

The experience and dedication you deserve

# Nebraska Public Employees Retirement Systems 2014

# **County Equal Retirement Benefit Fund**

Actuarial Valuation Results as of January 1, 2014 for Fiscal Year ending June 30, 2015





# TABLE OF CONTENTS

•	4.4	·	$\sim$	4 • 6•	4 •
	etter	Of (	ĽР	rfifi	catior

Exhibit 1 – Summary of Actuarial Results and Contribution Alternatives	1
Exhibit 2 – Summary of Fund Assets by County	2
Exhibit 3 – Actuarial Results and Contribution Alternatives by County	3
Exhibit 4 – Summary of Member Data	4
Exhibit 5 – Summary of Member Data by County	5
Appendix A – Summary of Benefit Provisions	7
Appendix B – Summary of Actuarial Methods and Assumptions	9



The experience and dedication you deserve

April 3, 2014

Public Employees Retirement Board Nebraska Public Employees Retirement Systems 1526 "K" Street Suite 400 Lincoln, NE 68509-4816

RE: Certification of Actuarial Valuation
County Equal Retirement Benefit Fund

Members of the Board:

At your request we have prepared an actuarial valuation of the County Equal Retirement Benefit Fund as of January 1, 2014 for the purpose of determining the funded status of the Plan and any required contribution for the plan year. Funding required from each participating County for current plan members, as approved by the Retirement Board, is equal to an amount necessary to fully fund the benefit obligation, or alternatively, an annual payment which would amortize the unfunded liability over a period of twenty years commencing January 1, 1999. There was no change to the actuarial assumptions or methods 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 well within acceptable limits with only slight differences in the liabilities.

The actuarial valuation is based on unaudited financial data provided by the System and member data provided by the Ameritas Life Insurance Corporation, the recordkeeper for the Plan. We found this information to be reasonably consistent and comparable with the information used in the prior report. 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. The benefits considered are those delineated in Nebraska State Statutes as of January 1, 2014.

We further certify that all costs, liabilities, rates of interest and other factors for the County Equal Retirement 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



April 3, 2014 Public Employees Retirement Board Page 2

assumptions. The Public Employees Retirement Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix B.

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

The 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.

Respectfully submitted,

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

Patrice Beckham

Brent Banister, PhD, FSA, FCA, EA, MAAA Chief Pension Actuary

Bent a Boute

S:\Nebraska PERS\Valuation\20140101\County Cash Balance\ERB\2014 County Cash Balance



### EXHIBIT 1 – SUMMARY OF ACTUARIAL RESULTS AND CONTRIBUTION ALTERNATIVES

Below is a comparison of the aggregate results of the current and prior years' actuarial valuations.

	1	Actuarial as of Jan		
Results		2013		2014
Number of Members				
Cash Balance		139		167
Defined Contribution		182	_	126
Total		321		293
Pre-1984 Account Balance with Interest, Beginning of Year				
Cash Balance	\$	4,247,119	\$	5,304,588
Defined Contribution		5,550,256		3,881,095
Total	\$	9,797,375	\$	9,185,683
Projected Benefit Cost*				
a. Amount	\$	145,717	\$	127,370
b. As a percent of the account balance		1.487%		1.387%
Actuarial Value of Assets (Market Value)				
a. Asset Value as of prior year's valuation	\$	287,605	\$	314,920
b. Deposits during the year		148		0
<ul> <li>c. Withdrawals during the year</li> </ul>		8,384		3,349
d. Investment Return or (Loss)		35,551		55,755
e. Actuarial Value of Assets as of Valuation Date	Φ.	214.020	Φ.	0.67.00.5
[a. + b c. + d]	\$	314,920	\$	367,326
Unfunded Liability/(Surplus)	\$	(169,203)	\$	(239,956)

<sup>\*</sup>Cost is based on the assumption that 75% of members will elect a lump sum or installment payment instead of an annuity. To the extent that actual experience in the future deviates from this assumption, the costs in future years could vary as well, at times significantly.



# EXHIBIT 2 – SUMMARY OF FUND ASSETS BY COUNTY

	Beginning Balance	Employer Contributions		Investment	Ending Balance December 31,
<b>County Name</b>	January 1, 2013	for 2013	Withdrawals	Return	2013
1. Adams	\$ 12,762.45	\$ 0.00	\$ 0.00	\$ 2,275.76	\$ 15,038.21
2. Banner*	0.00	0.00	0.00	0.00	0.00
3. Box Butte	5,077.42	0.00	0.00	905.39	5,982.81
4. Buffalo	15,253.70	0.00	0.00	2,719.99	17,973.69
5. Cass	843.38	0.00	0.00	150.40	993.78
6. Cedar	930.61	0.00	0.00	165.94	1,096.55
7. Cheyenne	2,767.11	0.00	0.00	493.43	3,260.54
8. Cuming	10,104.93	0.00	564.24	1,754.35	11,295.04
9. Custer	8,717.92	0.00	0.00	1,554.55	10,272.47
10. Dawson	19,391.03	0.00	0.00	3,457.75	22,848.78
11. Dodge	16,508.00	0.00	0.00	2,943.64	19,451.64
12. Franklin*	0.00	0.00	0.00	0.00	0.00
13. Frontier*	0.00	0.00	0.00	0.00	0.00
14. Gage	7,358.90	0.00	0.00	1,312.21	8,671.11
15. Gosper	2,511.96	0.00	0.00	447.93	2,959.89
16. Hall	22,658.28	0.00	0.00	4,040.36	26,698.64
17. Harlan	2,646.89	0.00	0.00	471.99	3,118.88
18. Hitchcock	5,757.22	0.00	0.00	1,026.61	6,783.83
19. Jefferson	10,027.29	0.00	0.00	1,788.05	11,815.34
20. Kearney*	0.00	0.00	0.00	0.00	0.00
21. Kimball	8,925.65	0.00	0.00	1,591.59	10,517.24
22. Lincoln	3,222.08	0.00	0.00	574.55	3,796.63
23. Madison	7,396.43	0.00	0.00	1,318.90	8,715.33
24. Morrill	9,289.96	0.00	0.00	1,656.55	10,946.51
25. Otoe*	0.00	0.00	0.00	0.00	0.00
26. Phelps*	288.37	0.00	317.69	29.32	0.00
27. Platte	21,246.84	0.00	0.00	3,788.67	25,035.51
28. Polk	3,521.97	0.00	0.00	628.04	4,150.01
29. Red Willow	3,570.09	0.00	0.00	636.61	4,206.70
30. Richardson	6,134.39	0.00	0.00	1,093.86	7,228.25
31. Saline	6,681.47	0.00	0.00	1,191.42	7,872.88
32. Sarpy	37,177.01	0.00	2,467.37	6,298.34	41,007.98
33. Saunders	14,916.26	0.00	0.00	2,659.83	17,576.09
34. Scotts Bluff	18,566.17	0.00	0.00	3,310.67	21,876.84
35. Seward	10,849.03	0.00	0.00	1,934.56	12,783.59
36. Washington	11,768.73	0.00	0.00	2,098.56	13,867.29
37. York	8,048.99	0.00	0.00	1,435.27	9,484.26
Totals	\$ 314,920.52	\$ 0.00	\$ 3,349.30	\$ 55,755.09	\$ 367,326.31

<sup>\*</sup> County no longer has any members covered by the fund.



EXHIBIT 3 – ACTUARIAL RESULTS AND CONTRIBUTION ALTERNATIVES BY COUNTY

	NI I C	D : 4 1		2012 E. II	2014 E. II
Constant Norman	Number of	Projected Benefit Cost**	Amaka	2013 Full	2014 Full
County Name	Members 8		<b>Assets</b> \$ 15,038.21	<b>Contribution</b> \$ 0.00	Contribution \$ 0.00
1. Adams 2. Banner*			\$ 15,038.21 0.00		\$ 0.00 0.00
	0	0.00 2,997.89		0.00	0.00
3. Box Butte	8	,	5,982.81	0.00	
4. Buffalo	23	9,303.80 708.01	17,973.69	0.00	0.00
5. Cass	2		993.78	0.00	0.00
6. Cedar	2	185.18	1,096.55	0.00	0.00
7. Cheyenne	3	745.53	3,260.54	0.00	0.00
8. Cuming	1	128.08	11,295.04	0.00	0.00
9. Custer	12	4,221.90	10,272.47	0.00	0.00
10. Dawson	11	6,469.77	22,848.78	0.00	0.00
11. Dodge	13	8,864.68	19,451.64	0.00	0.00
12. Franklin*	0	0.00	0.00	0.00	0.00
13. Frontier*	0	0.00	0.00	0.00	0.00
14. Gage	12	4,266.38	8,671.11	0.00	0.00
15. Gosper	4	1,286.36	2,959.89	0.00	0.00
16. Hall	15	4,172.05	26,698.64	0.00	0.00
17. Harlan	5	1,933.93	3,118.88	0.00	0.00
18. Hitchcock	4	2,038.30	6,783.83	0.00	0.00
19. Jefferson	6	2,967.01	11,815.34	0.00	0.00
20. Kearney*	0	0.00	0.00	0.00	0.00
21. Kimball	5	1,414.43	10,517.24	0.00	0.00
22. Lincoln	8	1,553.08	3,796.63	0.00	0.00
23. Madison	13	4,761.39	8,715.33	0.00	0.00
24. Morrill	5	3,226.53	10,946.51	0.00	0.00
25. Otoe*	0	0.00	0.00	0.00	0.00
26. Phelps*	0	0.00	0.00	0.00	0.00
27. Platte	21	9,584.10	25,035.51	0.00	0.00
28. Polk	7	1,764.71	4,150.01	0.00	0.00
29. Red Willow	4	562.77	4,206.70	0.00	0.00
30. Richardson	5	2,450.83	7,228.25	0.00	0.00
31. Saline	9	2,722.16	7,872.88	0.00	0.00
32. Sarpy	34	19,343.62	41,007.98	0.00	0.00
33. Saunders	14	9,682.39	17,576.09	0.00	0.00
34. Scotts Bluff	15	9,634.64	21,876.84	0.00	0.00
35. Seward	10	4,407.16	12,783.59	0.00	0.00
36. Washington	9	1,540.94	13,867.29	0.00	0.00
37. York		2,567.54	9,484.26	0.00	0.00
Totals	293	\$ 127,370.27	\$ 367,326.31	\$ 0.00	\$ 0.00

<sup>\*</sup> County no longer has any members covered by the fund.

<sup>\*\*</sup> Cost is based on the assumption that 75% of retiring members will choose a lump sum or installment payment instead of an annuity.



# EXHIBIT 4 – SUMMARY OF MEMBER DATA

Age		Gen	der		
Range	Data	Male	]	Female	Total
	Count of Members	0		0	0
35-40	Average of Total Balance	\$ 0	\$	0	\$ 0
	Sum of Total Balance	\$ 0	\$	0	\$ 0
	Count of Members	0		0	0
40-44	Average of Total Balance	\$ 0	\$	0	\$ 0
	Sum of Total Balance	\$ 0	\$	0	\$ 0
	Count of Members	0		0	0
45-49	Average of Total Balance	\$ 0	\$	0	\$ 0
	Sum of Total Balance	\$ 0	\$	0	\$ 0
	Count of Members	0		1	1
50-54	Average of Total Balance	\$ 0	\$	17,315	\$ 17,315
	Sum of Total Balance	\$ 0	\$	17,315	\$ 17,315
	Count of Members	48		36	84
55-59	Average of Total Balance	\$ 23,468	\$	17,108	\$ 20,743
	Sum of Total Balance	\$ 1,126,488	\$	615,905	\$ 1,742,393
	Count of Members	63		44	107
60-64	Average of Total Balance	\$ 35,504	\$	20,310	\$ 29,256
	Sum of Total Balance	\$ 2,236,725	\$	893,637	\$ 3,130,362
	Count of Members	28		27	55
65-69	Average of Total Balance	\$ 44,190	\$	37,463	\$ 40,887
	Sum of Total Balance	\$ 1,237,312	\$	1,011,499	\$ 2,248,811
	Count of Members	16		13	29
70-74	Average of Total Balance	\$ 56,567	\$	29,604	\$ 44,480
	Sum of Total Balance	\$ 905,065	\$	384,857	\$ 1,289,922
	Count of Members	11		6	17
75+	Average of Total Balance	\$ 56,956	\$	21,728	\$ 44,522
	Sum of Total Balance	\$ 626,515	\$	130,365	\$ 756,880
Total Membe	ers	166		127	 293
Total Averag	ge Balance	\$ 36,940	\$	24,044	\$ 31,350
Grand Total	Balance	\$ 6,132,105	\$	3,053,578	\$ 9,185,683



EXHIBIT 5 – SUMMARY OF MEMBER DATA BY COUNTY

County*	Data	Gen	der		Total
		Male Fe			
Adams	Count of Members	4		4	8
	Sum of Total Balance	\$ 89,939	\$	55,666	\$ 145,605
Box Butte	Count of Members	4		4	8
	Sum of Total Balance	\$ 104,289	\$	27,768	\$ 232,057
Buffalo	Count of Members	13		10	23
	Sum of Total Balance	\$ 431,989	\$	20,952	\$ 652,941
Cass	Count of Members	2		0	2
	Sum of Total Balance	\$ 61,128	\$	0	\$ 61,128
Cedar	Count of Members	0		2	2
	Sum of Total Balance	\$ 0	\$	14,197	\$ 14,197
Cheyenne	Count of Members	1		2	3
	Sum of Total Balance	\$ 27,145	\$	25,494	\$ 52,639
Cuming	Count of Members	0		1	1
	Sum of Total Balance	\$ 0	\$	9,898	\$ 9,898
Custer	Count of Members	7		5	12
	Sum of Total Balance	\$ 212,262	\$	86,038	\$ 298,300
Dawson	Count of Members	8		3	11
	Sum of Total Balance	\$ 254,069	\$	93,017	\$ 447,086
Dodge	Count of Members	6		7	13
	Sum of Total Balance	\$ 318,064	\$	282,025	\$ 600,089
Gage	Count of Members	6		6	12
	Sum of Total Balance	\$ 208,519	\$	118,489	\$ 327,008
Gosper	Count of Members	2		2	4
_	Sum of Total Balance	\$ 20,420	\$	70,474	\$ 90,894
Hall	Count of Members	8		7	15
	Sum of Total Balance	\$ 186,298	\$	104,939	\$ 291,237
Harlan	Count of Members	1		4	5
	Sum of Total Balance	\$ 100,070	\$	48,085	\$ 148,155
Hitchcock	Count of Members	2		2	4
	Sum of Total Balance	\$ 56,956	\$	67,553	\$ 124,509
Jefferson	Count of Members	4		2	6
	Sum of Total Balance	\$ 167,326	\$	47,753	\$ 215,079
Kimball	Count of Members	1		4	5
	Sum of Total Balance	\$ 61,385	\$	54,791	\$ 116,176
Lincoln	Count of Members	4		4	8
	Sum of Total Balance	\$ 84,538	\$	36,429	\$ 120,967
Madison	Count of Members	7		6	13
	Sum of Total Balance	\$ 169,860	\$	152,321	\$ 322,181
Morrill	Count of Members	3		2	5
	Sum of Total Balance	\$ 218,527	\$	33,442	\$ 251,969

 $<sup>\</sup>ast$  Banner, Franklin, Frontier, Kearney, Otoe and Phelps Counties no longer have any members covered by the Fund.



# EXHIBIT 5 (Continued) – SUMMARY OF MEMBER DATA BY COUNTY

County*	County* Data		Gen	Total			
			Male		Female		
Platte	Count of Members		15		6		21
	Sum of Total Balance	\$	538,362	\$	160,947	\$	699,309
Polk	Count of Members		5		2		7
	Sum of Total Balance	\$	111,006	\$	16,438	\$	127,444
Red Willow	Count of Members		2		2		4
	Sum of Total Balance	\$	6,676	\$	39,825	\$	46,501
Richardson	Count of Members		4		1		5
	Sum of Total Balance	\$	128,354	\$	23,458	\$	151,812
Saline	Count of Members		6		3		9
	Sum of Total Balance	\$	150,767	\$	50,920	\$	201,687
Sarpy	Count of Members		22		12		34
	Sum of Total Balance	\$	1,126,079	\$	311,254	\$	1,437,333
Saunders	Count of Members		9		5		14
	Sum of Total Balance	\$	388,126	\$	267,749	\$	655,875
Scotts Bluff	Count of Members		10		5		15
	Sum of Total Balance	\$	609,192	\$	101,873	\$	711,065
Seward	Count of Members		5		5		10
	Sum of Total Balance	\$	178,566	\$	154,207	\$	332,773
Washington	Count of Members		3		6		9
	Sum of Total Balance	\$	46,696	\$	70,375	\$	117,071
York	Count of Members		2		3		5
	Sum of Total Balance	\$	75,496	\$	107,202	\$	182,698
	Members						
	Cash Balance		95		72		167
	Defined Contribution	l _	71	_	55	_	126
Total			166		127		293
	Grand Total Balance						
Cash Balance			3,599,503		1,705,085		5,304,588
Defined Contr	ribution		2,532,603		1,348,492		3,881,095
Total		\$	6,132,106	\$	3,053,577	\$	9,185,683

<sup>\*</sup> Banner, Franklin, Frontier, Kearney, Otoe and Phelps Counties no longer have any members covered by the Fund.



## APPENDIX A – SUMMARY OF BENEFIT PROVISIONS

Member Any person employed by a County participating in either the

Defined Contribution or Cash Balance Benefit under the County Employees Retirement System who has an accumulated account balance based on contributions which were made prior to January 1,

1984.

**Contributions** Each participating County shall make contributions to the fund on

an actuarial basis as approved by the Retirement Board.

Eligibility for Any member who retires or terminates service and elects to convert to an annuity using their accumulated account balance, with

interest, commencing on or after age 55, is eligible to receive a

benefit from the fund.

Benefit Amount The fund shall provide the Actuarially Equivalent amount required

to purchase the additional monthly annuity, if any, which is equal

to:

a. the income provided by the Member's accumulated contributions made prior to January 1, 1984 with interest, based on male annuity

conversion factors in effect on the annuity starting date,

Less

b. the income provided by the Member's accumulated contributions made prior to January 1, 1984 with interest, which are based on 50% male / 50% female annuity conversion factors in effect on the

annuity starting date.

Cash Balance Conversion Any member who elected to transfer his or her account balance to the Nebraska County Cash Balance Plan as of January 1, 2003, January 1, 2008 or January 2, 2013 will have his or her Benefit Amount determined using the annuity conversion interest rate applicable to the County Employees Retirement System (Cash Balance Benefit), which for 2014 is 7.75%. Any other member will have his or her Benefit amount determined using the annuity conversion interest rate applicable to the County Employees Retirement System (Defined Contribution benefit), which for 2014 is 4.10%.

#### Changes in Benefit Provisions Since the Prior Year

There were no changes in the benefit provisions since the last valuation.



### APPENDIX B - SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

**Economic Assumptions** 

1. Investment Return 7.75% per annum, compounded annually,

net of expenses.

2. Consumer Price Inflation 3.25% per annum, compounded annually.

3. Interest on accumulated contribution balances (contributions made before

January 1, 1984) 7.75% per annum, compounded annually.

4. COLA (optional purchase applicable to 2.5% per annum, compounded annually.

annuities)

1. Mortality

**Demographic Assumptions** 

a. Pre-retirement None.

b. Post-retirement 1994 Group Annuity Mortality (based on

Actuarial Equivalence definition in

statute).

2. Withdrawal None.

3. Disability None



### APPENDIX B – SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

4. Retirement

Rates vary by age as follows:

Age	County Annual Rates
55	5%
56	5
57	5
58	5
59	5
60	5
61	5
62	10
63	10
64	10
65	20
66	20
67	15
68	15
69	15
70-79	20
80	100

### **Other Assumptions**

- 1. Payment election
- 2. Form of Annuity Payment

75% of retiring members were assumed to elect a lump sum distribution or installment payments, and 25% of retiring members were assumed to elect an annuity form of distribution.

Of members electing an annuity, 80% of those members were assumed to elect a 5-year certain and life annuity without COLA, and 20% of those members were assumed to elect a 5-year certain and life with a 2.5% annual COLA.



### APPENDIX B - SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

### **Methods**

1. Funding Method

Aggregate Actuarial Cost Method. The present value of future benefits or Projected Benefit Cost, less the Actuarial Value of Assets, equals the Unfunded Liability or Surplus. The minimum recommended contribution is equal to an annual amount necessary to amortize the Unfunded Liability over ten years from January 1, 1999.

2. Asset Valuation Method

Fair market value.

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

No Changes.