NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL RETIREMENT SYSTEM
2012

Fifty-seventh Actuarial Report for
State Fiscal Year Ending June 30, 2014
and
System Plan Year Beginning July 1, 2012

December 2012

Submitted By:
Buck Consultants
1200 Seventeenth Street, Suite 1200
Denver, CO 80202

buckconsultants

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December 3, 2012

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

RE Certification of Actuarial Valuation
State Patrol Retirement System

Ladies and Gentlemen:

This report summarizes the results of the actuarial valuation of the State Patrol Retirement System as of July 1, 2012 performed by Buck Consultants.

The actuarial valuation is based on unaudited financial and member data provided to us by the Nebraska Public Employees Retirement System as summarized in this report. The benefits considered are those delineated in Nebraska State Statutes, effective as amended July 1, 2012.

All costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures. This report fully and fairly discloses the actuarial position of the plan. The actuarial assumptions were changed from the prior valuation based on the experience analysis performed on the population experience for the period July 1, 2006 through June 30, 2011.

Based on the results of our actuarial valuation, an additional contribution to the State Patrol Retirement System will keep it actuarially sound. Annual funding required from the State as defined under statute for current plan members is equal to the member contributions and appropriations, plus an additional payment necessary to meet the actuarially required contribution. For the 2013/2014 fiscal year, the State's additional payment requirement is $4,552,680.

The undersigned are Enrolled Actuaries and/or Associates of the Society of Actuaries and Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all Applicable Standards of Practice. 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.

Respectfully submitted,

BUCK CONSULTANTS

David H. Slishinsky

David H. Slishinsky, A.S.A., E.A., M.A.A.A.
Principal and Consulting Actuary

Randy E. Halper

Randy E. Halper, E.A., M.A.A.A., F.C.A., M.B.A.
Senior Consultant, Retirement Actuary

1200 17th Street, Suite 1200 • Denver, CO 80202
720.359.7700 • 720.359.7701 (fax)

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF ACTUARIAL REPORT FOR CONTRIBUTION REQUIREMENTS AND FUNDED STATUS FOR PLAN YEAR 2012/2013

The main purposes of this report are:

1. To determine the level of State contributions for the fiscal year ending June 30, 2014, sufficient to meet the funding policy defined under Nebraska State statutes;
2. To review the current funded status of the system; and
3. To compare actual and expected experience under the plan during the plan year beginning July 1, 2011 and ending June 30, 2012.

The 2012 actuarial valuation is based upon the plan provisions as of July 1, 2012, as described in Exhibit 8. The actuarial methods and assumptions are described in Exhibits 9 and 10.

Highlights from the current valuation:

1. An additional State contribution of $4,552,680 is required for the 2013/2014 fiscal year to meet the actuarially required contribution. Expected member contributions and State contributions and appropriations fall short of the total funding requirement. The system's actuarial liability has increased by $23,861,414 from $47,998,978 as of July 1, 2011 to $71,860,392 as of July 1, 2012.

2. The annual rate of return on Market Value was 0.8%, resulting in a Market Value of $278,311,367 as of June 30, 2012. A loss was experienced on the Actuarial Value of Assets during the 2011/2012 plan year. The rate of return on Actuarial Value of 2.1% fell short of the 8.0% assumed investment return rate by 5.9%, resulting in a decrease to the expected Actuarial Value by $16,506,825, and an Actuarial Value of $282,810,785 as of July 1, 2012. The funded ratio based on disclosure requirements under GASB No. 25 using the Actuarial Value of Assets and the Actuarial Accrued Liability decreased from 82.2% as of July 1, 2011 to 78.1% as of July 1, 2012 (see page 11). The reconciliation of these asset values can be found in Exhibit 1 on page 3.

3. The plan experienced a decremental gain in the actuarial accrued liability since the July 1, 2011 actuarial valuation. The actuarial accrued liability decreased by $4,386,835 as a result of favorable decremental experience. This decrease is due primarily to salary increases less than assumed.

4. As the result of an experience analysis conducted on actual plan experience from July 1, 2006 through June 30, 2011, revised actuarial assumptions were proposed and adopted by the Nebraska Public Employees Retirement Board (PERB) in August 2012, to be used for the July 1, 2012 actuarial valuation. The impact of the changes to the actuarial assumptions resulted in a $8,124,334 increase in the actuarial accrued liability of the State Patrol System as of July 1, 2012.

5. The funded status of the system as measured by the ratio of the system assets over the Pension Benefit Obligation (PBO) decreased. The PBO is calculated using the Projected Unit Credit Method, which determines the benefit by using service at the valuation date and projecting salary to assumed termination or retirement. Since the July 1, 2011 actuarial valuation, the funded percentage on Actuarial Value decreased from 83.4% to 79.0%.

EXECUTIVE SUMMARY

Basic Actuarial Valuation Results

The 2012 actuarial valuation results are based upon the plan provisions as of July 1, 2012 as described in Exhibit 8. The actuarial methods and assumptions are described in detail in Exhibits 9 and 10, respectively.

1. State Contribution

The State's funding policy is to contribute 19% of pay and make additional payments if necessary, to meet the actuarially required contribution. The member contribution rate is 19% of pay effective July 1, 2011. On July 1, 2013, both the member and employer contribution rates decrease to 16%. The actuarially required contribution is equal to the normal cost plus an amortization payment for unfunded liabilities. Unfunded liabilities created due to experience gains or losses, plan changes or assumption changes are amortized over 30 years.

Total expected State funding for the 2012/2013 plan year is $9,558,162. Member contributions and matching State contributions and appropriations are not expected to meet the total actuarially required funding. The additional State funding required for the 2012/2013 plan year, payable July 1, 2013, is $4,552,680.

History of Expected State Contributions			
Plan Year	**State Contribution***	**Additional Contributions**	**Total**
2012/2013	$ 5,005,482	$ 4,552,680	$ 9,558,162
2011/2012	5,291,940	2,255,430	7,547,370
2010/2011	4,597,331	2,770,262	7,367,593
2009/2010	4,203,166	1,801,610	6,004,776
2008/2009	4,361,746	812,087	5,173,833
2007/2008	4,225,729	365,020	4,590,749
2006/2007	3,942,430	813,159	4,755,589
2005/2006	3,766,098	1,080,050	4,846,148
2004/2005	3,050,645	948,654	3,999,299
2003/2004	2,745,970	434,202	3,180,172
2002/2003	2,413,762	0	2,413,762

* Includes State Appropriations.

EXECUTIVE SUMMARY

2. Asset Values

The total assets of the system as of the current and prior valuation date at both market value and actuarial value, and the rate of return during the period is as follows:

	July 1, 2011	July 1, 2012	Annual Rate of Return
(a) Market value	$ 278,146,750	$ 278,311,367	0.8%
(b) Actuarial value, an adjusted value intended to reduce the effect of market fluctuations (See Exhibit 1B)	$ 279,192,669	$ 282,810,785	2.1%

3. Actuarial Liability/(Reserve)

The actuarial liability of the system is the excess of the total benefit obligation (present value of future benefits) over the projected financial resources (sum of (i) the actuarial value of assets, (ii) the present value of future member and matching State contributions, and (iii) the present value of future State appropriations). If the projected financial resources exceed the total benefit obligation, the system has a Reserve. The actuarial position of the system as of the current and prior valuation dates are as follows:

	July 1, 2011	July 1, 2012
(a) Present value of future benefits	$ 399,787,021	$ 426,454,650
(b) Actuarial value of assets	279,192,669	282,810,785
(c) Present value of future member contributions	35,854,719	35,632,743
(d) Present value of matching State contributions	35,854,719	35,632,743
(e) Present value of future State appropriations*	885,936	517,987
(f) Actuarial Liability/(Reserve) [(a) - (b) - (c) - (d) - (e)]	$ 47,998,978	$ 71,860,392

* Includes appropriation for COLA benefit under LB 137.

EXECUTIVE SUMMARY

4. Pension Benefit Obligation (PBO)

The Pension Benefit Obligation represents a standardized disclosure measure of the present value of pension benefits payable in the future, which incorporates the effects of projected salary increases, based on service earned at the valuation date. The measure is intended to provide information regarding the Plan's funded status on an ongoing-concern basis, progress made in accumulating sufficient assets to pay benefits when due, and comparability to other plans.

Funded Status	July 1, 2011	July 1, 2012
(a) Pension Benefit Obligation		
i) retirees, disabled members and beneficiaries receiving benefits and deferred vested members not yet receiving benefits*	$ 211,488,699	$ 233,612,644
ii) active members	123,427,982	124,451,770
iii) total pension benefit obligation	$ 334,916,681	$ 358,064,414
(b) Assets available for benefit (actuarial value)	279,192,669	282,810,785
(c) Unfunded Pension Benefit Obligation/(Reserve)	$ 55,724,012	$ 75,253,629
(d) Funded percentage on actuarial value of assets [(b) ÷ (a)(iii)]	83.4%	79.0%

* Includes actuarial value of the DROP account balances of $3,077,141 as of July 1, 2011 and $4,679,850 as of July 1, 2012.

EXECUTIVE SUMMARY

5. Benefit Accrual Cost

The cost of benefits accruing over an active member's working career can be expressed as a level percentage of compensation. This cost represents the true cost of accruing benefits since it is not adjusted for any overfunding or underfunding which may exist on the valuation date. It is determined using the Entry Age Actuarial Cost Method and is also called the Normal Cost. The level benefit accrual cost determined during the current and prior valuation dates are as follows:

	July 1, 2011	July 1, 2012
(a) Benefit accrual cost amount	$ 7,261,455	$ 7,506,964
(b) Annual compensation before assumed retirement age	$ 26,195,473	$ 25,794,219
(c) Benefit accrual cost rate [(a) ÷ (b)]	27.720%	29.103%

6. Forecast of Disbursements

A forecast of the annual benefit disbursements expected over the next thirty years is presented in Exhibit 7. This forecast is based on the same actuarial assumptions with respect to salary increases and decrement rates used to determine the funding requirements. The forecast should be a useful guide in discussing the cash-flow needs of the system with investment managers and in projecting the future financing needs of the system.

7. Actuarial Methods and Assumptions

The required contribution developed in this report is an estimate of the amount necessary to provide ongoing benefits to plan members assuming the system is funded in a systematic manner. These estimates are based upon the actuarial method defined under State Statutes to allocate the total cost of the plan to various years and actuarial assumptions regarding the return on investments, salary rates, employee termination rates, mortality rates and other risk factors. The actuarial method used to determine the actuarial contribution requirement is the Entry Age Actuarial Cost Method.

The actuarial assumptions represent the expected long-term experience of the system on an explicit basis for each risk area considered. The experience is reviewed periodically. Where necessary, changes are recommended by the actuary and adopted by the Public Employees Retirement Board.

A summary of the actuarial methods and assumptions used in the current valuation is presented in Exhibits 9 and 10, respectively.

EXECUTIVE SUMMARY

8. Changes Since the Last Actuarial Valuation

There have been no changes in the actuarial cost method or plan provisions since the last actuarial valuation as of July 1, 2011. The changes in actuarial assumptions are a result of the most recent experience analysis concluded in August 2012 based on experience from July 1, 2006 through June 30, 2011. These changes are effective as of July 1, 2012 and are listed below:

• The interest rate on employee contributions was lowered to 4.25% from 5.50%.

• Salary increases were changed to rates grading down from 9.5% for less than one year of service to 4.0% at 30 years of service. Prior valuation rates graded from 9.0% for less than one year to 4.5% at 25 years of service.

• Retirement rates are based on age and retirement eligibility. The rates were increased for reduced (50 years of age and 10 years of service) and decreased for unreduced (55 years of age and 10 years of service) early retirement.

• Pre- and post-retirement healthy mortality assumptions were changed from the 1994 Group Annuity Mortality (GAM) table projected to 2010 (for pre-retirement males rates were 65% of rates and female rates were 50% of rates) to the 1994 GAM table, with a 1 year setback, projected to 2015. This change was made to reflect the most recent experience and expected future mortality improvements as required by Actuarial Standards of Practice (ASOP) No. 35.

• Deferred vested members were changed to assume they elected the greater of the present value of an annuity at earliest unreduced eligibility or a refund of contributions.

• Consumer price inflation was lowered to 3.25% from 3.50%.

• Economic productivity was lowered to 0.75% from 1.00%.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SYSTEM ASSETS

A. Summary of Assets	Market Value as of June 30, 2011	Market Value as of June 30, 2012
1. Cash and Equivalents	$ 312,263	$ 106,954
2. Investments	278,861,480	279,756,573
3. Capital Assets	14,607	106
4. Receivables and Prepaids	20,335,760	20,279,404
5. Accounts Payable	(21,377,360)	(21,831,670)
6. Net Assets Available for Pension Benefits Considered [1 + 2 + 3 + 4 + 5]	**$ 278,146,750**	**$ 278,311,367**

B. Development of Actuarial Value of Assets	Amount
1. Actuarial Value of Assets as of July 1, 2011	$ 279,192,669
2. Unrecognized Return as of July 1, 2011	$ (1,045,919)
3. Contributions	
(a) Member (includes purchased service)	$ 5,209,321
(b) State	5,204,276
(c) State appropriations	2,570,230
(d) Total	$ 12,983,827
4. Distributions	
(a) Benefit payments	$ 14,737,951
(b) Refund of contributions	421,439
(c) Total	$ 15,159,390
5. Expected Return at 8.0% on	
(a) Item 1	$ 22,335,414
(b) Item 2	(83,674)
(c) Item 3 (d)	509,362
(d) Item 4 (c)	544,272
(e) Total [(a) + (b) + (c) – (d)]	$ 22,216,830
6. Actual Return on Market Value for Plan Year, Net of Expenses	$ 2,340,180
7. Return to be Spread for Plan Year [6 - 5(e)]	$ (19,876,650)

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
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SYSTEM ASSETS

B. Development of Actuarial Value of Assets	**Amount**
8. Total Market Value of Assets as of July 1, 2012	$ 278,311,367
9. Return to be Spread	

Plan Year	**Return to be Spread**	**Unrecognized Percent**	**Unrecognized Return**
2011/2012	$ (19,876,650)	80%	$ (15,901,320)
2010/2011	34,851,950	60%	20,911,170
2009/2010	11,577,147	40%	4,630,859
2008/2009	(70,700,636)	20%	(14,140,127)
		Total	**$ (4,499,418)**

10. Total Actuarial Value of Assets at July 1, 2012 [8 - 9]	**$ 282,810,785**
11. Asset Ratios	
(a) Actuarial Value to Market Value [10 ÷ 8]	101.6%
(b) Market Value to Actuarial Value [8 ÷ 10]	98.4%

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
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SYSTEM ASSETS

C.	Change in Asset Values During 2011/2012	Actuarial Value	Market Value
1.	Asset value as of July 1, 2011		
	(a) Reported last year	$ 279,192,669	$ 278,146,750
	(b) Adjustment	N/A	-
	(c) Reported this year [(a) + (b)]	$ 279,192,669	$ 278,146,750
2.	Contributions for 2011/2012		
	(a) Member contributions paid during the year	$ 5,209,321	$ 5,209,321
	(b) State contributions paid	5,204,276	5,204,276
	(c) State appropriations for the year	2,570,230	2,570,230
	(d) Contributions for 2011/2012 [(a) + (b) + (c)]	$ 12,983,827	$ 12,983,827
3.	Disbursements for 2011/2012		
	(a) Benefit payments	$ 14,737,951	$ 14,737,951
	(b) Expenses and fees	732,664	732,664
	(c) Refund of contributions	421,439	421,439
	(d) Disbursements for 2011/2012 [(a) + (b) + (c)]	$ 15,892,054	$ 15,892,054
4.	Investment return for 2011/2012		
	(a) Investment income	$ 3,964,097	$ 3,964,097
	(b) Securities lending income	93,789	93,789
	(c) Securities lending expense	(20,521)	(20,521)
	(d) Net appreciation/(depreciation) in fair value of investments	(977,279)	(977,279)
	(e) Other	12,758	12,758
	(f) Unrecognized return including adjustment	3,453,499	N/A
	(g) Investment return for 2011/2012 [(a) + (b) + (c) + (d) + (e) + (f)]	$ 6,526,343	$ 3,072,844
5.	Asset value as of July 1, 2012 [1(c) + 2(d) - 3(d) + 4(g)]	$ 282,810,785	$ 278,311,367
6.	Approximate rate of investment return, net of expenses	2.1%	0.8%

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

ACTUARIAL CONTRIBUTION REQUIREMENT

A.	Development of Actuarially Required Funding Rate	July 1, 2012
1.	Actuarial present value of benefits	
	(a) Active members	$ 192,842,006
	(b) Inactive members	1,198,992
	(c) Retired members, disabilities and beneficiaries*	232,413,652
	(d) Total	$ 426,454,650
2.	Present Value of Future Normal Costs	64,155,675
3.	Total Actuarial Accrued Liability [1(d) - 2]	$ 362,298,975
4.	Actuarial Value of Assets	282,810,785
5.	Unfunded Actuarial Accrued Liability/(Reserve) [3 - 4]	$ 79,488,190
6.	30-Year Amortization of the Unfunded Actuarial Accrued Liability/(Reserve)	
	(a) Amount	$ 6,953,262
	(b) Amount as % of Pay	26.96%
7.	Normal Cost	
	(a) Amount	$ 7,506,964
	(b) Amount as % of Pay	29.10%
8.	Total Actuarially Required Contribution	
	(a) Amount	$ 14,460,226
	(b) Amount as % of Pay	56.06%

* Includes actuarial value of the DROP account balances of $4,679,850.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
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ACTUARIAL CONTRIBUTION REQUIREMENT

B.	**Development of Additional State Contributions for Fiscal Year 2013/2014**	**Annual Amount as a % of Pay**
1.	Actuarially Required Contribution	
	(a) Total Contribution Amount	$ 14,460,226
	(b) State Appropriations	0
	(c) Expected State Appropriation for LB 137 COLA benefit	104,580
	(d) Net Contribution Amount [(a) - (b) - (c)]	$ 14,355,646
	(e) Net Amount as % of Pay	55.65%
2.	Statutory Contribution Rates during 2012/2013	
	(a) Employee Contribution Rate	19.00%
	(b) Employer Contribution Rate	19.00%
	(c) Total Employee/Employer Contribution Rate [(a) + (b)]	38.00%
3.	Additional Required State Contribution	
	(a) Additional Required State Contribution Rate [1(e) - 2(c), not less than 0.00%]	17.65%
	(b) Additional Required State Contribution Amount	$ 4,552,680
4.	Expected Statutory Employer Contribution	
	(a) Annual Compensation	$ 25,794,219
	(b) Employer Contribution Amount [2(b) x 4(a)]	$ 4,900,902
5.	Total Expected Employer Contribution Amount and State Appropriations [1(b) + 1(c) + 3(b) + 4(b)]	$ 9,558,162

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
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ACTUARIAL CONTRIBUTION REQUIREMENT

C. Schedule of Amortization Bases	Original Amount	July 1, 2012 Remaining Payments	Date of Last Payment	Outstanding Balance as of July 1, 2012	Annual Contribution
2006 Unfunded Actuarial Accrued Liability Base	$ 13,632,330	24	07/01/2036	$ 12,749,533	$ 1,165,213
2007 Unfunded Actuarial Accrued Liability Base	$ (2,328,213)	25	07/01/2037	$ (2,207,642)	$ (199,002)
2008 Unfunded Actuarial Accrued Liability Base	$ 7,528,427	26	07/01/2038	$ 7,228,967	$ 643,486
2009 Unfunded Actuarial Accrued Liability Base	$ 12,752,991	27	07/01/2039	$ 12,387,524	$ 1,090,052
2010 Unfunded Actuarial Accrued Liability Base	$ 17,735,331	28	07/01/2040	$ 17,409,692	$ 1,515,914
2011 Unfunded Actuarial Accrued Liability Base	$ 12,260,750	29	07/01/2041	$ 12,152,519	$ 1,047,979
2012 Unfunded Actuarial Accrued Liability Base	$ 19,767,597	30	07/01/2042	$ 19,767,597	$ 1,689,620
Total				**$ 79,488,190**	**$ 6,953,262**

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
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ACTUARIAL (GAIN)/LOSS

A.	**Change in Actuarial Accrued Liability**		
1.	Actual Actuarial Accrued Liability as of July 1, 2011		$ 339,554,456
2.	Benefits accrued during the 2011/2012 plan year		7,261,455
3.	Benefit payments during the 2011/2012 plan year		15,159,390
4.	Interest at 8%		26,904,955
5.	Expected Actuarial Accrued Liability as of July 1, 2012 [1 + 2 - 3 + 4]		$ 358,561,476
6.	Decremental (Gain)/Loss by Source		
	(a) Retirement	$ 1,264,723	
	(b) Termination	258,739	
	(c) Disability	(48,880)	
	(d) Pre-retirement mortality	(68,402)	
	(e) Post-retirement mortality	546,271	
	(f) Salary	(4,674,084)	
	(g) New Entrants/Rehires	719,139	
	(h) Data changes/COLA/miscellaneous	(2,384,341)	
	(i) Total decremental (gain)/loss		$ (4,386,835)
7.	Change in Actuarial Assumptions		8,124,334
8.	Actual Actuarial Accrued Liability as of July 1, 2012 [5 + 6(i) + 7]		$ 362,298,975
B.	**Change in Actuarial Value of Assets**		
1.	Expected Actuarial Value of Assets as of July 1, 2012		$ 299,317,610
2.	Actual Actuarial Value of Assets as of July 1, 2012		282,810,785
3.	Actuarial (Gain)/Loss from Asset Sources [1 – 2]		$ 16,506,825
C.	**Total Actuarial (Gain)/Loss for the 2011/2012 plan year [A(6)(i) + B(3)]**		**$ 12,119,990**

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
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ACTUARIAL BALANCE SHEET

A.	Financial Resources		July 1, 2012
1.	Actuarial Value of Assets		$ 282,810,785
2.	Present Value of Future Contributions		
	(a) Member	$ 35,632,743	
	(b) Employer	35,632,743	
	(c) State Appropriations	517,987	
	(d) Total		71,783,473
3.	Actuarial Liability/(Reserve)		71,860,392
4.	Total Assets [1 + 2(d) + 3]		$ 426,454,650

B.	Benefit Obligations		July 1, 2012
1.	Present Value of Future Benefits		
	(a) Active members	$ 192,842,006	
	(b) Inactive members	1,198,992	
	(c) Retirees, disabilities and beneficiaries*	232,413,652	
	(d) Total		$ 426,454,650

* Includes actuarial value of the DROP account balances of $4,679,850.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

ACCOUNTING INFORMATION

A. Pension Benefit Obligation under the Projected Unit Credit Cost Method

	July 1, 2011	July 1, 2012
Pension Benefit Obligation (PBO)		
Vested PBO		
(a) members currently receiving payments*	$ 210,595,076	$ 232,413,652
(b) other members		
i) accumulated member contributions	38,753,804	40,424,403
ii) employer financed vested	62,817,445	61,329,736
Total Vested PBO	$ 312,166,325	$ 334,167,791
Nonvested PBO	22,750,356	23,896,623
Total PBO	$ 334,916,681	$ 358,064,414
Actuarial Value of Assets	279,192,669	282,810,785
Unfunded Pension Benefit Obligation/(Reserve)	$ 55,724,012	$ 75,253,629
Funded Percentage		
(a) on vested PBO	89.4%	84.6%
(b) on total PBO	83.4%	79.0%

*Includes the DROP account balances included in the assets.

B. Change in Pension Benefit Obligation from July 1, 2011 to July 1, 2012

Pension Benefit Obligation at July 1, 2011	$ 334,916,681
Increase/(Decrease) during Period	
Assumption Changes	$ 8,812,948
Benefits Accumulated	6,817,760
Benefits Paid	(15,159,390)
Interest Cost	26,794,483
Plan Experience	(4,118,068)
Total Change	$ 23,147,733
Pension Benefit Obligation at July 1, 2012	$ 358,064,414

Exhibits 9 and 10 in the July 1, 2012 and July 1, 2011 valuation reports provide a more detailed summary of the underlying actuarial methods and assumptions used in the calculations of the Pension Benefit Obligation. The benefits valued are those in effect on July 1, 2012 and 2011, respectively, as outlined in Exhibit 8 in the respective valuation report. The determination of the Pension Benefit Obligation has been made in accordance with generally accepted actuarial principles and practices.

ACCOUNTING INFORMATION

C. Schedule of Employer Contributions - Disclosure Requirements Under GASB No. 25

Plan Year Ending	Annual Required Contributions	Percentage Contributed
June 30, 2012	$ 7,774,506	100%
June 30, 2011	7,173,344	83%
June 30, 2010	6,260,122	100%
June 30, 2009	5,384,789	100%
June 30, 2008	4,855,700	100%
June 30, 2007	5,058,621	100%

D. Actuarial Assumptions, Method and Additional Information under GASB No. 25

Valuation Date	June 30, 2012
Actuarial Cost Method	Entry Age
Amortization Method	Level dollar amount, closed
Equivalent Single Amortization Period	28 years
Asset Valuation Method	5 year smoothed market
Actuarial Assumptions:	
Investment rate of return*	8.0%
Projected salary increases*	4.0% - 9.5%
*Includes inflation at	3.25%
Cost-of-living adjustment	2.5% with a floor benefit equal to 60% purchasing power of original benefit

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
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ACCOUNTING INFORMATION

E. Schedule of Funding Progress Under GASB No. 25

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded Accrued Liabilities (UAL) (b-a)	Funded Ratio (a÷b)	Covered Payroll (c)	UAL as a % of Covered Payroll [(b-a)/c]
June 30, 2012	$282,810,785	$ 362,298,975	$ 79,488,190	78.1%	$ 25,794,219	308.2%
June 30, 2011	279,192,669	339,554,456	60,361,787	82.2%	26,195,473	230.4%
June 30, 2010	273,306,925	321,901,446	48,594,521	84.9%	26,765,816	181.6%
June 30, 2009	274,119,906	305,291,065	31,171,159	89.8%	25,922,439	120.2%
June 30, 2008	273,393,928	291,996,719	18,602,791	93.6%	26,979,643	69.0%
June 30, 2007	254,662,819	265,846,597	11,183,778	95.8%	26,072,859	42.9%

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF MEMBER DATA

A. Active Members	**July 1, 2011**	**July 1, 2012**
1. Number of active members		
(a) Before assumed retirement age	418	416
(b) Beyond assumed retirement age	15	11
(c) Total	433	427
2. Annual considered compensation		
(a) Before assumed retirement age	$ 26,195,473	$ 25,794,219
(b) Beyond assumed retirement age	1,161,376	833,118
(c) Total	$ 27,356,849	$ 26,627,337
3. Accumulated contributions	$ 37,860,181	$ 39,540,887
4. Active member averages		
(a) Age	40.3	40.3
(b) Service	12.7	12.7
(c) Compensation	$ 63,180	$ 62,359
(d) Accumulated contributions	$ 87,437	$ 92,602
B. Inactive Members		
1. Number of inactive members	17	18
2. Accumulated member contributions	$ 893,623	$ 883,516
3. Inactive member averages		
(a) Age (vesteds only)	42.7	41.8
(b) Accumulated member contributions	$ 52,566	$ 49,084
C. Retired and Disabled Members and Beneficiaries		
1. Number of members		
(a) Retired	293	297
(b) Disabled	11	12
(c) Beneficiaries	70	73
(d) DROP	28	40
(e) Total	402	422
2. Annual benefits		
(a) Retired	$ 12,733,251	$ 13,121,922
(b) Disabled	345,409	387,225
(c) Beneficiaries	1,545,226	1,679,198
(d) DROP	1,518,052	2,203,327
(e) Total	$ 16,141,938	$ 17,391,672
3. Market Value of DROP Account Balances	$ 3,065,613	$ 4,605,395

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF MEMBER DATA

D. Distribution of Retired and Disabled Members and Beneficiaries as of July 1, 2012

Age Range	Number	Annual Benefit	Average Annual Benefit
59 & Under	141	$ 6,645,449	$ 47,131
60-64	79	3,529,020	44,671
65-69	60	2,606,273	43,438
70-74	48	1,839,171	38,316
75-79	40	1,265,360	31,634
80-84	22	611,482	27,795
85-89	26	748,991	28,807
90 & Over	6	145,926	24,321
Total	422	$ 17,391,672	$ 41,212

E. Member Data Reconciliation

		Inactive Members				
	Active Members	With Deferred Benefits	Terminated With Balance	Retired Members, DROP and Beneficiaries	Disabled Members	Total
As of July 1, 2011	433	10	7	391	11	852
Changes in status						
a) Normal & early retirements	(18)	(1)	0	19	0	0
b) Deaths	0	0	0	(6)	0	(6)
c) Nonvested terminations	(3)	0	3	0	0	0
d) Vested terminations	(3)	3	0	0	0	0
e) Contribution refund	(1)	0	(1)	0	0	(2)
f) Beneficiaries in receipt	0	0	0	4	0	4
g) Disability retirements	(1)	0	0	0	1	0
h) Return to active service	3	(2)	(1)	0	0	0
i) Expired or forfeited benefits	0	0	0	(1)	0	(1)
Total changes in status	(23)	0	1	16	1	(5)
New entrants / Data Changes						
a) Without prior service	17	0	0	3	0	20
b) With prior service	0	0	0	0	0	0
Total new members	17	0	0	3	0	20
Net change	(6)	0	1	19	1	15
As of July 1, 2012	427	10	8	410	12	867

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF MEMBER DATA

F. Age and Service Distribution of Active Members as of July 1, 2012

Age Last Birthday		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
20-24	Number	9	0	0	0	0	0	0	0	9
	Total Salary	$ 316,485	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 316,485
	Average Sal.	$ 35,165	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 35,165
25-29	Number	25	15	0	0	0	0	0	0	40
	Total Salary	$ 1,084,497	$ 772,447	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 1,856,944
	Average Sal.	$ 43,380	$ 51,496	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 46,424
30-34	Number	11	43	8	0	0	0	0	0	62
	Total Salary	$ 526,133	$ 2,382,259	$ 504,553	$ 0	$ 0	$ 0	$ 0	$ 0	$ 3,412,945
	Average Sal.	$ 47,830	$ 55,401	$ 63,069	$ 0	$ 0	$ 0	$ 0	$ 0	$ 55,048
35-39	Number	3	39	46	4	0	0	0	0	92
	Total Salary	$ 107,241	$ 2,247,675	$ 2,978,802	$ 268,707	$ 0	$ 0	$ 0	$ 0	$ 5,602,425
	Average Sal.	$ 35,747	$ 57,633	$ 64,757	$ 67,177	$ 0	$ 0	$ 0	$ 0	$ 60,896
40-44	Number	3	22	31	31	16	0	0	0	103
	Total Salary	$ 144,204	$ 1,219,435	$ 1,937,397	$ 2,137,625	$ 1,167,995	$ 0	$ 0	$ 0	$ 6,606,656
	Average Sal.	$ 48,068	$ 55,429	$ 62,497	$ 68,956	$ 73,000	$ 0	$ 0	$ 0	$ 64,142
45-49	Number	0	9	10	14	38	10	0	0	81
	Total Salary	$ 0	$ 624,717	$ 635,624	$ 954,279	$ 2,953,098	$ 787,585	$ 0	$ 0	$ 5,955,303
	Average Sal.	$ 0	$ 69,413	$ 63,562	$ 68,163	$ 77,713	$ 78,759	$ 0	$ 0	$ 73,522
50-54	Number	0	5	3	1	20	1	1	0	31
	Total Salary	$ 0	$ 335,117	$ 186,427	$ 69,693	$ 1,482,383	$ 91,606	$ 74,970	$ 0	$ 2,240,196
	Average Sal.	$ 0	$ 67,023	$ 62,142	$ 69,693	$ 74,119	$ 91,606	$ 74,970	$ 0	$ 72,264
55 & Up	Number	0	3	1	2	3	0	0	0	9
	Total Salary	$ 0	$ 231,100	$ 63,706	$ 126,200	$ 215,377	$ 0	$ 0	$ 0	$ 636,383
	Average Sal.	$ 0	$ 77,033	$ 63,706	$ 63,100	$ 71,792	$ 0	$ 0	$ 0	$ 70,709
TOTAL	Number	51	136	99	52	77	11	1	0	427
	Total Salary	$ 2,178,560	$ 7,812,750	$ 6,306,509	$ 3,556,504	$ 5,818,853	$ 879,191	$ 74,970	$ 0	$ 26,627,337
	Average Sal.	$ 42,717	$ 57,447	$ 63,702	$ 68,394	$ 75,570	$ 79,926	$ 74,970	$ 0	$ 62,359

Note: The totals may not add due to rounding.

SUMMARY OF MEMBER DATA

G. Reconciliation of Data Submitted By NPERS and Valuation Data

	Active Members	Inactive Members	Retired Members, DROP, Disabled Members and Beneficiaries	Total
Number of Data Records Submitted By NPERS	429	15	480	924
Additions				
a) 2012 Active	0	0	0	0
b) 2011 Balance Only	0	0	0	0
c) 2011 Deferred Vested	0	1	0	1
d) 2011 Retired	0	0	0	0
Total	0	1	0	1
Subtractions				
a) Also Listed as Deaths	0	0	0	0
b) Also Listed as Inactives or Retirees	0	0	0	0
c) Also Listed as Contribution Refunds	0	0	0	0
d) Benefits Expired	0	0	0	0
e) Dependents not in receipt	0	0	(58)	(58)
f) Also Listed as Active	0	0	0	0
g) Assumed Terminated based on data question	(2)	2	0	0
Total	(2)	2	(58)	(58)
Net change	(2)	3	(58)	(57)
Number of Members Included in the Valuation as of July 1, 2012	427	18	422	867

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

FORECAST OF EXPECTED DISBURSEMENTS

Plan Year Ending June 30	Active Employees	Retired Members, DROP, Disabled Members and Beneficiaries	Total
2013	$ 603,723	$ 17,733,079	$ 18,336,802
2014	1,933,012	17,582,809	19,515,821
2015	2,804,506	17,826,658	20,631,164
2016	3,554,835	18,069,507	21,624,342
2017	4,421,473	18,352,361	22,773,834
2018	4,993,965	18,593,391	23,587,356
2019	5,674,346	18,819,225	24,493,571
2020	7,096,404	19,032,507	26,128,911
2021	8,206,656	19,226,489	27,433,145
2022	9,530,648	19,402,308	28,932,956
2023	$ 10,550,914	$ 19,577,820	$ 30,128,734
2024	12,145,004	19,709,685	31,854,689
2025	14,393,231	19,815,436	34,208,667
2026	16,450,822	19,892,328	36,343,150
2027	18,103,441	19,924,455	38,027,896
2028	21,863,415	19,934,876	41,798,291
2029	23,364,442	19,923,649	43,288,091
2030	25,022,858	19,876,393	44,899,251
2031	26,968,684	19,786,003	46,754,687
2032	28,374,179	19,628,228	48,002,407
2033	$ 30,415,848	$ 19,421,718	$ 49,837,566
2034	32,034,532	19,165,939	51,200,471
2035	33,286,639	18,858,333	52,144,972
2036	34,622,251	18,497,581	53,119,832
2037	35,644,346	18,083,359	53,727,705
2038	37,198,488	17,615,327	54,813,815
2039	38,101,523	17,093,966	55,195,489
2040	39,022,535	16,521,461	55,543,996
2041	39,931,281	15,898,723	55,830,004
2042	40,710,160	15,228,881	55,939,041

Note: These amounts include distributions for vested inactive members eligible to receive future benefit payments. These amounts also include expected deposits to DROP accounts.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF PLAN PROVISIONS

Member — Any member of the Nebraska State Patrol, permanent force.

Participation Date — Date of becoming a member.

Definitions

Covered pay — Gross annual earnings subject to contributions. For a patrol officer with service prior to January 4, 1979, total salary includes pay for unused sick leave accrued during his final three years of service, and pay for unused vacation leave (including leave not allowed to be carried over).

Final average earnings — The average of the highest three 12-month periods of covered pay, ending on the earlier of the participant's termination date or retirement date. For a patrol officer with service prior to January 4, 1979, it includes pay for 25% of unused sick leave accrued during his final three years of service, and pay for unused vacation leave (including leave not allowed to be carried over).

Fiscal year — Twelve month period ending June 30.

Member and employer contributions — 19% of monthly salary plus 19% of pay received at termination for unused sick leave and vacation leave for a patrol officer with service prior to January 4, 1979. Such contributions are credited with interest based on the 1-year treasury yield curve on July 1 of each year, as determined by State Statutes. Employer contributions are 19% of monthly salary. Employee and employer contribution return to 16% of pay as of July 1, 2013. The State makes any additional contributions that are actuarially required.

Pension benefit — 3% of final average salary times pension service. The benefit is subject to a maximum of 75% of Final Average Salary. Effective July 1, 2001, an automatic annual cost-of-living adjustment (COLA) equal to the CPI-W index, with a maximum increase of 2.5% in any one year is provided for current and future retirees by LB 711. Also provided is a minimum floor benefit equal to 60% of the purchasing power of the original benefit.

Normal Retirement Date (NRD) — First of month coinciding with or next following (a) the completion of 25 years of service and attaining age 50, (b) the completion of ten years of service and attaining age 55, or (c) attaining age 60 regardless of service.

Pension service — Length of service includes all service with the Nebraska State Patrol, permanent force, computed to the nearest one-twelfth year, plus declared emergency service in the armed forces.

SUMMARY OF PLAN PROVISIONS

Eligibility for Benefits

Deferred vested	Termination for reasons other than death, disability, or retirement after completing at least six years of pension service.
Disability retirement	Retirement by reason of disability as defined by statute.
Early retirement	Retirement before NRD and on or after both attaining age 50 and completing ten years of pension service.
Normal retirement	Retire on NRD.
Postponed retirement	Retire after NRD.
Post-retirement death benefit	Death after retirement with surviving spouse or dependent children under age 19. For non-disability retirement, the surviving spouse must have been married to the member at the date of retirement.
Pre-retirement death benefit	Death prior to retirement.

Monthly Benefits Paid Upon the Following Events

Normal retirement	Pension benefit determined as of NRD.
Early retirement	Pension benefit determined as of early retirement date, reduced by 5/9% for each month that commencement (which must be after age 50 and ten years of service) of payment precedes the earlier of age 55 or completion of 25 years of service. No reduction is made after 25 years of service.
Postponed retirement	Monthly pension benefit determined as of actual retirement date.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF PLAN PROVISIONS

Termination with deferred vested benefit

Refund of contributions with regular interest or a percentage of the pension benefit determined as of termination date, reduced by 5/9% for each month that commencement (which must be after age 50 and ten years of service) of payment precedes the earlier of age 55 or completion of 25 years of service. This percentage is based upon completed years of pension service as follows:

Years	Vested Percentage
5 and under	0%
6	20
7	40
8	60
9	80
10 or more	100

Disability retirement

A monthly benefit equal to 50% of current monthly salary at the date of disablement for members with less than 17 years of service.

For members with more than 17 years of service, a monthly benefit equal to the product of 3% of final monthly salary, times total years of service subject to a maximum of 75% of final average monthly salary.

Pre-retirement death benefits

Surviving spouse or dependent children under age 19: Benefit is computed as if member retired for disability on the date of death. This benefit is payable to the surviving spouse as long as spouse has dependent children under age 19. If spouse dies or remarries, 75% of this benefit continues to children until the youngest attains age 19. If there are no dependent children under age 19, 75% of this benefit is payable to the surviving spouse until death or remarriage.

No surviving spouse or dependent children under age 19: A lump sum equal to the member's contributions plus regular interest.

Post-retirement death benefits

100% of member's annuity is payable to the surviving spouse provided spouse has dependent children under 19. If there is no surviving spouse or spouse dies or remarries, 75% of member's annuity continues to children until the youngest attains age 19. If there are no dependent children under age 19, 75% of member's annuity continues to surviving spouse.

Forms of payment

Normal form is 75% Joint and Survivor benefit. Members may also elect a refund of contributions. If there is no surviving spouse or dependent children under age 19, the member's accumulated contributions with interest are paid to the beneficiary or estate.

SUMMARY OF PLAN PROVISIONS

Deferred Retirement Option Plan (DROP)	A member may elect to participate in the DROP after they attain age 50 with 25 years of service. A member can continue to work while participating in the DROP, but must terminate employment within 5 years of entry into the DROP. The member's retirement benefits would be calculated as of the DROP entry date. The monthly payments that begin at entry into the DROP are accumulated until the member terminates service, at which time the DROP accumulated benefits and investment income can be paid as a lump sum, rollover or annuity. The COLA for retirees would not apply to the member during participation in the DROP and both the member and employer contributions cease upon entry into the DROP.

State Appropriations

LB 700, passed in 1996, provided for annual cost of living increases of 0.3%, beginning in the sixth year after retirement for members ceasing employment on or after April 10, 1996. Funding for these benefits shall be made by the State into the State Patrol Purchasing Power Stabilization Fund. Beginning with the 1996/1997 fiscal year, the funding shall be 3.04888% of $6,895,000, or $210,220 will be made for each year through the 2010/2011 Fiscal Year. LB 950, passed in 2010, extended this contribution through the 2012/2013 fiscal year. This appropriation is no longer applicable as of the July 1, 2012 valuation.

LB 137 provides cost-of-living benefits for members who retired prior to 1985. This benefit is funded by an annual state appropriation and declines over time.

LB 674, passed in 2000 (effective July 1, 2001), provided for an annual cost-of-living increase equal to the CPI-W index, with a maximum of 2% in any one year, a minimum floor benefit equal to 60% of the purchasing power of the original benefit and the elimination of the State Patrol Purchasing Power Stabilization Fund. The existing assets in the State Patrol PPSF were transferred to the Nebraska State Patrol Retirement Fund. The State appropriation continues, as defined above to the Nebraska Patrol Retirement Fund. LB 711, passed in 2001, increased the maximum annual cost-of-living increase in any one year from 2% to 2.5%.

Benefits Reflected in Valuation

All benefits were valued, including future cost of living increases granted by LB 711.

Plan Provisions Effective After July 1, 2012

No future changes in plan provisions were recognized in determining the GASB 25 funded status and in determining the actuarial soundness of statutory contribution levels.

Changes in Plan Provisions Since the Prior Year

There have been no changes in the plan provisions since the last actuarial valuation as of July 1, 2011.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF ACTUARIAL METHODS AND PROCEDURES AS OF JULY 1, 2012

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 and preretirement spouse's death benefits were determined for all active members under age 60. 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 60 and determining an average normal cost rate which is then related to the total payroll of active members under age 60. The actuarial assumptions shown in Exhibit 10 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 60 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 future normal costs are payable for these members.

The actuarial accrued liability under this method at any point in time is the theoretical amount of the fund that would have been accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date). The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over the actuarial value of plan assets measured on the valuation date. The initial unfunded actuarial accrued liability established July 1, 2004, is amortized with a level dollar payment amount over 25 years. At subsequent valuation dates, amortization bases equal to changes in the unfunded actuarial accrued liability are established and amortized with a level dollar payment over a 25-year period. The unfunded liability was reinitialized as of July 1, 2006 and amortized over a 30-year period. At subsequent valuation dates, amortization bases equal to changes in the unfunded actuarial accrued liability are established and amortized over a level dollar payment over a 30-year period. If the unfunded actuarial accrued liability is $0 or less on the valuation date, all previous amortization bases are considered fully amortized.

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.

SUMMARY OF ACTUARIAL METHODS AND PROCEDURES AS OF JULY 1, 2012

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

   (i) 80% of the return to be spread during the first year preceding the valuation date,

   (ii) 60% of the return to be spread during the second year preceding the valuation date,

   (iii) 40% of the return to be spread during the third year preceding the valuation date, and

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

   The return to be spread is the difference between (1) the actual investment return on Market Value and (2) the expected return on Actuarial Value. Effective July 1, 2000, the expected return on Actuarial Value includes interest on the previous year's unrecognized return.

3. **Calculation of Pension Benefit Obligation:** The method used to determine the Pension Benefit Obligation was the Projected Unit Credit Actuarial Cost Method without service proration. Under this method, the benefit is based on salary projected to assumed termination or retirement and service as of the valuation date.

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 contributions.

The compensation amounts used in the projection of benefits and liabilities for active members were determined from the prior plan year compensation. Actual historical compensation is not included in our calculations.

In computing accrued benefits, average compensation was determined by applying the salary scale assumption to the most recent compensation to construct any salary history.

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 July 1, 2011.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2012

ECONOMIC ASSUMPTIONS

1. Investment Return	8.0% per annum, compounded annually, net of expenses.
2. Inflation	3.25% per annum, compounded annually.
3. Salary Increases	Rates vary by service. Sample rates are as follows:

Rates by Service	
Years	**Rate***
<1	9.5%
5	6.6
10	5.6
15	5.5
20	5.5
25	5.5
30	4.0

* Projected pay at retirement is adjusted by 8.7% to reflect Halpin decision for members hired before January 4, 1979.

4. Interest on Employee Contributions	4.25% per annum, compounded annually.

DEMOGRAPHIC ASSUMPTIONS

1. Mortality	The mortality assumption includes an appropriate amount of conservatism that reflects expected future mortality improvement.
a. Healthy lives – Active members	1994 Group Annuity Mortality Table, projected to 2015 using scale AA, set-back 1 year (sex distinct)
b. Healthy lives – Retired members and beneficiaries	1994 Group Annuity Mortality Table, projected to 2015 using scale AA, set-back 1 year (sex distinct)
c. Disabled lives	1983 Railroad Retirement Board Disabled Annuitants Mortality (unisex)

SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2012

d. Healthy mortality rates and life expectancies are shown below at sample ages:

	Pre-retirement Mortality			
	Mortality Rate		Life Expectancy (Years)	
Sample Age	Males	Females	Males	Females
20	0.03%	0.02%	62.3	65.8
30	0.07	0.03	52.6	55.9
40	0.09	0.05	42.9	46.1
50	0.16	0.09	33.4	36.4
60	0.51	0.35	24.1	26.9
70	1.62	1.14	16.0	18.4

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

e. Disabled mortality rates and life expectancies are shown below at sample ages:

	Disabled Mortality	
Sample Age	Mortality Rate	Life Expectancy (Years)
30	1.06%	30.0
40	1.35	23.1
50	3.16	17.2
60	4.25	13.1
70	6.75	9.1
80	10.77	5.8

SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2012

2. Retirement

Retirement is assumed to occur upon attaining certain age and service requirements. The retirement assumption varies depending on benefit eligibility and age at retirement.

Early / Normal Retirement Eligibility	Age and Service Requirements	Retirement Assumption
Reduced	Age 50 Service: 10 years	3% at each age
Unreduced	Age 55 Service: 10 years	10% at each age
Unreduced (Eligible for DROP)	Age 50 Service: 25 years	100% at each age
Unreduced (Mandatory)	Age 60	100% at each age

3. Termination

Rates vary by service. Sample rates are as follows:

Rates by Service	
Years	**Rate**
<1	4.0%
1	3.8
5	2.0
10	1.5
15	1.0
20	1.0
25+	1.0

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2012

4. Disability

Rates vary by age. Sample rates are as follows:

Rates by Age	
Age	**Rate**
25	.08%
30	.10
35	.13
40	.20
45	.31
50	.52
55	.91
60	1.36

OTHER ASSUMPTIONS

1. Form of Payment

75% Joint & Survivor Annuity. Deferred vesteds are assumed to take the greater of the present value of an annuity at earliest unreduced eligibility or a refund of contributions.

2. Marital Status
   a. Percent married — 100% married
   b. Spouse's age — Females assumed to be three years younger than males.

3. Children

All members are assumed to have one dependent child at death or retirement. The child is assumed to be 28 years younger than the member, and is assumed to always survive until age 19.

3. Administrative Expense

Investment return is assumed to be net of expenses.

4. Cost of living adjustments

2.5% per annum, compounded annually, and 3.25% per annum, compounded annually, after reaching 60% purchasing power floor benefit.

5. DROP participation

All members elect the DROP at the earliest possible date and remain in the DROP for 4 years or to age 60, if earlier.

SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2012

CHANGES IN ASSUMPTIONS SINCE THE PRIOR YEAR

See Executive Summary, item 8, for changes made as a result of the experience analysis concluded in August 2012 based on experience from July 1, 2006 through June 30, 2011. These changes affected mortality, salary increases, inflation, retirement rates, employee contribution interest rates and form of payment for deferred vested members.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

GLOSSARY OF TERMS

Actuarial Accrued Liability	Total accumulated cost to fund pension benefits arising from service in all prior years.
Actuarial Cost Method	Technique used to assign or allocate, in a systematic and consistent manner, the expected cost of a pension plan for a group of participants to the years of service that give rise to that cost.
Actuarial Present Value of Future Benefits	Amount which, together with future interest, is expected to be sufficient to pay all future benefits.
Actuarial Valuation	Study of probable amounts of future pension benefits and the necessary amount of contributions to fund those benefits.
Actuary	Person who performs mathematical calculations pertaining to pension and insurance benefits based on specific procedures and assumptions.
Annual Required Contribution	Disclosure measure of annual pension cost.
GASB 25	Governmental Accounting Standards Board Statement number 25 which specifies how the Annual Required Contribution is to be calculated.
Normal Cost	That portion of the actuarial present value of benefits assigned to a particular year in respect to an individual participant or the plan as a whole.
Unfunded Actuarial Accrued Liability	The portion of the actuarial accrued liability not offset by plan assets.
Vested Benefits	Benefits which are unconditionally guaranteed regardless of employment status.