of the contribution rates which are summarized in the following table:



**SECTION 1 – BOARD SUMMARY**

<b>Contribution Rates</b>	<b>July 1, 2016</b>	<b>July 1, 2015</b>
1. Normal Cost Rate	22.04%	21.94%
2. UAAL Contribution Rate	1.07%	1.46%
3. Total Actuarial Required Contribution Rate	<u>23.11%</u>	<u>23.40%</u>
4. Member Contribution Rate	<u>(7.57%)</u>	<u>(7.65%)</u>
5. Employer Required Contribution Rate [3 + 4]	15.54%	15.75%
6. Estimated Payroll	\$ 23,020,459	\$ 21,973,679
7. Employer Required Contribution [5 * 6]	3,577,379	3,460,854
8. Estimated Court Fees	3,458,665	3,577,205
9. Additional Required State Contribution [7 - 8, but not less than \$0]	\$ 118,714	\$ 0

The following table shows the breakdown of non-member contributions by source, as determined in the actuarial valuation, in recent years.

<b>Plan Year</b>	<b>Total Required Contributions</b>	<b>Court Fees and State Appropriation</b>	<b>Additional State Contribution</b>
2016/2017	\$3,577,379	\$3,458,665	\$118,714
2015/2016	3,460,854	3,577,205	0
2014/2015	3,852,713	3,102,864	749,849*
2013/2014	3,983,750	3,180,367	803,383
2012/2013	3,491,193	3,411,370	79,823*
2011/2012	3,579,661	3,579,661	0
2010/2011	3,615,291	3,615,291	0
2009/2010	4,160,906	4,160,906	0
2008/2009	3,353,208	3,353,208	0
2007/2008	3,207,953	3,207,953	0
2006/2007	3,120,253	3,120,253	0
2005/2006	2,877,273	2,877,273	0
2004/2005	2,718,959	2,074,397	644,562
2003/2004	2,691,913	2,691,913	0
2002/2003	1,291,663	564,857	726,806

\* Contribution not fully made.

Note: Information before 2013 was produced by the prior actuary.

The actuarial required contribution, which this year is determined based on the snapshot of the System taken on the valuation date of July 1, 2016, will change each year as the deferred investment experience is recognized and other experience (both investment and demographic) impacts the System.



## SECTION 1 – BOARD SUMMARY

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The major source of funding for the Judges Retirement System, other than member contributions, is court fees. As the following table shows, the amount of court fees had been declining prior to the passage of LB 468 by the 2015 Nebraska Legislature.

<b>Plan Year Ending</b>	<b>Court Fees</b>
June 30, 2007	\$3,135,709
June 30, 2008	\$3,280,964
June 30, 2009	\$3,419,091
June 30, 2010	\$3,543,047
June 30, 2011	\$3,507,417
June 30, 2012	\$3,411,370
June 30, 2013	\$3,180,367
June 30, 2014	\$3,102,864
June 30, 2015	\$2,977,205
June 30, 2016	\$3,458,665

**SECTION 1 – BOARD SUMMARY****SUMMARY OF PRINCIPAL RESULTS**

	<u>7/1/2016 Valuation</u>	<u>7/1/2015 Valuation</u>	<u>% Change</u>
<b>1. PARTICIPANT DATA</b>			
Number of:			
Active Members			
- Hired before July 1, 2015	142	147	(3.40%)
- Hired on or after July 1, 2015	7	0	N/A
Total	<u>149</u>	<u>147</u>	1.36%
Retired Members and Beneficiaries	179	174	2.87%
Disabled Members	5	5	0.00%
Inactive Vested Members	2	6	(66.67%)
Total Members	<u>335</u>	<u>332</u>	0.90%
Projected Annual Salaries of Active Members	\$ 23,020,459	\$ 21,973,679	4.76%
Annual Retirement Payments for Retired Members, Disabled Members and Beneficiaries	\$ 9,502,065	\$ 8,823,900	7.69%
<b>2. ASSETS AND LIABILITIES</b>			
a. Market Value of Assets	\$ 159,240,849	\$ 160,800,009	(0.97%)
b. Actuarial Value of Assets	164,900,363	157,369,088	4.79%
c. Total Actuarial Accrued Liability	168,103,750	162,095,235	3.71%
d. Unfunded Actuarial Accrued Liability [c - b]	\$ 3,203,387	\$ 4,726,147	(32.22%)
e. Funded Ratio (Actuarial Value of Assets) [b / c]	98.09%	97.08%	1.04%
f. Funded Ratio (Market Value of Assets) [a / c]	94.73%	99.20%	(4.51%)
<b>3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL</b>			
Normal Cost	22.04%	21.94%	0.46%
Amortization of Unfunded Actuarial Accrued Liability	<u>1.07%</u>	<u>1.46%</u>	(26.71%)
Actuarial Required Contribution Rate	23.11%	23.40%	(1.24%)
Member Contribution Rate	<u>(7.57%)</u>	<u>(7.65%)</u>	(1.05%)
Employer Required Contribution Rate	15.54%	15.75%	(1.33%)
Employer Required Contribution Amount	\$ 3,577,379	\$ 3,460,854	3.37%
Expected Court Fees	<u>3,458,665</u>	<u>3,577,205</u>	(3.31%)
Additional Required State Contribution Amount	\$ 118,714	\$ 0	N/A



## **SECTION 2 – SCOPE OF THE REPORT**

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This report presents the actuarial valuation results of the Judges Retirement System as of July 1, 2016. This valuation was prepared at the request of the Public Employees Retirement Board of the Nebraska Public Employees Retirement System.

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 System. Sections 4 and 5 describe how the obligations of the System are to be met under the actuarial cost method in use. Section 6 includes some historical funding information that was required by the Governmental Accounting Standards Board (GASB) in the past.

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 July 1, 2016.
- 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 3 – ASSETS**

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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 July 1, 2016. On that date, the assets available for the payment of benefits are appraised. The assets are compared with the liabilities of the System, 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 System assets and liabilities.

### **Market Value of Assets**

The current market value represents the "snapshot" or "cash-out" value of System 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 System assets as of July 1, 2016, and July 1, 2015, in total and by investment category. Table 2 summarizes the change in the market value of assets from July 1, 2015 to July 1, 2016.

### **Actuarial Value of Assets**

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

To arrive at a suitable value of assets 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 and assumed investment return on the market value of assets is recognized evenly over a five-year period.

Table 3 shows the development of the actuarial value of assets (AVA) as of the valuation date.



**TABLE 1**  
**JUDGES RETIREMENT SYSTEM**  
**MARKET VALUE OF ASSETS**  
**by Investment Category**

	<u>June 30, 2016</u>	<u>June 30, 2015</u>
1. Cash and Equivalents	\$ 113,640	\$ 93,398
2. Investments	162,800,062	164,399,543
3. Capital Assets	38	55
4. Receivables and Prepaids	9,763,931	12,471,054
5. Accounts Payable	<u>(13,436,822)</u>	<u>(16,164,041)</u>
6. Net Assets Available for Pension Benefits	\$ 159,240,849	\$ 160,800,009



**TABLE 2**  
**JUDGES RETIREMENT SYSTEM**  
**CHANGE IN MARKET VALUE OF ASSETS**

	2016	2015
1. Market Value of Assets, Beginning of Year	\$ 160,800,009	\$ 158,790,111
2. Contributions		
(a) Member	\$ 1,651,432	\$ 1,610,529
(b) Court fees	3,458,665	2,977,205
(c) State appropriations	0	94,000
(d) Total	\$ 5,110,097	\$ 4,681,734
3. Expenditures		
(a) Benefit payments	\$ 9,052,110	\$ 8,547,892
(b) Administrative expenses	70,707	82,746
(c) Total	\$ 9,122,817	\$ 8,630,638
4. Investment Return, Net of Expenses		
(a) Investment income	\$ 2,098,225	\$ 2,018,293
(b) Securities lending income	35,848	23,068
(c) Securities lending expense	(12,158)	(4,962)
(d) Net appreciation/(depreciation) in fair value of investments	331,645	3,922,400
(e) Other	0	3
(f) Total investment return	\$ 2,453,560	\$ 5,958,802
5. Market Value of Assets, End of Year [1 + 2(d) - 3(c) + 4(f)]	\$ 159,240,849	\$ 160,800,009
6. Rate of Return, Net of Expenses*	1.6%	3.7%

\* As reported by the Nebraska Investment Council



TABLE 3  
JUDGES RETIREMENT SYSTEM  
DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

	Year End			
	6/30/2013	6/30/2014	6/30/2015	6/30/2016
1. Actuarial Value of Assets, Beginning of Year	\$ 125,927,523	\$ 130,308,955	\$ 144,729,946	\$ 157,369,088
2. Unrecognized Return Beginning of Year	\$ (2,020,520)	\$ 6,713,024	\$ 14,060,165	\$ 3,430,921
3. Contributions During Year				
(a) Member	\$ 1,424,374	\$ 1,518,801	\$ 1,610,529	\$ 1,651,432
(b) Court fees	3,180,367	3,102,864	2,977,205	3,458,665
(c) State appropriations	0	803,383	94,000	0
(d) Total	\$ 4,604,741	\$ 5,425,048	\$ 4,681,734	\$ 5,110,097
4. Benefit Payments	\$ 7,393,972	\$ 8,121,996	\$ 8,547,892	\$ 9,052,110
5. Expected Investment Income on (1), (2), (3) and (4) at 8%	\$ 9,827,738	\$ 10,882,979	\$ 12,579,978	\$ 12,739,472
6. Actual Return on Market Value , Net of All Expenses	\$ 15,904,207	\$ 24,465,080	\$ 5,876,056	\$ 2,382,853
7. Return to be Spread, End of Year	\$ 6,076,469	\$ 13,582,101	\$ (6,703,922)	\$ (10,356,619)

[6 - 5]



**TABLE 3  
(continued)**

**JUDGES RETIREMENT SYSTEM**

**DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS**

8. Return to be Spread

Plan Year <u>Ending</u>	Return to be <u>Spread</u>	Unrecognized <u>Percent</u>	Unrecognized <u>Return</u>
2016	(\$10,356,619)	80%	(\$8,285,295)
2015	(6,703,922)	60%	(4,022,353)
2014	13,582,101	40%	5,432,840
2013	6,076,469	20%	1,215,294
			<u>(\$5,659,514)</u>

9. Total Market Value of Assets as of July 1, 2016 \$159,240,849

10. Total Actuarial Value of Assets as of July 1, 2016 \$164,900,363  
[9 - 8]

11. Asset Ratios

(a) Actuarial Value to Market Value [10 / 9]	103.55%
(b) Market Value to Actuarial Value [9 / 10]	96.57%



## SECTION 4 – SYSTEM 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 Judges Retirement System as of the valuation date, July 1, 2016. In this section, the discussion will focus on the commitments (future benefit payments) of the System, which are referred to as its liabilities.

Table 4 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 4 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 July 1, 2016.

### **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 5 contains the calculation of actuarial accrued liability for the System. The Entry Age Normal actuarial cost method is used to develop the actuarial accrued liability.



**TABLE 4**  
**JUDGES RETIREMENT SYSTEM**  
**PRESENT VALUE OF FUTURE BENEFITS (PVFB)**  
**AS OF JULY 1, 2016**

1. Active Employees		
(a) Retirement	\$	105,361,804
(b) Death		2,972,804
(c) Total	\$	<u>108,334,608</u>
2. Inactive Vested Members		1,002,064
3. Inactive Nonvested Members		0
4. Disabled Members		3,319,675
5. Retirees		76,237,618
6. Beneficiaries		<u>14,585,251</u>
7. Total Present Value of Future Benefits [1(c) + 2 + 3 + 4 + 5 + 6]	\$	203,479,216



**TABLE 5**  
**JUDGES RETIREMENT SYSTEM**  
**ACTUARIAL ACCRUED LIABILITY**  
**AS OF JULY 1, 2016**

1. Present Value of Future Benefits for Active Members	\$	108,334,608
2. Present Value of Future Normal Costs for Active Members		
(a) Retirement	\$	34,056,543
(b) Death		1,318,923
(c) Total	\$	<u>35,375,466</u>
3. Actuarial Accrued Liability for Active Members [1 - 2(c)]	\$	72,959,142
4. Actuarial Accrued Liability for Inactive Members	\$	95,144,608
5. Total Actuarial Accrued Liability [3 + 4]	\$	168,103,750
6. Actuarial Value of Assets	\$	164,900,363
7. Unfunded Actuarial Accrued Liability [5 - 6]	\$	3,203,387





**TABLE 6**  
**JUDGES RETIREMENT SYSTEM**  
**ACTUARIAL BALANCE SHEET**

ASSETS

Actuarial Value of Assets	\$	164,900,363
Unfunded Actuarial Accrued Liability		3,203,387
Present Value of Future Normal Costs		<u>35,375,466</u>
Total Assets	\$	203,479,216

LIABILITIES

Present Value of Future Benefits			
Active members			
Retirement	\$	105,361,804	
Death		<u>2,972,804</u>	
Total			108,334,608
Inactive members			1,002,064
Retirees, disabilities and beneficiaries			<u>94,142,544</u>
Total	\$		203,479,216



TABLE 7  
JUDGES RETIREMENT SYSTEM  
ACTUARIAL GAIN/(LOSS)

**Liabilities**

1. Actuarial Accrued Liability as of July 1, 2015	\$	162,095,235
2. Normal Cost for Plan Year Ending June 30, 2016		4,371,332
3. Benefit Payments During Plan Year Ending June 30, 2016		(9,052,110)
4. Interest at 8.0%		12,992,325
5. Expected Actuarial Accrued Liability as of July 1, 2016	\$	170,406,782
6. Actuarial Accrued Liability as of July 1, 2016	\$	168,103,750

**Assets**

7. Actuarial Value of Assets as of July 1, 2015	\$	157,369,088
8. Contributions During Plan Year Ending June 30, 2016		5,110,097
9. Benefit Payments During Plan Year Ending June 30, 2016		(9,052,110)
10. Interest at 8.0%		12,464,998
11. Expected Actuarial Value of Assets as of July 1, 2016	\$	165,892,073
12. Actuarial Value of Assets as of July 1, 2016	\$	164,900,363

**Gain / (Loss)**

13. Actuarial Gain / (Loss) on Liabilities [5 - 6]	\$	2,303,032
14. Actuarial Gain / (Loss) on Assets [12 - 11]		(991,710)
15. Total Actuarial Gain / (Loss) for Plan Year Ending June 30, 2016 [13 + 14]	\$	1,311,322



**TABLE 8**  
**JUDGES RETIREMENT SYSTEM**  
**GAIN/(LOSS) ANALYSIS BY SOURCE**

<b>Liability Sources</b>	<b>Gain/(Loss)</b>
Retirement	\$ 717,266
Termination	0
Disability	0
Mortality	(378,043)
Salary	298,643
New Entrants/Rehires	(155,433)
COLA	1,540,428
Miscellaneous	280,171
Total Liability Gain/(Loss)	\$ 2,303,032
Asset Gain/(Loss)	\$ (991,710)
Net Actuarial Gain/(Loss)	\$ 1,311,322



TABLE 9

JUDGES RETIREMENT SYSTEM  
PROJECTED BENEFIT PAYMENTS

<u>Plan Year Ending June 30</u>	<u>Current Active Members</u>	<u>Current In-Pay Members</u>	<u>Total</u>
2017	\$ 677,000	\$ 9,370,000	\$ 10,047,000
2018	1,718,000	9,375,000	11,093,000
2019	2,553,000	9,341,000	11,894,000
2020	3,604,000	9,360,000	12,964,000
2021	4,437,000	9,288,000	13,725,000
2022	5,334,000	9,182,000	14,516,000
2023	6,168,000	9,082,000	15,250,000
2024	6,887,000	8,967,000	15,854,000
2025	7,946,000	8,830,000	16,776,000
2026	8,886,000	8,665,000	17,551,000
2027	9,632,000	8,468,000	18,100,000
2028	10,665,000	8,277,000	18,942,000
2029	11,387,000	8,066,000	19,453,000
2030	12,077,000	7,836,000	19,913,000
2031	12,687,000	7,582,000	20,269,000
2032	13,403,000	7,310,000	20,713,000
2033	13,959,000	7,018,000	20,977,000
2034	14,511,000	6,704,000	21,215,000
2035	15,267,000	6,370,000	21,637,000
2036	15,926,000	6,014,000	21,940,000
2037	16,309,000	5,641,000	21,950,000
2038	16,702,000	5,253,000	21,955,000
2039	17,118,000	4,852,000	21,970,000
2040	17,283,000	4,442,000	21,725,000
2041	17,720,000	4,029,000	21,749,000
2042	17,866,000	3,620,000	21,486,000
2043	18,070,000	3,218,000	21,288,000
2044	17,933,000	2,830,000	20,763,000
2045	17,536,000	2,462,000	19,998,000
2046	17,157,000	2,119,000	19,276,000

Note: Cash flows are the expected future non-discounted payments to current members. These numbers exclude refund payouts to any current nonvested inactive members and assume future retirees elect the normal form of payment.



## **SECTION 5 – EMPLOYER CONTRIBUTIONS**

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The previous two sections were devoted to a discussion of the assets and liabilities of the System. A comparison of Tables 3 and 4 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 system, 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 system 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, systems 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 by the actuarial assumptions. 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 and losses.

In general, contributions are computed in accordance with a level percent-of-payroll funding objective. The contribution rate based on the July 1, 2016 actuarial valuation will be used to determine the actuarial required employer contribution rate to the Judges Retirement System for the plan year ending June 30, 2017. Any State contributions are expected to be deposited on July 1, 2017 (State fiscal year 2018). 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.

### **Contribution Rate Summary**

In Table 10 the amortization payment related to the unfunded actuarial accrued liability/(surplus), as of July 1, 2016, is developed. Table 11 develops the actuarial required contribution rate for the System and the amount of any additional required state contributions.

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



**SECTION 5 – EMPLOYER CONTRIBUTIONS**

**TABLE 10**  
**JUDGES RETIREMENT SYSTEM**  
**SCHEDULE OF AMORTIZATION BASES**

<b>Amortization Bases</b>	<b>Original Amount</b>	<b>July 1, 2016 Remaining Payments</b>	<b>Date of Last Payment</b>	<b>Outstanding Balance as of July 1, 2016</b>	<b>Annual Contribution*</b>
2011 Unfunded Actuarial Accrued Liability Base	\$ 3,073,897	25	7/1/2041	\$ 3,177,442	\$ 200,248
2012 Unfunded Actuarial Accrued Liability Base	\$ 8,490,376	26	7/1/2042	\$ 8,895,268	\$ 547,669
2013 Unfunded Actuarial Accrued Liability Base	\$ 6,839,972	27	7/1/2043	\$ 7,255,344	\$ 436,996
2014 Unfunded Actuarial Accrued Liability Base	\$ (7,043,240)	28	7/1/2044	\$ (7,333,895)	\$ (432,676)
2015 Unfunded Actuarial Accrued Liability Base	\$ (7,075,557)	29	7/1/2045	\$ (7,223,967)	\$ (417,943)
2016 Unfunded Actuarial Accrued Liability Base	\$ (1,566,805)	30	7/1/2046	\$ (1,566,805)	\$ (88,989)
<b>Total</b>				<b>\$ 3,203,387</b>	<b>\$ 245,305</b>

\* Contribution amount reflects mid-year timing.

- 1. Total UAAL Amortization Payments \$ 245,305
- 2. Projected Payroll for FY 2017 \$ 23,020,459
- 3. UAAL Amortization Payment Rate 1.07%

Note: Beginning with the July 1, 2013 valuation, the payments on each UAAL base are determined as a level percent of payroll using a 4% payroll growth assumption.



**TABLE 11**

**JUDGES RETIREMENT SYSTEM**

**ACTUARIAL REQUIRED CONTRIBUTION RATE**

1. Normal Cost		
(a) Amount	\$	4,627,457
(b) Expected pay for current actives		20,993,976
(c) Normal Cost Rate as % of pay		22.04%
2. UAAL Amortization Rate (see Table 10)		1.07%
3. Total Actuarial Required Contribution Rate [1(c) + 2]		23.11%
4. Statutory Member Contribution Rate		7.57%
5. Employer Required Contribution Rate [3 - 4]		15.54%
6. Actuarial Required Employer Contribution		
(a) Projected pay for FY 2017	\$	23,020,459
(b) Total required contribution [5 * 6(a)]		3,577,379
(c) Expected court fees		3,458,665
(d) Additional required State contribution amount as of July 1, 2017 [6(b) - 6(c), not less than 0]	\$	118,714



## **SECTION 6 – OTHER INFORMATION**

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### **HISTORICAL FUNDING AND OTHER INFORMATION**

This section of the report provides a historical perspective on the System’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 is effective for plan years ending on or after June 15, 2014. 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 System. A separate report that contains all of the information and exhibits of an actuarial nature that are necessary for the System’s financial reporting under GASB 67 is issued.

GASB Statement No. 68 establishes standards for the measurement, recognition, and display of pension expense and related liabilities. Annual pension cost is measured and disclosed on the accrual basis of accounting. GASB 68 was effective for fiscal year end 2015 for the state of Nebraska. A separate report containing all of the pertinent information is also prepared for GASB 68 reporting.





SECTION 6 – OTHER INFORMATION

TABLE 12  
JUDGES RETIREMENT SYSTEM  
HISTORICAL FUNDING INFORMATION  
SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded Actuarial Accrued Liability (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a % of Covered Payroll [(b - a) / c]
June 30, 2003	\$91,863,620	\$85,387,839	(\$6,475,781)	107.6%	\$16,402,342	(39.5%)
June 30, 2004	92,810,699	95,671,391	2,860,692	97.0%	16,655,342	17.2%
June 30, 2005	94,922,714	98,512,876	3,590,162	96.4%	16,285,137	22.0%
June 30, 2006	100,565,893	101,438,239	872,346	99.1%	16,422,894	5.3%
June 30, 2007	111,006,176	103,704,250	(7,301,926)	107.0%	17,003,921	(42.9%)
June 30, 2008	119,961,758	114,251,081	(5,710,677)	105.0%	17,990,072	(31.7%)
June 30, 2009	120,992,600	118,558,418	(2,434,182)	102.1%	18,373,339	(13.2%)
June 30, 2010	121,406,463	121,309,682	(96,781)	100.1%	18,773,203	(0.5%)
June 30, 2011	125,190,720	128,264,617	3,073,897	97.6%	18,182,238	16.9%
June 30, 2012	125,927,523	137,464,661	11,537,138	91.6%	19,005,478	60.7%
June 30, 2013	130,308,955	148,581,812	18,272,857	87.7%	20,099,647	90.9%
June 30, 2014	144,729,946	156,326,683	11,596,737	92.6%	21,705,428	53.4%
June 30, 2015	157,369,088	162,095,235	4,726,147	97.1%	21,973,679	21.5%
June 30, 2016	164,900,363	168,103,750	3,203,387	98.1%	23,020,459	13.9%

Note: Information before 2013 was produced by the prior actuary.



**TABLE 13**  
**JUDGES RETIREMENT SYSTEM**  
**HISTORICAL FUNDING INFORMATION**  
**SCHEDULE OF CONTRIBUTIONS FROM EMPLOYER**  
**AND OTHER CONTRIBUTING ENTITIES**

Plan Year Ending	Actuarial Required Contributions			Percent Contributed
	State	Court Fees	Total	
June 30, 2005	\$501,841	\$2,217,118	\$2,718,959	84%
June 30, 2006	72,244	3,048,009	3,120,253	100%
June 30, 2007	72,244	3,135,709	3,207,953	100%
June 30, 2008	72,244	3,280,964	3,353,208	100%
June 30, 2009	72,244	3,419,091	3,491,335	100%
June 30, 2010	72,244	3,543,047	3,615,291	100%
June 30, 2011	72,244	3,507,417	3,579,661	100%
June 30, 2012	72,244	3,411,370	3,483,614	100%
June 30, 2013	0	3,180,367	3,180,367	100%
June 30, 2014	803,383	3,102,864	3,906,247	100%
June 30, 2015	749,849	2,977,205	3,727,054	82%
June 30, 2016	0	3,458,665	3,458,665	100%

Note: Contribution information is consistent with that shown in the GASB 67 report prepared for the System.



APPENDIX A – MEMBERSHIP DATA

MEMBER DATA RECONCILIATION

	Active Members	Inactive Vested	Retirees and Beneficiaries	Disabled Members	Total
As of July 1, 2015	147	6	174	5	332
Changes in status					
a) Retirement	(6)	(4)	10	0	0
b) Death	0	0	(7)	0	(7)
c) Nonvested terminations	0	0	0	0	0
d) Vested terminations	0	0	0	0	0
e) Contribution refund	0	0	0	0	0
f) Beneficiaries in receipt	0	0	2	0	2
g) Disability retirements	0	0	0	0	0
h) Return to active service	0	0	0	0	0
i) Expired benefits	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total changes in status	(6)	(4)	5	0	(5)
New entrants					
a) Without prior service	8	0	0	0	8
b) With prior service	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total new members	8	0	0	0	8
Net Change	2	(4)	5	0	3
As of July 1, 2016	149	2	179	5	335

Note: Excludes any nonvested inactive members.



**APPENDIX A – MEMBERSHIP DATA**

**SUMMARY OF MEMBERSHIP DATA**

<b>A. ACTIVE MEMBERS</b>	<b>July 1, 2016</b>	<b>July 1, 2015</b>	<b>% Change</b>
1. Number of Active Members			
(a) Before assumed retirement age	145	142	2.1%
(b) Beyond assumed retirement age	4	5	(20.0%)
(c) Total*	<u>149</u>	<u>147</u>	1.4%
2. Annual Reported Salary			
(a) Before assumed retirement age	\$ 21,594,805	\$ 20,445,867	5.6%
(b) Beyond assumed retirement age	540,252	682,670	(20.9%)
(c) Total	<u>\$ 22,135,057</u>	<u>\$ 21,128,537</u>	4.8%
3. Accumulated Contributions	\$ 17,282,423	\$ 16,850,553	2.6%
4. Active Member Averages			
(a) Age	58.6	58.6	0.0%
(b) Service	13.1	13.3	(1.5%)
(c) Compensation	\$ 148,557	\$ 143,732	3.4%
<b>B. INACTIVE MEMBERS</b>			
1. Number of Inactive Members	2	6	(66.7%)
2. Accumulated Member Contributions	\$ 216,515	\$ 893,532	(75.8%)
3. Inactive Member Averages			
(a) Age	61.0	63.5	(3.9%)
(b) Accumulated member contributions	\$ 108,258	\$ 148,922	(27.3%)
<b>C. RETIREES, DISABLED, AND BENEFICIARIES</b>			
1. Number of Members			
(a) Retired	138	133	3.8%
(b) Disabled	5	5	0.0%
(c) Beneficiaries	41	41	0.0%
(d) Total	<u>184</u>	<u>179</u>	2.8%
2. Annual Benefits			
(a) Retired	\$ 7,462,907	\$ 6,875,016	8.6%
(b) Disabled	348,943	346,728	0.6%
(c) Beneficiaries	1,690,215	1,602,156	5.5%
(d) Total	<u>\$ 9,502,065</u>	<u>\$ 8,823,900</u>	7.7%

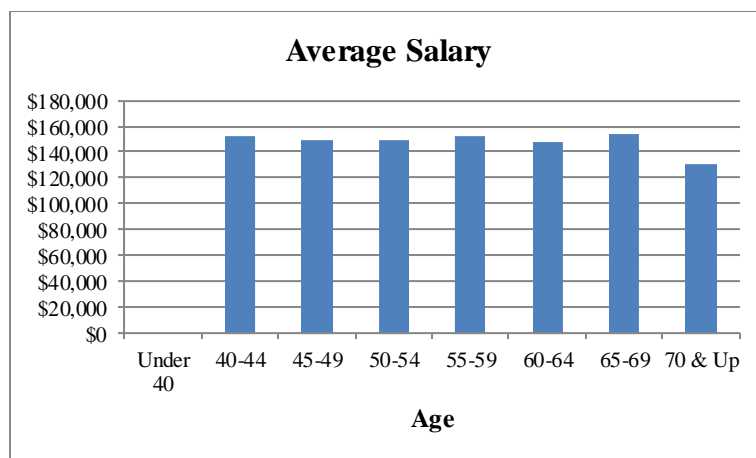
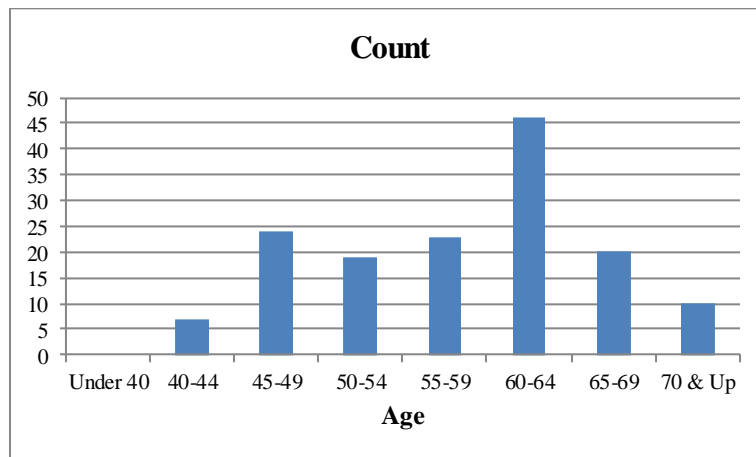
\* As of July 1, 2016, 7 active members receive the benefit and contribution provisions under LB 468, 109 active members receive the benefit and contribution provisions under LB 1097, and 33 active members remained covered under the prior benefit and contribution provisions. As of July 1, 2015, these counts were 0, 113, and 34, respectively.



**APPENDIX A – MEMBERSHIP DATA**

**ACTIVE MEMBERS  
AS OF JULY 1, 2016**

<u>Age</u>	<u>Count of Members</u>			<u>Reported FY 2016 Earnings for Current Members</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 40	0	0	0	\$ 0	\$ 0	\$ 0
40-44	5	2	7	764,332	299,087	1,063,419
45-49	13	11	24	1,910,415	1,674,054	3,584,469
50-54	13	6	19	1,900,529	923,326	2,823,855
55-59	16	7	23	2,434,232	1,071,726	3,505,958
60-64	35	11	46	5,350,325	1,424,699	6,775,024
65-69	17	3	20	2,608,699	473,553	3,082,252
70 & Up	8	2	10	1,163,349	136,731	1,300,080
<b>Total</b>	<b>107</b>	<b>42</b>	<b>149</b>	<b>\$ 16,131,881</b>	<b>\$ 6,003,176</b>	<b>\$ 22,135,057</b>





**APPENDIX A – MEMBERSHIP DATA**

**AGE AND SERVICE DISTRIBUTION  
AS OF JULY 1, 2016**

Age		0-4	5-9	10-14	15-19	20-24	Over 24	Total
<b>Under 40</b>	Number	0	0	0	0	0	0	0
	Total Salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average Sal.	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
<b>40-44</b>	Number	5	2	0	0	0	0	7
	Total Salary	\$ 756,025	\$ 307,394	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,063,419
	Average Sal.	\$ 151,205	\$ 153,697	\$ 0	\$ 0	\$ 0	\$ 0	\$ 151,917
<b>45-49</b>	Number	19	4	1	0	0	0	24
	Total Salary	\$ 2,828,445	\$ 602,327	\$ 153,697	\$ 0	\$ 0	\$ 0	\$ 3,584,469
	Average Sal.	\$ 148,866	\$ 150,582	\$ 153,697	\$ 0	\$ 0	\$ 0	\$ 149,353
<b>50-54</b>	Number	10	2	5	2	0	0	19
	Total Salary	\$ 1,465,503	\$ 299,087	\$ 760,178	\$ 299,087	\$ 0	\$ 0	\$ 2,823,855
	Average Sal.	\$ 146,550	\$ 149,543	\$ 152,036	\$ 149,543	\$ 0	\$ 0	\$ 148,624
<b>55-59</b>	Number	8	3	5	6	1	0	23
	Total Salary	\$ 1,217,115	\$ 461,092	\$ 768,486	\$ 909,722	\$ 149,543	\$ 0	\$ 3,505,958
	Average Sal.	\$ 152,140	\$ 153,697	\$ 153,697	\$ 151,620	\$ 149,543	\$ 0	\$ 152,433
<b>60-64</b>	Number	3	7	12	7	17	0	46
	Total Salary	\$ 461,091	\$ 1,067,573	\$ 1,827,751	\$ 1,063,419	\$ 2,355,190	\$ 0	\$ 6,775,024
	Average Sal.	\$ 153,697	\$ 152,510	\$ 152,313	\$ 151,917	\$ 138,541	\$ 0	\$ 147,283
<b>65-69</b>	Number	0	2	1	6	11	0	20
	Total Salary	\$ 0	\$ 319,857	\$ 153,697	\$ 918,029	\$ 1,690,669	\$ 0	\$ 3,082,252
	Average Sal.	\$ 0	\$ 159,928	\$ 153,697	\$ 153,005	\$ 153,697	\$ 0	\$ 154,113
<b>70 &amp; Up</b>	Number	0	0	1	1	8	0	10
	Total Salary	\$ 0	\$ 0	\$ 153,698	\$ 149,543	\$ 996,839	\$ 0	\$ 1,300,080
	Average Sal.	\$ 0	\$ 0	\$ 153,697	\$ 149,543	\$ 124,605	\$ 0	\$ 130,008
<b>Total</b>	Number	45	20	25	22	37	0	149
	Total Salary	\$ 6,728,179	\$ 3,057,330	\$ 3,817,507	\$ 3,339,800	\$ 5,192,241	\$ 0	\$ 22,135,057
	Average Sal.	\$ 149,515	\$ 152,866	\$ 152,700	\$ 151,809	\$ 140,331	\$ 0	\$ 148,557



**APPENDIX A – MEMBERSHIP DATA**

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**INACTIVE VESTED MEMBERS  
AS OF JULY 1, 2016**

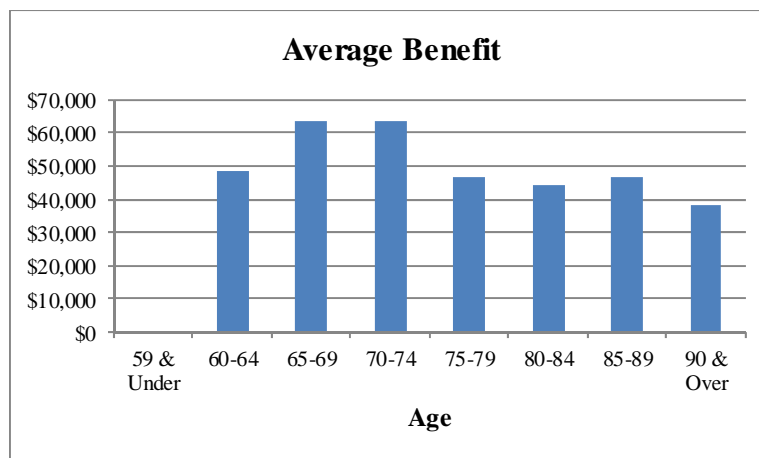
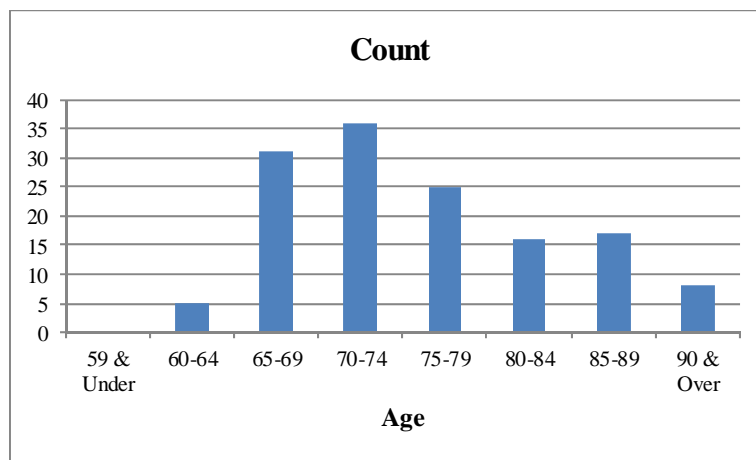
<u>Age</u>	<u>Count of Members</u>			<u>Annual Benefits</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
59 & Under	1	0	1	\$ 75,886	\$ 0	\$ 75,886
60-64	1	0	1	25,118	0	25,118
65-69	0	0	0	0	0	0
70-74	0	0	0	0	0	0
75-79	0	0	0	0	0	0
80-84	0	0	0	0	0	0
85-89	0	0	0	0	0	0
90 & Over	0	0	0	0	0	0
Total	2	0	2	\$ 101,004	\$ 0	\$ 101,004



**APPENDIX A – MEMBERSHIP DATA**

**RETIRED MEMBERS  
AS OF JULY 1, 2016**

<u>Age</u>	<u>Count of Members</u>			<u>Annual Benefits</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
59 & Under	0	0	0	\$ 0	\$ 0	\$ 0
60-64	2	3	5	137,005	104,707	241,712
65-69	21	10	31	1,451,078	518,856	1,969,934
70-74	28	8	36	1,997,826	283,050	2,280,876
75-79	15	10	25	882,288	288,445	1,170,733
80-84	11	5	16	613,613	93,686	707,299
85-89	12	5	17	688,862	99,313	788,175
90 & Over	8	0	8	304,178	0	304,178
<b>Total</b>	<b>97</b>	<b>41</b>	<b>138</b>	<b>\$6,074,850</b>	<b>\$1,388,057</b>	<b>\$7,462,907</b>



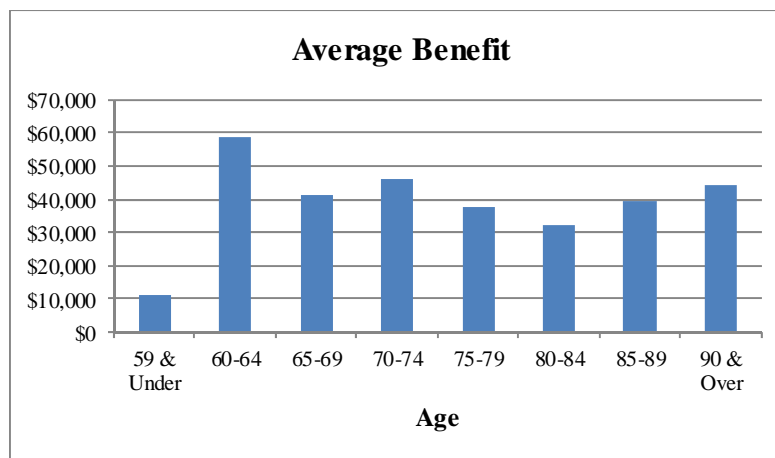
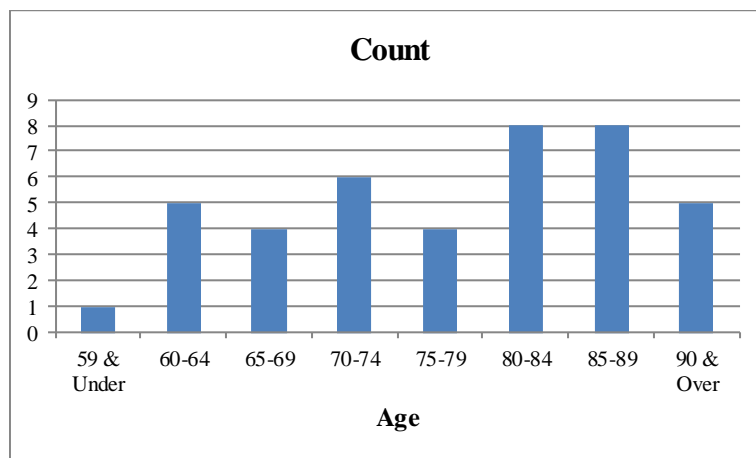




**APPENDIX A – MEMBERSHIP DATA**

**BENEFICIARIES RECEIVING BENEFITS  
AS OF JULY 1, 2016**

<u>Age</u>	<u>Count of Members</u>			<u>Annual Benefits</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
59 & Under	1	0	1	\$ 11,277	\$ 0	\$ 11,277
60-64	1	4	5	60,061	232,701	292,762
65-69	0	4	4	0	165,843	165,843
70-74	0	6	6	0	276,858	276,858
75-79	0	4	4	0	149,519	149,519
80-84	0	8	8	0	258,528	258,528
85-89	0	8	8	0	313,610	313,610
90 & Over	0	5	5	0	221,818	221,818
<b>Total</b>	<b>2</b>	<b>39</b>	<b>41</b>	<b>\$ 71,338</b>	<b>\$1,618,877</b>	<b>\$1,690,215</b>





**APPENDIX A – MEMBERSHIP DATA**

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**DISABLED MEMBERS  
AS OF JULY 1, 2016**

<u>Age</u>	<u>Count of Members</u>			<u>Annual Benefits</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
59 & Under	0	0	0	\$ 0	\$ 0	\$ 0
60-64	0	0	0	0	0	0
65-69	1	0	1	93,849	0	93,849
70-74	1	1	2	90,775	8,213	98,988
75-79	1	0	1	86,160	0	86,160
80-84	1	0	1	69,946	0	69,946
85-89	0	0	0	0	0	0
90 & Over	0	0	0	0	0	0
Total	4	1	5	\$ 340,730	\$ 8,213	\$ 348,943



## APPENDIX B – SUMMARY OF PLAN PROVISIONS

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### Member

*Original* A judge who first serves prior to December 25, 1969, and who does not elect to become a Future member on or before November 1, 1981.

*Future* A judge who first serves on or after December 25, 1969, or who elects to become a Future member on or before November 1, 1981.

**Participation Date** Date of becoming a member.

### Definitions

*Final average earnings* For Judges who became members prior to July 1, 2015, the average of the highest three 12-month periods of covered pay, ending on the earlier of the participant's termination date or retirement date.

For Judges who became members on or after July 1, 2015, the average of the highest five 12-month periods of covered pay, ending on the earlier of the participant's termination date or retirement date.

*Fiscal year* Twelve month period ending June 30.

*Member contributions* All members hired after July 1, 2004 but before July 1, 2015, and members that elected an enhanced Joint and Survivor Benefit under LB 1097 contribute 9% of pensionable pay up to 20 years of service, and 5% of pensionable pay thereafter. All other members contribute 7% of pensionable pay during the first twenty years of service, and 1% of pensionable pay thereafter. Such contributions are credited with interest based on the 1-year Treasury yield curve on July 1 of each year, as determined by State Statutes.

Judges who first became members on or after July 1, 2015 will contribute 10% of compensation.

*Monthly pension benefit* A monthly benefit equal to one-twelfth of 3.5% of final average salary times total years of service, subject to a maximum of 70% of final average salary. Effective July 1, 2001, an automatic annual cost-of-living adjustment (COLA) equal to the CPI-W index is provided for current and future retirees by LB 711. Also provided is a minimum floor benefit equal to 75% of the purchasing power of the original benefit. The maximum increase for any one year is 2.5% for Judges who became members prior to July 1, 2015, and 1.0% for Judges who became members on or after July 1, 2015.

*Normal Retirement Date (NRD)* Attainment of age 65.



## APPENDIX B – SUMMARY OF PLAN PROVISIONS

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*Pension service* Length of service includes all service as a Supreme Court, District Court, Worker’s compensation Court, separate Juvenile Court, County Court, Municipal Court, or Appeals Court judge in Nebraska, computed to the nearest one-twelfth year and includes declared emergency service in the armed forces.

### Eligibility for Benefits

*Deferred vested* Termination for reasons other than death, disability, or retirement. No service requirement for vesting.

*Disability retirement* Retirement by reason of permanent disability as determined by the Commission of Judicial qualifications.

*Early retirement* Retirement before NRD and after attaining age 55.

*Normal retirement* Retire on NRD.

*Postponed retirement* Retire after NRD.

*Pre-retirement spouse benefit* Death prior to retirement.

### Monthly Benefits Paid Upon the Following Events

*Normal retirement* Monthly pension benefit determined as of NRD.

*Early retirement* Monthly pension benefit determined as of early retirement date, reduced by 3% if the member retires at age 64, 6% at age 63, or 9% at age 62, and actuarially reduced for each month that commencement of payment precedes age 62. The actuarial reduction is based on the 1994 Group Annuity Mortality Table, 25% female, 75% male and 8% interest.

*Postponed retirement* Monthly pension benefit determined as of actual retirement date.

*Termination with deferred vested benefit* Members may elect to receive either (i) a refund of their contributions with regular interest, or (II) a deferred normal retirement benefit payable at age 65 and calculated based upon service and salary at the date of termination.

*Disability retirement* Monthly pension benefit determined as of disability retirement date.

*Pre-retirement spouse benefits* **1) With 5 or more years of service:** A life annuity is payable to the surviving spouse in the amount which would have been payable had the member retired on the date of death and elected a joint and 100% survivor annuity.



**APPENDIX B – SUMMARY OF PLAN PROVISIONS**

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- 2) **With less than 5 years of service:** A lump sum equal to the member’s contributions plus regular interest.

*Forms of payment*

All members hired after July 1, 2004, and members who elected increased contributions under LB 1097 are eligible to receive benefits paid in the normal form of an enhanced 50% Joint and Survivor Annuity. All other members receive benefits paid in the normal form of a modified cash refund annuity. Optional forms are: life annuity, life annuity with period certain, contingent annuity and join annuity. Pre-retirement spouse benefits are payable only as described above.

**Funding Arrangement**

The Nebraska Retirement Fund for Judges is established in the State Treasury. The fund receives member contributions and pays benefits and expenses. Additional funds are received as follows:

*Court Fees*

Beginning July 1, 2015, \$2 each from civil, criminal, traffic and probate case docket fees will be re-directed from the General Fund to the Judges’ Retirement Fund.

Beginning July 1, 2017, \$4 each from civil, criminal, traffic and probate case docket fees will be re-directed from the General Fund to the Judges’ Retirement Fund.

*State*

The State makes any additional contributions that are necessary each year to pay the excess of the normal cost plus an amortization payment to fund unfunded actuarial accrued liability bases, over member contributions, court fees, and state appropriations.

**Benefits Reflected in Valuation**

All benefits were valued, including future cost of living increases as provided for by LB 711.

**Plan Provision Effective After July 1, 2016**

No future changes in plan provisions were recognized in determining the funded status or in determining the State’s contribution amount.

**Changes since the Prior Year**

There have been no benefit provision changes since the prior valuation.



## APPENDIX C – SUMMARY OF ACTUARIAL ASSUMPTIONS

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### ACTUARIAL METHODS

- 1. Calculation of Normal cost and Actuarial Accrued Liability:** The method used to determine the normal cost and actuarial accrued liability was the Entry Age Actuarial Cost Method described below.

#### Entry Age Actuarial Cost Method

Projected pension and preretirement spouse's death benefits were determined for all active members under age 72. Cost factors designed to produce annual costs as a level percentage of each member's expected compensation in each year from the assumed entry age to the assumed retirement age were applied to the projected benefits to determine the normal cost (the portion of the total cost of the plan allocated to the current year under the method). The normal cost is determined by summing intermediate results for active members under age 72 and determining an average normal cost rate which is then related to the total payroll of active members under age 72. The actuarial assumptions shown in Appendix C were used in determining the projected benefits and cost factors. The actuarial accrued liability for active members (the portion of the total cost of the plan allocated to prior years under the method) was determined as the excess of the actuarial present value of projected benefits over the actuarial present value of future normal costs.

The actuarial accrued liability for retired members and their beneficiaries currently receiving benefits, active members age 72 and over, terminated vested members and disabled members not yet receiving benefits was determined as the actuarial present value of the benefits to be paid. No future normal costs are payable for these members.

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 accrued liability is the excess of the actuarial accrued liability over the actuarial value of plan assets measured on the valuation date. The initial unfunded actuarial accrued liability established July 1, 2004, is amortized with a level dollar payment amount over 25 years. At subsequent valuation dates, amortization bases equal to changes in the unfunded actuarial accrued liability are established and amortized with a level dollar payment over a 25-year period. The unfunded actuarial accrued liability was reinitialized as of July 1, 2006 and amortized over a 30-year period. At subsequent valuation dates, amortization bases equal to changes in the unfunded actuarial accrued liability are established and amortized over a level dollar payment over a 30-year period. If the unfunded actuarial accrued liability was \$0 or less as of the prior valuation date, all previous amortization bases are considered fully amortized. Effective with the July 1, 2013 valuation, amortization payments were recalculated to amortize the remaining bases as a level percentage of expected payroll, per LB 553.

Under the Entry Age Normal method, experience gains or losses, i.e., decreases or increases in actuarial accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust the unfunded actuarial accrued liability.



## APPENDIX C – SUMMARY OF ACTUARIAL ASSUMPTIONS

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**2. Calculation of the Actuarial Value of Assets:** 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 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 of Actuarial Value. Effective July 1, 2000, the expected return on Actuarial Value includes interest on the previous year's unrecognized return.

The passage of Legislative Bill 553 (LB 553) changed the amortization of the unfunded actuarial accrued liability (UAAL) from a level dollar payment to a level percent of payroll payment, where the dollar amount of the payment increases with the assumed payroll growth each year in the future. This change lowered the dollar amount of the UAAL payment in the 2013 valuation, but creates a payment schedule where the dollar amount of UAAL contribution increases 4% each year in the future. If actual payroll increases at the assumed rate of 4%, the UAAL contribution rate will remain level. If payroll increases are less than the 4% assumption, the UAAL contribution rate will increase.



**APPENDIX C – SUMMARY OF ACTUARIAL ASSUMPTIONS**

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**ACTUARIAL ASSUMPTIONS**

**Economic Assumptions**

- 1. Investment Return                      8.00% per annum, compounded annually, net of all expenses.
- 2. Inflation                                3.25% per annum, compounded annually.
- 3. Salary Increases                        Salaries are assumed to increase 4.00% each year.
- 4. Payroll Growth                         4.00% per year
- 5. Interest on Employee  
    Contributions                            4.25% per annum, compounded annually.
- 6. Increases in Compensation  
    And Benefit Limits                      3.25% per annum on the 401(a)(17) compensation limit and  
    415 benefit limit

**Demographic Assumptions**

- 1. Mortality                                The mortality assumption includes an appropriate level of conservatism that reflects expected future mortality improvement.
  - a. Active Members                        1994 Group Annuity Mortality Table, projected to 2015 using scale AA, set-back 1 year (sex distinct with 55% of male rates for males and 40% of female rates for females)
  - b. Retired Members                        1994 Group Annuity Mortality Table, projected to 2015 using scale AA, set-back 1 year (sex distinct)
  - c. Mortality rates and life expectancies under the mortality tables are shown below at sample ages:

<b>Pre-Retirement Mortality</b>				
<b>Sample Age</b>	<b>Mortality Rate</b>		<b>Life Expectancy (years)</b>	
	<b>Males</b>	<b>Females</b>	<b>Males</b>	<b>Females</b>
20	0.02%	0.01%	68.3	74.7
30	0.04	0.01	58.5	64.8
40	0.05	0.02	48.7	54.9
50	0.09	0.04	39.0	45.0
60	0.28	0.14	29.5	35.3
70	0.87	0.46	20.8	26.1





**APPENDIX C – SUMMARY OF ACTUARIAL ASSUMPTIONS**

Sample Age	Post-Retirement Mortality		Life Expectancy (years)	
	Mortality Rate		Males	Females
	Males	Females	Males	Females
50	0.16%	0.09%	33.4	36.4
60	0.51	0.35	24.1	26.9
70	1.62	1.14	16.0	18.4
80	4.43	3.05	9.2	11.0
90	12.55	9.82	4.5	5.4

2. Retirement Rates vary by age. Rates are as follows:

Rates by Age	
Age	Rate
55-59	1.5%
60-61	3.0
62-64	10.0
65	20.0
66-69	10.0
70-71	15.0
72	100.0

3. Termination None.

4. Disability None.

**Other Assumptions**

1. Form of Payment Modified Cash Refund Annuity under prior plan benefit provisions. A 50% Joint & Survivor Benefit for members electing this provision under LB 1097, and new members hired after July 1, 2004. Deferred vesteds are assumed to take the greater of the present value of an annuity at age 63 or a refund of contributions.

2. Marital Status

a. Percent married 100% married

b. Spouse’s age Females assumed to be three years younger than males.

3. Administrative Expense Investment return is assumed to be net of expenses.

4. Cost of Living Adjustment 2.50% per annum, compounded annually, and 3.25% per annum, compounded annually, after reaching 75% purchasing power floor benefit.



## **APPENDIX C – SUMMARY OF ACTUARIAL ASSUMPTIONS**

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5. State Contribution                      State contributions for the current plan year are assumed to be contributed in a lump sum on the July 1 following the plan year end. These amounts from the prior plan year are treated as a contribution receivable on the plan’s financial statements.

### **Changes in Assumptions Since the Prior Year**

There were no changes in the assumptions from the prior year.

### **TECHNICAL VALUATION PROCEDURES**

#### ***Data Procedures***

Client data caps active service at 20 years. While capping the benefit amount at 20 years of service, we keep a record of actual service beyond 20 years in order to remain consistent with the Entry Age Method.

Salaries for first year members are annualized by using the client’s Calculated Salary field. For continuing active members, the Accumulated Salary field is used.

#### ***Other Valuation Procedures***

Salary increases are assumed to apply to annual amounts.

Decrement rates are assumed to occur mid-year, except that immediate retirement is assumed for those who are at or above the age at which retirement rates are 100%. Standard adjustments are made for multiple decrements.



## APPENDIX D – GLOSSARY OF TERMS

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<b>Actuarial Accrued Liability</b>	The difference between the actuarial present value of system 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 system 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 system 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 system benefits allocated to the current year by the actuarial cost method.



## APPENDIX D – GLOSSARY OF TERMS

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**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 systems have unfunded actuarial accrued liability. They arise each time new benefits are added and each time an actuarial loss is realized.