Defined Contribution Plans Advisory Committee (DCPAC) Meeting

1111 E. Main St., Third Floor
Richmond, VA 23219

Thursday, 9/11/2025
1:00 - 3:00 PM ET

1. Welcome & Introductions

2. Meeting Minutes
2025.5.15 DCPAC Minutes - Page 2

- **a. Adoption of the Minutes from the May 15, 2025, Meeting**

3. Investments
Final Investment Slide Deck DCPAC 9-11-25 - Page 6

- **a. Annual Investment Review**
- **b. Callan 2025 DC Trends Survey**
- **c. Retirement Income**

4. Administration

- **a. Administrative Report & Communications**
  2025Q2 Administrative Summary - Page 46
- **b. ORPHE Contribution Rates Review**
  2025 ORPHE Review of Contribution Rates (slides) - Page 62
  - **i. Review of the ORPHE Contribution Rates Report**
  - **ii. RBA - Accept ORPHE Contribution Rates Report**
    RBA - Review ORPHE Contribution Rates - Page 83

5. Other Business

- **a. Discussion of New Ideas**

6. 2025 Meetings

- **a. Remaining 2025 Meeting**
  - **i. December 4, 2025, at 1:00 p.m.**
- **b. ORPHE Annual Employer Update (not a meeting of the DCPAC)**
  - **i. September 17, 2025, at 10:00 a.m.**

Minutes

A regular meeting of the Defined Contribution Plans Advisory Committee (DCPAC) of the VRS Board of Trustees convened on May 15, 2025, with the following members present:

Susan T. Gooden, Chair *(in accordance with § 2.2-3708.3(B)(4) of the Code of Virginia)*
Hon. Matthew James, Vice Chair
Monique Barnes *(in accordance with § 2.2-3708.3(B)(2) of the Code of Virginia)*
C. Matt Harris
Kate Jonas
Rick Larson
Brenda Madden
David Winter
Ravindra Deo

Members of the Board of Trustees:
John M. Bennett
J. Clifford Foster, IV

VRS Staff:
Ingrid Allen, Trish Bishop, Stephen Cerreto, Curtis Doughtie, Antonio Fisher, Josh Fox, Kelley Harlow, Kelly Hiers, KC Howell, Robert Irving, Sandy Jack, Brian Lackey, Ryan LaRochelle, Joyce Monroe, Laura Pugliese, Michael Scott, Jennifer Schreck, Virginia Sowers, Ashley Spradley, Bridgette Watkins-Smith, Rachel Webb, and Leslie Weldon.

Guests:
Ashley Lucas, Voya; Andrew Ness, Sageview; Lauren Albanese, Financial Investment News; Alexandra Jansson, JLARC; Andrew Roper, Osmosis.

The meeting convened at 1:00 p.m.

Opening Remarks

Delegate James welcomed Committee members, Board members, agency officials, representatives from stakeholder groups and other members of the public joining in person and through electronic means, to the DCPAC.

Approval of Minutes

Upon a motion by Mr. Deo and a second by Mr. Larson, the minutes of the March 6, 2025, meeting were approved by the Committee.

Administrative Reports and Communications Update

Administration Reports & Communications

Kelly Hiers, Defined Contribution Plans Administrator, provided an overview of the Defined Contribution Plans, as well as an update on administrative reports for the first quarter of 2025, which included reviewing assets and accounts across the various plans. Ms. Hiers advised the Committee that total Plan accounts were up slightly with assets remaining mostly unchanged since the end of the year due to market conditions.

Ms. Hiers provided an update on the federal SECURE 2.0 legislation. Specifically, Section 603, which requires that age-based catch-up contributions made by employees earning wages greater than $145,000 in the previous year be made as Roth contributions. This provision has a delayed implementation of January 2026. Voya will have webinars and targeted communications for employers regarding their responsibilities for administering this provision. Staff will work with Voya to create additional resources to help employers and participants manage contribution limits.

Ms. Hiers provided an update on auto-escalation with the next escalation cycle being January 2026. It is estimated that there will be a 40% increase in the number of members being escalated since the last cycle. It was noted that hybrid voluntary contribution changes have moved from quarterly to monthly and hybrid plan members can opt out during the month of December.

DC Plans Recordkeeper Transition Update

Ms. Hiers provided updates and statistics since the transition to Voya for web access, employer payroll processing, advice/managed accounts, communications, and education. VRS staff will continue to closely monitor participant and employer experience.

Delegate James thanked Ms. Hiers for her presentation.

DC Plans Investments Update

Performance Reports

Laura Pugliese, Portfolio Manager of Defined Contribution Plans, provided an overview of the March 31, 2025, performance reports to the DCPAC, including the unbundled DC plans investment options and the bundled TIAA investment menu for ORPHE. Ms. Pugliese addressed market uncertainty and volatility. Ms. Pugliese shared that although the frequency of participant trading recently increased, trading amounts were not material when considering each fund's total assets.

Morningstar 2025 Target Date Landscape Highlights

Ms. Pugliese provided highlights of Morningstar's Target Date Landscape report. Ms. Pugliese reported collective investment trusts (CITs) took over from mutual funds as the most used investment vehicle. Ms. Pugliese discussed the trend of favoring low-priced, index-based/passive offerings over active and blend alternatives, fees continuing a downward trend and asset allocation (equity) glidepaths becoming more aggressive and similar over time. Ms. Pugliese shared that notable new product launches included target date funds with features to address retirement income.

Foreign Adversaries Update

K.C. Howell, Managing Director of Private Assets, provided an update on the foreign adversary policy approved by the Board last November and will be implemented July 1st. The policy will impact both DB and DC plans. The approved policy focuses on existing exposure to foreign adversaries as currently defined by the U.S. Secretary of Commerce. The Virginia Retirement System Board of Trustees authorized the CIO to pursue a policy related to current and future investments in countries designated as foreign adversaries by the Office of the Secretary of Commerce. This policy may include restricting some or all of such investments, and the relevant benchmarks used by VRS for such investments, in the designated countries. The Board further determined that such a policy is consistent with VRS' fiduciary duty. The current foreign adversaries list includes Russia, North Korea, Iran, and Cuba of which we have no exposure. China is the primary exposure in the VRS portfolio.

Delegate James thanked Ms. Pugliese and Mr. Howell for their presentations.

Other Business

DCPAC Appointments

Trish Bishop, Director, informed the Committee of the request for appointment of Rebecca Fentress and September Sanderlin, each to a two-year term ending June 20, 2027. Ms. Fentress and Ms. Sanderlin will be replacing Mr. Winter and Mr. Larson, respectively. Mr. Winter's and Mr. Larson's current terms expire on June 20, 2025.

Following a motion by Mr. Winter, with a second by Mr. Deo, the Committee recommended approval of the following action to the full Board of Trustees:

RBA: Appointment of DCPAC Members.

Request for Board Action: *The Board appoints Rebecca Fentress and September Sanderlin to the Defined Contribution Plans Advisory Committee (DCPAC) for two-year terms ending June 20, 2027.*

Delegate James thanked Ms. Bishop for her presentation.

Discussion of New Ideas

Ms. Pugliese and Ms. Bishop discussed Lifetime Retirement Income. The investment team has been speaking to providers and will be collaborating with internal teams to see what works better for members. The committee will be engaged in this process once more information is received.

Upcoming DCPAC Meetings

Delegate James confirmed the remaining DCPAC meeting dates for 2025:

- September 11, 2025, at 1 p.m.
- December 4, 2025, at 1 p.m.

Additionally, Delegate James confirmed the ORPHE Annual Employer Update is scheduled for September 17, 2025, at 10:00 a.m. This is not a DCPAC meeting; however, members may attend if interested.

Finally, Delegate James and Ms. Bishop expressed appreciation to Mr. Larson and Mr. Winter for their long-standing and dedicated service to the DCPAC and VRS. The committee joined in thanking them for their outstanding service.

Adjournment

There being no further business, Delegate James adjourned the meeting at 2:20 p.m. upon a motion by Mr. Winter, with a second by Mr. Larson, and a vote of the Committee.

________________________ ________________________
Chair Date

Virginia Retirement System®

Defined Contribution Plans Investment Program

September 11, 2025

Agenda

Annual Investment Review

Callan 2025 DC Trends Survey

Retirement Income

Annual Investment Review Highlights

Virginia Retirement System®

Governing Documents

Defined Contribution Plans Advisory Committee Charter

Defined Contribution Plans Investment Belief Statements*

Investment Policy Statement for an Unbundled Defined Contribution Plan Structure*

Investment Policy Statement for a Bundled Defined Contribution Plan Structure*

Master Trusts

Plan Documents

Virginia Retirement System®

*Investment Department responsibility

Due Diligence

Performance and Other Reports

Investment Manager Meetings

Annual Supplemental Questionnaire

The Plans as of June 30, 2025

- $10.2 billion in assets (overseen by investment staff)
  - $9.7 billion unbundled DC plans
  - $532.0 million TIAA ORPHE
- Unbundled DC plan structure (maximum flexibility)
  - Omnibus investment accounts for eight different DC plans
- Bundled Plan Structure
  - TIAA ORPHE (Retirement Choice Contract)

Virginia Retirement System®

Range of Asset Classes – Target Date Portfolios

- Fixed Income
  - U.S. Credit
  - U.S. Government
  - U.S. Short Curve Treasury Inflation Protected Securities
  - U.S. Securitized
- Equity
  - U.S. Large / Mid Cap
  - U.S. Small Cap
  - International All Country World ex-U.S. IMI (large, mid, small cap)
- Other
  - U.S. REITS
  - Global Infrastructure
  - Commodities

Range of Asset Classes – Individual Options

- Capital Preservation
  - Money Market
  - Stable Value (unbundled plans)
  - Fixed Annuity (TIAA ORPHE)
- Fixed Income
  - U.S. Core
  - U.S. Treasury Inflation Protection Securities
  - High-Yield (unbundled plans)
- Equity
  - U.S. Large Cap
  - U.S. Small / Mid Cap
  - International All Country World ex-U.S. IMI (large, mid, small cap)
- Other
  - Global REITS (unbundled plans)
  - VRSIP (unbundled plans)
  - Private Real Estate (TIAA ORPHE)

Virginia Retirement System®

Unbundled DC Plans

- Collective Investment Trusts and Separate Accounts
- White Labeling of Fund Names
- Primarily Passively Managed Investment Approach
- Default Investment Option – Target Date Portfolios
  - BlackRock LifePath Index Funds N
- Unitized VRS Investment Portfolio (VRSIP)

Virginia Retirement System®

Unbundled DC Plans

Data for period ending June 30, 2025

Fund	Type	Fund Expense Ratio	Returns: 1 Year	Returns: 3 Years*	Returns: 5 Years*	3 Year Statistics: Standard Deviation	3 Year Statistics: Sharpe Ratio	3 Year Statistics: Tracking Error	3 Year Statistics: Information Ratio	5 Year Statistics: Standard Deviation	5 Year Statistics: Sharpe Ratio	5 Year Statistics: Tracking Error	5 Year Statistics: Information Ratio
		%	%	%	%	%		%		%		%	
Money Market Fund	Capital Preservation	0.08	4.98	4.93	3.04	0.27	0.66	0.05	n/a	0.68	0.23	0.05	n/a
FTSE 3 Month Treasury Bill Index			4.88	4.75	2.88	0.32	0.00	0.00		0.69	0.00	0.00	
Excess Return			0.10	0.18	0.16								
Stable Value Fund[1]	Capital Preservation (Book Value)	0.24	3.50	2.92	2.42	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Custom Benchmark[2]			4.28	4.48	3.08	n/a	n/a	n/a		n/a	n/a	n/a	
Excess Return			-0.78	-1.56	-0.66								
eVestment Alliance Median: Stable Value Universe[3]			*3.07*	*2.83*	*2.42*								
Bond Fund	Passive	0.03	6.09	2.58	-0.69	7.30	-0.30	0.19	n/a	6.37	-0.56	0.15	n/a
Bloomberg U.S. Aggregate Bond Index			6.08	2.55	-0.73	7.30	-0.30			6.37	-0.57		
Excess Return			0.01	0.03	0.04								
MSTAR Ave: IntermediateTerm Bond			*5.99*	*2.59*	*-0.62*								
Inflation-Protected Bond Fund	Passive	0.03	5.89	2.40	1.66	6.87	-0.34	0.23	n/a	6.18	-0.20	0.18	n/a
Bloomberg U.S. TIPS Index			5.84	2.34	1.61	6.85	-0.35			6.16	-0.21		
Excess Return			0.05	0.06	0.05								
MSTAR Ave: Inflation-Protected Bond			*5.77*	*2.34*	*1.98*								
High-Yield Bond Fund	Active	0.40	10.47	9.12	6.27	6.29	0.69	1.21	-0.11	6.63	0.51	1.45	0.63
ICE BofA U.S. HY BB-B Constrained Index			9.08	9.24	5.36	6.75	0.67			7.24	0.34		
Excess Return			1.39	-0.12	0.91								
MSTAR Ave: High-Yield Bond			*9.02*	*8.88*	*5.38*								
Stock Fund	Passive	0.01	15.15	19.70	16.64	15.80	0.95	0.01	n/a	16.30	0.85	0.02	n/a
S&P 500 Index			15.16	19.71	16.64	15.80	0.95			16.30	0.84		
Excess Return			-0.01	-0.01	0.00								
MSTAR Ave: Large Blend			*13.43*	*17.05*	*14.62*								
Small/Mid-Cap Stock Fund	Passive	0.02	9.98	11.41	11.53	20.90	0.32	0.04	n/a	20.14	0.43	0.05	n/a
Russell 2500 Index			9.91	11.31	11.44	20.91	0.31			20.13	0.43		
Excess Return			0.07	0.10	0.09								
MSTAR Ave: Mid-Cap Blend			*10.84*	*12.69*	*13.05*								
International Stock Fund	Passive	0.06	18.39	14.04	10.43	15.76	0.59	2.13	n/a	15.69	0.48	1.83	n/a
MSCI ACWI ex-U.S. IMI Index (linked to MSCI World ex-U.S. Index July 2012 - July 2016)			17.83	13.92	10.20	14.93	0.61			15.24	0.48		
Excess Return			0.56	0.12	0.23								
MSTAR Ave: Foreign Large Blend			*18.10*	*14.72*	*10.37*								
Global Real Estate Fund	Passive	0.08	12.30	4.57	6.06	18.76	-0.01	0.84	n/a	18.07	0.18	0.69	n/a
FTSE EPRA/NAREIT Developed Index			11.18	3.52	5.10	18.61	-0.07			18.05	0.12		
Excess Return			1.12	1.05	0.96								
MSTAR Ave: Global Real Estate			*12.21*	*3.95*	*4.75*								

Unbundled DC Plans
Data for period ending June 30, 2025

Fund	Type	Fund Expense Ratio	Returns: 1 Year	Returns: 3 Years*	Returns: 5 Years*	3 Year Statistics: Standard Deviation	3 Year Statistics: Sharpe Ratio	3 Year Statistics: Tracking Error	3 Year Statistics: Information Ratio	5 Year Statistics: Standard Deviation	5 Year Statistics: Sharpe Ratio	5 Year Statistics: Tracking Error	5 Year Statistics: Information Ratio
		%	%	%	%	%		%		%		%	
Retirement Portfolio	Passive	0.06	**9.85**	**7.73**	**5.04**	9.69	0.31	0.34	n/a	9.12	0.24	0.28	n/a
Custom Benchmark[4]			9.82	7.75	5.05	9.57	0.31			9.05	0.24		
Excess Return			0.03	-0.02	-0.01								
Target Date 2030 Portfolio	Passive	0.06	**11.16**	**10.01**	**7.72**	11.53	0.46	0.46	n/a	11.34	0.43	0.39	n/a
Custom Benchmark[4]			11.09	10.02	7.71	11.35	0.46			11.25	0.43		
Excess Return			0.07	-0.01	0.01								
Target Date 2035 Portfolio	Passive	0.06	**12.37**	**11.73**	**9.36**	12.62	0.55	0.55	n/a	12.62	0.51	0.47	n/a
Custom Benchmark[4]			12.26	11.72	9.33	12.40	0.56			12.51	0.52		
Excess Return			0.11	0.01	0.03								
Target Date 2040 Portfolio	Passive	0.06	**13.49**	**13.39**	**10.89**	13.68	0.63	0.63	n/a	13.85	0.58	0.55	n/a
Custom Benchmark[4]			13.36	13.37	10.83	13.41	0.64			13.71	0.58		
Excess Return			0.13	0.02	0.06								
Target Date 2045 Portfolio	Passive	0.06	**14.55**	**14.95**	**12.20**	14.63	0.70	0.71	n/a	14.90	0.63	0.62	n/a
Custom Benchmark[4]			14.42	14.92	12.13	14.34	0.71			14.75	0.63		
Excess Return			0.13	0.03	0.07								
Target Date 2050 Portfolio	Passive	0.06	**15.60**	**16.09**	**13.06**	15.13	0.75	0.76	n/a	15.47	0.66	0.66	n/a
Custom Benchmark[4]			15.47	16.06	12.98	14.82	0.76			15.31	0.66		
Excess Return			0.13	0.03	0.08								
Target Date 2055 Portfolio	Passive	0.06	**16.14**	**16.55**	**13.35**	15.26	0.77	0.77	n/a	15.60	0.67	0.67	n/a
Custom Benchmark[4]			16.01	16.53	13.28	14.95	0.79			15.45	0.67		
Excess Return			0.13	0.02	0.07								
Target Date 2060 Portfolio	Passive	0.06	**16.20**	**16.58**	**13.36**	15.27	0.78	0.77	n/a	15.60	0.67	0.67	n/a
Custom Benchmark[4]			16.10	16.57	13.30	14.97	0.79			15.46	0.67		
Excess Return			0.10	0.01	0.06								
Target Date 2065 Portfolio	Passive	0.06	**16.22**	**16.60**	**13.35**	15.27	0.78	0.77	n/a	15.60	0.67	0.67	
Custom Benchmark[4]			16.10	16.57	13.29	14.97	0.79			15.47	0.67		
Excess Return			0.12	0.03	0.06								

*Annualized.

[1] Stable value funds typically track the general movements of interest rates with a lag. It is expected that when interest rates are falling stable value yields do not fall as quickly and when when interest rates are rising stable value yields do not rise as quickly.

[2] Effective August 2016, the benchmark represents a hypothetical return generated by the monthly yields of actively traded U.S. Treasuries based on [50% 2-year maturity + 50% 3-year maturity] plus an annualized spread of 0.25% and is representative of the Fund's expected return profile, given how the Fund is managed and book value accounting treatment.

[3] eVestment Alliance universe returns are gross of investment management fees and net of wrap fees. The Stable Value Fund returns are net of all fees.

[4] The Custom Benchmark is calculated using blended returns of third party indices that proportionally reflect the respective weightings of the Fund's asset classes. Weightings are adjusted quarterly to reflect the Fund's changing asset allocations over time. As of January 1, 2025 the indices used to calculate the Custom Benchmark are the: Russell 1000 Index, Russell 2000 Index, MSCI ACWI ex-U.S. IMI Net Dividend Return Index, Bloomberg U.S. Long Credit Bond Index, Bloomberg U.S. Intermediate Credit Bond Index, Bloomberg U.S. Long Government Bond Index, Bloomberg U.S Intermediate Government Bond Index, Bloomberg U.S. Securitized MBS,ABS and CMBS Index, Bloomberg U.S. 0-5 YearsTIPS Index, FTSE NAREIT All Equity REITs Index, FTSE Global Core Infrastructure 50/50 Net Tax Index and the Bloomberg Enhanced Roll Yield Index.

Excess over benchmark return by 10 bps or more for index funds and capital preservation funds. Reasonable expectations due to impact of typical sources of tracking including fair value pricing for index funds and the interest rate environment for capital preservation funds.

Underperformance for an actively managed fund.

Excess performance for an actively managed fund.

Below benchmark return by 10 bps or more for index funds and capital preservation funds. Reasonable expectations due to impact of typical sources of tracking including fair value pricing for index funds and the the nature of book value accounting treatment for stable value funds as it relates to interest rates.

Data provided by BlackRock, Galliard, Voya and eVestment.

Unbundled DC Plans - Fund Annual Operating Expenses
Information as of June 30, 2025

Investment Option[1]	Investment Manager	Type	Investment Management Costs	Wrap & Acquired Fund[2] Costs	Fund Embedded Costs[2]	State Street Cost to Strike Net NAV	Total Annual Expense Ratio	Expense Ratio YOY Change
Money Market Fund	BlackRock	Capital Preservation	0.080000%	n/a	0.001000%	n/a	**0.08%**	0.00%
Stable Value Fund	Galliard	Capital Preservation (Book Value)	0.067000%	0.170000%	n/a	n/a	**0.24%**	0.00%
Bond Fund	BlackRock	Passive	0.030000%	n/a	0.003000%	n/a	**0.03%**	0.00%
Inflation-Protected Bond Fund	BlackRock	Passive	0.020000%	n/a	0.007000%	n/a	**0.03%**	0.00%
High-Yield Bond Fund	JPMorgan	Active	0.380000%	n/a	0.020000%	0.004387%	**0.40%**	+0.01%
Stock Fund	BlackRock	Passive	0.007500%	n/a	0.001000%	0.004144%	**0.01%**	0.00%
Small/Mid-Cap Stock Fund	BlackRock	Passive	0.012500%	n/a	0.004000%	0.004088%	**0.02%**	0.00%
International Stock Fund	BlackRock	Passive	0.040000%	n/a	0.020000%	0.004215%	**0.06%**	0.00%
Global Real Estate Fund	BlackRock	Passive	0.070000%	n/a	0.009000%	0.004031%	**0.08%**	0.00%
Retirement Portfolio	BlackRock	Passive	0.050000%	n/a	0.005000%	n/a	**0.06%**	0.00%
Target Date 2030 Portfolio	BlackRock	Passive	0.050000%	n/a	0.006000%	n/a	**0.06%**	0.00%
Target Date 2035 Portfolio	BlackRock	Passive	0.050000%	n/a	0.007000%	n/a	**0.06%**	0.00%
Target Date 2040 Portfolio	BlackRock	Passive	0.050000%	n/a	0.007000%	n/a	**0.06%**	0.00%
Target Date 2045 Portfolio	BlackRock	Passive	0.050000%	n/a	0.008000%	n/a	**0.06%**	0.00%
Target Date 2050 Portfolio	BlackRock	Passive	0.050000%	n/a	0.008000%	n/a	**0.06%**	0.00%
Target Date 2055 Portfolio	BlackRock	Passive	0.050000%	n/a	0.009000%	n/a	**0.06%**	0.00%
Target Date 2060 Portfolio	BlackRock	Passive	0.050000%	n/a	0.009000%	n/a	**0.06%**	0.00%
Target Date 2065 Portfolio	BlackRock	Passive	0.050000%	n/a	0.010000%	n/a	**0.06%**	0.00%
Target Date 2070 Portfolio	BlackRock	Passive	0.050000%	n/a	0.010000%	n/a	**0.06%**	0.00%
VRSIP	VRS	Active	n/a	n/a	n/a	n/a	**0.62%**	-0.01%

[1] There are no short-term trading redemption costs associated with any of the investment options.
[2] Includes custody, audit and other specific investment option related administrative costs.

Virginia Retirement System®

Bundled TIAA ORPHE

- Investments Under TIAA Retirement Choice (RC) Contract
- TIAA Proprietary Fixed and Variable Annuities
- BlackRock Collective Investment Trusts
- Primarily Passively Managed Investment Approach
- Default Investment Option – BlackRock LifePath Index Funds N
- No White Labeling of Fund Names

Bundled ORP for Higher Education - TIAA RC Contract[1,2]

Data for period ending June 30, 2025

Fund	Type	Fund Expense Ratio	Returns 1 Year	Returns 3 Years*	Returns 5 Years*	3 Year Statistics Standard Deviation (%)	3 Year Statistics Sharpe Ratio	3 Year Statistics Tracking Error	3 Year Statistics Information Ratio	5 Year Statistics Standard Deviation (%)	5 Year Statistics Sharpe Ratio	5 Year Statistics Tracking Error	5 Year Statistics Information Ratio
		%	%	%	%	%		%		%		%	
BlackRock Equity Index Fund J	Passive	0.01	**15.15**	**19.70**	**16.64**	15.80	0.95	0.01	n/a	16.30	0.84	0.02	n/a
S&P 500 Index			15.16	19.71	16.64	15.80	0.95			16.30	0.84		
Excess Return			-0.01	-0.01	0.00								
MSTAR Ave: Large Blend			*13.43*	*17.05*	*14.62*								
BlackRock Russell 2500 Index Fund J	Passive	0.02	**9.98**	**11.41**	**11.53**	20.90	0.32	0.04	n/a	20.14	0.43	0.05	n/a
Russell 2500 Index			9.91	11.31	11.44	20.91	0.31			20.13	0.43		
Excess Return			0.07	0.10	0.09								
MSTAR Ave: Mid-Cap Blend			*10.84*	*12.69*	*13.05*								
BlackRock MSCI ACWI ex-U.S. IMI Index Fund M	Passive	0.07	**18.38**	**14.00**	**10.39**	15.76	0.59	2.14	n/a	15.69	0.48	1.83	n/a
MSCI ACWI ex-U.S. IMI Index			17.83	13.92	10.20	14.93	0.61			15.24	0.48		
Excess Return			0.55	0.08	0.19								
MSTAR Ave: Foreign Large Blend			*18.10*	*14.72*	*10.37*								
BlackRock MSCI ACWI IMI Index Non-Lendable Fund M	Passive	0.05	**16.34**	**17.06**	**13.66**	15.22	0.81	0.80	n/a	15.65	0.69	0.71	n/a
MSCI ACWI IMI Index			15.89	16.80	13.39	14.93	0.81			15.51	0.68		
Excess Return			0.45	0.26	0.27								
MSTAR Ave: Global Large Stock Blend			14.25	*14.44*	*11.73*								
TIAA Real Estate Account	Active	0.90	2.07	-6.28	1.57	4.37	-2.44	2.95	-1.15	6.70	-0.20	3.20	-0.56
Custom Benchmark[3]			3.71	-2.88	3.38	2.84	-2.59			5.25	0.08		
Excess Return			-1.64	*-3.40*	*-1.81*								

*Annualized.

[1] Refer to the unbunded DC plans for information regarding BlackRock's LifePath Index Funds N, Short-Term Investment Fund W, U.S. Debt Index Fund M and U.S. TIPs Fund M. Although the unbundled DC plans use white lable fund names and TIAA does not these funds are the same exact funds.

[2] The TIAA Traditional Annuity is not included in this exercise due to the fact there is no performance benchmark associated with TIAA's fixed annuity product offering.

[3] Effective January 2014, the Custom Benchmark is 70% NCREIF Open End Diversified Core Equity (ODCE) Net Index, 20% Bloomberg 3-Month Treasury Bill Index and 10% Dow Jones U.S. Select REIT Index.TIAA's investment management team does not manage its real estate account to a published index benchmark. The Custom Benchmark represents a reasonable proxy of how TIAA allocates among real property, short-term investments and REITS over time. VRS anticipates that the TIAA Real Estate Account's returns may vary greatly from those of the custom benchmark.

Excess over benchmark return by 10 bps or more for index funds. Reasonable expectations due to impact of typical sources of tracking including fair value pricing.

Below benchmark return by 10 bps or more for index funds Reasonable expectations due to impact of typical sources of tracking including fair value pricing.

Underperformance for an actively managed fund.

Data provided by TIAA, BlackRock, VRS and eVestment.

Bundled ORP for Higher Education - TIAA RC Contract Fund Annual Operating Expenses[1,2,3]
Information as of June 30, 2025

Investment Option	Investment Manager	Type	Investment Management Costs	Record-Keeping & Plan Administration Costs	[12(b)-1] Distribution Costs	Other Costs	Total Annual Expense Ratio	Expense Ratio YOY Change
TIAA Real Estate Account	TIAA	Active (variable annuity)	0.305000%	0.270000%	0.040000%	0.280000%	0.90%	-0.12%
BlackRock Equity Index Fund J	BlackRock	Passive	0.010000%	n/a	n/a	0.001000%	0.01%	0.00%
BlackRock Russell 2500 Index Fund J	BlackRock	Passive	0.012500%	n/a	n/a	0.010000%	0.02%	0.00%
BlackRock MSCI ACWI ex-U.S. IMI Index Fund M	BlackRock	Passive	0.050000%	n/a	n/a	0.020000%	0.07%	-0.03%
BlackRock MSCI ACWI IMI Index Non-Lendable Fund M	BlackRock	Passive	0.035000%	n/a	n/a	0.010000%	0.05%	0.00%

[1] There are no short-term trading redemption costs associated with any of the investment options.

[2] Refer to the unbunded DC plans for information regarding BlackRock's LifePath Index Funds N, Short-Term Investment Fund W, U.S. Debt Index Fund M and U.S. TIPs Fund M. The unbundled DC plans use white label fund names for the aforementioned funds. However, TIAA does not have the capability to use white label fund names.

[3] Effective July 2022, TIAA no longer provides an estimated expense ratio for its TIAA Traditional Annuity product.

Callan 2025 DC Trends Survey Highlights

Virginia Retirement System®

Callan 2025 DC Trends Survey

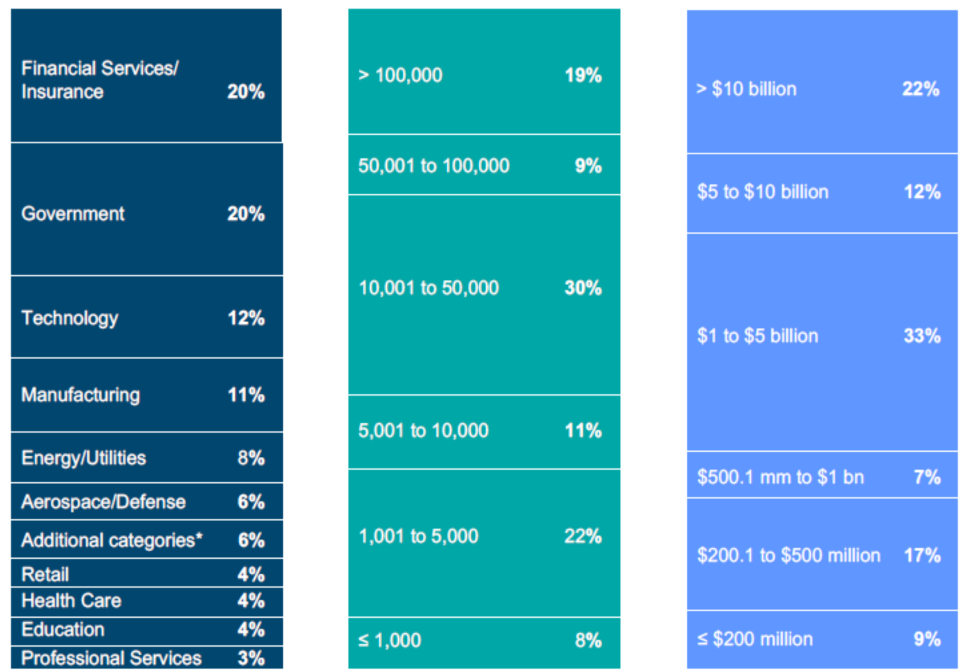
Respondent Characteristics

Callan conducted this DC Survey online in late 2024. This survey incorporates responses from 89 DC plan sponsors, including both Callan clients and other organizations.

Respondents spanned a range of industries, with the top being financial services and government.

91% of respondents had more than $200 million in plan assets; moreover, 67% were "mega plans" with at least $1 billion in assets, and 58% had more than 10,000 participants.

Primary industry employees hired from | **Number of participants in DC plan** | **Assets in DC plan**



*Additional categories: other (2%), transportation (1%), nonprofit (1%), entertainment/media (1%)

Note: Throughout the survey, charts may not sum to 100% due to rounding.

Virginia Retirement System®

Source: Callan

Callan 2025 DC Trends Survey

Respondent Characteristics (continued)

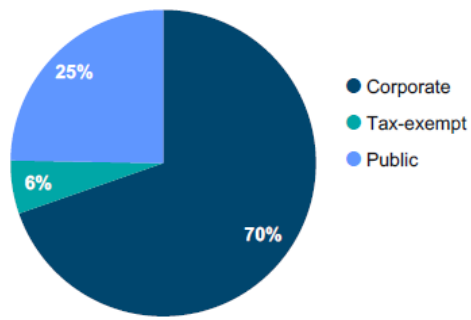
70% of respondents were corporate organizations, followed by public (25%) and tax-exempt (6%) entities.

As seen in prior surveys, a 401(k) plan was the primary DC offering (83%). The percentage of 457 plans (26%) was roughly in line with the prior year (27%).

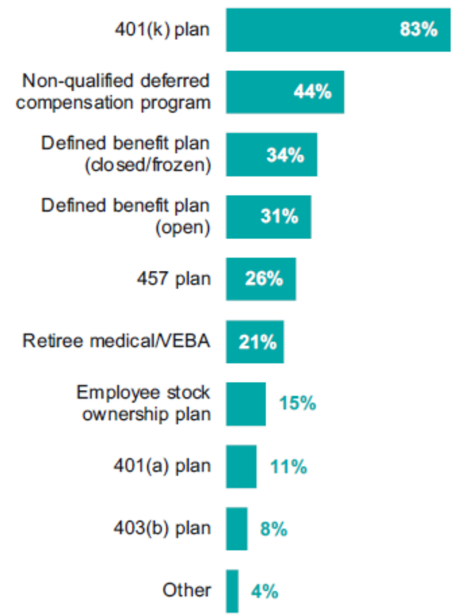
More than half (58%) of corporate respondents offered a non-qualified deferred compensation (NQDC) plan.

Nearly 6 in 10 DC plan sponsors surveyed offered either an open or closed/frozen defined benefit (DB) plan. This represented a marked increase from the prior year, when about 3 in 10 DC plan sponsors offered a DB plan. Governmental entities were more likely to offer an open DB plan, while corporate plan sponsors were more likely to have a closed or frozen DB plan.

Organization type



Retirement benefits offered*



*Multiple responses allowed.

Virginia Retirement System®

Source: Callan

Callan 2025 DC Trends Survey

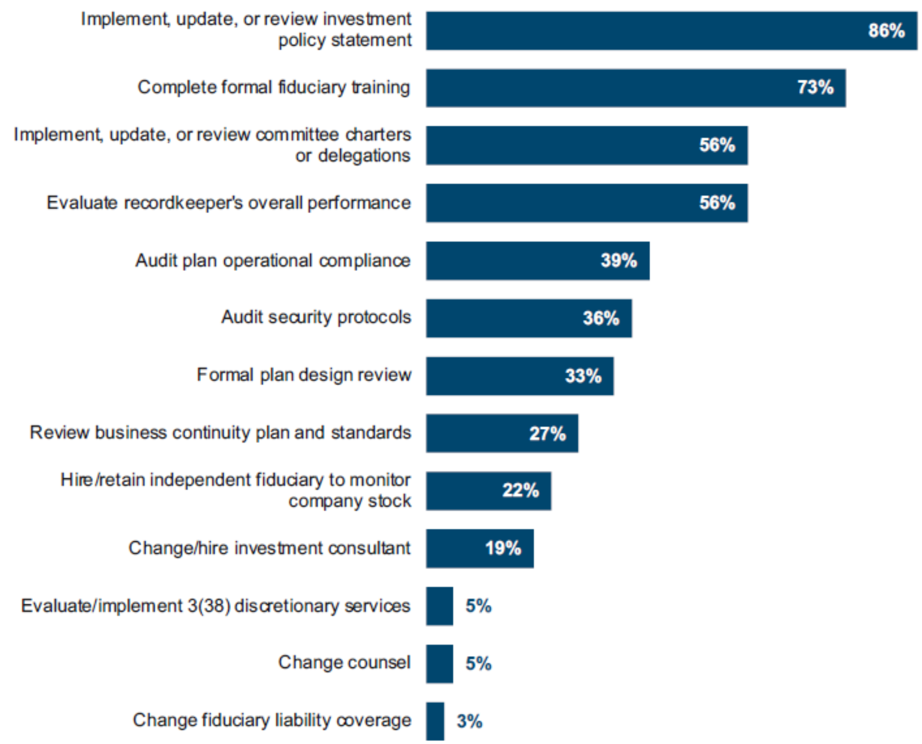
Fiduciary Initiatives

Consistent with 2023, the most prevalent fiduciary action taken by DC plan sponsors in 2024 was to review their investment policy statement (IPS). Additionally, nearly three-quarters of respondents completed formal fiduciary training in 2024, representing a sizable increase from the 53% that did so in 2023.

Roughly a third of respondents conducted a formal plan design review in 2024, compared to 9% that did so in 2023. Plan design reviews typically involve reviewing key DC plan provisions, such as those related to participants' eligibility requirements and deferral options.

In the 2021 survey, there was a sharp increase in respondents reporting they were reviewing security protocols (41%), in response to U.S. Department of Labor guidance. This fell dramatically in 2022 to 14% and remained somewhat low in 2023 (22%) but rose further in 2024 (36%).

Fiduciary actions DC plans took*



*Multiple responses allowed.

Virginia Retirement System®

Source: Callan

Callan 2025 DC Trends Survey

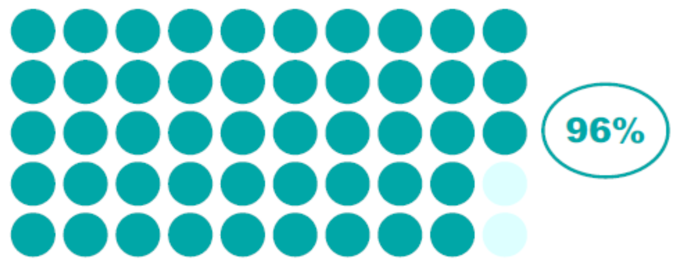
Default Investments

A key provision of the 2006 Pension Protection Act (PPA) provides relief to DC fiduciaries that default participant assets into qualified default investment alternatives (QDIAs) under regulation 404(c)(5). Plan sponsors complying with this provision are responsible for the prudent selection and monitoring of the plan's QDIA, but they are not liable for any loss incurred by participants defaulted into the QDIA.

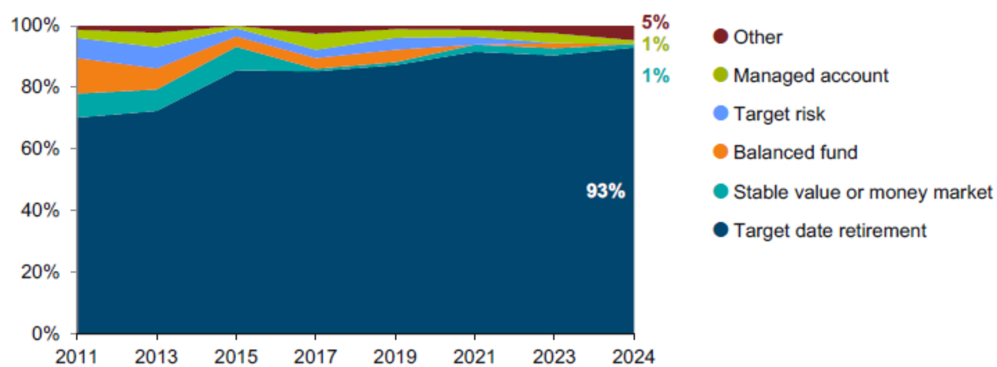
Before the PPA, target date fund (TDF) usage as a default investment alternative (DIA) was only 35% in 2006, with money market/stable value making up 30% and risk-based funds at 28%. The PPA paved the way for a major uptick in the adoption of target date funds as DIAs.

In 2024, 96% of respondents offered a target date fund suite and 93% of respondents used a TDF suite as their default for non-participant-directed monies. Of respondents offering a TDF suite as the default, 43% also offered managed accounts as an optional service. Only 1% of respondents included managed accounts as the DIA. Use of other DIA types remained low.

Plans offering target date funds



Default investment for non-participant-directed monies



Note: A *qualified* default investment alternative is applicable to plans covered by ERISA.

Virginia Retirement System®

Source: Callan

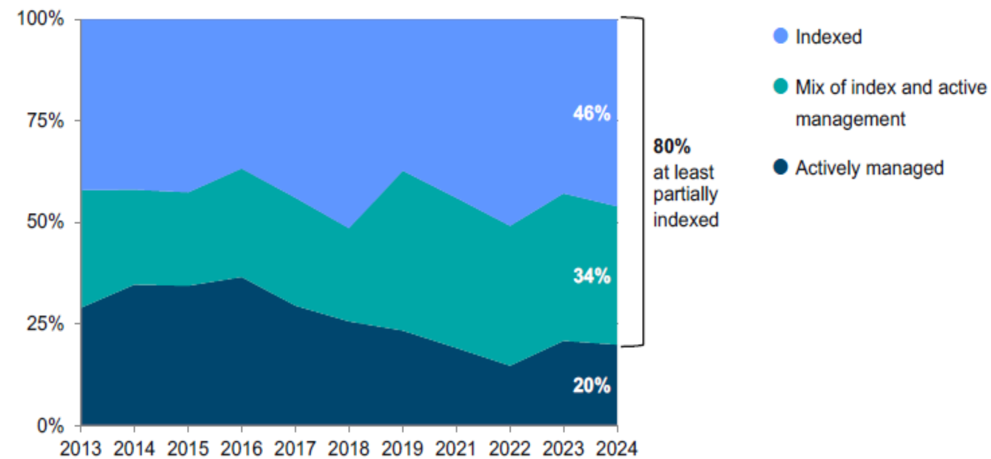
Callan 2025 DC Trends Survey

Target Date Fund Landscape

Among those that offered target date funds, 8 in 10 used an implementation that was at least partially indexed.

The share of active-only strategies fell by a percentage point from the prior year to 20%.

Target date fund investment approach



Virginia Retirement System®

Source: Callan

Callan 2025 DC Trends Survey

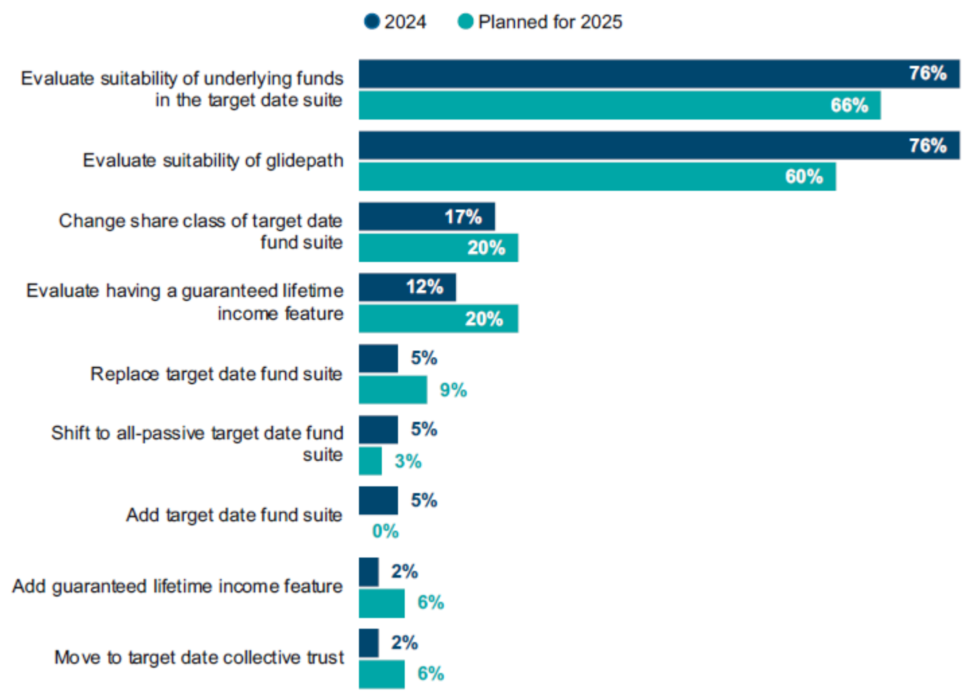
Actions Taken Around Target Date Funds

More than **8 in 10** respondents took at least one action around the target date fund suite in 2024. The most common were to evaluate the suitability of the underlying funds and the suitability of the glidepath. These were also the two most common actions respondents planned to take in 2025.

Because target date funds typically serve as the default fund, the fund selection and monitoring is often held to a higher standard and should consider additional variables than one may use for other funds—e.g., participant demographics, savings rates, and other benefits, among others.

Although 12% of respondents indicated they evaluated a guaranteed lifetime income feature within a target date fund framework in 2024, only 2% added such a feature to their target date fund offering. In 2025, 20% plan to evaluate such a feature, with 6% planning to add one. As off-the-shelf target date fund managers continue to develop products with a guaranteed income component, plan fiduciaries should consider factors such as product portability as well as whether and what type of income guarantee might be suitable for their participant population.

Actions taken or planned regarding target date fund suite*



Additional categories for Planned for 2025: Replace custom target date fund manager (3%); Change communication approach to target date fund suite (3%)

*Percentages out of those that took action. Multiple responses allowed.

Virginia Retirement System®

Source: Callan

Callan 2025 DC Trends Survey

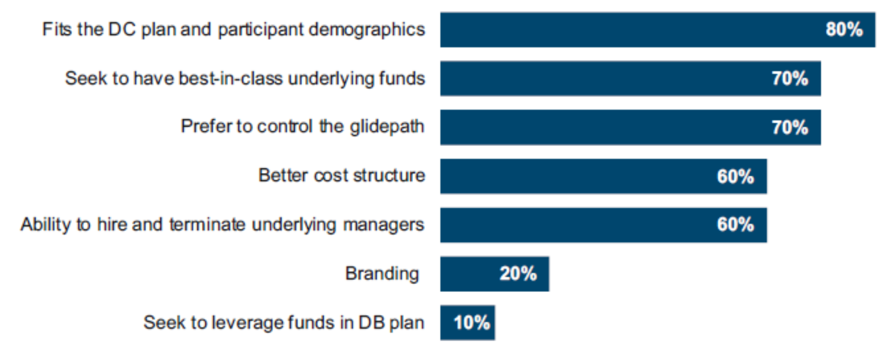
Custom Target Date Funds

12% of respondents offered custom target date funds.

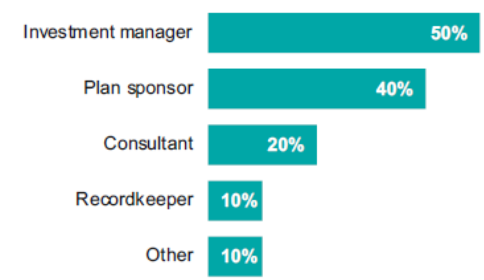
For those that used custom target date funds, the most common reasons for doing so were to fit the DC plan and participant demographics, followed by a tie between leveraging best-in-class underlying funds and preferring to control the glidepath.

Among respondents that offered custom target date funds, the most common party with discretionary control of the glidepath was an investment manager, followed by the plan sponsor or a consultant.

Reason for custom target date funds*



Discretionary control of the glidepath*



*Multiple responses allowed.

Virginia Retirement System®

Source: Callan

Callan 2025 DC Trends Survey

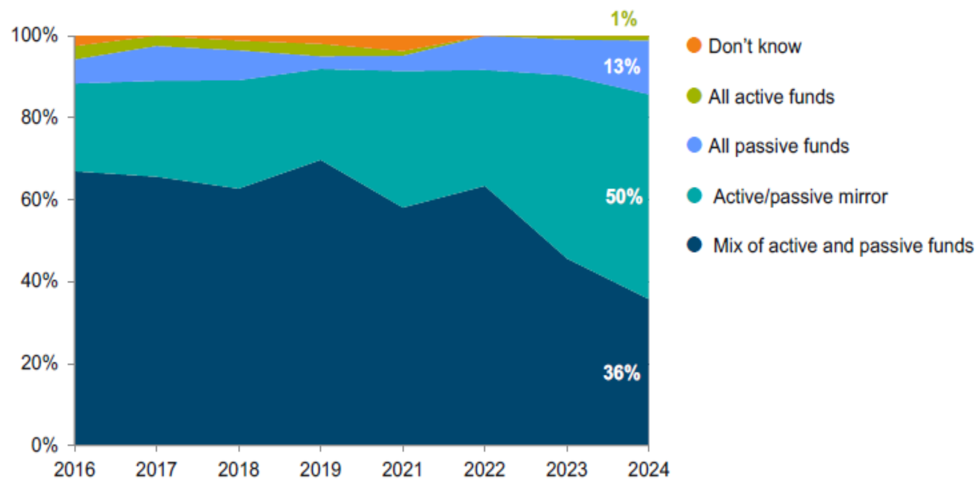
Investment Menu

There was a large increase in DC plans offering an active/passive mirror versus those offering a mix of active and passive funds, with a mirror coming in at an all-time high of 50%. A mirrored lineup is when virtually all core asset classes are represented by both active and passive options.

DC plans with a mix of active and passive investment funds (86%) were the most prevalent. Purely passive (13%) lineups remained a rarity, with a purely active menu being even more rare (1%).

In cases where there was a fund change, more than 6 in 10 respondents mapped assets, as needed, to "like" funds. 11% mapped to the default fund, and 27% used both the default fund and a like-to-like strategy based on the funds being changed.

Investment menu approach



Assets mapped from eliminated funds

n

Callan 2025 DC Trends Survey

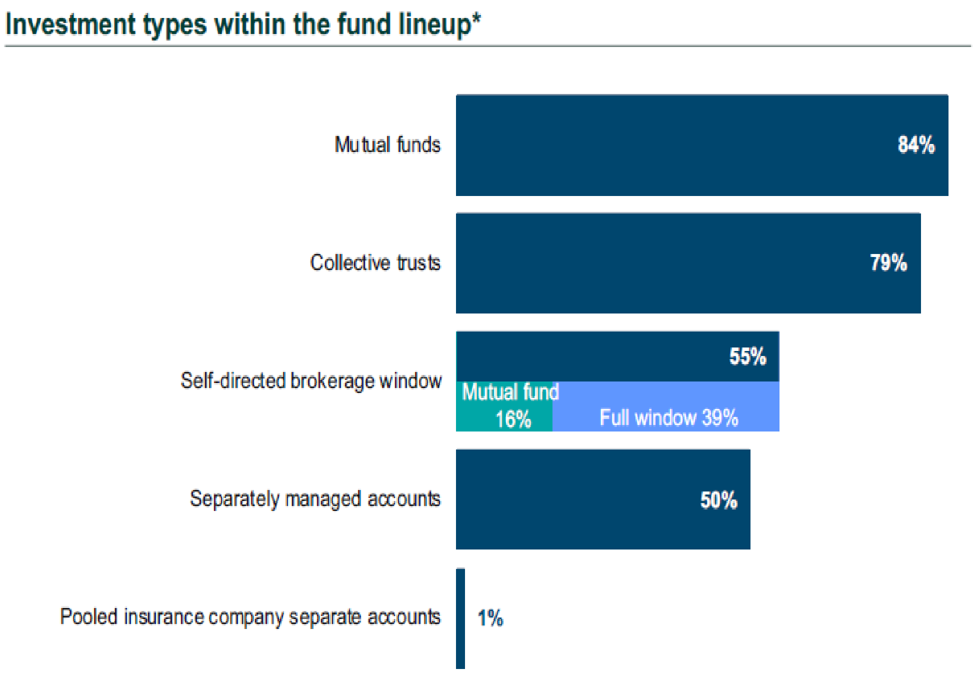
Investment Types Within the Fund Lineup

Mutual funds and collective investment trusts (CITs) continued to be the most prevalent investment vehicles.

Large plans were less likely to offer mutual funds in general.

More than half of plans offered a self-directed brokerage window. Of those, more offered a full brokerage window than a self-directed brokerage window limited to mutual funds only.

Only 1% of respondents offered pooled insurance company separate accounts.



Virginia Retirement System®

Source: Callan

Callan 2025 DC Trends Survey

White Label Funds

White label funds may have several benefits for a DC plan, such as simplified and more intuitive fund naming conventions for participants. Additionally, white label funds with multiple underlying managers have the potential to enhance diversification relative to the underlying managers on a standalone basis.

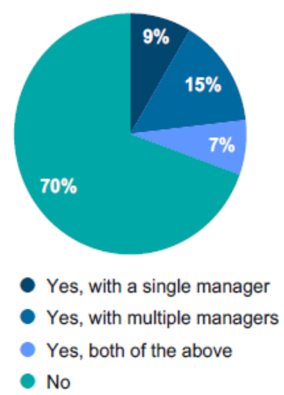
3 in 10 respondents offered white label funds in 2024, up from roughly a quarter in 2023. Only one plan with less than $1 billion in plan assets reported offering white label funds.

Among those that offered white label funds, the most common party with discretionary control was the plan sponsor, followed by an investment manager or a consultant.

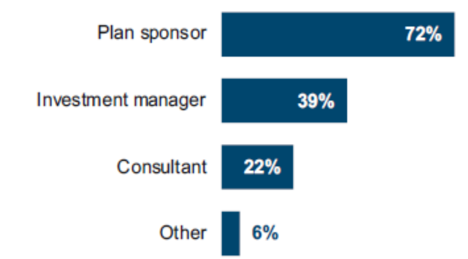
The most common asset classes for white label funds with multiple underlying managers were non-U.S. equity and U.S. smid cap equity.

For white label funds with a single underlying manager, the most common asset classes were fixed income, U.S. large cap equity, and non-U.S. equity.

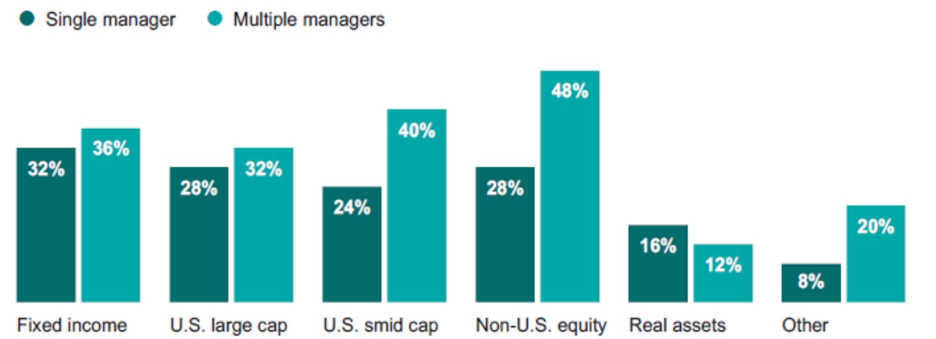
White label funds offered in DC plan



Discretionary control of white label multi-manager fund(s)*



Asset classes in which DC plan offered white label funds*



*Multiple responses allowed.

Source: Callan

Callan 2025 DC Trends Survey

Fee Calculation and Benchmarking

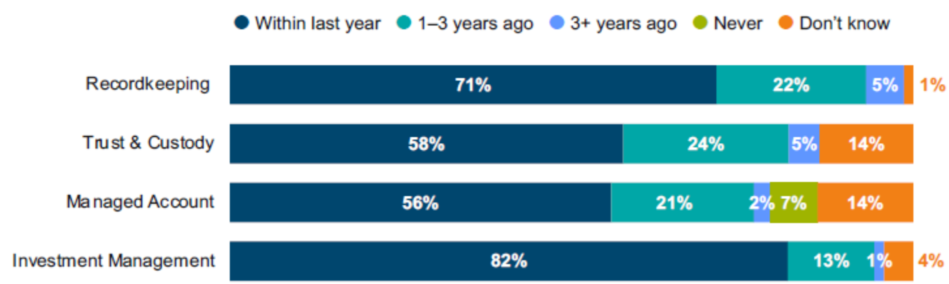
About **7 in 10 plan** sponsors calculated their recordkeeping fees within the past 12 months. Another 22% did so in the past one to three years. Only 1% were unsure of the last time recordkeeping fees were calculated. Comparatively, 82% calculated investment management fees within the past 12 months—as a major target of litigation, reviewing the investment management fees regularly is broadly considered best practice.

Lower levels were seen for both trust and custody fees and managed account fees, with more respondents also unsure of the last time these fees were calculated.

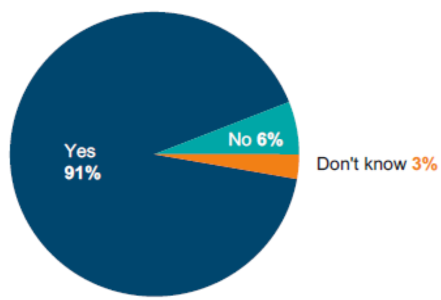
When calculating fees, 91% of respondents also benchmarked fees, and more than half evaluated sources of indirect revenue (e.g., revenue shared with the recordkeeper from managed accounts, brokerage windows, IRA rollovers, etc.).

Fewer plans did not evaluate indirect revenue (20%) or did not know whether their fee calculation involved an evaluation of indirect revenue (23%).

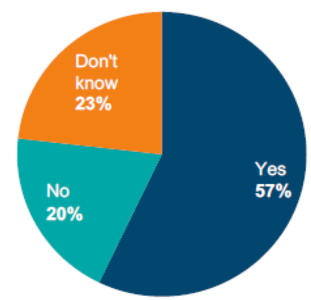
Last time all-in plan fees were calculated, by service type*



Fees were benchmarked when calculating



Evaluated indirect revenue when reviewing fees



*All-in fees include all applicable administration, recordkeeping, trust/custody, and investment management fees.

Callan 2025 DC Trends Survey

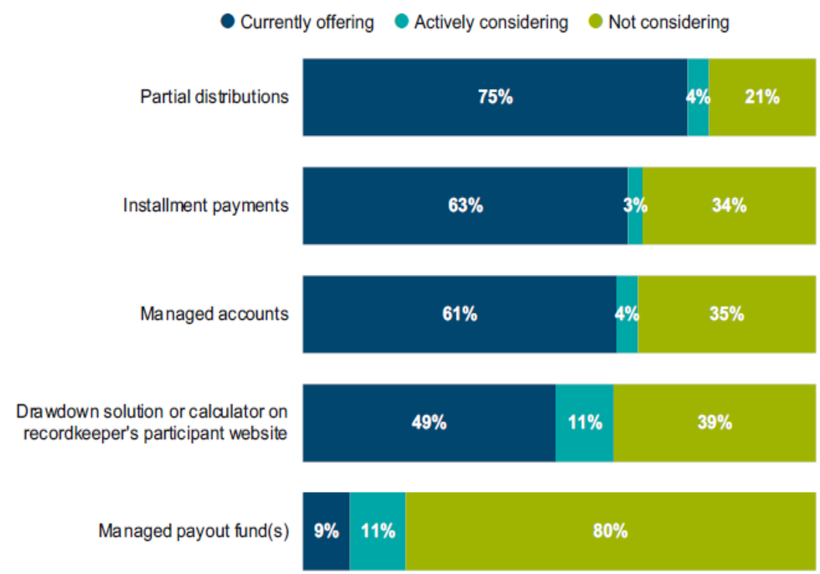
Retirement Income Solutions

Most respondents offered some type of retirement income solution to employees in 2024. Partial distributions (75%) and installment payments (63%) remained the most common. Providing access to managed accounts (61%) or a drawdown solution (49%) were the next most common.

Explainer: A drawdown solution is a simplified process on the participant website (e.g., a one-step button) to implement the output from a retirement calculator. It is a more streamlined process for participants to establish a stream of income, who would otherwise have to manually transfer the calculator output into the transactional section of the website.

Only 9% of plan sponsors offered managed payout funds. These funds are typically diversified options that target a specified "payout" level each year (e.g., 4%–6%). The payouts amounts aren't guaranteed and may vary depending on fund performance and withdrawal policy.

Retirement income solutions offered*



*Percentages among those with a solution in place. Multiple responses allowed.

Virginia Retirement System®

Source: Callan

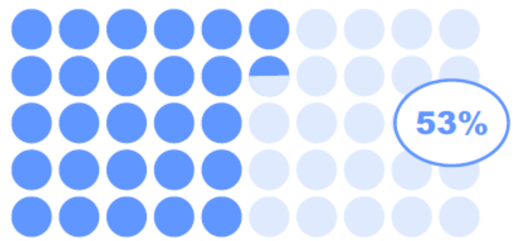
Callan 2025 DC Trends Survey

Managed Accounts and Advice: Promotion and Monitoring

Of respondents that offered a managed account service, more than half indicated that their managed account provider actively promotes the service to encourage participation. These forms of promotion could include ads or banners featured on the recordkeeper's website or participant email campaigns.

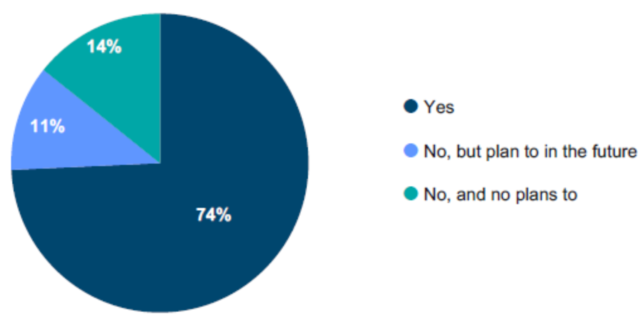
Nearly three-quarters of respondents with managed accounts monitored or benchmarked the outcomes of the service. 11% indicated they plan to do so in the future, and 14% said they have no plans to do so.

Provider actively solicited or campaigned to encourage participation



of managed account providers actively solicited or campaigned to encourage participation in the service

Managed accounts services were monitored and/or benchmarked



Retirement Income

Virginia Retirement System®

DC Plans and Retirement Income

DC Plans

- From supplemental savings to an integral part of one's primary retirement program
  - Hybrid plans (DB & DC components)
  - DC only (Optional Retirement Plans)

No One Best Solution

- Varying participant needs
- Plan sponsor philosophy

Holistic Participant Experience

- Accumulation (working years)
  - Contributions
  - Investment option opportunity set
- Distribution (retirement/separation from service)
  - Non-guaranteed (installment payments)
  - Lifetime guaranteed (annuities)
    - In-plan
    - Out-of-plan
  - Investment option opportunity set

Product Landscape Continues to Evolve

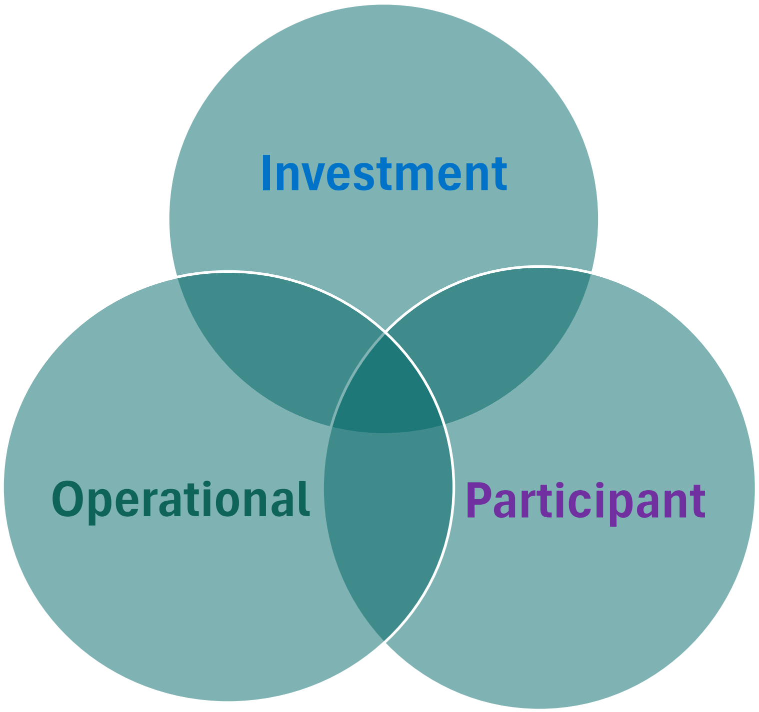
Differing Attributes

- Principal protection
- Lifetime guaranteed income
- Cost of Living Adjustment (COLA)
- Market growth; principal at risk
- Flexibility constraints

Distribution Examples

- Systematic withdrawals
- Partial distribution
- Managed payouts
- Managed account
- Annuities (in-plan or out-of-plan)
  - Fixed or Variable
  - Immediate or deferred
  - Indexed
- Qualified longevity annuity contract (QLAC)
- Guaranteed lifetime withdrawal benefit (GLWB)
- Hybrid approach
- Risk sharing pools

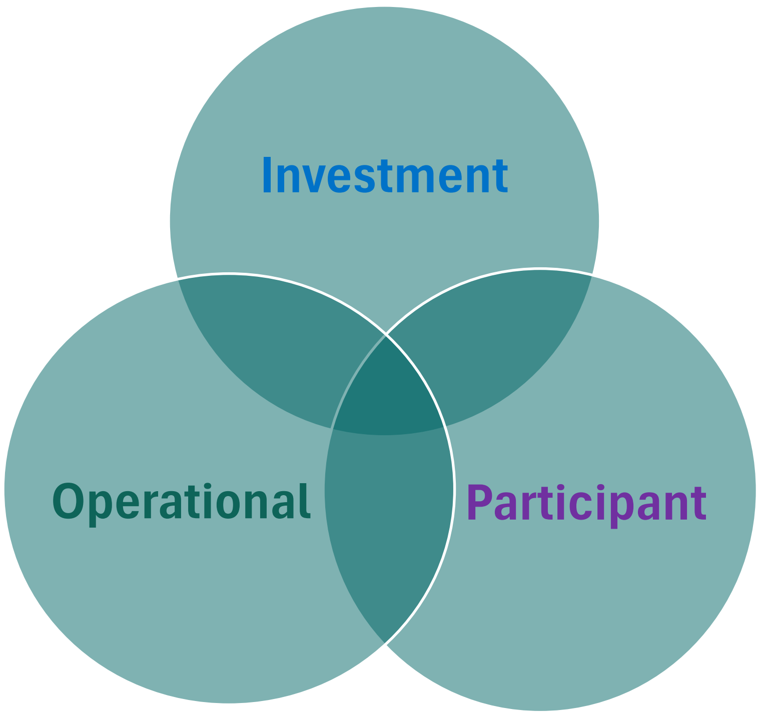
Considerations



- Other sources of retirement income
  - Defined Benefit Plan
  - Social Security
  - Other savings
- Consumption spending in retirement
- Flexibility
- Opt-in versus opt-out (auto-enrollment)
- Longevity risk
- Purchasing power risk
- Market Risk
- Liquidity
- Portability

Virginia Retirement System®

Considerations (cont.)



- Institutional versus retail pricing
- Explicit versus implicit fees
- Ability to place offering on record-keeping platform
- In-plan versus out-of-plan
- Insurer financial health and viability
- Participant suitability and education
- Regulatory changes
- Easily understood by stakeholders

Virginia Retirement System®

Variations in Population

Data as of 6/30/2025

Primary DC Plans

Optional Retirement Plans for:

- **Higher Education** – 10,945 accounts
- **Political Appointees** – 494 accounts
- **School Superintendents** – 4 accounts

- Plan 1* – 10.4% employer only contribution
- Plan 2 – 8.5% employer contribution, 5% employee contribution

Also eligible for:

- Social Security
- COV 457 and CMP

Supplemental DC Plans

- **Commonwealth of Virginia (COV) 457 Deferred Compensation Plan** – 94,194 accounts
- **Virginia Cash Match Plan (CMP)** – 76,089 accounts

- Maximum employee contribution is based on IRS limits, currently $23,500.**
- Maximum employer contribution is $480.00.

Also eligible for:

- Social Security
- VRS Plan 1, Plan2, or Hybrid Defined Benefit Component***

Hybrid Retirement Plan - Defined Contribution Component

- **Hybrid 457 Deferred Compensation Plan** – 303,070 accounts
- **Hybrid 401(a) Cash Match Plan** – 175,797 accounts

- Maximum employee contribution is 5%.
- Maximum employer contribution is 3.5%.
- employer.

Also eligible for:

- Social Security
- VRS Hybrid – Defined Benefit Component
- COV 457 and CMP^

Virginia Retirement System®

*Available to eligible employees with a VRS or ORP membership date before July 1, 2010.
**Higher contribution limits are available in certain circumstances. See dcp.varetire.org/457 for additional information.
***Wage employees are eligible for the COV 457 Plan but are not eligible for coverage under other VRS plans.
^ Hybrid plan members may also be eligible to contribute to the COV 457 and CMP, or another supplemental plan through their employer.

Social Security Replacement Income

- Social Security benefits vary based on average annual career earnings.
- A June 2025 analysis by Social Security actuaries provides estimated replacement income for retirees using a wide range of incomes.
- For workers born in 1959, who attain full retirement age at 66 and 10 months, they found that the replacement rate would be:

Replacement Income Rate	Average Annual Career Earnings
78.7%	$17,368
57.3%	$31,263
42.6%	$69,473
35.2%	$111,156
27.9%	$171,373

Sources:
AARP - How Much Social Security Will I Get?
Social Security Administration - Replacement Rates for Hypothetical Retired Workers

VRS Defined Benefit Replacement Income

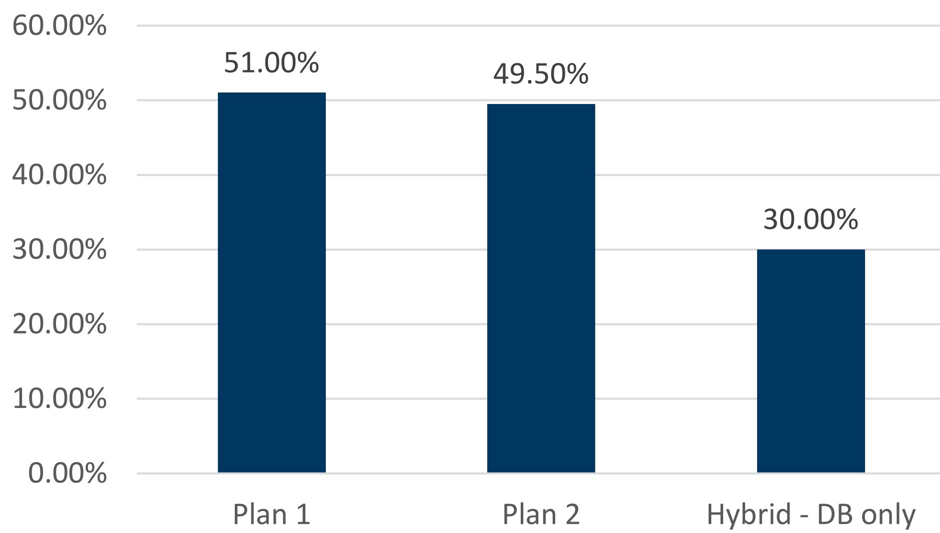
Years of Service **X** Average Final Compensation (AFC) *Varies based on plan* **X** Retirement Multiplier *Varies based on plan* **=** Annual Benefit Amount

Replacement Income Estimates

Plan 1
30 years x 1.7%

Plan 2
30 years x 1.65%

Hybrid
30 years x 1.0%



Virginia Retirement System®

Current Retirement Income Resources

Annuities

MetLife – Group rates available through VRS contract.

TIAA – Proprietary annuities available to ORPHE participants.

Participants may also purchase through a vendor of their own choosing.

Periodic Payments

Fixed Period (new under Voya)

- Calculated by dividing account balance by number of periods remaining in schedule.

Fixed Amount

- Fixed amount is paid until stopped or no remaining funds.

Can be changed at any time.

Managed Accounts/ Income +

In-plan retirement income solution and feature of the managed account program.

Provides participants with a professionally managed portfolio designed to generate steady income from their plan accounts. Income+ may provide monthly income payouts, but participants maintain full control and access to their account balance at all times.

Fee for managed accounts is 0.40%.

Be Ready

General income planning guidance that can include out-of-plan assets.

Individual consultations available at no cost.

Full-service, comprehensive financial plans available for $175.

Next Steps

Gather VRS plans retirement metrics.

→ Identify gaps, if any, in retirement income for VRS DC participants.

→ Identify "best fit" retirement income solution(s) for consideration, if changes are contemplated.

→ Share results with stakeholders.

→ Implementation of product offering(s), if applicable.

Virginia Retirement System®

Thank you!

Virginia Retirement System®

Virginia Retirement System®

VRS Defined Contribution Plans
2nd Quarter 2025

(April 1 – June 30, 2025)

Administrative Summary

September 11, 2025

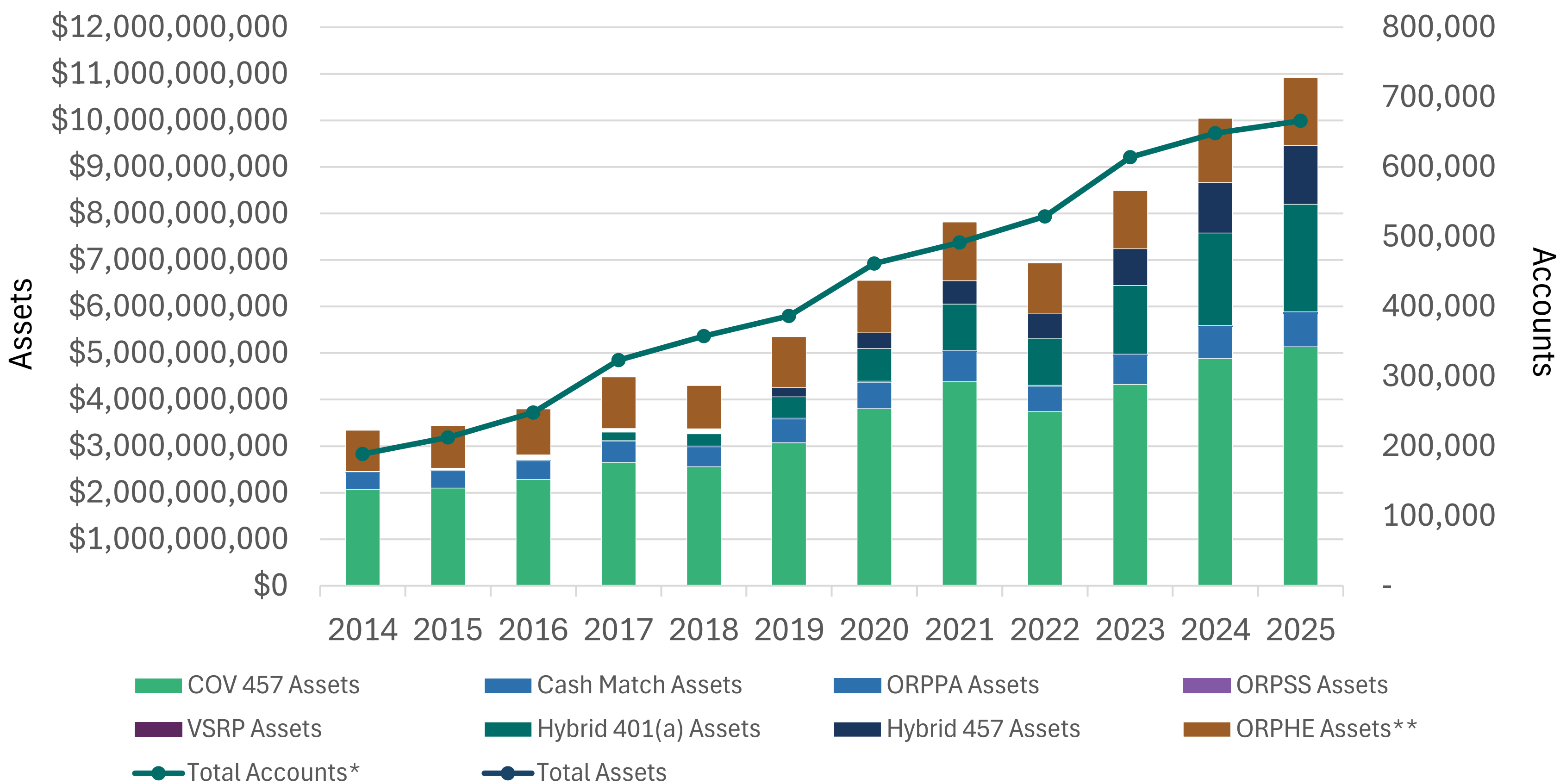
Agenda

- General Updates
- COV 457 & Cash Match Plans
- Hybrid Retirement Plan
- ORPHE
- Upcoming Events

Virginia Retirement System®

Total Assets and Accounts Over Time

Totals as of 6/30/2025	Assets	Accounts	Assets ↑ 9% Accounts ↑ 3% Since 3/31/2025
	$10,925,001,637	666,071	



Note: All data, except for the current year, reflect totals as of the end of the calendar year and include participant, beneficiary, forfeiture, and reserve accounts with a balance. MissionSquare Retirement provided data from 2014 to 2024. Voya Financial provided current-year data, which reflect totals as of June 30, 2025..

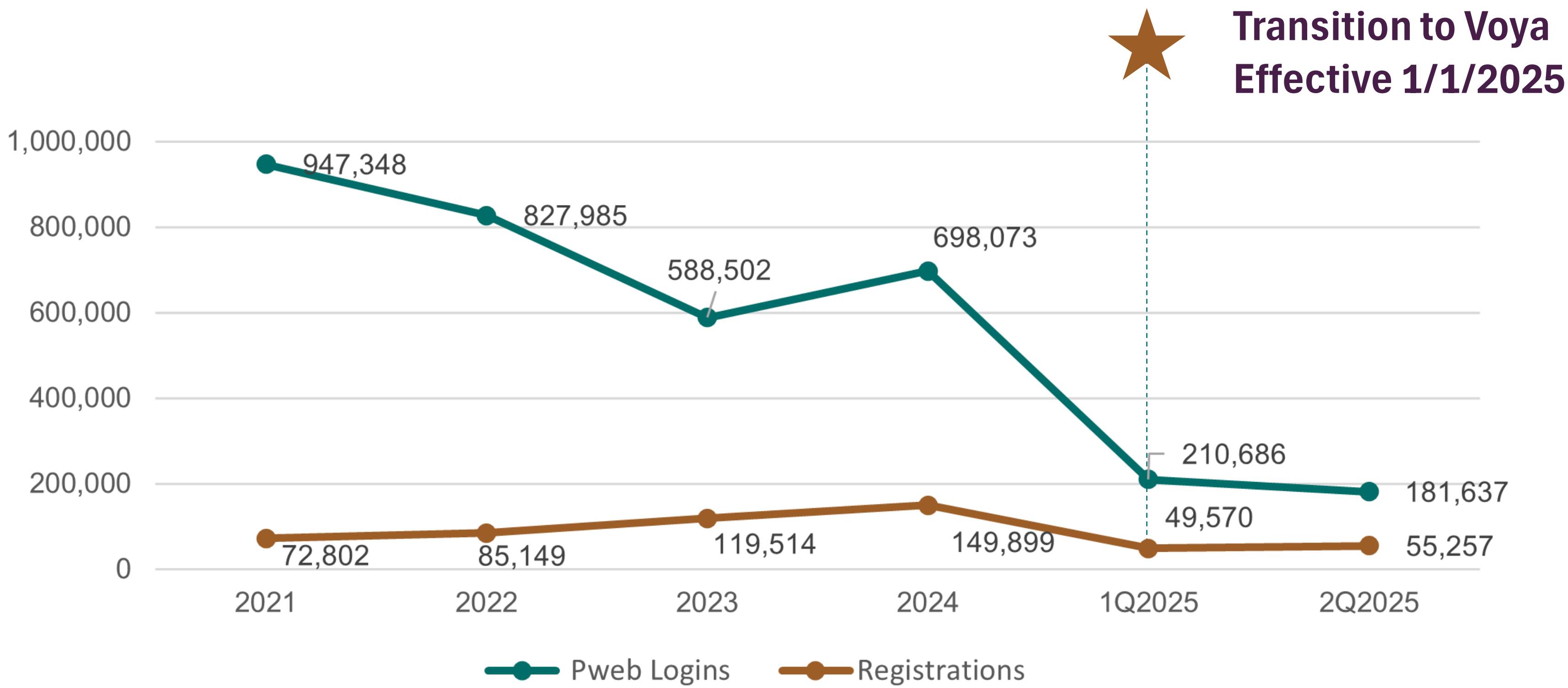
*Does not indicate unique participants.

**Includes ORPHE selected providers.

Web access (logins, views, etc.)

390,007 unique participants

11% increase in online access registration since 3/31/2025



Regular monitoring and communications regarding the importance of registering your online account

Virginia Retirement System®

Data through 6/30/2025

Advice/Managed Accounts

5,239 participants have used Advice Services

1.35% of total eligible

- **1,042** Advisor calls
- **2,129** Online Advice Adopters
- **2,068** Professional Management (PM) Members

0.5%
of participants enrolled in PM

Total assets under management
$97,556,162

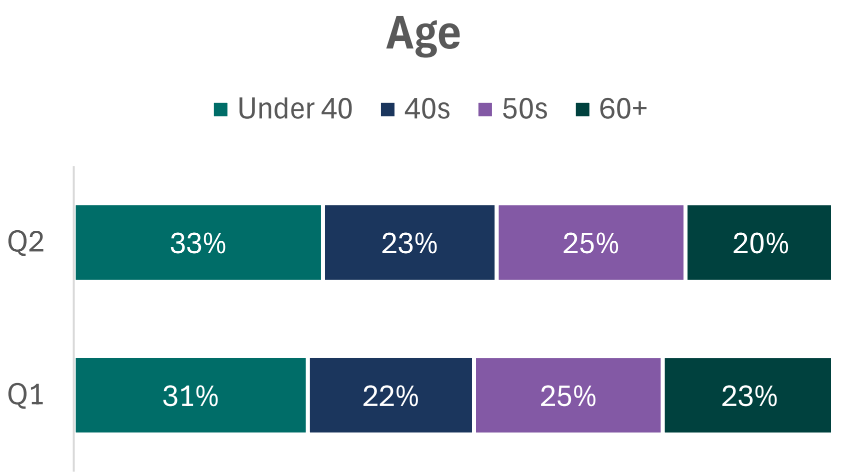
Average PM member balance
$47,174

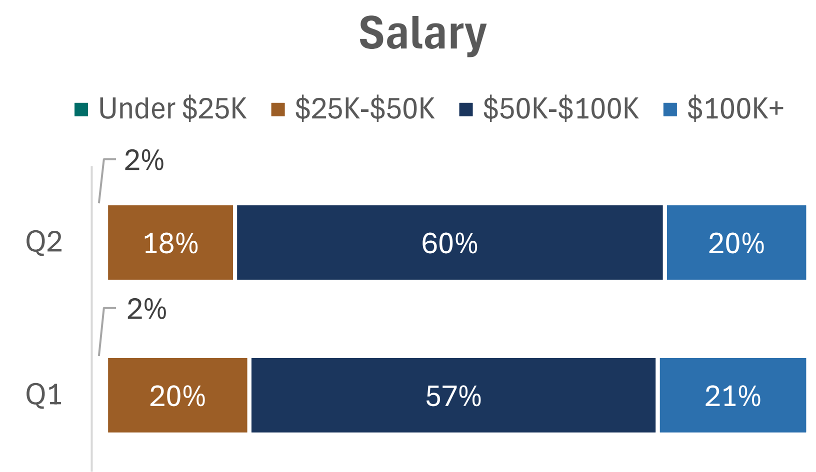
Fees paid through June 30, 2025
$78,106.05

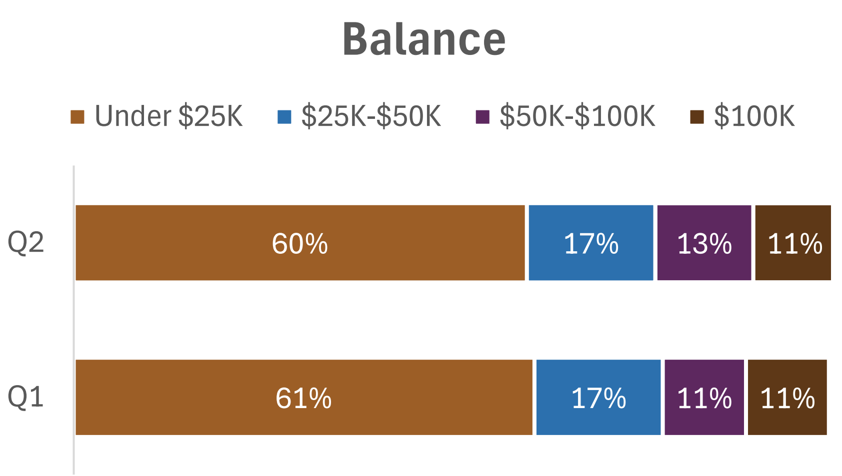
Virginia Retirement System®

Data from Q1 and Q2 Voya Reach & Impact Report (2025).

Advice/Managed Accounts





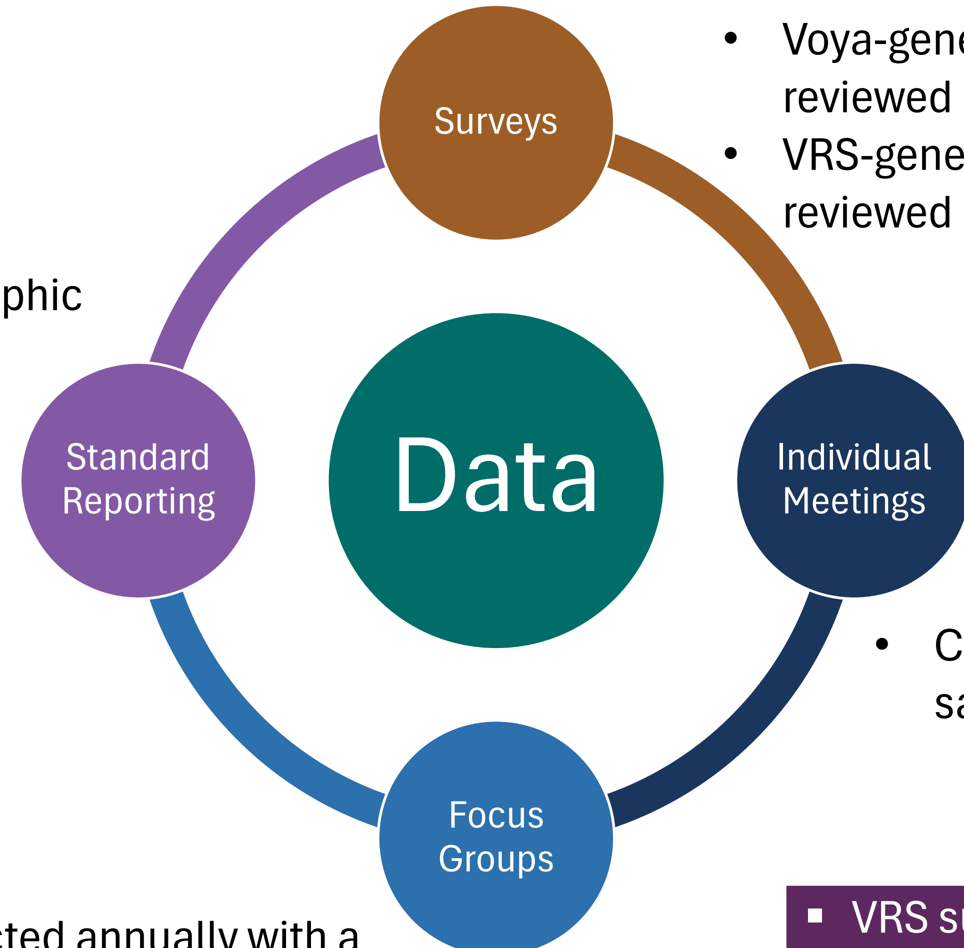


Demographic data changed very little for users of Professional Account Management.

Virginia Retirement System®

Data from Q1 and Q2 Voya Reach & Impact Report (2025).

Advice/Managed Accounts - Monitoring



- Voya-generated surveys are reviewed monthly at Voya.
- VRS-generated surveys will be reviewed quarterly.

- Usage
- Demographic
- Fees

- Conducted quarterly with a sample population.

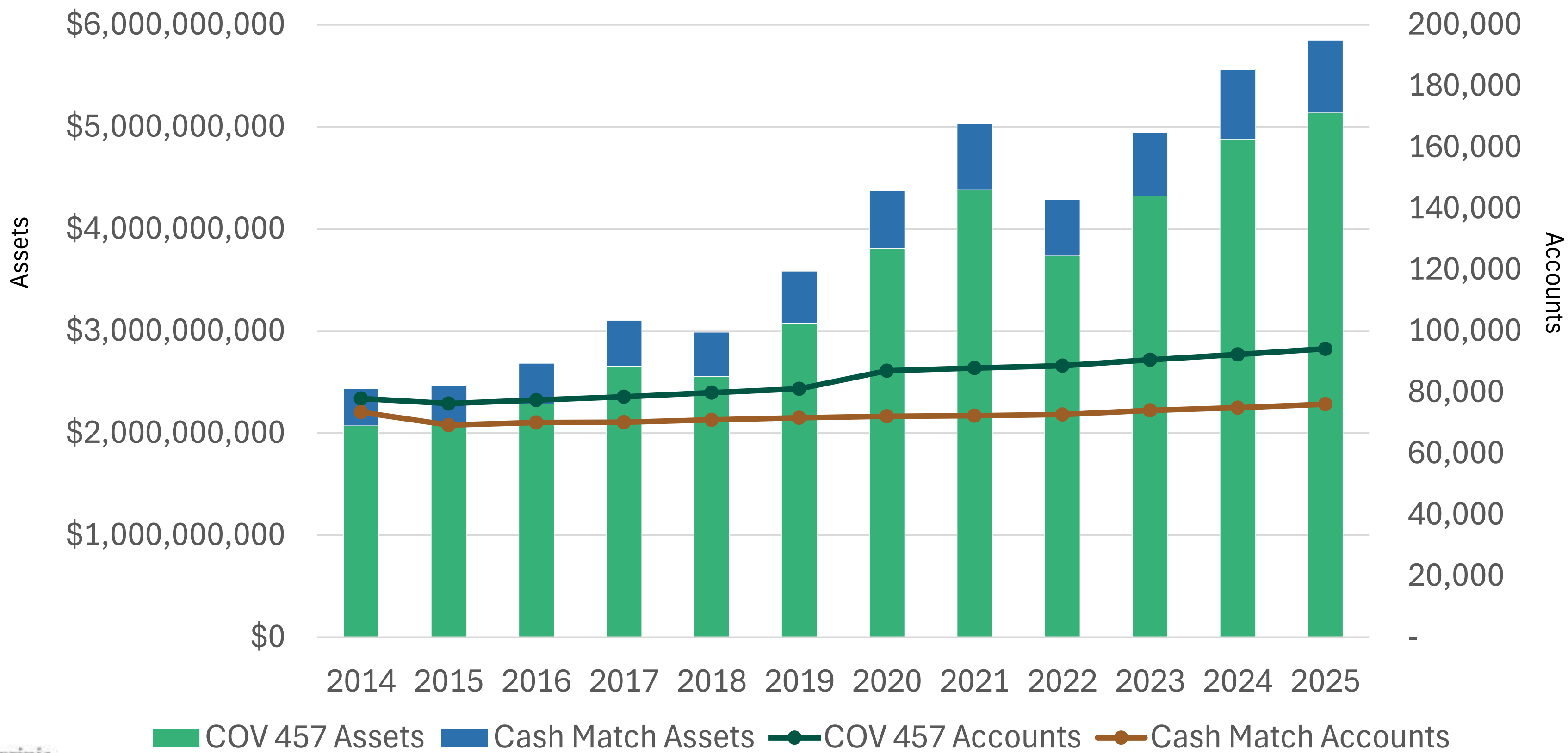
- Conducted annually with a sample population.

- VRS surveys are expected to begin in October, with participant meetings to begin by year-end.
- Focus groups will begin in 2026.

Virginia Retirement System®

COV 457/Cash Match Plan
Assets and Accounts

Totals as of 6/30/2025	Assets	Accounts	Assets ↑ 7% Since 3/31/2025
COV 457	$5,139,190,188	94,194	
Cash Match	$709,992,248	76,089	



Note: All data, except for the current year, reflect totals as of the end of the calendar year and include participant, beneficiary, forfeiture, and reserve accounts with a balance. MissionSquare Retirement provided data from 2014 to 2024. Voya Financial provided current-year data, which reflect totals as of June 30, 2025.

Commonwealth of Virginia 457 Plan Adoptions

2026

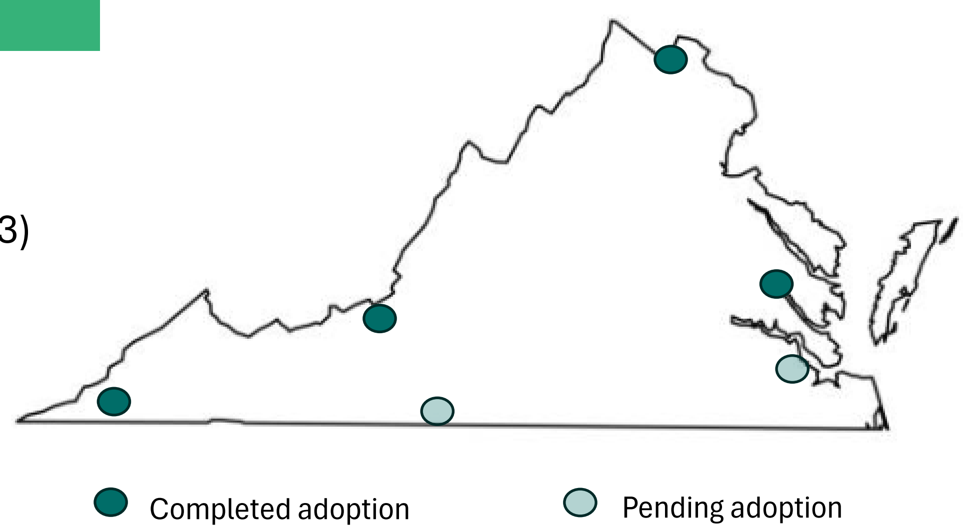
- *Pending COV 457 and Virginia Cash Match Plan adoption (1/1/26)*

2025

- New River Valley Regional Jail (7/1/25)
- *Pending COV adoption (10/1/25)*

2023

- Town of Gate City* (11/1/23)
- Town of Round Hill (10/1/23)
- King William County School Board (7/1/23)



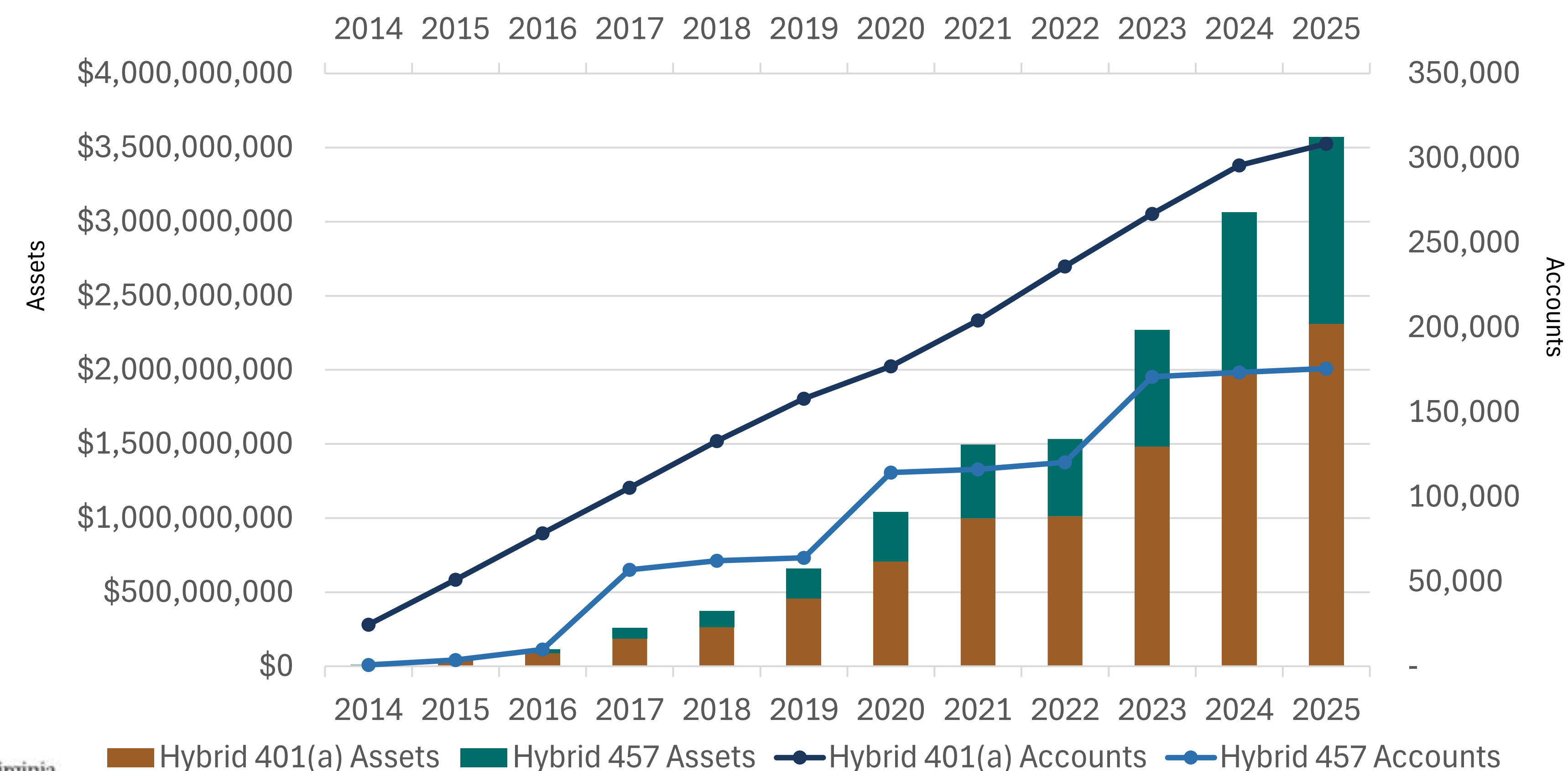
*Also adopted the Virginia Cash Match Plan

Hybrid Retirement Plan

Assets and Accounts (DC only)

Totals as of 6/30/2025	Assets	Accounts
Hybrid 401(a)	$2,046,938,02	303,070
Hybrid 457	$1,115,659,820	175,797

Assets ↑ 13%
Accounts ↑ 1%
Since 3/31/2025



Virginia Retirement System®

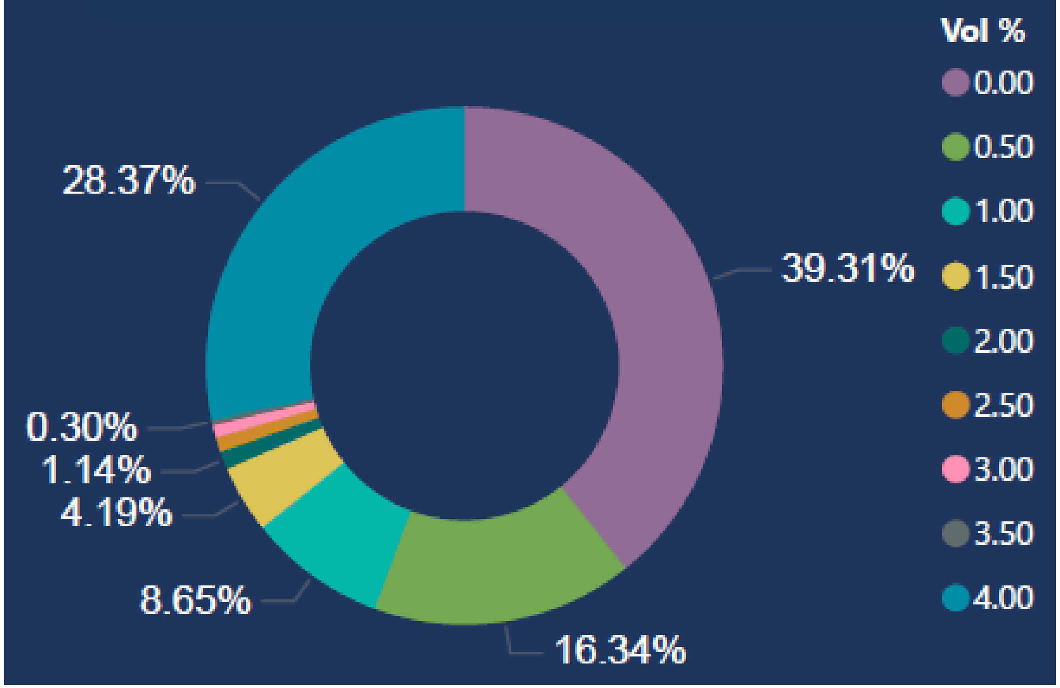
Note: All data, except for the current year, reflect totals as of the end of the calendar year and include participant, beneficiary, forfeiture, and reserve accounts with a balance. MissionSquare Retirement provided data from 2014 to 2024. Voya Financial provided current-year data, which reflect totals as of June 30, 2025.

Hybrid Retirement Plan

Voluntary Contribution Elections

Total Active Hybrid Members
198,092

Breakdown by Voluntary Contribution %



Making Voluntary Contributions
120,217

Overall Voluntary Contribution Participation Rate
61%

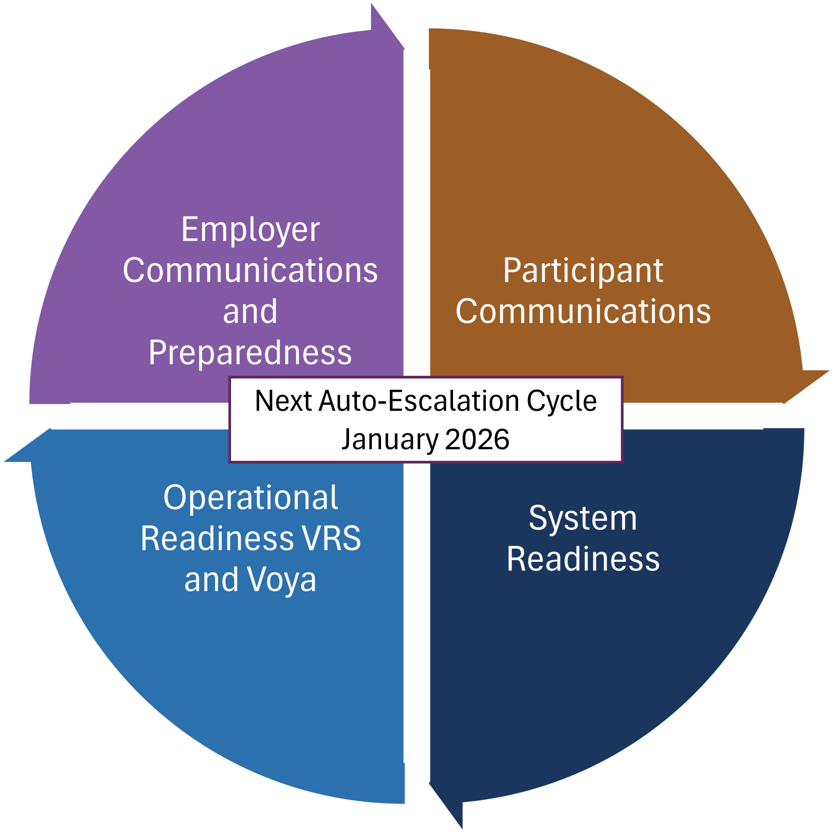
Active Election Rate
33%

Not making Voluntary Contributions
77,875

Virginia Retirement System®

Voluntary contribution election rates for members who are actively employed and covered by the Hybrid Retirement Plan with a balance in the Hybrid 401(a).
Data through 7/1/2025.

Auto-Escalation Update



Operational and System Readiness

- Development and testing in progress for auto-escalation functionality in Participant Web.
- Data clean-up underway to ensure eligible population is accurately identified.
- Next steps: Develop reporting and other processes for monitoring and outreach to employers regarding compliance with auto-escalation deferral changes.

In 2023, 101,488 members were auto-escalated. As of 6/30/2025, there were 141,887 active hybrid plan members with voluntary contributions under 4%.

Auto-Escalation Update

Communications

- Theme and imagery finalized.
- Member flyer completed.

Employer	Member
Begins in September: • Employer Update • Emails • Web content	Begins in November: • Member News • Focus newsletter • Emails • Web content

Virginia Retirement System®

ORPHE

Administrative Summary

ORPHE Totals*			
	3/31/2025	**6/30/2025**	Difference
Assets	**$1,359,899,592**	**$1,465,880,519**	8%
Participants	**10,988**	**10,945**	0%
Average	**$123,762**	**$133,932**	8%

DCP	
	6/30/2025
Assets	**$204,699,246**
Participants	**2,330**
Average Balance	**$87,854**

28.1% of new hires through 2025Q2 selected DCP as their provider

TIAA**	
	6/30/2025
Assets	**$1,261,181,273**
Participants	**8,615**
Average Balance	**$146,394**

71.9% of new hires through 2025Q2 selected TIAA as their provider

*Excludes deselected providers.
**Includes assets in GRA/RA and RC contracts.

Note: All data reflect totals as of June 30, 2025, and include participant, beneficiary, and forfeiture accounts with a balance. Current-year DCP data were provided by Voya, and data from 2014 to 2024 were provided by MissionSquare.

Upcoming Events

Ongoing

- Procedure development and review.
- Communications development and review.

Fall/Winter

ORPHE activities

- Annual Employer Update
- Open Enrollment
- Fee Disclosure

Preparations for January activities:

- Automatic Escalation – Hybrid Retirement Plan
- SECURE 2.0 Section 603

Thank you!

Virginia Retirement System®

Virginia Retirement System®

Optional Retirement Plan for Higher Education

Review of Contribution Rates

September 11, 2025

Table of Contents

Introduction

Virginia Retirement System®

Introduction

- Eligible employees of Virginia's public colleges and universities have the option to participate in the Optional Retirement Plan for Higher Education (ORPHE) or the Hybrid Retirement Plan.[1]

ORPHE Plan Eligibility and Contribution Requirements	
Plan 1 - Hire Date Prior to 7/1/2010	**Plan 2** - Hire Date After 7/1/2010
Employee Contribution – 0.00%	Employee Contribution – 5.00%
Employer Contribution – 10.40%	Employer Contribution – 8.50%[2]

[1]New hires with no prior VRS service, may choose between the Hybrid Retirement Plan or ORPHE. Those with prior VRS service, may select between the Plan 1 or Plan 2 defined benefit plan, as applicable, and the ORPHE.

[2] Employers have the option to contribute an additional 0.40% for a total contribution of 8.9%. The University of Virginia is currently the only employer that has elected this option.

Note that analysis focused exclusively on ORPHE Plan 2 in comparison to the current plans in place at peer institutions.

Virginia Retirement System®

Review Mandate

- The Board of Trustees of the Virginia Retirement System (VRS) is required by § 51.1-126 of the *Code of Virginia* to review the contribution rates for the Optional Retirement Plan for Higher Education (ORPHE) at least once every six years.
- The last review was based on information available as of June 30, 2019.

Virginia Retirement System®

Methodology

Virginia Retirement System®

SCHEV Peer Groups

- As required by the *Code of Virginia,* the State Council of Higher Education for Virginia (SCHEV) salary peer groups form the basis of the analysis of the mean contribution rates.
- Developed in 2007, SCHEV used a statistical procedure called cluster analysis, based on 19 quantitative characteristics, to identify institutions similar to Virginia's four-year public institutions and community colleges.

Virginia Retirement System®

SCHEV Peer Groups

- For each of the peers in the study that offered a primary defined contribution plan, VRS obtained the following information for the primary retirement plan(s) available to new hires:

Plan Type	Contribution Rate Structure	Availability of an Alternate Plan
Waiting and Vesting Periods	Employer Minimum and Maximum Contribution Rates	Employee Contribution Rates
	Shared Plan Status	

Virginia Retirement System®

Basis of Review

- Using publicly available information and, in some cases, direct outreach, VRS staff collected data from the peer institutions and performed the required contribution rate analysis.
- The VRS plan actuary, *Gabriel, Roeder, Smith & Company*, reviewed the analysis for reasonableness.

In reviewing the ORPHE contribution rate, the Board is to consider:

- Mean contribution rate based on the peer groups determined by SCHEV; and
- Review by the VRS actuary.

If advisable based on the data and analysis, the Board may recommend a revision to the Commonwealth's contribution rate.

Peer Institutions

The peer listing provided by the State Council of Higher Education for Virginia (SCHEV) identified 622 unique peer institutions, including both four-year institutions and community colleges. Of those, 614 institutions responded to requests for information:

347 Community Colleges

All public institutions across 43 states.

267 Four-Year Institutions

Institutions across 44 states:

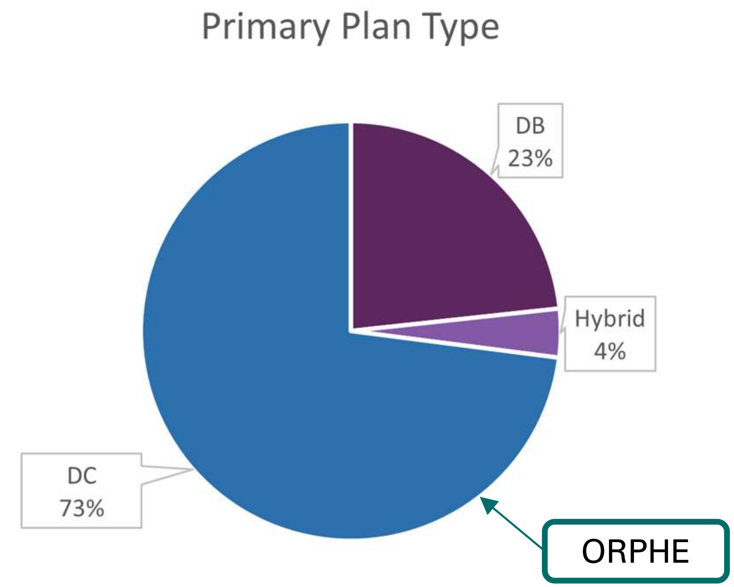
- 158 Public
- 109 Private

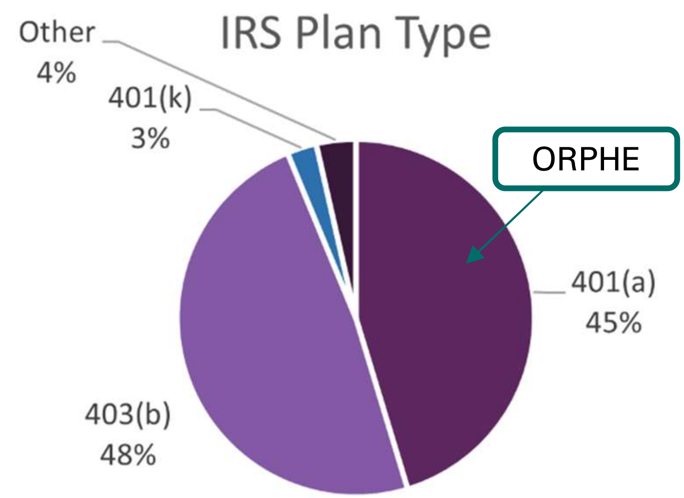
Virginia Retirement System®

Findings

Retirement Plan Types

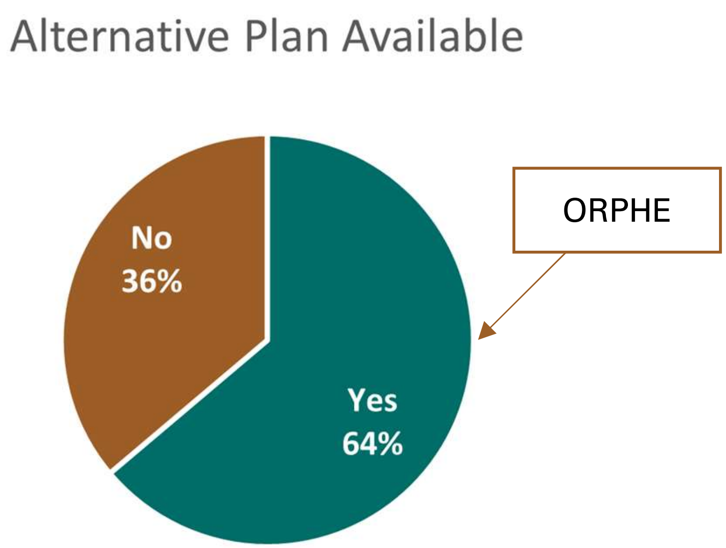
- Primary retirement plans – For the purpose of our analysis, this includes plans that feature a required employer and/or employee contribution.
- Defined contribution (DC) plans are the most common across all institutions and typically use a 401(a) or 403(b) plan.
- Only public institutions offered a defined benefit (DB) plan.





Virginia Retirement System®

Alternative Plans



- Employees at 64% of institutions reviewed had a choice between at least two options for a primary retirement plan.
- All of these were public institutions.
- Alternatives included a choice between:

A defined benefit plan or a defined contribution plan.

A hybrid plan or a defined contribution plan.

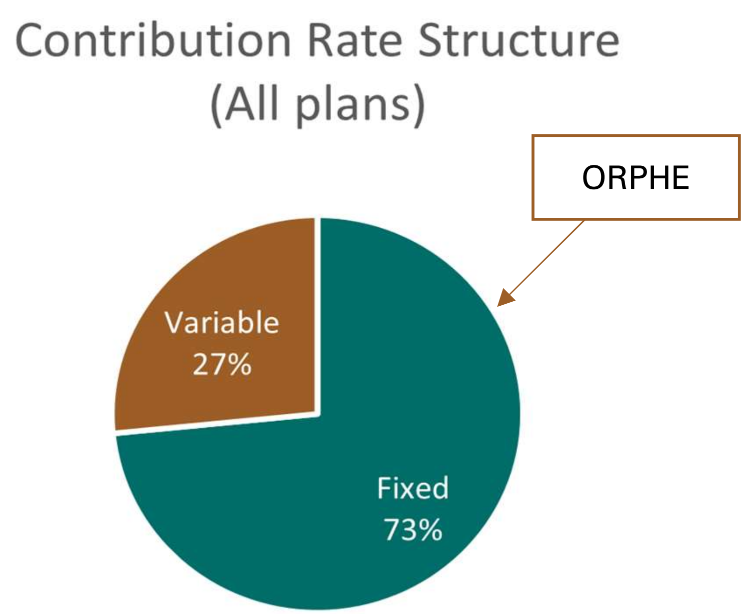
- Attributes of alternative plans were not considered in this review.

Virginia Retirement System®

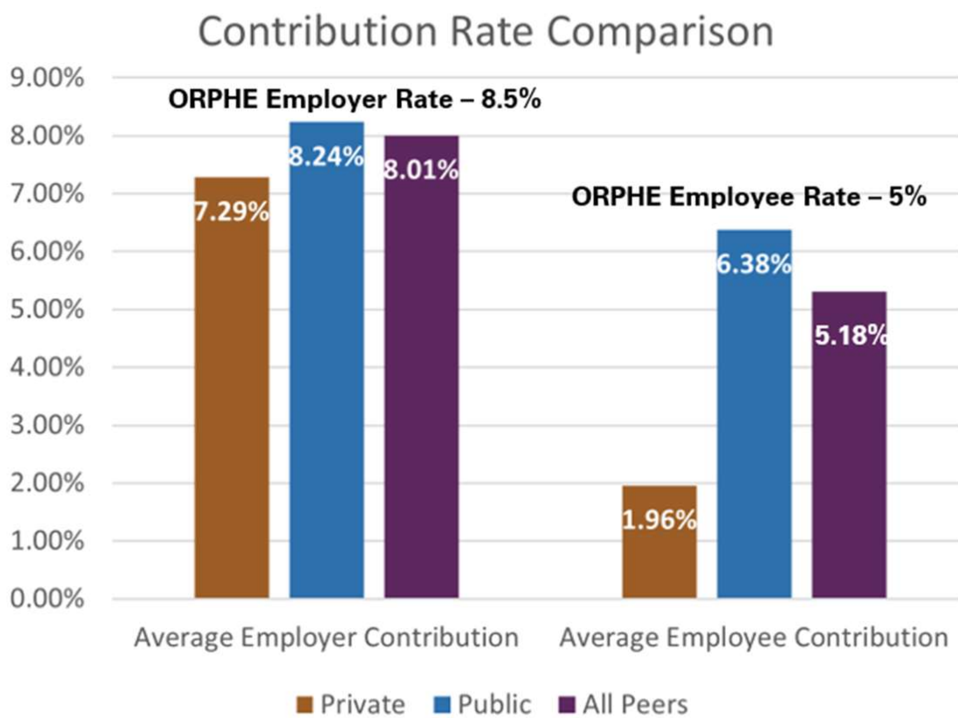
Contribution Rate Structure

- 73% of all plans reviewed provided fixed rates within their DC plans, offering the same employer contribution across all employees.
    - 84% of public institutions and 41% of private institutions used fixed rates in their DC plans.

- 27% of all plans reviewed used rates in their DC plans that varied based on a variety of factors like salary or tenure.
    - The specifics of variable rates were not considered as part of this review.
    - Minimum and maximum contribution rates were averaged.



Contribution Rates

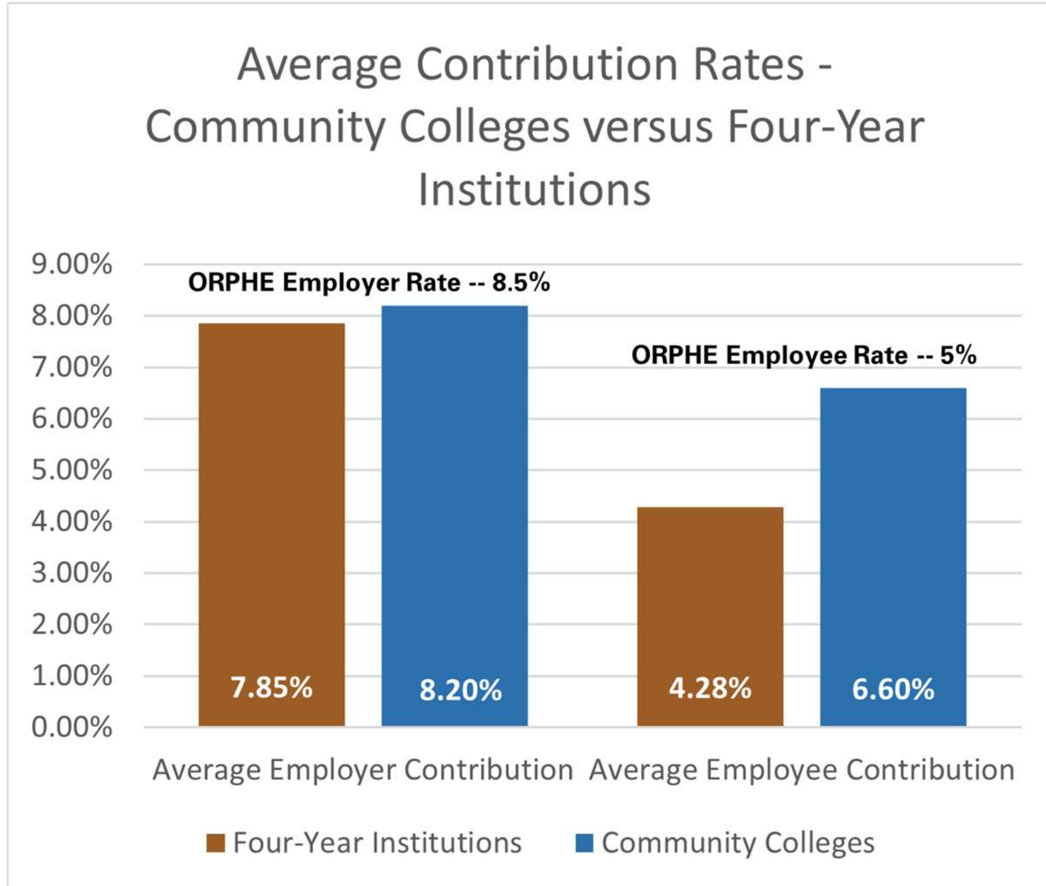


- Contribution rates varied across public and private institutions.
- The average **employer** contribution rate for private institutions was slightly lower than for public institutions.
    - The ORPHE employer contribution rate of 8.5% exceeded the averages in both private and public institutions.
- The average **employee** contribution rate varied more because a larger percentage of private institutions did not require employees to contribute.
    - 9% of all peer institutions did not require an employee contribution:
        - 7% of public institutions.
        - 32% of private institutions.

Virginia Retirement System®

Contribution Rates

- Similar variations existed when comparing four-year institutions and community colleges.
- The average **employer** contribution at four-year institutions was slightly lower than at community colleges. ORPHE exceeded both.
- The average **employee** contribution showed more variation due to the percentage of private institutions that did not require employee contributions.
- These differences are largely because all the community colleges are public institutions, which on average have higher employer and employee contribution rates.

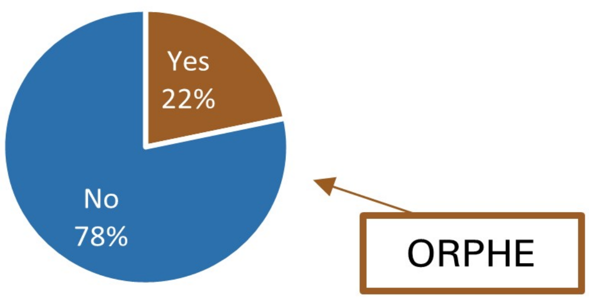


Virginia Retirement System®

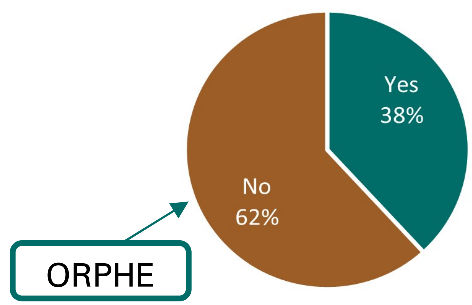
Waiting Periods and Vesting Schedules

- Waiting periods were more common at private institutions, while vesting schedules were more common at public institutions.
- Virginia institutions administering their own ORPHE plan are allowed to require a vesting schedule.
  - UVA is the only institution that does so.

Waiting Period – All Peers



Vesting Schedule – All Peers



- 22% of institutions required a waiting period.
  - Only 4% of **public** versus 78% of **private** institutions
- ORPHE allows participation from day one.

- 62% of institutions required vesting schedules.
  - Only 19% of **private** versus 44% of **public** institutions.
- ORPHE participants are 100% vested from day one.

Virginia Retirement System®

Shared Plans

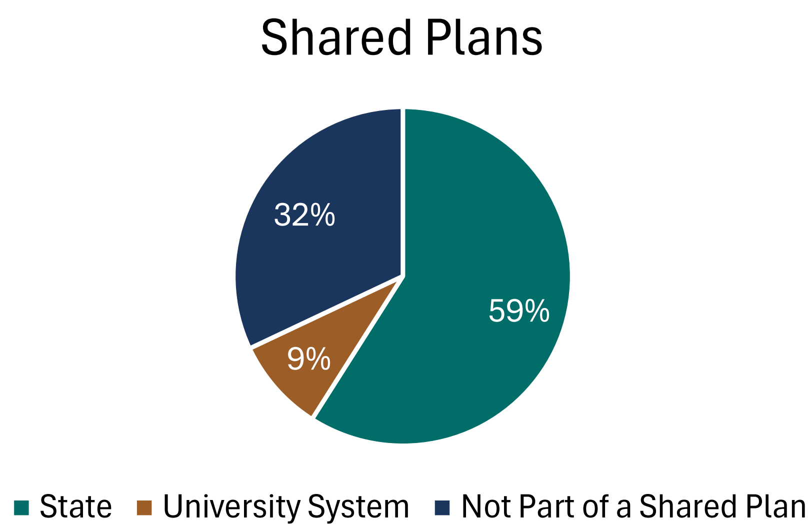
Shared plans are administered by a central entity with participation across multiple employers, sharing administrative overhead and oversight efforts.

- Most attributes are shared among institutions within the plan but there may be some flexibility.
  - Virginia institutions may:

Choose to use an 8.9% versus an 8.5% employer contribution rate.

Institutions administering their own ORPHE may choose to require a vesting schedule.

- Only one private institution belonged to a shared plan, while 90% of the public institutions were part of either a state-level or university-system plan.



Virginia Retirement System®

Conclusions

Conclusions

- The analysis showed that ORPHE contribution rates are comparable to those of peer institutions.

	Employer Contributions			Employee Contributions		
	Mean	**Median**	**Mode**	**Mean**	**Median**	**Mode**
Community Colleges	8.20%	7.60%	6.60%	6.60%	6.65%	6.65%
Four-Year Institutions	7.85%	8.00%	10.00%	4.28%	4.38%	0.00%[1]
ORPHE	**8.5%**			**5%**		

- No changes are recommended at this time.

Virginia Retirement System®

[1]Most institutions with a 0% employee contribution are private.

Questions?

Virginia Retirement System®

Virginia Retirement System

Request for Board Action
RBA 2025-09-____

Accept VRS staff review of ORPHE contribution rates.

Requested Action

The Board accepts, after considering the recommendation of the Defined Contribution Plans Advisory Committee (DCPAC), the VRS staff report entitled "Optional Retirement Plan for Higher Education – Review of Contribution Rates."

Rationale for Requested Action

In accordance with *Code of Virginia* § 51.1-126(F)(3), the VRS Board of Trustees examines the contribution rates for the Optional Retirement Plan for Higher Education (ORPHE) every six years. The examination considers the mean contributions of the salary peer group as determined by the State Council of Higher Education and the VRS actuary. VRS staff performed this examination, reported the results of its review of the contribution rates to the DCPAC, and the DCPAC has recommended acceptance of the report, a copy of which is attached to this RBA.

Authority for Requested Action

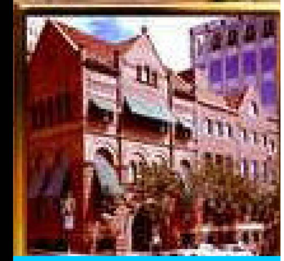
Code of Virginia § 51.1-126(F)(3) requires the Board to examine the contribution rate for the ORPHE at least once every six years.

The above action is approved.

____   _____________________________

A. Scott Andrews, Chair   Date
VRS Board of Trustees

Virginia Retirement System



DC Plans Advisory Committee
Annual Investment Review

September 11, 2025

Overview

The Defined Contribution Plans Advisory Committee (DCPAC) is an advisory committee with the purpose of reviewing matters relating to or affecting the plan administration, plan design, and investments of the various defined contribution (DC) plans established pursuant to the Code of Virginia and to make recommendations to the Board regarding those matters. The DCPAC's recommendations are not binding on the Board and the DCPAC has no authority over staff or administrative and investment decisions.

The Committee Charter outlines several responsibilities to be performed by the DCPAC. Investment responsibilities include:

- Reviewing national trends and identifying best practices.
- Assisting staff with identifying potential asset classes and investment strategies and recommending changes to the Board as needed.
- Performing an annual comprehensive review of the investment program for each plan with an emphasis on longer periods, such as three and five years but shorter-term trends are also considered if they are significant. The DCPAC may provide recommendations to the Board regarding any investment options that should be considered for addition or deletion as well as informing the Board of any significant performance issues as appropriate.
- Periodically, reviewing the Investment Policy Statements for the VRS DC plans, the VRS Defined Contribution Plans Investment Belief Statements and recommending any changes to the Board.

The purpose of this annual review is to provide the DCPAC with investment information needed to perform its annual comprehensive review of the investment program for each plan. Please refer to subsequent sections of this package for performance information that covers the periods ending June 30, 2025.

As of June 30, 2025, DC plan assets for those investments overseen by investment staff totaled $10.2 billion (unbundled plans: ~$7.7 billion; bundled TIAA ORPHE ~$532.0 million). Each program offered the following number of investment options*:

- Unbundled DC Plans: Eleven* investment options and a self-directed brokerage option.
- ORPHE TIAA: Ten* investment options and a self-directed brokerage option.

*Target date portfolio series are counted as one investment option. If each target date portfolio is counted separately there are a total of twenty core investment options within the unbundled DC plans and nineteen core investment options within the bundled TIAA ORPHE.

Unbundled DC Plan Structure

An unbundled DC plan structure provides investment staff with maximum flexibility to add or delete investment options as appropriate in an efficient manner. This fully open architecture approach enables investment staff to contract directly with investment managers. The unbundling of investment contracts from plan recordkeeping / administration contracts is a best practice within the DC industry and is in line with VRS Defined Contribution Plans Investment Belief Statements.

Most DC plans administered by VRS operate in a fully unbundled plan structure. The exception is the Optional Retirement Plan for Higher Education (ORPHE) where one of the two plan program providers operate under a bundled plan structure.

No investment manager changes were made to the unbundled DC plans investment platform this past fiscal year. Detailed information about the unbundled DC plans investments is included in subsequent sections of this package.

Bundled DC Plan Structure

A bundled DC plan structure does not provide investment staff with as much flexibility to add or delete investment options as appropriate in an efficient manner and is not the preferable structure. Constraints within a bundled plan construct may limit the scope of available investment options and may limit access to more attractive options within asset classes.

TIAA, one of the providers for the ORPHE, is structured in a bundled manner where investment option offerings are included as part of the provider's recordkeeping / administration contract. TIAA has become more flexible over the years in working with plan sponsors such as VRS to increase its investment fund opportunity set.

No investment manager changes were made to the bundled TIAA investment platform this past fiscal year. Detailed information about the bundled TIAA investment offerings is included in subsequent sections of this package.

Recordkeeping Transition

The recordkeeping transition from MissionSquare to Voya became effective January 2025. Investment manager interface and trading during and after the transition went smoothly. It should be noted administration staff requested that investment staff make no changes or improvements to the DC investment program during this time-period. Thus, investment staff's projects were placed on hold during fiscal year 2025.

Investment Policy Statements

Periodically, staff reviews the investment policy statements (unbundled structure and bundled structure) for potential changes to the documents.

VRS Defined Contribution Plans Investment Belief Statements

Periodically, staff reviews the VRS Defined Contribution Plans Investment Belief Statements for potential changes to the document.

Other

During this past fiscal year, the VRS Board of Trustees adopted a Foreign Adversaries Policy. Staff staff is working with DC investment managers and other stakeholders regarding its implementation.

Unbundled DC Plans Structure

Unbundled DC Plans

Data for period ending June 30, 2025

Fund	Type	Fund Expense Ratio	Returns: 1 Year	Returns: 3 Years*	Returns: 5 Years*	3 Year Statistics: Standard Deviation	3 Year Statistics: Sharpe Ratio	3 Year Statistics: Tracking Error	3 Year Statistics: Information Ratio	5 Year Statistics: Standard Deviation	5 Year Statistics: Sharpe Ratio	5 Year Statistics: Tracking Error	5 Year Statistics: Information Ratio
		%	%	%	%	%		%		%		%	
Money Market Fund	Capital Preservation	0.08	**4.98**	**4.93**	**3.04**	0.27	0.66	0.05	n/a	0.68	0.23	0.05	n/a
FTSE 3 Month Treasury Bill Index			4.88	4.75	2.88	0.32	0.00	0.00		0.69	0.00	0.00	
Excess Return			0.10	0.18	0.16								
Stable Value Fund[1]	Capital Preservation (Book Value)	0.24	**3.50**	**2.92**	**2.42**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Custom Benchmark[2]			4.28	4.48	3.08	n/a	n/a	n/a		n/a	n/a	n/a	
Excess Return			-0.78	-1.56	-0.66								
eVestment Alliance Median: Stable Value Universe[3]			*3.07*	*2.83*	*2.42*								
Bond Fund	Passive	0.03	**6.09**	**2.58**	**-0.69**	7.30	-0.30	0.19	n/a	6.37	-0.56	0.15	n/a
Bloomberg U.S. Aggregate Bond Index			6.08	2.55	-0.73	7.30	-0.30			6.37	-0.57		
Excess Return			0.01	0.03	0.04								
MSTAR Ave: IntermediateTerm Bond			*5.99*	*2.59*	*-0.62*								
Inflation-Protected Bond Fund	Passive	0.03	**5.89**	**2.40**	**1.66**	6.87	-0.34	0.23	n/a	6.18	-0.20	0.18	n/a
Bloomberg U.S. TIPS Index			5.84	2.34	1.61	6.85	-0.35			6.16	-0.21		
Excess Return			0.05	0.06	0.05								
MSTAR Ave: Inflation-Protected Bond			*5.77*	*2.34*	*1.98*								
High-Yield Bond Fund	Active	0.40	**10.47**	**9.12**	**6.27**	6.29	0.69	1.21	-0.11	6.63	0.51	1.45	0.63
ICE BofA U.S. HY BB-B Constrained Index			9.08	9.24	5.36	6.75	0.67			7.24	0.34		
Excess Return			1.39	-0.12	0.91								
MSTAR Ave: High-Yield Bond			*9.02*	*8.88*	*5.38*								
Stock Fund	Passive	0.01	**15.15**	**19.70**	**16.64**	15.80	0.95	0.01	n/a	16.30	0.85	0.02	n/a
S&P 500 Index			15.16	19.71	16.64	15.80	0.95			16.30	0.84		
Excess Return			-0.01	-0.01	0.00								
MSTAR Ave: Large Blend			*13.43*	*17.05*	*14.62*								
Small/Mid-Cap Stock Fund	Passive	0.02	**9.98**	**11.41**	**11.53**	20.90	0.32	0.04	n/a	20.14	0.43	0.05	n/a
Russell 2500 Index			9.91	11.31	11.44	20.91	0.31			20.13	0.43		
Excess Return			0.07	0.10	0.09								
MSTAR Ave: Mid-Cap Blend			*10.84*	*12.69*	*13.05*								
International Stock Fund	Passive	0.06	**18.39**	**14.04**	**10.43**	15.76	0.59	2.13	n/a	15.69	0.48	1.83	n/a
MSCI ACWI ex-U.S. IMI Index (linked to MSCI World ex-U.S. Index July 2012 - July 2016)			17.83	13.92	10.20	14.93	0.61			15.24	0.48		
Excess Return			0.56	0.12	0.23								
MSTAR Ave: Foreign Large Blend			*18.10*	*14.72*	*10.37*								
Global Real Estate Fund	Passive	0.08	**12.30**	**4.57**	**6.06**	18.76	-0.01	0.84	n/a	18.07	0.18	0.69	n/a
FTSE EPRA/NAREIT Developed Index			11.18	3.52	5.10	18.61	-0.07			18.05	0.12		
Excess Return			1.12	1.05	0.96								
MSTAR Ave: Global Real Estate			*12.21*	*3.95*	*4.75*								

Unbundled DC Plans

Data for period ending June 30, 2025

Fund	Type	Fund Expense Ratio	Returns 1 Year	3 Years*	5 Years*	3 Year Statistics Standard Deviation	Sharpe Ratio	Tracking Error	Information Ratio	5 Year Statistics Standard Deviation	Sharpe Ratio	Tracking Error	Information Ratio
		%	%	%	%	%		%		%		%	
Retirement Portfolio	Passive	0.06	**9.85**	**7.73**	**5.04**	9.69	0.31	0.34	n/a	9.12	0.24	0.28	n/a
Custom Benchmark[4]			9.82	7.75	5.05	9.57	0.31			9.05	0.24		
Excess Return			0.03	-0.02	-0.01								
Target Date 2030 Portfolio	Passive	0.06	**11.16**	**10.01**	**7.72**	11.53	0.46	0.46	n/a	11.34	0.43	0.39	n/a
Custom Benchmark[4]			11.09	10.02	7.71	11.35	0.46			11.25	0.43		
Excess Return			0.07	-0.01	0.01								
Target Date 2035 Portfolio	Passive	0.06	**12.37**	**11.73**	**9.36**	12.62	0.55	0.55	n/a	12.62	0.51	0.47	n/a
Custom Benchmark[4]			12.26	11.72	9.33	12.40	0.56			12.51	0.52		
Excess Return			0.11	0.01	0.03								
Target Date 2040 Portfolio	Passive	0.06	**13.49**	**13.39**	**10.89**	13.68	0.63	0.63	n/a	13.85	0.58	0.55	n/a
Custom Benchmark[4]			13.36	13.37	10.83	13.41	0.64			13.71	0.58		
Excess Return			0.13	0.02	0.06								
Target Date 2045 Portfolio	Passive	0.06	**14.55**	**14.95**	**12.20**	14.63	0.70	0.71	n/a	14.90	0.63	0.62	n/a
Custom Benchmark[4]			14.42	14.92	12.13	14.34	0.71			14.75	0.63		
Excess Return			0.13	0.03	0.07								
Target Date 2050 Portfolio	Passive	0.06	**15.60**	**16.09**	**13.06**	15.13	0.75	0.76	n/a	15.47	0.66	0.66	n/a
Custom Benchmark[4]			15.47	16.06	12.98	14.82	0.76			15.31	0.66		
Excess Return			0.13	0.03	0.08								
Target Date 2055 Portfolio	Passive	0.06	**16.14**	**16.55**	**13.35**	15.26	0.77	0.77	n/a	15.60	0.67	0.67	n/a
Custom Benchmark[4]			16.01	16.53	13.28	14.95	0.79			15.45	0.67		
Excess Return			0.13	0.02	0.07								
Target Date 2060 Portfolio	Passive	0.06	**16.20**	**16.58**	**13.36**	15.27	0.78	0.77	n/a	15.60	0.67	0.67	n/a
Custom Benchmark[4]			16.10	16.57	13.30	14.97	0.79			15.46	0.67		
Excess Return			0.10	0.01	0.06								
Target Date 2065 Portfolio	Passive	0.06	**16.22**	**16.60**	**13.35**	15.27	0.78	0.77	n/a	15.60	0.67	0.67	
Custom Benchmark[4]			16.10	16.57	13.29	14.97	0.79			15.47	0.67		
Excess Return			0.12	0.03	0.06								

*Annualized.

[1] Stable value funds typically track the general movements of interest rates with a lag. It is expected that when interest rates are falling stable value yields do not fall as quickly and when when interest rates are rising stable value yields do not rise as quickly.

[2] Effective August 2016, the benchmark represents a hypothetical return generated by the monthly yields of actively traded U.S. Treasuries based on [50% 2-year maturity + 50% 3-year maturity] plus an annualized spread of 0.25% and is representative of the Fund's expected return profile, given how the Fund is managed and book value accounting treatment.

[3] eVestment Alliance universe returns are gross of investment management fees and net of wrap fees. The Stable Value Fund returns are net of all fees.

[4] The Custom Benchmark is calculated using blended returns of third party indices that proportionally reflect the respective weightings of the Fund's asset classes. Weightings are adjusted quarterly to reflect the Fund's changing asset allocations over time. As of January 1, 2025 the indices used to calculate the Custom Benchmark are the: Russell 1000 Index, Russell 2000 Index, MSCI ACWI ex-U.S. IMI Net Dividend Return Index, Bloomberg U.S. Long Credit Bond Index, Bloomberg U.S. Intermediate Credit Bond Index, Bloomberg U.S. Long Government Bond Index, Bloomberg U.S Intermediate Government Bond Index, Bloomberg U.S. Securitized MBS,ABS and CMBS Index, Bloomberg U.S. 0-5 YearsTIPS Index, FTSE NAREIT All Equity REITs Index, FTSE Global Core Infrastructure 50/50 Net Tax Index and the Bloomberg Enhanced Roll Yield Index.

Excess over benchmark return by 10 bps or more for index funds and capital preservation funds. Reasonable expectations due to impact of typical sources of tracking including fair value pricing for index funds and the interest rate environment for capital preservation funds.

Underperformance for an actively managed fund.

Excess performance for an actively managed fund.

Below benchmark return by 10 bps or more for index funds and capital preservation funds. Reasonable expectations due to impact of typical sources of tracking including fair value pricing for index funds and the the nature of book value accounting treatment for stable value funds as it relates to interest rates.

Data provided by BlackRock, Galliard, Voya and eVestment.

Unbundled DC Plans - Fund Annual Operating Expenses
Information as of June 30, 2025

Investment Option[1]	Investment Manager	Type	Investment Management Costs	Wrap & Acquired Fund[2] Costs	Fund Embedded Costs[2]	State Street Cost to Strike Net NAV	Total Annual Expense Ratio	Expense Ratio YOY Change
Money Market Fund	BlackRock	Capital Preservation	0.080000%	n/a	0.001000%	n/a	**0.08%**	0.00%
Stable Value Fund	Galliard	Capital Preservation (Book Value)	0.067000%	0.170000%	n/a	n/a	**0.24%**	0.00%
Bond Fund	BlackRock	Passive	0.030000%	n/a	0.003000%	n/a	**0.03%**	0.00%
Inflation-Protected Bond Fund	BlackRock	Passive	0.020000%	n/a	0.007000%	n/a	**0.03%**	0.00%
High-Yield Bond Fund	JPMorgan	Active	0.380000%	n/a	0.020000%	0.004387%	**0.40%**	+0.01%
Stock Fund	BlackRock	Passive	0.007500%	n/a	0.001000%	0.004144%	**0.01%**	0.00%
Small/Mid-Cap Stock Fund	BlackRock	Passive	0.012500%	n/a	0.004000%	0.004088%	**0.02%**	0.00%
International Stock Fund	BlackRock	Passive	0.040000%	n/a	0.020000%	0.004215%	**0.06%**	0.00%
Global Real Estate Fund	BlackRock	Passive	0.070000%	n/a	0.009000%	0.004031%	**0.08%**	0.00%
Retirement Portfolio	BlackRock	Passive	0.050000%	n/a	0.005000%	n/a	**0.06%**	0.00%
Target Date 2030 Portfolio	BlackRock	Passive	0.050000%	n/a	0.006000%	n/a	**0.06%**	0.00%
Target Date 2035 Portfolio	BlackRock	Passive	0.050000%	n/a	0.007000%	n/a	**0.06%**	0.00%
Target Date 2040 Portfolio	BlackRock	Passive	0.050000%	n/a	0.007000%	n/a	**0.06%**	0.00%
Target Date 2045 Portfolio	BlackRock	Passive	0.050000%	n/a	0.008000%	n/a	**0.06%**	0.00%
Target Date 2050 Portfolio	BlackRock	Passive	0.050000%	n/a	0.008000%	n/a	**0.06%**	0.00%
Target Date 2055 Portfolio	BlackRock	Passive	0.050000%	n/a	0.009000%	n/a	**0.06%**	0.00%
Target Date 2060 Portfolio	BlackRock	Passive	0.050000%	n/a	0.009000%	n/a	**0.06%**	0.00%
Target Date 2065 Portfolio	BlackRock	Passive	0.050000%	n/a	0.010000%	n/a	**0.06%**	0.00%
Target Date 2070 Portfolio	BlackRock	Passive	0.050000%	n/a	0.010000%	n/a	**0.06%**	0.00%
VRSIP	VRS	Active	n/a	n/a	n/a	n/a	**0.62%**	-0.01%

[1] There are no short-term trading redemption costs associated with any of the investment options.
[2] Includes custody, audit and other specific investment option related administrative costs.

Unbundled DC Plans
Annual Calendar Year End Return Data

Fund	2024	2023	2022	2021	2020
	%	%	%	%	%
Money Market Fund	**5.51**	**5.39**	**1.88**	**0.15**	**0.66**
FTSE 3 Month Treasury Bill Index	5.45	5.26	1.50	0.05	0.58
Stable Value Fund	**3.41**	**2.86**	**1.48**	**1.59**	**2.20**
Custom Benchmark	4.55	4.70	3.27	0.61	0.66
eVestment Alliance Stable Value Universe*	3.02	2.79	1.91	1.71	2.14
Bond Fund	**1.37**	**5.67**	**-13.05**	**-1.61**	**7.61**
Bloomberg U.S. Aggregate Bond Index	1.25	5.53	-13.01	-1.54	7.51
MSTAR Ave: IntermediateTerm Bond	1.72	5.49	-13.32	-1.48	7.52
Inflation-Protected Bond Fund	**2.02**	**3.98**	**-11.94**	**5.92**	**11.19**
Bloomberg U.S. TIPS Index	1.84	3.90	-11.85	5.96	10.99
MSTAR Ave: Inflation-Protected Bond	2.40	2.87	-8.98	5.61	10.01
High-Yield Bond Fund	**8.15**	**11.13**	**-9.56**	**7.45**	**4.75**
ICE BofA U.S. HY BB-B Constrained Index	6.84	12.58	-10.58	4.60	6.28
MSTAR Ave: High-Yield Bond	7.55	11.82	-10.09	4.77	4.91
Stock Fund	**25.01**	**26.29**	**-18.11**	**28.73**	**18.47**
S&P 500 Index	25.02	26.29	-18.11	28.71	18.40
MSTAR Ave: Large Blend	20.70	22.14	-16.96	26.07	15.83
Small/Mid-Cap Stock Fund	**12.09**	**17.61**	**-18.34**	**18.24**	**20.02**
Russell 2500 Index	12.00	17.42	-18.37	18.18	19.99
MSTAR Ave: Mid-Cap Blend	14.25	15.91	-14.01	23.40	12.39
International Stock Fund	**5.11**	**15.52**	**-16.27**	**8.62**	**11.46**
MSCI ACWI ex-U.S. IMI Index	5.23	15.62	-16.58	8.53	11.12
MSTAR Ave: Foreign Large Blend	4.78	16.31	-15.84	9.72	9.30
Global Real Estate Fund	**1.94**	**10.69**	**-24.30**	**26.99**	**-8.42**
FTSE EPRA/NAREIT Developed Index	0.94	9.67	-25.09	26.09	-9.04
MSTAR Ave: Global Real Estate	0.36	10.22	-25.15	22.90	-5.43
VRSIP	**8.92**	**10.23**	**-5.25**	**18.63**	**10.32**
VRS Custom Benchmark	11.64	13.40	-11.23	13.59	10.24
Retirement Portfolio	**7.10**	**11.15**	**-14.63**	**6.95**	**11.97**
Custom Benchmark	7.08	11.11	-14.54	7.04	11.80
Target Date 2030 Portfolio	**9.13**	**14.26**	**-15.97**	**11.43**	**12.88**
Custom Benchmark	9.12	14.23	-15.92	11.51	12.71
Target Date 2035 Portfolio	**10.90**	**16.31**	**-16.67**	**13.80**	**13.57**
Custom Benchmark	10.89	16.29	-16.67	13.85	13.42
Target Date 2040 Portfolio	**12.64**	**18.33**	**-17.36**	**15.96**	**14.14**
Custom Benchmark	12.63	18.29	-17.38	15.99	13.98
Target Date 2045 Portfolio	**14.28**	**20.16**	**-17.90**	**17.72**	**14.83**
Custom Benchmark	14.32	20.12	-17.96	17.71	14.64
Target Date 2050 Portfolio	**15.58**	**21.27**	**-18.21**	**18.67**	**15.20**
Custom Benchmark	15.66	21.23	-18.30	18.61	15.07
Target Date 2055 Portfolio	**16.23**	**21.58**	**-18.28**	**18.83**	**15.32**
Custom Benchmark	16.32	21.56	-18.38	18.81	15.18
Target Date 2060 Portfolio	**16.25**	**21.59**	**-18.29**	**18.82**	**15.31**
Custom Benchmark	16.36	21.57	-18.39	18.80	15.18
Target Date 2065 Portfolio	**16.28**	**21.64**	**-18.31**	**18.78**	**15.14**
Custom Benchmark	16.37	21.59	-18.40	18.79	15.18

* eVestment Alliance universe returns are gross of investment management fees and net of wrap fees. The Stable Value Fund returns are net of all fees.

Data provided by BlackRock, Galliard, BofNY Mellon, MissionSquare, eVestment, and Morningstar.

Defined Contribution Plans Advisory Committee Report
Unbundled Plans Investment Performance

Below are the totals for the period ending June 30, 2025. Returns greater than one year are annualized.

Investment Options	1 Month	3 Months	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs / Since Inception[1]	Fund Expense Ratio[2]	Inception Date	Market Value	% of Market Value[25]	% of Participants Selecting an Option[26]
Do-It-For-Me: Target Date Portfolios[3,4]	%	%	%	%	%	%	%	%		$	%	%
Retirement Portfolio	**2.56**	**4.59**	**6.20**	**9.85**	**7.73**	**5.04**	**5.14**	**0.06**	**8/1/05**	**813,091,026**	**8.4**	**8.3**
Custom Benchmark	2.52	4.62	6.12	9.82	7.75	5.05	5.12					
Target Date 2030 Portfolio	**2.96**	**5.92**	**6.96**	**11.16**	**10.01**	**7.72**	**6.85**	**0.06**	**8/1/05**	**574,243,501**	**5.9**	**7.3**
Custom Benchmark	2.90	5.94	6.86	11.09	10.02	7.71	6.79					
Target Date 2035 Portfolio	**3.37**	**7.21**	**7.66**	**12.37**	**11.73**	**9.36**	**7.76**	**0.06**	**7/5/06**	**654,372,558[22]**	**6.8**	**8.8**
Custom Benchmark	3.29	7.24	7.52	12.26	11.72	9.33	7.68					
Target Date 2040 Portfolio	**3.70**	**8.28**	**8.27**	**13.49**	**13.39**	**10.89**	**8.58**	**0.06**	**8/1/05**	**601,309,685**	**6.2**	**9.0**
Custom Benchmark	3.61	8.33	8.10	13.36	13.37	10.83	8.48					
Target Date 2045 Portfolio	**4.06**	**9.39**	**8.84**	**14.55**	**14.95**	**12.20**	**9.26**	**0.06**	**7/5/06**	**618,750,810**	**6.4**	**10.4**
Custom Benchmark	3.96	9.46	8.63	14.42	14.92	12.13	9.14					
Target Date 2050 Portfolio	**4.40**	**10.51**	**9.45**	**15.60**	**16.09**	**13.06**	**9.69**	**0.06**	**9/30/07**	**644,292,402**	**6.7**	**11.9**
Custom Benchmark	4.29	10.57	9.19	15.47	16.06	12.98	9.56					
Target Date 2055 Portfolio	**4.54**	**11.05**	**9.76**	**16.14**	**16.55**	**13.35**	**9.82**	**0.06**	**5/19/10**	**757,050,369**	**7.8**	**15.0**
Custom Benchmark	4.43	11.12	9.50	16.01	16.53	13.28	9.70					
Target Date 2060 Portfolio	**4.56**	**11.13**	**9.81**	**16.20**	**16.58**	**13.36**	**9.82**	**0.06**	**11/17/14**	**457,480,755**	**4.7**	**13.4**
Custom Benchmark	4.45	11.21	9.55	16.10	16.57	13.30	9.71					
Target Date 2065 Portfolio	**4.56**	**11.12**	**9.80**	**16.22**	**16.60**	**13.35**	**11.48**	**0.06**	**9/23/19**	**117,168,171**	**1.2**	**8.0**
Custom Benchmark	4.45	11.21	9.55	16.10	16.57	13.29	11.45					
Target Date 2070 Portfolio	**4.56**	**11.12**	**9.80**	**n/a**	**n/a**	**n/a**	**8.51**	**0.06**	**9/27/24**	**2,880,693**	**0.0**	**0.7**
Custom Benchmark	4.45	11.21	9.55	n/a	n/a	n/a	8.07					
Help-Me-Do-It: Individual Options												
Money Market Fund[5,6]	**0.37**	**1.14**	**2.28**	**4.98**	**4.93**	**3.04**	**2.19**	**0.08**	**11/1/99**	**182,620,976**	**1.9**	**1.7**
FTSE 3 Month Treasury Bill Index	0.36	1.09	2.21	4.88	4.75	2.88	2.01					
Yield as of 06/30/25: 4.55%[7]												
Stable Value Fund[8,9]	**0.28**	**0.87**	**1.71**	**3.50**	**2.92**	**2.42**	**2.22**	**0.24**	**2/1/95**	**599,162,346**	**6.2**	**4.7**
Custom Benchmark[10]	0.34	1.01	2.11	4.28	4.48	3.08	2.48					
Yield as of 06/30/25: 3.57%[11]												
Bond Fund[12]	**1.54**	**1.21**	**4.02**	**6.09**	**2.58**	**-0.69**	**1.80**	**0.03**	**11/1/99**	**184,134,393**	**1.9**	**3.1**
Bloomberg U.S. Aggregate Bond Index	1.54	1.21	4.02	6.08	2.55	-0.73	1.76					
Inflation-Protected Bond Fund[13]	**0.96**	**0.49**	**4.72**	**5.89**	**2.40**	**1.66**	**2.76**	**0.03**	**7/30/02**	**58,879,947**	**0.6**	**1.3**
Bloomberg U.S. TIPS Index	0.95	0.48	4.67	5.84	2.34	1.61	2.67					
High-Yield Bond Fund[14]	**1.57**	**3.50**	**4.86**	**10.47**	**9.12**	**6.27**	**5.45**	**0.40**	**5/31/04**	**62,354,576**	**0.7**	**1.4**
ICE BofA U.S. High-Yield BB-B Constrained Index	1.87	3.47	4.67	9.08	9.24	5.36	5.07					
Stock Fund[15]	**5.09**	**10.94**	**6.19**	**15.15**	**19.70**	**16.64**	**13.66**	**0.01**	**11/1/99**	**2,235,782,655**	**23.1**	**8.8**
S&P 500 Index	5.09	10.94	6.20	15.16	19.71	16.64	13.65					
Small/Mid-Cap Stock Fund[16]	**4.59**	**8.56**	**0.45**	**9.98**	**11.41**	**11.53**	**8.47**	**0.02**	**11/1/99**	**477,179,868**	**4.9**	**4.9**
Russell 2500 Index	4.61	8.59	0.44	9.91	11.31	11.44	8.39					
International Stock Fund[17]	**3.91**	**12.50**	**18.73**	**18.39**	**14.04**	**10.43**	**6.40**	**0.06**	**11/1/99**	**290,981,218**	**3.0**	**4.3**
MSCI ACWI ex-U.S. IMI Index[18]	3.60	12.71	17.88	17.83	13.92	10.20	6.14					
Global Real Estate Fund[19]	**1.12**	**4.64**	**6.73**	**12.30**	**4.57**	**6.06**	**4.10**	**0.08**	**10/1/02**	**99,628,023**	**1.0**	**2.6**
FTSE EPRA/NAREIT Developed Index	0.88	4.41	6.07	11.18	3.52	5.10	3.17					
VRSIP[20]	**1.83**	**1.64**	**3.54**	**8.25**	**6.85**	**9.83**	**7.79**	**0.62**	**7/1/08**	**71,319,713[23]**	**0.7**	**0.4**
VRS Custom Benchmark[21]	1.81	1.37	3.65	10.01	7.46	8.72	7.06					
VRSIP and benchmark returns are reported with a one month lag. [Return information shown is as of May 31, 2025.] [Market value as of May 31, 2025 was $69,153,351.]												
Do-It-Myself: Self-Directed Brokerage Account												
Schwab PCRA	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**161,136,679**	**1.7**	**0.2**
Total										**$9,663,820,364[24]**		

Footnotes >

1 If the fund was not in existence for 10 years, fund and corresponding benchmark returns shown represent performance from the since inception date.

2 Fund investment advisers may voluntarily agree to waive expenses. Expense waivers may be terminated at any time.

3 Effective February 2023, the Target Date Portfolios invest in units of BlackRock's LifePath Index Funds N. The LifePath Index Funds N invest in the master Lifepath Index Funds F. The inception dates shown reflect that of the master LifePath Index Funds F. Prior to February 2023, the Target Date Portfolios invested in BlackRock's LifePath Index Funds O which also invested in the master LifePath Index Funds F. All performance returns are linked.

4 Custom Benchmarks are calculated using blended returns of third-party indices that proportionately reflect the respective weightings of the Portfolios' asset classes. Weightings are adjusted quarterly to reflect the Portfolios' asset allocation shifts over time. As the Funds asset classes have been re-defined or added over time, the indices used to calculate the benchmarks have changed accordingly. As of January 1, 2025, the indices used to calculate the Custom Benchmarks are: Russell 1000 Index, Russell 2000 Index, MSCI ACWI Ex-U.S. IMI Net Dividend Return Index, Bloomberg U.S. Long Credit Bond Index, Bloomberg U.S. Intermediate Credit Bond Index, Bloomberg U.S. Long Government Bond Index, Bloomberg U.S. Intermediate Government Bond Index, Bloomberg U.S. Securitized: MBS, ABS, and CMBS Index, Bloomberg 0-5 TIPS Index, FTSE NAREIT All Equity REITS, FTSE Global Core Infrastructure 50/50, and the Bloomberg Enhanced Roll Yield Index.

5 The Money Market Fund invests in units of BlackRock's Short-Term Investment Fund W. The inception data shown reflects the VRS Defined Contribution Plan's investment strategy inception date. Returns of the Fund from July 2012 through July 2016 represent performance of other BlackRock funds. Performance returns are linked.

6 An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the Fund seeks to preserve the value of your investment it is possible to lose money by investing in the Fund.

7 The current yield more closely reflects the earnings of the Fund than the total net return information. There is no guarantee that the Fund will earn the current yield in the future.

8 The inception date shown reflects the VRS Defined Contribution Plans investment strategy inception date.

9 Direct transfers from the Stable Value Fund to the Money Market Fund (considered a "competing fund") are not permitted. Before transferring to the Money Market Fund, participants must first transfer to a "non-competing" fund for 90 days. Optional Retirement Plan for Higher Education (ORPHE) participants who want to make a direct exchange to another ORPHE provider, must first exchange to a "non-competing" fund on the Voya Financial investment platform for 90 days.

10 Effective August 2016, the benchmark represents a hypothetical return generated by the monthly yields of actively traded U.S. Treasuries based on [50% 2- year maturity + 50% 3- year maturity] plus an annualized spread of 0.25% and is representative of the Fund's expected return profile, given how the Fund is managed and book value accounting treatment. Prior to August 2016 the custom benchmark was based on the monthly yield of actively traded U.S Treasuries with a 3-year maturity plus an annualized spread of 0.50%. The benchmark returns are linked.

11 The current yield more closely reflects the earnings of the Fund than the total net return information. There is no guarantee that the Fund will earn the current yield in the future.

12 The Bond Fund invests in units of BlackRock's U.S. Debt Index Fund M. The U.S. Debt Index Fund M invests in the master Fund F. The inception date shown reflects the VRS Defined Contribution Plans strategy inception date.

13 The Inflation-Protected Bond Fund invests in units of BlackRock's U.S. Treasury-Inflation Protected Securities Fund M. The U.S. Treasury Inflation-Protected Securities Fund M invests in the master Fund F. The inception date shown reflects the inception date of the master Fund F.

14 The High-Yield Bond Fund invests in units of JPMorgan's Corporate High-Yield Fund-Investment Class. The inception date shown reflects the date the current investment team at JPMorgan commenced management responsibility of the Fund.

15 The Stock Fund invests in units of BlackRock's Equity Index Fund F. Performance represents BlackRock's returns for the master Fund F with deductions taken for management fees negotiated by VRS and fund administrative expenses. The inception date shown reflects the VRS Defined Contribution Plans investment strategy inception date.

16 The Small/Mid-Cap Stock Fund invests in units of BlackRock's Russell 2500 Index Fund F. Performance represents BlackRock's returns for the master Fund F with deductions taken for investment management fees negotiated by VRS and fund administrative expenses. The inception date shown reflects the VRS Defined Contribution Plans investment strategy date.

17 The International Stock Fund invests in units of BlackRock's MSCI ACWI ex-U.S. IMI Index Fund F. Performance represents BlackRock's returns for the master Fund F with deductions taken for investment management fees negotiated by VRS and fund administrative expenses. The inception date shown reflects the VRS Defined Contribution Plan's investment strategy inception date. Returns from July 2012 through July 2016 represent performance of another BlackRock Fund. Performance returns are linked.

18 Effective August 2016, the performance benchmark is the MSCI ACWI ex.-U.S. IMI Index. It was the MSCI World ex-U.S Index from July 2012 through July 2016. The benchmark returns are linked.

19 The Global Real Estate Fund invests in units of BlackRock's Developed Real Estate Index Fund F. Performance represents BlackRock's returns for the master Fund F with deductions taken for investment management fees negotiated by VRS and fund administrative expenses. The inception date shown reflects the VRS Defined Contribution Plans investment strategy inception date.

20 The inception date shown reflects the date the VRS Investment Portfolio (VRSIP) was unitized.

21 The VRS Custom Benchmark is a blend of the asset class benchmarks at policy weights.

22 Includes Pending Account VRSIP amount of $0.02

23 Includes Preliminary Investment Portfolio Account - PIP amount of $615,114.

24 Includes $9,849,237 held in the administrative Special Accounts.

25 May not equal 100% due to rounding.

26 The data reflects the percentage of participants who selected a particular investment option as of June 30, 2025. There were 657,456 participant accounts as of June 30, 2025 across all unbundled DC plans.

All fund performance returns shown reflect all fund management fees and expenses, but do not reflect the Plan administrative fee charged by Voya Financial which would further reduce the returns shown.
All calculations assume reinvestment of dividends and capital gains. All returns are calculated in U.S. dollars. Performance returns are provided by BlackRock, Galliard Capital Management, JPMorgan, Bank of New York Mellon, and Voya Financial. Benchmark returns are provided by BlackRock, Russell/Mellon Analytical Services, Galliard, and Voya Financial. Although data is gathered from sources believed to be reliable, we cannot guarantee completeness or accuracy.
Plan Administrative Fee: An annual record keeping and communication services fee of $35.50 is deducted from participant accounts on a monthly basis (approximately $2.96 per month). Only one annual fee of $35.50 is deducted from participant accounts for those participants participating in more than one Commonwealth of Virginia defined contribution plan.

Excess over benchmark return by 10 bps or more for index funds and capital preservation funds. Reasonable expectations due to impact of typical sources of tracking including fair value pricing for index funds and the interest rate environment for capital preservation funds.

Below benchmark return by 10 bps or more for index funds and capital preservation funds. Reasonable expectations due to impact of typical sources of tracking including fair value pricing for index funds and the nature of book value accounting treatment for stable value funds as it relates to interest rates.

Excess performance for an actively managed fund.

Underperformance for an actively managed fund.

TIAA ORPHE

Bundled ORP for Higher Education - TIAA RC Contract[1,2]

Data for period ending June 30, 2025

Fund	Type	Fund Expense Ratio	Returns: 1 Year	Returns: 3 Years*	Returns: 5 Years*	3 Year Statistics: Standard Deviation (%)	3 Year Statistics: Sharpe Ratio	3 Year Statistics: Tracking Error	3 Year Statistics: Information Ratio	5 Year Statistics: Standard Deviation (%)	5 Year Statistics: Sharpe Ratio	5 Year Statistics: Tracking Error	5 Year Statistics: Information Ratio
		%	%	%	%	%		%		%		%	
BlackRock Equity Index Fund J	Passive	0.01	**15.15**	**19.70**	**16.64**	15.80	0.95	0.01	n/a	16.30	0.84	0.02	n/a
S&P 500 Index			15.16	19.71	16.64	15.80	0.95			16.30	0.84		
Excess Return			-0.01	-0.01	0.00								
MSTAR Ave: Large Blend			*13.43*	*17.05*	*14.62*								
BlackRock Russell 2500 Index Fund J	Passive	0.02	**9.98**	**11.41**	**11.53**	20.90	0.32	0.04	n/a	20.14	0.43	0.05	n/a
Russell 2500 Index			9.91	11.31	11.44	20.91	0.31			20.13	0.43		
Excess Return			0.07	0.10	0.09								
MSTAR Ave: Mid-Cap Blend			*10.84*	*12.69*	*13.05*								
BlackRock MSCI ACWI ex-U.S. IMI Index Fund M	Passive	0.07	**18.38**	**14.00**	**10.39**	15.76	0.59	2.14	n/a	15.69	0.48	1.83	n/a
MSCI ACWI ex-U.S. IMI Index			17.83	13.92	10.20	14.93	0.61			15.24	0.48		
Excess Return			0.55	0.08	0.19								
MSTAR Ave: Foreign Large Blend			*18.10*	*14.72*	*10.37*								
BlackRock MSCI ACWI IMI Index Non-Lendable Fund M	Passive	0.05	**16.34**	**17.06**	**13.66**	15.22	0.81	0.80	n/a	15.65	0.69	0.71	n/a
MSCI ACWI IMI Index			15.89	16.80	13.39	14.93	0.81			15.51	0.68		
Excess Return			0.45	0.26	0.27								
MSTAR Ave: Global Large Stock Blend			14.25	*14.44*	*11.73*								
TIAA Real Estate Account	Active	0.90	2.07	-6.28	1.57	4.37	-2.44	2.95	-1.15	6.70	-0.20	3.20	-0.56
Custom Benchmark[3]			3.71	-2.88	3.38	2.84	-2.59			5.25	0.08		
Excess Return			-1.64	*-3.40*	*-1.81*								

*Annualized.

[1] Refer to the unbunded DC plans for information regarding BlackRock's LifePath Index Funds N, Short-Term Investment Fund W, U.S. Debt Index Fund M and U.S. TIPs Fund M. Although the unbundled DC plans use white lable fund names and TIAA does not these funds are the same exact funds.

[2] The TIAA Traditional Annuity is not included in this exercise due to the fact there is no performance benchmark associated with TIAA's fixed annuity product offering.

[3] Effective January 2014, the Custom Benchmark is 70% NCREIF Open End Diversified Core Equity (ODCE) Net Index, 20% Bloomberg 3-Month Treasury Bill Index and 10% Dow Jones U.S. Select REIT Index.TIAA's investment management team does not manage its real estate account to a published index benchmark. The Custom Benchmark represents a reasonable proxy of how TIAA allocates among real property, short-term investments and REITS over time. VRS anticipates that the TIAA Real Estate Account's returns may vary greatly from those of the custom benchmark.

Excess over benchmark return by 10 bps or more for index funds. Reasonable expectations due to impact of typical sources of tracking including fair value pricing.

Below benchmark return by 10 bps or more for index funds Reasonable expectations due to impact of typical sources of tracking including fair value pricing.

Underperformance for an actively managed fund.

Data provided by TIAA, BlackRock, VRS and eVestment.

Bundled ORP for Higher Education - TIAA RC Contract Fund Annual Operating Expenses[1,2,3]
Information as of June 30, 2025

Investment Option	Investment Manager	Type	Investment Management Costs	Record-Keeping & Plan Administration Costs	[12(b)-1] Distribution Costs	Other Costs	Total Annual Expense Ratio	Expense Ratio YOY Change
TIAA Real Estate Account	TIAA	Active (variable annuity)	0.305000%	0.270000%	0.040000%	0.280000%	**0.90%**	-0.12%
BlackRock Equity Index Fund J	BlackRock	Passive	0.010000%	n/a	n/a	0.001000%	**0.01%**	0.00%
BlackRock Russell 2500 Index Fund J	BlackRock	Passive	0.012500%	n/a	n/a	0.010000%	**0.02%**	0.00%
BlackRock MSCI ACWI ex-U.S. IMI Index Fund M	BlackRock	Passive	0.050000%	n/a	n/a	0.020000%	**0.07%**	-0.03%
BlackRock MSCI ACWI IMI Index Non-Lendable Fund M	BlackRock	Passive	0.035000%	n/a	n/a	0.010000%	**0.05%**	0.00%

[1] There are no short-term trading redemption costs associated with any of the investment options.

[2] Refer to the unbunded DC plans for information regarding BlackRock's LifePath Index Funds N, Short-Term Investment Fund W, U.S. Debt Index Fund M and U.S. TIPs Fund M. The unbundled DC plans use white label fund names for the aforementioned funds. However, TIAA does not have the capability to use white label fund names.

[3] Effective July 2022, TIAA no longer provides an estimated expense ratio for its TIAA Traditional Annuity product.

Bundled ORP for Higher Education - TIAA RC Contract [1]
Annual Calendar Year End Return Data

Fund	2024	2023	2022	2021	2020
	%	%	%	%	%
TIAA Traditional Annuity RC	**4.66**	**4.79**	**4.17**	**3.55**	**4.00**
TIAA Real Estate Account	**-4.12**	**-13.62**	**8.19**	**17.87**	**-0.84**
Custom Index	0.33	-6.72	2.09	18.86	-0.39
BlackRock Equity Index Fund J	**25.02**	**26.29**	**-18.11**	**28.72**	**18.47**
S&P 500 Index	25.02	26.29	-18.11	28.71	18.40
MSTAR Ave: Large Blend	20.70	22.14	-16.96	26.07	15.83
BlackRock Russell 2500 Index Fund J[2]	**12.09**	**17.61**	**-18.35**	**18.22**	**20.01**
Russell 2500 Index	12.00	17.42	-18.37	18.18	19.99
MSTAR Ave: Mid-Cap Blend	14.25	15.91	-14.01	23.40	12.39
BlackRock MSCI ACWI ex-U.S. IMI Index Fund M	**5.09**	**15.47**	**-16.31**	**8.57**	**11.39**
MSCI ACWI ex-U.S. IMI Index	5.23	15.62	-16.58	8.53	11.12
MSTAR Ave: Foreign Large Blend	4.78	16.31	-15.84	9.72	9.30
BlackRock MSCI ACWI IMI Index Non-Lendable Fund M	**16.54**	**21.72**	**-18.05**	**18.27**	**16.50**
MSCI ACWI IMI Index	16.37	21.58	-18.40	18.22	16.25
MSTAR Ave: Global Large Stock Blend	12.41	17.81	-16.67	17.72	12.96

Data provided by TIAA, BlackRock and Morningstar.

[1] Refer to the unbundled DC plans for information regarding BlackRock's LifePath Index Funds N, Short-Term Investment Fund W, U.S. Debt Index Fund M and U.S. TIPS Fund M. Although the unbundled DC plans use white label names and TIAA does not, these are the exact same funds
[2] Prior to June 1, 2023 the fund invested in the M share class.

Defined Contribution Plans Advisory Committee Report
TIAA RC Contract Investment Performance

Below are the totals for the period ending June 30, 2025. Returns greater than one year are annualized.

Investment Options	1 Month	3 Months	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs / Since Inception[1]	Fund Expense Ratio[2]	Inception Date	Market Value	% of Market Value[19]	% of Participants Selecting an Option[20]
Target Date Portfolios [3,4]	%	%	%	%	%	%	%	%		$	%	%
BlackRock LifePath Index Retirement Fund N	**2.56**	**4.59**	**6.20**	**9.85**	**7.74**	**5.05**	**5.15**	**0.06**	**8/1/05**	**46,382,322**	**8.7**	**12.0**
Custom Benchmark	2.52	4.62	6.12	9.82	7.75	5.05	5.12					
BlackRock LifePath Index 2030 Fund N	**2.96**	**5.92**	**6.96**	**11.16**	**10.01**	**7.73**	**6.86**	**0.06**	**8/1/05**	**42,056,824**	**7.9**	**8.7**
Custom Benchmark	2.90	5.94	6.86	11.09	10.02	7.71	6.79					
BlackRock LifePath Index 2035 Fund N	**3.37**	**7.21**	**7.66**	**12.37**	**11.73**	**9.37**	**7.78**	**0.06**	**7/5/06**	**35,352,002**	**6.6**	**8.8**
Custom Benchmark	3.29	7.24	7.52	12.26	11.72	9.33	7.68					
BlackRock LifePath Index 2040 Fund N	**3.70**	**8.28**	**8.27**	**13.49**	**13.40**	**10.90**	**8.60**	**0.06**	**8/1/05**	**41,651,565**	**7.8**	**9.5**
Custom Benchmark	3.61	8.33	8.10	13.36	13.37	10.83	8.48					
BlackRock LifePath Index 2045 Fund N	**4.06**	**9.39**	**8.84**	**14.55**	**14.95**	**12.22**	**9.28**	**0.06**	**7/5/06**	**37,963,138**	**7.1**	**10.6**
Custom Benchmark	3.96	9.46	8.63	14.42	14.92	12.13	9.14					
BlackRock LifePath Index 2050 Fund N	**4.40**	**10.51**	**9.45**	**15.60**	**16.10**	**13.08**	**9.70**	**0.06**	**9/30/07**	**25,138,373**	**4.7**	**8.9**
Custom Benchmark	4.29	10.57	9.19	15.47	16.06	12.98	9.56					
BlackRock LifePath Index 2055 Fund N	**4.54**	**11.05**	**9.76**	**16.14**	**16.56**	**13.36**	**9.84**	**0.06**	**5/19/10**	**15,460,107**	**2.9**	**8.1**
Custom Benchmark	4.43	11.12	9.50	16.01	16.53	13.28	9.70					
BlackRock LifePath Index 2060 Fund N	**4.56**	**11.13**	**9.81**	**16.20**	**16.59**	**13.37**	**9.84**	**0.06**	**11/17/14**	**4,884,811**	**0.9**	**4.6**
Custom Benchmark	4.45	11.21	9.55	16.10	16.57	13.30	9.71					
BlackRock LifePath Index 2065 Fund N	**4.56**	**11.12**	**9.80**	**16.22**	**16.61**	**13.36**	**11.50**	**0.06**	**9/23/19**	**9,705,185**	**1.8**	**3.2**
Custom Benchmark	4.45	11.21	9.55	16.10	16.57	13.29	11.45					
BlackRock LifePath Index 2070 Fund N	**4.56**	**11.12**	**9.80**	**n/a**	**n/a**	**n/a**	**8.51**	**0.06**	**9/27/24**	**913,422**	**0.2**	**0.1**
Custom Benchmark	4.45	11.21	9.55	n/a	n/a	n/a	8.07					
Individual Options												
BlackRock Short-Term Investment Fund W [5]	**0.37**	**1.14**	**2.28**	**4.98**	**4.93**	**3.04**	**2.22**	**0.08**	**7/1/03**	**9,151,466**	**1.7**	**7.0**
FTSE 3 Month Treasury Bill Index	0.36	1.09	2.21	4.88	4.75	2.88	2.01					
Yield as of 06/30/25: 4.55%[6]												
BlackRock U.S. Debt Index Fund M [7]	**1.54**	**1.21**	**4.02**	**6.09**	**2.58**	**-0.69**	**1.80**	**0.03**	**6/6/96**	**12,744,707**	**2.4**	**15.3**
Bloomberg U.S. Aggregate Bond Index	1.54	1.21	4.02	6.08	2.55	-0.73	1.76					
BlackRock U.S. TIPS Fund M [8]	**0.96**	**0.49**	**4.72**	**5.89**	**2.40**	**1.66**	**2.76**	**0.03**	**7/30/02**	**6,891,103**	**1.3**	**10.9**
Bloomberg U.S. TIPS Index	0.95	0.48	4.67	5.84	2.34	1.61	2.67					
BlackRock Equity Index Fund J [9]	**5.09**	**10.94**	**6.19**	**15.15**	**19.70**	**16.64**	**13.67**	**0.01**	**3/5/97**	**72,144,031**	**13.6**	**23.3**
S&P 500 Index	5.09	10.94	6.20	15.16	19.71	16.64	13.65					
BlackRock Russell 2500 Index Fund J [10]	**4.59**	**8.56**	**0.45**	**9.98**	**11.41**	**11.53**	**8.48**	**0.02**	**9/30/08**	**10,256,316**	**1.9**	**4.7**
Russell 2500 Index	4.61	8.59	0.44	9.91	11.31	11.44	8.39					
BlackRock MSCI ACWI ex-U.S. IMI Index Fund M [11]	**3.91**	**12.50**	**18.72**	**18.38**	**14.00**	**10.39**	**6.39**	**0.07**	**2/28/11**	**20,827,506**	**3.9**	**15.0**
MSCI ACWI ex-U.S. IMI Index	3.60	12.71	17.88	17.83	13.92	10.20	6.18					
BlackRock MSCI ACWI IMI Index Non-Lendable Fund M [12]	**4.64**	**11.56**	**10.22**	**16.34**	**17.06**	**13.66**	**10.03**	**0.05**	**4/12/13**	**74,193,201**	**14.0**	**26.7**
MSCI ACWI IMI Index	4.53	11.62	9.82	15.89	16.80	13.39	9.69					
TIAA Real Estate Account [13]		**0.82**	**1.81**	**2.07**	**-6.28**	**1.57**	**2.98**	**0.90**	**10/2/95**	**13,001,078**	**2.4**	**22.8**
Custom Composite Benchmark [14]	0.16	0.61	1.55	3.71	-2.88	3.38	4.21					
TIAA Traditional Annuity RC [15,16,17,18]	**0.36**	**1.09**	**2.21**	**4.56**	**4.62**	**4.28**	**4.21**	**---[21]**	**8/1/05**	**44,207,979**	**8.3**	**25.3**
Self-Directed Brokerage Account												
TIAA - Self-Directed Account	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**9,096,127**	**1.7**	**0.9**
Total										**$532,021,263**		

Footnotes >

1 If the fund was not in existence for 10 years, fund and corresponding benchmark returns shown represent performance from the since inception date.

2 Fund investment advisers may voluntarily agree to waive expenses. Expense waivers may be terminated at any time.

3 The BlackRock LifePath Index Funds N invest in the master LifePath Index Funds F. The inception dates shown reflect the inception date of the master LifePath Funds F. The inception dates for most LifePath Funds N were 8/15/17. The 2065 Fund's N inception date was 11/15/19, and the 2070 inception date was 09/27/2024. Returns prior to Funds' N inception dates are those of Funds F with deductions taken for Funds N investment management fees.

4 Custom Benchmarks are calculated using blended returns of third-party indices that proportionately reflect the respective weightings of the Portfolios' asset classes. Weightings are adjusted quarterly to reflect the Portfolios' asset allocation shifts over time. As the Funds asset classes have been re-defined or added over time, the indices used to calculate the benchmarks have changed accordingly. As of January 1, 2025, the indices used to calculate the Custom Benchmarks are: Russell 1000 Index, Russell 2000 Index, MSCI ACWI Ex-U.S. IMI Net Dividend Return Index, Bloomberg U.S. Long Credit Bond Index, Bloomberg U.S. Intermediate Credit Bond Index, Bloomberg U.S. Long Government Bond Index, Bloomberg U.S. Intermediate Government Bond Index, Bloomberg U.S. Securitized: MBS, ABS, and CMBS Index, Bloomberg 0-5 TIPS Index, FTSE NAREIT All Equity REITS, FTSE Global Core Infrastructure 50/50, and the Bloomberg Enhanced Roll Yield Index.

5 An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the Fund seeks to preserve the value of your investment it is possible to lose money by investing in the Fund.

6 The current yield more closely reflects the earnings of the Fund than the total net return information.

7 The BlackRock U.S. Debt Fund M invests in the master Fund F. The inception date shown reflects the inception of the master Fund F. The inception date of Fund M was 7/20/12. Returns prior to Fund M's inception date are those of Fund F with deductions taken for Fund M's investment management fees.

8 The BlackRock U.S. Treasury Inflation-Protected Securities Fund M invests in the master Fund F. The inception date shown reflects the inception of the master Fund F. The inception date of Fund M was 7/20/12. Returns prior to Fund M's inception date are those of Fund F with deductions taken for Fund M' investment management fees.

9 The BlackRock Equity Index Fund J invests in the master Fund F. The inception date shown reflects the inception of the master Fund F. The inception date of Fund J was 3/20/17. Returns prior to Fund J's inception date are those of Fund F with deductions taken for Fund J's investment management fees.

10 The BlackRock Russell 2500 Fund J invests in the master Fund F.The inception date shown reflects the inception of the master Fund F. The inception date of Fund J was 10/15/21. Returns prior to Fund J's inception date are those of Fund F with deductions taken for Fund J's investment management fees.

11 The BlackRock MSCI ACWI ex-U.S. IMI Index Fund M invests in the master Fund F.The inception date shown reflects the inception of the master Fund F. The inception date of Fund M was 12/31/12. Returns prior to Fund M's inception date are those of Fund F with deductions taken for Fund M's investment management fees.

12 The BlackRock MSCI ACWI IMI Index Non-Lendable Fund M invests in the master Fund F. Inception dates for the master Fund F and Fund M are both 4/12/13.

13 Transfers out of the TIAA Real Estate Account (REA) are limited to one per quarter. Currently, these transfers do require a minimum transaction of at least $1000 (except for systematic transfers, which must be at least $100), or entire accumulation if less; however, this minimum may be reduced or elimanted in the future. Individual contract owners are limited from making transfers from making transfers into their account accumulation if, after giving effect to such transfer, the total value of such contract owner's Account accumulation (under all contracts issued to such contract owner) would exceed $150,000.

14 Effective January 2014, the Custom Composite Index is 70% NCREIF Open End Diversified Core Equity (ODCE) Net Index, 20% Bloomberg 3-Month Treasury Bill Index, and 10% Dow Jones U.S. Select REIT Index. Prior periods include other representative indices. TIAA's investment management team does not manage its real estate portfolio to a specific published index benchmark. The Custom Composite Index represents a reasonable proxy of how TIAA allocates assets among real property, short-term investments, and REITs over time. The Virginia Retirement System anticipates that Fund returns may vary greatly from those of the Custom Composite Index. Benchmark returns are not available for months that do not end on a calendar quarter due to the fact that NCREIF ODCE Index returns are only published each calendar quarter.

15 Upon separation from service or retirement participants can convert their TIAA Traditional accumulation dollars amount to a lifetime income option or withdraw funds through a fixed period annuity ranging from five to 30 years or a Transfer Payout Annuity, which enables participants to move funds out of the TIAA Traditional Annuity in 7 annual installments for the Retirement Choice (RC) contract.
Each installment includes a portion of principal and interest, based on the rate in effect when transfer or withdrawal funds are made. However, there are two exceptions to the payout installment. First, if the TIAA Traditional account balance is less than $5,000, participants can transfer the total amount at any time following termination of employment, but only once during the life of the contract. Second, TIAA Traditional can be withdrawn or transferred to another company up to the full balance within 120 days following termination of employment, subject to 2.5% surrender charge. After the 120-day period, participants can withdraw funds only through a fixed period annuity ranging from five to 30 years or the Transfer Payout Annuity.

16 The TIAA Traditional Annuity RC contract has minimum guaranteed rate during the accumulation phase of 1% to 3% . The current minimum rate for the RC contract is 3%. Further, the TIAA Traditional Annuity RC contract applies to premiums deposited during the applicable calendar year and is guaranteed for 10 years, at which point the minimum rate for these premiums will be reset.

17 TIAA's annual credited rate on new money for the RC contract for the month of June was 5.50%.

18 The TIAA Traditional Annuity is not an investment for purposes of federal securities laws; it is a guaranteed insurance contract. Therefore, unlike a variable annuity or mutual fund, the TIAA Traditional Annuity does not include an identifiable expense ratio. Each premium allocated to the TIAA Traditional Annuity buys a definite amount of lifetime income for participants based on the rate schedule in effect at the time the premium is paid. In addtion, the TIAA Traditional Annuity provides a guarantee of principle, a guaranteed minimum rate of interest and the potential for additional amounts of interest when declared by TIAA's Board of Trustees. Additional amounts, when declared, remain in effect for the "declaration year" that begins each March for the accumulating annuites and January for lifetime payout annuities. Additional amounts are not guaranteed for future years.

19 May not equal 100% due to rounding

20 The data reflects the percentage of participants who selected a particular investment option as of June 30, 2025. There were 5,798 (RC contract) participants as of June 30, 2025.

21 Effective July 2022,TIAA no longer provides an estimated expense ratio for its TIAA Traditional Annuity product.

Performance returns shown reflect all fund management fees and other investment related expenses, but do not reflect the TIAA annual administrative fee of $28 (deducted at $7.00 per quarter) which would further reduce the returns shown. Performance returns do not reflect redemption fees and/or surrender charges, if applicable.

All calculations assume reinvestment of dividends and capital gains. All returns are calculated in U.S dollars. Fund and benchmark returns are provided by TIAA and BlackRock. Although data is gathered from sources to be reliable, the Virginia Retirement System cannot guarantee completeness or accuracy.

Excess over benchmark return by 10 bps or more for index funds and capital preservation funds. Reasonable expectations due to impact of typical sources of tracking including fair value pricing for index funds and the interest rate environment for capital preservation funds.

Underperformance for an actively managed fund.

DC Investment Belief Statements

VRS Defined Contribution Plans Investment Belief Statements

Virginia Retirement System®

APPROVED BY THE BOARD OF TRUSTEES: SEPTEMBER 21, 2021

I. Introduction

The Virginia Retirement System (VRS) fulfills the fiduciary obligations outlined in the *Code of Virginia,* which require the VRS Board of Trustees (Board) to discharge its duties with respect to the defined contribution (DC) plans solely in the interest of the beneficiaries thereof and affords the Board the opportunity to contract with private corporations or institutions subject to the standards set forth in § 51.1-124.30 to provide investment products and services. The Board, therefore, developed these Defined Contribution Plans Investment Beliefs to guide the strategic management of the VRS DC Plans investment program. These statements represent a high-level framework for making decisions that require balancing multiple, often competing, factors and issues. In addition, the Defined Contribution Plans Investment Beliefs provide context for VRS actions and reflect VRS values, with a focus on maintaining the long-term commitment to provide benefits to participants.

II. VRS DC Investment Belief Statements

The Board developed the following Defined Contribution Plans Investment Belief Statements to guide decisions and provide an anchor to the stated goals and objectives.

Goals and Objectives

A defined contribution plan provides participants an individual account to exercise discretion over their retirement assets using investment options selected by VRS or selected by the participant through the brokerage window. Each participant has an individual risk tolerance, time horizon and investment objectives.

1. The primary objective of the VRS DC Plans is to provide participants with an array of investment choices across a range of asset classes, risk levels and investment strategies so participants have the opportunity to develop a retirement income stream that complements the VRS Defined Benefit (DB) Plan or other retirement income.

2. Given the vital role of the DC Plans in VRS' primary retirement plan offerings, appropriate governance of the DC Plans is critical.

    a. The VRS Board of Trustees has overall fiduciary authority over the DC investment program. To assist the Board in fulfilling its duty the Board has appointed a Defined Contribution Plans Advisory Committee to provide the Board with objective DC plan design and investment advice.

(Continued)

- **b.** Governing documents such as the Charter for the DC Plans Advisory Committee, DC Investment Policy Statements, Master Trusts and Plan Documents delineate various roles and responsibilities of the Board, the Committee, VRS staff and other interested parties.

3. VRS is responsible for offering a reasonable range of diversified portfolios to serve as the Plans' default investment option and for participants who do not have the time, desire, or expertise to design and manage a diversified portfolio.

4. To the extent possible, VRS will explore and implement capabilities, controls and procedures that are transferrable from VRS' DB plan activities to VRS' DC plans activities, particularly with respect to investments.

- **a.** Well-structured alternative investments can enhance an individual participant's portfolio risk/reward profile. VRS will examine methods for providing qualifying alternative investment options into its menu of pre-mixed diversified investment options, where feasible.

5. VRS will monitor and evaluate DC plans industry best practices and incorporate them where feasible to seek to enhance plan outcomes as demonstrated by qualitative and quantitative measures.

6. Controlling and managing costs is critical to a successful DC plan investment program.

- **a.** Investment options should provide competitive net-of-cost risk adjusted returns.
- **b.** The DC Plans' costs should be transparent to the individual participant.
- **c.** Given VRS' large-scale presence in the institutional marketplace, it is beneficial for the individual participant to access VRS' expertise and capabilities.
- **d.** Unbundling of DC administration and investment activities should lead to improved cost management.

7. Investment offerings should present wide-ranging options to accommodate participants' varying investment knowledge and/or interest in managing their investments while addressing the differences among participants at varying career stages.

- **a.** Individuals should be educated to recognize that their specific investment plans require a long-term, multi-decade planning/investment horizon.
- **b.** Investment horizons are unique to the individual participant and may extend beyond the accumulation phase into the retirement (decumulation) phase.

(Continued)

   c. In keeping with industry best practice, the administrative and investment aspects of the individual's overall investment plan should be unbundled/disaggregated to allow for maximum design flexibility.

   d. VRS should continue efforts to contact eligible employees who are not participating in the VRS DC plans to build awareness of plan benefits.

8. The self-directed brokerage window that VRS provides in the VRS DC Plans can serve as an effective investment tool for individual participants.

9. VRS should continue to explore viable solutions to assist participants in managing the critically important task of decumulation of retirement assets.

10. Participant investment education is a valuable resource to participants and can enhance a successful program.

   a. Participant investment education should cover certain key topics consistent with industry best practices including:

      i. Identifying principal retirement planning risks (see Belief Statement 11).

      ii. Understanding the accumulation phase versus the decumulation phase.

      iii. Analyzing the costs associated with various investment options.

      iv. Considering the impact of non-plan (outside) assets.

      v. Considering other potential sources of retirement income.

   b. VRS should also consider making various investment advice and financial planning solutions/ products available to participants.

11. VRS should seek to inform DC plan participants about fundamental retirement planning risks.

   a. *Shortfall risk* – The probability or potential that an individual may not meet his/her long-term retirement savings goal.

   b. *Longevity risk* – The potential that an individual may outlive his/her retirement assets.

   c. *Drawdown risk* – The impact that short-term declines in a portfolio can have on long-term values.

Unbundled DC Plan Structure
Investment Policy Statement

Virginia Retirement System®

VRS Investment Policy Statement
for an Unbundled Defined Contribution Plan Structure

APPROVED BY THE BOARD OF TRUSTEES:
EFFECTIVE JANUARY 2, 2020*

The Virginia Retirement System (VRS) sponsors several primary and supplemental defined contribution (DC) plans. Most plans operate fully under an unbundled (open architecture) approach whereby the investment function is contracted separately from the recordkeeping, enrollment and marketing functions. The purposes of the plans are set forth in the Plan Documents and Master Trusts, which are accessible on the VRS website at varetire.org.

This Investment Policy Statement has been adopted by the VRS Board of Trustees (Board) to provide guidelines for the investment offerings under an unbundled plan construct. Plans using an unbundled structure approach include the Deferred Compensation Plan of the Commonwealth of Virginia, the Virginia Cash Match Plan, the Optional Retirement Plan of the Commonwealth of Virginia for Political Appointees, the Optional Retirement Plan of the Commonwealth of Virginia for Public School Superintendents, the Virginia Supplemental Retirement Plan, the defined contribution component of the Hybrid Retirement Plan and the Optional Retirement Plan of the Commonwealth of Virginia for Employees of Institutions of Higher Education.

1. Investment Objectives

In a defined contribution investment program, each participant has his or her own risk tolerance, time horizon and investment objectives. Participants are responsible for their own investment decisions. To help meet these varying needs, the VRS unbundled DC plans seek to provide participants with an array of investment choices across a range of asset classes, risk levels, and investment strategies so they can construct and/or invest in portfolios that address their individual needs, and do so using investment vehicles and structures that provide competitive risk-adjusted returns at a reasonable cost.

The Board recognizes that DC plan participants have varying levels of investment knowledge and/or interest in actively managing their investments. The following organizational framework has been designed to categorize the types of investment options available to VRS unbundled DC plan participants:

- *Do-It-For-Me Investors:* These investors may have limited investment knowledge, confidence, or interest in managing their investments. For whatever reason, they prefer a pre-packaged, diversified investment option that has been designed to reasonably fit most people of their ages and retirement planning horizons. To meet this need, a series of Target Date Portfolios is made available whose investment policy, glide paths, and investment strategies are expected to meet the general needs of the average DC plan participant, based on a periodic analysis of the demographic characteristics of participants and the long-term investment opportunity set.

(Continued)

** Originally adopted February 16, 2012. Amended November 14, 2013, February 9, 2017, and January 2, 2020.*

- *Help-Me-Do-It Investors:* These investors have some knowledge of investments and want to be more involved in structuring their portfolios, but they would like the ability to pick from a menu of fund options that have been screened by VRS and for which investment fees and expenses have been negotiated to institutional price levels through VRS bargaining power. To meet this need, a menu of Core Investment Options is made available, each targeted to a different asset class or strategy. The core fund lineup will generally consist of funds representing the constituent asset classes included in the target date portfolios, but there may be funds included in the core lineup that are not included in the target date portfolios, and vice versa.
- *Do-It-Myself Investors:* Some investors are very knowledgeable and/or desire to take a very active approach to their investments, and therefore may desire investment alternatives in addition to those offered as part of the Target Date Portfolios or Core Investment Options. To meet this need, a self-directed brokerage account (SDBA) is made available to self-designated knowledgeable investors who are willing to accept all risks, costs, and operational rules and procedures related to participating in a SDBA.

2. Decision Making

The Board is responsible for the following:

- Selection of the default investment option. (Appendix 1)
- Within Target Date Portfolios, ensuring a robust process is used to establish the glide path's asset allocation and to determine which asset classes and strategies to include. (Appendix 1)
- Within the Core Investment Options, included asset classes. (Appendix 2)
- Whether to offer a Self-Directed Brokerage Account (SDBA). (Appendix 3)
- Whether individual investment advice will be provided and the terms on which it will be available to participants.

Beyond these guidelines, the Board delegates to the Chief Investment Officer (CIO) all other decisions related to VRS unbundled defined contribution investments. Changes that are contemplated are expected to be done with due consideration of administrative needs as to the operations, outreach, and communications, etc. The CIO or a designee will report regularly to the Defined Contribution Plans Advisory Committee (DCPAC) and Board on the status and investment results of the DC investment program. Included in such reporting will be performance benchmarks selected by the CIO to appropriately measure or compare the risk and investment objectives of the various investment options.

In carrying out its fiduciary duty to oversee DC investments, the Board will consider advice and recommendations provided by the DCPAC. The specific duties and responsibilities of the DCPAC are described in the DCPAC Charter.

Additionally, the Board developed a set of twelve Defined Contribution Plans Investment Belief Statements intended to help guide the strategic management of the VRS DC investment program.

(Continued)

3. Plan Level Policies

The CIO has full authority to hire and terminate investment managers and negotiate or renegotiate fees. The CIO shall develop policies and procedures for hiring, monitoring, and terminating investment managers and other investment related service providers. The CIO shall also develop procedures for appropriate mapping of plan assets and/or funds as situations arise. Mapping means the transfer of assets from a discontinued investment option or terminated investment manager to another investment option or investment manager under the DC plans. The CIO works with the Director to coordinate implementation relating to changes to the unbundled DC plans investment program and may consult with the DCPAC as needed.

The CIO is responsible for ensuring that adequate due diligence is being performed in the evaluation of potential and existing investments, and that all investment activity will be in compliance with applicable regulatory requirements.

4. Trading Restrictions and Redemption Fees

The Board and the investment managers may impose restrictions and/or fees that discourage investment trading that could have an adverse impact on the management of a fund, other plan participants, or clients of the fund's management.

5. Best Execution

Generally, all investment transactions executed on behalf of the plans should be made on the basis of best execution. VRS defines best execution as the process and price that results in the best overall performance impact, as judged by the portfolio manager, taking into account current market conditions. VRS will generally discourage the use of soft dollar arrangements, and where such arrangements are utilized, staff will review this usage for reasonableness.

6. Use of Consultants/Service Providers

The CIO has the authority to hire consultants, research providers, and other service providers providing that such expenditures are in alignment with the Board approved operating budget.

7. Code of Ethics

The investment staff will conduct its affairs in a manner that reflects the highest standards of ethical conduct. The staff is expected to comply with the CFA Institute of Code of Ethics and Standards of Professional Conduct.

Target Date Portfolios
As of November 14, 2013
Appendix 1

A series of target date portfolios with investment policy glide paths and investment strategies that are expected to meet the general needs of the average DC plan participant in different age cohorts is offered through the plans. A glide path represents the changes made to the asset allocation mix over time as the target date approaches. There is a higher equity allocation in the longer dated portfolios because of the long-term investment time horizon. Over time, the equity allocation decreases as the investment time horizon decreases.

The Board expects target date portfolios to be broadly diversified. These portfolios may include exposure to various sub-segments of the broad asset classes as well as to alternative asset classes as determined by the target date provider using reasonable optimization techniques to measure the risk/reward trade off. Asset classes used within target date portfolios may include: large cap domestic equity, small/mid cap domestic equity, international equity, emerging market equity and debt, domestic core fixed income, high-yield bonds, inflation-protected securities, international/global fixed income, commodities, real estate and cash. A target date portfolio is not required to include each of these asset classes and may include other asset classes.

The target date portfolios' glide paths shall be based on sound investment theory and investment methodology as well as reasonable capital market assumptions. Plan demographics shall be taken into consideration when developing a custom glide path or selecting an off the shelf provider. Based on work done by a consultant together with VRS staff, advice from the DCPAC, and general investment philosophy of VRS, the Board expects to employ a glide path that is more on the conservative side of the target date portfolios available at the time of the study. The percentage allocation to equities in a more conservative glide path is comparatively lower than that of an aggressive glide path at retirement.

The target date portfolios serve as the unbundled DC plans default investment option.

Asset Classes: Core Funds
As of November 14, 2013
Appendix 2

Core investment options shall represent the broad asset classes available in the capital markets to the extent they are practical and, when prudent, certain sub-asset classes. The core fund lineup will generally consist of funds representing the constituent asset classes included in the target date portfolios, but there may be funds included in the core lineup that are not included in the target date portfolios, and vice versa. From time to time additional asset classes may be added or existing asset classes may be deleted in order to maintain an array of investment options that address participants' changing needs or changes in the investment industry.

The Board delegates to the CIO decisions as to 1) whether a fund investment option shall utilize a passive or active investment strategy or a combination of both; 2) whether a fund should exhibit a large, mid, or small capitalization structure or a combination thereof; 3) whether a fund should exhibit a growth, value, blended style, or targeted volatility orientation; 4) whether a fund should have a single investment manager or use multiple investment managers or firms; and 5) whether a fund invests in a single asset class or more than one asset class.

The following asset class categories are considered for possible inclusion in the plans:

Capital Preservation

- Money Market
- Stable Value

Fixed Income

- Investment grade (short-term, intermediate, long-term)
- Inflation-Protected
- High-Yield
- International/Global

Global Public Equity

- U.S. Equity
- Non-U.S. Developed Equity
- Emerging Equity

Real Estate (public & private)

Asset Allocation

- VRS unitized investment portfolio (VRSIP) – includes all asset classes utilized in the VRS investment portfolio.

Self-Directed Brokerage Account
As of November 14, 2013
Appendix 3

A Self-Directed Brokerage Account (SDBA) is available for self-designated knowledgeable investors who acknowledge and understand the SDBA's operational rules and procedures as well as the risks and costs associated with the investments allowed in the SDBA. Subject to limitations imposed by the SDBA provider, allowable SDBA investments include mutual funds, exchange traded funds (ETFs) and individual securities. Participants must complete the SDBA enrollment materials prior to investing in the SDBA.

The SDBA is made available through the plans' third party administrator and is not contracted for separately. The third party administrator may change the SDBA provider from time to time.

Bundled DC Plan Structure
Investment Policy Statement

VRS Investment Policy Statement
for a Bundled Defined Contribution Plan Structure

**APPROVED BY THE BOARD OF TRUSTEES:
EFFECTIVE JANUARY 2, 2020***

This Investment Policy Statement has been adopted by the VRS Board of Trustees (Board) to provide guidelines for the investment offerings provided to participants of the Optional Retirement Plan of the Commonwealth of Virginia for Employees of Institutions of Higher Education (ORPHE) when a bundled plan construct is utilized. The purpose of the plan is set forth in the Plan Document and Master Trust, which are accessible on the VRS website at varetire.org. Bundled plans use the same company for investments, recordkeeping, enrollment and marketing services. A bundled plan provider's investment platform may include the provider's proprietary investment options as well as non-proprietary options.

1. Investment Objectives

In a defined contribution (DC) investment program, each participant has his or her own risk tolerance, time horizon and investment objectives. Participants are responsible for their own investment decisions. To help meet these varying needs, the VRS ORPHE seeks to provide participants with an array of investment choices across a range of asset classes, risk levels, and investment strategies so they can construct and/or invest in portfolios that address their individual needs, and do so using investment vehicles and structures that provide competitive risk-adjusted returns at a reasonable cost within a bundled plan construct.

The Board recognizes that DC plan participants have varying levels of investment knowledge and/or interest in actively managing their investments, and therefore may desire investment alternatives in addition to those offered as part of a core investment lineup. To meet this need, a self-directed brokerage account (SDBA) is made available to self-designated knowledgeable investors who are willing to accept all risks, costs, and operational rules and procedures related to participating in a SDBA.

2. Decision Making

The Board is responsible for the following:

- Selection of the plan default investment option. (Appendix 1)
- Within the fund lineup, included asset classes. (Appendix 2)
- Whether to offer a Self-Directed Brokerage Account (SDBA). (Appendix 3)
- Whether individual investment advice will be provided and the terms on which it will be available to participants.

(Continued)

** Originally adopted February 16, 2012. Amended November 14, 2013, February 9, 2017, and January 2, 2020.*

Beyond these guidelines, the Board delegates to the Chief Investment Officer (CIO) all other investment decisions related to the ORPHE as it relates to the bundled plan structure. The CIO or a designee will report regularly to the Defined Contribution Plans Advisory Committee (DCPAC) and Board on the status and investment results of the investment program. Included in such reporting will be performance benchmarks selected by the CIO to appropriately measure or compare the risk and investment objectives of the various investment options.

In carrying out its fiduciary duty to oversee DC investments, the Board will consider advice and recommendations provided by the DCPAC. The specific duties and responsibilities of the DCPAC are described in the DCPAC Charter.

Additionally, the Board developed a set of twelve Defined Contribution Plans Investment Belief Statements intended to help guide the strategic management of the VRS DC investment program.

3. Plan Level Policies

The CIO shall work with the VRS Director and the DCPAC relative to hiring and terminating a bundled plan provider. The CIO has full authority to select or eliminate fund options within a bundled plan provider's investment program using reasonable processes and to negotiate or renegotiate investment fees. The CIO shall also develop procedures for appropriate mapping of bundled plan assets and/or funds as situations arise. Mapping means the transfer of assets from a discontinued investment option or terminated provider to another investment option or provider under the ORPHE. The CIO works with the Director to coordinate implementation relating to changes to the bundled plan investment program and may consult with the DCPAC as needed.

The CIO is responsible for ensuring that adequate due diligence is being performed in the evaluation of potential and existing investments, and that all investment activity will be in compliance with applicable regulatory requirements.

4. Trading Restrictions and Redemption Fees

The Board and the bundled plan provider(s) may impose restrictions and/or fees that discourage investment trading that could have an adverse impact on the management of a fund, other participants, or clients of the provider companies.

(Continued)

5. Best Execution

Taking into consideration the nature of a bundled DC plan structure, generally all investment transactions executed on behalf of the plan should be made on the basis of best execution. VRS defines best execution as the process and price that results in the best overall performance impact, as judged by the portfolio manager, taking into account current market conditions. VRS will generally discourage the use of soft dollar arrangements, and where such arrangements are utilized, staff will review this usage for reasonableness.

6. Use of Consultants/Service Providers

The CIO has the authority to hire consultants, research providers, and other service providers providing that such expenditures are in alignment with the Board approved operating budget.

7. Code of Ethics

The investment staff will conduct its affairs in a manner that reflects the highest standards of ethical conduct. The staff is expected to comply with the CFA Institute of Code of Ethics and Standards of Professional Conduct.

Default Investment Option
Effective January 2, 2020
Appendix 1

TIAA-CREF Program: BlackRock LifePath Index Funds

Asset Classes: Investment Options
Effective November 14, 2013
Appendix 2

Investment options shall represent the broad asset classes available in the capital markets to the extent they are practical and, when prudent, certain sub-asset classes. From time to time additional asset classes may be added, or existing asset classes may be deleted in order to maintain an array of investment options that address participants' changing needs or changes in the investment industry.

The Board notes that due to the nature of the bundled plan structure investment decisions are limited to investment options that are, or can be made, available on a provider's investment platform. It is possible that bundled plan constraints may limit the scope of investment options available to participants, limit access to more attractive options within the asset classes and limit the extent to which negotiations can be made relative to investment management and investment related fees.

The Board delegates to the CIO decisions as to 1) whether a fund investment option shall utilize a passive or active investment strategy or a combination of both; 2) whether a fund should exhibit a large, mid, or small capitalization structure or a combination thereof; 3) whether a fund should exhibit a growth, value, blended style, or targeted volatility orientation; 4) whether a fund should have a single investment manager or use multiple investment managers or firms and; 5) whether a fund invests in a single asset class or more than one asset class.

The following asset class categories are considered for possible inclusion in the plan:

Capital Preservation
- Money Market
- Stable Value
- Fixed Annuity

Fixed Income
- Investment grade (short-term, intermediate, long-term)
- Inflation-Protected
- High-Yield
- International/Global

Global Public Equity
- U.S. Equity
- Non-U.S. Developed Equity
- Emerging Equity

Real Estate (public & private)

Asset Allocation
- Target Date
- Risk Based

(Continued)

Asset Classes: Investment Options
Effective November 14, 2013
Appendix 2 *(continued)*

The Board expects asset allocation funds to be diversified portfolios. These portfolios may include exposure to various sub-segments of the broad asset classes as well as to alternative asset classes as determined by the provider company using reasonable optimization techniques to measure the risk/reward trade off. Asset classes used within asset allocation funds may include: large cap domestic equity, small/mid cap domestic equity, international equity, emerging market equity and debt, domestic core fixed income, high-yield bonds, inflation-protected securities, international/global fixed income, commodities, real estate and cash. An asset allocation fund is not required to include each of these asset classes and may include other asset classes. Glide paths for target date portfolios shall be based on sound investment theory and investment methodology as well as reasonable capital market assumptions. A glide path represents the changes made to the asset allocation mix over time as the target date approaches. There is a higher equity allocation in the longer dated portfolios because of the long-term investment time horizon. Over time, the equity allocation decreases as the investment time horizon decreases.

Self-Directed Brokerage Account
Effective February 9, 2017
Appendix 3

A Self-Directed Brokerage Account (SDBA) is made available through the plan's bundled provider(s) and is not contracted for separately. A bundled plan provider may change its SDBA provider from time to time.

The SDBA is available for self-designated knowledgeable investors who acknowledge and understand the SDBA's operational rules and procedures as well as the risks and costs associated with the investments allowed in the SDBA. Subject to limitations imposed by the SDBA provider, allowable investments include mutual funds, exchange traded funds (ETFs) and individual securities. Participants must complete the SDBA enrollment materials prior to investing the SDBA.

Callan Institute

Research

2025 Defined Contribution Trends Survey

Table of Contents

Introduction

The world is changing dramatically, and our annual *Defined Contribution (DC) Trends Survey* is evolving to fit the shifting landscape. The 18th annual *DC Survey* covers the key tenets of DC plan management such as governance, investments, fees, plan design, and more. The insights and experience distilled in our *2025 DC Survey* inform this discussion, and we are grateful to all of those who contributed.

Key Findings

Areas of Focus

1 Investment management fees
2 Fund/manager due diligence
3 Investment structure evaluation

See page 11 for details

Fiduciary Initiatives

1 Update or review the IPS
2 Formal fiduciary training
3 Committee charters or delegations

See page 10 for details

Criteria for Plan Success

1 Participation rate
2 Contribution rate
3 Investment performance

See page 8 for details

Most commonly offered retirement income solutions

Partial distributions (75%)

Installment payments (63%)

See page 36 for details

57% offer managed account services

74% monitor or benchmark these services

See pages 25 and 27 for details

Investments

86% combination of Active / Passive

84% Mutual funds

79% Collective investment trusts

See pages 17 and 18 for details

84% sought to retain assets of retirees

54% sought to retain assets of terminated participants

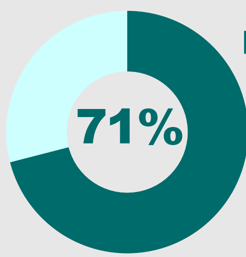
See page 35 for details

~100 provisions in SECURE 2.0 Act (passed in 2022)

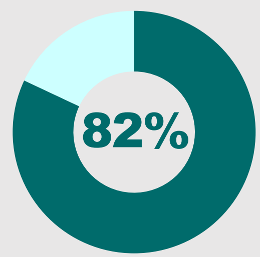
74% increased catch-up contribution cap for participants aged 60 to 63

See page 39 for details

Plan Fees Reviewed Within Last Year



Recordkeeping fees



Investment management fees

See page 23 for details

41% reported less than **10%** of participants rolled in assets from a prior employer's qualified plan

See page 34 for details

Respondent Characteristics

Callan conducted this DC Survey online in late 2024. This survey incorporates responses from 89 DC plan sponsors, including both Callan clients and other organizations.

Respondents spanned a range of industries, with the top being financial services and government.

91% of respondents had more than $200 million in plan assets; moreover, 67% were “mega plans” with at least $1 billion in assets, and 58% had more than 10,000 participants.

Primary industry employees hired from

Financial Services/ Insurance	**20%**
Government	**20%**
Technology	**12%**
Manufacturing	**11%**
Energy/Utilities	8%
Aerospace/Defense	**6%**
Additional categories*	**6%**
Retail	**4%**
Health Care	**4%**
Education	**4%**
Professional Services	**3%**

*Additional categories: other (2%), transportation (1%), nonprofit (1%), entertainment/media (1%)

Number of participants in DC plan

> 100,000	**19%**
50,001 to 100,000	**9%**
10,001 to 50,000	**30%**
5,001 to 10,000	**11%**
1,001 to 5,000	22%
≤ 1,000	8%

Assets in DC plan

> $10 billion	**22%**
$5 to $10 billion	**12%**
$1 to $5 billion	**33%**
$500.1 mm to $1 bn	**7%**
$200.1 to $500 million	**17%**
≤ $200 million	**9%**

Note: Throughout the survey, charts may not sum to 100% due to rounding.

Respondent Characteristics (continued)

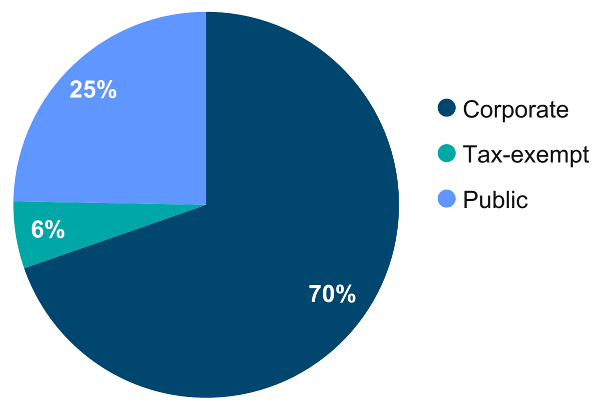
70% of respondents were corporate organizations, followed by public (25%) and tax-exempt (6%) entities.

As seen in prior surveys, a 401(k) plan was the primary DC offering (83%). The percentage of 457 plans (26%) was roughly in line with the prior year (27%).

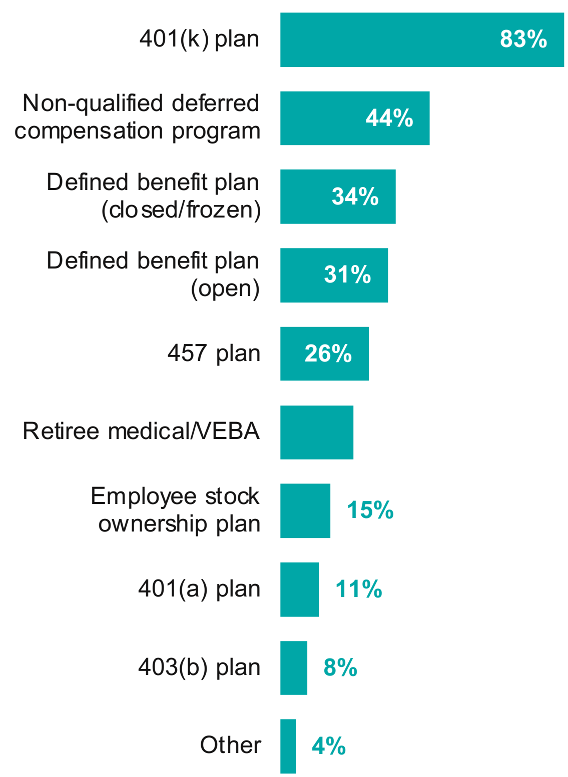
More than half (58%) of corporate respondents offered a non-qualified deferred compensation (NQDC) plan.

Nearly 6 in 10 DC plan sponsors surveyed offered either an open or closed/frozen defined benefit (DB) plan. This represented a marked increase from the prior year, when about 3 in 10 DC plan sponsors offered a DB plan. Governmental entities were more likely to offer an open DB plan, while corporate plan sponsors were more likely to have a closed or frozen DB plan.

Organization type



Retirement benefits offered*



*Multiple responses allowed.

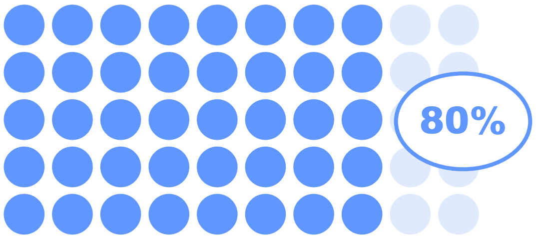
Plan Recordkeeper

Consolidation in the recordkeeper marketplace continues. The top recordkeepers shown were used by 80% of survey respondents.

Nearly **6 in 10** respondents indicated that the recordkeeper provides trust/custody services to the DC plan.

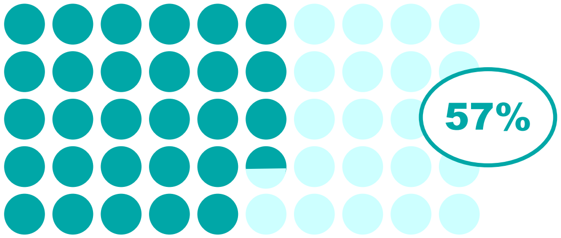
Most-used recordkeepers

1. Fidelity
2. Empower
3. Alight
4. Charles Schwab
5. Voya



of respondents used these 5 recordkeepers

Recordkeeper provides trust/custody services to DC plan(s)



of respondents' recordkeepers provided trust/custody services to DC plan

DC Plan Committee(s)

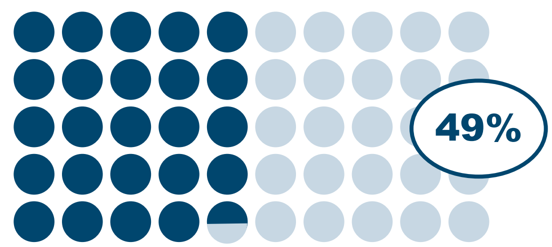
When DC plan sponsors delegate authority and responsibilities to a “named fiduciary,” it is either a **single committee** or separate **investment and administration committees**.

A slight majority of plan sponsors responded that they have a single committee to monitor and manage their DC programs, with the rest splitting the responsibilities between a separate investment committee and administrative committee. This is almost unchanged from Callan’s *2017 DC Governance Survey,* where 53% of respondents indicated they had a single committee.

Plans with a single committee had 5.3 voting members, on average. Plans with separate committees had averages of 5.7 voting members on the investment committee and 5.3 voting members on the administration committee.

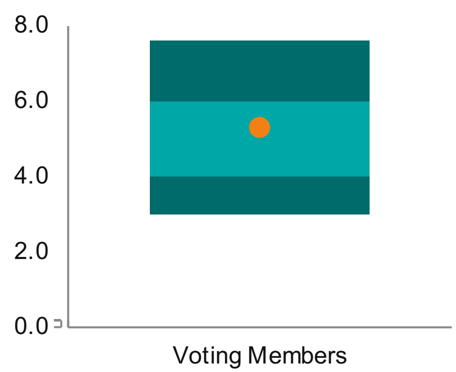
Non-ERISA plans may refer to the governing body as a “board” rather than a “committee.”

Separate committees for monitoring investments and plan management



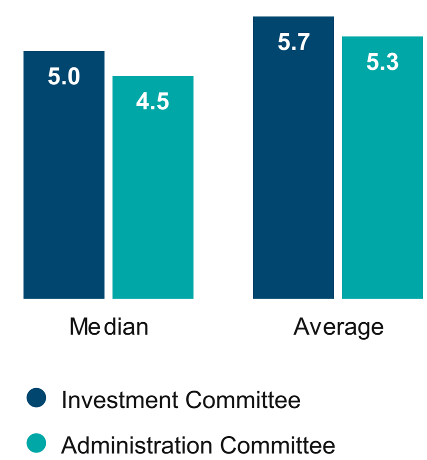
of respondents have separate committees for monitoring investments and plan management

Number of voting members: single committee



90th percentile	7.6
75th percentile	6.0
Median	5.0
25th percentile	4.0
10th percentile	3.0
Average	5.3

Number of voting members: separate committees

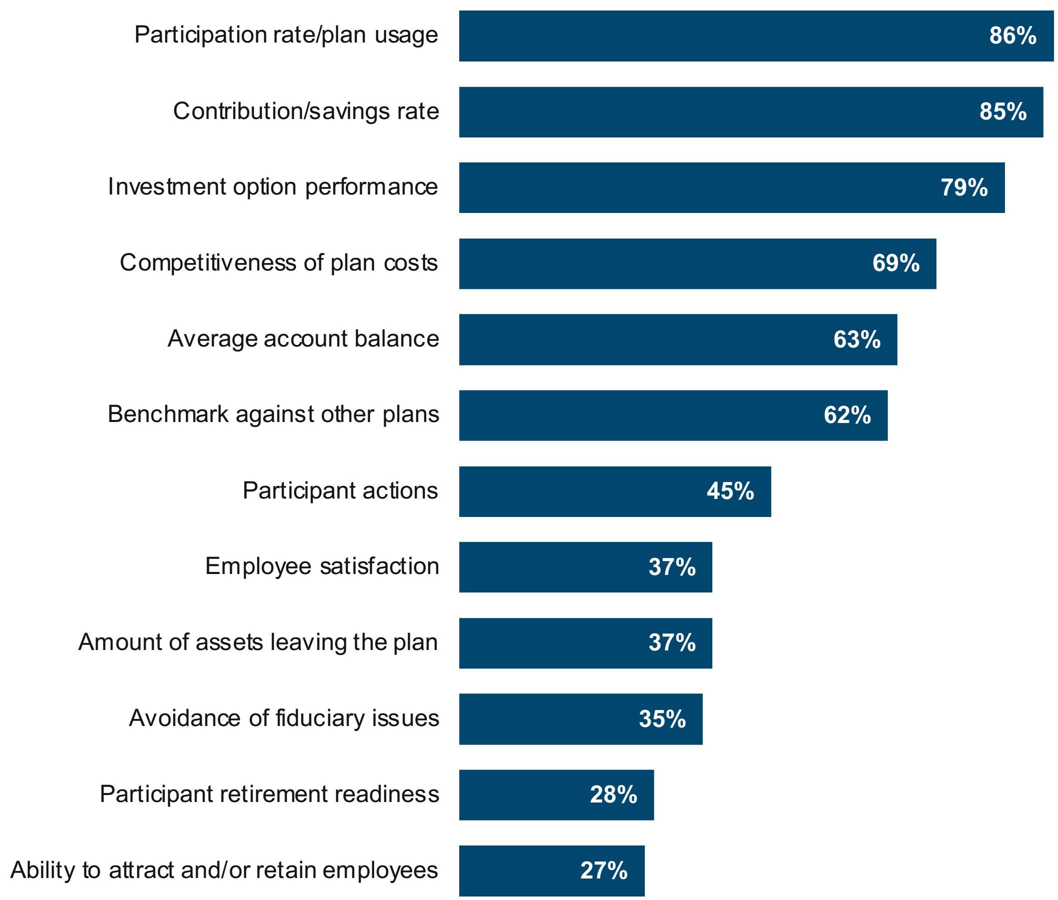


DC Plan Measurement

Survey respondents monitored 6.6 metrics, on average, to measure the success of the DC plan.

In line with the past three years, most plan sponsors monitored participation rate/plan usage to measure the success of their DC plan. Contribution/savings rate followed closely, with investment option performance coming in third.

Criteria used to measure plan success*



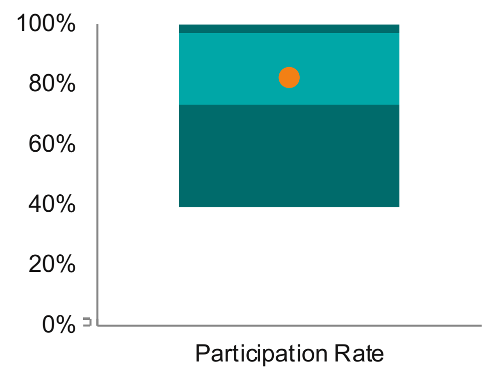
*Multiple responses allowed.

DC Plan Participation

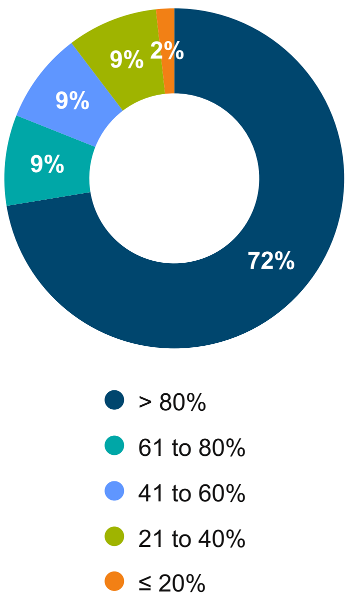
86% of respondents monitored participation rate to measure the success of their DC plan.

DC plan participation rates among respondents were generally high, with a median participation rate of 93% and an average of 82%. Only 19% of respondents had a participation rate below 60%.

Participation rate in DC plan(s)



10th percentile	100%
25th percentile	97%
Median	93%
75th percentile	73%
90th percentile	39%
Average	82%



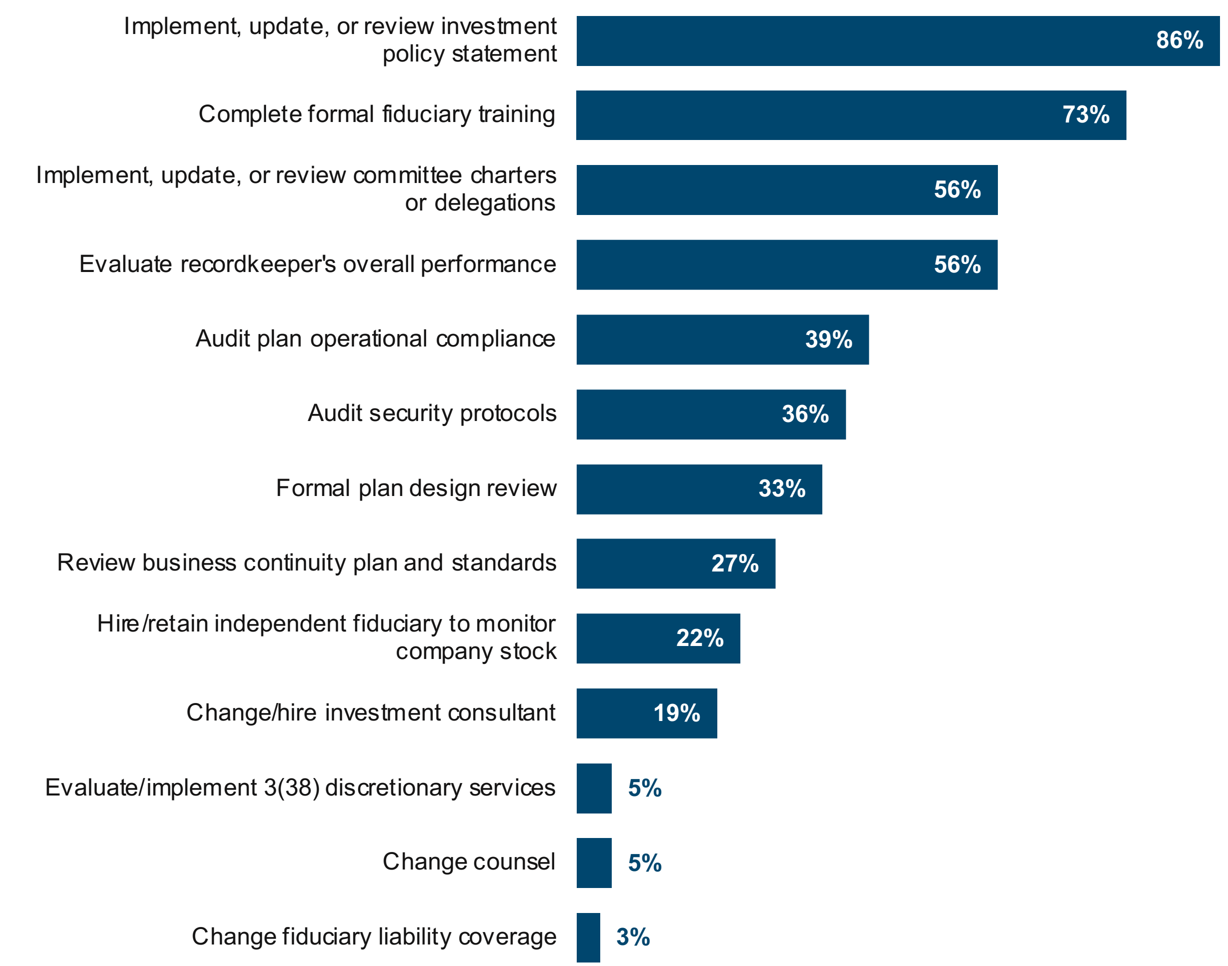
Fiduciary Initiatives

Consistent with 2023, the most prevalent fiduciary action taken by DC plan sponsors in 2024 was to review their investment policy statement (IPS). Additionally, nearly three-quarters of respondents completed formal fiduciary training in 2024, representing a sizable increase from the 53% that did so in 2023.

Roughly a third of respondents conducted a formal plan design review in 2024, compared to 9% that did so in 2023. Plan design reviews typically involve reviewing key DC plan provisions, such as those related to participants' eligibility requirements and deferral options.

In the 2021 survey, there was a sharp increase in respondents reporting they were reviewing security protocols (41%), in response to U.S. Department of Labor guidance. This fell dramatically in 2022 to 14% and remained somewhat low in 2023 (22%) but rose further in 2024 (36%).

Fiduciary actions DC plans took*



*Multiple responses allowed.

Areas of Focus

Following a decade of abundant litigation, DC plan sponsors have refined the elements of fiduciary focus.

Investment management fees ranked as the top area of focus in 2024, while plan administration fees have consistently been ranked lower. Investment management fees are generally more straightforward to benchmark and monitor, allowing for more frequent review. Plan sponsors should be mindful to review all plan fees on a regular basis.

Fund/manager due diligence and investment structure evaluation were ranked as the second and third highest areas of focus, respectively.

Though ranked lower than in 2022 and 2023, plan governance remained as a high area of focus among respondents, perhaps partly driven by continued litigation. This broad category includes much of the basic blocking and tackling that plan sponsors do on an ongoing basis.

Top areas of focus

2024		2023		2022	
Plan investment management fees	3.2	Plan governance and process	3.7	Plan governance and process	3.8
Fund/manager due diligence	3.1	Plan investment management fees	3.0	Investment structure evaluation	3.2
Investment structure evaluation	3.0	Plan administration fees	2.3	Plan investment management fees	2.8
Plan governance and process	2.8	Fund/manager due diligence	2.2	Fund/manager due diligence	2.3
Plan administration fees	2.1	Investment structure evaluation	2.0	Plan administration fees	2.0
Committee education and fiduciary training	1.5	Committee education and fiduciary training	1.6	Participant retirement readiness	1.3
Plan operational compliance	0.5	Participant education and communications	1.3	Plan operational compliance	1.0
Participant retirement readiness	0.5	Participant retirement readiness	1.3	Committee education and fiduciary training	0.9
Participant education and communications	0.5	Plan operational compliance	1.2	Participant education and communications	0.9

(5=Most focus. Total ranking is weighted average score.)

Additional 2024 categories: cybersecurity (0.4), financial wellness (0.3)

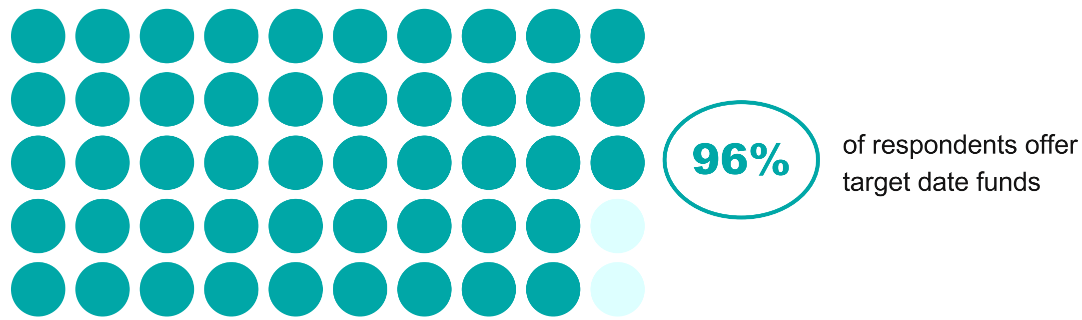
Default Investments

A key provision of the 2006 Pension Protection Act (PPA) provides relief to DC fiduciaries that default participant assets into qualified default investment alternatives (QDIAs) under regulation 404(c)(5). Plan sponsors complying with this provision are responsible for the prudent selection and monitoring of the plan's QDIA, but they are not liable for any loss incurred by participants defaulted into the QDIA.

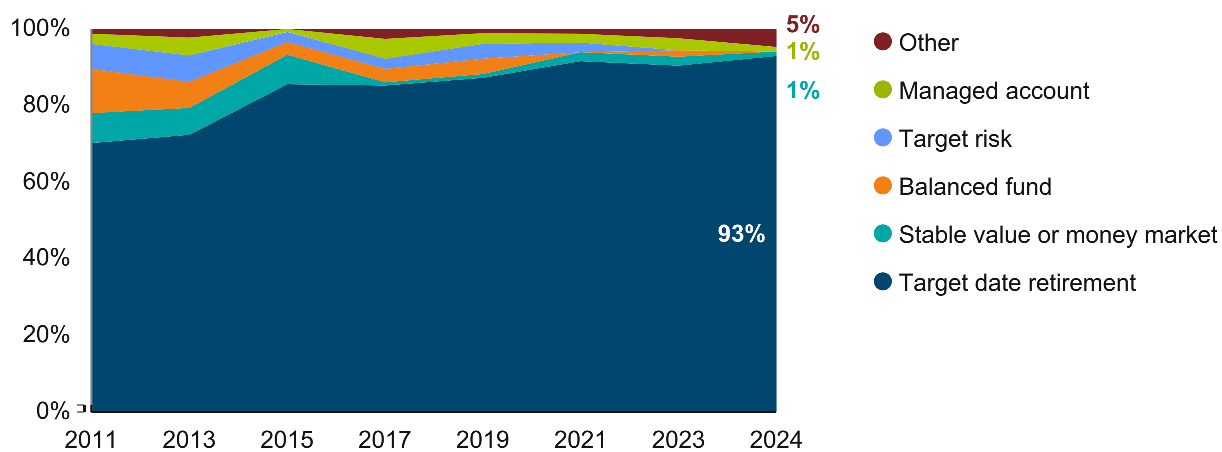
Before the PPA, target date fund (TDF) usage as a default investment alternative (DIA) was only 35% in 2006, with money market/stable value making up 30% and risk-based funds at 28%. The PPA paved the way for a major uptick in the adoption of target date funds as DIAs.

In 2024, 96% of respondents offered a target date fund suite and 93% of respondents used a TDF suite as their default for non-participant-directed monies. Of respondents offering a TDF suite as the default, 43% also offered managed accounts as an optional service. Only 1% of respondents included managed accounts as the DIA. Use of other DIA types remained low.

Plans offering target date funds



Default investment for non-participant-directed monies



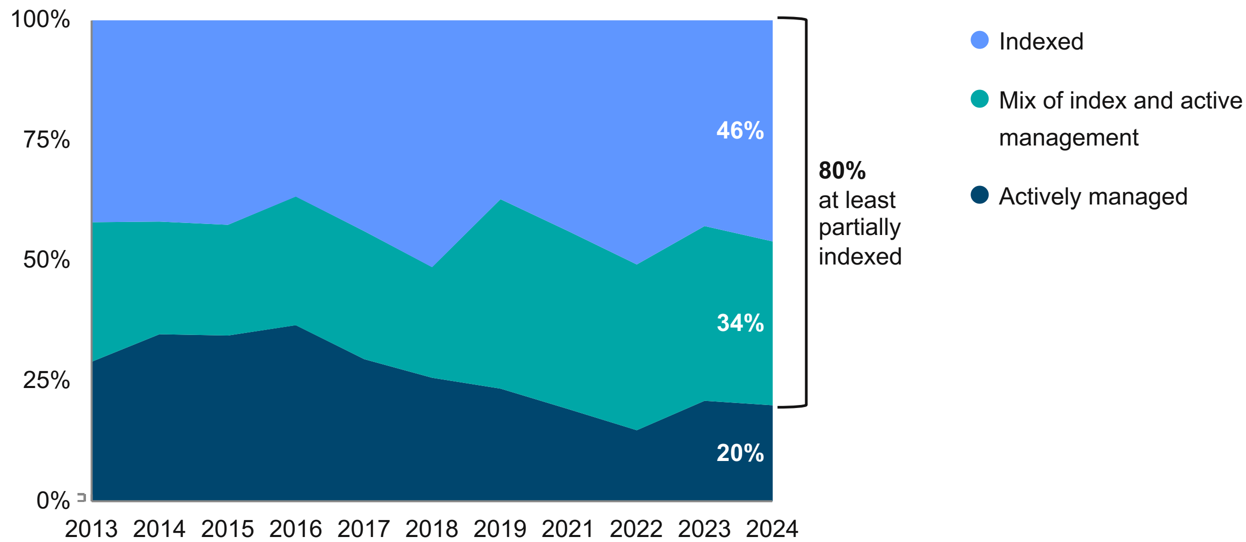
Note: A *qualified* default investment alternative is applicable to plans covered by ERISA.

Target Date Fund Landscape

Among those that offered target date funds, 8 in 10 used an implementation that was at least partially indexed.

The share of active-only strategies fell by a percentage point from the prior year to 20%.

Target date fund investment approach



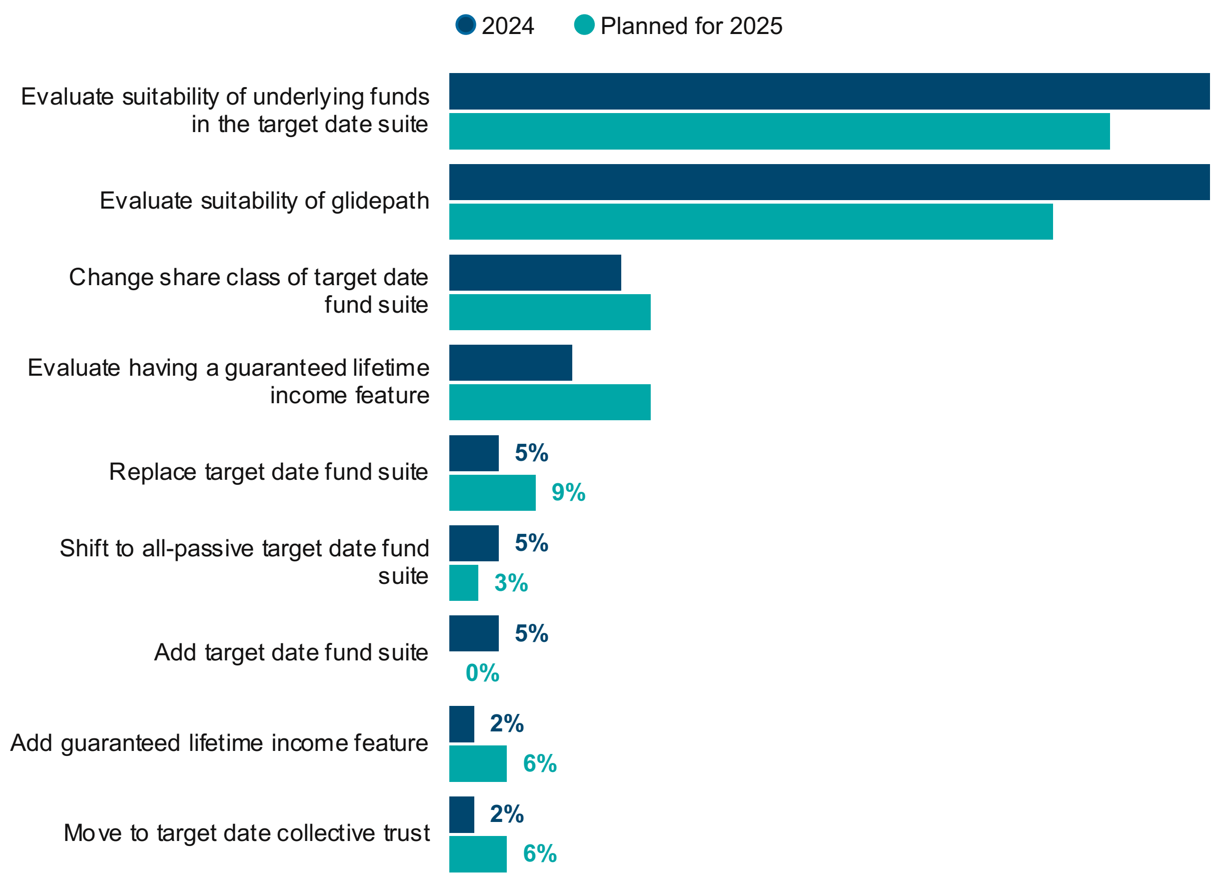
Actions Taken Around Target Date Funds

More than **8 in 10** respondents took at least one action around the target date fund suite in 2024. The most common were to evaluate the suitability of the underlying funds and the suitability of the glidepath. These were also the two most common actions respondents planned to take in 2025.

Because target date funds typically serve as the default fund, the fund selection and monitoring is often held to a higher standard and should consider additional variables than one may use for other funds—e.g., participant demographics, savings rates, and other benefits, among others.

Although 12% of respondents indicated they evaluated a guaranteed lifetime income feature within a target date fund framework in 2024, only 2% added such a feature to their target date fund offering. In 2025, 20% plan to evaluate such a feature, with 6% planning to add one. As off-the-shelf target date fund managers continue to develop products with a guaranteed income component, plan fiduciaries should consider factors such as product portability as well as whether and what type of income guarantee might be suitable for their participant population.

Actions taken or planned regarding target date fund suite*



Additional categories for Planned for 2025: Replace custom target date fund manager (3%); Change communication approach to target date fund suite (3%)

*Percentages out of those that took action. Multiple responses allowed.

Alternative Investments in Target Date Funds

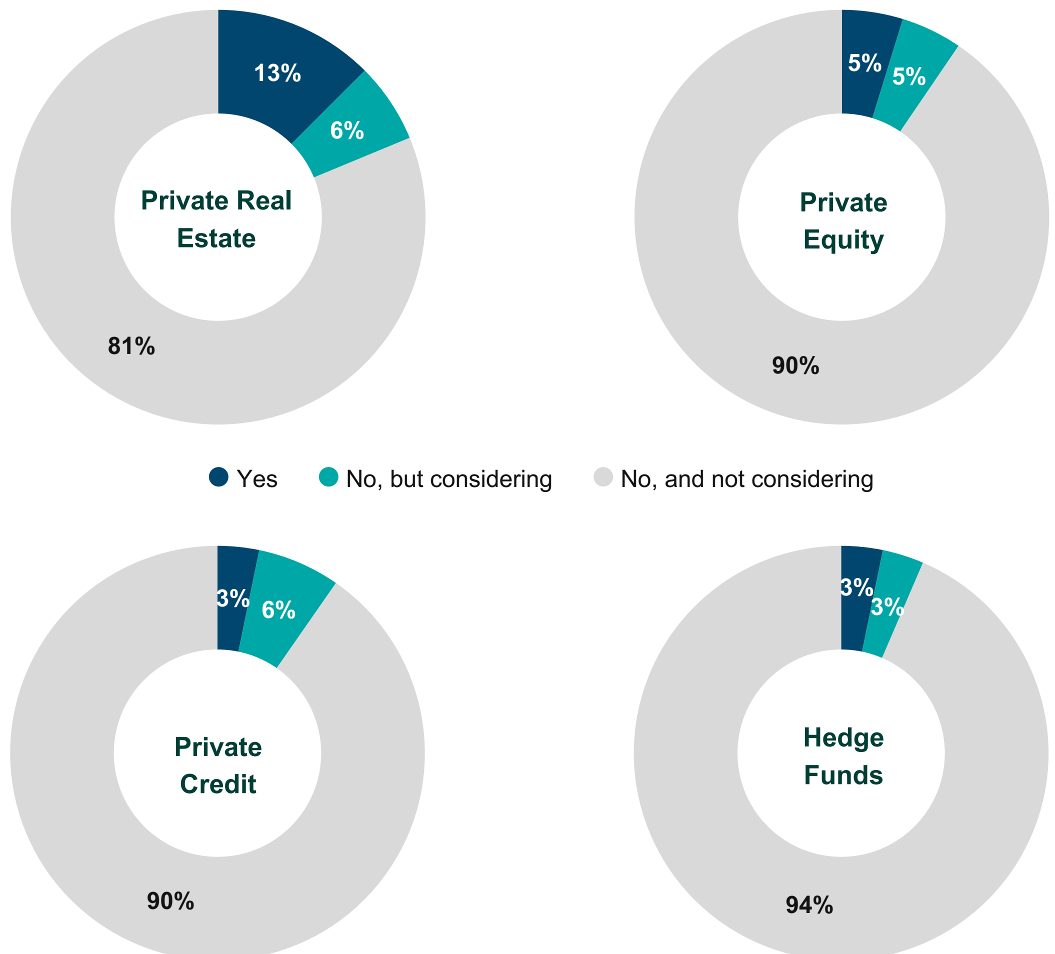
Institutional investors such as defined benefit plans, foundations, and endowments often allocate to alternative investments within the private markets to diversify their exposures to public markets investments.

Among DC plans, private markets investments have not traditionally been offered given factors such as liquidity, transparency, and fees. One notable exception is private real estate, which has played a role in both off-the-shelf and custom target date fund glidepaths for some time.

Recently, there has been an increased focus among off-the-shelf target date fund managers around the potential inclusion of other alternative investments—in particular, private equity and private credit—in TDF glidepaths.

In 2024, relatively few respondents reported they currently include or are considering the inclusion of other alternatives in their DC plan's TDFs.

Alternative investments included in DC plan's target date funds



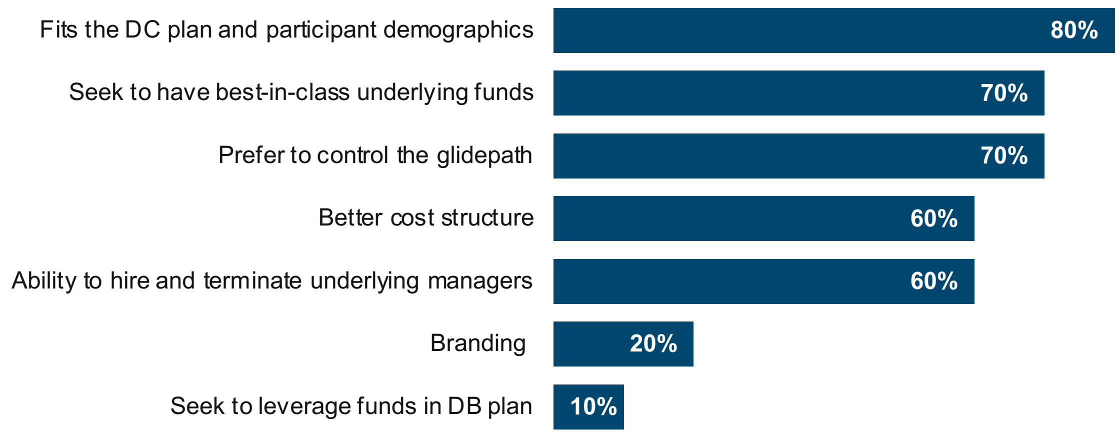
Custom Target Date Funds

12% of respondents offered custom target date funds.

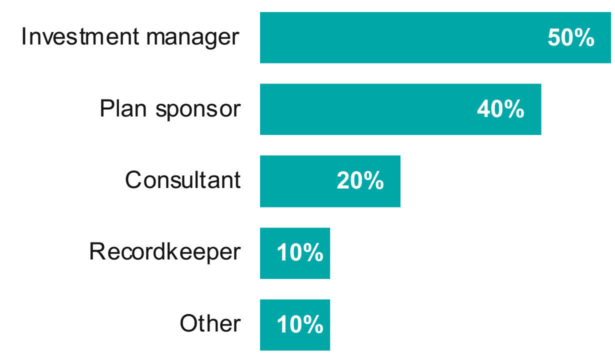
For those that used custom target date funds, the most common reasons for doing so were to fit the DC plan and participant demographics, followed by a tie between leveraging best-in-class underlying funds and preferring to control the glidepath.

Among respondents that offered custom target date funds, the most common party with discretionary control of the glidepath was an investment manager, followed by the plan sponsor or a consultant.

Reason for custom target date funds*



Discretionary control of the glidepath*



*Multiple responses allowed.

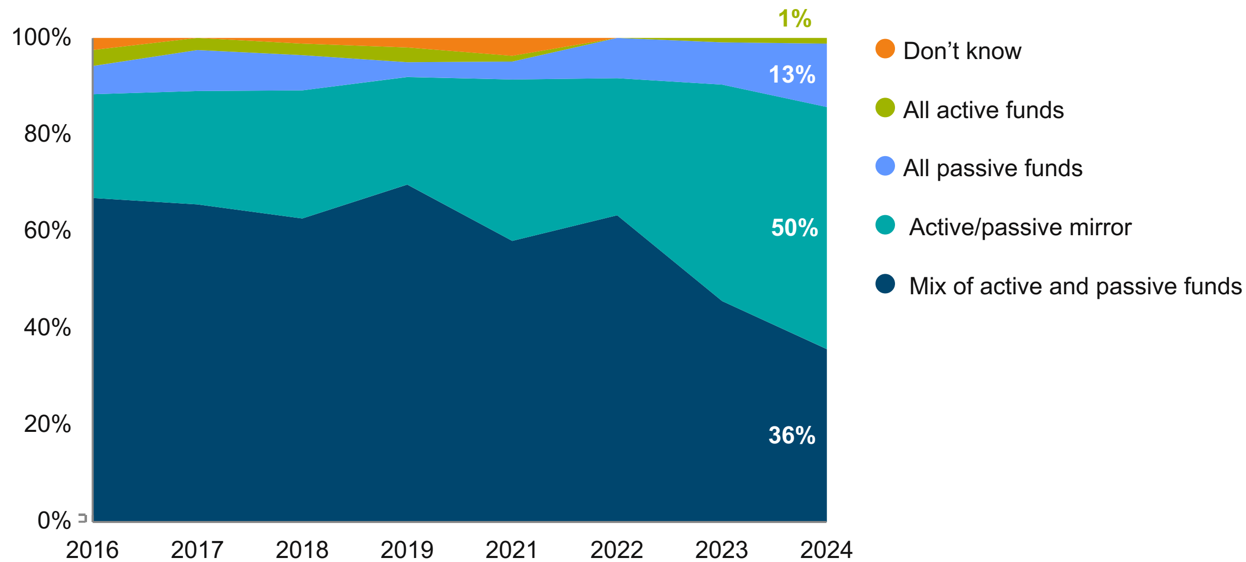
Investment Menu

There was a large increase in DC plans offering an active/passive mirror versus those offering a mix of active and passive funds, with a mirror coming in at an all-time high of 50%. A mirrored lineup is when virtually all core asset classes are represented by both active and passive options.

DC plans with a mix of active and passive investment funds (86%) were the most prevalent. Purely passive (13%) lineups remained a rarity, with a purely active menu being even more rare (1%).

In cases where there was a fund change, more than 6 in 10 respondents mapped assets, as needed, to "like" funds. 11% mapped to the default fund, and 27% used both the default fund and a like-to-like strategy based on the funds being changed.

Investment menu approach



Assets mapped from eliminated funds

Investment Types Within the Fund Lineup

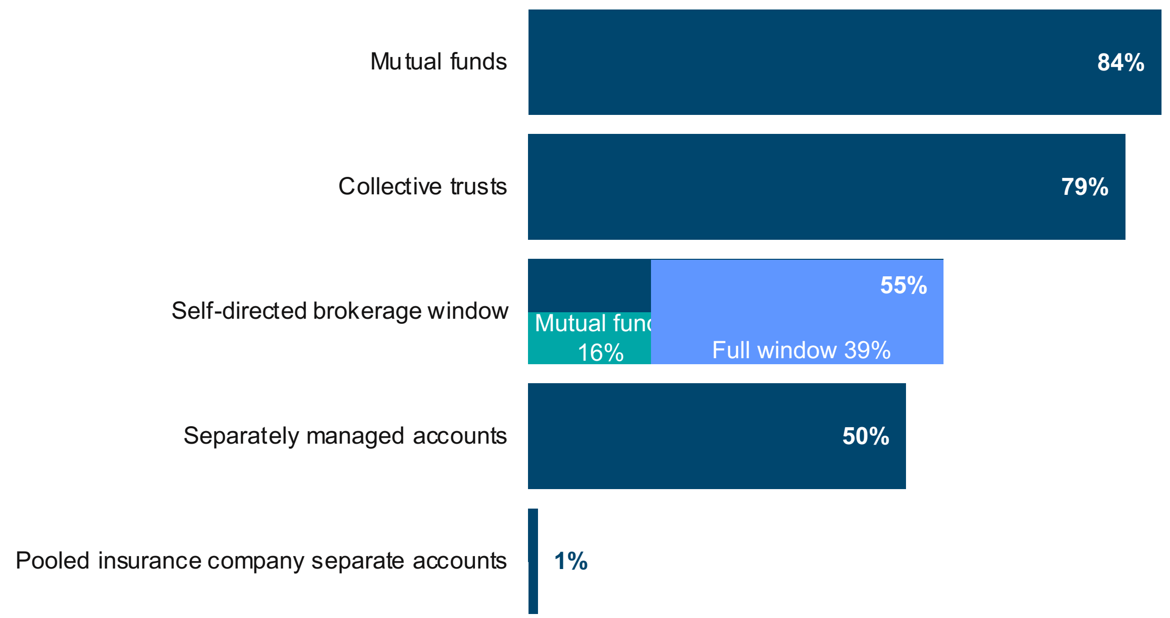
Mutual funds and collective investment trusts (CITs) continued to be the most prevalent investment vehicles.

Large plans were less likely to offer mutual funds in general.

More than half of plans offered a self-directed brokerage window. Of those, more offered a full brokerage window than a self-directed brokerage window limited to mutual funds only.

Only 1% of respondents offered pooled insurance company separate accounts.

Investment types within the fund lineup*



*Multiple responses allowed.

White Label Funds

White label funds may have several benefits for a DC plan, such as simplified and more intuitive fund naming conventions for participants. Additionally, white label funds with multiple underlying managers have the potential to enhance diversification relative to the underlying managers on a standalone basis.

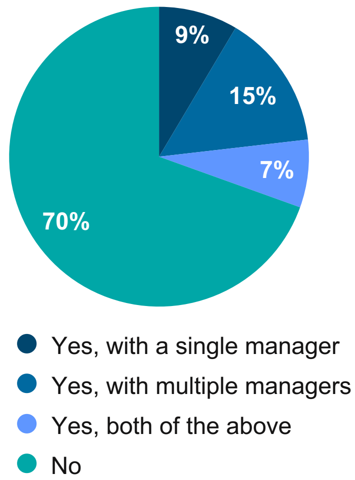
3 in 10 respondents offered white label funds in 2024, up from roughly a quarter in 2023. Only one plan with less than $1 billion in plan assets reported offering white label funds.

Among those that offered white label funds, the most common party with discretionary control was the plan sponsor, followed by an investment manager or a consultant.

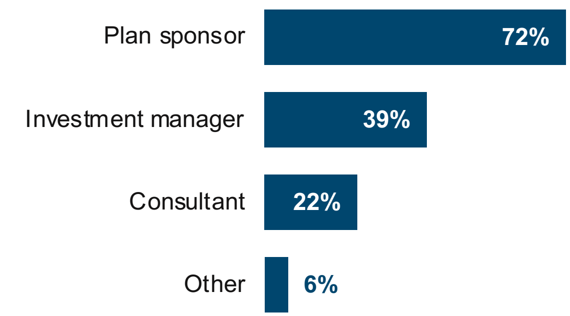
The most common asset classes for white label funds with multiple underlying managers were non-U.S. equity and U.S. smid cap equity.

For white label funds with a single underlying manager, the most common asset classes were fixed income, U.S. large cap equity, and non-U.S. equity.

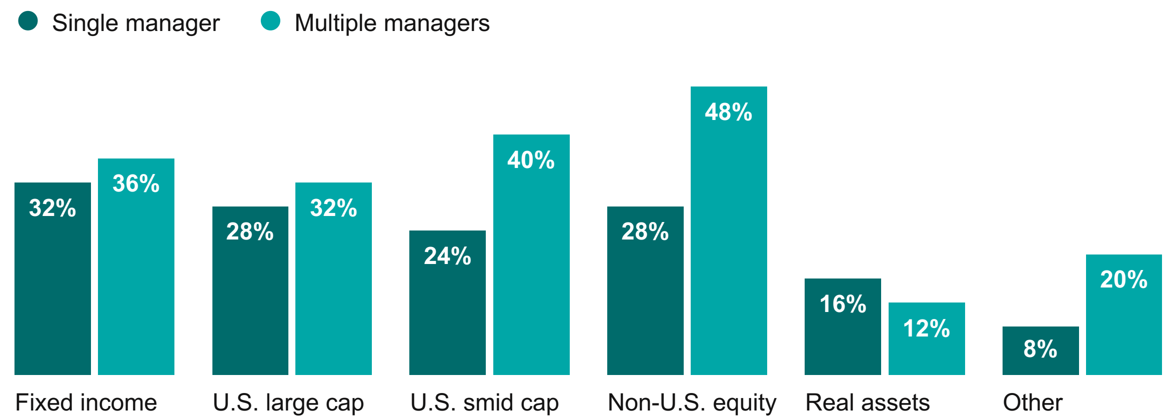
White label funds offered in DC plan



Discretionary control of white label multi-manager fund(s)*



Asset classes in which DC plan offered white label funds*



*Multiple responses allowed.

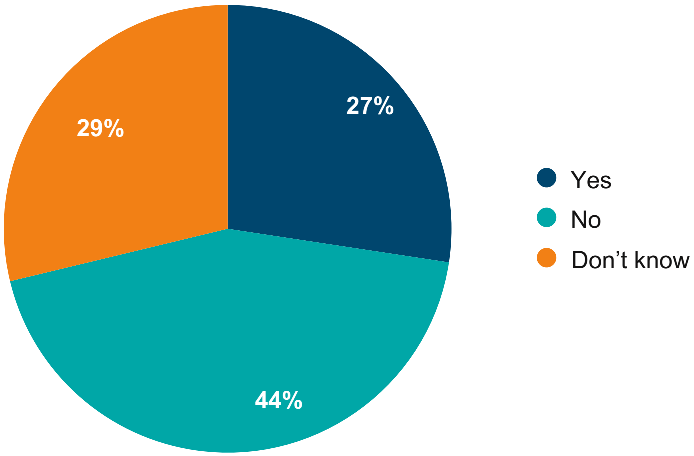
Securities Lending

Securities lending is the practice of lending assets in exchange for collateral for a period of time.

27% of respondents said that the managers of the index-based funds in their core fund lineup engaged in securities lending. 44% said their managers did not engage in securities lending, and 29% didn't know.

While securities lending can result in lower fund expense ratios for index-based funds (all else equal), plan fiduciaries should be aware of and consider the relevant risks tied to the practice of asset lending, such as counterparty risk, collateral risk, and liquidity risk.

Managers of index-based funds engaged in securities lending



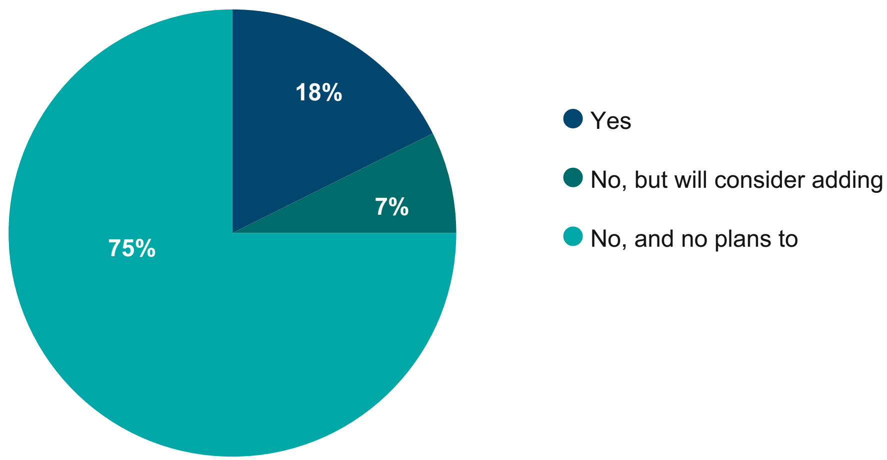
ESG and DEI in DC Plans

Most respondents (75%) did not offer an environmental, social, and governance (ESG) fund in the core fund lineup. But 7% will consider adding an ESG option in the future and the other 18% already offered an ESG fund. Notably, 33% of respondents in the public sector offered an ESG fund, compared to 13% of corporate and tax-exempt organizations.

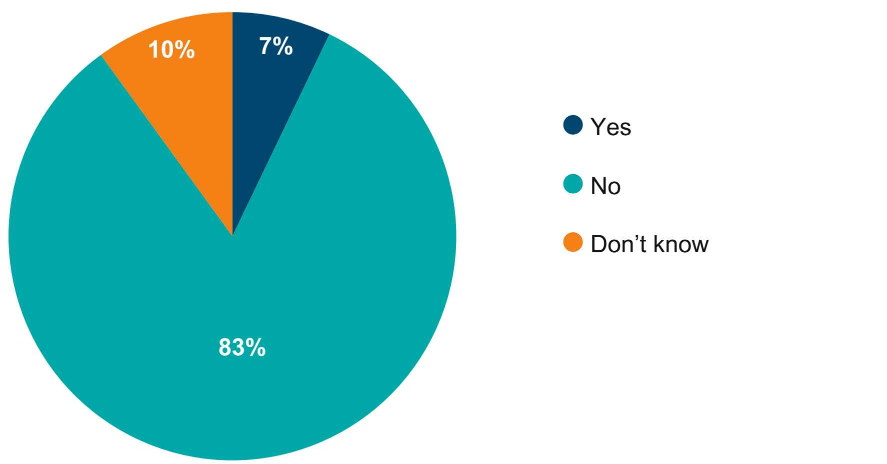
Of the 18% that offered an ESG fund, three-quarters used passive strategies, and the other quarter used active strategies. Most offered one ESG fund, while one respondent offered multiple ESG options across several DC plans.

Most respondents (83%) said they did not track diversity, equity, and inclusion (DEI) in their DC plans. 7% said they tracked DEI metrics, and 10% said they did not know.

Plans that offer an ESG fund



Formally track DEI metrics in retirement plans



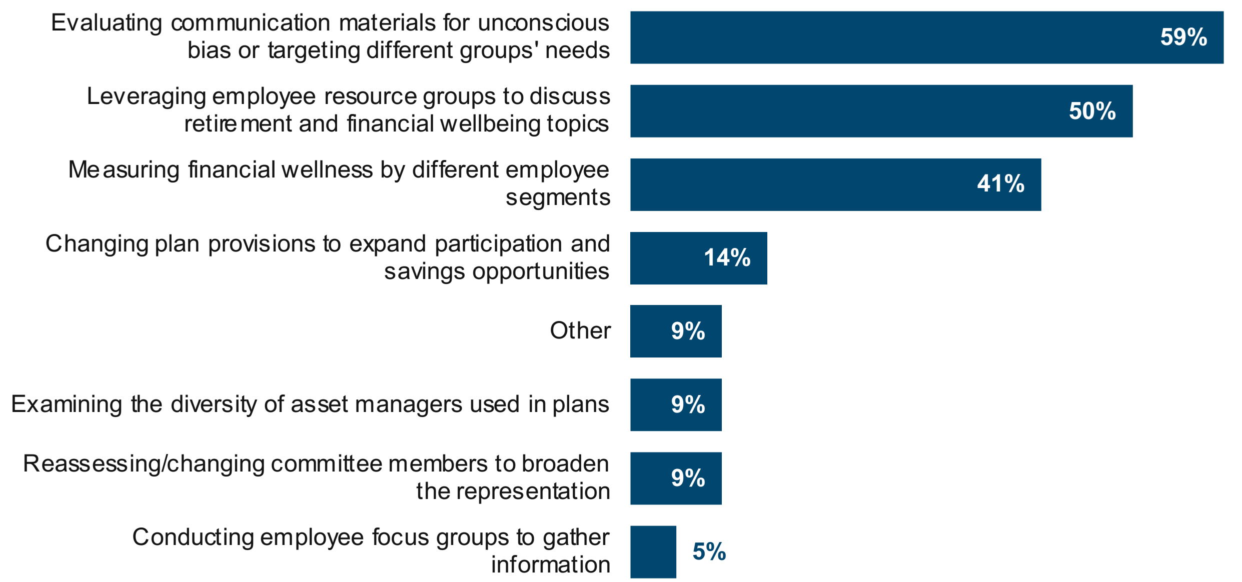
DEI in DC Plans

Among respondents that plan to enhance DEI within their DC plan, nearly 6 in 10 said they will evaluate plan communications with a specific focus on DEI. This could include a review of unconscious bias in text or exploring where it could behoove the plan sponsor to focus communication efforts.

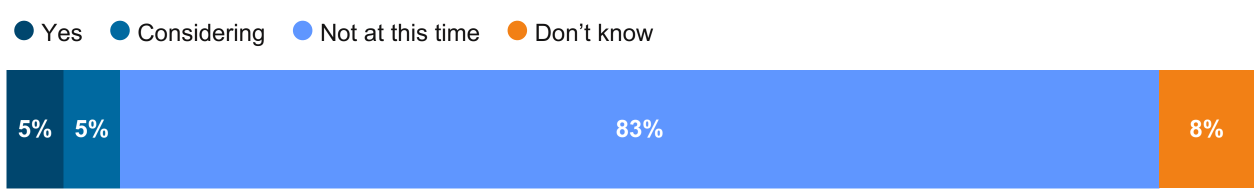
Additionally, half of these respondents indicated they plan to enhance DEI by leveraging employee resource groups to understand retirement and financial needs. Representatives from diverse participant groups can bring differing perspectives of saving challenges and retirement needs.

83% of respondents were not considering changes to the investment fund lineup to support DEI initiatives or investing restrictions. 5% had made changes, and another 5% were considering changes. Changes could include adding a brokerage window to permit participants with religious prohibitions on investing in the core lineup to save in the plan. Additionally, plan sponsors could look to include a DEI element when assessing asset managers.

Plans to enhance DEI within retirement plan*



Changes made to investment fund lineup to support DEI initiatives or investing restrictions



*Multiple responses allowed.

Fee Calculation and Benchmarking

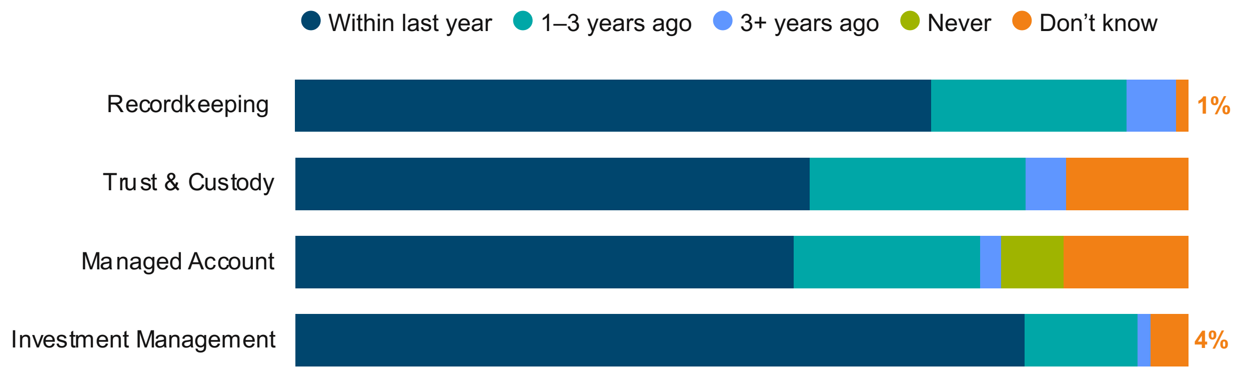
About **7 in 10 plan** sponsors calculated their recordkeeping fees within the past 12 months. Another 22% did so in the past one to three years. Only 1% were unsure of the last time recordkeeping fees were calculated. Comparatively, 82% calculated investment management fees within the past 12 months—as a major target of litigation, reviewing the investment management fees regularly is broadly considered best practice.

Lower levels were seen for both trust and custody fees and managed account fees, with more respondents also unsure of the last time these fees were calculated.

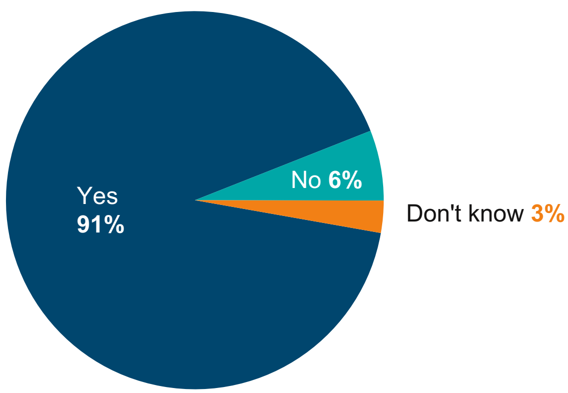
When calculating fees, 91% of respondents also benchmarked fees, and more than half evaluated sources of indirect revenue (e.g., revenue shared with the recordkeeper from managed accounts, brokerage windows, IRA rollovers, etc.).

Fewer plans did not evaluate indirect revenue (20%) or did not know whether their fee calculation involved an evaluation of indirect revenue (23%).

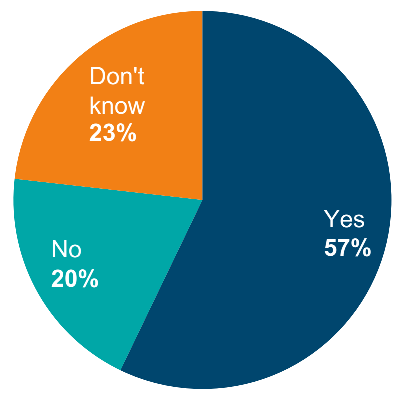
Last time all-in plan fees were calculated, by service type*



Fees were benchmarked when calculating



Evaluated indirect revenue when reviewing fees



*All-in fees include all applicable administration, recordkeeping, trust/custody, and investment management fees.

Forfeitures and Float Income

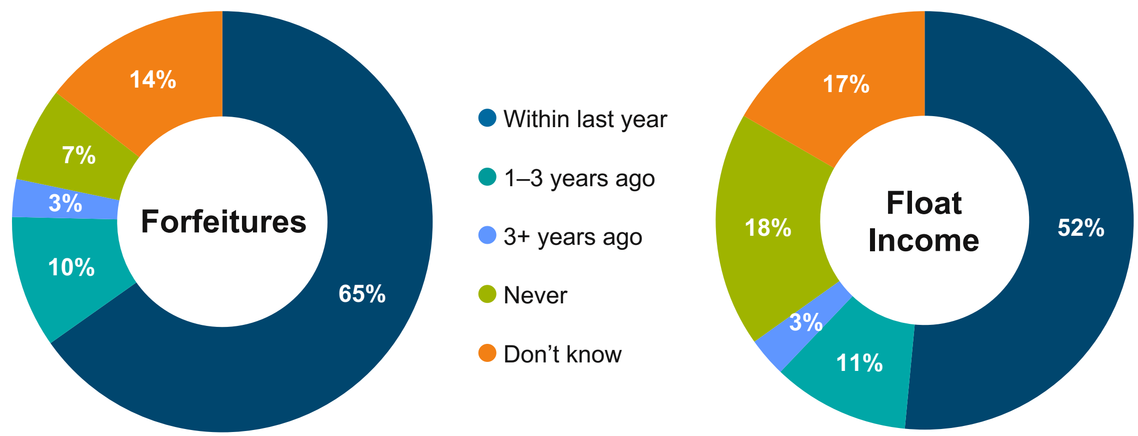
Forfeitures are generated when a participant terminates service with an unvested benefit. The unvested benefit is considered forfeited by the participant and cannot be returned to the plan sponsor. In 2023, a series of lawsuits were filed against several large DC plan sponsors that alleged a breach of fiduciary duties for having used forfeitures to reduce employer contributions rather than to reduce plan expenses.

65% of respondents said they had evaluated the usage of forfeitures within the last year, with another 10% having done so within the last 1 to 3 years.

Float income is generated when money that flows in and out of a DC plan is temporarily held in an interest-bearing account while awaiting investment or payout. Recordkeepers' policies for the treatment of float income may vary. In some cases, float income may be returned to the plan sponsor, and in other cases, it may be retained by the recordkeeper.

Within the last year, 52% of respondents said they had evaluated how float income was handled within their DC plan. Notably, 18% of respondents had never evaluated the treatment of float income.

Last time forfeitures and float income deployment were evaluated



Advisory Services: Prevalence

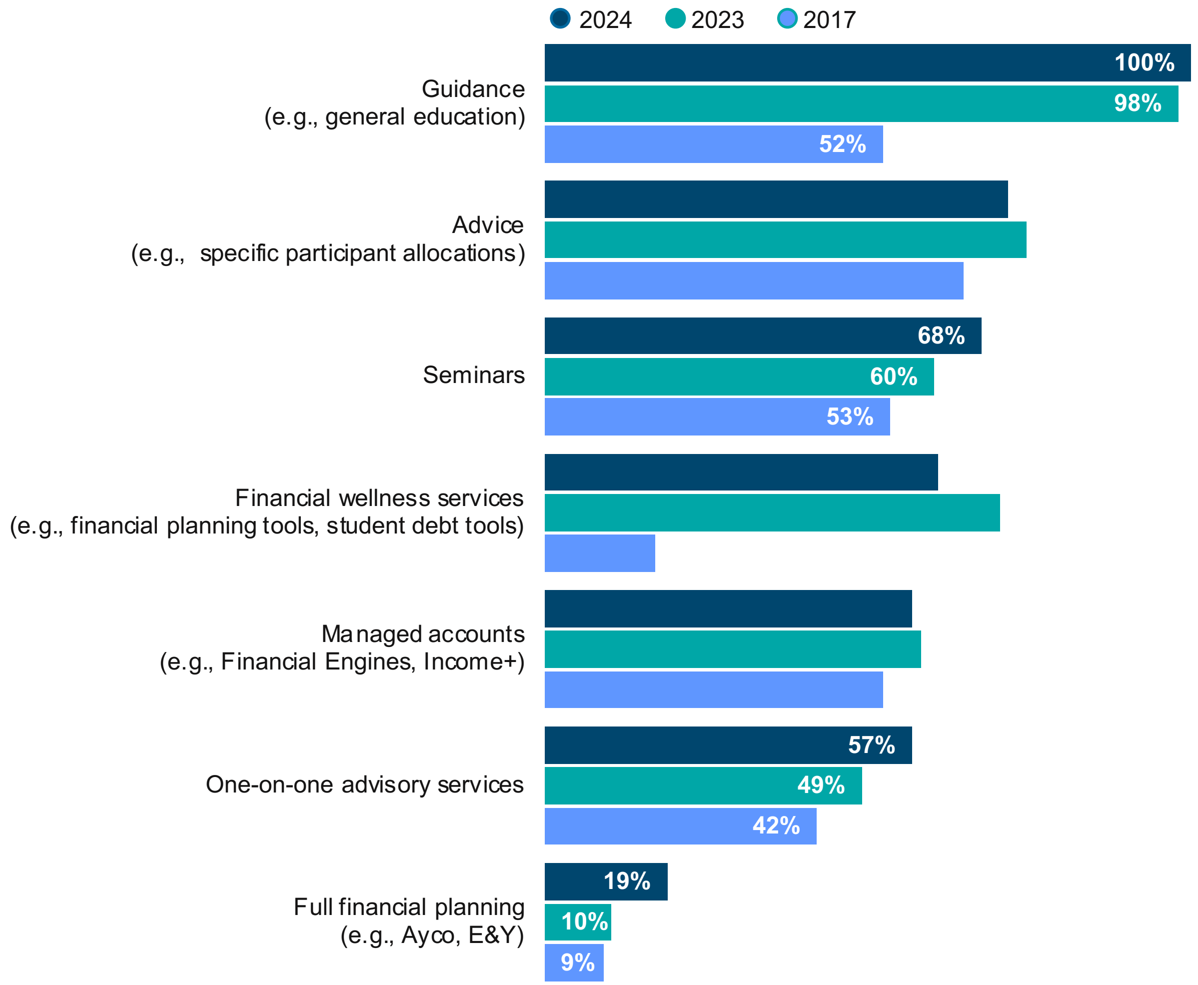
All respondents offered some type of advisory service to participants, with all offering guidance.

Despite a slight dip from 2023, there remained an uptick in the prevalence of managed accounts from 2017. These services are geared toward "do-it-for-me" investors who desire greater personalization. Managed account providers are investment managers under Section 3(38) of the Employee Retirement Income Security Act (ERISA). More than half of respondents reported offering managed accounts in 2024.

The decision to include managed accounts is a fiduciary action. Plans with, or considering adding, managed accounts should consider the fiduciary implications of the service.

Seminars (68%), one-on-one advisory services (57%), and full financial planning (19%) saw increases in 2024 relative to both 2017 and 2023.

Type of service offered*



*Percentages out of those offering advisory services. Multiple responses allowed.

Managed Accounts and Advice: Fiduciary Relationship

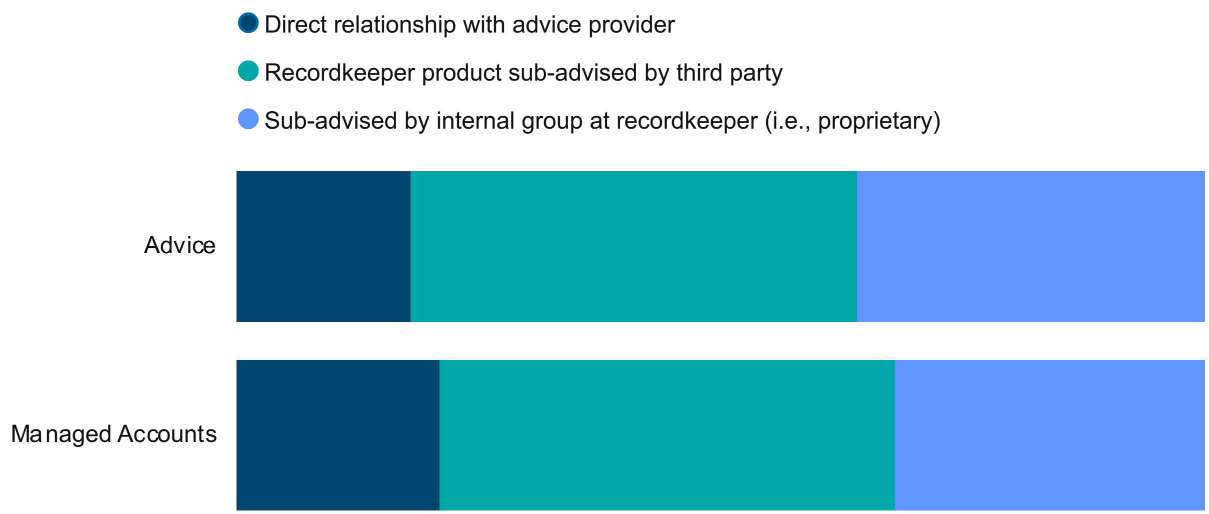
A plan can choose from two basic types of fiduciary arrangements for managed account services: sub-advised or direct.

Sub-Advised Relationship
The recordkeeper (or an affiliate) is the adviser and fiduciary; the advice provider serves as a sub-adviser. The recordkeeper supports communications and the call center. It also sets the fees and pays the advice provider a sub-advisory fee.

Direct Relationship with Advice Provider
The advice provider serves as the adviser and fiduciary while providing communications and call center support. It also determines fees and pays the recordkeeper an ongoing fee for data, transactional, web, and operational support.

Managed accounts were most commonly offered through a recordkeeper product sub-advised by a third party (47%), with fewer plans using the recordkeeper's proprietary managed account (32%) or a direct relationship (21%).

Fiduciary relationship of managed accounts services or advice*



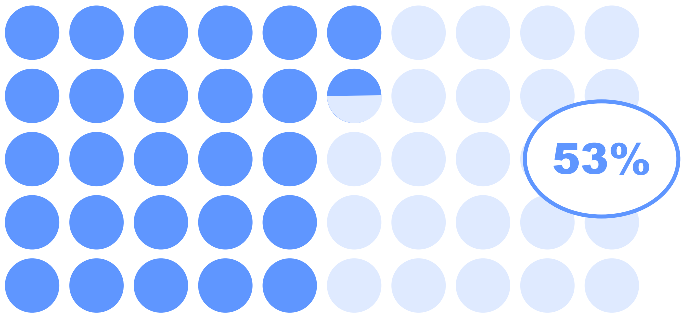
*Managed account products include an advice component.

Managed Accounts and Advice: Promotion and Monitoring

Of respondents that offered a managed account service, more than half indicated that their managed account provider actively promotes the service to encourage participation. These forms of promotion could include ads or banners featured on the recordkeeper's website or participant email campaigns.

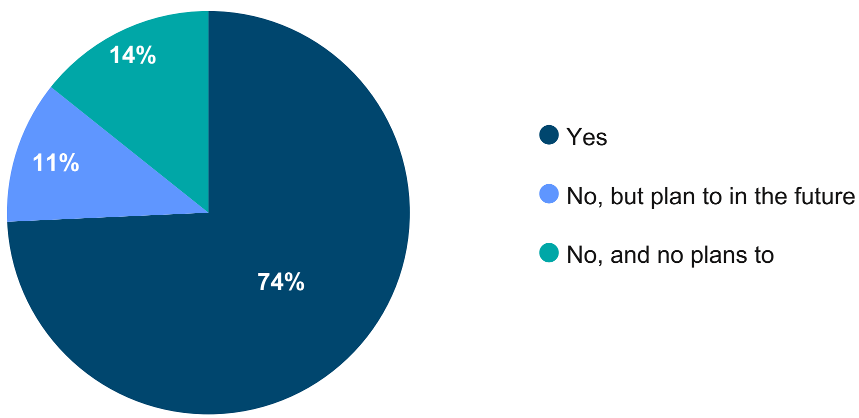
Nearly three-quarters of respondents with managed accounts monitored or benchmarked the outcomes of the service. 11% indicated they plan to do so in the future, and 14% said they have no plans to do so.

Provider actively solicited or campaigned to encourage participation



of managed account providers actively solicited or campaigned to encourage participation in the service

Managed accounts services were monitored and/or benchmarked



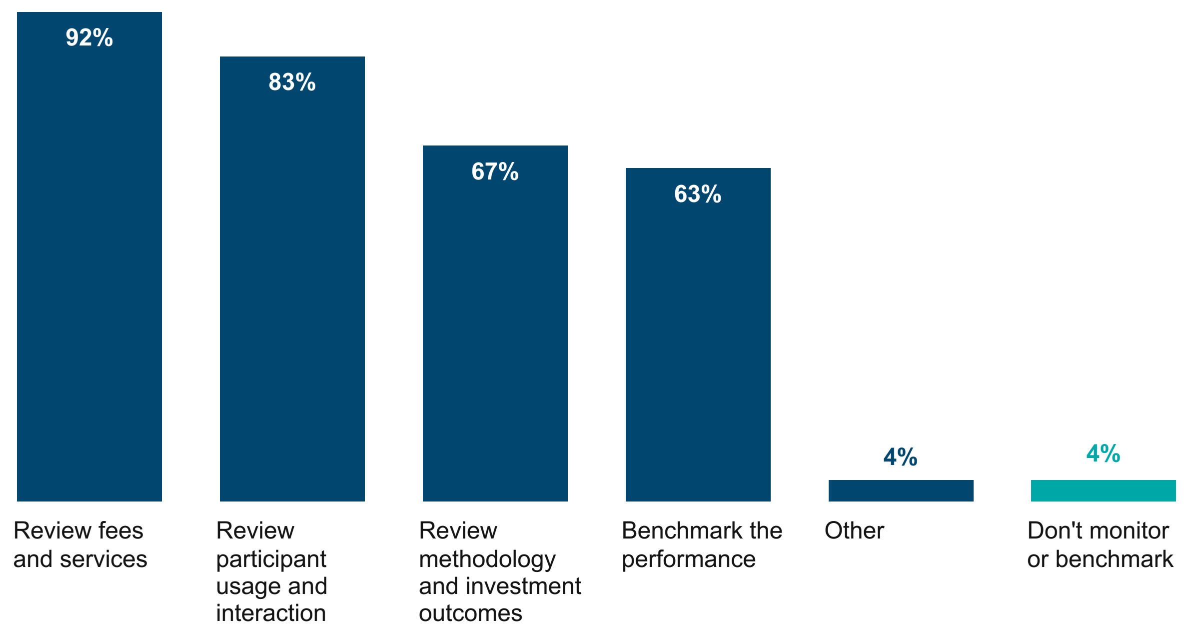
Managed Accounts: Monitoring

Among respondents that monitored their managed account service, more than 90% reviewed fees and services, while more than 80% reviewed participant usage and interaction.

About two-thirds reviewed the methodology and investment outcomes. Reviewing the methodology is key when selecting (or confirming the selection of) a managed account provider. This process helps plan fiduciaries understand which elements of "personalization"—retirement age, risk profile, outside assets—impact the actual investment recommendations.

There was a sharp increase in the percentage of respondents that indicated they benchmark the performance of the managed account service, from 29% in 2023 to 63% in 2024. This is arguably one of the more beneficial exercises plan fiduciaries can undertake. Managed account services can be difficult to benchmark on an apples-to-apples basis, as varying participant demographics will impact the recommendations. Benchmarking dissimilar individual participant situations is not a reasonable comparison.

How managed accounts services are monitored/plan to monitor*



*Multiple responses allowed. Note that not all respondents that offer managed accounts responded to this question.

The DOL does not require plan sponsors to provide participants information on managed account performance or offer standard benchmarks, making it difficult for participants to evaluate whether the additional fees for managed accounts are worth paying.

Similarly, plan sponsors may receive limited information from their managed account provider to adequately review and monitor the performance and outcomes.

Investment Guidance and Advisory Services: Enrollment and Payment

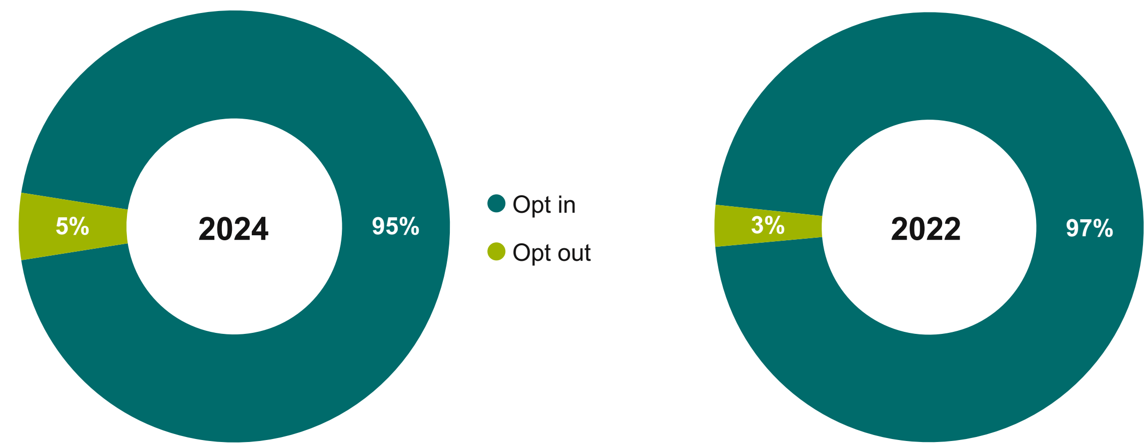
For respondents that offered managed accounts, the vast majority (95%) offered them as an opt-in feature whereby participants must affirmatively elect to use the service. By comparison, few respondents enrolled participants on an opt-out basis (5%).

The fees associated with a managed account service are a frequently cited reason for not offering opt-out enrollment. Plan sponsors do have the ability to negotiate the managed account service fees as utilization increases over time, and these fees should be benchmarked at a regular cadence.

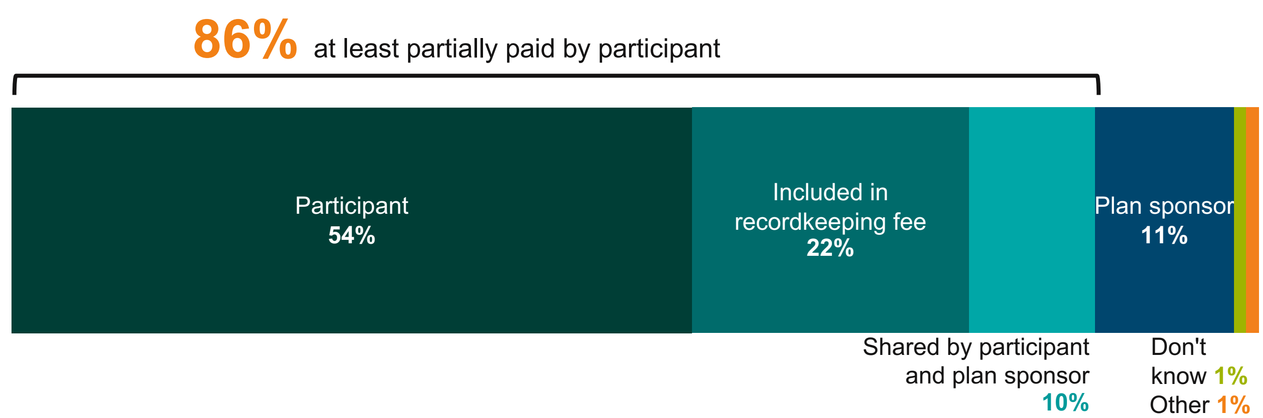
It remained most common for participants to pay for investment advisory services, either explicitly or as part of the overall recordkeeping fees.

11% of respondents paid the full expense of investment advisory services.

Approach to enrolling participants in managed accounts



How investment guidance or advisory services are paid



Reasons for Eliminating Investment Guidance and Advisory Services

Plan sponsors cited a number of reasons to explain why they have considered or would consider eliminating investment guidance and advisory services. The most common was a belief that a target date fund could provide a lower-cost alternative with similar diversification opportunities.

Other frequently cited reasons were cost, low participant demand/utilization, and the current litigation environment.

Reasons for eliminating investment guidance or advisory services

Most Important ↑ / ↓ Least Important

	Ranking
Target date fund offers similar diversification opportunities for a lower cost	**4.0**
Too costly to participants	**2.4**
Low participant demand/anticipated utilization	**2.2**
Current litigation environment	**2.0**
Difficulty in monitoring	**1.3**
Data security risk	**0.9**
Uncomfortable/unclear about fiduciary implications	**0.9**
Other financial guidance support available outside of the DC plan	**0.9**
Difficult to communicate to participants	**0.6**

*Additional categories: other (0.5), dissatisfied with available products (0.4), too costly to plan sponsor (0.4), products are not portable (0.1)

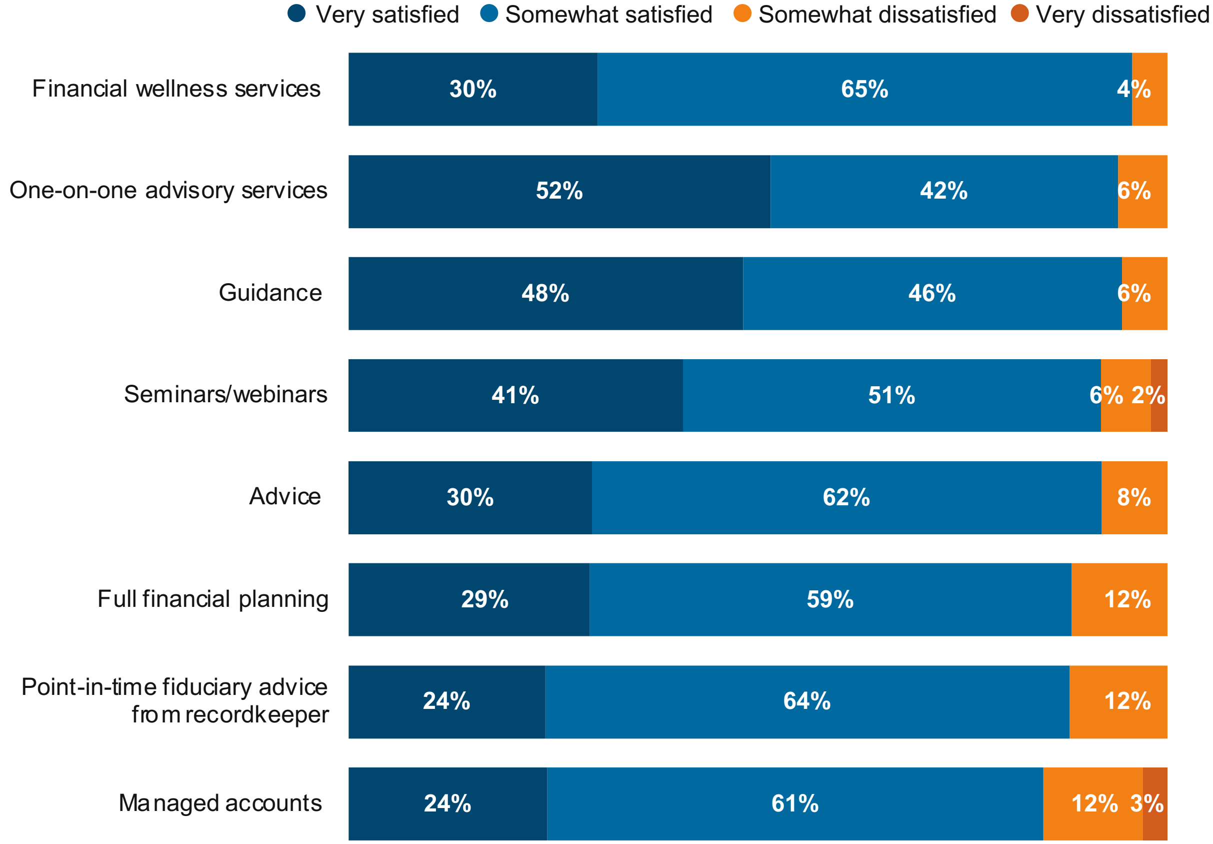
(5=Most important. Total rating is weighted average score.)

Satisfaction with Advisory Services

Respondents reported high levels of satisfaction with investment advisory services. Financial wellness services received the highest overall marks, with 96% of respondents very or somewhat satisfied.

The service with the largest percentage of dissatisfied respondents was managed accounts.

Satisfaction ratings for guidance or advisory services

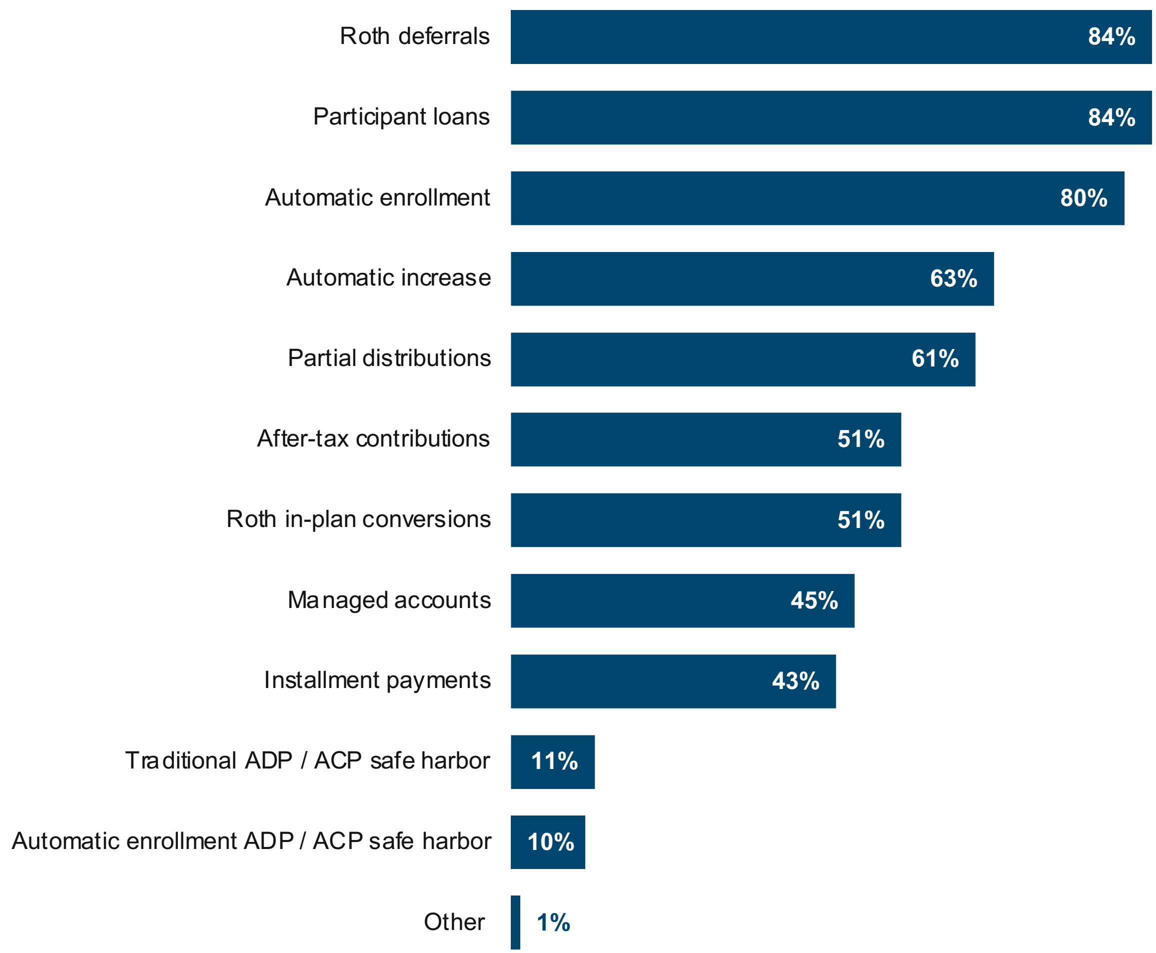


DC Plan Design

Survey respondents noted that Roth deferrals (84%) and automatic enrollment (80%) were the most common enhanced savings features. In 2013, our survey found that only 47% of plan sponsors offered Roth deferrals. Both features were formalized at a federal level by the Pension Protection Act of 2006 (PPA) and have had more than a decade to become majority practice. Both traditional after-tax contributions (51%) and Roth in-plan conversions (51%) remained at comparable levels to the prior year (52% and 56%, respectively).

84% of respondents allowed participants to take a loan from their DC plan balance. Of those permitting loans, 47% allowed one loan per participant; 47% allowed up to two loans per participant; and 6% allowed up to three.

DC plan design elements offered*



*Multiple responses allowed.

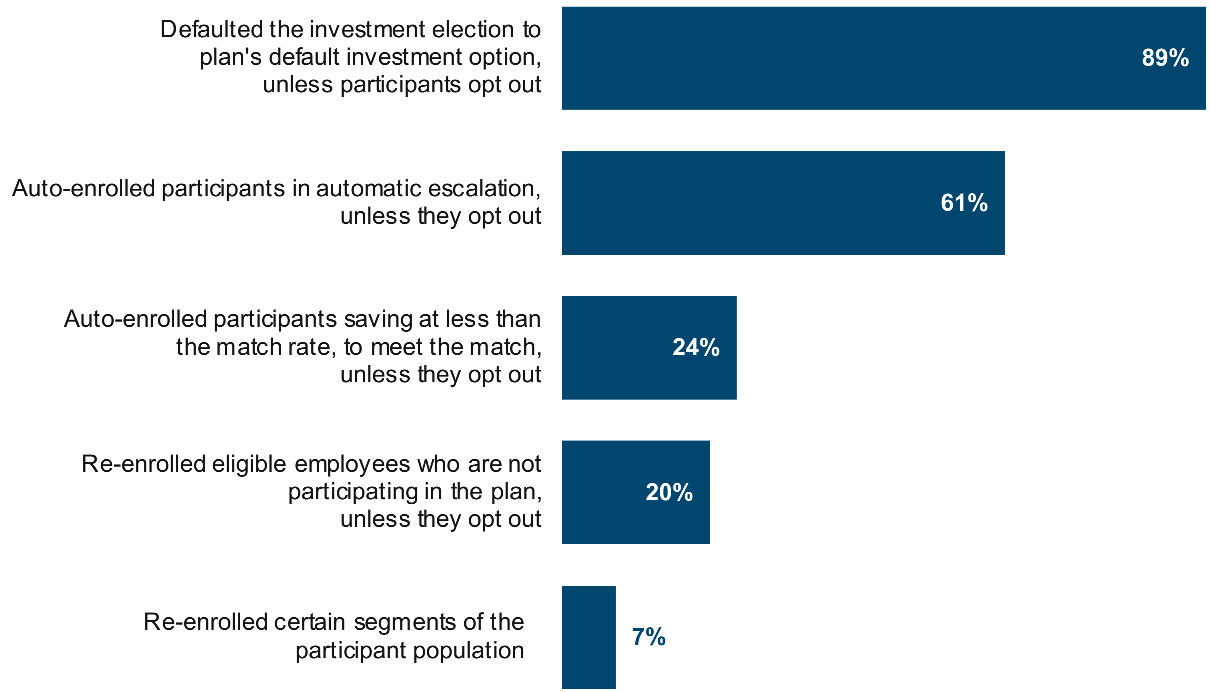
Re-enrollment

65% of respondents indicated they had conducted some type of re-enrollment.

Among those that had conducted a re-enrollment, the most common type was an asset re-enrollment (89%)—defined as requiring all participants in the plan to make a new fund selection or be defaulted into the plan's default investment option. Another common form of re-enrollment was auto-enrolling participants in automatic escalation (61%).

Less common forms of re-enrollment were auto-enrolling participants to meet the match (24%), re-enrolling employees not currently participating (20%), and re-enrolling targeted segments of the participant population (7%).

Methods of re-enrollment*



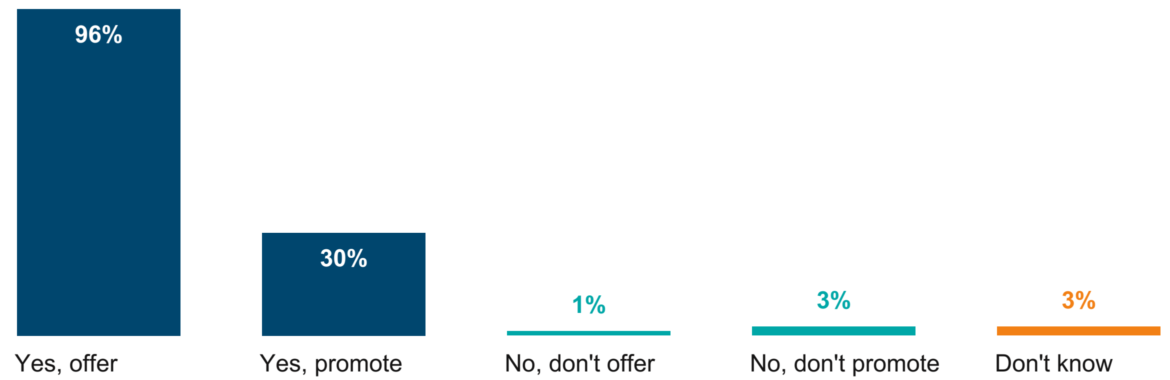
*Multiple responses allowed.

Rolling in Qualified Assets From Previous Employers

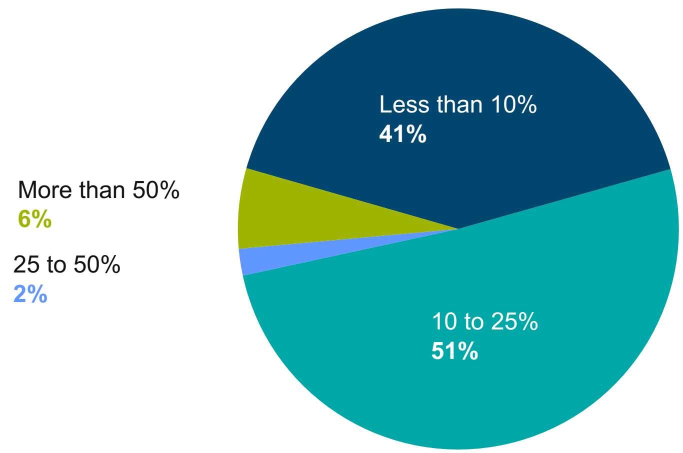
Most plan sponsors reported they offer participants the opportunity to roll in qualified assets from their previous employer. Yet only 30% actively promote this plan feature. Given the amount of employee turnover across the United States, it is very common for most participants to have multiple DC retirement accounts at any given time. This can be a challenge for participants to put together a comprehensive retirement asset-allocation strategy. This is especially true for retirement income solutions that should consider all retirement assets.

Note that 41% of plan sponsors indicated that less than 10% of participants rolled in assets from their previous employers' qualified plan. One benefit to better maximize the current plan features would be to proactively encourage participants to consolidate their qualified DC assets into their current plan.

Offer/promote rolling in qualified assets from previous employers*



Percentage of participants that rolled assets in**



*Multiple responses allowed.

**Of those that offered the ability to roll in assets.

Post-Employment Assets

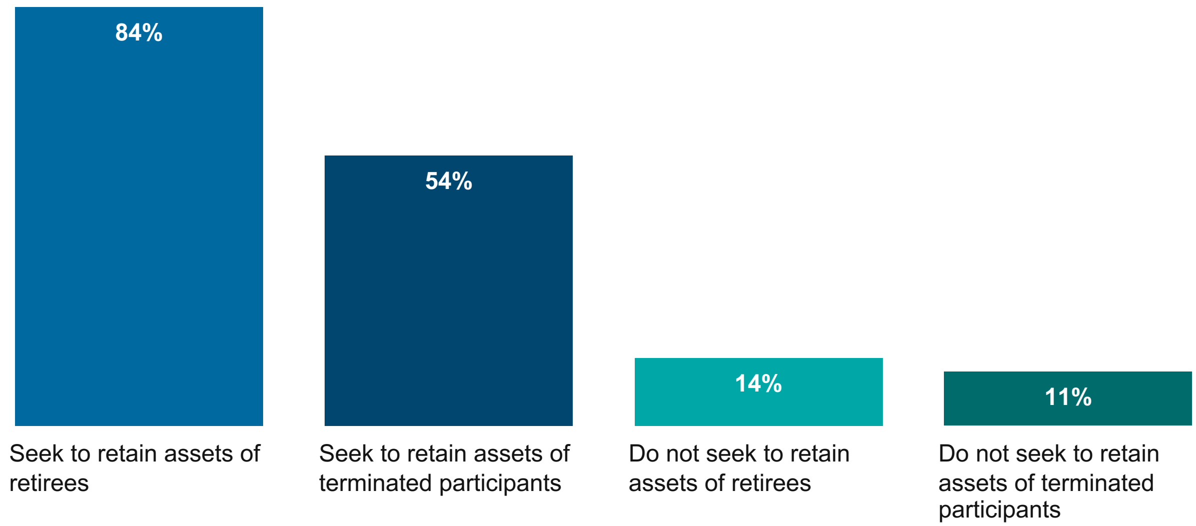
49% of respondents indicated they had a strategy around retaining retiree and/or terminated participant assets.

Of those with a strategy, the majority (54%) sought to retain the assets of both retiree and terminated participants, a notable increase from 2015 (44%). More than 8 in 10 plans sought to retain retiree assets, while fewer sought to retain terminated participant assets (54%).

Various rationales can drive the decision to retain assets. For example, retirees often have higher account balances, which can lead to cost efficiencies for the plan. On the other hand, account balances of employees who terminate before retirement can vary widely, as can the length of time before retirement, making these accounts potentially less efficient to retain.

Plan sponsors should weigh cost efficiency benefits against the fiduciary responsibility of retaining assets for participants who are not actively employed with the plan sponsor (e.g., maintain contact information to provide notices, monitor investments).

Strategies to retain retiree/terminated assets*



*Percentages out of those with a stated intent in place. Multiple responses allowed.

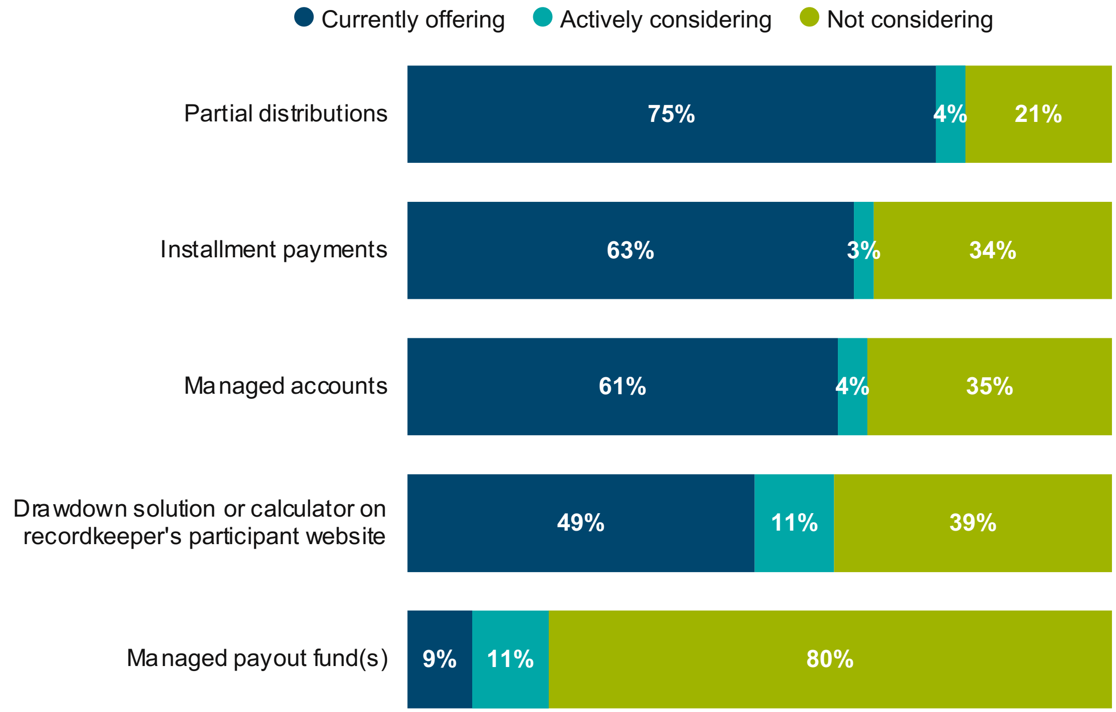
Retirement Income Solutions

Most respondents offered some type of retirement income solution to employees in 2024. Partial distributions (75%) and installment payments (63%) remained the most common. Providing access to managed accounts (61%) or a drawdown solution (49%) were the next most common.

Explainer: A drawdown solution is a simplified process on the participant website (e.g., a one-step button) to implement the output from a retirement calculator. It is a more streamlined process for participants to establish a stream of income, who would otherwise have to manually transfer the calculator output into the transactional section of the website.

Only 9% of plan sponsors offered managed payout funds. These funds are typically diversified options that target a specified "payout" level each year (e.g., 4%–6%). The payouts amounts aren't guaranteed and may vary depending on fund performance and withdrawal policy.

Retirement income solutions offered*



*Percentages among those with a solution in place. Multiple responses allowed.

Retirement Income Solutions

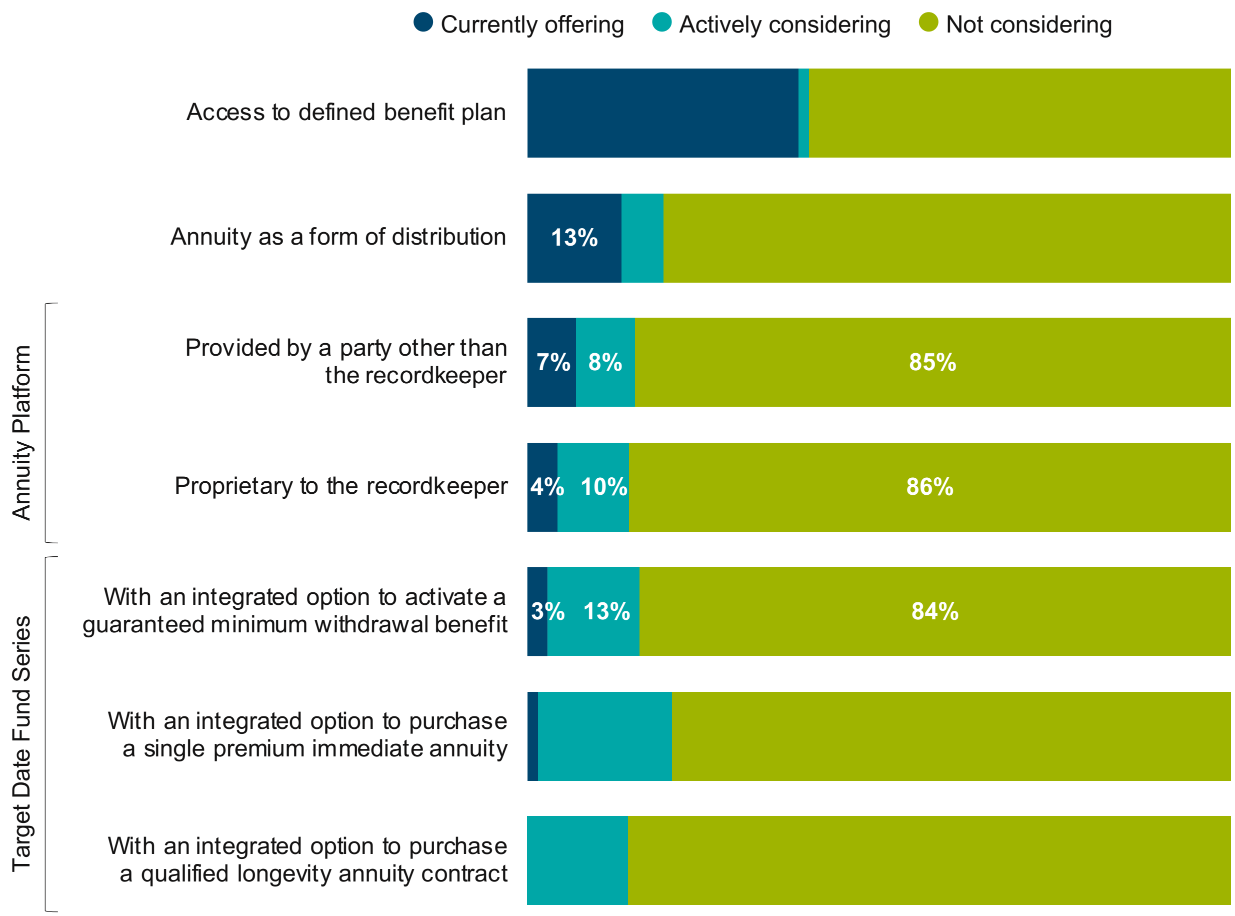
Nearly 4 in 10 respondents also offered a defined benefit plan, providing a guaranteed income stream to at least some DC plan participants.

Recent product innovation has led to discussion around the possibility of providing other forms of guaranteed income to DC plan participants, whether through the DC plan's TDF suite or a solution separate from a TDF suite (e.g., annuity platform service).

In 2024, relatively few respondents reported offering an annuity platform service or a TDF with a guaranteed income component.

However, 19% are considering a TDF with an integrated participant option to purchase an immediate annuity.

Retirement income solutions offered*



*Percentages among those with a solution in place. Multiple responses allowed.

Reasons for Not Offering a Retirement Income Solution

Plan sponsors cited a number of reasons to explain why they were unlikely to offer an annuity-type product in the near term. The two most common were: a lack of participant need/demand and a view that it is unnecessary or not a priority.

Respondents also noted that the fiduciary implications around an annuity-type product can be uncomfortable or unclear and that they are difficult to communicate, citing these as part of the reasons to not offer these products.

Reasons for not offering retirement income solution

Most Important → Least Important

Reason	Ranking
No participant need or demand	3.1
Unnecessary or not a priority	2.5
Uncomfortable/unclear about fiduciary implications	2.4
Difficult to communicate to participants	2.1
Availability of defined benefit plan	2.0
Too administratively complex	2.0
Lack of product knowledge	1.8
Too costly to plan sponsor/participants	1.7
Concerned about insurer risk	1.2
Uncomfortable with available products	1.1
Products are not portable	0.7
Recordkeeper/product provider unprepared to support plan sponsor/participant needs	0.6
Recordkeeper will not support this product	0.2

(5=Most important. Total rating is weighted average score.)

SECURE 2.0 Act

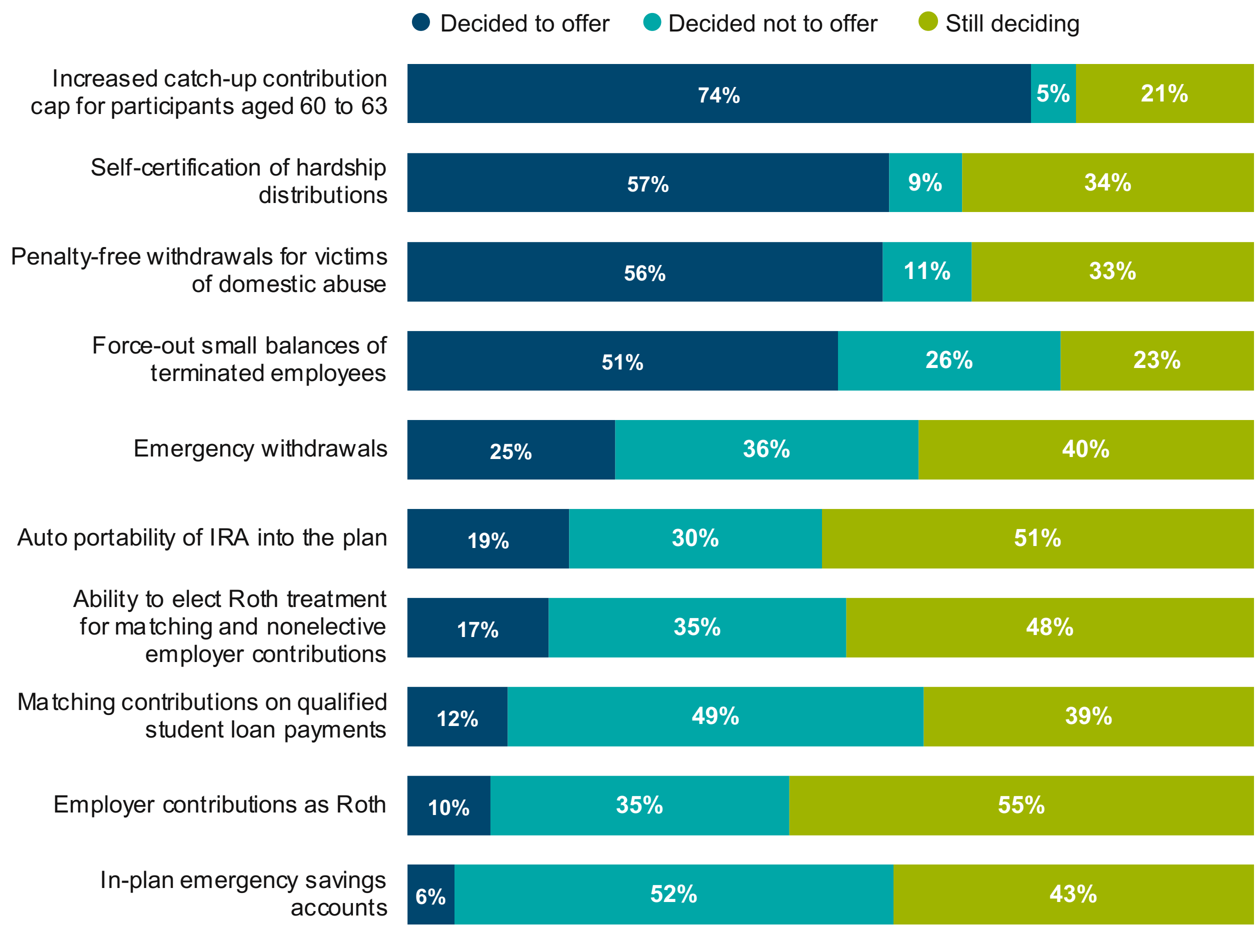
There were nearly 100 provisions in the SECURE 2.0 Act passed in 2022. The most commonly implemented provision was increased catch-up contributions for participants aged 60 to 63.

The next most common provision implemented was self-certification of hardship withdrawals. This is not surprising as the option had been previously formalized in IRS guidance pre-dating the legislation. Also popular was the provision that liberalized withdrawal availability for victims of domestic abuse.

Respondents indicated relatively little interest for allowing employers to make employer contributions on a Roth basis or allowing a match in the DC plan for those repaying student debt.

Notably, nearly 52% of respondents have decided not to offer in-plan emergency savings accounts.

SECURE 2.0 expected adoption of optional provisions



Defined Contribution Consulting

100+ **Years combined experience**

72 Fee studies and recordkeeper searches over the past three years

58 Investment structure evaluations

36 Target date fund suitability

35 Custom projects – governance reviews, managed account suitability evaluation, demographic analysis, plan design evaluation, independent fiduciary searches

Callan's DC Research and Consulting Group complements our investment consultants, providing specialty research and expertise around plan trends, aspects of compliance and administration, behavioral aspects of structure design specific to DC plans, and vendor and fee management. We have a strongly tenured team that works with a wide variety of plan sponsors and recordkeepers, which provides valuable context and expertise to our clients.

Scotty Lee
Jamie McAllister

Jana Steele
Ben Taylor

Greg Ungerman, CFA
Patrick Wisdom

Disclosure

Certain information herein has been compiled by Callan and is based on information provided by a variety of sources believed to be reliable for which Callan has not necessarily verified the accuracy or completeness of this publication. This report is for informational purposes only and should not be construed as legal or tax advice on any matter. Any investment decision you make on the basis of this report is your sole responsibility. You should consult with legal and tax advisers before applying any of this information to your particular situation. Reference in this report to any product, service or entity should not be construed as a recommendation, approval, affiliation or endorsement of such product, service or entity by Callan. Past performance is no guarantee of future results. This report may consist of statements of opinion, which are made as of the date they are expressed and are not statements of fact. Reference to or inclusion in this report of any product, service or entity should not be construed as a recommendation, approval, affiliation or endorsement of such product, service or entity by Callan.

Callan

Corporate Headquarters

One Bush Street
Suite 700
San Francisco, CA 94104

www.callan.com

Regional Offices

Atlanta
Chicago
Denver
New Jersey
Portland

Callan

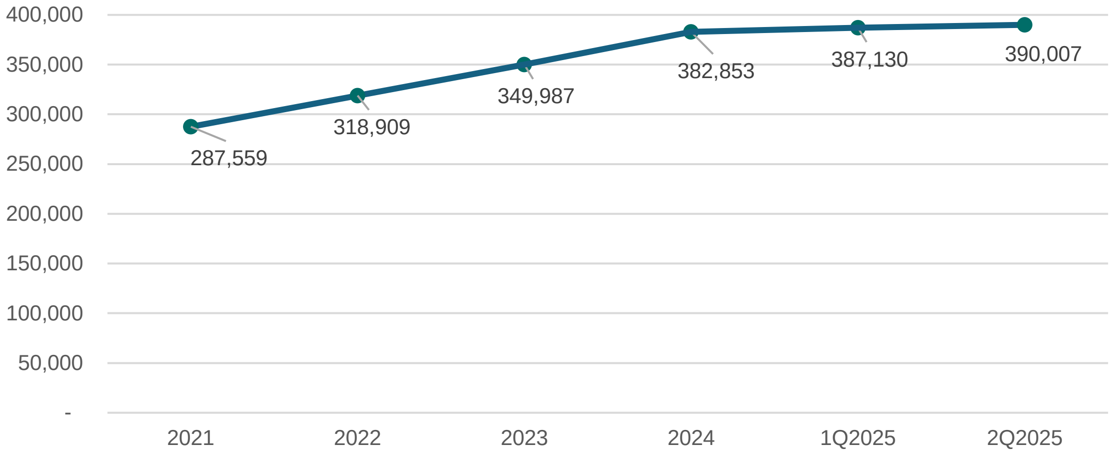
Quarterly Review

VRS Defined Contribution Plans
April 1, 2025– June 30, 2025

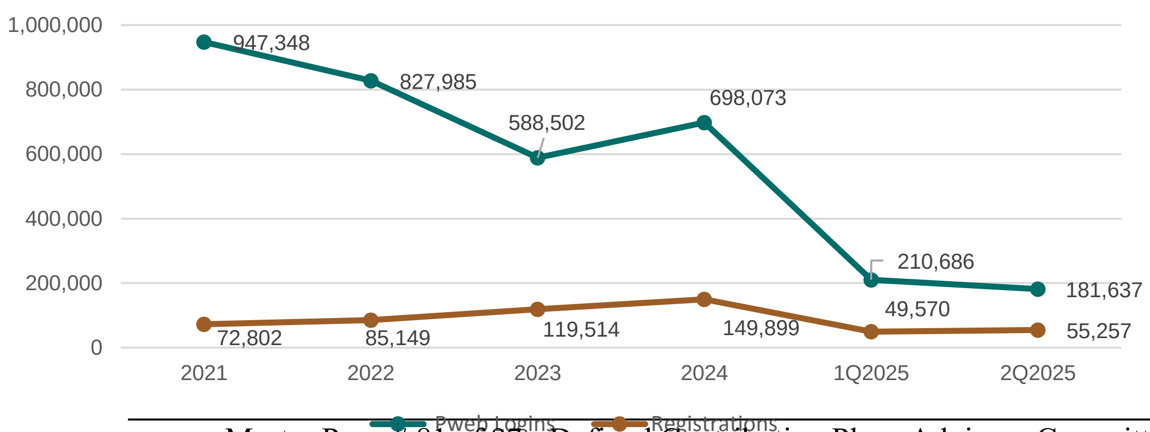
VRS Defined Contribution Plans[1]
2nd Quarter 2025– *DC Plans Metrics*

Total Assets[2]: $ 9,663,820,364   Total Accounts[2]: 657,456

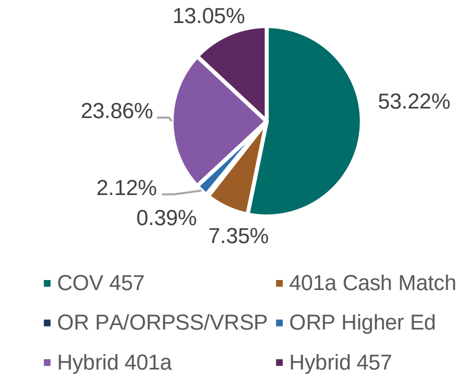
Unique Participants



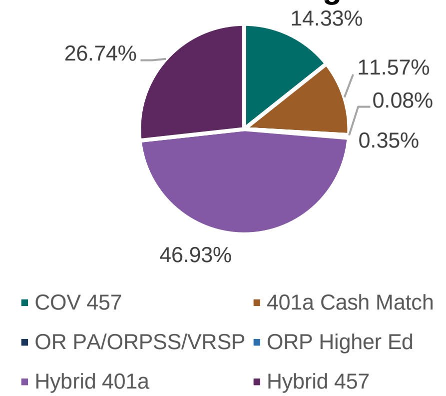
Account Access Registrations & Logins



Assets Under Management



Accounts Under Management



Top 10 Visited Pages

1. Homepage
2. My Balances
3. Manage Investments
4. Account History
5. Message Center
6. Withdrawals
7. Manage Contributions
8. Personal Performance
9. Beneficiary Info
10. Available Withdrawals

VRS Defined Contribution Plans

2nd Quarter 2025– *DC Plans Participant Engagement*

Call Center Participant Services

- 45,966 calls received YTD 2025
- 68,791 calls received in 2024
- 60,397 calls received in 2023
- 55,471 calls received in 2022
- 55,311 calls received in 2021

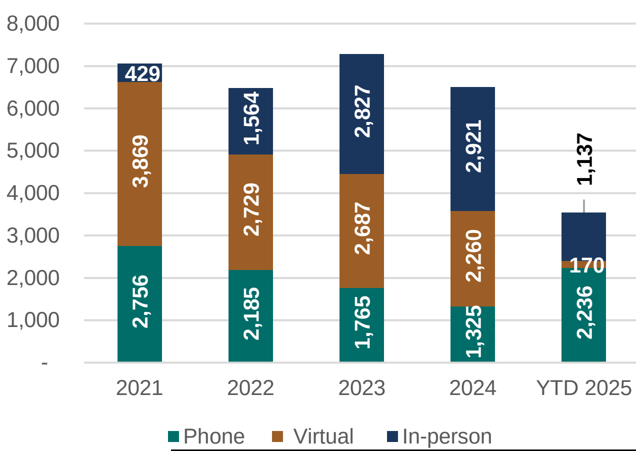
Current call trends:

1. Plan Overview
2. Targeted Message
3. Terminations
4. Phone Update
5. Account Maintenance

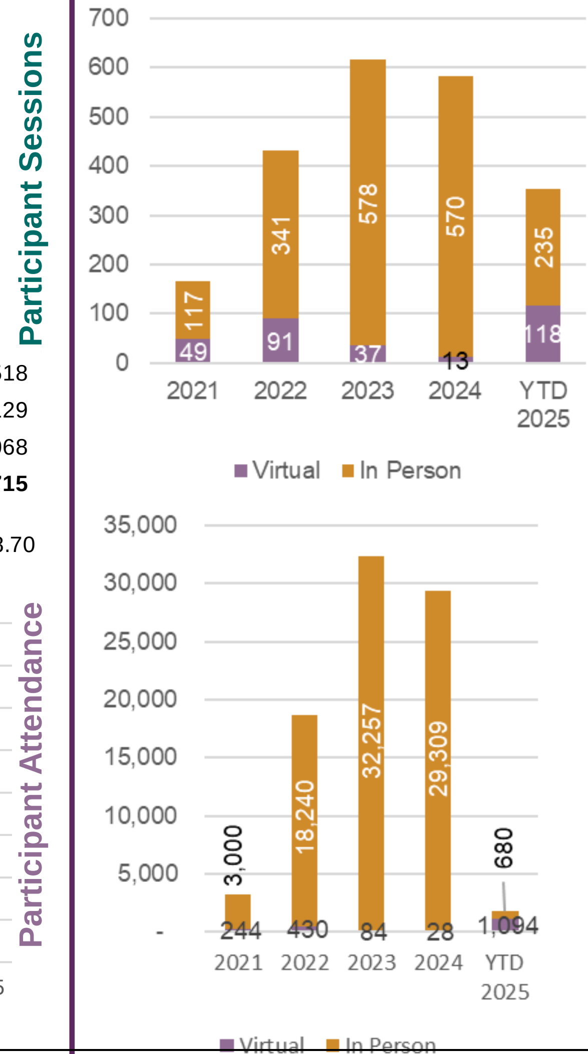
Advisory Services

Advisor Calls	518
Online Adopters	2,129
Professional Management Members*	2,068
Total Activity	**4,715**
*2Q25 Fees Paid By Professional Management Members	$71,158.70

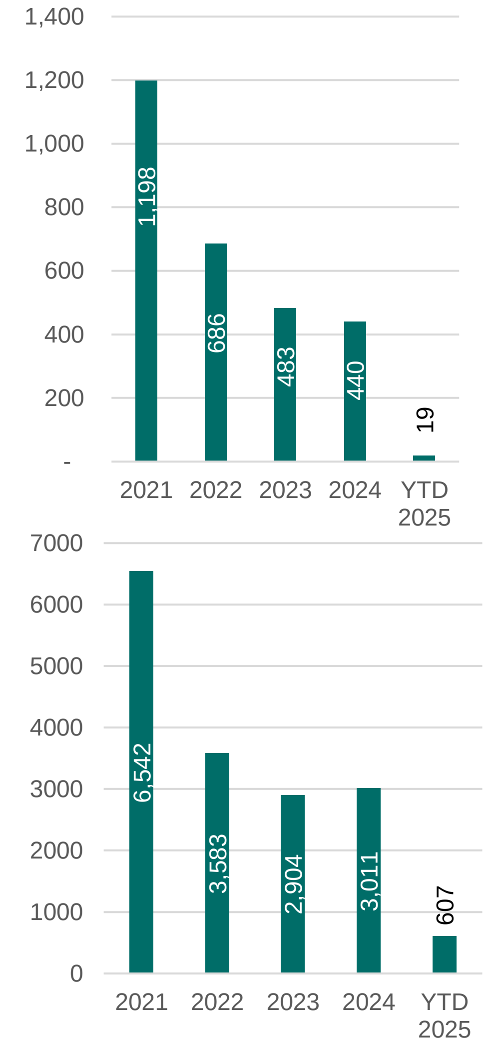
Individual Account Reviews



Group Meetings

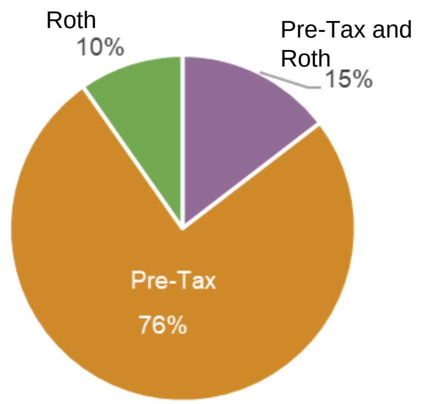


Webinars



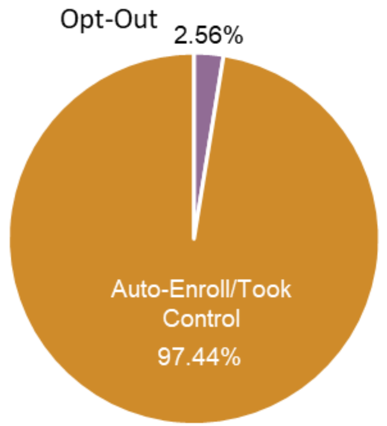
VRS Defined Contribution Plans
2nd Quarter 2025– *COV 457 Plan, Virginia Cash Match Plan*

Deferral Type



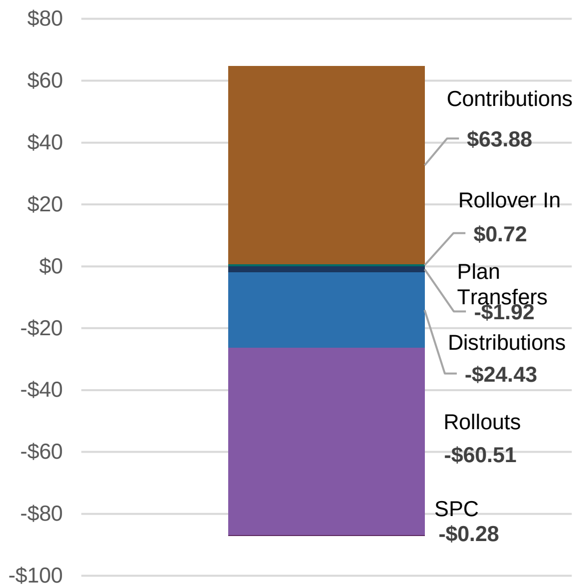
Average pre tax deferral per pay $201.86
Average Roth deferral per pay $196.11

Auto Enrollment



2.56% Opt Out rate for quarter
3.29% opt out rate since conversion to Voya

Contributions/Distributions[5]



Participant Status Overview[6]

170,283 total accounts

53% Active

47% Separated

$2,766m assets at risk

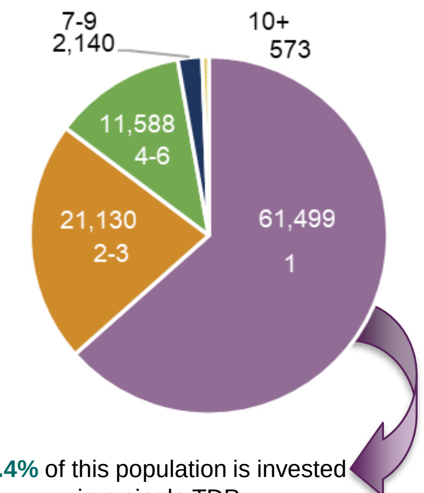
COV 457 Participation Rates

- State[4] 34.17%
- Non-state 10.86%

Top 10 Fund Holdings

1.	Stock Fund	$2,027,700,572
2.	Target Date Portfolios	$1,802,876,227
3.	Stable Value Fund	$584,724,816
4.	Small/Mid Cap Stock Fund	$430,131,737
5.	International Stock Fund	$264,297,899
6.	Bond Fund	$169,631,872
7.	Money Market Fund	$155,962,718
8.	Schwab PCRA	$146,654,030
9.	Global Real Estate Fund	$89,192,551
10.	VRS Investment Portfolio	$68,709,227

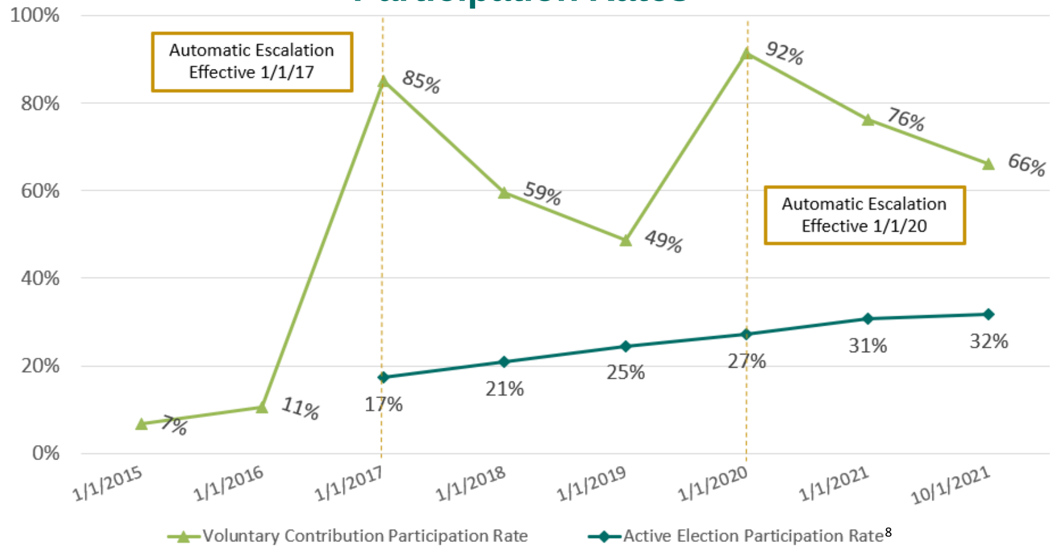
of Funds Held by Participants



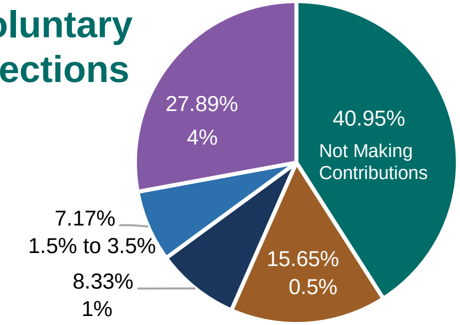
94.4% of this population is invested in a single TDP

VRS Defined Contribution Plans
2nd Quarter 2025– *Hybrid Retirement Plan – 401(a) & 457(b)*

Participation Rates[7]



Voluntary Elections



Top 10 Fund Holdings

1.	Target Date Portfolio	$3,274,826,383
2.	Stock Fund	$160,406,441
3.	Small/Mid Cap Stock Fund	$35,314,833
4.	International Stock Fund	$26,990,960
5.	Money Market Fund	$22,332,558
6.	Bond Fund	$11,545,794
7.	Stable Value Fund	$10,548,148
8.	Schwab PCRA	$9,889,047
9.	Global Real Estate Fund	$8,340,939
10.	High Yield Bond Fund	$6,965,897

Participant Status Overview[3]

484,343 total accounts

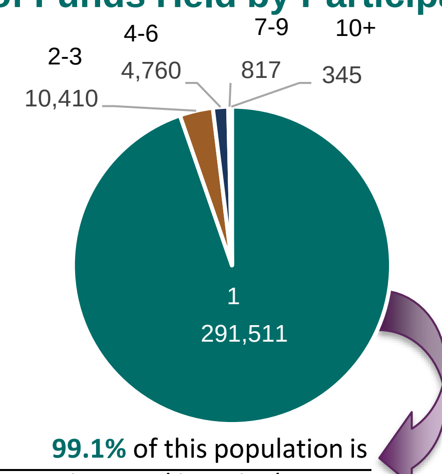
68% Active

32% Separated

$711m assets at risk

Contributions/Distributions

of Funds Held by Participants

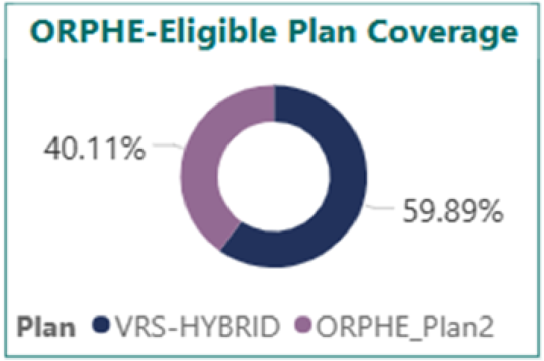


99.1% of this population is invested in a single TDP

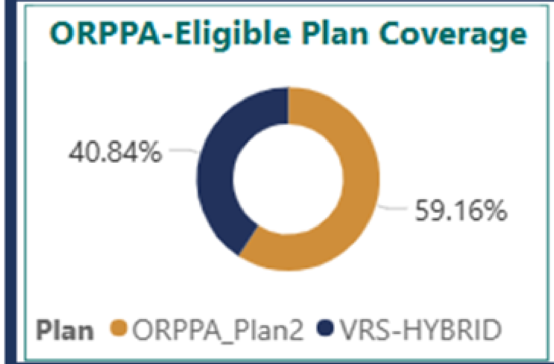
VRS Defined Contribution Plans

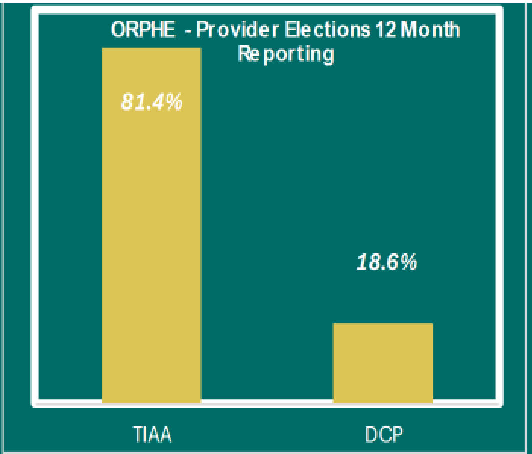
2nd Quarter 2025 ORPHE* and ORPPA

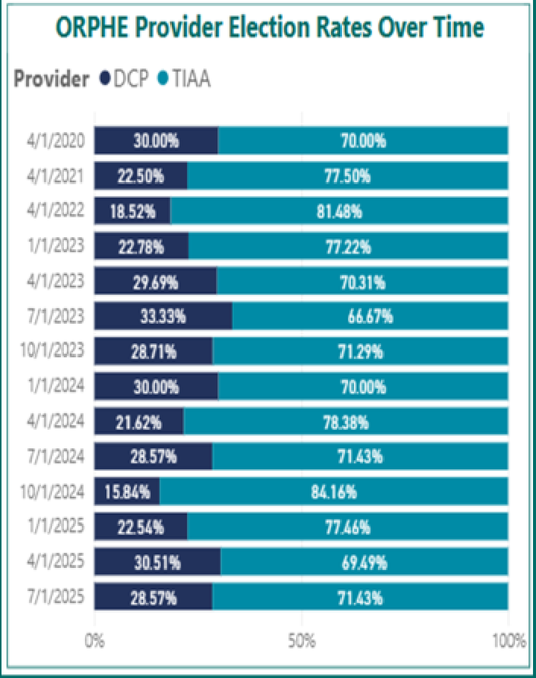
ORPHE Participation
Participant Accounts: 10,945
Assets: $1,465,880,519
Providers: Voya, TIAA

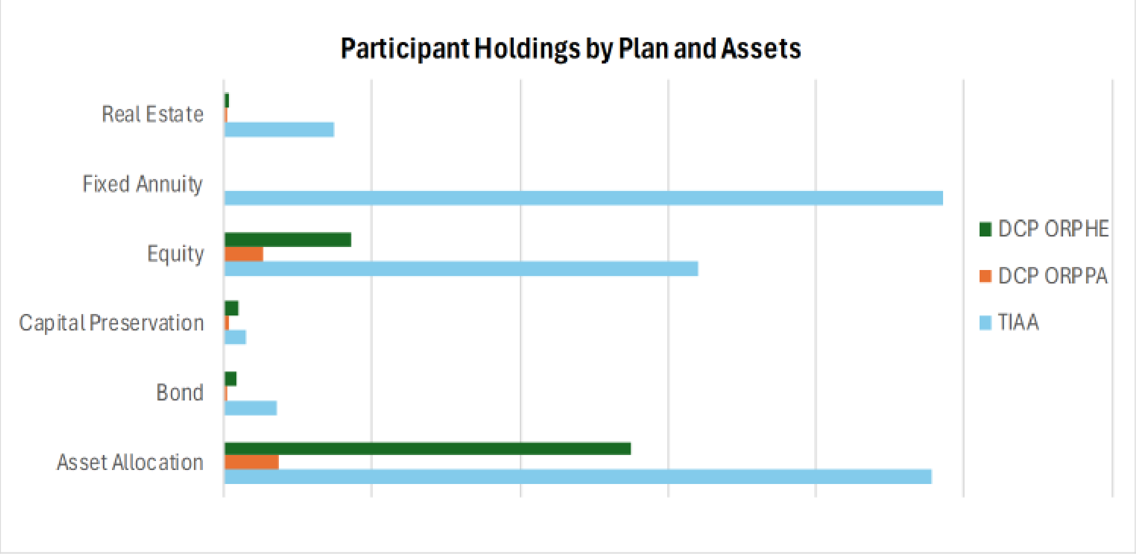


ORPPA Participation
Participant Accounts: 494
Assets: $36,588,035
Providers: Voya









ORPHE Deselected Providers:
Fidelity, T. Rowe Price, Empower, Corebridge, MetLife
Participants: 1,187
Assets: $164,424,967.83

*Excludes opt-out higher ed institutions. ^Excludes deselected investments. Some currently selected funds on the TIAA platform may include assets across the RC, RA, and GRA contracts. ⁺Includes both international and domestic equity.

VRS Defined Contribution Plans

2nd Quarter 2025– *DC Plans Metrics*

Source Information/Additional Footnotes

All data unless noted otherwise was provided by Voya Financial and is as of 06/30/2025.

1. Includes DC plans record kept by Voya Financial
2. Total assets and accounts include beneficiaries, forfeiture, and reserve accounts.
3. Web statistics provided by Google Analytics.
4. Includes employees at higher education institutions who are also eligible for a 403(b).
5. Cash Flow Definitions
    - Rollins – Contributions into a participant’s account from a retirement plan or IRA.
    - Contributions – Payroll contributions from a participant’s paycheck.
    - Plan Transfers – Transfer of funds between VRS retirement plans.
    - Distributions – Consists of auto enrollment refunds, required minimum distributions (RMDs) unforeseen emergency withdrawals and full, partial, installment and de minimis requests
    - Rollouts – Withdrawal request sent to another retirement plan or IRA
    - SCP – A request to transfer employee contribution funds from the plan to VRS to purchase service credit. Please note, SCP is not permitted from the H401 plan.
6. Active Participants do not have a termination date on file and may not have made a contribution during the quarter. Terminated Participants have a termination date on file.
7. Source: 10/1/21 Active Hybrid Member Demographics Report.
8. Active Election participation rate includes members who had a self-selected voluntary election on file prior to the automatic escalation that occurred on 12/16/19.
9. Chart shows current status of active participants set up as auto-enroll eligible after plan conversion, January 1, 2025; excludes terminated participants.

Virginia Retirement System

Optional Retirement Plan for Higher Education

Review of Contribution Rates

Report to the Defined Contribution Plans Advisory Committee (DCPAC)

September 2025



Table of Contents

Optional Retirement Plan for Higher Education

2025 Review of Contribution Rates

Introduction

The Board of Trustees of the Virginia Retirement System (VRS) is required by *Code of Virginia* §51.1-126.F.3 to review contribution rates for the Optional Retirement Plan for Higher Education (ORPHE) at least once every six years. The previous periodic contribution rate review was completed in 2019.

> *The contribution rates established pursuant to subdivision 1 shall be examined by the Board at least once every six years. The examination shall consider the salary peer group mean contribution as determined by the State Council of Higher Education and the Virginia Retirement System actuary, and, if deemed advisable, recommend a revision to the rate of contribution by the Commonwealth.*

To support the review process, VRS staff gathered employer and employee contribution data from peer institutions across the country designated by the State Council of Higher Education for Virginia (SCHEV). This data was used to calculate the average contribution rate for the salary peer group as of July 2025.

VRS reviewed contribution rates for faculty members participating in ORPHE, a defined contribution plan. Under §51.1-126, faculty members contribute 5% and employers contribute 8.5%. This rate structure has been in place for eligible new hires since July 1, 2010. Employers may choose to make an additional employer contribution of up to 0.4%, totaling 8.9%. Currently, the only institution doing so is the University of Virginia.

The results of the analysis determined that the current employee and employer contribution rate was competitive with the peer group average.
At this time, a revision to the current rates is not recommended.

Methodology

SCHEV developed a set of peer institutions in 2007 for each public college and university in Virginia in order to assess the Commonwealth's funding of faculty salaries. Using cluster analysis, SCHEV set 19 quantitative characteristics to identify institutions similar to each Virginia institution.

In total, 622 peer institutions were identified by SCHEV, including 272 four-year institutions and 350 community colleges. For most institutions, information related to retirement benefits was available on their public websites. For others, VRS staff reached out via email and/or phone.

VRS was able to obtain data from 614 of the 622 institutions. (Of the eight institutions that did not provide data, five were private.)

Responding peers represented a mix of public (505) and private (109) institutions. In some areas, there are key differences between these types of institutions, which are highlighted in relevant sections.

Additionally, there are often differences between four-year institutions and community colleges, which this report also compares.

The following plan attributes were reviewed:

- Primary retirement plan offerings:
  - IRS plan type for the defined contribution plans
  - Availability of an alternate plan choice
- Contribution rates
- Waiting period
- Vesting schedule
- Shared plan status (Additional information provided on page 8.)

Although current ORPHE contributions rates differ from an earlier tier of the plan, which included only a 10.4% employer contribution, VRS only considered the current tier in its review and analysis. The current tier has been in place since 2010 and is the only option available for new hires. Likewise, only the current retirement plan available at peer institutions was considered.

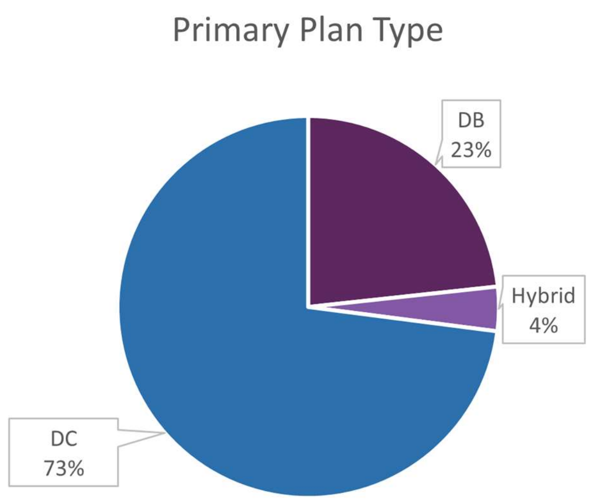
Findings

Primary Retirement Plan Offerings

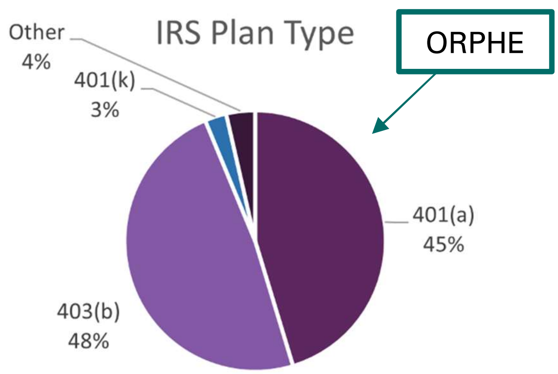
Of key consideration is the type(s) of plans offered to employees as a primary retirement benefit. For the purpose of this review, primary plans include those with required employer and/or employee contributions, as opposed to supplemental retirement plans, to which employees may choose to contribute. Analysis is limited to primary retirement plans.

Of the responding institutions, 143 offered only a defined benefit (DB) plan. A DB offering was a much more common feature in public sector plans.

Twenty-three of the responding institutions only offered a hybrid plan.

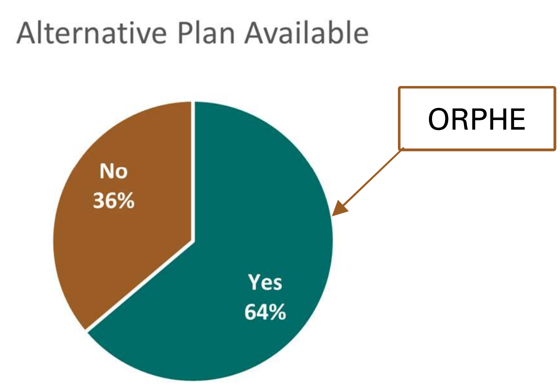


The most common offering was a primary defined contribution (DC) plan, which is offered by 73% (448) of the peer institutions. When focusing on four-year institutions, the percentage jumps to 93%.



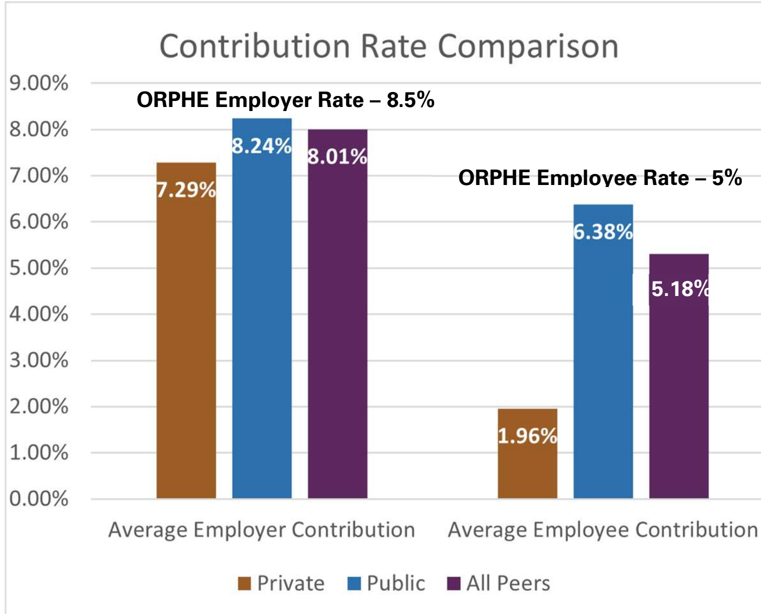
IRS Plan Types: For institutions offering a DC plan, there were several types in use. The most common, however, were 401(a) and 403(b) plans. Fewer than 10% offered a different plan type.

Availability of an Alternate Plan: At many institutions, employees are given a choice between plans. Among the institutions offering a DC plan as a primary retirement plan, 84% public institutions offered an alternative. None of the private institutions did so.

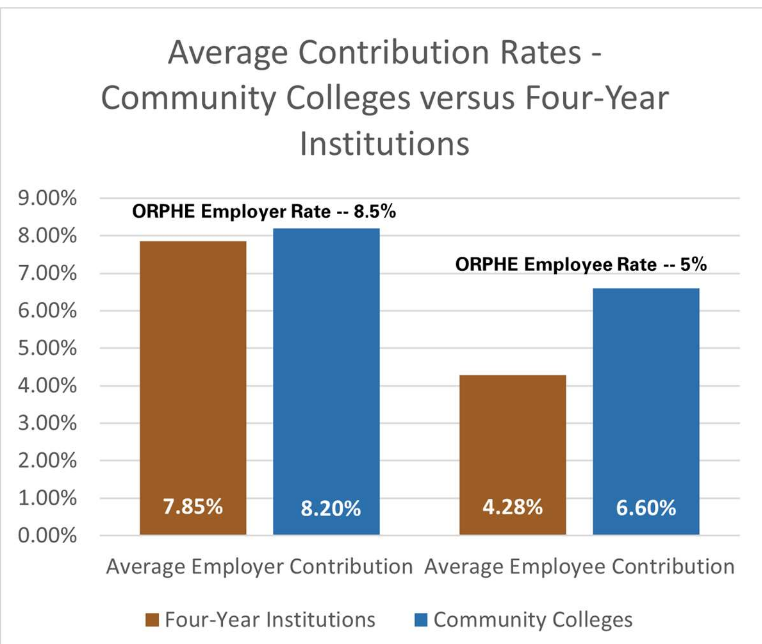


Contribution Rates

Contribution rates for primary DC plans were reviewed in a number of different ways. Across all peers, the mean contribution was 8.01% for employer contributions and 5.31% for employee contributions. This ratio of employer to employee contributions aligns with the current ORPHE contribution rates of 8.5% employer and 5% employee.



Public versus Private Institutions: When comparing rates between public and private institutions, there is a difference in the average employee contribution; where private institutions are approximately 4.4% less than public institutions. The ORPHE employee contribution rate of 5% is below the average of all peers, both public and private.



Community Colleges versus Four-Year Institutions: There were minimal differences in employer contribution rates when comparing four-year institutions and community colleges. The average employee contribution rate was higher for community colleges than for four-year institutions. These differences are largely because all the community colleges are public institutions, which on average have higher employer and employee contribution rates.

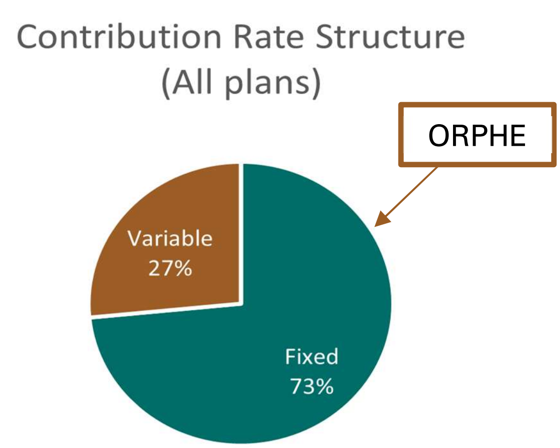
Current contribution rates to ORPHE include an 8.5% employer contribution and a 5% employee contribution. §51.1-126. F.1 allows for an employer contribution up to 8.9%. Currently, only one institution, the University of Virginia, has opted to use the 8.9% maximum contribution rate.

Of the 249 four-year institutions with a primary defined contribution plan, 17% (43) did not require an employee contribution. Contributions ranged between 0.5% to 17.5% for those requiring it.

Of the 199 community colleges offering a primary defined contribution plan, 8% (15) did not require an employee contribution. For those requiring it, employee contributions ranged between 2.0% and 17.5%.

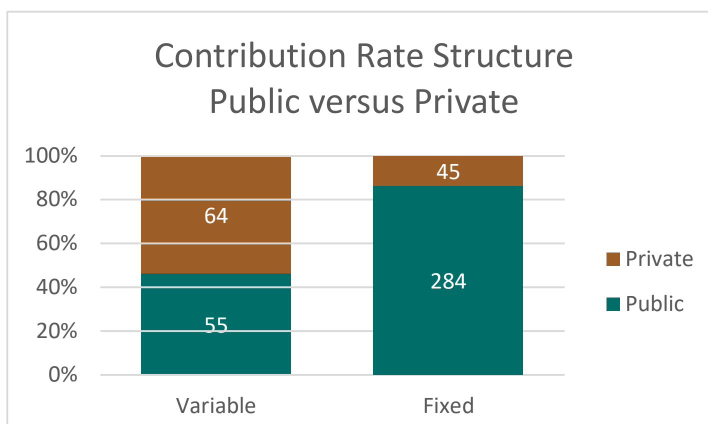
	Mean	Median	Mode	Mean	Median	Mode
Community Colleges	**8.20%**	**7.60%**	**6.60%**	**6.60%**	**6.65%**	**6.65%**
Four-Year Institutions	**7.85%**	**8.00%**	**10.00%**	**4.28%**	**4.38%**	**0.00%**
ORPHE		**8.5%**			**5%**	

Fixed versus Variable Rates: Another plan attribute that varies from one defined contribution plan to another is whether contribution rates change based on factors like age, salary and/or tenure. Of the plans reviewed, 73% included fixed contribution rates, like ORPHE, that are the same for all participating employees, and 27% included variable rates. Fixed contribution rates were more common in public sector plans at 84%, but only 43% of private sector plans used a fixed rate. The specific factors determining how or why rates varied within a plan were not part of the analysis. For plans with variable rates, only the mean contribution rate was considered.



A few examples of variable contribution rates include:

- The State University of New York (SUNY) Optional Retirement Plan includes a fixed employer contribution rate of 8% and a variable employee contribution ranging from 3% to 6% based on salary.
- The University of Pennsylvania's employer contributions vary based on the employee's age and range from 2.5% to 5%.
- Boston College's defined contribution plan offers employer contributions of either 8% or 10%, depending on years of service.

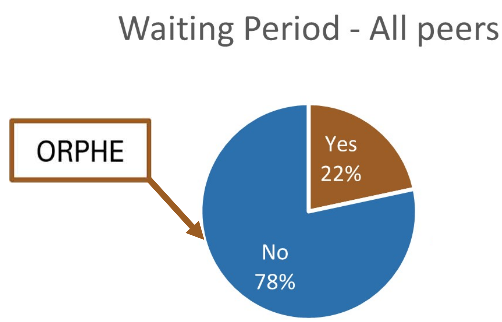


Waiting Periods and Vesting Schedules

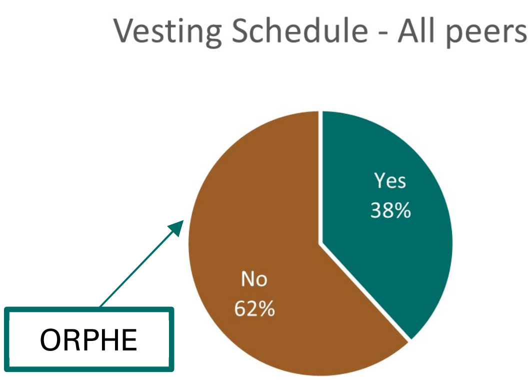
In addition to contribution rates and plan type, other
waiting periods and vesting schedules.

Waiting Period: Waiting periods are a period of empl
the retirement plan. For all peers, this was only a req
are much more common in private institutions than i
only, 78% required a waiting period compared to onl

ORPHE does not include a waiting period. Employee



Vesting Schedule: In a defined contribution plan, a vesting schedule determines when a participant gains full ownership of employer contributions made to their retirement account. While employees are always immediately vested to their own contributions, employer contributions may be subject to a vesting schedule. This means that the longer an employee remains with the organization, the greater the portion of employer contributions they retain. For example, an employee might earn 25% ownership after one year, 50% after two years and become fully vested after four years of service. If the employee leaves before becoming fully vested, any unvested employer contributions are typically forfeited. Plan vesting schedules vary. This study did not consider the different types of vesting schedules institutions had in place, only if they had one.

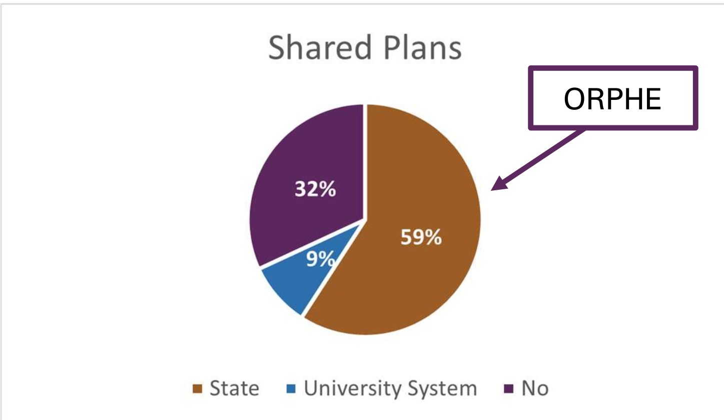


Across all peers, 38% require a vesting schedule before employees are fully entitled to all employer contributions. This feature also varied greatly between public and private institutions, with 44% of public institutions requiring a vesting schedule compared to 19% of private institutions.

In general, ORPHE does not include a vesting schedule, and employees are 100% vested in all employer contributions from day one. However, the Code of Virginia (§51.1-126. F.2) allows institutions administering their own ORPHE to implement a vesting schedule. Currently, only the University of Virginia has done so.

Shared Plan Status

A shared plan is a retirement plan administered by a central entity with participation by multiple employers. Most attributes of the plan are shared and do not vary from one employer to another, although some variation may be allowed. Most commonly, shared plans can be administered at the state level, as is the case in Virginia, or shared across a university system. In the private sector, shared plans can be administered by a third party on behalf of participating employers.



As an example, public institutions in Virginia take part in the Optional Retirement Plan for Higher Education, which is administered by VRS. Individual institutions have limited flexibility to modify plan attributes, although some modification is permitted.

Of the peer institutions reviewed, 59% (265 institutions) were part of a state-administered plan; 9% (40 institutions) were part of a university-administered plan; and 32% (143 colleges) were not part of a shared plan. Only one private institution was part of a shared university plan.

Of the public institutions with a defined contribution plan, the most common structures were those administered at the state level, which accounted for about 78% of the public institutions.

The peer group reviewed included public sector plans administered by the following states:

- Colorado
- Connecticut
- Florida
- Georgia
- Idaho
- Illinois
- Kansas
- Louisiana
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- New Jersey
- New Mexico
- Nevada
- New York
- Ohio
- North Carolina
- Pennsylvania
- Rhode Island
- South Carolina
- Tennessee
- Texas
- Utah
- Washington
- West Virginia

Conclusion

Code of Virginia §51.1-126 requires the VRS Board of Trustees to examine the contribution rates for the Optional Retirement Plan for Higher Education at least once every six years. Based on the analysis set forth above, VRS staff has concluded that contribution rates are comparable to peer institutions identified by SCHEV.

No changes are recommended at this time.

Virginia Public Higher Education Institutions

Community Colleges

Blue Ridge Community College

Brightpoint Community College

Central Virginia Community College

Danville Community College

Dabney S. Lancaster Community College

Eastern Shore Community College

Germanna Community College

J. Sargeant Reynolds Community College

Laurel Ridge Community College

Mountain Empire Community College

New River Community College

Northern Virginia Community College

Paul D. Camp Community College

Patrick Henry Community College

Piedmont Virginia Community College

Rappahannock Community College

Southside Virginia Community College

Tidewater Community College

Virginia Highlands Community College

Virginia Peninsula Community College

Virginia Western Community College

Wytheville Community College

Four-Year Colleges and Universities

Christopher Newport University

College of William and Mary

George Mason University

James Madison University

Longwood University

Norfolk State University

Old Dominion University

Radford University

Richard Bland College*

University of Mary Washington

University of Virginia

University of Virginia's College at Wise

Virginia Commonwealth University

Virginia Military Institute

Virginia State University

Virginia Tech

*Richard Bland is a junior college associated with the College of William & Mary.