



**Cavanaugh Macdonald**  
CONSULTING, LLC

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Virginia  
Retirement  
System

**Report on the Actuarial Valuation for  
Virginia Retirement System**

**Prepared as of June 30, 2013**





# Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

December 19, 2013

The Board of Trustees  
Virginia Retirement System  
1200 E. Main Street  
Richmond, VA 23219

Dear Trustees:

We are pleased to submit the results of the annual actuarial valuation for the following divisions of the Virginia Retirement System (VRS), prepared as of June 30, 2013.

- State Employees
- Teachers
- State Police (SPORS)
- Judicial
- Virginia Law Officers (VaLORS)

In addition, this report includes information in aggregate on the actuarial valuations of the Political Subdivisions participating in VRS as of June 30, 2013. We have prepared and provided separately, actuarial valuation reports for each of the Political Subdivisions. Please refer to the individual reports for the valuation results, summary of actuarial assumptions and methods, and plan provisions for each of the Political Subdivision plans.

The purpose of this report is to provide a summary of the funded status of VRS as of June 30, 2013, to recommend rates of contribution and to provide accounting information under Governmental Accounting Standards Board Statements No. 25 and 27 (GASB 25 and 27). While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The valuation results indicate that the full employer contribution rates shown in the table below are sufficient to fund the normal cost for all members and finance the unfunded accrued liability of the plans for fiscal years 2015 and 2016. We also present the expected employer contributions to be actually funded based on the percentage of the full rate adopted by the General Assembly. For comparison, in the table below we present the employer contribution rates based on the June 30, 2012 actuarial valuation, the recommended employer contribution rates based on the June 30, 2011 actuarial valuations and the employer contribution rates approved by the General Assembly for fiscal years ending in 2013 and 2014.

System	June 30, 2011 Valuation Fiscal Years 2013 & 2014		June 30, 2012 Valuation Informational Purposes	June 30, 2013 Valuation Fiscal Years 2015 & 2016		
	Board Approved	General Assembly Approved		Full Employer Contribution Rate	Percentage Adopted by General Assembly	Estimated Employer Contribution Rate to be Adopted
State	13.07%	8.76%	14.87%	15.79%	78.02%	12.32%
Teachers	16.77%	11.66%	18.20%	18.19%	79.69%	14.50%
SPORS	32.62%	24.74%	35.16%	32.93%	83.90%	27.63%
VaLORS	19.52%	14.80%	21.30%	21.74%	83.88%	18.24%
Judicial	54.11%	45.44%	55.18%	57.84%	89.32%	51.66%
Political Subdivisions (Average rates)	10.63%	N/A	11.11%	9.91%	N/A	9.91%

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Contribution rates for VRS employers are established every two years. The actuarially calculated employer contribution rates based on the June 30, 2012 valuation presented in this report are for informational purposes only.

The promised benefits of VRS are included in the calculated contribution rates which are developed using the entry age normal cost method. The valuation takes into account the differentiation between Plan 1 vested members, Plan 1 non-vested members as of January 1, 2013 resulting from HB 1130 and SB 498, and Plan 2 members. Five-year smoothed market value of assets is used for actuarial valuation purposes. Gains and losses are reflected in the unfunded accrued liability. In accordance with the supplemental contribution provision under the 2011 Appropriations Act, Item 469(l)(6), the portion of the unfunded accrued liability with respect to deferred contributions for the 2010 -2012 biennium is amortized using a level-dollar, closed, 10 year period beginning June 30, 2011. In accordance with the new funding policy adopted by the Board of Trustees, the balance of the unfunded accrued liability as of June 30, 2013 is being amortized by regular annual contributions as a level percentage of payroll within a closed 30-year period, on the assumption that payroll will increase by 3% annually and the amortization period will decrease by one year until reaching 0 years. The assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the Fund and to reasonable expectations of anticipated experience under the Fund and meet the parameters for the disclosures under GASB 25 and 27. The valuation reflects changes in the actuarial assumptions adopted by the Board of Trustees recommended in the experience study of VRS for the four-year period ending June 30, 2012. The table below summarizes the changes in actuarial assumptions.

STATE SYSTEM	ASSUMPTION CHANGE
State	Update mortality table Decrease rates of service retirement Decrease rates of withdrawals for less than 10 years of service Decrease rates of male disability retirement Reduce rates of salary increase by 0.25% per year
Teachers	Update mortality table Adjustments to rates of service retirement Decrease rates of withdrawals for three through nine years of service Decrease rates of disability Reduce rates of salary increase by 0.25% per year
SPORS	Update mortality table Increase rate of service retirement at age 54
VaLORS	Update mortality table Adjustments to rates of service retirement Decrease rates of withdrawals for females under 10 years of service Increase rates of disability Decrease service related disability rate from 60% to 50%
Judicial	Update mortality table



POLITICAL SUBDIVISION SYSTEM	ASSUMPTION CHANGE
Largest 10 - Non-LEOS	Update mortality table Decrease rates of service retirement Decrease rates of disability retirement Reduce rates of salary increase by 0.25% per year
Largest 10 - LEOS	Update mortality table Decrease male rates of disability
All Others (Non 10 largest) Non-LEOS	Update mortality table Decrease rates of service retirement Decrease rates of disability retirement Reduce rates of salary increase by 0.25% per year
All Others (Non 10 largest) LEOS	Update mortality table Adjustments to rates of service retirement for females Increase rates of withdrawals Decrease male and female rates of disability

The valuation assumes no members will elect to opt into the Hybrid Retirement Plan during the election window to be held January 1 through April 30, 2014.

We have prepared the Schedule of Funding Progress and Trend Information shown in the financial section of the Comprehensive Annual Financial Report and all supporting schedules, including the Schedule of Active Member Data, the Solvency Test and the Analysis of Financial Experience shown in the actuarial section of the Comprehensive Annual Financial Report. For completeness, the table of Changes in Unfunded Actuarial Accrued Liabilities in Section VII, the Solvency Test in Schedule A, and the Retiree and Beneficiary Data in Schedule H include the information with respect to the Political Subdivisions participating in VRS.

Our organization has only a contractual relationship with the Virginia Retirement System to provide actuarial consulting services and we do not provide other services to nor have a financial interest in the Virginia Retirement System. There are no known interests or relationships that our firm has with the Virginia Retirement System that may impair or appear to impair the objectivity of our work.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the System and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.



December 19, 2013  
The Board of Trustees  
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The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

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

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Thomas J. Cavanaugh', with a stylized, flowing script.

Thomas J. Cavanaugh, FSA, FCA, EA, MAAA  
Chief Executive Officer

A handwritten signature in blue ink, appearing to read 'Jose I. Fernandez', with a stylized, flowing script.

Jose I. Fernandez, ASA, FCA, EA, MAAA  
Principal and Consulting Actuary



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**Section I – Summary of Principal Results**

1. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results for State Employees, Teachers, State Police, Judicial and Virginia Law Officers are summarized below. In addition, we present a summary of the valuation results for the political subdivisions.

**STATE EMPLOYEES  
(\$ IN THOUSANDS)**

VALUATION DATE	June 30, 2013	June 30, 2012
Members:		
Active	75,879	76,274
Long Term Disability	2,080	2,106
Retirees and Beneficiaries	55,658	54,008
Inactive, Vested	11,289	10,537
Inactive, Non-Vested	22,718	21,055
Inactive, active elsewhere in VRS	<u>9,121</u>	<u>9,245</u>
Total	176,745	173,225
Annual Covered Payroll	\$ 3,716,548	\$ 3,713,119
Annual Retirement Benefits	\$ 1,021,641	\$ 967,750
Total Assets:		
Actuarial Value	\$ 13,714,404	\$ 13,740,366
Market Value	14,502,362	13,469,215
Actuarial Accrued Liability	\$ 21,068,651	\$ 20,944,258
Unfunded Actuarial Accrued Liability (UAAL)		
10-Year Payback of Deferred Contributions	236,520	\$ 258,064
Balance of UAAL	<u>7,117,727</u>	<u>6,945,828</u>
Total UAAL	\$ 7,354,247	\$ 7,203,892
<b>RECOMMENDED CONTRIBUTIONS FOR FISCAL YEAR ENDING*</b>	<b>2015 &amp; 2016</b>	<b>For Informational Purposes</b>
Employer Contribution Rate:		
Normal Cost (net of employee contributions)	4.28 %	3.41 %
Amortization of Deferred Contributions	1.00 %	1.00 %
Amortization of Balance of UAAL	<u>10.51 %</u>	<u>10.46 %</u>
Annual Recommended Contribution	15.79 %	14.87 %
Amortization Period**		
Deferred Contributions	8 years	9 years
Balance of UAAL	30 years	29 years

\* The adopted contribution rate for fiscal years ending 2013 and 2014 is 8.76%.

\*\* The amortization period of the unfunded less the deferred contribution, will decrease by one each year until reaching 0 years. The deferred contribution, as defined under 2011 Appropriations Act, Item 469(l)(6), is to be amortized using a level-dollar, closed, 10 year period.



Section I – Summary of Principal Results

**TEACHERS**  
**(\$ IN THOUSANDS)**

VALUATION DATE	June 30, 2013	June 30, 2012
Members:		
Active	147,257	147,216
Retirees and Beneficiaries	77,699	74,169
Inactive, Vested	19,148	17,922
Inactive, Non-Vested	30,249	28,713
Inactive, active elsewhere in VRS	<u>5,391</u>	<u>5,384</u>
Total	279,744	273,404
Annual Covered Payroll	\$ 7,211,543	\$ 7,004,577
Annual Retirement Benefits	\$ 1,720,924	\$ 1,611,894
Total Assets:		
Actuarial Value	\$ 24,724,679	\$ 24,391,761
Market Value	26,076,425	23,930,149
Actuarial Accrued Liability	\$ 39,852,334	\$ 39,090,408
Unfunded Actuarial Accrued Liability (UAAL)		
10-Year Payback of Deferred Contributions	\$ 634,026	\$ 691,780
Balance of UAAL	<u>14,493,629</u>	<u>14,006,867</u>
Total UAAL	\$ 15,127,655	\$ 14,698,647
<b>RECOMMENDED CONTRIBUTIONS FOR FISCAL YEAR ENDING*</b>	<b>2015 &amp; 2016</b>	<b>For Informational Purposes</b>
Employer Contribution Rate:		
Normal Cost (net of employee contributions)	5.78 %	5.60 %
Amortization of Deferred Contributions	1.38 %	1.42 %
Amortization of Balance of UAAL	<u>11.03 %</u>	<u>11.18 %</u>
Annual Recommended Contribution	18.19 %	18.20 %
Amortization Period**		
Deferred Contributions	8 years	9 years
Balance of UAAL	30 years	29 years

\* The adopted contribution rate for fiscal years ending 2013 and 2014 is 11.66%

\*\* The amortization period of the unfunded less the deferred contribution, will decrease by one each year until reaching 0 years. The deferred contribution, as defined under 2011 Appropriations Act, Item 469(l)(6), is to be amortized using a level-dollar, closed, 10 year period.



Section I – Summary of Principal Results

**STATE POLICE  
(\$ IN THOUSANDS)**

VALUATION DATE	June 30, 2013	June 30, 2012
Members:		
Active	2,002	1,881
Long-Term Disability	11	9
Retirees and Beneficiaries	1,348	1,327
Inactive, Vested	110	96
Inactive, Non-Vested	141	140
Inactive, active elsewhere in VRS	<u>206</u>	<u>196</u>
Total	3,818	3,649
Annual Covered Payroll	\$ 109,006	\$ 104,189
Annual Retirement Benefits	\$ 47,303	\$ 45,844
Total Assets:		
Actuarial Value	\$ 591,983	\$ 587,160
Market Value	625,562	575,468
Actuarial Accrued Liability	\$ 996,690	\$ 1,013,278
Unfunded Actuarial Accrued Liability (UAAL)		
10-Year Payback of Deferred Contributions	19,706	\$ 21,501
Balance of UAAL	<u>385,001</u>	<u>404,617</u>
Total UAAL	\$ 404,707	\$ 426,118
<b>RECOMMENDED CONTRIBUTIONS FOR FISCAL YEAR ENDING*</b>	<b>2015 &amp; 2016</b>	<b>For Informational Purposes</b>
Employer Contribution Rate:		
Normal Cost (net of employee contributions)	10.72 %	10.49 %
Amortization of Deferred Contributions	2.83 %	2.96 %
Amortization of Balance of UAAL	<u>19.38 %</u>	<u>21.71 %</u>
Annual Recommended Contribution	32.93 %	35.16 %
Amortization Period**		
Deferred Contributions	8 years	9 years
Balance of UAAL	30 years	29 years

\* The adopted contribution rate for fiscal years ending 2013 and 2014 is 24.74%

\*\* The amortization period of the unfunded less the deferred contribution, will decrease by one each year until reaching 0 years. The deferred contribution, as defined under 2011 Appropriations Act, Item 469(I)(6), is to be amortized using a level-dollar, closed, 10 year period.



Section I – Summary of Principal Results

**JUDICIAL**  
**(\$ IN THOUSANDS)**

VALUATION DATE	June 30, 2013	June 30, 2012
Members:		
Active	381	380
Retirees and Beneficiaries	503	476
Inactive, Vested	6	6
Inactive, Non-Vested	1	1
Inactive, active elsewhere in VRS	<u>7</u>	<u>4</u>
Total	898	867
Annual Covered Payroll	\$ 57,110	\$ 56,958
Annual Retirement Benefits	\$ 35,303	\$ 32,891
Total Assets:		
Actuarial Value	\$ 368,671	\$ 361,097
Market Value	388,835	354,250
Actuarial Accrued Liability	\$ 590,626	\$ 582,456
Unfunded Actuarial Accrued Liability (UAAL)		
10-Year Payback of Deferred Contributions	\$ 12,329	\$ 13,452
Balance of UAAL	<u>209,626</u>	<u>207,907</u>
Total UAAL	\$ 221,955	\$ 221,359
<b>RECOMMENDED CONTRIBUTIONS FOR FISCAL YEAR ENDING*</b>	<b>2015 &amp; 2016</b>	<b>For Informational Purposes</b>
Employer Contribution Rate:		
Normal Cost (net of employee contributions)	34.31 %	31.39 %
Amortization of Deferred Contributions	3.38 %	3.39 %
Amortization of Balance of UAAL	<u>20.15 %</u>	<u>20.40 %</u>
Annual Recommended Contribution	57.84 %	55.18 %
Amortization Period**		
Deferred Contributions	8 years	9 years
Balance of UAAL	30 years	29 years

\* The adopted contribution rate for fiscal years ending 2013 and 2014 is 45.44%

\*\* The amortization period of the unfunded less the deferred contribution, will decrease by one each year until reaching 0 years. The deferred contribution, as defined under 2011 Appropriations Act, Item 469(I)(6), is to be amortized using a level-dollar, closed, 10 year period.



Section I – Summary of Principal Results

**VIRGINIA LAW OFFICERS  
(\$ IN THOUSANDS)**

VALUATION DATE	June 30, 2013	June 30, 2012
Members:		
Active	9,372	9,383
Long Term Disability	546	555
Retirees and Beneficiaries	3,415	3,075
Inactive, Vested	765	630
Inactive, Non-Vested	3,502	3,154
Inactive, active elsewhere in VRS	<u>2,181</u>	<u>2,047</u>
Total	19,781	18,844
Annual Covered Payroll	\$ 342,154	\$ 344,616
Annual Retirement Benefits	\$ 71,274	\$ 63,962
Total Assets:		
Actuarial Value	\$ 941,933	\$ 909,399
Market Value	992,031	894,916
Actuarial Accrued Liability	\$ 1,742,110	\$ 1,753,014
Unfunded Actuarial Accrued Liability (UAAL)		
10-Year Payback of Deferred Contributions	40,637	\$ 44,339
Balance of UAAL	<u>759,540</u>	<u>799,276</u>
Total UAAL	\$ 800,177	\$ 843,615
<b>RECOMMENDED CONTRIBUTIONS FOR FISCAL YEAR ENDING*</b>	<b>2015 &amp; 2016</b>	<b>For Informational Purposes</b>
Employer Contribution Rate:		
Normal Cost (net of employee contributions)	7.70 %	6.49 %
Amortization of Deferred Contributions	1.86 %	1.85 %
Amortization of Balance of UAAL	<u>12.18 %</u>	<u>12.96 %</u>
Annual Recommended Contribution	21.74 %	21.30 %
Amortization Period**		
Deferred Contributions	8 years	9 years
Balance of UAAL	30 years	29 years

\* The adopted contribution rate for fiscal years ending 2013 and 2014 is 14.80%

\*\* The amortization period of the unfunded less the deferred contribution, will decrease by one each year until reaching 0 years. The deferred contribution, as defined under 2011 Appropriations Act, Item 469(l)(6), is to be amortized using a level-dollar, closed, 10 year period.



Section I – Summary of Principal Results

**POLITICAL SUBDIVISIONS  
(\$ IN THOUSANDS)**

VALUATION DATE	June 30, 2013	June 30, 2012
Number of Political Subdivisions in VRS:	583	583
Members:		
Active	105,141	104,895
Long Term Disability	0	0
Retirees and Beneficiaries*	52,793	49,696
Inactive, Vested*	14,418	12,837
Inactive, Non-Vested*	32,628	30,344
Inactive, active elsewhere in VRS	<u>27,579</u>	<u>27,058</u>
Total	232,559	224,830
Annual Covered Payroll	\$ 4,340,988	\$ 4,162,579
Annual Retirement Benefits	\$ 695,251	\$ 634,291
Total Assets:**		
Actuarial Value	\$ 13,685,498	\$ 13,079,788
Market Value	14,393,949	12,867,357
Actuarial Accrued Liability**	\$ 18,156,606	\$ 17,824,190
Unfunded Actuarial Accrued Liability (UAAL)**	4,471,108	4,744,402
	<b>For Informational Purposes</b>	<b>For Informational Purposes</b>
Average Annual Contribution Rate (net of employee contributions)	9.91 %	11.11 %
Amortization Period	30 years	29 years

\* Includes count for each plan from which members are receiving pension benefits or entitled to deferred vested benefits. Therefore, members with benefits from more than one political subdivision are counted more than once. This does not include counts for Political Subdivisions with no active members.

\*\* Includes Political Subdivisions with no active members.



**Section I – Summary of Principal Results**

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- 2. Comments on the valuation results as of June 30, 2013 are given in Section IV and further discussion of the contribution level for each plan is set out in Section V.
  
- 3. Schedule B shows the development of the actuarial value of assets. Schedule D and Schedule E of this report outline the full set of actuarial assumptions and methods used in the current valuation. Changes to the actuarial assumptions since the previous valuation include:

<b>STATE SYSTEM</b>	<b>ASSUMPTION CHANGE</b>
State	Update mortality table Decrease rates of service retirement Decrease rates of withdrawals for less than 10 years of service Decrease rates of male disability retirement Reduce rates of salary increase by 0.25% per year
Teachers	Update mortality table Adjustments to rates of service retirement Decrease rates of withdrawals for three through nine years of service Decrease rates of disability Reduce rates of salary increase by 0.25% per year
SPORS	Update mortality table Increase rate of service retirement at age 54
VaLORS	Update mortality table Adjustments to rates of service retirement Decrease rates of withdrawals for females under 10 years of service Increase rates of disability Decrease service related disability rate from 60% to 50%
Judicial	Update mortality table



*Section I – Summary of Principal Results*

POLITICAL SUBDIVISION SYSTEM	ASSUMPTION CHANGE
Largest 10 - Non-LEOS	Update mortality table Decrease rates of service retirement Decrease rates of disability retirement Reduce rates of salary increase by 0.25% per year
Largest 10 - LEOS	Update mortality table Decrease male rates of disability
All Others (Non 10 largest) Non-LEOS	Update mortality table Decrease rates of service retirement Decrease rates of disability retirement Reduce rates of salary increase by 0.25% per year
All Others (Non 10 largest) LEOS	Update mortality table Adjustments to rates of service retirement for females Increase rates of withdrawals Decrease male and female rates of disability

4. The valuation takes into account the effect of amendments to VRS through the valuation date. The main provisions of VRS, as summarized in Schedule F, were taken into account in the current valuation.
5. In accordance with the supplemental contribution provision of the 2011 Appropriations Act, Item 469(l)(6), the portion of the unfunded accrued liability with respect to deferred contributions for the 2010-2012 biennium will be paid back to the plans over a 10-year period. Below we provide an estimate of the deferred contributions as provided by VRS.

DIVISION	Deferred Contributions (\$ in thousands)	
	Outstanding Balance as of 6/30/2013	Deferred Contributions as of 6/30/2012
State Employees	\$ 236,520	\$ 258,064
Teachers	634,026	691,780
State Police	19,706	21,501
Virginia Law Officers	40,637	44,339
Judicial	12,329	13,452
Total	\$ 943,218	\$ 1,029,136



**Section II – Membership Data**

- Data regarding the membership of VRS for use as a basis of the valuation was furnished by VRS. The following table shows the number of active members and their annual compensation as of June 30, 2013 on the basis of which the valuation was prepared.

**TABLE 1**

**THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS AS OF JUNE 30, 2013 (\$ IN THOUSANDS)**

DIVISION	NUMBER	COMPENSATION
State Employees	75,879	\$3,716,548
Teachers	147,257	7,211,543
State Police	2,002	109,006
Judicial	381	57,110
Virginia Law Officers	9,372	342,154
Political Subdivisions	105,141	4,340,988
Total	340,032	\$15,777,349

- The following table shows a five-year history of active member valuation data. The data as of June 30, 2013, June 30, 2012 and June 30, 2011 includes the political subdivisions, while the data for valuation dates prior to June 30, 2011 does not include the political subdivisions.

**TABLE 2**

**SCHEDULE OF TOTAL ACTIVE MEMBER VALUATION DATA**

VALUATION DATE	NUMBER	ANNUAL PAYROLL (\$ IN THOUSANDS)	ANNUAL AVERAGE PAY	% CHANGE IN AVERAGE PAY
6/30/2013	340,032	\$ 15,777,349	\$ 46,400	2.54 %
6/30/2012	340,029	15,386,038	45,249	0.50 %
6/30/2011	338,120	15,223,687	45,025	(4.44)%
6/30/2010	236,404	11,138,947	47,118	(0.19)%
6/30/2009	239,437	11,303,072	47,207	2.11 %



**Section II – Membership Data**

- 3. The following table shows the number and annual retirement benefits payable to retired members and survivors on the roll of VRS as of the valuation date.

**TABLE 3**  
**THE NUMBER AND ANNUAL RETIREMENT BENEFITS**  
**OF RETIRED MEMBERS AND SURVIVORS OF DECEASED MEMBERS**  
**ON THE ROLL AS OF JUNE 30, 2013**  
**(\$ IN THOUSANDS)**

TYPE OF RETIREMENT	DIVISION						TOTAL
	STATE EMPLOYEES	TEACHERS	STATE POLICE	JUDICIAL	VIRGINIA LAW OFFICERS	POLITICAL SUBDIVISIONS*	
Service:							
Number	46,682	70,861	970	359	3,000	41,503	163,375
Annual Benefits	\$898,869	\$1,596,578	\$38,276	\$28,757	\$66,557	\$548,629	\$3,177,666
Disability:							
Number	4,341	4,243	193	1	222	7,701	16,701
Annual Benefits	\$66,707	\$89,213	\$6,012	\$104	\$3,155	\$115,361	\$280,552
Survivors:							
Number	4,635	2,595	185	143	193	3,589	11,340
Annual Benefits	\$56,065	\$35,133	\$3,015	\$6,442	\$1,562	\$31,261	\$133,478
Total:							
Number	55,658	77,699	1,348	503	3,415	52,793	191,416
Annual Benefits	\$1,021,641	\$1,720,924	\$47,303	\$35,303	\$71,274	\$695,251	\$3,591,696

\* Includes count for each plan from which members are receiving pension benefits or entitled to deferred vested benefits. Therefore, members with benefits from more than one political subdivision are counted more than once. This does not include counts for Political Subdivisions with no active members.

- 4. The five tables of Schedule G, which can be found at the end of this document, show the distribution by age and service of the number and average annual compensation of active members for each division included in the valuation.



**Section III – Assets**

- Schedule C shows the additions and deductions to the assets of VRS for the year preceding the valuation date and a reconciliation of the fund balances at market value. As of June 30, 2013, the market value of assets used to determine the actuarial value of assets for each division is shown below:

**TABLE 4**  
**COMPARISON OF MARKET VALUE OF ASSETS**  
**(\$ IN THOUSANDS)**

<b>DIVISION</b>	<b>JUNE 30, 2013 MARKET VALUE</b>	<b>JUNE 30, 2012 MARKET VALUE</b>
State Employees	\$14,502,362	\$13,469,215
Teachers	26,076,425	23,930,149
State Police	625,562	575,468
Judicial	388,835	354,250
Virginia Law Officers	992,031	894,916
Political Subdivisions	<u>14,393,949</u>	<u>12,867,355</u>
Total Market Value of Assets	\$56,979,164	\$52,091,353

- Schedule B shows the development of the actuarial value of assets as of June 30, 2013. The following table shows the actuarial value of assets allocated among all divisions.

**TABLE 5**  
**COMPARISON OF ACTUARIAL VALUE OF ASSETS**  
**(\$ IN THOUSANDS)**

<b>DIVISION</b>	<b>JUNE 30, 2013 ACTUARIAL VALUE</b>	<b>JUNE 30, 2012 ACTUARIAL VALUE</b>
State Employees	\$13,714,404	\$13,740,366
Teachers	24,724,679	24,391,761
State Police	591,983	587,160
Judicial	368,671	361,097
Virginia Law Officers	941,933	909,399
Political Subdivisions	<u>13,685,498</u>	<u>13,079,788</u>
Total Actuarial Value of Assets	\$54,027,168	\$53,069,571



## Section IV – Comments on Valuation

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### State Employees

1. The total valuation balance sheet on account of benefits as of June 30, 2013 shows that the State Employees plan has total prospective benefit liabilities of \$23,595,258,048, of which \$10,985,048,798 is for the prospective benefits payable on account of present retired members and survivors of deceased members, \$968,973,819 is for the prospective benefits payable on account of present inactive members, and \$11,641,235,431 is for the prospective benefits payable on account of present active members. Against these benefit liabilities the State Employees plan has a total present actuarial value of assets of \$13,714,404,000 as of June 30, 2013. The difference of \$9,880,854,048 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, \$1,389,750,529 is the present value of future contributions expected to be made by members (at the rate of 5% of salary), and the balance of \$8,491,103,519 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the State Employees plan on account of retirement benefits consist of normal contributions and accrued liability contributions. The valuation indicates that employer normal contributions at the rate of 4.28% of salary are required. This is net of the 5% employee contribution.
3. Prospective employer normal contributions at the above rate have a present value of \$1,136,856,729. When this amount is subtracted from \$8,491,103,519, which is the present value of the total future contributions to be made by the employers, there remains \$7,354,246,790 as the amount of future accrued liability contributions.
4. It is recommended that the accrued liability contribution rate payable by employers on account of retirement benefits be set at 11.51% of salary. This rate is sufficient to liquidate the unfunded accrued liability of \$7,354,246,790 over a closed 8-year period as level-dollar amounts with respect to the deferred contributions and over 30 years for the balance of the unfunded accrued liability, on the assumption that the aggregate payroll for State employees will increase by 3% each year.



## Section IV – Comments on Valuation

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### Teachers

1. The total valuation balance sheet on account of benefits as of June 30, 2013 shows that the Teachers plan has total prospective benefit liabilities of \$46,699,433,909, of which \$20,714,224,122 is for the prospective benefits payable on account of present retired members and survivors of deceased members, \$913,265,835 is for the prospective benefits payable on account of present inactive members, and \$25,071,943,952 is for the prospective benefits payable on account of present active members. Against these benefit liabilities the Teachers plan has a total present actuarial value of assets of \$24,724,679,000 as of June 30, 2013. The difference of \$21,974,754,909 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, \$3,263,797,144 is the present value of future contributions expected to be made by members (at the rate of 5% of salary), and the balance of \$18,710,957,765 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the Teachers plan on account of retirement benefits consist of normal contributions and accrued liability contributions. The valuation indicates that employer normal contributions at the rate of 5.78% of salary are required. This is net of the 5% employee contribution.
3. Prospective employer normal contributions at the above rate have a present value of \$3,583,302,667. When this amount is subtracted from \$18,710,957,765, which is the present value of the total future contributions to be made by the employers, there remains \$15,127,655,098 as the amount of future accrued liability contributions.
4. It is recommended that the accrued liability contribution rate payable by the employers on account of retirement benefits be set at 12.41% of salary. This rate is sufficient to liquidate the unfunded accrued liability of \$15,127,655,098 over a closed 8-year period as level-dollar amounts with respect to the deferred contributions and over 30 years for the balance of the unfunded accrued liability, on the assumption that the aggregate payroll for Teachers will increase by 3% each year.



## Section IV – Comments on Valuation

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### State Police (SPORS)

1. The total valuation balance sheet on account of benefits as of June 30, 2013 shows that the SPORS plan has total prospective benefit liabilities of \$1,148,539,576, of which \$531,117,308 is for the prospective benefits payable on account of present retired members and survivors of deceased members, \$16,998,105 is for the prospective benefits payable on account of present inactive members, and \$600,424,163 is for the prospective benefits payable on account of present active members. Against these benefit liabilities SPORS has a total present actuarial value of assets of \$591,983,000 as of June 30, 2013. The difference of \$556,556,576 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, \$47,398,824 is the present value of future contributions expected to be made by members (at the rate of 5% of salary), and the balance of \$509,157,752 represents the present value of future contributions payable by the employers.
2. The employers' contributions to SPORS on account of retirement benefits consist of normal contributions and accrued liability contributions. The valuation indicates that employer normal contributions at the rate of 10.72% of salary are required. This is net of the 5% employee contribution.
3. Prospective employer normal contributions at the above rate have a present value of \$104,451,197. When this amount is subtracted from \$509,157,752, which is the present value of the total future contributions to be made by the employers, there remains \$404,706,555 as the amount of future accrued liability contributions.
4. It is recommended that the accrued liability contribution rate payable by the employers on account of retirement benefits be set at 22.21% of salary. This rate is sufficient to liquidate the unfunded accrued liability of \$404,706,555 over a closed 8-year period as level-dollar amounts with respect to the deferred contributions and over 30 years for the balance of the unfunded accrued liability, on the assumption that the aggregate payroll for SPORS employees will increase by 3% each year.



## Section IV – Comments on Valuation

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### Judicial

1. The total valuation balance sheet on account of benefits as of June 30, 2013 shows that the Judicial plan has total prospective benefit liabilities of \$722,847,418, of which \$355,479,536 is for the prospective benefits payable on account of present retired members and survivors of deceased members, \$4,990,617 is for the prospective benefits payable on account of present inactive members, and \$362,377,265 is for the prospective benefits payable on account of present active members. Against these benefit liabilities the Judicial plan has a total present actuarial value of assets of \$368,671,000 as of June 30, 2013. The difference of \$354,176,418 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, \$17,810,363 is the present value of future contributions expected to be made by members (at the rate of 5% of salary), and the balance of \$336,366,055 represents the present value of future contributions payable by the employers.
2. The employers' contributions to the Judicial plan on account of retirement benefits consist of normal contributions and accrued liability contributions. The valuation indicates that employer normal contributions at the rate of 34.31% of salary are required. This is net of the 5% employee contribution.
3. Prospective employer normal contributions at the above rate have a present value of \$114,411,175. When this amount is subtracted from \$336,366,055, which is the present value of the total future contributions to be made by the employers, there remains \$221,954,880 as the amount of future accrued liability contributions.
4. It is recommended that the accrued liability contribution rate payable by employers on account of retirement benefits be set at 23.53% of salary. This rate is sufficient to liquidate the unfunded accrued liability of \$221,954,880 over a closed 8-year period as level-dollar amounts with respect to the deferred contributions and over 30 years for the balance of the unfunded accrued liability, on the assumption that the aggregate payroll for Judicial employees will increase by 3% each year.



## Section IV – Comments on Valuation

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### Virginia Law Officers (VaLORS)

1. The total valuation balance sheet on account of benefits as of June 30, 2013 shows that VaLORS has total prospective benefit liabilities of \$2,014,783,688, of which \$810,355,237 is for the prospective benefits payable on account of present retired members and survivors of deceased members, \$106,530,464 is for the prospective benefits payable on account of present inactive members, and \$1,097,897,987 is for the prospective benefits payable on account of present active members. Against these benefit liabilities VaLORS has a total present actuarial value of assets of \$941,933,000 as of June 30, 2013. The difference of \$1,072,850,688 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future on account of benefits. Of this amount, \$110,406,730 is the present value of future contributions expected to be made by members (at the rate of 5% of salary), and the balance of \$962,443,958 represents the present value of future contributions payable by the employers.
2. The employers' contributions to VaLORS on account of retirement benefits consist of normal contributions and accrued liability contributions. The valuation indicates that employer normal contributions at the rate of 7.70% of salary are required. This is net of the 5% employee contribution.
3. Prospective employer normal contributions at the above rate have a present value of \$162,266,785. When this amount is subtracted from \$962,443,958, which is the present value of the total future contributions to be made by the employers, there remains \$800,177,173 as the amount of future accrued liability contributions.
4. It is recommended that the accrued liability contribution rate payable by employers on account of retirement benefits be set at 14.04% of salary. This rate is sufficient to liquidate the unfunded accrued liability of \$800,177,173 over a closed 8-year period as level-dollar amounts with respect to the deferred contributions and over 30 years for the balance of the unfunded accrued liability, on the assumption that the aggregate payroll for VaLORS employees will increase by 3% each year.



**Section V – Contribution Rates**

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1. The actuarially determined employer contribution rates as a percent of payroll for each division based on the June 30, 2013 actuarial valuation are shown in the following table:

**TABLE 6**

<b>Division</b>	<b>Employer Contribution Rate</b>
State Employees	15.79%
Teachers	18.19
State Police	32.93
Judicial	57.84
Virginia Law Officers	21.74

The rates shown are net of 5% member contributions.



**Section V – Contribution Rates**

2. The table below shows the development of the normal contribution rate, the unfunded accrued liability (UAL), amortization period and the actuarially recommended contribution rate for each division as of June 30, 2013.

**TABLE 7**  
**EMPLOYER CONTRIBUTION RATE**  
**EXPRESSED AS PERCENT OF ACTIVE MEMBER PAYROLL**

	State Employees	Teachers	State Police	Judicial	Virginia Law Officers
<u>Contribution for</u>					
Normal Cost					
Service Retirement Benefits	6.64%	8.67%	12.58%	33.59%	7.44%
Disability Benefits	0.89%	0.52%	1.08%	4.68%	2.10%
Survivor Benefits	0.26%	0.16%	0.67%	1.04%	0.39%
Separation Benefits	<u>1.49%</u>	<u>1.43%</u>	<u>1.39%</u>	<u>0.00%</u>	<u>2.77%</u>
Total	9.28%	10.78%	15.72%	39.31%	12.70%
Member Current Contributions	<u>5.00%</u>	<u>5.00%</u>	<u>5.00%</u>	<u>5.00%</u>	<u>5.00%</u>
Employer Normal Cost	4.28%	5.78%	10.72%	34.31%	7.70%
Amortization of UAAL ( <i>net of deferred contributions</i> ) *	1.00%	1.38%	2.83%	3.38%	1.86%
Amortization of Deferred Contributions *	10.51%	11.03%	19.38%	20.15%	12.18%
Actuarially Recommended Employer Contribution Rate to pay Normal Cost and amortize UAAL	15.79%	18.19%	32.93%	57.84%	21.74%

\* The amortization period of the unfunded less the deferred contribution begins at 30 years on June 30, 2013 and will decrease by one each year until reaching 0 years. The deferred contribution, as defined under 2011 Appropriations Act, Item 469(I)(6), is to be amortized using a level-dollar, closed, 10 year period.



**Section VI – Accounting Information**

1. Governmental Accounting Standards Board Statements 25 and 27 set forth certain items of required supplementary information to be disclosed in the financial statements of VRS and the employer. One such item is a distribution of the number of members by type of membership, as follows:

**NUMBER OF ALL MEMBERS  
AS OF June 30, 2013**

GROUP	COUNT					
	State Employees	Teachers	State Police	Judicial	Virginia Law Officers	Political Subdivisions
Active Members	75,879	147,257	2,002	381	9,372	105,141
LTD	2,080	0	11	0	546	0
<b>Total Active Members</b>	<b>77,959</b>	<b>147,257</b>	<b>2,013</b>	<b>381</b>	<b>9,918</b>	<b>105,141</b>
Inactive Members						
Vested	11,289	19,148	110	6	765	14,418
Non-Vested	22,718	30,249	141	1	3,502	32,628
Active Elsewhere in VRS	9,121	5,391	206	7	2,181	27,579
<b>Total Inactive Members</b>	<b>43,128</b>	<b>54,788</b>	<b>457</b>	<b>14</b>	<b>6,448</b>	<b>74,625</b>
Retirees						
Service	46,682	70,861	970	359	3,000	41,503
Disabled	4,341	4,243	193	1	222	7,701
Beneficiaries	4,635	2,595	185	143	193	3,589
<b>Total Retirees</b>	<b>55,658</b>	<b>77,699</b>	<b>1,348</b>	<b>503</b>	<b>3,415</b>	<b>52,793</b>
<b>Totals</b>	<b>176,745</b>	<b>279,744</b>	<b>3,818</b>	<b>898</b>	<b>19,781</b>	<b>232,559</b>



**Section VI – Accounting Information**

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

**SCHEDULE OF FUNDING PROGRESS  
(\$ IN THOUSANDS)**

<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Plan Assets (a)</b>	<b>Actuarial Liability (AAL) Entry Age (b)</b>	<b>Unfunded AAL (UAAL) (b - a)</b>	<b>Funded Ratio (a / b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as a Percentage of Covered Payroll ((b - a) / c)</b>
<b><u>STATE EMPLOYEES</u></b>						
6/30/2013	\$13,714,404	\$21,068,651	\$7,354,247	65.1 %	\$3,716,548	197.9 %
6/30/2012	13,740,366	20,944,258	7,203,892	65.6 %	3,713,119	194.0 %
6/30/2011	14,406,275	20,407,958	6,001,683	70.6 %	3,686,259	162.8 %
6/30/2010	14,700,854	19,539,453	4,838,599	75.2 %	3,514,396	137.7 %
6/30/2009	15,049,901	17,925,879	2,875,978	84.0 %	3,619,478	79.5 %
6/30/2008	15,046,348	17,096,942	2,050,594	88.0 %	3,640,692	56.3 %
<b><u>TEACHERS</u></b>						
6/30/2013	\$24,724,679	\$39,852,334	\$15,127,655	62.0 %	\$7,211,543	209.8 %
6/30/2012	24,391,761	39,090,408	14,698,647	62.4 %	7,004,577	209.8 %
6/30/2011	25,166,124	37,771,732	12,605,608	66.6 %	6,922,130	182.1 %
6/30/2010	25,447,677	37,088,576	11,640,899	68.6 %	7,119,889	163.5 %
6/30/2009	25,764,665	33,860,514	8,095,849	76.1 %	7,160,842	113.1 %
6/30/2008	25,502,482	31,958,321	6,455,839	79.8 %	6,896,432	93.6 %
<b><u>STATE POLICE</u></b>						
6/30/2013	\$591,983	\$996,690	\$404,707	59.4 %	\$109,006	371.3 %
6/30/2012	587,160	1,013,278	426,118	57.9 %	104,189	409.0 %
6/30/2011	616,603	985,704	369,101	62.6 %	99,669	370.3 %
6/30/2010	633,415	948,892	315,477	66.8 %	97,601	323.2 %
6/30/2009	646,960	879,180	232,220	73.6 %	100,974	230.0 %
6/30/2008	646,277	844,195	197,918	76.6 %	102,466	193.2 %
<b><u>JUDICIAL</u></b>						
6/30/2013	\$368,671	\$590,626	\$221,955	62.4 %	\$57,110	388.6 %
6/30/2012	361,097	582,456	221,359	62.0 %	56,958	388.6 %
6/30/2011	371,051	569,494	198,443	65.2 %	58,919	336.8 %
6/30/2010	372,096	559,920	187,824	66.5 %	61,021	307.8 %
6/30/2009	378,212	521,463	143,251	72.5 %	62,709	228.4 %
6/30/2008	373,850	494,768	120,918	75.6 %	60,486	199.9 %
<b><u>VIRGINIA LAW OFFICERS</u></b>						
6/30/2013	\$941,933	\$1,742,110	\$800,177	54.1 %	\$342,154	233.9 %
6/30/2012	909,399	1,753,014	843,615	51.9 %	344,616	244.8 %
6/30/2011	926,082	1,683,191	757,109	55.0 %	356,240	212.5 %
6/30/2010	925,443	1,579,321	653,878	58.6 %	346,040	189.0 %
6/30/2009	912,922	1,411,844	498,922	64.7 %	359,070	138.9 %
6/30/2008	873,473	1,281,477	408,004	68.2 %	368,255	110.8 %
<b><u>POLITICAL SUBDIVISIONS</u></b>						
6/30/2013	\$ 13,685,498	\$ 18,156,606	\$4,471,108	75.4 %	\$ 4,340,988	103.0 %
6/30/2012	\$ 13,079,788	\$ 17,824,190	\$4,744,402	73.4 %	\$ 4,162,579	114.0 %
6/30/2011	\$ 12,986,598	\$ 17,005,070	\$4,018,472	76.4 %	\$ 4,100,470	98.0 %



**Section VI – Accounting Information**

3. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2013.

	State Employees	Teachers	State Police	Judicial	Virginia Law Officers	Political Subdivisions
Valuation Date	6/30/2013	6/30/2013	6/30/2013	6/30/2013	6/30/2013	6/30/2013
Actuarial cost method	Entry Age Normal					
Amortization method*	Level percent, open					
Payroll Growth Rate	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Remaining amortization period	8 and 30 years*	30 years*				
Asset valuation method	5 year Smoothed Market					
Actuarial assumptions:						
Investment rate of return**	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
Projected salary increases**	3.50 – 5.35%	3.50 – 5.95%	3.50 – 4.75%	4.50%	3.50 – 4.75%	3.50 – 5.35% General Employees 3.5% - 4.75% Public Safety
Post-Retirement Benefit Increases:	compounded annually					
Plan 1	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Plan 2	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%

\* For non political subdivisions:

The amortization period of the unfunded less the deferred contribution begins at 30 years on June 30, 2013 and will decrease by one each year until reaching 0 years. The deferred contribution, as defined under 2011 Appropriations Act, Item 469(l)(6), is to be amortized using a level-dollar, closed, 10 year period beginning June 30, 2011.

For political subdivisions:

The amortization period of the unfunded begins at 30 years on June 30, 2013 and will decrease by one each year until reaching 0 years

\*\* Includes inflation at 2.50%.



Section VI – Accounting Information

**SCHEDULE OF ADOPTED EMPLOYER CONTRIBUTIONS**

Fiscal Year End	ARC \$	ARC % (Percent of Payroll)	% of ARC Contributed	Statutory Required Contribution Paid \$	Statutory Required Contribution % (Percent of Payroll)	% Statutory Contribution Contributed
<b>State</b>						
2013	\$485,577	13.07%	67.02%	\$325,451	8.76%	100%
2012	309,930	8.46%	37.98%	117,696	3.21%	100%
2011	294,363	8.46%	25.18%	74,113	2.13%	100%
2010	285,209	8.02%	61.97%	176,751	6.26%	100%
2009	290,653	8.02%	77.68%	225,782	6.23%	100%
<b>Teachers</b>						
2013	\$1,203,856	16.77%	69.53%	\$837,028	11.66%	100%
2012	903,655	12.91%	49.03%	443,078	6.33%	100%
2011	891,237	12.91%	30.44%	271,306	3.93%	100%
2010	839,550	11.84%	53.63%	450,218	8.81%	100%
2009	845,999	11.84%	74.41%	629,497	8.81%	100%
<b>State Police</b>						
2013	\$34,535	32.62%	75.84%	\$26,193	24.74%	100%
2012	26,250	25.56%	43.58%	11,441	11.09%	100%
2011	24,570	25.56%	30.36%	7,460	7.76%	100%
2010	23,791	24.09%	66.05%	15,714	20.05%	100%
2009	24,241	24.09%	83.23%	20,175	20.05%	100%
<b>Judicial</b>						
2013	\$32,185	54.11%	83.98%	\$27,028	45.44%	100%
2012	27,631	46.79%	68.43%	18,907	32.13%	100%
2011	28,101	46.79%	61.57%	17,303	28.81%	100%
2010	23,638	38.04%	72.20%	17,065	34.51%	100%
2009	23,148	38.04%	90.72%	21,000	34.51%	100%
<b>Virginia Law Officers</b>						
2013	\$66,463	19.52%	75.82%	\$50,392	14.80%	100%
2012	55,306	15.93%	44.27%	24,481	7.08%	100%
2011	53,686	15.93%	32.14%	17,255	5.12%	100%
2010	57,894	16.78%	67.41%	39,027	14.23%	100%
2009	60,059	16.78%	84.80%	50,932	14.23%	100%

\* Reported in the Comprehensive Annual Financial Report as a percentage of Covered Payroll, including revisions adopted by the General Assembly of the actuarially determined rates. The statutory required contribution percentages for the fiscal year ending in 2013 are a blend of a rate payable for nine months and three months at another rate.



Section VII – Derivation of Experience Gains and Losses

**CHANGES IN UNFUNDED ACTUARIAL ACCRUED LIABILITIES (UAAL)  
DURING FISCAL YEAR 2013  
(\$ IN THOUSANDS)**

	State Employees	Teachers	State Police	Judicial	Virginia Law Officers	Local Agencies	Total
<b>A. Calculation of Expected Unfunded Actuarial Accrued Liability</b>							
1. UAAL as of June 30, 2012	\$ 7,203,892	\$ 14,698,647	\$ 426,118	\$ 221,359	\$ 843,615	\$ 4,744,402	\$ 28,138,033
2. Normal Cost for previous year	312,456	742,659	16,143	20,727	39,594	491,644	1,623,223
3. Actual contributions during the year	(519,803)	(1,204,697)	(31,553)	(30,000)	(67,681)	(746,400)	(2,600,134)
4. Interest at previous year's rate of 0.07							
a. on UAAL	504,272	1,028,905	29,828	15,495	59,053	332,108	1,969,661
b. on normal cost	21,872	51,986	1,130	1,451	2,772	34,415	113,626
c. on contributions	(18,193)	(42,164)	(1,104)	(1,050)	(2,369)	(26,124)	(91,004)
d. total: (a)+(b)+(c)	\$ 507,951	\$ 1,038,727	\$ 29,854	\$ 15,896	\$ 59,456	\$ 340,399	\$ 1,992,283
5. Expected UAAL as of June 30, 2013 A1+A2+A3+A4	7,504,496	15,275,336	440,562	227,982	874,984	4,830,045	29,153,405
6. Actual UAAL as of June 30, 2013	7,354,247	15,127,655	404,707	221,955	800,177	4,471,108	28,379,849
7. Total Gain/(Loss): A5-A6	\$ 150,249	\$ 147,681	\$ 35,855	\$ 6,027	\$ 74,807	\$ 358,937	\$ 773,556
<b>B. Calculation of Asset Gain/(Loss)</b>							
1. Actuarial Value of Assets (AVA) as of June 30, 2012	\$ 13,740,366	\$ 24,391,761	\$ 587,160	\$ 361,097	\$ 909,399	\$ 13,079,789	\$ 53,069,572
2. Contributions during the year	\$ 519,803	\$ 1,204,697	\$ 31,553	\$ 30,000	\$ 67,681	\$ 746,400	\$ 2,600,134
3. Benefit payments during the year	(1,044,558)	(1,816,700)	(48,248)	(36,800)	(75,224)	(732,549)	(3,754,079)
4. Interest at previous year's rate of 0.07							
a. on AVA at beginning of year	\$ 961,826	\$ 1,707,423	\$ 41,101	\$ 25,277	\$ 63,658	\$ 915,585	\$ 3,714,870
b. on contributions	18,193	42,164	1,104	1,050	2,369	26,124	91,004
c. on benefit payments	(36,560)	(63,585)	(1,689)	(1,288)	(2,633)	(25,639)	(131,394)
d. total: (a)+(b)+(c)	\$ 943,459	\$ 1,686,002	\$ 40,516	\$ 25,039	\$ 63,394	\$ 916,070	\$ 3,674,480
5. Expected AVA as of June 30, 2013 B1+B2+B3+B4	14,159,070	25,465,760	610,981	379,336	965,250	14,009,710	55,590,107
6. Actual AVA as of June 30, 2013	13,714,404	24,724,679	591,983	368,671	941,933	13,685,498	54,027,168
7. Gain/(Loss) on assets: B6-B5	\$ (444,666)	\$ (741,081)	\$ (18,998)	\$ (10,665)	\$ (23,317)	\$ (324,212)	\$ (1,562,939)
<b>C. Calculation of Liability Gain/(Loss)</b>							
1. Gain/(Loss) due to changes in actuarial assumptions	46,209	214,181	40,272	(2,832)	61,264	554,166	\$ 913,260
2. Gain/(Loss) due to plan amendments	0	0	0	0		(2,342)	(2,342)
3. Gain/(Loss) due to change in methods	404,248	664,174	4,889	7,384	38,099	408,425	1,527,219
4. Liability Experience Gain/(Loss): A7-B7-C1-C2	\$ 144,458	\$ 10,407	\$ 9,692	\$ 12,140	\$ (1,239)	\$ (277,100)	\$ (101,642)



Section VII – Derivation of Experience Gains and Losses

**GAINS & LOSSES  
DURING FISCAL YEAR 2013  
(\$ IN MILLIONS)**

Type of Activity	State Employees	Teachers	State Police	Judges	Virginia Law Officers	Political Subdivisions
<b>Age &amp; Service Retirements.</b> If members retire at older ages, there is a gain. If younger ages, a loss.	\$31.3	\$160.9	\$5.3	\$7.3	(\$12.8)	(\$42.4)
<b>Disability Before Retirement.</b> If disability claims are less than assumed, there is a gain. If more claims, a loss.	(\$19.3)	\$7.9	(\$0.7)	\$1.4	\$0.0	(\$34.1)
<b>Death-in Service Benefits.</b> If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	\$0.8	(\$8.9)	\$0.3	\$0.3	\$1.3	\$3.4
<b>Withdrawal from Employment.</b> If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	(\$49.8)	(\$142.7)	(\$1.2)	\$0.7	(\$5.2)	(\$19.8)
<b>Pay Increases.</b> If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	\$201.6	\$7.0	\$9.0	\$6.9	\$19.8	(\$112.4)
<b>New Members.</b> Additional unfunded accrued liability will produce a loss.	(\$5.6)	(\$32.1)	(\$0.1)	(\$1.4)	(\$0.7)	(\$11.1)
<b>Death after Retirement.</b> If retirees live longer than assumed, there is a loss. If not as long, a gain.	(\$35.0)	(\$25.1)	(\$2.3)	(\$3.7)	(\$0.5)	\$37.0
<b>Data and Other Adjustments.</b>	(\$20.7)	(\$5.9)	(\$1.6)	\$0.4	\$5.2	(\$87.2)
<b>Benefit Payments.</b> If benefit payments are greater than expected, there is a loss. If the benefits payments are less, a gain.	(\$2.7)	(\$30.1)	(\$1.3)	(\$1.0)	(\$3.9)	(\$41.1)
<b>Cost of Living Allowance (COLA).</b> If COLA is greater than expected, there is a loss. If COLA is less, a gain.	\$44.0	\$79.3	\$2.3	\$1.4	(\$4.4)	\$30.8
<b>Investment Income.</b> If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(\$444.7)	(\$741.1)	(\$19.0)	(\$10.7)	(\$23.3)	(\$324.2)
<b>Gain or (Loss) During Year</b>	(\$300.1)	(\$730.8)	(\$9.3)	\$1.6	(\$24.5)	(\$601.1)
<b>Non-Recurring Items.</b> Adjustments for plan amendments, assumption changes, etc.	450.5	878.4	45.2	4.6	99.4	\$960.2
<b>Expected Contributions vs. Actual Contributions.</b> If the difference in the actual contribution to the plan is more or less than what was expected based on the previous valuation then there will be a gain or loss associated with this difference.	(251.5)	(491.9)	(12.1)	(5.6)	(26.9)	(\$38.2)
<b>Total Gain or (Loss) During Year</b>	(\$101.2)	(\$344.3)	\$23.7	\$0.5	\$48.0	\$320.9



Schedule A – Balance Sheet

**STATE EMPLOYEES**  
**As Of June 30, 2013**

<b>PRESENT AND PROSPECTIVE ASSETS</b>		
Actuarial Value of Assets		\$ 13,714,404,000
Present value of future members' contributions		1,389,750,529
Present value of future employer contributions		
Normal contributions	\$ 1,136,856,729	
Unfunded accrued liability contributions	<u>7,354,246,790</u>	
Total prospective employer contributions		<u>8,491,103,519</u>
Total Present and Prospective Assets		<u><u>\$ 23,595,258,048</u></u>
<b>ACTUARIAL LIABILITIES</b>		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		\$ 10,985,048,798
Present value of prospective benefits payable on account of inactive members		968,973,819
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$ 10,626,410,963	
Disability retirement benefits	460,806,527	
Survivor benefits	256,876,492	
Separation benefits	<u>297,141,449</u>	
Total		<u>11,641,235,431</u>
Total Actuarial Liabilities		<u><u>\$ 23,595,258,048</u></u>



Schedule A – Balance Sheet

**TEACHERS**  
As Of June 30, 2013

<b>PRESENT AND PROSPECTIVE ASSETS</b>		
Actuarial Value of Assets		\$ 24,724,679,000
Present value of future members' contributions		3,263,797,144
Present value of future employer contributions		
Normal contributions	\$ 3,583,302,667	
Unfunded accrued liability contributions	<u>15,127,655,098</u>	
Total prospective employer contributions		<u>18,710,957,765</u>
Total Present and Prospective Assets		<u>\$ 46,699,433,909</u>
<b>ACTUARIAL LIABILITIES</b>		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		\$ 20,714,224,122
Present value of prospective benefits payable on account of inactive members		913,265,835
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$ 23,467,875,285	
Disability retirement benefits	567,874,858	
Survivor benefits	295,091,301	
Separation benefits	<u>741,102,508</u>	
Total		<u>25,071,943,952</u>
Total Actuarial Liabilities		<u>\$ 46,699,433,909</u>



Schedule A – Balance Sheet

**STATE POLICE**  
As Of June 30, 2013

<b>PRESENT AND PROSPECTIVE ASSETS</b>		
Actuarial Value of Assets	\$	591,983,000
Present value of future members' contributions		47,398,824
Present value of future employer contributions		
Normal contributions	\$	104,451,197
Unfunded accrued liability contributions		<u>404,706,555</u>
Total prospective employer contributions		<u>509,157,752</u>
Total Present and Prospective Assets	\$	<u><u>1,148,539,576</u></u>
<b>ACTUARIAL LIABILITIES</b>		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits	\$	531,117,308
Present value of prospective benefits payable on account of inactive members		16,998,105
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$	540,307,540
Disability retirement benefits		24,365,623
Survivor benefits		13,453,459
Separation benefits		<u>22,297,541</u>
Total		<u>600,424,163</u>
Total Actuarial Liabilities	\$	<u><u>1,148,539,576</u></u>



Schedule A – Balance Sheet

**JUDICIAL**  
As Of June 30, 2013

<b>PRESENT AND PROSPECTIVE ASSETS</b>		
Actuarial Value of Assets	\$	368,671,000
Present value of future members' contributions		17,810,363
Present value of future employer contributions		
Normal contributions	\$	114,411,175
Unfunded accrued liability contributions		<u>221,954,880</u>
Total prospective employer contributions		<u>336,366,055</u>
Total Present and Prospective Assets	\$	<u><u>722,847,418</u></u>
<b>ACTUARIAL LIABILITIES</b>		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits	\$	355,479,536
Present value of prospective benefits payable on account of inactive members		4,990,617
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$	342,334,453
Disability retirement benefits		13,134,799
Survivor benefits		6,908,013
Separation benefits		<u>-</u>
Total		<u>362,377,265</u>
Total Actuarial Liabilities	\$	<u><u>722,847,418</u></u>



Schedule A – Balance Sheet

**VIRGINIA LAW OFFICERS**  
**As Of June 30, 2013**

<b>PRESENT AND PROSPECTIVE ASSETS</b>		
Actuarial Value of Assets	\$	941,933,000
Present value of future members' contributions		110,406,730
Present value of future employer contributions		
Normal contributions	\$	162,266,785
Unfunded accrued liability contributions		<u>800,177,173</u>
Total prospective employer contributions		<u>962,443,958</u>
Total Present and Prospective Assets	\$	<u><u>2,014,783,688</u></u>
<b>ACTUARIAL LIABILITIES</b>		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits	\$	810,355,237
Present value of prospective benefits payable on account of inactive members		106,530,464
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$	901,036,605
Disability retirement benefits		65,277,057
Survivor benefits		20,748,358
Separation benefits		<u>110,835,967</u>
Total		<u>1,097,897,987</u>
Total Actuarial Liabilities	\$	<u><u>2,014,783,688</u></u>



Schedule A – Balance Sheet

**POLITICAL SUBDIVISIONS**  
**As Of June 30, 2013**

<b>PRESENT AND PROSPECTIVE ASSETS</b>		
Actuarial Value of Assets		\$ 13,685,497,583
Present value of future members' contributions		1,723,684,376
Present value of future employer contributions		
Normal contributions	\$ 2,173,372,766	
Unfunded accrued liability contributions	<u>4,471,108,711</u>	
Total prospective employer contributions		<u>6,644,481,477</u>
Total Present and Prospective Assets		<u><u>\$ 22,053,663,436</u></u>
<b>ACTUARIAL LIABILITIES</b>		
Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits		\$ 7,748,343,173
Present value of prospective benefits payable on account of inactive members		1,053,841,323
Present value of prospective benefits payable on account of present active members:		
Service retirement benefits	\$ 11,622,624,580	
Disability retirement benefits	722,164,364	
Survivor benefits	269,714,271	
Separation benefits	<u>636,975,725</u>	
Total		<u>13,251,478,940</u>
Total Actuarial Liabilities		<u><u>\$ 22,053,663,436</u></u>



Schedule A – Solvency Test

**SOLVENCY TEST**

**Virginia Retirement System (State Employees, Teachers, and Political Subdivisions)**  
**(\$ in thousands)**

Valuation Date	Aggregate Accrued Liabilities For				Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Actuarial Value of Assets		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Total		(1)	(2)	(3)
6/30/2013	\$11,420,836	\$42,383,697	\$25,273,058	\$79,077,591	\$52,124,581	100.00%	96.00%	0.00%
6/30/2012	9,479,988	39,996,442	28,382,426	77,858,856	51,211,915	100.00	100.00	6.11
6/30/2011	9,116,662	37,539,539	28,528,577	75,184,778	52,558,997	100.00	100.00	20.69
6/30/2010	9,246,421	35,117,915	28,436,065	72,800,401	52,728,575	100.00	100.00	29.41
6/30/2009	8,876,564	31,589,747	25,856,699	66,323,010	53,185,033	100.00	100.00	49.19

**State Employees Retirement System**  
**(\$ in thousands)**

Valuation Date	Aggregate Accrued Liabilities For				Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Actuarial Value of Assets		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Total		(1)	(2)	(3)
6/30/2013	\$3,113,926	\$11,954,023	\$6,000,702	\$21,068,651	\$13,714,404	100.00%	88.70%	0.00%
6/30/2012	2,559,930	11,363,015	7,021,313	20,944,258	13,740,366	100.00	98.40	0.00
6/30/2011	2,475,123	10,844,164	7,088,671	20,407,958	14,406,275	100.00	100.00	15.33
6/30/2010	2,511,650	10,279,653	6,748,150	19,539,453	14,700,854	100.00	100.00	28.30
6/30/2009	2,501,163	9,024,592	6,400,124	17,925,879	15,049,901	100.00	100.00	55.06



Schedule A – Solvency Test

**Teachers Retirement System**  
(\$ in thousands)

Valuation Date	Aggregate Accrued Liabilities For				Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Actuarial Value of Assets		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Total		(1)	(2)	(3)
6/30/2013	\$5,310,701	\$21,627,490	\$12,914,143	\$39,852,334	\$24,724,679	100.00%	89.80%	0.00%
6/30/2012	4,573,244	20,361,089	14,156,075	39,090,408	24,391,761	100.00	97.30	0.00
6/30/2011	4,394,657	19,066,272	14,310,803	37,771,732	25,166,124	100.00	100.00	11.92
6/30/2010	4,376,385	17,935,907	14,776,284	37,088,576	25,447,677	100.00	100.00	21.22
6/30/2009	4,155,034	16,383,311	13,322,169	33,860,514	25,764,665	100.00	100.00	39.23

**Political Subdivisions Retirement System**  
(\$ in thousands)

Valuation Date	Aggregate Accrued Liabilities For				Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Actuarial Value of Assets		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Total		(1)	(2)	(3)
6/30/2013	\$2,996,209	\$8,802,184	\$6,358,213	\$18,156,606	\$13,685,498	100.00%	100.00%	29.68%
6/30/2012	2,346,814	8,272,338	7,205,038	17,824,190	13,079,788	100.00	100.00	34.15
6/30/2011	2,246,882	7,629,103	7,129,103	17,005,088	12,986,598	100.00	100.00	43.63
6/30/2010	2,358,386	6,902,355	6,911,631	16,172,372	12,580,044	100.00	100.00	48.02
6/30/2009	2,220,367	6,181,844	6,134,406	14,536,617	12,370,467	100.00	100.00	64.69



Schedule A – Solvency Test

**State Police Retirement System**  
(\$ in thousands)

Valuation Date	Aggregate Accrued Liabilities For				Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Actuarial Value of Assets		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Total		(1)	(2)	(3)
6/30/2013	\$88,814	\$548,115	\$359,761	\$996,690	\$591,983	100.00%	91.80%	0.00%
6/30/2012	78,465	563,612	371,201	1,013,278	587,160	100.00	90.30	0.00
6/30/2011	74,943	540,097	370,664	985,704	616,603	100.00	100.00	0.42
6/30/2010	77,759	510,491	360,642	948,892	633,415	100.00	100.00	12.52
6/30/2009	74,662	474,622	329,896	879,180	646,960	100.00	100.00	29.61

**Judicial Retirement System**  
(\$ in thousands)

Valuation Date	Aggregate Accrued Liabilities For				Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Actuarial Value of Assets		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Total		(1)	(2)	(3)
6/30/2013	\$38,439	\$360,470	\$191,717	\$590,626	\$368,671	100.00%	91.60%	0.00%
6/30/2012	38,578	335,501	208,377	582,456	361,097	100.00	96.10	0.00
6/30/2011	37,981	312,423	219,091	569,494	371,051	100.00	100.00	9.42
6/30/2010	43,217	310,305	206,398	559,920	372,096	100.00	100.00	9.00
6/30/2009	41,793	287,543	192,127	521,463	378,212	100.00	100.00	25.44



Schedule A – Solvency Test

**Virginia Law Officers Retirement System**  
(\$ in thousands)

Valuation Date	Aggregate Accrued Liabilities For				Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Actuarial Value of Assets		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Total		(1)	(2)	(3)
6/30/2013	\$223,467	\$916,886	\$601,757	\$1,742,110	\$941,933	100.00%	78.40%	0.00%
6/30/2012	176,172	861,342	715,499	1,753,014	909,399	100.00	85.10	0.00
6/30/2011	174,963	763,631	744,597	1,683,191	926,082	100.00	98.40	0.00
6/30/2010	186,792	682,378	710,151	1,579,321	925,443	100.00	100.00	7.92
6/30/2009	181,760	581,887	648,197	1,411,844	912,922	100.00	100.00	23.03

**All Retirement Systems Combined**  
(\$ in thousands)

Valuation Date	Aggregate Accrued Liabilities For				Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Actuarial Value of Assets		
	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Total		(1)	(2)	(3)
6/30/2013	\$11,771,556	\$44,209,168	\$26,426,293	\$82,407,016	\$54,027,168	100.00%	95.60%	0.00%
6/30/2012	9,773,203	41,756,897	29,677,503	81,207,603	53,069,571	100.00	100.00	5.19
6/30/2011	9,404,549	39,155,690	29,862,929	78,423,167	54,472,733	100.00	100.00	19.80
6/30/2010	9,554,189	36,621,088	29,713,256	75,888,534	54,659,529	100.00	100.00	28.55
6/30/2009	9,174,779	32,933,799	27,026,919	69,135,497	55,123,127	100.00	100.00	48.15



Schedule B – Development of Actuarial Value of Assets

**STATE EMPLOYEES**  
**FOR THE YEAR ENDING June 30, 2013**  
**(\$ IN THOUSANDS)**

(1) Actuarial Value Beginning of Year	\$	13,740,366
(2) Market Value End of Year	\$	14,502,362
(3) Market Value Beginning of Year	\$	13,469,215
(4) Cash Flow		
a. Contributions	\$	519,318
b. Benefit Payments		(1,044,558)
c. Administrative Expenses		(9,656)
d. Net Transfers		485
e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	\$	(534,411)
(5) Investment Income		
a. Market total: (2) – (3) – (4)e	\$	1,567,558
b. Assumed Rate		7.00%
c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e - (4)c] x (5)b x 0.5] - (4)c	\$	934,135
d. Amount for Phased-in Recognition: (5)a – (5)c	\$	633,423
(6) Phased-In Recognition of Investment Income		
a. Current Year: 0.20 x (5)d	\$	126,685
b. First Prior Year		(160,607)
c. Second Prior Year		294,458
d. Third Prior Year		174,123
e. Fourth Prior Year		(860,345)
f. Total Recognized Investment Gain	\$	(425,686)
(7) Actuarial Value End of Year: [(1) + (4) + (5)c + (6)f]	\$	13,714,404



*Schedule B – Development of Actuarial Value of Assets*

**TEACHERS**  
**FOR THE YEAR ENDING June 30, 2013**  
**(\$ IN THOUSANDS)**

(1) Actuarial Value Beginning of Year	\$	24,391,761
(2) Market Value End of Year	\$	26,076,425
(3) Market Value Beginning of Year	\$	23,930,149
(4) Cash Flow		
a. Contributions	\$	1,204,023
b. Benefit Payments		(1,816,700)
c. Administrative Expenses		(16,998)
d. Net Transfers		674
e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	\$	(629,001)
(5) Investment Income		
a. Market total: (2) – (3) – (4)e	\$	2,775,277
b. Assumed Rate		7.00%
c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e - (4)c] x (5)b x 0.5] - (4)c	\$	1,670,687
d. Amount for Phased-in Recognition: (5)a – (5)c	\$	1,104,590
(6) Phased-In Recognition of Investment Income		
a. Current Year: 0.20 x (5)d	\$	220,918
b. First Prior Year		(281,225)
c. Second Prior Year		509,063
d. Third Prior Year		293,625
e. Fourth Prior Year		(1,451,149)
f. Total Recognized Investment Gain	\$	(708,768)
(7) Actuarial Value End of Year: [(1) + (4) + (5)c + (6)f]	\$	24,724,679



*Schedule B – Development of Actuarial Value of Assets*

**STATE POLICE**  
**FOR THE YEAR ENDING June 30, 2013**  
**(\$ IN THOUSANDS)**

(1)	Actuarial Value Beginning of Year	\$	587,160
(2)	Market Value End of Year	\$	625,562
(3)	Market Value Beginning of Year	\$	575,468
(4)	Cash Flow		
	a. Contributions	\$	31,553
	b. Benefit Payments		(48,248)
	c. Administrative Expenses		(278)
	d. Net Transfers		-
	e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	\$	(16,973)
(5)	Investment Income		
	a. Market total: (2) – (3) – (4)e	\$	67,067
	b. Assumed Rate		7.00%
	c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e - (4)c] x (5)b x 0.5 - (4)c	\$	39,976
	d. Amount for Phased-in Recognition: (5)a – (5)c	\$	27,091
(6)	Phased-In Recognition of Investment Income		
	a. Current Year: 0.20 x (5)d	\$	5,418
	b. First Prior Year		(6,852)
	c. Second Prior Year		12,548
	d. Third Prior Year		7,368
	e. Fourth Prior Year		(36,662)
	f. Total Recognized Investment Gain	\$	(18,180)
(7)	Actuarial Value End of Year: [(1) + (4) + (5)c + (6)f]	\$	591,983



*Schedule B – Development of Actuarial Value of Assets*

**JUDICIAL**  
**FOR THE YEAR ENDING June 30, 2013**  
**(\$ IN THOUSANDS)**

(1) Actuarial Value Beginning of Year	\$	361,097
(2) Market Value End of Year	\$	388,835
(3) Market Value Beginning of Year	\$	354,250
(4) Cash Flow		
a. Contributions	\$	30,000
b. Benefit Payments		(36,800)
c. Administrative Expenses		(172)
d. Net Transfers		-
e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	\$	(6,972)
(5) Investment Income		
a. Market total: (2) – (3) – (4)e	\$	41,557
b. Assumed Rate		7.00%
c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e - (4)c] x (5)b x 0.5 - (4)c	\$	24,732
d. Amount for Phased-in Recognition: (5)a – (5)c	\$	16,825
(6) Phased-In Recognition of Investment Income		
a. Current Year: 0.20 x (5)d	\$	3,365
b. First Prior Year		(4,093)
c. Second Prior Year		7,353
d. Third Prior Year		4,277
e. Fourth Prior Year		(21,088)
f. Total Recognized Investment Gain	\$	(10,186)
(7) Actuarial Value End of Year: [(1) + (4) + (5)c + (6)f]	\$	368,671



Schedule B – Development of Actuarial Value of Assets

**VIRGINIA LAW OFFICERS**  
**FOR THE YEAR ENDING June 30, 2013**  
**(\$ IN THOUSANDS)**

(1)	Actuarial Value Beginning of Year	\$	909,399
(2)	Market Value End of Year	\$	992,031
(3)	Market Value Beginning of Year	\$	894,916
(4)	Cash Flow		
	a. Contributions	\$	67,654
	b. Benefit Payments		(75,224)
	c. Administrative Expenses		(426)
	d. Net Transfers		27
	e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	\$	(7,969)
(5)	Investment Income		
	a. Market total: (2) – (3) – (4)e	\$	105,084
	b. Assumed Rate		7.00%
	c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e - (4)c] x (5)b x 0.5 - (4)c	\$	62,806
	d. Amount for Phased-in Recognition: (5)a – (5)c	\$	42,278
(6)	Phased-In Recognition of Investment Income		
	a. Current Year: 0.20 x (5)d	\$	8,456
	b. First Prior Year		(10,400)
	c. Second Prior Year		18,608
	d. Third Prior Year		10,260
	e. Fourth Prior Year		(49,227)
	f. Total Recognized Investment Gain	\$	(22,303)
(7)	Actuarial Value End of Year: [(1) + (4) + (5)c + (6)f]	\$	941,933



*Schedule B – Development of Actuarial Value of Assets*

**POLITICAL SUBDIVISIONS**  
**FOR THE YEAR ENDING June 30, 2013**  
**(\$ IN THOUSANDS)**

(1)	Actuarial Value Beginning of Year	\$	13,079,788
(2)	Market Value End of Year	\$	14,393,949
(3)	Market Value Beginning of Year	\$	12,867,357
(4)	Cash Flow		
	a. Contributions	\$	746,039
	b. Benefit Payments		(732,549)
	c. Administrative Expenses		(9,052)
	d. Net Transfers		361
	e. Net Cash Flow: [(4)a + (4)b + (4)c + (4)d]	\$	4,799
(5)	Investment Income		
	a. Market total: (2) – (3) – (4)e	\$	1,521,793
	b. Assumed Rate		7.00%
	c. Amount of Immediate Recognition [(3) x (5)b] + [(4)e – (4)c] x (5)b x 0.5] – (4)c	\$	910,255
	d. Amount for Phased-in Recognition: (5)a – (5)c	\$	611,538
(6)	Phased-In Recognition of Investment Income		
	a. Current Year: 0.20 x (5)d	\$	122,308
	b. First Prior Year		(146,376)
	c. Second Prior Year		258,796
	d. Third Prior Year		140,754
	e. Fourth Prior Year		(684,826)
	f. Total Recognized Investment Gain	\$	(309,344)
(7)	Actuarial Value End of Year: (1) + (4) + (5)c + (6)f	\$	13,685,498



Schedule C – Summary of Changes in Net Assets

**STATE EMPLOYEES  
FOR THE YEAR ENDING June 30, 2013  
(\$ IN THOUSANDS)**

Additions for the Year

Contributions:	
Members	\$ 189,035
Members (paid by employer)	4,057
Employers	<u>326,226</u>
Total	\$ 519,318
Miscellaneous Revenue	498
Net Investment Income	<u>1,567,558</u>
TOTAL	\$ <u>2,087,374</u>

Deductions for the Year

Benefit Payments	\$ 1,024,464
Refunds	20,094
Transfers	13
Administrative Expenses	<u>9,656</u>
TOTAL	\$ <u>1,054,227</u>

Excess of Additions Over Deductions \$ 1,033,147

Reconciliation of Asset Balances

Market Value of Assets as of 6/30/2012	\$ 13,469,215
Excess of Additions over Deductions	<u>1,033,147</u>
Market Value of Assets as of 6/30/2013*	<u>\$ 14,502,362</u>

\*The Market Value of Assets shown above is used in the determination of the Actuarial Value of Assets (Schedule B).



Schedule C – Summary of Changes in Net Assets

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**TEACHERS**  
**FOR THE YEAR ENDING June 30, 2013**  
**(\$ IN THOUSANDS)**

Additions for the Year

Contributions:		
Members	\$	219,018
Members (paid by employer)		147,617
Employers		<u>837,388</u>
Total	\$	1,204,023
Miscellaneous Revenue		688
Net Investment Income		<u>2,775,277</u>
TOTAL	\$	<u>3,979,988</u>

Deductions for the Year

Benefit Payments	\$	1,788,548
Refunds		28,152
Transfers		14
Administrative Expenses		<u>16,998</u>
TOTAL	\$	<u>1,833,712</u>

Excess of Additions Over Deductions \$ 2,146,276

Reconciliation of Asset Balances

Market Value of Assets as of 6/30/2012	\$	23,930,149
Excess of Additions over Deductions		<u>2,146,276</u>
Market Value of Assets as of 6/30/2013*	\$	<u>26,076,425</u>

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\*The Market Value of Assets shown above is used in the determination of the Actuarial Value of Assets (Schedule B).



Schedule C – Summary of Changes in Net Assets

**STATE POLICE  
FOR THE YEAR ENDING June 30, 2013  
(\$ IN THOUSANDS)**

Additions for the Year

Contributions:			
Members	\$	5,361	
Members (paid by employer)		-	
Employers		<u>26,192</u>	
Total	\$		31,553
Miscellaneous Revenue			-
Net Investment Income			<u>67,067</u>
TOTAL	\$		<u>98,620</u>

Deductions for the Year

Benefit Payments	\$	47,884	
Refunds		364	
Transfers		-	
Administrative Expenses		<u>278</u>	
TOTAL	\$		<u>48,526</u>

Excess of Additions Over Deductions \$ 50,094

Reconciliation of Asset Balances

Market Value of Assets as of 6/30/2012	\$	575,468	
Excess of Additions over Deductions			<u>50,094</u>
Market Value of Assets as of 6/30/2013*	\$		<u>625,562</u>

\*The Market Value of Assets shown above is used in the determination of the Actuarial Value of Assets (Schedule B).



Schedule C – Summary of Changes in Net Assets

**JUDICIAL**  
**FOR THE YEAR ENDING June 30, 2013**  
**(\$ IN THOUSANDS)**

Additions for the Year

Contributions:			
Members	\$	179	
Members (paid by employer)		2,795	
Employers		<u>27,026</u>	
Total	\$		30,000
Miscellaneous Revenue			-
Net Investment Income			<u>41,557</u>
TOTAL	\$		<u>71,557</u>

Deductions for the Year

Benefit Payments	\$	36,800	
Refunds		-	
Transfers		-	
Administrative Expenses		<u>172</u>	
TOTAL	\$		<u>36,972</u>

Excess of Additions Over Deductions \$ 34,585

Reconciliation of Asset Balances

Market Value of Assets as of 6/30/2012	\$	354,250	
Excess of Additions over Deductions		<u>34,585</u>	
Market Value of Assets as of 6/30/2013*	\$	<u>388,835</u>	

\*The Market Value of Assets shown above is used in the determination of the Actuarial Value of Assets (Schedule B).



Schedule C – Summary of Changes in Net Assets

**VIRGINIA LAW OFFICERS  
FOR THE YEAR ENDING June 30, 2013  
(\$ IN THOUSANDS)**

Additions for the Year

Contributions:		
Members	\$	17,256
Members (paid by employer)		-
Employers		<u>50,398</u>
Total	\$	67,654
Miscellaneous Revenue		-
Net Investment Income		<u>105,084</u>
TOTAL	\$	<u>172,738</u>

Deductions for the Year

Benefit Payments	\$	71,638
Refunds		3,586
Transfers		(27)
Administrative Expenses		<u>426</u>
TOTAL	\$	<u>75,623</u>

Excess of Additions Over Deductions \$ 97,115

Reconciliation of Asset Balances

Market Value of Assets as of 6/30/2012	\$	894,916
Excess of Additions over Deductions		<u>97,115</u>
Market Value of Assets as of 6/30/2013*	\$	<u>992,031</u>

\*The Market Value of Assets shown above is used in the determination of the Actuarial Value of Assets (Schedule B).



Schedule C – Summary of Changes in Net Assets

**POLITICAL SUBDIVISIONS  
FOR THE YEAR ENDING June 30, 2013  
(\$ IN THOUSANDS)**

Additions for the Year

Contributions:			
Members	\$	164,490	
Members (paid by employer)		56,021	
Employers		<u>525,528</u>	
Total	\$		746,039
Miscellaneous Revenue			361
Net Investment Income			<u>1,521,793</u>
TOTAL	\$		<u>2,268,193</u>

Deductions for the Year

Benefit Payments	\$	703,207	
Refunds		29,342	
Transfers		-	
Administrative Expenses		<u>9,052</u>	
TOTAL	\$		<u>741,601</u>

Excess of Additions Over Deductions \$ 1,526,592

Reconciliation of Asset Balances

Market Value of Assets as of 6/30/2012	\$	12,867,357
Excess of Additions over Deductions		<u>1,526,592</u>
Market Value of Assets as of 6/30/2013*	\$	14,393,949

\*The Market Value of Assets shown above is used in the determination of the Actuarial Value of Assets (Schedule B).



## Schedule D – Outline of Actuarial Assumptions and Methods

### Assumptions and Methods which apply to all VRS Plans

<b>Investment Return Rate:</b>	7.00% per annum, compounded annually (net of administrative expenses).
<b>Inflation Assumption:</b>	2.50% per year.
<b>Actuarial Cost Method:</b>	Entry age normal cost method. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability. See Section E for a detailed explanation.
<b>Funding Period:</b>	The unfunded actuarial accrued liability as of June 30, 2013 is amortized over a closed 30 year period from June 30, 2013. The amortization period of the unfunded less the deferred contribution, will decrease by one each year until reaching 0 years. The deferred contribution, as defined under 2011 Appropriations Act, Item 469(l)(6), is to be amortized using a level-dollar, closed 10 year period beginning June 30, 2011.
<b>Payroll Growth Rate:</b>	3% per annum.
<b>Asset Valuation Method:</b>	The method of valuing assets is intended to recognize a “smoothed” market value of assets. Under this method, the difference between actual return on market value from investment experience and the expected return on market value is recognized over a five-year period. The resulting actuarial value of assets cannot be less than 80% or more than 120% of the market value of assets.
<b>Cost-of-living Increase:</b>	2.5% per year compounded annually for Plan 1 members receiving benefits or vested as of January 1, 2013 and 2.25% compounded annually for all other members. The temporary supplement for SPORS and VaLORS members is assumed to be adjusted biennially based on increases of 2.5% per annum compounded annually.
<b>Percent Electing a Deferred Termination Benefit:</b>	Terminating members are assumed to elect a return of contributions or a deferred annuity, whichever is most valuable benefit at the time of termination. Termination benefits are assumed to commence at normal retirement age.
<b>Marriage Assumption:</b>	100% of active employees are assumed to be married, with spouses the same age as participants.
<b>Plan 1:</b>	Members hired prior to July 1, 2010 and who were vested as of January 1, 2013.
<b>Plan 2:</b>	Members hired on or after July 1, 2010, or members hired prior to July 1, 2010 and who were not vested as of January 1, 2013.



Schedule D – State Employees’ Actuarial Assumptions and Methods

**STATE EMPLOYEES**  
**Plan Specific Assumptions and Methods**

**MORTALITY RATES:**

Pre-Retirement:

RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with Males set forward 2 years and Females set back 3 years.

Post-Retirement:

RP-2000 Combined Mortality Table Projected with Scale AA to 2020 with Females set back 1 year.

Post-Disablement:

RP-2000 Disabled Life Mortality Table with Males set back 3 years and no provision for future mortality improvement.

Mortality Rates						
Age	Male			Female		
	Pre Retirement	Post Retirement	Post Disablement	Pre Retirement	Post Retirement	Post Disablement
20	0.00026	0.00024	0.00000	0.00014	0.00014	0.00000
25	0.00035	0.00031	0.02257	0.00014	0.00015	0.00745
30	0.00051	0.00040	0.02257	0.00018	0.00020	0.00745
35	0.00082	0.00070	0.02257	0.00030	0.00036	0.00745
40	0.00099	0.00092	0.02257	0.00043	0.00048	0.00745
45	0.00128	0.00116	0.02257	0.00063	0.00076	0.00745
50	0.00163	0.00149	0.02512	0.00092	0.00108	0.01154
55	0.00258	0.00247	0.03156	0.00148	0.00198	0.01654
60	0.00437	0.00489	0.03803	0.00272	0.00402	0.02184
65	0.00662	0.00961	0.04498	0.00421	0.00780	0.02803
70	0.00703	0.01641	0.05445	0.00562	0.01344	0.03764
75		0.02854	0.06941		0.02212	0.05223
80		0.05265	0.09215		0.03607	0.07231
85		0.09624	0.12188		0.06041	0.10020
90		0.16928	0.15524		0.11221	0.14005

14% of pre-retirement deaths are assumed to be service related. Mortality improvement is anticipated under the post-retirement mortality assumption as projected with Scale AA.



*Schedule D – State Employees’ Actuarial Assumptions and Methods*

**RETIREMENT RATES:** The following rates of retirement are assumed for members eligible to retire from Plan 1.

State Employees Retirement Rates, Plan 1				
Age	Males		Females	
	Years of Service			
	0-29	>=30	0-29	>=30
<=49	0.000	0.000	0.000	0.000
50	0.030	0.100	0.032	0.100
51	0.030	0.100	0.031	0.100
52	0.030	0.100	0.030	0.100
53	0.030	0.100	0.030	0.100
54	0.030	0.100	0.035	0.100
55	0.050	0.100	0.050	0.100
56	0.050	0.100	0.050	0.100
57	0.045	0.100	0.045	0.100
58	0.040	0.100	0.055	0.100
59	0.050	0.100	0.055	0.100
60	0.050	0.100	0.055	0.150
61	0.100	0.150	0.100	0.200
62	0.150	0.250	0.150	0.300
63	0.150	0.200	0.150	0.200
64	0.150	0.200	0.150	0.200
65	0.300	0.300	0.300	0.400
66	0.300	0.250	0.300	0.300
67	0.300	0.250	0.300	0.250
68	0.300	0.200	0.300	0.250
69	0.300	0.200	0.300	0.200
>=70	1.000	1.000	1.000	1.000



Schedule D – State Employees’ Actuarial Assumptions and Methods

**RETIREMENT RATES:** The following rates of retirement are assumed for members eligible to retire from Plan 2.

State Employees Rates of Retirement, Plan 2				
Age	Males		Females	
	Reduced Retirement	Unreduced Retirement	Reduced Retirement	Unreduced Retirement
<=49	0.000	0.000	0.000	0.000
50	0.000	0.350	0.000	0.350
51	0.000	0.100	0.000	0.100
52	0.000	0.100	0.000	0.100
53	0.000	0.100	0.000	0.100
54	0.000	0.100	0.000	0.100
55	0.000	0.100	0.000	0.100
56	0.000	0.100	0.000	0.100
57	0.000	0.100	0.000	0.100
58	0.000	0.100	0.000	0.100
59	0.000	0.100	0.000	0.100
60	0.050	0.100	0.055	0.150
61	0.100	0.150	0.100	0.200
62	0.150	0.250	0.150	0.300
63	0.150	0.200	0.150	0.200
64	0.150	0.200	0.150	0.200
65	0.300	0.300	0.300	0.400
66	0.300	0.250	0.300	0.300
67	0.300	0.250	0.300	0.250
68	0.300	0.200	0.300	0.250
69	0.300	0.200	0.300	0.200
>=70	1.000	1.000	1.000	1.000



Schedule D – State Employees’ Actuarial Assumptions and Methods

**DISABILITY RATES:** As shown below for selected ages. 14% of disability cases are assumed to be service related.

State Employees Disability Rates		
Age	Male	Female
20	0.00090	0.00010
25	0.00090	0.00100
30	0.00180	0.00150
35	0.00180	0.00250
40	0.00180	0.00290
45	0.00360	0.00340
50	0.00450	0.00550
55	0.00540	0.00810
60	0.00720	0.01000
65	0.00630	0.00900
70	0.00630	0.00000



**Schedule D – State Employees’ Actuarial Assumptions and Methods**

**TERMINATION RATES:** The following withdrawal rates for members are used based on age and years of service. (For causes other than death, disability, or retirement)

State Employees Rates of Termination, Plan 1						
Age	Male			Female		
	Years of Service					
	0-2	3-9	>=10	0-2	3-9	>=10
20	0.245	0.175	0.000	0.283	0.198	0.000
25	0.221	0.130	0.000	0.256	0.157	0.000
30	0.199	0.110	0.050	0.212	0.130	0.060
35	0.167	0.093	0.045	0.178	0.110	0.050
40	0.145	0.075	0.034	0.155	0.090	0.036
45	0.129	0.070	0.023	0.139	0.074	0.025
50	0.115	0.061	0.000	0.130	0.063	0.000
55	0.102	0.060	0.000	0.125	0.000	0.000
60	0.106	0.000	0.000	0.123	0.000	0.000
65	0.113	0.000	0.000	0.140	0.000	0.000
70	0.131	0.000	0.000	0.249	0.000	0.000

State Employees Rates of Termination, Plan 2						
Age	Male			Female		
	Years of Service					
	0-2	3-9	>=10	0-2	3-9	>=10
20	0.245	0.175	0.000	0.283	0.198	0.000
25	0.221	0.130	0.000	0.256	0.157	0.000
30	0.199	0.110	0.050	0.212	0.130	0.060
35	0.167	0.093	0.045	0.178	0.110	0.050
40	0.145	0.075	0.034	0.155	0.090	0.036
45	0.129	0.070	0.023	0.139	0.074	0.025
50	0.115	0.061	0.020	0.130	0.063	0.020
55	0.102	0.060	0.004	0.125	0.060	0.004
60	0.106	0.000	0.000	0.123	0.000	0.000
65	0.113	0.000	0.000	0.140	0.000	0.000
70	0.131	0.000	0.000	0.249	0.000	0.000



Schedule D – State Employees’ Actuarial Assumptions and Methods

**SALARY INCREASE RATES:** The following total salary increase rates are used. The total salary increase rate consists of an inflation rate of 2.50%, a productivity component of 1.00%, and a variable merit component that is dependent on years of service.

Pay Increase Assumption	
Years of Service	Total Increase (Next Year)
1	5.35%
2	5.35
3	4.75
4	4.45
5	4.45
6	4.45
7	4.35
8	4.25
9	4.00
10	4.00
11-19	3.65
20 or more	3.50

**DISABILITY ELECTION:** All active members hired on or after January 1, 1999 will enter the Virginia Sickness and Disability Program (VSDP) and will not be eligible to receive non-VSDP disability benefits. For members hired before January 1, 1999 we measure the liabilities based upon the member’s actual election contained in the valuation data.



Schedule D – Teachers’ Actuarial Assumptions and Methods

**TEACHERS**  
**Plan Specific Assumptions and Methods**

**MORTALITY RATES:**

Pre-Retirement:

RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with Males set back 3 years and Females set back 5 years.

Post-Retirement:

RP-2000 Combined Mortality Table Projected with Scale AA to 2020 with Males set back 2 years and Females set back 3 years.

Post-Disablement:

RP-2000 Disabled Life Mortality Table Projected to 2020 with Males set back 1 year and no provision for future mortality improvement.

Mortality Rates						
Age	Male			Female		
	Pre Retirement	Post Retirement	Post Disablement	Pre Retirement	Post Retirement	Post Disablement
20	0.00021	0.00022	0.00000	0.00012	0.00014	0.00000
25	0.00026	0.00028	0.01737	0.00014	0.00014	0.00562
30	0.00035	0.00036	0.02042	0.00016	0.00018	0.00609
35	0.00051	0.00057	0.02042	0.00022	0.00030	0.00597
40	0.00082	0.00086	0.01961	0.00038	0.00043	0.00551
45	0.00099	0.00104	0.01773	0.00052	0.00063	0.00540
50	0.00128	0.00135	0.01965	0.00081	0.00092	0.00819
55	0.00163	0.00195	0.02280	0.00119	0.00152	0.01409
60	0.00258	0.00382	0.02946	0.00215	0.00315	0.01976
65	0.00437	0.00755	0.03644	0.00356	0.00602	0.02535
70	0.00000	0.01348	0.04497	0.00000	0.01100	0.03405
75		0.02246	0.05729		0.01832	0.04448
80		0.04094	0.08287		0.02964	0.06283
85		0.07640	0.11724		0.04892	0.08884
90		0.13623	0.15309		0.08892	0.13188

5% of pre-retirement deaths are assumed to be service related. Mortality improvement is anticipated under the post-retirement mortality assumption as projected with Scale AA.



*Schedule D – Teachers’ Actuarial Assumptions and Methods*

**RETIREMENT RATES:** The following rates of retirement are assumed for members eligible to retire from Plan 1.

<b>Teachers Rates of Retirement, Plan 1</b>				
<b>Age</b>	<b>Male</b>		<b>Female</b>	
	<b>Years of Service</b>			
	<b>0-29</b>	<b>&gt;=30</b>	<b>0-29</b>	<b>&gt;=30</b>
<=49	0.000	0.000	0.000	0.000
50	0.020	0.175	0.020	0.150
51	0.020	0.175	0.024	0.150
52	0.020	0.175	0.027	0.150
53	0.023	0.175	0.024	0.150
54	0.040	0.175	0.037	0.150
55	0.057	0.225	0.061	0.225
56	0.046	0.225	0.054	0.225
57	0.045	0.225	0.057	0.225
58	0.066	0.225	0.062	0.225
59	0.070	0.225	0.075	0.225
60	0.075	0.225	0.085	0.225
61	0.110	0.300	0.120	0.300
62	0.170	0.350	0.170	0.350
63	0.140	0.350	0.160	0.350
64	0.180	0.300	0.165	0.350
65	0.300	0.400	0.300	0.350
66	0.300	0.400	0.300	0.350
67	0.300	0.400	0.300	0.350
68	0.300	0.400	0.300	0.350
69	0.300	0.400	0.300	0.350
>=70	1.000	1.000	1.000	1.000



*Schedule D – Teachers’ Actuarial Assumptions and Methods*

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**RETIREMENT RATES:** The following rates of retirement are assumed for members eligible to retire from Plan 2.

<b>Teachers Rates of Retirement, Plan 2</b>				
<b>Age</b>	<b>Male</b>		<b>Female</b>	
	<b>Reduced Retirement</b>	<b>Unreduced Retirement</b>	<b>Reduced Retirement</b>	<b>Unreduced Retirement</b>
<=49	0.000	0.000	0.000	0.000
50	0.000	0.400	0.000	0.350
51	0.000	0.175	0.000	0.150
52	0.000	0.175	0.000	0.150
53	0.000	0.175	0.000	0.150
54	0.000	0.175	0.000	0.150
55	0.000	0.225	0.000	0.225
56	0.000	0.225	0.000	0.225
57	0.000	0.225	0.000	0.225
58	0.000	0.225	0.000	0.225
59	0.000	0.225	0.000	0.225
60	0.075	0.225	0.085	0.225
61	0.110	0.300	0.120	0.300
62	0.170	0.350	0.170	0.350
63	0.140	0.350	0.160	0.350
64	0.180	0.300	0.165	0.350
65	0.300	0.400	0.300	0.350
66	0.300	0.400	0.300	0.350
67	0.300	0.400	0.300	0.350
68	0.300	0.400	0.300	0.350
69	0.300	0.400	0.300	0.350
>=70	1.000	1.000	1.000	1.000



*Schedule D – Teachers’ Actuarial Assumptions and Methods*

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**DISABILITY RATES:** As shown below for selected ages. 5% of disability cases are assumed to be service related.

<b>Teachers Disability Rates</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>
20	0.00000	0.00000
25	0.00008	0.00004
30	0.00010	0.00010
35	0.00018	0.00030
40	0.00021	0.00036
45	0.00099	0.00042
50	0.00133	0.00090
55	0.00195	0.00204
60	0.00308	0.00240
65	0.00276	0.00330
70	0.00169	0.00180



**Schedule D – Teachers’ Actuarial Assumptions and Methods**

**TERMINATION RATES:** The following withdrawal rates are used based on age and years of service. (For causes other than death, disability, or retirement)

Teachers Rates of Termination, Plan 1						
Age	Male			Female		
	Years of Service					
	0-2	3-9	>=10	0-2	3-9	>=10
20	0.182	0.143	0.008	0.159	0.160	0.000
25	0.154	0.118	0.008	0.146	0.120	0.150
30	0.149	0.090	0.037	0.164	0.110	0.047
35	0.141	0.073	0.031	0.149	0.090	0.039
40	0.141	0.070	0.025	0.127	0.075	0.028
45	0.147	0.075	0.019	0.117	0.064	0.021
50	0.138	0.070	0.000	0.118	0.058	0.000
55	0.143	0.000	0.000	0.124	0.000	0.000
60	0.166	0.000	0.000	0.129	0.000	0.000
65	0.170	0.000	0.000	0.130	0.000	0.000
70	0.170	0.000	0.000	0.130	0.000	0.000

Teachers Rates of Termination, Plan 2						
Age	Male			Female		
	Years of Service					
	0-2	3-9	>=10	0-2	3-9	>=10
20	0.182	0.143	0.008	0.159	0.160	0.000
25	0.154	0.118	0.008	0.146	0.120	0.150
30	0.149	0.090	0.037	0.164	0.110	0.047
35	0.141	0.073	0.031	0.149	0.090	0.039
40	0.141	0.070	0.025	0.127	0.075	0.028
45	0.147	0.075	0.019	0.117	0.064	0.021
50	0.138	0.070	0.016	0.118	0.058	0.018
55	0.143	0.070	0.003	0.124	0.058	0.003
60	0.166	0.000	0.000	0.129	0.000	0.000
65	0.170	0.000	0.000	0.130	0.000	0.000
70	0.170	0.000	0.000	0.130	0.000	0.000



Schedule D – Teachers’ Actuarial Assumptions and Methods

**SALARY INCREASE RATES:** The following salary increase rates are used. Inflation rate of 2.50% plus productivity component of 1.00% plus step-rate/promotional component as shown:

Pay Increase Assumption	
Years of Service	Total Increase (Next Year)
1	5.95%
2	5.85
3	5.85
4	5.45
5	5.45
6	5.45
7	5.35
8	5.35
9	5.35
10	4.85
11	4.85
12	4.85
13	4.75
14	4.75
15	4.65
16	4.65
17	4.55
18	4.45
19	4.45
20 or more	3.50



Schedule D – State Police Actuarial Assumptions and Methods

STATE POLICE
Plan Specific Assumptions and Methods

MORTALITY RATES:

Pre-Retirement:

RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with Males set forward 5 years and Females set back 3 years.

Post-Retirement:

RP-2000 Combined Mortality Table Projected with Scale AA to 2020 with Females set back 1 year.

Post-Disablement:

RP-2000 Disabled Life Mortality Table with Males set back 3 years and no provision for future mortality improvement.

Table with 7 columns: Age, Male (Pre Retirement, Post Retirement, Post Disablement), Female (Pre Retirement, Post Retirement, Post Disablement). Rows range from age 20 to 90.

60% of pre-retirement deaths are assumed to be service related. Mortality improvement is anticipated under the post-retirement mortality assumption as projected with Scale AA.



Schedule D – State Police Actuarial Assumptions and Methods

**RETIREMENT RATES:** The following rates of retirement are assumed for members eligible to retire.

SPORS Rates of Retirement		
Age	Years of Service	
	Less Than 25	25 or More
<=49	0.000	0.000
50	0.100	0.150
51	0.100	0.150
52	0.100	0.150
53	0.100	0.150
54	0.100	0.150
55	0.100	0.150
56	0.100	0.150
57	0.100	0.150
58	0.120	0.200
59	0.120	0.200
60	0.250	0.400
61	0.350	0.400
62	0.500	1.000
63	0.500	1.000
>=64	1.000	1.000



*Schedule D – State Police Actuarial Assumptions and Methods*

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**DISABILITY RATES:** As shown below for selected ages. 60% of disability cases are assumed to be service related.

<b>SPORS Rates of Disability</b>	
<b>Age</b>	<b>Unisex</b>
<=29	0.00000
30	0.00028
35	0.00134
40	0.00210
45	0.00411
50	0.00675
55	0.01001
60	0.00000



Schedule D – State Police Actuarial Assumptions and Methods

**TERMINATION RATES:** The following withdrawal rates are used based on age and years of service.  
(For causes other than death, disability, or retirement)

SPORS Rates of Termination						
Age	Males			Females		
	Years of Service					
	0-2	3-9	>=10	0-2	3-9	>=10
20	0.075	0.210	0.030	0.101	0.053	0.036
25	0.075	0.055	0.030	0.108	0.054	0.044
30	0.075	0.045	0.030	0.119	0.057	0.055
35	0.075	0.048	0.024	0.121	0.060	0.061
40	0.075	0.048	0.018	0.117	0.062	0.062
45	0.100	0.045	0.014	0.108	0.064	0.059
50	0.100	0.045	0.012	0.093	0.066	0.052
55	0.100	0.067	0.012	0.074	0.067	0.041
60	0.100	0.075	0.012	0.049	0.068	0.026
65	0.100	0.075	0.012	0.015	0.069	0.006
70	0.100	0.075	0.012	0.000	0.071	0.000



Schedule D – State Police Actuarial Assumptions and Methods

**SALARY INCREASE RATES:** The following salary increase rates are used. Inflation rate of 2.50% plus productivity component of 1.00% plus step-rate/promotional component as shown:

Pay Increase Assumption	
Years of Service	Total Increase (Next Year)
1	4.75%
2	4.75
3	4.75
4	4.75
5	4.65
6	4.40
7	4.40
8	4.40
9	4.40
10 - 19	4.00
20 or more	3.50

It is assumed members covered under VSDP receive a 3.50% annual increase in pay while disabled and this adjusted pay is used to determine deferred benefits payable from the System.

**DISABILITY ELECTION:** All active members hired on or after January 1, 1999 will enter the Virginia Sickness and Disability Program (VSDP) and will not be eligible to receive non-VSDP disability benefits. For members hired before January 1, 1999 we measure the liabilities based upon the member's actual election contained in the valuation data.



Schedule D – Judicial Actuarial Assumptions and Methods

**JUDICIAL**  
**Plan Specific Assumptions and Methods**

**MORTALITY RATES:**

Pre-Retirement:

RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with Males set forward 2 years and Females set back 3 years.

Post-Retirement:

RP-2000 Combined Mortality Table Projected with Scale AA to 2020 with Females set back 1 year.

Post-Disablement:

RP-2000 Disabled Life Mortality Table with Males set back 3 years and no provision for future mortality improvement.

Mortality Rates						
Age	Male			Female		
	Pre Retirement	Post Retirement	Post Disablement	Pre Retirement	Post Retirement	Post Disablement
20	0.00026	0.00024	0.00000	0.00014	0.00014	0.00000
25	0.00035	0.00031	0.02257	0.00014	0.00015	0.00745
30	0.00051	0.00040	0.02257	0.00018	0.00020	0.00745
35	0.00082	0.00070	0.02257	0.00030	0.00036	0.00745
40	0.00099	0.00092	0.02257	0.00043	0.00048	0.00745
45	0.00128	0.00116	0.02257	0.00063	0.00076	0.00745
50	0.00163	0.00149	0.02512	0.00092	0.00108	0.01154
55	0.00258	0.00247	0.03156	0.00148	0.00198	0.01654
60	0.00437	0.00489	0.03803	0.00272	0.00402	0.02184
65	0.00662	0.00961	0.04498	0.00421	0.00780	0.02803
70	0.00703	0.01641	0.05445	0.00562	0.01344	0.03764
75		0.02854	0.06941		0.02212	0.05223
80		0.05265	0.09215		0.03607	0.07231
85		0.09624	0.12188		0.06041	0.10020
90		0.16928	0.15524		0.11221	0.14005

5% of pre-retirement deaths are assumed to be service related. Mortality improvement is anticipated under the post-retirement mortality assumption as projected with Scale AA.



**Schedule D – Judicial Actuarial Assumptions and Methods**

**RETIREMENT RATES:** The following rates of retirement are assumed for members eligible to retire with an unreduced retirement benefit.

Judicial Rates of Retirement								
Age	Service Multiplier = 1.5 Years of Service				Service Multiplier = 2.0 Years of Service			
	<=1	2 - 19	20	>=21	<=1	2 - 14	15	>=16
<=59	0	0	0	0	0	0	0	0
60	0	0	0.500	0.500	0	0	0.500	0.500
61	0	0	0.500	0.150	0	0	0.500	0.150
62	0	0	0.500	0.150	0	0	0.500	0.150
63	0	0	0.500	0.150	0	0	0.500	0.150
64	0	0	0.500	0.150	0	0	0.500	0.150
65	0	0.500	0.500	0.150	0	0.500	0.500	0.150
66	0	0.150	0.150	0.150	0	0.150	0.150	0.150
67	0	0.150	0.150	0.150	0	0.150	0.150	0.150
68	0	0.150	0.150	0.150	0	0.150	0.150	0.150
69	0	0.150	0.150	0.150	0	0.150	0.150	0.150
>=70	0	1.000	1.000	1.000	0	1.000	1.000	1.000

Judicial Rates of Retirement								
Age	Service Multiplier = 2.5 Years of Service				Service Multiplier = 3.5 Years of Service			
	<=1	2 - 11	12	>=13	<1	1 - 8	9	>=10
<=59	0	0	0	0	0	0	0	0
60	0	0	0.500	0.500	0	0	0.500	0.500
61	0	0	0.500	0.150	0	0	0.500	0.150
62	0	0	0.500	0.150	0	0	0.500	0.150
63	0	0	0.500	0.150	0	0	0.500	0.150
64	0	0	0.500	0.150	0	0	0.500	0.150
65	0	0.500	0.500	0.150	0	0.500	0.500	0.150
66	0	0.150	0.150	0.150	0	0.150	0.150	0.150
67	0	0.150	0.150	0.150	0	0.150	0.150	0.150
68	0	0.150	0.150	0.150	0	0.150	0.150	0.150
69	0	0.150	0.150	0.150	0	0.150	0.150	0.150
>=70	0	1.000	1.000	1.000	0	1.000	1.000	1.000



Schedule D – Judicial Actuarial Assumptions and Methods

**DISABILITY RATES:** As shown below for selected ages. 5% of disability cases are assumed to be service related.

Judicial Rates of Disability		
Age	Male	Female
<=29	0.00000	0.00000
30	0.00007	0.00007
35	0.00037	0.00045
40	0.00142	0.00090
45	0.00292	0.00210
50	0.00480	0.00397
55	0.00712	0.00600
60	0.00000	0.00000

**TERMINATION RATES:** There are no assumed rates of withdrawal prior to service retirement. (For causes other than death, disability, or retirement).

**SALARY INCREASE RATES:** Salary increase rates are 4.5%.



Schedule D – Virginia Law Officers’ Actuarial Assumptions and Methods

**VIRGINIA LAW OFFICERS  
Plan Specific Assumptions and Methods**

**MORTALITY RATES:**

Pre-Retirement:

RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with Males set forward 5 years and Females set back 3 years.

Post-Retirement:

RP-2000 Combined Mortality Table Projected with Scale AA to 2020 with Females set back 1 year.

Post-Disablement:

RP-2000 Disabled Life Mortality Table with Males set back 3 years and no provision for future mortality improvement.

Mortality Rates						
Age	Male			Female		
	Pre Retirement	Post Retirement	Post Disablement	Pre Retirement	Post Retirement	Post Disablement
20	0.00031	0.00024	0.00000	0.00014	0.00014	0.00000
25	0.00040	0.00031	0.02257	0.00014	0.00015	0.00745
30	0.00070	0.00040	0.02257	0.00018	0.00020	0.00745
35	0.00092	0.00070	0.02257	0.00030	0.00036	0.00745
40	0.00116	0.00092	0.02257	0.00043	0.00048	0.00745
45	0.00149	0.00116	0.02257	0.00063	0.00076	0.00745
50	0.00206	0.00149	0.02512	0.00092	0.00108	0.01154
55	0.00353	0.00247	0.03156	0.00148	0.00198	0.01654
60	0.00571	0.00489	0.03803	0.00272	0.00402	0.02184
65	0.00703	0.00961	0.04498	0.00421	0.00780	0.02803
70	1.00000	0.01641	0.05445	1.00000	0.01344	0.03764
75		0.02854	0.06941		0.02212	0.05223
80		0.05265	0.09215		0.03607	0.07231
85		0.09624	0.12188		0.06041	0.10020
90		0.16928	0.15524		0.11221	0.14005

60% of pre-retirement deaths are assumed to be service related. Mortality improvement is anticipated under the post-retirement mortality assumption as projected with Scale AA.



Schedule D – Virginia Law Officers’ Actuarial Assumptions and Methods

**RETIREMENT RATES:** The following rates of retirement are assumed for members eligible to retire.

<b>VaLORS Rates of Retirement</b>		
<b>Age</b>	<b>Years of Service</b>	
	<b>Less Than 25</b>	<b>25 or More</b>
<=49	0.000	0.000
50	0.092	0.250
51	0.090	0.250
52	0.090	0.250
53	0.090	0.250
54	0.100	0.250
55	0.095	0.250
56	0.090	0.250
57	0.120	0.300
58	0.100	0.300
59	0.120	0.400
60	0.200	0.400
61	0.260	0.500
62	0.400	1.000
63	0.200	1.000
64	0.200	1.000
>=65	1.000	1.000



Schedule D – Virginia Law Officers’ Actuarial Assumptions and Methods

**DISABILITY RATES:** As shown below for selected ages. 50% of disability cases are assumed to be service related.

VaLORS Rates of Disability	
Age	Unisex
20	0.00150
25	0.00300
30	0.00600
35	0.00800
40	0.00800
45	0.01000
50	0.01200
55	0.01200
60	0.01000
65	0.00800
70	0.00600



Schedule D – Virginia Law Officers’ Actuarial Assumptions and Methods

**TERMINATION RATES:** The following withdrawal rates are used based on age and years of service.  
(For causes other than death, disability, or retirement)

VaLORS Rates of Termination						
Age	Males			Females		
	Years of Service			Years of Service		
	0-2	3-9	>=10	0-2	3-9	>=10
20	0.250	0.150	0.050	0.200	0.150	0.075
25	0.200	0.150	0.050	0.200	0.150	0.075
30	0.200	0.125	0.050	0.200	0.125	0.060
35	0.200	0.125	0.050	0.200	0.125	0.060
40	0.150	0.105	0.040	0.175	0.105	0.050
45	0.150	0.105	0.040	0.175	0.080	0.040
50	0.150	0.080	0.040	0.175	0.080	0.040
55	0.120	0.065	0.040	0.100	0.120	0.040
60	0.125	0.070	0.040	0.100	0.200	0.040
65	0.150	0.070	0.040	0.100	0.100	0.040
70	0.200	0.070	0.040	0.100	0.100	0.040



Schedule D – Virginia Law Officers’ Actuarial Assumptions and Methods

**SALARY INCREASE RATES:** The following salary increase rates are used. Inflation rate of 2.50% plus productivity component of 1.00% plus step-rate/promotional component as shown:

Pay Increase Assumption	
Years of Service	Total Increase (Next Year)
1	4.75%
2	4.75
3	4.75
4	4.75
5	4.65
6	4.40
7	4.40
8	4.40
9	4.40
10 - 19	4.00
20 or more	3.50

It is assumed members covered under VSDP receive a 3.50% annual increase in pay while disabled and this adjusted pay is used to determine deferred benefits payable from the System.

**DISABILITY ELECTION:** All active members hired on or after January 1, 1999 will enter the Virginia Sickness and Disability Program (VSDP) and will not be eligible to receive non-VSDP disability benefits. For members hired before January 1, 1999 we measure the liabilities based upon the member’s actual election contained in the valuation data.



Schedule D – Summary of Actuarial Assumption and Method Changes

**2009 Valuation**

1. Changes to the actuarial assumptions as a result of the experience study for the four-year period ending June 30, 2008 are stated below.

<b>SYSTEM</b>	<b>ASSUMPTION CHANGE</b>
State	Increase rates of withdrawals Increase rates of disability retirement up to age 52, females Decrease rates of disability retirement after age 52, all members Decrease rates of service retirement
Teachers	Increase rates of withdrawals Increase rates of disability retirement Decrease rates of service retirement
SPORS	Decrease rates of withdrawals, males Decrease rates of service retirement
VaLORS	Increase rates of withdrawals Decrease rates of disability retirement Change rates of service retirement
Judicial	Increase rates of salary increases

2. For the June 30, 2009 valuation the Board suspended application of the 80%/120% market value of assets corridor on the actuarial value of assets.

**2010 Valuation**

The investment return rate was decreased from 7.50% per annum to 7.00% per annum.

**2011 Valuation**

The amortization period of the unfunded less the deferred contribution begins at 30 years on June 30, 2011 and will decrease by one each year until reaching the minimum period of 20 years. The deferred contribution, as defined under 2011 Appropriations Act, Item 469(I)(6), is amortized using a level-dollar, closed, 10 year period beginning June 30, 2011.

**2013 Valuation**

1. The amortization period of the unfunded as of June 30, 2013 less the deferred contribution under 2011 Appropriations Act, Item 469(I)(6) is amortized using a level-dollar, closed, 30 year period beginning June 30, 2013 decreasing by one each year until reaching 0 years.



**Schedule D – Summary of Actuarial Assumption and Method Changes**

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2. Changes to the actuarial assumptions as a result of the experience study for the four-year period ending June 30, 2012 are summarized below.

<b>STATE SYSTEM</b>	<b>ASSUMPTION CHANGE</b>
State	Update mortality table Decrease rates of service retirement Decrease rates of withdrawals for less than 10 years of service Decrease rates of male disability retirement Reduce rates of salary increase by 0.25% per year
Teachers	Update mortality table Adjustments to rates of service retirement Decrease rates of withdrawals for three through nine years of service Decrease rates of disability Reduce rates of salary increase by 0.25% per year
SPORS	Update mortality table Increase rate of service retirement at age 54
VaLORS	Update mortality table Adjustments to rates of service retirement Decrease rates of withdrawals for females under 10 years of service Increase rates of disability Decrease service related disability rate from 60% to 50%
Judicial	Update mortality table



## *Schedule E – Actuarial Cost Method*

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### **ACTUARIAL COST METHOD**

1. The valuation is prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement, disability, termination from service or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (currently 7.00%). The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to active members is added to the present value of the expected future payments to current benefit recipients to obtain the present value of all expected benefits payable to the present group of members and survivors.
2. The employer contributions required to support the benefits of VRS are determined following a level funding approach, and consist of a normal contribution and an accrued liability contribution.
3. The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made for pension benefits to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of the average new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.
4. The unfunded accrued liability is determined by subtracting the current assets and the present value of prospective employer normal contributions and member contributions from the present value of expected benefits to be paid from the VRS. The accrued liability contribution amortizes the balance of the unfunded accrued liability over a period of years from the valuation date.



Schedule F – Summary of Plan Provisions

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**Benefit Provisions which apply to all VRS Plans**

<b>Plan Year:</b>	Twelve-month period ending June 30th.
<b>Administration:</b>	All plans are administered by the Board of Trustees of the Virginia Retirement System.
<b>Plan 1:</b>	Members hired prior to July 1, 2010 and who were vested as of January 1, 2013.
<b>Plan 2:</b>	Members hired on or after July 1, 2010, or members hired prior to July 1, 2010 and who were not vested as of January 1, 2013.
<b>Eligibility:</b>	All full-time, salaried, permanent employees of the Commonwealth of Virginia or of any participating Virginia city, county, town or political subdivision or of any local Virginia school boards are eligible to become members of VRS. This summary covers the provisions relating to state employees.
<b>Employee Contributions:</b>	All active members contribute 5.00% of their creditable compensation per year. The employer may "pick-up" the member's assessments under the provisions of Internal Revenue Code Section 414(h).
<b>Creditable Compensation:</b>	Annual salary minus any overtime pay, payments of a temporary nature, or payments for extra duties.
<b>Optional Forms of Payment:</b>	There are optional forms of payment available on an actuarially equivalent basis, as follows:  100% Survivor Option:  Payable for the member's life. Upon the member's death, 100% of the benefit continues to the contingent annuitant.  50% Survivor Option:  Upon the member's death, 50% of the benefit continues to the contingent annuitant.  Leveling Option:  A temporarily increased retirement allowance payable to a date specified by the member and a reduced retirement allowance (on an actuarially equivalent basis) payable after the specified date for the member's remaining lifetime.



*Schedule F – Summary of Plan Provisions*

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Partial Lump Sum Option:

The member may elect to receive a lump sum payment equal to the sum of 12, 24, or 36 payments of the standard monthly life annuity. The member's monthly benefit will be actuarially reduced to reflect the lump sum payment. The member may then elect to receive the reduced monthly annuity under any of the other optional forms of payment.

Actuarial equivalence is based on tables adopted by the Board of Trustees.



Schedule F – State Employees’ Plan Provisions

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**STATE EMPLOYEES**  
**Plan Specific Benefit Provisions**

**Effective Date:** March 1, 1952

**Type of Plan:** VRS is a qualified governmental defined benefit retirement plan. For Governmental Accounting Standards Board purposes, it is considered an agent multiple-employer PERS with separate cost-sharing pools for state employees and teachers.

**Service:** Employees receive credit of one month of service for each month a contribution is made on their behalf to VRS. A member may also purchase credit for certain periods, such as time spent in the military, by paying a purchase rate (5 or 15 percent of the larger of current creditable compensation or final average compensation times the number of years to be purchased). Special rules and limits govern the purchase of additional service.

**Average Final Compensation:**

Plan 1: The average of the member’s highest 36 consecutive months of salary.

Plan 2: The average of the member’s highest 60 consecutive months of salary.

**Normal Retirement:**

Plan 1: Eligibility:

A member may retire upon Normal Retirement on or after age 65 with credit for 5 years of service.

Annual Benefit:

1.7% of average final compensation (AFC) times years of service.

Payment Form:

Benefits are paid as a monthly life annuity, with a guarantee that if the payments do not exceed the member's contributions plus interest, determined as of the date at retirement, the balance will be paid in a lump sum to the member's beneficiary. Optional forms of payment are available.



## Schedule F – State Employees' Plan Provisions

Plan 2:

Eligibility:

A member may retire upon Normal Retirement after reaching Social Security normal retirement age plus five years of service.

Annual Benefit:

1.70% of average final compensation (AFC) times years of service up to January 1, 2013 plus 1.65% of AFC times years of service from January 1, 2013.

Payment Form:

Benefits are paid as a monthly life annuity, with a guarantee that if the payments do not exceed the member's contributions plus interest, determined as of the date at retirement, the balance will be paid in a lump sum to the member's beneficiary. Optional forms of payment are available.

### **Early Retirement:**

Plan 1:

Eligibility:

A member may retire early after reaching age 50 with at least ten years of service credit, or age 55 with credit for at least five years of service.

Annual Benefit:

Calculated the same as the normal retirement benefit, using actual service at retirement and multiplied by a reduction factor. No reduction applies if the member has credit for thirty years of service at retirement and is at least age 50. For members at least age 55, the reduction is 0.5% per month for the first 60 months and 0.4% per month for the next 60 months. This reduction is applied for each month that the retirement age precedes 65, or if more favorable, for each month the service at retirement is less than 30. For members younger than 55 at retirement, the reduction factor determined as though the member were 55 is further reduced by multiplying it by a second factor, to reflect a 0.6% reduction for each month retirement precedes age 55.

Payment Form:

Same as for Normal Retirement above.



## Schedule F – State Employees’ Plan Provisions

Plan 2:

Eligibility:

A member may retire early after reaching age 60 with five years of service, or upon the sum of their age and their service being 90 (Rule of 90).

Annual Benefit:

Calculated the same as the normal retirement benefit, using actual service at retirement and multiplied by a reduction factor. The reduction is an actuarially equivalent factor. No reduction is applied if the sum of the member’s age and service is equal to 90.

Payment Form:

Same as for Normal Retirement above.

**Disability Retirement - Non-VSDP:**

Eligibility:

A member hired prior to 1/1/1999 and who has declined VSDP coverage is eligible from the first day of employment.

Annual Benefit:

For members with less than five years of service credit, the minimum guaranteed benefit. For members with greater than five years of service credit, the greater of the minimum guaranteed benefit and 1.7% of AFC times service credit. Benefit is reduced by Worker’s Compensation (if any).

Minimum Guaranteed Benefit:

- Workers Compensation Guarantee:  
66 2/3% of AFC if member does not qualify for primary Social Security and 50% of AFC if member qualifies for primary Social Security.
- Special Retirement Allowance Guarantee:  
50% of AFC if member does not qualify for primary Social Security and 33 1/3% of AFC if member qualifies for primary Social Security.



## Schedule F – State Employees' Plan Provisions

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### Service Credit:

If disability occurs before age 60, service is the smaller of 1) twice actual service, and 2) rendered service plus the number of years remaining between age at disability and age 60.

### Payment Form:

The disability benefit commences immediately upon the member's retirement. Benefits cease upon recovery or reemployment. Disability benefits are payable as a monthly life annuity with a guarantee that, at the member's death, the sum of the member's contributions plus interest as of the date of retirement will be paid in a lump sum to the member's beneficiary. 100% and 50% Survivor Options are also permitted for disability retirement. (A refund of the member's contribution account is paid out for a work-related disability.)

### **Disability Retirement – VSDP:**

Provisions applying to members entering in 1999 or later and continuing members who have elected this benefit: In lieu of the above benefits, these members will be covered by the Virginia Sickness and Disability Program (VSDP). Under VSDP, these members will receive a deferred benefit payable at age 65 from this plan. The deferred benefit will be computed like a normal retirement benefit. For this calculation, a member's creditable service will include the period of disability, and the Average Final Compensation will be adjusted to reflect increases in the cost-of-living between the date of disability and age 65. If the member dies while disabled before age 65, a death benefit will be determined as though the employee were an active member.

### **Deferred Termination Benefit:**

#### Plan 1:

#### Eligibility:

A member with at least five years of service who does not withdraw his/her contributions from the fund is eligible for a deferred termination benefit.

#### Annual Benefit:

Same as normal retirement benefit, but both AFC and service are determined at the time the member leaves active employment. Benefits may commence unreduced at age 65 or at age 50 with at least 30 years of service. Reduced benefits may commence at or after age 55 with more than 5 years of service or age 50 with at least 10 years of service.



## Schedule F – State Employees' Plan Provisions

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Payment Form:

Same as for Normal Retirement above.

Death Benefit:

The beneficiary of a member who dies after leaving active service but before retiring is entitled to receive a lump sum distribution of the deceased member's contribution account.

Plan 2:

Eligibility:

A member with at least five years of service who does not withdraw his/her contributions from the fund is eligible for a deferred termination benefit.

Annual Benefit:

Same as normal retirement benefit, but both AFC and service are determined at the time the member leaves active employment. Benefits commence unreduced at Social Security Normal Retirement Age. Reduced benefits may commence on or after age 60 with five years of service.

Payment Form:

Same as for Normal Retirement above.

Death Benefit:

The beneficiary of a member who dies after leaving active service but before retiring is entitled to receive a lump sum distribution of the deceased member's contribution account.

**Withdrawal (Refund) Benefit:**

Eligibility:

All members leaving covered employment with less than five years of service are eligible. Optionally, vested members (those with five or more years of service) may withdraw their contributions plus interest in lieu of the deferred benefits otherwise due.

Benefit:

The member who withdraws receives a lump-sum payment of his/her employee contributions, plus the interest credited on these contributions. Interest is credited at 4%.



## Schedule F – State Employees’ Plan Provisions

### **Death Benefit:**

#### **Eligibility:**

Death must have occurred while an active or inactive, non-retired member.

#### **Benefit:**

Upon the death of a non-vested member, a refund of the member's contributions and interest is paid. Upon the death of a vested member, if death occurs while in active service the qualifying survivor of the member is entitled to receive a benefit determined as though the member retired, elected the 100% Survivor Option, then died. If the member dies before reaching age 55, the member is assumed to be 55 for benefit calculation purposes. The qualifying survivor may elect to receive a refund of the contributions plus interest in lieu of the monthly benefit. If the death occurs while inactive, benefits payable are described in Section 9(d).

#### **Work-Related Death:**

Qualifying survivor would receive 50% of AFC if beneficiary does not qualify for Social Security survivor benefits and 33 1/3% of AFC if beneficiary qualifies for Social Security survivor benefits. This benefit is reduced by Worker's Compensation. In addition, a refund of the member's contribution account is paid to the beneficiary.

### **Cost-of-Living Increase:**

#### **Plan 1:**

Members qualify for cost-of-living increased on July 1 of the second calendar year after retirement. Automatic cost-of-living increases are calculated as the first 3% of the Consumer Price Index increase plus half of each percentage increase from 3% to 7%.

#### **Plan 2:**

Members qualify for cost-of-living increased on July 1 of the second calendar year after retirement. Automatic cost-of-living increases are calculated as the first 2% increase of the Consumer Price Index plus half of each percent from 2% to 4%, with the maximum cost-of-living increase of 3%.

#### **Plans 1 & 2:**

The COLA is deferred for one full calendar year after the member reaches unreduced retirement age. The deferred COLA does not apply to employees within 5 years of eligibility for unreduced retirement as of January 1, 2013 and to members who retire with twenty or more years of service.



Schedule F – Teachers’ Plan Provisions

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**TEACHERS**  
**Plan Specific Benefit Provisions**

**Effective Date:** March 1, 1952

**Type of Plan:** VRS is a qualified governmental defined benefit retirement plan. For Governmental Accounting Standards Board purposes, it is considered an agent multiple-employer PERS with separate cost-sharing pools for state employees and teachers.

**Service:** Employees receive credit of one month of service for each month a contribution is made on their behalf to VRS. A member may also purchase credit for certain periods, such as time spent in the military, by paying a purchase rate (5 or 15 percent of the larger of current creditable compensation or final average compensation times the number of years to be purchased). Special rules and limits govern the purchase of additional service.

**Average Final Compensation:**

Plan 1: The average of the member’s highest 36 consecutive months of salary.

Plan 2: The average of the member’s highest 60 consecutive months of salary.

**Normal Retirement:**

Plan 1: Eligibility:

A member may retire upon Normal Retirement on or after age 65 with credit for 5 years of service.

Annual Benefit:

1.7% of average final compensation (AFC) times years of service.

Payment Form:

Benefits are paid as a monthly life annuity, with a guarantee that if the payments do not exceed the member's contributions plus interest, determined as of the date at retirement, the balance will be paid in a lump sum to the member's beneficiary. Optional forms of payment are available.



## Schedule F – Teachers’ Plan Provisions

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Plan 2:

Eligibility:

A member may retire upon Normal Retirement after reaching Social Security normal retirement age plus five years of service.

Annual Benefit:

1.70% of average final compensation (AFC) times years of service up to January 1, 2013 plus 1.65% of AFC times years of service from January 1, 2013.

Payment Form:

Benefits are paid as a monthly life annuity, with a guarantee that if the payments do not exceed the member's contributions plus interest, determined as of the date at retirement, the balance will be paid in a lump sum to the member's beneficiary. Optional forms of payment are available.

### **Early Retirement:**

Plan 1:

Eligibility:

A member may retire early after reaching age 50 with at least ten years of service credit, or age 55 with credit for at least five years of service.

Annual Benefit:

Calculated the same as the normal retirement benefit, using actual service at retirement and multiplied by a reduction factor. No reduction applies if the member has credit for thirty years of service at retirement and is at least age 50. For members at least age 55, the reduction is 0.5% per month for the first 60 months and 0.4% per month for the next 60 months. This reduction is applied for each month that the retirement age precedes 65, or if more favorable, for each month the service at retirement is less than 30. For members younger than 55 at retirement, the reduction factor determined as though the member were 55 is further reduced by multiplying it by a second factor, to reflect a 0.6% reduction for each month retirement precedes age 55.

Payment Form:

Same as for Normal Retirement above.



## Schedule F – Teachers’ Plan Provisions

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Plan 2:

Eligibility:

A member may retire early after reaching age 60 with five years of service or upon the sum of their age and their service being 90 (Rule of 90).

Annual Benefit:

Calculated the same as the normal retirement benefit, using actual service at retirement and multiplied by a reduction factor. The reduction is an actuarially equivalent factor. No reduction is applied if the sum of the member’s age and service is equal to 90.

Payment Form:

Same as for Normal Retirement above.

**Disability Retirement:**

Eligibility:

A member is eligible from the first day of employment.

Annual Benefit:

For members with less than five years of service credit, the minimum guaranteed benefit. For members with greater than five years of service credit, the greater of the minimum guaranteed benefit and 1.7% of AFC times service credit. Benefit is reduced by Worker’s Compensation (if any).

Minimum Guaranteed Benefit:

- Workers Compensation Guarantee:  
66 2/3% of AFC if member does not qualify for primary Social Security and 50% of AFC if member qualifies for primary Social Security.
- Special Retirement Allowance Guarantee:  
50% of AFC if member does not qualify for primary Social Security and 33 1/3% of AFC if member qualifies for primary Social Security.



## Schedule F – Teachers' Plan Provisions

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### Service Credit:

If disability occurs before age 60, service is the smaller of 1) twice actual service, and 2) rendered service plus the number of years remaining between age at disability and age 60.

### Payment Form:

The disability benefit commences immediately upon the member's retirement. Benefits cease upon recovery or reemployment. Disability benefits are payable as a monthly life annuity with a guarantee that, at the member's death, the sum of the member's contributions plus interest as of the date of retirement will be paid in a lump sum to the member's beneficiary. 100% and 50% Survivor Options are also permitted for disability retirement. (A refund of the member's contribution account is paid out for a work-related disability.)

### Deferred Termination Benefit:

#### Plan 1:

#### Eligibility:

A member with at least five years of service who does not withdraw his/her contributions from the fund is eligible for a deferred termination benefit.

#### Annual Benefit:

Same as normal retirement benefit, but both AFC and service are determined at the time the member leaves active employment. Benefits may commence unreduced at age 65 or at age 50 with at least 30 years of service. Reduced benefits may commence at or after age 55 with more than 5 years of service or age 50 with at least 10 years of service.

#### Payment Form:

Same as for Normal Retirement above.

#### Death Benefit:

The beneficiary of a member who dies after leaving active service but before retiring is entitled to receive a lump sum distribution of the deceased member's contribution account.



## Schedule F – Teachers’ Plan Provisions

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Plan 2:

Eligibility:

A member with at least five years of service who does not withdraw his/her contributions from the fund is eligible for a deferred termination benefit.

Annual Benefit:

Same as normal retirement benefit, but both AFC and service are determined at the time the member leaves active employment. Benefits commence unreduced at Social Security Normal Retirement Age. Reduced benefits may commence on or after age 60 with five years of service.

Payment Form:

Same as for Normal Retirement above.

Death Benefit:

The beneficiary of a member who dies after leaving active service but before retiring is entitled to receive a lump sum distribution of the deceased member's contribution account.

**Withdrawal (Refund) Benefit:**

Eligibility:

All members leaving covered employment with less than five years of service are eligible. Optionally, vested members (those with five or more years of service) may withdraw their contributions plus interest in lieu of the deferred benefits otherwise due.

Benefit:

The member who withdraws receives a lump-sum payment of his/her employee contributions, plus the interest credited on these contributions. Interest is credited at 4%.

**Death Benefit:**

Eligibility:

Death must have occurred while an active or inactive, non-retired member.



## Schedule F – Teachers' Plan Provisions

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### Benefit:

Upon the death of a non-vested member, a refund of the member's contributions and interest is paid. Upon the death of a vested member, if death occurs while in active service the qualifying survivor of the member is entitled to receive a benefit determined as though the member retired, elected the 100% Survivor Option, then died. If the member dies before reaching age 55, the member is assumed to be 55 for benefit calculation purposes. The qualifying survivor may elect to receive a refund of the contributions plus interest in lieu of the monthly benefit. If the death occurs while inactive, benefits payable are described in Section 9(d).

### Work-Related Death:

Qualifying survivor would receive 50% of AFC if beneficiary does not qualify for Social Security survivor benefits and 33 1/3% of AFC if beneficiary qualifies for Social Security survivor benefits. This benefit is reduced by Worker's Compensation. In addition, a refund of the member's contribution account is paid to the beneficiary.

### Cost-of-Living Increase:

- Plan 1: Members qualify for cost-of-living increased on July 1 of the second calendar year after retirement. Automatic cost-of-living increases are calculated as the first 3% of the Consumer Price Index increase plus half of each percentage increase from 3% to 7%.
- Plan 2: Members qualify for cost-of-living increased on July 1 of the second calendar year after retirement. Automatic cost-of-living increases are calculated as the first 2% increase of the Consumer Price Index plus half of each percent from 2% to 4%, with the maximum cost-of-living increase of 3%.
- Plans 1 & 2: The COLA is deferred for one full calendar year after the member reaches unreduced retirement age. The deferred COLA does not apply to employees within 5 years of eligibility for unreduced retirement as of January 1, 2013 and to members who retire with twenty or more years of service.



Schedule F – State Police Plan Provisions

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**STATE POLICE**  
**Plan Specific Benefit Provisions**

**Effective Date:** July 1, 1950

**Type of Plan:** SPORS is a qualified governmental defined benefit retirement plan. For Governmental Accounting Standards Board purposes, it is considered a single-employer PERS.

**Service:** Employees receive credit of one month of service for each month a contribution is made on their behalf to SPORS. A member may also purchase credit for certain periods, such as time spent in the military, by paying a purchase rate (5 or 15 percent of the larger of current creditable compensation or final average compensation times the number of years to be purchased). Special rules and limits govern the purchase of additional service.

**Average Final Compensation:**

Plan 1: The average of the member's highest 36 consecutive months of salary.

Plan 2: The average of the member's highest 60 consecutive months of salary.

**Normal Retirement:** Eligibility:

A member may retire upon Normal Retirement on or after age 60 with credit for 5 years of service.

Annual Benefit:

1.85% of average final compensation (AFC) times years of service. (Previously 1.7% of AFC times years of service.)

Payment Form:

Benefits are paid as a monthly life annuity, with a guarantee that if the payments do not exceed the member's contributions plus interest, determined as of the date at retirement, the balance will be paid in a lump sum to the member's beneficiary. Optional forms of payment are available.



## Schedule F – State Police Plan Provisions

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### Temporary supplement:

A member hired on or after July 1, 1974 who has 20 or more years of hazardous service at retirement or a member hired before July 1, 1974 who is vested under SPORS/VaLORS benefits shall receive an additional annual retirement allowance of \$13,128 payable from the date of retirement to their Social Security normal retirement age. This amount is adjusted biennially based upon increases in Social Security benefits during the interim period.

### **Early Retirement:**

#### Eligibility:

A member may retire early after reaching age 50 with at least five years of service.

#### Annual Benefit:

Calculated the same as the normal retirement benefit, using actual service at retirement and reduced by 1/2% for the first 60 months and 4/10% for any additional months of early retirement. This reduction is applied for each month that the retirement age precedes 60, or if more favorable, for each month the service at retirement is less than 25. No reduction applies if the member has credit for 25 years of service at retirement.

#### Payment Form:

Same as for Normal Retirement above.

### Temporary Supplement:

A member hired on or after July 1, 1974 who has 20 or more years of hazardous service at retirement or a member hired before July 1, 1974 who is vested under SPORS/VaLORS benefits shall receive an additional annual retirement allowance of \$13,128 payable from the date of retirement to their Social Security normal retirement age. This amount is adjusted biennially based upon increases in Social Security benefits during the interim period.



## Schedule F – State Police Plan Provisions

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### **Disability Retirement - Non-VSDP:**

#### Eligibility:

A member hired prior to 1/1/1999 and who has declined VSDP coverage is eligible from the first day of employment.

#### Monthly Benefit:

For members with less than five years of service credit, the minimum guaranteed benefit. For members with greater than five years of service credit, the greater of the minimum guaranteed benefit and 1.7% of AFC times service credit. Benefit is reduced by Worker's Compensation (if any).

#### Minimum Guaranteed Benefit:

- **Workers Compensation Guarantee:**  

66 2/3% of AFC if member does not qualify for primary Social Security and 50% of AFC if member qualifies for primary Social Security.
- **Special Retirement Allowance Guarantee:**  

50% of AFC if member does not qualify for primary Social Security and 33 1/3% of AFC if member qualifies for primary Social Security.

#### Service Credit:

If disability occurs before age 60, service is the smaller of 1) twice actual service, and 2) rendered service plus the number of years remaining between age at disability and age 60.



## Schedule F – State Police Plan Provisions

### Payment Form:

The disability benefit commences immediately upon the member's retirement. Benefits cease upon recovery or reemployment. Disability benefits are payable as a monthly life annuity with a guarantee that, at the member's death, the sum of the member's contributions plus interest as of the date of retirement will be paid in a lump sum to the member's beneficiary. 100% and 50% Survivor Options are also permitted for disability retirement. (A refund of the member's contribution account is paid out for a work-related disability.)

### **Disability Retirement – VSDP:**

Provisions applying to members entering in 1999 or later and continuing members who have elected this benefit: In lieu of the above benefits, these members will be covered by the Virginia Sickness and Disability Program (VSDP). Under VSDP, these members will receive a deferred benefit payable at age 60 from this plan. The deferred benefit will be computed like a normal retirement benefit. For this calculation, a member's creditable service will include the period of disability, and the Average Final Compensation will be adjusted to reflect increases in the cost-of-living between the date of disability and age 60. If the member dies while disabled before age 60, a death benefit will be determined as though the employee were an active member.

### **Deferred Termination Benefit:**

#### Eligibility:

A member with at least five years of service who does not withdraw his/her contributions from the fund is eligible for a deferred termination benefit.

#### Annual Benefit:

Same as normal retirement benefit, but both AFC and service are determined at the time the member leaves active employment. Benefits may commence unreduced at age 60 or at age 50 with at least 25 years of service. Reduced benefits may commence at or after age 50 if the member is not eligible for an unreduced benefit.

#### Payment Form:

The form of payment is the same as for Normal Retirement above.



## Schedule F – State Police Plan Provisions

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### Death Benefit:

The beneficiary of a member who dies after leaving active service but before retiring is entitled to receive a lump sum distribution of the deceased member's contribution account.

### **Withdrawal (Refund) Benefit:**

#### Eligibility:

All members leaving covered employment with less than five years of service are eligible. Optionally, vested members (those with five or more years of service) may withdraw their contributions plus interest in lieu of the deferred benefits otherwise due.

#### Benefit:

The member who withdraws receives a lump-sum payment of his/her employee contributions, plus the interest credited on these contributions. Interest is credited at 4%.

### **Death Benefit**

#### Eligibility:

Death must have occurred while an active, non-retired member.

#### Benefit:

Upon the death of a non-vested member, a refund of the member's contributions and interest is paid. Upon the death of a vested member, if death occurs while in active service the qualifying survivor of the member is entitled to receive a benefit determined as though the member retired, elected the 100% Survivor Option, then died. If the member dies before reaching age 50, the member is assumed to be 50 for benefit calculation purposes. The qualifying survivor may elect to receive a refund of the contributions plus interest in lieu of the monthly benefit. If the death occurs while inactive, benefits payable are described in Section 9(d).

#### Work-Related Death:

Qualifying survivor would receive 50% of AFC if beneficiary does not qualify for Social Security survivor benefits and 33 1/3% of AFC if beneficiary qualifies for Social Security survivor benefits. This benefit is reduced by Worker's Compensation. In addition, a refund of the member's contribution account is paid to the beneficiary.



## Schedule F – State Police Plan Provisions

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### **Cost-of-Living Increase:**

- Plan 1: Members qualify for cost-of-living increased on July 1 of the second calendar year after retirement. Automatic cost-of-living increases are calculated as the first 3% of the Consumer Price Index increase plus half of each percentage increase from 3% to 7%.
- Plan 2: Members qualify for cost-of-living increased on July 1 of the second calendar year after retirement. Automatic cost-of-living increases are calculated as the first 2% increase of the Consumer Price Index plus half of each percent from 2% to 4%, with the maximum cost-of-living increase of 3%. This COLA will be deferred until the date at which the member is eligible for unreduced retirement.
- Plans 1 & 2: The COLA is deferred for one full calendar year after the member reaches unreduced retirement age. The deferred COLA does not apply to employees within 5 years of eligibility for unreduced retirement as of January 1, 2013 and to members who retire with twenty or more years of service.



*Schedule F – Judicial Plan Provisions*

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**JUDICIAL**  
**Plan Specific Benefit Provisions**

<b>Effective Date:</b>	July 1, 1970
<b>Type of Plan:</b>	JRS is a qualified governmental defined benefit retirement plan. For Governmental Accounting Standards Board purposes, it is considered a single-employer PERS.
<b>Service:</b>	
Plan 1:	Employees receive credit of one month of service multiplied by a weighting factor of 3.5 (2.5 for judges entering JRS on or after January 1, 1995) for each month a contribution is made on their behalf to JRS. This weighted service is used for all purposes under this plan, including determining a member's vested status, determining whether a member is eligible for retirement, computing early retirement reductions, and computing the amount of the benefit. A member may also purchase credit for certain periods, such as time spent in the military, by paying a purchase rate (5 or 15 percent of the larger of current creditable compensation or final average compensation times the number of years to be purchased). Special rules and limits govern the purchase of additional service.
Plan 2:	Employees receive credit of one month of service multiplied by a tiered weighting factor for each month a contribution is made on their behalf to JRS. First term judges under age 45 use a weighting factor of 1.5, judges age 45 – 54 use a weighting factor of 2.0, and judges age 55 and above use a weighting factor of 2.5. This weighted service is used for all purposes under this plan, including determining a member's vested status, determining whether a member is eligible for retirement, computing early retirement reductions, and computing the amount of the benefit. A member may also purchase credit for certain periods, such as time spent in the military, by paying a purchase rate (5 or 15 percent of the larger of current creditable compensation or final average compensation times the number of years to be purchased). Special rules and limits govern the purchase of additional service.
<b>Average Final Compensation:</b>	
Plan 1:	The average of the member's highest 36 consecutive months of salary.
Plan 2:	The average of the member's highest 60 consecutive months of salary.



## Schedule F – Judicial Plan Provisions

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### **Normal Retirement**

#### Eligibility:

A member may retire upon Normal Retirement on or after age 65 with credit for 5 years of service.

#### Annual Benefit:

1.7% of average final compensation (AFC) times years of service, not to exceed 78% of AFC. For members hired after January 1, 2013, the benefit multiplier is 1.65%.

#### Payment Form:

Benefits are paid as a monthly life annuity, with a guarantee that if the payments do not exceed the member's contributions plus interest, determined as of the date at retirement, the balance will be paid in a lump sum to the member's beneficiary. Optional forms of payment are available.

### **Early Retirement**

#### Eligibility:

A member may retire early after reaching age 55 with credit for five years of service.

#### Annual Benefit:

Calculated the same as the normal retirement benefit, using actual service at retirement and multiplied by a reduction factor. No reduction applies if the member has reached age 60 and has credit for 30 or more years of creditable service. For other members, the reduction is 0.5% per month for the first 60 months and 0.4% per month for the next 60 months. This reduction is measured from the later of age 60 and the point at which the member would have earned 30 years of service, or if more favorable, from age 65.

#### Payment Form:

Same as for Normal Retirement above.



## Schedule F – Judicial Plan Provisions

### **Disability Retirement**

#### Eligibility:

A member is eligible from the first day of employment.

#### Annual Benefit:

For members with less than five years of service credit, the minimum guaranteed benefit. For members with greater than five years of service credit, the greater of the minimum guaranteed benefit and 1.7% of AFC times service credit. Benefit is reduced by Worker's Compensation (if any).

#### Minimum Guaranteed Benefit:

- **Workers Compensation Guarantee:**  
66 2/3% of AFC if member does not qualify for primary Social Security and 50% of AFC if member qualifies for primary Social Security.
- **Special Retirement Allowance Guarantee**  
50% of AFC if member does not qualify for primary Social Security and 33 1/3% of AFC if member qualifies for primary Social Security.

#### Service Credit:

If disability occurs before age 60, service is the smaller of 1) twice actual service, and 2) rendered service plus the number of years remaining between age at disability and age 60.

#### Payment Form:

The disability benefit commences immediately upon the member's retirement. Benefits cease upon recovery or reemployment. Disability benefits are payable as a monthly life annuity with a guarantee that, at the member's death, the sum of the member's contributions plus interest as of the date of retirement will be paid in a lump sum to the member's beneficiary. 100% and 50% Survivor Options are also permitted for disability retirement. (A refund of the member's contribution account is paid out for a work-related disability.)



## Schedule F – Judicial Plan Provisions

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### **Deferred Termination Benefit Eligibility:**

A member with at least five years of service who does not withdraw his/her contributions from the fund is eligible for a deferred termination benefit

#### **Annual Benefit:**

Same as normal retirement benefit, but both AFC and service are determined at the time the member leaves active employment. Benefits may commence unreduced at age 65 or at age 60 with at least 30 years of service. Reduced benefits may commence at or after age 55 if the member is not eligible for an unreduced benefit.

#### **Payment Form:**

The form of payment is the same as for Normal Retirement above.

#### **Death Benefit:**

The beneficiary of a member who dies after leaving active service but before retiring is entitled to receive a lump sum distribution of the deceased member's contribution account.

### **Withdrawal (Refund) Benefit**

#### **Eligibility:**

All members leaving covered employment with less than five years of service are eligible. Optionally, vested members (those with five or more years of service) may withdraw their contributions plus interest in lieu of the deferred benefits otherwise due.

#### **Benefit:**

The member who withdraws receives a lump-sum payment of his/her employee contributions, plus the interest credited on these contributions. Interest is credited at 4%.



## Schedule F – Judicial Plan Provisions

### **Death Benefit**

#### Eligibility:

Death must have occurred while an active, non-retired member.

#### Benefit:

Upon the death of a non-vested member, a refund of the member's contributions and interest is paid. Upon the death of a vested member, if death occurs while in active service the qualifying survivor of the member is entitled to receive a benefit determined as though the member retired, elected the 100% Survivor Option, then died. If the member dies before reaching age 55, the member is assumed to be 55 for benefit calculation purposes. The qualifying survivor may elect to receive a refund of the contributions plus interest in lieu of the monthly benefit. If the death occurs while inactive, benefits payable are described in Section 8(d).

#### Work-Related Death:

Qualifying survivor would receive 50% of AFC if beneficiary does not qualify for Social Security survivor benefits, and 33 1/3% of AFC if beneficiary qualifies for Social Security survivor benefits. This benefit is reduced by Worker's Compensation. In addition, a refund of the member's contribution account is paid to the beneficiary.

### **Cost-of-Living Increase:**

- Plan 1: Members qualify for cost-of-living increased on July 1 of the second calendar year after retirement. Automatic cost-of-living increases are calculated as the first 3% of the Consumer Price Index increase plus half of each percentage increase from 3% to 7%.
- Plan 2: Members qualify for cost-of-living increased on July 1 of the second calendar year after retirement. Automatic cost-of-living increases are calculated as the first 2% increase of the Consumer Price Index plus half of each percent from 2% to 4%, with the maximum cost-of-living increase of 3%.
- Plans 1 & 2: The COLA is deferred for one full calendar year after the member reaches unreduced retirement age. The deferred COLA does not apply to employees within 5 years of eligibility for unreduced retirement as of January 1, 2013 and to members who retire with twenty or more years of service.



Schedule F – Virginia Law Officers’ Plan Provisions

**VIRGINIA LAW OFFICERS  
Plan Specific Benefit Provisions**

**Effective Date:** October 1, 1999

**Type of Plan:** VaLORS is a qualified governmental defined benefit retirement plan. For Governmental Accounting Standards Board purposes, it is considered a single-employer PERS.

**Service:** Employees receive credit of one month of service for each month a contribution is made on their behalf to VaLORS. A member may also purchase credit for certain periods, such as time spent in the military, by paying a purchase rate (5 or 15 percent of the larger of current creditable compensation or final average compensation times the number of years to be purchased). Special rules and limits govern the purchase of additional service.

**Average Final Compensation:**

Plan 1: The average of the member’s highest 36 consecutive months of salary.

Plan 2: The average of the member’s highest 60 consecutive months of salary.

**Normal Retirement:** Eligibility:

A member may retire upon Normal Retirement on or after age 60 with credit for 5 years of service.

Annual Benefit:

For all employees hired on or after July 1, 2001, the benefit is calculated as 2.0% of average final compensation (AFC) times years of service.

Employees hired before July 1, 2001, must make a one-time election to receive benefits under (i) or (ii) below:

(i) 1.7% of average final compensation (AFC) times years of service plus the temporary supplement described in 5(d).

(ii) 2.0% of average final compensation (AFC) times years of service and no temporary supplement.



## Schedule F – Virginia Law Officers’ Plan Provisions

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### Payment Form:

Benefits are paid as a monthly life annuity, with a guarantee that if the payments do not exceed the member's contributions plus interest, determined as of the date at retirement, the balance will be paid in a lump sum to the member's beneficiary. Optional forms of payment are available.

### Temporary supplement:

Temporary Supplement: A member who is hired before July 1, 2001, and who was either (i) hired on or after July 1, 1974 who has 20 or more years of hazardous service at retirement or (ii) a member hired before July 1, 1974 who is vested under SPORS/VaLORS benefits shall be eligible to receive an additional annual retirement allowance of \$13,128 payable from the date of retirement to age 65. This amount is adjusted biennially based upon increases in Social Security benefits during the interim period. The eligible employee must have made a one-time election to receive benefits under b(i) to receive this supplement.

### Early Retirement:

#### Eligibility:

A member may retire early after reaching age 50 with credit for five years of service.

#### Annual Benefit:

Calculated the same as the normal retirement benefit, using actual service at retirement and reduced by 0.5% per month for the first 60 months and 0.4% per month for any additional months of early retirement. This reduction is applied for each month that the retirement age precedes 60, or if more favorable, for each month the service at retirement is less than 25. No reduction applies if the member has credit for 25 years of service at retirement.

#### Payment Form:

Same as for Normal Retirement above.



## Schedule F – Virginia Law Officers’ Plan Provisions

### Temporary Supplement:

Temporary Supplement: A member who is hired before July 1, 2001, and who was either (i) hired on or after July 1, 1974 who has 20 or more years of hazardous service at retirement or (ii) a member hired before July 1, 1974 who is vested under SPORS/VaLORS benefits shall be eligible to receive an additional annual retirement allowance or \$13,128 payable from the date of retirement to age 65. This amount is adjusted biennially based upon increases in Social Security benefits during the interim period. The eligible employee must have made a one-time election to receive benefits under 5(b)(i) to receive this supplement.

### Disability Retirement - Non-VSDP:

#### Eligibility:

A member hired prior to 1/1/1999 and who has declined VSDP coverage is eligible from the first day of employment.

#### Monthly Benefit:

For members with less than five years of service credit, the minimum guaranteed benefit. For members with greater than five years of service credit, the greater of the minimum guaranteed benefit and 1.7% of AFC times service credit. Benefit is reduced by Worker’s Compensation (if any).

#### Minimum Guaranteed Benefit:

- Workers Compensation Guarantee:  
66 2/3% of AFC if member does not qualify for primary Social Security and 50% of AFC if member qualifies for primary Social Security.
- Special Retirement Allowance Guarantee:  
50% of AFC if member does not qualify for primary Social Security and 33 1/3% of AFC if member qualifies for primary Social Security.



## Schedule F – Virginia Law Officers' Plan Provisions

### Service Credit:

If disability occurs before age 60, service is the smaller of 1) twice actual service, and 2) rendered service plus the number of years remaining between age at disability and age 60.

### Payment Form:

The disability benefit commences immediately upon the member's retirement. Benefits cease upon recovery or reemployment. Disability benefits are payable as a monthly life annuity with a guarantee that, at the member's death, the sum of the member's contributions plus interest as of the date of retirement will be paid in a lump sum to the member's beneficiary. 100% and 50% Survivor Options are also permitted for disability retirement. (A refund of the member's contribution account is paid out for a work-related disability.)

### **Disability Retirement – VSDP:**

Provisions applying to members entering in 1999 or later and continuing members who have elected this benefit: In lieu of the above benefits, these members will be covered by the Virginia Sickness and Disability Program (VSDP). Under VSDP, these members will receive a deferred benefit payable at age 60 from this plan. The deferred benefit will be computed like a normal retirement benefit. For this calculation, a member's creditable service will include the period of disability, and the Average Final Compensation will be adjusted to reflect increases in the cost-of-living between the date of disability and age 60. If the member dies while disabled before age 60, a death benefit will be determined as though the employee were an active member.

### **Deferred Termination Benefit:**

#### Eligibility:

A member with at least five years of service who does not withdraw his/her contributions from the fund is eligible for a deferred termination benefit.

#### Annual Benefit:

Same as normal retirement benefit, but both AFC and service are determined at the time the member leaves active employment. Benefits may commence unreduced at age 60 or at age 50 with at least 25 years of service. Reduced benefits may commence at or after age 50 if the member is not eligible for an unreduced benefit.



## Schedule F – Virginia Law Officers’ Plan Provisions

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### Payment Form:

The form of payment is the same as for Normal Retirement above.

### Death Benefit:

The beneficiary of a member who dies after leaving active service but before retiring is entitled to receive a lump sum distribution of the deceased member's contribution account.

### Withdrawal (Refund) Benefit:

#### Eligibility:

All members leaving covered employment with less than five years of service are eligible. Optionally, vested members (those with five or more years of service) may withdraw their contributions plus interest in lieu of the deferred benefits otherwise due.

#### Benefit:

The member who withdraws receives a lump-sum payment of his/her employee contributions, plus the interest credited on these contributions. Interest is credited at 4%.

### Death Benefit:

#### Eligibility:

Death must have occurred while an active or inactive, non-retired member.

#### Benefit:

Upon the death of a non-vested member, a refund of the member's contributions and interest is paid. Upon the death of a vested member, if death occurs while in active service the qualifying survivor of the member is entitled to receive a benefit determined as though the member retired, elected the 100% Survivor Option, then died. If the member dies before reaching age 50, the member is assumed to be 50 for benefit calculation purposes. The qualifying survivor may elect to receive a refund of the contributions plus interest in lieu of the monthly benefit. If the death occurs while inactive, benefits payable are described in Section 9(d).



## Schedule F – Virginia Law Officers’ Plan Provisions

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### Work-Related Death:

Qualifying survivor would receive 50% of AFC if beneficiary does not qualify for Social Security survivor benefits and 33 1/3% of AFC if beneficiary qualifies for Social Security survivor benefits. This benefit is reduced by Worker's Compensation. In addition, a refund of the member's contribution account is paid to the beneficiary.

### Cost-of-Living Increase:

- Plan 1: Members qualify for cost-of-living increased on July 1 of the second calendar year after retirement. Automatic cost-of-living increases are calculated as the first 3% of the Consumer Price Index increase plus half of each percentage increase from 3% to 7%.
- Plan 2: Members qualify for cost-of-living increased on July 1 of the second calendar year after retirement. Automatic cost-of-living increases are calculated as the first 2% increase of the Consumer Price Index plus half of each percent from 2% to 4%, with the maximum cost-of-living increase of 3%.
- Plans 1 & 2: The COLA is deferred for one full calendar year after the member reaches unreduced retirement age. The deferred COLA does not apply to employees within 5 years of eligibility for unreduced retirement as of January 1, 2013 and to members who retire with twenty or more years of service.



## Schedule F – Summary of Plan Changes

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### Summary of Plan Changes

#### 1996 Valuation

1. Any member with at least 25 years of service may purchase prior service credit for a) active duty military service in the armed forces of the United States, b) certified creditable service in the retirement system of another state, or c) both at the rate of 5% of current compensation or average final compensation, if greater, times years of service purchased.
2. VRS may enter into an agreement with any political subdivision of the Commonwealth of Virginia which has a defined benefit plan that is not supplemental to VRS to permit portability of service credit on a cost-neutral basis.
3. Early retirement is allowed at age 50 with 10 years of service. The early retirement benefit is determined as if the member is age 55 (but using actual service and AFC) reduced by 0.6% for each month the member is younger than age 55. This benefit can be no smaller than the value of the member's contributions and interest paid in monthly installments over the member's lifetime.
4. The service multiplier for judges entering the Retirement System after January 1, 1995 is 2.5.
5. Effective 7/1/98, a health credit of \$1.50 per month per year of service (up to 30 years) is automatically provided to teachers in VRS who retire with at least 15 years of service. An additional credit of \$1.00 per month per year of service (up to 30 years) can be provided.

#### 1998 Valuation

1. Effective January 1, 1999, the retirement benefit became 1.7% of average final pay times years of service. The 3% benefit adjustment was eliminated for future retirees. A 1.6% ad hoc benefit increase was provided for all retirees and beneficiaries receiving benefits as of December 31, 1999.
2. On January 1, 1999, the Virginia Sickness and Disability Program became effective. All future new members will be covered by this program, and will only receive a deferred retirement benefit from VRS. Members joining before 1999 were allowed to make a one-time irrevocable election to join this program. (Applies to State Employees and State Police.)
3. Effective July 1, 1999, state employees, teachers and employees of participating local units that had not elected out of this benefit may retire with an unreduced benefit if they are at least 50 years old and they have earned at least 30 years of service.

#### 1999 Valuation

1. 100% Joint and Survivor Option is payable in the case of death of a member who dies while in active service.
2. 100% Joint and Survivor Option is payable for disability retirement.



## Schedule F – Summary of Plan Changes

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### **2000 Valuation**

1. On October 1, 1999, the Virginia Law Officers' Retirement System became effective.
2. On November 15, 2000 the VRS Board of Trustees adopted the recommended economic and demographic assumptions proposed by the actuary as a result of the June 2000 actuarial experience.
3. The Board of Trustees adopted the use of a "pooled" contribution rate for State Employees and Teachers.

### **2001 Valuation**

1. The State Police System had their temporary supplement starting at retirement extended from age 65 to their Social Security retirement age.
2. The Virginia Law Officers System has changed their benefit multiplier from 1.7% to 2.0% of pay with no temporary supplement for all new hires and rehires after July 1, 2001 as well as for current participants who have made an election to change formulas.
3. The Partial Lump Sum Option was added as an additional optional form of payment. This option provides the retiring member with a lump sum payment equal to the sum of 12, 24, or 36 payments of the standard monthly life annuity. The member's monthly annuity is actuarially reduced to reflect the lump sum payment.

### **2002 Valuation**

No material changes were made to the plan provisions.

### **2003 Valuation**

No actuarially material changes were made to the plan provisions. Listed below are the two minor changes of note.

1. School superintendents with five years of service may now purchase an additional ten years of out-of-state service. The superintendent must not be eligible for an out-of-state benefit.
2. The leveling option was restored as an optional form of payment. Benefits may be leveled to age 62 or older, and the benefit cannot reduce more than 50%. Any COLAs are calculated on the basic benefit amount.

### **2004 Valuation**

No material changes were made to the plan provisions.



## Schedule F – Summary of Plan Changes

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### **2005 Valuation**

No material changes were made to the plan provisions.

### **2006 Valuation**

No material changes were made to the plan provisions.

### **2007 Valuation**

The State Police changed their benefit multiplier from 1.7% to 1.85% of pay.

### **2008 Valuation**

No material changes were made to the plan provisions.

### **2009 Valuation**

The temporary retirement supplement for SPORS and VaLORS changed from \$11,508 to \$12,456.

### **2010 Valuation**

No material changes were made to the plan provisions.

### **2011 Valuation**

In 2010, VRS adopted a second retirement plan. All employees hired on or after July 1, 2010 are automatically enrolled in this plan. The differences between Plan 1 and Plan 2 are listed below:

1. The Average Final Compensation is now based on the highest 60 consecutive months of service.
2. The Cost of Living Adjustment was adjusted to be the first 2% increase of the Consumer Price Index plus half of each percent from 2% to 10%, with the maximum cost-of-living increases of 6%.
3. The Normal Retirement Age is Social Security normal retirement age plus five years of service. A member is eligible for unreduced early retirement when the sum of his or her age plus years of service is 90 (Rule of 90). Eligibility for reduced early retirement is at age 60 with five years of service.
4. Judges service weight has been changed. For first term judges less than age 45 the service weight is 1.5; for judges age 45 – 54 the service weight is 2.0; finally, for judges age 55 and above the service weight is 2.5.

The State Employees Plan and the Teachers Plan adopted changes 1, 2, and 3 listed above. The State Police Plan and the Virginia Law Officers Plan adopted changes 1 and 2 listed above. The Judicial Plan adopted changes 1, 2, and 4



## Schedule F – Summary of Plan Changes

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### **2012 Valuation**

In, 2012 HB 1130 / SB 498 was enacted and will go into effect on January 1, 2013. A summary of this bill is listed below:

1. Active non-vested members in Plan 1 will have their Average Final Compensation based on the highest 60 consecutive months of service instead of the highest 36 consecutive months of service. This provision applies to all plans.
2. Active non-vested members in Plan 1 and all Plan 2 members will accrue benefits at 1.65% as of the effective date. This provision applies only to the State and Teacher Plans as well as members in political subdivision plans not covered by hazardous duty benefits members.
3. Active members in the Judicial plan hired after January 1, 2013 will accrue benefits at 1.65%.
4. Active non-vested members in Plan 1 will now have to satisfy the Rule of 90 (sum of age and service at least 90) or reach their Social Security Normal Retirement Age to be eligible for Unreduced Retirement. These same members must attain age 60 with 5 years of service to be eligible for Early Retirement. This provision applies only to the State and Teachers Plans as well as members in political subdivision plans not covered by hazardous duty benefits members.
5. Active non-vested members in Plan 1 and all Plan 2 members will only be able to receive a maximum COLA of 3%. This provision applies to all plans.
6. All active employees not within 5 years of eligibility for unreduced retirement as of January 1, 2013 and retiring with less than 20 years of service will have their COLA deferred to one year after their unreduced retirement date after beginning to receive benefits. All active employees within 5 years of eligibility for unreduced retirement as of January 1, 2013 are grandfathered into the old provisions with no deferral of the COLA.



Schedule G – Schedule of Active Member Data

**STATE EMPLOYEES  
AS OF June 30, 2013**

Attained Age	Completed Years of Service								Total	Payroll
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+			
Under 20	33	0	0	0	0	0	0	33	\$ 731,294	
20 to 24	1,589	21	0	0	0	0	0	1,610	\$ 47,633,879	
25 to 29	3,989	924	12	0	0	0	0	4,925	\$ 178,207,155	
30 to 34	3,489	2,544	467	15	0	0	0	6,515	\$ 275,189,437	
35 to 39	2,785	2,377	1,243	335	13	0	0	6,753	\$ 314,520,568	
40 to 44	2,658	2,578	1,601	1,043	444	25	0	8,349	\$ 404,537,698	
45 to 49	2,441	2,505	1,773	1,256	1,304	806	29	10,114	\$ 489,253,885	
50 to 54	2,100	2,500	1,917	1,340	1,650	1,725	1,037	12,269	\$ 613,643,096	
55 to 59	1,633	2,135	1,756	1,348	1,476	1,519	2,591	12,458	\$ 657,074,413	
60	264	364	311	258	284	262	560	2,303	\$ 123,582,369	
61	169	296	310	236	270	257	531	2,069	\$ 111,498,326	
62	189	278	243	228	233	229	412	1,812	\$ 99,648,103	
63	114	240	239	186	190	192	380	1,541	\$ 87,751,936	
64	92	192	208	152	159	179	329	1,311	\$ 76,636,986	
65	68	156	175	126	128	124	293	1,070	\$ 63,841,999	
66	47	116	121	107	114	84	235	824	\$ 48,879,865	
67	31	69	73	52	50	57	131	463	\$ 29,614,600	
68	22	58	48	31	47	41	115	362	\$ 22,043,514	
69	17	44	45	32	32	33	111	314	\$ 20,751,417	
70 & Over	32	84	111	90	91	89	287	784	\$ 51,507,629	
Total	21,762	17,481	10,653	6,835	6,485	5,622	7,041	75,879	\$ 3,716,548,169	

Average Age: 48.25

Average Service: 12.83



Schedule G – Schedule of Active Member Data

**TEACHERS**  
**AS OF June 30, 2013**

Attained Age	Completed Years of Service							Total	Payroll
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+		
Under 20	8	0	0	0	0	0	0	8	\$ 147,709
20 to 24	3,388	19	0	0	0	0	0	3,407	\$ 128,223,724
25 to 29	10,535	4,088	12	0	0	0	0	14,635	\$ 610,462,125
30 to 34	4,835	9,810	2,833	11	0	0	0	17,489	\$ 793,760,402
35 to 39	3,514	5,235	6,159	1,543	5	0	0	16,456	\$ 788,960,759
40 to 44	3,903	5,221	4,782	4,640	1,345	9	0	19,900	\$ 983,853,102
45 to 49	3,298	5,078	4,159	2,669	3,135	1,074	11	19,424	\$ 948,125,106
50 to 54	2,449	4,526	4,487	2,726	2,250	2,789	1,176	20,403	\$ 1,013,438,631
55 to 59	1,423	3,095	3,778	2,886	2,465	1,985	3,265	18,897	\$ 1,012,838,080
60	175	448	546	549	513	400	648	3,279	\$ 183,536,962
61	158	421	547	465	443	374	636	3,044	\$ 171,011,491
62	126	329	442	412	388	306	487	2,490	\$ 139,608,185
63	112	295	324	363	337	309	377	2,117	\$ 120,396,652
64	75	219	310	266	290	244	300	1,704	\$ 96,638,822
65	66	172	226	193	219	201	238	1,315	\$ 75,011,793
66	44	152	180	144	133	119	159	931	\$ 52,476,258
67	29	54	87	72	77	60	79	458	\$ 25,836,317
68	25	56	70	54	52	48	84	389	\$ 22,221,111
69	10	40	55	26	31	29	49	240	\$ 13,129,347
70 & Over	34	102	108	92	87	70	178	671	\$ 31,866,858
Total	34,207	39,360	29,105	17,111	11,770	8,017	7,687	147,257	\$ 7,211,543,435

Average Age: 45.20

Average Service: 11.91



Schedule G – Schedule of Active Member Data

**STATE POLICE  
AS OF June 30, 2013**

Attained Age	Completed Years of Service							Total	Payroll
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+		
Under 20	0	0	0	0	0	0	0	0	\$ -
20 to 24	142	0	0	0	0	0	0	142	\$ 5,401,925
25 to 29	173	82	0	0	0	0	0	255	\$ 10,743,819
30 to 34	70	164	76	0	0	0	0	310	\$ 14,358,474
35 to 39	27	71	133	44	0	0	0	275	\$ 13,746,721
40 to 44	27	38	82	130	22	0	0	299	\$ 16,225,231
45 to 49	18	31	27	51	130	65	1	323	\$ 19,594,033
50 to 54	17	11	13	16	40	113	17	227	\$ 15,399,791
55 to 59	1	3	7	8	5	27	66	117	\$ 8,897,635
60	0	0	1	0	1	0	10	12	\$ 947,975
61	0	0	2	0	0	0	6	8	\$ 698,005
62	0	0	0	0	0	1	7	8	\$ 685,398
63	0	0	0	0	0	2	3	5	\$ 482,024
64	0	0	0	0	0	1	3	4	\$ 326,985
65	0	0	0	1	0	0	4	5	\$ 483,653
66	0	1	0	0	0	0	5	6	\$ 506,807
67	0	0	0	0	1	0	1	2	\$ 160,073
68	0	1	0	0	0	0	3	4	\$ 347,880
69	0	0	0	0	0	0	0	0	\$ -
70 & Over	0	0	0	0	0	0	0	0	\$ -
Total	475	402	341	250	199	209	126	2,002	\$ 109,006,429

Average Age: 40.35

Average Service: 13.48



Schedule G – Schedule of Active Member Data

**JUDICIAL**  
**AS OF June 30, 2013**

Attained Age	Completed Years of Service							Total	Payroll
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+		
Under 20	0	0	0	0	0	0	0	0	\$ -
20 to 24	0	0	0	0	0	0	0	0	\$ -
25 to 29	0	0	0	0	0	0	0	0	\$ -
30 to 34	0	0	0	0	0	0	0	0	\$ -
35 to 39	1	0	0	0	0	0	0	1	\$ 142,329
40 to 44	8	7	0	0	0	0	0	15	\$ 2,224,148
45 to 49	20	11	7	0	0	0	0	38	\$ 5,503,332
50 to 54	13	16	13	8	1	0	0	51	\$ 7,697,772
55 to 59	19	30	21	12	9	0	0	91	\$ 13,628,007
60	1	5	7	3	3	2	0	21	\$ 3,181,887
61	5	3	6	7	3	1	0	25	\$ 3,784,855
62	7	5	3	6	3	0	0	24	\$ 3,589,617
63	1	4	3	1	5	1	0	15	\$ 2,307,456
64	2	1	4	5	4	1	0	17	\$ 2,571,738
65	1	4	4	11	3	2	0	25	\$ 3,694,853
66	1	5	6	4	5	2	0	23	\$ 3,447,422
67	0	0	0	3	1	3	0	7	\$ 1,075,328
68	0	2	8	0	1	2	2	15	\$ 2,258,819
69	0	0	4	0	0	4	2	10	\$ 1,559,918
70 & Over	0	0	1	2	0	0	0	3	\$ 442,792
<b>Total</b>	<b>79</b>	<b>93</b>	<b>87</b>	<b>62</b>	<b>38</b>	<b>18</b>	<b>4</b>	<b>381</b>	<b>\$ 57,110,273</b>

Average Age: 58.66

Average Service: 11.66



Schedule G – Schedule of Active Member Data

**VIRGINIA LAW OFFICERS  
AS OF June 30, 2013**

Attained Age	Completed Years of Service							Total	Payroll
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30+		
Under 20	18	0	0	0	0	0	0	18	\$ 499,734
20 to 24	755	13	0	0	0	0	0	768	\$ 23,046,120
25 to 29	865	361	2	0	0	0	0	1,228	\$ 40,020,733
30 to 34	519	512	90	6	0	0	0	1,127	\$ 38,398,610
35 to 39	341	405	268	148	2	0	0	1,164	\$ 41,859,165
40 to 44	317	367	287	343	81	3	0	1,398	\$ 52,278,761
45 to 49	226	334	249	312	225	102	4	1,452	\$ 56,642,283
50 to 54	151	271	209	221	112	77	18	1,059	\$ 41,444,238
55 to 59	83	174	149	181	64	49	40	740	\$ 30,406,497
60	8	29	16	30	7	6	9	105	\$ 4,213,259
61	6	24	16	25	12	3	5	91	\$ 3,652,192
62	7	20	8	12	6	3	7	63	\$ 2,647,354
63	1	11	10	14	5	1	3	45	\$ 1,878,408
64	0	8	12	8	4	1	4	37	\$ 1,589,571
65	1	8	6	6	5	4	5	35	\$ 1,623,189
66	0	4	5	2	2	1	0	14	\$ 640,647
67	1	1	1	4	0	0	0	7	\$ 266,316
68	0	0	0	3	0	2	1	6	\$ 285,260
69	1	0	0	0	0	0	0	1	\$ 64,911
70 & Over	0	3	2	3	1	2	3	14	\$ 696,894
<b>Total</b>	<b>3,300</b>	<b>2,545</b>	<b>1,330</b>	<b>1,318</b>	<b>526</b>	<b>254</b>	<b>99</b>	<b>9,372</b>	<b>\$ 342,154,142</b>

Average Age: 41.10

Average Service: 9.19



Schedule H – Schedule of Retiree and Beneficiary Data

**RETIREE AND BENEFICIARY DATA  
AS OF June 30, 2013**

Employer	Prior Year Total Retirees and Beneficiaries	Retirees and Beneficiaries		Current Year Total Retirees and Beneficiaries	Current Annual Allowances (000s)	Prior Annual Allowances (000s)	Annualized % Increase in Annual Allowances	Average Annual Allowances	Prior Year Average Annual Allowances	% Increase in Average Annual Allowances
		Added	Removed							
State	48,615	2,864	1,650	49,829	\$ 1,021,572	\$ 967,750	5.6%	\$ 20,502	\$ 19,906	3.0%
Teacher	70,586	4,929	1,607	73,908	1,718,783	1,611,894	6.6%	23,256	22,836	1.8%
Political	39,570	3,504	1,317	41,757	693,202	634,291	9.3%	16,601	16,030	3.6%
Total VRS	158,771	11,297	4,574	165,494	\$ 3,433,557	\$ 3,213,935	6.8%	\$ 20,747	\$ 20,243	2.5%
State Police	1,200	44	36	1,208	47,005	45,844	2.5%	38,912	38,203	1.9%
VaLORS	2,911	336	34	3,213	75,370	63,962	17.8%	23,458	21,973	6.8%
Judicial	463	40	14	489	36,169	32,891	10.0%	73,966	71,039	4.1%
Totals	163,345	11,717	4,658	170,404	\$ 3,592,102	\$ 3,356,632	7.0%	\$ 21,080	\$ 20,549	2.6%

**CHANGE IN ALLOWANCES FOR RETIREES AND BENEFICIARIES  
AS OF June 30, 2013**

	Prior Year Annual Allowances	COLA	Additions	Deletions	Current Year Annual Allowances
State	\$ 967,750	\$ 20,032	\$ 61,953	\$ 28,163	\$ 1,021,572
Teacher	1,611,894	33,366	109,470	35,947	1,718,783
Political	634,291	13,130	65,289	19,508	693,202
Total VRS	\$ 3,213,935	\$ 66,528	\$ 236,712	\$ 83,618	\$ 3,433,557
State Police	45,844	949	1,703	1,491	47,005
VaLORS	63,962	1,324	7,237	(2,847)	75,370
Judges	32,891	681	2,802	205	36,169
Totals	\$ 3,356,632	\$ 69,482	\$ 248,454	\$ 82,466	\$ 3,592,102