



Defined Contribution Plans Advisory Committee (DCPAC) Meeting

1111 E. Main St., Third Floor
Richmond, VA 23219
Thursday, 5/15/2025
1:00 - 3:00 PM ET

1. Welcome & Introductions

2. Meeting Minutes

2025.3.6 DCPAC Minutes - Page 2

a. Adoption of the Minutes from the March 6, 2025, Meeting

3. Administration

2025Q1 Administrative Summary - Page 5

a. Administrative Reports & Communications

b. DC Plans Recordkeeper Transition Update

4. Investments

DCPAC Investments Slide Deck 5-15-25 - Page 23

a. Performance Reports

b. Callan 2025 DC Trends Survey

c. Foreign Adversaries Update

5. Other Business

a. DCPAC Appointments

i. RBA - New DCPAC Appointments

RBA - Appointment of DCPAC Members - Page 39

Rebecca Fentress Bio - Page 41

September Sanderlin Bio - Page 42

6. Discussion of New Ideas

7. 2025 Meetings

a. Remaining 2025 Meetings

i. September 11, 2025, at 1:00 p.m.

ii. December 4, 2025, at 1:00 p.m.

b. ORPHE Annual Employer Update (not a meeting of the DCPAC) - 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 March 6, 2025, with the following members present:

Susan T. Gooden, Chair
Hon. Matthew James, Vice Chair
Monique Barnes
C. Matt Harris
Kate Jonas
Rick Larson
Brenda Madden
David Winter
Ravindra Deo

Members of the Board of Trustees:
John M. Bennett

VRS Staff:

Ingrid Allen, Trish Bishop, Jessica Budd, Stephen Cerreto, Jeanne Chenault, Michael Cooper, David Cotter, Curtis Doughtie, Antonio Fisher, Josh Fox, Kelly Hiers, KC Howell, Robert Irving, Sandy Jack, Brian Lackey, Ryan LaRochelle, Joyce Monroe, Teresa Nyugen, Laura Pugliese, Kristy Scott, Michael Scott, Jennifer Schreck, Amethyst Sloane, Virginia Sowers, Ashley Spradley, Rachel Webb, Leslie Weldon, and Tanya Williams.

Guests:

Adria Campbell, Voya; Kevin Cox, Voya; Al Calvo, Voya; Andrew Ness, Sageview; Jake Noviello, BlackRock; Lauren Albanese, Financial Investment News; Kimberly Sarte, JLARC; Alexandra Jansson, JLARC.

The meeting convened at 1:00 p.m.

Opening Remarks

Dr. Gooden 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. Winter and a second by Mr. James, the minutes of the December 5, 2024, meeting were approved by the Committee.

Administrative Reports and Communications UpdateAdministration Reports & Communications

Kelly Hiers, Defined Contribution Plans Administrator, provided an overview of the DC Plans, as well as an update on administrative reports for the fourth quarter of 2024. An overview of assets and accounts across the various defined contribution plans was also provided with the Committee. Ms. Hiers advised the Committee that total Plan accounts have increased 1% since September and assets have surpassed \$10 billion.

Ms. Hiers provided an update on the federal SECURE 2.0 legislation. Specifically, Ms. Hiers covered 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 will be effective in January 2026. Ms. Hiers also provided an update on Unforeseen Emergency Withdrawals (UEW). UEW provisions were added to the Hybrid 457 plan with self-certification, and self-certification provisions were also added to the Commonwealth 457 plan.

Ms. Hiers provided an overview of ORPHE plans for the fourth quarter of 2024. Total plan accounts increased slightly and assets were down 1%. Ms. Hiers also provided a preview of upcoming ORPHE events.

DC Plans Recordkeeper Transition Update

Ms. Hiers confirmed the completion of the transition to Voya, which occurred in early January. Adria Campbell, Vice President of Strategic Relationship Management at Voya, and Kevin Cox, Assistant Vice President of Implementation and Operation Readiness at Voya, provided statistics on the transition, including balances, record counts, participant and employer contact, and communications. They also provided an update on January 2025 activity. This included milestones, participant contact, advice activity, plan balances and distributions. Ms. Campbell and Mr. Cox acknowledged that like in any complex transition, some employers and participants encountered certain challenges, specifically response times related to higher-than-normal call volume and timeliness with employer postings. Ms. Campbell and Mr. Cox acknowledged the difficulties and committed to correcting these areas. VRS staff will continue to closely monitor participant and employer experience. An update on the status of Voya's corrective actions will be provided at the next DCPAC meeting.

Dr. Gooden thanked Ms. Hiers, Ms. Campbell and Mr. Cox for their presentations.

DC Plans Investments UpdatePerformance Reports

Laura Pugliese, Portfolio Manager of Defined Contribution Plans, provided an overview of the December 31, 2024, performance reports to the DCPAC, including the unbundled DC plans investment options and the bundled TIAA investment menu for ORPHE.

Dr. Gooden thanked Ms. Pugliese for her presentation.

Other Business

State Legislative Update

Sandy Jack, Policy, Planning and Compliance Director, provided an overview of VRS-related legislation presented during the 2025 regular session of the General Assembly. Ms. Jack noted that the General Assembly reconvenes on April 2nd to address the Governor's vetoes and amendments.

Dr. Gooden thanked Ms. Jack for her presentation.

Discussion of New Ideas

No new business was brought before the Committee.

Upcoming DCPAC Meetings

Dr. Gooden confirmed the remaining DCPAC meeting dates for 2025:

- May 15, 2025, at 1 p.m.
- September 11, 2025, at 1 p.m.
- December 4, 2025, at 1 p.m.

Adjournment

There being no further business, Dr. Gooden adjourned the meeting at 2:09 p.m. upon a motion by Mr. Deo, with a second by Ms. Madden, and a vote of the Committee.

Chair

Date



VRS Defined Contribution Plans 1st Quarter 2025

(January 1 – March 31, 2025)

Administrative Summary

May 15, 2025

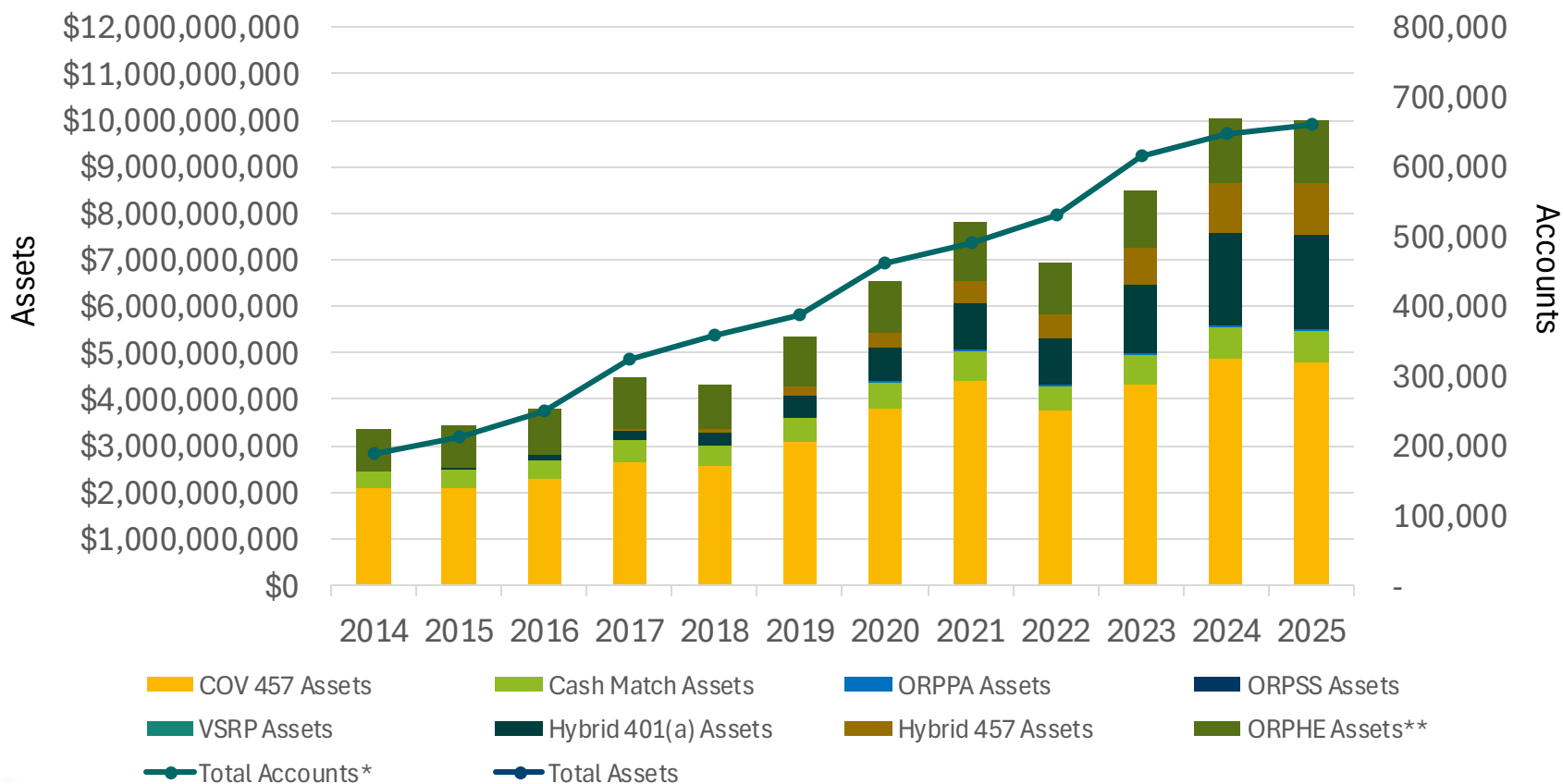
Agenda

- General Updates
- COV 457 & Cash Match Plans
- Hybrid Retirement Plan
- ORPHE
- Upcoming Events
- DC Plans Unbundled
Record Keeper Transition
Update



Total Assets and Accounts Over Time

Totals as of 3/31/2025	Assets	Accounts	Accounts ↑2% Since 12/31/2024
	\$10,012,927,201	660,028	



Note: All data, except for the current year, reflects totals as of calendar year-end and includes participant, beneficiary, forfeiture, and reserve accounts with a balance. Data from 2014-2023 was provided by MissionSquare Retirement. The 2024 data was provided by Voya Financial and is as of 3/31/2025.

*Does not indicate unique participants.

**Includes ORPHE selected providers.

Federal Legislation Update

SECURE 2.0

Options Approved Effective: January 2026	Plan(s)
Sec. 603 requires that age-based catch-up contributions for participants with wages greater than \$145,000 in the previous year be made as Roth contributions.	COV 457 Plan

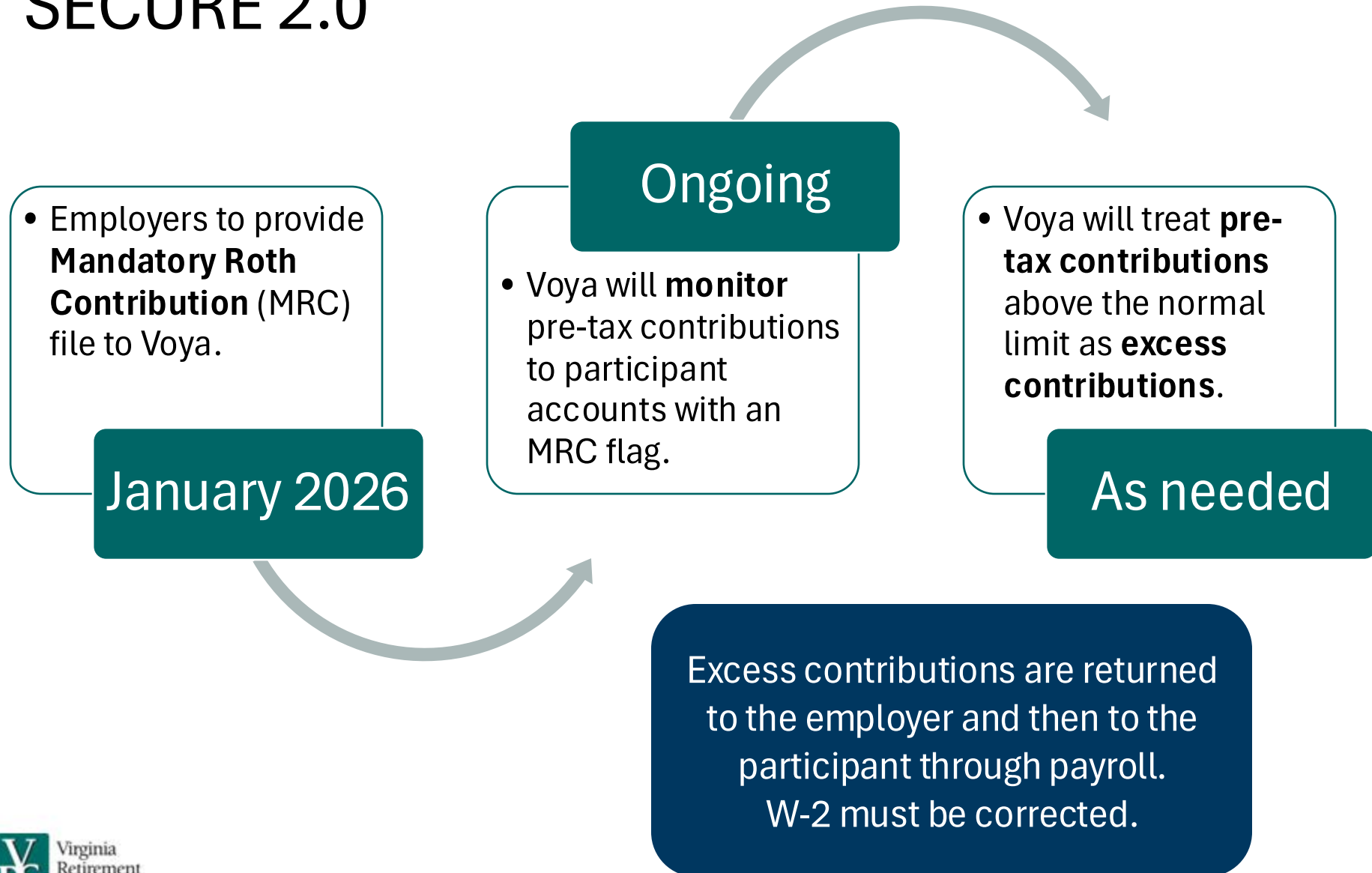
Recent/Upcoming Communications

- VRS Employer Update article – May 2025
- Employer webinar – late May 2025
 - Decentralized state, local and school employers

Updates and Action Items
<p>Amend COV 457 plan document to include a deemed Roth provision, which allows employers to recharacterize employee deferrals from pre-tax to Roth as needed to ensure compliance with this provision.</p> <p><i>* IRS guidance on this topic hasn't been finalized to date, so this provision will remain on hold.</i></p>
<p>Employers to provide Voya with an annual Mandatory Roth Contribution (MRC) file that indicates eligible participants with wages above the required threshold in the previous year.</p>
<p>Update applicable policies and procedures to allow for available correction methods.</p>
<p>Ensure that Standard Catch-Up Applications are processed timely and that flags are added to participant accounts accordingly.</p>
<p>Communicate to participants and employers.</p>

Federal Legislation Update

SECURE 2.0



Voya Quarterly Review

- Available in Appendix.
- Consistent with previous version prepared by MissionSquare.
- Slight changes due to availability of historical data.
- New data elements – Advisory Services.



Quarterly Review

VRS Defined Contribution Plans
January 1, 2025– March 31, 2025

Call Center – Participant Services

- 22,331 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

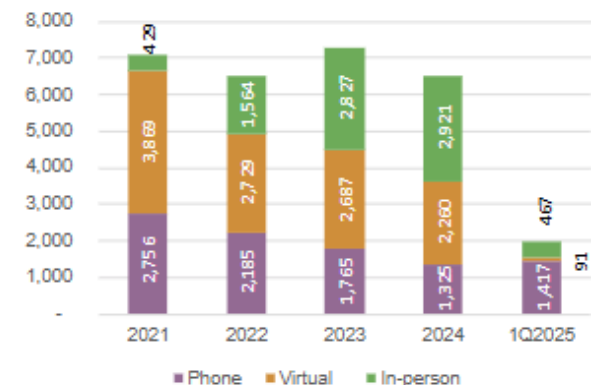
Current call trends:

1. Plan Overview
2. Phone Update
3. Withdrawals
4. Account Maintenance
5. Plan Participation

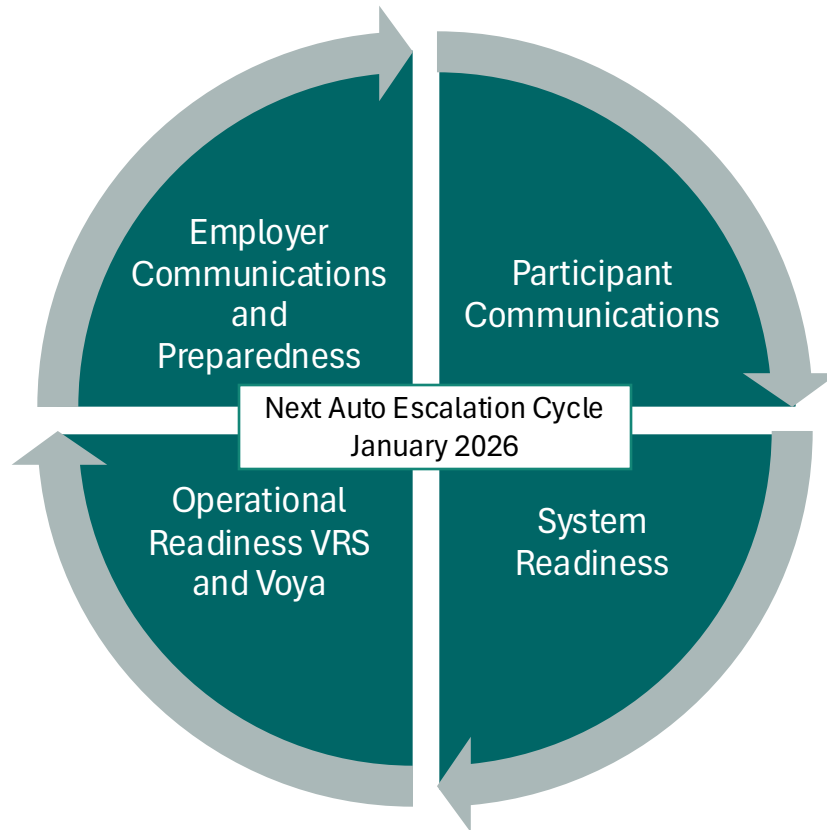
Advisory Services

Advisor Calls	524
Online Advice Adopters	1,126
Professional Management Members	1,230
Total Activity	2,880

Individual Account Reviews



Auto-Escalation Update



An estimated **40%** increase* in the number of members to be escalated since last cycle!

Considerations

- Frequency change for Voluntary Contribution changes effective 1/1/2025.



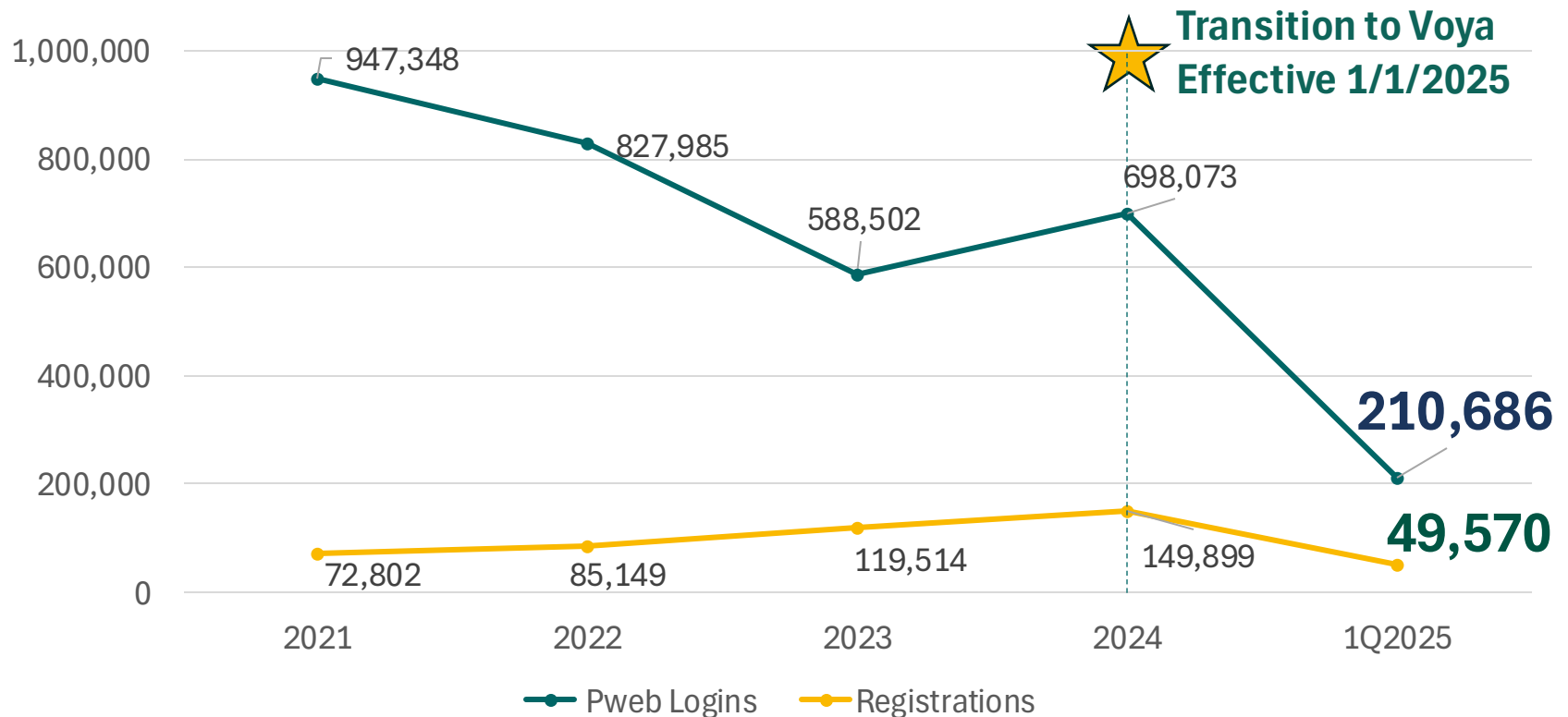
- Hybrid Plan members will be able to opt out during the month of December.

Web access (logins, views, etc.)

387,130 unique participants

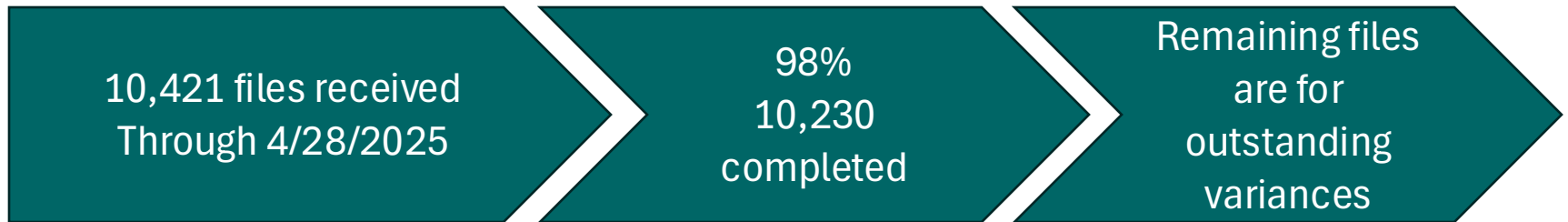
New login credentials required at transition

13% have registered for online access



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

Employer payroll processing



Remaining Files

- <0.5% (50) processed with variances.
- 1.4% (143) outstanding variances, including April (134), March (7), and February (2).
- Only variances are outstanding.

Advice/Managed Accounts

2,880 participants have used
Advice Services

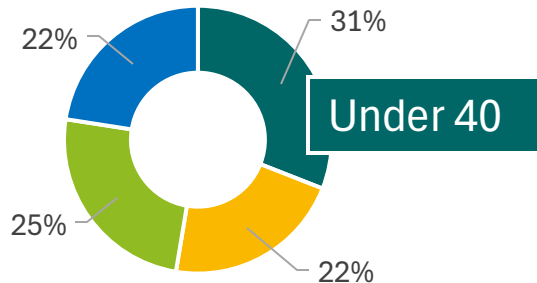


0.74% of total eligible

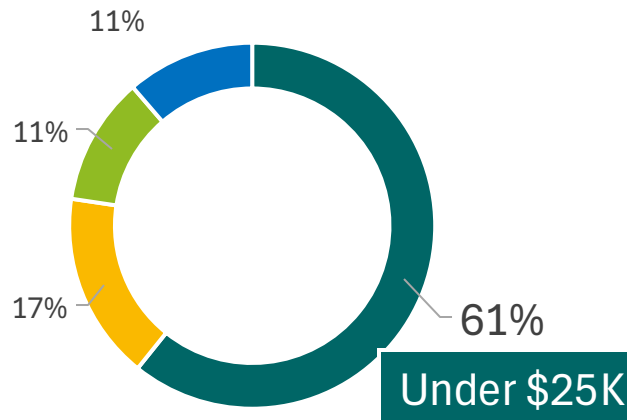
- **524** Advisor calls
- **1,126** Online Advice Adopters
- **1,230** Professional Management Members

Age

■ Under 40 ■ 40s ■ 50s ■ 60+



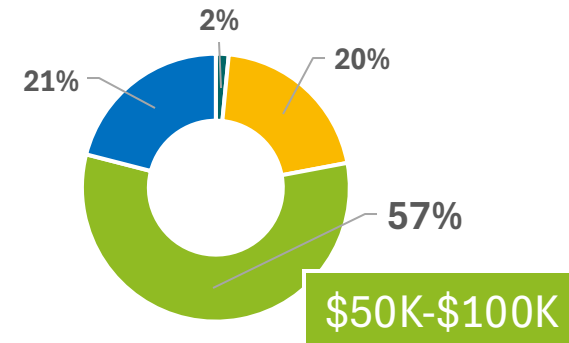
Balance



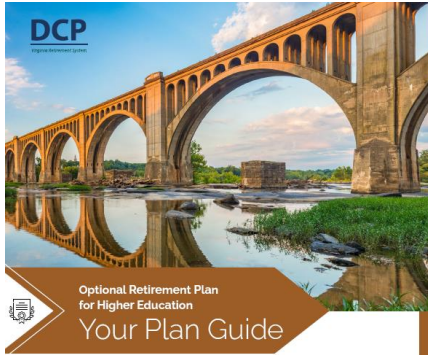
■ Under \$25K ■ \$25K-\$50K ■ \$50K-\$100K ■ \$100K+

Salary

■ Under \$25K ■ \$25K-\$50K ■ \$50K-\$100K ■ \$100K+



Communications



Distributed with
enrollment/eligibility
notifications



Primarily for use by
employers, benefits
fairs, etc.

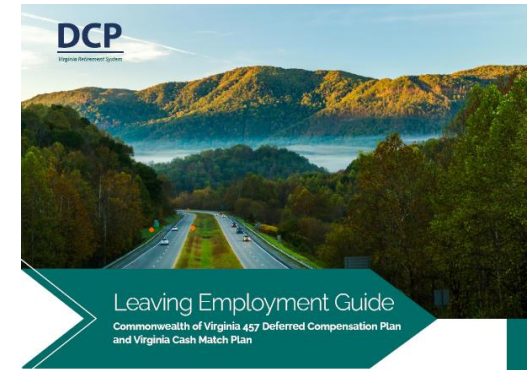
Completed and in production

Plan-Specific Resources

- Your Plan Guide
- Your Plan at a Glance

Shared/General Resources

- Leaving Employment Guide (multiple versions)
- RMD Checklist
- How to read your account statement
- Account Access Guide
- Market Volatility flyers



Education

Completed and in production

Plan Overviews

- COV 457 and Virginia Cash Match Plan
- Hybrid Retirement Plan – DC Component

Topical

- Understanding Your Investment Options
- Planning for Retirement

Promotional Materials

- Meeting flyers
- Email templates



As an employee, you have ongoing access and support from your local DC Plans Education Specialists who are dedicated to the VRS Defined Contribution Plans.

They are available to assist you with a variety of services designed to review your specific situation and develop a plan to help you meet your retirement planning objectives. Building a healthier financial life can start with a conversation, so bring your questions and schedule time today.

Dedicated DC Plans Education Specialists



Meet the team



Steve McGregor*, CRPS®, CRC
Central region
Education Specialist



Harriet Cifer*, CRPC®
Northern Virginia region
Education Specialist



Homer Stinson*
South-Central region
Education Specialist



Dan Lattanulo*
Eastern region
Education Specialist



Janice Parker*, CRC
Western region
Education Specialist



Jeff Comer*
Southwestern region
Education Specialist



Ashley Lucas*, CRC
Virtual – all regions
Education Specialist



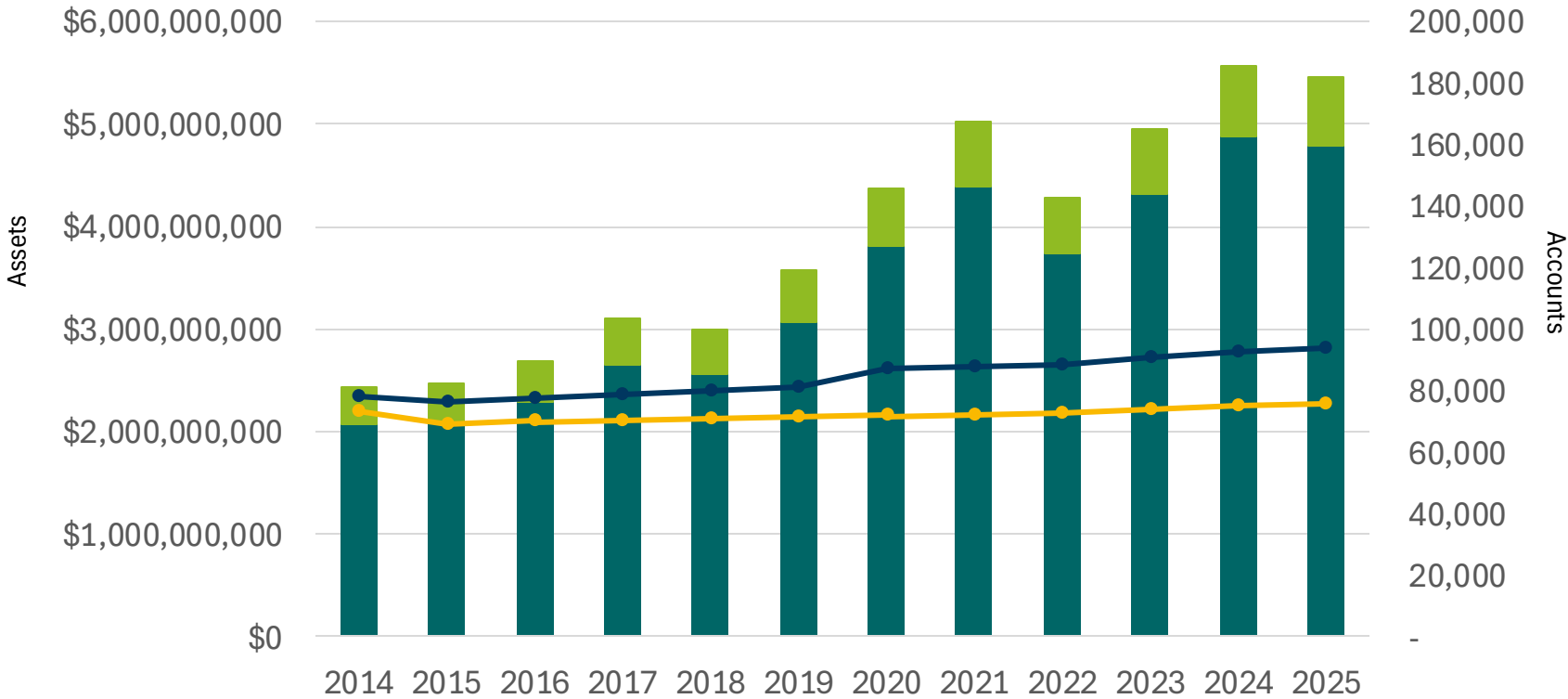
Dajon Johnson*
Plan Coordinator



Al Calvo CFP®, ChFC®
Plan Manager and
Investment Advisor
Representative

COV 457/Cash Match Plan Assets and Accounts

Totals as of 3/31/2025	Assets	Accounts	Assets ↓ 2% Accounts ↑ 1% Since 12/31/2024
COV 457	\$4,788,910,590	93,742	
Cash Match	\$667,353,903	75,878	



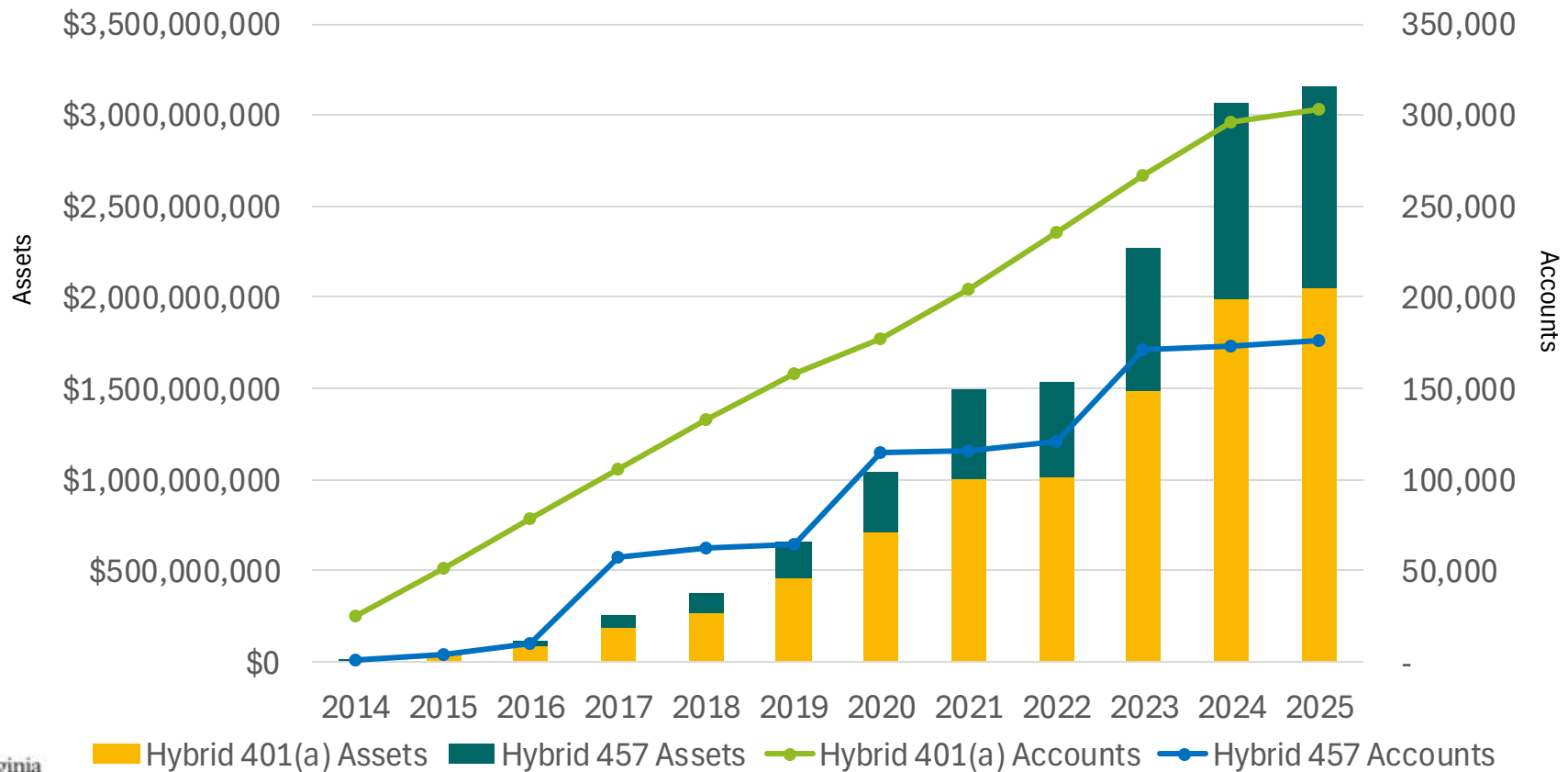
■ COV 457 Assets
 ■ Cash Match Assets
 —●— COV 457 Accounts
 —●— Cash Match Accounts



Note: All data, except for the current year, reflects totals as of calendar year-end and includes participant, beneficiary, forfeiture, and reserve accounts with a balance. Data from 2014-2023 was provided by MissionSquare Retirement. The 2024 data was provided by Voya Financial and is as of 3/31/2025.

Hybrid Retirement Plan Assets and Accounts (DC only)

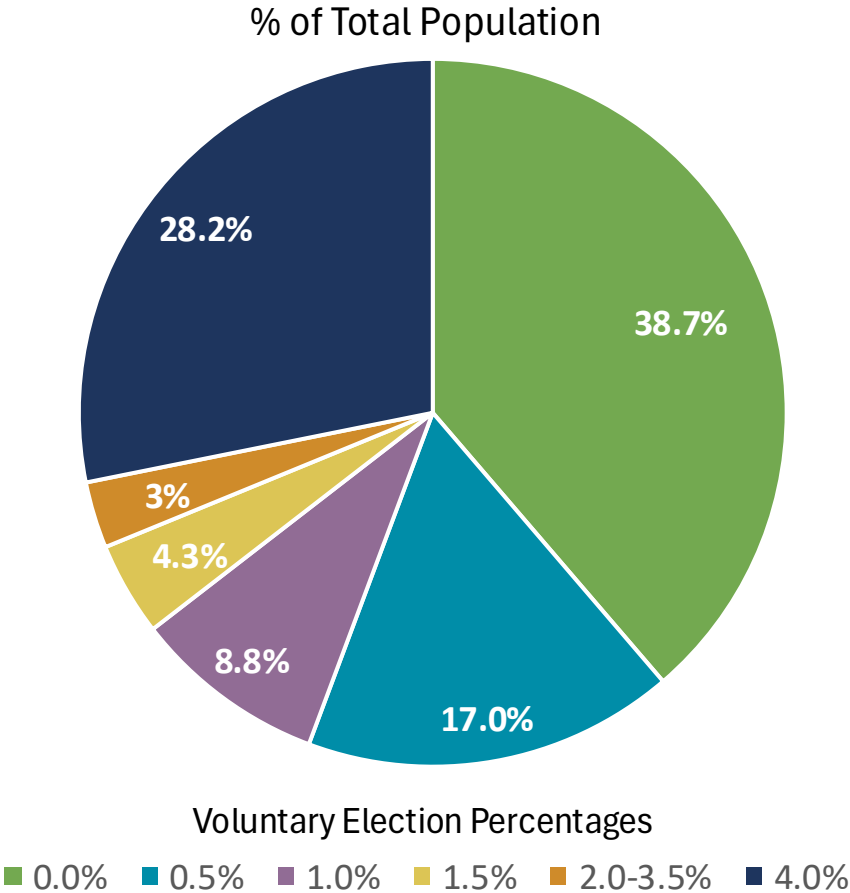
Totals as of 3/31/2025	Assets	Accounts	Assets ↑ 3.2% Accounts ↑ 2.1% Since 12/31/2024
Hybrid 401(a)	\$2,046,938,02	303,070	
Hybrid 457	\$1,115,659,820	175,850	



Note: All data, except for the current year, reflects totals as of calendar year-end and includes participant, beneficiary, and forfeiture accounts with a balance. Data from 2014-2023 was provided by MissionSquare Retirement. The 2024 data was provided by Voya Financial and is as of 3/31/2025.

Hybrid Retirement Plan

Voluntary Contribution Elections



Overall Voluntary
Contribution
Participation Rate
61.3%

Active Election Rate
33%

ORPHE

Administrative Summary

ORPHE Totals *			
	12/31/2024	3/31/2025	Difference
Assets	\$1,381,049,925	\$1,359,899,592	-2%
Participants	11,046	10,988	-1%
Average Balance	\$125,027	\$123,762	-1%



DCP	
3/31/2025	
Assets	\$188,995,661
Participants	2,340
Average	\$80,767

32.1% of new hires through 2025Q1 selected DCP as their provider



TIAA **	
3/31/2025	
Assets	\$1,170,903,931
Participants	8,648
Average	\$135,396

67.9% of new hires through 2025Q1 selected TIAA as their provider

Upcoming Events



Ongoing

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

Spring

- First quarterly statements under Voya, including first FOCUS newsletter.
- Development of monitoring program for:
 - Advice/managed accounts.
 - Be Ready Financial Planning Services.
 - Unforeseen Emergency Withdrawals.

Summer

Begin employer communications:

- Auto-escalation, effective January 2026.
- Implementation of Section 603 – SECURE 2.0.

Fall

ORPHE activities

- Annual Employer Update
- Open Enrollment
- Fee Disclosure

Thank you!





Defined Contribution Plans Investment Program

May 15, 2025



Agenda

Performance

Morningstar 2025 Target
Date Landscape Highlights

Foreign Adversaries Update

Performance



Defined Contribution Plans Advisory Committee Report
Unbundled Plans Investment Performance

Below are the totals for the period ending March 31, 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	-1.22	1.54	1.54	6.09	2.84	6.02	4.59	0.06	8/1/05	787,805,656	8.9	8.5
Custom Benchmark	-1.25	1.44	1.44	6.00	2.81	6.00	4.57					
Target Date 2030 Portfolio	-1.85	0.98	0.98	6.24	3.72	9.22	6.19	0.06	8/1/05	536,450,585	6.1	7.4
Custom Benchmark	-1.89	0.86	0.86	6.12	3.64	9.19	6.13					
Target Date 2035 Portfolio	-2.37	0.43	0.43	6.35	4.44	10.98	6.97	0.06	7/5/06	597,195,827 ²²	6.8	8.9
Custom Benchmark	-2.42	0.26	0.26	6.18	4.30	10.93	6.88					
Target Date 2040 Portfolio	-2.78	-0.01	-0.01	6.58	5.18	12.64	7.68	0.06	8/1/05	543,489,930	6.2	9.1
Custom Benchmark	-2.84	-0.21	-0.21	6.37	4.99	12.57	7.57					
Target Date 2045 Portfolio	-3.26	-0.51	-0.51	6.70	5.86	14.01	8.25	0.06	7/5/06	551,274,194	6.2	10.5
Custom Benchmark	-3.33	-0.76	-0.76	6.47	5.64	13.91	8.12					
Target Date 2050 Portfolio	-3.59	-0.96	-0.96	6.77	6.32	14.77	8.56	0.06	9/30/07	568,213,801	6.4	12.0
Custom Benchmark	-3.67	-1.24	-1.24	6.56	6.08	14.66	8.42					
Target Date 2055 Portfolio	-3.71	-1.16	-1.16	6.85	6.51	14.97	8.64	0.06	5/19/10	665,827,790	7.5	15.2
Custom Benchmark	-3.79	-1.46	-1.46	6.64	6.28	14.87	8.51					
Target Date 2060 Portfolio	-3.73	-1.19	-1.19	6.84	6.51	14.96	8.63	0.06	11/17/14	397,601,555	4.5	13.6
Custom Benchmark	-3.81	-1.49	-1.49	6.64	6.28	14.87	8.51					
Target Date 2065 Portfolio	-3.73	-1.19	-1.19	6.86	6.53	14.93	9.90	0.06	9/23/19	96,852,639	1.1	7.9
Custom Benchmark	-3.81	-1.49	-1.49	6.64	6.28	14.87	9.87					
Target Date 2070 Portfolio	-3.73	-1.19	-1.19	n/a	n/a	n/a	-2.35	0.06	9/27/24	1,571,958	0.0	0.6
Custom Benchmark	-3.81	-1.49	-1.49	n/a	n/a	n/a	-2.83					
Help-Me-Do-It: Individual Options												
Money Market Fund ^{5,6}	0.39	1.13	1.13	5.24	4.62	2.84	2.08	0.08	11/1/99	172,112,449	2.0	1.7
FTSE 3 Month Treasury Bill Index	0.37	1.10	1.10	5.17	4.42	2.69	1.90					
Yield as of 03/31/25: 4.53% ⁷												
Stable Value Fund ^{8,9}	0.27	0.83	0.83	3.45	2.75	2.35	2.17	0.24	2/1/95	600,163,395	6.8	4.8
Custom Benchmark ¹⁰	0.35	1.09	1.09	4.50	4.39	2.90	2.41					
Yield as of 03/31/25: 3.43% ¹¹												
Bond Fund ¹²	0.04	2.77	2.77	4.96	0.55	-0.35	1.51	0.03	11/1/99	173,973,795	2.0	2.8
Bloomberg U.S. Aggregate Bond Index	0.04	2.78	2.78	4.88	0.52	-0.40	1.46					
Inflation-Protected Bond Fund ¹³	0.64	4.21	4.21	6.29	0.11	2.44	2.60	0.03	7/30/02	58,218,631	0.7	1.2
Bloomberg U.S. TIPS Index	0.64	4.17	4.17	6.17	0.06	2.36	2.51					
High-Yield Bond Fund ¹⁴	-0.74	1.31	1.31	8.20	4.57	7.28	5.11	0.40	5/31/04	61,196,437	0.7	1.4
ICE BofA U.S. High-Yield BB-B Constrained Index	-0.85	1.16	1.16	6.69	4.47	6.55	4.71					
Stock Fund ¹⁵	-5.63	-4.28	-4.28	8.24	9.06	18.60	12.53	0.01	11/1/99	2,033,041,231	23.0	8.6
S&P 500 Index	-5.63	-4.27	-4.27	8.25	9.06	18.59	12.50					
Small/Mid-Cap Stock Fund ¹⁶	-6.24	-7.48	-7.48	-3.01	1.88	15.01	7.55	0.02	11/1/99	444,127,595	5.0	4.7
Russell 2500 Index	-6.27	-7.50	-7.50	-3.11	1.78	14.91	7.46					
International Stock Fund ¹⁷	0.10	5.54	5.54	6.24	4.63	11.32	5.22	0.06	11/1/99	247,949,350	2.8	4.0
MSCI ACWI ex-U.S. IMI Index ¹⁸	-0.14	4.59	4.59	5.50	3.99	11.02	4.93					
Global Real Estate Fund ¹⁹	-2.16	2.00	2.00	5.04	-3.16	7.15	2.90	0.08	10/1/02	94,357,460	1.1	2.4
FTSE EPRA/NAREIT Developed Index	-2.32	1.59	1.59	3.90	-4.28	6.22	1.99					
VR SIP ²⁰	0.40	1.43	1.87	9.13	6.08	9.43	7.78	0.62	7/1/08	68,804,035 ²³	0.8	0.4
VRS Custom Benchmark ²¹	1.14	1.37	2.25	11.82	5.75	8.13	7.07					
VR SIP and benchmark returns are reported with a one month lag. [Return information shown is as of February 28, 2025.] [Market value as of February 28, 2025 was \$68,252,615.]												
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	142,571,691	1.6	0.2
Total										\$8,842,800,004 ²⁴		

- 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 date 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 MissionSquare Retirement 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.
- 23 Includes Preliminary Investment Portfolio Account - PIP amount of \$955,719.
- 24 Includes \$9,165,169 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 March 31, 2025. There were 651,380 participant accounts as of March 31, 2025 across all unbundled DC plans. The data is preliminary.

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.

Defined Contribution Plans Advisory Committee Report

TIAA RC Contract Investment Performance

Below are the totals for the period ending March 31, 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	-1.22	1.54	1.54	6.09	2.84	6.03	4.61	0.06	8/1/05	44,775,985	9.2	12.3
Custom Benchmark	-1.25	1.44	1.44	6.00	2.81	6.00	4.57					
BlackRock LifePath Index 2030 Fund N	-1.85	0.98	0.98	6.24	3.73	9.23	6.21	0.06	8/1/05	39,479,155	8.1	8.6
Custom Benchmark	-1.89	0.86	0.86	6.12	3.64	9.19	6.13					
BlackRock LifePath Index 2035 Fund N	-2.37	0.43	0.43	6.35	4.44	10.99	6.99	0.06	7/5/06	32,580,487	6.7	8.8
Custom Benchmark	-2.42	0.26	0.26	6.18	4.30	10.93	6.88					
BlackRock LifePath Index 2040 Fund N	-2.78	-0.01	-0.01	6.58	5.19	12.65	7.70	0.06	8/1/05	38,283,028	7.9	9.5
Custom Benchmark	-2.84	-0.21	-0.21	6.37	4.99	12.57	7.57					
BlackRock LifePath Index 2045 Fund N	-3.26	-0.51	-0.51	6.70	5.87	14.02	8.27	0.06	7/5/06	34,282,108	7.1	10.7
Custom Benchmark	-3.33	-0.76	-0.76	6.47	5.64	13.91	8.12					
BlackRock LifePath Index 2050 Fund N	-3.59	-0.96	-0.96	6.77	6.33	14.79	8.57	0.06	9/30/07	22,363,476	4.6	8.9
Custom Benchmark	-3.67	-1.24	-1.24	6.56	6.08	14.66	8.42					
BlackRock LifePath Index 2055 Fund N	-3.71	-1.16	-1.16	6.85	6.52	14.98	8.66	0.06	5/19/10	13,375,327	2.8	8.1
Custom Benchmark	-3.79	-1.46	-1.46	6.64	6.28	14.87	8.51					
BlackRock LifePath Index 2060 Fund N	-3.73	-1.19	-1.19	6.84	6.52	14.97	8.65	0.06	11/17/14	4,125,278	0.9	4.5
Custom Benchmark	-3.81	-1.49	-1.49	6.64	6.28	14.87	8.51					
BlackRock LifePath Index 2065 Fund N	-3.73	-1.19	-1.19	6.86	6.54	14.94	9.93	0.06	9/23/19	8,615,918	1.8	3.1
Custom Benchmark	-3.81	-1.49	-1.49	6.64	6.28	14.87	9.87					
BlackRock LifePath Index 2070 Fund N	-3.73	-1.19	-1.19	n/a	n/a	n/a	-2.35	0.06	9/27/24	834,453	0.2	0.1
Custom Benchmark	-3.81	-1.49	-1.49	n/a	n/a	n/a	-2.83					
Individual Options												
BlackRock Short-Term Investment Fund W ⁵	0.39	1.13	1.13	5.24	4.62	2.84	2.11	0.08	7/1/03	8,947,751	1.8	6.9
FTSE 3 Month Treasury Bill Index	0.37	1.10	1.10	5.17	4.42	2.69	1.90					
Yield as of 03/31/25: 4.53% ⁶												
BlackRock U.S. Debt Index Fund M ⁷	0.04	2.77	2.77	4.96	0.55	-0.35	1.51	0.03	6/6/96	12,253,747	2.5	15.2
Bloomberg U.S. Aggregate Bond Index	0.04	2.78	2.78	4.88	0.52	-0.40	1.46					
BlackRock U.S. TIPS Fund M ⁸	0.64	4.21	4.21	6.29	0.11	2.44	2.60	0.03	7/30/02	6,349,466	1.3	10.7
Bloomberg U.S. TIPS Index	0.64	4.17	4.17	6.17	0.06	2.36	2.51					
BlackRock Equity Index Fund J ⁹	-5.64	-4.28	-4.28	8.24	9.06	18.60	12.53	0.01	3/5/97	64,226,376	13.2	23.2
S&P 500 Index	-5.63	-4.27	-4.27	8.25	9.06	18.59	12.50					
BlackRock Russell 2500 Index Fund J ¹⁰	-6.24	-7.48	-7.48	-3.01	1.88	15.01	7.56	0.02	9/30/08	9,466,944	2.0	4.6
Russell 2500 Index	-6.27	-7.50	-7.50	-3.11	1.78	14.91	7.46					
BlackRock MSCI ACWI ex-U.S. IMI Index Fund M ¹¹	0.10	5.53	5.53	6.23	4.60	11.28	5.26	0.07	2/28/11	18,489,310	3.8	15.0
MSCI ACWI ex-U.S. IMI Index	-0.14	4.59	4.59	5.50	3.99	11.02	5.02					
BlackRock MSCI ACWI IMI Index Non-Lendable Fund M ¹²	-3.73	-1.20	-1.20	6.76	6.80	15.30	8.89	0.05	4/12/13	65,683,906	13.5	26.6
MSCI ACWI IMI Index	-3.88	-1.61	-1.61	6.30	6.31	15.02	8.55					
TIAA Real Estate Account ¹³	0.62	0.98	0.98	-0.55	-4.97	1.10	3.04	1.02	10/2/95	12,370,430	2.6	22.7
Custom Composite Benchmark ¹⁴	-0.11	0.94	0.94	2.90	-2.68	3.18	4.30					
TIAA Traditional Annuity RC ^{15,16,17,18}	0.37	1.11	1.11	4.59	4.61	4.26	4.21	--- ²¹	8/1/05	41,762,058	8.6	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	7,458,039	1.5	0.9
Total										\$485,723,242		

- 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's 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 eliminated 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 March 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 addition, 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 annuities 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 March 31, 2025. There were 5,812 (RC contract) participants as of March 31, 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.

Morningstar 2025 Target Date Landscape Highlights



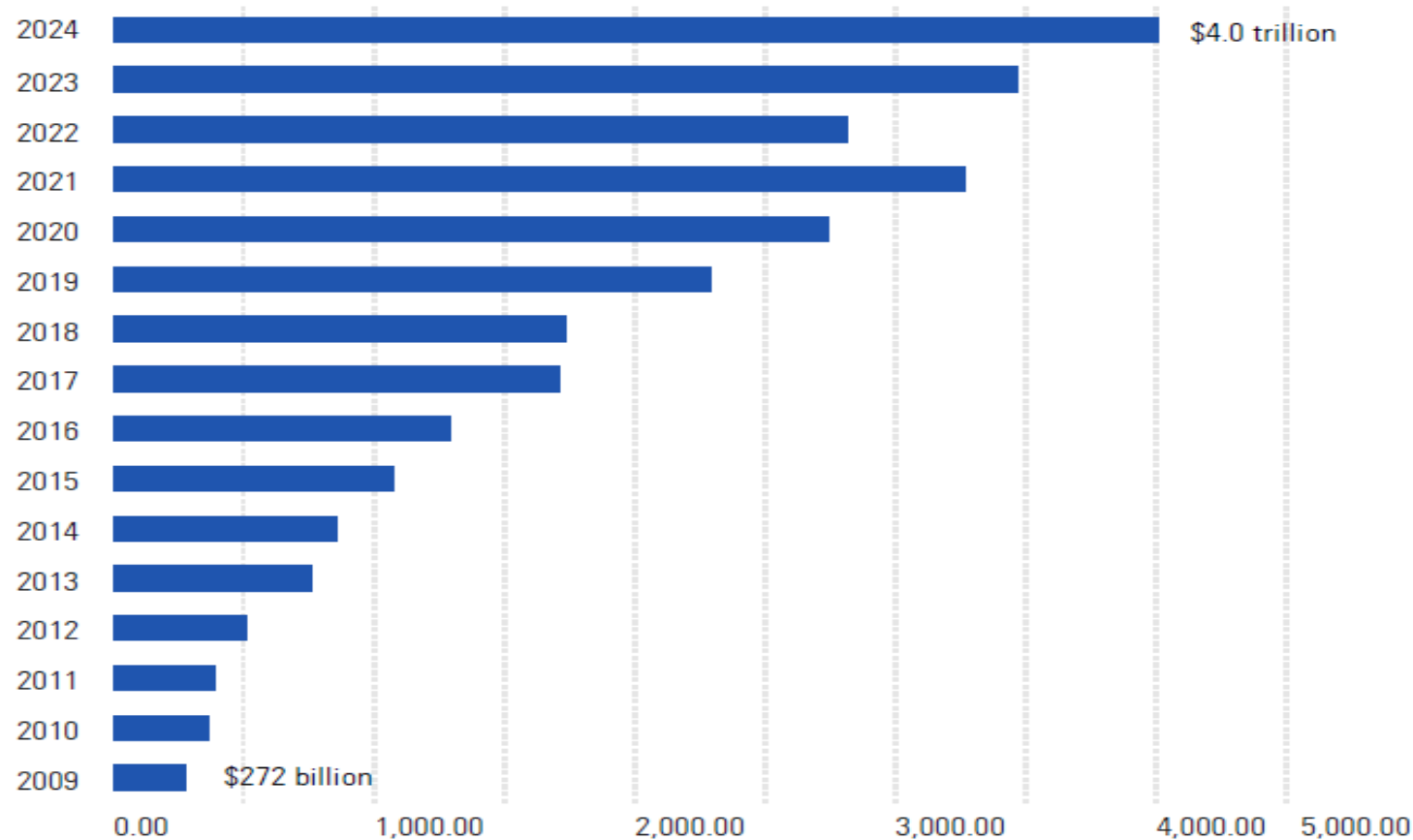
Morningstar Target Date Landscape Highlights

- In 2024 target date fund assets reached \$4 trillion in assets. If target date funds were a country's gross domestic product it would be the fifth largest in the world, ranking behind only the U.S., China, Germany and Japan.
- Collective investment trusts (CITs), accounting for 52% of assets, took over from mutual funds as the most used investment vehicle.
- Good government policy combined with sound theory has delivered real-world success for investors.

Source: Morningstar Direct, author's calculations, and surveyed data. Data as of Dec. 31, 2024.

Target-Date Assets Have Grown More Than 30% Annualized Over the Past 15 Years

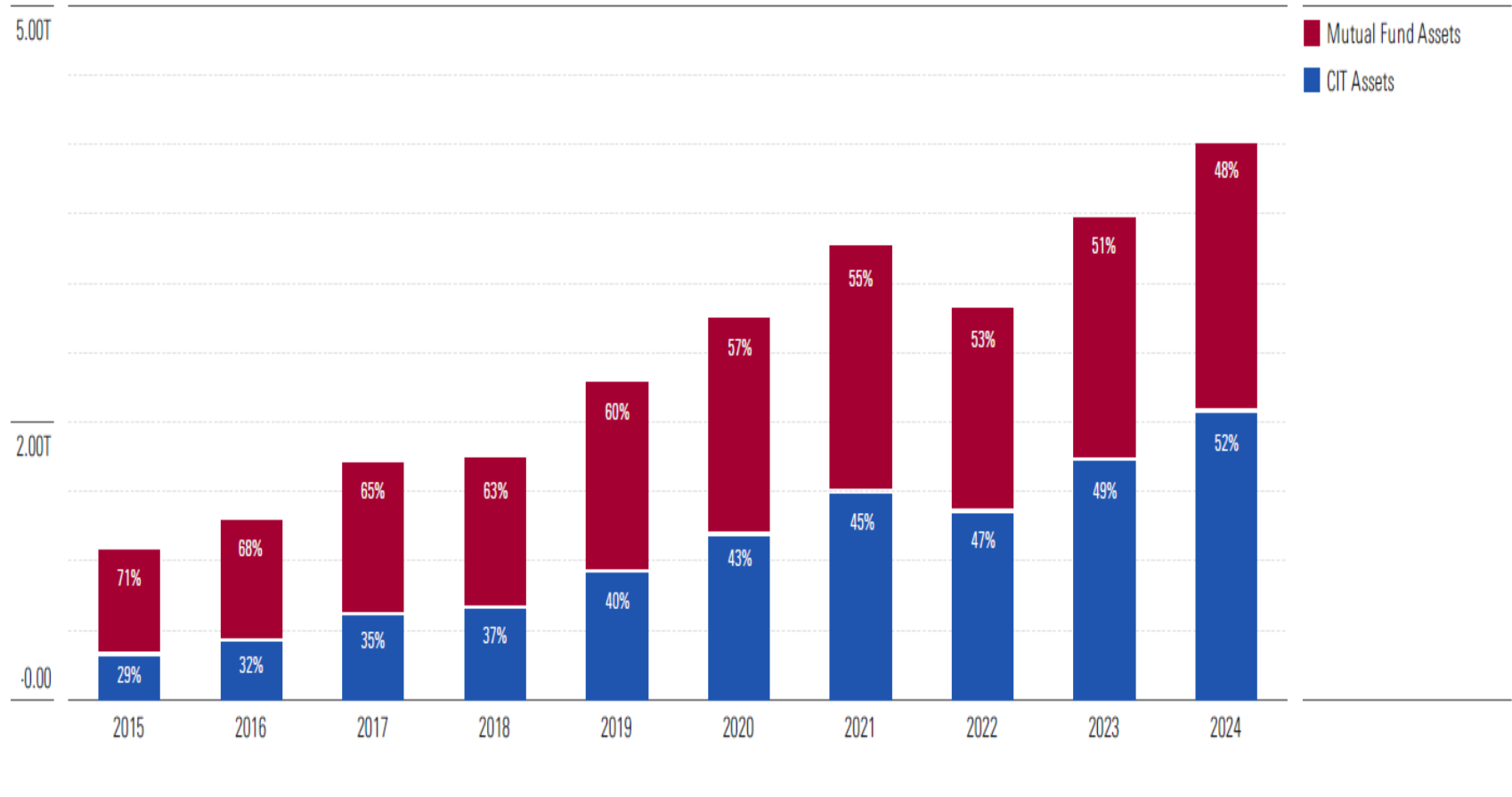
\$ in billions



Source: Morningstar Direct, author's calculations, and surveyed data. Data as of Dec. 31, 2024.

Target-Date CIT and Mutual Fund Assets Continue to Grow at a Steady Pace, Reaching \$4 Trillion in Assets at the End of 2024

Annual mutual fund and CIT target-date assets



Source: Morningstar Direct and surveyed data. Totals do not include custom target date strategies. Data as of Dec. 31, 2024.

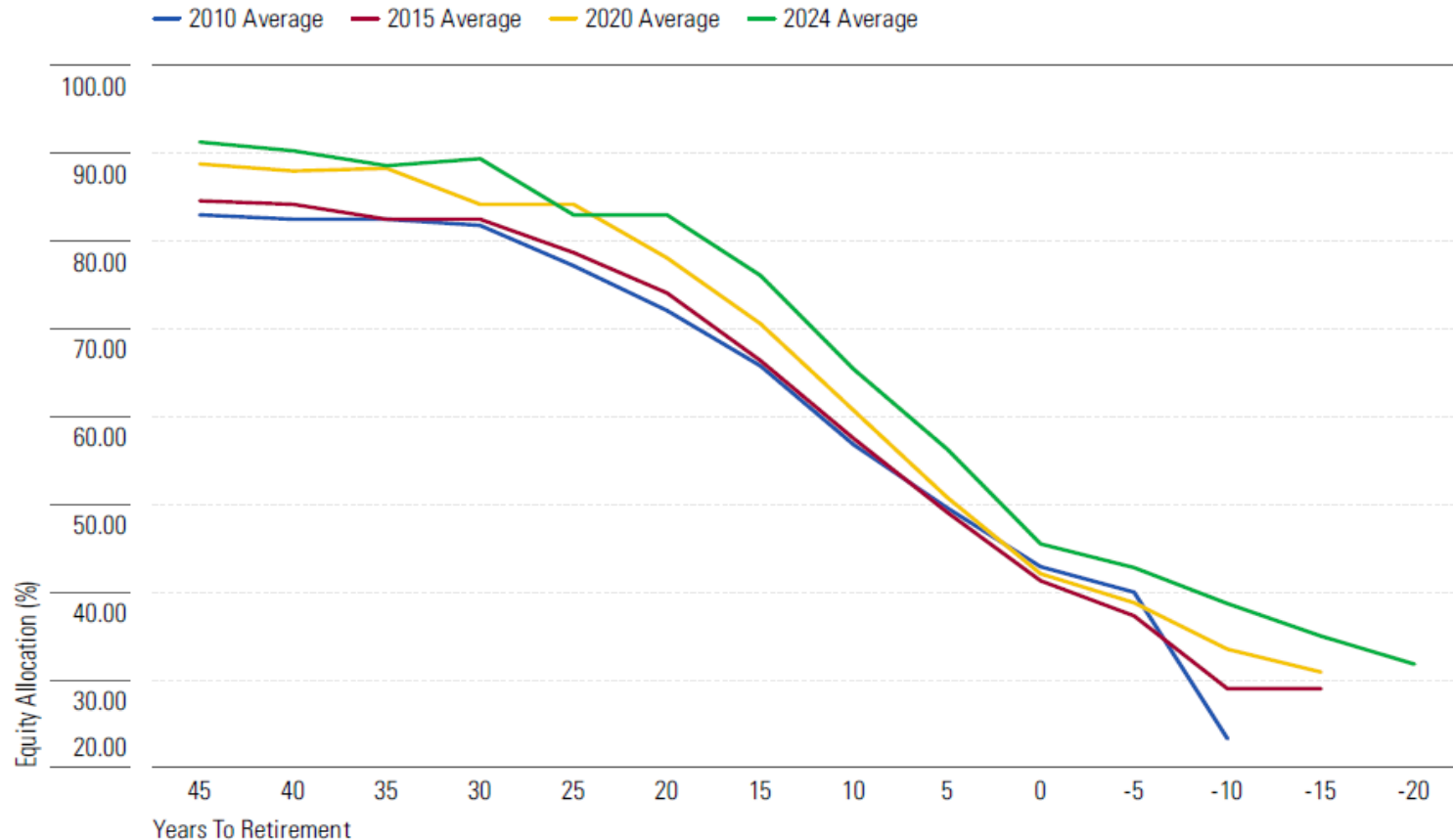
Morningstar Target Date Landscape Highlights

- Trend of favoring low-priced, index-based/passive offerings over active and blend alternatives continued in 2024.
 - Passive offerings (mutual funds) represented 53% of the market.
- Fees continued a downward trend.
- Asset allocation (equity) glidepaths have become more aggressive and more similar over time.
 - At the end of 2024 average equity allocation for workers beginning their careers was at 92%. A decade prior, it was 85%.

Source: Morningstar Direct, author's calculations, and surveyed data. Data as of Dec. 31, 2024.

Asset allocation (equity) glidepaths

Average Asset Allocation Glide Path Over Time



Source: Morningstar Direct. Data as of Dec. 31, 2024

Morningstar Target Date Landscape Highlights

- Most target date product launches were on the CIT side.
 - Many new series were target date providers launching their existing strategies under CITs.
- Notable new product launches were target date funds with built-in annuities.
 - BlackRock LifePath Paycheck.
 - Nuveen Lifecycle Income.
 - NCIT American Funds Lifetime Income Builder.

Source: Morningstar Direct. Data as of Dec. 31, 2024

Foreign Adversaries Update





Thank You!

Appointment of DCPAC members.

Requested 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.

Rationale for Requested Action

Ms. Fentress has over 15 years of experience managing comprehensive employee benefits programs for large, publicly traded corporations. Her expertise spans defined contribution, defined benefit, and retiree medical and life insurance plans, with a strong emphasis on governance, compliance, and fiduciary oversight.

Throughout her career, Ms. Fentress has demonstrated a commitment to ensuring that the benefit programs she has managed are administered with integrity and are strategically aligned to organizational goals, contributing to the financial well-being and security of hundreds of thousands of employees and retirees.

Ms. Sanderlin has over 30 years of human resources experience and is currently the Vice President for Talent Management for Old Dominion University (ODU). She has served in her current position since 2013 and has been employed at ODU since 1997. Ms. Sanderlin oversees ODU's Department of Human Resources which includes the functional areas of Compensation, Recruitment, Employee Relations, Benefits, Training and Organizational Development, Strategic Initiatives, HR Information Systems, Compliance, and Title IX.

In her current role, Ms. Sanderlin spearheaded the formation of ODU's Investment Committee in partnership with Captrust Financial Systems. In addition, Ms. Sanderlin has developed and administered a number of organizational initiatives, including department restructuring, strategic planning, assessments, and conflict resolution. In addition, in her role as an independent consultant, Ms. Sanderlin has provided training and organizational development services to numerous companies, institutions of higher education, and other organizations.

Ms. Sanderlin is certified as a Senior Professional in Human Resources, Human Resources Project Manager, Senior Certified Professional, and Title IX Coordinator.

Ms. Sanderlin earned a BA in Sociology from Mary Baldwin College and an MS in Occupational and Technical Studies from Old Dominion University.

Both Ms. Fentress and Ms. Sanderlin are highly qualified and willing to be appointed to the DCPAC.

Authority for Requested Action

Code of Virginia § 51.1-124.26 authorizes the Board to appoint such other advisory committees as it deems necessary. Each member appointment requires a two-thirds vote of the Board, and advisory committee members serve at the pleasure of the Board.

The above action is approved.

A. Scott Andrews, Chair
VRS Board of Trustees

Date

REBECCA FENTRESS



Rebecca Fentress brings over 15 years of experience managing comprehensive employee benefits programs for large, publicly traded corporations. Her expertise spans defined contribution, defined benefit, and retiree medical and life insurance plans, with a strong emphasis on governance, compliance, and fiduciary oversight. Throughout her career, Rebecca has demonstrated a commitment to ensuring that benefit plans are administered with integrity and strategic alignment to organizational goals, contributing to the financial well-being and security of hundreds of thousands of employees and retirees.

In addition to her professional accomplishments, Rebecca is an active and engaged member of her community. She currently serves as treasurer of the Creeds Athletic Association and volunteers as an assistant softball coach. She is also a former board member of Charity Preschool.

September Sanderlin, Vice President for Talent Management and Culture Old Dominion University

Biography

September Sanderlin has over 30 years of human resources experience. Sanderlin started her employment at Old Dominion University in 1997, and she was named Vice President for Human Resources in June of 2013 following a national search. Sanderlin currently serves as the Vice President for Talent Management and Culture at Old Dominion University. As a senior leader, she serves as a strategic partner on the President's Cabinet.

Sanderlin oversees the Department of Human Resources that includes the functional areas of Compensation, Recruitment, Employee Relations, Benefits, Training and Organizational Development, Strategic Initiatives, and HR Information Systems, Compliance, and Title IX. In this role, Sanderlin spearheaded the formation of the University's Investment Committee in partnership with Captrust Financial Services. Additionally, she oversees the work of the Associate Vice President for Community Relations including ombuds services and workforce programming.

Vice President Sanderlin has developed and administered a number of organizational initiatives, including department restructuring, strategic planning, assessments, and conflict resolution. She has developed and delivered programs on topics such as leadership, self-empowerment, sales, service, teambuilding, diversity, goal setting, stress management, strategic planning, and conflict resolution. She is qualified to present on Myers-Briggs and Situational Leadership platforms. Sanderlin served on the Training Council for the State of Virginia's Department of Personnel and Training.

As an independent consultant, Sanderlin has provided training and/or organizational development services to the following: Bank of America, Deutsche Telekom, William E. Wood and Associates Realtors, City of Portsmouth, Elizabeth City State University, City of Virginia Beach Juvenile Court Services Unit, Mary Kay Cosmetics, Clemson University, Lawson Realty, The Breeden Companies, The

United Way, The Planning Council, The Girl Scout Council, LifeNet, CSU San Marcos, and the American Association for Affirmative Action.

Sanderlin is certified as a Senior Professional in Human Resources (SPHR), a Human Resources Project Manager (HRPM), a Senior Certified Professional (SHRM-SCP), and Title IX Coordinator (ATIXA). Her professional memberships include College and University Professional Association for Human Resources (CUPA-HR), Society of Human Resources Management (SHRM), American Society for Training and Development (ASTD), and ATIXA.

She holds a Bachelor of Arts degree in Sociology from Mary Baldwin College, and a Master of Science in Occupational and Technical Studies from Old Dominion University.

3/31/2025



Quarterly Review

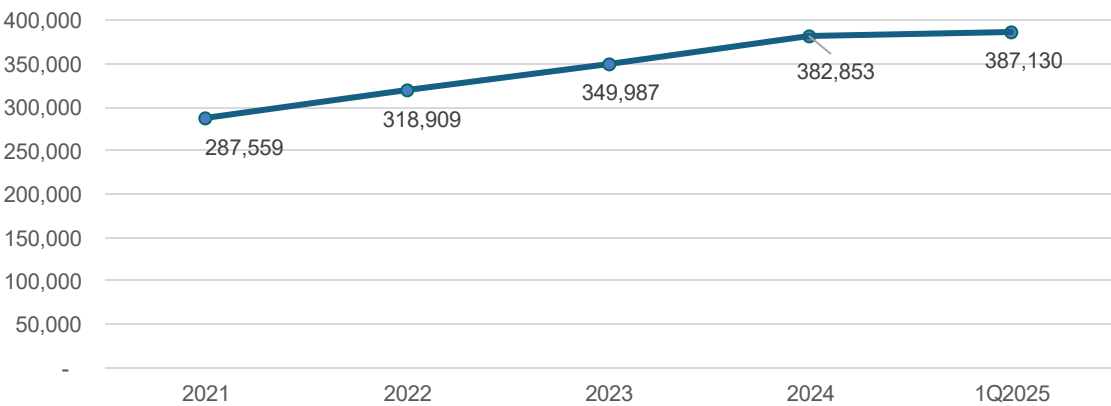
VRS Defined Contribution Plans
January 1, 2025– March 31, 2025

VRS Defined Contribution Plans¹

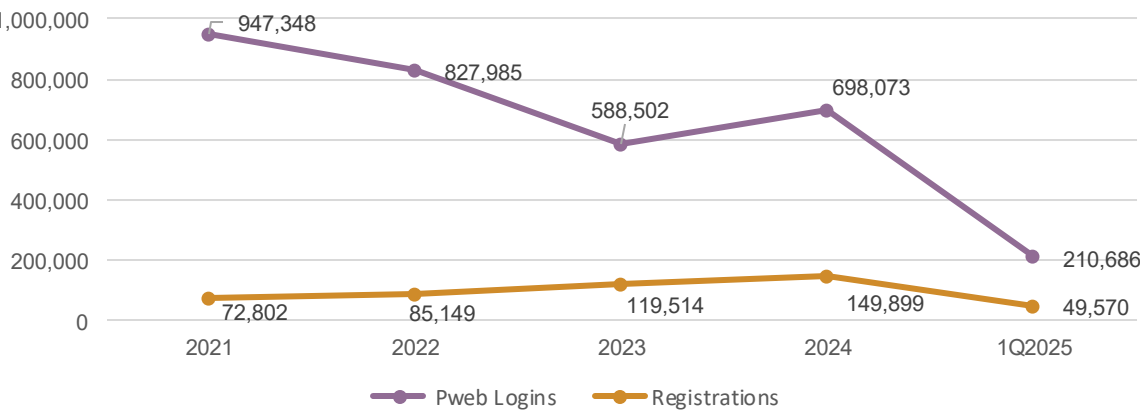
1st Quarter 2025– DC Plans Metrics

Total Assets²: \$8,842,023,270 Total Accounts²: 651,380

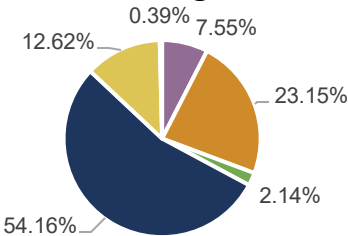
Unique Participants



Account Access Registrations & Logins

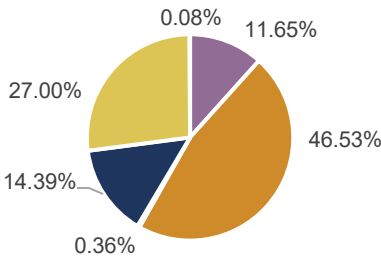


Assets Under Management



- 401a Cash Match
- Hybrid 401a Plan
- ORP Higher Ed
- COV 457
- Hybrid 457
- ORP PA/ORPSS/VRSP

Accounts Under Management



- 401a Cash Match
- Hybrid 401a Plan
- ORP Higher Ed
- COV 457
- Hybrid 457
- ORP PA/ORPSS/VRSP

Top 10 Visited Pages

1. Commonwealth of Virginia 457 Plan | VRS DC Plans
2. Hybrid Retirement Plan | VRS DC Plans
3. Defined Contribution Plans | Virginia Retirement System
4. Virginia Cash Match Plan | VRS DC Plans
5. Investments | VRS DC Plans
6. VRS Defined Contribution Plans | About Voya
7. Defined Contribution Plans | Virginia Retirement System
8. Contact | VRS DC Plans
9. Forms | VRS DC Plans
10. VRS Defined Contribution Plans | Tools & Resources

VRS Defined Contribution Plans

1st Quarter 2025– DC Plans Participant Engagement

Call Center Participant Services

- 22,331 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

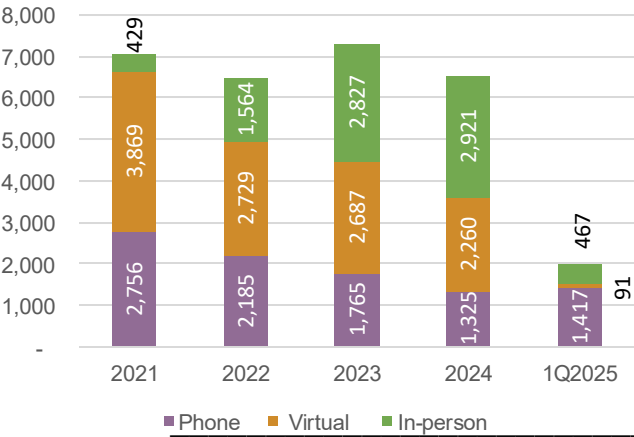
Current call trends:

1. Plan Overview
2. Phone Update
3. Withdrawals
4. Account Maintenance
5. Plan Participation

Advisory Services

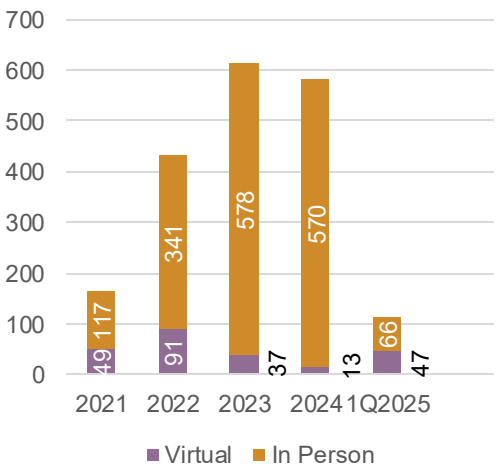
Advisor Calls	524
Online Advice Adopters	1,126
Professional Management Members	1,230
Total Activity	2,880

Individual Account Reviews

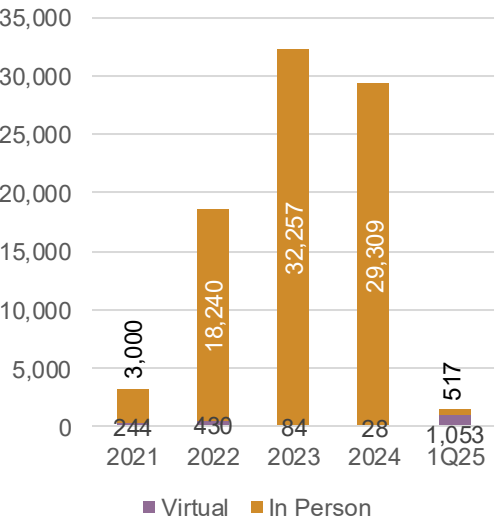


Participant Sessions

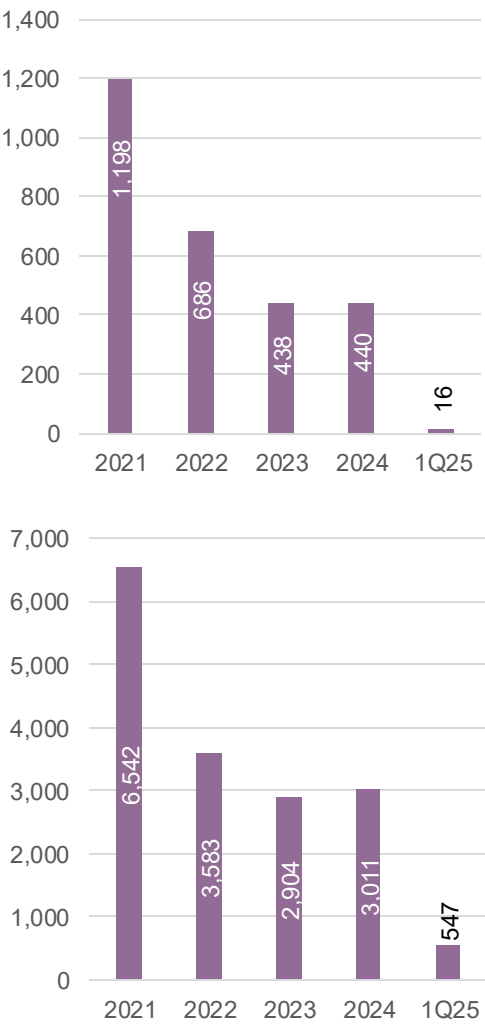
Group Meetings



Participant Attendance



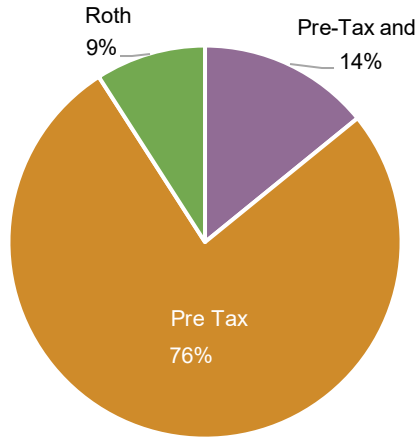
Webinars



VRS Defined Contribution Plans

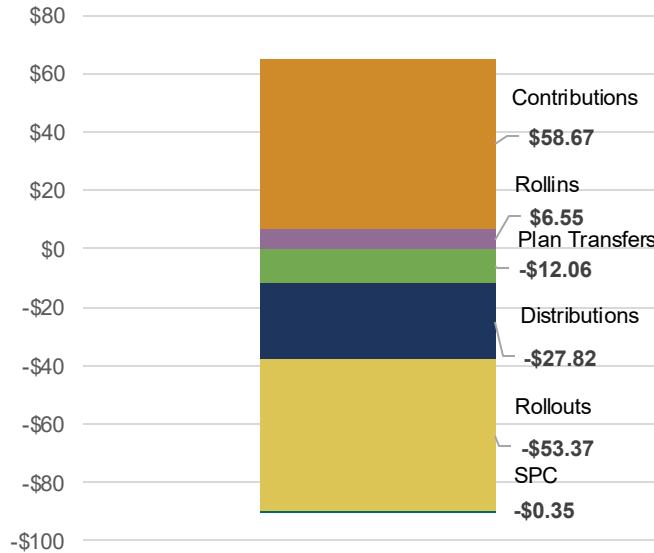
1st Quarter 2025– COV 457 Plan, Virginia Cash Match Plan

Deferral Type

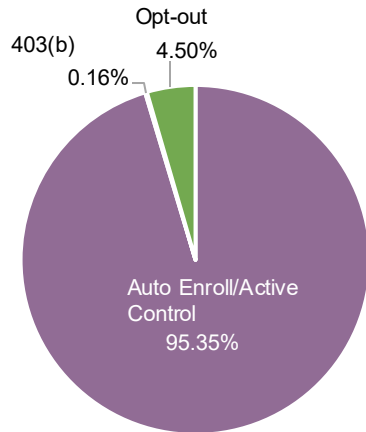


Average pre tax deferral per pay \$197.59
Average Roth deferral per pay \$191.03

Contributions/Distributions⁵



Auto Enrollment



4.50% Opt Out rate for quarter¹⁰

Participant Status Overview⁶

169,620 total accounts

56% Active
44% Separated

\$2,448m assets at risk

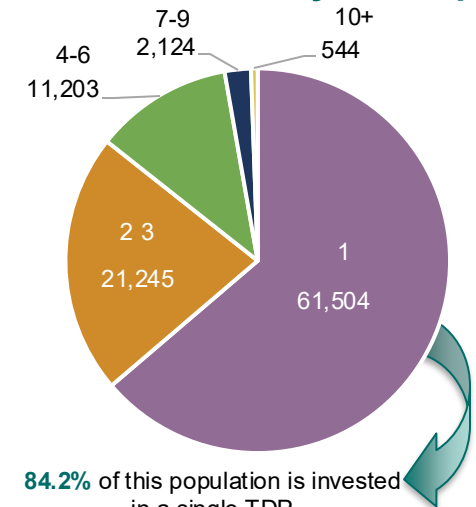
COV 457 Participation Rates

- State⁴ 33.74%
- Non-state 10.38%

Top 10 Fund Holdings

1. Stock	\$1,860,001,311
2. Target Date Portfolios	\$1,687,062,719
3. Stable Value	\$586,004,709
4. Small/Mid Cap Stock	\$402,871,180
5. International Stock	\$222,525,071
6. Bond	\$162,425,488
7. Money Market	\$147,131,071
8. Schwab PCRA	\$129,834,779
9. Global Real Estate	\$85,167,943
10. VRS Investment Portfolio	\$66,354,906

of Funds Held by Participants

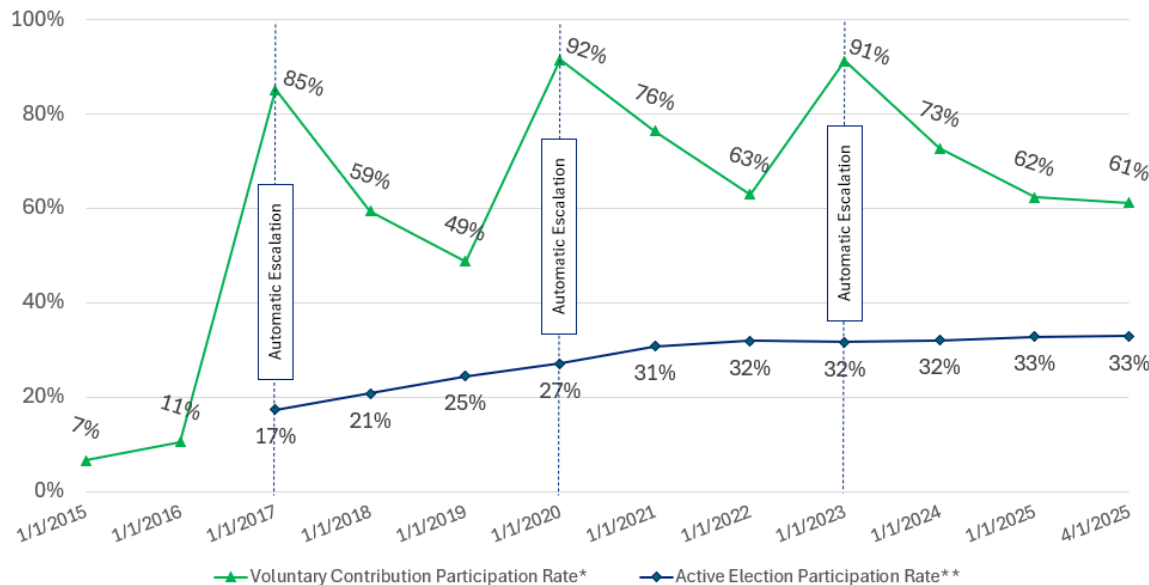


84.2% of this population is invested in a single TDP

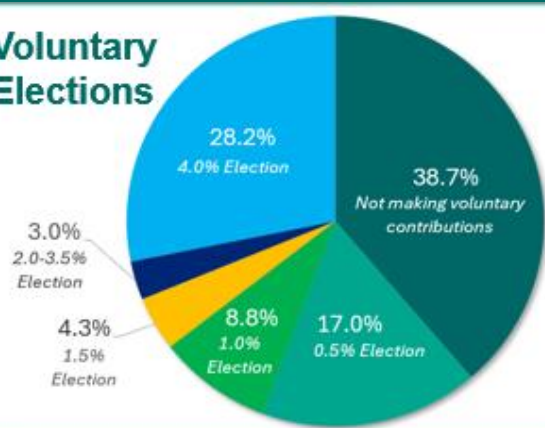
VRS Defined Contribution Plans

1st Quarter 2025– Hybrid Retirement Plan – 401(a) & 457(b)

Participation Rates⁷



Voluntary Elections



Top 10 Fund Holdings

1. Target Date Portfolios	\$2,909,968,896
2. Stock	\$136,227,868
3. Small/Mid Cap Stock	\$29,898,668
4. Money Market	\$20,729,453
5. International Stock	\$20,021,346
6. Stable Value	\$10,679,304
7. Bond	\$8,795,243
8. Schwab PCRA	\$7,698,939
9. Global Real Estate	\$7,103,647
10. High Yield Bond	\$6,680,554

Participant Status Overview³

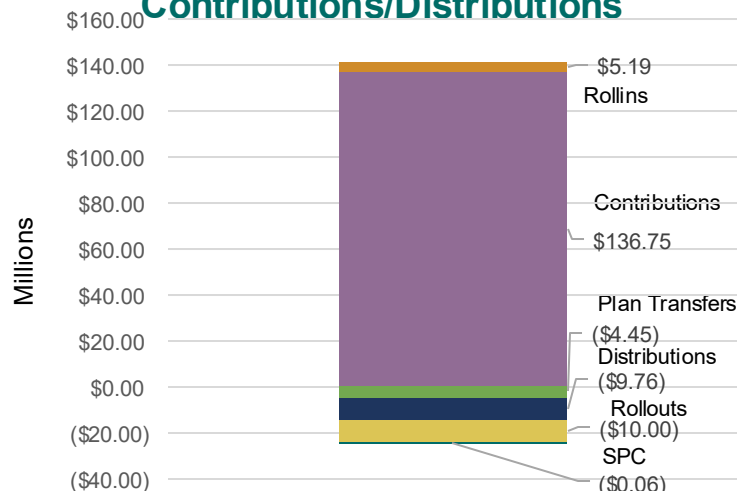
478,920 total accounts

70% Active

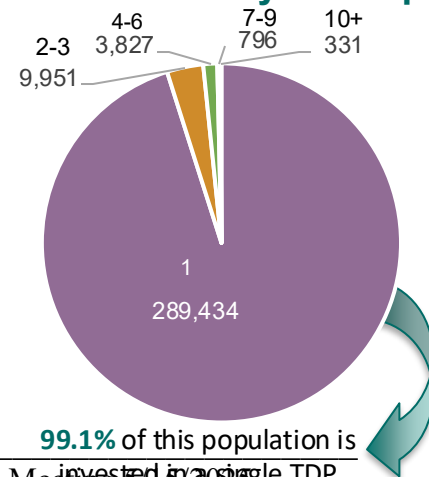
30% Separated

\$589m 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

1st Quarter 2025 ORPHE* and ORPPA

ORPHE Participation

Participant Accounts: 10,988
Assets: \$1,359,899,592
Providers: Voya, TIAA

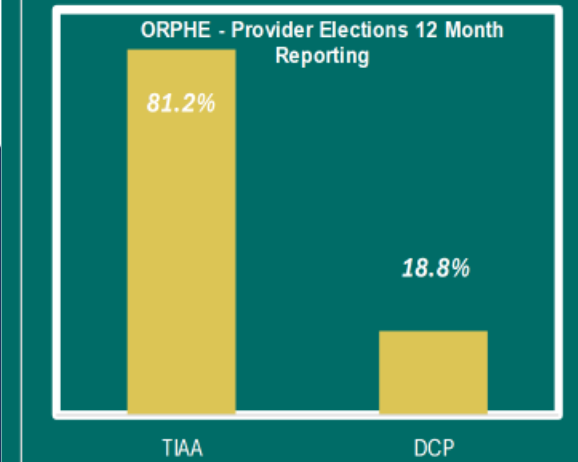
ORPHE-Eligible Plan Coverage



ORPPA Participation

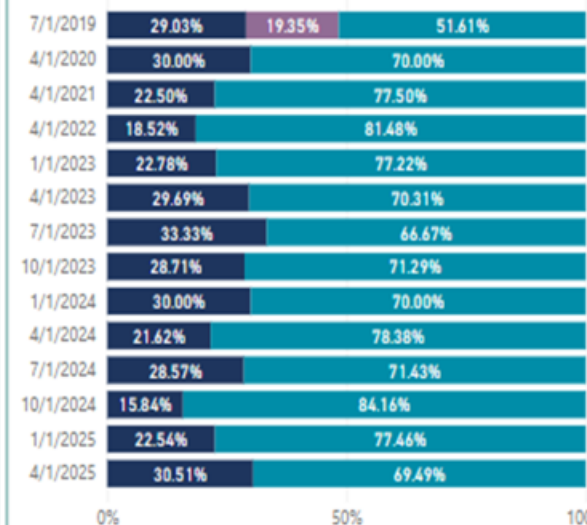
Participant Accounts: 494
Assets: \$33,440,887
Providers: Voya

ORPPA-Eligible Plan Coverage

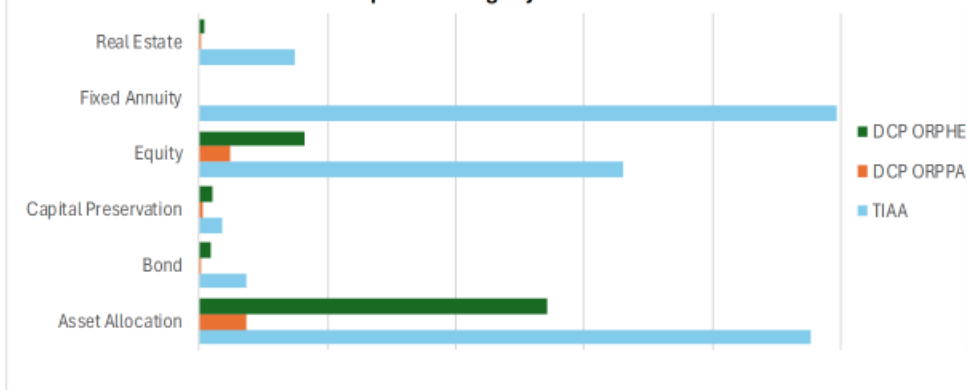


ORPHE Provider Election Rates Over Time

Provider ● DCP ● FIDL ● TIAA



Participant Holdings by Plan and Assets



ORPHE Deselected Providers:

Fidelity, T. Rowe Price, Empower, Corebridge, MetLife
Participants: 1,199

Assets: \$150,051,817.50

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

VRS Defined Contribution Plans

1st Quarter 2025 – DC Plans Metrics

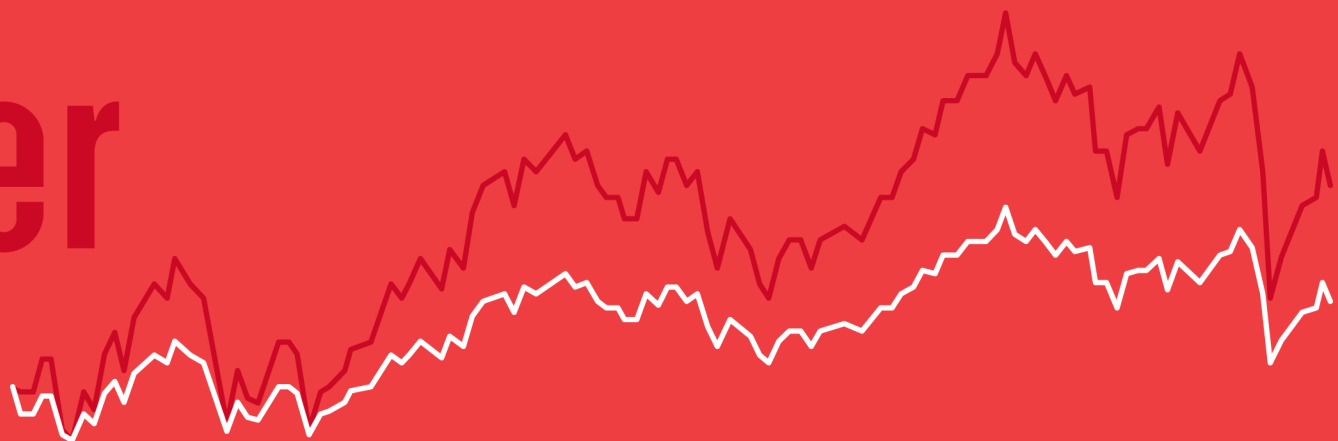
Source Information/Additional Footnotes

All data unless noted otherwise was provided by Voya Financial and is as of 3/31/2025.

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: 4/1/2025 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 12/15/2022.
9. Chart shows auto-enroll status of active participants set up as auto-enroll eligible this quarter; excludes terminated participants.
10. Opt-out rate since plan conversion to Voya, 1/1/2025.



Silver



2025 Target-Date Fund Landscape

Target-date strategies have reached new highs and have been a boon to investors.



Gold



Bronze



Table of Contents

Key Takeaways	3	Evolution of the Asset Allocation Glide Path	23
The Target-Date Experiment Has Delivered (So Far)	5	Morningstar Medalist Ratings	27
Assets, Flows, and Product Development	10		
Fees	19		

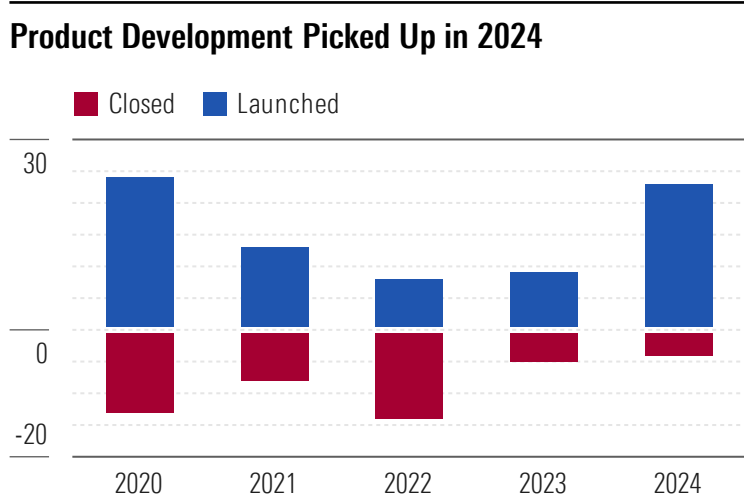
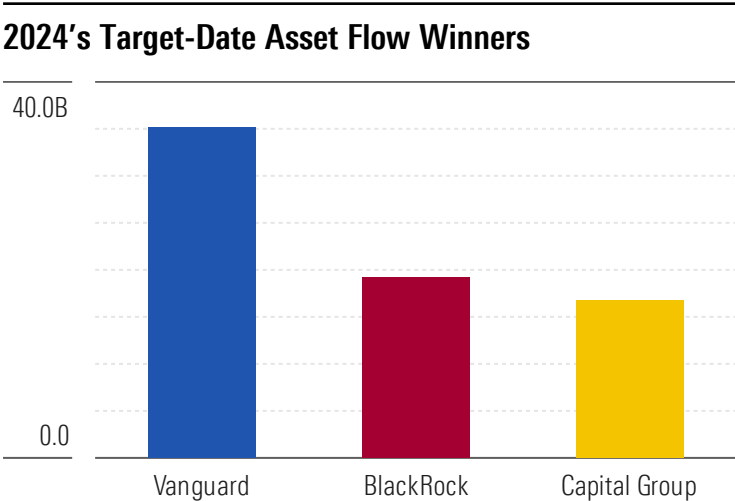
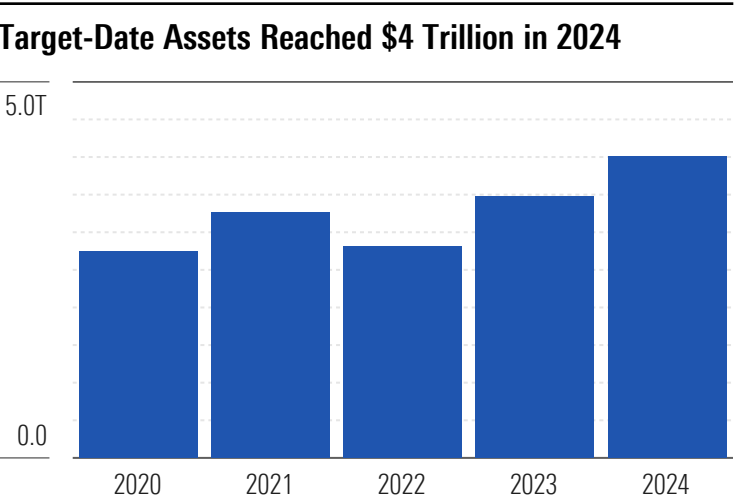
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Important Disclosure
The conduct of Morningstar’s analysts is governed by Code of Ethics/Code of Conduct Policy, Personal Security Trading Policy (or an equivalent of), and Investment Research Policy. For information regarding conflicts of interest, please visit: <http://global.morningstar.com/equitydisclosures>

Key Takeaways

- Target-date fund assets reached a new high of \$4 trillion in assets in 2024. If target-date funds were a country’s gross domestic product, it would be the fifth-largest in the world, ranking behind only the US, China, Germany, and Japan.
- More important than asset growth has been how target-date funds have delivered for investors. Good government policy combined with sound theory has delivered real-world success for investors.
- Target-date collective investment trusts took over from mutual funds as the most-used investment vehicle in mid-2024; they accounted for 52% of assets at the end of 2024.
- Vanguard continues to be the winner in amassing new target-date fund assets, adding \$35.1 billion in new money in 2024. Following not so closely behind were BlackRock with \$19.2 billion and Capital Group/American Funds with \$16.8 billion in new assets.
- After a few years of waning activity, target-date product launches picked up in 2024, almost entirely occurring on the CIT side. Among the 23 new target-date series launches, some of the more notable new CIT products were of target-date funds with built-in annuities and similar automatic income-paying options.

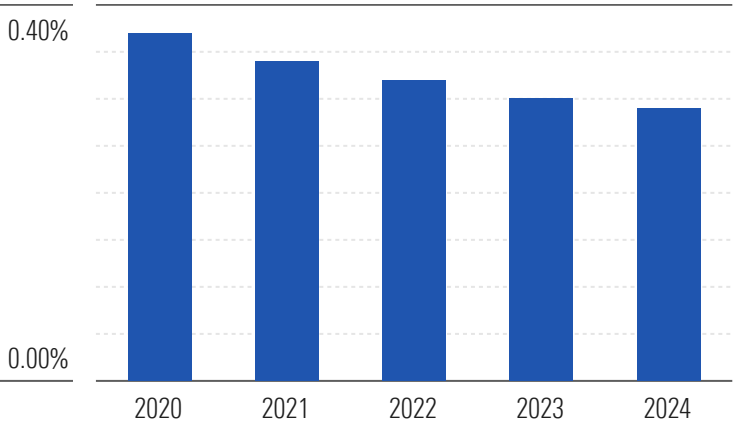


Key Takeaways, Continued

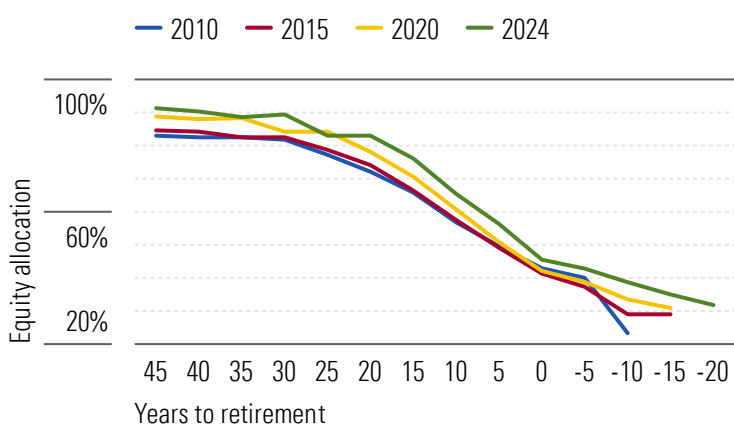
- Target-date mutual fund fees eked out new lows in 2024, with their asset-weighted fee dropping to 29 basis points from 30 basis points the year prior. Over the past decade, fees have declined by 48%.
- As the least expensive target-date funds approach their lowest feasible prices, their cost advantage has diminished. A decade ago, for example, the cheapest quintile 2055 target-date funds had a cost advantage of 39 basis points over middle quintile funds. This has narrowed to 28 basis points in 2024.
- The asset allocation glide paths that form the figurative backbone of target-date funds have become more aggressive over time. At the end of 2024, the average equity allocation for workers just beginning their careers stood at 92%. A decade prior, it was 85%.
- The difference between the most and least aggressive target-date asset allocation glide paths has narrowed, as offerings have converged and become more alike than different.

- Three target-date strategies rated by Morningstar Manager Research analysts saw Pillar rating changes:
 - BlackRock LifePath Dynamic received a Process Pillar upgrade to High from Above Average.
 - John Hancock Multimanager Lifetime series received a downgrade of its Process Pillar to Below Average from Average.
 - MassMutual TRP Retirement announced its intention to close by the end of 2025, resulting in a Process downgrade to Low from High.

Target-Date Fees Reached New Lows in 2024



Target-Date Funds Have Become More Aggressive



Gold-Rated Target-Date Strategies

Target-Date Series	Mutual Fund	CIT
BlackRock LifePath Dynamic		★ Gold
BlackRock LifePath Index	★ Gold	★ Gold
Capital Group Target Date Retire. Blend		★ Gold
Capital American Funds Target Date Retire.	★ Gold	★ Gold
Fidelity Freedom Index	★ Gold	★ Gold
iShares LifePath Target Date ETF	★ Gold	
T. Rowe Price Retirement	★ Gold	★ Gold
T. Rowe Price Retirement Blend	★ Gold	★ Gold
Vanguard Target Retire		★ Gold

Source: Morningstar Direct, author's calculations, and surveyed data. Data as of Dec. 31, 2024.

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The Target-Date Experiment Has Delivered (So Far)

Good government policy combined with reasonable academic theory has made for real-world success for investors.

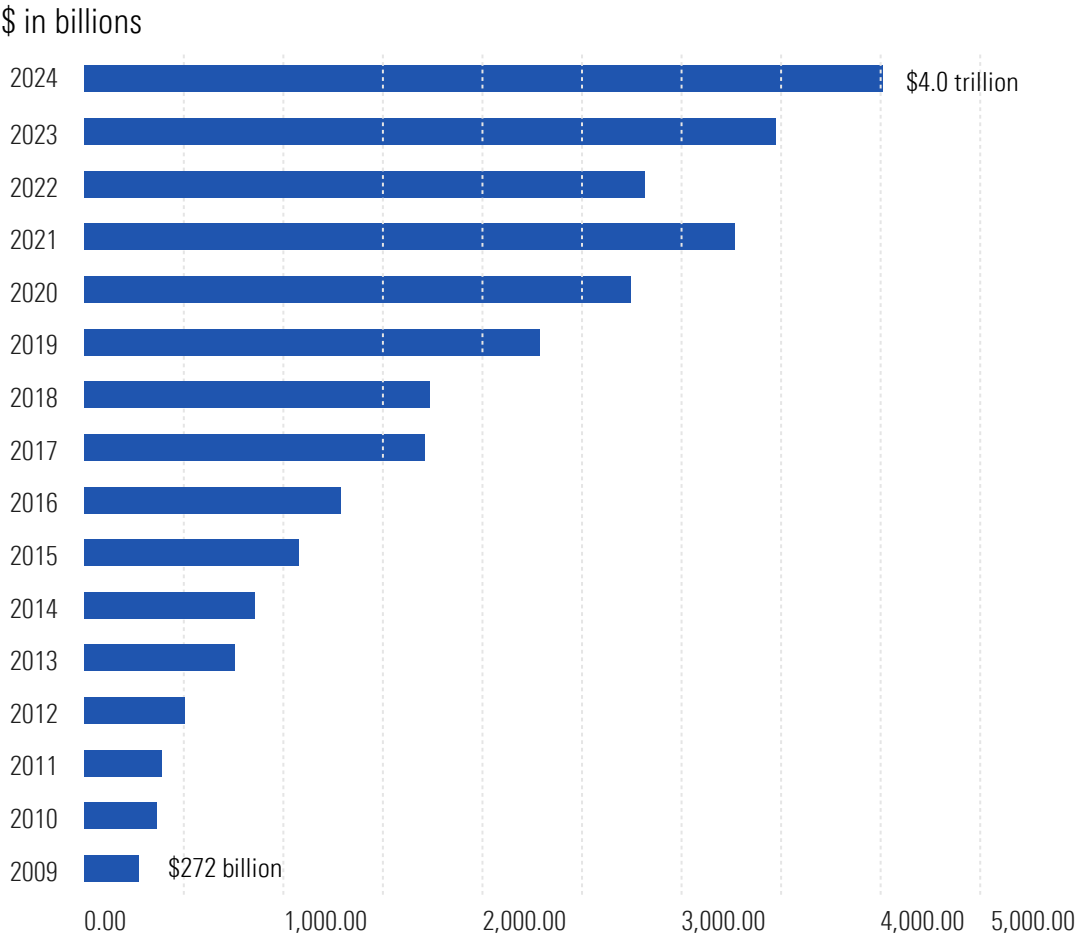
The Trust Put Into Target-Date Funds Has Been Largely Theoretical. Even So, They Have Thrived.

Target-date funds accounted for more than \$4 trillion¹ in assets across mutual fund and CIT vehicles as of the end of 2024. Between inflows and market appreciation, assets have climbed at an astounding compounded rate of more than 30% annualized over the past 15 years. However, they weren’t always the obvious investment of choice among retirement investors. That took the doing of the US Department of Labor’s late-2007 finalization of regulations allowing target-date funds to be qualified default investment alternatives in retirement savings plans, providing employers and fiduciaries a valuable liability shield—a compelling incentive—for plans to default employees’ 401(k) retirement savings into target-date funds.

To a large extent, the trust put into target-date funds was taken as an article of theoretical faith. It makes conceptual sense that investments like these, which change their allocation over time commensurately with workers’ investment time horizons and expected changes in assets, liabilities, and cash flows, should be an appropriate all-in-one investment for most savers. But there were scant few investment offerings—certainly no target-date funds with sufficiently long, multidecade track records that could demonstrate real-life success. Instead, asset managers, investment consultants, and research houses like Morningstar Manager Research used statistical models to project the likelihood of success to justify the use of target-date funds.

¹Human brains are bad at processing big numbers. [Big numbers break our brains](#). Analogies can help, so before the reader breezes past the \$4 trillion figure, it might be helpful to consider that if this figure were a GDP-producing country, it would rank in the world’s top five economies, behind just the US, China, Germany, and Japan, and ahead of the likes of India, the UK, France, and Italy.

Target-Date Assets Have Grown More Than 30% Annualized Over the Past 15 Years



Investors in Target-Date 2025 Funds Reached an Important Milestone in 2025: Their Retirement Year!

37 Target-Date 2025 Funds Have at Least 15 Years of Track Record Through 2024

Includes oldest share class for mutual funds and CITs

American Century One Choice 2025 I	Nuveen Lifecycle 2025 Retirement
American Funds 2025 Trgt Date Retire R5	Nuveen Lifecycle Index 2025 R6
BlackRock LifePath® Idx 2025 Fund CL 35	Principal LifeTime 2025 Institutional
Callan GlidePath® 2025 Fund CL MO	Principal LifeTime Hybrid 2025 CIT Z
Empower Lifetime 2025 Inv	Putnam Retirement Advantage 2025: XA
Fidelity Advisor Freedom 2025 I	Putnam Sustainable Retirement 2025 Y
Fidelity Advisor Managed Retrmt 2025 I	Schwab Indexed Retirement Tr Fd 2025 I
Fidelity Freedom 2025	Schwab Managed Retirement Tr Fd 2025 I
Fidelity Freedom Blend 2025 Cmgld Pool T	Schwab Target 2025
Fidelity Freedom Index 2025 Cmgld Pool Y	SEI Target Date 2025 Fund CT-1
Fidelity Freedom Index 2025 Investor	State St Target Ret 2025 NL CI A
Franklin LifeSmart 2025 Ret TrgtAdv	State St Target Ret 2025 SL CI I
GuideStone Funds MyDestination 2025 Inv	T. Rowe Price Ret Hybrid 2025 Tr-T5
JHancock Multimanager 2025 Lifetime 1	T. Rowe Price Retirement 2025
JPMCB SmartRetirement® DRE 2025 Fd-CF	Vanguard Target Retire 2025 Trust I
JPMorgan SmartRetirement® 2025 R5	Vanguard Target Retirement 2025 Fund
MissionSquare Retirement Target 2025 R5	Voya Index Solution 2025 Port I
MoA Clear Passage 2025 Fund	Voya Solution 2025 Port I
Nationwide Destination 2025 R6	

Since then, cohorts of investors in target-date 2000 through 2020 funds have seen their target-retirement year come and go. Workers invested in target-date retirement 2025 funds, though, were among the first to use target-date funds in notable mass. They have also made it to a major milestone in 2025, as they have now reached their expected retirement year. These investors were about 50 years old in 2010 and are or will be at a common retirement age of 65 in 2025. This has allowed many of them to experience a full 15-year cycle of regularly investing in a target-date fund, including the effects of dollar-cost averaging that comes with regularly setting aside a portion of a paycheck into a retirement savings plan. We looked at how those investors are now likely doing, including how close they are to achieving a secure retirement. Morningstar data includes 37 target-date 2025 mutual funds or CIT funds with at least 15 years of returns through the end of 2024.

To measure success, we went back to some of the scenario tests that we used in 2010 to justify the use of target-date funds, pulling out what a typical 50- year-old would have been facing at the time. In our models, that person had already been in the workforce for almost 30 years, made about \$75,000 in annual compensation that kept up with an annual expected inflation rate of 2%, saved 7% per year, and had a retirement nest egg of about \$300,000. While this balance may seem large given [reports from large recordkeepers](#) of sub-\$200,000 average balances for 50-year-old workers, the typical investor also has multiple 401(k)s and similar savings plans. The 2024 American Express Personal Economy Survey reports that more than a third of individuals have three or more retirement accounts.

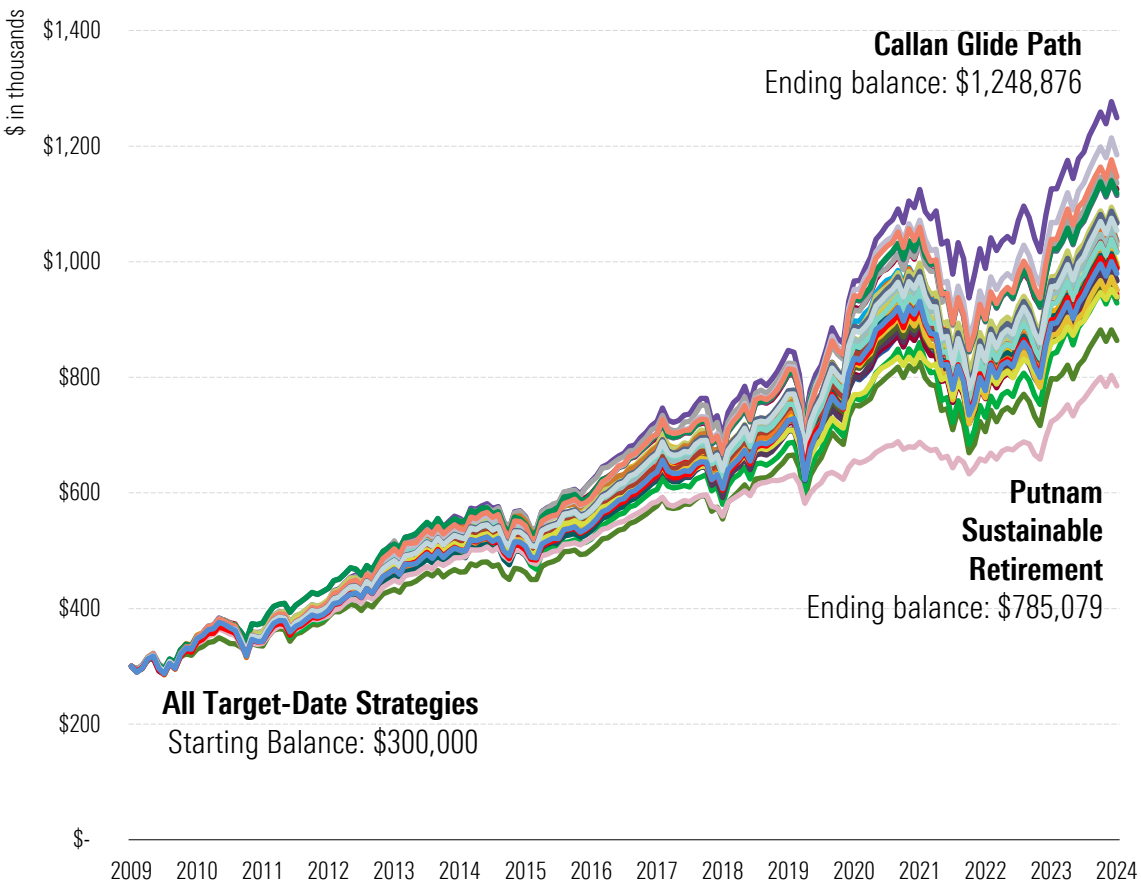
Source: Morningstar Direct, author's calculations, and surveyed data. Data as of Dec. 31, 2024.

See Important Disclosures at the end of this report.

Target-Date 2025 Funds Have Exceeded Expectations.

37 Target-Date 2025 Funds Have at Least 15 Years of Track Record Through 2024

Includes oldest share class for mutual funds and CITs



Owing largely to a market that has charged steadily upward over this time, even with major drawdowns along the way, workers invested in 2025 target-date funds since they took off in the years following the DOL fiduciary guidance and now retiring in 2025 have fared well. This graph shows how balances would have grown over time under each of the 37 strategies over the 15 years from 2010 to the beginning of 2025.

The actual returns produced by this group of target-date funds have handily outpaced expectations from the target-date investing models commonly used around 2010, resulting in higher balances than our models were predicting in 2010. Using Morningstar Investment Management’s capital market expectations from that year, our models expected the industry average glide path to gain an annualized 6.3% over the past 15 years. In actuality, the 37 target-date strategies returned an average of 7.3% annualized.

As a result, for example, the bottom-performing series in the group of 37 had an ending balance of \$785,079. This is close to our expectation for what the median investor would have achieved when we ran these models in 2010. Combined with the expected income from Social Security, an investor retiring in 2025 who had steadily invested in the 2025 fund over the last 15 years would have savings that would be expected to adequately support them throughout retirement at an income level similar to what they had in their working years.

Target-Date Funds Have Emerged From 2025’s First-Quarter Market Tumult Relatively Unscathed.

That’s even the case considering the market volatility and losses that have occurred so far in 2025. From the market’s 2025 peak on Feb. 19 through its trough on April 8, the S&P 500 lost 18.6%. Over that period, the target-date 2025 Morningstar Category average lost 7.6%. Markets have since rebounded, and year-to-date losses for the S&P 500 through April 15, 2025, stand at 8.3% versus a loss of 1.3% for the typical target-date 2025 fund.

Newly minted 2025 retirees were put through the paces during this period of volatility, likely exacerbated for many by their new reality of no longer being able to rely on a regular, predictable paycheck. But in the larger multidecade investing picture, the period amounted to a blip. Investors who stayed the course with their target-date 2025 funds remained on track for a secure retirement.

The 2025 funds’ resilience through short-term market turbulence underscores the value of the long-term, disciplined investment approaches inherent in target-date strategies.

Target-Date Fund and Benchmark Performance

Fund/ Index Name	15-year ann. return, through Dec. 31, 2024	Year-to-date return, through Apr. 15, 2025	2025 peak-to-trough return, Feb. 20, 2025 - Apr. 8, 2025
Top performer			
Callan Glidepath 2025	9.06%	-2.35%	-9.35%
Median performer			
JPMCB SmartRetirement DRE 2025	7.16%	-1.22%	-6.89%
Bottom performer			
Putnam Sustainable Retirement 2025	5.34%	-2.20%	-6.51%
US Fund Target-Date 2025 Category	6.56%	-1.28%	-7.56%
S&P 500 Index	13.80%	-8.28%	-18.55%
Bloomberg US Aggregate Bond Index	2.36%	1.76%	1.16%

Source: Morningstar Direct and author's calculations. Data as of April 15, 2025

See Important Disclosures at the end of this report.

Assets, Flows, and Product Development

Target-date funds reached new asset highs in 2024.

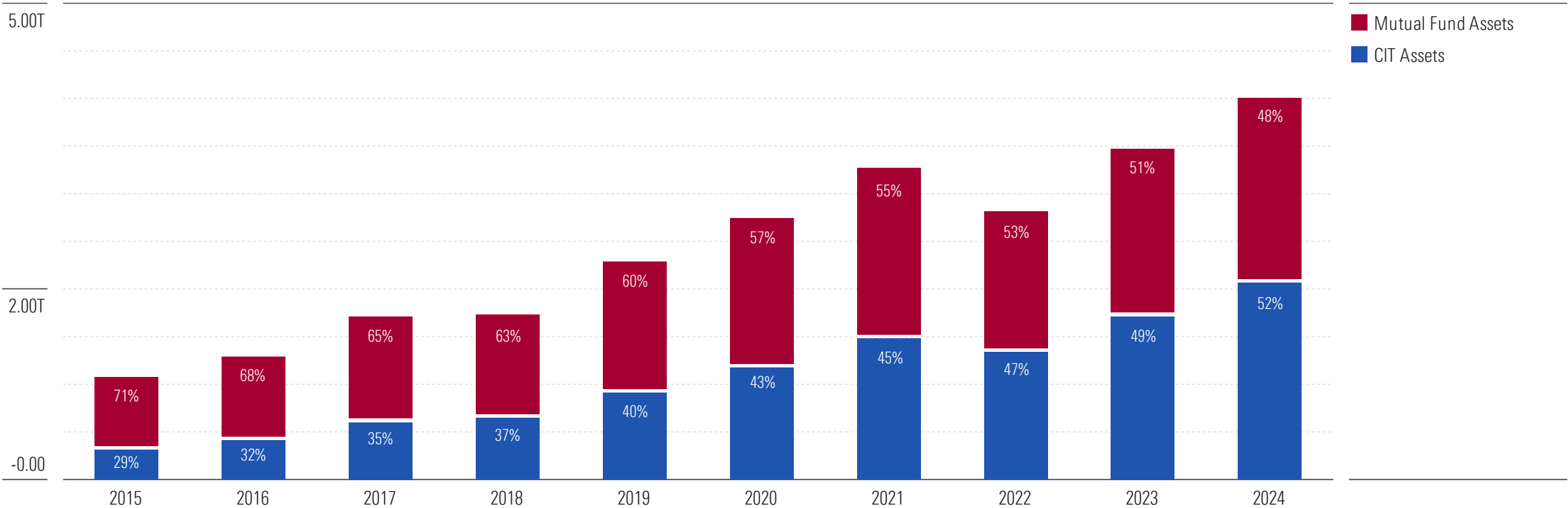
Target-Date Fund Assets Reached an Astounding \$4 Trillion in Assets in 2024. CITs Took the Target-Date Crown.

The overall target-date market saw steady growth in 2024, reaching new highs of \$4 trillion in assets. If target-date funds were a country’s GDP, it would be the fifth-largest in the world, ranking behind the US, China, Germany, and Japan.

Target-date CITs have been steadily gaining market share over their mutual fund counterparts over the past decade. They [took over as the most used vehicle in mid-2024](#) and accounted for 52% of assets at the end of the year.

Target-Date CIT and Mutual Fund Assets Continue to Grow at a Steady Pace, Reaching \$4 Trillion in Assets at the End of 2024

Annual mutual fund and CIT target-date assets



Source: Morningstar Direct and surveyed data. Totals do not include custom target-date strategies. Data as of Dec. 31, 2024.

See Important Disclosures at the end of this report.

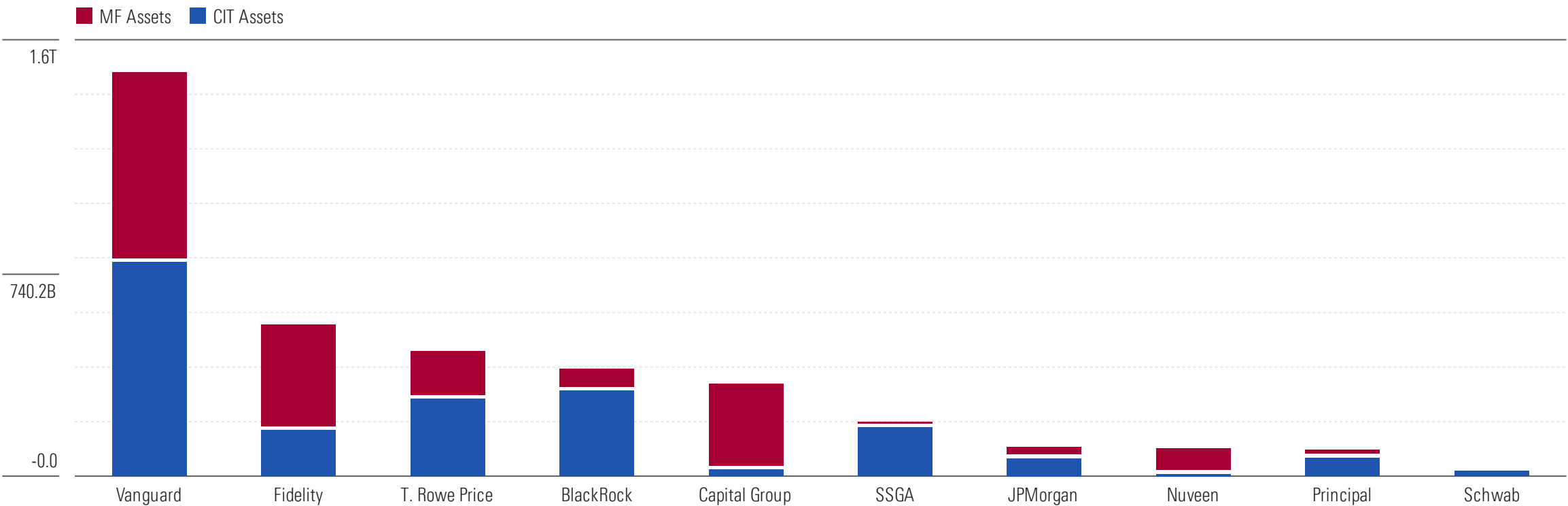
Vanguard Remains King Among Target-Date Asset Managers.

The target-date landscape remains a lopsided one, with assets concentrated in all but a handful of firms. For the past 10 years running, Vanguard remains top among the group, with assets more than double that of its next largest competitor, Fidelity.

It has done so with a svelte lineup, too, with just a single mutual fund and single CIT series, both index-based. Fidelity, in contrast, has eight across its mutual fund lineup alone.

In a Top-Heavy Industry, Vanguard’s Target-Date Assets Are More Than Double That of Its Next-Largest Competitor

Mutual fund and CIT target-date assets as of December 2024



Source: Morningstar Direct and surveyed data. Data as of Dec. 31, 2024.

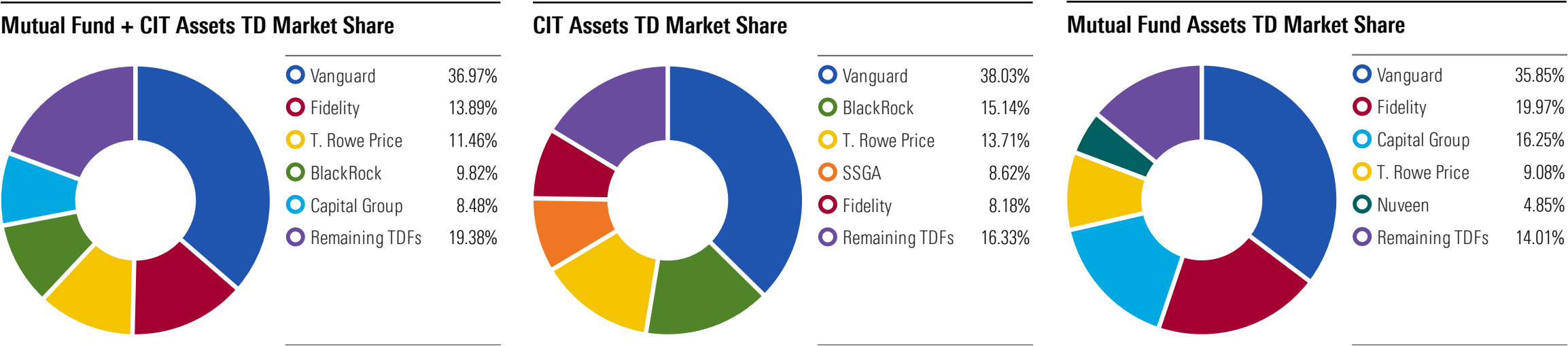
See Important Disclosures at the end of this report.

Target-Date Asset Managers Jostle for Dominance Among Their Dukedoms.

The target-date industry is a concentrated one. The top five asset managers account for more than 80% of combined mutual fund and CIT assets. The remaining 19% of the market is split between more than three dozen asset managers.

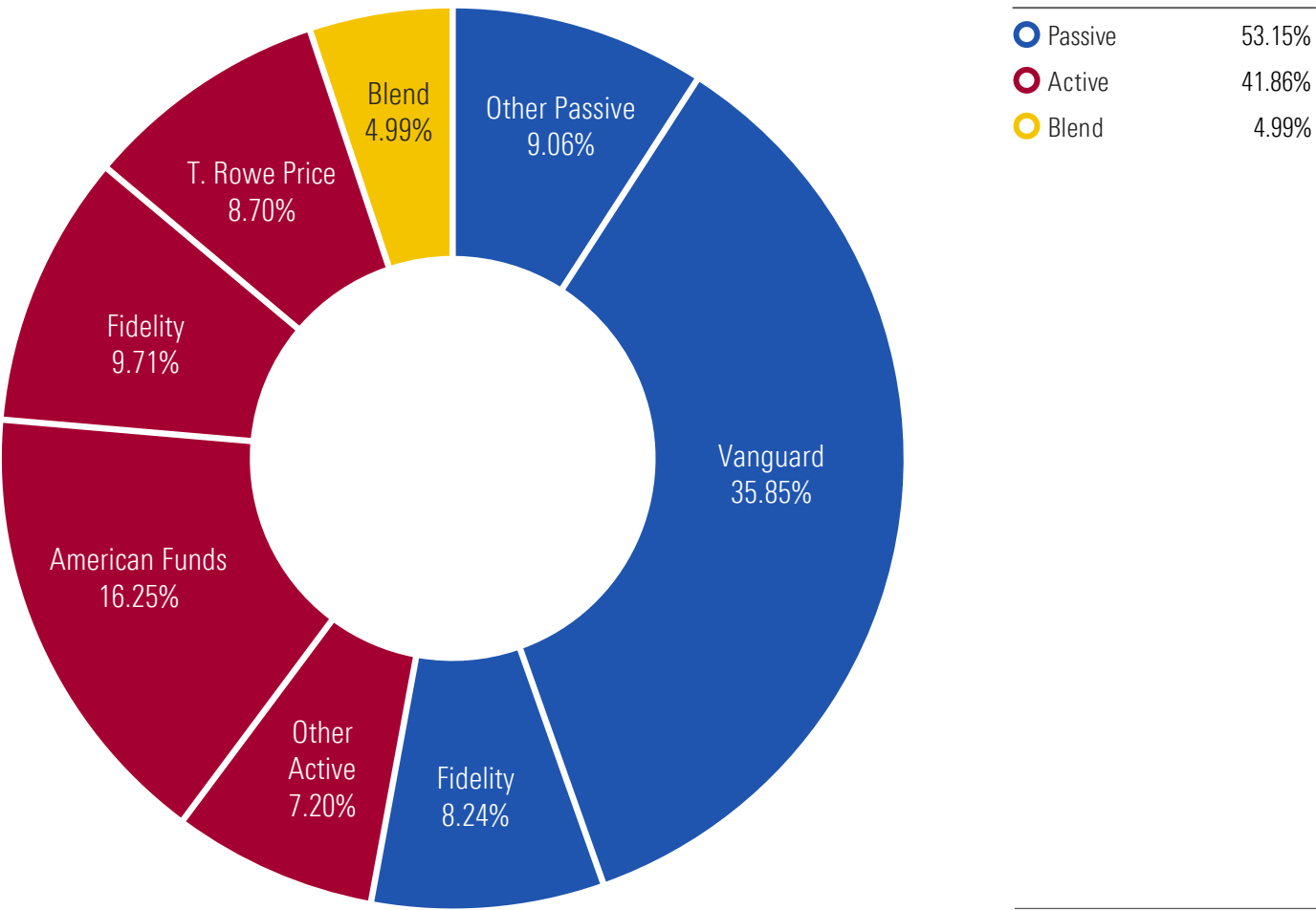
Whether in mutual funds or CITs, Vanguard holds the top spot for target-date fund market share. BlackRock, more firmly established in the institutional investing and CIT space, rises to second place on CIT assets alone. State Street Global Advisors, also a business traditionally more focused on institutional offerings, makes it to the top five list of CIT target-date managers.

Within the mutual fund target-date arena, the asset manager behemoths more firmly ensconced with retail investors dominate, with the likes of Fidelity, Capital Group (via American Funds), and T. Rowe Price landing in the top five of mutual target-date managers. Nuveen also appears on the list, off the assets of the former TIAA-CREF target-date series recently rebranded to Nuveen.



Active-Based Target-Date Funds Have a Somewhat More Competitive Landscape Than Passive-Based Offerings.

Target-Date Mutual Fund Market Share by Passive, Active, and Blend Portfolio Construction



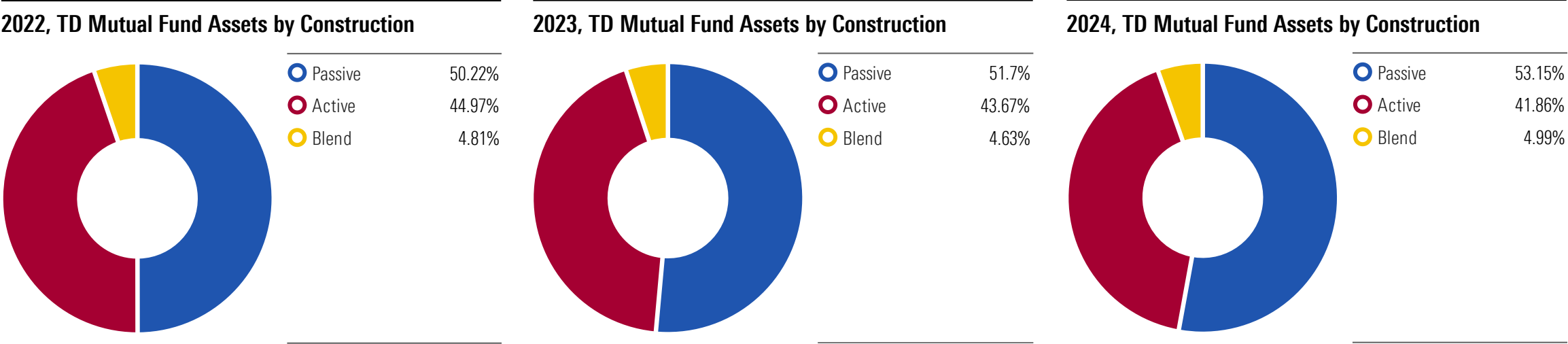
The top-heavy nature of the target-date fund industry is also apparent when dividing assets along target-date mutual funds constructed from passive-, active-, and blend-based underlying strategies.²

At 53% market share, index-based/passive series accounted for the majority of target-date mutual fund assets. The Vanguard Target Retirement series accounted for more than two thirds of that slice. Active-based series have somewhat more competition, though the top three managers—Capital Group/American Funds, Fidelity, and T. Rowe Price—still hold more than 80% of the active-based market.

²We consider all target-date series to be actively managed since portfolio managers make asset-allocation and glide path decisions. The terms active, passive, and blend used here refer to the target-date series’ underlying holdings. We use the following guidelines to classify series as passive, active, or blend:

- **Passive:** 75% or more of a series’ holdings are in index-based strategies
- **Active:** 25% or less of a series’ underlying holdings are in index-based strategies
- **Blend:** Between 25% and 75% of a series’ underlying holdings are in index-based strategies

Passive and Blend Target-Date Funds Continue to Steal Market Share From Active Counterparts.

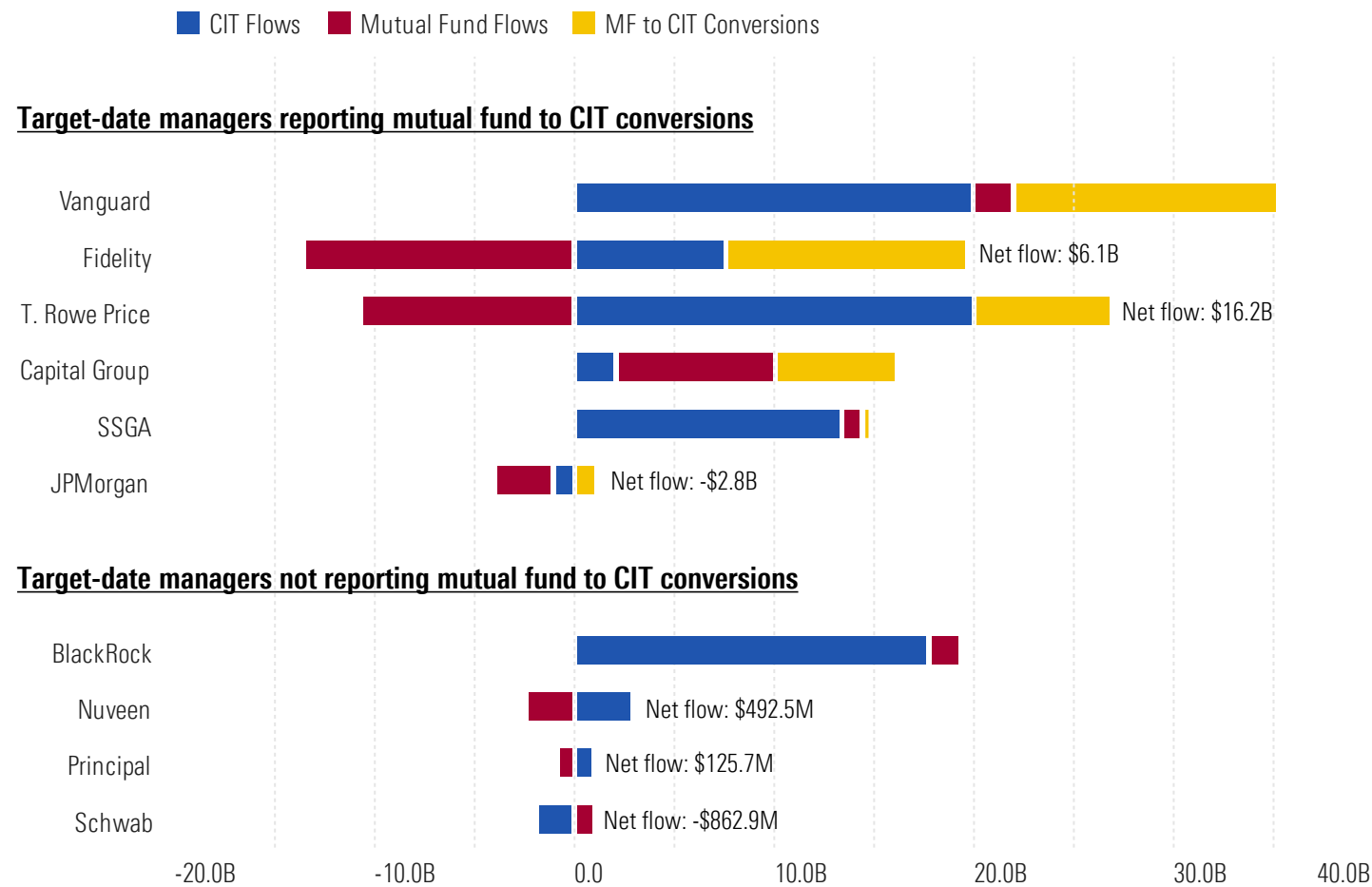


In 2024, investors continued their multiyear trend of favoring low-priced, index-based/passive offerings over active and blend alternatives. Passive target-date funds accounted for about half of mutual fund target-date assets in 2022 and have since grown to 53% of the market at the end of 2024.

Blend-based target-date funds have grown slightly, now accounting for about 5% of assets. Active-based target-date funds as a group have largely been the cohort ceding market share to passive target-date funds.

New Money Continues to Flow to Vanguard's Target-Date Mutual Fund and CIT Strategies.

2024 TD Manager Asset Flows, by Mutual Fund, CIT, and Mutual Fund to CIT Conversion Flows



Vanguard continues to be the winner in amassing new target-date fund assets, adding \$35.1 billion in new money in 2024. Following not so closely behind were BlackRock with \$19.2 billion and Capital Group/American Funds with \$16.8 billion in new assets.

The accounting of target-date fund flows can be tricky, as retirement plan sponsors often stay with a given target-date investment strategy but move from a mutual fund vehicle to a presumably lower-priced CIT vehicle. We break out flows into those from mutual funds, CITs, and conversions from mutual funds to CITs.

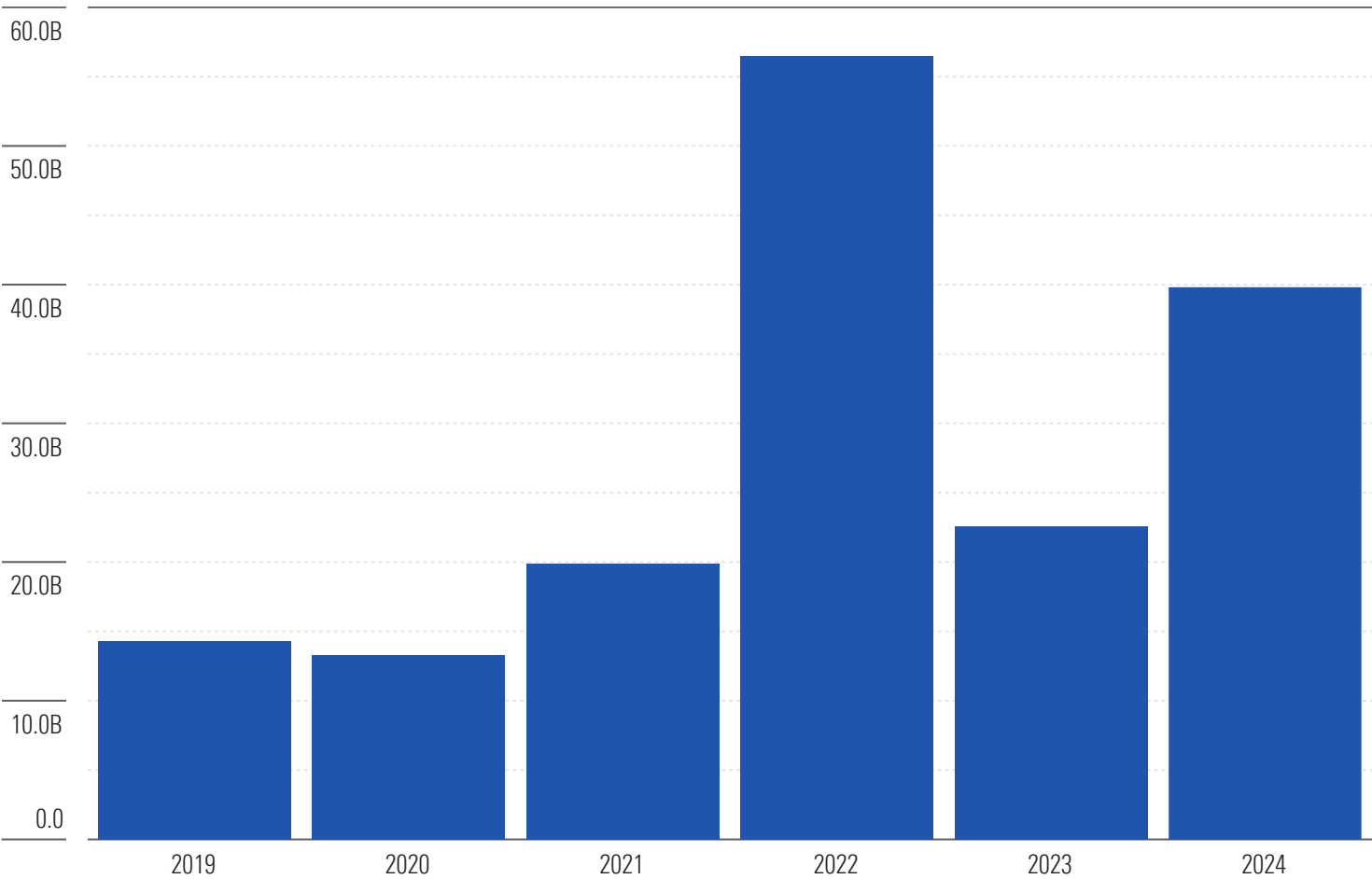
Fidelity, for example, reported \$12.1 billion in target-date mutual fund assets that transferred to CIT vehicles. The \$13.4 billion in mutual fund outflows reported in Morningstar Direct’s flows module, then, were actually \$1.3 billion in net outflows to the firm. Combined with the \$7.4 billion in new assets to Fidelity’s target-date CITs, the firm had overall net new target-date flows of \$6.1 billion in 2024.

Plan Sponsors and Investors Upped Conversions to CITs From Mutual Funds in 2024.

Plan sponsors will often choose to stay with a given target-date investment strategy but move retirement plan assets from a mutual fund vehicle to a CIT investment vehicle. While CITs don’t enjoy the same level of transparency and data availability as mutual funds (they are not available on sites like Morningstar.com, for instance), they usually come with lower fees.

In 2024, asset managers reported \$39.8 billion in target-date fund conversions from mutual funds to CITs. This was an increase from 2023’s \$22.6 billion in conversions, though not as high as the \$56.5 billion conversion peak seen in 2022.

Mutual Fund to CIT Conversions

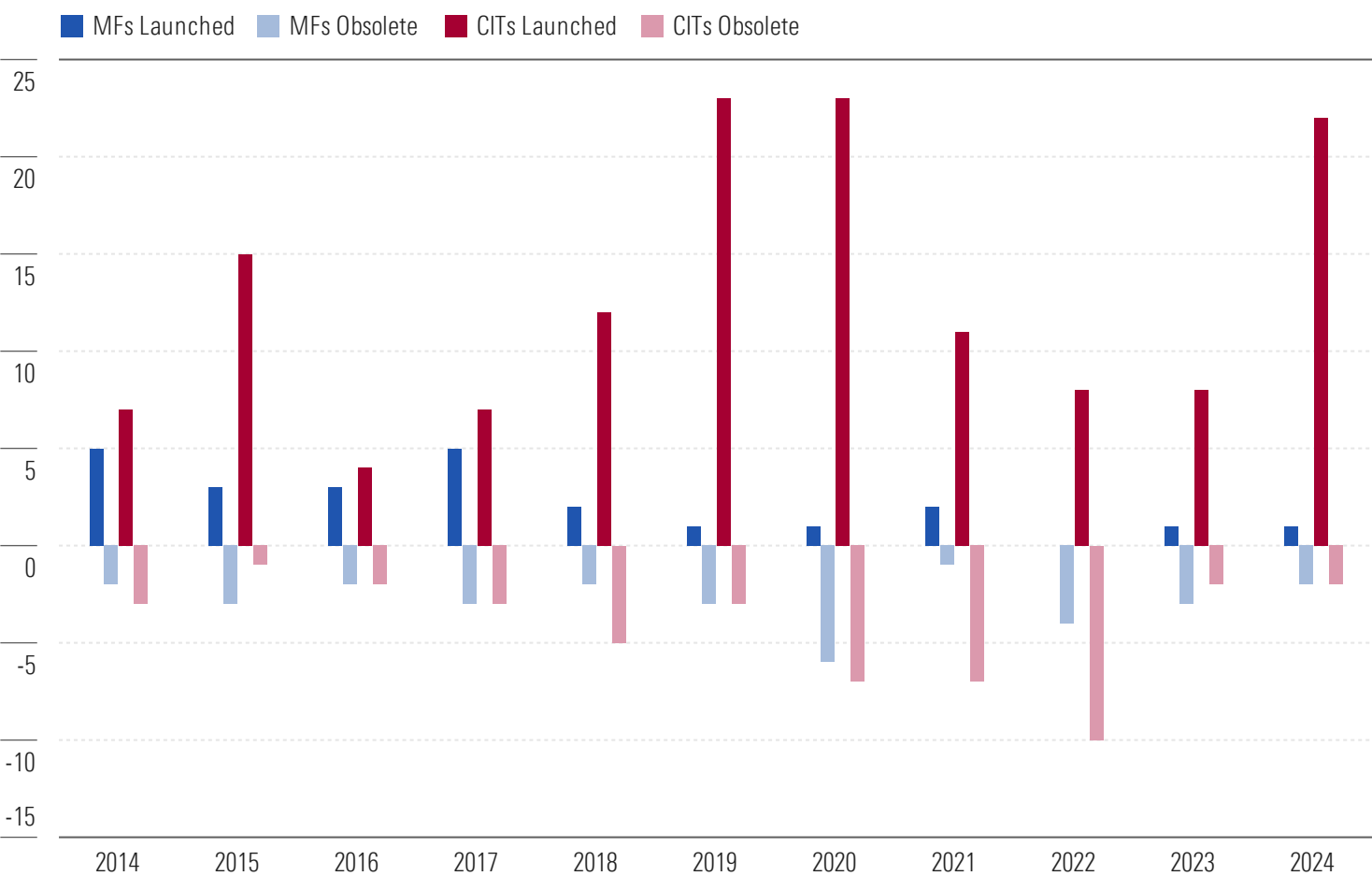


Source: Morningstar Direct and surveyed data. Data as of Dec. 31, 2024.

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Product Launches for CITs Picked Up in 2024.

TD Launches and Closures, 2014-24



After a few years of waning activity, target-date product launches picked up in 2024, almost entirely on the CIT side.

Many of these 23 new series were of target-date providers launching their existing strategies under new CIT providers, like CITs from Capital Group and T. Rowe Price via Great Gray.

Some of the more notable new products were [target-date funds with built-in annuities](#) and other automatic income-paying options. These include CIT series like BlackRock LifePath PayCheck, NCIT American Funds Lifetime Income Builder, and Nuveen Lifecycle Income. On the mutual fund side, the lone series launch came from SP Funds, with its Shariah-compliant target-date funds that are structured to comply with Islamic law.

Source: Morningstar Direct. Data as of Dec. 31, 2024.

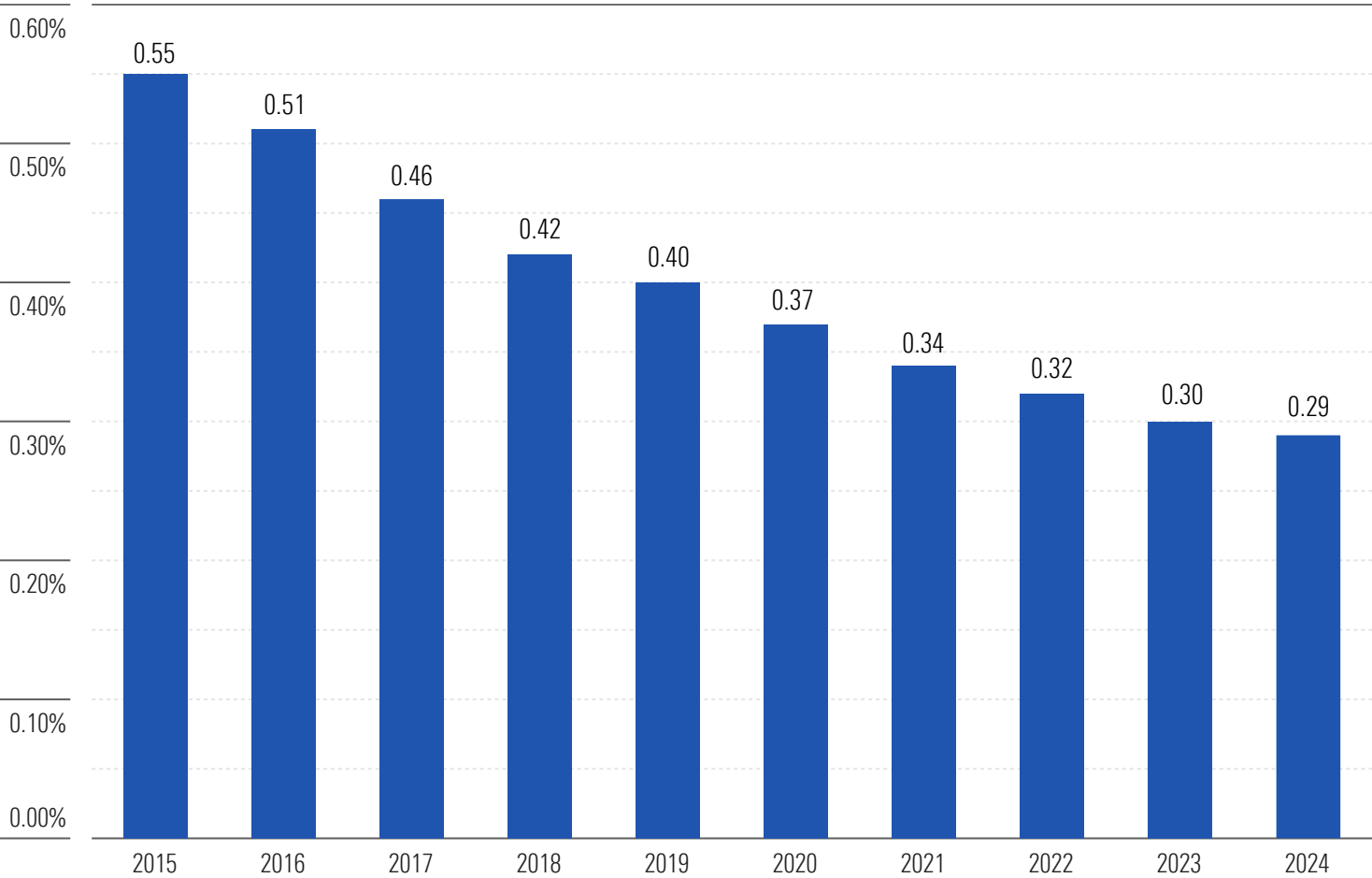
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Fees

Target-date fund investors reach new lows in 2024.

Fees Remained on a Downward Trend and Reached New Lows in 2024.

Year-End Asset-Weighted Net Expense Ratios for TD Mutual Funds, 2015-24



Over the past decade, the asset-weighted average prospectus net expense ratio for target-date funds has declined by 48%. Investors have increasingly chosen lower-cost options, and investment firms have also reduced their fees. Lower fees translate directly into greater savings for investors.

The asset-weighted fee dropped to 29 basis points from 30 basis points in 2024.

CIT fee data isn't as transparent and therefore isn't included, but anecdotal evidence indicates CITs would lower the average asset-weighted fee.

Investors Prefer Lower-Cost Options.

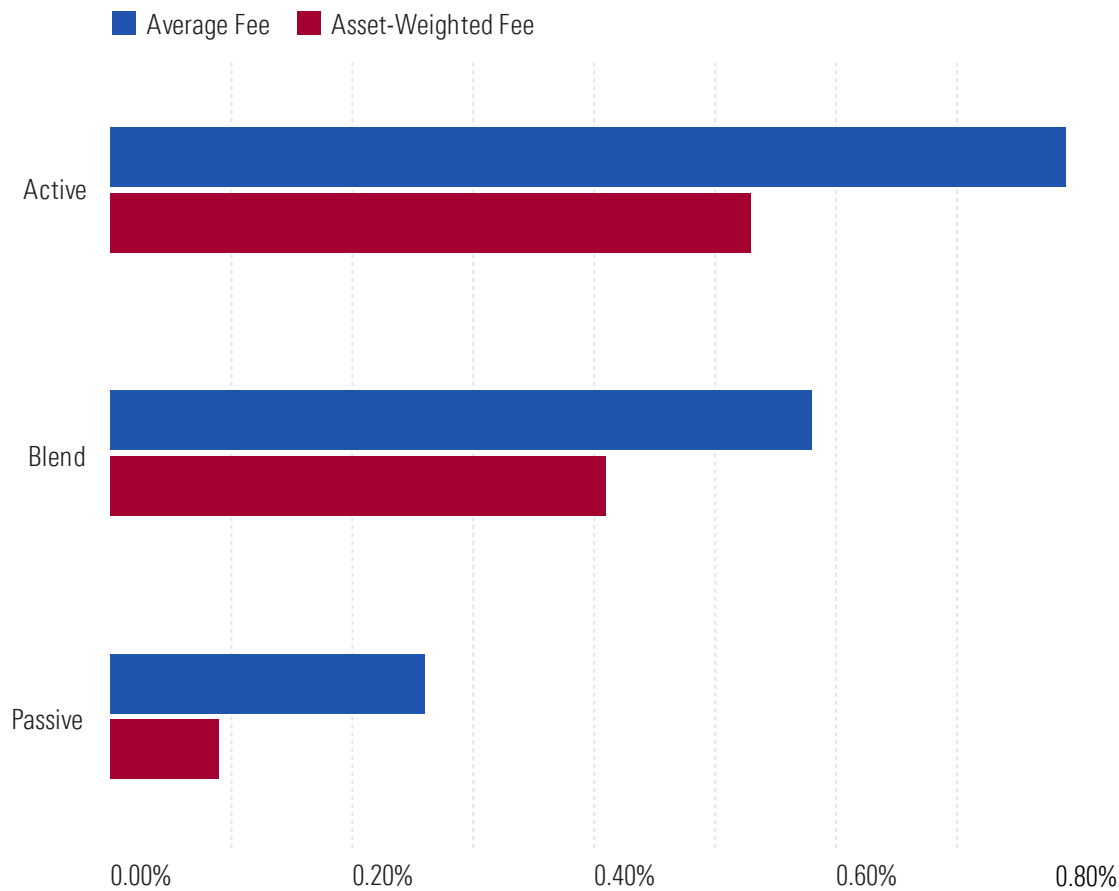
Target-date mutual fund portfolios that primarily hold index funds have lower costs than those with more actively managed exposure. Their average expense ratio of 0.26% is 53 basis points lower than that of active-based portfolios and 32 basis points lower than blended portfolios. These significant cost savings help explain why index-based target-date strategies have become increasingly popular.

Blended portfolios, which combine active and passive management strategies, have gained popularity among investors who prefer not to choose exclusively between active or passive strategies. However, they still represent only a small portion of the overall target-date market: They account for just 5% of assets compared with 53% for passive series and 42% for active series.

In all three categories (active, passive, and blend), the asset-weighted expense ratios are lower than the simple averages, indicating that investors consistently prefer the lower-cost options within each category.

Average and Asset-Weighted Fees, by Portfolio Construction

Based on mutual fund prospectus adjusted net expense ratio

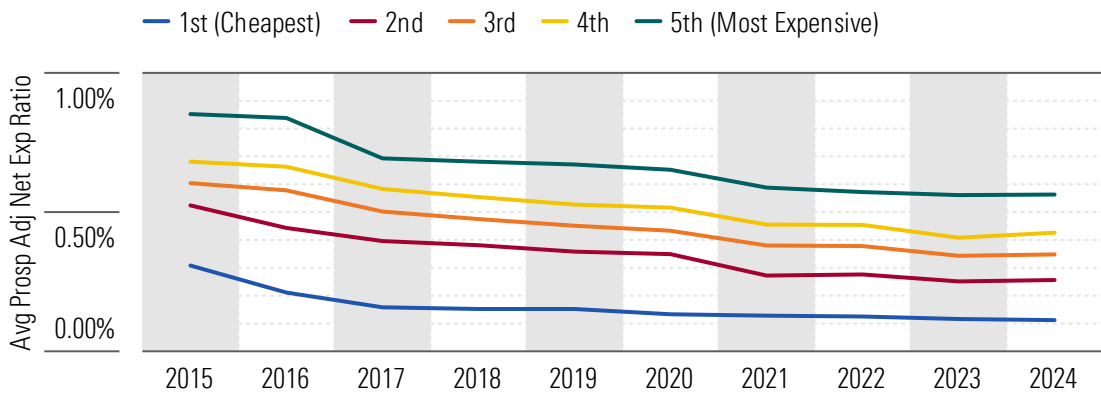


Source: Morningstar Direct, author’s calculations. Data as of Dec. 31, 2024.

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How Low Can Fees Go?

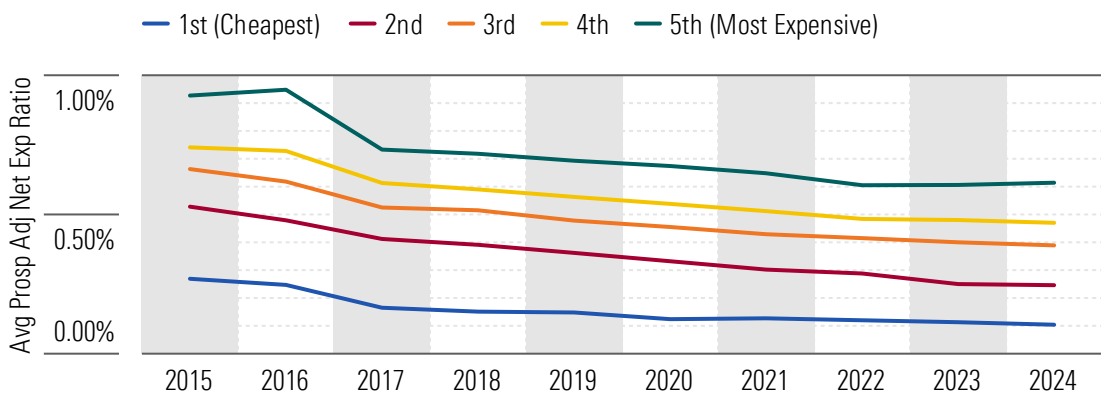
Average Year-End TD Fees by Quintile: 2025 TD Funds



Fees for target-date mutual funds continued to decline in 2024, though at a slower pace compared with previous years. Over the decade ending December 2024, fees for the 2025 and 2055 funds dropped by 25 and 26 basis points, respectively, averaging around a 6% annual decrease. However, since 2020, the rate of decline has moderated, with these funds experiencing reductions of only 8 and 6 basis points, respectively—approximately 2% per year.

As the least expensive target-date funds approach their lowest feasible prices, their cost advantage over funds in the middle quintile has gradually diminished. A decade ago, the cheapest funds had a cost advantage of 30 basis points for 2025 funds and 39 basis points for 2055 funds. These advantages have since narrowed to 24 and 28 basis points, respectively.

Average Year-End TD Fees by Quintile: 2055 TD Funds

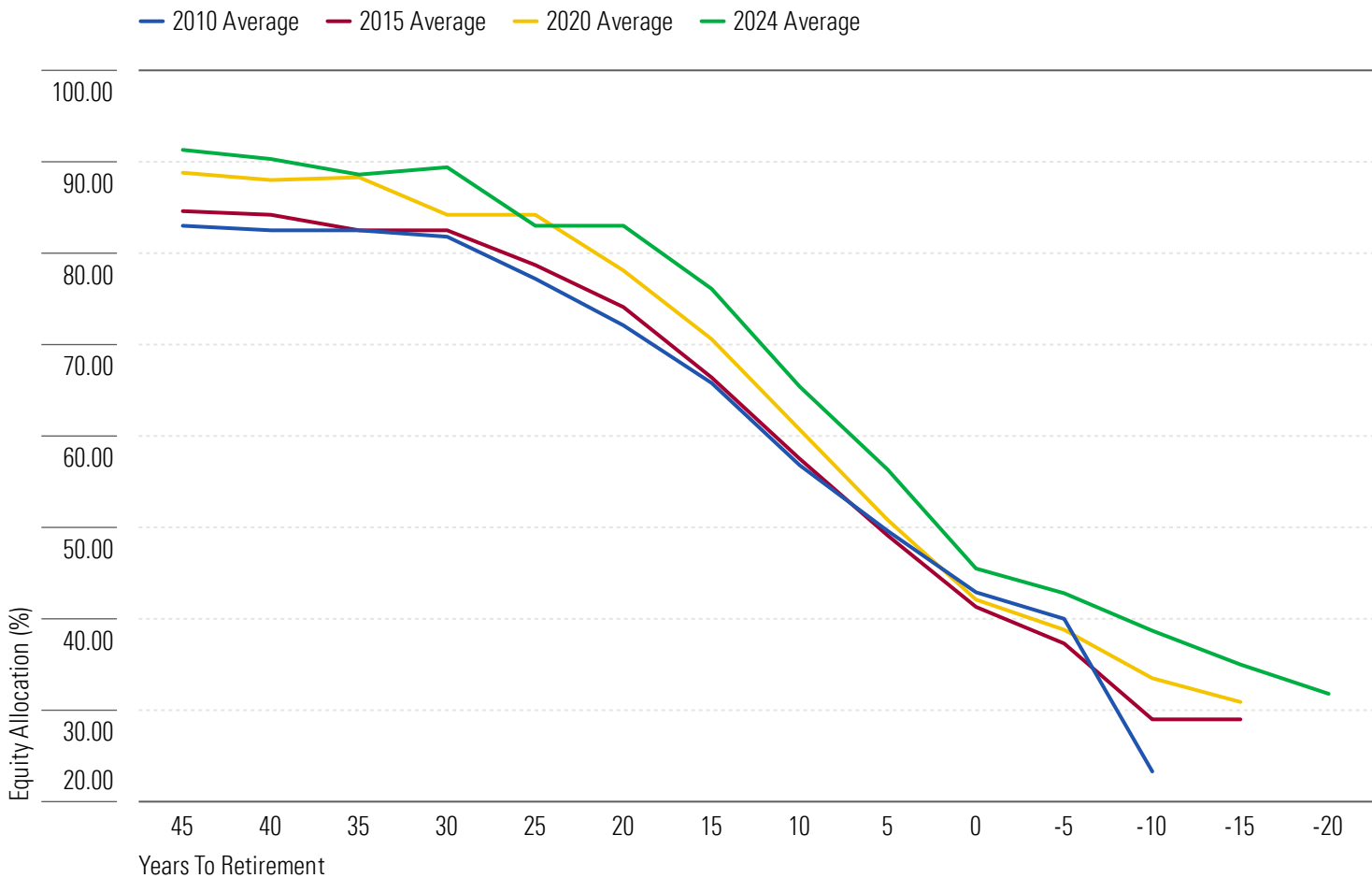


Evolution of the Asset Allocation Glide Path

Asset allocation glide paths for target-date funds have become more aggressive and more similar over time.

Asset Allocation Glide Paths Have Become More Aggressive.

Average Asset Allocation Glide Path Over Time



The average allocation to equities in the target-date universe has generally increased over the past 15 years across the glide path. Some factors that have played into this trend include:

- **Interest rates:** Low interest rates for much of the 2010s and early 2020s dampened bond yields and made them less attractive relative to stocks, which tend to thrive in low-rate environments.
- **Growth potential:** Equities should provide greater growth potential over longer periods compared with bonds. Higher allocations are suitable for younger investors, who can take on more risk and benefit from longer periods of growth and the effects of compounding.
- **Life expectancy:** While life expectancy in the US took a dip during the coronavirus pandemic, it has generally risen over time, meaning people are more at risk of outliving their assets. Equities should provide greater growth potential over longer periods compared with bonds.

Source: Morningstar Direct. Data as of Dec. 31, 2024.

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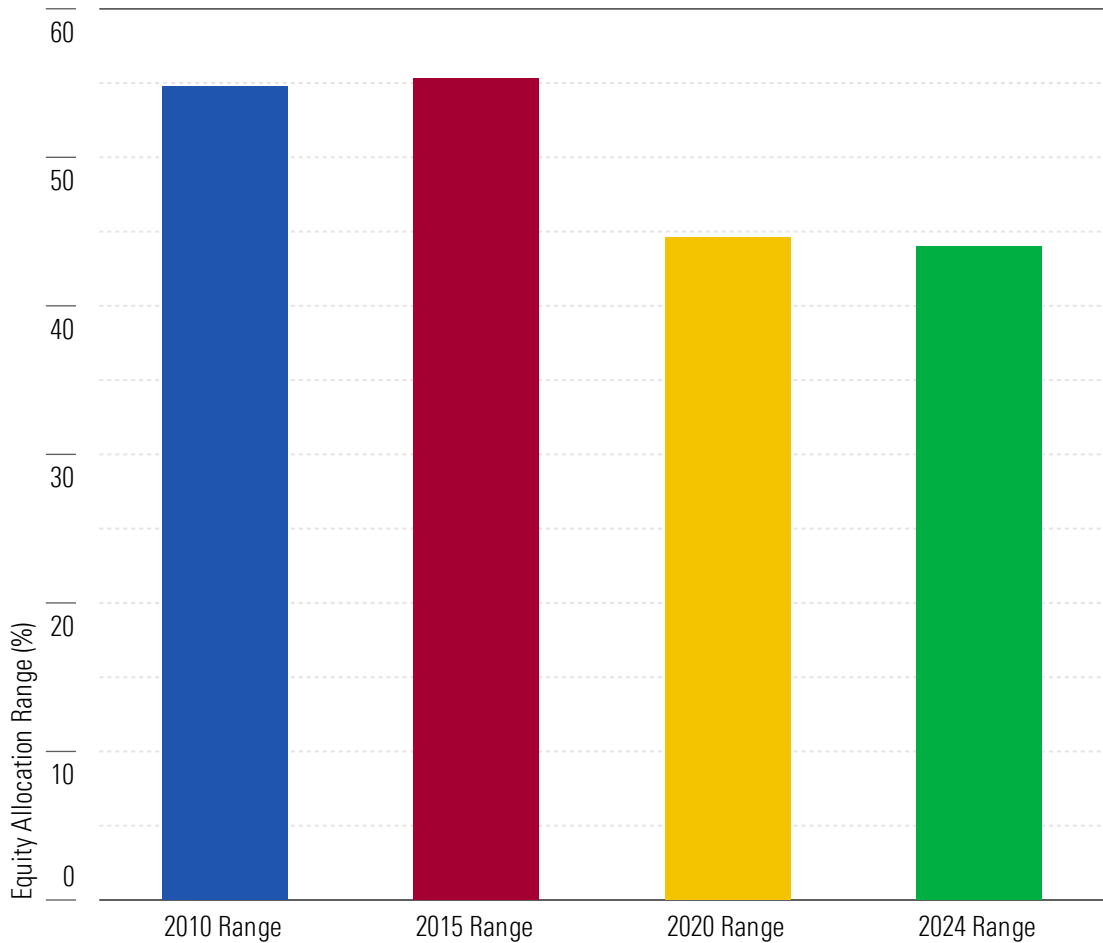
Target-Date Funds Are Becoming More Similar, as Differences Between the Least and Most Aggressive Funds Narrow.

The gap between the highest and lowest average equity allocation at each point along the asset allocation glide path has narrowed over the past 15 years, suggesting glide paths have become more similar over time. While change was minimal from 2010 to 2015, the gap narrowed from 2015 to 2020. The five years through the end of 2024 yielded a small narrowing.

The range has widened at the end of the glide path owing to equity allocations staying higher for longer. An increase in equity exposure has been particularly prevalent for workers just starting their careers, when they have the longest time horizon and can generally take on more risk.

With equity allocations rising, some more conservative target-date offerings may have become less appealing for investors and plan sponsors, causing them to liquidate. Target-date funds are supposed to be built for the average person, so a very differentiated offering may have a tougher time surviving. One such example is John Hancock’s Preservation Blend series. It featured a glide path starting at 82% equity exposure before gradually falling to a notably low 8% allocation at retirement. This conservative strategy featured a steep glide path that led to rapid derisking. The series was around for nine years before liquidating in 2023.

Average Glide Path Ranges Through Time



Source: Morningstar Direct, author’s calculations. Data as of Dec. 31, 2024.

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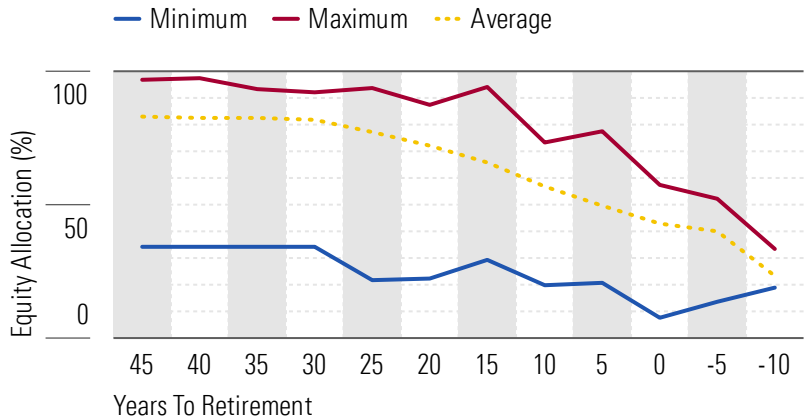
Equity Glide Path Ranges Have Narrowed Over Time.

Since 2010, the gap between the strategies with the highest equity allocation and the lowest equity allocation has shrunk, owing primarily to the lowest equity allocations increasing over time.

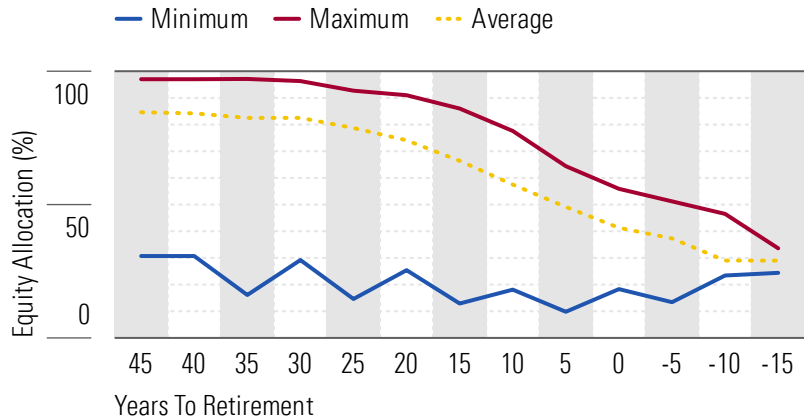
The lowest allocation line was fairly flat in 2010 and 2015 but steepened in 2020 and 2024 as equity allocations rose more in funds farther from retirement.

We looked at the equity glide path over time using data reported to Morningstar for target-date mutual fund and CIT series. The data includes both surviving and obsolete target-date series. Zig-zag patterns in the charts to the right are attributable to some series that may offer funds only in increments of 10 years rather than five years.

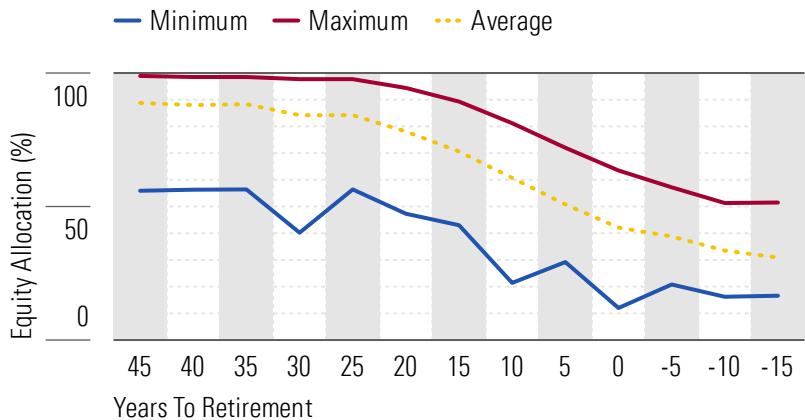
Minimum, Maximum, and Average Glide Paths–2010



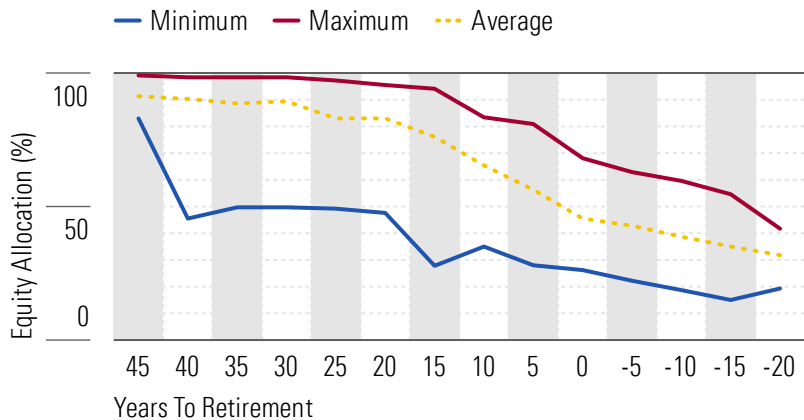
Minimum, Maximum, and Average Glide Paths–2015



Minimum, Maximum, and Average Glide Paths–2020



Minimum, Maximum, and Average Glide Paths–2024



Source: Morningstar Direct. Data as of Dec. 31, 2024.

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Morningstar Medalist Ratings

Morningstar's top target-date fund picks.

Morningstar Medalist Ratings

The Morningstar Medalist Rating is a forward-looking rating assigned based on a strategy’s investment merits. The ratings range across Gold, Silver, Bronze, Neutral, and Negative. The highest ratings go to series that have the best chance to collectively outperform over a full market cycle on a risk-adjusted basis, net of fees.

- As of February 2025, Morningstar Manager Research analysts assign Medalist Ratings to 31 mutual fund target-date series and 26 CIT target-date series.
- The CIT series are mostly clones of their mutual fund counterparts. Target-date series from Manning & Napier and IndexSelect, though, are only available as CITs.
- The following slides feature the target-date series with 100% analyst coverage.

A number of Medalist Ratings for target-date series changed in 2024, mostly driven by a methodology change for Morningstar’s process for evaluating alpha opportunity for funds, a key component of our Morningstar Medalist Rating calculation. The change can increase the impact of higher fees, resulting in several downgraded Medalist Ratings for strategies with higher costs relative to peers. Three target-date mutual fund series experienced Pillar rating changes, and those strategies were also affected by the enhanced alpha evaluation process.

The following highlights series newly under analyst coverage or those that have seen recent changes to their pillar ratings:

- The recently launched iShares LifePath Target Date ETF series debuted with a Medalist Rating of Gold in December 2024. This series is the only target-date strategy offered in an exchange-traded vehicle for US investors. It enjoys many of the hallmarks of the firm’s well-regarded flagship series, BlackRock LifePath Index.
- BlackRock LifePath Dynamic received a Process Pillar upgrade to High from Above Average in January 2025. The combination of strong glide path design and successful execution of opportunistic shifts based on the team’s research increased conviction. The Medalist Rating for the series’ K share class remained at Silver. The CIT version of the series was newly brought under coverage in March 2025, with the cheapest share class debuting with a Medalist Rating of Gold.
- John Hancock Multimanager Lifetime series received a downgrade of its Process Pillar to Below Average from Average in March 2024. Decreasing conviction in the approach is driven by the complexity of the strategy stemming from tactical shifts and the use of direct holdings requiring additional attention, paired with asset allocation processes that resulted in increased exposures to more volatile market segments. The strategy was also affected by the alpha evaluation enhancement. As a result, its Medalist Rating was downgraded to Negative from Neutral.
- In February 2025, MassMutual announced its intention to liquidate the MassMutual Select T. Rowe Price Retirement series. As the strategy enters the liquidation phase, the managers' priority shifts from executing the process as intended. As a result, we no longer have confidence in the strategy's ability to provide competitive returns with peers. We downgraded its Process rating to Low from High, resulting in a Medalist Rating downgrade to Neutral from Bronze.

Morningstar Medalist Ratings – Mutual Funds and ETFs

Morningstar Medalist Ratings for target-date mutual funds and ETFs, analyst covered

Target Date Series	Morningstar Medalist Rating	Pillar Rating ↑ Upgrades ↓ Downgrades		
		People	Process	Parent
BlackRock LifePath Index	Gold	High	Above Average	Above Average
Capital American Target Date Retirement	Gold	High	High	High
Fidelity Freedom Index	Gold	High	Above Average	Above Average
iShares LifePath Target Date ETF	Gold	High	Above Average	Above Average
T. Rowe Price Retirement	Gold	High	High	High
T. Rowe Price Retirement Blend	Gold	High	High	High
BlackRock LifePath Dynamic	Silver	High	High ↑	Above Average
Fidelity Freedom Blend	Silver	High	Above Average	Above Average
PIMCO RealPath Blend	Silver ↓	High	Above Average	Above Average
State Street Target Retirement	Silver	Above Average	Above Average	Above Average
Vanguard Target Retirement	Silver	Above Average	Above Average	High
Fidelity Advisor Freedom	Bronze ↓	High	Above Average	Above Average
Fidelity Freedom	Bronze ↓	High	Above Average	Above Average
JPM SmartRetirement	Bronze	Above Average	Above Average	Above Average
JPMorgan SmartRetirement Blend	Bronze ↓	Above Average	Above Average	Above Average
MFS Lifetime	Bronze	Above Average	Above Average	High
Nuveen Lifecycle Index	Bronze	Average	Above Average	Average
Schwab Target Index	Bronze	Above Average	Average	Above Average
Voya Index Solution	Bronze	Average	Above Average	Average

Source: Morningstar Direct, Data as of Mar. 31, 2025

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Morningstar Medalist Ratings – Mutual Funds and ETFs (continued)

Morningstar Medalist Ratings for target-date mutual funds and ETFs, analyst covered

Target Date Series	Morningstar Medalist Rating	Pillar Rating ↑ Upgrades ↓ Downgrades		
		People	Process	Parent
American Century One Choice	Neutral	⦿ Average	⦿ Average	⦿ Average
Dimensional Tgt Date Ret Inc	Neutral	⦿ Average	⦿ Average	⦿ High
JHancock Lifetime Blend Ptf	Neutral	⦿ Average	⦿ Average	⦿ Above Average
JHancock Multimanager Lifetime	Neutral	⦿ Average	⦿ Below Average ↓	⦿ Above Average
MassMutual Select TRP Retirement	Neutral ↓	⦿ High	⦿ Low ↓	⦿ Average
Natixis Target Retirement	Neutral	⦿ Average	⦿ Average	⦿ Average
Nuveen Lifecycle	Neutral	⦿ Average	⦿ Average	⦿ Average
Principal LifeTime	Neutral	⦿ Average	⦿ Average	⦿ Average
Principal Lifetime Hybrid	Neutral	⦿ Average	⦿ Average	⦿ Average
Schwab Target	Neutral	⦿ Average	⦿ Average	⦿ Above Average
Voya Solution	Neutral	⦿ Average	⦿ Average	⦿ Average

Morningstar Medalist Ratings – Collective Investment Trusts

Morningstar Medalist Ratings for target-date collective investment trusts, analyst covered

Target Date Series	Morningstar Medalist Rating	Pillar Rating ↑ Upgrades ↓ Downgrades (no changes)		
		People	Process	Parent
BlackRock LifePath Dynamic	Gold	High	High	Above Average
BlackRock LifePath Index Lendable & Non-Lendable	Gold	High	Above Average	Above Average
BlackRock LifePath Index Lendable & Non-Lendable (Great Gray)	Gold	High	Above Average	Average
Capital Group Target Date Retirement	Gold	High	High	High
Capital Group Target Date Retirement Blend	Gold	High	High	High
Fidelity Freedom Index Commingled Pool	Gold	High	Above Average	Above Average
T Rowe Price Retirement	Gold	High	High	High
T Rowe Price Retirement Blend	Gold	High	High	High
Vanguard Target Retirement	Gold	Above Average	Above Average	High
Fidelity Freedom Blend Commingled Pool	Silver	High	Above Average	Above Average
JPMCB SmartRetirement Passive Blend	Silver	Above Average	Above Average	Above Average
SSgA Target Retire Lending & Non-Lending	Silver	Above Average	Above Average	Above Average
Fidelity Freedom Commingled Pool	Bronze	High	Above Average	Above Average
JPM SmartRetirement Income	Bronze	Above Average	Above Average	Above Average
Nuveen Lifecycle Index Target	Bronze	Average	Above Average	Average
Schwab Indexed Retirement Trust	Bronze	Above Average	Average	Above Average
American Century Target Date	Neutral	Average	Average	Average
John Hancock Lifetime Blend	Neutral	Average	Average	Above Average
Manning & Napier Retirement Target	Neutral	Average	Average	Average
Principal Lifetime Hybrid Target	Neutral	Average	Average	Average
Schwab Managed Retirement Trust	Neutral	Average	Average	Above Average
Voya Target Solution Trust	Neutral	Average	Average	Average

Source: Morningstar Direct, Data as of Mar. 31, 2025

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