Defined Contribution Plans Advisory Committee (DCPAC) Meeting

1111 E. Main St.,
Richmond, VA 23219

Thursday, 3/24/2022
1:00 - 3:00 PM ET

1. Welcome and Introductions

2. Meeting Minutes
Adoption of the Minutes from the December 2, 2021 Meeting
2021.12.2 Minutes - Page 3

3. Investments
3-24-22 Final PP DC Investments slide deck - Page 8

a. Performance Reports

b. Callan 2022 Defined Contribution Trends Survey Highlights

c. CEM Survey Update

4. Administration
2021Q4 Administrative Summary - Page 33

a. DC Plans Overview

b. COV 457 and Cash Match Plan Update

c. Hybrid Plan Update

d. ORPHE Update

e. DC Plans Consultant RFP Update

5. Other Business

a. DCPAC Charter and Responsibilities Overview
DCPAC Charter 11-16-2017 - Page 58

b. Legislative Update
Legislative Update- DCPAC - Page 63

c. DCPAC Appointments

i. Reappointment of Ravindra Deo, Brenda Madden, and Edward Smither

ii. RBA for DCPAC Appointments
Motion to approve recommendation for reappointment
RBA_ReappointDCPAC_Members - Page 104

6. Discussion of New Ideas

7. 2022 Meetings

a. Remaining 2022 Meetings

i. June 2, 2022 at 1:00 p.m.

ii. September 8, 2022 at 1:00 p.m.-4:00 p.m. (annual investment review)

iii. December 1, 2022 at 1:00 p.m.

b. ORPHE Annual Employer Update
(not a meeting of the DCPAC)- to be scheduled- September

8. Appendix

For information purposes only, will not be reviewed in detail during the meeting.

Minutes

The Defined Contribution Plans Advisory Committee (DCPAC) of the VRS Board of Trustees convened on December 2, 2021, with the following members present:

Hon. J. Brandon Bell, II, Chair
Ravindra Deo (attended remotely under § 2.2-3708.2(A)(1)(b))
Susan T. Gooden
Shannon Irvin
Rick Larson (attended remotely under § 2.2-3708.2(A)(1)(b))
Brenda Madden
Ned Smither
David Winter

VRS Staff:

Trish Bishop, Steve Cerreto*, Jeanne Chenault, Michael Cooper*, Valerie Disanto*, Pam Elam, Jon Farmer*, Josh Fox*, Kelly Hiers, KC Howell*, Robert Irving, Ciara Lawson*, Joyce Monroe*, Rebecca Nicholas, Laura Pugliese, Kristy Scott*, Michael Scott, Jillian Sherman, Jennifer Schreck, Rachel Webb* and Cindy Wilkinson.

Guests:

Jamie Bitz, Joint Legislative Audit and Review Commission; Marybeth Daubenspeck*, Cory Lampshire*, and Brian Morris*, Empower Retirement; and Lindsay Saienni*, Financial Investment News.

**Attended remotely*

The meeting convened at 1:03 p.m.

Opening Remarks

Brandon Bell welcomed committee members, board members, VRS staff, representatives from other stakeholder groups and members of the public. He also provided introductory information for the newly appointed member of the Committee, Mr. Ned Smither, Powhatan County Administrator. Mr. Smither is filling the local government seat on the Committee.

Mr. Bell took a roll call of each DCPAC member for attendance purposes:

Mr. Deo – Present
Dr. Gooden – Present
Ms. Irvin – Present
Mr. Larson – Present
Ms. Madden – Present
Mr. Smither – Present
Mr. Winter – Present

Mr. Bell – Present

Approval of Minutes

Upon a motion by Mr. Bell, with a second by Dr. Gooden, the minutes of the September 2, 2021 meeting were approved upon the following roll call vote:

Mr. Deo – Aye
Dr. Gooden – Aye
Ms. Irvin – Aye
Mr. Larson – Aye
Ms. Madden – Aye
Mr. Smither – Aye
Mr. Winter – Aye
Mr. Bell – Aye

Annual Administrative Expense Report For Fiscal Year 2021

Pam Elam, VRS Business Performance Analyst, provided an overview of the annual costing update for FY 2021, as required by the DCPAC Charter. The report provided both direct and indirect costs associated with administering VRS' Defined Contribution Plans. Ms. Elam shared a summary overview of the DC Plan participant counts and expenditures for FY 2021. She also provided a summary overview of the cost trend analysis over the five-year period from FY 2017 to FY 2021. Ms. Elam informed the Committee that the costs increased approximately 7% over this time period.

Mr. Bell thanked Ms. Elam for her presentation.

Administrative Reports and Communications Update

Kelly Hiers, DC Plans Administrator, provided an update on the VRS Defined Contribution Plans for the third quarter, ending September 30, 2021. Ms. Hiers shared the total assets under management across all DC plans, as well as an overview of unique participant counts for the unbundled plans.

<u>DC Plans and Hybrid Plan Update</u>

Ms. Hiers provided an update on total assets and accounts in the VRS Defined Contribution Plans through September 30, 2021. She also presented an overview of the number of unique participants in the unbundled DC Plans.

Ms. Hiers provided an overview of new performance dashboards which will be provided each quarter and will replace the quarterly service review slide deck. The dashboards cover a variety of plan metrics, including website usage, participation rates and participant investment allocations.

Ms. Hiers informed the Committee of a recent contract amendment with MissionSquare Retirement that formalizes three items. It adds an additional performance standard related to field staff visits to employers. The current performance standard only applies to participant one-on-one and group meetings. The amendment also documents a fee waiver under certain circumstances and extends financial planning services to all VRS members regardless of participation in a VRS defined contribution plan.

Ms. Hiers notified the Committee of an upcoming communication campaign to remind plan participants who took a coronavirus-related distribution in 2020 of the options available to pay the funds back and encourage them to do so.

Ms. Hiers provided an update on total assets and accounts in the COV 457 and Virginia Cash Match plans through September 30, 2021, as well as an overview of an upcoming communications campaign to increase awareness of and encourage participation in the COV 457 Plan.

Ms. Hiers also provided a review of total assets and accounts in the Hybrid Retirement Plan for the third quarter of 2021. She further updated the Committee on the Hybrid 457 voluntary participation and contribution election rates for the third quarter of 2021. An update on the Hybrid 457 voluntary participation and contribution election rates was also provided.

Ms. Hiers next reviewed the DC Plans goal to increase contributions and enrollments for the third quarter of 2021. She shared the population statistics for participants in the COV 457 Plan, including the average age, salary and account balance for those participating in the plan. She provided an overview of participation rates in the plan over time and annual enrollments. Ms. Hiers also provided an overview of hybrid population statistics, including the average age, salary and tenure in the plan for those making voluntary contributions. She provided an overview of Hybrid Plan members by employer type and participation in voluntary contributions. Ms. Hiers highlighted ongoing and future related initiatives to increase enrollments and contributions to the Hybrid 457 and COV 457 plans.

<u>ORPHE Update</u>

Ms. Hiers shared an overview by provider of total ORPHE assets, participants and average balances for the third quarter of 2021. She also gave an update on ORPHE provider selections for the third quarter of 2021.

Ms. Hiers provided an update of several outreach initiatives, including the ORPHE Annual Employer Update and the annual open enrollment period that occurs each October for ORPHE participants.

Finally, Ms. Hiers provided the Committee with an update regarding the CREF Money Market Fund, which was previously available to ORPHE participants under the TIAA platform but was deselected last year. TIAA has notified plan sponsors and participants that the fund will likely experience negative returns after January 1, 2022 due to the expiration of a fee waiver and the low interest rate environment. Participants have been notified and have the option to move their funds to a different investment option.

Mr. Bell thanked Ms. Hiers for her presentation.

ORPHE Annual Employer Report

Mr. Rick Larson, the DCPAC member representing higher education, presented his report to on the ORPHE Annual Employer Update, hosted by VRS Defined Contribution Plans on Thursday, September 30, 2021.

DC Plans Consultant RFP Update

Ms. Hiers provided a brief update on the DC Plans consultant RFP. She indicated that the window for proposals has closed and several responses have been received. Interviews with finalists are being scheduled and an award is expected by the end of January 2022.

DC Plans Investments Update

Laura Pugliese, Portfolio Manager, Defined Contribution Plans, provided an overview of the October 31, 2021 performance reports.

Ms. Pugliese informed the Committee that next year staff will perform a review of the benchmarks used for the stand-alone funds to either affirm continuing to use them or make changes to them as appropriate.

CEM Defined Contribution Plans Survey

Ms. Pugliese presented to the Committee the 2020 CEM Defined Contribution Plans Survey results that included the unbundled DC Plans supplemental 457 Deferred Compensation Plan and the bundled TIAA ORPHE. The survey was comprised of 110 corporate and 25 public DC Plans representing $1.4 trillion in assets. She advised that CEM no longer provides benchmarking costs at no charge to survey participants, but staff is evaluating the CEM Dashboard to determine if VRS should subscribe to the service.

Staff included the CEM DC Survey Reports in the meeting materials appendix for the Committee to review.

Other Business

Code of Ethics and Conduct

Trish Bishop informed the Committee that an email notification would be forthcoming that includes instructions for completing the review of the Board of Trustees' Code of Ethics and Conduct, which is an annual requirement of VRS advisory committee members. Ms. Bishop advised that committee members can electronically sign and return to staff their completed affirmation statement.

VRS Legislative Package

Cindy Wilkinson, Director of Policy and Planning, advised the Committee of the VRS legislative package that was approved by the VRS Board of Trustees in October. She advised that the bill will separate the Board-certified defined benefit employer contribution rates from the estimated statutory defined contribution employer contribution rates. The change will simplify administration of the Hybrid Retirement Plan and make employer reconciliation easier.

Discussion of New Ideas

No additional business was brought before the Committee.

Upcoming Defined Contribution Plans Advisory Committee Meetings

Mr. Bell confirmed the DCPAC meeting dates for 2022 following the polling of the Committee.

The next meeting of the DCPAC will take place on March 24, 2022, with remaining meetings on June 2nd, September 8th and December 1st. All meetings will be held at 1:00 p.m.

Additionally, the ORPHE Annual Employer Update will be scheduled and appear on the agenda as an upcoming event. This is not a DCPAC meeting; however, members may attend if interested.

Adjournment

There being no further business, Mr. Bell adjourned the meeting at 3:01 p.m. upon a motion by Mr. Smither, with a second by Ms. Madden, upon the following roll call vote:

Mr. Deo – Aye
Dr. Gooden – Aye
Ms. Irvin – Aye
Mr. Larson – Aye
Ms. Madden – Aye
Mr. Smither – Aye
Mr. Winter – Aye
Mr. Bell – Aye

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Chair Date

Virginia
Retirement
System

DC Plans Investments

March 24, 2022

Agenda Items

- Performance
- Callan 2022 DC Trends Survey Highlights
- CEM Survey Update

Virginia Retirement System

February 28, 2022 Performance

Below are the totals for the period ending February 28, 2022. Returns greater than one year are annualized. [Waiting for fund market values from recordkeeper]

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 [27]	% of Participants Selecting an Option [28]
Do-It-For-Me: Target Date Portfolios[3,4]	%	%	%	%	%	%	%	%		$	%	%
Retirement Portfolio	**-1.39**	**-3.12**	**-4.47**	**2.13**	**7.96**	**6.52**	**5.62**	**0.08**	**8/1/05**			**5.4**
Custom Benchmark	-1.27	-3.07	-4.48	2.19	7.94	6.48	5.58					
Target Date 2025 Portfolio	**-1.57**	**-3.11**	**-4.85**	**3.23**	**8.92**	**7.63**	**7.03**	**0.08**	**7/5/06**			**6.3**
Custom Benchmark	-1.41	-3.05	-4.84	3.30	8.89	7.58	6.96					
Target Date 2030 Portfolio	**-1.84**	**-3.15**	**-5.42**	**4.43**	**10.03**	**8.59**	**7.82**	**0.08**	**8/1/05**			**8.0**
Custom Benchmark	-1.62	-3.08	-5.39	4.51	10.00	8.52	7.72					
Target Date 2035 Portfolio	**-2.11**	**-3.21**	**-5.97**	**5.55**	**11.09**	**9.49**	**8.54**	**0.08**	**7/5/06**	[24]		**9.1**
Custom Benchmark	-1.84	-3.14	-5.93	5.64	11.05	9.41	8.43					
Target Date 2040 Portfolio	**-2.36**	**-3.30**	**-6.51**	**6.51**	**12.01**	**10.28**	**9.17**	**0.08**	**8/1/05**			**9.2**
Custom Benchmark	-2.04	-3.21	-6.44	6.61	11.97	10.18	9.05					
Target Date 2045 Portfolio	**-2.56**	**-3.39**	**-6.96**	**7.26**	**12.77**	**10.87**	**9.67**	**0.08**	**7/5/06**			**10.4**
Custom Benchmark	-2.20	-3.30	-6.89	7.34	12.71	10.76	9.53					
Target Date 2050 Portfolio	**-2.69**	**-3.46**	**-7.24**	**7.62**	**13.14**	**11.14**	**9.95**	**0.08**	**9/30/07**			**12.0**
Custom Benchmark	-2.30	-3.38	-7.17	7.67	13.08	11.03	9.82					
Target Date 2055 Portfolio	**-2.73**	**-3.49**	**-7.31**	**7.66**	**13.21**	**11.18**	**10.10**	**0.08**	**5/19/10**			**16.0**
Custom Benchmark	-2.33	-3.41	-7.24	7.72	13.15	11.07	9.97					
Target Date 2060 Portfolio	**-2.73**	**-3.49**	**-7.31**	**7.66**	**13.20**	**11.17**	**9.24**	**0.08**	**11/17/14**			**12.3**
Custom Benchmark	-2.34	-3.41	-7.25	7.71	13.15	11.07	9.11					
Target Date 2065 Portfolio	**-2.73**	**-3.49**	**-7.31**	**7.64**	**n/a**	**n/a**	**13.73**	**0.08**	**9/23/19**			**2.3**
Custom Benchmark	-2.34	-3.42	-7.26	7.69	n/a	n/a	13.82					
Help-Me-Do-It: Individual Options												
Money Market Fund[5,6]	**0.02**	**0.05**	**0.03**	**0.15**	**0.93**	**1.28**	**0.72**	**0.08**	**11/1/99**			**1.9**
FTSE 3 Month Treasury Bill Index	0.01	0.02	0.01	0.05	0.83	1.10	0.60					
Yield as of 02/28/22: 0.20%[7]												
Stable Value Fund[8,9]	**0.11**	**0.35**	**0.22**	**1.53**	**2.04**	**2.05**	**1.90**	**0.24**	**2/1/95**			**7.2**
Custom Benchmark[10]	0.15	0.35	0.26	0.81	1.09	1.61	1.44					
Yield as of 02/28/22: 1.44%[11]												
Bond Fund[12]	**-1.11**	**-3.48**	**-3.17**	**-2.62**	**3.34**	**2.76**	**2.54**	**0.03**	**11/1/99**			**3.5**
Bloomberg U.S. Aggregate Bond Index	-1.12	-3.49	-3.25	-2.64	3.30	2.71	2.47					
Inflation-Protected Bond Fund[13]	**0.86**	**-0.85**	**-1.12**	**6.09**	**7.62**	**4.92**	**2.86**	**0.03**	**7/30/02**			**1.4**
Bloomberg U.S. TIPS Index	0.85	-0.87	-1.19	6.06	7.53	4.81	2.77					
High-Yield Bond Fund[14]	**-0.24**	**-1.07**	**-2.58**	**2.97**	**5.85**	**5.38**	**6.05**	**0.40**	**5/31/04**			**1.8**
ICE BofA U.S. High-Yield BB-B Constrained Index	-0.89	-1.87	-3.71	0.46	5.09	4.74	5.66					
Stock Fund[15]	**-2.99**	**-3.88**	**-8.01**	**16.39**	**18.29**	**15.21**	**14.63**	**0.01**	**11/1/99**			**10.3**
S&P 500 Index	-2.99	-3.89	-8.01	16.39	18.24	15.17	14.59					
Small/Mid-Cap Stock Fund[16]	**1.14**	**-4.21**	**-7.27**	**0.47**	**12.92**	**11.25**	**12.15**	**0.02**	**11/1/99**			**5.9**
Russell 2500 Index[17]	1.13	-4.25	-7.29	0.40	12.88	11.21	12.06					
International Stock Fund[18]	**-2.89**	**-2.17**	**-6.04**	**-0.28**	**8.12**	**7.58**	**6.43**	**0.06**	**11/1/99**			**4.8**
MSCI ACWI ex-U.S. IMI Index[19]	-1.88	-1.96	-5.86	-0.20	7.97	7.38	6.12					
Global Real Estate Fund[20]	**-2.43**	**-2.16**	**-8.04**	**13.33**	**5.86**	**6.07**	**7.91**	**0.08**	**10/1/02**			**3.1**
FTSE EPRA/NAREIT Developed Index[21]	-2.47	-2.25	-8.07	12.69	5.10	5.24	7.19					
VRSIP[22]	**-1.92**	**0.87**	**-1.92**	**16.36**	**12.54**	**10.56**	**9.44**	**0.59**	**7/1/08**	[25]		**0.5**
VRS Custom Benchmark[23]	-1.52	-0.67	-1.52	12.23	11.28	9.64	8.73					
VRSIP and benchmark returns are reported with a one month lag. [Return information shown is as of January 31, 2022.] [Market value as of January 31, 2022 was $54,751,817.]												
Do-It-Myself: Self-Directed Brokerage Account												
TD Ameritrade	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**			**0.2**
Total										**$[26]**		

Footnotes >

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

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

3 The Target Date Portfolios invest in units of BlackRock's LifePath Index Funds O. The LifePath Index Funds O invest in the master LifePath Index Funds F. The inception dates shown reflect the inception dates of the master LifePath Funds F. The inception dates for most LifePath Funds O were 12/9/11. The 2055 Fund's O inception data was 12/12/11, the 2060 Fund's O inception date was 1/2/15, and the 2065 Fund's O inception date was 9/23/2019. Returns prior to Funds' O inception dates are those of the Funds F with deductions taken for Funds O investment management fees.

4 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. Indices currently used to calculate the custom benchmarks are: Russell 1000 Index, Russell 2000 Index, MSCI ACWI Ex-U.S. IMI Index, Bloomberg U.S. Aggregate Bond Index, Bloomberg U.S. TIPS Index, FTSE EPRA/NAREIT Developed Index and the Bloomberg Commodity Index Total Return.

5 The Money Market Fund invests in units of BlackRock's Short-Term Investment Fund W. The inception data shown reflects the VRS Defined Contribution Plan's investment strategy inception date. Returns of the Fund from July 2012 through July 2016 represent performance of other BlackRock funds. Returns prior to July 2012 represent performance by the previous investment manager, State Street Global Advisors. All 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.

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. Performance returns are linked to the previous investment manager. Returns prior to July 2012 represent performance by State Street Global Advisors.

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. The inception date of BlackRock's U.S. Treasury Inflation-Protected Securities Fund M was July 20, 2012. Returns prior to Fund M's inception date are those of Fund F with deductions taken for Fund M's investment management fees.

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. Performance reflects the investment manager's returns for the aforementioned Fund with deductions taken for investment management fees negotiated by VRS and fund administrative expenses.

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. Performance returns are linked to the previous investment manager. Returns prior to July 2012 represent performance by State Street Global Advisors.

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 strategy inception date. Performance returns are linked to the previous investment manager. Returns prior to July 2012 represent performance by State Street Global Advisors.

17 Effective July 2012, the performance benchmark is the Russell 2500 Index. Prior to July 2012, the performance benchmark was the Russell Small Cap Completeness Index. The benchmark returns are linked.

18 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. Returns prior to July 2012 represent performance by the previous manager, State Street Global Advisors. All performance returns are linked.

19 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 and prior to July 2012 it was the MSCI EAFE Index. The benchmark returns are linked.

20 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. The Fund transitioned from a U.S. domestic REIT fund to a global real estate fund during July 2012. Performance returns are linked to the previous investment manager. Returns prior to July 2012 represent performance by State Street Global Advisors.

21 Effective July 2012, the performance benchmark is the FTSE EPRA/NAREIT Developed Index. Prior to July 2012, the performance benchmark was the Dow Jones U.S. Select REIT Index. The benchmark returns are linked.

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

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

24 Includes Pending Account VRSIP amount of $XXXX.

25 Includes Preliminary Investment Portfolio Account - PIP amount of $0.

26 Includes $XXX held in the administrative Special Accounts.

27 May not equal 100% due to rounding.

28 The data reflects the percentage of participants who selected a particular investment option as of December 31, 2021. There were 483,453 participant accounts as of December 31, 2021 across all unbundled DC plans.

All fund performance returns shown reflect all fund management fees and expenses, but do not reflect the Plan administrative fee charged by MissionSquare Retirement 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 MissionSquare Retirement. Benchmark returns are provided by BlackRock, Russell/Mellon Analytical Services, Galliard, and MissionSquare Retirement. 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 $30.50 is deducted from participant accounts on a monthly basis (approximately $2.54 per month). Only one annual fee of $30.50 is deducted from participant accounts for those participants participating in more than one Commonwealth of Virginia defined contribution plan.

Defined Contribution Plans Advisory Committee Report
TIAA RC Contract Investment Performance

Below are the totals for the period ending February 28, 2022. 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 O	**-1.39**	**-3.12**	**-4.47**	**2.13**	**7.96**	**6.52**	**5.62**	**0.08**	**8/1/05**	**27,152,542**	**8.0**	**9.2**
Custom Benchmark	-1.27	-3.07	-4.48	2.19	7.94	6.48	5.58					
BlackRock LifePath Index 2025 Fund O	**-1.57**	**-3.11**	**-4.85**	**3.23**	**8.92**	**7.63**	**7.03**	**0.08**	**7/5/06**	**21,760,216**	**6.4**	**7.1**
Custom Benchmark	-1.41	-3.05	-4.84	3.30	8.89	7.58	6.96					
BlackRock LifePath Index 2030 Fund O	**-1.84**	**-3.15**	**-5.42**	**4.43**	**10.03**	**8.59**	**7.82**	**0.08**	**8/1/05**	**29,866,298**	**8.8**	**8.7**
Custom Benchmark	-1.62	-3.08	-5.39	4.51	10.00	8.52	7.72					
BlackRock LifePath Index 2035 Fund O	**-2.11**	**-3.21**	**-5.97**	**5.55**	**11.09**	**9.49**	**8.54**	**0.08**	**7/5/06**	**23,883,132**	**7.0**	**9.0**
Custom Benchmark	-1.84	-3.14	-5.93	5.64	11.05	9.41	8.43					
BlackRock LifePath Index 2040 Fund O	**-2.36**	**-3.30**	**-6.51**	**6.51**	**12.01**	**10.28**	**9.17**	**0.08**	**8/1/05**	**26,685,151**	**7.8**	**9.7**
Custom Benchmark	-2.04	-3.21	-6.44	6.61	11.97	10.18	9.05					
BlackRock LifePath Index 2045 Fund O	**-2.56**	**-3.39**	**-6.96**	**7.26**	**12.77**	**10.87**	**9.67**	**0.08**	**7/5/06**	**22,855,867**	**6.7**	**10.2**
Custom Benchmark	-2.20	-3.30	-6.89	7.34	12.71	10.76	9.53					
BlackRock LifePath Index 2050 Fund O	**-2.69**	**-3.46**	**-7.24**	**7.62**	**13.14**	**11.14**	**9.95**	**0.08**	**9/30/07**	**13,506,979**	**4.0**	**8.1**
Custom Benchmark	-2.30	-3.38	-7.17	7.67	13.08	11.03	9.82					
BlackRock LifePath Index 2055 Fund O	**-2.73**	**-3.49**	**-7.31**	**7.66**	**13.21**	**11.18**	**10.10**	**0.08**	**5/19/10**	**6,048,628**	**1.8**	**5.8**
Custom Benchmark	-2.33	-3.41	-7.24	7.72	13.15	11.07	9.97					
BlackRock LifePath Index 2060 Fund O	**-2.73**	**-3.49**	**-7.31**	**7.66**	**13.20**	**11.17**	**9.24**	**0.08**	**11/17/14**	**1,276,608**	**0.4**	**2.4**
Custom Benchmark	-2.34	-3.41	-7.25	7.71	13.15	11.07	9.11					
BlackRock LifePath Index 2065 Fund O	**-2.73**	**-3.49**	**-7.31**	**7.64**	**n/a**	**n/a**	**13.73**	**0.08**	**9/23/19**	**1,369,556**	**0.4**	**0.9**
Custom Benchmark	-2.34	-3.42	-7.26	7.69	n/a	n/a	13.82					
Individual Options												
BlackRock Short-Term Investment Fund W [5]	**0.02**	**0.05**	**0.03**	**0.15**	**0.93**	**1.28**	**0.79**	**0.08**	**7/1/03**	**5,610,110**	**1.6**	**7.9**
FTSE 3 Month Treasury Bill Index	0.01	0.02	0.01	0.05	0.83	1.10	0.60					
Yield as of 02/28/22: 0.20%[6]												
BlackRock U.S. Debt Index Fund M [7]	**-1.11**	**-3.48**	**-3.17**	**-2.62**	**3.34**	**2.76**	**2.53**	**0.03**	**6/6/96**	**9,198,945**	**2.7**	**18.7**
Bloomberg U.S. Aggregate Bond Index	-1.12	-3.49	-3.25	-2.64	3.30	2.71	2.47					
BlackRock U.S. TIPS Fund M [8]	**0.86**	**-0.85**	**-1.12**	**6.09**	**7.62**	**4.92**	**2.86**	**0.03**	**7/30/02**	**5,337,901**	**1.6**	**12.8**
Bloomberg U.S. TIPS Index	0.85	-0.87	-1.19	6.06	7.53	4.81	2.77					
BlackRock Equity Index Fund J [9]	**-2.99**	**-3.89**	**-8.01**	**16.39**	**18.29**	**15.22**	**14.63**	**0.01**	**3/5/97**	**36,427,657**	**10.7**	**24.9**
S&P 500 Index	-2.99	-3.89	-8.01	16.39	18.24	15.17	14.59					
BlackRock Russell 2500 Index Fund M [10]	**1.14**	**-4.22**	**-7.27**	**0.46**	**12.90**	**11.24**	**12.24**	**0.04**	**9/30/08**	**8,997,247**	**2.6**	**4.5**
Russell 2500 Index	1.13	-4.25	-7.29	0.40	12.88	11.21	12.15					
BlackRock MSCI ACWI ex-U.S. IMI Index Fund M [11]	**-2.89**	**-2.18**	**-6.06**	**-0.33**	**8.07**	**7.54**	**5.81**	**0.11**	**2/28/11**	**16,674,791**	**4.9**	**18.8**
MSCI ACWI ex-U.S. IMI Index	-1.88	-1.96	-5.86	-0.20	7.97	7.38	5.61					
BlackRock MSCI ACWI IMI Index Non-Lendable Fund M [12]	**-2.67**	**-3.67**	**-7.39**	**6.83**	**13.32**	**11.47**	**9.93**	**0.05**	**4/12/13**	**44,713,659**	**13.1**	**33.0**
MSCI ACWI IMI Index	-2.29	-3.68	-7.36	6.87	13.12	11.18	9.59					
TIAA Real Estate Account [13]	**2.01**	**5.28**	**3.36**	**20.37**	**7.98**	**6.70**	**7.72**	**0.87**	**10/2/95**	**11,075,412**	**3.3**	**27.2**
Custom Composite Benchmark [14]	n/a	n/a	n/a	n/a	n/a	n/a	n/a					
TIAA Traditional Annuity RC [15,16,17,18]	**0.26**	**0.84**	**0.55**	**3.47**	**3.81**	**3.92**	**4.15**	**0.45**	**8/1/05**	**23,898,178**	**7.0**	**28.8**
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**	**4,866,849**	**1.4**	**0.8**
Total										**$341,205,726**		

Footnotes >

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

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

3 The BlackRock LifePath Index Funds O 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 O were 12/9/11. The 2055 Fund's O inception date was 12/12/11, the 2060 Fund's O inception date was 1/2/15 and the 2065 Fund's O inception date was 9/23/19. Returns prior to Funds' O inception dates are those of Funds F with deductions taken for Funds O investment management fees.

4 Benchmarks are calculated using blended returns of third-party indices that proportionately reflect the respective weightings of the Funds' asset classes. Weightings are adjusted quarterly to reflect the Funds' asset allocation shifts over time. Indices currently used to calculate the custom benchmarks are: Russell 1000 Index, Russell 2000 Index, MSCI ACWI Ex-U.S. IMI Index, Bloomberg U.S. Aggregate Bond Index, Bloomberg U.S. TIPS Index, FTSE EPRA/NAREIT Developed Index and the Bloomberg Commodity Index Total Return.

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

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

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

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

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

10 The BlackRock Russell 2500 Fund 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 1/30/13. Returns prior to Fund M's inception date are those of Fund F with deductions taken for Fund M'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 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 not require a minimum transaction amount; however, in the future TIAA reserves the right, in its sole discretion, to impose minimum transaction levels, which levels will generally be at least $1,000 (except for systematic transfers, which must be at least $100) or your entire accumulation, if less. Participants may not make a lump-sum transfer into the REA if their aggregated balances across all contracts is greater than $150,000. Systematic transfers and recurring contributions are not subject to this limitation.

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 1%. 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 February was 4.25%.

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. The 45 basis points (0.45%) approximates the expense provision in the formula for determining TIAA Traditional Annuity returns inclusive of administrative and investment expenses. This expense provision is not guaranteed, it is subject to change.

19 May not equal 100% due to rounding

20 The data reflects the percentage of participants who selected a particular investment option as of December 31, 2021. There were 5,215 (RC contract) participants as of December 31, 2021.

Performance returns shown reflect all fund management fees and other investment related expenses, but do not reflect the TIAA annual administrative fee of $66 (deducted at $16.50 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.

Callan 2022 DC Trends Survey Highlights

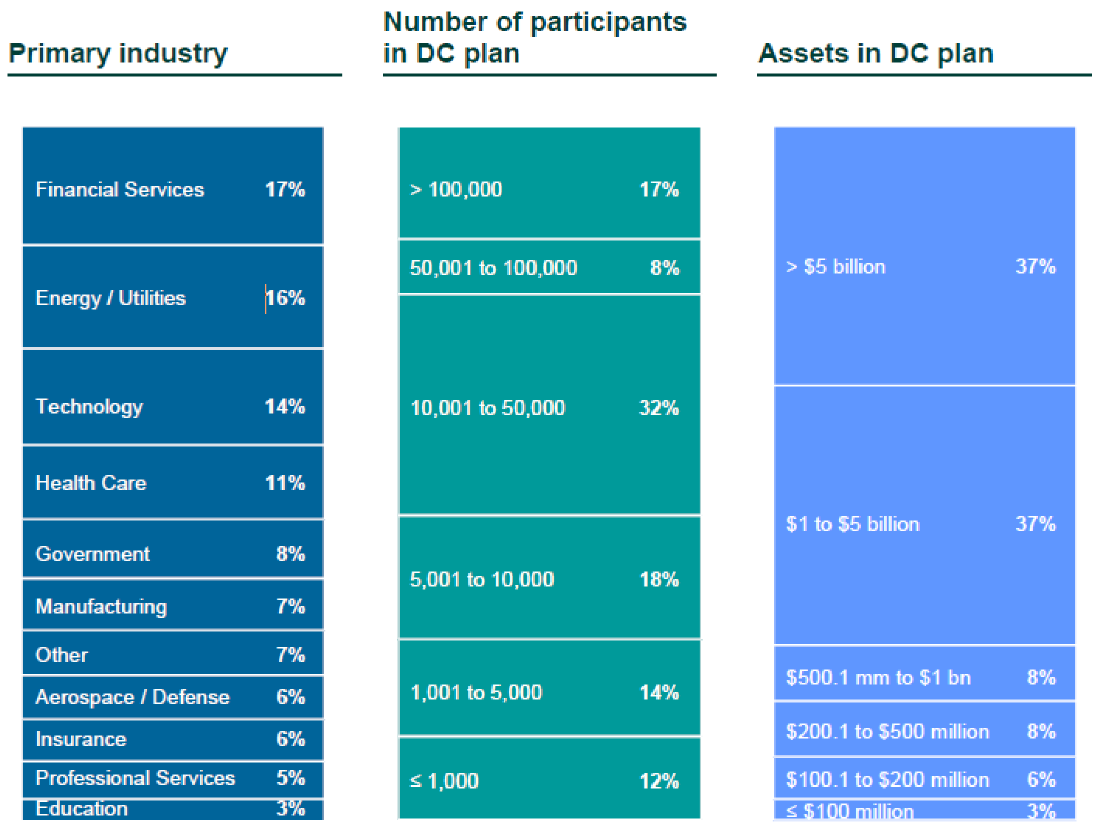
Callan 2022 DC Trends Survey Highlights

Respondent Characteristics

Callan conducted our 15th annual Defined Contribution (DC) Survey online in the fall of 2021. This, the *2022 DC Survey,* incorporated responses from 101 large DC plan sponsors, including both Callan clients and other organizations.

Respondents spanned a range of industries; the top were financial services, energy/utilities, technology, health care, and government. Note, the survey requested the primary industry that an employer looks to hire from, which means that there is some disconnect between the responses on this page and the organization type described on the following page.

More than 97% of plans in the survey had over $100 million in assets; moreover, 74% were “mega plans” with more than $1 billion in assets. The majority of respondents (57%) had more than 10,000 participants.



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

Respondent Characteristics (continued)

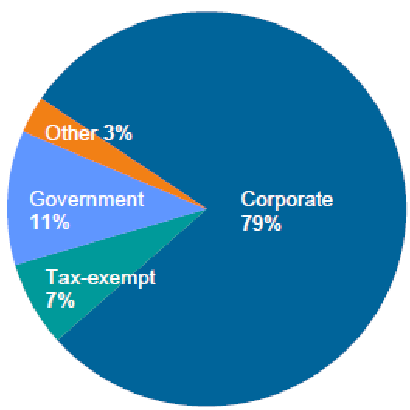
More than three quarters of respondents were corporate organizations, followed by governmental (11%) and tax-exempt (7%) entities.

As seen in prior surveys, a 401(k) plan was the primary DC offering (90%). The majority of tax-exempt entities (e.g., hospitals and nonprofits) offered a 403(b) plan as the primary DC plan.

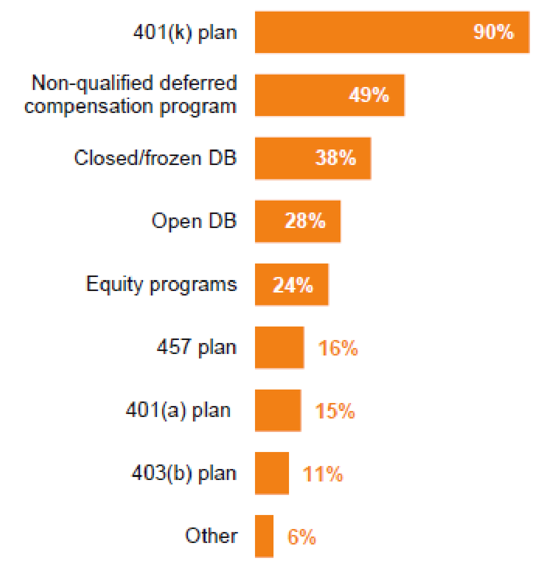
Roughly half of corporate respondents offered a nonqualified deferred compensation (NQDC) plan, while a majority of the tax-exempt and governmental entities offered a 457 plan.

About 3 in 10 DC plan sponsors surveyed offered an open defined benefit (DB) plan, compared to 39% in 2015. Governmental entities were more likely to offer an open DB plan, while corporate plan sponsors were the most likely to have a closed or frozen DB plan.

Organization type



Retirement benefits offered*



*Multiple responses allowed

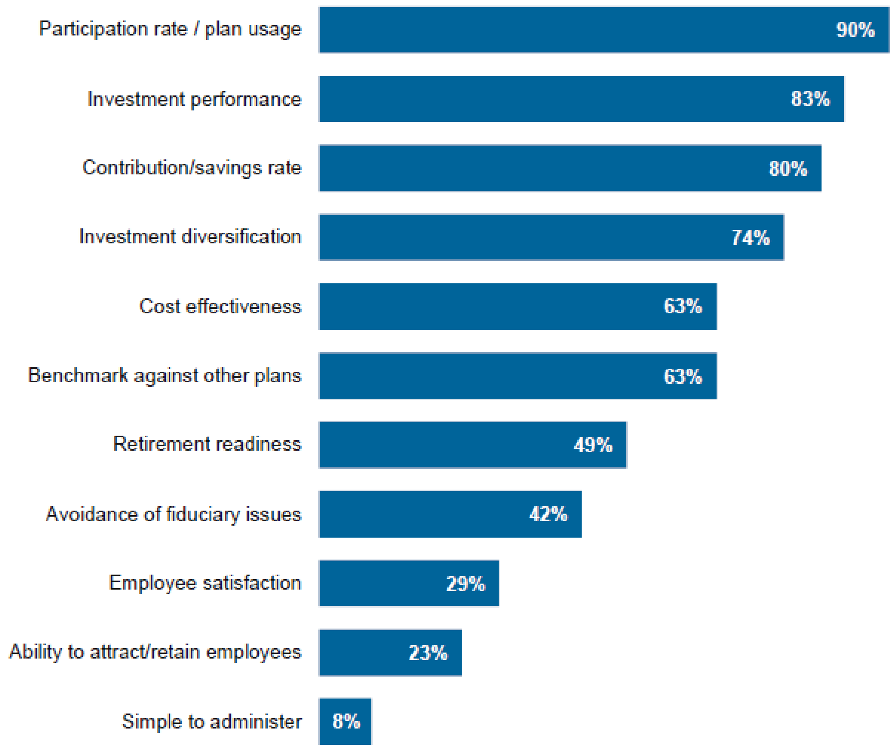
Callan 2022 DC Trends Survey Highlights

DC Plan Measurement

Survey respondents monitor 6 metrics, on average, to measure the success of the DC plan.

In line with the past three years, most plan sponsors use participation rate/plan usage to measure the success of their DC plan. Contribution/savings rate and investment performance tied for the second most common metrics, followed by investment diversification.

Criteria used to measure plan success*



Additional 2021 categories: don't measure (1%); other (12%)

*Multiple responses allowed

Callan 2022 DC Trends Survey Highlights

Fiduciary Initiatives

In 2020 and 2021, DC plan sponsors were largely focused on reviewing plan fees, their investment policy statement (IPS), and the plan's investment structure. These were all top areas in 2021 and will be areas of focus in 2022 as well.

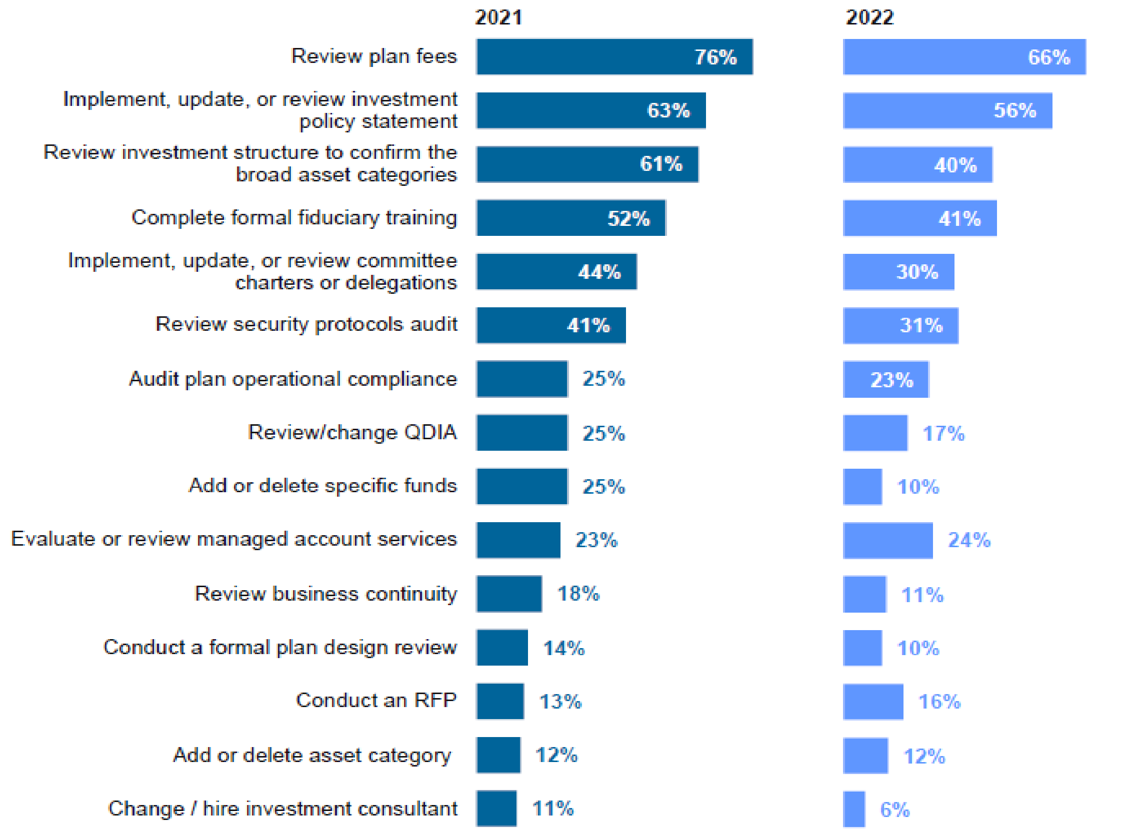
Reviewing security protocol was also a priority with 41% of plan sponsors taking this action in 2021. About a third will do the same in 2022.

Around one-quarter of respondents added or deleted a fund in 2021, but fewer plans expect to do so in 2022 (10%). This drop-off reflects the general nature of fund changes: They are not necessarily premeditated many months in advance.

Top Actions Planned for 2022

1. Review plan fees
2. Implement, update, or review IPS or structure
3. Complete formal fiduciary training

Fiduciary actions DC plans have taken or will take*



*Multiple responses allowed.
Other actions taken with less than 6% include: Evaluate/implement 3(38) discretionary services, Evaluate independent fiduciary services for company stock, Add /remove managed account services, Implement a written plan fee policy statement, Change recordkeeper, Change trustee/custodian.

Default Investments

Most DC plans had a qualified default investment alternative (QDIA) as the default investment fund (97%).

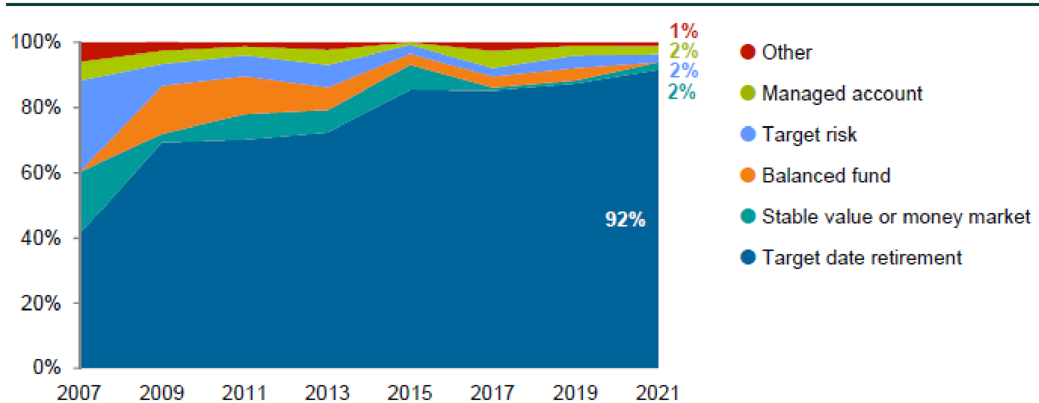
A key provision of the 2006 Pension Protection Act (PPA) provides relief to DC fiduciaries that default participant assets into QDIAs under regulation 404(c)(5). Plan sponsors complying with this provision are responsible for the prudent selection and monitoring of the plan's QDIA, but are not liable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

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

In 2021, 92% of plans used a target date fund as their default for non-participant directed monies, an all-time high. Use of other QDIA types remained low.

Plans offering target date funds

Current default investment for non-participant directed monies



Callan 2022 DC Trends Survey Highlights

Virginia Retirement System

Target Date Fund Approaches

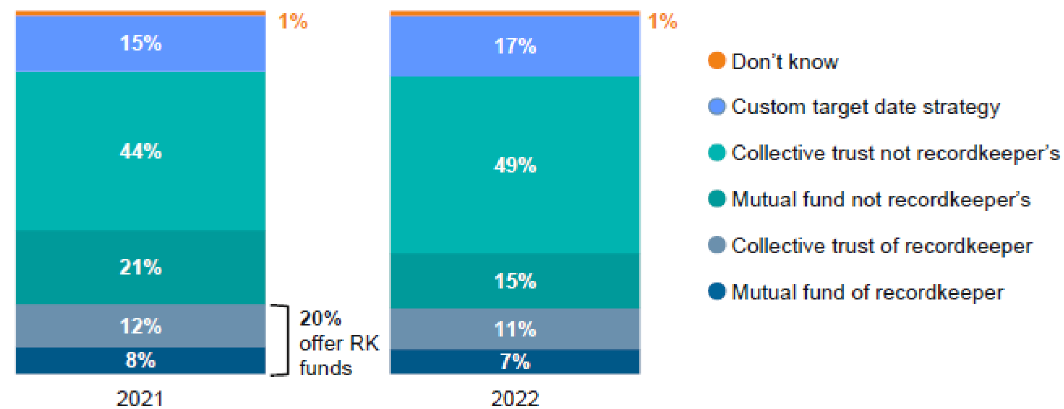
The use of recordkeeper's proprietary target date vehicles in DC plans continues to drop over time.

Only 20% of respondents used their recordkeeper's target date option in 2021, a small decrease from 23% last year, but a sharp drop from 67% from a decade ago. That number is projected to decrease slightly in 2022 to 18%.

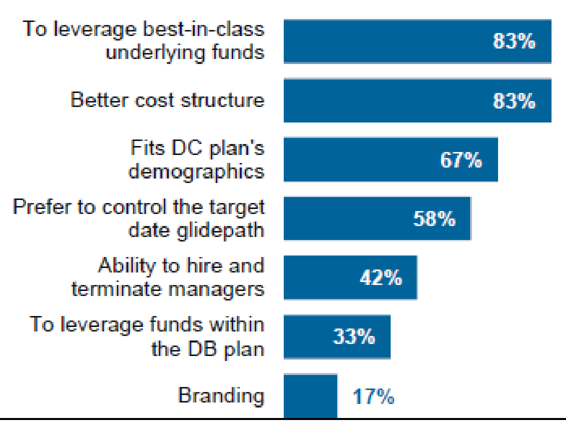
The prevalence of mutual funds for the target date fund is on the decline, as well. In 2010, 67% of plans used a mutual fund for their target date fund compared to 42% in 2020. In a noticeable jump, this went down further in 2021 to 29%. Even less plan to use mutual funds next year (22%).

For those that use custom target date funds, the most common reasons for doing so are to have a better cost structure and to leverage best-in-class underlying funds or to use funds from the core lineup.

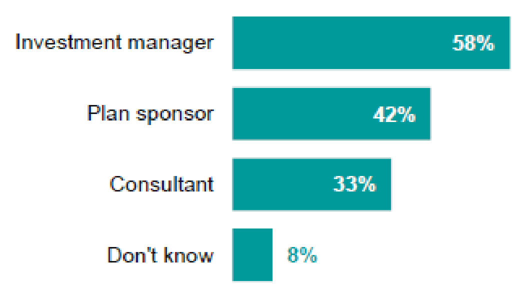
Target date fund approach: in place and will be in place



Why custom target date funds are used



Custom target date fund fiduciary



Callan 2022 DC Trends Survey Highlights

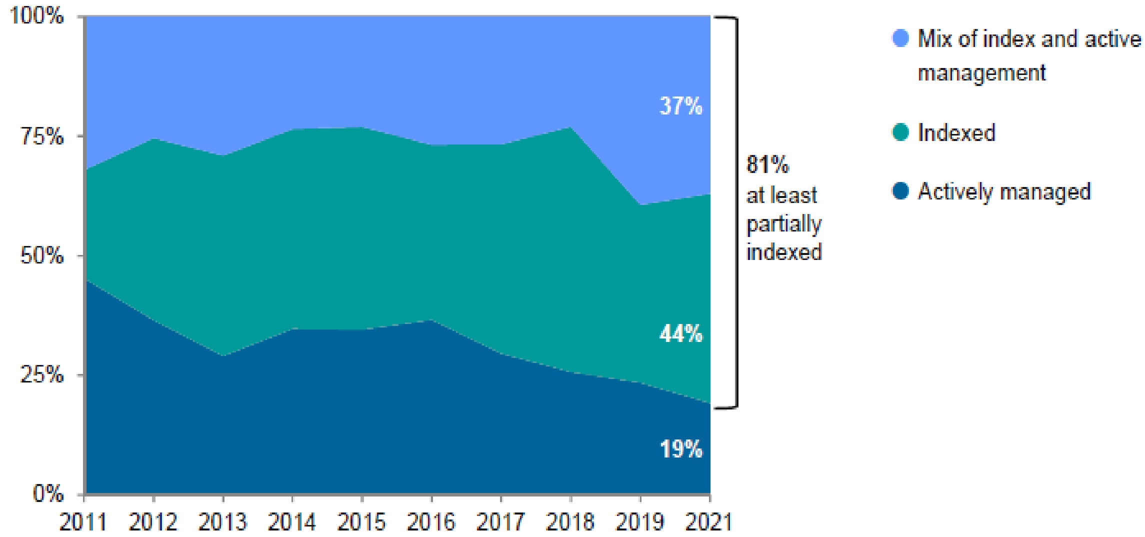
Target Date Fund Landscape

Among those that offer TDFs, over 8 in 10 used an implementation that was at least partially indexed.

The share of active-only strategies continued to be the smallest and is now at its lowest point (19%).

While the order was different, priorities remained the same as previous years. The top three reasons for selecting or retaining target date funds in 2021 were: performance, fees, and portfolio construction.

Target date fund investment approach



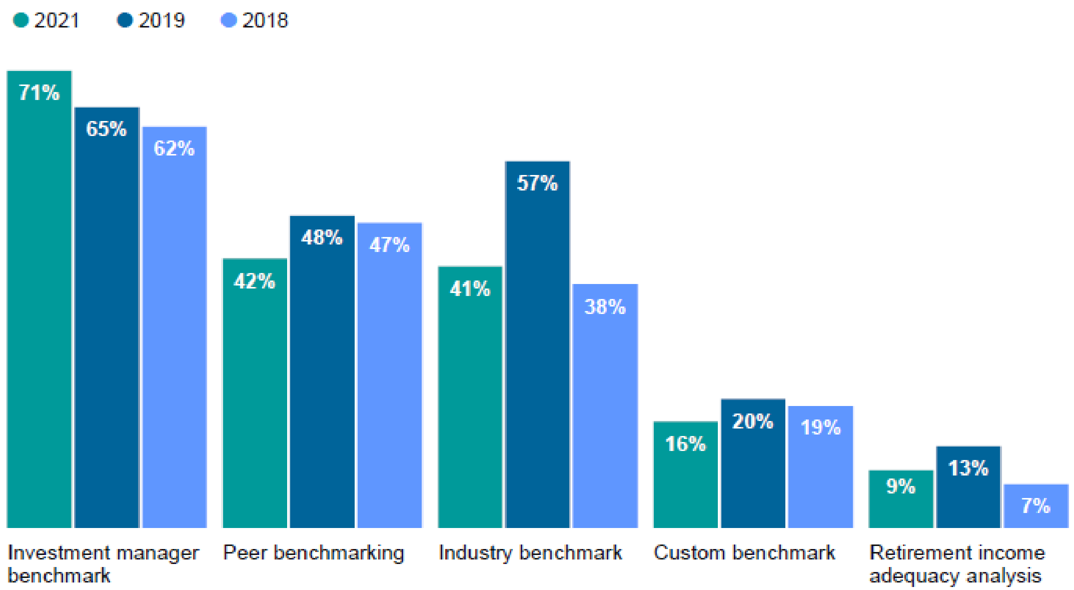
Callan 2022 DC Trends Survey Highlights

Target Date Fund Benchmarking

Two-thirds of plan sponsors reported using multiple benchmarks to monitor their target date funds, indicating that plan sponsors are taking a more varied approach. No respondents indicated they do not benchmark their TDFs.

Manager benchmarks (71%) continued to be the most common means of measurement and have shown increased acceptance over the past few years. Peer benchmarks as well as industry benchmarks are next most used, at about the same level.

Target date fund benchmarks*



Additional categories (2021 data): Don't know (3%); other (14%).

*Multiple responses were allowed.

Virginia Retirement System

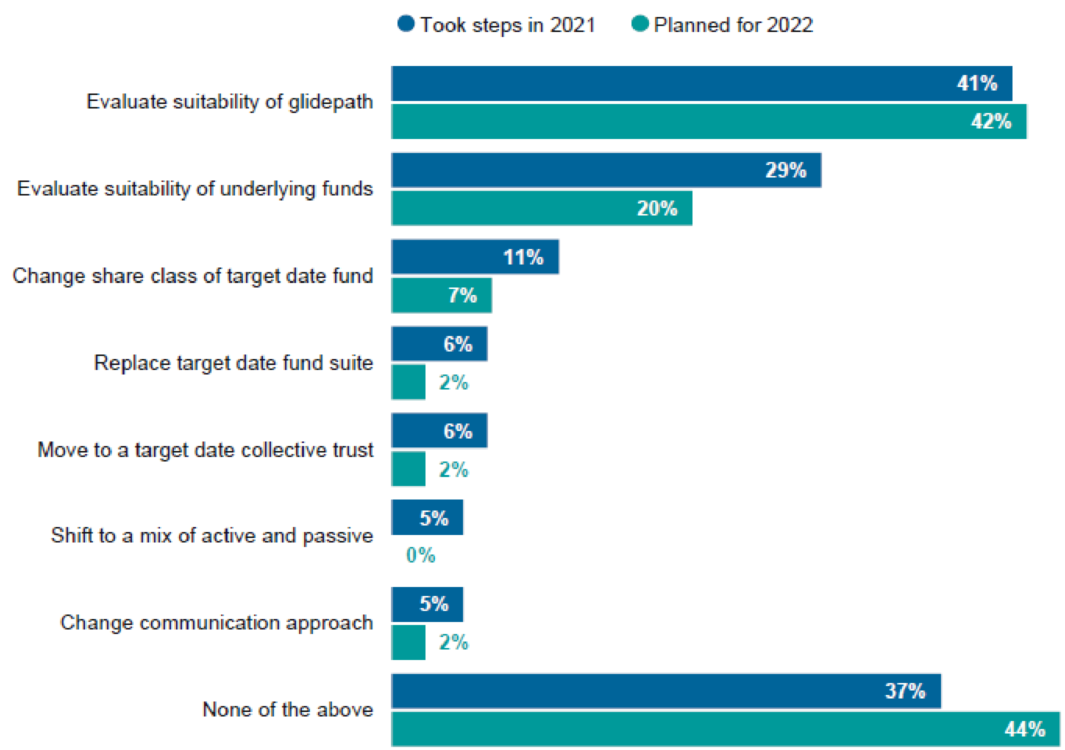
Actions Taken Around Target Date Funds

Over 6 in 10 plans took at least one action around the target date fund in 2021 (63%). The most common were to evaluate the suitability of the glidepath and the suitability of the underlying funds.

A similar percentage of plans aim to evaluate the suitability of the glidepath in 2022. Of respondents that reviewed the glidepath in 2021, 22% also report they would do so in 2022.

Notably, 18% of respondents indicated they were changing the share class of the target date fund in either 2021 or 2022.

Actions taken or planned regarding target date fund suite*



Additional categories with <4% (2021): Replace fund/manager, add target date fund suite, shift to all passive, move to dynamic QDIA, eliminate target date fund.

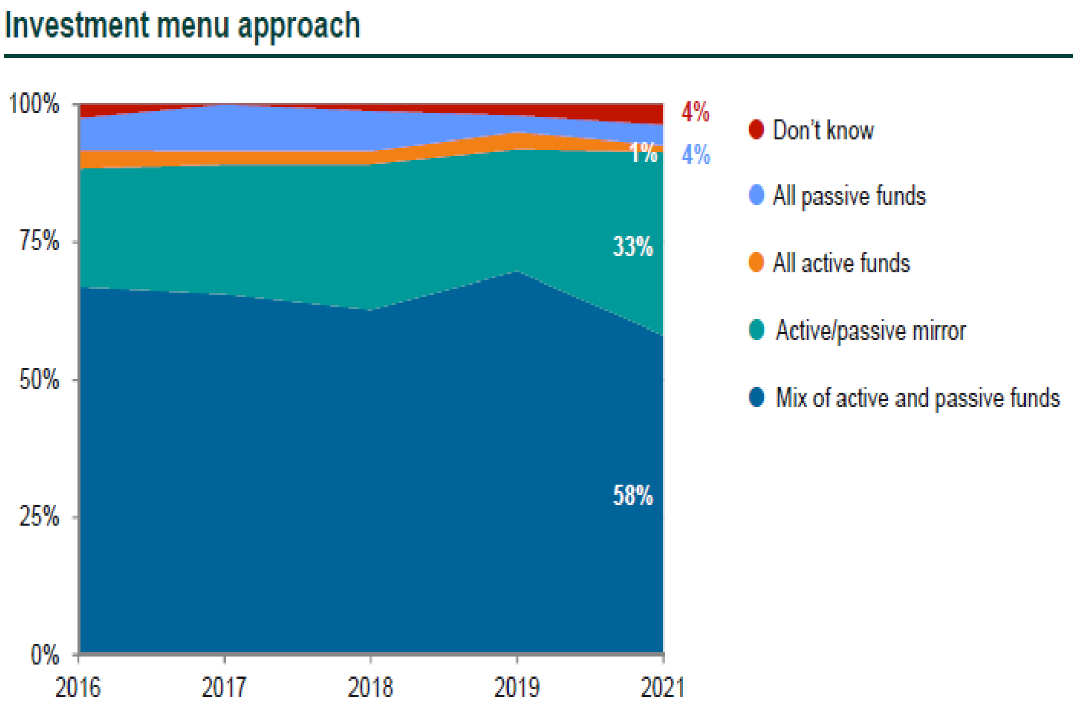
*Multiple responses allowed

Callan 2022 DC Trends Survey Highlights

Investment Menu

The vast majority of DC plans had a mix of active and passive investment funds (91%). Purely active (1%) or passive (4%) remains a rarity.

Over the past two years, there was a notable increase in those offering an active/passive mirror vs. those offering a mix of active and passive funds. A mirrored lineup is when virtually all core funds are represented by both active and passive versions.



Callan 2022 DC Trends Survey Highlights

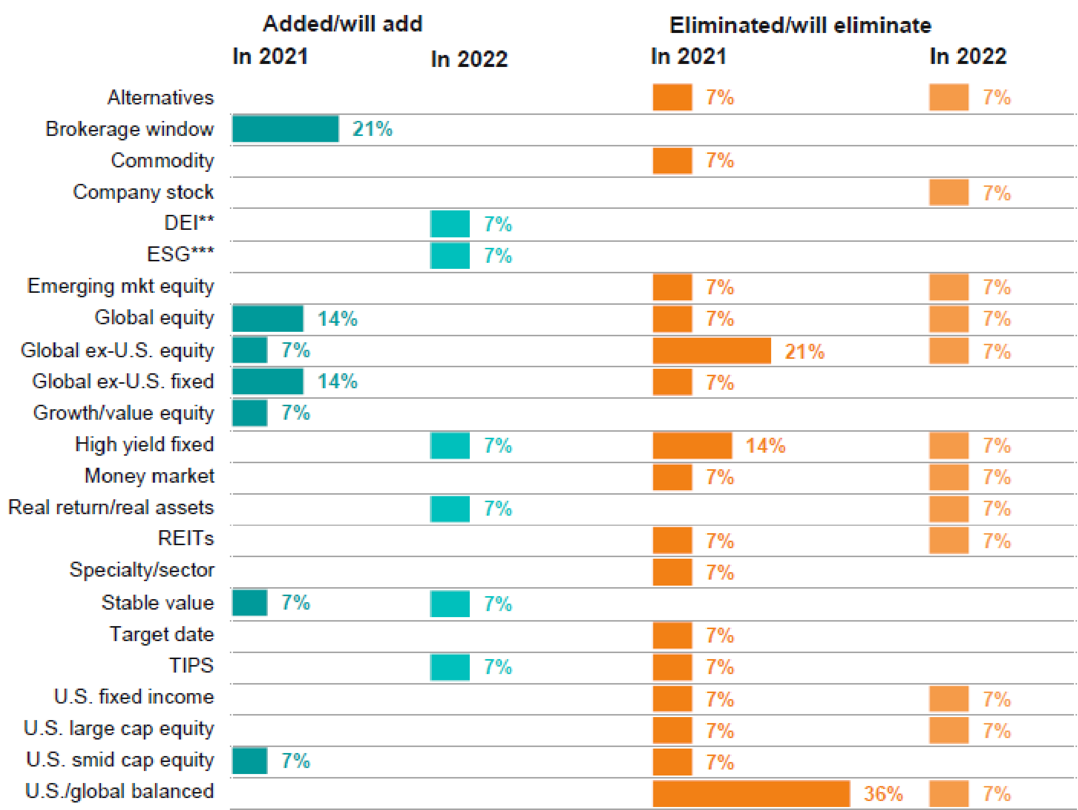
Virginia Retirement System

Investment Menu Structure (continued)

Of those that added funds in 2021, adding a brokerage window was the most common action (21%). Additions of global equity and global ex-U.S. fixed income were next. While none added DEI or ESG funds in 2021, 7% (each) expect to in 2022.

Balanced and global ex-U.S. equity were the most commonly eliminated funds in 2021 while a wide array of strategies will likely be eliminated in 2022.

Types of funds added or eliminated*



**Diversity, equity, inclusion. ***Environmental, social, and governance.

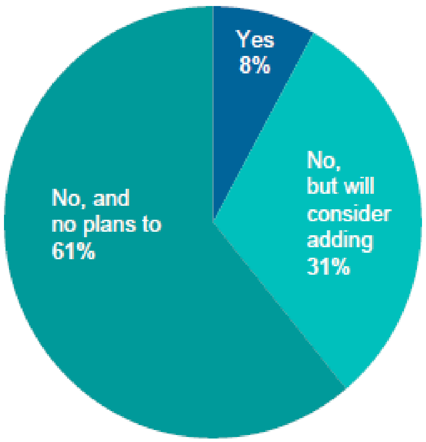
*Percentages out of those that made a change.

Multiple responses allowed.

ESG in DC Plans

Most plans (9 in 10) do not offer an ESG fund. While that's the case, about a third will at least consider adding an ESG option in the future. This was a newly added question for the *2022 DC Survey*.

Plans that offer an environmental, social, governance (ESG) fund



Callan 2022 DC Trends Survey Highlights

Virginia Retirement System

Types of Investment Vehicles

Mutual funds (85%) and collective trusts (78%) continued to be the most prevalent investment vehicles. Plans were less likely to use collective trusts for stable value funds (35%) than non-stable value options (65%).

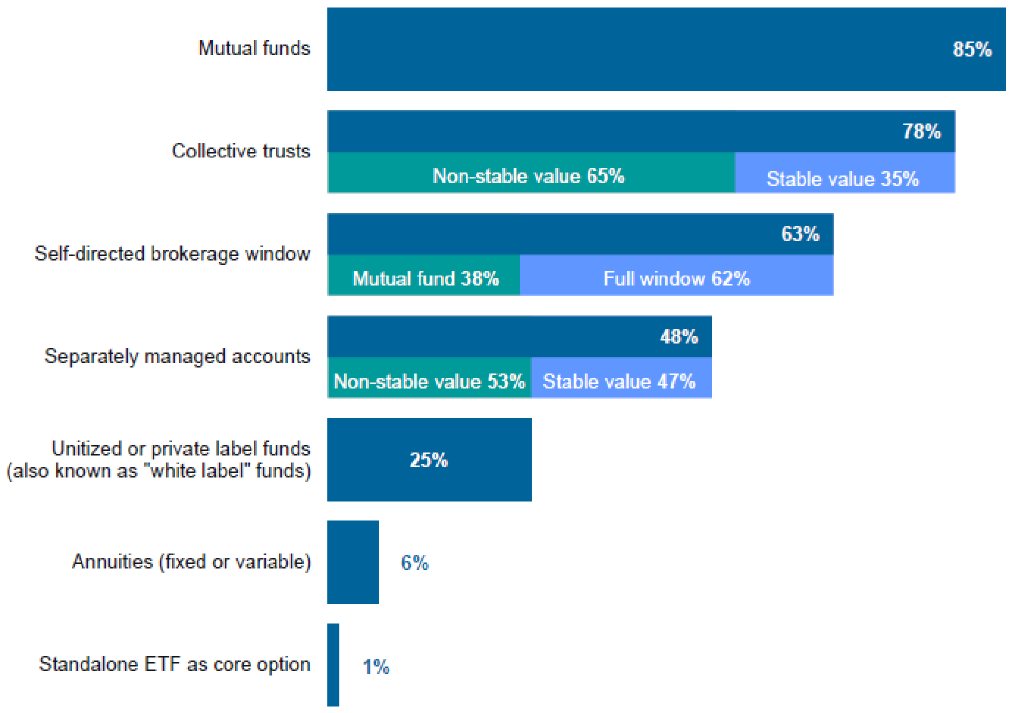
Over the past decade, the use of mutual funds fell by about 10 percentage points while the use of collective trusts rose by about 35 percentage points. Separate account use was also up by nearly 10 percentage points.

About a quarter of plans used unitized funds in 2021. All of the plans that used unitized funds had over $1 billion in assets. Of those, 10% had between $1 and $5 billion and the remaining 90% had over $5 billion in plan assets.

2011 Investment Types

Mutual funds	**95%**
Collective trusts	**44%**
Separately managed accounts	**40%**

Investment types within the fund lineup*



*Multiple responses allowed. Some respondents offer multiple asset classes in each vehicle type (e.g., both stable value and another asset class are offered as a collective trust and/or separate account).

Callan 2022 DC Trends Survey Highlights

Virginia Retirement System

Fee Payment

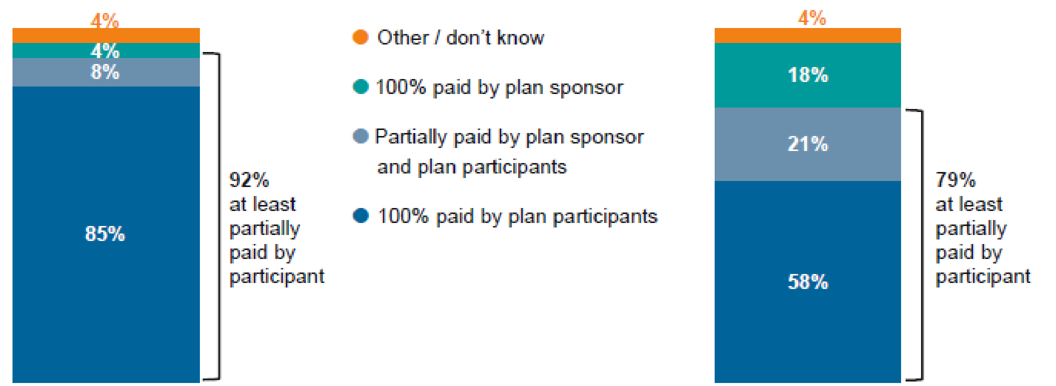
Investment management fees were most often paid entirely by participants (85%), and almost always at least partially paid by participants (92%). By contrast, 58% of all administrative fees were paid entirely by participants, up slightly from last year (49%). Most plan sponsors (79%) noted that at least some administrative fees were paid for by participants.

More than three-quarters of plan sponsors reported using a per-participant fee for plan administration. Flat, per-participant fees continued to be more prevalent than asset-based fees that fluctuate based on account balances (76% vs. 24%, respectively).

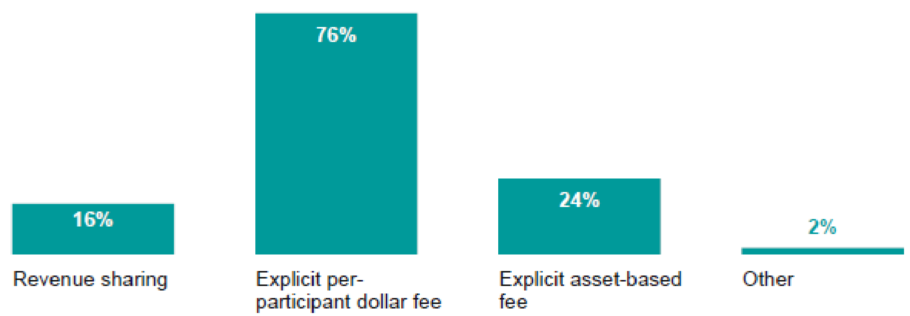
88% of respondents were somewhat or very **unlikely to change the way fees are paid** (e.g., move from asset-based to flat, per-participant fee) in 2022.

How investment management fees are paid

How administrative fees are paid



How participants pay for plan administration*



*Multiple responses allowed.

Callan 2022 DC Trends Survey Highlights

Retirement Income Solutions

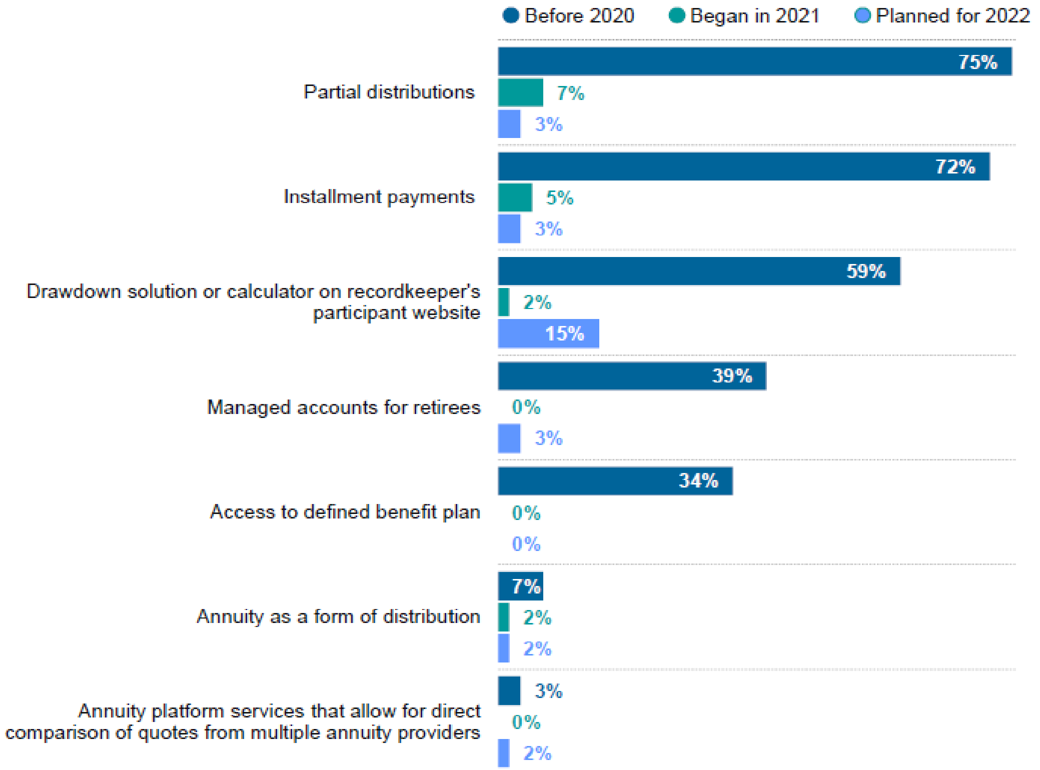
Over three-quarters of plans (85%) offered some sort of retirement income solution to employees by 2021. Partial distributions (82%) and installment payments (77%) were the most common solutions. Providing access to a drawdown solution or managed account service were the next two most common.

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

No plan sponsors offer qualified longevity annuity contracts (QLACs) or longevity insurance in their plans despite a 2014 Treasury Department ruling making it easier to do so.

85% of plan sponsors offer a **retirement income solution.**

Retirement income solutions offered*



*Percentages out of those with a solution in place. Multiple responses allowed.
Solutions offered in 2020 but not in 2021 and not planned in 2022: target date fund with an annuity (2%); in-plan guaranteed minimum withdrawal benefit product (2%)

Callan 2022 DC Trends Survey Highlights

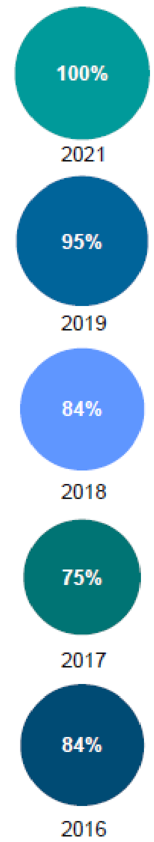
Virginia Retirement System

Advisory Services: Prevalence

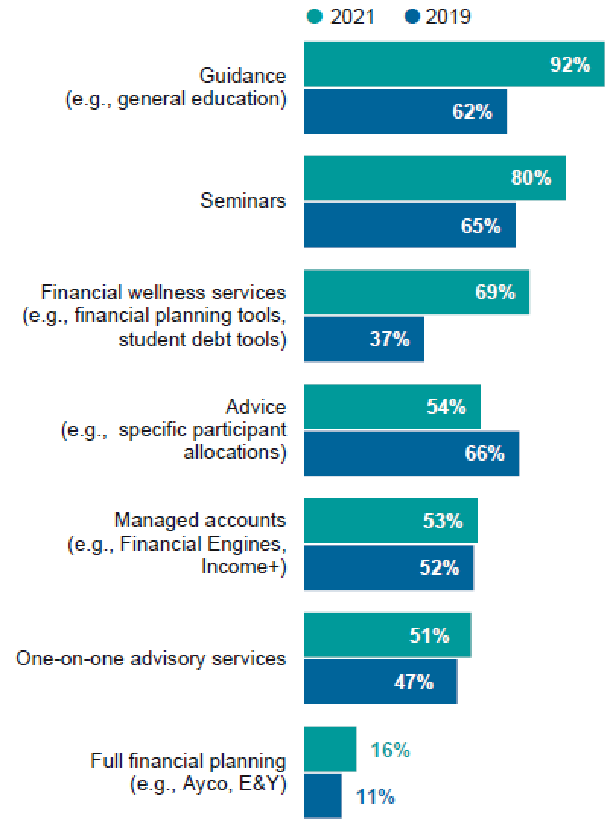
Up notably in recent years, all DC plan sponsors offered some form of investment guidance or advisory service to participants.

Nearly all respondents offered general guidance (92%), while a further 80% offered seminars, and 69% offered some financial wellness tools. All categories of guidance increased in frequency compared to last year with the exception of investment advice, which reduced slightly from 66% to 54%.

Plans offering advisory services



Type of service offered*



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

Callan 2022 DC Trends Survey Highlights

Participant Communication

Retirement readiness and increasing savings rates tied as the top areas of focus for plan communications—both were also in the top three last year. Financial wellness came in third.

While plan sponsors were heavily focused on managing plan fees, they were not as focused on communicating them, according to their lower ranking.

In terms of media channels, email continued to be the most used channel, with 97% of plan sponsors using it. The recordkeeper's website and postal mail came in second, at 85%. Mobile apps saw a notable reduction in prevalence to 22%, while webinars remained popular during the pandemic, at 72%. Text messaging, blogs, and social media were not widely used.

Areas of communication focus for 2022

	Ranking
Retirement readiness (e.g., income replacement levels)	3.3
Increasing savings rates	3.3
Financial wellness	2.5
Plan participation	2.4
Investing (e.g., market activity, use of funds, diversification, market timing)	2.0
Managing income in retirement	1.3
Plan fees	1.0

(5=Most focus. Total ranking is weighted average score.)
Additional categories: Plan design changes (0.6); managed account services (0.4); withdrawals/distributions (0.4); loans (0.3); company stock (0.2); other (0.1).

Media channels used to communicate plan information to participants*

*Multiple responses were allowed.

Virginia Retirement System

VRS Defined Contribution Plans

4th Quarter 2021

(October - December)

Administrative Summary

March 24, 2022

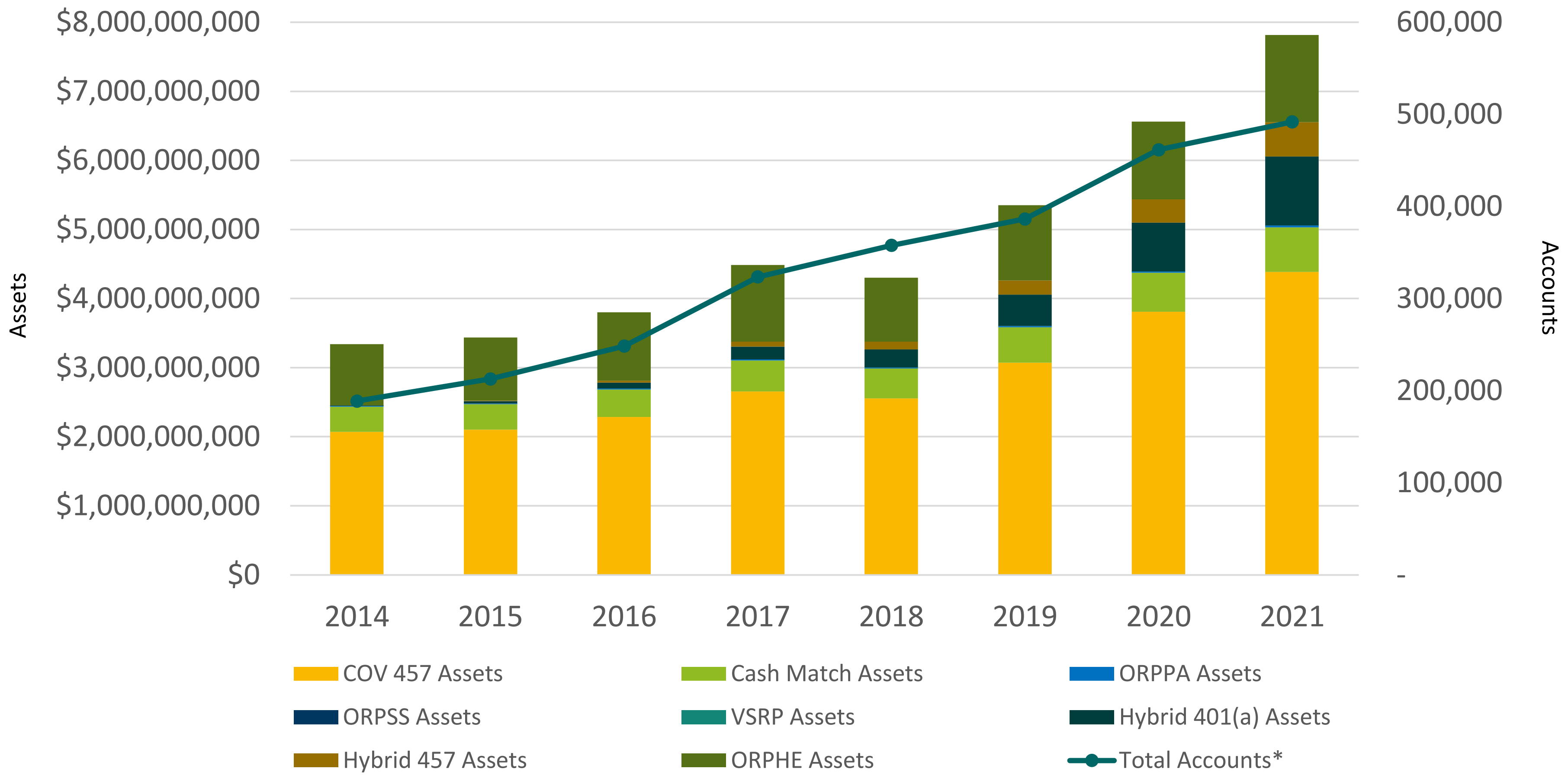
Agenda

Topic	Slide Number(s)
Total Assets & Accounts	3
Unbundled Plans Updates	4-5
COV 457 & Cash Match Plans	6-7
Hybrid Retirement Plan	8-11
ORPPA	12-14
ORPHE	15
Focus: Improving Asset Allocation	16-22
DC Plans Unbundled Recordkeeper Contract Update	23-24

Total Assets and Accounts Over Time

Virginia Retirement System

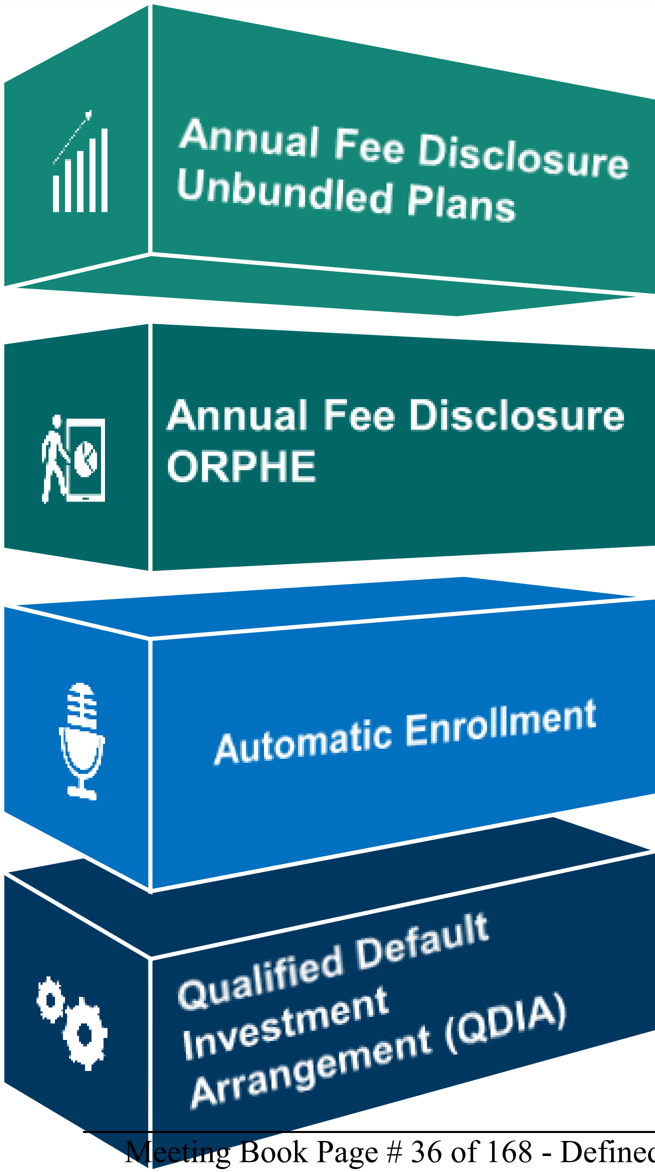
Totals as of 12/31/2021	Assets	Accounts	Assets ↑ 6% Accounts ↑ 2% since September 30, 2021
	$7,814,157,925	491,723	



Note: Data reflects totals as of calendar year end and includes ORPHE selected providers and MissionSquare participant, beneficiary, forfeiture & reserve accounts.

*Does not indicate unique participants.

Participant Notifications



Fee Disclosure - Unbundled

Included with quarterly statements during 3rd quarter.
In 2021, 282,278 were distributed. 31% were distributed by email.

Fee disclosure - ORPHE

Mailed directly by the current selected providers. VRS distributes for accounts with deselected providers. In 2021, 11,291 were distributed. 76% were distributed by email.

Automatic Enrollment Notice

Required by the Department of Labor and distributed annually with 3rd quarter statements to participants that have been auto-enrolled into the COV 457 Plan.
9,633 participants received the notice in 2021.

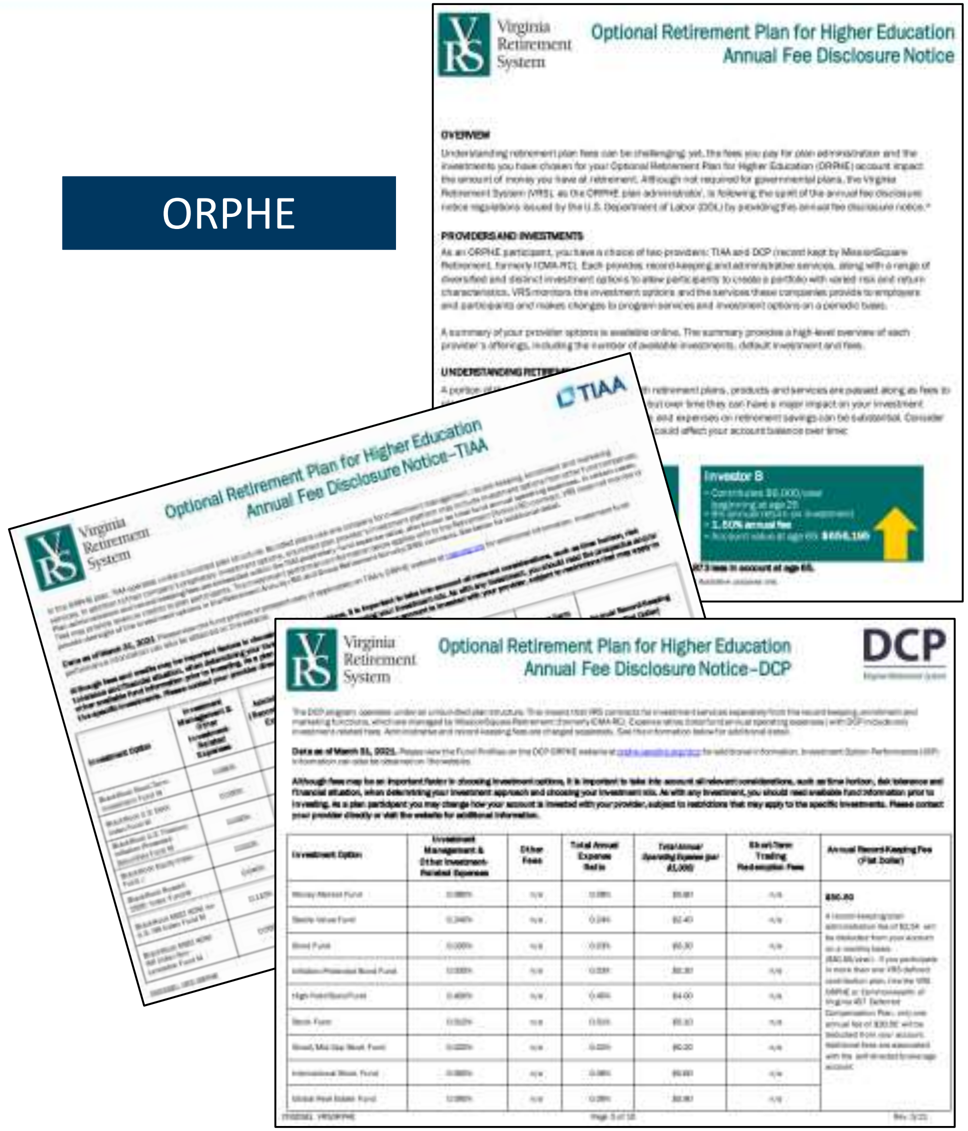
QDIA

Required by the Department of Labor. Provides notification to participants that have been placed in the default investment option (target date portfolios) of the ability to direct their investment elections. Notice included for close to 400k accounts.

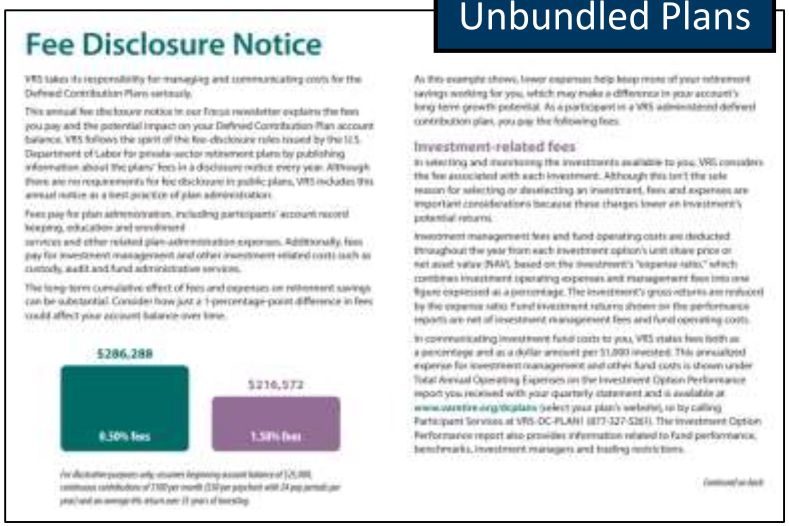
Annual Fee Disclosure

While not required to do so, VRS provides participants with a fee disclosure annually.

ORPHE



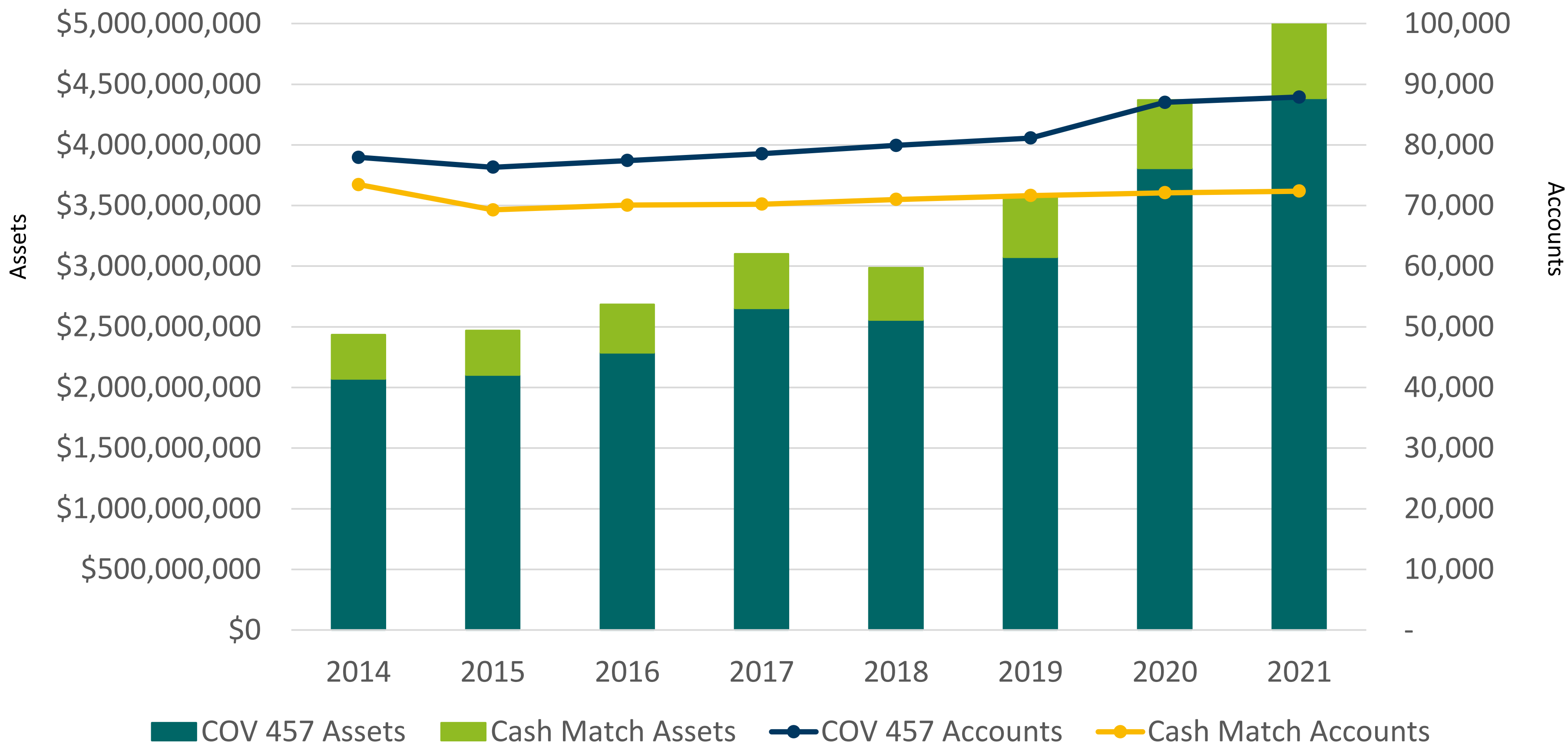
Unbundled Plans



COV 457/Cash Match Plan Assets and Accounts

Totals as of 12/31/2021	Assets	Accounts
COV 457	$4,384,152,382	87,899
Cash Match	$645,520,730	72,370

Assets ↑ 5% since September 30, 2021



Note: Data reflects totals as of calendar year end and includes MissionSquare participant, beneficiary, & reserve accounts.

COV 457 Plan Eligibility Campaign

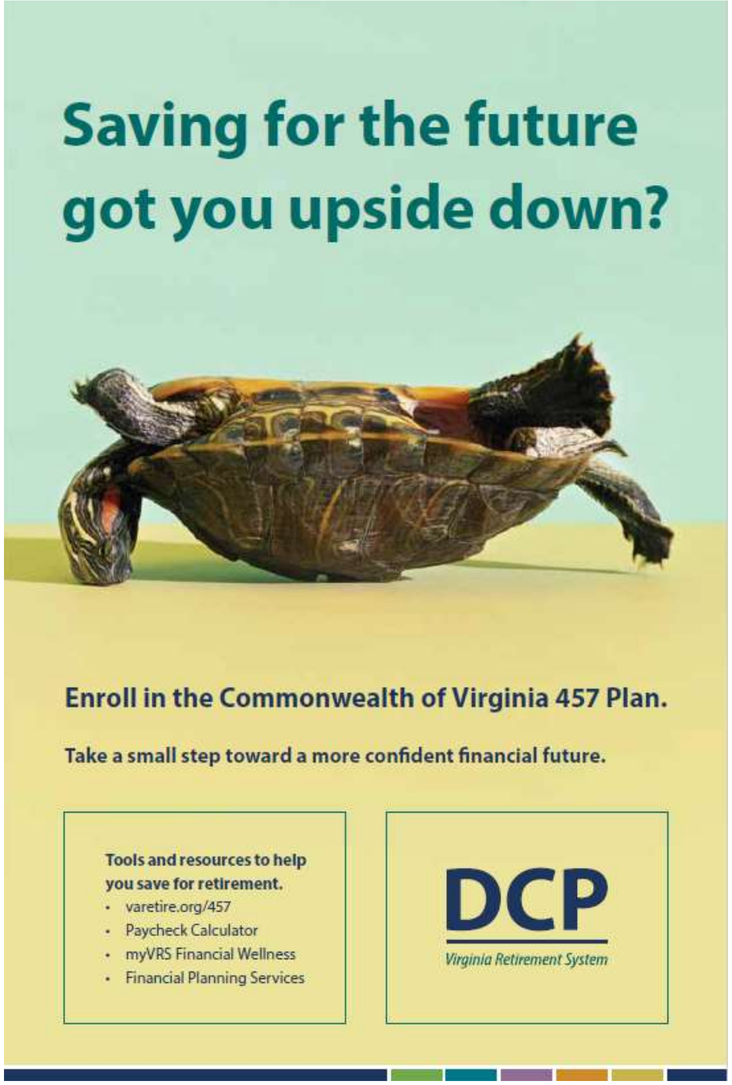
Campaign Goals

- Increase awareness of plan availability
- Promote participation
- Encourage use of other available tools

Results

- Through March 8th, 269 recipients enrolled. Original mail date January 2022.
- Many web pages saw an increase in activity.

24%	Roth Contributions page
22%	Plan Overview page
18%	Contact Us page
17%	DC Plans Specialists page

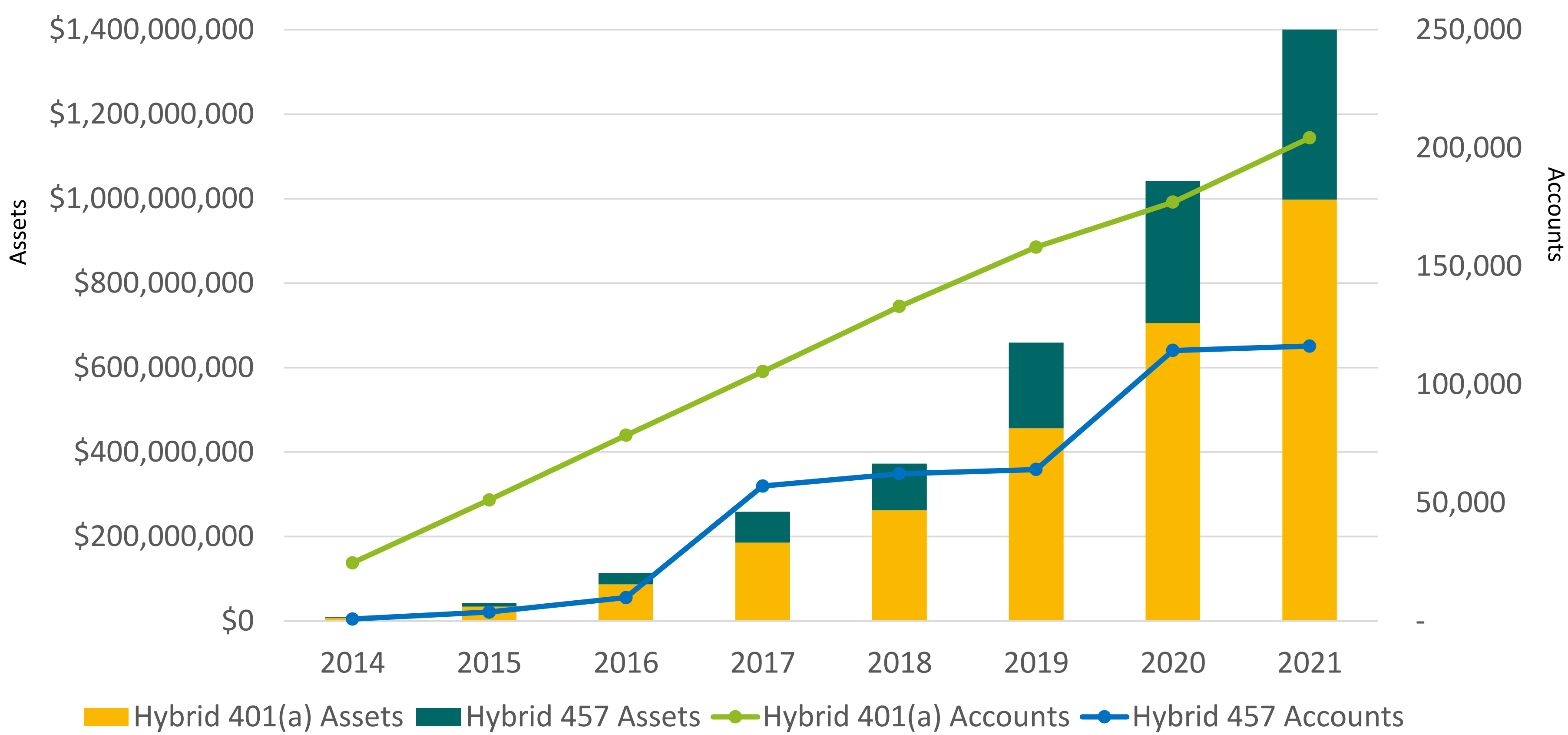


Hybrid Retirement Plan
Assets and Accounts (DC only)

Virginia Retirement System

Totals as of 12/31/2021	Assets	Accounts
Hybrid 401(a)	$997,928,581	204,248
Hybrid 457	$498,045,164	116,218

Assets ↑ 11%
Accounts ↑ 3%
since September 30, 2021



Note: Data reflects totals as of calendar year end and includes MissionSquare participant, beneficiary & forfeiture accounts.

Hybrid Retirement Plan Participation Highlights

Virginia Retirement System

Overall participation in Hybrid Voluntary Contributions – 63%

Active Election Participation – 32%

Of members making voluntary contributions

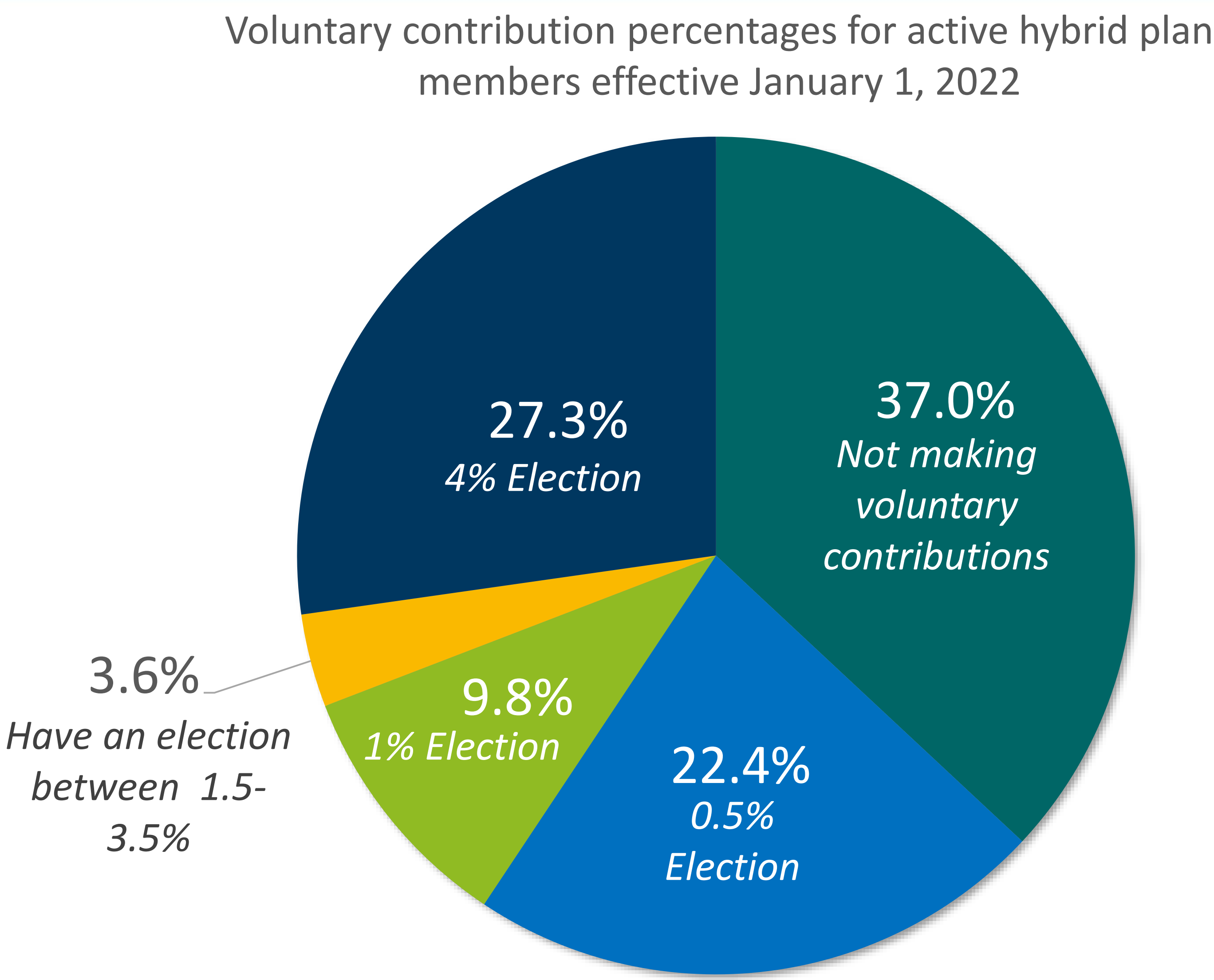
43% are maximizing at 4%

51% are at 1% or less

Data as of January 1, 2022

Voluntary Contribution Elections

Virginia Retirement System



‘Active’ is defined as being actively employed in the Hybrid Retirement Plan with a balance in the Hybrid 401(a).

Hybrid 403(b) Participation

Virginia Retirement System

Beginning in 2016, school divisions may elect to allow their employees to use an employer-sponsored 403(b) plan for voluntary contributions.

Schools can change their election annually by November 1.

Members can elect by November 30.

12 school divisions offer the 403(b) option.

403(b) elections as of 1/1/2022 & Participation Rate	457 elections as of 1/1/2022 & Participation Rate
361	1,023
15%	42%

ORPPA Onboarding Process

Appointment	Notification	Election

ORP-eligible employees log in to myVRS to make an election. myVRS provides a comparison between the plan options available to the employee.

Appointing authorities include:

- Office of the Governor
- Lieutenant Governor
- Attorney General

VRS is notified of the appointment.

Appointee is notified of options and provided 30 days to make an election.

Appointee logs into myVRS to make an election.

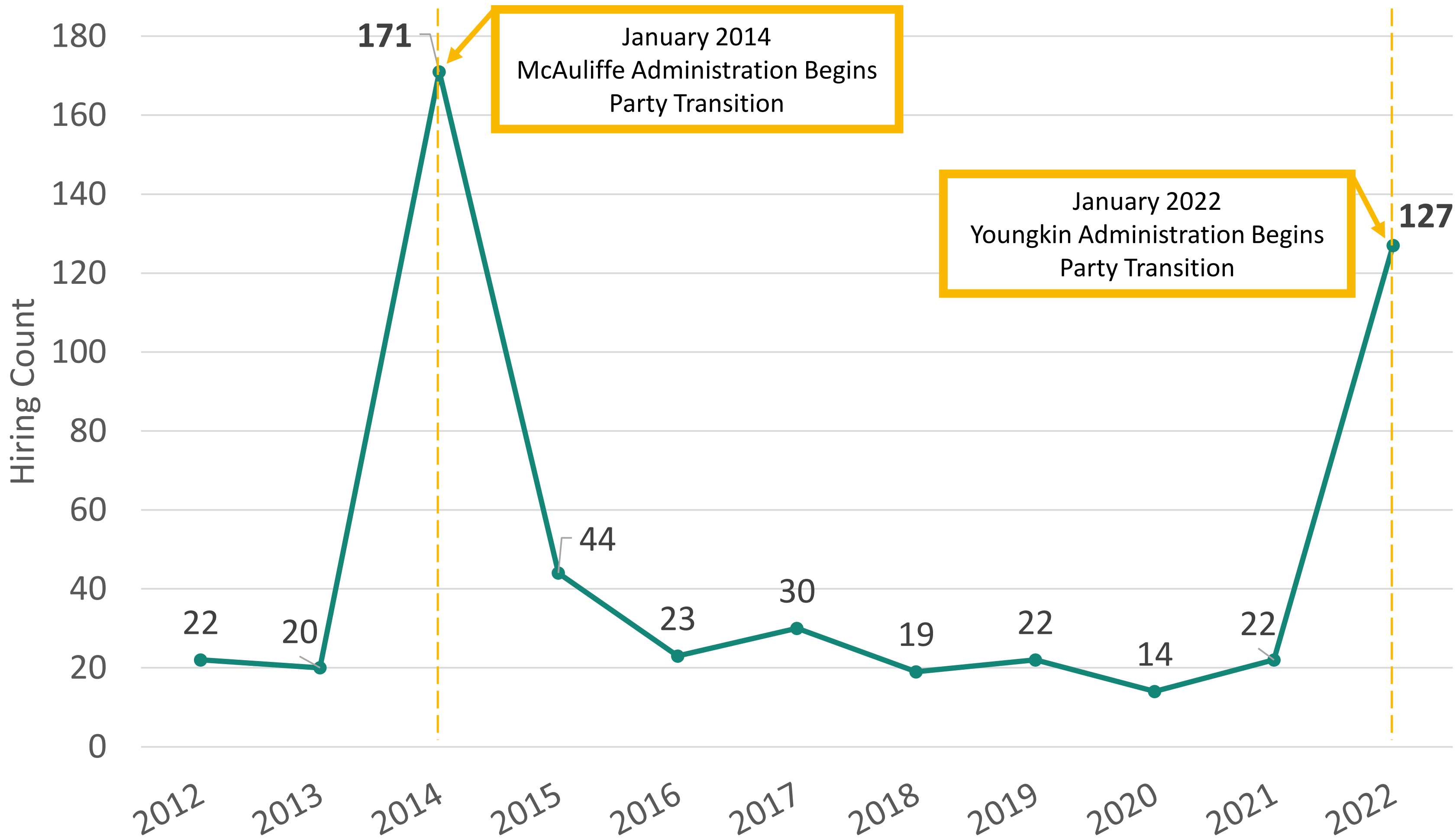
If no election is made, the appointee is enrolled in the Hybrid Retirement Plan.*

VRS mails a confirmation of plan coverage to appointee.

*Or VRS Plan 1 or 2, as applicable.

ORPPA-Eligible Hiring Over Time

Virginia Retirement System



2022 data is as of 3/17/2022

ORPPA-Eligible Elections

127 ORPPA-eligible hiring in 2022

61 ORPPA elections

54 VRS Plan 1, 2 or Hybrid elections or defaults

12 Elections pending

Data as of 3/17/2022.

Administrative Summary ORPHE

ORPHE Totals*

	9/30/2021	**12/31/2021**	% Change
Assets	$1,214,686,093	**$1,260,585,736**	4%
Participants	10,619	**10,596**	0%
Average Balance	$114,388	**$118,968**	4%

DCP

	12/31/2021
Assets	**$160,791,800**
Participants	**2,326**
Average Balance	**$69,128**

33% of new hires YTD have elected DCP as their provider.

TIAA**

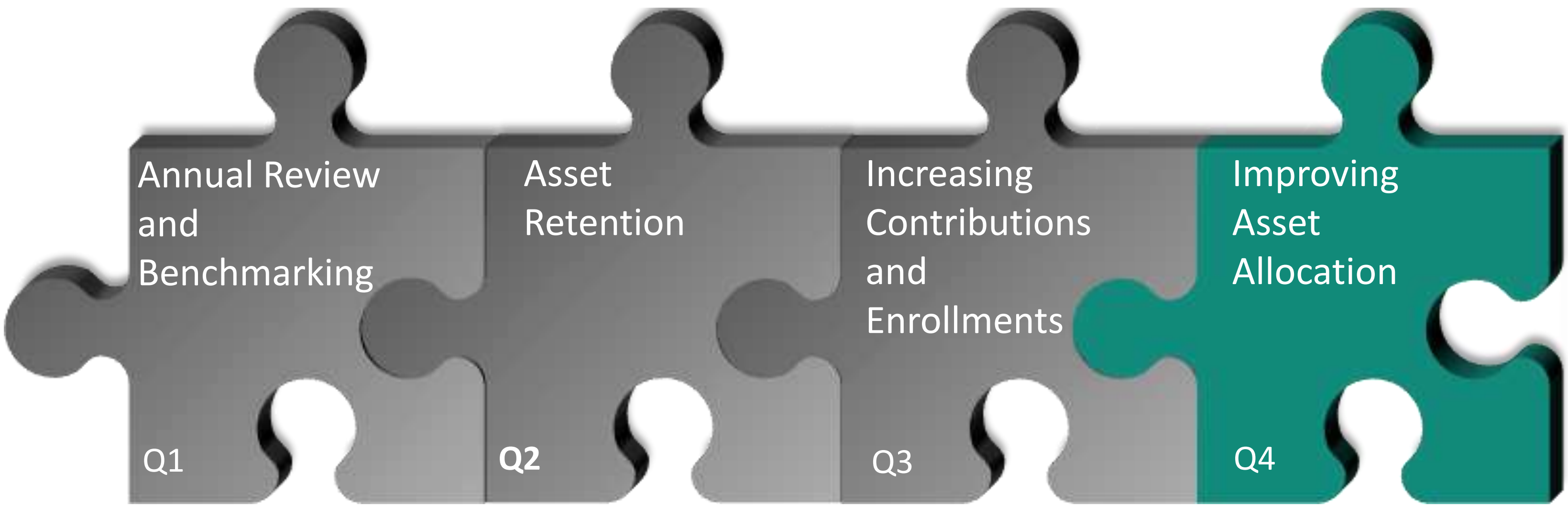
	12/31/2021
Assets	**$1,099,793,936**
Participants	**8,270**
Average Balance	**$132,986**

67% of new hires YTD have elected TIAA as their provider.

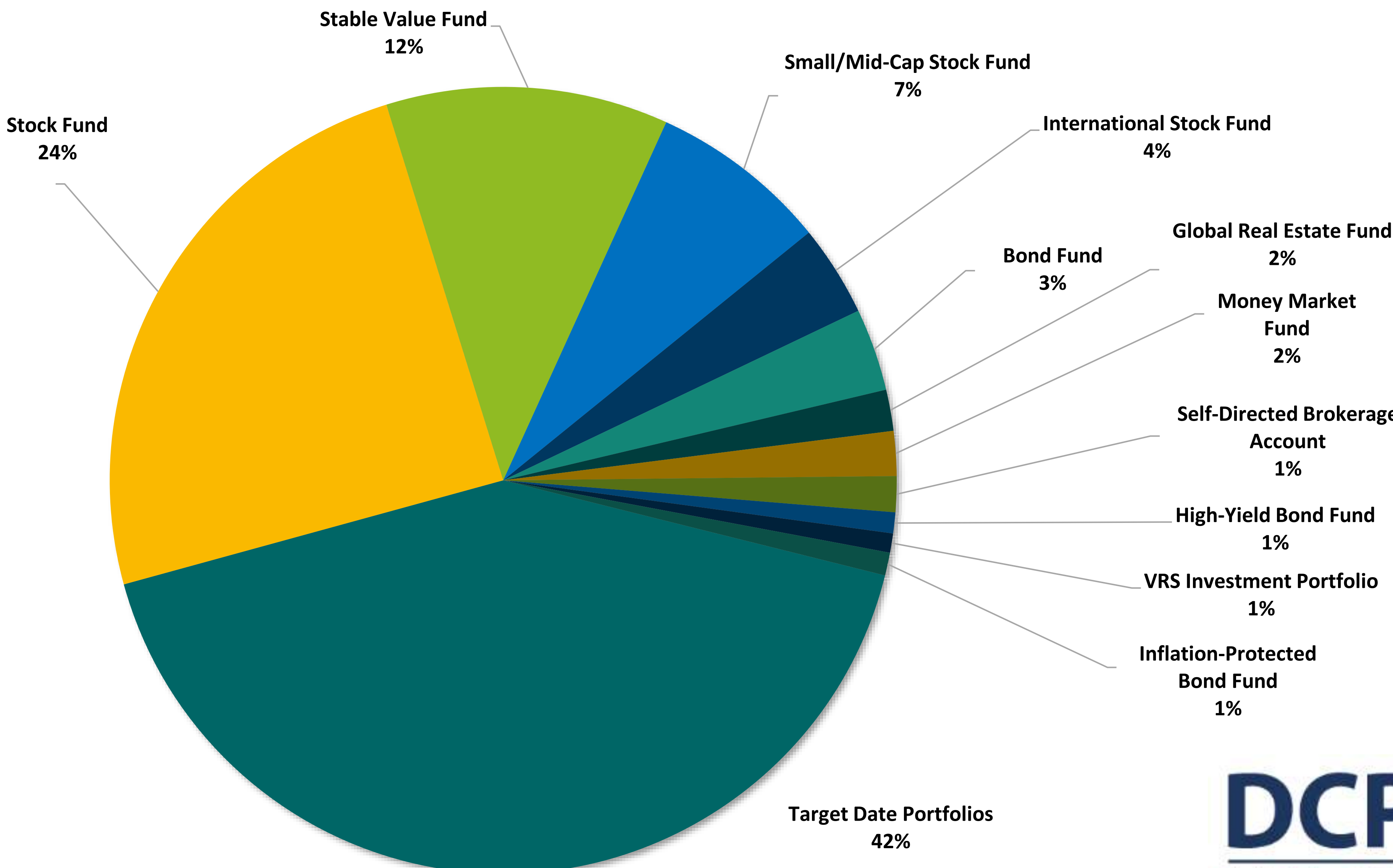
*Excludes deselected providers. Fidelity became a deselected provider effective 1/1/2020.

**Includes assets in GRA/RA and RC contracts.

Improving Asset Allocation

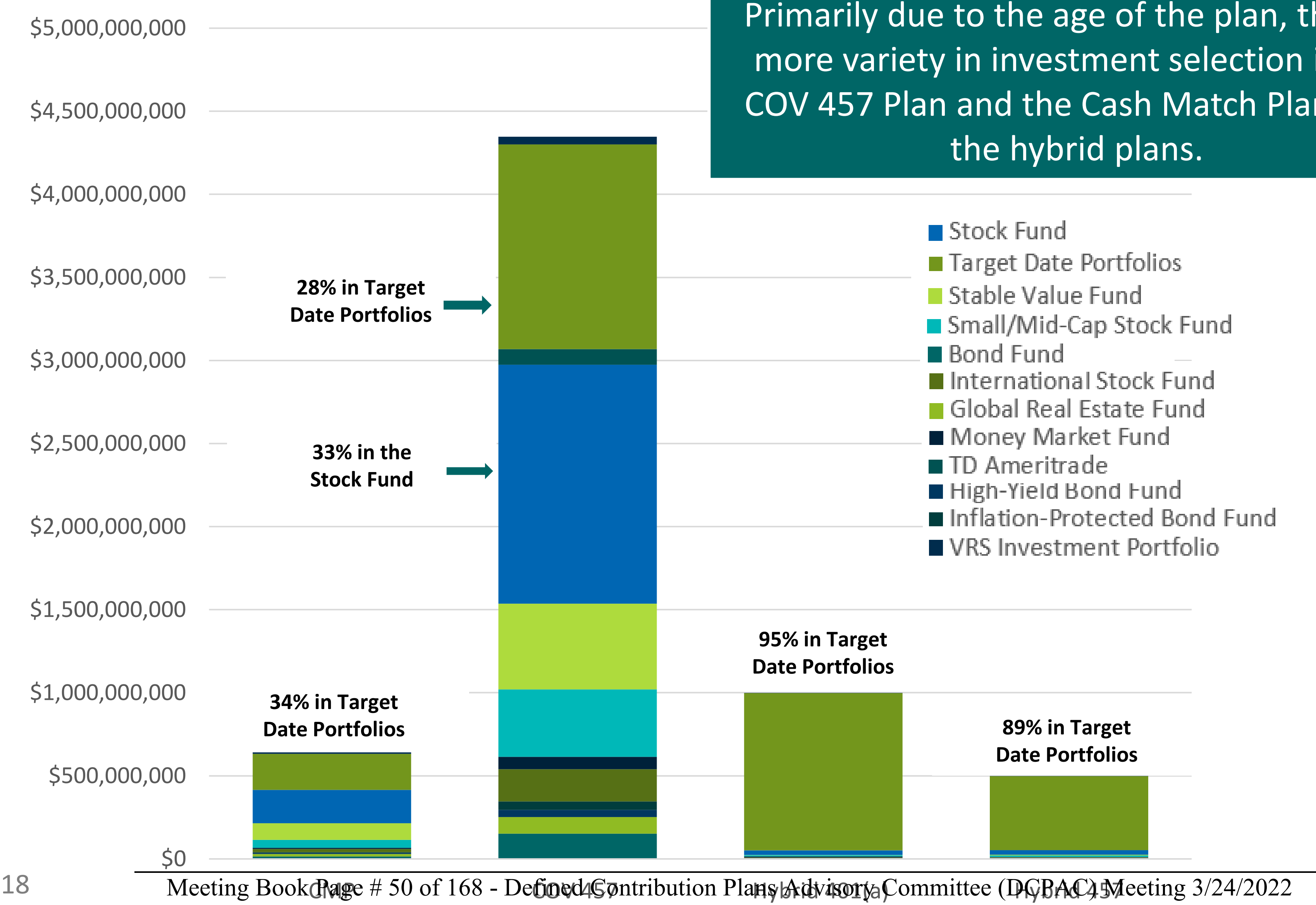


Plan Assets by Fund – All Plans



Fund Holdings by Plan

Primarily due to the age of the plan, there is more variety in investment selection in the COV 457 Plan and the Cash Match Plan than the hybrid plans.

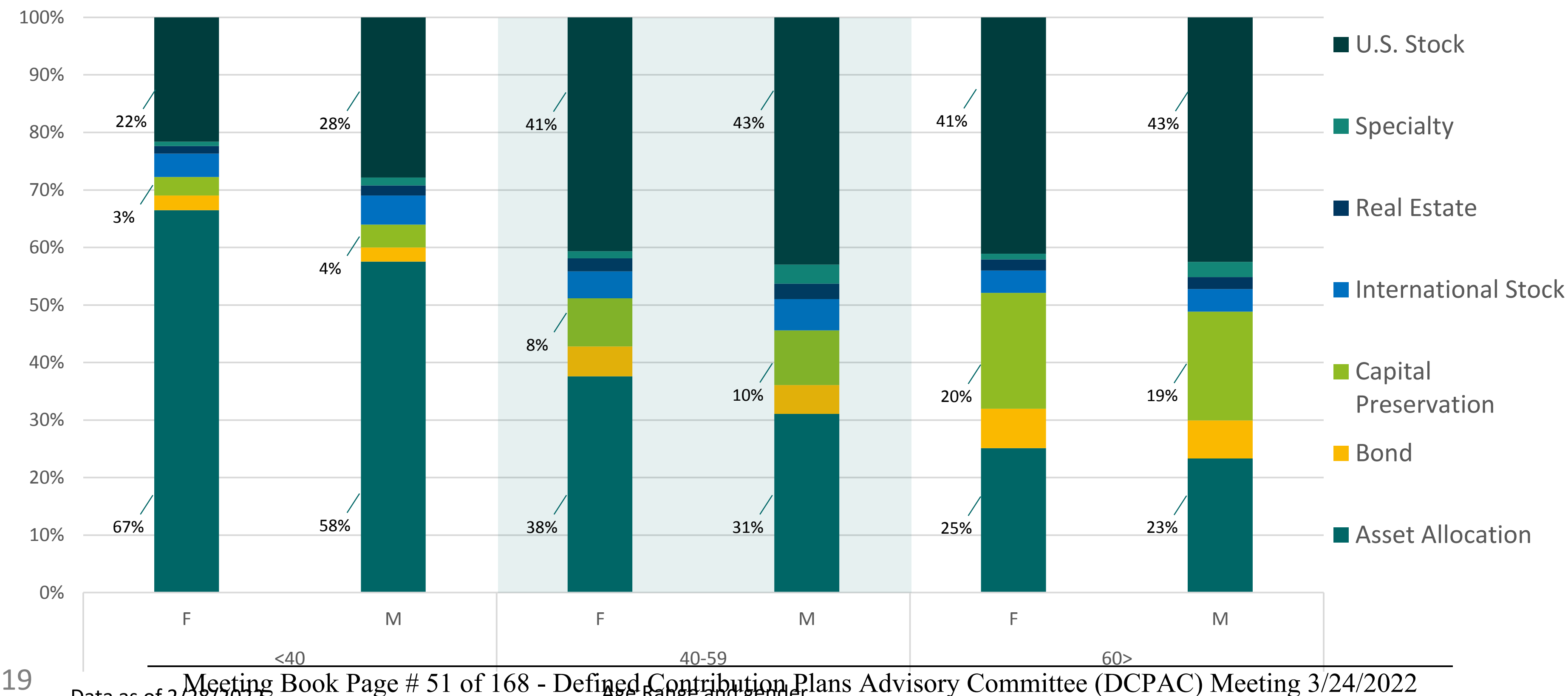


Asset Allocation by Age and Gender
COV 457 Plan

Virginia Retirement System

There are differences in investment choices when it comes to gender, but significantly greater difference among age groups.

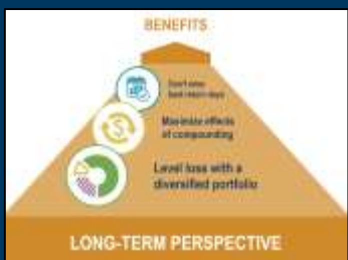
- Younger participants tend to hold more assets in asset allocation funds, like the target date portfolios.
- Older participants tend to hold more in bonds and capital preservation.



Data as of 2/28/2022

Related Education/Communications

Recorded webinars:
Investing Made Simple
Investing in Volatile Markets
Investment Paths



Live webinars:
Understanding Your Plan Investments

In 2021, close to 1,000 participants attended!

Through February 2022, 128 participants have attended.

Newsletter articles:
Coming Up for 1st Quarter 2022 Newsletter

Ongoing education:
Investment Guide
Fund profiles
Investment Performance Report

Participant Self-Directed Brokerage Account Usage

COV 457 Deferred Compensation Plan

2021
- **747 Accounts**
- **$93,630,106**

2020
- 652 Accounts
- $76,435,502

15%

Virginia Cash Match Plan

2021
- **105 Accounts**
- **$2,134,083**

2020
- 86 Accounts
- $1,719,612

22%

Hybrid Cash Match Plan

2021
- **117 Accounts**
- **$1,607,835**

2020
- 77 Accounts
- $1,004,959

52%

Hybrid 457 Deferred Compensation Plan

2021
- **76 Accounts**
- **$1,657,504**

2020
- 49 Accounts
- $685,380

55%

ORPPA

2021
- **22 Accounts**
- **$2,636,708**

2020
- 14 Accounts
- $1,534,328

57%

ORPHE

TIAA
- 42 Accounts
- $5,255,739

DCP
- 6 Accounts
- $606,406.85

Participant SDBA Usage
Top Ten Holdings

Virginia Retirement System

Rank	DCP-TD Ameritrade	Asset Type	Market Value	%Total Assets
1	TESLA INC COM	Stocks	$6,296,295	6.19%
2	APPLE INC COM	Stocks	$6,277,814	6.17%
3	AMAZON COM INC COM	Stocks	$1,930,583	1.90%
4	MICROSOFT CORP COM	Stocks	1,864,835	1.83%
5	INVESCO QQQ TRUST UNIT SER 1 ETF	ETFs	$1,409,192	1.39%
6	PARNASSUS INVESTMENTS CORE EQTY INVESTOR	Mutual Funds	$1,260,793	1.24%
7	ADVANCED MICRO DEVICES INC COM	Stocks	$1,234,806	1.21%
8	ARROWHEAD PHARMACEUTICALS INC COM	Stocks	$1,153,487	1.13%
9	NVIDIA CORP COM	Stocks	$920,904	0.91%
10	VANGUARD S&P 500 ETF SHS	ETFs	$795,054	0.78%

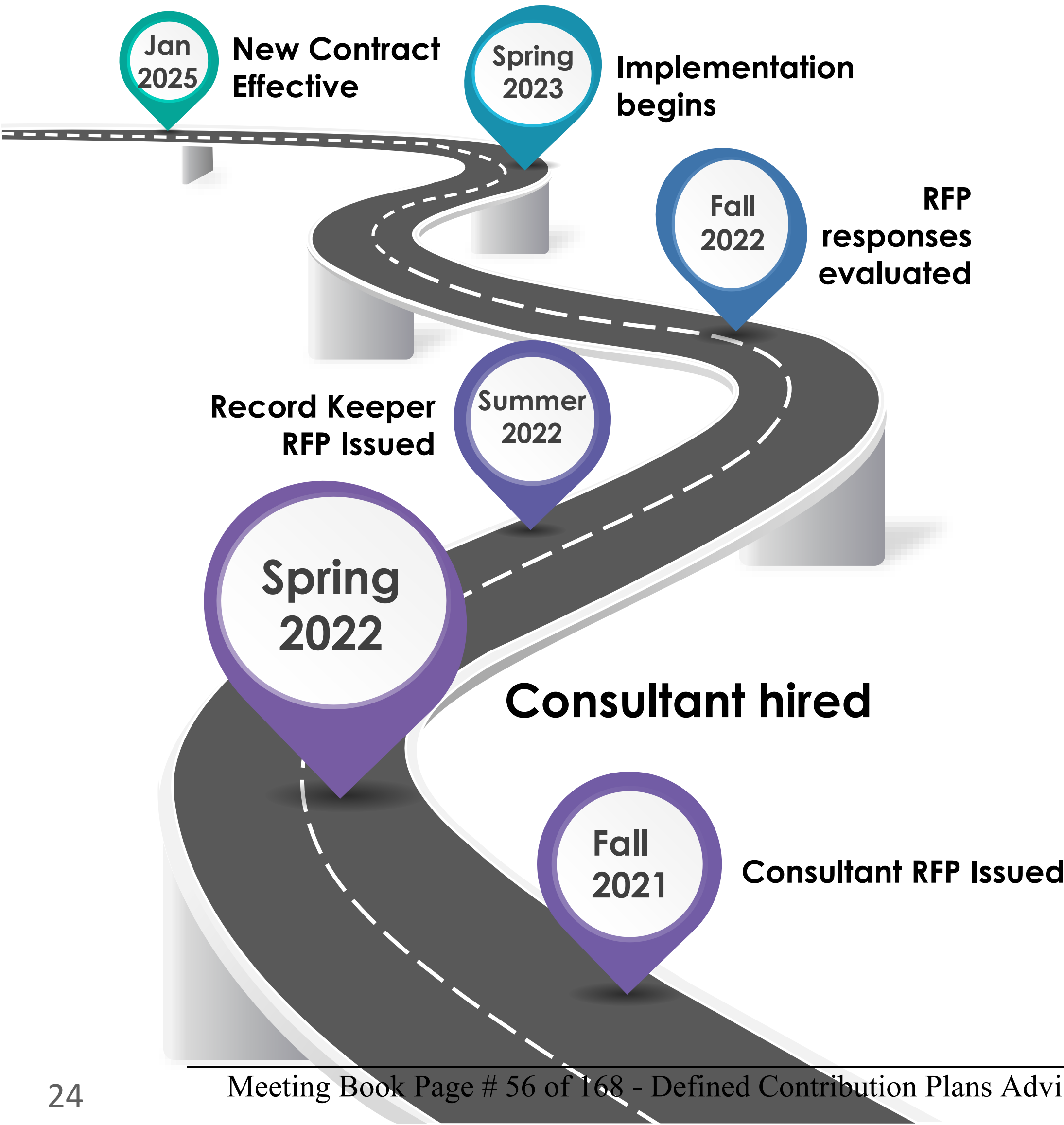
Rank	TIAA	Asset Type	Market Value	%Total Assets
1	FEDERATED HERMES TR US TRSY II	Money Market	$772,861	14.7%
2	HIVE BLOCKCHAIN TECHNOLOGIES LTD COM	Stocks	$396,676	7.5%
3	FIDELITY COVINGTON TR MSCI REAL ESTATE INDEX ETF	Stocks	$315,952	6.0%
4	VANGUARD BALANCED INDEX FUND ADMIRAL SHARES	Mutual Funds	$259,728	4.9%
5	APPLE INC COM	Stocks	$257,298	4.89%
6	TESLA INC COM	Stocks	$253,627	4.82%
7	VANGUARD INTL EQUITY INDEX FDS GLOBAL EX-US REAL ESTATE INDEX FD ETF SHS	ETF	$246,929	4.69%
8	VANGUARD INFORMATION TECHNOLOGY ETF	ETF	$172,730	3.28%
9	NVIDIA CORP COM	Stocks	$161,172	3.06%
10	TIAA-CREF REAL ESTATE SECURITIES FUND CLASS I	Mutual Funds	$113,549	2.16%

Virginia Retirement System

DC Plans Unbundled Recordkeeper Project Status

Unbundled Record Keeper Contract

Virginia Retirement System



Project Status

- Consultant RFP responses have been reviewed and finalists determined
- Interviews conducted and references checked
- Next Milestone – Finalist selected and contract negotiations

Virginia Retirement System

Thank You!

COMMITTEE CHARTER FOR THE
DEFINED CONTRIBUTION PLANS ADVISORY COMMITTEE

PURPOSE

The purpose of the Defined Contribution Plans Advisory Committee (DCPAC) is to review matters relating to or affecting the plan administration, plan design and investments of the various defined contribution plans established pursuant to the *Code of Virginia* and to make recommendations to the Board regarding those matters.

In addition to the duties and responsibilities outlined in its charter, the DCPAC shall assist the Board with its statutory responsibilities to review and oversee the policies and procedures constituting the process by which the Board reviews and determines whether to approve requests by institutions of higher education that seek to withdraw from participation in the Optional Retirement Plan of the Commonwealth of Virginia for Employees of Institutions of Higher Education (ORPHE).

AUTHORITY

Sections 51.1-126, 51.1-126.5, 51.1-126.6, 51.1-169, 51.1-602, 51.1-608, and 51.1-618 of the *Code of Virginia* authorize the Board to establish, maintain, and administer various defined contribution plans for eligible employees. Section 51.1-124.26(A) of the *Code of Virginia* authorizes the Board to appoint advisory committees, as it deems necessary.

DUTIES AND RESPONSIBILITIES

The Board has developed the following objectives and responsibilities for the DCPAC in consideration of its need for certain types of information and advice and the requirements of the *Code of Virginia*.

1. The DCPAC is an advisory committee with the purpose of providing defined contribution plan administration, plan design, and investment advice to the Board. Such advice should always be prudent within the context of managing public sector defined contribution plans.
2. The DCPAC's recommendations are not binding on the Board, and the DCPAC has no authority over staff or administrative and investment decisions.
3. On an ongoing basis, the DCPAC will review defined contribution plan national trends and identify best practices.
4. On an ongoing basis, the DCPAC will review statistical information relating to the status of the defined contribution plans and aggregate participant activities in the respective plans.

5. On an ongoing basis, the DCPAC will assist staff in identifying potential asset classes and investment strategies that might help each plan achieve its investment objectives and will recommend changes to the Board as needed.
6. At least on an annual basis, the DCPAC will review administrative expenses incurred by the defined contribution plans and participant administrative fees assessed as may be applicable and recommend adjustments to the Board as needed.
7. Periodically, the DCPAC will review the VRS Defined Contribution Plans Investment Policy Statements and VRS Defined Contribution Plans Investment Belief Statements and make recommendations to the Board regarding any changes or revisions.
8. The DCPAC will receive defined contribution plans investment performance and investment fee information at least on a quarterly basis. Atypical performance or other items of a serious nature are brought to the attention of the DCPAC as soon as possible. At least on an annual basis, the DCPAC will perform a comprehensive review of the investment program for each plan. Primary emphasis for investment performance should be on longer time frames, such as 3 and 5 years, but shorter-term trends should be considered if significant. The DCPAC may provide recommendations to the Board regarding any investment options that should be considered for addition or deletion, and any significant performance issues as appropriate.
9. The DCPAC will sponsor an Annual Employer Update for representatives whose employees participate in the ORPHE. The purpose of the update is to communicate to and receive feedback from the institutions on plan performance, service provider activities, plan or procedure changes, and legislation affecting the plans. The information presented may include a service review for prior year activities and any other preapproved information and materials related to communication, new services to be offered or products under consideration. The DCPAC may be represented by the chairperson or the vice-chairperson. In addition, the DCPAC member who represents a state-supported college or university may also participate in the Annual Employer Update.
10. As needed, the DCPAC will review any changes to the Master Trusts and Plan Documents and make any necessary recommendations to the Board for revisions.
11. The DCPAC will recommend to the Board defined contribution plans record keepers for Board approval.
12. The DCPAC will review data and reports from consultants, as needed, inform the Board about such information received, and advise the Board as to any recommended changes in the defined contribution plans as a result of such data and reports.
13. The DCPAC will address any ad hoc request by the Board for specific information or recommendations regarding plan administration and existing or potential investments.

14. The DCPAC, through the DCPAC chairperson, is authorized to request and consider whatever information it deems relevant in carrying out its duties and responsibilities as outlined in this document.

Composition

The DCPAC is composed of nine members, two of whom shall be members of the Board. Except for such Board members, no elected or appointed officials may serve on the DCPAC. Appointees to the DCPAC must be approved by a two-thirds vote of the Board. All members of the DCPAC shall serve at the pleasure of the Board and may be relieved of their positions at any time by a majority vote of the Board. Each non-Board member is appointed to a two-year term, and may be reappointed for an unlimited number of additional terms.[1]

The seven non-Board member appointees shall be as follows: one shall be an active participating faculty member or employee of a state-supported institution of higher education that participates in the ORPHE; one shall be an active employee of a local school division of the Commonwealth who demonstrates expertise in the administration of retirement benefits; one shall be an active employee of a local government of the Commonwealth that is a participating VRS employer who demonstrates expertise in the administration of retirement benefits; two shall demonstrate expertise in the management and administration of employee DC plans; and two shall demonstrate expertise in the management, analysis or supervision of investments.

Officers

Chairperson

The VRS Board chairperson shall appoint the chairperson of the DCPAC, subject to a two-thirds vote by the Board. The DCPAC chairperson shall be one of the Board members sitting on the DCPAC. The DCPAC chairperson is appointed for a two-year term, and may be reappointed for additional two-year terms.

The chairperson is charged with:

[1] The terms of all non-Board members expired on June 20, 2017. Upon expiration of their terms, the non-Board members were divided into two groups, with each group being as nearly equal in number as possible. The non-Board members in the first group were appointed to a one-year term, and the non-Board members in the second group were appointed to a two-year term. Thereafter, non-Board members shall be appointed to a term of two years to succeed non-Board members whose terms expire.

1. Facilitating the operation of the DCPAC meetings;
2. Reviewing proposed agendas for DCPAC meetings;
3. Presiding over meetings of the DCPAC;
4. Reporting to the Board on the matters considered by the DCPAC, and the recommendations of the DCPAC; and
5. Performing such additional duties as are required to facilitate the DCPAC's fulfillment of its responsibilities.

Vice-Chairperson

The DCPAC vice-chairperson shall be the Board member sitting on the DCPAC who is not the chairperson.

The term of the vice-chairperson shall commence upon appointment and shall terminate at the first meeting of the DCPAC following the appointment or reappointment of a DCPAC chairperson, or at the first meeting following such time as the sitting vice-chairperson becomes unable or unwilling to complete his or her term.

The DCPAC vice-chairperson is appointed for a two-year term, and may be reappointed for additional two-year terms.

In the event of the absence or incapacity of the DCPAC chairperson, the vice-chairperson shall preside at meetings of the DCPAC and shall fulfill such other duties and responsibilities of the chairperson as may be necessary.

Secretary

The Director, or the Director's designee shall act as secretary to the DCPAC. The Director shall continue to serve as secretary until such time as he or she is unable or unwilling to continue to do so, or until such time as the DCPAC appoints another secretary.

The secretary has the following duties:

1. Help the chairperson develop the agenda for DCPAC meetings;
2. Notify DCPAC members of meetings;
3. Coordinate and distribute information to DCPAC members;
4. Act as primary liaison between the DCPAC and VRS staff;
5. Coordinate matters on the agenda and presentations for the DCPAC; and
6. Maintain the minutes and records of all DCPAC meetings.

CONDUCT OF BUSINESS

1. The rules contained in the current edition of *Robert's Rules of Order Newly Revised* shall govern all DCPAC meetings insofar as they are applicable and not inconsistent with any of the policies adopted by the Board, including this charter, with particular attention to the rules provided for conduct of business in committees.
2. Unless otherwise specified by the Board, voting by proxy is not allowed.
3. A majority of the members of the DCPAC shall constitute a quorum at meetings of the DCPAC. For the purposes of determining the presence of a quorum, an abstention or disqualification shall be considered an absence.
4. Except as otherwise specified herein, approval of an action or decision shall be by a majority of those DCPAC members present and voting at a DCPAC meeting.
5. The DCPAC chairperson will seek at all times to develop a consensus of opinion among DCPAC members in order to be able to present clear and concise recommendations to the Board. In the event that a consensus is not obtainable, the DCPAC chairperson will present the range of opinions and their rationale to the Board.
6. The DCPAC chairperson will report to the Board on the content and results of each DCPAC meeting. The chairperson or vice-chairperson will sign all meeting minutes, as applicable.
7. The DCPAC will generally meet at least three times per year, and more often if necessary to meet the objectives listed in this charter.

CHANGES IN THE CHARTER

The Board may consider changes to this charter at any of its meetings, and a two-thirds vote of the Board is necessary to implement the changes. The DCPAC may from time to time consider changes in the charter that are expected to enable the DCPAC to better serve the needs of the Board. Any charter changes suggested to the Board by the DCPAC must be approved by a majority vote of the DCPAC before submission to the Board, where a two-thirds vote of the Board is necessary to implement the changes.

2022 Legislation*

* Updated through 3/17/2022

General Assembly

- The General Assembly adjourned sine die on March 12
- They will reconvene for a special session to address 64 bills remaining:
  - HB 29- the “caboose” budget bill
  - HB 30- the budget bill for the upcoming biennium
  - 62 other bills- none directly affect VRS
- The Governor’s deadline to act on bills is April 11
- The “veto session” is currently scheduled for April 27

DC Plan-specific Bills

2022 VRS-Related Bills

Virginia Retirement System

VRS-Requested Bills

Bill Number	Patron	Description
HB 473 SB 70	Bulova Newman	Separates the employer contribution into defined benefit and defined contribution components. The bill has a delayed implementation date of July 1, 2024, to coincide with new contribution rates. Budget amendments: SB 29, Item 492 #1s (NGF- VRS implementation) HB 30, Item 498 #1h (NGF- VRS & DOA implementation) SB 30, Item 260 #1s (NGF- DOA implementation) & Item 500 #1s (VRS implementation) HB 473 was signed by the Governor on 3/2. SB 70 was sent to the Governor for signature.

2022 VRS-Related Bills

Other Bills

Bill Number	Patron	Description
SB 349	Surovell	Provides that if the court enters an order to distribute any Virginia Retirement System managed defined contribution plan, the Virginia Retirement System shall, if ordered by the court, calculate gains and losses from the valuation date through the date of distribution of the benefits to the extent possible given available data. The bill also requires VRS to conduct a survey of localities and school regarding gain/loss calculation practices of governmental plans throughout the Commonwealth. A report is due by October 1, 2022. SB 349 was sent to the Governor for signature.

2022 VRS-Related Bills

JRS Bills

Bill Number	Patron	Description
SB 382	McDougle	Increases, for the purposes of determining benefits provided under the Judicial Retirement System, the retirement multiplier from 1 percent to 1.7 percent. The increase would apply only to judges appointed on or after July 1, 2022, who are participants in the hybrid retirement program, and who are at least age 55 at the time of appointment. Budget amendment: SB 30, Item 483 #4s (GF- placeholder) Carried over to SFAC General Gov’t subcommittee, OES, DHRM, & VRS review.

Virginia Retirement System

Other Bills

2022 VRS-Related Bills

Other Bills

Bill Number	Patron	Description
SB 468	DeSteph	Provides that, for any medical review of a claim made pursuant to the provisions of the Line of Duty Act, the Virginia Retirement System shall require that such review be conducted by a doctor, nurse, or psychologist who is licensed in Virginia or a contiguous state. The bill has a delayed effective date of July 1, 2023. SB 468 was enrolled 3/10.

2022 VRS-Related Bills

Virginia Retirement System

Other Bills

Bill Number	Patron	Description
HB 338	Simon	Sets out a section in Title 51.1 (Pensions, Benefits, and Retirement) that is currently carried by reference only. The bill also repeals three obsolete sections in Title 58.1 (Taxation). This bill is a recommendation of the Virginia Code Commission. HB 338 was sent to the Governor for signature.

2022 Other Bills

Russia

Bill Number	Patron	Description
HR 71	Helmer	Encouraging all residents of the Commonwealth of Virginia to boycott all goods and services originating in Russia. Agreed to by House on 3/3.
SJ 189	Reeves	Expressing the sense of the General Assembly on the Russian invasion of Ukraine. Left in Senate Rules 3/12.

2022 Other Bills

College Lab School Bills

Bill Number	Patron	Description
HB 346 SB 598	Davis Pillion	Permits any public institution of higher education or private institution of higher education to apply to the Board of Education (the Board) to establish a college partnership laboratory school as a new school or through the conversion of all or part of an existing school. Under current law, only public and private institutions of higher education that operate approved teacher education programs are permitted to apply to the Board to establish such a school and no explicit provision is made for the conversion of an existing school. HB 30, Item 137 #22h (GF- Direct Aid to Public Education) Carried over to Special Session 3/12.

Virginia Retirement System

Carried Over to 2023

2022 VRS-Related Bills

Hazardous Duty Benefits Bills- VaLORS

Bill Number	Patron	Description
SB 752	Stuart	Adds sworn members of the enforcement division of the Department of Motor Vehicles and conservation officers of the Department of Conservation and Recreation to the membership of the Virginia Law Officers' Retirement System (VaLORS). Budget amendment: SB 30, Item 483 #6s (GF- placeholder) Carried over with letter to JLARC & VRS.

2022 VRS-Related Bills

Virginia Retirement System

Hazardous Duty Benefits Bills- § 51.1-138

Bill Number	Patron	Description
HB 854 SB 585	Reid Reeves	Adds 911 dispatchers to the list of local employees eligible to receive enhanced retirement benefits for hazardous duty service. Under current law, localities may provide such benefits to first responders, including firefighters and emergency medical technicians, and certain other hazardous duty positions. Similar to HB 131; See also HB 56, HB 162. HB 854/HB 131 substitute eliminates "first responder," adds dispatcher, and makes the bill effective for service earned on or after July 1, 2023. Budget amendments: HB 29, Item 494 #1h and SB 30, Item 500 #1s (NGF- VRS implementation) SB 585 substitute also adds VSP dispatchers to VaLORS. SB 585 was carried over to 2023 with a letter to JLARC or referred to joint subcommittee. HB 854 incorporated into HB 131 and was laid on table with letter to JLARC.

Virginia Retirement System

Budget

Carried over to Special Session

Floor- Approved Amendments

Virginia Retirement System

SB 29- Funding for SB 289

Item #	Description
483 #3s	Provides funding for increased LODA and workers' compensation claims arising from passage of SB 289, adding anxiety and depressive disorders to the definition of PTSD as a compensable cause. SB 289 failed, so amendment should be removed.

HB 30- Amendments without Corresponding Bills

Item #	Description
137 #8h	Direct Aid to reduce break in service for retirees in hard to staff positions from 12 months to 6 months (language only)

SB 30- Amendments without Corresponding Bills

Item #	Description
86 #2s	DHRM to take an inventory of all state employees remote or in-person work status and determine whether the work being done by remote workers may be adequately performed remotely and whether there is adequate opportunity to supervise the work being performed remotely (language only)

HB 29 and HB 30 carried over to Special Session.

Budget- Rates and Funding

2022 Introduced Budget- New HB/SB 30

Virginia Retirement System

VRS Rates

Item #	Description
483	Fund the required Board-certified contribution rates for JRS, SPORS, VaLORS and OPEBs. Fund the prior biennium's higher contribution rates for State (14.46% vs. 14.13%) and Teachers (16.62% vs. 14.76%), as well as for any OPEB plan rates that decreased.
483	Fund LODA premiums at $681.84 per covered employee.

HB 29 and HB 30 carried over to Special Session.

HB 30 House-approved Amendments

Virginia Retirement System

Amendments- Teacher Retirement Funding

Item #	Description
137 #4h	Direct Aid- provides $55 million in FY 24 from the Literary Fund to support teacher retirement costs, reducing the GF appropriation by the same amount.

HB 29 and HB 30 carried over to Special Session.

2022 Budget- VRS Infusion (details on next slides)

Virginia Retirement System

	Introduced	House	Senate
HB/SB 29, Item 277		Provides $500,000,000 in FY 2022 on or before June 30, 2022 to reduce the unfunded liabilities of the State Plan, the Teacher Plan, SPORS, VaLORS, JRS, State HIC, Teacher HIC, GLI plan, and HIC for constitutional officers, local social services employees, and registrars. Contingent on not needing a revenue re-forecast.	
HB/SB 30, Item 269	$923,998,000 on or before June 30, 2023 to reduce the unfunded liabilities of the State Plan, the Teacher Plan, SPORS, VaLORS, JRS, State HIC, Teacher HIC, GLI plan, and HIC for constitutional officers, local social services employees, and registrars. Contingent on not needing a revenue re-forecast.	Moves lump sum payment to VRS to FY 2022 (HB 29). Making the payment a year earlier than originally proposed allows the funds to be invested a year earlier and realize an additional year of investment returns prior to the next valuation. Additional $80.4 million GF for certain HIC plans to increase funded status to 30%.	Increases deposit (by $76,002,000) to a total of $1,000,000,000 in FY 2023 on or before June 30, 2023 to reduce the unfunded liabilities of the State Plan, the Teacher Plan, SPORS, VaLORS, JRS, State HIC, Teacher HIC, GLI plan, and HIC for constitutional officers, local social services employees, and registrars. Contingent on not needing a revenue re-forecast.

2022 Budget- VRS Infusion

Virginia Retirement System

VRS Funding- HB/SB 30 as Introduced

Item #	Description
269	$923,998,000 on or before June 30, 2023 to reduce the unfunded liabilities of the State Plan, the Teacher Plan, SPORS, VaLORS, JRS, State HIC, Teacher HIC, GLI plan, and HIC for constitutional officers, local social services employees, and registrars. Contingent on not needing a revenue re-forecast. This is a voluntary deposit and in the event of an economic downturn, the deposit could be reduced or eliminated if needed for liquidity relief.

b. $270,000,000 to the state employee plan.
c. $545,000,000 to the public school teacher plan.
d. $13,500,000 to the State Police Officers' Retirement System.
e. $24,500,000 to the Virginia Law Officers' Retirement System.
f. $7,700,000 to the Judicial Retirement System.
g. $10,500,000 to the HIC plan for state employees.
h. $14,800,000 to the HIC plan for public school teachers.
i. $37,500,000 to the GLI plan.
j. $340,000 to the HIC plan for Constitutional Officers and their employees.
k. $150,000 to the HIC plan for local social services employees.
l. Any remaining balance, estimated at $8,000, to HIC plan for Registrars and their employees.

2022 Budget- VRS Infusion

Virginia Retirement System

VRS Funding- HB 29 House Amendments

Item #	Description
277 #1h	Provides $500,000,000 in FY 2022 on or before June 30, 2022 to reduce the unfunded liabilities of the State Plan, the Teacher Plan, SPORS, VaLORS, JRS, State HIC, Teacher HIC, GLI plan, and HIC for constitutional officers, local social services employees, and registrars. Contingent on not needing a revenue re-forecast. This is a voluntary deposit and in the event of an economic downturn, the deposit could be reduced or eliminated if needed for liquidity relief.

b. $146,104,212 to the state employee plan.
c. $294,914,058 to the public school teacher plan.
d. $7,305,211 to the State Police Officers' Retirement System.
e. $13,257,211 to the Virginia Law Officers' Retirement System.
f. $4,166,676 to the Judicial Retirement System.
g. $5,681,830 to the HIC plan for state employees.
h. $8,008,675 to the HIC plan for public school teachers.
i. $20,292,252 to the GLI plan.
j. $183,983 to the HIC plan for Constitutional Officers and their employees.
k. $81,169 to the HIC plan for local social services employees.
l. Any remaining balance, estimated at $4,329, to HIC plan for Registrars and their employees.

2022 Budget- VRS Infusion

Virginia Retirement System

VRS Funding- HB 30 House Amendments

Item #	Description
269 #1h	Moves lump sum payment to VRS to FY 2022 (HB 29). Making the payment a year earlier than originally proposed will allow the funds to be invested a year earlier and realize an additional year of investment returns prior to the next valuation.
483 #3h	Additional $80.4 million GF for certain HIC plans to increase funded status to 30%. 1. Estimated $77,118,170 to the HIC plan for state employees. 2. Estimated $1,576,017 to the HIC plan for Constitutional Officers and their employees. 3. Estimated $1,740,831 to the HIC plan for local social services employees.

HB 29 and HB 30 carried over to Special Session.

2022 Budget- VRS Infusion

Virginia Retirement System

VRS Funding- SB 30 Senate Amendments

Item #	Description
269 #1s	Increases deposit (by $76,002,000) to a total of $1,000,000,000 in FY 2023 (on or before June 30, 2023) to reduce the unfunded liabilities of the State Plan, the Teacher Plan, SPORS, VaLORS, JRS, State HIC, Teacher HIC, GLI plan, and HIC for constitutional officers, local social services employees, and registrars. Contingent on not needing a revenue re-forecast. This is a voluntary deposit and in the event of an economic downturn, the deposit could be reduced or eliminated if needed for liquidity relief.

b. $292,000,000 to the state employee plan.
c. $590,000,000 to the public school teacher plan.
d. $15,000,000 to the State Police Officers' Retirement System.
e. $26,500,000 to the Virginia Law Officers' Retirement System.
f. $8,000,000 to the Judicial Retirement System.
g. $11,400,000 to the HIC plan for state employees.
h. $16,000,000 to the HIC plan for public school teachers.
i. $40,500,000 to the GLI plan.
j. $400,000 to the HIC plan for Constitutional Officers and their employees.
k. $190,000 to the HIC plan for local social services employees.
l. Any remaining balance, estimated at $10,000, to HIC plan for Registrars and their employees.

Virginia Retirement System

Budget- Salary Actions

2022 Budget- Salary Increases

	Introduced	House	Senate
HB/SB 29, Item 477	Language authorizing 5% increase for state employees on June 10, 2022. Contingent on funding in the 2022 Appropriation Act for the 2023-2024 biennium.	Adjust language authorizing pay increases in FY 23 to 4% on June 10, 2022. Authorizes 1% bonus on December 1, 2022. Contingent on funding in the 2022 Appropriation Act for the 2023-2024 biennium. Excludes employees from 1st year pay raise & bonus if they are receiving a targeted salary increase >7.5% in FY 23.	Retains language authorizing 5% increase for state employees on June 10, 2022. Contingent on funding in the 2022 Appropriation Act for the 2023-2024 biennium. 477 #1s- Additional $1,000 bonus for state employees paid on June 1, 2022 (contingent on subparagraph 2a).
HB/SB 30, Item 483 (Teachers, Item 137)	Language authorizing 5% increase for state employees on June 10, 2023. Not contingent on revenues. Funding for both increases.	Adjust funding & language for 4% increase for state employees on June 10, 2023. Not contingent on revenues. Authorizes 1% bonus on December 1, 2023.	Retains language authorizing 5% increase for state employees on June 10, 2023. Not contingent on revenues. Funding for both increases.

2022 Introduced Budget- HB/SB 30

Virginia Retirement System

Targeted Salary Actions

Item #	Description
72	Raise entry-level salary of sworn sheriff deputies and regional jail officers. Provide compression salary increase of $100 for each full year of service for sworn personnel with 3+ years of continuous state service up to 30 years.
328	Salary increases for behavioral health direct care staff.
402	Increase minimum salaries and address salary compression issues for correctional officers.
431	Funding for Dept. of State Police compensation plan to address compression, recruitment, and retention of sworn employees.
	VMI Pay Equity Actions
	Department of Veterans Services Staff
	VDACS Veterinary Staff
	DGS Division of Consolidated Laboratory Staff
	DGS State Mail Services Staff
	Magistrates
	Legal Aid Attorneys through State Bar

HB 29 and HB 30 carried over to Special Session.

2022 House & Senate Amendments to Budget-HB/SB 29

Item #	House	Senate
145		Direct Aid- one-time pandemic bonus (ARPA funds)
313	Direct Care Staff- Community Service Boards	
318	Direct Care Staff in Mental Health Treatment Centers to 50th Percentile	
323	Direct Care Staff in ID Training Centers to 50th Percentile	
328	DBHDS Direct Care Staff to 50th Percentile	
399	DOC Probation & Parole Officers	
402	Reduces salary increase for DOC Correctional Officers to same salary as Deputy Sheriffs	DOC: non-security employee 3% bonus
431	State Police	
479.20		ARPA K-12 pandemic bonus
486	Redirects funding to CSBs for Direct Care Staff salary actions (ARPA funds)	
	Deputy Sheriffs & Regional Jail Officers	
	Dept. of Veteran Services Staff	
	Veterinary Staff at VDACS	
	DGS Div. of Consolidated Lab Services Staff	
	DGS State Mail Services Staff	
	Magistrates	

2022 House & Senate Amendments to Budget- HB/SB 30

Virginia Retirement System

Item #	House	Senate
4		Capitol Police compensation plan
39		District Court Clerks pay increase
72		Additional 47 positions for Piedmont Regional Jail
75	Commissioners of Revenue unfunded positions	State Aid to Local Commissioners of Revenue unfunded positions
77	Circuit Court Clerk underfunded positions Circuit Court Clerk unfunded positions	
78	Provides funding for <u>under</u>funded Treasurer positions Provides funding for 10% of <u>un</u>funded Treasurer positions	Restore funding for <u>under</u>funded Deputy Treasurer positions Restore funding for <u>un</u>funded Deputy Treasurer positions
313	Provide targeted salary increases to CSB staff	CSB retention & recruitment bonuses
318	Adjust salary increase for mental health treatment centers	
323	Adjust salary increase for intellectual disability training centers	
328	Adjust salary increase for VA Center for Behavioral Rehabilitation	
375	Remove proposed DCR officer bonus	
388	Remove proposed bonus to Marine Resource Officers	
399	Provide $2,000 salary increase for Probation and Parole Officers	
401		DOC: Probation and Parole Staff salary increases
402	Adjust Correctional Officer salary increase to equal Deputy Sheriffs	DOC: salary increases Lawrenceville Correctional Center
425		DJJ: Court Service Units salary increase (probation officers)
427		DJJ: Residential Specialists salary increase
483		Correction to state supported local employees' salary increase (paid in arrears) Adjust for salary increase budget shortfall (error in introduced budget)
486		ARPA Teacher Recruitment Incentives
486	Redirect ARPA from DBHDS to CSBs for compensation actions	

Failed Legislation

2022 VRS-Related Bills

Virginia Retirement System

JRS Bills

Bill Number	Patron	Description
SB 83	Stanley	Increases the mandatory judicial retirement age from 73 to 75. Allows judges who would be subject to mandatory retirement during the 2022 General Assembly session to revoke their notice of retirement. The bill contains an emergency clause. Budget amendment: SB 30, Item 483 #1s (GF savings) Bill not reported from Sen. Judiciary

2022 VRS-Related Bills

Divestment Bills

Bill Number	Patron	Description
HB 645 SB 213	Kory McPike	Requires the Virginia Retirement System and local retirement systems to divest from fossil fuel companies by January 1, 2027. Budget amendment: SB 30, Item 500 #2s (GF placeholder-VRS implementation) HB 645 was PBI'd in subcommittee on 1/27. SB 213 was PBI'd in SFAC on 2/10.

2022 VRS-Related Bills

Return to Work Bills

Bill Number	Patron	Description
SB 18	Cosgrove	Provides that a retired law-enforcement officer employed by a local school division as a school security officer on January 1, 2020, who had a bona fide break in service of at least one month between retirement and employment as a school security officer, is not required to have the 12-month break in service that would otherwise be required by law to continue receiving his service retirement allowance while employed full time as a school security officer. Budget amendment: SB 29, Item 494 #1s (NGF- VRS implementation) PBId in SFAC 2/1.

2022 VRS-Related Bills

Virginia Retirement System

Return to Work Bills

Bill Number	Patron	Description
SB 17	Hackworth	Allows a retired law-enforcement officer to continue to receive his service retirement allowance during a subsequent period of full-time employment by a state or local law-enforcement agency after a 12-month break in service following retirement. Budget amendment: SB 29, Item 494 #2s (NGF- VRS implementation) Substitute not expected to impact Title 51.1.

2022 VRS-Related Bills

Hazardous Duty Benefits Bills- § 51.1-138

Bill Number	Patron	Description
HB 131	Cherry	Adds 911 dispatchers to the list of local employees eligible to receive enhanced retirement benefits for hazardous duty service. Under current law, localities may provide such benefits to first responders, including firefighters and emergency medical technicians, and certain other hazardous duty positions. The bill provides that such benefits would be available only to dispatchers hired starting on or after January 1, 2022. Similar to HB 854/SB 585; See also HB 56, HB 162. Budget amendment: HB 29, Item 494 #2h (NGF- VRS implementation) Subcommittee laid on table with letter to JLARC
HB 854	Reid	Adds 911 dispatchers to the list of local employees eligible to receive enhanced retirement benefits for hazardous duty service. Under current law, localities may provide such benefits to first responders, including firefighters and emergency medical technicians, and certain other hazardous duty positions. Similar to HB 131; See also HB 56, HB 162. Budget amendments: HB 29, Item 494 #1h (NGF- VRS implementation) HB 854 incorporated into HB 131.

2022 VRS-Related Bills

Virginia Retirement System

Hazardous Duty Benefits Bills

Bill Number	Patron	Description
HB 593	Van Valkenburg	Provides that when a member of the State Police Officers' Retirement System or the Virginia Law Officers' Retirement System or a local employee who is eligible for similar benefits dies before retirement by suicide or in the line of duty, the retirement allowance payable to his beneficiary shall include any hazardous duty supplement for which the member or local law-enforcement officer was eligible. Budget amendments: HB 29, Item 494 #3h, (NGF- VRS implementation) & HB 30, Item 483 #12h (GF- placeholder) Stricken in subcommittee 2/3.
HB 834	Wilt	Provides that service in the Fire and Rescue Department of the Virginia Air National Guard shall be treated as service in a hazardous position for purposes of the hazardous duty supplement or increased retirement multiplier in the State Police Officers' Retirement System, in the Virginia Law Officers' Retirement System, or as a local employee eligible for similar benefits. The bill applies to creditable service earned before July 1, 2022, but only allows additional benefits to be paid prospectively. Budget amendment: HB 30, Item 483 #11h (GF- placeholder) Laid on table with letter to JLARC 2/3.

2022 VRS-Related Bills

Virginia Retirement System

Hazardous Duty Benefits Bills- § 51.1-138

Bill Number	Patron	Description
HB 56	Wiley	Requires each political subdivision participating in the Virginia Retirement System and each county or city participating in the Virginia Retirement System to provide retirement benefits comparable to the benefits provided to state police officers to juvenile detention specialists. See also HB 131, HB 162, HB 854, SB 585. Laid on table in subcommittee 1/27.
HB 162	Runion	Adds animal control officers to the list of local employees eligible to receive enhanced retirement benefits for hazardous duty service. Under current law, localities may provide such benefits to first responders, including firefighters and emergency medical technicians, and certain other hazardous duty positions. See also HB 56, HB 131, HB 854, SB 585. Budget amendment: HB 29, Item 494 #3h (NGF- VRS implementation) Laid on table in subcommittee with letter to the Compensation Board.

2022 VRS-Related Bills

Virginia Retirement System

Hazardous Duty Benefits Bills- § 51.1-138

Bill Number	Patron	Description
SB 507	Lewis	Requires localities to use the 1.85 percent multiplier for determining the annual retirement allowance for local eligible employees receiving benefits similar to those provided to State Police officers. Currently, localities may elect to provide a 1.7 percent multiplier in lieu of the 1.85 percent multiplier. Substitute applies only to deputy sheriffs for service earned on or after July 1, 2023. Reported from SFAC on 2/9; referred to HAC. HAC laid on table 2/25

2022 VRS-Related Bills

Other Bills

Bill Number	Patron	Description
HB 1119	Campbell	Provides that a law-enforcement officer shall not lose his benefits in any retirement system administered by the Board of Trustees of the Virginia Retirement System upon being convicted of a felony, unless such felony was (i) the result of gross negligence or intentional misconduct by such officer or (ii) resulted in any pecuniary benefit for such officer. Struck in HAC subcommittee 2/3.

2022 Other Bills

Virginia Retirement System

Charter School Bills

Bill Number	Patron	Description
HB 344 SB 608 SB 638	Davis Suetterlein Chase	Permits the Board of Education to receive, review, and rule upon applications for public charter schools and enter into agreements for the establishment of public charter schools. Under current law, the power to grant or deny a public charter school application and enter into an agreement for the establishment of a public charter school rests solely with local school boards. The bill also provides that the decision to grant or deny a public charter school application or to revoke or fail to renew a public charter school agreement is final and is not subject to appeal. HB 344 left in committee 2/15. Senate bills PBI'd in committee 2/10.

2022 Other Bills

Charter School Bills

Bill Number	Patron	Description
HB 356 SB 125	Tata Obenshain	Authorizes the Board of Education (the Board) to establish regional charter school divisions consisting of at least two but not more than three existing school divisions in regions in which each underlying school division has (i) an enrollment of more than 3,000 students and (ii) one or more schools that have accreditation denied status for two out of the past three years. The bill requires such regional charter school divisions to be supervised by a school board that consists of eight members appointed by the Board and one member appointed by the localities of each of the underlying divisions. The bill authorizes the school board, after a review by the Board, to review and approve public charter school applications in the regional charter school divisions and to contract with the applicant. The bill requires that the state share of Standards of Quality per pupil funding of the underlying school district in which the student resides be transferred to such school. HB 356 passed House 2/15; Sen. Education and Health passed by indefinitely. SB 125 not reported from committee 2/3.

Request for Board Action
RBA 2022-04-____

Reappointment of DCPAC Members.

Requested Action

The Board reappoints Ravindra Deo, Brenda Madden, and Edward N. (Ned) Smither to the Defined Contribution Plans Advisory Committee (DCPAC), each for a two-year term ending June 20, 2024.

Rationale for Requested Action

Mr. Deo, Ms. Madden, and Mr. Smither currently serve on the DCPAC and are willing to be reappointed for another two-year term. Mr. Deo is the Executive Director of the Federal Retirement Thrift Investment Board. Ms. Madden is a Senior Vice President and the Human Resources Director of Davenport & Company. Mr. Smither is the County Administrator for Powhatan County.

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.

______________________________	______________________________
O'Kelly E. McWilliams, III, Chair VRS Board of Trustees	Date

Below are the totals for the period ending January 31, 2022. 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[27]	% of Participants Selecting an Option[28]
Do-It-For-Me: Target Date Portfolios[3,4]	%	%	%	%	%	%	%	%		$	%	%
Retirement Portfolio	**-3.12**	**-2.67**	**-3.12**	**3.95**	**8.88**	**7.14**	**5.95**	**0.08**	**8/1/05**	**420,056,330**	**6.5**	**5.4**
Custom Benchmark	-3.26	-2.75	-3.26	3.89	8.80	7.07	5.89					
Target Date 2025 Portfolio	**-3.33**	**-2.74**	**-3.33**	**5.70**	**10.03**	**8.40**	**7.49**	**0.08**	**7/5/06**	**349,993,113**	**5.4**	**6.3**
Custom Benchmark	-3.49	-2.84	-3.49	5.61	9.94	8.31	7.42					
Target Date 2030 Portfolio	**-3.64**	**-2.86**	**-3.64**	**7.72**	**11.34**	**9.47**	**8.34**	**0.08**	**8/1/05**	**345,496,108**	**5.4**	**8.0**
Custom Benchmark	-3.83	-3.01	-3.83	7.59	11.23	9.36	8.24					
Target Date 2035 Portfolio	**-3.94**	**-3.00**	**-3.94**	**9.67**	**12.59**	**10.50**	**9.15**	**0.08**	**7/5/06**	**353,891,291[24]**	**5.5**	**9.1**
Custom Benchmark	-4.17	-3.18	-4.17	9.47	12.45	10.35	9.01					
Target Date 2040 Portfolio	**-4.25**	**-3.14**	**-4.25**	**11.41**	**13.69**	**11.39**	**9.82**	**0.08**	**8/1/05**	**304,483,934**	**4.7**	**9.2**
Custom Benchmark	-4.49	-3.37	-4.49	11.15	13.53	11.22	9.68					
Target Date 2045 Portfolio	**-4.51**	**-3.29**	**-4.51**	**12.78**	**14.59**	**12.06**	**10.37**	**0.08**	**7/5/06**	**290,022,601**	**4.5**	**10.4**
Custom Benchmark	-4.79	-3.56	-4.79	12.46	14.39	11.86	10.21					
Target Date 2050 Portfolio	**-4.67**	**-3.39**	**-4.67**	**13.51**	**15.04**	**12.38**	**10.70**	**0.08**	**9/30/07**	**290,965,999**	**4.5**	**12.0**
Custom Benchmark	-4.98	-3.70	-4.98	13.11	14.83	12.17	10.54					
Target Date 2055 Portfolio	**-4.71**	**-3.43**	**-4.71**	**13.62**	**15.13**	**12.42**	**10.88**	**0.08**	**5/19/10**	**343,447,962**	**5.3**	**16.0**
Custom Benchmark	-5.03	-3.73	-5.03	13.24	14.92	12.22	10.71					
Target Date 2060 Portfolio	**-4.71**	**-3.42**	**-4.71**	**13.61**	**15.11**	**12.40**	**9.77**	**0.08**	**11/17/14**	**158,790,335**	**2.5**	**12.3**
Custom Benchmark	-5.03	-3.74	-5.03	13.23	14.92	12.22	9.58					
Target Date 2065 Portfolio	**-4.71**	**-3.42**	**-4.71**	**13.59**	**n/a**	**n/a**	**15.60**	**0.08**	**9/23/19**	**10,836,303**	**0.2**	**2.3**
Custom Benchmark	-5.03	-3.74	-5.03	13.21	n/a	n/a	15.50					
Help-Me-Do-It: Individual Options												
Money Market Fund[5,6]	**0.02**	**0.04**	**0.02**	**0.15**	**0.99**	**1.29**	**0.72**	**0.08**	**11/1/99**	**96,613,305**	**1.5**	**1.9**
FTSE 3 Month Treasury Bill Index	0.00	0.01	0.00	0.04	0.89	1.11	0.60					
Yield as of 01/31/22: 0.20%[7]												
Stable Value Fund[8,9]	**0.11**	**0.36**	**0.11**	**1.56**	**2.07**	**2.06**	**1.91**	**0.24**	**2/1/95**	**635,978,249**	**9.9**	**7.2**
Custom Benchmark[10]	0.11	0.28	0.11	0.69	1.12	1.60	1.43					
Yield as of 01/31/22: 1.42%[11]												
Bond Fund[12]	**-2.08**	**-2.10**	**-2.08**	**-2.96**	**3.71**	**3.13**	**2.65**	**0.03**	**11/1/99**	**169,411,180**	**2.6**	**3.5**
Bloomberg U.S. Aggregate Bond Index	-2.15	-2.12	-2.15	-2.97	3.67	3.08	2.59					
Inflation-Protected Bond Fund[13]	**-1.97**	**-0.82**	**-1.97**	**3.48**	**7.31**	**4.84**	**2.74**	**0.03**	**7/30/02**	**59,506,747**	**0.9**	**1.4**
Bloomberg U.S. TIPS Index	-2.02	-0.83	-2.02	3.47	7.22	4.73	2.65					
High-Yield Bond Fund[14]	**-2.34**	**-1.71**	**-2.34**	**4.15**	**6.44**	**5.73**	**6.28**	**0.40**	**5/31/04**	**51,996,335**	**0.8**	**1.8**
ICE BofA U.S. High-Yield BB-B Constrained Index	-2.84	-1.96	-2.84	1.52	5.99	5.19	5.97					
Stock Fund[15]	**-5.17**	**-1.61**	**-5.17**	**23.32**	**20.76**	**16.82**	**15.47**	**0.01**	**11/1/99**	**1,638,805,413**	**25.4**	**10.3**
S&P 500 Index	-5.17	-1.61	-5.17	23.29	20.71	16.78	15.43					
Small/Mid-Cap Stock Fund[16]	**-8.31**	**-9.23**	**-8.31**	**5.84**	**14.25**	**11.52**	**12.45**	**0.02**	**11/1/99**	**442,023,409**	**6.9**	**5.9**
Russell 2500 Index[17]	-8.32	-9.27	-8.32	5.75	14.21	11.49	12.37					
International Stock Fund[18]	**-3.25**	**-3.85**	**-3.25**	**4.90**	**9.85**	**8.59**	**7.34**	**0.06**	**11/1/99**	**221,180,701**	**3.4**	**4.8**
MSCI ACWI ex-U.S. IMI Index[19]	-4.06	-4.64	-4.06	3.95	9.36	8.16	6.92					
Global Real Estate Fund[20]	**-5.76**	**-1.97**	**-5.76**	**20.59**	**6.70**	**7.25**	**8.05**	**0.08**	**10/1/02**	**113,073,403**	**1.8**	**3.1**
FTSE EPRA/NAREIT Developed Index[21]	-5.75	-2.02	-5.75	19.82	5.93	6.42	7.33					
VRSIP[22]	**4.11**	**4.25**	**18.63**	**18.63**	**14.70**	**11.24**	**10.02**	**0.60**	**7/1/08**	**54,751,817[25]**	**0.9**	**0.5**
VRS Custom Benchmark[23]	1.37	3.12	13.59	13.59	13.07	10.23	9.35					
VRSIP and benchmark returns are reported with a one month lag. [Return information shown is as of December 31, 2021.] [Market value as of December 31, 2021 was $56,982,131.]												
Do-It-Myself: Self-Directed Brokerage Account												
TD Ameritrade	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**93,486,673**	**1.5**	**0.2**
Total										**$6,444,811,208[26]**		

Footnotes >

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

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

3 The Target Date Portfolios invest in units of BlackRock's LifePath Index Funds O. The LifePath Index Funds O invest in the master LifePath Index Funds F. The inception dates shown reflect the inception dates of the master LifePath Funds F. The inception dates for most LifePath Funds O were 12/9/11. The 2055 Fund's O inception data was 12/12/11, the 2060 Fund's O inception date was 1/2/15, and the 2065 Fund's O inception date was 9/23/2019. Returns prior to Funds' O inception dates are those of the Funds F with deductions taken for Funds O investment management fees.

4 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. Indices currently used to calculate the custom benchmarks are: Russell 1000 Index, Russell 2000 Index, MSCI ACWI Ex-U.S. IMI Index, Bloomberg U.S. Aggregate Bond Index, Bloomberg U.S. TIPS Index, FTSE EPRA/NAREIT Developed Index and the Bloomberg Commodity Index Total Return.

5 The Money Market Fund invests in units of BlackRock's Short-Term Investment Fund W. The inception data shown reflects the VRS Defined Contribution Plan's investment strategy inception date. Returns of the Fund from July 2012 through July 2016 represent performance of other BlackRock funds. Returns prior to July 2012 represent performance by the previous investment manager, State Street Global Advisors. All 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.

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. Performance returns are linked to the previous investment manager. Returns prior to July 2012 represent performance by State Street Global Advisors.

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. The inception date of BlackRock's U.S. Treasury Inflation-Protected Securities Fund M was July 20, 2012. Returns prior to Fund M's inception date are those of Fund F with deductions taken for Fund M's investment management fees.

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. Performance reflects the investment manager's returns for the aforementioned Fund with deductions taken for investment management fees negotiated by VRS and fund administrative expenses.

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. Performance returns are linked to the previous investment manager. Returns prior to July 2012 represent performance by State Street Global Advisors.

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 strategy inception date. Performance returns are linked to the previous investment manager. Returns prior to July 2012 represent performance by State Street Global Advisors.

17 Effective July 2012, the performance benchmark is the Russell 2500 Index. Prior to July 2012, the performance benchmark was the Russell Small Cap Completeness Index. The benchmark returns are linked.

18 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. Returns prior to July 2012 represent performance by the previous manager, State Street Global Advisors. All performance returns are linked.

19 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 and prior to July 2012 it was the MSCI EAFE Index. The benchmark returns are linked.

20 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. The Fund transitioned from a U.S. domestic REIT fund to a global real estate fund during July 2012. Performance returns are linked to the previous investment manager. Returns prior to July 2012 represent performance by State Street Global Advisors.

21 Effective July 2012, the performance benchmark is the FTSE EPRA/NAREIT Developed Index. Prior to July 2012, the performance benchmark was the Dow Jones U.S. Select REIT Index. The benchmark returns are linked.

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

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

24 Includes Pending Account VRSIP amount of $536,312.

25 Includes Preliminary Investment Portfolio Account - PIP amount of $0.

26 Includes $4,914,444 held in the administrative Special Accounts.

27 May not equal 100% due to rounding.

28 The data reflects the percentage of participants who selected a particular investment option as of December 31, 2021. There were 483,453 participant accounts as of December 31, 2021 across all unbundled DC plans.

All fund performance returns shown reflect all fund management fees and expenses, but do not reflect the Plan administrative fee charged by MissionSquare Retirement 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 MissionSquare Retirement. Benchmark returns are provided by BlackRock, Russell/Mellon Analytical Services, Galliard, and MissionSquare Retirement. 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 $30.50 is deducted from participant accounts on a monthly basis (approximately $2.54 per month). Only one annual fee of $30.50 is deducted from participant accounts for those participants participating in more than one Commonwealth of Virginia defined contribution plan.

Defined Contribution Plans Advisory Committee Report
TIAA RC Contract Investment Performance

Below are the totals for the period ending January 31, 2022. 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 O	**-3.12**	**-2.67**	**-3.12**	**3.95**	**8.88**	**7.14**	**5.95**	**0.08**	**8/1/05**	**27,475,405**	**8.0**	**9.2**
Custom Benchmark	-3.26	-2.75	-3.26	3.89	8.80	7.07	5.89					
BlackRock LifePath Index 2025 Fund O	**-3.33**	**-2.74**	**-3.33**	**5.70**	**10.03**	**8.40**	**7.49**	**0.08**	**7/5/06**	**22,045,915**	**6.4**	**7.1**
Custom Benchmark	-3.49	-2.84	-3.49	5.61	9.94	8.31	7.42					
BlackRock LifePath Index 2030 Fund O	**-3.64**	**-2.86**	**-3.64**	**7.72**	**11.34**	**9.47**	**8.34**	**0.08**	**8/1/05**	**30,178,999**	**8.7**	**8.7**
Custom Benchmark	-3.83	-3.01	-3.83	7.59	11.23	9.36	8.24					
BlackRock LifePath Index 2035 Fund O	**-3.94**	**-3.00**	**-3.94**	**9.67**	**12.59**	**10.50**	**9.15**	**0.08**	**7/5/06**	**24,325,602**	**7.0**	**9.0**
Custom Benchmark	-4.17	-3.18	-4.17	9.47	12.45	10.35	9.01					
BlackRock LifePath Index 2040 Fund O	**-4.25**	**-3.14**	**-4.25**	**11.41**	**13.69**	**11.39**	**9.82**	**0.08**	**8/1/05**	**26,742,070**	**7.7**	**9.7**
Custom Benchmark	-4.49	-3.37	-4.49	11.15	13.53	11.22	9.68					
BlackRock LifePath Index 2045 Fund O	**-4.51**	**-3.29**	**-4.51**	**12.78**	**14.59**	**12.06**	**10.37**	**0.08**	**7/5/06**	**23,306,530**	**6.7**	**10.2**
Custom Benchmark	-4.79	-3.56	-4.79	12.46	14.39	11.86	10.21					
BlackRock LifePath Index 2050 Fund O	**-4.67**	**-3.39**	**-4.67**	**13.51**	**15.04**	**12.38**	**10.70**	**0.08**	**9/30/07**	**13,561,582**	**3.9**	**8.1**
Custom Benchmark	-4.98	-3.70	-4.98	13.11	14.83	12.17	10.54					
BlackRock LifePath Index 2055 Fund O	**-4.71**	**-3.43**	**-4.71**	**13.62**	**15.13**	**12.42**	**10.88**	**0.08**	**5/19/10**	**6,143,311**	**1.8**	**5.8**
Custom Benchmark	-5.03	-3.73	-5.03	13.24	14.92	12.22	10.71					
BlackRock LifePath Index 2060 Fund O	**-4.71**	**-3.42**	**-4.71**	**13.61**	**15.11**	**12.40**	**9.77**	**0.08**	**11/17/14**	**1,284,708**	**0.4**	**2.4**
Custom Benchmark	-5.03	-3.74	-5.03	13.23	14.92	12.22	9.58					
BlackRock LifePath Index 2065 Fund O	**-4.71**	**-3.42**	**-4.71**	**13.59**	**n/a**	**n/a**	**15.60**	**0.08**	**9/23/19**	**1,213,782**	**0.4**	**0.9**
Custom Benchmark	-5.03	-3.74	-5.03	13.21	n/a	n/a	15.50					
Individual Options												
BlackRock Short-Term Investment Fund W [5]	**0.02**	**0.04**	**0.02**	**0.15**	**0.99**	**1.29**	**0.79**	**0.08**	**7/1/03**	**5,646,933**	**1.6**	**7.9**
FTSE 3 Month Treasury Bill Index	0.00	0.01	0.00	0.04	0.89	1.11	0.60					
Yield as of 01/31/22: 0.20%[6]												
BlackRock U.S. Debt Index Fund M [7]	**-2.08**	**-2.10**	**-2.08**	**-2.96**	**3.71**	**3.13**	**2.65**	**0.03**	**6/6/96**	**9,119,219**	**2.6**	**18.7**
Bloomberg U.S. Aggregate Bond Index	-2.15	-2.12	-2.15	-2.97	3.67	3.08	2.59					
BlackRock U.S. TIPS Fund M [8]	**-1.97**	**-0.82**	**-1.97**	**3.48**	**7.31**	**4.84**	**2.74**	**0.03**	**7/30/02**	**5,159,101**	**1.5**	**12.8**
Bloomberg U.S. TIPS Index	-2.02	-0.83	-2.02	3.47	7.22	4.73	2.65					
BlackRock Equity Index Fund J [9]	**-5.17**	**-1.61**	**-5.17**	**23.32**	**20.76**	**16.82**	**15.47**	**0.01**	**3/5/97**	**37,997,531**	**11.0**	**24.9**
S&P 500 Index	-5.17	-1.61	-5.17	23.29	20.71	16.78	15.43					
BlackRock Russell 2500 Index Fund M [10]	**-8.32**	**-9.23**	**-8.32**	**5.82**	**14.23**	**11.52**	**12.53**	**0.04**	**9/30/08**	**8,773,140**	**2.5**	**4.5**
Russell 2500 Index	-8.32	-9.27	-8.32	5.75	14.21	11.49	12.43					
BlackRock MSCI ACWI ex-U.S. IMI Index Fund M [11]	**-3.26**	**-3.87**	**-3.26**	**4.85**	**9.80**	**8.55**	**6.67**	**0.11**	**2/28/11**	**17,289,862**	**5.0**	**18.8**
MSCI ACWI ex-U.S. IMI Index	-4.06	-4.64	-4.06	3.95	9.36	8.16	6.40					
BlackRock MSCI ACWI IMI Index Non-Lendable Fund M [12]	**-4.85**	**-3.75**	**-4.85**	**12.75**	**15.39**	**12.70**	**10.37**	**0.05**	**4/12/13**	**45,923,421**	**13.3**	**33.0**
MSCI ACWI IMI Index	-5.19	-4.07	-5.19	12.29	15.04	12.31	9.98					
TIAA Real Estate Account [13]	**1.33**	**5.40**	**1.33**	**18.75**	**7.39**	**6.37**	**7.61**	**0.87**	**10/2/95**	**10,673,753**	**3.1**	**27.2**
Custom Composite Benchmark [14]	n/a	n/a	n/a	n/a	n/a	n/a	n/a					
TIAA Traditional Annuity RC [15,16,17,18]	**0.29**	**0.86**	**0.29**	**3.51**	**3.83**	**3.93**	**4.16**	**0.45**	**8/1/05**	**23,916,841**	**6.9**	**28.8**
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**	**4,905,564**	**1.4**	**0.8**
Total										**$345,683,269**		

Footnotes >

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

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

3 The BlackRock LifePath Index Funds O 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 O were 12/9/11. The 2055 Fund's O inception date was 12/12/11, the 2060 Fund's O inception date was 1/2/15 and the 2065 Fund's O inception date was 9/23/19. Returns prior to Funds' O inception dates are those of Funds F with deductions taken for Funds O investment management fees.

4 Benchmarks are calculated using blended returns of third-party indices that proportionately reflect the respective weightings of the Funds' asset classes. Weightings are adjusted quarterly to reflect the Funds' asset allocation shifts over time. Indices currently used to calculate the custom benchmarks are: Russell 1000 Index, Russell 2000 Index, MSCI ACWI Ex-U.S. IMI Index, Bloomberg U.S. Aggregate Bond Index, Bloomberg U.S. TIPS Index, FTSE EPRA/NAREIT Developed Index and the Bloomberg Commodity Index Total Return.

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

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

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

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

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

10 The BlackRock Russell 2500 Fund 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 1/30/13. Returns prior to Fund M's inception date are those of Fund F with deductions taken for Fund M'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 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 not require a minimum transaction amount; however, in the future TIAA reserves the right, in its sole discretion, to impose minimum transaction levels, which levels will generally be at least $1,000 (except for systematic transfers, which must be at least $100) or your entire accumulation, if less. Participants may not make a lump-sum transfer into the REA if their aggregated balances across all contracts is greater than $150,000. Systematic transfers and recurring contributions are not subject to this limitation.

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 1%. 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 January was 3.50%.

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. The 45 basis points (0.45%) approximates the expense provision in the formula for determining TIAA Traditional Annuity returns inclusive of administrative and investment expenses. This expense provision is not guaranteed, it is subject to change.

19 May not equal 100% due to rounding

20 The data reflects the percentage of participants who selected a particular investment option as of December 31, 2021. There were 5,215 (RC contract) participants as of December 31, 2021.

Performance returns shown reflect all fund management fees and other investment related expenses, but do not reflect the TIAA annual administrative fee of $66 (deducted at $16.50 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.

Callan Institute

Research

2022 Defined Contribution Trends Survey

Table of Contents

Key Findings

Callan conducted our 15th annual *Defined Contribution (DC) Trends Survey* in the fall of 2021. The survey incorporates responses from 101 plan sponsors, including both Callan clients and other organizations. We highlight key themes and findings from 2021 and expectations for 2022.

Top 2022 Priorities

1. **Plan fees**
2. **Investment Policy Statement**
3. **Formal Fiduciary Training**

See page 10 for details

2022 area of communication focus:

Retirement Readiness

See page 44 for details

100% of plans offer advisory services

Most popular services:

Guidance
Seminars
Financial Wellness

See page 28 for details

90% offer a 401(k) plan

74% with > $1 bn in assets

See pages 4 & 5 for details

95% of plans have a target date fund

20% use a TDF proprietary to their recordkeeper

18% plan to in 2022

56% of TDFs are offered via a collective trust

See pages 15 & 16 for details

51% have a policy on asset retention

76% of those focus on retaining assets

See page 33 for details

Most important step in improving fiduciary position for 2021:

Reviewing Plan Fees

See page 10 for details

86% have taken steps to prevent plan leakage

Most common step:

Offer partial distributions

See page 34 for details

Key Findings

71%
do not benchmark managed account performance

See page 30 for details

Fee Payment Trends

76% of plans use an explicit per participant fee

16% of plans use revenue sharing as a payment method

See page 40 for details

8%
of plans offer an environmental, social, and governance (ESG) option

See page 24 for details

9/10
plan sponsors say they engage an investment consultant

20%
report using a 3(38) discretionary adviser

21%
are unsure if their consultant has discretion over the plan

See page 7 for details

Top factors for measuring plan success

Participation

Investment Performance

Contribution Rate

See page 8 for details

1 in 4
intend to conduct a recordkeeper search in 2022

See page 43 for details

Continued focus on passive investments

81% offer TDF that is at least partially indexed

33% use active/passive mirror for core lineup

Continued fee pressure in 2022

72% likely to conduct a fee study

61% will evaluate indirect compensation

58% plan to switch to lower-cost vehicles

See pages 17, 21, 43 for details

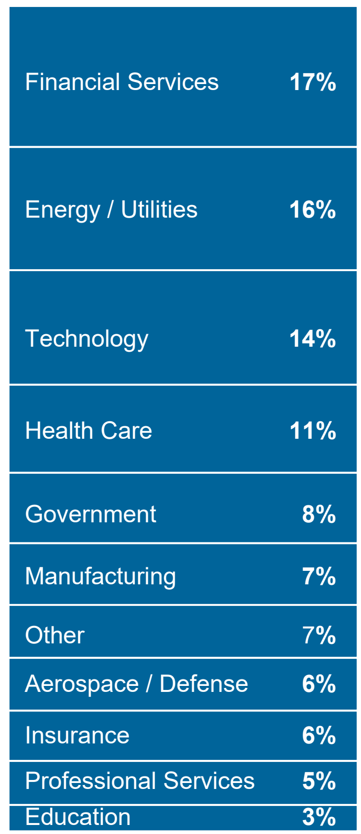
Respondent Characteristics

Callan conducted our 15th annual Defined Contribution (DC) Survey online in the fall of 2021. This, the *2022 DC Survey,* incorporated responses from 101 large DC plan sponsors, including both Callan clients and other organizations.

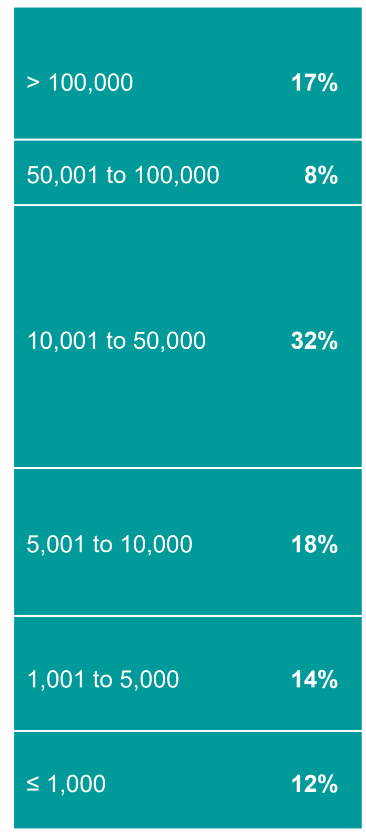
Respondents spanned a range of industries; the top were financial services, energy/utilities, technology, health care, and government. Note, the survey requested the primary industry that an employer looks to hire from, which means that there is some disconnect between the responses on this page and the organization type described on the following page.

More than 97% of plans in the survey had over $100 million in assets; moreover, 74% were "mega plans" with more than $1 billion in assets. The majority of respondents (57%) had more than 10,000 participants.

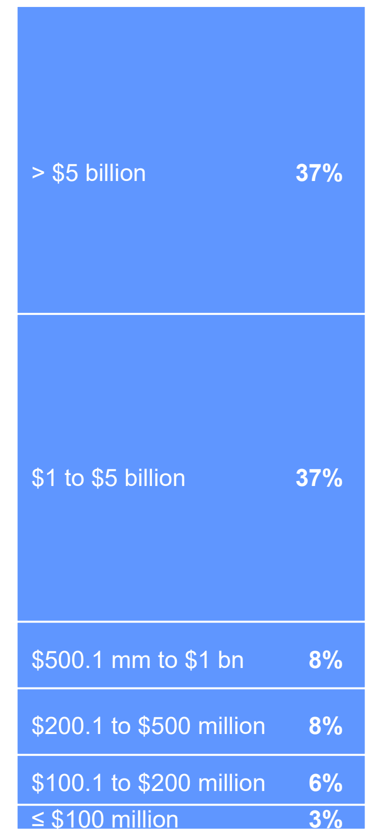
Primary industry



Number of participants in DC plan



Assets in DC plan



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

Respondent Characteristics (continued)

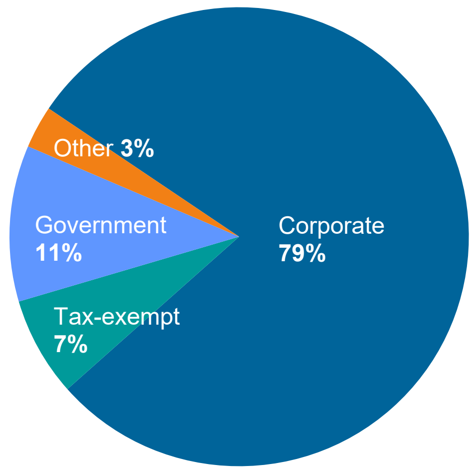
More than three quarters of respondents were corporate organizations, followed by governmental (11%) and tax-exempt (7%) entities.

As seen in prior surveys, a 401(k) plan was the primary DC offering (90%). The majority of tax-exempt entities (e.g., hospitals and nonprofits) offered a 403(b) plan as the primary DC plan.

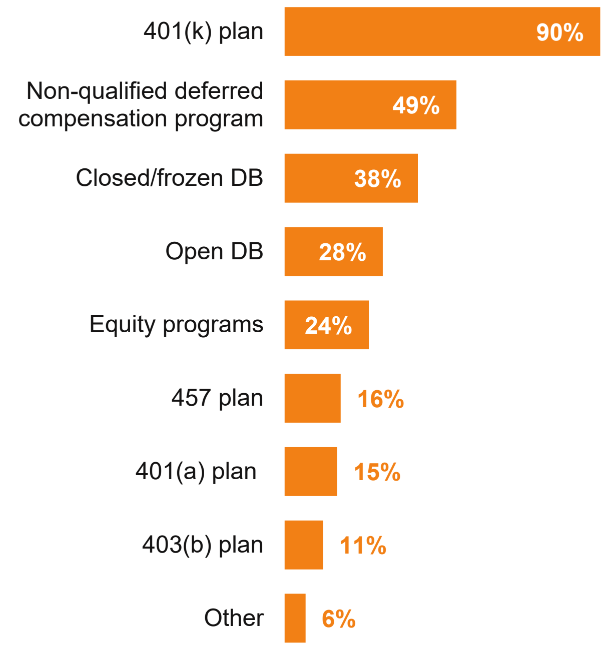
Roughly half of corporate respondents offered a nonqualified deferred compensation (NQDC) plan, while a majority of the tax-exempt and governmental entities offered a 457 plan.

About 3 in 10 DC plan sponsors surveyed offered an open defined benefit (DB) plan, compared to 39% in 2015. Governmental entities were more likely to offer an open DB plan, while corporate plan sponsors were the most likely to have a closed or frozen DB plan.

Organization type



Retirement benefits offered*



*Multiple responses allowed.

Plan Structure: Bundled vs. Unbundled Arrangements

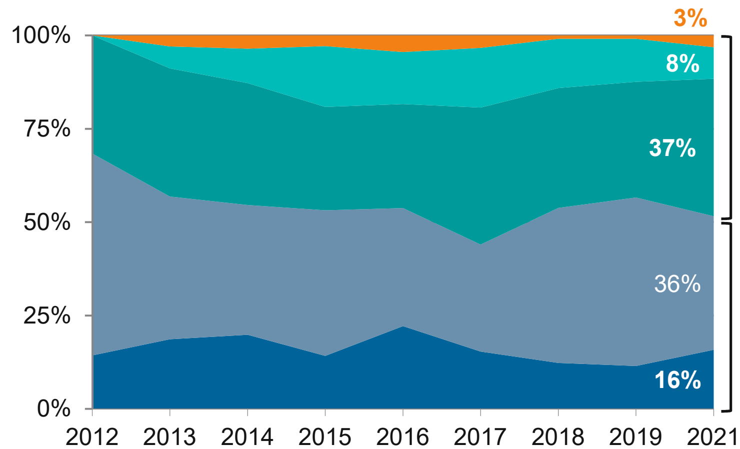
Bundled and unbundled arrangements remain evenly split going back to 2013. Prior arrangements were decidedly bundled.

This question was not asked in last year's survey, so there is no 2020 data point. It is interesting to note there was a small uptick in the fully unbundled approach from 2019.

The number of plans that identified themselves as being fully bundled (16%) was also up slightly from 12% in 2019. We suspect this minor uptick is due to a change in the respondents' composition between the two surveys.

A new question in this year's survey was "What recordkeeper did the plan sponsor employ?" The five largest noted in the bottom chart represented 69% of the plans in the survey.

Plan structure



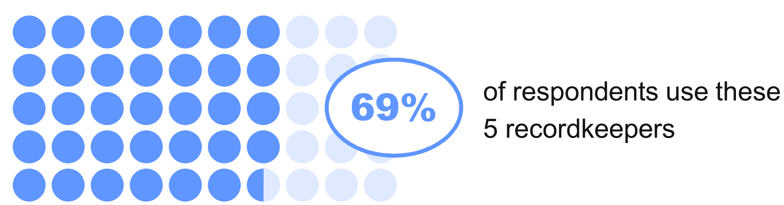
Fully bundled: The recordkeeper and trustee are the same, and all of the investment funds are managed by the recordkeeper.

Partially bundled: The recordkeeper and trustee are the same, but not all of the investment funds are managed by the recordkeeper.

Fully unbundled: The recordkeeper and trustee are independent, and none of the investment funds are managed by the recordkeeper.

Top 5 Recordkeepers Used

- Fidelity
- Alight
- Charles Schwab
- Empower
- Vanguard



Use of Investment Consultants and Documentation

Almost 9 in 10 of plan sponsors engaged an investment consultant (retainer and/or project) in 2021, closely in line with both 2019 and 2020 (89%). In all years, more sponsors used a retainer than a project consultant.

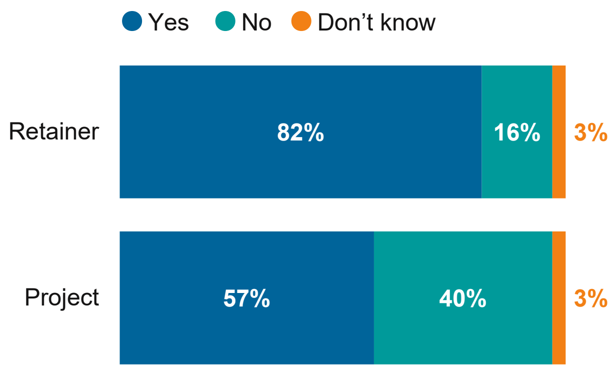
Of those that used a retainer investment consultant, most did so on a 3(21) non-discretionary basis (70%). A notable portion of plan sponsors (21%) were unsure whether they use a discretionary or non-discretionary consultant.

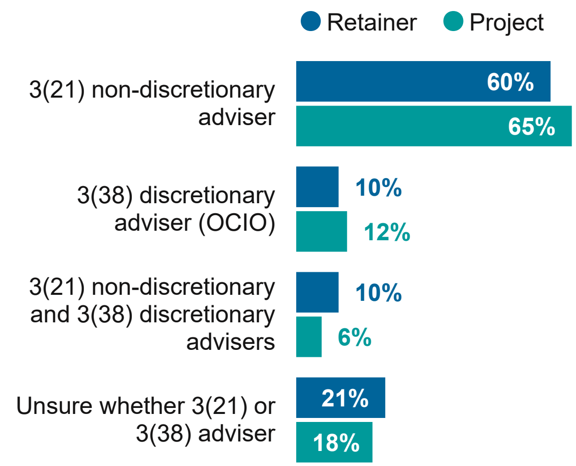
For governance and decision making, nearly all plan sponsors used an investment policy statement. Committee/board charters were used frequently as well.

3(38) discretionary consultant: The investment consultant selects and monitors funds and acts as a co-fiduciary (also known as an outsourced chief investment officer or OCIO model).

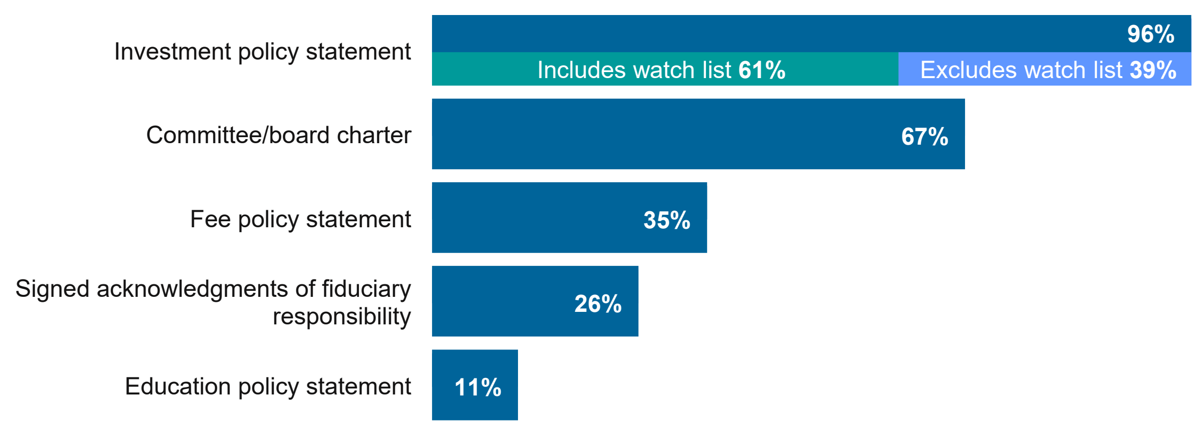
3(21) non-discretionary consultant: The investment consultant monitors and recommends changes as a co-fiduciary, while the plan sponsor maintains the fiduciary responsibility in selecting investments.

Use of investment consultant (project or retainer)





Documentation used for governance and to support decision making*



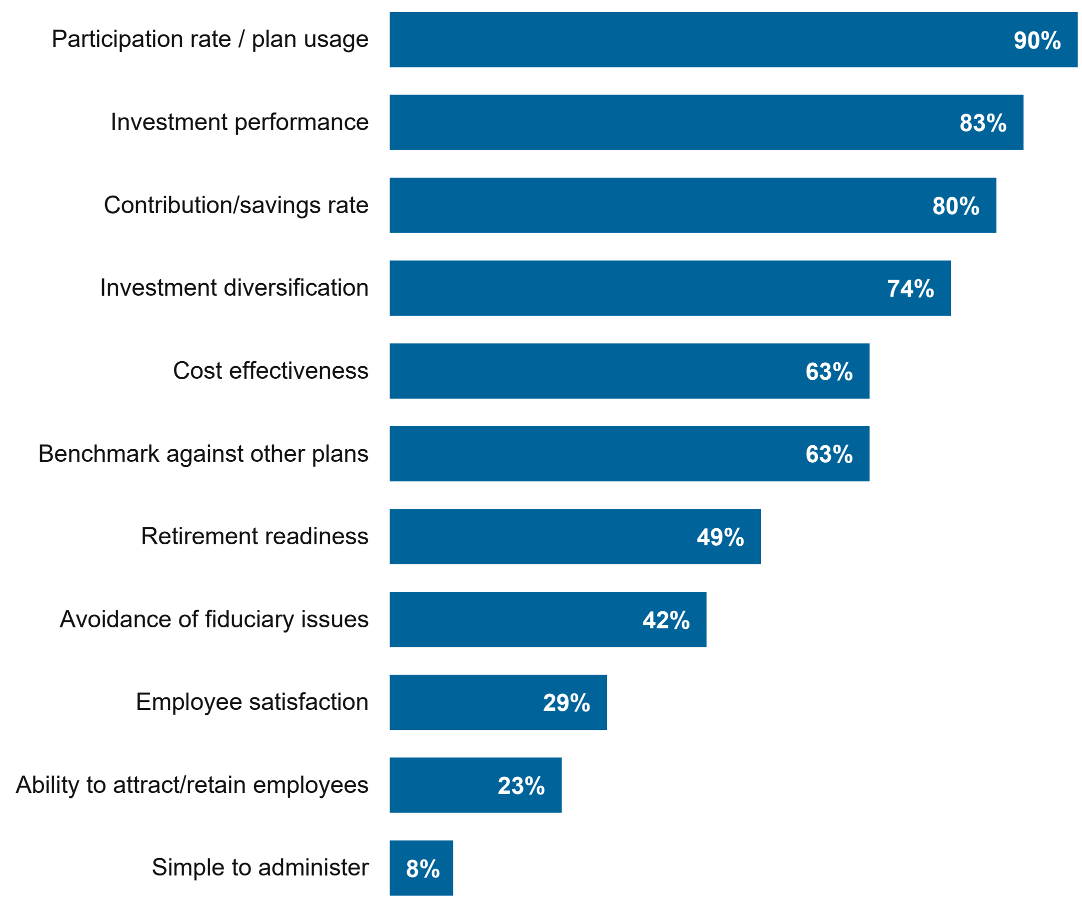
*Multiple responses allowed.

DC Plan Measurement

Survey respondents monitor 6 metrics, on average, to measure the success of the DC plan.

In line with the past three years, most plan sponsors use participation rate/plan usage to measure the success of their DC plan. Contribution/savings rate and investment performance tied for the second most common metrics, followed by investment diversification.

Criteria used to measure plan success*



Additional 2021 categories: don't measure (1%); other (12%)

*Multiple responses allowed.

Areas of Focus

Following a decade of abundant litigation, DC committees have refined the elements of plan governance. The *2022 DC Survey* reflects multiple topics that were newly introduced in the prior year's survey. As such, the resulting rankings are more diluted and nuanced, and span a broader range, than in previous years.

Total plan fees were broken out between administration fee and investment management fee categories. Investment fees ranked as the highest area of focus while plan administration fees came in third. Investment fees are generally more straightforward to benchmark and monitor, allowing for more frequent review. Plan sponsors should be mindful to review all plan fees on an ongoing basis.

Respondents rank plan governance and process (a category added to the survey last year) as the second highest area of focus. This broad category includes much of the basic blocking and tackling that plan sponsors do on an ongoing basis.

Investment structure and fund/manager due diligence are still in the top five, but both dropped in their ranking from last year.

Top areas of focus

2021		2020		2019	
Plan investment management fees	2.8	Plan governance and process	3.9	Total plan fees	3.5
Plan governance and process	2.7	Investment structure evaluation	2.7	Participant education and communications	3.5
Plan administration fees	2.5	Fund / manager due diligence	2.7	Fund / manager due diligence	3.3
Fund / manager due diligence	2.3	Plan investment management fees	2.3	Financial wellness	3.3
Investment structure evaluation	2.2	Asset allocation and diversification	1.2	Participant retirement readiness	3.2
Participant retirement readiness	1.5	Participant education and communications	1.2	Investment structure evaluation	3.1
Cybersecurity	1.5	Committee education and fiduciary training	1.1	Cybersecurity	2.9
Participant education and communications	1.1	Qualified default fund selection	1.1	Evaluation of providers	2.8
Asset allocation and diversification	1.1	Plan administration fees	1.1	Plan design	2.7
Committee education and fiduciary training	1.1			Committee education and fiduciary training	2.5

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

Additional 2021 categories: evaluation of providers, financial wellness (0.9); plan operational compliance, lifetime income options (0.8); plan design (0.7); qualified default fund (0.6); market volatility (0.4); alternative asset classes (0.3)

Fiduciary Initiatives

In 2020 and 2021, DC plan sponsors were largely focused on reviewing plan fees, their investment policy statement (IPS), and the plan's investment structure. These were all top areas in 2021 and will be areas of focus in 2022 as well.

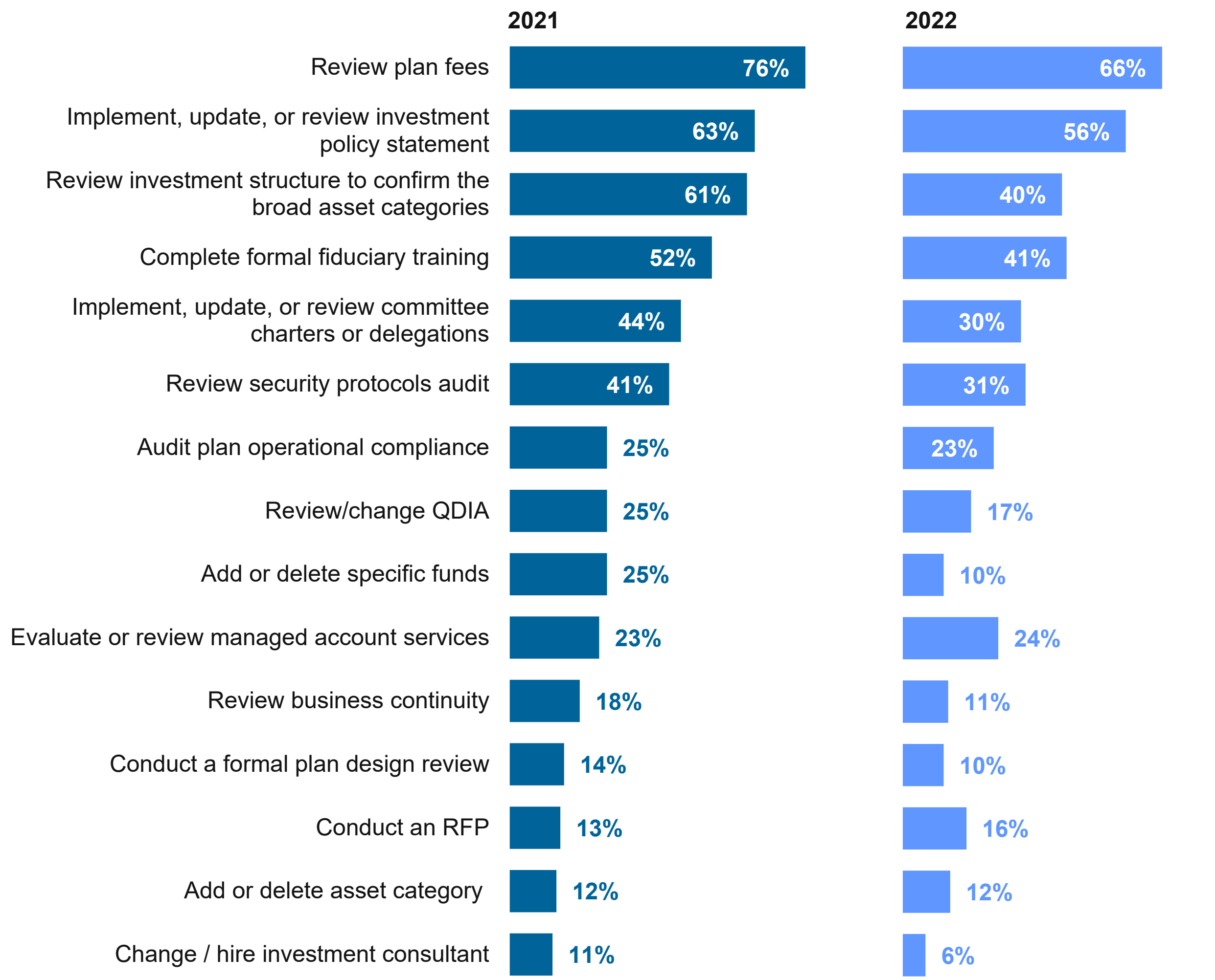
Reviewing security protocol was also a priority with 41% of plan sponsors taking this action in 2021. About a third will do the same in 2022.

Around one-quarter of respondents added or deleted a fund in 2021, but fewer plans expect to do so in 2022 (10%). This drop-off reflects the general nature of fund changes: They are not necessarily premeditated many months in advance.

Top Actions Planned for 2022

1. Review plan fees
2. Implement, update, or review IPS or structure
3. Complete formal fiduciary training

Fiduciary actions DC plans have taken or will take*



*Multiple responses allowed.
Other actions taken with less than 6% include: Evaluate/implement 3(38) discretionary services, Evaluate independent fiduciary services for company stock, Add /remove managed account services, Implement a written plan fee policy statement, Change recordkeeper, Change trustee/custodian.

Company Match

Only 12% of plan sponsors reported making a change to their company match in 2021, the same as in 2020. Of those that made a change in 2021, none described actions that were unfavorable (i.e., no plan sponsors eliminated, suspended, or reduced the match). Rather, 29% reinstated the match while another 29% increased the match. Of the 29% who selected "other," one was exploring adding a match.

In 2022, a slightly higher percentage (16%) plan to make a change to the match while another 8% may consider a change. Of those planning a change, again, no sponsors plan to eliminate, suspend, or reduce the matching contribution. Most plan to increase (40%) or restructure (40%) their match.

Of those making a change, 3 in 10 plans increased the match in 2021.

4 in 10 will do so in 2022.

Company match actions*

Took step in 2020		Took step in 2021		Will take step in 2022	
Add a match true-up feature	**57%**	Reinstate matching contributions	**29%**	Increase matching contributions	**40%**
Suspend matching contributions	**29%**	Increase matching contributions	**29%**	Restructure matching formula	**40%**
Increase matching contributions	**14%**	Other	**29%**	Other	**20%**
Reinstate matching contributions	0%	Restructure matching formula	**14%**	Change to stretch match	**10%**
Restructure matching formula	0%	Add a match true-up feature	**14%**	Add a match true-up feature	**10%**
Change to stretch match	0%	Suspend matching contributions	0%	Suspend matching contributions	0%
Other	0%	Change to stretch match	0%	Reinstate matching contributions	0%

*Percentages out of those taking steps with respect to the company match. Multiple responses allowed.

Re-enrollment

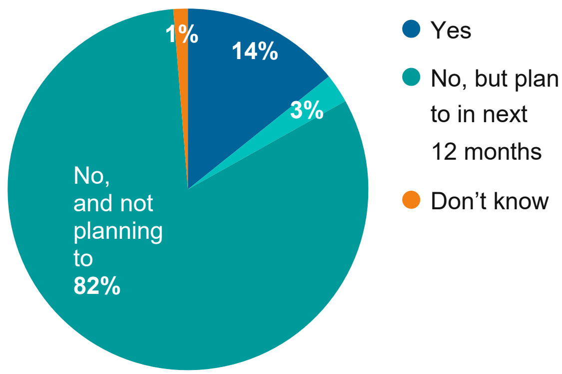
In 2021, 14% of plan sponsors indicated they had conducted an asset re-enrollment—defined as requiring all participants in the plan to make a new fund selection or be defaulted into the default investment option. Although this represented a slight decrease from 2019 (18%), it remains above the 9% of sponsors that indicated they had conducted a re-enrollment in 2018.

Of the plans that had engaged in a re-enrollment, the majority (64%) did so more than 12 months ago, while a smaller share (36%) engaged in a re-enrollment within the past 12 months.

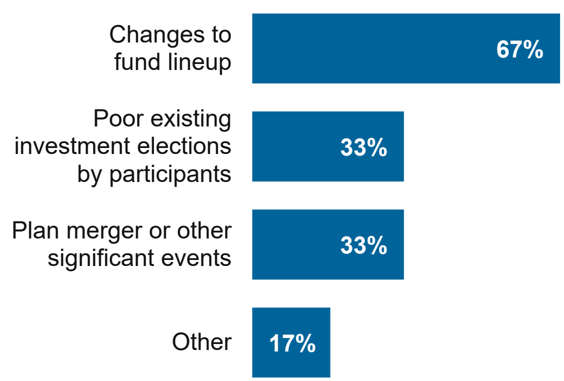
“Changes to the fund lineup” was the most common motivation for re-enrollment (67%), followed by a tie between poor existing investment elections by participants (33%) and a plan merger or other significant events (33%).

For those not planning to conduct a re-enrollment, it was primarily because plan sponsors believed it was not necessary, that participants would object, or that it was not a priority.

Have you conducted an asset re-enrollment?



Re-enrollment reasons*



*Multiple responses were allowed.

Reasons for not conducting re-enrollment

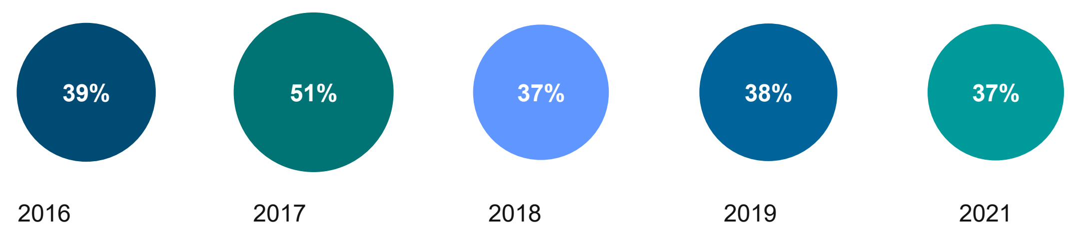
(7=Most important. Total ranking is weighted average score.)

Company Stock Prevalence

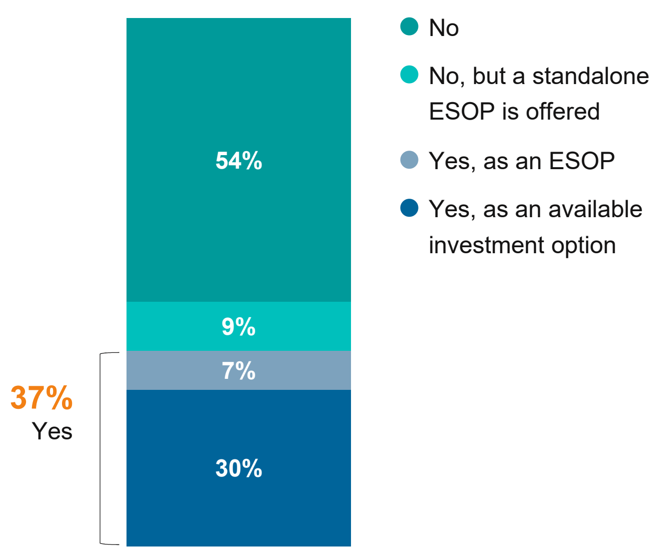
The share of plan sponsors that offered company stock either as an available investment option or as an ESOP within the plan remained consistent with prior years, except for 2017, which appears to be an aberration.

Most plans that did not offer company stock indicated the plan has never done so (62%). However, 21% of respondents indicated that the plan once offered company stock but has eliminated it, and another 17% offered company stock but have since frozen it.

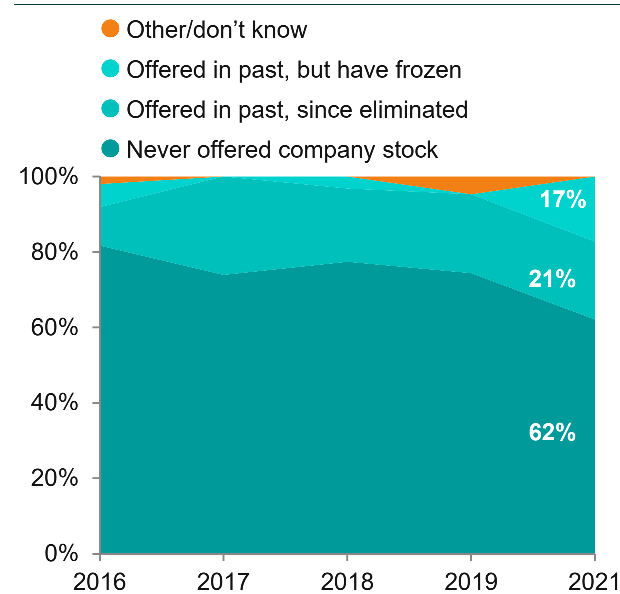
Plans offering company stock



Plans offering company stock



Plan's experience with company stock, if not now offered



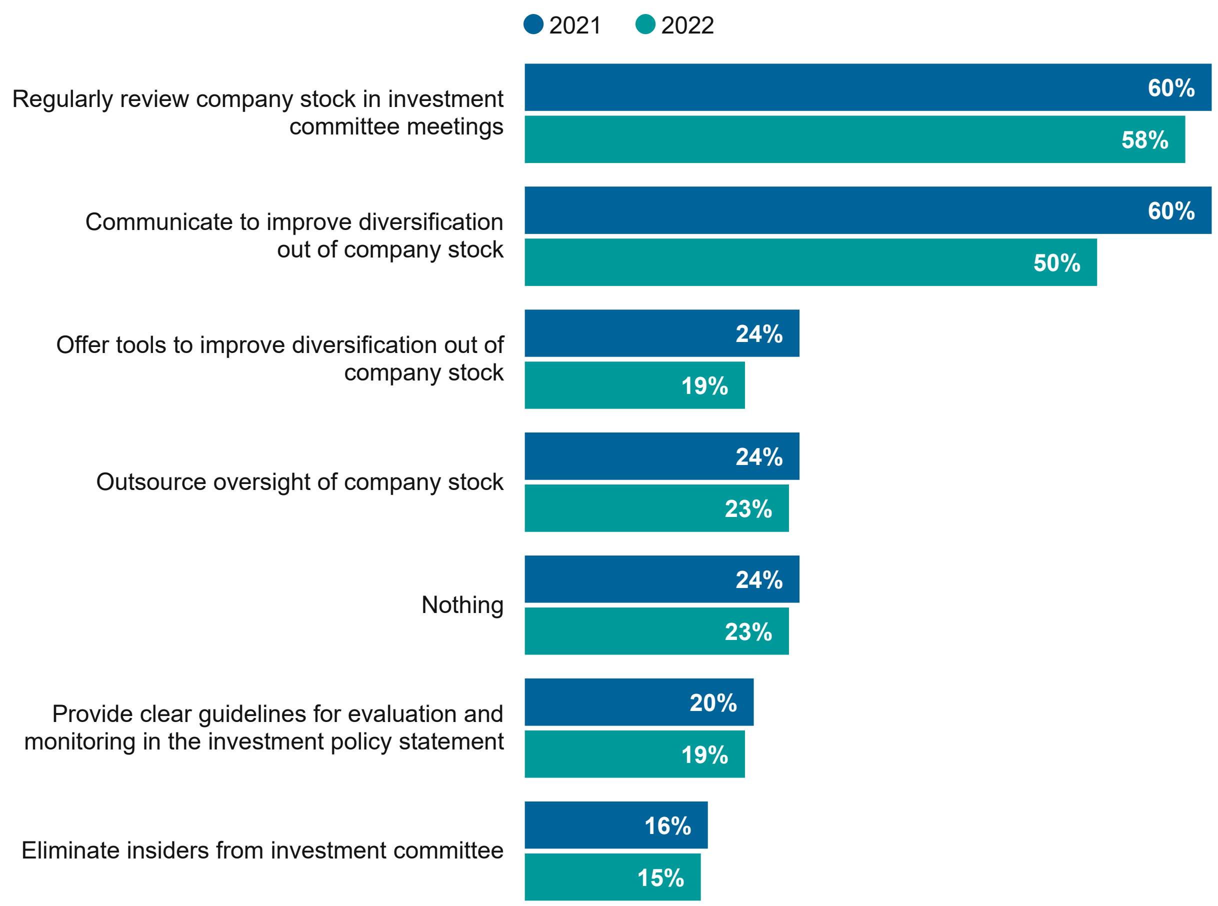
Anticipated Changes to Company Stock

More than three-quarters of plan sponsors with company stock took some type of action regarding their company stock offering in 2021, and a similar share of plans anticipate taking an action in 2022.

The most prevalent actions that plan sponsors took regarding company stock in 2021 were reviewing their company stock offering in investment committee meetings and communicating to participants to improve diversification out of company stock (60% each). These are also the most common action sponsors anticipate taking in 2022.

Slightly more than one-third of plan sponsors included company stock in the DC plan. In 2021, 8% of sponsors with company stock froze the offering, and another 4% plan to do so in the coming year.

Steps taken / will take regarding company stock*



Additional categories (2021/2022): Freeze company stock (8%/4%); Hard-wire company stock into the plan document (8%/8%); Cap contributions to company stock (4%/0%), Other (0%/4%)

*Multiple responses allowed.

Default Investments

Most DC plans had a qualified default investment alternative (QDIA) as the default investment fund (97%).

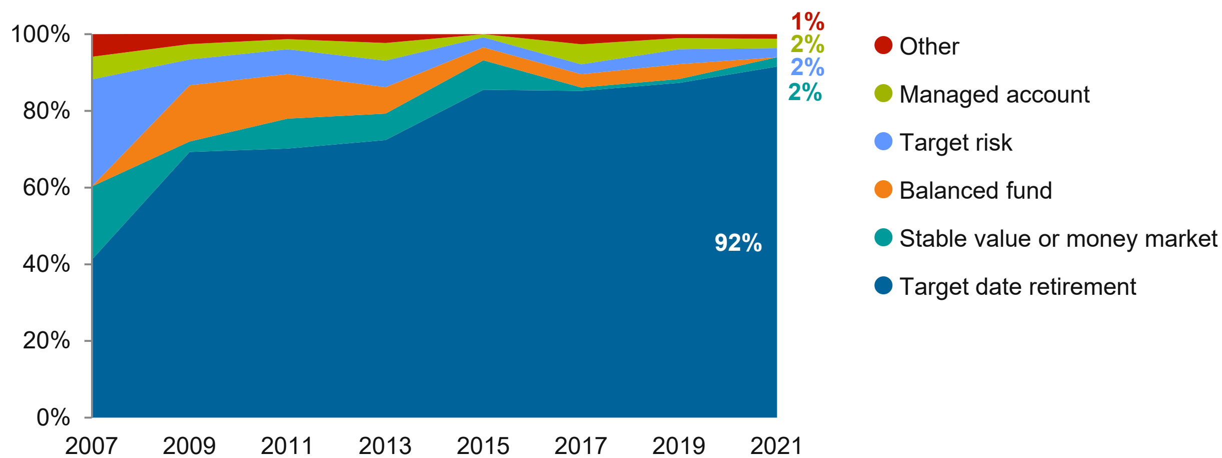
A key provision of the 2006 Pension Protection Act (PPA) provides relief to DC fiduciaries that default participant assets into QDIAs under regulation 404(c)(5). Plan sponsors complying with this provision are responsible for the prudent selection and monitoring of the plan's QDIA, but are not liable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

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

In 2021, 92% of plans used a target date fund as their default for non-participant directed monies, an all-time high. Use of other QDIA types remained low.

Plans offering target date funds

Current default investment for non-participant directed monies



Target Date Fund Approaches

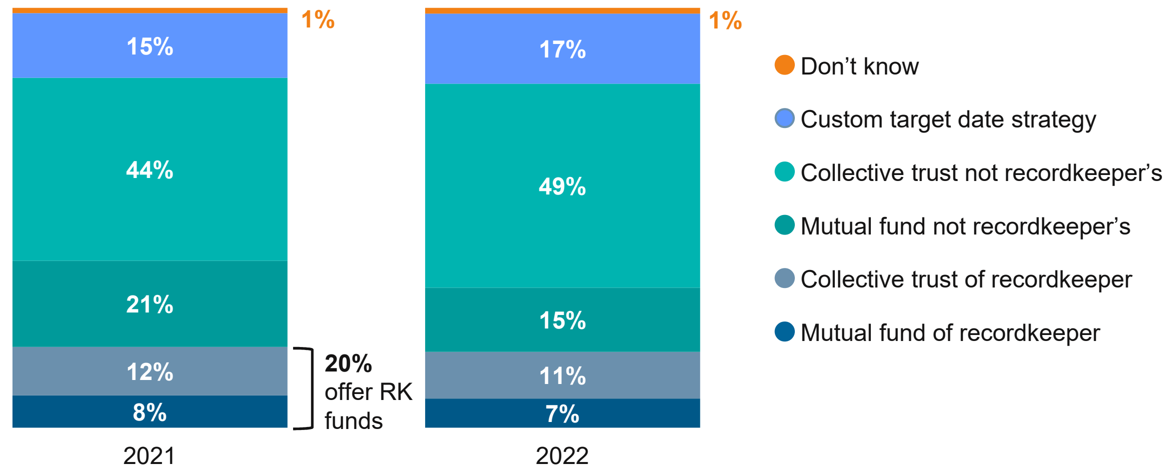
The use of recordkeeper's proprietary target date vehicles in DC plans continues to drop over time.

Only 20% of respondents used their recordkeeper's target date option in 2021, a small decrease from 23% last year, but a sharp drop from 67% from a decade ago. That number is projected to decrease slightly in 2022 to 18%.

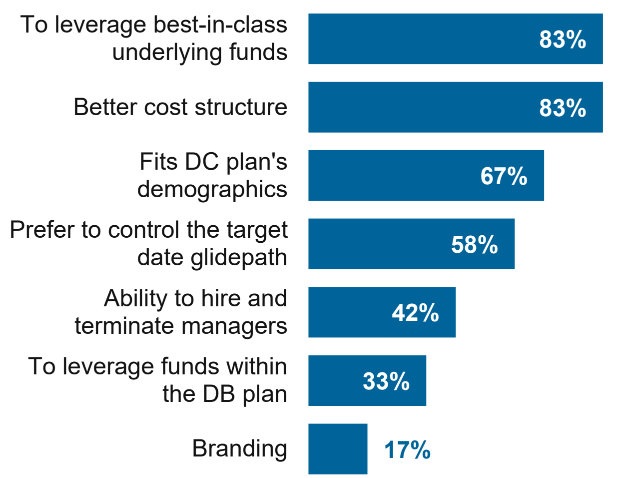
The prevalence of mutual funds for the target date fund is on the decline, as well. In 2010, 67% of plans used a mutual fund for their target date fund compared to 42% in 2020. In a noticeable jump, this went down further in 2021 to 29%. Even less plan to use mutual funds next year (22%).

For those that use custom target date funds, the most common reasons for doing so are to have a better cost structure and to leverage best-in-class underlying funds or to use funds from the core lineup.

Target date fund approach: in place and will be in place

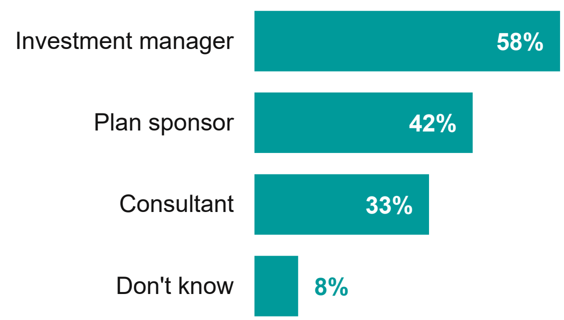


Why custom target date funds are used



*Multiple responses were allowed.

Custom target date fund fiduciary

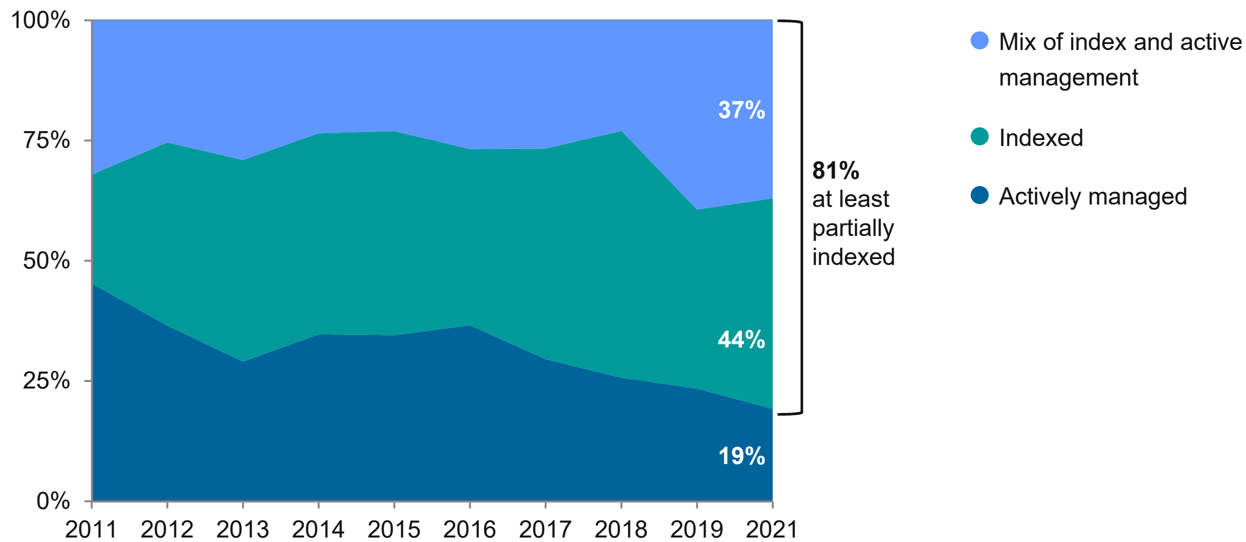


Target Date Fund Landscape

Among those that offer TDFs, over 8 in 10 used an implementation that was at least partially indexed.

The share of active-only strategies continued to be the smallest and is now at its lowest point (19%).

Target date fund investment approach



Target Date Fund Selection

While the order was different, priorities remained the same as previous years. The top three reasons for selecting or retaining target date funds in 2021 were: performance, fees, and portfolio construction.

Criteria for selecting or retaining target date funds

Most important key attributes

2017	2018	2019	2021	Ranking
Portfolio construction	Performance	Portfolio construction	Performance	3.4
Fees	Portfolio construction	Fees	Fees	3.3
Performance	Fees	Performance	Portfolio construction	3.2
Risk	Number, type, and quality of underlying funds	Ability to achieve pre-specified retirement goal	Risk	1.9
Ability to achieve pre-specified retirement goal	Risk	Risk	Number, type, and quality of underlying funds	1.1
Number, type, and quality of underlying funds	Active vs. passive	Active vs. passive	Ability to achieve pre-specified retirement goal	0.9
Active vs. passive	Usage of tactical asset allocation	Number, type, and quality of underlying funds	Active vs. passive	0.7
Usage of tactical asset allocation	Name recognition	Usage of tactical asset allocation	Name recognition	0.1
Name recognition	Whether the funds are proprietary to the recordkeeper	Name recognition	Usage of tactical asset allocation	0.1
Whether the funds are proprietary to the recordkeeper	Ability to achieve pre-specified retirement goal	Whether the funds are proprietary to the recordkeeper	Whether the funds are proprietary to the recordkeeper	0.1

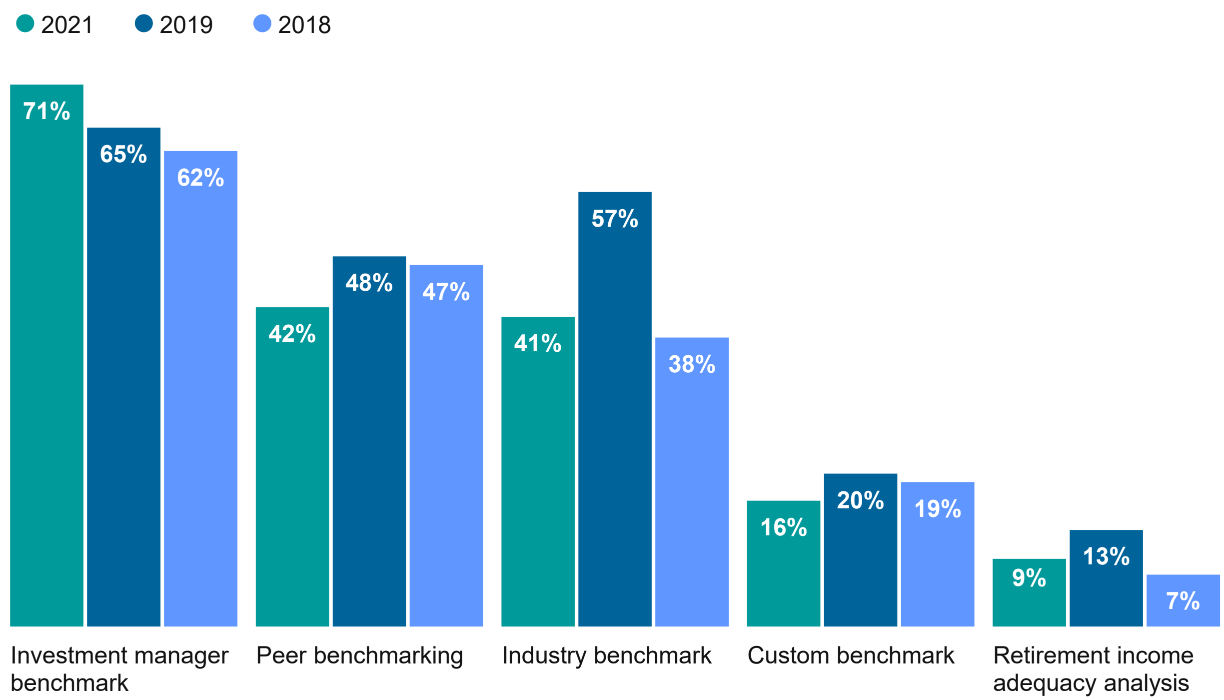
(7=Most important. Total ranking is weighted average score.)

Target Date Fund Benchmarking

Two-thirds of plan sponsors reported using multiple benchmarks to monitor their target date funds, indicating that plan sponsors are taking a more varied approach. No respondents indicated they do not benchmark their TDFs.

Manager benchmarks (71%) continued to be the most common means of measurement and have shown increased acceptance over the past few years. Peer benchmarks as well as industry benchmarks are next most used, at about the same level.

Target date fund benchmarks*



Additional categories (2021 data): Don't know (3%); other (14%).

*Multiple responses were allowed.

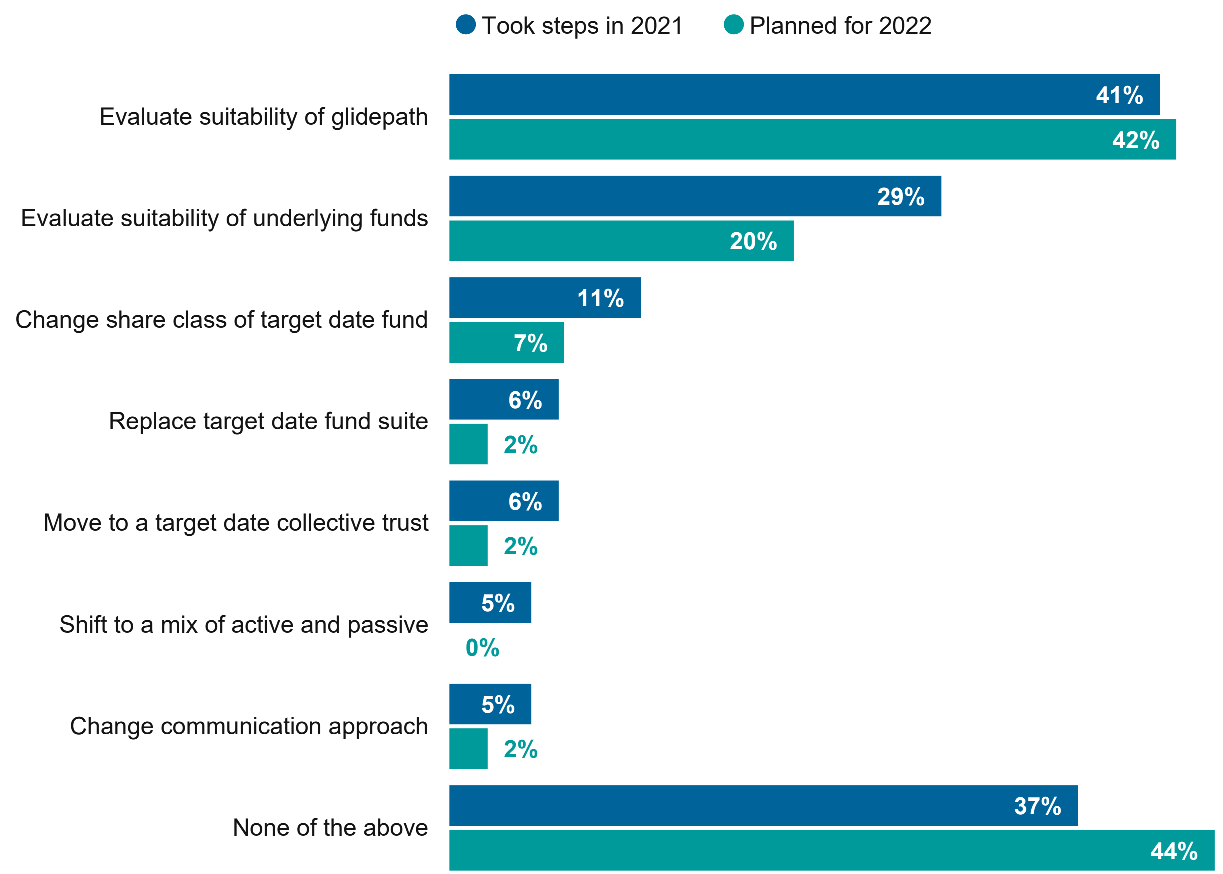
Actions Taken Around Target Date Funds

Over 6 in 10 plans took at least one action around the target date fund in 2021 (63%). The most common were to evaluate the suitability of the glidepath and the suitability of the underlying funds.

A similar percentage of plans aim to evaluate the suitability of the glidepath in 2022. Of respondents that reviewed the glidepath in 2021, 22% also report they would do so in 2022.

Notably, 18% of respondents indicated they were changing the share class of the target date fund in either 2021 or 2022.

Actions taken or planned regarding target date fund suite*



Additional categories with <4% (2021): Replace fund/manager, add target date fund suite, shift to all passive, move to dynamic QDIA, eliminate target date fund.

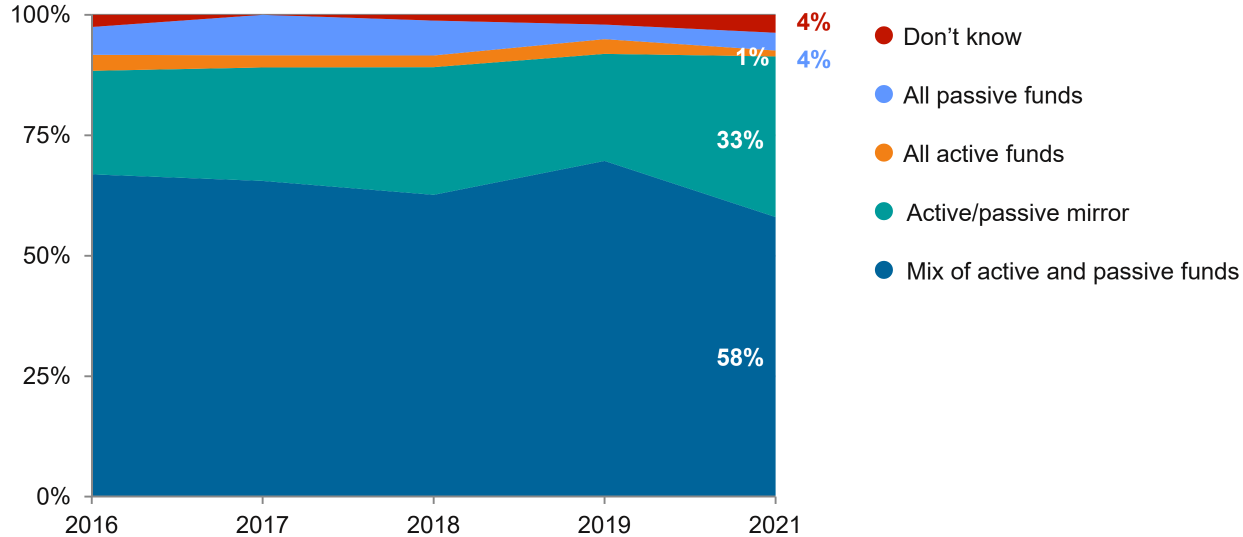
*Multiple responses allowed.

Investment Menu

The vast majority of DC plans had a mix of active and passive investment funds (91%). Purely active (1%) or passive (4%) remains a rarity.

Over the past two years, there was a notable increase in those offering an active/passive mirror vs. those offering a mix of active and passive funds. A mirrored lineup is when virtually all core funds are represented by both active and passive versions.

Investment menu approach



Investment Menu Structure

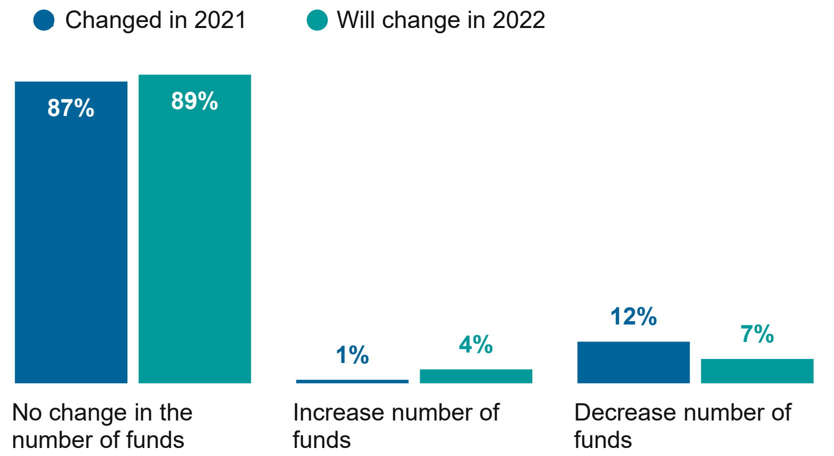
Most plan sponsors did not change the quantity or style of the funds offered last year, nor do they expect to in 2022.

Only 13% of plan sponsors reported making changes to the number of funds in 2021. Even fewer sponsors indicated they are planning a change next year—11% of all respondents. Of those that made changes or are planning to make changes, the more common action was to decrease the number of funds.

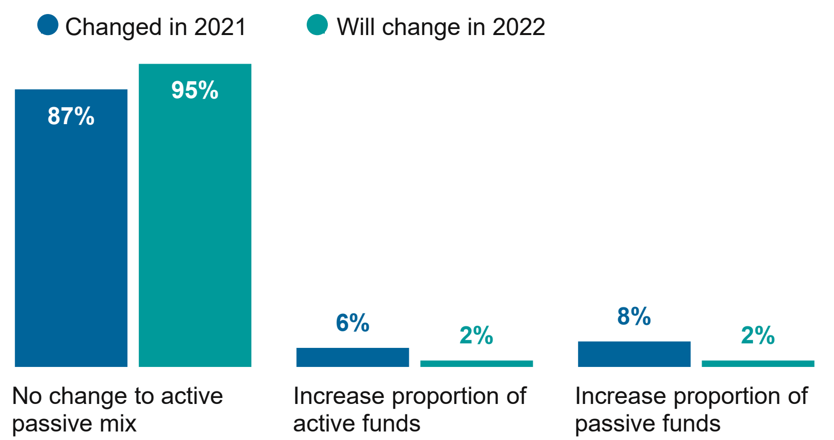
Similarly, most plan sponsors did not change the proportion of active versus passive funds in their plan in 2021. Even fewer sponsors indicate they are planning a change next year—5% of all respondents. For those that made a change in 2021, slightly more increased the proportion of passive funds (8%) than active funds (6%).

Fewer than **2 in 10** plan sponsors are **planning some change to the investment structure** in 2022.

Investment structure change in fund quantity



Investment structure change in fund style



Investment Menu Structure (continued)

Of those that added funds in 2021, adding a brokerage window was the most common action (21%). Additions of global equity and global ex-U.S. fixed income were next. While none added DEI or ESG funds in 2021, 7% (each) expect to in 2022.

Balanced and global ex-U.S. equity were the most commonly eliminated funds in 2021 while a wide array of strategies will likely be eliminated in 2022.

Types of funds added or eliminated*

	Added/will add		Eliminated/will eliminate	
	In 2021	In 2022	In 2021	In 2022
Alternatives			7%	7%
Brokerage window	21%			
Commodity			7%	
Company stock				7%
DEI**		7%		
ESG***		7%		
Emerging mkt equity			7%	7%
Global equity	14%		7%	7%
Global ex-U.S. equity	7%		21%	7%
Global ex-U.S. fixed	14%		7%	
Growth/value equity	7%			
High yield fixed		7%	14%	7%
Money market			7%	7%
Real return/real assets		7%		7%
REITs			7%	7%
Specialty/sector			7%	
Stable value	7%	7%		
Target date			7%	
TIPS		7%	7%	
U.S. fixed income			7%	7%
U.S. large cap equity			7%	7%
U.S. smid cap equity	7%		7%	
U.S./global balanced			36%	7%

**Diversity, equity, inclusion. ***Environmental, social, and governance.

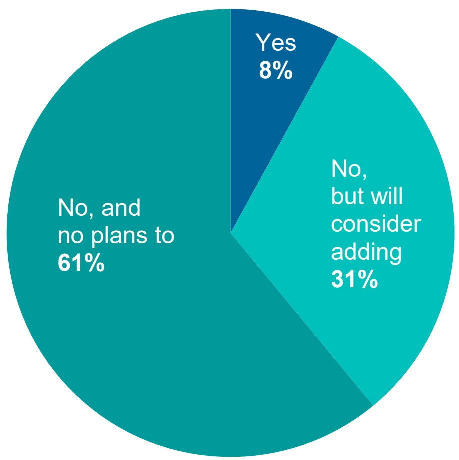
*Percentages out of those that made a change.

Multiple responses allowed.

ESG in DC Plans

Most plans (9 in 10) do not offer an ESG fund. While that's the case, about a third will at least consider adding an ESG option in the future. This was a newly added question for the *2022 DC Survey*.

Plans that offer an environmental, social, governance (ESG) fund



Types of Investment Vehicles

Mutual funds (85%) and collective trusts (78%) continued to be the most prevalent investment vehicles. Plans were less likely to use collective trusts for stable value funds (35%) than non-stable value options (65%).

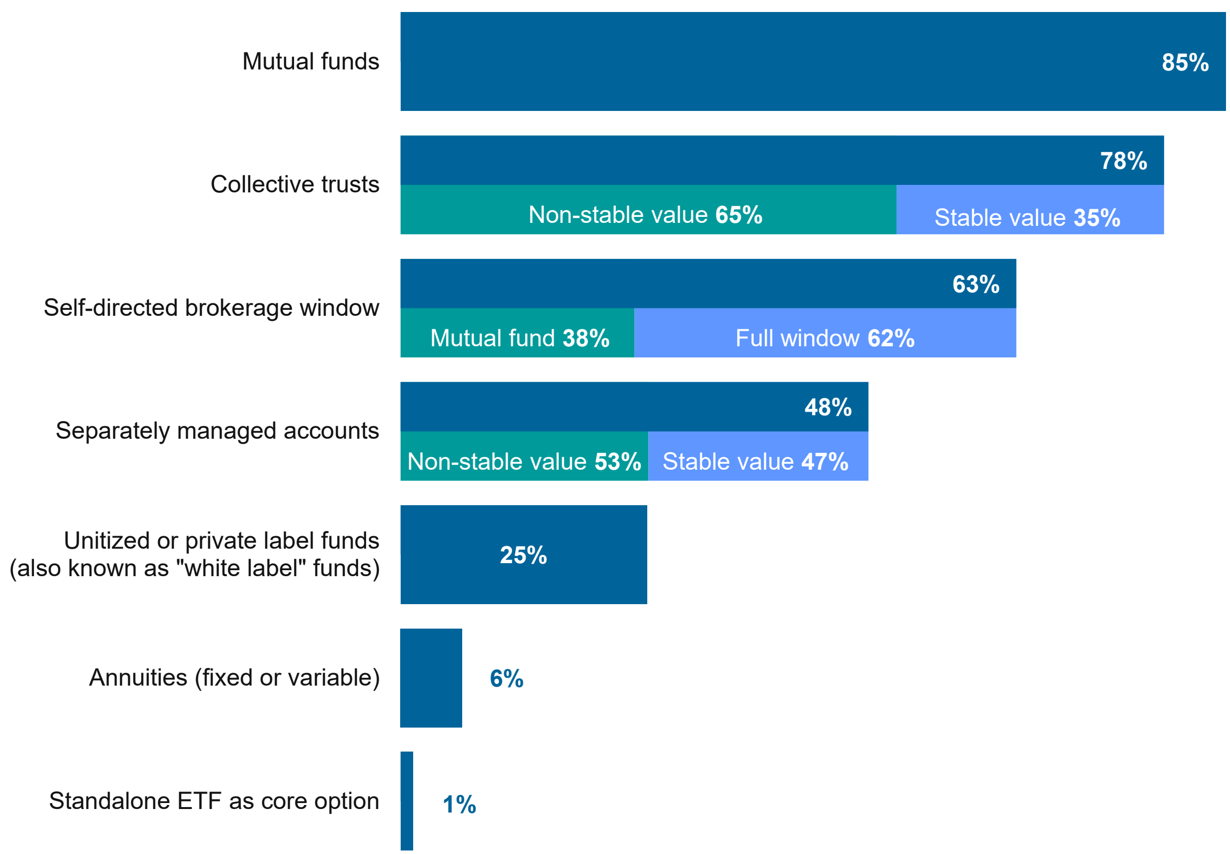
Over the past decade, the use of mutual funds fell by about 10 percentage points while the use of collective trusts rose by about 35 percentage points. Separate account use was also up by nearly 10 percentage points.

About a quarter of plans used unitized funds in 2021. All of the plans that used unitized funds had over $1 billion in assets. Of those, 10% had between $1 and $5 billion and the remaining 90% had over $5 billion in plan assets.

2011 Investment Types

Mutual funds	**95%**
Collective trusts	**44%**
Separately managed accounts	**40%**

Investment types within the fund lineup*



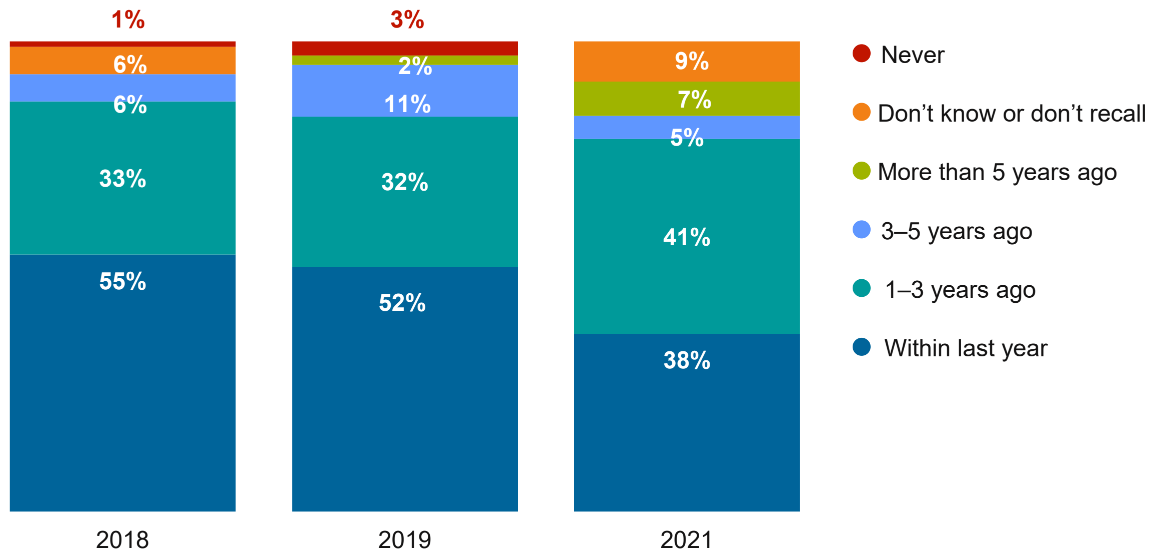
*Multiple responses allowed. Some respondents offer multiple asset classes in each vehicle type (e.g., both stable value and another asset class are offered as a collective trust and/or separate account).

Investment Structure Evaluation and Mapping

In a drop off from past years, only 38% of plan sponsors conducted an investment structure evaluation within the past year, while 79% have done so within the past three years.

A surprising 9% don't know the last time an investment structure evaluation was conducted.

Timing of investment structure evaluation

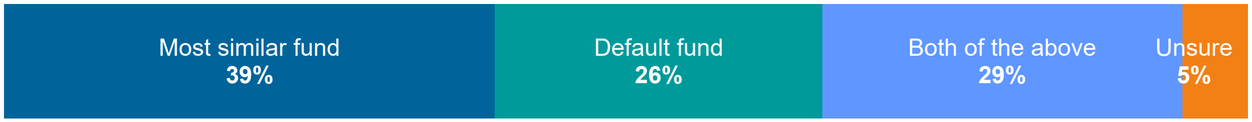


39% of plans mapped assets in eliminated funds to similar funds

26% mapped to the default fund

29% mapped to both

Assets mapped from eliminated funds



Investment Criteria

As we often see, investment performance stood as the top-ranking criteria for evaluating and selecting investment funds. Filling a gap tied with cost and fees as the second most-important criteria.

Participant request and brand name continue to be low-ranking attributes in the evaluation and selection of investment funds.

Fund evaluation and selection criteria

Most important

	Ranking
Investment performance	3.8
Fills style or strategy gap	3.1
Cost and fees	3.1
Investment management team stability	2.3
Style consistency	1.5
Ease of integration with recordkeeping system	0.4
Quality of service to plan sponsor	0.4
Participant communication and educational support	0.2
Leverages existing DB managers	0.1
Brand name / market image	0.1
Participant request	0.1

Least Important

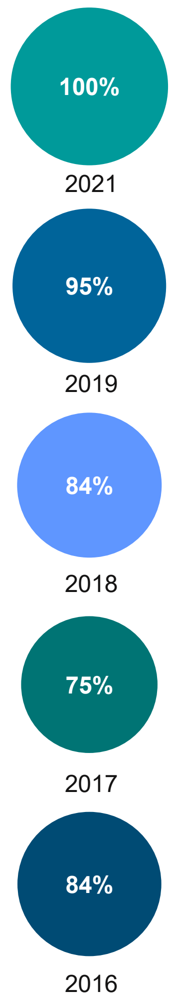
(5=Most important. Total ranking is weighted average score.)

Advisory Services: Prevalence

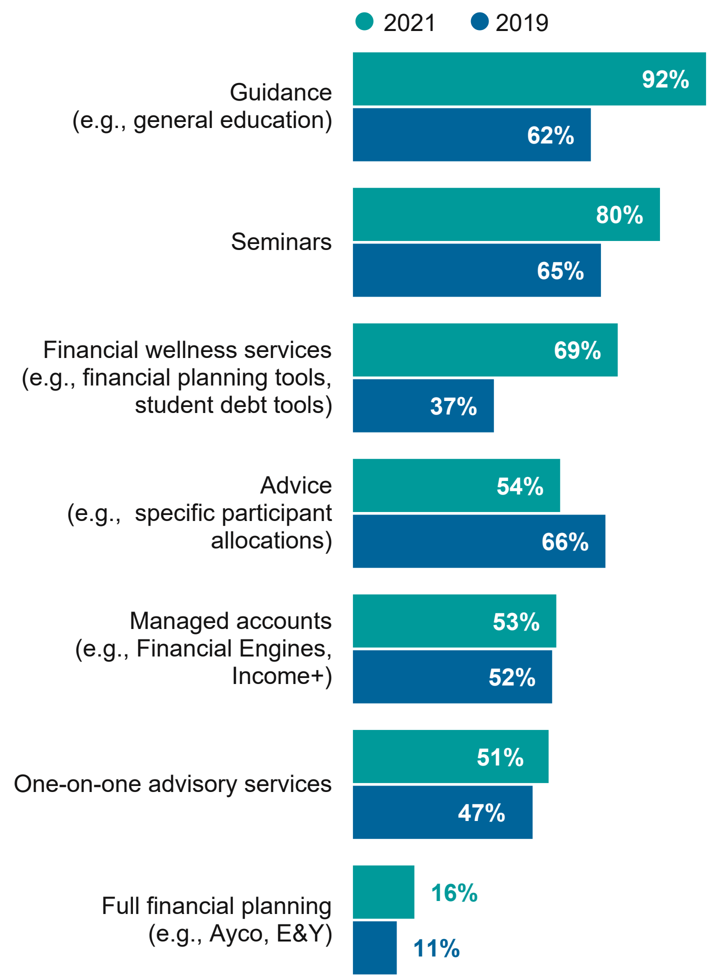
Up notably in recent years, all DC plan sponsors offered some form of investment guidance or advisory service to participants.

Nearly all respondents offered general guidance (92%), while a further 80% offered seminars, and 69% offered some financial wellness tools. All categories of guidance increased in frequency compared to last year with the exception of investment advice, which reduced slightly from 66% to 54%.

Plans offering advisory services



Type of service offered*



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

Advisory Services: Enrollment and Payment

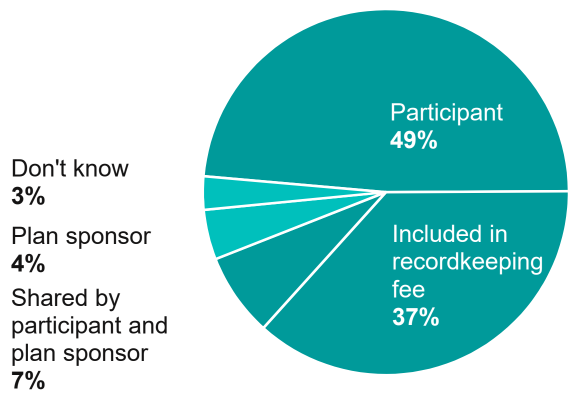
It remained most common for participants to pay for advisory services, either explicitly or as part of the overall recordkeeping costs.

The percentage of plan sponsors that paid the full expense of investment advisory services came in at only 4%, continuing a multi-year trend lower.

For plan sponsors that offered managed accounts, the vast majority (90%) offered them as an opt-in feature whereby participants must elect to use the feature.

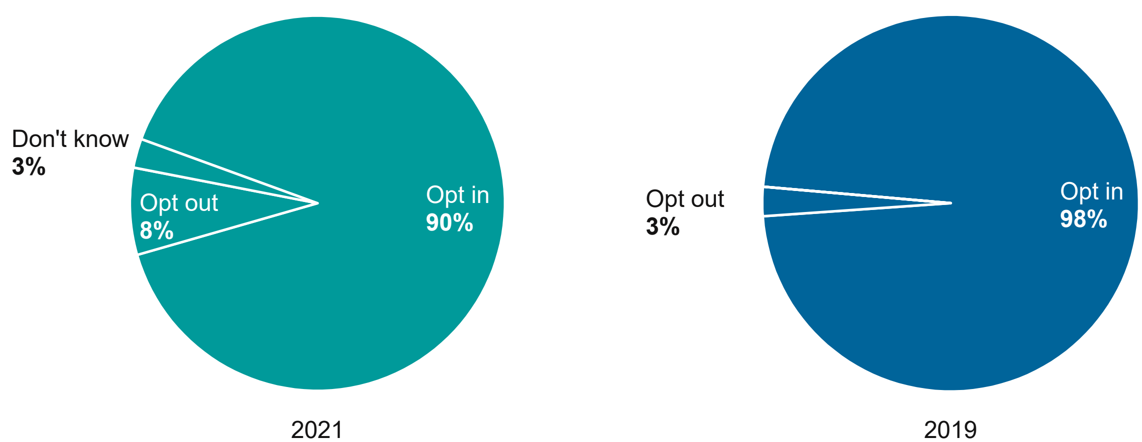
By comparison, few plans enrolled participants on an opt-out basis (8%), although this is up from 3% in 2019. Plan sponsors cited the associated fees as the top reason for not offering opt-out enrollment.

Who pays for advisory services?



93%
At least partially paid by participant

How are participants enrolled in managed accounts?



Managed Accounts and Advice – Fiduciary Relationship

There are two basic types of fiduciary arrangements for managed account services and advice providers: sub-advised and direct.

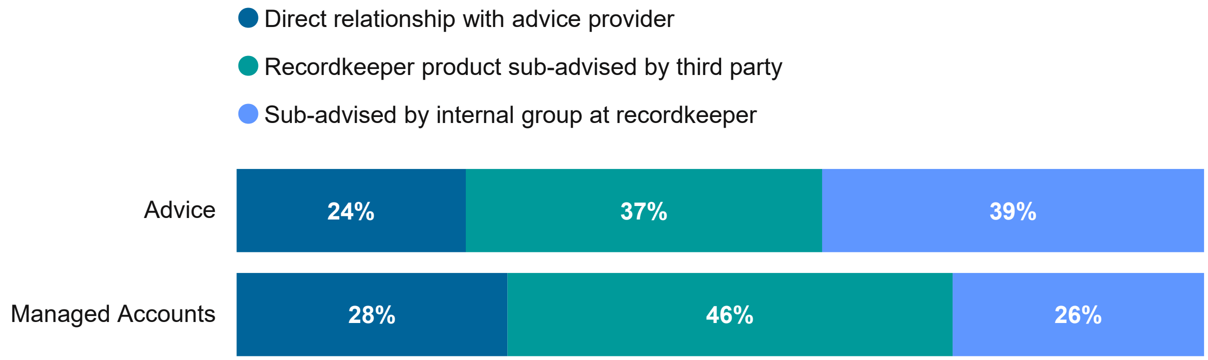
Sub-Advised Relationship
The recordkeeper (or an affiliate) is the adviser and fiduciary; the advice provider serves as a sub-adviser. The communications and call center are supported by the recordkeeper. The recordkeeper sets the fees and pays the advice provider a sub-advisory fee, if applicable.

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

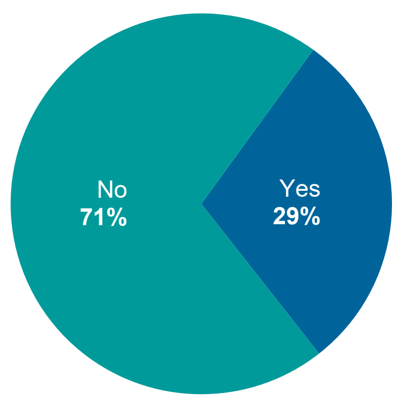
Managed accounts services are most commonly offered through a recordkeeper product sub-advised by a third party (46%), with similar rates for managed accounts powered internally (26%) or through a direct relationship (28%).

A majority of respondents offering managed account services (71%) did not benchmark the outcomes of the services.

Fiduciary relationship of managed accounts services or advice*



Performance of managed accounts services is benchmarked



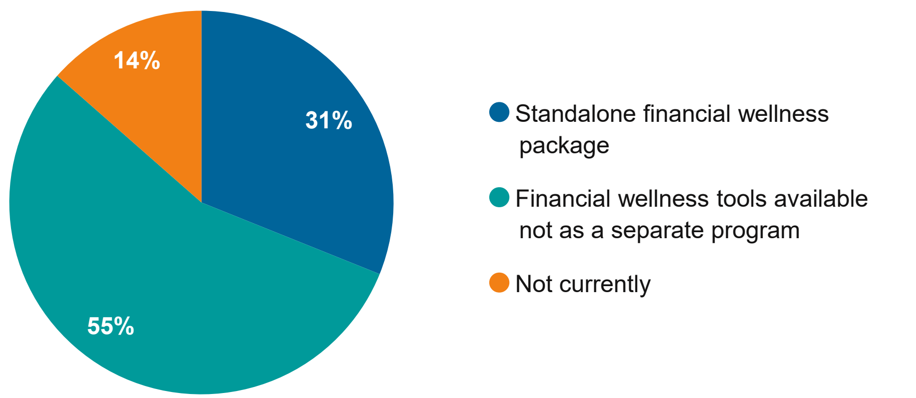
*Managed account products include an advice component.

Financial Wellness

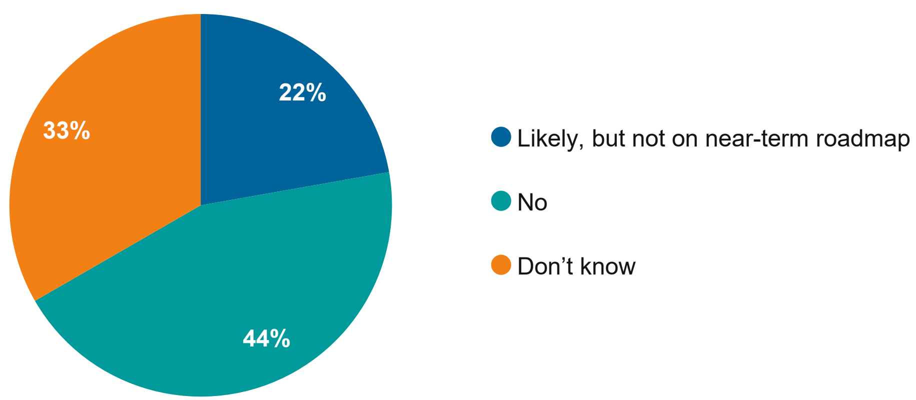
Financial wellness has been a topic of interest for several years, yet most employers do not have a formal standalone financial wellness program. Instead, most respondents (55%) provided financial wellness tools in conjunction with other benefits (e.g., retirement or health and welfare benefits). Only 14% did not offer any financial wellness tools, a figure that continues to decline as these programs become more common.

86% of employers offered financial wellness support. Of those employers that did not offer any financial wellness programs, 22% indicate they may do so in the near future.

Financial wellness program availability



Plans to create a financial wellness program for employees*



*Percentages out of those without a program in place.

Satisfaction with Advisory Services

Satisfaction with investment advisory services was generally high. Full financial planning, one-on-one advisory services, and advice received the highest overall marks, with 100% of respondents very or somewhat satisfied. Guidance also ranked highly, at 97%.

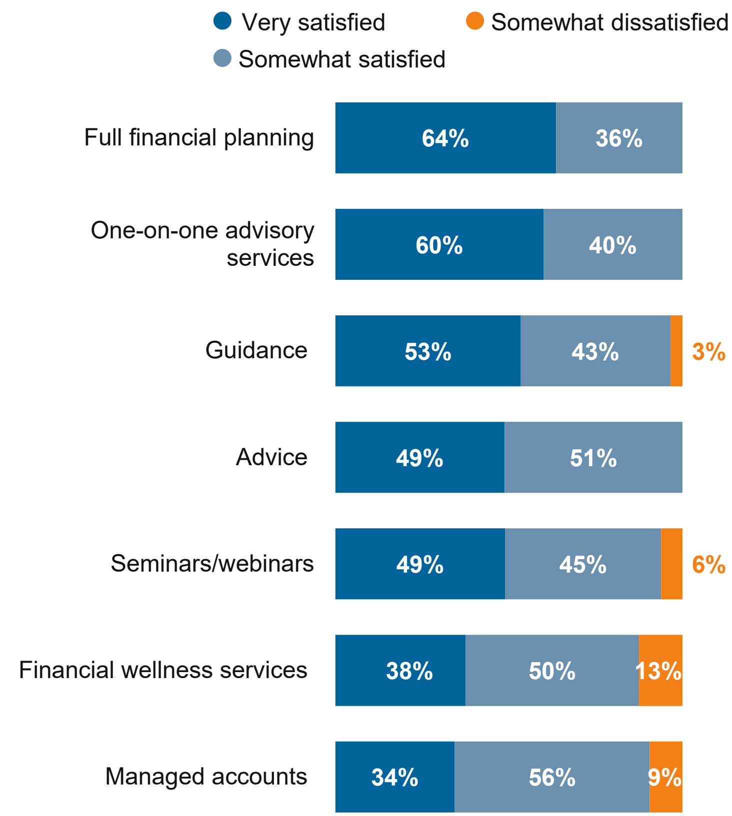
The service with the largest percentage of dissatisfied respondents was financial wellness services, with 13% of respondents reporting being somewhat dissatisfied. While that is the case, no respondents selected very dissatisfied for any of the services.

In the coming year, for sponsors that plan to add advisory services of some kind, financial wellness (50%), advice (30%), managed accounts (20%), and full financial planning (20%) are the most likely to be added.

Few plan sponsors are likely to eliminate investment advisory services—only one respondent noted this expected action.

Types of advisory services expected to be added in 2022*

Satisfaction ratings advisory service



*Percentages out of those planning to add. Multiple responses allowed.

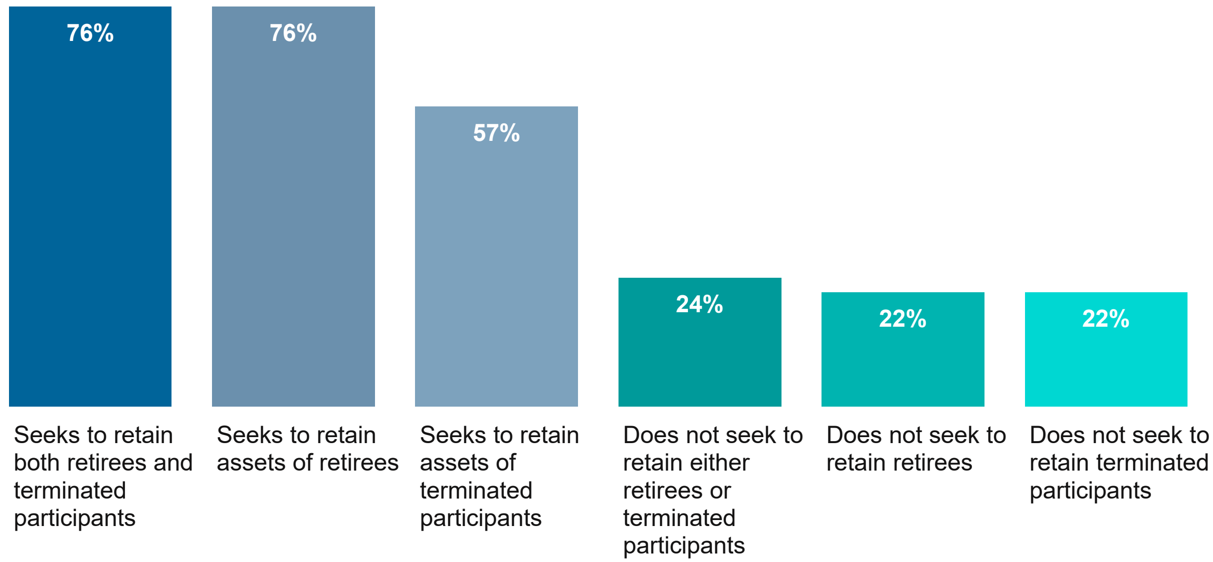
Post-Employment Assets

More than three-quarters of plan sponsors with a defined strategy around this issue sought to retain the assets of both retiree and terminated participants, a notable increase from 2015 (44%). The same share sought to retain retiree assets. Fewer (nearly 6 in 10) sought to retain terminated participant assets.

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

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

Strategies to retain retiree / terminated assets*



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

Plan Leakage

Most plan sponsors (86%) took steps to prevent plan leakage. Actions included offering partial distributions (66%) and installment payments (57%). These types of distribution options can help prevent plan leakage since the participant is not forced to take a total distribution.

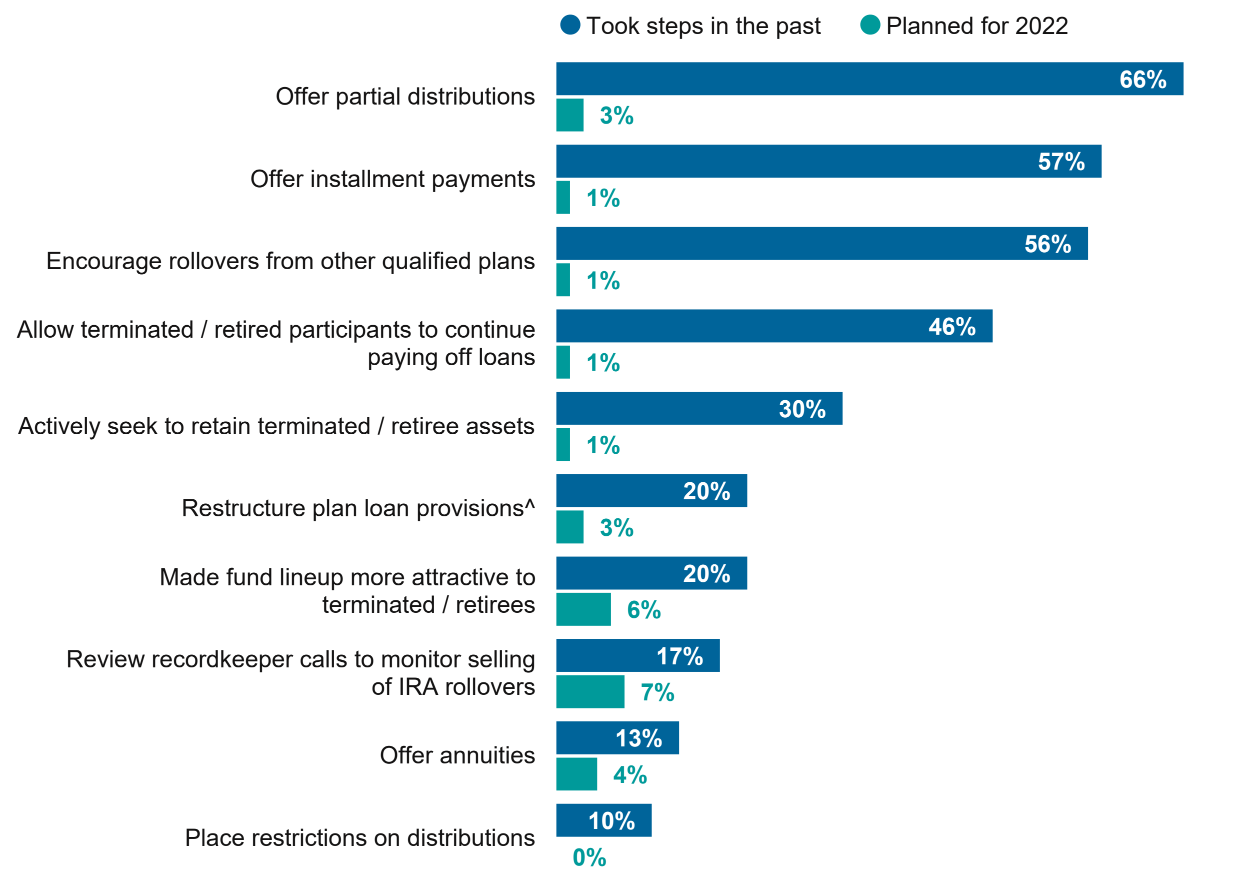
Another common action was to encourage rollovers into the plan (56%). Slightly fewer than half of survey respondents allowed terminated participants to continue repaying their DC plan loans.

Only 20% of respondents anticipated taking additional steps to prevent plan leakage in 2022—most notably, to review recordkeeper calls and to make the fund lineup more attractive to retirees.

Nearly 9 in 10 plan sponsors have taken steps to **prevent plan leakage.**

These plan sponsors reported taking an **average of 4 actions** to reduce leakage.

Steps taken to prevent plan leakage*



*Multiple responses allowed.

^e.g., reduce number of loans allowed, change loan frequency.

Retirement Income Solutions

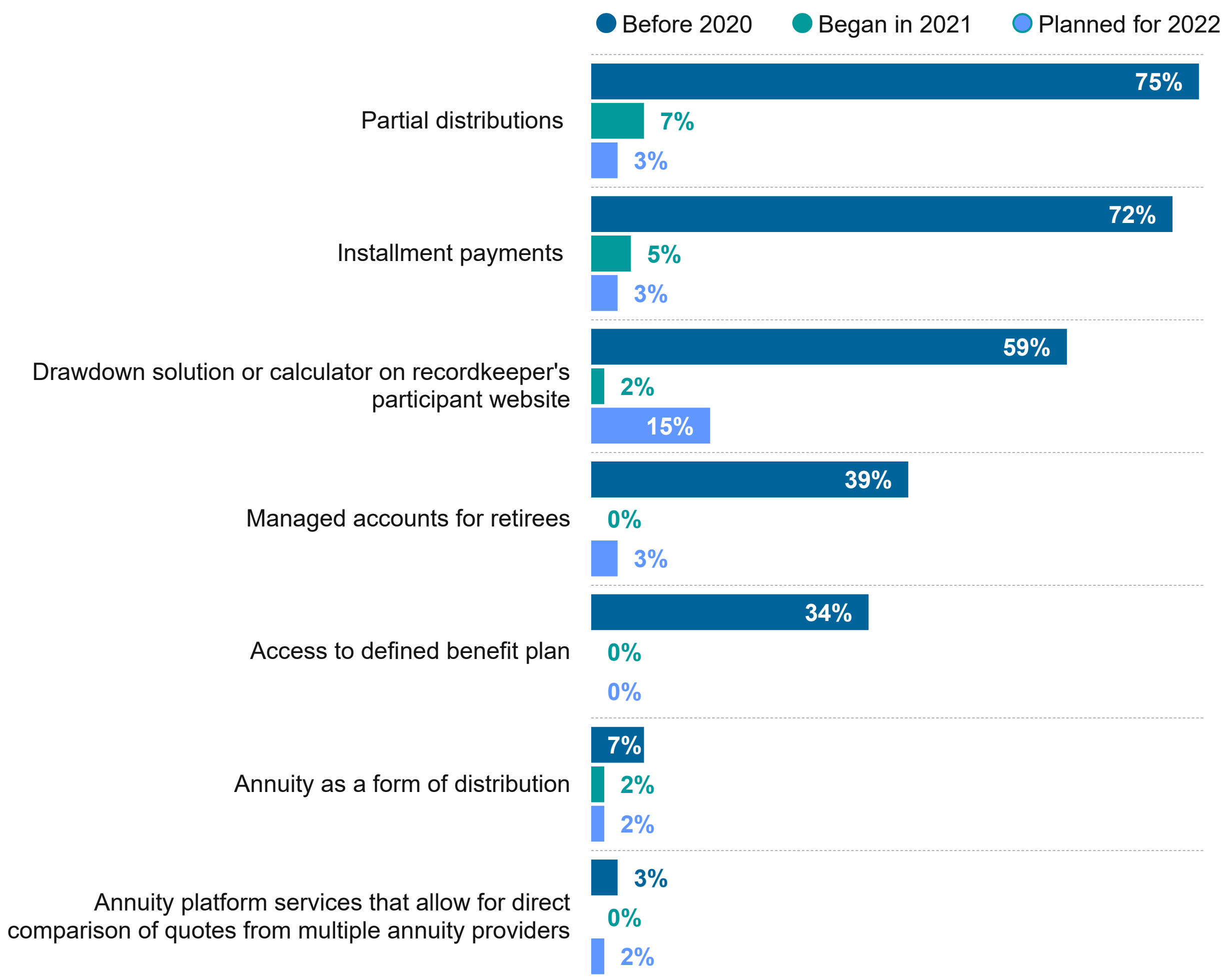
Over three-quarters of plans (85%) offered some sort of retirement income solution to employees by 2021. Partial distributions (82%) and installment payments (77%) were the most common solutions. Providing access to a drawdown solution or managed account service were the next two most common.

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

No plan sponsors offer qualified longevity annuity contracts (QLACs) or longevity insurance in their plans despite a 2014 Treasury Department ruling making it easier to do so.

85% of plan sponsors offer a **retirement income solution.**

Retirement income solutions offered*



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

Solutions offered in 2020 but not in 2021 and not planned in 2022: target date fund with an annuity (2%); in-plan guaranteed minimum withdrawal benefit product (2%)

Reasons for Not Offering Annuities

Plan sponsors cited a number of reasons to explain why they are unlikely to offer an annuity-type product in the near term.

Plan sponsors reported a lack of participant need/demand, being uncomfortable or unclear about the fiduciary implications, and that offering an annuity-type product is unnecessary or not a priority. Respondents also noted the difficulty in communicating this type of product to participants as part of the reason not to offer these products.

Reasons for not offering an annuity-type product

Most important → Least Important

	Ranking
No participant need or demand	2.9
Uncomfortable/unclear about fiduciary implications	2.7
Unnecessary or not a priority	2.5
Difficult to communicate to participants	2.1
Products are not portable	1.8
Too costly to plan sponsor/participants	1.7
Concerned about insurer risk	1.5
Availability of DB plan	1.4
Lack of product knowledge	1.3
Too administratively complex	1.1
Uncomfortable with available products	1.0
Recordkeeper will not support this product	0.7

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

Fee Calculation

All-in fees can encompass a variety of expenses, including administration, participant transaction fees, compliance, custody, communications (e.g., print and distribution), indirect sources of revenue, and more.

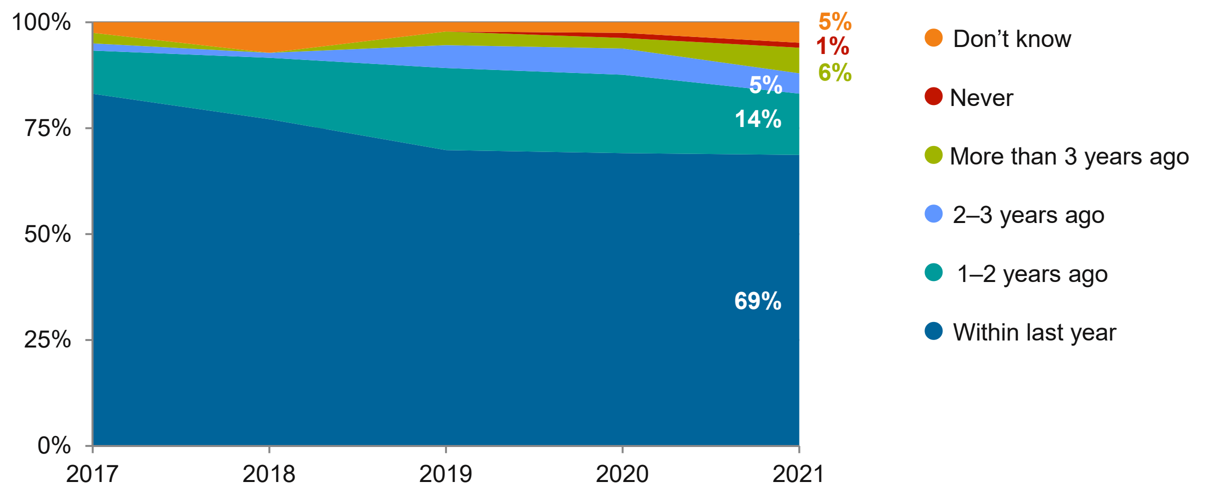
Nearly **7 in 10** plan sponsors calculated their all-in DC plan fees within the past 12 months. Another 14% did so in the past one to two years. Only 5% were unsure of the last time all-in fees were calculated.

When calculating all-in fees, 4 in 10 plan sponsors evaluated indirect revenue (e.g., revenue shared with the recordkeeper generated from sources such as managed accounts, brokerage windows, or rollovers of DC plan balances into an individual retirement account). Fewer plans (17%) did not evaluate indirect revenue, and a larger proportion (43%) did not know whether their all-in fee calculation involved an evaluation of indirect revenue.

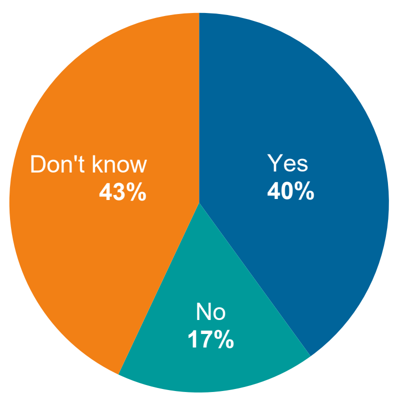
6 in 10 respondents are somewhat or very **likely to evaluate indirect revenue** in 2022.

.

Last time all-in plan fees were calculated*



Evaluated indirect revenue when calculating all-in fees



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

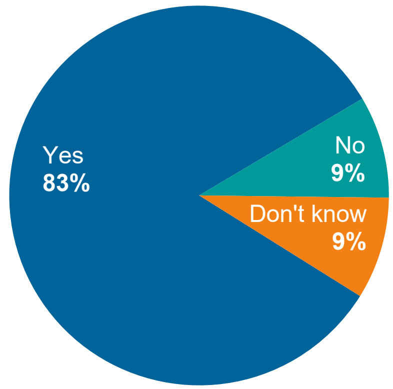
Fee Benchmarking

More than 8 in 10 plan sponsors benchmarked the level of plan fees as part of their fee evaluation process, down slightly from 2019 (89%). The percentage of plan sponsors that did not know whether plan fee levels were benchmarked (9%) increased slightly from 6% in 2019.

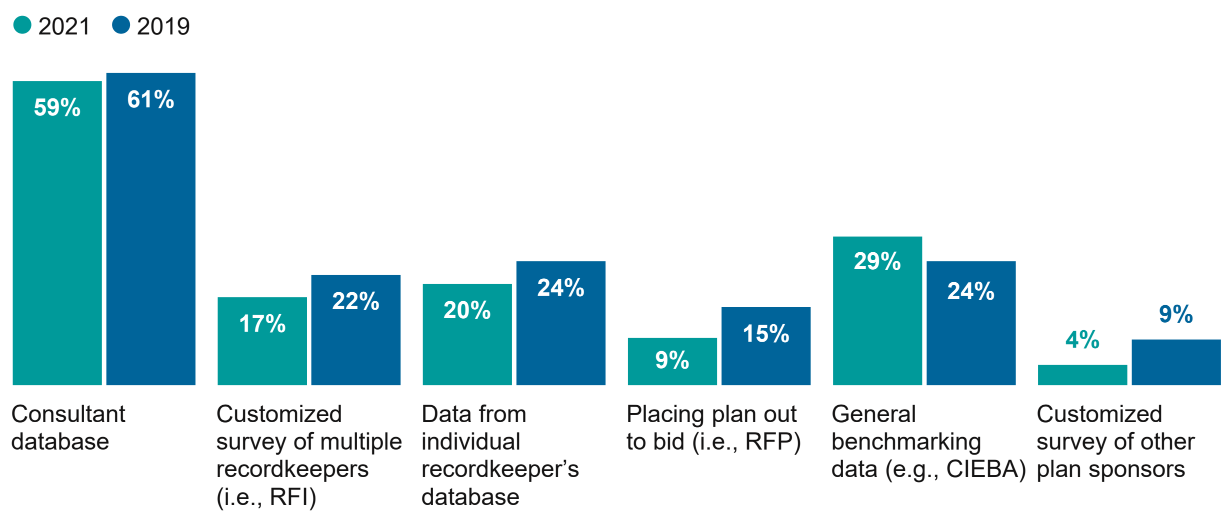
Plan sponsors tend to use multiple data sources in benchmarking their fees. Consultant databases (59%) were the most commonly used method, consistent with 2019. General benchmarking data (29%), data from the recordkeeper (20%), and RFIs (17%) were the next most frequently cited benchmarking practices.

58% both **calculated and benchmarked** plan fees within the past 12 months

Fees were benchmarked when calculating



How benchmarking was done*



*Multiple responses were allowed.

Fee Calculation and Benchmarking Outcomes

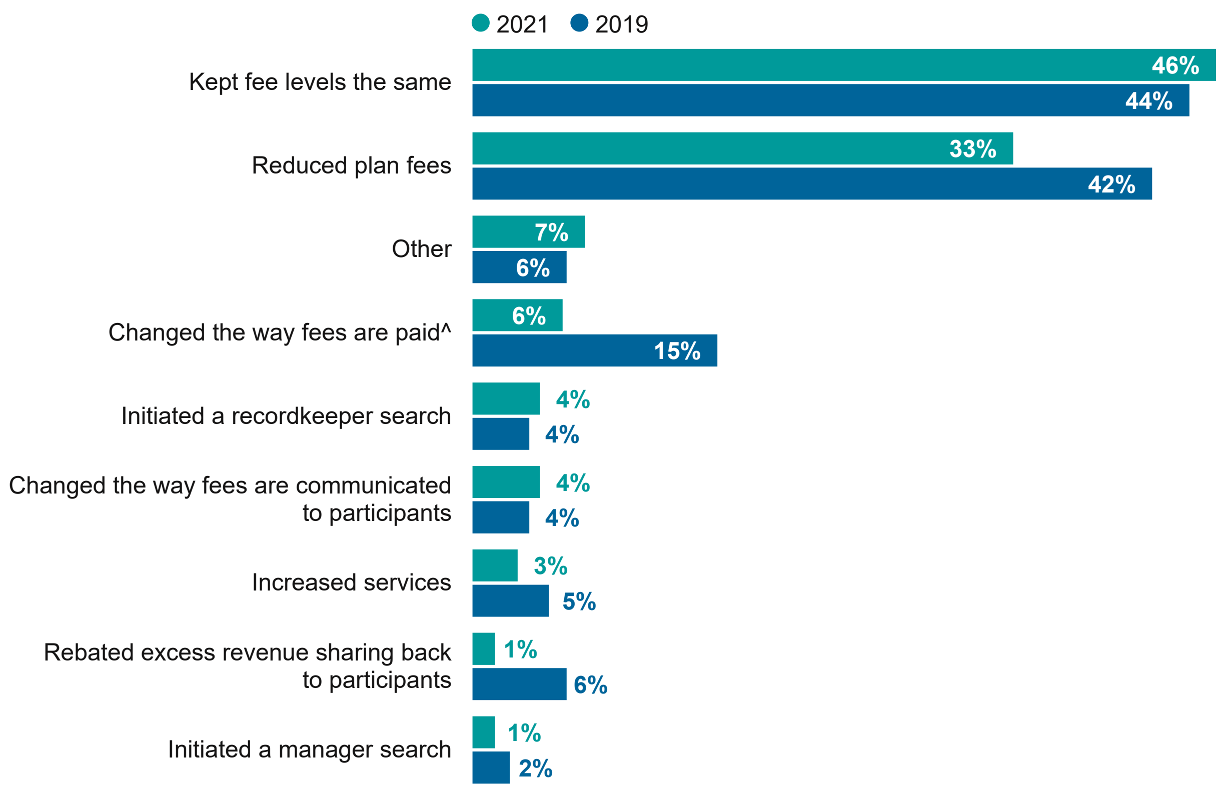
Fewer than half of plan sponsors kept fees the same following their most recent fee review, while one-third reduced fees.

After reducing fees, the next most prevalent action resulting from a fee assessment in 2021 was changing the way fees were paid (6%). This marked a material reduction from 2019 (15%)—potentially reflecting the fact that many plan sponsors have already changed their fee payment model.

Few plan sponsors have initiated a recordkeeper search (4%) or changed the way fees are communicated to participants (4%) as a result of their fee review.

Of those selecting "Other," one respondent was in the process of evaluating plan fees but indicated that increased services were a likely result. The majority of the others were still in process with their assessment and had not yet determined a probable outcome.

Outcome of fee analysis*



Additional categories (2019/2021): Don't know (2%/8%); implemented an ERISA-type account (0%/0%).

^e.g., change from use of revenue sharing to an explicit participant fee

*Multiple responses were allowed.

Fee Payment

Investment management fees were most often paid entirely by participants (85%), and almost always at least partially paid by participants (92%). By contrast, 58% of all administrative fees were paid entirely by participants, up slightly from last year (49%). Most plan sponsors (79%) noted that at least some administrative fees were paid for by participants.

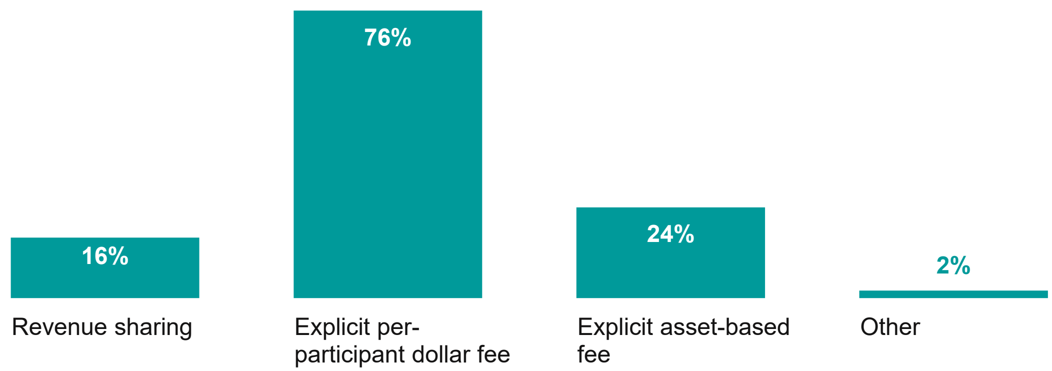
More than three-quarters of plan sponsors reported using a per-participant fee for plan administration. Flat, per-participant fees continued to be more prevalent than asset-based fees that fluctuate based on account balances (76% vs. 24%, respectively).

88% of respondents were somewhat or very **unlikely to change the way fees are paid** (e.g., move from asset-based to flat, per-participant fee) in 2022.

How investment management fees are paid

How administrative fees are paid

How participants pay for plan administration*



*Multiple responses allowed.

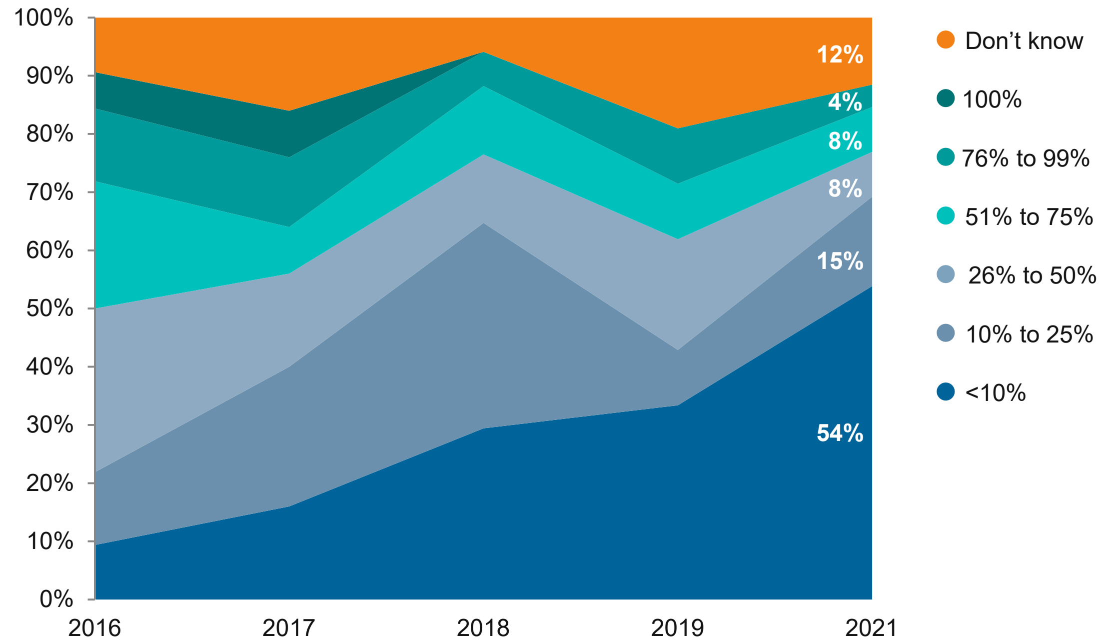
Revenue Sharing

Of plans with revenue sharing (or some kind of administrative allocation back from the investment fund), none reported that all of the funds in the plan provided revenue sharing, consistent with 2019.

The most common was to have fewer than 10% of funds paying revenue sharing (54%). This represents a trend that has continued over time, as the percentage of plans with fewer than 10% of funds with revenue sharing has increased each year since 2016 (9%).

Plan sponsors that did not know the percentage of the funds in the plan that had revenue sharing decreased from 19% in 2019 to 12% in 2021.

Percentage of funds that have revenue sharing



Forfeiture and ERISA Accounts

About two-thirds of plan sponsors had either a forfeiture account (45%), an ERISA account (4%), or both (18%).

Notably, 16% of respondents did not know whether they offered a forfeiture account or an ERISA account.

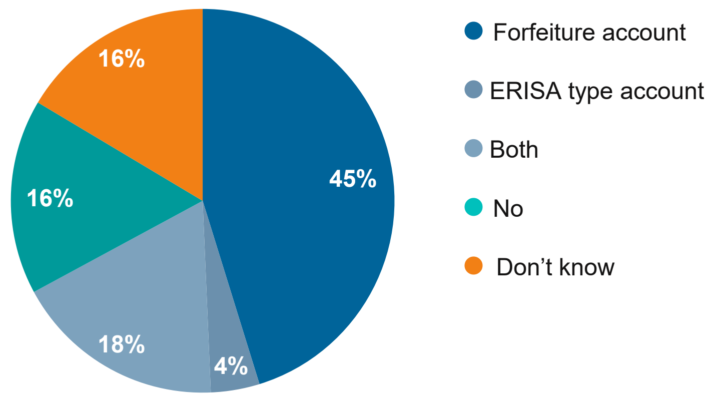
Auditing and consulting fees were the most commonly paid expenses through the forfeiture and/or ERISA account(s).

Notably, more plan sponsors used assets in the forfeiture and/or ERISA account(s) to pay for legal and communication expenses (46% for both in 2021 compared to 35% for both in 2019).

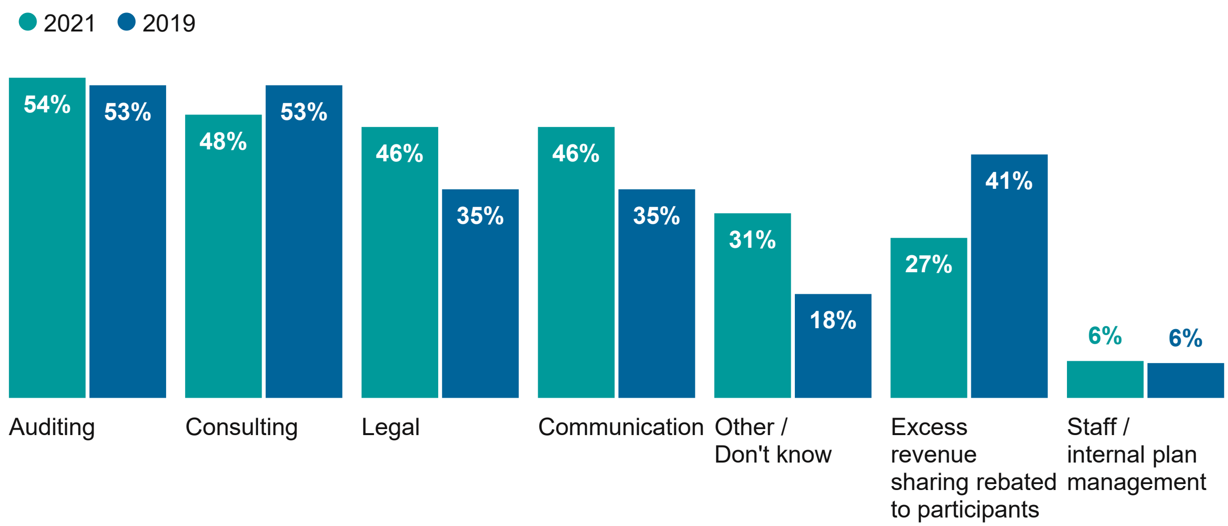
On the other hand, a smaller share of plan sponsors used assets in the account(s) to rebate excess revenue sharing to participants (27% in 2021 compared to 41% in 2019).

Among respondents selecting "Other," the most common usage of forfeiture and/or ERISA account assets was to offset employer contributions.

Have a forfeiture account and/or ERISA type account



Expenses paid through the forfeiture/ERISA account*



*Multiple responses were allowed.

2022 Fee Initiatives

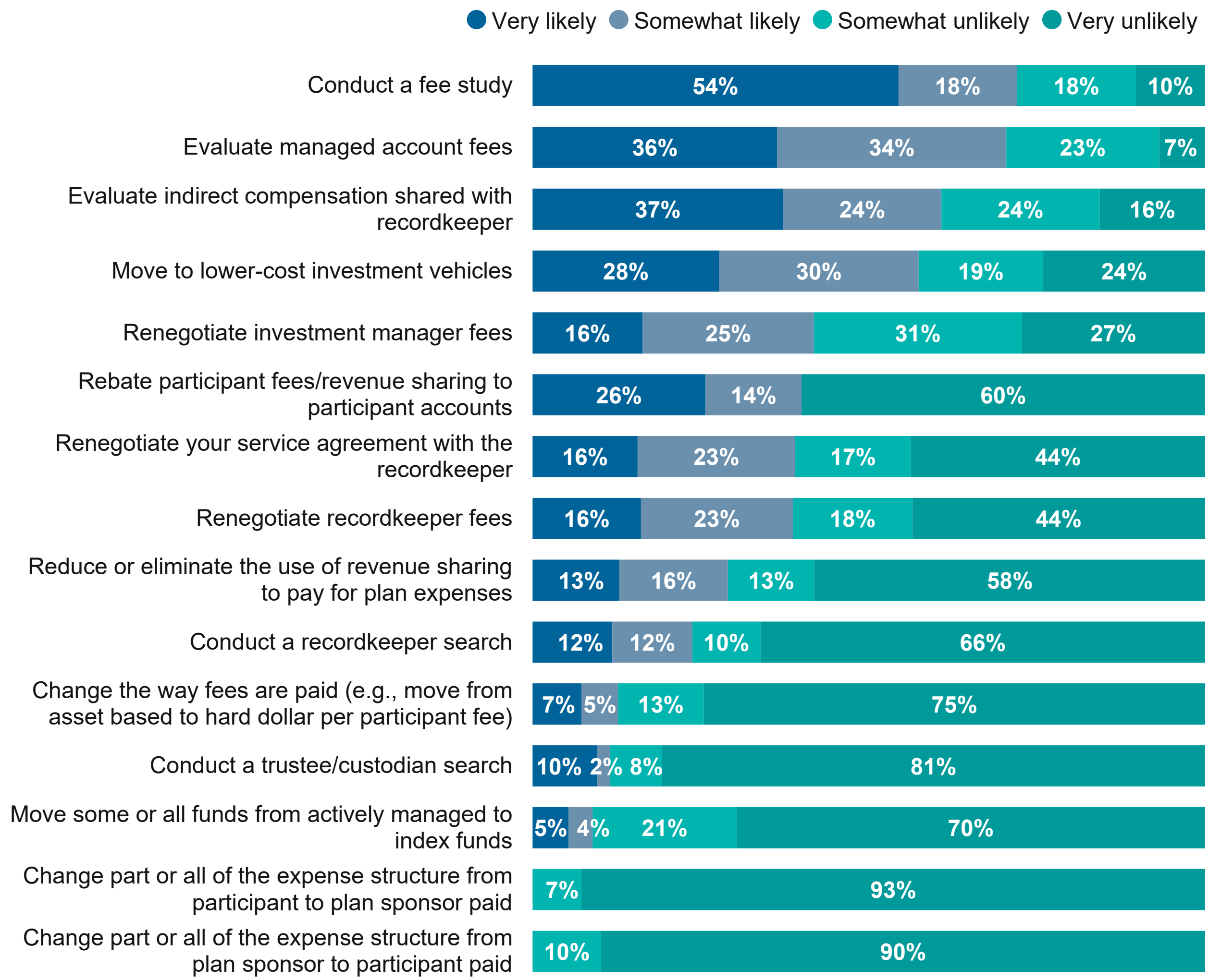
Nearly three-quarters of plan sponsors are either somewhat or very likely to conduct a fee study in 2022 (72%), consistent with the prior year's DC survey (71%). Most respondents also indicated they are very or somewhat likely to review other fee types (e.g., managed account services fees) and indirect revenue.

Nearly one quarter of plan sponsors (24%) reported exploring a recordkeeper search in the coming year, an increase from last year (14%).

Nearly 6 in 10 respondents are likely to move to lower-cost investment vehicles (e.g., move from an R6 share class to a collective investment trust) in 2022.

Other somewhat or very likely actions include renegotiating investment manager fees (41%), renegotiating the service agreement with the recordkeeper (39%), and renegotiating recordkeeper fees (39%).

Fee initiatives planned for 2022



Participant Communication

Retirement readiness and increasing savings rates tied as the top areas of focus for plan communications—both were also in the top three last year. Financial wellness came in third.

While plan sponsors were heavily focused on managing plan fees, they were not as focused on communicating them, according to their lower ranking.

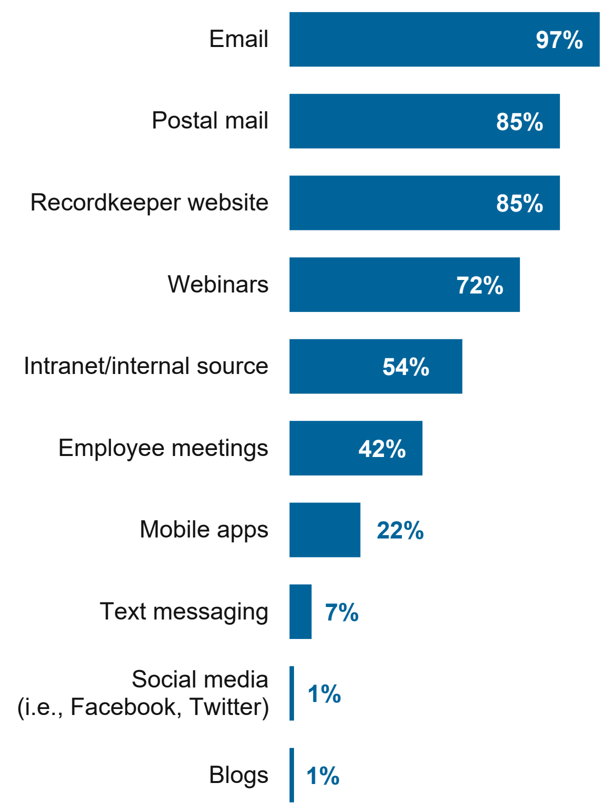
In terms of media channels, email continued to be the most used channel, with 97% of plan sponsors using it. The recordkeeper's website and postal mail came in second, at 85%. Mobile apps saw a notable reduction in prevalence to 22%, while webinars remained popular during the pandemic, at 72%. Text messaging, blogs, and social media were not widely used.

Areas of communication focus for 2022

	Ranking
Retirement readiness (e.g., income replacement levels)	3.3
Increasing savings rates	3.3
Financial wellness	2.5
Plan participation	2.4
Investing (e.g., market activity, use of funds, diversification, market timing)	2.0
Managing income in retirement	1.3
Plan fees	1.0

(5=Most focus. Total ranking is weighted average score.) Additional categories: Plan design changes (0.6); managed account services (0.4); withdrawals/distributions (0.4); loans (0.3); company stock (0.2); other (0.1).

Media channels used to communicate plan information to participants*



*Multiple responses were allowed.

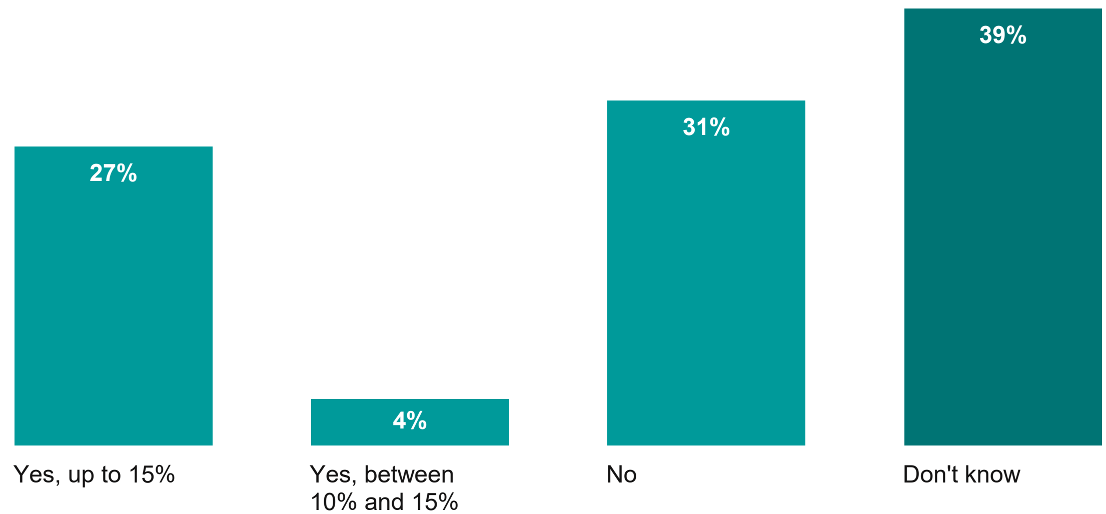
SECURE Act: Encouraging Retirement Savings

Plan design changes are driven in part by legislation or regulations providing guidance to plan sponsors. The 2019 SECURE Act allows plan sponsors with an automatic enrollment safe harbor (Qualified Automatic Contribution Arrangement or QACA) plan design to increase the automatic escalation cap to 15%. The cap was previously set at 10% as per the Pension Protection Act of 2006 (PPA). Without this new legislation, plan sponsors with a QACA would not be able to take advantage of a higher automatic savings rate.

Remarkably, 27% of the plan sponsors that have a QACA indicate they will increase the automatic escalation cap to 15% and another 4% indicated that they would increase the cap between 10% and 15%.

While 31% of plan sponsors with a QACA said that they would not increase the rate, that number could fall once the pandemic has passed and plan sponsors have an opportunity to revisit retirement savings. Further, the 39% that currently "don't know" may also elect to make a change in the future.

Have or will increase automatic escalation cap in QACAs



31% of plan sponsors with a QACA will **increase their automatic escalation rate** as a result of SECURE Act.

SECURE Act: In-Plan Annuity Safe Harbor

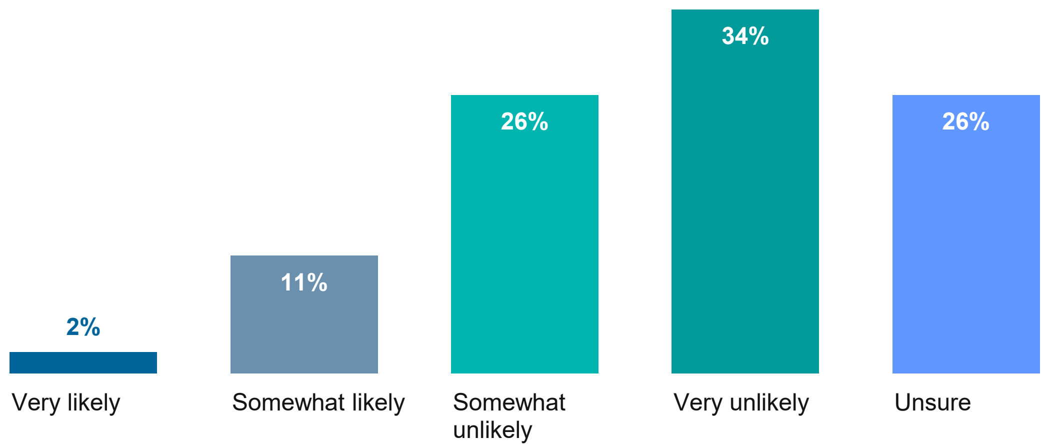
The SECURE Act looked to address plan sponsors' concerns and provide a safe harbor for in-plan annuity selection.

13% of respondents indicated they are very or somewhat likely to **add an annuity option** following the SECURE Act—a slight decrease from 2020 when 17% indicated this was likely.

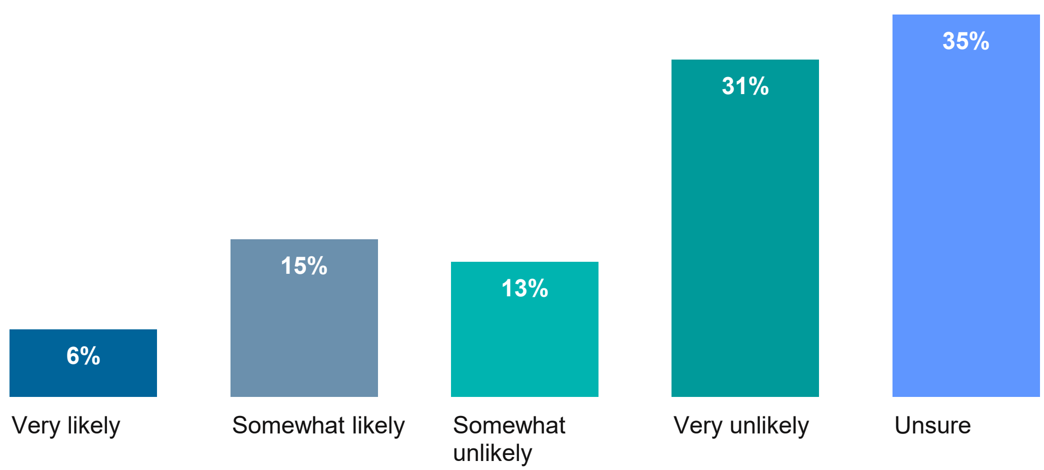
Until the SECURE Act, DC plans that allowed investment in a lifetime income investment faced a dilemma if they wished to remove the product from the plan or move to a new recordkeeping platform that did not support the product. The SECURE Act creates portability for lifetime income options that can no longer be held as an investment option in a DC plan by permitting a direct rollover to an IRA or other retirement plan, or in the case of an annuity contract, through direct distribution to the individual.

This change gives plan sponsors the flexibility to remove these options while permitting participants to preserve their lifetime income investments and avoid surrender charges or penalties. As a newer provision, this option has not been triggered frequently—but 21% of plan sponsors indicated that they would be very or somewhat willing to utilize it, if needed.

Likeliness to add an annuity option following SECURE



Willing to rollout lifetime income balances based on SECURE, if needed



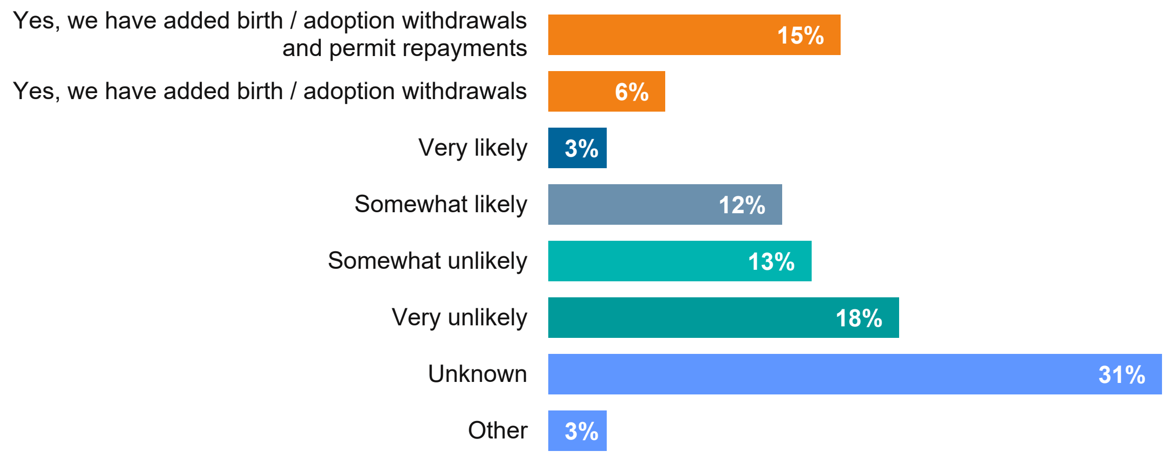
SECURE/CARES Acts: New Withdrawal Types & Coronavirus-Related Distributions

Birth/Adoption Withdrawals

SECURE allows parents to take early withdrawals of up to $5,000 per child from their retirement accounts within a year of a child's birth or adoption. These withdrawals are not subject to the 10% excise tax for distributions prior to age 59½ or 20% mandatory withholding. Participants can repay this type of withdrawal to the distributing plan (if it accepts rollover contributions).

21% currently offer birth / adoption withdrawals—a dramatic increase from the 4% found in the *2021 DC Survey*.

Will add birth or adoption withdrawals

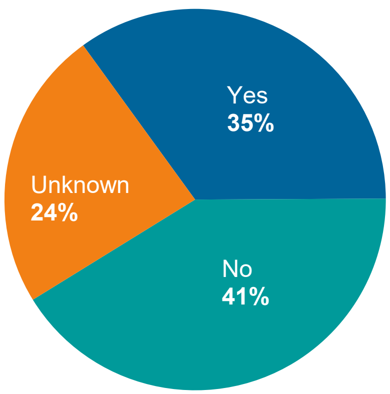


Coronavirus-Related Distributions

The CARES Act established coronavirus-related distributions for qualified individuals. Normally employees are not permitted to take withdrawals of their deferrals prior to attaining age 59½ and while employed with the plan sponsor. This limitation was waived for CRDs taken in 2020. Participants were allowed to repay the amounts taken out of the plan, and for amounts not repaid, were permitted to spread the taxation ratably over 3 years.

35% reported that they were actively encouraging affected participants to make repayments.

Actively encourage repayment of coronavirus-related distributions (CRDs)



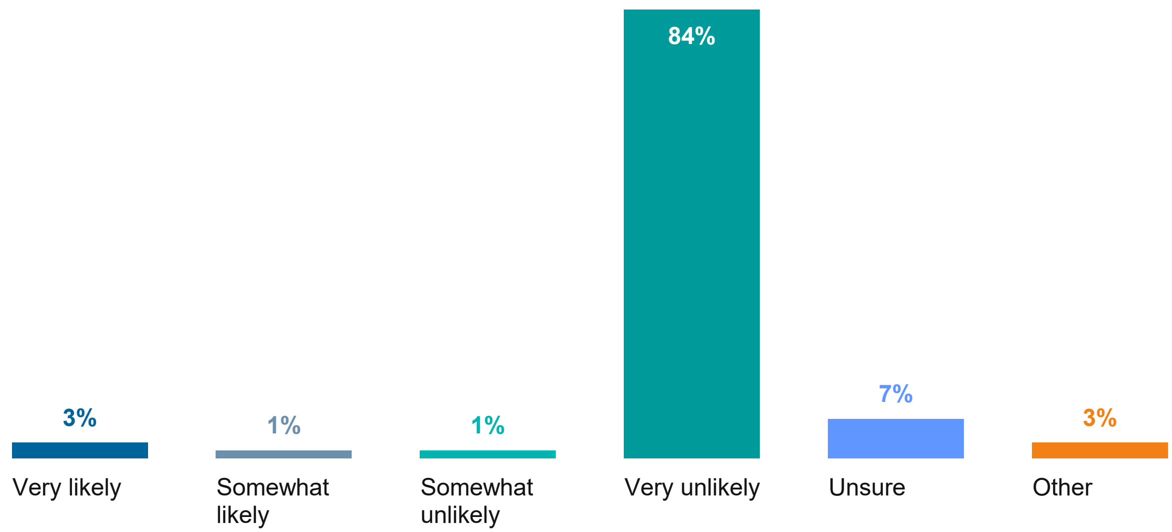
SECURE Act: MEP / PEP Adoption

SECURE paves the way to expand open multiple employer plan (MEP) usage by removing the requirement that participating employers share a common nexus (i.e., business affiliation). It also removes the "one bad apple" rule, and protects employers in an MEP from penalties if other participating employers violate fiduciary rules.

The SECURE Act goes beyond the current scope of MEPs by creating pooled employer plans (PEP), which is a 401(k) MEP sponsored by a pooled plan provider (PPP). A PPP is the main fiduciary and a 3(16) administrator for the plan. At present, PEPs are not available for 403(b) or 457(b) plans.

MEPs and PEPs require a uniform fund lineup and may be cumbersome to administer (e.g., multiple payrolls, numerous money sources with differing vesting schedules or distribution options). While they have traditionally targeted micro-plans, SECURE does not limit MEPs/PEPs to small plans.

Likelihood of joining an MEP or PEP*



The majority of respondents (84%) signaled they are **very unlikely to join an MEP or PEP** with 1% being somewhat unlikely. Only 4% of respondents are very or somewhat likely to participate in these plan types. Another 7% are unsure or awaiting further guidance.

*Of those that do not currently participate in a MEP or PEP.

SECURE Act: MEP / PEP Concerns

Guidance is still required for countless administrative and compliance hurdles, including safe harbor plan status for certain members, nondiscrimination testing, distribution tracking (e.g., managing distributions and rollovers for a participant who leaves one employer in the MEP and moves to another), complexity around administration (e.g., employees moving between employers with different rights or features based on money source, nondiscrimination testing, limits monitoring), and a prohibited transaction exemption for PPPs.

Survey respondents were generally concerned about administrative issues: 63% of respondents identified less control over plan administration as a concern (3.9 weighted ranking out of 5) and administration complexity was cited by 60% of respondents (3.2). Competitiveness relative to the existing plan was a concern for 50% of respondents (2.9) and limited cost efficiencies was cited by 53% of respondents (2.6).

Top concerns around moving to an MEP or PEP, as defined in the SECURE Act

	Ranking
Less control over plan administration	3.9
Competitiveness relative to existing plan	3.2
Complexity around administration	2.9
Limited cost efficiencies due to efficiencies in current plan size	2.6
Employee satisfaction	1.7
Data security	1.1
Limited investment choices	1.0
Payroll programming obstacles	0.9
Vendor pool and capabilities	0.8
Regulatory landscape	0.8

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

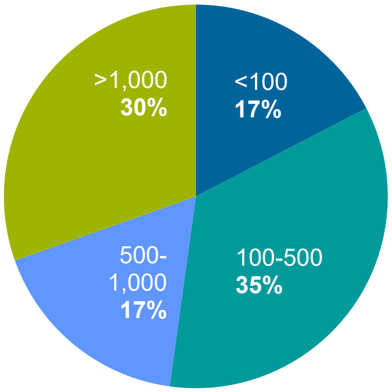
Non-Qualified Plans

For those offering a non-qualified (NQ) plan, the size of the plan by number of participants (top left chart) and the plan assets (top right chart) were pretty evenly distributed. Roughly 47% of the plans had 500 or more participants while 46% had at least $100 million in assets.

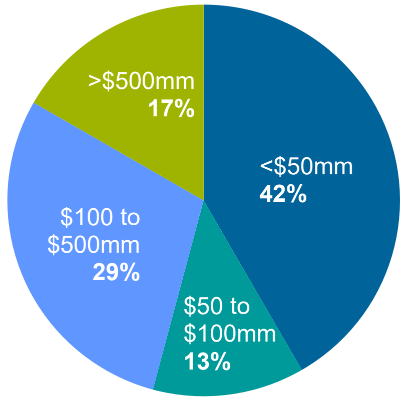
The NQ plan investment menu design mirrored the DC plan 70% of the time with just under a quarter of plans offering fewer options than what was offered in the DC plan.

In terms of plan governance, 50% of respondents used the same committee members for the DC plan and the NQ plan.

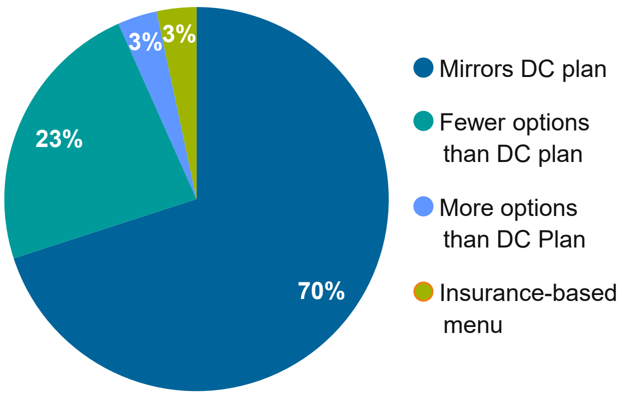
Number of participants in NQ plan



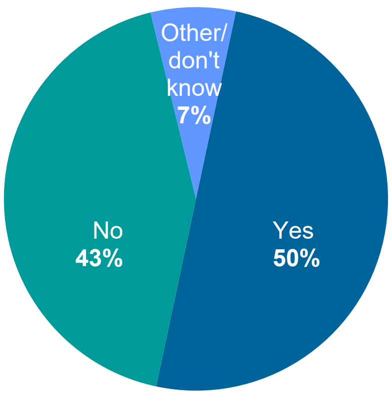
Assets in NQ plan



Investment menu design



Oversight committee same as primary DC plan



Defined Contribution Consulting

1997 DC team formalized at Callan to serve as a dedicated, specialized resource

17 Years of average industry experience

81 DC projects in 2021 (i.e., investment structure or target date suitability studies, vendor search, and fee studies)

80 Email "Insights" and blog posts in 2020 focused on litigation, legislation, and regulation

5 Organizations we serve in leadership or committees (DCIIA, EBRI, NAGDCA, PRRL, SPARK DSOB)

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

Jamie McAllister (Primary author of 2022 DC Survey) | Jana Steele | Ben Taylor | Greg Ungerman, CFA | Patrick Wisdom

Disclosure

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Quarterly Review

VRS Defined Contribution Plans

October 1, 2021 – December 31, 2021

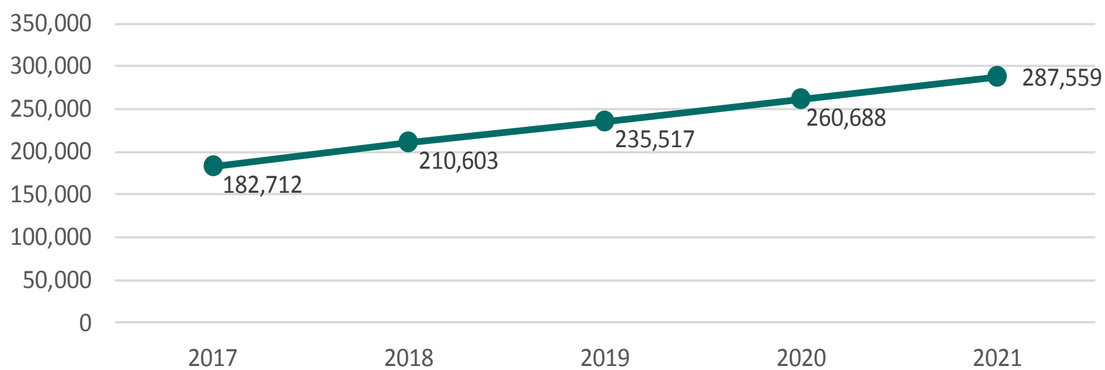
DCP
Virginia Retirement System

VRS Defined Contribution Plans[1]

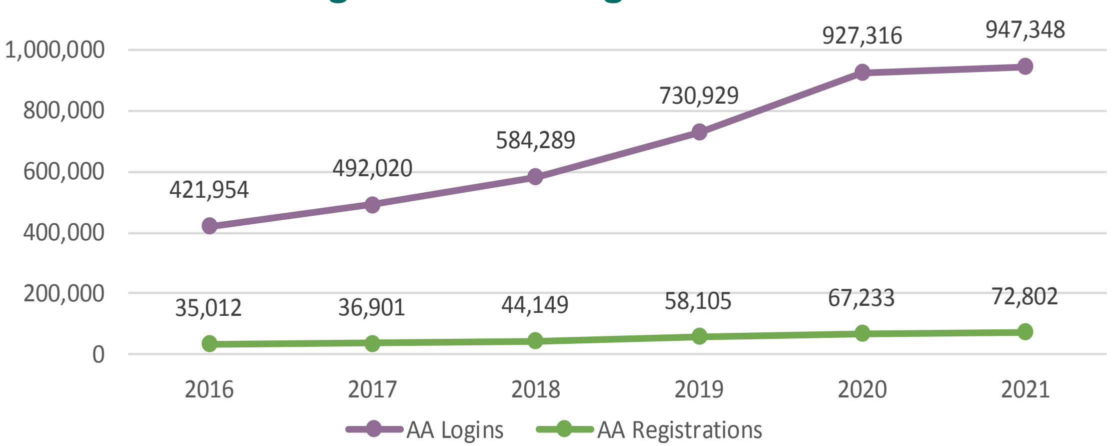
4th Quarter 2021 – DC Plans Metrics

Total Assets[2]: $6,709,738,291.45   Total Accounts[2]: 482,649

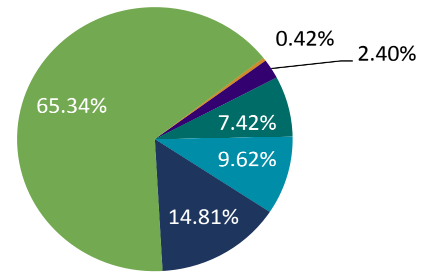
Unique Participants



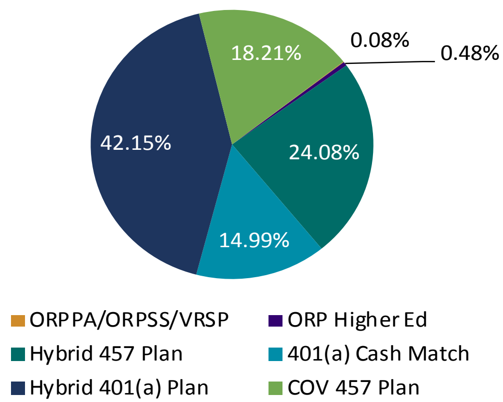
Account Access Registrations & Logins



Assets Under Management



Accounts Under Management



Top 10 Visited Pages[3]

1. COV 457 Retirement Plan Landing Page
2. Hybrid Retirement Plan Landing Page
3. Hybrid 457 Voluntary Contributions
4. Virginia Cash Match Landing Page
5. Hybrid Plan Education
6. Hybrid Plan Leaving Employment
7. Hybrid Plan Group Life Insurance
8. COV 457 Plan Info
9. Hybrid Forms
10. COV 457 Contributions

VRS Defined Contribution Plans

4th Quarter 2021 – DC Plans Participant Engagement

Call Center – Participant Services

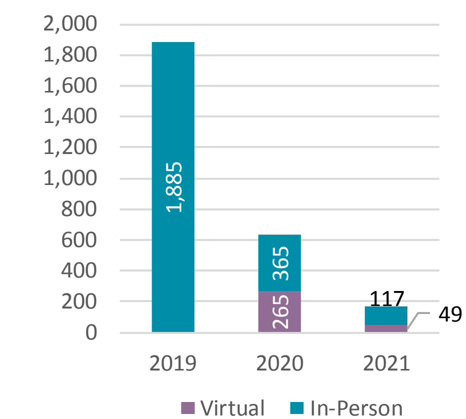
- 55,311 calls received in 2021
- 63,953 calls received in 2020
- 61,384 calls received in 2019

Current call trends:

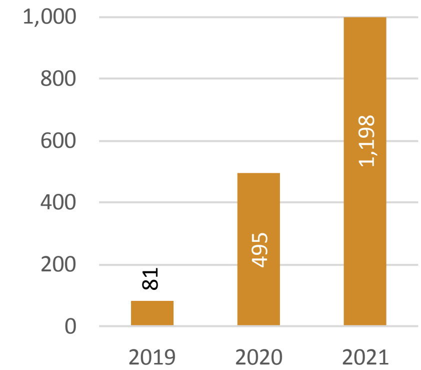
1. Withdrawals
2. General inquiries
3. Internet assistance
4. Deferrals
5. Indicative data

Participant Sessions

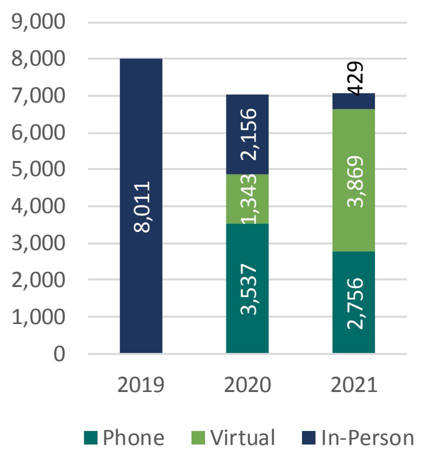
Group Meetings



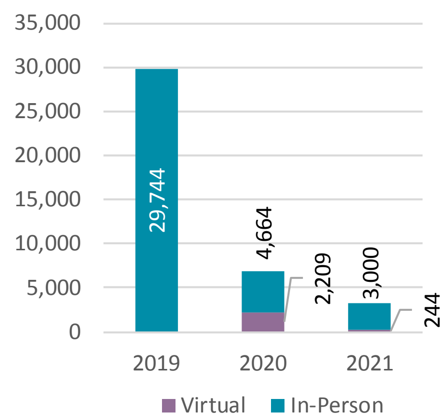
Webinars

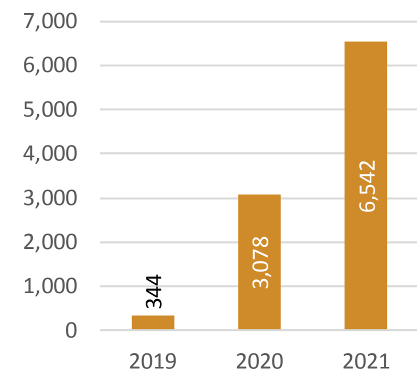


Individual Account Reviews



Participant Attendance

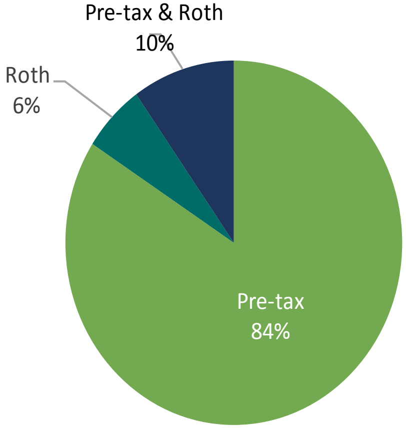




VRS Defined Contribution Plans

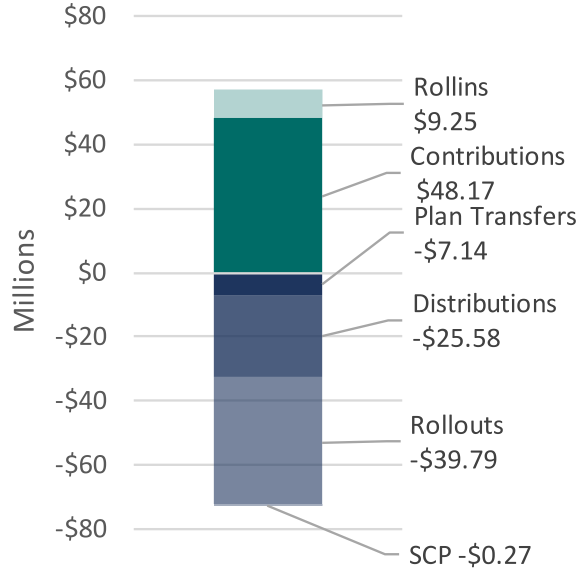
4th *Quarter 2021 – COV 457 Plan, Virginia Cash Match Plan*

Deferral Type

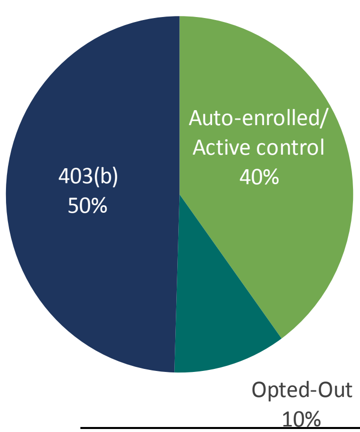


Average pre-tax deferral per pay = $171.16
Average Roth deferral per pay = $172.45

Contributions/Distributions[5]



Auto Enrollment



Participant Status Overview[6]

159,646 total accounts

58% Active

42% Separated

$2,105m assets at-risk

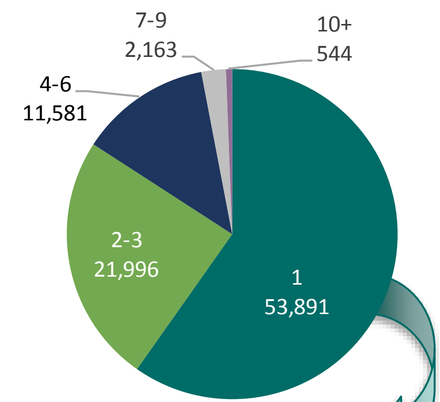
COV 457 Participation Rates

- State[4] 36.30%
- Non-state 10.06%

Top 10 Fund Holdings

1.	Stock	$1,638,732,800
2.	Target Date Portfolios	$1,447,022,243
3.	Stable Value	$616,103,846
4.	Small/Mid-Cap Stock	$453,408,939
5.	International Stock	$212,744,820
6.	Bond	$167,489,836
7.	Global Real Estate	$113,742,889
8.	TD Ameritrade	$96,155,394
9.	Money Market	$82,874,642
10.	Inflation-Protected Bond	$56,072,520

of Funds Held by Participants

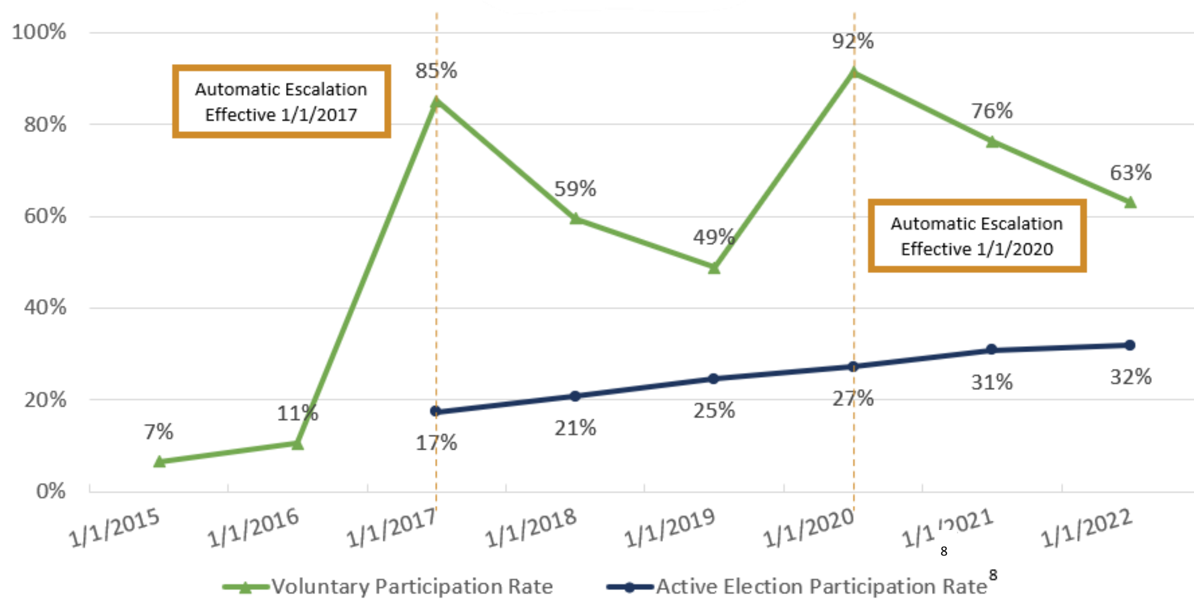


81% of this population is invested in a single TDP

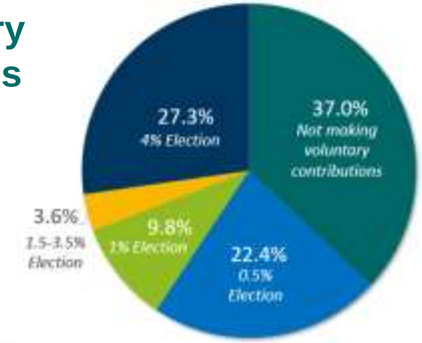
VRS Defined Contribution Plans

4th Quarter 2021 – Hybrid Retirement Plan – 401(a) & 457(b)

Participation Rate[7]



Voluntary Elections



Top 10 Fund Holdings

1.	Target Date Portfolios	$1,390,324,606
2.	Stock	$53,078,005
3.	Small/Mid-Cap Stock	$17,129,150
4.	International Stock	$7,953,914
5.	Money Market	$6,898,022
6.	Stable Value	$5,215,612
7.	Global Real Estate	$4,064,623
8.	TD Ameritrade	$3,288,845
9.	High-Yield Bond	$3,025,546
10.	Bond	$2,819,769

Participant Status Overview[3]

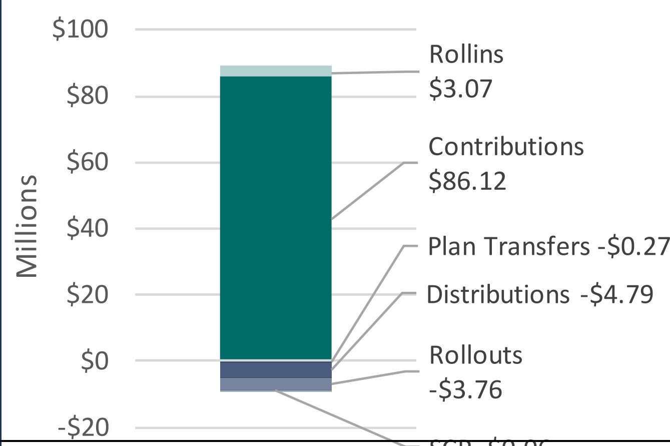
319,636 total accounts

74% Active

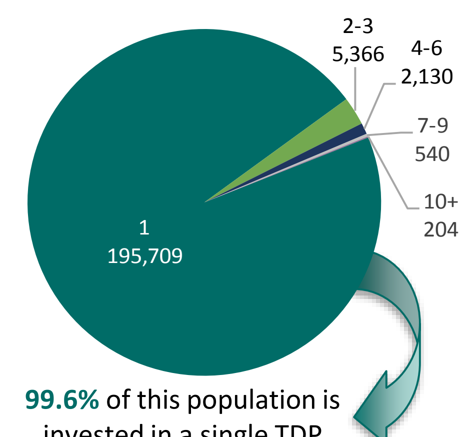
26% Separated

$245.9m assets at-risk

Contributions/Distributions



of Funds Held by Participants



99.6% of this population is invested in a single TDP

Source Information/Additional Footnotes

All data unless noted otherwise was provided by MissionSquare Retirement and is as of 12/31/2021.

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