

***NEBRASKA PUBLIC EMPLOYEES
RETIREMENT SYSTEMS***
**STATE PATROL RETIREMENT SYSTEM
2010**

**Fifty-fifth Actuarial Report for
State Fiscal Year Ending June 30, 2012
and
System Plan Year Beginning July 1, 2010**

December 2010

Submitted By:
Buck Consultants
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buckconsultants®

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

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LETTER OF CERTIFICATION

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December 9, 2010

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, 2010 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, 2010.

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.

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 2011/2012 fiscal year, the State's additional payment requirement is \$2,770,262.

The undersigned are Enrolled Actuaries, 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. Sliskinsky, A.S.A., E.A., M.A.A.A.
Principal and Consulting Actuary



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Director, Retirement Actuary

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

**SUMMARY OF ACTUARIAL REPORT FOR CONTRIBUTION REQUIREMENTS AND
FUNDED STATUS FOR PLAN YEAR 2010/2011**

The main purposes of this report are:

1. To determine the level of State contributions for the fiscal year ending June 30, 2012, 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, 2009 and ending June 30, 2010.

The 2010 actuarial valuation is based upon the plan provisions as of July 1, 2010, as described in Exhibit 8. The actuarial methods and assumptions are described in Exhibits 9 and 10.

Highlights from the current valuation:

1. Under Legislative Bill 188 passed during the 2009 Legislative session, both the member and employer contribution rates increased from 15% to 16% on July 1, 2010. Under Legislative Bill 950 passed during the 2010 Legislative session, the State Contribution to the State Patrol Purchasing Power Stabilization Fund (PPSF) was extended to fiscal year 2012/2013.
2. An additional State contribution of \$2,770,262 is required for the 2011/2012 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 \$17,190,067 from \$21,536,278 as of July 1, 2009 to \$38,726,345 as of July 1, 2010.
3. The annual rate of return on Market Value was 13.7%, resulting in a Market Value of \$229,574,640 as of June 30, 2010. A loss was experienced on the Actuarial Value of Assets during the 2009/2010 plan year. The rate of return on Actuarial Value of 0.9% fell short of the 8.0% assumed investment return rate by 7.1%, resulting in a decrease to the Actuarial Value by \$19,303,913, and an Actuarial Value of \$273,306,925 as of July 1, 2010. The funded ratio based on disclosure requirements under GASB No. 25 using the Actuarial Value of Assets and the Actuarial Accrued Liability decreased from 89.8% as of July 1, 2009 to 84.9% as of July 1, 2010 (see page 11). The reconciliation of these asset values can be found in Exhibit 1 on page 3.
4. The plan experienced a decremental gain in the actuarial accrued liability since the July 1, 2009 actuarial valuation. The actuarial accrued liability decreased by \$1,037,577 as a result of favorable decremental experience. This increase is due primarily to salary increases less than assumed, and the increase in the CPI for the year resulted in a smaller than expected Cost of Living increase granted to members currently in receipt.
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, 2009 actuarial valuation, the funded percentage on Actuarial Value decreased from 90.8% to 86.0%.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

EXECUTIVE SUMMARY

Basic Actuarial Valuation Results

The 2010 actuarial valuation results are based upon the plan provisions as of July 1, 2010 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 16% of pay and make additional payments if necessary, to meet the actuarially required contribution. The member contribution rate is 16% of pay effective July 1, 2010. 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 2010/2011 plan year is \$7,367,593. 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 2010/2011 plan year, payable July 1, 2011, is \$2,770,262.

History of Expected State Contributions			
Plan Year	State Contribution*	Additional Contributions	Total
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
2001/2002	2,257,610	0	2,257,610
2000/2001	1,958,304	0	1,958,304

* Includes State Appropriations.

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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, 2009	July 1, 2010	Annual Rate of Return
(a) Market value	\$ 205,033,476	\$ 229,574,640	13.7%
(b) Actuarial value, an adjusted value intended to reduce the effect of market fluctuations (See Exhibit 1B)	\$ 274,119,906	\$ 273,306,925	0.9%

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, 2009	July 1, 2010
(a) Present value of future benefits	\$ 369,921,941	\$ 384,188,365
(b) Actuarial value of assets	274,119,906	273,306,925
(c) Present value of future member contributions	36,665,564	35,538,947
(d) Present value of matching State contributions	36,665,564	35,538,947
(e) Present value of future State appropriations*	<u>934,629</u>	<u>1,077,201</u>
(f) Actuarial Liability/(Reserve) [(a) - (b) - (c) - (d) - (e)]	\$ 21,536,278	\$ 38,726,345

* Includes appropriation for COLA benefit under LB 137.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
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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, 2009	July 1, 2010
(a) Pension Benefit Obligation		
i) retirees, disabled members and beneficiaries receiving benefits and deferred vested members not yet receiving benefits*	\$ 186,606,131	\$ 202,494,442
ii) active members	<u>115,288,153</u>	<u>115,219,645</u>
iii) total pension benefit obligation	\$ 301,894,284	\$ 317,714,087
(b) Assets available for benefit (actuarial value)	<u>274,119,906</u>	<u>273,306,925</u>
(c) Unfunded Pension Benefit Obligation/(Reserve)	\$ 27,774,378	\$ 44,407,162
(d) Funded percentage on actuarial value of assets [(b) ÷ (a)(iii)]	90.8%	86.0%

* Includes the DROP account balances included in the assets.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
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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, 2009	July 1, 2010
(a) Benefit accrual cost amount	\$ 7,193,156	\$ 7,434,614
(b) Annual compensation before assumed retirement age	\$ 25,922,439	\$ 26,765,816
(c) Benefit accrual cost rate [(a) ÷ (b)]	27.749%	27.777%

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.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
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EXECUTIVE SUMMARY

8. Changes Since the Last Actuarial Valuation

There have been no changes in the plan provisions, actuarial cost method or actuarial assumptions since the last actuarial valuation as of July 1, 2009.

The following changes were reflected as of July 1, 2010:

- LB 950 passed during the 2010 Legislative session extended the State Contribution to the State Patrol PPSF to fiscal year 2012/2013.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SYSTEM ASSETS

A. Summary of Assets	Market Value as of June 30, 2009	Market Value as of June 30, 2010
1. Cash and Equivalents	\$ 162,950	\$ 115,983
2. Investments	208,553,376	228,675,981
3. Capital Assets	232,617	64,986
4. Receivables and Prepaids	8,185,031	9,807,267
5. Accounts Payable	(12,100,498)	(9,089,577)
6. Net Assets Available for Pension Benefits Considered [1 + 2 + 3 + 4 + 5]	\$ 205,033,476	\$ 229,574,640

B. Development of Actuarial Value of Assets	Amount
1. Actuarial Value of Assets as of July 1, 2009	\$ 274,119,906
2. Unrecognized Return as of July 1, 2009	\$ (69,086,430)
3. Contributions	
(a) Member (includes purchased service)	\$ 4,143,743
(b) State	4,143,712
(c) State appropriations	<u>2,116,410</u>
(d) Total	\$ 10,403,865
4. Distributions	
(a) Benefit payments	\$ 13,646,360
(b) Refund of contributions	<u>110,401</u>
(c) Total	\$ 13,756,761
5. Expected Return at 8.0% on	
(a) Item 1	\$ 21,929,591
(b) Item 2	(5,526,914)
(c) Item 3 (d)	408,149
(d) Item 4 (c)	<u>493,913</u>
(e) Total [(a) + (b) + (c) - (d)]	\$ 16,316,913
6. Actual Return on Market Value for Plan Year, Net of Expenses	\$ 27,894,060
7. Return to be Spread for Plan Year [6 - 5(e)]	\$ 11,577,147

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SYSTEM ASSETS

B. Development of Actuarial Value of Assets		Amount																								
8.	Total Market Value of Assets as of July 1, 2010	\$ 229,574,640																								
9.	Return to be Spread																									
<table border="1"> <thead> <tr> <th>Plan Year</th> <th>Return to be Spread</th> <th>Unrecognized Percent</th> <th>Unrecognized Return</th> </tr> </thead> <tbody> <tr> <td>2009/2010</td> <td>\$ 11,577,147</td> <td>80%</td> <td>\$ 9,261,718</td> </tr> <tr> <td>2008/2009</td> <td>(70,700,636)</td> <td>60%</td> <td>(42,420,382)</td> </tr> <tr> <td>2007/2008</td> <td>(37,967,563)</td> <td>40%</td> <td>(15,187,025)</td> </tr> <tr> <td>2006/2007</td> <td>23,067,019</td> <td>20%</td> <td>4,613,404</td> </tr> <tr> <td colspan="3">Total</td> <td>\$ (43,732,285)</td> </tr> </tbody> </table>			Plan Year	Return to be Spread	Unrecognized Percent	Unrecognized Return	2009/2010	\$ 11,577,147	80%	\$ 9,261,718	2008/2009	(70,700,636)	60%	(42,420,382)	2007/2008	(37,967,563)	40%	(15,187,025)	2006/2007	23,067,019	20%	4,613,404	Total			\$ (43,732,285)
Plan Year	Return to be Spread	Unrecognized Percent	Unrecognized Return																							
2009/2010	\$ 11,577,147	80%	\$ 9,261,718																							
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2006/2007	23,067,019	20%	4,613,404																							
Total			\$ (43,732,285)																							
10.	Total Actuarial Value of Assets at July 1, 2010 [8 - 9]	\$ 273,306,925																								
11.	Asset Ratios																									
	(a) Actuarial Value to Market Value [10 ÷ 8]	119.0%																								
	(b) Market Value to Actuarial Value [8 ÷ 10]	84.0%																								

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
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SYSTEM ASSETS

C. Change in Asset Values During 2009/2010	Actuarial Value	Market Value
1. Asset value as of July 1, 2009		
(a) Reported last year	\$ 274,119,906	\$ 205,033,476
(b) Adjustment	N/A	(105,883)
(c) Reported this year [(a) + (b)]	\$ 274,119,906	\$ 204,927,593
2. Contributions for 2009/2010		
(a) Member contributions paid during the year	\$ 4,143,743	\$ 4,143,743
(b) State contributions paid	4,143,712	4,143,712
(c) State appropriations for the year	<u>2,116,410</u>	<u>2,116,410</u>
(d) Contributions for 2009/2010 [(a) + (b) + (c)]	\$ 10,403,865	\$ 10,403,865
3. Disbursements for 2009/2010		
(a) Benefit payments	\$ 13,646,360	\$ 13,646,360
(b) Expenses and fees	816,786	816,786
(c) Refund of contributions	<u>110,401</u>	<u>110,401</u>
(d) Disbursements for 2009/2010 [(a) + (b) + (c)]	\$ 14,573,547	\$ 14,573,547
4. Investment return for 2009/2010		
(a) Investment income	\$ 4,207,638	\$ 4,207,638
(b) Securities lending income	102,807	102,807
(c) Securities lending expense	(39,337)	(39,337)
(d) Net appreciation/(depreciation) in fair value of investments	24,541,338	24,541,338
(e) Other	4,283	4,283
(f) Unrecognized return including adjustment	<u>(25,460,028)</u>	<u>N/A</u>
(g) Investment return for 2009/2010 [(a) + (b) + (c) + (d) + (e) + (f)]	\$ 3,356,701	\$ 28,816,729
5. Asset value as of July 1, 2010 [1(c) + 2(d) - 3(d) + 4(g)]	\$ 273,306,925	\$ 229,574,640
6. Approximate rate of investment return, net of expenses	0.9%	13.7%

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
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ACTUARIAL CONTRIBUTION REQUIREMENT

A. Development of Actuarially Required Funding Rate	July 1, 2010
1. Actuarial present value of benefits	
(a) Active members	\$ 181,693,923
(b) Inactive members	760,267
(c) Retired members, disabilities and beneficiaries*	<u>201,734,175</u>
(d) Total	\$ 384,188,365
2. Present Value of Future Normal Costs	<u>62,286,919</u>
3. Total Actuarial Accrued Liability [1(d) - 2]	\$ 321,901,446
4. Actuarial Value of Assets	<u>273,306,925</u>
5. Unfunded Actuarial Accrued Liability/(Reserve) [3 - 4]	\$ 48,594,521
6. 30-Year Amortization of the Unfunded Actuarial Accrued Liability/(Reserve)	
(a) Amount	\$ 4,215,663
(b) Amount as % of Pay	15.75%
7. Normal Cost	
(a) Amount	\$ 7,434,614
(b) Amount as % of Pay	27.78%
8. Total Actuarially Required Contribution	
(a) Amount	\$ 11,650,277
(b) Amount as % of Pay	43.53%

* Includes the DROP account balances included in the assets.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

ACTUARIAL CONTRIBUTION REQUIREMENT

B. Development of Additional State Contributions for Fiscal Year 2011/2012	Annual Amount as a % of Pay
1. Actuarially Required Contribution	
(a) Total Contribution Amount	\$ 11,650,277
(b) State Appropriations	210,220
(c) Expected State Appropriation for LB 137 COLA benefit	104,580
(d) Net Contribution Amount [(a) - (b) - (c)]	\$ 11,335,477
(e) Net Amount as % of Pay	42.35%
2. Statutory Contribution Rates during 2010/2011	
(a) Employee Contribution Rate	16.00%
(b) Employer Contribution Rate	16.00%
(c) Total Employee/Employer Contribution Rate [(a) + (b)]	32.00%
3. Additional Required State Contribution	
(a) Additional Required State Contribution Rate	
[1(e) - 2(c), not less than 0.00%]	10.35%
(b) Additional Required State Contribution Amount	\$ 2,770,262
4. Expected Statutory Employer Contribution	
(a) Annual Compensation	\$ 26,765,816
(b) Employer Contribution Amount [2(b) x 4(a)]	\$ 4,282,531
5. Total Expected Employer Contribution Amount and	
State Appropriations [1(b) + 1(c) + 3(b) + 4(b)]	\$ 7,367,593

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
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ACTUARIAL CONTRIBUTION REQUIREMENT

C. Schedule of Amortization Bases	Original Amount	July 1, 2010 Remaining Payments	Date of Last Payment	Outstanding Balance as of July 1, 2010	Annual Contribution
2006 Unfunded Actuarial Accrued Liability Base	\$ 13,632,330	26	07/01/2036	\$ 13,090,070	\$ 1,165,213
2007 Unfunded Actuarial Accrued Liability Base	\$ (2,328,213)	27	07/01/2037	\$ (2,261,493)	\$ (199,002)
2008 Unfunded Actuarial Accrued Liability Base	\$ 7,528,427	28	07/01/2038	\$ 7,390,198	\$ 643,486
2009 Unfunded Actuarial Accrued Liability Base	\$ 12,752,991	29	07/01/2039	\$ 12,640,415	\$ 1,090,052
2010 Unfunded Actuarial Accrued Liability Base	\$ 17,735,331	30	07/01/2040	\$ 17,735,331	\$ 1,515,914
Total				\$ 48,594,521	\$ 4,215,663

**NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM**

ACTUARIAL (GAIN)/LOSS

A. Change in Actuarial Accrued Liability		
1.	Actual Actuarial Accrued Liability as of July 1, 2009	\$ 305,291,065
2.	Benefits accrued during the 2009/2010 plan year	7,193,156
3.	Benefit payments during the 2009/2010 plan year	13,756,761
4.	Interest at 8%	<u>24,211,563</u>
5.	Expected Actuarial Accrued Liability as of July 1, 2010 [1 + 2 - 3 + 4]	\$ 322,939,023
6.	Decremental (Gain)/Loss by Source	
	(a) Retirement	\$ 344,425
	(b) Termination	81,154
	(c) Disability	155,274
	(d) Pre-retirement mortality	(75,863)
	(e) Post-retirement mortality	303,161
	(f) Salary	(730,010)
	(g) New Entrants/Rehires	181,859
	(h) Data changes/COLA/miscellaneous	<u>(1,297,577)</u>
	(i) Total decremental (gain)/loss	\$ (1,037,577)
7.	Change in Valuation Procedures	<u>0</u>
8.	Actual Actuarial Accrued Liability as of July 1, 2010 [5 + 6(i) + 7]	\$ 321,901,446
B. Change in Actuarial Value of Assets		
1.	Expected Actuarial Value of Assets as of July 1, 2010	\$ 292,610,838
2.	Actual Actuarial Value of Assets as of July 1, 2010	<u>273,306,925</u>
3.	Actuarial (Gain)/Loss from Asset Sources [1 - 2]	\$ 19,303,913
C. Total Actuarial (Gain)/Loss for the 2009/2010 plan year [A(6)(i) + B(3)]		
		\$ 18,266,336

**NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM**

ACTUARIAL BALANCE SHEET

A. Financial Resources	July 1, 2010
1. Actuarial Value of Assets	\$ 273,306,925
2. Present Value of Future Contributions	
(a) Member	\$ 35,538,947
(b) Employer	35,538,947
(c) State Appropriations	<u>1,077,201</u>
(d) Total	72,155,095
3. Actuarial Liability/(Reserve)	<u>38,726,345</u>
4. Total Assets [1 + 2(d) + 3]	\$ 384,188,365

B. Benefit Obligations	July 1, 2010
1. Present Value of Future Benefits	
(a) Active members	\$ 181,693,923
(b) Inactive members	760,267
(c) Retirees, disabilities and beneficiaries*	<u>201,734,175</u>
(d) Total	\$ 384,188,365

* Includes the DROP account balances included in the assets.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

ACCOUNTING INFORMATION

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

	July 1, 2009	July 1, 2010
Pension Benefit Obligation (PBO)		
Vested PBO		
(a) members currently receiving payments*	\$ 186,078,948	\$ 201,734,175
(b) other members		
i) accumulated member contributions	34,800,140	35,731,128
ii) employer financed vested	<u>56,963,398</u>	<u>52,232,190</u>
Total Vested PBO	\$ 277,842,486	\$ 289,697,493
Nonvested PBO	<u>24,051,798</u>	<u>28,016,594</u>
Total PBO	\$ 301,894,284	\$ 317,714,087
Actuarial Value of Assets	<u>274,119,906</u>	<u>273,306,925</u>
Unfunded Pension Benefit Obligation/(Reserve)	\$ 27,774,378	\$ 44,407,162
Funded Percentage		
(a) on vested PBO	98.7%	94.3%
(b) on total PBO	90.8%	86.0%

*Includes the DROP account balances included in the assets.

B. Change in Pension Benefit Obligation from July 1, 2009 to July 1, 2010

Pension Benefit Obligation at July 1, 2009	\$ 301,894,284
Increase/(Decrease) during Period	
Valuation Procedure Changes	\$ 0
Benefits Accumulated	6,495,729
Benefits Paid	(13,756,761)
Interest Cost	24,177,288
Plan Experience	<u>(1,096,453)</u>
Total Change	\$ 15,819,803
Pension Benefit Obligation at July 1, 2010	\$ 317,714,087

Exhibits 9 and 10 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, 2010 and 2009, respectively, as outlined in Exhibit 8. The determination of the Pension Benefit Obligation has been made in accordance with generally accepted actuarial principles and practices.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

ACCOUNTING INFORMATION

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

Plan Year Ending	Annual Required Contributions	Percentage Contributed
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%
June 30, 2006	5,081,930	100%
June 30, 2005	3,868,904	82%

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

Valuation Date	June 30, 2010
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*	4.5% - 9.0%
*Includes inflation at	3.5%
Cost-of-living adjustment	2.5% with a floor benefit equal to 60% purchasing power of original benefit

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

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, 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%
June 30, 2006	231,740,772	245,373,102	13,632,330	94.4%	24,057,960	56.7%
June 30, 2005	219,831,273	236,026,471	16,195,198	93.1%	22,882,413	70.8%

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF MEMBER DATA

A. Active Members	July 1, 2009	July 1, 2010
1. Number of active members		
(a) Before assumed retirement age	445	440
(b) Beyond assumed retirement age	<u>23</u>	<u>4</u>
(c) Total	468	444
2. Annual considered compensation		
(a) Before assumed retirement age	\$ 25,922,439	\$ 26,765,816
(b) Beyond assumed retirement age	<u>1,582,698</u>	<u>315,568</u>
(c) Total	\$ 27,505,137	\$ 27,081,384
3. Accumulated contributions	\$ 34,272,957	\$ 34,970,861
4. Active member averages		
(a) Age	39.4	39.8
(b) Service	11.7	12.1
(c) Compensation	\$ 58,772	\$ 60,994
(d) Accumulated contributions	\$ 73,233	\$ 78,763
B. Inactive Members		
1. Number of inactive members	11	13
2. Accumulated member contributions	\$ 527,183	\$ 760,267
3. Inactive member averages		
(a) Age (vesteds only)	42.3	45.6
(b) Accumulated member contributions	\$ 47,926	\$ 58,482
C. Retired and Disabled Members and Beneficiaries		
1. Number of members		
(a) Retired	282	284
(b) Disabled	9	10
(c) Beneficiaries	66	68
(d) DROP	<u>15</u>	<u>28</u>
(e) Total	372	390
2. Annual benefits		
(a) Retired	\$ 11,762,817	\$ 12,109,974
(b) Disabled	275,348	305,218
(c) Beneficiaries	1,428,529	1,495,022
(d) DROP	<u>811,407</u>	<u>1,495,525</u>
(e) Total	\$ 14,278,101	\$ 15,405,739
3. DROP Account Balances	\$ 584,753	\$ 1,949,069

**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, 2010

Age Range	Number	Annual Benefit	Average Annual Benefit
59 & Under	135	\$ 6,228,633	\$ 46,138
60-64	72	3,104,766	43,122
65-69	49	1,973,749	40,281
70-74	52	1,762,012	33,885
75-79	33	975,318	29,555
80-84	30	849,536	28,318
85-89	16	439,367	27,460
90 & Over	3	72,358	24,119
Total	390	\$ 15,405,739	\$ 39,502

E. Member Data Reconciliation

	Active Members	Inactive Members				Total
		With Deferred Benefits	Terminated With Balance	Retired Members, DROP and Beneficiaries	Disabled Members	
As of July 1, 2009	468	9	2	363	9	851
Changes in status						
a) Normal & early retirements	(20)	0	0	20	0	0
b) Deaths	0	0	0	(9)	0	(9)
c) Nonvested terminations	(1)	0	1	0	0	0
d) Vested terminations	(2)	2	0	0	0	0
e) Contribution refund	(1)	0	0	0	0	(1)
f) Beneficiaries in receipt	0	0	0	5	0	5
g) Disability retirements	(1)	0	0	0	1	0
h) Return to active service	1	(1)	0	0	0	0
i) Expired or forfeited benefits	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total changes in status	(24)	1	1	16	1	(5)
New entrants / Data Changes						
a) Without prior service	0	0	0	0	0	0
b) With prior service	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>
Total new members	0	0	0	1	0	1
Net change	(24)	1	1	17	1	(4)
As of July 1, 2010	444	10	3	380	10	847

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF MEMBER DATA

F. Age and Service Distribution of Active Members as of July 1, 2010

Age Last Birthday		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
20-24	Number	2	0	0	0	0	0	0	0	2
	Total Salary	\$ 92,936	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 92,936
	Average Sal.	\$ 46,468	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 46,468
25-29	Number	42	4	0	0	0	0	0	0	46
	Total Salary	\$ 2,004,509	\$ 204,394	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,208,903
	Average Sal.	\$ 47,726	\$ 51,098	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 48,020
30-34	Number	16	64	4	0	0	0	0	0	84
	Total Salary	\$ 752,287	\$ 3,531,849	\$ 228,190	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4,512,326
	Average Sal.	\$ 47,018	\$ 55,185	\$ 57,048	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 53,718
35-39	Number	8	42	46	2	0	0	0	0	98
	Total Salary	\$ 402,990	\$ 2,388,228	\$ 2,794,866	\$ 125,877	\$ 0	\$ 0	\$ 0	\$ 0	\$ 5,711,961
	Average Sal.	\$ 50,374	\$ 56,863	\$ 60,758	\$ 62,939	\$ 0	\$ 0	\$ 0	\$ 0	\$ 58,285
40-44	Number	5	20	28	30	8	0	0	0	91
	Total Salary	\$ 238,018	\$ 1,126,412	\$ 1,776,501	\$ 2,062,485	\$ 553,410	\$ 0	\$ 0	\$ 0	\$ 5,756,826
	Average Sal.	\$ 47,604	\$ 56,321	\$ 63,446	\$ 68,750	\$ 69,176	\$ 0	\$ 0	\$ 0	\$ 63,262
45-49	Number	0	11	7	12	40	13	0	0	83
	Total Salary	\$ 0	\$ 724,667	\$ 415,104	\$ 833,331	\$ 3,062,831	\$ 965,429	\$ 0	\$ 0	\$ 6,001,362
	Average Sal.	\$ 0	\$ 65,879	\$ 59,301	\$ 69,444	\$ 76,571	\$ 74,264	\$ 0	\$ 0	\$ 72,306
50-54	Number	0	5	2	4	14	2	1	0	28
	Total Salary	\$ 0	\$ 315,873	\$ 119,179	\$ 291,016	\$ 1,012,786	\$ 160,809	\$ 94,656	\$ 0	\$ 1,994,319
	Average Sal.	\$ 0	\$ 63,175	\$ 59,590	\$ 72,754	\$ 72,342	\$ 80,404	\$ 94,656	\$ 0	\$ 71,226
55 & Up	Number	0	5	2	2	2	0	1	0	12
	Total Salary	\$ 0	\$ 374,221	\$ 127,789	\$ 118,282	\$ 122,355	\$ 0	\$ 60,104	\$ 0	\$ 802,751
	Average Sal.	\$ 0	\$ 74,844	\$ 63,894	\$ 59,141	\$ 61,178	\$ 0	\$ 60,104	\$ 0	\$ 66,896
TOTAL	Number	73	151	89	50	64	15	2	0	444
	Total Salary	\$ 3,490,740	\$ 8,665,644	\$ 5,461,629	\$ 3,430,991	\$ 4,751,382	\$ 1,126,238	\$ 154,760	\$ 0	\$ 27,081,384
	Average Sal.	\$ 47,818	\$ 57,388	\$ 61,367	\$ 68,620	\$ 74,240	\$ 75,083	\$ 77,380	\$ 0	\$ 60,994

**NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM**

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	446	12	433	891
Additions				
a) 2010 Active	0	1	1	2
b) 2009 Balance Only	0	0	0	0
c) 2009 Deferred Vested	0	0	0	0
d) 2009 Retired	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	0	1	1	2
Subtractions				
a) Also Listed as Deaths	0	0	0	0
b) Also Listed as Inactives or Retirees	(2)	0	0	(2)
c) Also Listed as Contribution Refunds	0	0	0	0
d) Benefits Expired	0	0	0	0
e) Dependents not in receipt	0	0	(44)	(44)
f) Also Listed as Active	0	0	0	0
g) Assumed Terminated based on Date of Last Contribution	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	(2)	0	(44)	(46)
Net change	(2)	1	(43)	(44)
Number of Members Included in the Valuation as of July 1, 2010	444	13	390	847

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
2011	\$ 361,032	\$ 15,348,300	\$ 15,709,332
2012	1,454,842	15,560,604	17,015,446
2013	2,232,465	15,775,692	18,008,157
2014	3,713,218	15,997,110	19,710,328
2015	4,638,076	16,212,225	20,850,301
2016	5,523,338	16,414,044	21,937,382
2017	6,413,541	16,601,417	23,014,958
2018	7,102,819	16,775,284	23,878,103
2019	7,954,590	16,935,031	24,889,621
2020	9,480,619	17,076,465	26,557,084
2021	\$ 10,751,794	\$ 17,198,221	\$ 27,950,015
2022	12,142,614	17,297,873	29,440,487
2023	13,387,999	17,373,549	30,761,548
2024	15,168,527	17,421,873	32,590,400
2025	17,303,881	17,440,505	34,744,386
2026	19,417,384	17,427,047	36,844,431
2027	21,333,669	17,378,590	38,712,259
2028	24,995,312	17,291,988	42,287,300
2029	26,606,952	17,166,994	43,773,946
2030	28,289,188	16,999,176	45,288,364
2031	\$ 30,111,609	\$ 16,786,238	\$ 46,897,847
2032	31,760,634	16,526,633	48,287,267
2033	33,971,198	16,221,476	50,192,674
2034	35,748,871	15,868,266	51,617,137
2035	37,046,118	15,466,691	52,512,809
2036	38,124,044	15,017,290	53,141,334
2037	38,945,199	14,520,942	53,466,141
2038	39,808,221	13,979,812	53,788,033
2039	40,647,442	13,395,814	54,043,256
2040	41,430,345	12,771,938	54,202,283

Note: These amounts exclude distributions for vested inactive members eligible to receive future benefit payments. Benefit amounts for these members have not yet been determined. These amounts 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	
<i>Covered pay</i>	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).
<i>Final average earnings</i>	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).
<i>Fiscal year</i>	Twelve month period ending June 30.
<i>Member and employer contributions</i>	16% of monthly salary plus 16% 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 regular interest in conformity with the statutes. Employer contributions are 16% of monthly salary. The State makes any additional contributions that are actuarially required.
<i>Pension benefit</i>	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.
<i>Normal Retirement Date (NRD)</i>	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.
<i>Pension service</i>	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.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF PLAN PROVISIONS

Eligibility for Benefits

<i>Deferred vested</i>	Termination for reasons other than death, disability, or retirement after completing at least six years of pension service.
<i>Disability retirement</i>	Retirement by reason of disability as defined by statute.
<i>Early retirement</i>	Retirement before NRD and on or after both attaining age 50 and completing ten years of pension service.
<i>Normal retirement</i>	Retire on NRD.
<i>Postponed retirement</i>	Retire after NRD.
<i>Post-retirement death benefit</i>	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.
<i>Pre-retirement death benefit</i>	Death prior to retirement.

Monthly Benefits Paid Upon the Following Events

<i>Normal retirement</i>	Pension benefit determined as of NRD.
<i>Early retirement</i>	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.
<i>Postponed retirement</i>	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:

<u>Years</u>	<u>Vested Percentage</u>
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.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

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.

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 through the 2010/2011 Fiscal Year. 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, 2010

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, 2009. LB 950 passed during the 2010 Legislative session extended the State Contribution to the State Patrol PPSF to fiscal year 2012/2013.

**NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM**

SUMMARY OF ACTUARIAL METHODS AND PROCEDURES AS OF JULY 1, 2010

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.

**NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM**

SUMMARY OF ACTUARIAL METHODS AND PROCEDURES AS OF JULY 1, 2010

- 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, 2009.

**NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM**

SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2010

ECONOMIC ASSUMPTIONS

- 1. Investment Return 8.0% per annum, compounded annually, net of expenses.
- 2. Inflation 3.5% per annum, compounded annually.
- 3. Salary Increases Rates vary by service.
Sample rates are as follows:

Rates by Service	
Years	Rate*
<1	9.0%
1	8.5
5	6.5
10	5.0
15	5.0
20	5.0
25+	4.5

* 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 5.5% per annum, compounded annually.

DEMOGRAPHIC ASSUMPTIONS

- 1. Mortality
 - a. Healthy lives – Active members 1994 Group Annuity Mortality Table, projected to 2010 using scale AA (65% of male rates for males, 50% of female rates for females)
 - b. Healthy lives – Retired members and beneficiaries 1994 Group Annuity Mortality Table, projected to 2010 using scale AA (sex distinct)
 - c. Disabled lives 1983 Railroad Retirement Board Disabled Annuitants Mortality (unisex)

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2010

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

Sample Age	Pre-retirement Mortality			
	Mortality Rate		Life Expectancy (Years)	
	Males	Females	Males	Females
20	0.02%	0.01%	65.6	71.7
30	0.05	0.02	55.8	61.8
40	0.06	0.03	46.1	51.9
50	0.13	0.05	36.4	42.1
60	0.40	0.20	27.1	32.5
70	1.21	0.63	18.7	23.5

Sample Age	Post-retirement Mortality			
	Mortality Rate		Life Expectancy (Years)	
	Males	Females	Males	Females
50	0.19%	0.11%	32.4	35.7
60	0.62	0.41	23.3	26.3
70	1.86	1.27	15.4	17.9
80	5.28	3.52	8.9	10.7
90	14.34	11.08	4.6	5.5

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

Sample Age	Disabled Mortality	
	Mortality Rate	Life Expectancy (Years)
30	1.06%	30.5
40	1.35	23.6
50	3.16	17.7
60	4.25	13.6
70	6.75	9.6
80	10.77	6.3

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2010

2. Retirement

Retirement is assumed to occur upon attaining certain age and service requirements. The retirement assumption varies depending on benefit eligibility age at retirement, and years elapsed since first eligible for benefits.

Early / Normal Retirement Eligibility	Age and Service Requirements	Retirement Assumption
Reduced	Age 50 Service: 10 years	2% at each age
Unreduced	Age 55 Service: 10 years	<ul style="list-style-type: none"> • 67% in the first year eligible • 37% in the second year eligible • 30% in the third year eligible • 16% thereafter
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, 2010

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 a refund of contributions.

2. Marital Status

- a. Percent married
- b. Spouse's age

100% married
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 3.5% 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.

NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM

SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JULY 1, 2010

CHANGES IN ASSUMPTIONS SINCE THE PRIOR YEAR

No changes were made to the actuarial assumptions since the last actuarial valuation performed July 1, 2009.

**NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS
STATE PATROL SYSTEM**

GLOSSARY OF TERMS

<i>Actuarial Accrued Liability</i>	Total accumulated cost to fund pension benefits arising from service in all prior years.
<i>Actuarial Cost Method</i>	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.
<i>Actuarial Present Value of Future Benefits</i>	Amount which, together with future interest, is expected to be sufficient to pay all future benefits.
<i>Actuarial Valuation</i>	Study of probable amounts of future pension benefits and the necessary amount of contributions to fund those benefits.
<i>Actuary</i>	Person who performs mathematical calculations pertaining to pension and insurance benefits based on specific procedures and assumptions.
<i>Annual Required Contribution</i>	Disclosure measure of annual pension cost.
<i>GASB 25</i>	Governmental Accounting Standards Board Statement number 25 which specifies how the Annual Required Contribution is to be calculated.
<i>Normal Cost</i>	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.
<i>Unfunded Actuarial Accrued Liability</i>	The portion of the actuarial accrued liability not offset by plan assets.
<i>Vested Benefits</i>	Benefits which are unconditionally guaranteed regardless of employment status.