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NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS

2014
STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

Actuarial Valuation Results
as of January 1, 2014
for State Fiscal Year Ending June 30, 2016

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Cavanaugh Macdonald
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April 11, 2014

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 performed an actuarial valuation of the State Employees' Retirement System Cash Balance Benefit Fund as of January 1, 2014 for the purpose of determining the actuarial required contribution rate for the 2014 plan year. It is our understanding that any additional required State contributions for this plan year will be made on July 1, 2015 (State fiscal year end 2016). The major findings of the valuation are contained in this report, which reflects the benefit provisions in place on January 1, 2014. There was no change to the actuarial assumptions or plan provisions from the prior valuation.

This is the first actuarial valuation report prepared by Cavanaugh Macdonald Consulting, LLC (CMC). As part of our transition work, we replicated the January 1, 2013 actuarial valuation. Results were within acceptable limits, but as is typical in a takeover situation, there were some differences in the key valuation results. Based on our experience, these differences are neither unusual nor significant. The details of the replication results are discussed in the Board Summary of this report.

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. Active member data was provided to us by the Ameritus Life Insurance Company, the recordkeeper for the plan. 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.

We further certify that all costs, liabilities, rates of interest and other factors for the State Employees' Retirement System Cash Balance Benefit Fund 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.

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 computations presented in this report under GASB Statement No. 25 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 System's funding requirements and goals and our understanding of GASB Statement No. 25. 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. CMC'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,

Patrice Beckham

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

Brent A. Banister

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

SECTION 1 – BOARD SUMMARY

This report presents the results of the January 1, 2014 actuarial valuation of the State Employees' Retirement System Cash Balance Benefit Fund. The primary purposes of performing actuarial valuations are to:

- Determine if member contributions and matching State contributions, as defined in statute, are sufficient to meet the funding policy defined under Nebraska State Statutes for the plan year ending December 31, 2014 and, if not, the additional State contribution needed.

- Disclose asset and liability measurements as well as the current funded status of the State Cash Balance Benefit Fund on the valuation date.

- Compare actual and expected experience under the System during the plan year beginning January 1, 2013 and ended December 31, 2013.

- Analyze and report on trends in System contributions, assets and liabilities over the past several years.

- Quantify the contribution rate available for benefit improvements, if any.

The Nebraska statutes require the State to make an additional contribution if the regular, payroll-related contributions by members (4.80% of pay) and the State (156% of member contributions) are insufficient to meet the actuarial required contribution for the plan year. Based on the results of the January 1, 2014 actuarial valuation, the contributions defined by statute are more than sufficient to meet the actuarially required contribution. **Therefore, there is no additional State contribution for this plan year (the State fiscal year ending June 30, 2016).**

The actuarial valuation results provide a "snapshot" view of the System's financial condition on January 1, 2014. The System's unfunded actuarial accrued liability (UAAL) decreased from $68.5 million last year to $9.6 million this year and the funded ratio increased from 93.6% to 99.2%. In addition, the actuarial required contribution rate decreased from 11.32% of pay last year to 10.45% of pay in this year's valuation. Several factors impacted the January 1, 2014 actuarial valuation results, including:

- Actual experience on System assets. The rate of return on the market value of assets was over 18%. Due to the use of an asset smoothing method, the rate of return on the actuarial value of assets was about 12%, which exceeded the 7.75% assumed rate of return. As a result, there was an experience gain on assets of $39.5 million.
- The impact of actual demographic experience on System liabilities. There was an experience gain of $16.1 on System liabilities, primarily as a result of the interest crediting rate of 5% for 2013 compared to the assumption of 6.75%.
- Differences in valuation procedures as identified in the letter to the Board about the replication of the prior valuation. There was a small increase in the UAAL of just over $5 million.

The valuation results reflect net favorable experience for the past plan year as demonstrated by the significant decrease in the UAAL compared to what was expected. The UAAL on January 1, 2014 is $9.6 million as compared to an expected UAAL of $65.2 million. The favorable experience was largely due to the net impact of an experience gain of $39.5 million on the actuarial value of assets and an experience gain of about $16.1 million on System liabilities. It is worth noting that the investment return on a market value basis of more than 18% increased the deferred investment gain from $24 million last year to $93 million this year. This is a significant improvement which will be recognized in the asset smoothing method over the next four years.

SECTION 1 – BOARD SUMMARY

This is the first actuarial valuation report prepared by Cavanaugh Macdonald Consulting, LLC (CMC). As part of our transition work, we replicated the January 1, 2013 actuarial valuation. Results were within acceptable limits, but as is typical in a takeover situation, there were some differences in the key valuation results. Based on our experience, these differences are neither unusual nor significant. During the replication we identified several changes that we believe will result in a better estimate of future liabilities and costs. As a result of implementing these changes, our final liability measurements and normal cost rate were slightly different than those in the 2013 valuation. For additional information on the replication of the 2013 valuation, please refer to our letter to the Board dated September 6, 2013. A summary of the key actuarial measurements in the replication, using CMC's preferred methodology, is shown in the following table:

	January 1, 2013 Valuation Results ($M)		
	CMC	Buck	CMC/Buck
Present Value of Future Benefits	$1,456.3	$1,456.6	100.0%
Actuarial Accrued Liability	$1,083.2	$1,078.0	100.5%
Normal Cost Rate	10.22%	10.06%	101.6%
UAAL Contribution Rate	1.35%	1.26%	107.1%
Actuarial Contribution Rate	11.57%	11.32%	102.2%

There were no changes in the actuarial assumptions or methods since the last valuation. The benefit provisions also remained unchanged.

A summary of the key results from the January 1, 2014 actuarial valuation is shown in the following table. As the table indicates, the statutory contribution rates are sufficient to meet the actuarial required contribution rate and no additional State contribution is required. Further detail on the valuation results can be found in the following sections of this Board Summary.

	January 1, 2014 Valuation Results	January 1, 2013 Valuation Results
Unfunded Actuarial Accrued Liability	$9,569,498	$68,543,296
Funded Ratio (Actuarial Assets)	99.16%	93.64%
Normal Cost Rate	10.22%	10.06%
UAAL Amortization Rate	0.23%	1.26%
Total Actuarial Required Contribution	10.45%	11.32%
Member Contribution Rate	(4.80%)	(4.80%)
Employer Contribution Rate	(7.49%)	(7.49%)
Total Contribution Rate	(12.29%)	(12.29%)
Shortfall/(Margin)	(1.84%)	(0.97%)
Additional State Contribution Amount	$0	$0

State statutes provide that the Board may grant a dividend if the unfunded actuarial accrued liability is less than zero and the dividend granted would not increase the actuarial contribution rate above ninety percent of the actual contribution rate. For the 2014 plan year, the UAAL is not less than zero so no dividend may be granted.

EXPERIENCE FOR THE LAST PLAN YEAR

Numerous factors contributed to the change in the System's assets, liabilities, and the actuarial contribution rate between January 1, 2013 and January 1, 2014. The components are examined in the following discussion.

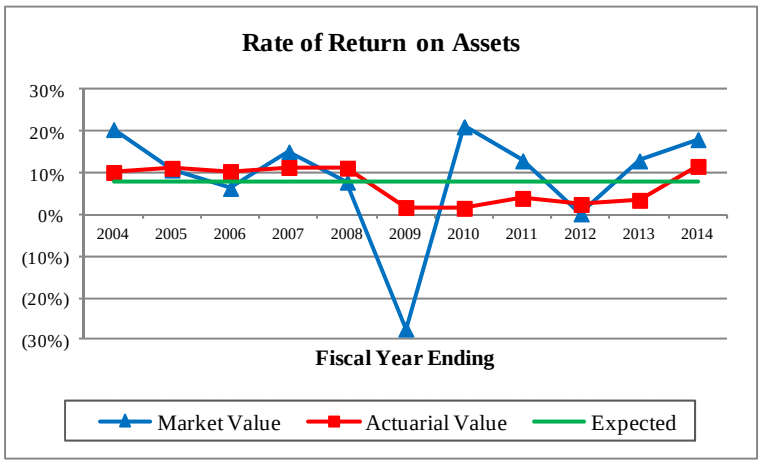
ASSETS

As of December 31, 2013, the System had net assets of $1.22 billion, when measured on a market value basis. This was an increase of $190 million from the prior year. 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 used 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 $1.13 billion, an increase of $121 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)
Net Assets, December 31, 2012	$	1,033.41	$	1,009.41
- Employer and Member Contributions	+	64.26	+	64.26
- Benefit Payments	-	64.84	-	64.84
- Transfers	+	3.49	+	3.49
- Net Investment Income	+	187.37	+	117.88
Net Assets, December 31, 2013	$	1,223.69	$	1,130.20
Estimated Rate of Return		18.1%		11.7%

The rate of return on the actuarial value of assets was 11.7%, which exceeds the 7.75% assumed rate of return. As a result, there was an experience gain on assets of $39.5 million.

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 benefit 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 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 January 1, 2014 in the following table:

	Actuarial Value of Assets	Market Value of Asses
Actuarial Accrued Liability	$1,139,772,796	$1,139,772,796
Value of Assets	1,130,203,298	1,223,694,851
Unfunded Actuarial Accrued Liability	$ 9,569,498	$ (83,922,055)
Funded Ratio	99.16%	107.36%

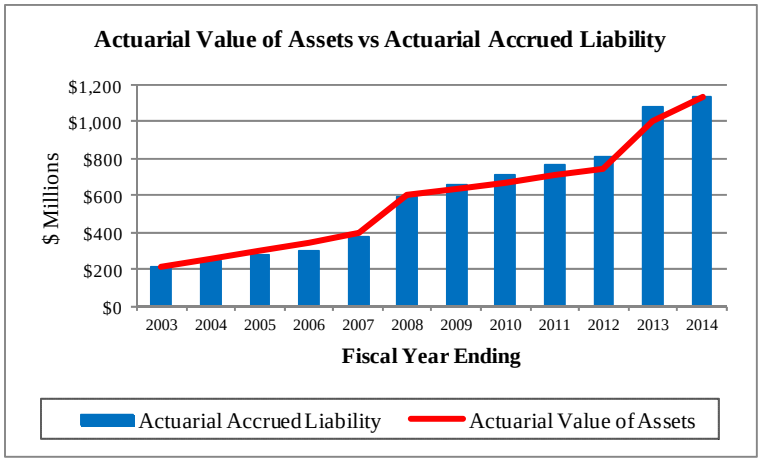
See Section 4 of the report for the detailed development of the unfunded actuarial accrued liability.

The net decrease in the UAAL from January 1, 2013 to January 1, 2014 was $59 million. The components of this net change are shown in the following table (in millions):

	($ Millions)
Unfunded Actuarial Accrued Liability, January 1, 2013	$68.5
- Expected decrease from amortization method	(1.2)
- Actual versus required contributions	(5.0)
- Investment experience	(39.5)
- Liability experience	(16.1)
- Other experience	(2.4)
- Changes identified in replication process	5.3
Unfunded Actuarial Accrued Liability, January 1, 2014	$9.6

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 $56 million. The net actuarial gain may largely be explained by considering the separate experience of assets and liabilities. There was a $39.5 million gain on the actuarial value of assets and a $16.1 million experience gain on the System's liabilities. The net liability gain was a result of various components of actuarial gains and losses, the largest of which was due to the actual interest credit of 5% for the 2013 plan year compared to the actuarial assumption of 6.75%.

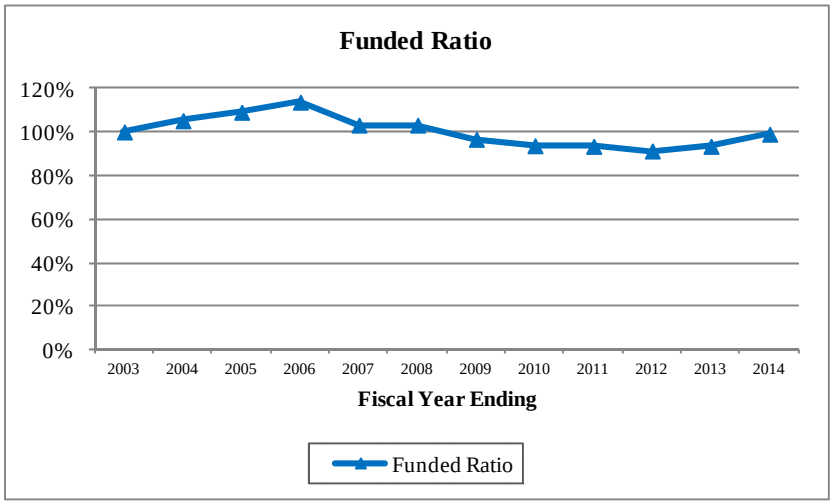
As the following graph of historical actuarial assets and accrued liabilities shows, the State Employees' Retirement System Cash Balance Benefit Fund liabilities have increased significantly along with the assets in the last ten years. The large increases observed in 2008 and 2013 reflect the transfer of members from the Defined Contribution Plan to the Cash Balance Plan due to new election periods provided by the legislature.



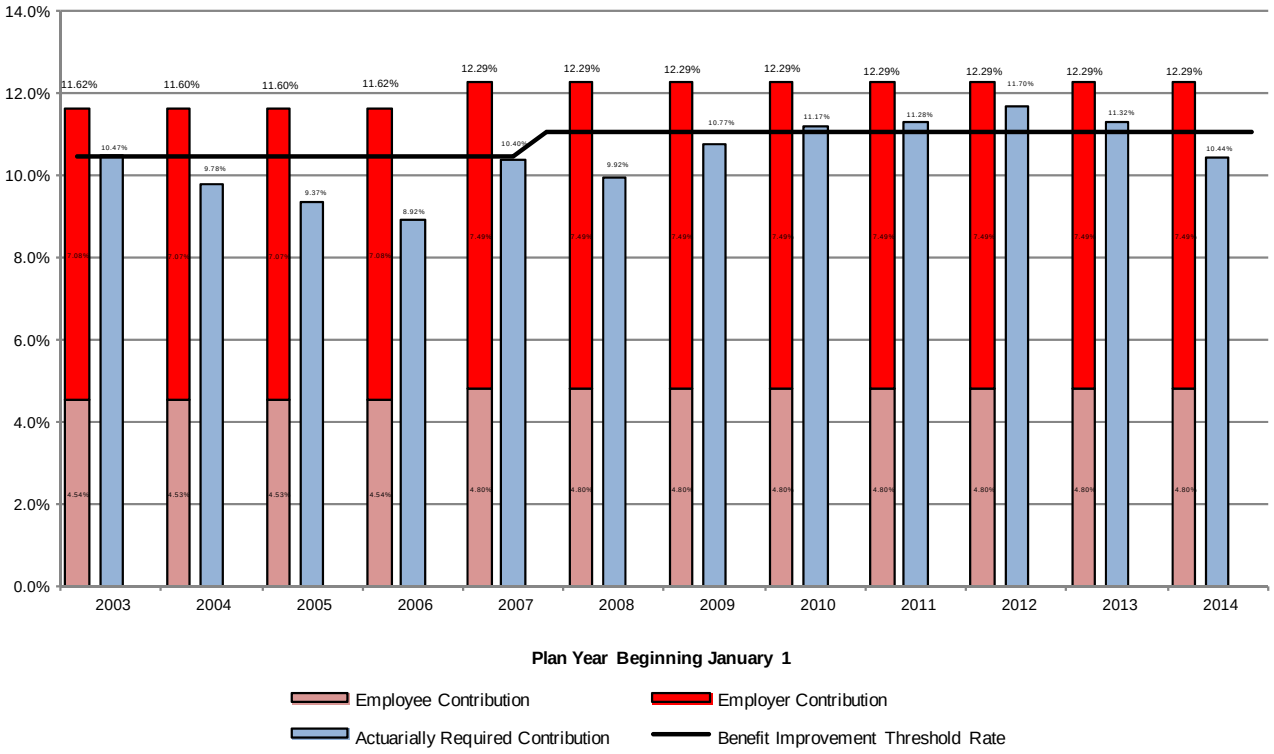
An evaluation of the UAAL on a pure dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both very large numbers) is reflected. Another way to evaluate the UAAL and the progress made in its funding is to track the funded ratio, the ratio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

	1/1/2010	1/1/2011	1/1/2012	1/1/2013	1/1/2014
Funded Ratio (using Actuarial Assets)	93.9%	93.6%	91.5%	93.6%	99.2%
Unfunded Actuarial Accrued Liability ($M)	$43.8	$48.5	$69.3	$68.5	$9.6

The funded ratio over a longer period of years is shown in the following graph:



As a result of being 100% funded at the creation of the Cash Balance Benefit Fund in 2003 and contributing more than the actuarial required contribution in subsequent years (see following graph), the funded ratio of the System has remained strong during the entire period despite investment returns that were less than assumed in some years.



Another useful measure of the value of benefits provided under the System is the Accumulated Benefit Obligation, which is based on the account balances for those not in pay status and the present value of retiree benefits as of the valuation date. This measure is intended to provide information regarding the Cash Balance Benefit Plan's funded status on an immediate basis and to provide comparability to individual account plans. This liability measure is not used in developing the funding numbers for the Plan.

Funded Status	January 1, 2014	January 1, 2013
1. Cash Balance Accounts		
(a) Actives	$ 867,429,036	$ 841,861,361
(b) Inactives	128,286,208	121,157,449
(c) Total	$ 995,715,244	$ 963,018,810
2. Present Value of Benefits for retirees and beneficiaries	155,644,560	131,942,250
3. Total accumulated benefit obligation	$ 1,151,359,804	$ 1,094,961,060
4. Market Value of Assets	1,223,694,851	1,033,413,956
5. Deficit/(Reserve) [3 - 4]	$ (72,335,047)	$ 61,547,104
6. Funded percentage on Market Value of Assets [4 / 3]	106.3%	94.4%

ACTUARIAL REQUIRED CONTRIBUTION RATE

The System is funded by statutory contribution rates for members (4.8% of pay) and the State (156% of the member rate). State statutes require the State to make an additional contribution if the regular, payroll-related contributions by employees and the State are insufficient to meet the actuarial required contribution for the plan year. Based on the results of the January 1, 2014 actuarial valuation, no additional State contribution is necessary for the current plan year.

Under the Entry Age Normal cost method, the actuarial 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 actuarial required contribution is equal to the normal cost rate plus an amortization payment on the unfunded actuarial accrued liability. The amortization payment is the sum of the payments for each amortization base with payments over a 25 year period beginning on the date the base was established. See Section 5 of the report for the detailed development of these rates, which are summarized in the following table:

Contribution Rates	January 1, 2014	January 1, 2013
Normal Cost Rate	10.22%	10.06%
UAAL Amortization Rate	0.23%	1.26%
Total Actuarial Required Contribution	10.45%	11.32%
Member Contribution Rate	(4.80%)	(4.80%)
Employer Contribution Rate	(7.49%)	(7.49%)
Total Contribution Rate	(12.29%)	(12.29%)
Shortfall/(Margin)	(1.84%)	(0.97%)

The actuarial required contribution rate for the current plan year is 10.45%. The member contribution rate of 4.80% and the State contribution rate of 7.488% (156% of 4.8%) result in total statutory contributions of 12.29% of pay. As a result, a contribution margin of 1.84% exists.

The actuarial contribution rate of 10.45% of pay is less than 90% of the statutory contribution rate of 12.29% (11.06%). This difference of 0.61% is potentially available for benefit improvements under state statute if the Plan's funded ratio exceeds 100%. Board policy requires the funded ratio to exceed 100% on both the Funded Basis (actuarial accrued liability less actuarial assets) and a Current Value Basis (total accumulated benefit obligation less market value of assets) before benefit improvements are considered. The January 1, 2014 actuarial valuation indicates that, although the Plan's funded ratio on a Current Value Basis exceeds 100%, the actuarial value of assets is less than the actuarial accrued liability so it is less than 100% on a Funded Basis. Therefore, no benefit improvement can be considered this year.

A history of actuarial required contribution rates and any resulting additional required State contributions, whether or not actually contributed, is shown in the following table.

History of Expected State Contributions			
Plan Year	State Contribution	Additional Contributions	Total
2004	$ 12,112,627	$ 0	$ 12,112,627
2005	$ 13,618,155	$ 0	$ 13,618,155
2006	$ 16,912,304	$ 0	$ 16,912,304
2007	$ 24,266,326	$ 0	$ 24,266,326
2008	$ 28,814,683	$ 0	$ 28,814,683
2009	$ 32,461,469	$ 0	$ 32,461,469
2010	$ 34,062,751	$ 0	$ 34,062,751
2011	$ 33,645,530	$ 0	$ 33,645,530
2012	$ 34,366,120	$ 0	$ 34,366,120
2013	$ 37,486,962	$ 0	$ 37,486,962
2014	$ 40,100,198	$ 0	$ 40,100,198

Note: Information before Fiscal Year 2015/2016 is based on work of the prior actuary.

The actuarial required contribution rate, which is determined based on the snapshot of the System taken on the valuation date of January 1, 2014, will change each year as the deferred investment experience is recognized and other experience (both investment and demographic) impacts the System. While there is a contribution margin for the current plan year, this should not be viewed as an unnecessary or excess contribution. In order for the financing of the System on a fixed contribution rate basis to succeed, contributions above the actuarial required contribution rate must be made to offset years where the fixed contribution rate may be below the actuarial required contribution rate.

SUMMARY OF PRINCIPAL RESULTS

	1/1/2014 Valuation	1/1/2013 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	12,536	11,956	4.85%
Retired Members and Beneficiaries	1,052	910	15.60%
Disabled Members	0	0	N/A
Inactive Members	5,003	4,569	9.50%
Total Members	18,591	17,435	6.63%
Projected Annual Salaries of Active Members	$ 535,526,147	$ 500,493,490	7.00%
Annual Retirement Payments for Retired Members and Beneficiaries	$ 16,795,086	$ 13,971,207	20.21%
2. ASSETS AND LIABILITIES			
a. Market Value of Assets	$ 1,223,694,851	$ 1,033,413,956	18.41%
b. Actuarial Value of Assets	1,130,203,298	1,009,414,476	11.97%
c. Total Actuarial Accrued Liability	1,139,772,796	1,077,957,772	5.73%
d. Unfunded Actuarial Accrued Liability [c - b]	$ 9,569,498	$ 68,543,296	(86.04%)
e. Funded Ratio (Actuarial Value of Assets) [b / c]	99.16%	93.64%	5.89%
f. Funded Ratio (Market Value of Assets) [a / c]	107.36%	95.87%	11.99%
3. CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost	10.22%	10.06%	1.59%
Amortization of Unfunded Actuarial Accrued Liability	0.23%	1.26%	(81.75%)
Actuarial Required Contribution Rate	10.45%	11.32%	(7.69%)
Member Contribution Rate	(4.80%)	(4.80%)	0.00%
Employer Contribution Rate*	(7.49%)	(7.49%)	0.00%
Shortfall/(Margin)	(1.84%)	(0.97%)	89.69%
Additional State Contribution Amount	$ 0	$ 0	N/A

* 156% of employee contribution rate

Note: results for 1/1/13 were prepared by the prior actuary.

SECTION 2 – SCOPE OF THE REPORT

This report presents the actuarial valuation results of the State Employees' Retirement System Cash Balance Benefit Fund as of January 1, 2014. 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 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 January 1, 2014.
- 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

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 January 1, 2014. 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 January 1, 2014, and January 1, 2013, in total and by investment category. Table 2 summarizes the change in the market value of assets from January 1, 2013 to January 1, 2014.

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

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

MARKET VALUE OF ASSETS
by Investment Category

	December 31, 2013	December 31, 2012
1. Cash and Equivalents	$ 99,084	$ 82,166
2. Investments	1,240,147,556	818,058,382
3. Receivables and Prepaids	57,351,856	269,365,591
4. Accounts Payable	(73,903,645)	(54,092,183)
5. Net Assets Available for Pension Benefits [1 + 2 + 3 + 4]	$ 1,223,694,851	$ 1,033,413,956

TABLE 2

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

CHANGE IN MARKET VALUE OF ASSETS

	December 31, 2013	December 31, 2012
1. Beginning Market Value of Assets	$ 1,033,413,956	$ 702,495,027
2. Contributions		
(a) Member (includes purchased service)	$ 25,109,315	$ 20,863,102
(b) Employer	39,147,056	32,096,097
(c) State appropriations	0	0
(d) Total	$ 64,256,371	$ 52,959,199
3. Transfers Between Plans		
(a) From Defined Contribution Plans	$ 3,814,336	$ 4,779,347
(b) Between Cash Balance Plans	(322,232)	0
(c) Net Transfers	$ 3,492,104	$ 4,779,347
4. Receivable Transfer from Defined Contribution Benefit Fund	$ 0	$ 227,897,910
5. Expenditures		
(a) Benefit payments	$ 64,841,779	$ 46,687,002
(b) Expenses and fees	3,573,812	2,737,133
(c) Total	$ 68,415,591	$ 49,424,135
6. Investment Income	$ 190,948,011	$ 94,706,608
7. Ending Market Value of Assets [1 + 2(d) + 3(c) + 4 - 5(c) + 6]	$ 1,223,694,851	$ 1,033,413,956
8. Rate of Return on Market Value of Assets	18.1%	13.0%

TABLE 3

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

	Year End			
	12/31/2010	12/31/2011	12/31/2012	12/31/2013
1. Actuarial Value of Assets, Beginning of Year	$ 670,591,669	$ 714,131,805	$ 743,970,954	$ 1,009,414,476
2. Unrecognized Return Beginning of Year	$ (76,248,987)	$ (24,969,323)	$ (41,475,927)	$ 23,999,480
3. Contributions During Year				
(a) Member	$ 19,785,623	$ 19,998,387	$ 20,863,102	$ 25,109,315
(b) Employer	30,679,003	31,088,483	32,096,097	39,147,056
(c) State appropriations	0	0	0	0
(d) Total	$ 50,464,626	$ 51,086,870	$ 52,959,199	$ 64,256,371
4. Net Transfers	$ 4,911,317	$ 6,684,594	$ 4,779,347	$ 3,492,104
5. Receivable Transfer from Defined Contribution Benefit Fund	$ 0	$ 0	$ 227,897,910	$ 0
6. Benefit Payments During Year	$ 38,826,644	$ 46,220,387	$ 46,687,002	$ 64,841,779
7. Expected Investment Income on (1), (2), (3), (4) and (6) at 7.75%	$ 46,690,878	$ 53,849,345	$ 54,863,622	$ 80,200,114
8. Actual Return on Market Value, Net of All Expenses	$ 78,270,501	$ 1,781,468	$ 91,969,475	$ 187,374,199
9. Return to be Spread, End of Year [8 - 7]	$ 31,579,623	$ (52,067,877)	$ 37,105,853	$ 107,174,085

Note: Information before 2013 was produced by prior actuary.

TABLE 3
(continued)

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

8. Return to be Spread

Year	Return to be Spread	Unrecognized Percent	Unrecognized Return
2013	107,174,085	80%	$85,739,268
2012	37,105,853	60%	22,263,512
2011	(52,067,877)	40%	(20,827,151)
2010	31,579,623	20%	6,315,925
			$93,491,553

9. Total Market Value of Assets as of January 1, 2014 $1,223,694,851

10. Total Actuarial Value of Assets as of January 1, 2014 [9 - 8] $1,130,203,298

11. Asset Ratios
    (a) Actuarial Value to Market Value [10 / 9] 92.36%
    (b) Market Value to Actuarial Value [9 / 10] 108.27%

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 State Employees' Retirement System Cash Balance Benefit Fund as of the valuation date, January 1, 2014. 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 January 1, 2014.

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

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

PRESENT VALUE OF FUTURE BENEFITS (PVFB)
AS OF JANUARY 1, 2014

1. Active Employees		
(a) Retirement	$	1,031,975,853
(b) Withdrawal		193,046,790
(c) Death		28,304,905
(d) Disability		0
(e) Total	$	1,253,327,548
2. Inactive Vested Members		124,461,564
3. Inactive Nonvested Members		3,824,644
4. Disabled Members		0
5. Retirees		150,812,753
6. Beneficiaries		4,831,807
7. Total Present Value of Future Benefits [1(e) + 2 + 3 + 4 + 5 + 6]	$	1,537,258,316

TABLE 5

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

ACTUARIAL ACCRUED LIABILITY
AS OF JANUARY 1, 2014

1. Present Value of Future Benefits for Active Members	$	1,253,327,548
2. Present Value of Future Normal Costs for Active Members		
(a) Retirement benefit	$	205,910,860
(b) Termination benefit		185,151,332
(c) Pre-Retirement death benefit		6,423,328
(d) Disability benefit		0
(e) Total	$	397,485,520
3. Actuarial Accrued Liability for Active Members [1 - 2(e)]	$	855,842,028
4. Actuarial Accrued Liability for Inactive Members		283,930,768
5. Total Actuarial Accrued Liability [3 + 4]		1,139,772,796
6. Actuarial Value of Assets		1,130,203,298
7. Unfunded Actuarial Accrued Liability [5- 6]	$	9,569,498

TABLE 6

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

ACTUARIAL BALANCE SHEET

ASSETS		
Actuarial Value of Assets		$ 1,130,203,298
Unfunded Actuarial Accrued Liability		9,569,498
Present Value of Future Normal Costs		$ 397,485,520
Total Assets		$ 1,537,258,316
LIABILITIES		
Present Value of Future Benefits		
Active members		
Retirement	$ 1,031,975,853	
Withdrawal	193,046,790	
Death	28,304,905	
Disability	0	
Total		$ 1,253,327,548
Inactive members		128,286,208
Retirees, disabilities and beneficiaries		155,644,560
Total Liabilities		$ 1,537,258,316

TABLE 7

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

ACTUARIAL GAIN/(LOSS)

Liabilities		
1. Actuarial Accrued Liability as of January 1, 2013	$	1,077,957,772
2. Normal Cost During 2013		50,343,724
3. Benefit Payments During Plan Year Ending December 31, 2013		64,841,779
4. Transfers		3,492,104
5. Changes Identified in Replication Process		5,256,522
6. Interest at 7.75%		83,668,429
7. Expected Actuarial Accrued Liability as of January 1, 2014 [1 + 2 - 3 + 4 + 5 + 6]		1,155,876,772
8. Actuarial Accrued Liability as of January 1, 2014	$	1,139,772,796
Assets		
9. Actuarial Value of Assets as of January 1, 2013	$	1,009,414,476
10. Contributions During Plan Year Ending December 31, 2013		64,256,371
11. Benefit Payments During Plan Year Ending December 31, 2013		64,841,779
12. Interest at 7.75%		78,340,155
13. Transfers		3,492,104
14. Expected Actuarial Value of Assets as of January 1, 2014 [9 + 10 - 11 + 12 + 13]	$	1,090,661,327
15. Actuarial Value of Assets as of January 1, 2014	$	1,130,203,298
Gain / (Loss)		
16. Actuarial Gain / (Loss) on Liabilities [7 - 8]	$	16,103,976
17. Actuarial Gain / (Loss) on Assets [15 - 14]	$	39,541,971
18. Total Actuarial Gain / (Loss) for Plan Year Ending June 30, 2014 [16 + 17]	$	55,645,947

TABLE 8

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

GAIN/(LOSS) ANALYSIS BY SOURCE

Liability Sources		Gain/(Loss)
Retirement	$	1,458,456
Termination		281,282
Disability		0
Mortality		518,546
Salary		(67,623)
New Entrants/Rehires		(4,758,253)
Interest Credit/Miscellaneous		18,671,568
Total Liability Gain/(Loss)	$	16,103,976
Asset Gain/(Loss)	$	39,541,971
Net Actuarial Gain/(Loss)	$	55,645,947

TABLE 9

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

PROJECTED BENEFIT PAYMENTS
AS OF JANUARY 1, 2014

Plan Year Ending December 31,	Active Employees	Retired and Disabled Members and Beneficiaries	Total
2014	$ 67,190,000	$ 16,596,000	$ 83,786,000
2015	74,531,000	16,360,000	90,891,000
2016	79,565,000	16,049,000	95,614,000
2017	83,969,000	15,680,000	99,649,000
2018	88,919,000	15,395,000	104,314,000
2019	93,575,000	15,105,000	108,680,000
2020	97,410,000	14,658,000	112,068,000
2021	101,269,000	14,201,000	115,470,000
2022	104,478,000	13,774,000	118,252,000
2023	107,334,000	13,417,000	120,751,000
2024	109,157,000	12,912,000	122,069,000
2025	111,081,000	12,397,000	123,478,000
2026	113,213,000	11,833,000	125,046,000
2027	114,332,000	11,019,000	125,351,000
2028	115,492,000	10,326,000	125,818,000
2029	115,946,000	9,730,000	125,676,000
2030	116,788,000	9,122,000	125,910,000
2031	116,795,000	8,464,000	125,259,000
2032	116,824,000	7,625,000	124,449,000
2033	117,279,000	6,889,000	124,168,000
2034	117,264,000	6,387,000	123,651,000
2035	117,427,000	5,873,000	123,300,000
2036	116,980,000	5,355,000	122,335,000
2037	116,552,000	4,837,000	121,389,000
2038	116,241,000	4,327,000	120,568,000
2039	115,637,000	3,832,000	119,469,000
2040	115,025,000	3,357,000	118,382,000
2041	114,762,000	2,909,000	117,671,000
2042	114,224,000	2,492,000	116,716,000
2043	113,593,000	2,111,000	115,704,000

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

SECTION 5 – EMPLOYER CONTRIBUTIONS

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 January 1, 2014 actuarial valuation will be used to determine the actuarial required employer contribution rate to the State Employees' Retirement System Cash Balance Benefit Fund for the plan year ending December 31, 2014. Any State contributions are expected to be deposited on July 1, 2015 (State fiscal year 2016). 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 January 1, 2014, is developed. Table 11 develops the actuarial required contribution rate for the System and the amount of required State contributions.

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

TABLE 10

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

SCHEDULE OF AMORTIZATION BASES

Amortization Bases	Original Amount	January 1, 2014 Remaining Payments	Date of Last Payment	Outstanding Balance as of January 1, 2014	Annual Contribution*
2009 Unfunded Actuarial Accrued Liability Base	$ 20,710,304	20	1/1/2034	$ 18,995,240	$ 1,829,291
2010 Unfunded Actuarial Accrued Liability Base	23,400,784	21	1/1/2035	21,910,393	2,066,935
2011 Unfunded Actuarial Accrued Liability Base	5,379,859	22	1/1/2036	5,132,693	475,190
2012 Unfunded Actuarial Accrued Liability Base	21,541,093	23	1/1/2037	20,906,226	1,902,673
2013 Unfunded Actuarial Accrued Liability Base	369,536	24	1/1/2038	364,294	32,640
2014 Unfunded Actuarial Accrued Liability Base	(57,739,348)	25	1/1/2039	(57,739,348)	(5,099,978)
Total				**$ 9,569,498**	**$ 1,206,751**

* Contribution amount reflects mid-year timing.

1. Total UAAL Amortization Payments	$ 1,206,751
2. Projected Payroll for 2014 Plan Year	$ 535,526,147
3. UAAL Amortization Payment Rate	0.23%

TABLE 11

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

ACTUARIAL REQUIRED CONTRIBUTION
and
DEVELOPMENT OF ADDITIONAL STATE CONTRIBUTION

1. Normal Cost		
(a) Amount	$	50,970,675
(b) Expected pay for current actives		498,823,794
(c) Normal Cost Rate as % of pay		10.22%
2. Amortization Cost		
(a) Amount		1,206,751
(b) Expected pay for all actives		535,526,147
(c) Amortization Rate as % of pay		0.23%
3. Total Actuarial Required Contribution Rate [1(c) + 2(c)]		10.45%
4. Statutory Contribution Rates		
(a) Member		4.80%
(b) Employer (156% of Member)		7.49%
(c) Total		12.29%
5. Additional Required State Contribution [3 - 4c, not less than 0.00%]		0.00%
6. Expected pay for all actives during 2014		535,526,147
7. Additional Required State Contribution for FYE 2016 [5 * 6 * $1.0775^{.5}$, but not less than 0]	$	0

TABLE 12

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

HISTORICAL CONTRIBUTION RATES

Plan Year	Statutory Contribution Rate			Actuarial Rate	Margin/ (Shortfall)
	Employee	Employer	Total		
2003	4.54%	7.08%	11.62%	10.47%	1.15%
2004	4.53%	7.07%	11.60%	9.78%	1.82%
2005	4.53%	7.07%	11.60%	9.37%	2.23%
2006	4.54%	7.08%	11.62%	8.92%	2.70%
2007	4.80%	7.49%	12.29%	10.40%	1.89%
2008	4.80%	7.49%	12.29%	9.92%	2.37%
2009	4.80%	7.49%	12.29%	10.77%	1.52%
2010	4.80%	7.49%	12.29%	11.17%	1.12%
2011	4.80%	7.49%	12.29%	11.28%	1.01%
2012	4.80%	7.49%	12.29%	11.70%	0.59%
2013	4.80%	7.49%	12.29%	11.32%	0.97%
2014	4.80%	7.49%	12.29%	10.45%	1.84%

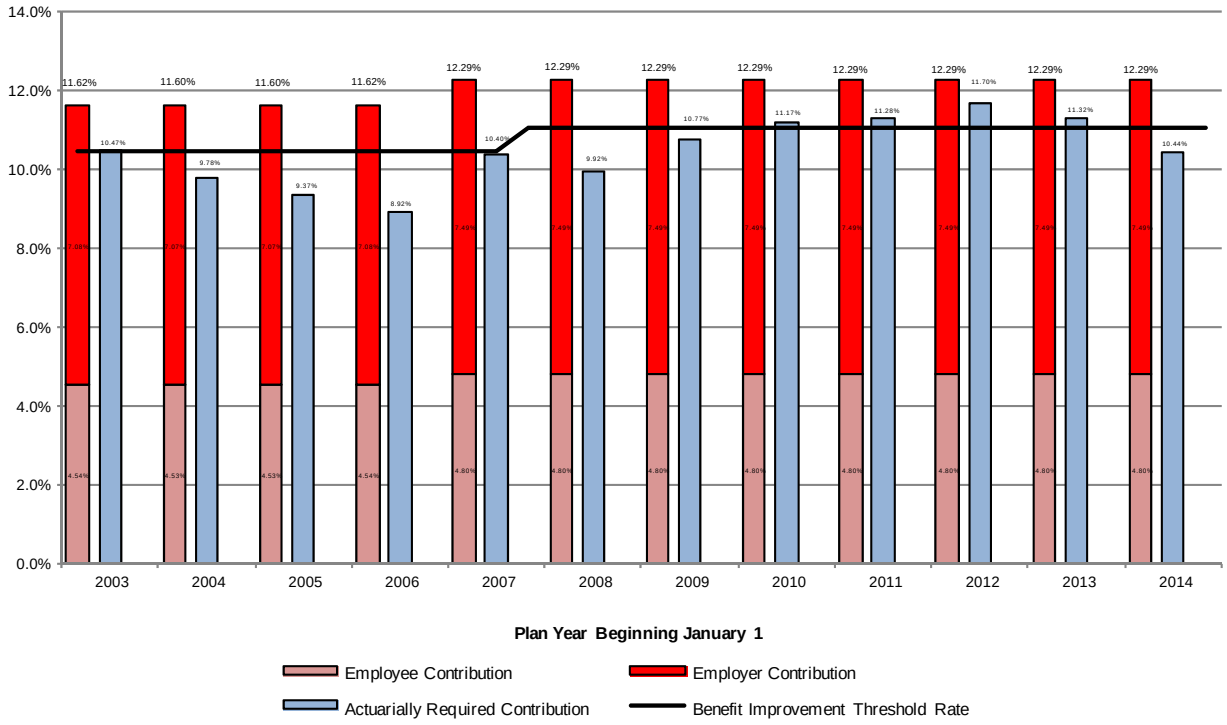


TABLE 13

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

FUNDING EXCESS AVAILABLE FOR BENEFIT IMPROVEMENT

1. Total Statutory Contribution Rate		12.29%
2. Benefit Improvement Threshold Rate (90% of 1.)		11.06%
3. Actuarially Required Contribution Rate		10.45%
4. Unfunded Actuarial Accrued Liability	$	9,569,498
5. Requirements for Using Excess for Benefit Improvement		
a. Rate Sufficiency: (3) < (2)		Yes
b. No UAAL: (4) < 0		No
6. Funding Excess Available for Benefit Improvement		
(a) As a rate of Pay (2 - 3), not less than 0%		N/A
(b) Annual Amount	$	N/A

SECTION 6 – ACCOUNTING INFORMATION

The actuarial accrued liability is a measure intended to help the reader assess (i) a retirement system'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 System'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 Entry Age Normal actuarial accrued liability was determined as part of an actuarial valuation of the plan as of January 1, 2014. The actuarial assumptions used in determining the actuarial accrued liability can be found in Appendix C.

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

GASB Statement No. 25 establishes financial reporting standards for defined benefit pension plans. In addition to two required statements regarding plan assets, the statement requires two schedules and accompanying notes disclosing information relative to the funded status of the plan and historical contribution patterns.

- The Schedule of Funding Progress provides information about whether the financial strength of the Plan is improving or deteriorating over time.

- The Schedule Contributions from Employers and Other Contributing Entities provides historical information about the annual required contribution (ARC) and the percentage of the ARC that was actually contributed.

In 2012, GASB issued the final version of GASB Statements Numbers 67 and 68 which will supersede the current GASB Standards, Numbers 25 and 27. GASB 67, which applies to the retirement system, will be effective for the plan year ending December 31, 2014. GASB 68, which applies to employer reporting, is first effective for fiscal years beginning after June 15, 2014.

TABLE 14

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

SCHEDULE OF FUNDING PROGRESS
Under GASB No. 25

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]
December 31, 2013	$1,130,203,298	$1,139,772,796	$9,569,498	99.2%	$535,526,147	1.8%
December 31, 2012	1,009,414,476	1,077,957,772	68,543,296	93.6%	500,493,490	13.7%
December 31, 2011	743,970,954	813,285,510	69,314,556	91.5%	458,826,702	15.1%
December 31, 2010	714,131,805	762,680,399	48,548,594	93.6%	449,206,006	10.8%
December 31, 2009	670,591,669	714,408,952	43,817,283	93.9%	454,776,381	9.6%
December 31, 2008	637,539,094	658,249,398	20,710,304	96.9%	433,397,447	4.8%

Note: Information before 2014 was produced by the prior actuary.

TABLE 15

STATE EMPLOYEES' RETIREMENT SYSTEM
CASH BALANCE BENEFIT FUND

SCHEDULE OF CONTRIBUTIONS FROM EMPLOYERS AND OTHER CONTRIBUTING ENTITIES
Disclosure Requirement under GASB No. 25

	Annual Required Contributions			
Plan Year Ending	State	Additional	Total	Percent Contributed
December 31, 2013	$32,632,176	$0	$32,632,176	120%
December 31, 2012	32,096,097	0	32,096,097	100%
December 31, 2011	31,088,483	0	31,088,483	100%
December 31, 2010	30,679,003	0	30,679,003	100%
December 31, 2009	30,321,032	0	30,321,032	100%
December 31, 2008	29,208,772	0	29,208,772	100%

Note: Information prior to December 31, 2013 was produced by the prior actuary.

Actuarial Assumptions and Methods	
Valuation Date	December 31, 2013
Actuarial Cost Method	Entry Age
Amortization Method	Level dollar amount, closed
Equivalent Single Amortization Period	12 years
Asset Valuation Method	5 year smoothed market
Actuarial Assumptions	
Investment rate of return*	7.75%
Projected Salary increases*	4.0% - 5.4%
*Includes inflation at	3.25%
Cost-of-living adjustment	None, except 2.50% per year is used for retirees electing annuity payments with a COLA feature.

MEMBER DATA RECONCILIATION

	Active Members	Inactive Vested	Inactive Non-vested	Retirees and Beneficiaries	Total
As of January 1, 2013	11,956	1,940	2,629	910	17,435
Changes in status					
a) Retirement	(88)	(49)	0	137	0
b) Death	(2)	(2)	0	(11)	(15)
c) Non-vested terminations	(762)	0	762	0	0
d) Vested terminations	(509)	509	0	0	0
e) Contribution refund	(555)	(333)	(359)	0	(1,247)
f) Beneficiaries in receipt	0	0	0	12	12
g) Disability retirements	0	0	0	0	0
h) Return to active service	328	(43)	(51)	0	234
i) Expired benefits	0	0	0	(14)	(14)
j) Data adjustments	(10)	0	0	(3)	(13)
Total changes in status	(1,598)	82	352	121	(1,043)
Transferred from DC Plan	3	0	0	21	24
New entrants	2,175	0	0	0	2,175
Net change	580	82	352	0	1,156
As of January 1, 2014	12,536	2,022	2,981	1,052	18,591

SUMMARY OF MEMBERSHIP DATA

A. ACTIVE MEMBERS	January 1, 2014	January 1, 2013	% Change
1. Number of Active Members*	12,536	11,956	4.9%
2. Reported Compensation	$ 512,110,931	N/A	
3. Accumulated Contributions			
(a) Employee Cash Balance Account	$ 334,710,205	$ 324,910,494	3.0%
(b) Employer Cash Balance Account	532,718,831	516,950,867	3.1%
(c) Total Cash Balance Account	$ 867,429,036	$ 841,861,361	3.0%
4. Active Member Averages			
(a) Age	45.6	46.1	(1.2%)
(b) Service	9.7	9.9	(2.4%)
(c) Compensation	$ 40,851	N/A	
(d) Cash Balance Account	$ 69,195	$ 70,413	(1.7%)
B. INACTIVE MEMBERS			
1. Number of Inactive Members**			
(a) System vested	2,022	4,569	(55.7%)
(b) System nonvested (refund only)	2,981	(included above)	0.0%
(c) Total	5,003	4,569	9.5%
2. Total Vested Cash Balance Account	$ 128,286,208	$ 121,157,449	5.9%
3. Inactive Members Averages			
(a) Age (vesteds only)	50.2	41.0	22.4%
(b) Vested Cash Balance Account	$ 25,642	$ 26,517	(3.3%)
C. RETIREES, DISABLEDS, AND BENEFICIARIES			
1. Number of Members Receiving Benefits			
(a) Retired	999	869	15.0%
(b) Disabled	0	0	0.0%
(c) Beneficiaries	53	41	29.3%
(d) Total	1,052	910	15.6%
2. Total Annual Benefit Payments			
(a) Retired	$ 16,114,487	$ 13,443,061	19.9%
(b) Disabled	0	0	0.0%
(c) Beneficiaries	680,599	528,146	28.9%
(d) Total	$ 16,795,086	$ 13,971,207	20.2%

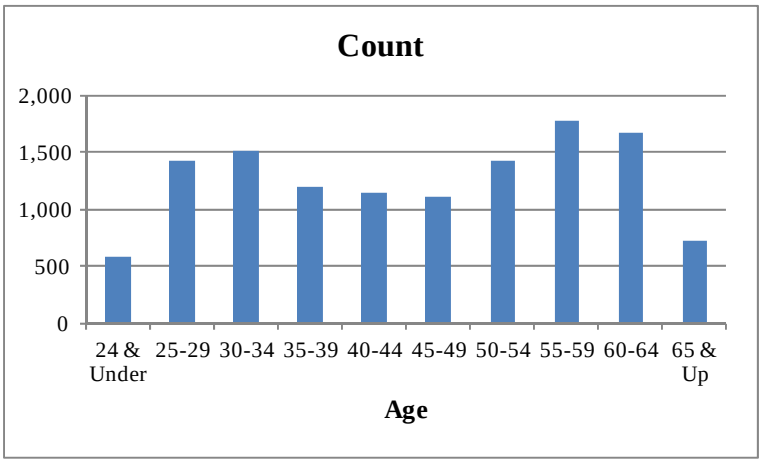
* 2013 includes 1,246 members who transferred from defined contribution.

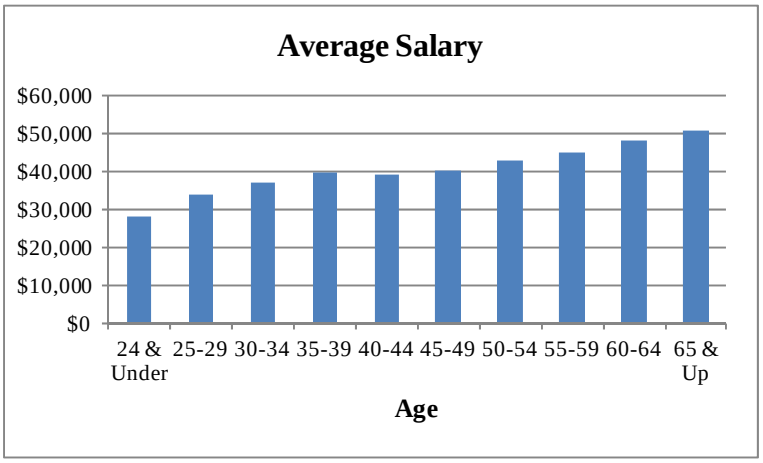
** 2013 includes 14 members who transferred from defined contribution.

Note: Information prior to 2014 was produced by the prior actuary.

ACTIVE MEMBERS
AS OF JANUARY 1, 2014

	Count of Members			Reported Salary		
Age	Male	Female	Total	Male	Female	Total
24 & Under	245	339	584	$ 7,595,906	$ 8,689,440	$ 16,285,346
25-29	630	787	1,417	22,565,792	25,379,019	47,944,811
30-34	598	907	1,505	23,450,936	31,992,784	55,443,720
35-39	528	661	1,189	22,353,365	24,733,174	47,086,539
40-44	467	673	1,140	19,232,491	25,290,626	44,523,117
45-49	457	652	1,109	19,806,793	24,730,126	44,536,919
50-54	551	875	1,426	25,780,775	34,724,334	60,505,109
55-59	718	1,058	1,776	35,178,969	44,506,187	79,685,156
60-64	737	925	1,662	39,308,128	40,032,064	79,340,192
65 & Up	372	356	728	22,043,856	14,716,166	36,760,022
Total	5,303	7,233	12,536	$ 237,317,011	$ 274,793,920	$ 512,110,931



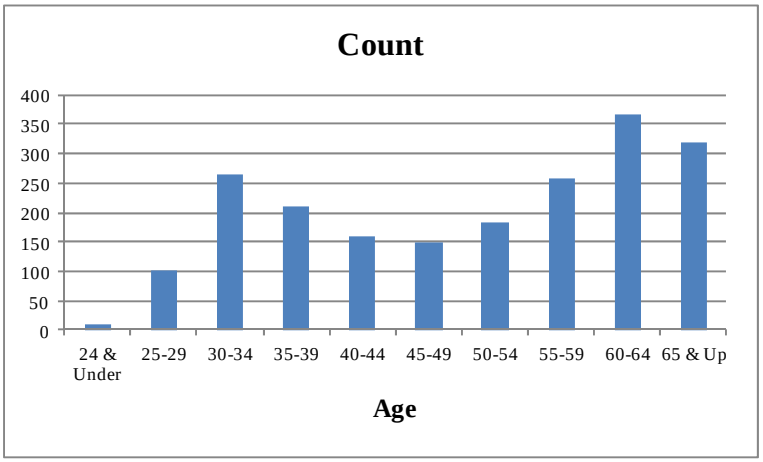


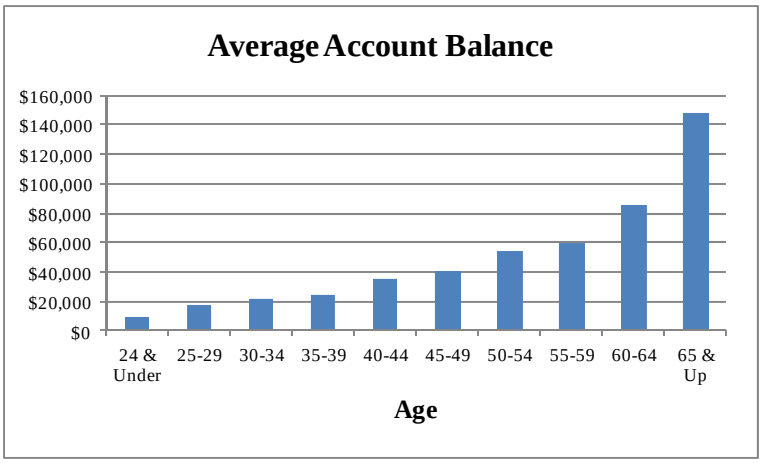
AGE AND SERVICE DISTRIBUTION
AS OF JANUARY 1, 2014

Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
20-24	Number	572	12	0	0	0	0	0	0	584
	Total Salary	$ 15,890,106	$ 395,240	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 16,285,346
	Average Sal.	$ 27,780	$ 32,937	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 27,886
25-29	Number	1,151	262	4	0	0	0	0	0	1,417
	Total Salary	$ 38,069,531	$ 9,744,674	$ 130,606	$ 0	$ 0	$ 0	$ 0	$ 0	$ 47,944,811
	Average Sal.	$ 33,075	$ 37,193	$ 32,651	$ 0	$ 0	$ 0	$ 0	$ 0	$ 33,835
30-34	Number	841	592	72	0	0	0	0	0	1,505
	Total Salary	$ 28,776,236	$ 23,770,696	$ 2,896,788	$ 0	$ 0	$ 0	$ 0	$ 0	$ 55,443,720
	Average Sal.	$ 34,217	$ 40,153	$ 40,233	$ 0	$ 0	$ 0	$ 0	$ 0	$ 36,840
35-39	Number	498	483	198	10	0	0	0	0	1,189
	Total Salary	$ 17,788,133	$ 20,278,631	$ 8,552,414	$ 467,361	$ 0	$ 0	$ 0	$ 0	$ 47,086,539
	Average Sal.	$ 35,719	$ 41,985	$ 43,194	$ 46,736	$ 0	$ 0	$ 0	$ 0	$ 39,602
40-44	Number	487	381	206	57	9	0	0	0	1,140
	Total Salary	$ 17,200,331	$ 15,315,610	$ 8,986,201	$ 2,633,163	$ 387,812	$ 0	$ 0	$ 0	$ 44,523,117
	Average Sal.	$ 35,319	$ 40,198	$ 43,622	$ 46,196	$ 43,090	$ 0	$ 0	$ 0	$ 39,055
45-49	Number	386	355	173	119	76	0	0	0	1,109
	Total Salary	$ 13,113,828	$ 14,101,841	$ 7,747,502	$ 5,641,250	$ 3,932,498	$ 0	$ 0	$ 0	$ 44,536,919
	Average Sal.	$ 33,974	$ 39,724	$ 44,783	$ 47,405	$ 51,743	$ 0	$ 0	$ 0	$ 40,160
50-54	Number	390	347	204	115	248	121	1	0	1,426
	Total Salary	$ 13,602,044	$ 13,969,477	$ 8,791,399	$ 5,224,137	$ 12,450,380	$ 6,457,801	$ 9,871	$ 0	$ 60,505,109
	Average Sal.	$ 34,877	$ 40,258	$ 43,095	$ 45,427	$ 50,203	$ 53,370	$ 9,871	$ 0	$ 42,430
55-59	Number	349	375	226	115	166	457	86	2	1,776
	Total Salary	$ 12,542,002	$ 14,839,405	$ 9,461,966	$ 5,373,768	$ 8,069,982	$ 24,837,453	$ 4,472,022	$ 88,558	$ 79,685,156
	Average Sal.	$ 35,937	$ 39,572	$ 41,867	$ 46,728	$ 48,614	$ 54,349	$ 52,000	$ 44,279	$ 44,868
60-64	Number	213	304	213	118	164	190	456	4	1,662
	Total Salary	$ 8,251,154	$ 12,125,099	$ 8,841,608	$ 5,465,732	$ 7,658,844	$ 10,057,873	$ 26,619,604	$ 320,278	$ 79,340,192
	Average Sal.	$ 38,738	$ 39,885	$ 41,510	$ 46,320	$ 46,700	$ 52,936	$ 58,376	$ 80,070	$ 47,738
65 & Up	Number	69	131	90	74	68	69	68	159	728
	Total Salary	$ 2,587,984	$ 5,120,422	$ 3,913,734	$ 3,595,332	$ 3,292,385	$ 3,715,861	$ 4,170,913	$ 10,363,391	$ 36,760,022
	Average Sal.	$ 37,507	$ 39,087	$ 43,486	$ 48,586	$ 48,417	$ 53,853	$ 61,337	$ 65,179	$ 50,495
Total	Number	4,956	3,242	1,386	608	731	837	611	165	12,536
	Total Salary	$ 167,821,349	$ 129,661,095	$ 59,322,218	$ 28,400,743	$ 35,791,901	$ 45,068,988	$ 35,272,410	$ 10,772,227	$ 512,110,931
	Average Sal.	$ 33,862	$ 39,994	$ 42,801	$ 46,712	$ 48,963	$ 53,846	$ 57,729	$ 65,286	$ 40,851

INACTIVE VESTED MEMBERS
AS OF JANUARY 1, 2014

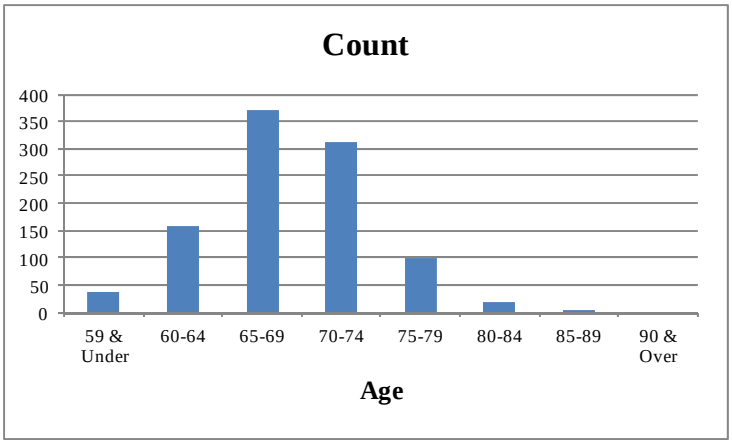
	Count of Members			Account Balances		
Age	Male	Female	Total	Male	Female	Total
24 & Under	1	8	9	$ 3,810	$ 85,570	$ 89,380
25-29	42	60	102	759,811	971,300	1,731,111
30-34	115	150	265	2,873,395	2,988,795	5,862,190
35-39	82	129	211	2,149,286	3,056,556	5,205,842
40-44	74	85	159	2,890,948	2,635,355	5,526,303
45-49	58	91	149	2,926,171	3,071,467	5,997,638
50-54	56	128	184	3,305,939	6,578,784	9,884,723
55-59	91	166	257	6,860,578	8,515,601	15,376,179
60-64	156	212	368	16,441,572	15,039,210	31,480,782
65 & Up	156	162	318	31,168,767	15,963,293	47,132,060
Total	831	1,191	2,022	$ 69,380,277	$ 58,905,931	$ 128,286,208

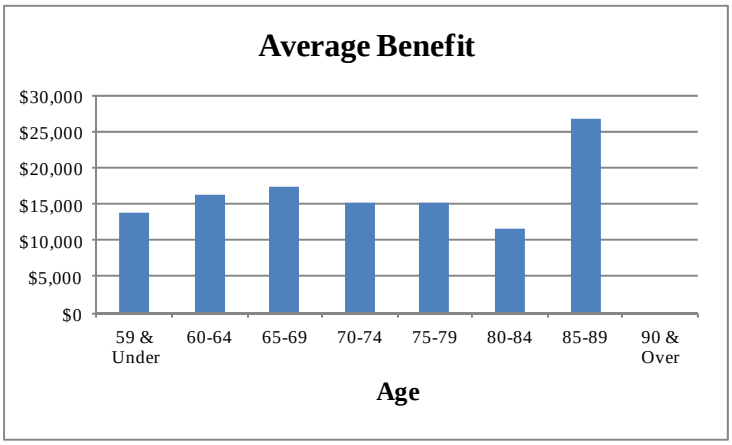




RETIRED MEMBERS
AS OF JANUARY 1, 2014

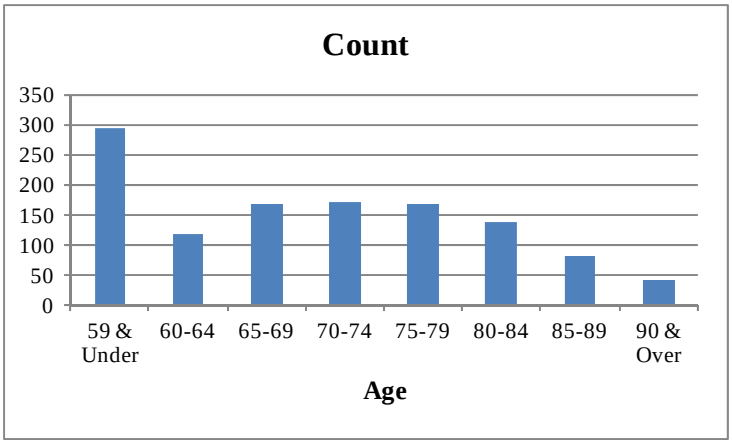
	Count of Members			Annual Benefits		
Age	Male	Female	Total	Male	Female	Total
59 & Under	14	22	36	$ 219,061	$ 278,163	$ 497,224
60-64	58	99	157	1,089,413	1,454,074	2,543,487
65-69	184	188	372	3,762,793	2,703,583	6,466,376
70-74	156	156	312	2,906,775	1,868,518	4,775,293
75-79	42	59	101	819,161	723,039	1,542,200
80-84	5	13	18	70,090	139,451	209,541
85-89	0	3	3	0	80,366	80,366
90 & Over	0	0	0	0	0	0
Total	459	540	999	$ 8,867,293	$ 7,247,194	$ 16,114,487

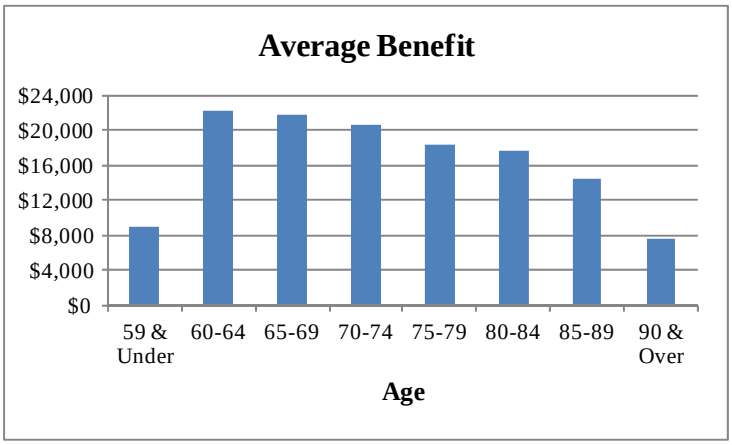




BENEFICIARIES RECEIVING BENEFITS
AS OF JANUARY 1, 2014

	Count of Members			Annual Benefits		
Age	Male	Female	Total	Male	Female	Total
59 & Under	6	12	18	$ 68,043	$ 80,961	$ 149,004
60-64	2	7	9	6,812	112,832	119,644
65-69	2	4	6	19,797	91,709	111,506
70-74	1	8	9	3,085	130,783	133,868
75-79	2	6	8	20,068	100,945	121,013
80-84	0	2	2	0	39,050	39,050
85-89	0	1	1	0	6,514	6,514
90 & Over	0	0	0	0	0	0
Total	13	40	53	$ 117,805	$ 562,794	$ 680,599





Membership
All permanent full-time employees of the State shall begin immediate participation in the State Employees' Retirement System as of January 1, 2007 or date of hire, if later, and all permanent full-time or permanent part-time employees who have attained the age of twenty may exercise the option to begin immediate participation in the State Employees' Retirement System.

Existing members of the State Employees' Retirement System may elect, during the period beginning November 1, 2007 and ending December 31, 2007 to participate in the Cash Balance benefit. If no election is made by December 31, 2007, the member shall be treated as though he or she elected to continue participating in the Defined Contribution benefit as provided in the State Employees' Retirement Act.

Existing members of the State Employees' Retirement System may elect, during the period beginning October 1, 2002, and ending December 31, 2002, to participate in the Cash Balance benefit. If not election is made by January 1, 2003, the member shall be treated as though he or she elected to continue participating in the Defined Contribution benefit as provided in the State Employees' Retirement Act. For a member who first participates in the Retirement system on or after January 1, 2003, he or she shall automatically participate in the Cash Balance benefit subject to plan eligibility requirements.

Compensation Considered
Compensation means gross wages or salaries payable to the member for personal services performed during the plan year, overtime pay, member retirement contributions, and amounts contributed by the member to plans under sections 125, 403(b) and 457 of the Internal Revenue Code or any other section of the code which defers or excludes such amounts from income.

Member Contributions
Members of the State retirement system shall contribute an amount equal to four and eight-tenths percent (4.8%) of annual compensation to the fund. The member contribution shall be credited to the employee cash balance account.

Employer Contributions
The State shall contribute at a rate of 156% of the members' contributions to the fund. The State contribution shall be credited to the employer cash balance account.

Interest Credit Rate
Interest credit rate means the greater of (a) five percent or (b) the applicable federal mid-term rate as published by the Internal Revenue Service as of the first day of the calendar quarter for which interest credits are credited, plus one and one-half percent, such rate to be compounded annually.

Interest Credits
Interest credits means the amount credited to the employee cash balance account and the employer cash balance account at the end of each day. Such interest credit for each account shall be determined by applying the daily portion of the interest credit rate tot the account balance at the end of the previous day.

Retirement Age
A member is eligible for retirement after attaining age 55.

Service
Service is defined to mean the actual total length of employment with the State and is not interrupted by a) temporary or seasonal suspension of service that does not terminate the member's employment, b) leave of absence authorized by the state for no longer than twelve months, c) leave of absence due to disability or d) leave due to military service.

Retirement Allowance
Upon attainment of age 55 regardless of service, the retirement allowance, shall be equal to the accumulated employee and employer cash balance accounts including interest credit, annuitized for payment in the normal form. Also available are additional forms of payment allowed under the plan which are actuarially equivalent to the normal form including the option of a lump sum or partial lump sum.

Normal Form of Payment
The normal form of payment under the Cash balance benefit is a single life annuity with five-year certain, payable monthly. Members will have the option to convert their member cash balance account to a monthly annuity with built in cost-of-living adjustments of 2.5% annually. This monthly benefit and all other options allowed under the Plan will be of actuarial equivalence to the accumulated employee and employer cash balance accounts including interest credits.

Optional Form of Payment
Optional forms of payment include a lump sum and the following annuities (with or without a 2.5% COLA): life annuity, modified cash refund, certain and life annuity (5, 10 or 15 years), certain only annuity (5, 10, 15 or 20 years) and joint and survivor annuity (50%, 75% or 100%).

Deferred Vested Allowance
A member who terminates with at least 3 years of participation in the system, including eligibility and vesting credit, may choose to leave his employee and employer cash balance accounts in the fund and be eligible to receive a vested monthly allowance at retirement age or request a distribution of his employee and employer cash balance accounts plus interest credit, with no future benefit payable from the plan.

Severance Benefits
A member who terminates with less than 3 years of participation in the system, including eligibility and vesting credit, may elect to receive a distribution of his/her employee cash balance account including interest credit, with no future benefit payable from the plan.

Disability Allowance
If a member becomes disabled prior to retirement, the member shall receive the total amount of his/her accumulated employee and employer cash balance accounts including interest credit, as a lump sum or converted into a monthly annuity, as defined under the retirement allowance.

Pre-retirement Death Allowance
If a member dies prior to retirement, the surviving spouse, designated beneficiary (if different), or estate shall receive the total amount of his/her accumulated employee and employer cash balance accounts including interest credit, as a lump sum or converted into a monthly annuity, as defined under the retirement allowance.

Defined Contribution Transfers at Retirement
Upon retirement, members participating in the Defined Contribution Benefit Fund may elect to annuitize their accumulated account balance and receive a monthly benefit payment. This benefit is paid from the Cash Balance Benefit Fund so the member's DC account balance amount is transferred to the Cash Balance Benefit Fund upon the retirement of a Defined Contribution member electing an annuity. The actuarial assumptions used to convert the accumulated account balance to monthly income are (i) the 1994 Group Annuity Mortality Table with a 50% male / 50% female mix, and (ii) the PBGC Table 2 interest rate at the beginning of the year plus 0.75%.

Benefit Improvements
In accordance with Section 84-1319 of the Nebraska State Statutes, the Public Employees' Retirement Board may grant benefit improvements if the unfunded actuarial accrued liability is less than zero, but in no event will such improvement result in an actuarially required contribution rate in excess of 90% of the total statutory contribution rate.

Dividend Policy
Under Nebraska Statutes, the Board may grant a dividend in addition to the regular interest credit if the UAL is less than $0 (i.e. a surplus exists) and the actuarial contribution after the extra dividend is no more than 90% of the scheduled contribution rate. Additionally, the Board has adopted a policy that also requires that the Accumulated Obligation be completely funded.

Changes in Plan Provisions Since the Prior Year
There have been no changes in plan provisions since the last actuarial valuation as of January 1, 2013.

A. 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 benefits were determined for all active members under age 80. Cost factors designed to produce annual costs as a constant 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 90 and determining an average normal cost rate which is the related to the total payroll of active members under age 90. The actuarial assumptions shown in Exhibit 9 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 80 and over, terminated vested members and disabled members not yet receiving benefits was determined as the actuarial present value of the benefits expected to be paid. No normal costs are now 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 benefit 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 unfunded actuarial accrued liability is funded with a level dollar payment amount over 25 years from January 1, 2009 and subsequent changes in the unfunded actuarial accrued liability are funded with a closed level dollar payment over 25 years from the date established.

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

2. **Calculation of the Actuarial Value of Assets:** Effective January 1, 2003, the actuarial value of assets was initiated at Market Value and equals the sum of the employee and employer cash balance accounts. In future years, the actuarial value of assets will be based on a five-year smoothing method with phase-in 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 at the valuation date is reduced by the sum of the following, each determined after January 1, 2003:

   (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.
   (iv) 20% of the return to be spread during the fourth year preceding the valuation date.

   The return to be spread is the difference between (1) the actual investment return on Market Value and (2) the expected return on Actuarial Value. The expected return on Actuarial Value includes interest on the previous year's unrecognized return.

B. VALUATION PROCEDURES

No actuarial liability is included for participants who terminated without being vested prior to the valuation date, except those due a refund of the cash balance account.

The compensation amounts used in the projection of benefits and liabilities for active members were prior plan year compensations.

Projected benefits were limited by the dollar limitation required by the Internal Revenue Code Section 415 as it applies to governmental plans and compensation limited by Section 401(a)(17).

Changes in Methods and Procedures Since the Prior Year

There have been no changes in the actuarial methods or procedures since the last actuarial valuation as of January 1, 2013.

APPENDIX C – SUMMARY OF ACTUARIAL ASSUMPTIONS

ECONOMIC ASSUMPTIONS

1. Investment Return — 7.75% per annum, compounded annually, net of expenses.

2. Inflation — 3.25% per annum, compounded annually.

3. Interest Credit Rate on Cash Balance Accounts — 6.75% per annum, compounded annually.

4. Annuitization Rate of Member & Employer Accumulated Balances — 7.75% per annum, compounded annually.

5. Salary Scale

	Annual Increase in Salary		
Service	Merit & Productivity	Inflation	Total
0	2.11%	3.25%	5.43%
1	1.98	3.25	5.30
2	1.79	3.25	5.10
3	1.49	3.25	4.79
4	1.27	3.25	4.56
5	1.19	3.25	4.48
6	1.16	3.25	4.44
7	1.14	3.25	4.43
8	1.10	3.25	4.38
9	1.06	3.25	4.35
10	1.03	3.25	4.31
11	1.02	3.25	4.30
12	0.98	3.25	4.26
13	0.94	3.25	4.22
14	0.92	3.25	4.20
15	0.89	3.25	4.17
16	0.85	3.25	4.13
17	0.82	3.25	4.10
18	0.81	3.25	4.09
19	0.78	3.25	4.06
20	0.73	3.25	4.00

DEMOGRAPHIC ASSUMPTIONS

1. Mortality

Mortality assumptions were based on actual experience during the last experience analysis and includes an allowance for expected future mortality improvement as required under ASOP 35.

a. Active Members — 1994 Group annuity Mortality Table, setback 1 year, projected to 2015 (55% of male rates for males, 40% of female rates for females).

b. Retired members and beneficiaries — 1994 Group Annuity Mortality Table, setback 1 year, sex distinct projected to 2015 using Scale AA.

c. Mortality rates under the mortality table for active members are shown below at sample ages:

	Active Mortality Rate	
Sample Age	Males	Females
30	.04%	.01%
40	.05	.02
50	.09	.04
60	.28	.14
70	.89	.46
80	2.44	1.22

d. Life expectancies under the mortality table for active members are shown below at sample ages:

	Life Expectancy (Years)	
Sample Age	Males	Females
30	58.5	64.8
40	48.7	54.9
50	39.0	45.0
60	29.5	35.3
70	20.8	26.1
80	13.1	17.6

e. Mortality for Annuitization of Employee and Employer Cash Balance Accounts — 1994 Group Annuity Mortality Table, with 50 % Male, 50% Female blending.

Sample Age	Mortality Rate	Life Expectancy (Years)
55	.34%	28.0
60	.62	23.5
65	1.16	19.4
70	1.87	15.7
75	2.99	12.2
80	5.07	9.3

2. Retirement

Graduated rates by retirement age after 5 years of service.

Age	Annual Rates
55	5.0%
56	5.0
57	5.0
58	5.0
59	5.0
60	5.0
61	8.0
62	15.0
63	10.0
64	15.0
65	25.0
66	25.0
67	25.0
68	25.0
69-79	20.0
80	100.0

3. Termination

Graduated rates by age and service.

	Annual Rate Per 100 Members					
Age	<1	1-<2	2-<3	3-<4	4-<5	5+
20	17.0	16.0	15.0	13.5	12.0	13.3
25	17.0	16.0	15.0	13.5	12.0	13.3
30	17.0	16.0	15.0	13.5	12.0	10.3
35	17.0	16.0	15.0	13.5	12.0	7.5
40	17.0	16.0	15.0	13.5	12.0	6.4
45	17.0	16.0	15.0	13.5	12.0	4.8
50	17.0	16.0	15.0	13.5	12.0	4.0
55	17.0	16.0	15.0	13.5	12.0	4.0

4. Disability

None.

OTHER ASSUMPTIONS

1. Payment Assumptions

As shown in the table below, 50% of all members eligible for retirement are assumed to be paid in the form of an annuity and the other 50% in the form of a lump sum, and 100% of members eligible for all other types of benefits are assumed to be paid in the form of a lump sum. Deferred vested and non-vested members are assumed to take a refund of their account balance as of the valuation date.

Benefit	Assumed Form of Payment
Retirement	50% Lump Sum / 50% Annuity*
Vested	Lump Sum
Non-vested	Lump Sum
Disability	Lump Sum
Death	Lump Sum

*Five-year certain and life annuity.

2. Cost of Living Adjustment

None assumed, except 2.5% per year is used for retirees electing annuity payments with a COLA feature.

Changes in Assumptions Since the Prior Year

There have been no changes in assumptions since the prior valuation.

APPENDIX D – GLOSSARY OF TERMS

Actuarial Accrued Liability	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".
Actuarial Assumptions	Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
Accrued Service	Service credited under the system which was rendered before the date of the actuarial valuation.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement system benefit between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding method".
Experience Gain (Loss)	The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.
Actuarial Present Value	The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.
Amortization	Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with lump sum payment.
Normal Cost	The actuarial present value of retirement system benefits allocated to the current year by the actuarial cost method.

Unfunded Actuarial Accrued Liability

The difference between actuarial accrued liability and the valuation assets. Sometimes referred to as "unfunded actuarial liability" or "unfunded accrued liability".

Most retirement systems have 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 (after due allowance for devaluation of the dollar).