



THE PEW CHARITABLE TRUSTS

Virginia Commission on Employee Retirement Security & Pension Reform

Retirement Working Group Meeting # 1

September 12, 2016

Public Sector Retirement Systems Project

Introduction

- July 11 presentation included 50-state and Virginia specific information on pension funding, benefits, and investments
- August 22 presentation covered additional research and analysis on the Virginia Retirement System (VRS), including preliminary feedback to questions raised by members of the Commission
- Goals today are to address follow-up questions from commission members and to identify potential recommendations for the Working Group on Retirement to consider
- We remain available to meet individually with any member
- Pew continues to work closely with VRS to review data and analysis

Overview

- **Pension Funding and Investment Transparency**
 - Re-cap of policy considerations from July and August meetings
 - Follow-up items

- **Optional DC Plans**
 - Additional review of examples from other states
 - Discussion of investment and distribution options

- **Proposed Changes to Hybrid Plan**
 - Proposed framework for developing recommendations
 - Preliminary analysis on fiscal impacts

Pension Funding and Investment Transparency

Principles for Fiscal Sustainability

- Commit to fully funding and paying for pension promises
- Manage investment risk and cost uncertainty
- Follow sound investment governance and reporting practices

Considerations on Pension Funding and Transparency

➤ Pension Funding

- Strengthening the Commitment (e.g. set ARC as part of Consensus Revenue)
- Measuring and Managing Cost Uncertainty (stress testing)
- There are no panaceas - fiscal health requires funding discipline

➤ Investment Transparency

- VRS practices update
- Measurement of performance and carried interest fees for private equity
- See appendix

Looking Forward - Policy Considerations

➤ **Strengthening the commitment**

- The new requirement provides a plan but does not remove the risk of legislative underfunding
- **Constitutional Amendments*** – Maine & Montana attempted to strengthen funding commitments via constitutional amendments
- **Consensus Revenue** – Several states have implemented or considered taking pension contributions “off the table” during the budgeting/revenue process

➤ **Other approaches states have taken on pension funding include**

- **Dedicated Revenue Sources*** – An example of dedicated revenue sources to pay for pensions are fees and taxes applied to insurance that are used to help pay for public safety pensions.
- **Non-recurring revenue sources*** (West Virginia Tobacco Settlement Funds)
- **Asset Sales*** (Kansas surplus property, Pennsylvania municipalities)
- **Pension Obligation Bonds**

➤ **Measuring and managing cost uncertainty**

- Additional reporting on Debt Amortization (discussed at the last meeting) and Stress Testing to better inform policymakers on the risks of underfunding

* See Appendix from Pew's August 22 presentation for additional information

Virginia Retirement System

Total Pension Liability At Different Discount Rates

Total Pension Liability

(\$ billions)

		2% Decrease	1.5% Decrease	1% Decrease	0.5% Decrease	Current Discount Rate	0.5% Increase	1% Increase	1.5% Increase	2% Increase
System/ Plan		5.00%	5.50%	6.00%	6.50%	7.00%	7.50%	8.00%	8.50%	9.00%
VRS	State	\$28	\$27	\$25	\$24	\$23	\$21	\$20	\$19	\$18
VRS	Teacher	\$56	\$52	\$49	\$46	\$43	\$40	\$38	\$36	\$34
VRS	Political Subdivision	\$26	\$24	\$23	\$21	\$20	\$19	\$18	\$17	\$16
Subtotal		\$110	\$103	\$97	\$91	\$85	\$81	\$76	\$72	\$68
Total VRS		\$115	\$107	\$101	\$94	\$89	\$84	\$79	\$75	\$71

Note: Information on sensitivity to changes in the discount rate derived from the “Schedule of Impact of Changes in Discount Rate” table from 2015 VRS CAFR, page 66. Actuarial methods were employed to calculate the other numbers and have been submitted to VRS for review. Subtotal covers the state, teacher, and political subdivision plans. VRS total also includes the SPORS, VaLORS, and JRS plans. Totals may not add due to rounding.

Source: Pew Charitable Trusts and The Terry Group.

Virginia Retirement System

Pension Debt At Different Discount Rates

Net Pension Liability

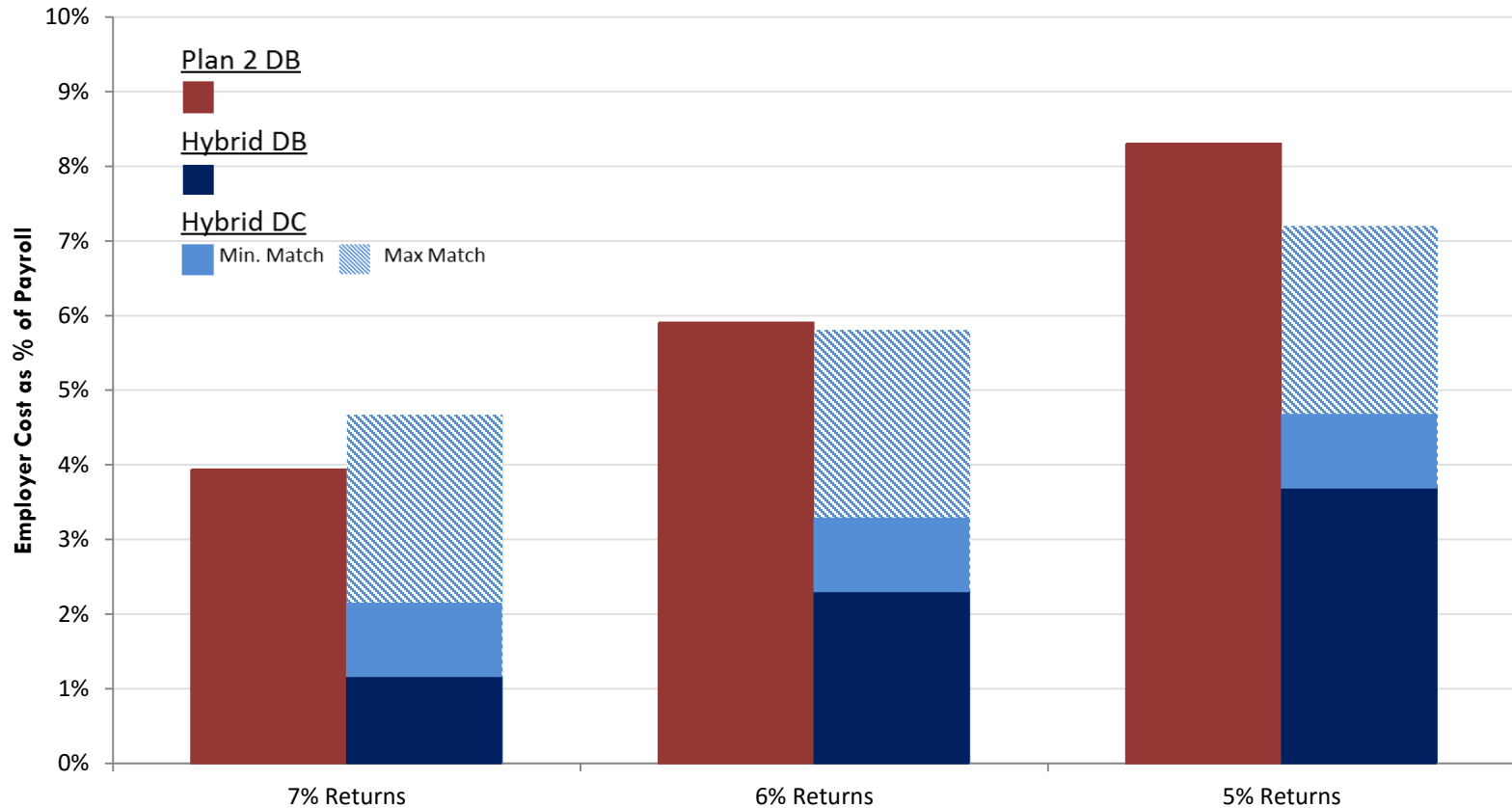
(\$ billions)

		2%	1.5%	1%	0.5%	Current Discount Rate	0.5%	1%	1.5%	2%
		Decrease	Decrease	Decrease	Decrease		Increase	Increase	Increase	Increase
System/ Plan		5.00%	5.50%	6.00%	6.50%	7.00%	7.50%	8.00%	8.50%	9.00%
VRS	State	\$12	\$10	\$9	\$7	\$6	\$5	\$4	\$3	\$2
VRS	Teacher	\$26	\$22	\$18	\$15	\$13	\$10	\$8	\$6	\$4
VRS	Political Subdivision	\$8	\$7	\$5	\$4	\$3	\$2	\$0	(\$0.5)	(\$1)
Subtotal		\$46	\$39	\$32	\$27	\$21	\$17	\$12	\$8	\$4
Total VRS		\$48	\$41	\$34	\$28	\$23	\$18	\$13	\$9	\$5

Note: Information on sensitivity to changes in the discount rate derived from the “Schedule of Impact of Changes in Discount Rate” table from 2015 VRS CAFR, page 66. Actuarial methods were employed to calculate the other numbers and have been submitted to VRS for review. Subtotal covers the state, teacher, and political subdivision plans. VRS total also includes the SPORS, VaLORS, and JRS plans. Totals may not add due to rounding.

Source: Pew Charitable Trusts and The Terry Group.

Sensitivity of Employer Contribution Rate to Investment Return Projections



Notes: (1) DB cost estimates at 7% returns based on VRS normal cost rate for the State plan used in development of the fiscal year 2017/2018 employer rates, forecasted results at 6% and 5% returns based on actuarial analysis by The Terry Group. According to the Wilshire Group, the median 10 year investment return for public pension plans was approximately 6% as for June 30, 2016. (2) DC expected costs within the Hybrid represent employer minimum and maximum employer matching payments based on employee voluntary DC contributions.

Source: Analysis by The Terry Group.

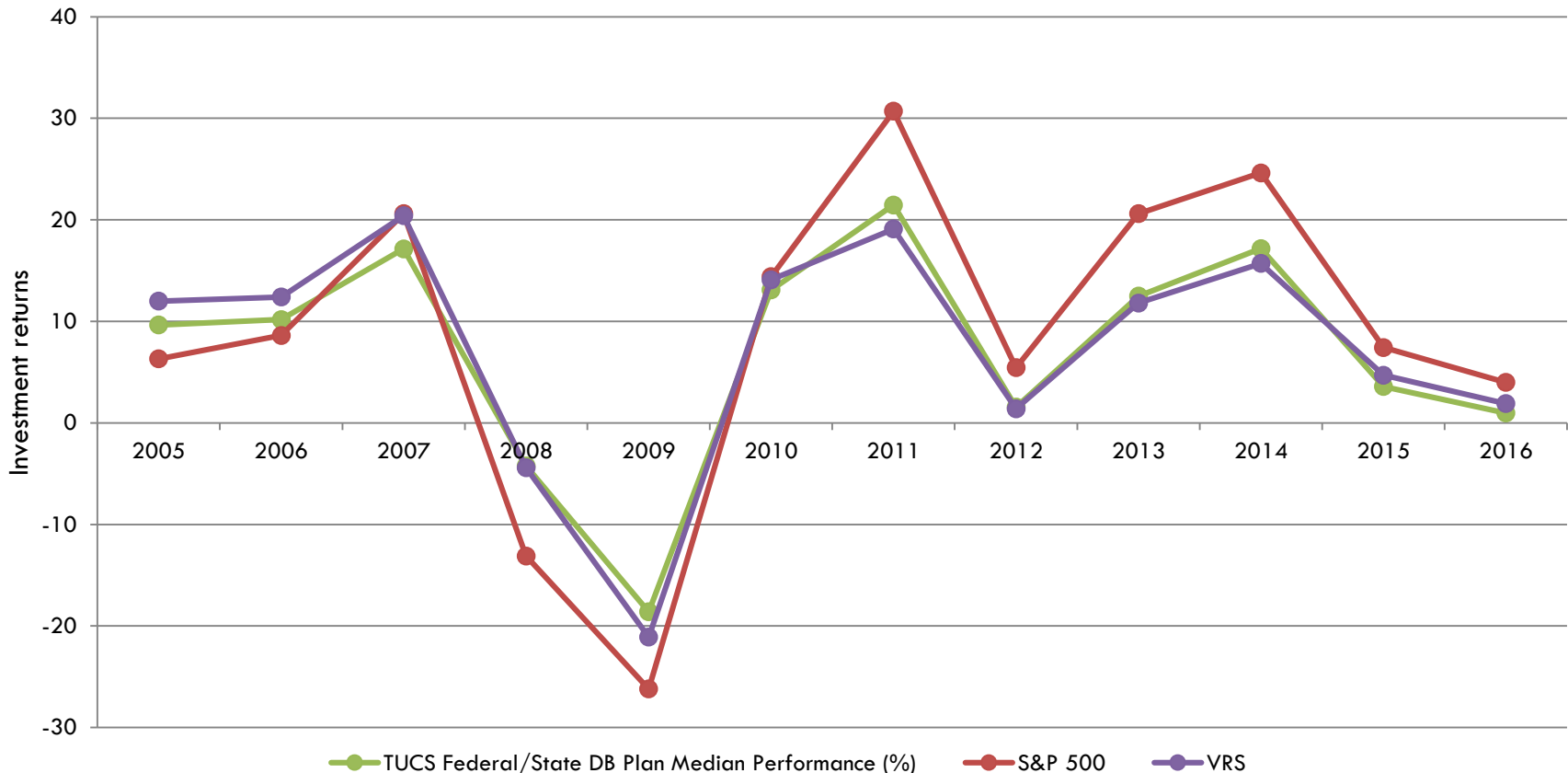
VRS Investment Performance – As of June 30, 2016

	1-yr Return	3-yr Return	5-yr Return	10-yr Return	20-yr Return	25-yr Return
Virginia Retirement System <i>(Net of Fees)</i>	1.86%	7.26%	6.96%	5.61%	7.44%	8.30%
VRS Custom Benchmark	1.29%	6.59%	6.38%	5.07%	6.85%	7.90%
<i>Wilshire TUCS Medians Below Reported Gross of Fees</i>						
TUCS – All Public Funds	1.07%	6.83%	6.82%	5.93%	7.32%	8.36%
TUCS – Master Trusts (All Plans)	0.91%	6.20%	6.30%	5.67%	7.24%	8.35%
<i>Market Indices</i>						
70%/30% S&P 500 and Barclays Agg.	4.81%	9.48%	9.72%	7.00%	7.50%	8.67%
65%/35% MSCI World and Barclays Agg.	0.47%	6.10%	5.84%	5.01%	5.99%	6.93%

Sources: Wilshire®, Trust Universe Comparison Service® as provided by VRS.

VRS - Average Annual VRS, Stock Market, and Pension Fund Returns

Equity investments and pension fund returns are highly volatile



Note: VRS data is reported *net of fees* while TUCS data is generally reported *gross of fees*.

Sources: VRS June 30th Investment Reports and the Wilshire®, Trust Universe Comparison Service®

Optional DC Plans

Principles for Retirement Security

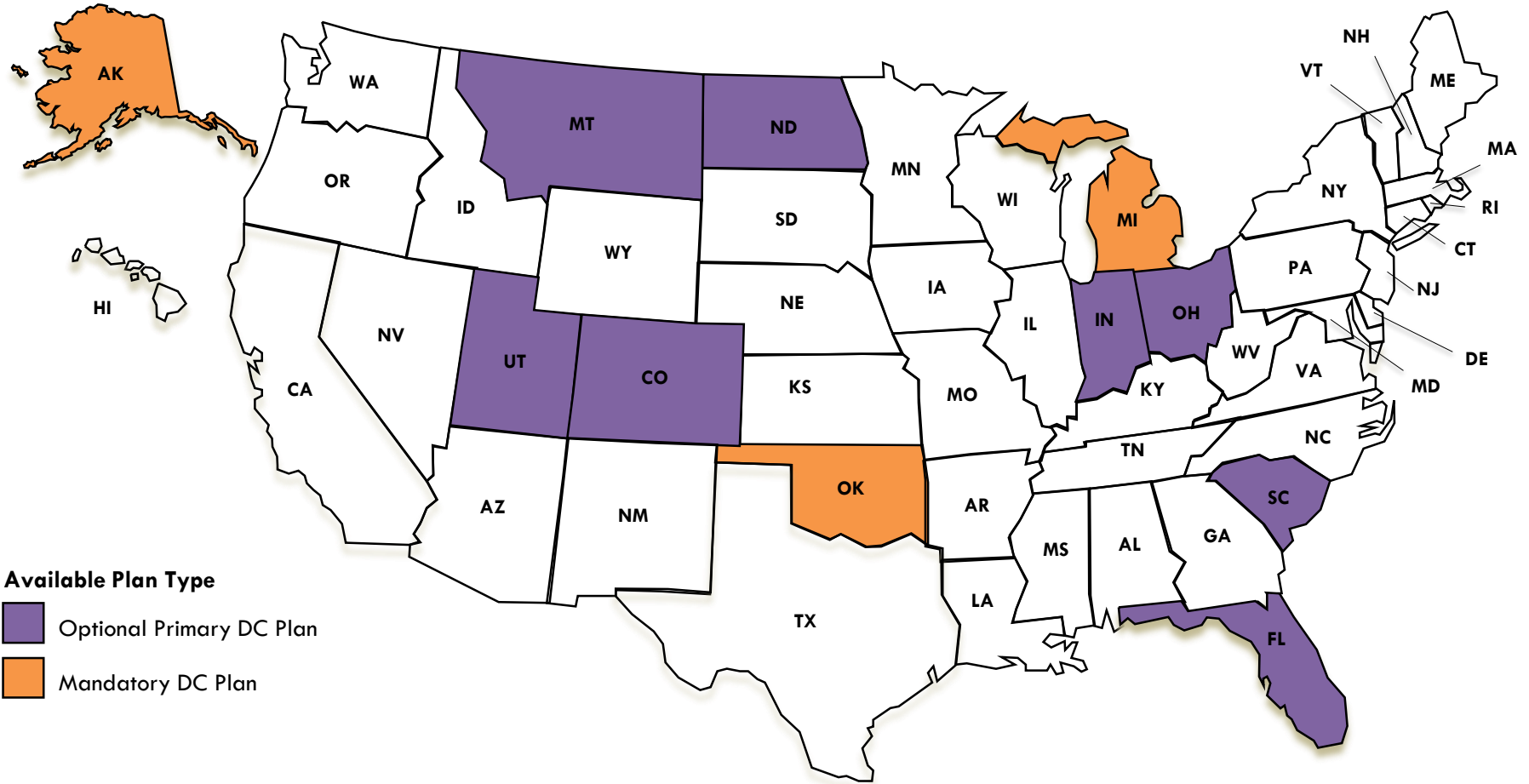
- Target sufficient contributions and savings to help put employees on a path to a secure retirement
- Invest assets in professionally managed, pooled investments with low fees and appropriate asset allocations
- Provide access to lifetime income in retirement

Summary

- Commission members have expressed interest in the DC plan available to higher education employees in the state. 45 states have similar plans. 11 states also offer primary DC plans to state workers and teachers
- Pew has performed detailed analysis on participation rates for states with optional DC plans, which we will share following UVA's upcoming presentation
- Considerations going forward:
 - Further assessment of state DC plans for higher education in Virginia
 - Comparison to optional DC plans in other states
 - Measuring cost and cost predictability
 - Retirement security: plan design to maximize retirement savings and minimize cost

8 of the 45 States with University DC Plans Provide Employees with Similar Plans as a Primary Plan Option

3 states have mandatory DC plans for at least some workers.



VRS - Optional Retirement Plans for Higher Education, Political Appointees, and School Superintendents

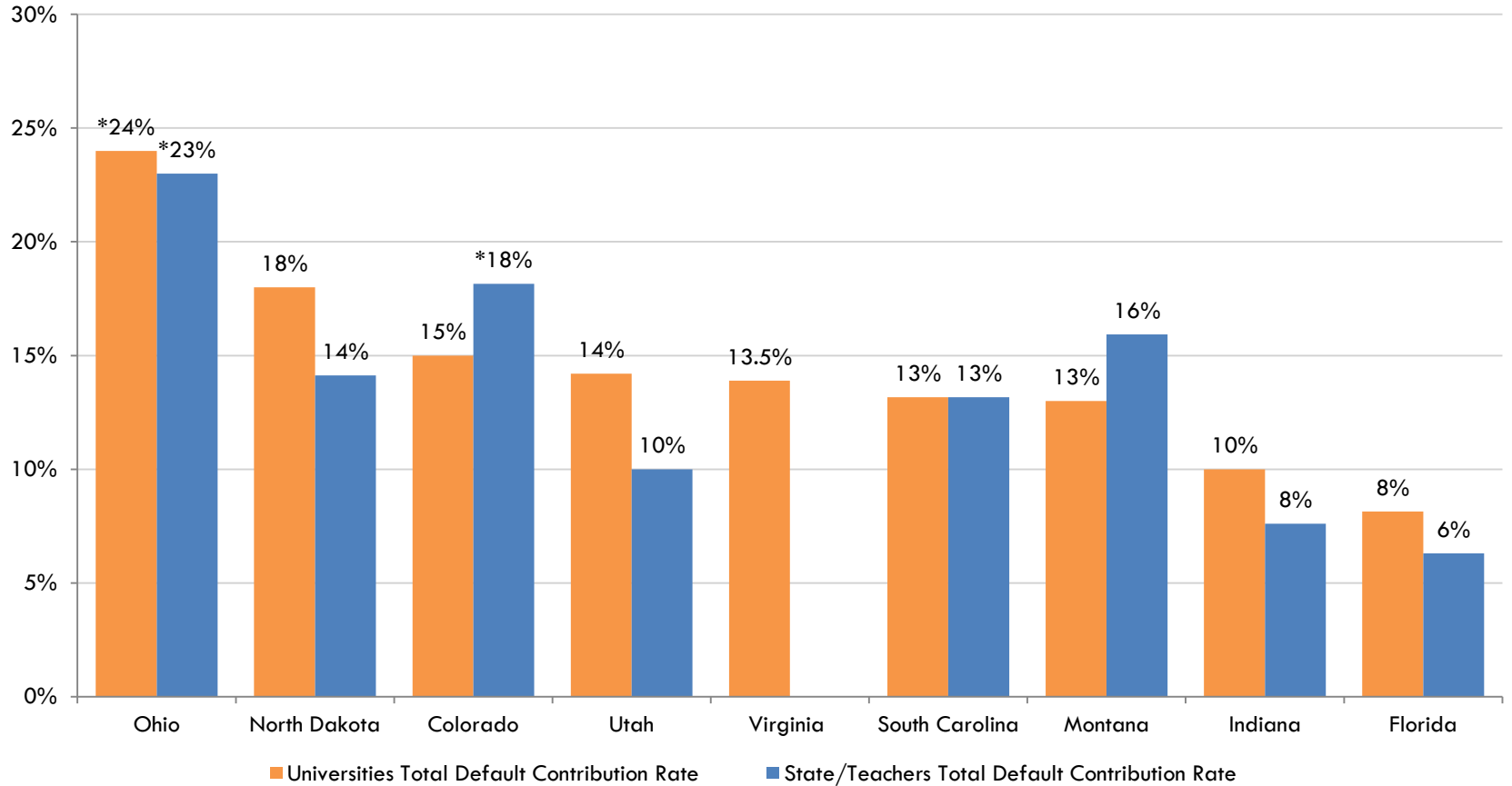
Virginia Retirement System Optional Retirement Plans	ORP Plan 1 (Hired before Jul. 1, 2010)	ORP Plan 2 (Hired after Jul. 1, 2010)
Employer Contribution	10.4% (entire contribution made by employer and set by statute)	8.5%*
Employee Contribution	N/A	5%**
Vesting	Immediate	Immediate
Distribution Options	Systematic, full or partial lump-sum, annuity purchase to produce lifetime benefit, rollover to new plan or into IRA. Retiree may also take partial lump-sum option in combination with periodic payments.	Systematic, full or partial lump-sum, annuity purchase to produce lifetime benefit, rollover to new plan or into IRA. Retiree may also take partial lump-sum option in combination with periodic payments.
Covered by Social Security	Yes	Yes

The employer contribution rate has been lowered from previous plan tiers. The employer contribution rate has been lowered from previous plan tiers, which was 10.4% for employees hired between July 1991-2010.

** Some institutions contribute an additional 0.4% of compensation for the employee.

Note: The Optional Retirement Plans for Higher Education (ORPHE), Political Appointees (ORPPA), and School Superintendents (ORPSS) are identical with regard to employee and employer contribution rates. As such, the table is intended to represent all three plans.

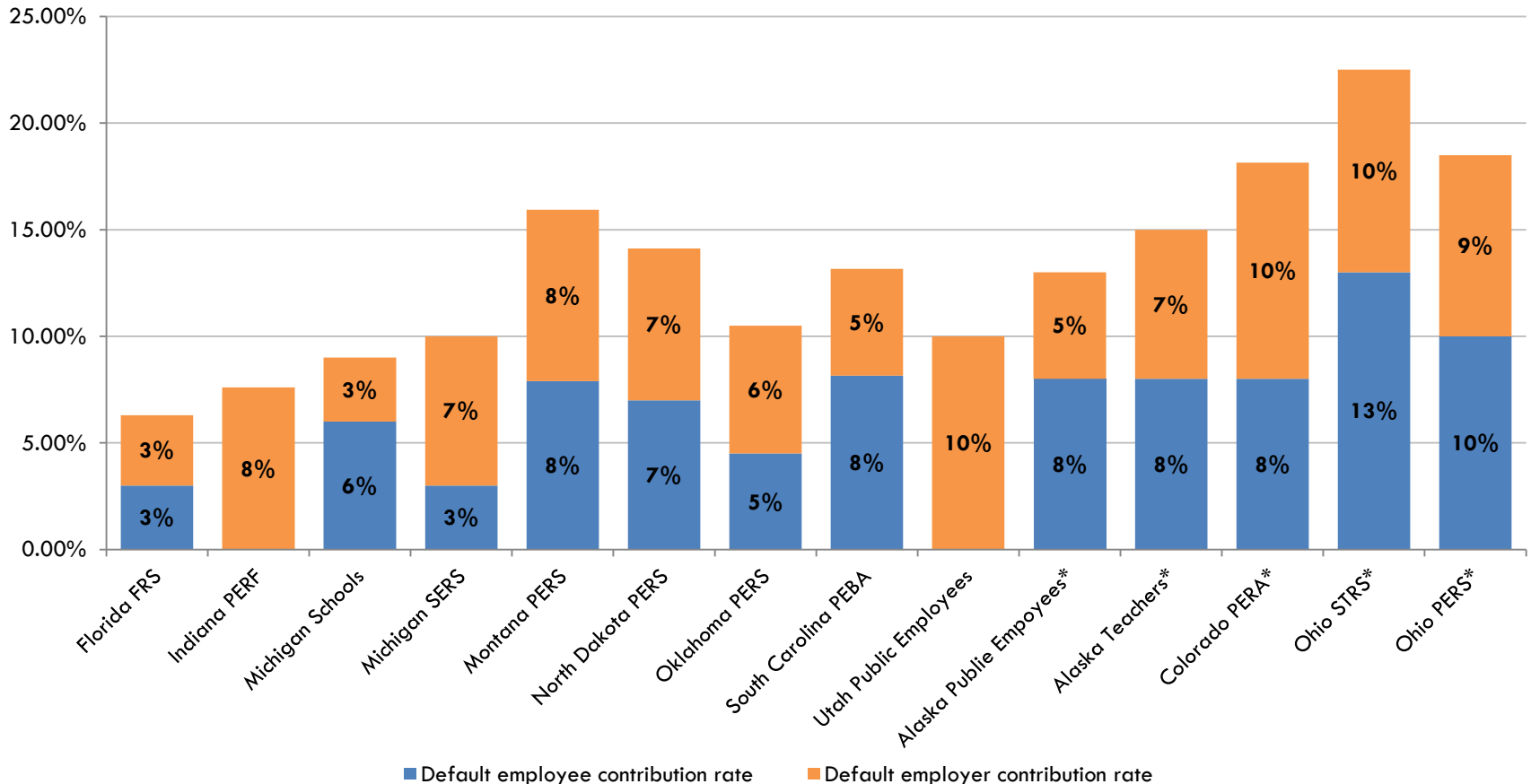
Default Contribution Rates for Primary DC Plans (total employee and employer contributions)^c



* Plan does not participate in Social Security.

Note: The following state/teacher plans are shown in this graph: Colorado PERA, Florida FRS, Indiana PERF, Montana PERS, North Dakota PERS, Ohio STRS, South Carolina PEBA, Utah Public Employees. Virginia’s ORPHE total contribution rate is typically 13.5% although some employers contribute an additional 0.4% to employee accounts.

Default Employee and Employer Contributions to Primary DC Plans for State Employees and Teachers



* Plan does not participate in Social Security.

Note: Under Oklahoma PERS, if the employee contributes an additional 2.5% (7% total), they will receive an additional 1% employer contribution (7% total), resulting in a total contribution rate of 14%. Under Indiana PERF, the employer pays the employee's 3% contribution rate. The employer contribution rate will fall from 4.6% to 3.3% in FY 2017.

Investment and Distribution Options for VRS DC Plans

“Do It For Me” Path	“Help Me Do It” Path	“Do It Myself” Path
Retirement Portfolio	Money Market Fund	Self-directed Brokerage Account
Target Date 2020	Stable Value Fund	
Target Date 2025	Bond Fun	
Target Date 2030	Inflation-Protected Bond Fund	
Target Date 2035	High-Yield Bond Fund	
Target Date 2040	Stock Fund	
Target Date 2045	Small/Mid-Cap Stock Fund	
Target Date 2050	International Stock Fund	
Target Date 2055	Global Real Estate Fund	
Target Date 2060	Virginia Retirement System Investment Portfolio	

The defined contribution plans give members the following distribution options at retirement separately or in a combination that works best for their retirement:

- Annuity purchase with all or a portion of their account balance (with or without survivor option)
- Full or partial lump sum
- Periodic payments
- Roll over into another eligible retirement plan or IRA

Hybrid Plan

Proposed Framework for Recommendations

➤ Policy goals

- Limit near-term fiscal impact (during ramp to 100% ARC payments) and forecast long-term employer cost **and cost variation under different scenarios**
- Achieve targeted improvement in replacement income for career workers
- Increase savings rate for younger workers
- Maximize value of annuities and other distribution options
- Minimize complexity

➤ Application of recent research and emerging practices on plan design

- “Active Choice” to address concerns that workers may have limited capacity to increase contributions out of take home pay*
- Options and defaults for the distribution of DC balances

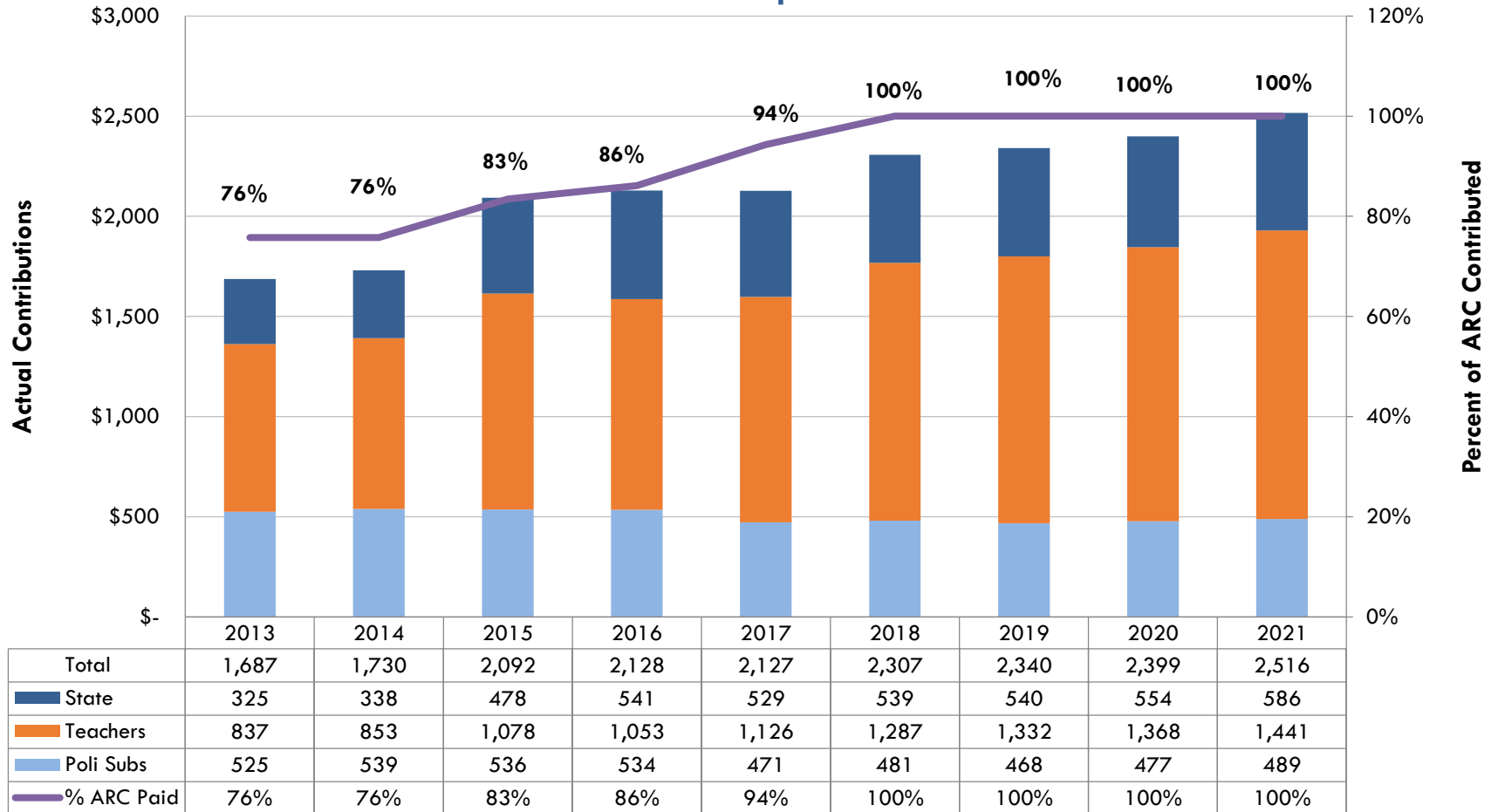
➤ Measure budget and retirement security impacts

- Fiscal impact and alternate scenario assumptions included here are preliminary
- Alternative proposal is illustrative and for discussion only

* See Appendix from Pew’s August 22 presentation for additional information

Prior & Expected Contributions: 2013 - 2021

Substantial Increase Projected for FY 2018



\$ in Millions

Source(s): Projections provided by VRS. Historic data from Comprehensive Annual Financial Reports (CAFRs), actuarial reports and valuations.

Range of Employer Cost for Alternative Plan Designs

(Pew Analysis - State Plan Example)

Plan (Employee Contributions)	DB Employer Cost, as a percentage of affected payroll ^a	Range of DC Employer Cost, as a percentage of payroll (default – maximum)	Total
Current plan (4% DB, 1% DC)	1.2%	1.0% - 3.5% ^b	2.2% - 4.7%
HB 1072 proposed (3% / 2%)	2.2%	2.0% - 3.5% ^c	4.2% - 5.7%
Alternate proposal (1% / 4%)	4.2%	3.0% ^d	7.2%

Notes:

- a. Represents the portion of total normal cost the employer needs to contribute because of the employee contribution that was diverted to the DC plan. May be slightly overstated to the extent that smaller future refunds of contributions would reduce the total normal cost of the plan.
- b. Assumes 1% default and 3.5% maximum employer contribution.
- c. Assumes 2% default contribution and 3.5% maximum employer contribution.
- d. Assumes fixed 3% contribution (100% of first 2%, 50% of next 2%).

Source: Analysis by Pew Charitable Trusts and The Terry Group. Select data from 2015 VRS Report, “Cash Balance Retirement Plans” and HB 1072 Fiscal Impact Note.

Preliminary Analysis of Long-Term Impact

(Pew Analysis - State Plan Example)

	Total Employer Cost as a Percentage of Payroll <i>Projected Results in 30 Years*</i>	
	75% of Member Retain Auto Escalation (25% Opt-Out)	50% of Members Retain Auto Escalation (50% Opt-Out)
Current plan (1% minimum DC by Employee, 24 years to max employer match with escalation)	3.1%	2.8%
HB 1072 proposed (2% minimum DC by employee, 10 years to max employer match with escalation)	4.9%	4.7%
Alternative (4% minimum DC by Employee)	7.2%	7.2%

***Note:** Results based on State Employees and Teachers Hybrid Plan Participants, combined.

Source: Analysis by Pew Charitable Trusts and The Terry Group. Select data from 2015 VRS Report, "Cash Balance Retirement Plans" and HB 1072 Fiscal Impact Note.

Most Common Example of Hybrid Plan Is Side-By-Side DB/DC Design with 1% Multiplier for DB*

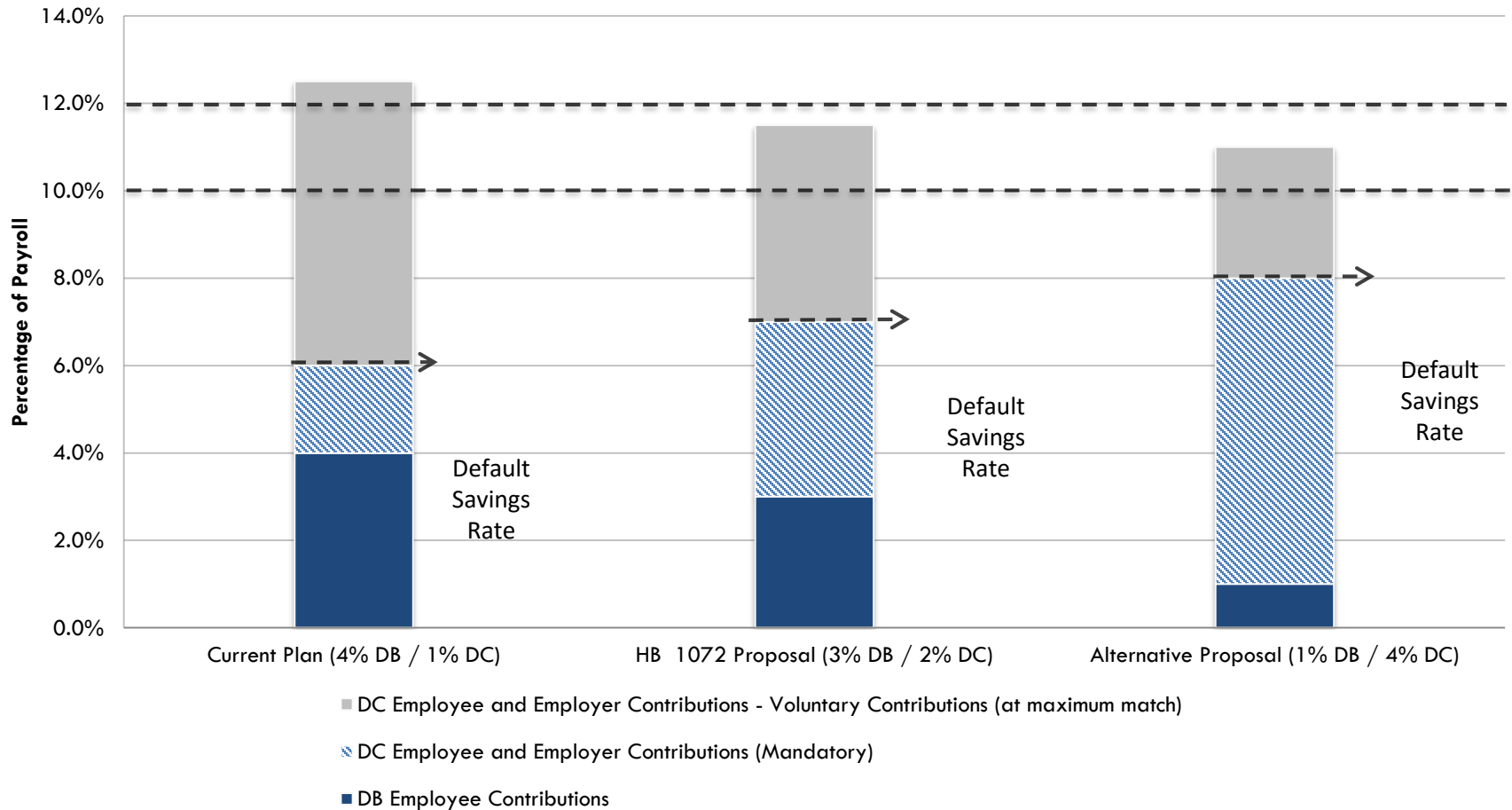
	DB Multiplier	Employee cont. to DB	Employer cont. to DC	Default employee cont. to DC	Number of investment options	Annuity offered for the DC
Georgia Employee's Retirement System	1%	1.25%	3% (3% matching, 0% mandatory)	5% (optional)	21	No
TN Consolidated Retirement System	1%	5%	5% (0% matching, 5% mandatory)	2% (optional)	26	No
Rhode Island Employee Retirement System (state and teachers)	1%	3.75%	1% (0% matching, 1% mandatory)	5% (mandatory)	23	Yes
Virginia Retirement System	1%	4%	3.5% (2.5% matching, 1% mandatory)	1% (mandatory)	23*	Yes
Washington Department of Retirement Services	1%	None	None	5% (mandatory)	13	Yes
Federal Government Retirement System	1%	0.8%	5% (4% matching, 1% mandatory)	3% (optional)	10	Yes

*Note: VRS has 11 investment options plus a series of 12 target date funds. Note that the number here counts each target date fund separately. Additionally, VRS will be removing the emerging markets fund from their lineup effective July 29th, 2016.

Source: Pew primer on hybrid plan design: www.pewtrusts.org/pensions; Original analysis and additional context initially provided in June 16, 2014 letter to the PA Senate Finance Committee

Savings Rate for Younger Workers in the Hybrid Plan

Default Rates Lower than Minimum Standards



Source: The Pew Charitable Trusts based on HB 1072 Fiscal Impact Statement.

Total DC Contribution Rates – Current and Proposed

Includes Employee Contribution and Employer Match

