

**REPORT ON THE ACTUARIAL VALUATION
OF THE CONSOLIDATED JUDICIAL RETIREMENT SYSTEM
OF NORTH CAROLINA
PREPARED AS OF DECEMBER 31, 2011**

October 2, 2012

Board of Trustees
Consolidated Judicial Retirement System
of North Carolina
Raleigh, North Carolina

Members of the Board:

We submit herewith our report on the actuarial valuation of the Consolidated Judicial Retirement System of North Carolina prepared as of December 31, 2011. The report has been prepared in accordance with North Carolina General Statute 135-50 through 135-75.

The Modification of 2011 Appropriations Act (Session Law 2012-142) sets contributions at 26.55% of payroll effective for the fiscal year ending June 30, 2013. The valuation has been prepared in accordance with the parameters of Statement Nos. 25 and 27 of the Governmental Accounting Standards Board. The annual required contribution (ARC) under GASB for the 2013-2014 fiscal year is 28.01% of payroll, which will liquidate the unfunded accrued liability within a 12-year period from July 1, 2013. On this basis, these contributions would provide no undistributed gains.

Session Law 2012-142 also amended the System effective July 1, 2012 to provide a 1.00% increase in the benefit to beneficiaries on the roll as of July 1, 2011 and to provide a prorated portion of a 1.00% increase for beneficiaries who retired after July 1, 2011 but before June 30, 2012. The cost of this amendment was 0.58% of payroll. The annual required contribution rate of 28.01% of payroll reflects this change.

The plan sponsor selected the assumptions used for the results in this report. We believe that these assumptions are reasonable and comply with the requirements of GASB Nos. 25 and 27. We prepared this report in accordance with the requirements of these standards.

The undersigned 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 Actuarial Standards of Practice, and we are available to answer questions about it.

The Table of Contents, which immediately follows, outlines the material contained in the report.

Respectfully submitted,



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**REPORT ON THE ANNUAL VALUATION OF THE
CONSOLIDATED JUDICIAL RETIREMENT SYSTEM OF NORTH CAROLINA
PREPARED AS OF DECEMBER 31, 2011**

SECTION I - SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of December 31, 2011, presents the results of the actuarial valuation of the system. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below.

**TABLE I
SUMMARY OF PRINCIPAL RESULTS**

VALUATION DATE	12/31/11	12/31/10
Active members included in valuation		
Number	566	566
Reported compensation	\$ 67,814,831	\$ 66,604,988
Valuation compensation	70,200,310	69,841,031
Beneficiaries		
Number	562	543
Annual allowances	\$ 32,328,918	\$ 30,780,723
Assets		
Actuarial value	\$ 460,647,229	\$ 451,195,513
Market value	425,132,791	429,772,739
Unfunded accrued liability	\$ 51,995,656	\$ 41,410,514
<u>GASB 25/27 for Fiscal Year Ending</u>	June 30, 2014	June 30, 2013
Annual required contribution (ARC) of employer, as a percentage of payroll		
Normal cost	18.13%	18.00%
Accrued liability	9.53	7.62
Death benefit	<u>0.35</u>	<u>0.35</u>
Total	28.01%	25.97%
Impact of legislative changes	<u>N/A</u>	<u>0.58</u>
Final ARC of employer	N/A	26.55%
<u>Appropriations Act for Prior Fiscal Year</u>		
Employer contribution rate, as a percentage of payroll		
Normal cost	18.00%	17.79%
Accrued liability	8.20	6.92
Death benefit	<u>0.35</u>	<u>0.34</u>
Total	26.55%	25.05%
Reserve from undistributed gains/(losses)	(1.46)%	(1.50)%

2. The following table shows a reconciliation of the change in the annual required contribution computed to be 25.97% based on the December 31, 2010 valuation and 28.01% based on the December 31, 2011 valuation.

**TABLE II
RECONCILIATION OF CHANGE IN ANNUAL REQUIRED CONTRIBUTION**

Prior Year's Preliminary ARC (based on 12/31/10 valuation)	25.97%
Impact of Legislative Changes	<u>0.58%</u>
Prior Year's Final ARC	26.55%
Changes Due to Demographic (Gain)/Loss	(0.42)
Changes Due to Investment (Gain)/Loss	1.73
Changes Due to Contributions Less than ARC	<u>0.15</u>
Current Year's Preliminary ARC (based on 12/31/11 valuation)	28.01%

3. Tables summarizing the membership of the system as of the valuation date are shown in Section II.
4. The valuation balance sheet showing the assets and liabilities of the retirement system as of the current and previous valuation dates is provided in Section III.
5. An allocation of investments by category is shown in Section IV.
6. Comments on the valuation results are provided in Section V.
7. Comments on the experience and actuarial gains during the valuation year are provided in Section VI.
8. Accounting information to be disclosed in the financial statements of the System and the employer is provided in Section VII.
9. Schedule A of this report presents the development of the actuarial value of assets.
10. Schedule B of this report presents the development of the amortization of the unfunded accrued liability.
11. Schedule C of this report outlines the full set of actuarial assumptions and methods employed.
12. Schedule D gives a summary of the benefit and contribution provisions of the system.
13. Schedule E provides detailed tabulations of the membership of the system as of the valuation date.

SECTION II - MEMBERSHIP DATA

Data regarding the membership of the system for use as a basis for the valuation were furnished by the system's office. The following tables summarize the membership of the system as of December 31, 2011 upon which the valuation was based. Detailed tabulations of the data are given in Schedule E.

TABLE III

**THE NUMBER AND REPORTED COMPENSATION OF ACTIVE MEMBERS
INCLUDED IN THE VALUATION AS OF DECEMBER 31, 2011**

GROUP	NUMBER	AVERAGE AGE	AVERAGE SERVICE	REPORTED COMPENSATION
Justices of Supreme Court and Judges of Court of Appeals	21	58.9	11.9	\$ 3,093,014
Judges of the Superior Court and Administrative Officers of the Court	112	57.6	15.7	15,666,509
Judges of the District Court, District Attorneys Clerks of the Superior Court, and Public Defenders	<u>433</u>	<u>52.9</u>	<u>11.7</u>	<u>49,055,308</u>
Total	566	54.1	12.5	\$ 67,814,831

TABLE IV

**THE NUMBER, ACCUMULATED CONTRIBUTIONS AND VALUATION
COMPENSATION OF TERMINATED VESTED MEMBERS
INCLUDED IN THE VALUATION AS OF DECEMBER 31, 2011**

GROUP	NUMBER	AVERAGE AGE	AVERAGE SERVICE	ACCUMULATED CONTRIBUTIONS	VALUATION COMPENSATION
Justices of Supreme Court and Judges of Court of Appeals	1	55.1	1.8	\$ 14,703	\$ 129,771
Judges of the Superior Court and Administrative Officers of the Court	2	55.1	6.1	100,355	175,753
Judges of the District Court, District Attorneys Clerks of the Superior Court, and Public Defenders	<u>52</u>	<u>55.4</u>	<u>6.0</u>	<u>2,249,420</u>	<u>4,128,816</u>
Total	55	55.4	5.9	\$ 2,364,478	\$ 4,434,340

TABLE V
THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES
OF BENEFICIARIES AND SURVIVORS
INCLUDED IN THE VALUATION AS OF DECEMBER 31, 2011

GROUP	NUMBER	AVERAGE AGE	ANNUAL RETIREMENT ALLOWANCES
<u>Beneficiaries Receiving Service Retirement Allowances</u>			
Males	313	70.6	\$ 21,698,500
Females	<u>111</u>	<u>69.2</u>	<u>5,833,797</u>
Total	424	70.2	\$ 27,532,297
<u>Beneficiaries Receiving Disability Retirement Allowances</u>			
Males	3	61.3	\$ 163,076
Females	<u>3</u>	<u>65.4</u>	<u>176,286</u>
Total	6	63.4	\$ 339,362
<u>Benefits to Survivors of Deceased Beneficiaries</u>			
Males	10	73.2	\$ 302,378
Females	<u>122</u>	<u>78.4</u>	<u>4,154,881</u>
Total	132	78.0	\$ 4,457,259
Grand Total	<u>562</u>	<u>72.0</u>	<u>\$ 32,328,918</u>

SECTION III - VALUATION BALANCE SHEET

The following valuation balance sheet shows the assets and liabilities of the retirement system as of the current valuation date of December 31, 2011 and, for comparison purposes, as of the prior valuation date of December 31, 2010. The items shown in the balance sheet are present values actuarially determined as of the relevant valuation date. The development of the actuarial value of assets is presented in Schedule A.

TABLE VI
VALUATION BALANCE SHEET
SHOWING THE ASSETS AND LIABILITIES OF THE
CONSOLIDATED JUDICIAL RETIREMENT SYSTEM OF NORTH CAROLINA

	DECEMBER 31, 2011	DECEMBER 31, 2010
ASSETS		
Current actuarial value of assets:		
Annuity Savings Fund	\$ 53,951,667	\$ 51,978,400
Pension Accumulation Fund	<u>406,695,562</u>	<u>399,217,113</u>
Total current assets	\$ 460,647,229	\$ 451,195,513
Future member contributions to Annuity Savings Fund	\$ 39,771,688	\$ 40,398,973
Prospective contributions to Pension Accumulation Fund:		
Normal contributions	\$ 126,021,056	\$ 127,405,284
Unfunded accrued liability contributions	51,995,656	41,410,514
Undistributed gain contributions	<u>(7,966,107)</u>	<u>(4,999,695)</u>
Total prospective contributions	\$ <u>170,050,605</u>	\$ <u>163,816,103</u>
Total Assets	\$ <u><u>670,469,522</u></u>	\$ <u><u>655,410,589</u></u>
LIABILITIES		
Annuity Savings Fund:		
Past member contributions	\$ 53,951,667	\$ 51,978,400
Future member contributions	<u>39,771,688</u>	<u>40,398,973</u>
Total contributions to Annuity Savings Fund	\$ 93,723,355	\$ 92,377,373
Pension Accumulation Fund:		
Benefits currently in payment	\$ 287,879,823	\$ 275,323,825
Benefits to be paid to current active members	293,899,389	292,709,086
Reserve for increases in retirement allowances effective July 1, 2012 (July 1, 2011 for December 31, 2010 figure)	2,933,062	0
Reserve from undistributed gains/(losses)	<u>(7,966,107)</u>	<u>(4,999,695)</u>
Total benefits payable from Pension Accumulation Fund	\$ <u>576,746,167</u>	\$ <u>563,033,216</u>
Total Liabilities	\$ <u><u>670,469,522</u></u>	\$ <u><u>655,410,589</u></u>

The valuation balance sheet gives the following information with respect to the funds of the system as of December 31, 2011.

Annuity Savings Fund

The Annuity Savings Fund is the fund to which are credited contributions made by members together with interest thereon. When a member retires, the amount of his accumulated contributions is transferred from the Annuity Savings Fund to the Pension Accumulation Fund. The assets credited to the Annuity Savings Fund on December 31, 2011, which represent the accumulated contributions of members to that date, amounted to \$53,951,667. The balance sheet also shows that the future contributions by members have a present value of \$39,771,688. The present value of both past and future contributions of members is therefore equal to \$93,723,355. The liabilities of this fund are also shown to be equal to \$93,723,355.

Pension Accumulation Fund

The Pension Accumulation Fund is the fund to which the contributions made by the employer are credited and from which are paid all benefits on account of beneficiaries and their survivors.

The actuarial value of assets creditable to the Pension Accumulation Fund on December 31, 2011 amounted to \$406,695,562. The liabilities on account of active members amounted to \$293,899,389. In addition, the balance sheet indicates liabilities of \$287,879,823 on account of all benefits payable to beneficiaries and survivors as of December 31, 2011. The balance sheet also shows a reserve from undistributed gains/(losses) of \$(7,966,107) and a reserve for increases in retirement allowances of \$2,933,062. The total liabilities of the Pension Accumulation Fund, therefore, amounted to \$576,746,167. The difference between these liabilities and the current assets credited to this fund is \$170,050,605 which represents the present value of future contributions to be made by the employer. Of this amount, \$126,021,056 represents the present value of prospective normal contributions by the employer, \$51,995,656 represents the present value of prospective unfunded accrued liability contributions and the balance of \$(7,966,107) represents the present value of prospective contributions on account of undistributed gains/(losses).

SECTION IV – ASSET ALLOCATION

The following table shows an allocation of investments by category for the Annuity Savings Fund and Pension Accumulation Fund as of December 31, 2011.

TABLE VII
ALLOCATION OF INVESTMENTS BY CATEGORY
FOR THE ANNUITY SAVINGS FUND AND
PENSION ACCUMULATION FUND AS OF DECEMBER 31, 2011

Cash and Receivables	0.7%
Fixed Income (LTIF)	37.4%
Public Equity	42.7%
Other*	<u>19.2%</u>
Total	100.0%

* Real Estate, Alternatives, Inflation and Credit.

SECTION V - COMMENTS ON VALUATION

G.S. 135-69 of the retirement act provides that the State shall make a normal contribution and an unfunded accrued liability contribution. The normal contribution rate payable by the State was determined by dividing the one-year normal cost based on the projected unit credit method by the payroll and is equal to 18.13% of compensation exclusive of the rate necessary to provide one year's compensation upon death in active service. The normal contribution of 18.13% of payroll is payable to the Retirement System. The normal rate necessary to provide the death benefit on a one-year term basis was calculated to be 0.35% of compensation and is payable to the Death Benefit Fund. The total normal rate is therefore equal to 18.48% of compensation.

The Modification of 2011 Appropriations Act (Session Law 2012-142) sets contributions at 26.55% of payroll effective for the fiscal year ending June 30, 2013. The valuation has been prepared in accordance with the parameters of Statement Nos. 25 and 27 of the Governmental Accounting Standards Board. The annual required contribution (ARC) under GASB for the 2013-2014 fiscal year is 28.01% of payroll, which will liquidate the unfunded accrued liability within a 12-year period from July 1, 2013. On this basis, these contributions would provide no undistributed gains.

Session Law 2012-142 also amended the System effective July 1, 2012 to provide a 1.00% increase in the benefit to beneficiaries on the roll as of July 1, 2011 and to provide a prorated portion of a 1.00% increase for beneficiaries who retired after July 1, 2011 but before June 30, 2012. The cost of this amendment was 0.58% of payroll. The annual required contribution rate of 28.01% of payroll reflects this change.

SECTION VI - COMMENTS ON EXPERIENCE AND GAINS

The following table shows a detailed reconciliation of the change in unfunded accrued liability since the prior valuation.

TABLE VIII
RECONCILIATION OF CHANGE IN UNFUNDED ACCRUED LIABILITY
SINCE THE PRIOR VALUATION
(IN MILLIONS)

Unfunded accrued liability as of 12/31/10	\$ 41.4
Normal cost during 2011	16.8
Reduction due to actual contributions during 2011	(18.9)
Interest on unfunded accrued liability, normal cost and contributions	3.5
Asset (gain)/loss	8.9
Accrued liability (gain)/loss	(2.6)
Impact of Legislative changes	<u>2.9</u>
Unfunded accrued liability as of 12/31/11	\$ 52.0

The valuation results indicated that there is no preliminary reserve from undistributed gains. Each 1.0% increase in retirement allowances as of July 1, 2013 to beneficiaries on the retirement roll on July 1, 2012 and a prorated portion of each 1.0% increase as of July 1, 2013 for beneficiaries who retired after July 1, 2012 but before June 30, 2013 is equivalent to 0.62% of payroll.

SECTION VII - ACCOUNTING INFORMATION

1. Statement Nos. 25 and 27 of the Governmental Accounting Standards Board (GASB) set forth certain items of information to be disclosed in the financial statements of the System and the employer. One such item is a distribution of the number of employees by type of membership, as follows:

**NUMBER OF ACTIVE AND RETIRED PARTICIPANTS
AS OF DECEMBER 31, 2011**

GROUP	NUMBER
Retired participants and beneficiaries currently receiving benefits	562
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	55
Active participants	<u>566</u>
Total	1,183

2. Another such item is the schedule of funding progress as shown below.

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) PUC (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
12/31/06	\$406,014,726	\$378,489,964	\$(27,524,762)	107.3%	\$53,347,855	(51.6)%
12/31/07	430,356,059	418,137,429	(12,218,630)	102.9	61,338,143	(19.9)
12/31/08	433,552,760	441,932,606	8,379,846	98.1	65,082,979	12.9
12/31/09	439,987,304	474,949,341	34,962,037	92.6	66,171,078	52.8
12/31/10	451,195,513	492,606,027	41,410,514	91.6	66,604,988	62.2
12/31/11	460,647,229	512,642,885	51,995,656	89.9	67,814,831	76.7

3. Following is a reconciliation of the preliminary employer annual required contribution rate to the final employer annual required contribution for fiscal year ending June 30, 2012.

	Fiscal Year Ending June 30, 2012
Preliminary Annual Required Contribution Rate	
Normal Cost	17.79%
Accrued Liability	8.41
Death Benefit	0.34
Total	<u>26.54%</u>
Impact of Legislative Changes	<u>(1.49)</u>
Final Annual Required Contribution Rate	25.05%
Payroll	\$ <u>68,677,640</u>
Annual Required Contribution	\$ 17,204,000

4. Following is the calculation of the annual pension cost and net pension obligation for the fiscal year ending June 30, 2012.

Annual Pension Cost and Net Pension Obligation for Fiscal Year Ending 6/30/2012

(a) Employer annual required contribution	\$17,204,000
(b) Interest on net pension obligation	31,000
(c) Adjustment to annual required contribution	<u>(58,000)</u>
(d) Annual pension cost: (a) + (b) + (c)	\$17,177,000
(e) Employer contributions made for fiscal year ending 6/30/2012	<u>17,204,000</u>
(f) Increase (decrease) in net pension obligation: (d) - (e)	\$ (27,000)
(g) Net pension obligation beginning of fiscal year	<u>428,000</u>
(h) Net pension obligation end of fiscal year: (f) + (g)	\$ 401,000

TREND INFORMATION

<u>Year Ending</u>	<u>Annual Pension Cost (APC)</u>	<u>Percentage APC Contributed</u>	<u>Net Pension Obligation</u>
June 30, 2010	\$10,405,000	98.5%	\$(2,634,000)
June 30, 2011	13,330,000	77.0	428,000
June 30, 2012	17,177,000	100.2	401,000

5. The annual required contribution (ARC) of the employer as a percentage of payroll, determined in accordance with the parameters of GASB 25/27, is shown below. The accrued liability rate is based on amortization schedule shown in Schedule B.

**2013/2014 FISCAL YEAR
ANNUAL REQUIRED CONTRIBUTION (ARC)
BASED ON THE VALUATION AS OF DECEMBER 31, 2011**

ANNUAL REQUIRED CONTRIBUTION (ARC)	RATE
Normal Cost	18.13%
Accrued Liability	9.53
Death Benefit	<u>0.35</u>
Total	28.01%

6. Additional information as of December 31, 2011 follows.

Valuation date	12/31/11
Actuarial cost method	Projected unit credit
Amortization method	Level dollar closed
Amortization period	12 years
Asset valuation method	20% of market value plus 80% of expected actuarial value (not greater than 120% of market value and not less than 80% of market value)
Actuarial assumptions:	
Investment rate of return*	7.25%
Projected salary increases**	5.00% - 5.95%
* Includes inflation of	3.00%
** Includes inflation and productivity of	3.50%
Cost-of-living adjustments	N/A

SCHEDULE A**DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS
FOR THE YEAR ENDING DECEMBER 31, 2011**

1.	Actuarial Value of Assets as of December 31, 2010	\$ 451,195,513
2.	2011 Net Cash Flow	
	a. Contributions	18,898,620
	b. Disbursements	<u>32,776,883</u>
	c. Net Cash Flow: (a) - (b)	(13,878,263)
3.	Expected Investment Return: [(1) x .0725] + [(2)c x .03625]	32,208,588
4.	Expected Actuarial Value of Assets as of December 31, 2011: (1) + (2)c + (3)	469,525,838
5.	Market Value of Assets as of December 31, 2011	425,132,791
6.	Excess of Market Value over Expected Actuarial Value of Assets: (5) - (4)	(44,393,047)
7.	20% Adjustment towards Market Value: (6) x .20	(8,878,609)
8.	Preliminary Actuarial Value of Assets as of December 31, 2011: (4) + (7)	460,647,229
9.	Final Actuarial Value of Assets as of December 31, 2011 [(8) not less than 80% of (5) and not greater than 120% of (5)]	460,647,229
10.	Rate of investment return on actuarial value	5.25%
11.	Rate of investment return on market value	2.18%

SCHEDULE B**AMORTIZATION SCHEDULE FOR
UNFUNDED ACTUARIAL ACCRUED LIABILITY**

DATE ESTABLISHED	OUTSTANDING BALANCES		ANNUAL PAYMENT
	INCEPTION	DECEMBER 31, 2011	
December 31, 2009	\$ 34,962,037	\$ 37,781,103	\$ 4,783,952
December 31, 2010	3,913,729	4,197,474	535,526
December 31, 2011	10,017,079	<u>10,017,079</u>	<u>1,370,665</u>
Total		\$ 51,995,656	\$ 6,690,143
Valuation Compensation			\$ 70,200,310
Unfunded Accrued Liability Contribution Rate			9.53%

SCHEDULE C**STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS**

Assumptions are based on the experience investigation prepared as of December 31, 2009 and adopted by the Board of Trustees on October 21, 2010.

INTEREST RATE: 7.25% per annum compounded annually.

INFLATION: Both general and wage inflation are assumed to be 3.00% per annum.

PRODUCTIVITY INCREASE: 0.50% per annum.

WITHDRAWAL: No termination of employment is assumed to occur prior to retirement, other than death or disability.

SEPARATIONS BEFORE RETIREMENT AND SALARY INCREASES: Representative values of the assumed annual rates of separation and annual rate of salary increases are as follows:

Age	Disability	Annual Rate of		Service	Salary Increase
		Base Mortality*			
		Male	Female		
25	.0001	.0004	.0002	0	.0595
30	.0001	.0005	.0003	5	.0570
35	.0003	.0008	.0005	10	.0545
40	.0007	.0011	.0008	15	.0525
45	.0014	.0016	.0012	20	.0520
50	.0023	.0023	.0018	25	.0500
55	.0047	.0033	.0028	30	.0500
60	.0077	.0054	.0043	35	.0500
64	.0098	.0076	.0058	40	.0500

* Base mortality rates as of December 31, 2003.

SERVICE RETIREMENT: Representative values of the assumed annual rates of service retirement are as follows:

Age	Service					
	5	10	15	20	25	30
50					.075	.075
55	.030	.030	.030	.030	.075	.075
60	.030	.030	.030	.030	.075	.075
65	.100	.100	.100	.100	.250	.250
70	1.000	1.000	1.000	1.000	1.000	1.000

Note: For members hired on or after August 1, 2011, retirement rates are reduced to 0% if service is less than 10 years since they are not eligible to retire with less than 10 years of service. In their first year of eligibility, retirement rates for these members are an accumulation of the rates assumed above for all previous years. All other retirement rates for such members are equal to those shown above.

Representative values of the assumed post-retirement mortality rates as of December 31, 2003 prior to any mortality improvements are as follows:

Annual Rate of Death after Retirement
(Health Retirees, Beneficiaries and Disabled Retirees)

<u>Age</u>	<u>Healthy Retirees</u>		<u>Beneficiaries of Deceased Members</u>		<u>Disabled Retirees</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
55	.0061	.0039	.0061	.0044	.0277	.0176
60	.0090	.0069	.0090	.0077	.0342	.0229
65	.0149	.0114	.0149	.0125	.0407	.0296
70	.0246	.0186	.0246	.0207	.0483	.0401
75	.0422	.0310	.0422	.0341	.0596	.0558
80	.0720	.0508	.0720	.0563	.0775	.0771

MORTALITY IMPROVEMENTS: Representative values of the assumed mortality improvement rates (applied to pre-retirement mortality rate for active members and post-retirement mortality rates for healthy retirees and beneficiaries of deceased members after such tables have been set back or set forward) are as follows:

<u>Age</u>	<u>Male Projection Scale</u>	<u>Female Projection Scale</u>
25	0.010	0.014
30	0.005	0.010
35	0.005	0.011
40	0.008	0.015
45	0.013	0.016
50	0.018	0.017
55	0.019	0.008
60	0.016	0.005
65	0.014	0.005
70	0.015	0.005
75	0.014	0.008
80	0.010	0.007

DEATHS AFTER RETIREMENT (NON-DISABLED): According to the RP-2000 Mortality tables for retirees. These tables are set forward one year for males and females. These tables are also set forward one year for male beneficiaries of deceased members and set forward two years for female beneficiaries of deceased members. The base retiree RP-2000 tables have no rates prior to age 50. The active employee rates of RP-2000 are used for ages less than 50 prior to any adjustments for setbacks.

DEATH AFTER DISABILITY: RP-2000 Mortality tables for disabled annuitants set back six years for males and set forward one year for females.

DEATHS PRIOR TO RETIREMENT: According to the RP-2000 Mortality tables for active employees. These tables are set forward one year for males and females. The base RP-2000 tables for active employees have no rates after age 70. A blend of active rates and retired rates are used from ages 70 to 80 prior to any set back and adjustments.

MORTALITY PROJECTION (NON-DISABLED): All mortality rates are projected from December 31, 2003 using Scale AA.

TIMING OF ASSUMPTIONS: All withdrawals, deaths, disabilities, retirements and salary increases are assumed to occur July 1 of each year.

LIABILITY FOR INACTIVE MEMBERS: The liability for members who terminated prior to five years of creditable service is estimated to be 100% of the member's accumulated contributions. The liability for members who terminated after completing five years of creditable service is estimated based on the member's current age and the service and reported compensation at termination of employment.

ADMINISTRATIVE EXPENSES: 0.75% of normal cost.

MARRIAGE ASSUMPTION: 90% of male members married and 50% of female members married with the husband four years older than his wife.

REPORTED COMPENSATION: Calendar year compensation as furnished by the system's office.

VALUATION COMPENSATION: Reported compensation adjusted to reflect the assumed rate of pay as of the valuation date.

VALUATION METHOD: Projected unit credit. Projected benefits and the corresponding liabilities are allocated based on proration by creditable service.

ASSET VALUATION METHOD: Actuarial value, as developed in Schedule A. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected actuarial value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected actuarial value. The actuarial value of assets is not allowed to be greater than 120% of the market value of assets or less than 80% of the market value of assets.

CHANGES SINCE PRIOR VALUATION: The retirement decrement was updated for members hired on or after August 1, 2011 to reflect the increase in years of service for benefit eligibility.

SCHEDULE D

SUMMARY OF MAIN BENEFIT AND CONTRIBUTION PROVISIONS

All justices, judges, district attorneys, and public defenders of the General Court of Justice, and clerks of the Superior Court are eligible for membership.

"Final compensation" as used in the summary means the annual rate of compensation of the member at his date of termination or death. "Average final compensation" means the average annual compensation during the 48 consecutive calendar months of membership producing the highest average. "Creditable service" includes all service rendered as a justice of the Supreme Court, judge of the Court of Appeals, judge of the Superior Court, judge of the District Court Division of the General Court of Justice, Administrative Officer of the Courts, District Attorney, Public Defender or as a Clerk of the Superior Court.

BENEFITS

Service Retirement Allowance

Conditions for Allowance

A service retirement allowance is payable to any member who retires from service and:

- (a) had attained age 50 and was in service on October 8, 1981;
- (b) if hired before August 1, 2011, has attained age 50 and completed five or more years of creditable service; or
- (c) if hired on or after August 1, 2011, has attained age 50 and completed ten or more years of creditable service.

Retirement is compulsory at age 72 if the member is a justice or judge of the Appellate, Superior, or District Divisions of the General Court of Justice and at age 70 for each other member.

Unreduced Allowance

An unreduced annual service retirement allowance is payable to a member who:

- (a) if hired before August 1, 2011, has attained age 65 and completed five years of creditable service;
- (b) if hired on or after August 1, 2011, has attained age 65 and completed ten years of creditable service; or
- (c) has attained age 50 and completed 24 years of creditable service.

The Service Retirement Allowance is equal to:

- (i) 4.02% of his final compensation multiplied by the number of years of his creditable service rendered as a justice of the Supreme Court or judge of the Court of Appeals, plus

- (ii) 3.52% of his final compensation multiplied by the number of years of his creditable service rendered as a judge of the Superior Court or as Administrative Officer of the Courts, plus
- (iii) 3.02% of his final compensation multiplied by the number of years of his creditable service rendered as a judge of the District Court, District Attorney, Public Defender, or Clerk of the Superior Court, plus
- (iv) A service retirement allowance computed on his average final compensation, his service transferred from the Teachers' and State Employees' Retirement System or the Local Governmental Employees' Retirement System and the applicable formula accrual rate from the previous system.

Reduced Allowance

A reduced annual service retirement allowance is payable to a member who retires:

- (a) if hired before August 1, 2011, prior to the earlier of attainment of age 65 and completion of five years of creditable service;
- (b) if hired on or after August 1, 2011, prior to the earlier of attainment of age 65 and completion of ten years of creditable service; or
- (c) prior to attainment of age 50 or the completion of 24 years of creditable service.

The reduced amount is an allowance as computed above reduced by 3% for each year that the member's retirement date precedes the date upon which the member would have attained age 65 or completed 24 years of service had he remained in service, whichever is earlier.

Maximum Amount

The maximum annual service retirement allowance (on an unreduced basis) is the amount which, when added to the member's benefit payable from the Teachers' and State Employees' Retirement System, Local Governmental Employees' Retirement System, or Legislative Retirement System (all on an unreduced basis) would total 75% of the member's final compensation.

Minimum Amount

In no event will a member whose creditable service commenced prior to January 1, 1974 as a justice of the Supreme Court, as a judge of the Court of Appeals, as an Administrative Officer of the courts, or as a judge of the Superior Court, receive a smaller retirement allowance than he would have received under Chapter 7-A of the General Statutes.

Disability Retirement Allowance

Condition for Allowance Any member who becomes permanently and totally disabled prior to the attainment of age 65 and who has completed at least five years of creditable service may be retired by the Board of Trustees on a disability retirement allowance. Any retired member may also apply for a disability retirement allowance within the first three years of retirement.

Amount of Allowance The disability retirement allowance is computed as a service retirement allowance based on the number of years of creditable service the member would have had had he remained in service to the earliest date he could have retired on an unreduced service retirement allowance.

Deferred Allowance

Any member who separates from service prior to age 50 and:
 (a) if hired before August 1, 2011, completed five years of creditable service; or
 (b) if hired on or after August 1, 2011, completed ten years of creditable service;

and who leaves his total accumulated contributions in the system may receive a deferred allowance, beginning at age 50, computed in the same way as a service retirement allowance on the basis of his creditable service and compensation to the date of separation.

Spouse Benefit

Conditions for Benefit Upon the death of a member in active service after his attainment of age 50 and completion of five years of creditable service a death benefit is payable to his surviving spouse.

Amount of Benefit The surviving spouse receives a lump sum payment equal to the member's final compensation. In addition the surviving spouse receives an annual retirement allowance, until death or remarriage, equal to 50% of the service retirement allowance to which the member would have been entitled had he retired on the first day of the calendar month coincident with or next following his date of death reduced by 2% for each year that the member's age exceeds that of his spouse.

Lump Sum Death Benefit

Upon the death of a member in active service prior to his attainment of age 50 a lump sum payment equal to his accumulated contributions plus his final compensation is made to his designated beneficiary or estate.

Death after Retirement

Upon the death of a retired member while in receipt of a service retirement allowance or after age 65 if in receipt of a disability retirement allowance an allowance is paid to his spouse, until death or remarriage, equal to one-half the allowance which was payable to the member prior to his death reduced by 2% for each year that the member's age exceeds that of his spouse.

Upon the death of a member in receipt of a disability retirement allowance prior to age 65, an allowance is paid to his spouse, until death or remarriage, equal to one-half the service retirement allowance he would have received had he remained in service up to his date of death reduced by 2% for each year that the member's age exceeds that of his spouse.

Other Death Benefits

Upon the death of a member in service, other benefits may be provided by the Death Benefit Plan.

Return of Contributions

Any member who terminates service other than by retirement or death is entitled to the return of his accumulated contributions.

If the total retirement allowance payments to a retired member, spouse and/or beneficiary under option are less than the member's accumulated contributions at retirement, the excess is paid to the designated beneficiary or legal representatives.

The current interest rate on member contributions is 4%.

Optional Allowances

In lieu of the full retirement allowance, any member may elect to receive a reduced retirement allowance equal in value to the full allowance, with the provision that:

Option 1 - At the death of the member within 10 years from his retirement date, an amount equal to his accumulated contributions at retirement, less 1/120 for each month he has received a retirement allowance payment, is paid to his estate, or to a person designated by the member, or

Option 2 - At the death of the member his allowance shall be continued throughout the life of such other person as the member shall have designated at the time of his retirement, or

Option 3 - At the death of the member one-half of his allowance shall be continued throughout the life of such other person as the member shall have designated at the time of his retirement, or

Option 4 - At retirement, any member may elect to receive a retirement allowance in such amount that, together with his Social Security benefit, he will receive approximately the same income per annum before and after the earliest age at which he becomes eligible to receive the Social Security benefit. A member who elects to receive his allowance under this option is deemed to have elected Option 1 also, or

Option 5 - At retirement, the member may elect to receive a reduced retirement allowance during his life with some other benefit approved by the Board of Trustees payable after he dies, or he may elect to receive a reduced retirement allowance under the provisions of Option 2 or Option 3 in conjunction with the provisions of Option 1, or

Option 6 - A member may elect either Option 2 or Option 3 with the added provision that in the event the designated beneficiary predeceases the member, the retirement allowance payable to the member after the designated beneficiary's death shall be equal to the retirement allowance which would have been payable had the member not elected the Option.

Unused Sick Leave

Unused sick leave counts as creditable service at retirement. Sick leave which was converted from unused vacation leave is also creditable. One month of credit is allowed for each 20 days of unused sick leave, plus an additional month for any part of 20 days left over.

Post-Retirement Increases in Allowance

Future increases in allowances may be granted at the discretion of the State.

Contributions

Member Contributions

Each member contributes 6% of his annual compensation.

Employer Contributions

The State makes annual contributions consisting of a normal contribution and an accrued liability contribution. The normal contribution covers the liability on account of current service and is determined by the actuary after each valuation.

The accrued liability contribution covers the liability on account of service rendered before the establishment of the retirement system and the liability on account of increases in benefits for service rendered prior to the effective date of any amendment.

Changes Since Prior Valuation

Session Law 2012-142 amended the System effective July 1, 2012 to provide a 1.00% increase in the benefit to beneficiaries on the roll as of July 1, 2011 and to provide a prorated portion of a 1.00% increase for beneficiaries who retired after July 1, 2011 but before June 30, 2012.

SCHEDULE E**DETAILED TABULATIONS OF THE DATA****TABLE 1**

**THE NUMBER AND AVERAGE REPORTED COMPENSATION OF
ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE
AS OF DECEMBER 31, 2011**

AGE	YEARS OF SERVICE										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up		
Under 25	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	5	0	0	0	0	0	0	0	0	0	5
	0	109,372	0	0	0	0	0	0	0	0	0	109,372
35 to 39	0	15	5	0	0	0	0	0	0	0	0	20
	0	108,846	103,689	0	0	0	0	0	0	0	0	107,557
40 to 44	1	25	34	7	1	2	0	0	0	0	0	70
	39,628	109,166	112,486	125,208	119,872	84,530	0	0	0	0	0	110,838
45 to 49	0	29	16	26	9	6	1	0	0	0	0	87
	0	106,940	112,554	124,879	131,930	115,832	136,804	0	0	0	0	116,875
50 to 54	1	17	28	13	13	8	3	3	1	0	0	87
	36,854	102,968	115,053	116,743	130,507	132,225	128,655	91,633	93,566	0	0	115,348
55 to 59	2	23	21	17	21	17	9	8	5	0	0	123
	36,521	111,751	116,130	124,267	131,294	130,548	139,376	127,556	100,727	0	0	121,541
60 to 64	0	15	22	10	19	11	14	11	5	2	0	109
	0	111,189	116,928	126,697	140,088	142,040	140,275	124,712	107,419	92,454	0	126,505
65 to 69	0	9	4	13	10	10	4	6	2	0	0	58
	0	114,569	119,063	128,101	132,510	140,402	150,769	149,769	111,024	0	0	131,475
70 & up	0	1	0	1	0	0	2	1	0	2	0	7
	0	82,401	0	119,872	0	0	128,441	127,148	0	102,177	0	112,951
Total	4	139	130	87	73	54	33	29	13	4	0	566
	37,381	108,720	114,252	124,203	133,531	131,623	139,423	127,343	104,334	97,316	0	119,814

SCHEDULE E**TABLE 2**

**THE NUMBER AND REPORTED COMPENSATION OF
ACTIVE MEMBERS DISTRIBUTED BY AGE
AS OF DECEMBER 31, 2011**

Age	Men		Women	
	Number	Amount	Number	Amount
32	2	\$ 218,744		
33	2	218,744		
34			1	\$ 109,372
35	1	65,227		
36	1	109,372	4	455,083
37	2	237,375		
38			4	439,451
39	3	333,360	5	511,271
40	10	1,157,256	3	360,477
41	4	473,628	9	888,928
42	5	572,741	4	478,069
43	8	846,136	11	1,230,268
44	9	986,432	7	764,736
45	9	1,110,958	7	828,580
46	14	1,662,660	7	856,701
47	6	655,393	9	973,382
48	6	667,442	7	751,887
49	13	1,654,594	9	1,006,524
50	7	862,728	6	729,375
51	11	1,319,803	10	1,095,391
52	15	1,785,588	7	709,937
53	5	657,603	8	846,525
54	14	1,638,475	4	389,859
55	17	2,194,621	11	1,089,351
56	11	1,280,598	10	1,175,584
57	21	2,711,570	9	1,093,279
58	16	1,999,146	5	556,167
59	19	2,415,024	4	434,215
60	21	2,684,210	4	509,556
61	13	1,703,890	5	673,911
62	21	2,599,756	5	567,271
63	20	2,621,285	5	529,035
64	13	1,632,177	2	267,920
65	18	2,320,692		
66	10	1,321,903	3	354,798
67	10	1,288,750	1	109,372

SCHEDULE E**TABLE 2****THE NUMBER AND REPORTED COMPENSATION OF
ACTIVE MEMBERS DISTRIBUTED BY AGE
AS OF DECEMBER 31, 2011**

CONTINUED

Age	Men		Women	
	Number	Amount	Number	Amount
68	6	\$ 848,905		\$
69	8	1,079,205	2	301,908
70	2	278,537		
72			1	98,217
73	1	82,401		
74			1	102,177
75	1	127,148		
81			1	102,177
Total	375	\$ 46,424,077	191	\$ 21,390,754

SCHEDULE E**TABLE 3**

**THE NUMBER AND REPORTED COMPENSATION OF
ACTIVE MEMBERS DISTRIBUTED BY SERVICE
AS OF DECEMBER 31, 2011**

Years of Service	Number	Men		Women	
		Number	Amount	Number	Amount
0	1		\$ 23,107	3	\$ 126,415
1	32		3,473,228	19	1,924,676
2	11		1,254,549	6	593,579
3	24		2,705,512	25	2,686,903
4	13		1,460,552	9	1,013,016
5	39		4,289,359	17	1,824,056
6	10		1,165,655	5	637,053
7	17		2,040,689	9	1,079,930
8	3		315,593	3	306,765
9	15		1,822,191	12	1,371,412
10	7		900,874	2	229,232
11	17		2,078,292	10	1,288,957
12	12		1,468,116	3	368,737
13	18		2,200,135	6	742,207
14	8		1,049,612	4	479,488
15	9		1,133,402	5	641,832
16	7		887,468	3	366,014
17	22		2,973,771	2	292,765
18	11		1,528,894	2	243,666
19	9		1,260,938	3	419,033
20	3		386,955	2	218,091
21	17		2,374,158	3	372,180
22	3		327,687	3	339,219
23	16		2,301,661	5	510,935
24	1		146,377	1	130,372
25	6		851,581	2	215,513
26	2		275,351	1	119,872
27	8		1,122,479	1	174,760
28	5		701,117		
29	6		900,549	2	239,744
30	3		328,783	4	481,771
31	4		594,593	1	114,616
32	9		1,270,964	3	282,756
33	2		275,085		
34	1		147,937	2	196,446
35	2		214,141	2	195,743

SCHEDULE E**TABLE 3****THE NUMBER AND REPORTED COMPENSATION OF
ACTIVE MEMBERS DISTRIBUTED BY SERVICE
AS OF DECEMBER 31, 2011**

CONTINUED

Years of Service	Number	Men		Women	
		Number	Amount	Number	Amount
36				4	\$ 408,708
38				2	209,583
39	1	\$	86,361	2	241,808
40	1		86,361	2	200,724
43				1	102,177
Total	375	\$	46,424,077	191	\$ 21,390,754

SCHEDULE E**TABLE 4****THE NUMBER AND ACCUMULATED CONTRIBUTIONS OF
TERMINATED VESTED MEMBERS DISTRIBUTED BY AGE
AS OF DECEMBER 31, 2011**

Age	Number	Men		Women	
		Number	Amount	Number	Amount
34				1	\$ 10,589
41	2		\$ 19,629		
42	1		36,477		
44	3		127,387		
45				2	68,666
47	1		26,843	2	108,780
48	3		246,039	1	4,138
49	1		28,499		
50				4	324,349
51	2		76,932		
52	1		32,614		
54				2	205,902
55	2		80,196	1	75,454
56				1	4,343
57	1		5,951		
58	1		32,614	1	1,149
59	2		94,857	1	3,230
60				2	28,408
61	1		16,286	1	34,584
62	2		30,242		
63	2		66,283		
64	1		14,424		
66	1		27,157		
67	2		82,618		
68	1		11,825	1	5,812
69	1		3,241	1	29,547
74	1		12,188	1	14,136
75	1		373,089		
Total	33	\$	1,445,391	22	\$ 919,087

SCHEDULE E**TABLE 5**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL
RETIREMENT ALLOWANCES OF BENEFICIARIES AND
SURVIVORS BY AGE AS OF DECEMBER 31, 2011**

**SERVICE RETIREMENTS AND
DEPENDENTS OF DECEASED BENEFICIARIES**

Age	Men		Women	
	Number	Amount	Number	Amount
45			1	\$ 16,912
47			2	25,582
49			1	18,015
51	1	\$ 20,838		
52	1	37,398		
53	1	6,113	1	71,306
54			2	84,498
55	2	148,817	5	318,837
56			3	169,827
57	5	277,571	2	100,986
58	8	484,313	6	308,452
59	7	485,964	5	300,441
60	11	553,040	5	340,299
61	9	608,554	5	333,837
62	15	1,059,072	8	483,503
63	13	818,998	5	252,407
64	14	1,004,940	6	396,684
65	17	1,345,146	8	349,966
66	22	1,558,939	9	489,353
67	9	659,506	4	206,927
68	13	864,907	4	183,781
69	16	1,101,584	6	433,631
70	12	972,400	10	368,086
71	10	847,206	3	135,170
72	13	1,186,610	8	487,988
73	10	848,418	6	284,295
74	9	616,678	6	169,090
75	13	945,284	5	296,526
76	11	632,159	6	268,801
77	5	259,067	8	247,231
78	8	547,344	2	48,424
79	8	443,027	7	379,484
80	6	366,227	5	340,246

SCHEDULE E**TABLE 5****THE DISTRIBUTION OF THE NUMBER AND ANNUAL
RETIREMENT ALLOWANCES OF BENEFICIARIES AND
SURVIVORS BY AGE AS OF DECEMBER 31, 2011****SERVICE RETIREMENTS AND
DEPENDENTS OF DECEASED BENEFICIARIES**

CONTINUED

Age	Men		Women	
	Number	Amount	Number	Amount
81	9	\$ 618,418	4	\$ 152,852
82	8	472,287	9	303,768
83	10	587,064	7	158,888
84	3	131,796	8	224,379
85	4	228,683	6	200,101
86	4	280,332	3	110,634
87	2	152,568	4	52,666
88	2	150,767	9	174,243
89	5	275,940	6	109,204
90	1	35,202	1	20,443
91	2	103,504	5	92,564
92	2	188,287	4	101,335
93			4	147,396
94	1	56,886	3	126,672
96			4	88,679
97	1	19,024		
98			1	4,837
103			1	9,432
	323	\$ 22,000,878	233	\$ 9,988,678

DISTRIBUTION BY ANNUITY TYPE

Annuity Type	Men		Women	
	Number	Amount	Number	Amount
Maximum	211	\$ 15,075,229	93	\$ 4,928,009
Cash Refund	4	323,366	2	58,970
100% J&S	18	649,843	2	98,072
50% J&S	29	2,417,744		
Soc Sec Level	2	138,520	8	433,481
Odd Surv	7	236,739	2	71,832
100% J&S Popup	9	340,547		
50% J&S Popup	33	2,516,512	4	243,432
Beneficiary	10	302,378	122	4,154,882
Total	323	\$ 22,000,878	233	\$ 9,988,678

SCHEDULE E**TABLE 6**

**THE DISTRIBUTION OF THE NUMBER AND ANNUAL
RETIREMENT ALLOWANCES OF BENEFICIARIES AND
SURVIVORS BY AGE AS OF DECEMBER 31, 2011**

DISABILITY RETIREMENTS

Age	Number	Men		Women	
		Number	Amount	Number	Amount
55	1		\$ 67,646		
59	1		50,578		
61				1	\$ 94,493
63				1	51,456
71	1		44,852		
72				1	30,337
	3		\$ 163,076	3	\$ 176,286

DISTRIBUTION BY ANNUITY TYPE

	Age	Number	Men		Women	
			Number	Amount	Number	Amount
Maximum		1		\$ 67,646	2	\$ 124,830
Cash Refund		1		44,852		
100% J&S		1		50,578		
50% J&S					1	51,456
Total		3		\$ 163,076	3	\$ 176,286