

### VIRGINIA RETIREMENT SYSTEM TEACHER RETIREMENT PLAN

**GASB No. 68 Schedules** 

With Independent Auditor's Report Thereon

For the Fiscal Year Ended June 30, 2017

#### **Table of Contents**

Independent Auditor's Report	3
VRS Teacher Retirement Plan –	
Schedule of Employer Allocations	6
VRS Teacher Retirement Plan –	
Schedule of Net Pension Liability and Total Pension Expense	11
VRS Teacher Retirement Plan –	
Schedule of Deferred Outflows and Deferred Inflows	
of Resources by Employer	16
VRS Teacher Retirement Plan –	
Notes to GASB No. 68 Schedules	21

### Martha S. Mavredes, CPA Auditor of Public Accounts

### Commonwealth of Virginia

#### Auditor of Public Accounts

P.O. Box 1295 Richmond, Virginia 23218

July 12, 2018

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

#### INDEPENDENT AUDITOR'S REPORT

#### **Report on the Schedules**

We have audited the accompanying schedule of employer allocations of the Virginia Retirement System Teacher Retirement Plan as of and for the year ended June 30, 2017, and the related notes. We have also audited the total for all teacher employers of the columns titled net pension liability, total pension expense, total deferred outflows of resources, and total deferred inflows of resources (specified column totals) included in the accompanying schedule of net pension liability and total pension expense and the schedule of deferred outflows and deferred inflows of resources by employer of the Virginia Retirement System Teacher Retirement Plan as of and for the year ended June 30, 2017, and the related notes.

#### Management's Responsibility for the Schedules

The Virginia Retirement System's management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatement, whether due to fraud or error.

#### Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified column totals included in the schedule of net pension liability and total pension expense and the schedule of deferred outflows and deferred inflows of resources by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and the specified column totals included in the

schedule of net pension liability and total pension expense and the schedule of deferred outflows and deferred inflows of resources by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and the specified column totals included in the schedule of net pension liability and total pension expense and the schedule of deferred outflows and deferred inflows of resources by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified column totals included in the schedule of net pension liability and total pension expense and the schedule of deferred outflows and deferred inflows of resources by employer, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and the specified column totals included in the schedule of net pension liability and total pension expense and the schedule of deferred outflows and deferred inflows of resources by employer in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by the Virginia Retirement System management, as well as evaluating the overall presentation of the schedule of employer allocations and the specified column totals included in the schedule of net pension liability and total pension expense and the schedule of deferred outflows and deferred inflows of resources by employer.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

#### **Opinions**

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total pension expense, total deferred outflows of resources, and total deferred inflows of resources, for the total of all of the participating teacher employers for the Virginia Retirement System Teacher Retirement Plan as of and for the year ended June 30, 2017, in accordance with accounting principles generally accepted in the United States of America.

#### Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in <u>Government Auditing Standards</u>, issued by the Comptroller General of the United States, the financial statements of the Virginia Retirement System as of and for the year ended June 30, 2017, and our report thereon, dated December 15, 2017, expressed an unmodified opinion on those financial statements.

#### Restriction on Use

Our report is intended solely for the information and use of the Virginia Retirement System management, the Virginia Retirement System Board of Trustees, the Commonwealth Joint Legislative Audit and Review Commission, and the Virginia Retirement System Teacher Retirement Plan employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Maythu S. Maythelis AUDITOR OF PUBLIC ACCOUNTS

ZLB/clj

# Virginia Retirement System VRS Teacher Retirement Plan Schedule of Employer Allocations – Page 1 of 5 For the Fiscal Year Ended June 30, 2017

			Employer
Employe	r	Employer	Allocation
Code	Employer	Contributions	Percentage
40100	Accomack County School Board	\$ 3,910,649	0.34367%
40101	Albemarle County Schools	12,777,409	1.12289%
40102	Alleghany County School Board	1,695,928	0.14904%
40103	Amelia County School Board	1,239,255	0.10891%
40104	Amherst County School Board	3,357,315	0.29504%
40105	Appomattox County School Board	1,581,020	0.13894%
40106	Arlington Public Schools	41,229,265	3.62326%
40107	Augusta County School Board	8,350,365	0.73384%
40108	Bath County School Board	668,530	0.05875%
40109	Bedford County School Board	6,961,826	0.61181%
40110	Bland County School Board	562,122	0.04940%
40111	Botetourt County Schools	3,907,913	0.34343%
40112	Brunswick County Public Schools	1,390,937	0.12224%
40113	Buchanan County School Board	2,045,073	0.17972%
40114	Buckingham County School Board	1,545,783	0.13584%
40115	Campbell County School Board	5,418,663	0.47620%
40116	Caroline County School Board	2,956,420	0.25981%
40117	Carroll County School Board	3,120,833	0.27426%
40118	Charles City County School Board	671,742	0.05903%
40119	Charlotte County School Board	1,612,141	0.14168%
40120	Chesterfield County School Board	41,893,508	3.68164%
40121	Clarke County School Board	1,721,269	0.15127%
40122	Craig County School Board	498,593	0.04382%
40123	Culpeper County School Board	6,220,035	0.54662%
40124	Cumberland County School Board	1,161,193	0.10205%
40125	Dickenson County School Board	1,401,558	0.12317%
40126	Dinwiddie County School Board	3,369,230	0.29609%
40128	Essex County Public Schools	1,170,020	0.10282%
40129	Fairfax County School Board	206,588,999	18.15522%
40130	Fauquier County School Board	10,507,620	0.92342%
40131	Floyd County School Board	1,457,091	0.12805%
40132	Fluvanna County Public Schools	3,426,522	0.30113%

# Virginia Retirement System VRS Teacher Retirement Plan Schedule of Employer Allocations – Page 2 of 5 For the Fiscal Year Ended June 30, 2017

Employe	r	Employer	Allocation		
Code	Employer	Contributions	Percentage		
40133	Franklin County Public Schools	5,928,741	0.52102%		
40134	Frederick County School Board	12,336,949	1.08418%		
40135	Giles County Schools	1,751,588	0.15393%		
40136	Gloucester County School Board	4,335,827	0.38104%		
40137	Goochland County School Board	2,111,572	0.18557%		
40138	Grayson County School Board	1,289,686	0.11334%		
40139	Greene County Public Schools	2,466,470	0.21676%		
40140	Greensville County School Board	1,774,972	0.15599%		
40141	Halifax County School Board	4,073,400	0.35797%		
40142	Hanover County School Board	14,428,450	1.26798%		
40143	Henrico County School Board	37,325,862	3.28023%		
40144	Henry County Public Schools	5,250,139	0.46139%		
40145	Highland County Public Schools	277,134	0.02435%		
40146	Isle of Wight County Schools	4,194,927	0.36865%		
40148	King George County School Board	3,250,530	0.28566%		
40149	King & Queen County School Board	640,689	0.05630%		
40150	King William County School Board	1,706,234	0.14995%		
40151	Lancaster County Public Schools	1,097,411	0.09644%		
40152	Lee County School Board	2,656,179	0.23343%		
40153	Loudoun County School Board	78,008,862	6.85549%		
40154	Louisa County Public Schools	3,903,095	0.34301%		
40155	Lunenburg County School Board	1,105,072	0.09711%		
40156	Madison County School Board	1,435,916	0.12619%		
40157	Mathews County School Board	952,823	0.08373%		
40158	Mecklenburg County School Board	3,197,361	0.28099%		
40159	Middlesex County School Board	1,056,672	0.09286%		
40160	Montgomery County School Board	7,165,556	0.62972%		
40162	Nelson County Public Schools	1,641,569	0.14426%		
40163	New Kent County School Board	2,263,303	0.19890%		
40165	Northampton County Schools	1,311,996	0.11530%		
40166	Northumberland County School Board	1,137,373	0.09995%		
40167	Nottoway County School Board	1,639,552	0.14409%		
40168	Orange County Public Schools	3,794,387	0.33345%		

# Virginia Retirement System VRS Teacher Retirement Plan Schedule of Employer Allocations – Page 3 of 5 For the Fiscal Year Ended June 30, 2017

			Employer
Employe	r	Employer	Allocation
Code	Employer	Contributions	Percentage
40169	Page County Public Schools	2,653,156	0.23316%
40170	Patrick County School Board	1,933,278	0.16990%
40171	Pittsylvania County School Board	5,969,403	0.52460%
40172	Powhatan County School Board	3,462,670	0.30430%
40173	Prince Edward County School Board	1,661,567	0.14602%
40174	Prince George County School Board	4,667,619	0.41019%
40176	Prince William County School Board	74,811,537	6.57450%
40177	Pulaski County School Board	3,142,158	0.27614%
40178	Rappahannock County School Board	828,847	0.07284%
40179	Richmond County School Board	950,449	0.08353%
40180	Roanoke County School Board	11,120,197	0.97725%
40181	Rockbridge County School Board	2,327,351	0.20453%
40182	Rockingham County School Board	9,314,905	0.81860%
40183	Russell County School Board	2,606,249	0.22904%
40184	Scott County School Board	2,881,327	0.25321%
40185	Shenandoah County School Board	4,935,266	0.43372%
40186	Smyth County School Board	3,268,124	0.28721%
40187	Southampton County School Board	1,853,926	0.16292%
40188	Spotsylvania County School Board	18,178,350	1.59753%
40189	Stafford County School Board	21,806,528	1.91638%
40190	Surry County Schools	1,147,011	0.10080%
40191	Sussex County School Board	1,108,719	0.09744%
40192	Tazewell County Schools	3,831,673	0.33673%
40193	Warren County School Board	4,174,597	0.36687%
40195	Washington County School Board	5,122,939	0.45021%
40196	Westmoreland County School Board	1,395,922	0.12267%
40197	Wise County School Board	3,993,223	0.35093%
40198	Wythe County School Board	3,017,268	0.26516%
40199	York County School Board	9,689,007	0.85148%
40200	Alexandria City School Board	21,023,667	1.84758%
40201	Bristol City School Board	1,789,628	0.15727%
40202	Buena Vista City Schools	752,811	0.06616%
40203	Charlottesville Public Schools	5,466,667	0.48042%

# Virginia Retirement System VRS Teacher Retirement Plan Schedule of Employer Allocations – Page 4 of 5 For the Fiscal Year Ended June 30, 2017

Employe	r	Employer	Allocation		
Code	Employer	Contributions	Percentage		
40205	Danville City Schools	4,510,278	0.39637%		
40206	Fredericksburg City Schools	3,284,717	0.28866%		
40207	Hampton City Schools	15,806,468	1.38909%		
40208	Harrisonburg City School Board	5,374,619	0.47233%		
40209	Hopewell City School Board	3,552,876	0.31223%		
40210	Lynchburg Public Schools	8,073,021	0.70946%		
40211	Newport News Public Schools	23,034,462	2.02429%		
40212	Norfolk Public Schools	30,730,034	2.70058%		
40213	Petersburg City Schools	3,245,040	0.28518%		
40214	Portsmouth School Board	11,424,563	1.00400%		
40215	Radford City School Board	1,260,728	0.11079%		
40216	Richmond Public Schools	22,693,062	1.99429%		
40217	Roanoke City School Board	11,471,964	1.00817%		
40219	Staunton City Schools	2,451,620	0.21545%		
40220	Suffolk City School Board	10,645,526	0.93554%		
40222	Winchester Public Schools	4,205,358	0.36957%		
40223	Martinsville City Schools	1,676,401	0.14732%		
40224	Falls Church Public Schools	3,654,087	0.32112%		
40225	Colonial Heights City Schools	2,696,034	0.23693%		
40230	Covington City School Board	817,457	0.07184%		
40231	Fairfax City School Board	13,674	0.00120%		
40232	Franklin City Public Schools	1,093,471	0.09610%		
40233	Chesapeake Public Schools	32,755,761	2.87861%		
40234	Virginia Beach City School Board	57,883,454	5.08685%		
40236	Manassas Park City Schools	2,966,471	0.26070%		
40306	Town of West Point School Board	781,596	0.06869%		
40307	Lexington City School Board	400,197	0.03517%		
40308	Waynesboro Public Schools	2,598,444	0.22835%		
40309	Town of Colonial Beach Schools	516,211	0.04537%		
40313	Galax City Schools	1,029,916	0.09051%		
40314	Norton City Schools	545,299	0.04792%		
40332	Manassas City Schools	7,962,614	0.69976%		
40335	City of Salem Schools	3,172,295	0.27878%		

# Virginia Retirement System VRS Teacher Retirement Plan Schedule of Employer Allocations – Page 5 of 5 For the Fiscal Year Ended June 30, 2017

			Employer
Employe	1	Employer	Allocation
Code	Employer	Contributions	Percentage
40402	Williamsburg-James City County School Board	9,826,488	0.86356%
40403	Poquoson City Public Schools	1,664,914	0.14631%
40410	Valley Vocational Technical Center	285,538	0.02509%
40412	Charlottesville/Albemarle Vo-Tech Center	166,936	0.01467%
40413	The Pruden Center for Industry and Technology	192,728	0.01694%
40414	Jackson River Technical Center	78,683	0.00691%
40415	New Horizons Technical Center	1,183,565	0.10401%
40416	Northern Neck Regional Vocational Center	160,914	0.01414%
40417	Rowanty Vocational Technical Center	108,792	0.00956%
40418	Amelia-Nottoway Vocational Center	30,262	0.00266%
40421	Northern Neck Regional Special Education Program	113,937	0.01001%
40423	Maggie Walker Governor's School for Govt & Intl Studies	634,800	0.05579%
40424	Appomattox Region Governor's School	248,262	0.02182%
40425	Bridging Communities Regional Career and Tech Center	65,254	0.00573%
	Total for all Teacher Employers	\$ 1,137,903,954	100.00000%

The accompanying notes are an integral part of the Schedule of Employer Allocations.

## Virginia Retirement System VRS Teacher Retirement Plan Schedule of Net Pension Liability and Total Pension Expense – Page 1 of 5 As of and For the Fiscal Year Ended June 30, 2017

		Net	Total
		Pension	Pension
Employe		Liability	Expense
Code	Employer	June 30, 2017	FY 2017
40100	Accomack County School Board	42,264	2,946
40101	Albemarle County Schools	138,093	10,805
40102	Alleghany County School Board	18,329	504
40103	Amelia County School Board	13,394	1,056
40104	Amherst County School Board	36,284	2,147
40105	Appomattox County School Board	17,087	1,165
40106	Arlington Public Schools	445,588	38,531
40107	Augusta County School Board	90,248	6,548
40108	Bath County School Board	7,225	559
40109	Bedford County School Board	75,240	4,819
40110	Bland County School Board	6,075	265
40111	Botetourt County Schools	42,235	2,905
40112	Brunswick County Public Schools	15,033	562
40113	Buchanan County School Board	22,102	536
40114	Buckingham County School Board	16,705	1,265
40115	Campbell County School Board	58,563	3,525
40116	Caroline County School Board	31,951	2,348
40117	Carroll County School Board	33,728	2,499
40118	Charles City County School Board	7,260	459
40119	Charlotte County School Board	17,424	774
40120	Chesterfield County School Board	452,768	35,087
40121	Clarke County School Board	18,603	1,265
40122	Craig County School Board	5,389	248
40123	Culpeper County School Board	67,223	4,915
40124	Cumberland County School Board	12,551	1,033
40125	Dickenson County School Board	15,148	688
40126	Dinwiddie County School Board	36,413	3,045
40128	Essex County Public Schools	12,644	726
40129	Fairfax County School Board	2,232,727	173,410
40130	Fauquier County School Board	113,561	7,212
40131	Floyd County School Board	15,747	1,145
40132	Fluvanna County Public Schools	37,033	2,206

# Virginia Retirement System VRS Teacher Retirement Plan Schedule of Net Pension Liability and Total Pension Expense – Page 2 of 5 As of and For the Fiscal Year Ended June 30, 2017

		Net	Total
		Pension	Pension
<b>Employer</b>		Liability	Expense
Code	Employer	June 30, 2017	FY 2017
40133	Franklin County Public Schools	64,075	4,999
40134	Frederick County School Board	133,333	11,197
40135	Giles County Schools	18,930	1,437
40136	Gloucester County School Board	46,860	3,166
40137	Goochland County School Board	22,821	1,904
40138	Grayson County School Board	13,938	659
40139	Greene County Public Schools	26,657	2,145
40140	Greensville County School Board	19,184	1,116
40141	Halifax County School Board	44,023	2,568
40142	Hanover County School Board	155,936	10,181
40143	Henrico County School Board	403,402	27,974
40144	Henry County Public Schools	56,742	3,723
40145	Highland County Public Schools	2,994	224
40146	Isle of Wight County Schools	45,337	2,077
40148	King George County School Board	35,131	3,296
40149	King & Queen County School Board	6,924	270
40150	King William County School Board	18,441	1,493
40151	Lancaster County Public Schools	11,861	799
40152	Lee County School Board	28,707	1,687
40153	Loudoun County School Board	843,087	84,306
40154	Louisa County Public Schools	42,184	3,286
40155	Lunenburg County School Board	11,943	584
40156	Madison County School Board	15,518	941
40157	Mathews County School Board	10,297	728
40158	Mecklenburg County School Board	34,556	1,633
40159	Middlesex County School Board	11,420	704
40160	Montgomery County School Board	77,443	6,123
40162	Nelson County Public Schools	17,741	1,206
40163	New Kent County School Board	24,460	1,899
40165	Northampton County Schools	14,179	767
40166	Northumberland County School Board	12,292	1,055
40167	Nottoway County School Board	17,720	1,123

## Virginia Retirement System VRS Teacher Retirement Plan Schedule of Net Pension Liability and Total Pension Expense – Page 3 of 5 As of and For the Fiscal Year Ended June 30, 2017

		Net Pension	Total Pension
Employe	r	Liability	Expense
Code	Employer	June 30, 2017	FY 2017
40168	Orange County Public Schools	41,008	2,909
40169	Page County Public Schools	28,673	1,826
40170	Patrick County School Board	20,894	1,478
40171	Pittsylvania County School Board	64,515	4,977
40172	Powhatan County School Board	37,423	2,675
40173	Prince Edward County School Board	17,958	546
40174	Prince George County School Board	50,445	3,581
40176	Prince William County School Board	808,531	65,596
40177	Pulaski County School Board	33,960	1,736
40178	Rappahannock County School Board	8,958	534
40179	Richmond County School Board	10,272	710
40180	Roanoke County School Board	120,182	8,111
40181	Rockbridge County School Board	25,153	1,571
40182	Rockingham County School Board	100,671	7,552
40183	Russell County School Board	28,167	1,718
40184	Scott County School Board	31,140	2,144
40185	Shenandoah County School Board	53,339	3,843
40186	Smyth County School Board	35,321	1,531
40187	Southampton County School Board	20,036	1,241
40188	Spotsylvania County School Board	196,464	12,466
40189	Stafford County School Board	235,676	16,514
40190	Surry County Schools	12,396	620
40191	Sussex County School Board	11,983	614
40192	Tazewell County Schools	41,411	2,168
40193	Warren County School Board	45,117	2,975
40195	Washington County School Board	55,366	2,953
40196	Westmoreland County School Board	15,086	1,164
40197	Wise County School Board	43,158	2,113
40198	Wythe County School Board	32,609	1,947
40199	York County School Board	104,715	8,392
40200	Alexandria City School Board	227,215	17,398
40201	Bristol City School Board	19,341	1,086

# Virginia Retirement System VRS Teacher Retirement Plan Schedule of Net Pension Liability and Total Pension Expense – Page 4 of 5 As of and For the Fiscal Year Ended June 30, 2017

		Net	Total
		Pension	Pension
Employe	r	Liability	Expense
<u>Code</u>	<u>Employer</u>	<u>June 30, 2017</u>	FY 2017
40202	Buena Vista City Schools	8,136	548
40203	Charlottesville Public Schools	59,082	4,342
40205	Danville City Schools	48,745	1,495
40206	Fredericksburg City Schools	35,499	3,129
40207	Hampton City Schools	170,830	10,236
40208	Harrisonburg City School Board	58,087	4,922
40209	Hopewell City School Board	38,398	2,614
40210	Lynchburg Public Schools	87,249	7,037
40211	Newport News Public Schools	248,946	16,308
40212	Norfolk Public Schools	332,116	19,726
40213	Petersburg City Schools	35,072	2,001
40214	Portsmouth School Board	123,472	6,687
40215	Radford City School Board	13,625	935
40216	Richmond Public Schools	245,257	16,993
40217	Roanoke City School Board	123,985	10,069
40219	Staunton City Schools	26,496	1,684
40220	Suffolk City School Board	115,052	7,554
40222	Winchester Public Schools	45,450	3,497
40223	Martinsville City Schools	18,117	1,107
40224	Falls Church Public Schools	39,492	4,142
40225	Colonial Heights City Schools	29,138	1,579
40230	Covington City School Board	8,835	673
40231	Fairfax City School Board	148	13
40232	Franklin City Public Schools	11,818	678
40233	Chesapeake Public Schools	354,010	24,476
40234	Virginia Beach City School Board	625,579	41,220
40236	Manassas Park City Schools	32,060	3,067
40306	Town of West Point School Board	8,447	751
40307	Lexington City School Board	4,325	306
40308	Waynesboro Public Schools	28,083	1,853
40309	Town of Colonial Beach Schools	5,580	432
40313	Galax City Schools	11,130	806

## Virginia Retirement System VRS Teacher Retirement Plan Schedule of Net Pension Liability and Total Pension Expense – Page 5 of 5 As of and For the Fiscal Year Ended June 30, 2017

(Dollars in Thousands)

		F	Net Pension	Total Pension
Employer		l	iability	Expense
Code	Employer	Jun	e 30, 2017	FY 2017
40314	Norton City Schools		5,893	362
40332	Manassas City Schools		86,057	6,705
40335	City of Salem Schools		34,284	1,832
40402	Williamsburg-James City County School Board		106,201	7,793
40403	Poquoson City Public Schools		17,993	1,282
40410	Valley Vocational Technical Center		3,085	219
40412	Charlottesville/Albemarle Vo-Tech Center		1,804	68
40413	The Pruden Center for Industry and Technology		2,084	106
40414	Jackson River Technical Center		849	(77)
40415	New Horizons Technical Center		12,791	933
40416	Northern Neck Regional Vocational Center		1,739	165
40417	Rowanty Vocational Technical Center		1,176	87
40418	Amelia-Nottoway Vocational Center		327	16
40421	Northern Neck Regional Special Education Program		1,231	(1)
40423	Maggie Walker Governor's School for Govt & Intl Studies		6,861	516
40424	Appomattox Region Governor's School		2,683	203
40425	Bridging Communities Regional Career and Tech Center		704	140
	Total for all Teacher Employers	\$	12,297,975	\$ 906,386

The accompanying notes are an integral part of the Schedule of Net Pension Liability and Total Pension Expense.

#### Virginia Retirement System VRS Teacher Retirement Plan

### Schedule of Deferred Outflows and Deferred Inflows of Resources by Employer – Page 1 of 5 As of June 30, 2017

		Deferred Outflows of Resources				Deferred Inflows of Resources					
Employer Code	Employer	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Change of Assumptions	Changes in Proportionate Share	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Change of Assumptions	Changes in Proportionate Share	Total Deferred Inflows of Resources
40100	Accomack County School Board	\$ -	\$ -	\$ 617 \$			\$ 2,994			\$ 960	
40101	Albemarle County Schools	-	-	2,015	2,004	4,019	9,778	5,017	-	519	15,314
40102	Alleghany County School Board	_	_	267	-,	267	1,297	666	_	2,192	4,155
40103	Amelia County School Board	-	_	195	361	556	947	487	_	198	1,632
40104	Amherst County School Board	-	-	529	33	562	2,569	1,318	-	2,136	6,023
40105	Appomattox County School Board	-	-	249	487	736	1,209	621	-	499	2,329
40106	Arlington Public Schools	-	-	6,502	18,487	24,989	31,552	16,188	-	-	47,740
40107	Augusta County School Board	-	-	1,317	1,559	2,876	6,390	3,279	-	1,922	11,591
40108	Bath County School Board	-	-	105	202	307	512	262	-	243	1,017
40109	Bedford County School Board	-	-	1,098	1,512	2,610	5,328	2,734	-	4,703	12,765
40110	Bland County School Board	-	-	89	95	184	430	221	-	598	1,249
40111	Botetourt County Schools	-	-	616	483	1,099	2,990	1,534	-	1,517	6,041
40112	Brunswick County Public Schools	-	-	219	-	219	1,064	546	-	1,243	2,853
40113	Buchanan County School Board	-	-	323	-	323	1,565	803	-	3,155	5,523
40114	Buckingham County School Board	-	-	244	520	764	1,183	607	-	789	2,579
40115	Campbell County School Board	-	-	855	373	1,228	4,147	2,128	-	3,811	10,086
40116	Caroline County School Board	-	-	466	584	1,050	2,262	1,161	-	272	3,695
40117	Carroll County School Board	-	-	492	940	1,432	2,388	1,225	-	656	4,269
40118	Charles City County School Board	-	-	106	188	294	514	264	-	331	1,109
40119	Charlotte County School Board	-	-	254	-	254	1,233	633	-	1,124	2,990
40120	Chesterfield County School Board	-	-	6,607	7,300	13,907	32,060	16,449	-	3,073	51,582
40121	Clarke County School Board	-	-	271	-	271	1,316	676	-	333	2,325
40122	Craig County School Board	-	-	79	11	90	381	196	-	557	1,134
40123	Culpeper County School Board	-	-	981	1,060	2,041	4,760	2,442	-	1,617	8,819
40124	Cumberland County School Board	-	-	183	449	632	888	456	-	211	1,555
40125	Dickenson County School Board	-	-	221	106	327	1,073	550	-	1,933	3,556
40126	Dinwiddie County School Board	-	-	531	1,214	1,745	2,578	1,323	-	-	3,901
40128	Essex County Public Schools	-	-	185	16	201	897	459	-	690	2,046
40129	Fairfax County School Board	-	-	32,589	41,792	74,381	158,113	81,117	-	16,322	255,552
40130	Fauquier County School Board	-	-	1,657	-	1,657	8,041	4,126	-	3,700	15,867
40131	Floyd County School Board	-	-	230	452	682	1,115	572	-	885	2,572

### Virginia Retirement System VRS Teacher Retirement Plan www.and Deferred Inflows of Resources by Employees

### Schedule of Deferred Outflows and Deferred Inflows of Resources by Employer – Page 2 of 5 As of June 30, 2017

			Defe	erred Outflows of Re	esources			Defe	erred Inflows of Re	esources	
Employer Code	Employer	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Change of Assumptions	Changes in Proportionate Share	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Change of Assumptions	Changes in Proportionate Share	Total Deferred Inflows of Resources
40132	Fluvanna County Public Schools	-	-	540	499	1,039	2,622	1,345	-	1,759	5,726
40133	Franklin County Public Schools	_	_	935	1,077	2,012	4,537	2,328	_	-,	6,865
40134	Frederick County School Board	_	_	1,946	5,073	7,019	9,441	4,844	_	2,128	16,413
40135	Giles County Schools	_	_	276	184	460	1,340	688	_	321	2,349
40136	Gloucester County School Board	_	-	684	1,161	1,845	3,318	1,702	_	1,324	6,344
40137	Goochland County School Board	_	-	333	500	833	1,616	829	-	332	2,777
40138	Grayson County School Board	_	-	203	382	585	987	506	-	1,538	3,031
40139	Greene County Public Schools	_	-	389	970	1,359	1,888	968	_	378	3,234
40140	Greensville County School Board	-	-	280	274	554	1,358	697	-	1,225	3,280
40141	Halifax County School Board	-	-	642	367	1,009	3,117	1,599	-	2,320	7,036
40142	Hanover County School Board	-	-	2,276	549	2,825	11,043	5,665	-	2,571	19,279
40143	Henrico County School Board	-	-	5,887	1,891	7,778	28,565	14,656	-	5,724	48,945
40144	Henry County Public Schools	-	-	828	100	928	4,018	2,061	-	1,232	7,311
40145	Highland County Public Schools	-	-	44	188	232	212	109	-	108	429
40146	Isle of Wight County Schools	-	-	662	71	733	3,211	1,647	-	2,468	7,326
40148	King George County School Board	-	-	513	2,916	3,429	2,489	1,276	-	-	3,765
40149	King & Queen County School Board	-	-	101	42	143	489	252	-	643	1,384
40150	King William County School Board	-	-	269	593	862	1,306	670	-	740	2,716
40151	Lancaster County Public Schools	-	-	173	-	173	840	431	-	255	1,526
40152	Lee County School Board	-	-	419	497	916	2,032	1,043	-	1,316	4,391
40153	Loudoun County School Board	-	-	12,303	68,435	80,738	59,697	30,630	-	-	90,327
40154	Louisa County Public Schools	-	-	616	548	1,164	2,987	1,533	-	370	4,890
40155	Lunenburg County School Board	-	-	174	263	437	845	434	-	1,396	2,675
40156	Madison County School Board	-	-	226	142	368	1,098	564	-	615	2,277
40157	Mathews County School Board	-	-	150	56	206	729	374	-	215	1,318
40158	Mecklenburg County School Board	-	-	504	430	934	2,447	1,255	-	2,607	6,309
40159	Middlesex County School Board	-	-	167	-	167	809	415	-	366	1,590
40160	Montgomery County School Board	-	-	1,130	1,540	2,670	5,483	2,814	-	401	8,698
40162	Nelson County Public Schools	-	-	259	193	452	1,256	645	-	790	2,691
40163	New Kent County School Board	-	-	357	466	823	1,732	889	-	168	2,789
40165	Northampton County Schools	-	-	207	-	207	1,005	515	-	869	2,389

#### Virginia Retirement System VRS Teacher Retirement Plan

### Schedule of Deferred Outflows and Deferred Inflows of Resources by Employer – Page 3 of 5 As of June 30, 2017

			Defe	erred Outflows of Re	esources			Defe	erred Inflows of Re	esources	
Employer Code	Employer	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Change of Assumptions	Changes in Proportionate Share	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Change of Assumptions	Changes in Proportionate Share	Total Deferred Inflows of Resources
40166	Northumberland County School Board	LAPETIETICE	investments	179	449	628	869	447	Assumptions	242	1,558
40166	Nottoway County School Board	-	-	259	-	259	1,255	644	-	419	2,318
40167	Orange County Public Schools	-	-	598	708	1,306	2,904	1,490	-	1,398	2,318 5,792
40168	Page County Public Schools	-	-	418	183	601	2,904	1,490	-	1,250	4,321
40109	Patrick County School Board	-	-	305	103	305	1,479	759	-	1,230	2,404
40170	Pittsylvania County School Board			941	973	1,914	4,568	2,344		859	7,771
40171	Powhatan County School Board			546	231	777	2,650	1,360		464	4,474
40172	Prince Edward County School Board	-	-	262	-	262	1,272	652	-	2,442	
40173	Prince George County School Board	_	_	736	1,000	1,736	3,572	1,833	_	2,027	7,432
40174	Prince William County School Board	-	-	11,799	19,507	31,306	57,252	29,374	-	2,027	86,626
40170	Pulaski County School Board			496	-	496	2,404	1,234		2,148	5,786
40177	Rappahannock County School Board	_		131	_	131	635	325		342	1,302
40178	Richmond County School Board			150	101	251	728	373		178	1,279
40173	Roanoke County School Board	_	_	1,754	3,314	5,068	8,510	4,366	_	2,945	15,821
40181	Rockbridge County School Board	_	_	367	8	375	1,781	914	_	703	3,398
40182	Rockingham County School Board	_	_	1,469	1,045	2,514	7,128	3,657	_	1,068	11,853
40183	Russell County School Board	_	_	411	132	543	1,995	1,023	_	1,049	4,067
40184	Scott County School Board	_	_	454	377	831	2,205	1,131	_	689	4,025
40185	Shenandoah County School Board	_	_	778	932	1,710	3,776	1,938	_	1,348	7,062
40186	Smyth County School Board	_	_	515	-	515	2,501	1,283	_	3,280	7,064
40187	Southampton County School Board	_	_	292	302	594	1,418	728	_	1,063	3,209
40188	Spotsylvania County School Board	_	_	2,867	558	3,425	13,911	7,138	_	5,728	26,777
40189	Stafford County School Board	_	_	3,439	4,654	8,093	16,688	8,562	_	5,218	30,468
40190	Surry County Schools	_	_	181	2	183	878	450	_	772	2,100
40191	Sussex County School Board	_	_	175	203	378	849	435	_	943	2,227
40192	Tazewell County Schools	_	_	604	-	604	2,932	1,504	_	2,708	7,144
40193	Warren County School Board	_	_	658	146	804	3,194	1,639	_	1,259	6,092
40195	Washington County School Board	-	-	808	-	808	3,921	2,011	_	2,936	8,868
40196	Westmoreland County School Board	_	-	220	959	1,179	1,068	548	_	389	2,005
40197	Wise County School Board	-	-	630	374	1,004	3,056	1,568	_	4,545	9,169
40198	Wythe County School Board	_	-	476	-	476	2,309	1,185	_	1,352	4,846
	r r r r r r r r						,	,		_,	,

#### Virginia Retirement System VRS Teacher Retirement Plan

### Schedule of Deferred Outflows and Deferred Inflows of Resources by Employer – Page 4 of 5 As of June 30, 2017

			Defe	erred Outflows of Re	sources			Defe	erred Inflows of Re	sources	
Employer Code	Employer	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Change of Assumptions	Changes in Proportionate Share	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Change of Assumptions	Changes in Proportionate Share	Total Deferred Inflows of Resources
40199	York County School Board	-	-	1,528	3,019	4,547	7,415	3,804	-	2,105	13,324
40200	Alexandria City School Board	_	_	3,316	6,295	9,611	16,089	8,255	_	2,529	26,873
40201	Bristol City School Board	_	_	282	15	297	1,369	703	_	1,086	3,158
40202	Buena Vista City Schools	-	-	119	51	170	576	296	-	323	1,195
40203	Charlottesville Public Schools	_	_	862	1,112	1,974	4,184	2,146	_	768	7,098
40205	Danville City Schools	-	-	711	, -	711	3,451	1,771	-	5,652	10,874
40206	Fredericksburg City Schools	-	-	518	1,226	1,744	2,513	1,290	-	82	3,885
40207	Hampton City Schools	-	-	2,493	857	3,350	12,097	6,206	-	8,326	26,629
40208	Harrisonburg City School Board	-	-	848	2,720	3,568	4,113	2,110	-	94	6,317
40209	Hopewell City School Board	-	-	560	1,008	1,568	2,718	1,395	-	1,118	5,231
40210	Lynchburg Public Schools	-	-	1,273	2,830	4,103	6,177	3,170	-	2,145	11,492
40211	Newport News Public Schools	-	-	3,633	33	3,666	17,628	9,044	-	5,772	32,444
40212	Norfolk Public Schools	-	-	4,846	-	4,846	23,517	12,066	-	17,117	52,700
40213	Petersburg City Schools	-	-	512	630	1,142	2,483	1,274	-	3,305	7,062
40214	Portsmouth School Board	-	-	1,802	-	1,802	8,743	4,486	-	7,653	20,882
40215	Radford City School Board	-	-	199	361	560	965	495	-	300	1,760
40216	Richmond Public Schools	-	-	3,579	6,401	9,980	17,366	8,910	-	11,790	38,066
40217	Roanoke City School Board	-	-	1,809	2,256	4,065	8,779	4,504	-	30	13,313
40219	Staunton City Schools	-	-	387	273	660	1,876	963	-	917	3,756
40220	Suffolk City School Board	-	-	1,679	2,364	4,043	8,147	4,180	-	3,533	15,860
40222	Winchester Public Schools	-	-	663	814	1,477	3,218	1,651	-	979	5,848
40223	Martinsville City Schools	-	-	264	438	702	1,283	658	-	1,787	3,728
40224	Falls Church Public Schools	-	-	576	2,896	3,472	2,796	1,435	-	385	4,616
40225	Colonial Heights City Schools	-	-	425	-	425	2,063	1,059	-	1,604	4,726
40230	Covington City School Board	-	-	129	608	737	625	321	-	294	1,240
40231	Fairfax City School Board	-	-	2	3	5	11	5	-	-	16
40232	Franklin City Public Schools	-	-	172	165	337	837	429	-	978	2,244
40233	Chesapeake Public Schools	-	-	5,166	2,693	7,859	25,068	12,861	-	8,248	46,177
40234	Virginia Beach City School Board	-	-	9,129	1,917	11,046	44,297	22,728	-	14,696	81,721
40236	Manassas Park City Schools	-	-	468	2,891	3,359	2,270	1,165	-	2,004	5,439
40306	Town of West Point School Board	-	-	123	820	943	598	307	-	150	1,055

## Virginia Retirement System VRS Teacher Retirement Plan Schedule of Deferred Outflows and Deferred Inflows of Resources by Employer – Page 5 of 5 As of June 30, 2017

(Dollars in Thousands)

			Deferred Outflows of Resources					Deferred Inflows of Resources			
Employer		Differences Between Expected and Actual	Net Difference Between Projected and Actual Investment Earnings on Pension Plan	Change of	Changes in Proportionate	Total Deferred Outflows of	Differences Between Expected and Actual	Net Difference Between Projected and Actual Investment Earnings on Pension Plan	Change of	Changes in Proportionate	Total Deferred Inflows of
Code	Employer	Experience	Investments	Assumptions	Share	Resources	Experience	Investments	Assumptions	Share	Resources
40307	Lexington City School Board	-	-	63	90	153	306	157	-	77	540
40308	Waynesboro Public Schools	-	-	410	252	662	1,989	1,020	-	769	3,778
40309	Town of Colonial Beach Schools	-	-	81	153	234	394	203	-	46	643
40313	Galax City Schools	-	-	162	43	205	788	404	-	180	1,372
40314	Norton City Schools	-	-	86	199	285	417	214	-	419	1,050
40332	Manassas City Schools	-	-	1,256	1,784	3,040	6,094	3,126	-	2,797	12,017
40335	City of Salem Schools	-	-	500	=	500	2,427	1,246	-	1,572	5,245
40402	Williamsburg-James City County School Board	-	-	1,550	1,197	2,747	7,520	3,858	=	1,725	13,103
40403	Poquoson City Public Schools	-	-	263	93	356	1,274	654	-	182	2,110
40410	Valley Vocational Technical Center	-	-	45	42	87	219	112	-	95	426
40412	Charlottesville/Albemarle Vo-Tech Center	-	-	26	212	238	127	66	-	271	464
40413	The Pruden Center for Industry and Technology	-	-	30	86	116	147	76	-	283	506
40414	Jackson River Technical Center	-	-	12	5	17	60	31	-	541	632
40415	New Horizons Technical Center	-	-	187	236	423	906	465	-	127	1,498
40416	Northern Neck Regional Vocational Center	-	-	25	137	162	123	63	-	153	339
40417	Rowanty Vocational Technical Center	-	-	17	34	51	83	43	-	22	148
40418	Amelia-Nottoway Vocational Center	-	-	5	=	5	23	12	-	18	53
40421	Northern Neck Regional Special Education Program	-	-	18	40	58	87	45	-	281	413
40423	Maggie Walker Governor's School for Govt & Intl Studies	-	-	100	108	208	486	249	-	85	820
40424	Appomattox Region Governor's School	-	-	39	69	108	190	97	-	168	455
40425	Bridging Communities Regional Career and Tech Center	-	-	10	186	196	49	26	-	27	102
	Total for all Teacher Employers	\$ -	\$ -	\$ 179,461	255,906	\$ 435,367	\$ 870,809	\$ 446,790	\$ -	\$ 255,906	\$ 1,573,505

The accompanying notes are an integral part of the Schedule of Deferred Outflows and Deferred Inflows of Resources by Employer.

## Virginia Retirement System VRS Teacher Retirement Plan Notes to GASB No. 68 Schedules For The Fiscal Year Ended June 30, 2017

#### **Note 1. Summary of Significant Accounting Policies**

#### Description of the Entity

The Virginia Retirement System (the System) is an independent agency of the Commonwealth of Virginia. The System administers four separate pension trust funds – the Virginia Retirement System (VRS), the State Police Officers' Retirement System (SPORS), the Virginia Law Officers' Retirement System (VaLORS), and the Judicial Retirement System (JRS). The VRS Teacher Retirement Plan is part of the VRS Trust Fund.

#### **Administration and Management**

The Board of Trustees (the Board) is responsible for the general administration and operation of the defined benefit pension plans and the other employee benefit plans. The Board has full power to invest and reinvest the trust funds of the System through the adoption of investment policies and guidelines that fulfill the Board's investment objective to maximize long-term investment returns while targeting an acceptable level of risk.

The Board consists of nine members. Five members are appointed by the Governor and four members are appointed by the Joint Rules Committee of the General Assembly subject to confirmation by the General Assembly. The Board appoints a Director to serve as the Chief Administrative Officer of the System and a Chief Investment Officer to direct, manage, and administer the investment of the System's funds.

The System issues a Comprehensive Annual Financial Report (CAFR) containing the financial statements and required supplementary information for all of the System's pension and other employee benefit trust funds. The CAFR is publically available through the About VRS link on the VRS website at www.varetire.org, or a copy may be obtained by submitting a request to the VRS Chief Financial Officer, PO Box 2500, Richmond, VA 23218-2500. The pension and other employee benefit trust funds administered by the VRS are classified as fiduciary funds and are included in the basic financial statements of the Commonwealth of Virginia.

#### **Pensions**

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Virginia Retirement System (VRS) Teacher Retirement Plan and the additions to/deductions from the VRS Teacher Retirement Plan's net fiduciary position have been determined on the same basis as they were reported by VRS. For this purpose, benefit payments (including refunds of employee contributions) are

recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

#### Note 2. General Information about the Pension Plan

#### **Plan Description**

All full-time, salaried permanent (professional) employees of public school divisions are automatically covered by the VRS Teacher Retirement Plan upon employment. This plan is administered by the Virginia Retirement System (the System) along with plans for other employer groups in the Commonwealth of Virginia. The VRS Teacher Retirement Plan is a multiple-employer cost-sharing plan. Members earn one month of service credit for each month they are employed and for which they and their employer pay contributions to VRS. Members are eligible to purchase prior service, based on specific criteria a defined in the *Code of Virginia*, as amended. Eligible prior service that may be purchased includes prior public service, active military service, certain periods of leave, and previously refunded service.

The System administers three different benefit structures for covered employees in the VRS Teacher Retirement Plan – Plan 1, Plan 2, and, Hybrid. Each of these benefit structures has different eligibility criteria. The specific information for each plan, and the eligibility for covered groups within each plan are set out in the table below:

RETIREMENT PLAN PROVISIONS BY PLAN STRUCTURE						
		HYBRID				
PLAN 1	PLAN 2	RETIREMENT PLAN				
About Plan 1 Plan 1 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula.	About Plan 2 Plan 2 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula.	About the Hybrid Retirement Plan The Hybrid Retirement Plan combines the features of a defined benefit plan and a defined contribution plan • The defined benefit is based on a member's age, creditable service and average final compensation at retirement using a formula. • The benefit from the defined contribution component of the plan depends on the member and employer contributions made to the plan and the				

investment performance of those contributions.

• In addition to the monthly benefit payment payable from the defined benefit plan at retirement, a member may start receiving distributions from the balance in the defined contribution account, reflecting the contributions, investment gains or losses, and any required fees.

#### **Eligible Members**

Employees are in Plan 1 if their membership date is before July 1, 2010, and they were vested as of January 1, 2013 and they have not taken a refund.

#### **Hybrid Opt-In Election**

VRS Plan 1 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014.

The Hybrid Retirement Plan's effective date for eligible Plan 1 members who opted in was July 1, 2014.

If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan.

#### **Eligible Members**

Employees are in Plan 2 if their membership date is on or after July 1, 2010, or their membership date is before July 1, 2010, and they were not vested as of January 1, 2013.

#### **Hybrid Opt-In Election**

Eligible Plan 2 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014.

The Hybrid Retirement Plan's effective date for eligible Plan 2 members who opted in was July 1, 2014.

If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan.

#### **Eligible Members**

Employees are in the Hybrid Retirement Plan if their membership date is on or after January 1, 2014. This includes:

- School division employees
- Members in Plan 1 or Plan 2 who elected to opt into the plan during the election window held January 1-April 30, 2014; the plan's effective date for opt-in members was July 1, 2014

#### **Retirement Contributions**

Employees contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction. Member contributions are taxdeferred until they are withdrawn as part of a retirement benefit or as a refund. The employer makes a separate actuarially determined contribution to VRS for all covered employees. VRS invests both member and employer contributions to provide funding for the future benefit payment.

#### **Retirement Contributions**

Employees contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction.

#### **Retirement Contributions**

A member's retirement benefit is funded through mandatory and voluntary contributions made by the member and the employer to both the defined benefit and the defined contribution components of the plan. Mandatory contributions are based on a percentage of the employee's creditable compensation and are required from both the member and the employer. Additionally, members may choose to make voluntary contributions to the defined contribution component of the plan, and the employer is required to match those voluntary contributions according to specified percentages.

#### **Creditable Service**

Creditable service includes active service. Members earn creditable service for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional creditable service the member was granted. A member's total creditable service is one of the factors used to determine their eligibility for retirement and to calculate their retirement benefit. It also may count toward eligibility for the health insurance credit in retirement, if the employer offers the health insurance credit.

#### **Creditable Service**

Same as Plan 1.

### Creditable Service <u>Defined Benefit Component:</u>

Under the defined benefit component of the plan, creditable service includes active service. Members earn creditable service for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional creditable service the member was granted. A member's total creditable service is one of the factors used to determine their eligibility for retirement and to calculate their retirement benefit. It also may count toward eligibility for the health insurance credit in retirement,

if the employer offers the health insurance credit.

#### <u>Defined Contributions</u> <u>Component:</u>

Under the defined contribution component, creditable service is used to determine vesting for the employer contribution portion of the plan.

#### Vesting

Vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members become vested when they have at least five years (60 months) of creditable service. Vesting means members are eligible to qualify for retirement if they meet the age and service requirements for their plan. Members also must be vested to receive a full refund of their member contribution account balance if they leave employment and request a refund.

Members are always 100% vested in the contributions that they make.

#### Vesting

Same as Plan 1.

#### Vesting

#### **Defined Benefit Component:**

Defined benefit vesting is the minimum length of service a member needs to qualify for a future retirement benefit.

Members are vested under the defined benefit component of the Hybrid Retirement Plan when they reach five years (60 months) of creditable service.

Plan 1 or Plan 2 members with at least five years (60 months) of creditable service who opted into the Hybrid Retirement Plan remain vested in the defined benefit component.

#### <u>Defined Contributions</u> Component:

Defined contribution vesting refers to the minimum length of service a member needs to be eligible to withdraw the employer contributions from the defined contribution component of the plan.

Members are always 100% vested in the contributions that they make.

Upon retirement or leaving covered employment, a

		member is eligible to withdraw a percentage of employer contributions to the defined contribution component of the plan, based on service.  • After two years, a member is 50% vested and may withdraw 50% of employer contributions.  • After three years, a member is 75% vested and may withdraw 75% of employer contributions.  • After four or more years, a member is 100% vested and may withdraw 100% of employer contributions.  Distribution is not required by law until age 70½.
Calculating the Benefit The Basic Benefit is calculated based on a formula using the member's average final compensation, a retirement multiplier and total service credit at retirement. It is one of the benefit payout options available to a member at retirement.  An early retirement reduction factor is applied to the Basic Benefit if the member retires with a reduced retirement benefit or selects a benefit payout option other than the Basic Benefit.	Calculating the Benefit See definition under Plan 1.	Calculating the Benefit  Defined Benefit Component: See definition under Plan 1  Defined Contribution Component: The benefit is based on contributions made by the member and any matching contributions made by the employer, plus net investment earnings on those contributions.
Average Final Compensation A member's average final compensation is the average of the 36 consecutive months of	Average Final Compensation A member's average final compensation is the average of their 60 consecutive months of	Average Final Compensation Same as Plan 2. It is used in the retirement formula for the  Page 26 of 35

highest compensation as a covered employee.	highest compensation as a covered employee.	defined benefit component of the plan.
Service Retirement Multiplier The retirement multiplier is a factor used in the formula to determine a final retirement benefit. The retirement multiplier for members is 1.70%.	Service Retirement Multiplier Same as Plan 1 for service earned, purchased or granted prior to January 1, 2013. The retirement multiplier is 1.65% for creditable service earned, purchased or granted on or after January 1, 2013.	Service Retirement Multiplier  Defined Benefit Component:  The retirement multiplier for the defined benefit component is 1.00%.  For members who opted into the Hybrid Retirement Plan from Plan 1 or Plan 2, the applicable multipliers for those plans will be used to calculate the retirement benefit for service credited in those plans.  Defined Contribution Component: Not applicable.
Normal Retirement Age Age 65.	Normal Retirement Age Normal Social Security retirement age.	Normal Retirement Age Defined Benefit Component: Same as Plan 2.  Defined Contribution Component: Members are eligible to receive distributions upon leaving employment, subject to restrictions.
Earliest Unreduced Retirement Eligibility Age 65 with at least five years (60 months) of creditable service or at age 50 with at least 30 years of creditable service.	Earliest Unreduced Retirement Eligibility Normal Social Security retirement age with at least five years (60 months) of creditable service or when their age and service equal 90.	Earliest Unreduced Retirement Eligibility Defined Benefit Component: Normal Social Security retirement age and have at least five years (60 months) of creditable service or when their age and service equal 90.  Defined Contribution Component: Members are

		eligible to receive distributions upon leaving employment, subject to restrictions.
Earliest Reduced Retirement Eligibility VRS: Age 55 with at least five years (60 months) of creditable service or age 50 with at least 10 years of creditable service.	Earliest Reduced Retirement Eligibility VRS: Age 60 with at least five years (60 months) of creditable service.	Earliest Reduced Retirement Eligibility Defined Benefit Component: VRS: Age 60 with at least five years (60 months) of creditable service.  Defined Contribution Component: Members are eligible to receive distributions upon leaving employment, subject to restrictions.
Cost-of-Living Adjustment (COLA) in Retirement The Cost-of-Living Adjustment (COLA) matches the first 3% increase in the Consumer Price Index for all Urban Consumers (CPI-U) and half of any additional increase (up to 4%) up to a maximum COLA of 5%.	Cost-of-Living Adjustment (COLA) in Retirement The Cost-of-Living Adjustment (COLA) matches the first 2% increase in the CPI-U and half of any additional increase (up to 2%), for a maximum COLA of 3%.	Cost-of-Living Adjustment (COLA) in Retirement  Defined Benefit Component: Same as Plan 2.  Defined Contribution Component: Not applicable.
Eligibility: For members who retire with an unreduced benefit or with a reduced benefit with at least 20 years of creditable service, the COLA will go into effect on July 1 after one full calendar year from the retirement date.	Eligibility: Same as Plan 1	Eligibility: Same as Plan 1 and Plan 2.
For members who retire with a reduced benefit and who have less than 20 years of creditable service, the COLA will go into effect on July 1 after one calendar year following the		

unreduced retirement eligibility date.

### **Exceptions to COLA Effective Dates:**

The COLA is effective July 1 following one full calendar year (January 1 to December 31) under any of the following circumstances:

- The member is within five years of qualifying for an unreduced retirement benefit as of January 1, 2013.
- The member retires on disability.
- The member Is involuntarily separated from employment for causes other than job performance or misconduct and is eligible to retire under the Workforce Transition Act or the Transitional Benefits Program.
- The member dies in service and the member's survivor or beneficiary is eligible for a monthly death-in-service benefit. The COLA will go into effect on July 1 following one full calendar year (January 1 to December 31) from the date the monthly benefit begins.

### Exceptions to COLA Effective Dates:

Same as Plan 1

### Exceptions to COLA Effective Dates:

Same as Plan 1 and Plan 2.

#### **Disability Coverage**

Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.7% on all service,

#### **Disability Coverage**

Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.65% on all service, regardless of when

#### **Disability Coverage**

Employees of political subdivisions and school divisions (including Plan 1 and Plan 2 opt-ins) participate in the Virginia Local Disability Program (VLDP) unless their

regardless of when it was earned, purchased or granted.	it was earned, purchased or granted.	local governing body provides and employer-paid comparable program for its members.  Hybrid members (including Plan 1 and Plan 2 opt-ins) covered under VLDP are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.
Purchase of Prior Service Members may be eligible to purchase service from previous public employment, active duty military service, an eligible period of leave or VRS refunded service as creditable service in their plan. Prior creditable service counts toward vesting, eligibility for retirement and the health insurance credit. Only active members are eligible to purchase prior service. Members also may be eligible to purchase periods of leave without pay.	Purchase of Prior Service Same as Plan 1.	Purchase of Prior Service  Defined Benefit Component:  Same as Plan 1, with the following exceptions:  Hybrid Retirement Plan members are ineligible for ported service.  Defined Contribution Component: Not applicable.

#### **Contributions**

The contribution requirement for active employees is governed by §51.1-145 of the *Code of Virginia*, as amended, but may be impacted as a result of funding provided to school divisions by the Virginia General Assembly. Employees are required to contribute 5.00% of their compensation toward their retirement. Each school division's contractually required employer contribution rate for the year ended June 30, 2017 was 14.66% of covered employee compensation. This rate was based on an actuarially determined rate of 16.32% from an actuarial valuation as of June 30, 2015 and reflects the transfer in June 2015 of \$192,884,000 as an accelerated payback of the deferred contribution in the 2010-12 biennium. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Based on the provisions of §51.1-145 of the *Code of Virginia*, as amended, the employer contributions were funded at 89.84% of the actuarial rate for the year ended June 30, 2017.

#### **Actuarial Assumptions and Methods**

The total pension liability for the VRS Teacher Retirement Plan was based on an actuarial valuation as of June 30, 2016, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2017.

Inflation 2.50 percent

Salary increases, including Inflation 3.50 percent – 5.95 percent

Investment rate of return 7.00 Percent, net of pension plan investment

expenses, including inflation\*

\* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 7.00%. However, since the difference was minimal, and a more conservative 7.00% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 7.00% to simplify preparation of pension liabilities.

#### Mortality rates:

#### Pre-Retirement:

RP-2014 White Collar Employee Rates to age 80, White Collar Healthy Annuitant Rates at ages 81 and older projected with scale BB to 2020.

#### Post-Retirement:

RP-2014 White Collar Employee Rates to age 49, White Collar Healthy Annuitant Rates at ages 50 and older projected with scale BB to 2020; males 1% increase compounded from ages 70 to 90; females set back 3 years with 1.5% increase compounded from ages 65 to 70 and 2.0% increase compounded from ages 75 to 90.

#### Post-Disablement:

RP-2014 Disability Mortality Rates projected with Scale BB to 2020; 115% of rates for males and females.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the four-year period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, post-	Update to a more current mortality table – RP-2014
retirement healthy, and disabled	projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement
	from 70 to 75

Withdrawal Rates	Adjusted rates to better fit experience at each year age and
	service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change

#### Note 3. Net Pension Liability

The net pension liability (NPL) is calculated separately for each system and represents that particular system's total pension liability determined in accordance with GASB Statement No. 67, less that system's fiduciary net position. As of June 30, 2017, NPL amounts for the VRS Teacher Retirement Plan are as follows (amounts expressed in thousands):

Total Pension Liability	\$ 45,417,520
Plan Fiduciary Net Position	<u>33,119,545</u>
Employers' Net Pension Liability (Asset)	<u>\$ 12,297,975</u>

Plan Fiduciary Net Position as a Percentage of the Total Pension Liability 72.92%

The total pension liability is calculated by the System's actuary, and each plan's fiduciary net position is reported in the System's financial statements. The net pension liability is disclosed in accordance with the requirements of GASB Statement No. 67 in the System's notes to the financial statements and required supplementary information.

#### **Discount Rate**

The discount rate used to measure the total pension liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made per the VRS Statutes and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2019, the rate contributed by the school division for the VRS Teacher Retirement Plan will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2019 on, school divisions are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

#### Long-Term Expected Rate of Return

The long-term expected rate of return on pension System investments was determined using a lognormal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension System investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

			Weighted
		Arithmetic	Average
		Long-Term	Long-Term
	Target	Expected	Expected
Asset Class (Strategy)	Allocation	Rate of Return	Rate of Return
Public Equity	40.00%	4.54%	1.82%
Fixed Income	15.00%	0.69%	0.10%
Credit Strategies	15.00%	3.96%	0.59%
Real Assets	15.00%	5.76%	0.86%
Private Equity	15.00%	9.53%	1.43%
Total	100.00%	- -	4.80%
	Inflation	_	2.50%
* Expected arithmetic nominal return		=	7.30%

<sup>\*</sup> The above allocation provides a one-year return of 7.30%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.83%, including expected inflation of 2.50%.

#### Sensitivity Analysis

The following table presents the collective net pension liability of the participating employers in the VRS Teacher Retirement Plan using the discount rate of 7.00%, as well as what collective net pension liability of the participating employers in the VRS Teacher Retirement Plan net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate (amounts expressed in thousands):

Net Pension Liability - 1.00% Decrease (6.00%)	\$ 18,364,993
Net Pension Liability - Current Discount Rate (7.00%)	\$ 12,297,975
Net Pension Liability - 1.00% Increase (8.00%)	\$ 7,279,318

#### Note 4. Deferred Outflows / (Inflows) of Resources

The following schedule reflects the amortization of the net balance of remaining deferred outflows / (inflows) of resources at June 30, 2017. The average remaining service lives of all employees provided with pensions through the VRS Teacher Retirement Plan at June 30, 2017 was 5.59 years. Deferred outflows of resources related to pensions resulting from the school division's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the financial statements for the year ended June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows (amounts expressed in thousands):

Measurement Period Ending June 30, 2018	(\$ 483,985)
Measurement Period Ending June 30, 2019	(\$ 35,613)
Measurement Period Ending June 30, 2020	(\$ 158,651)
Measurement Period Ending June 30, 2021	(\$ 415,118)
Measurement Period Ending June 30, 2022	(\$ 44,771)

#### **Note 5. Employer Contributions**

Employers' proportionate shares were calculated on the basis of historical employer contributions. Although GASB Statement No. 68 encourages the use of the employer's projected long-term contribution effort to the retirement plan, allocating on the basis of historical employer contributions is considered acceptable. Employer contributions recognized by the VRS Teacher Retirement Plan that are not representative of future contribution effort are excluded in the determination of employers' proportionate shares. Examples of employer contributions not representative of future contribution effort are contributions toward the purchase of employee service, contributions for adjustments for prior periods, and supplemental employer contributions from certain employers.

The employer contributions used in the determination of employers' proportionate shares of collective pension amounts reported in the Schedule of Employer Allocations was based on the total employer contributions using the plan's contribution rates and the employer's covered payroll for FY 2017. This total was \$1,156,935,400. Of this amount, \$19,031,446 was transferred to ICMA-RC as the employer cost of the defined contribution component for employees covered by the Hybrid retirement plan benefit structure and \$1,137,903,954 was retained by the defined benefit plan. The employer contributions of \$1,137,976,000 reported in the VRS Teacher Employee's Retirement Plan's Statement of Changes in Net Position (per the System's separately issued financial statements) reflects this net amount plus approximately \$72,042 in other employer contributions that were not representative of future contribution efforts.

#### Note 6. Additional Financial and Actuarial Information

Information contained in the VRS Teacher Retirement Plan Notes to the Schedule of Employer Allocations and Schedule of Pension Amounts by Employer (Schedules) was extracted from the audited financial statements of the Virginia Retirement System for the fiscal year ended June 30, 2017. Additional financial

information supporting the preparation of the VRS Teacher Retirement Plan Schedules (including the unmodified audit opinion on the financial statements and required supplementary information) is presented in the separately issued VRS 2017 Comprehensive Annual Financial Report (CAFR). A copy of the 2017 VRS CAFR is publicly available through the About VRS link on the VRS website at <a href="https://www.varetire.org">www.varetire.org</a>, or a copy may be obtained by submitting a request to the VRS Chief Financial Officer, PO Box 2500, Richmond, VA 23218-2500.