



VRS Overview

for the Joint Legislative Audit and Review Commission

July 13, 2015

Presenters:

Robert L. Greene, Chairman, VRS Board of Trustees
Ronald D. Schmitz, Chief Investment Officer
Patricia S. Bishop, Director

VRS Overview

- **Robert L. Greene**
Chairman, VRS Board of Trustees

Investments Overview

- **Ronald D. Schmitz**
Chief Investment Officer

Administration Overview

- **Patricia S. Bishop**
Director



Remarks

Robert L. Greene

Chairman

VRS Board of Trustees

Board Members



Robert L. Greene, *Chairman*

Diana F. Cantor, *Vice Chairman*

A. Marshall Acuff, Jr.

Wallace G. "Bo" Harris, Ph.D.

W. Brett Hayes

William H. Leighty

Joseph W. Montgomery

Mitchell L. Nason

Troilen Gainey Seward, Ed.S.



Investments

Ronald D. Schmitz
Chief Investment Officer

VRS Investment Presentation Outline



- Total fund performance ending 3/31/15
- Returns through 5/31/15
- Fiscal year returns for the past 20 years, compared to the actuarially assumed return
- Asset allocation overview
- Update on the phase-in of the new asset allocation policy
- Overview of internally managed assets
- Economic/market outlook

Total Fund Performance as of March 31, 2015



	10 Yr	5 Yr	3 Yr	1 Yr	Market Value (\$MM)
Total Public Equity	7.1	10.5	12.9	9.6	28,317
<i>Benchmark</i>	6.6	9.6	12.0	8.3	
Total Investment-Grade Fixed Income	5.5	5.2	3.4	6.0	12,514
<i>Benchmark</i>	5.1	4.5	3.1	5.7	
Total Credit Strategies	6.7	7.5	7.5	3.7	12,126
<i>Benchmark</i>	5.8	6.6	6.5	4.0	
Total Real Assets	9.2	14.1	12.8	13.9	7,434
<i>Benchmark</i>	8.8	12.1	11.0	11.0	
Total Private Equity	13.2	14.1	15.1	10.2	4,991
<i>Benchmark</i>	9.4	15.9	19.1	8.4	
Total Strategic Opportunities Portfolio	n/a	n/a	n/a	5.8	839
<i>Benchmark</i>	n/a	n/a	n/a	3.5	
Total Fund	6.9	9.4	10.0	8.1	67,830
<i>VRS Custom Benchmark</i>	6.3	8.7	9.6	7.3	

- Total Plan return exceeds benchmark over the past one, three, five and 10 years.
- Outperformance versus benchmark over the past 10 years across all programs.

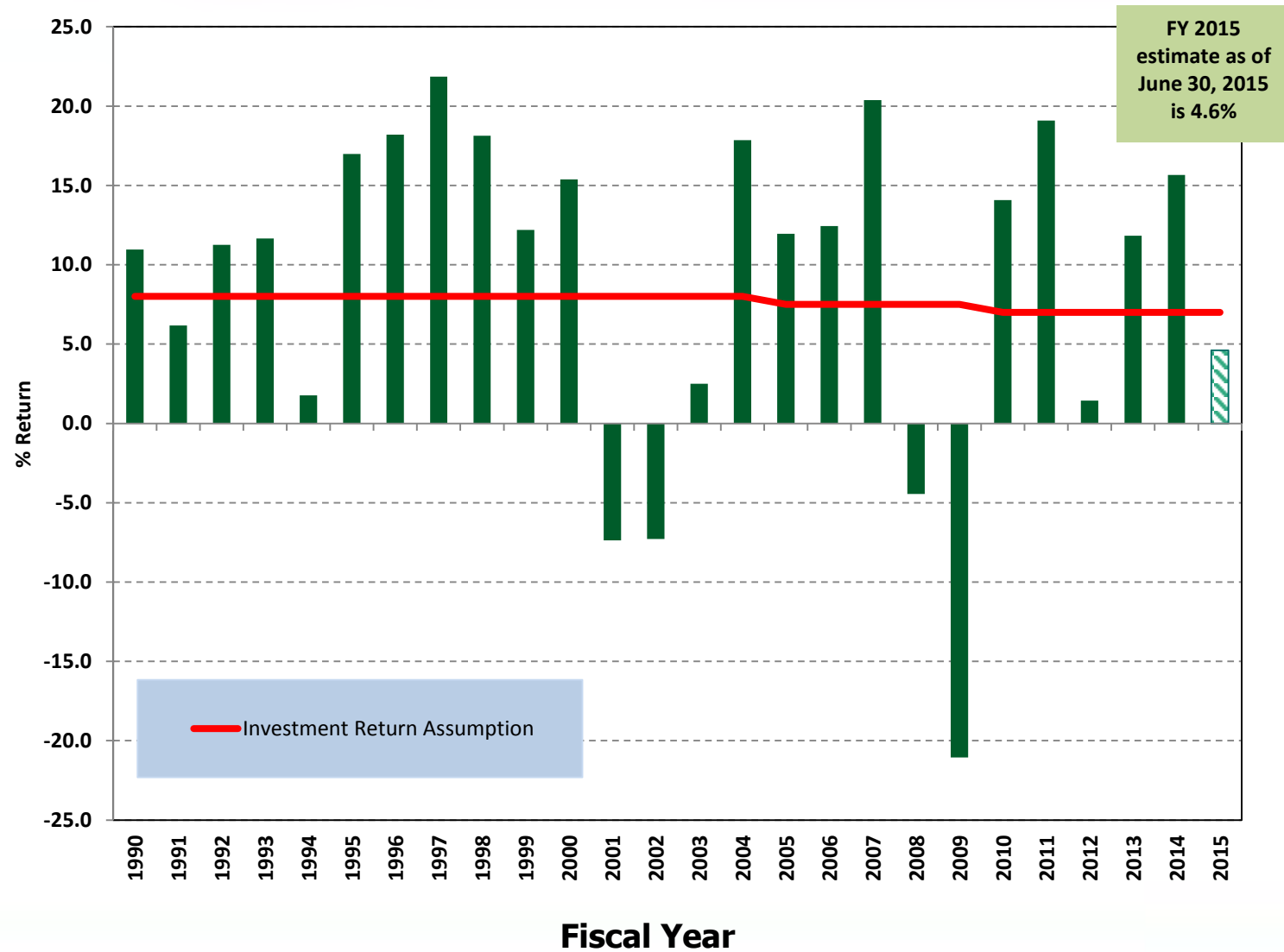
Total Fund Performance as of May 31, 2015



	10 Yr	5 Yr	3 Yr	1 Yr	Fiscal YTD	Market Value (\$MM)
Total Public Equity <i>Benchmark</i>	7.3 6.9	12.8 11.9	17.2 16.3	9.5 8.3	7.5 6.4	29,006
Total Investment-Grade Fixed Income <i>Benchmark</i>	5.2 4.7	4.7 4.0	2.8 2.4	3.2 3.0	3.1 3.0	12,444
Total Credit Strategies <i>Benchmark</i>	6.7 5.9	8.0 7.1	8.7 7.5	3.4 3.4	2.1 2.4	12,228
Total Real Assets <i>Benchmark</i>	8.9 8.4	14.0 12.3	13.1 11.1	12.7 10.0	10.0 9.0	7,407
Total Private Equity <i>Benchmark</i>	13.3 10.0	14.2 16.9	15.3 17.2	10.5 12.0	5.5 11.4	4,896
Total Strategic Opportunities Portfolio <i>Benchmark</i>	n/a n/a	n/a n/a	n/a n/a	5.4 4.3	5.5 4.2	837
Total Fund <i>VRS Custom Benchmark</i>	6.9 6.4	10.4 9.8	12.0 11.4	7.4 7.0	5.6 5.8	68,523

- FYTD returns unlikely to hit the 7% assumed rate.

VRS Fiscal Year Returns



Fund Performance

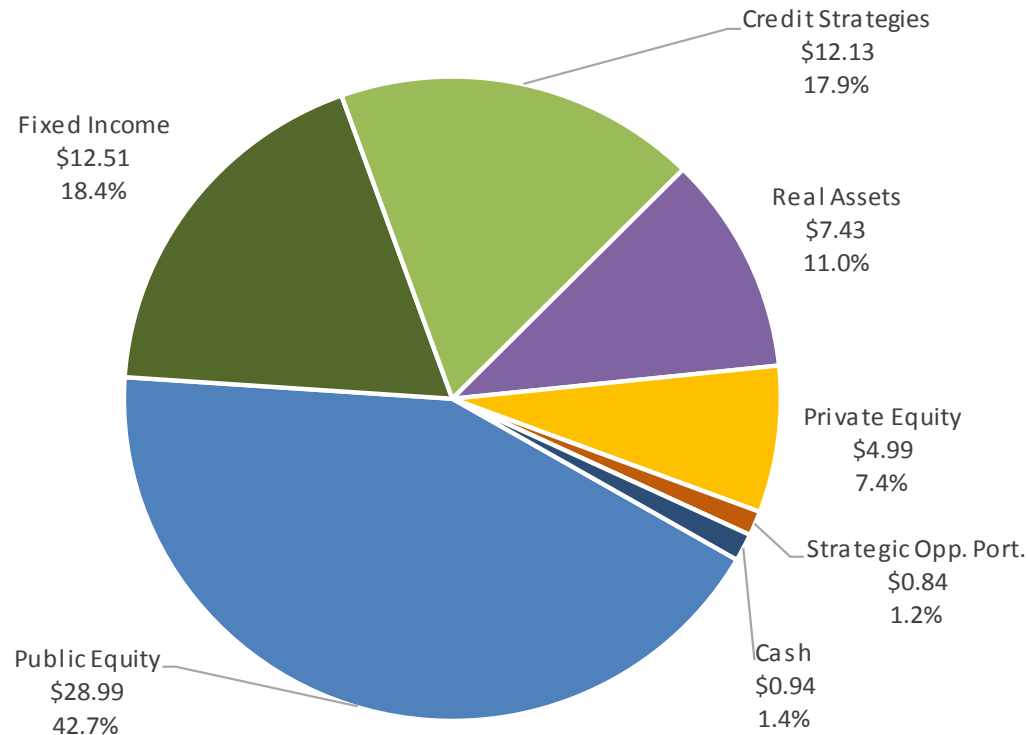


	VRS Return (As of March 31, 2015)
3-year	10.0%
5-year	9.4%
10-year	6.9%
15-year	5.4%
20-year	8.6%
25-year	8.7%

VRS Asset Allocation as of March 31, 2015



Total Fund market value = \$67.8 billion



(Dollar Amounts in Billions/Percent of Total Fund)

Year 3 of the Asset Allocation Phase-In



	<u>Original Plan 7/15</u>	<u>Modified Plan 7/15</u>	<u>7/17 Target</u>
Public Equity	42.0%	43.0%	42.0%
Fixed Income	17.0%	18.0%	15.0%
Credit Strategies	17.0%	18.0%	15.0%
Real Assets	12.5%	12.0%	15.0%
Private Equity	10.5%	8.0%	12.0%
SOP	0.0%	0.0%	0.0%
Cash	1.0%	1.0%	1.0%

Internal Asset Management (IAM)

Mandates as of March 31, 2015



Asset Class	Objective	Assets (mm)
Equity	Passive, U.S. Large Cap (Madison)	\$404
	Passive, Non-U.S. Large Cap (Dogwood)	\$262
	Low Tracking Error, U.S. Large (Potomac)	\$4,302
	Low Tracking Error, Non-U.S. Large (Matoaka)	\$2,330
	Low Tracking Error, U.S. Small (Afton)	\$368
	Low Tracking Error, U.S. REIT (Monroe)	\$370
	Low Volatility, U.S. Large Cap (Mobjack)	\$911
	Low Volatility, Non-U.S. Large (Piedmont)	\$1,968
	Rebalancing Account	\$993
	Currency Hedge (Overlay)	\$3,724
	Subtotal	\$15,632
Fixed Income	Mortgage and Asset-Backeds	\$3,948
	Investment Grade Corporates	\$4,204
	Treasuries and Agencies	\$4,362
	Subtotal	\$12,514
Total		\$28,146

IAM Track Record as of March 31, 2015



		1 year	3 years	5 years	10 years	Inception*
Equity	Return	11.87	15.25	14.32	8.35	6.54
	Benchmark	9.76	13.60	12.01	7.21	5.53
	Excess	2.11	1.65	2.31	1.14	1.01
	Risk (TE)	0.64	0.98	1.23	1.06	1.03
	Info Ratio	3.30	1.68	1.88	1.08	0.98
Fixed Income	Return	5.97	3.57	4.66	5.82	6.29
	Benchmark	5.71	3.11	4.41	5.49	5.99
	Excess	0.26	0.46	0.25	0.33	0.30
	Risk (TE)	0.17	0.29	0.36	0.43	0.33
	Info Ratio	1.53	1.59	0.69	0.77	0.91

**Equity Inception April 2001, Fixed Income Inception August 1995. These inception dates represent the current team's tenure.*

- U.S. economic data continues to be generally positive and GDP growth is about on par with longer term U.S. averages for the post WWII era.
- The shape of the yield curve and the slightly lower than normal spread of inflation-protected securities over Treasury bonds indicate that the market sees economic growth and inflation to be at about Fed target levels.
- Outside of the U.S., economic conditions are more mixed.
- Things have been relatively calm in the equity markets. Price/Earnings ratios globally are reasonable measured by trailing earnings.
- Real Estate prices are expensive but yields are favorable versus the 10-year Treasury bond.
- Private Equity purchase price multiples continue to be high.

Conclusion: Markets are somewhat expensive across all asset classes.



Administration

Patricia S. Bishop
Director

Administration Topics



- Membership and System Overview
- Funded Status
- Employer Contribution Rates
- Hybrid Retirement Plan Status
- GASB Update
- Summary



VRS Membership Overview

VRS Total Membership



	Plan 1	Plan 2	Hybrid	Total
Teachers	95,951	40,335	11,030	147,316
Political Subdivisions	63,100	34,309	8,436	105,845
State Employees	50,350	21,395	6,469	78,214
State Police Officers' Retirement System (SPORS)	1,465	466	—	1,931
Virginia Law Officers' Retirement System (VaLORS)	5,120	3,686	—	8,806
Judicial Retirement System (JRS)	296	70	46	412
Total Active Members	216,282	100,261	25,981	342,524

Total Active Members	Retirees/ Beneficiaries	Inactive/ Deferred Members	VRS Total Population
342,524	184,074	131,754	658,352

As of March 31, 2015

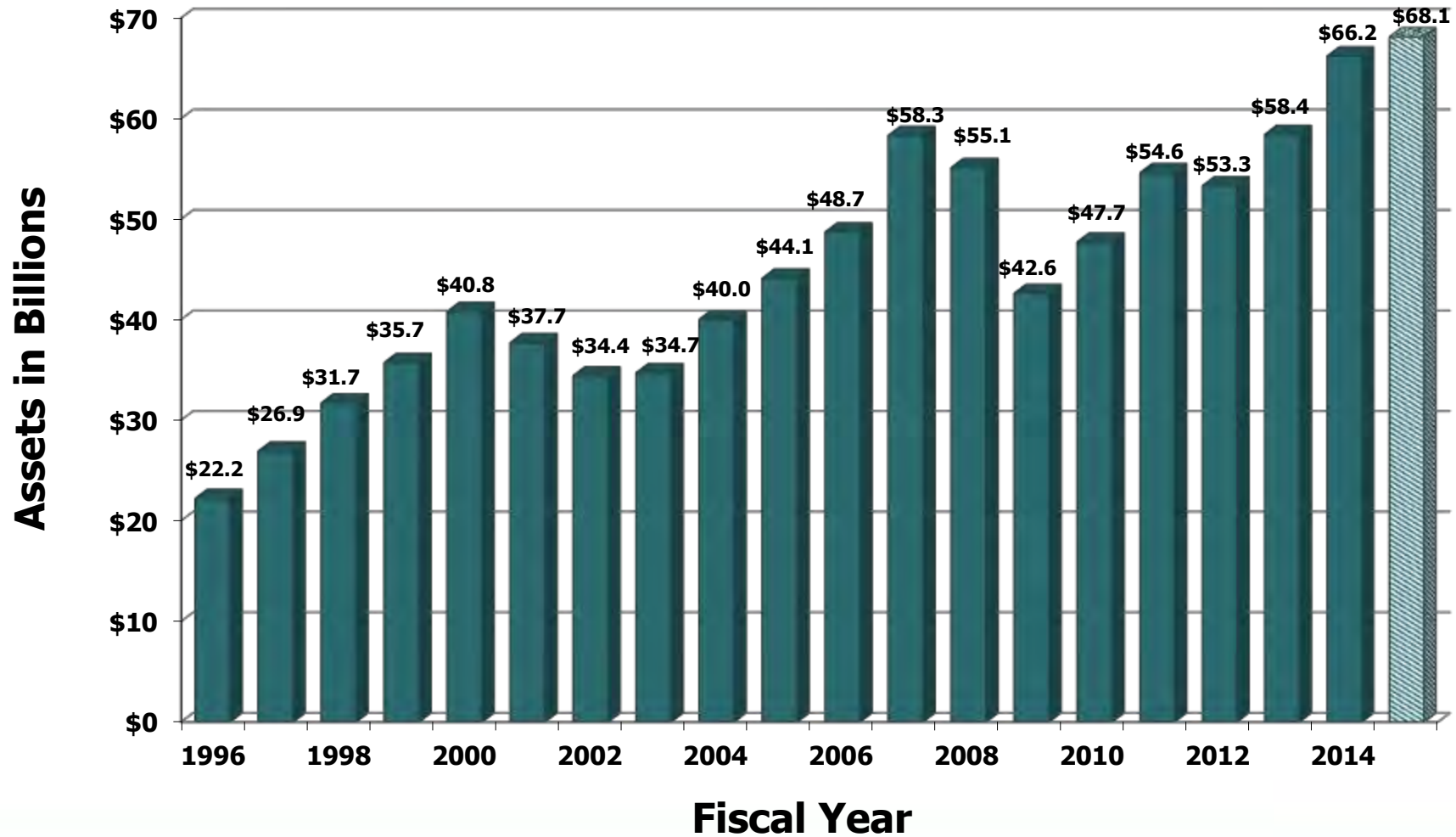
Benefit Comparison



	State	Teachers	Local
Actives:			
Average Age	48.3	45.2	46.3
Average Service	12.7	12.0	11.2
Average Salary	\$50,902	\$50,095	\$42,101
Retirees:			
Avg. Age @ Retirement	63.1	62.2	62.4
Avg. Service @ Retirement	21.7	22.4	19.6
Avg. Benefit @ Retirement	36.9%	38.1%	33.5%
Avg. Annual Benefit	\$19,256	\$22,088	\$15,290
Avg. Social Security Benefit at Age 62	\$17,796	\$18,240	\$14,988

Information above obtained from the June 30, 2014, Actuarial Valuations.

Estimate as of
6/30/2015



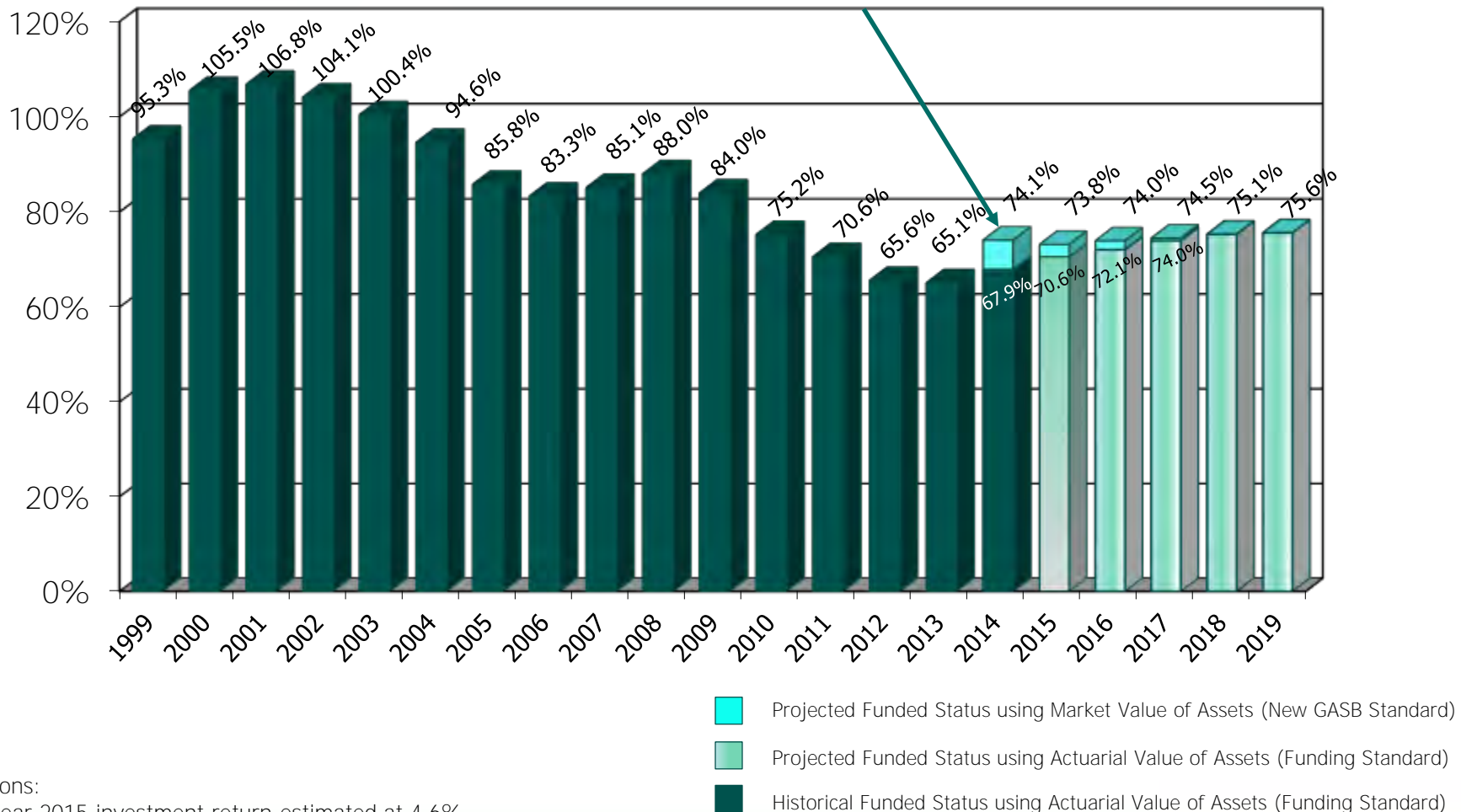


Funded Status and Contribution Rates

Funded Status: State Employees



New GASB Accounting Rules will reflect funded status using Market Value of Assets effective 6/30/14 for Plan Reporting and 6/30/15 for Employer Reporting.



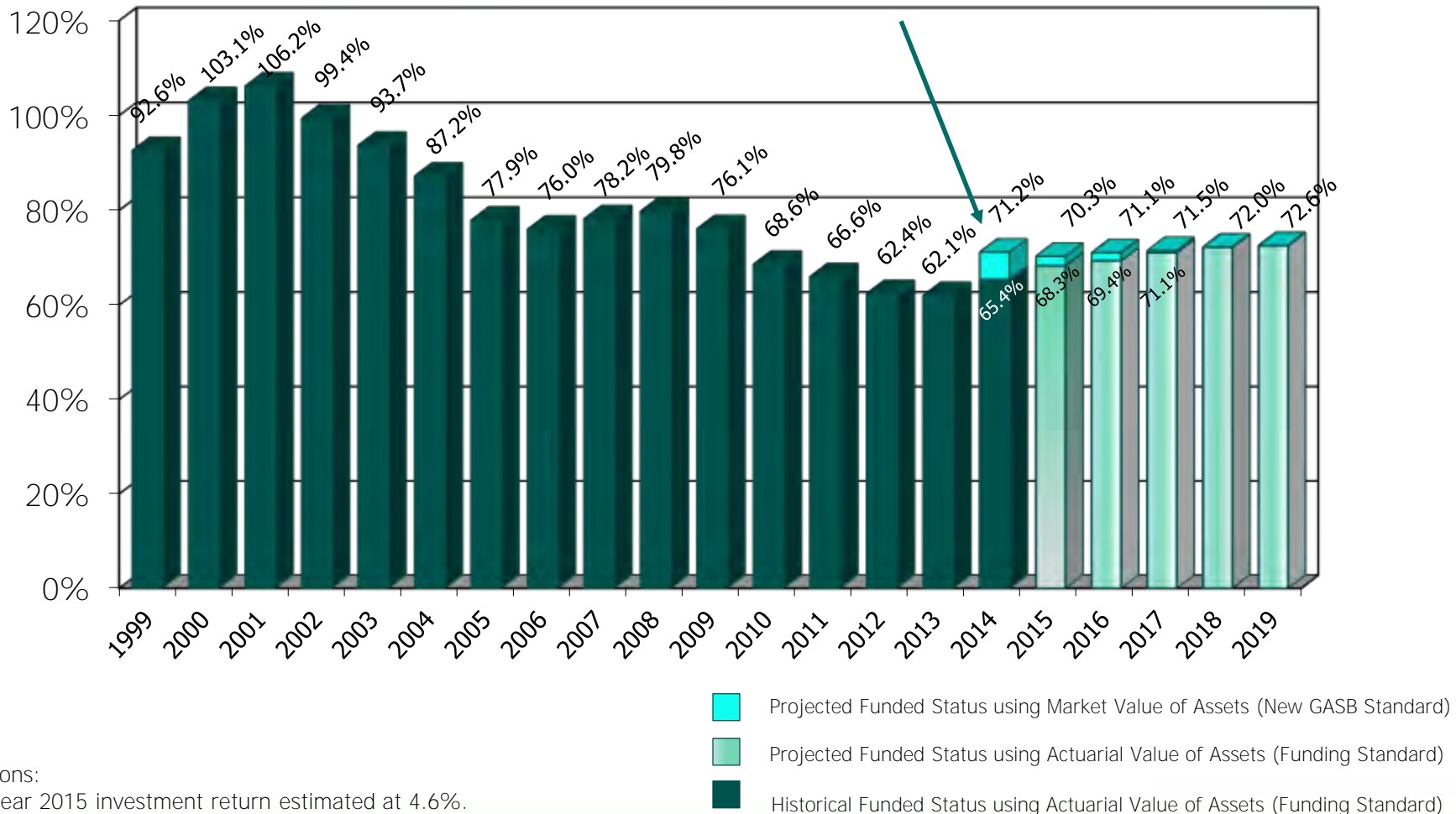
Assumptions:

- Fiscal Year 2015 investment return estimated at 4.6%.
- **Other projected years' investment returns assume 7.0% with 2.5% inflation rate.**
- Assumes contributions move to 90% of Board-certified rate effective fiscal year 2016.

Funded Status: Teachers



New GASB Accounting Rules will reflect funded status using Market Value of Assets effective 6/30/14 for Plan Reporting and 6/30/15 for Employer Reporting.



Assumptions:

- Fiscal Year 2015 investment return estimated at 4.6%.
- **Other projected years' investment returns assume 7.0% with 2.5% inflation rate.**
- Projected funded status reflects additional \$192.9 million contribution to Teacher Plan on 6/30/15.

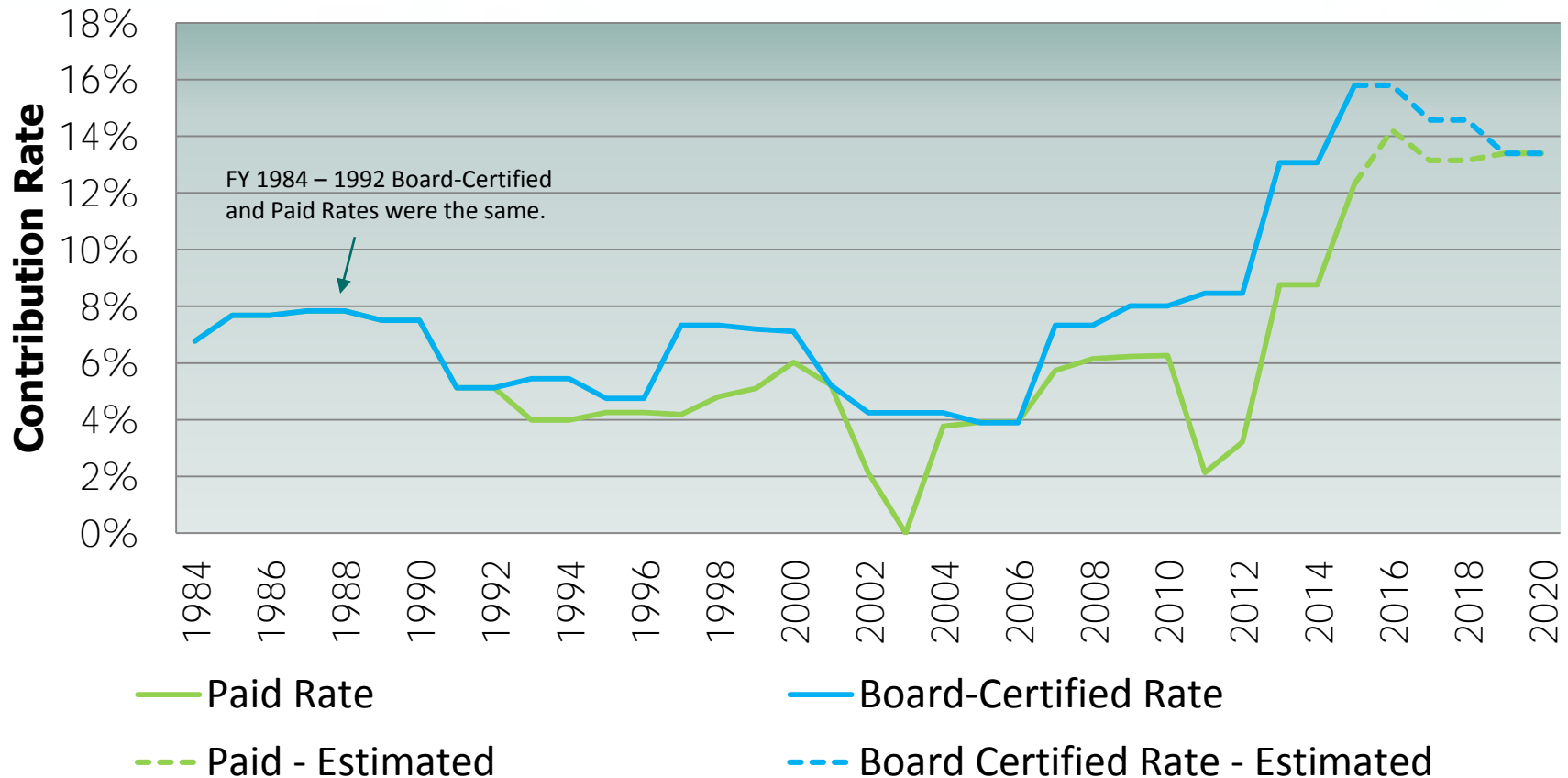


VRS Employer Rate Information

State Employer Contribution Rates



State Employer Contribution Rates FY 1984 - 2020

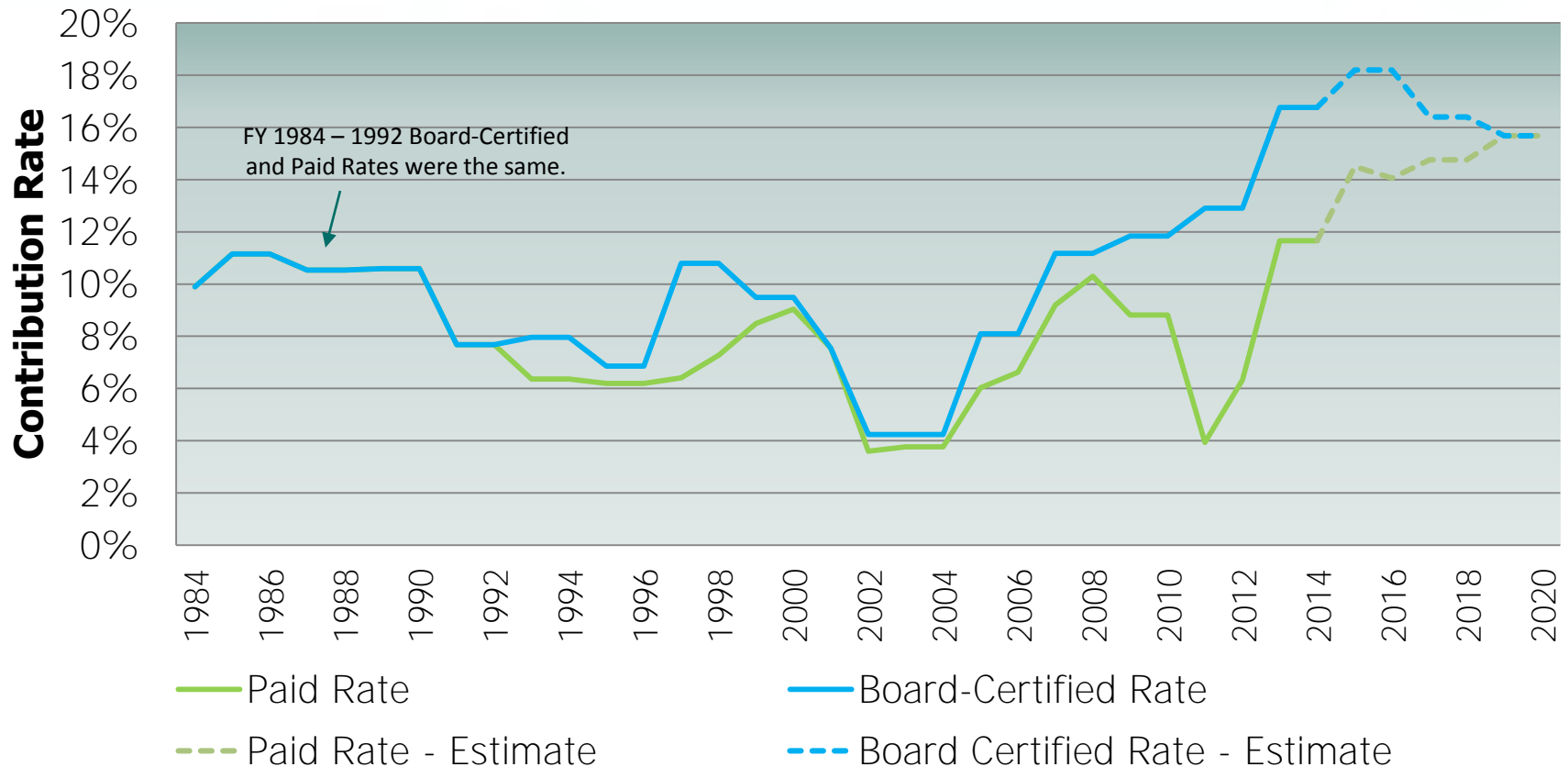


- Rates in fiscal year 2016 reflects increase to 90% of Board-certified rate. Increase in rate is contingent on additional funding being available as reflected in current 2015 revenue forecast.
- Fiscal Year 2015 investment return estimated at 4.6%.
- Other projected years assume all actuarial assumptions are met, including 7.0% rate of return with 2.5% inflation.
- Rates in fiscal year 2017 and beyond include estimated employer DC contribution to hybrid plan.

Teacher Employer Contribution Rates



Teacher Employer Contribution Rates FY 1984 - 2020



- Rates in fiscal years 2016-2020 reflect the accelerated payment of \$192.9 million to payback deferred contributions from 2010-2012 biennium. Accelerated payment is reflected in 2015 budget bill.
- Fiscal year 2015 investment return estimated at 4.6%.
- Other projected years assume all actuarial assumptions are met, including 7.0% rate of return with 2.5% inflation.
- Rates in fiscal year 2017 and beyond include estimated employer DC contribution to hybrid plan.

Estimated VRS Employer Contribution Rates



General Assembly committed to phase-in contribution rates for the teacher and state plans to the VRS board-certified rates as follows:

	July 1, 2012	July 1, 2014	July 1, 2016	July 1, 2018
State	67.02%	78.02%	90.00%* (effective August 2015)	100%
Teachers	69.53%	79.69%	89.84%	100%

* General Assembly accelerated phase-in for state plan.

Estimated Contribution Rates by Fiscal Year

	2013-14	2015 & 2016	2017 & 2018	2019 & 2020
State	8.76%	14.22% (12.33%)	13.15% (13.01%)	13.40% (13.57%)
Teachers	11.66%	14.06% (14.50%)	14.76% (15.22%)	15.68% (16.18%)

- Above contribution rates are net of employee contributions.
- Teacher rates for FY 2016 were lowered due to additional contribution of \$192.9 million applied to deferred contribution balance during FY 2015. The subsequent rates for FY 2017-2020 were also lowered to reflect the accelerated payment received. (Rate prior to accelerated payment is in parenthesis.)
- State rates shown for FY 2016-2018 reflect increase in contribution to 90% of Board-certified rates. This increase is contingent on 2015 revenue forecasts and would be effective August 10, 2015, if revenue forecasts are met.

Teacher Plan – 10-Year Payback Schedule for Deferred Contributions from 2010-2012 Biennium



Original Amortization Schedule

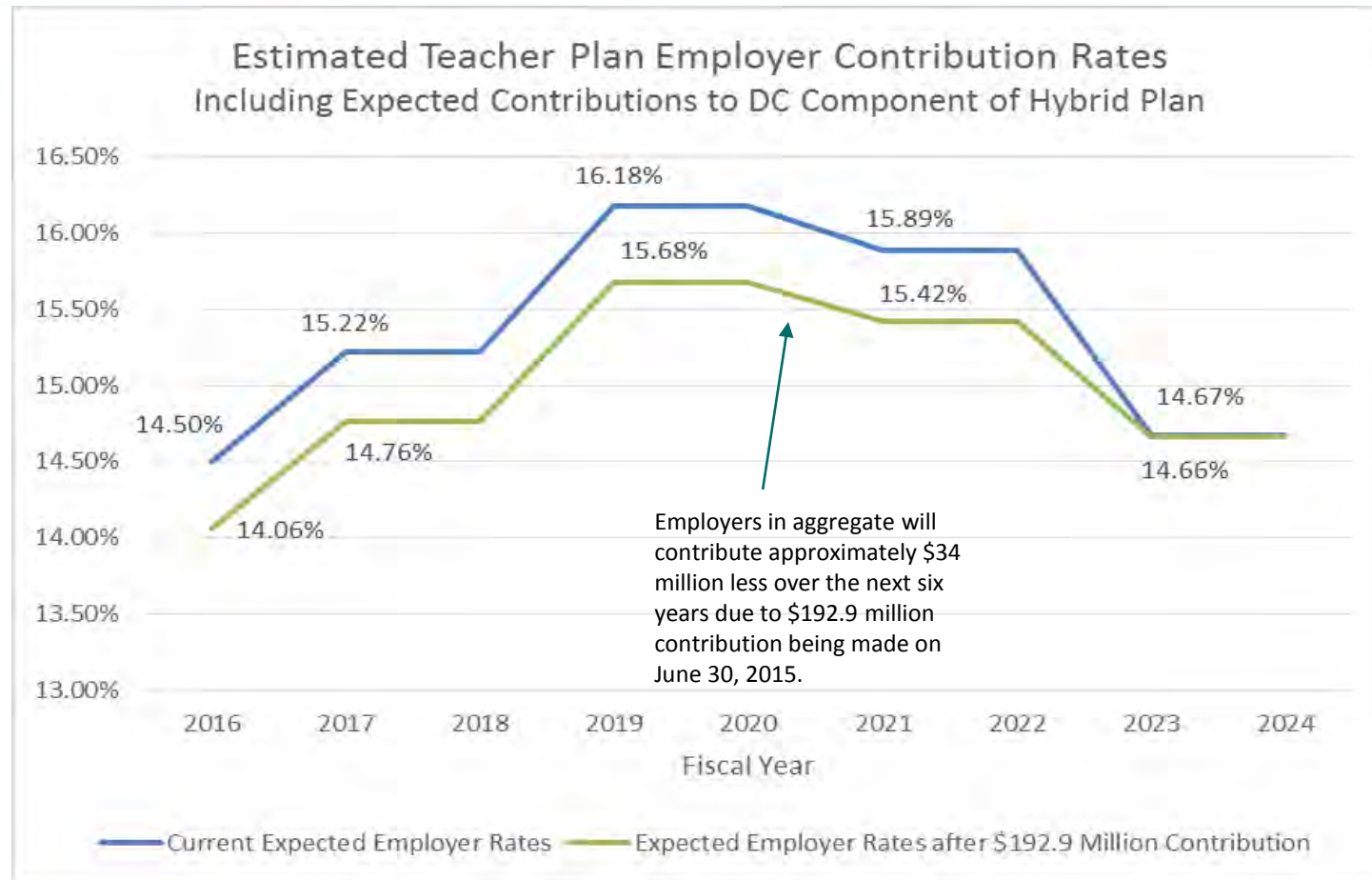
Date	Outstanding Balance	Years Remaining On Amortization Schedule	Amortization Payment
6/30/2011	\$ 741,432,106	10	\$99,232,610
6/30/2012	\$ 691,780,147	9	\$99,232,610
6/30/2013	\$ 634,025,864	8	\$99,232,610
6/30/2014	\$ 572,228,782	7	\$99,232,610
6/30/2015	\$ 506,105,904	6	\$99,232,610
6/30/2016	\$ 435,354,424	5	\$99,232,610
6/30/2017	\$ 359,650,341	4	\$99,232,610
6/30/2018	\$ 278,646,972	3	\$99,232,610
6/30/2019	\$ 191,973,367	2	\$99,232,610
6/30/2020	\$ 99,232,610	1	\$99,232,610
6/30/2021	\$ -	0	

Modified Amortization Schedule

Outstanding Balance	Years Remaining On Amortization Schedule	Amortization Payment
\$ 741,432,106	10	\$99,232,610
\$ 691,780,147	9	\$99,232,610
\$ 634,025,864	8	\$99,232,610
\$ 572,228,782	7	\$99,232,610
\$ 313,221,904	6	\$61,413,682
\$ 269,434,797	5	\$61,413,682
\$ 222,582,593	4	\$61,413,682
\$ 172,450,735	3	\$61,413,682
\$ 118,809,647	2	\$61,413,682
\$ 61,413,682	1	\$61,413,682
\$ -	0	

Reflects accelerated payment of \$192.9 million reflected in 2015 Budget Bill to pay down outstanding balance of contributions deferred during the 2010-2012 biennium.

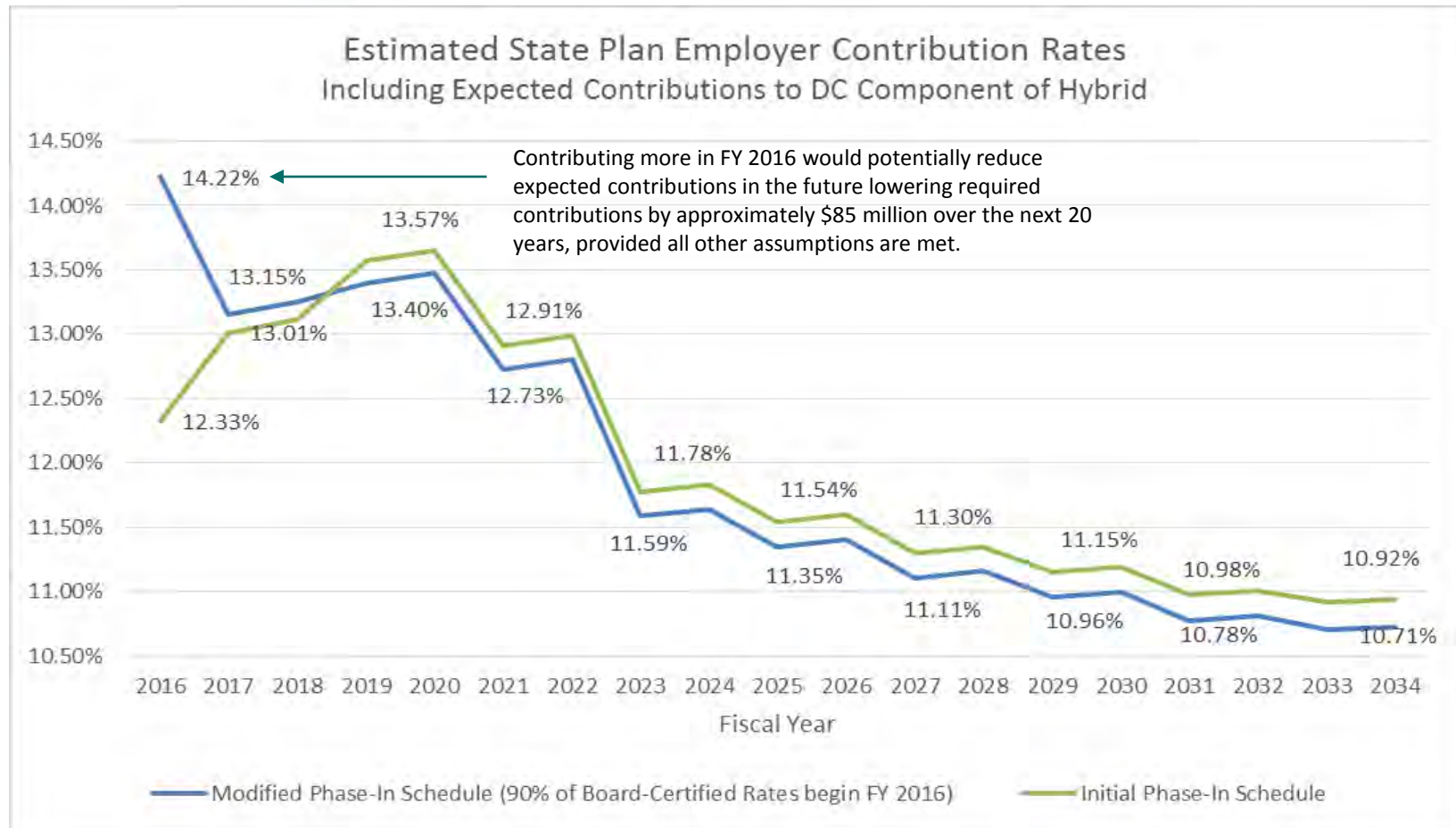
Teacher Plan Projected Employer Contribution Rates Impact of \$192.9 Million Contribution



- Assumes employer match to defined contribution portion of the hybrid plan of 1.5% of payroll for members in the hybrid plan.
- Teacher rates in fiscal years 2016-2020 reflect accelerated payment of \$192.9 million to payback deferred contributions from 2010-2012 biennium. Accelerated payment is reflected in 2015 budget bill.
- Fiscal Year 2015 investment return estimated at 4.6%.
- Other projected years assume all actuarial assumptions are met, including 7.0% rate of return with 2.5% inflation.

State Plan Projected Employer Contribution Rates

Impact of Funding at 90% Level beginning Fiscal Year 2016



- Assumes employer match to defined contribution portion of the hybrid plan of 1.5% of payroll for members in the hybrid plan.
- State rates in fiscal year 2016 reflect increase to 90% of Board-certified rate. Increase in rate from 12.33% to 14.22% is contingent on additional funding being available as reflected in current 2015 revenue forecast.
- Fiscal Year 2015 investment return estimated at 4.6%.
- Other projected years assume all actuarial assumptions are met, including 7.0% rate of return with 2.5% inflation.

Virginia Retirement System Liabilities



Unfunded Liabilities by Plan

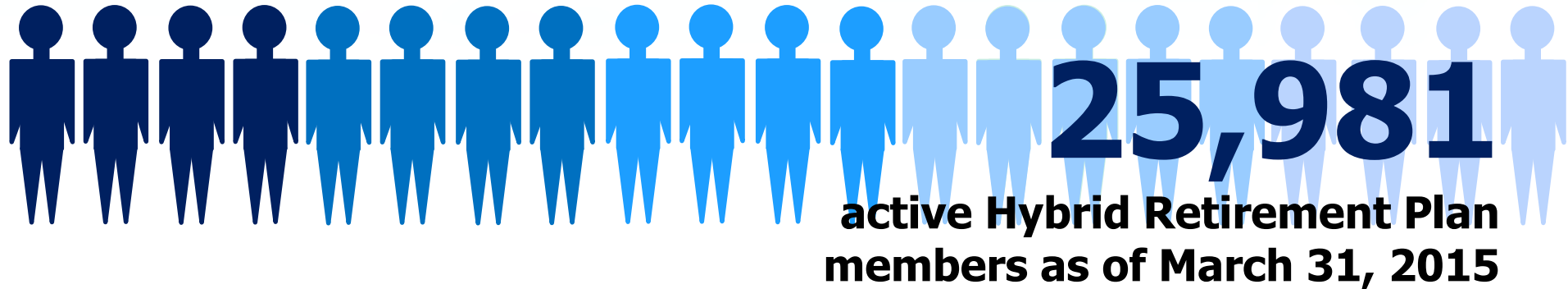
Plan	6/30/2013 Funding Smoothed Assets	6/30/2014 Funding Smoothed Assets	6/30/2014 GASB (NPL)* Market Assets
State Employees (includes SPORS, JRS, VaLORS)	\$8.78	\$8.33	\$6.76
Teachers	\$15.13	\$14.27	\$12.08
Local Political Subdivisions	\$4.47	\$3.67	\$2.51
Total	\$28.38	\$26.27	\$21.35

* GASB Net Pension Liability (NPL) is the amount of liability not covered by the fair market value of assets. The NPL has been measured using a 7.00% discount rate.



Hybrid Retirement Plan

Hybrid Retirement Plan

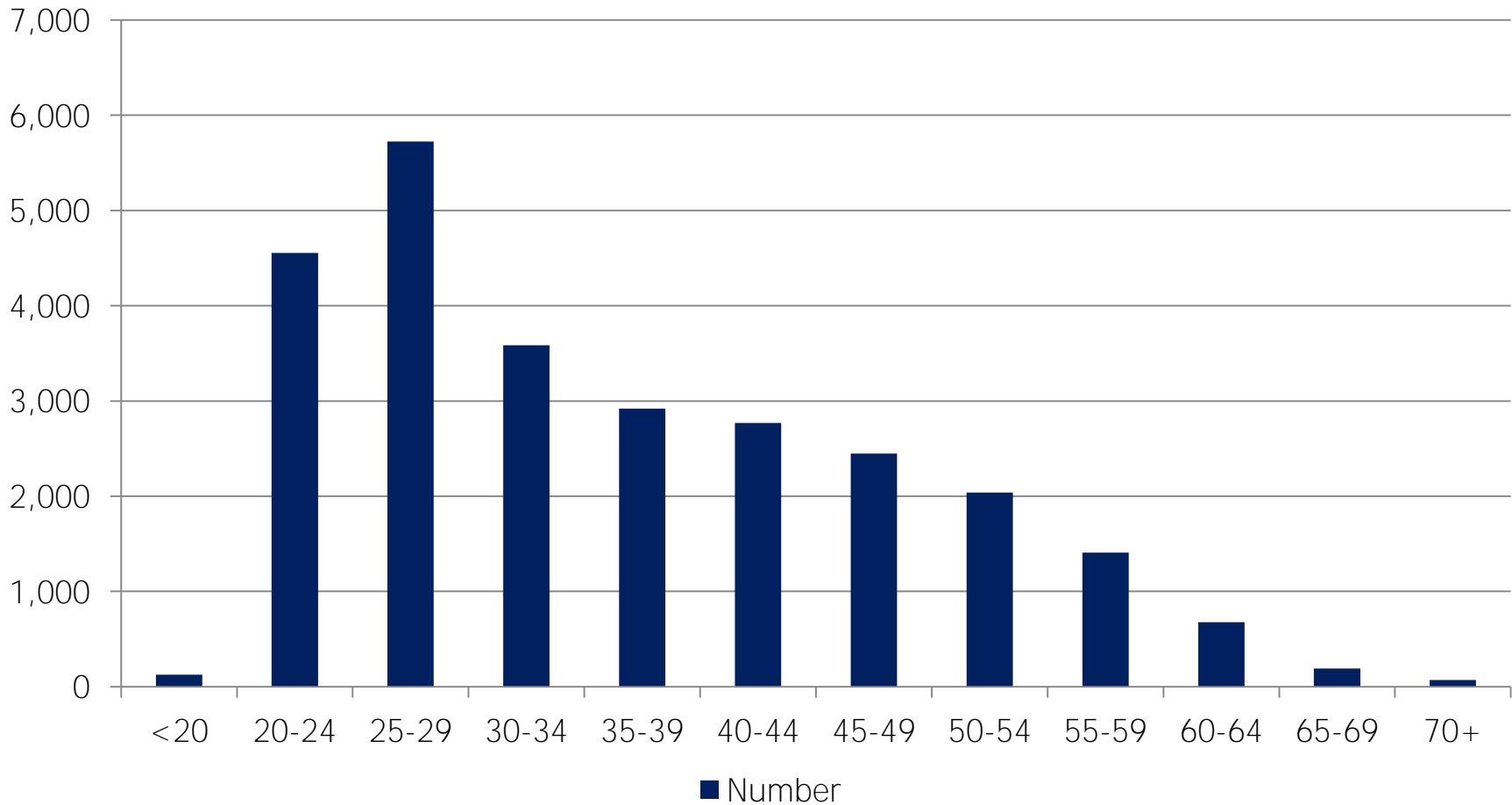


- Total combined balance in the Hybrid 401(a) Cash Match Plan and the Hybrid 457 Deferred Compensation Plan is **\$16.2 million.**

Hybrid Retirement Plan



Hybrid Retirement Plan Members by Age

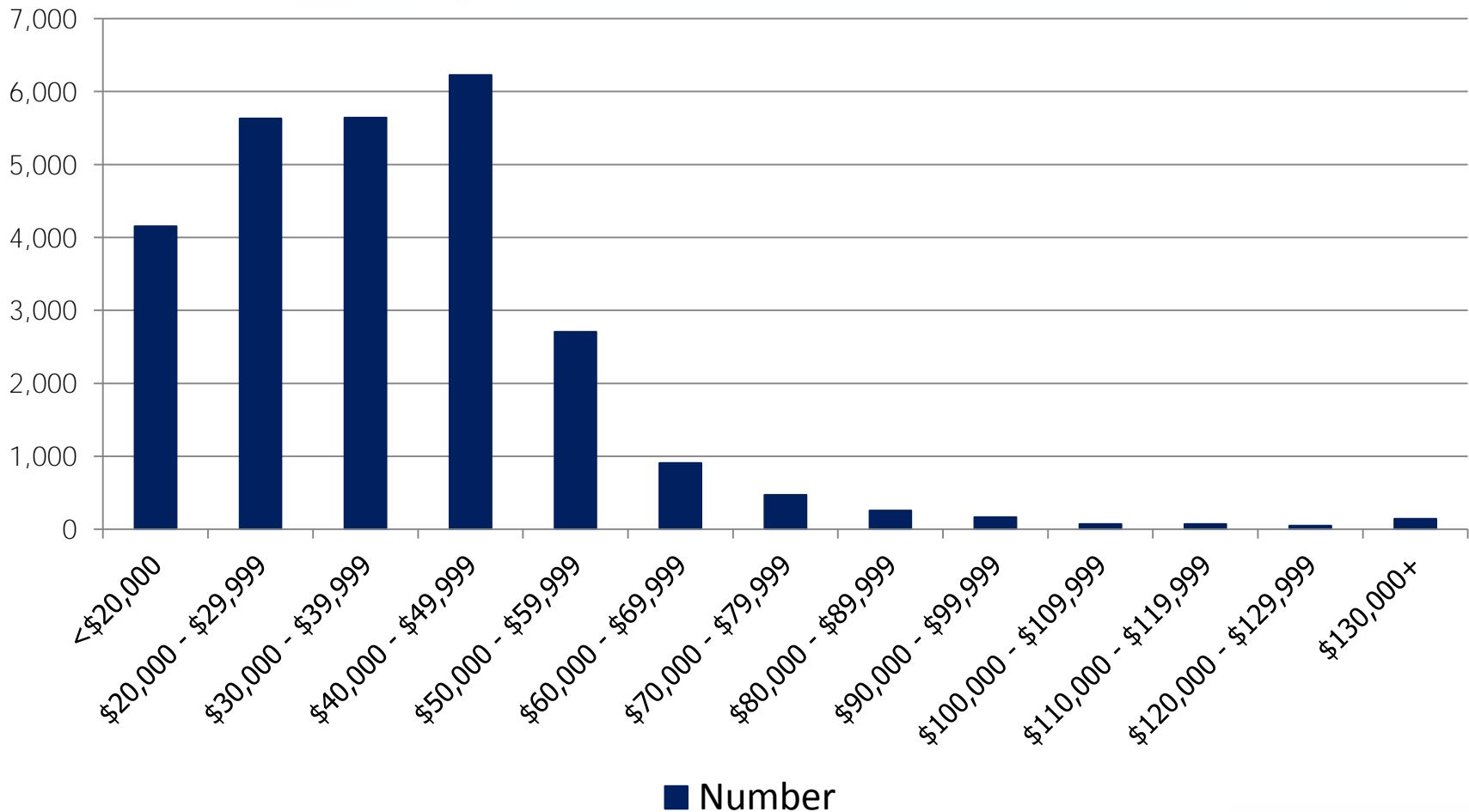


As of March 31, 2015

Hybrid Retirement Plan



Number of Hybrid Retirement Plan Members by Salary

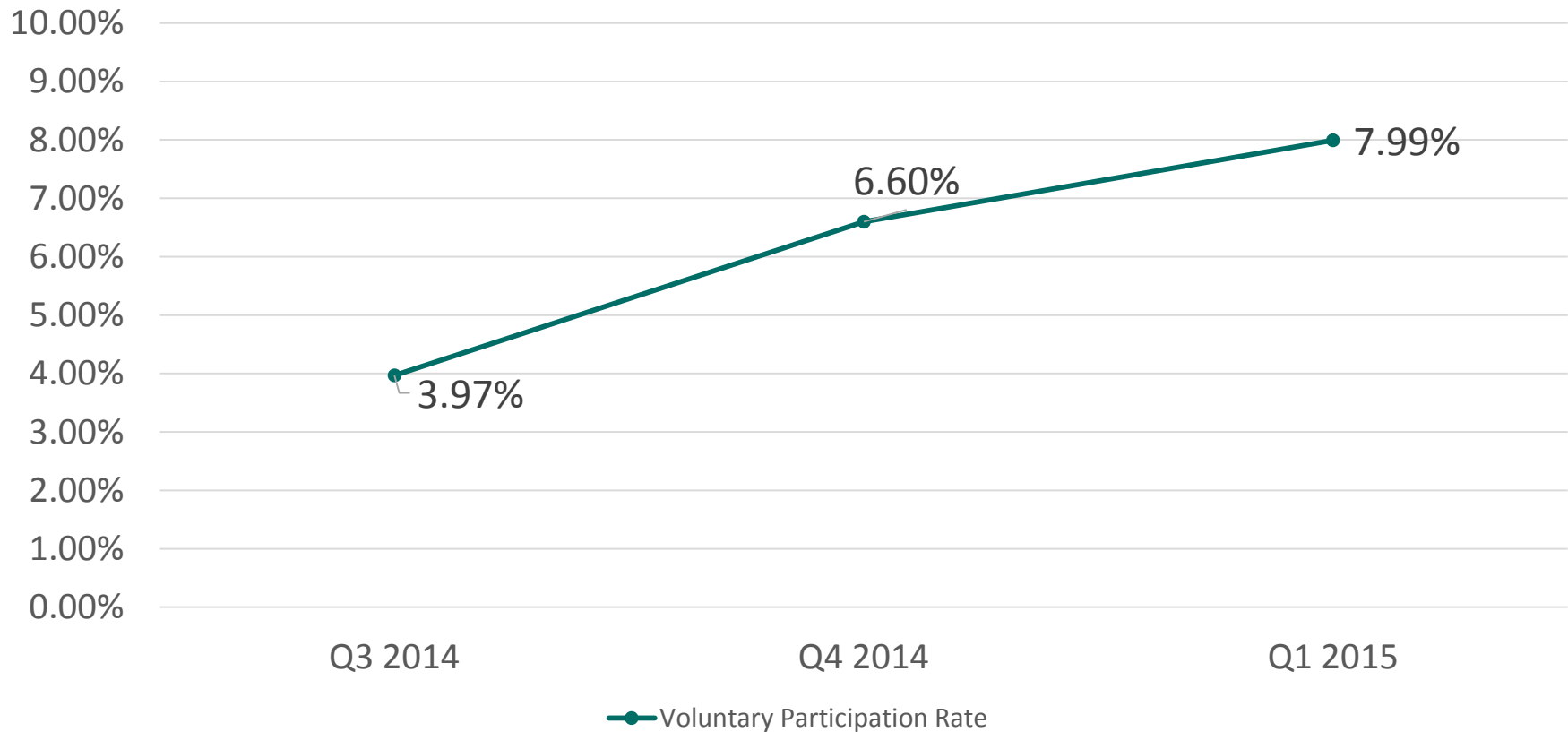


As of March 31, 2015

Hybrid 457 Voluntary Participation Rate



As of 3/31/15, 7.99% of Hybrid members have elected a voluntary contribution percentage with ICMA-RC.

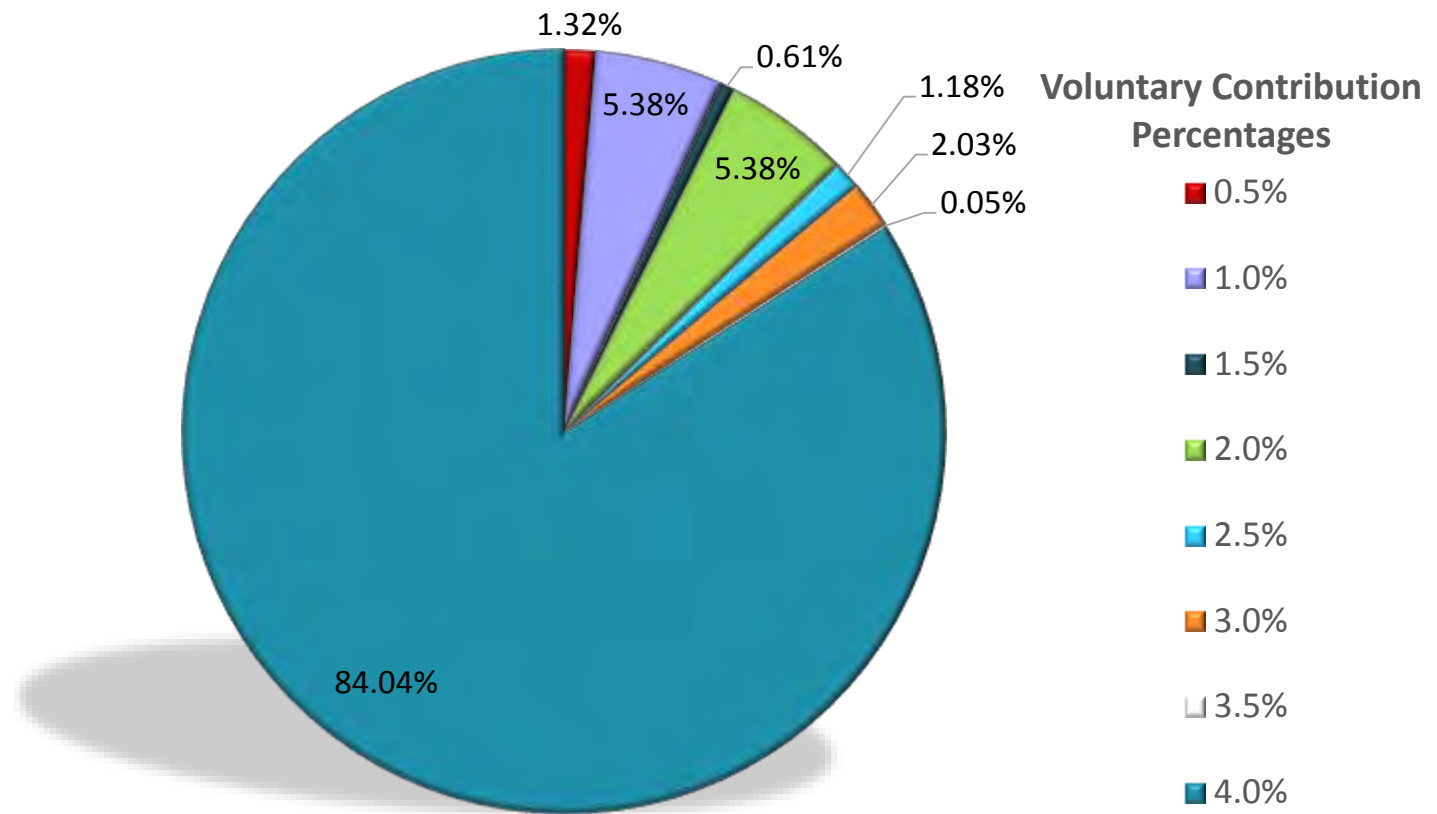


Note: The voluntary participation rates for prior quarters have been excluded because they were calculated using a different report and parameters

Current Hybrid Members – Voluntary Elections



84% who elect voluntary contributions chose to maximize their voluntary contributions at 4%.



This pie chart represents an analysis of active members who have elected* a voluntary contribution by March 16, 2015.

*Changes requested between the dates of December 15, 2014 and March 16, 2015 became effective April 2015.

Member communication/education efforts:

- Hybrid member handbook and dedicated website
- Investment information regarding the DC plan
- Hybrid plan overview and investment videos
- In-person presentations on hybrid plan features and investment options
- Voluntary contributions campaign, including a direct mail piece
- **Special communications during “Save for Retirement Week”**
- Dedicated newsletter for DC plan information

Employer communication/education efforts:

- Employer toolkit with promotional/information materials for hybrid members
- Employer Roundtables with focus on number of hybrid employees, voluntary contributions and the role of the employer
- Dedicated hybrid employer website

VRS Receives Recognition for Voluntary Contributions Campaign



- VRS Public Relations unit received a **Commonwealth Award of Merit** for internal campaigns from the Public Relations Society of America Richmond Chapter in May



- Two Commonwealth of Virginia submissions chosen as a recipient of the National Association of Government Defined Contribution Administrators' (NAGDCA) **2015 Leadership Recognition Awards** in the categories of:
 - Participant Education and Effective Communication
 - Plan Design and Administration



Auto-Escalation



If employee is not contributing the full 4% voluntary deferred contribution, the amount will increase 0.5% every three years



GASB Update

- Governmental Accounting Standards Board (GASB) Standards No. 67 and No. 68 require substantially more financial disclosure and audit work related to public pension benefits
- The new standards are strictly for accounting and financial reporting of retirements plans
- Net Pension Liabilities (NPL) – the amount of liability not covered by fair market value of assets as of measurement date:
 - Reported on the face of the balance sheet by employers
 - Could include apportioned liability from cost-sharing plans, such as the VRS Teacher Plan
- Pension funding is still based on actuarial valuation results:
 - VRS Board establishes funding policy and certifies contribution rates
 - Funding of contribution rates part of budget approval process



Summary

- Gratified that the Governor and General Assembly are committed to funding contribution rates, including:
 - Acceleration of contribution rates to the state plans to 90 percent and one year ahead of schedule
 - Infusion of \$192.9 million to the VRS Teacher Plan
- Sticking with the funding plan has been viewed positively by the bond-rating agencies
- Long-range prognosis for the health of the plan is positive if the Governor and General Assembly continue to adhere to funding plan

Thank You