Defined Contribution Plans Advisory Committee (DCPAC) Meeting
GoToWebinar- please see email from customercare@gotowebinar.com for meeting link
Thursday, 4/15/2021
1:00 - 3:30 PM ET

I. Welcome & Introductions
II. Public Comment
III. Meeting Minutes
Adoption of the Minutes from the November 19, 2020 Meeting
DCPAC Minutes 11-19-2020 - Page 3
IV. Administration
Administrative Reports & Communication
2020Q4 Administrative Summary - Page 11
- **DC Plans Overview**
- **COV 457 and Cash Match Plan Update**
- **Hybrid Plan Update**
- **ORPHE Update**
- **RMD Amendment in Approved VRS Technical Bill**

V. Investments
4-15-21 Final Investments slide deck - Page 43
- **Performance Reports**
- **Callan 2021 Defined Contribution Trends Survey Highlights**
- **DC Investment Belief Statements**

VI. Other Business
- **DCPAC Appointments**
  - **i. Reappointment of Shannon Irvin, Rick Larson, Dave Winter**
    Dave Winter bio 2021 - Page 69
    Larson Bio 21-04-01 (v4) - Page 70
    Irvin Resume - Page 71
  - **ii. RBA for DCPAC appointments**
    Motion to approve recommendation for reappointment
    RBA_ReappointDCPAC_Members - Page 74
- **Discussion of New Ideas**

VII. 2021 Meetings
- **June 24, 2021 at 1:00 p.m.**
  via GoToWebinar
- **September 2, 2021 at 1:00 p.m.**
  (Annual investment review)
- **December 2, 2021 at 1:00 p.m.**
- **ORPHE Annual Employment Update (not a meeting of the DCPAC)**
  to be scheduled- September 2021

VIII. Adjournment
IX. Appendix
(for informational purposes only, will not be reviewed in detail during the meeting)
Q4 2020 Quarterly Review - VRS Copy REVISED - Page 75
VRSIP Disclosure - Page 162

Minutes

An electronic meeting, held in accordance with §2.2-3708.2(A)(3) of the *Code of Virginia* and Chapter 56 of the 2020 Special Session I Acts of Assembly, the Defined Contribution Plans Advisory Committee (DCPAC) of the VRS Board of Trustees convened electronically on November 19, 2020, with the following members present:

Committee Members:

Hon. J. Brandon Bell, II, Chair
Ravindra Deo
Shannon Irvin
Rick Larson
Brenda Madden
David Winter

Members of the Board of Trustees:

Michael Disharoon
O'Kelly McWilliams, III

VRS staff members in attendance:

Trish Bishop, Judy Bolt, Ty Bowers, Steve Cerreto, Jeanne Chenault, Michael Cooper, Valerie Disanto, Pam Elam, Josh Fox, Brian Goodman, Kelly Hiers, KC Howell, Robert Irving, Ciara Lawson, Rebecca Nicholas, Laura Pugliese, Kristy Scott, Michael Scott, Jillian Sherman, Jennifer Schreck, Virginia Sowers, Ashley Spradley, Stacy Taylor, Peter Thompson, Bridgette Watkins, Rachel Webb, Grace Wheaton, and Cindy Wilkinson.

Also in attendance were Jamie Bitz, Joint Legislative Audit and Review Commission; Cory Lampshire and Gary Plourde, Empower Retirement; and Latosha Johnson, Virginia Department of Planning and Budget.

The meeting convened at 1:02 p.m.

Ms. Sherman served as facilitator and walked participants through the logistics of an electronic meeting. Ms. Sherman turned the meeting over to Mr. Bell to call the meeting to order.

Chairman 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 vice chair to the Committee, Dr. Susan Gooden, Dean of the L. Douglas Wilder School of Government and Public Affairs at Virginia Commonwealth University, who was unable to participate in the meeting.

Mr. Bell noted that given the current circumstances related to COVID-19, the DCPAC was unable to meet in person. However, the DCPAC held this meeting remotely in accordance with §2.2-3708.2(A)(3) of the *Code of Virginia* and Chapter 56 of the 2020 Special Session I Acts of Assembly as it relates to conducting business during the pandemic.

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

Mr. Deo – Present
Ms. Irvin – Present
Mr. Larson – Present
Ms. Madden – Present
Mr. Winter – Present
Mr. Bell – Present

There was no public comment.

APPROVAL OF MINUTES

Upon a motion by Mr. Bell, with a second by Ms. Irvin, the minutes of the August 27, 2020 meeting were approved.

Mr. Bell asked for each Committee member to vote on the motion:

Mr. Deo – Aye
Ms. Irvin – Aye
Mr. Larson – Aye
Ms. Madden – Aye
Mr. Winter – Aye
Mr. Bell – Aye

ANNUAL ADMINISTRATIVE EXPENSE REPORT FOR FISCAL YEAR 2020

Pam Elam, VRS Business Performance Analyst, provided an overview of the annual costing update for FY 2020, 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 2020. She also provided a summary overview of the cost trend analysis over the five-year period from FY 2016 to FY 2020. Ms. Elam informed the Committee of cost increases to the Hybrid Plan due to increased staff time allocated to the program. She also noted decreased costs for the Optional Retirement Plan for Higher Education (ORPHE) due to the reduction in the number of recordkeepers.

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, 2020. 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 and recent plan adoptions.

DC Plans and Hybrid Plan Update

Ms. Hiers provided an update on total assets and accounts in the VRS Defined Contribution Plans through September 30, 2020. She also presented an overview of the number of unique participants in the unbundled DC Plans. Ms. Hiers noted the total number of plan adoptions over time in the unbundled DC Plans and adoption requests for the third quarter of 2020.

Ms. Hiers shared with the Committee several initiatives related to ICMA-RC, record keeper for the VRS Defined Contribution Plans, and noted the ICMA-RC contract is set to expire December 31, 2024. Ms. Hiers explained that VRS exercised the first 3-year renewal option in January 2019, and the final 3-year renewal option, if exercised by VRS, is effective January 1, 2022. She detailed the increasing size and complexities of the plans over time and, as a result, any change in record keeper may require a longer transition period. Ms. Hiers informed the Committee of plans to establish a working group in 2021 to begin the process of developing an RFP before hiring a consultant to assist with a record keeper RFP as well as the evaluation and transition to a new record keeper. In response to an inquiry as to whether the incumbent record keeper would be permitted to bid on the RFP, Ms. Hiers indicated that the current record keeper would be allowed to submit a proposal.

Ms. Hiers provided an overview of Financial Planning Services with ICMA-RC, which is targeted for rollout to all VRS plan members, regardless of participation in a DC plan with ICMA-RC, in the first quarter of 2021. She noted that dedicated financial planners would be provided for VRS membership, and the different types of financial planning services that would be available, including individual consultations, financial plans, and webinars. The Committee welcomed this service for all VRS members and sought clarification on the advice component and the relationship between the financial planners and ICMA-RC. Ms. Hiers informed the Committee that the financial planners are employees of ICMA-RC and that no investment advice would be offered. Staff also noted that an associated communication campaign would be developed as part of the rollout of this new service.

Ms. Hiers provided an update of Coronavirus-Related Distributions (CRDs) through October 30, 2020, noting that an estimated $20 million in assets had been disbursed across more than 4,200 distributions processed. She noted that approximately 91% of CRDs were taken by active participants and over 70% of distributions processed were under $5,000 and withdrawn from the COV 457 Plan.

Ms. Hiers also provided an overview of the Public Retirement Research Lab (PRRL) Survey on the Impact of CARES Act distribution provisions on public sector DC plans. She noted the percentage of distributions processed from the COV 457 was below the industry average when compared to the other state and local government plans.

Ms. Hiers provided an update on total assets and accounts in the COV 457 and Virginia Cash Match plans through September 30, 2020, as well as an overview of cash flow from the COV 457 and Virginia Cash Match plans. Ms. Hiers provided a review of total assets and accounts in the Hybrid Retirement Plan for the third quarter of 2020. She also presented an overview of the cash flow from the defined contribution component of the Hybrid Retirement Plan, including contributions, withdrawals and net cash flow. Ms. Hiers updated the Committee on the Hybrid 457 voluntary participation and contribution election rates for the third quarter of 2020. She also updated the Committee on the Hybrid 457 voluntary participation, contribution election rates, and auto-escalation status for the third quarter of 2020.

Ms. Hiers provided an overview of the DC Plans goal to increase contributions and enrollments for the third quarter 2020. She provided an overview of hybrid population statistics, including the percentage of Hybrid Plan members with an active election in the Hybrid 457 Plan by age and salary. She also shared the population statistics for participants in the COV 457 Plan, including the participation rate by age and salary, median deferral amount, and annual new enrollments. Ms. Hiers shared statistics for Hybrid Plan members contributing to the COV 457 participation before maximizing their voluntary contributions and the communication efforts to this group to ensure they do not miss out on employer matching contributions to the Hybrid Plan. She also shared the participation rate in the Hybrid Plan versus the COV 457 Plan by employer type, noting the differences in participation among state agency, political subdivision, and school division employers. 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 provided an overview by provider of total ORPHE assets, participants and average balances for the third quarter of 2020. She also gave an update on ORPHE provider selections and provider initiatives for the third quarter of 2020.

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.

Mr. Bell thanked Ms. Hiers for her presentation.

<u>ORPHE Annual Employer Report</u>

Mr. Rick Larson, DCPAC Committee member representing higher education, presented his report to the Committee on the ORPHE Annual Employer Update hosted by VRS Defined Contribution Plans on Thursday, September 24, 2020.

DC PLANS INVESTMENTS UPDATE

Laura Pugliese, Portfolio Manager, Defined Contribution Plans, provided an overview of the September 30, 2020 performance reports.

CEM Defined Contribution Plans Survey

Ms. Pugliese presented to the Committee the 2019 CEM Defined Contribution Plans Survey results that included the unbundled DC Plans supplemental 457 Deferred Compensation Plan in addition to the bundled TIAA and Fidelity plans for the ORPHE.

Ms. Pugliese shared the survey results, comprised of 92 corporate and 20 public DC Plans representing $1.2 trillion in assets. Ms. Pugliese informed the Committee that the survey results included the unbundled DC Plans supplemental 457 Deferred Compensation Plan, in addition to the bundled TIAA and Fidelity programs for ORPHE. She also noted the TIAA and Fidelity information was based solely on the “selected” plan investment options.

CEM calculates a plan-specific benchmark cost to help plan sponsors determine if their costs are reasonable after adjusting for plan size, asset mix, and average account balance. Positive (high) value added indicates that, on average, the plan's investment options are outperforming their benchmark indices, whereas negative (low) value added indicates that investments are not outperforming benchmark indices net of investment and plan administration costs. Plans having a majority of passively managed funds tend to be low value-added plans because passively managed funds typically track their benchmark indices minus fund expense ratios.

For the calendar year ending December 31, 2019, CEM reported the following:

- The 457 Deferred Compensation Plan was a high value added, low cost plan. Total 457 Plan costs of 0.20% were below CEM’s calculated VRS 457 Plan benchmark cost of 0.35%. (Note: The investment lineup is predominantly passively managed.)
- The TIAA ORPHE program was a low value added, high cost plan. Total TIAA plan costs of 0.41% were slightly higher than CEM’s calculated TIAA ORPHE benchmark cost of 0.34%.
- The Fidelity ORPHE program was a low value added, high cost plan. Fidelity Total plan costs of 0.53% were higher than CEM’s calculated Fidelity ORPHE benchmark cost of 0.31%.

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

Presidential Executive Order

Ms. Pugliese informed the Committee of the Executive Order issued on November 12, 2020, barring U.S. persons from transacting in certain securities that the Department of Defense identifies as supporting the Chinese military. The effective date of the order is January 11, 2021, and investors have until November 2021 to divest holdings. She shared that the Investment Department is in the process of gathering information and determining its potential impact to VRS’ DC Plans investments and will inform the Committee of its findings.

GOVERNING DOCUMENTS UPDATE

Cindy Wilkinson, VRS Policy and Planning Director, provided an overview of the review of the existing DC plan documents for the purpose of amending and restating the existing documents and adding two additional separate plan documents for the Hybrid 457 and Hybrid Cash Match Plan.

Ms. Wilkinson informed the Committee that, working with outside counsel, the goals of the review project were to employ current best practices in plan document structure, streamline current plan documents for readability, ensure compliance with recent federal statutory and regulatory provisions, simplify plan documents, and deploy more standardized plan document templates.

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

Mr. Bell asked for each Committee member to vote on the motion:

Mr. Deo – Aye
Ms. Irvin – Aye
Mr. Larson – Aye
Ms. Madden – Aye
Mr. Winter – Aye
Mr. Bell – Aye

RBA: APPROVE AMENDED AND RESTATED DEFERRED COMPENSATION AND DEFINED CONTRIBUTION PLAN DOCUMENTS AND NEW HYBRID 457 AND HYBRID CASH MATCH PLAN DOCUMENTS, EFFECTIVE JANUARY 1, 2021.

Request for Board Action: *The Board approves the amended and restated Commonwealth of Virginia 457 Deferred Compensation Plan, the amended and restated Optional Retirement Plan of the Commonwealth of Virginia for Employees of Institutions of Higher Education, the amended and restated Optional Retirement Plan of the Commonwealth of Virginia for Political Appointees, the amended and restated Optional Retirement Plan of the Commonwealth of Virginia for Public School Superintendents, the amended and restated Virginia Cash Match Plan, the new Virginia Hybrid 457 Deferred Compensation Plan and the new Virginia Hybrid Cash Match Plan, all effective January 1, 2021.*

Upon a motion by Mr. Deo, with a second by Ms. Madden, the Committee recommends approval of the following action to the full Board:

Mr. Bell asked for each Committee member to vote on the motion:

Mr. Deo – Aye
Ms. Irvin – Aye
Mr. Larson – Aye
Ms. Madden – Aye
Mr. Winter – Aye
Mr. Bell – Aye

RBA: APPROVE AMENDMENTS TO THE MASTER TRUST DOCUMENTS FOR THE DEFERRED COMPENSATION AND DEFINED CONTRIBUTION PLANS, EFFECTIVE JANUARY 1, 2021.

Request for Board Action: *The Virginia Retirement System Board of Trustees approves the First Amendment to the Master Trust for the Deferred Compensation Plan of the Commonwealth of Virginia, the First Amendment to the Master Trust for the Defined Contribution Plans of the Commonwealth of Virginia and the First Amendment to the Optional Retirement Plan of the Commonwealth of Virginia for Employees of Institutions of Higher Education, all effective January 1, 2021.*

OTHER BUSINESS

Code of Ethics and Conduct

Michael Cooper, VRS Chief Operating Officer, informed the Committee that an email notification would be forthcoming that includes instructions and a hyperlink to a learning module on the Board of Trustees' Code of Ethics and Standards of Conduct, which is an annual requirement of VRS advisory committee members. Staff shared that Committee members will be able to send certification electronically for acknowledgement of the policy upon review of the recorded webinar.

Discussion of New Ideas

Trish Bishop, VRS Director, informed the Committee of efforts to develop a communications campaign to target members who are not taking full advantage of the employer match in the plans, specifically those who may earn a lower salary and/or those members who are younger and may struggle with student debt or other financial challenges. She shared that research is being conducted and more information about ideas and initiatives will be shared in 2021.

UPCOMING DEFINED CONTRIBUTION PLANS ADVISORY COMMITTEE MEETINGS

Mr. Bell confirmed the DCPAC meeting dates for 2021 following the polling of the Committee.

The next meeting of the DCPAC will take place on April 15, 2021, from 1:00 p.m. to 4:00 p.m., with remaining meetings on June 24th, September 2nd and December 2nd from 1:00 p.m. to 4:00 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 Committee meeting, however members may attend if interested.

ADJOURNMENT

Mr. Larson made a motion to adjourn the meeting, with a second by Ms. Madden.

Mr. Bell took a roll call vote on the motion:

Mr. Deo – Aye
Ms. Irvin – Aye
Mr. Larson – Aye
Ms. Madden – Aye
Mr. Winter – Aye
Mr. Bell – Aye

There being no further business, Mr. Bell adjourned the meeting at 3:11 p.m.

____

J. Brandon Bell, Chair
Defined Contribution Plans Advisory Committee

Virginia Retirement System

VRS Defined Contribution Plans

4th Quarter 2020

(October - December)

Administrative Summary

April 15, 2021

Agenda

Virginia Retirement System

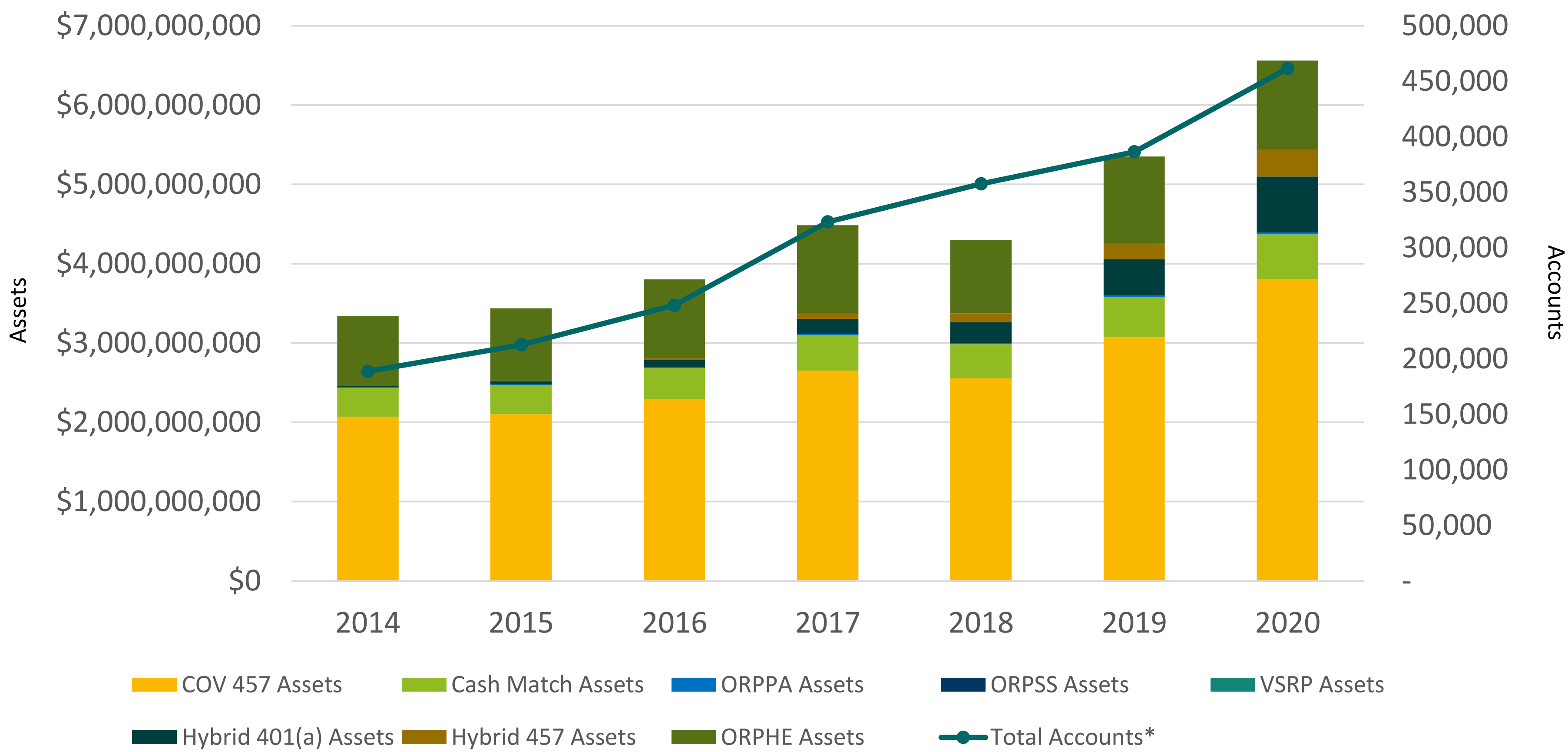
Topic	Slide Number(s)
Total Assets & Accounts	3-4
Unbundled Plans Overview	5-9
COV 457 & Cash Match Plans	10-13
Hybrid Retirement Plan	14-19
Focus: Asset Allocation	20-27
ORPHE	28-31

Total Assets and Accounts Over Time

Virginia Retirement System

Totals as of 12/31/2020	Assets	Accounts
	$6,560,257,655	461,547

Assets ↑ 12%
since September 30, 2020

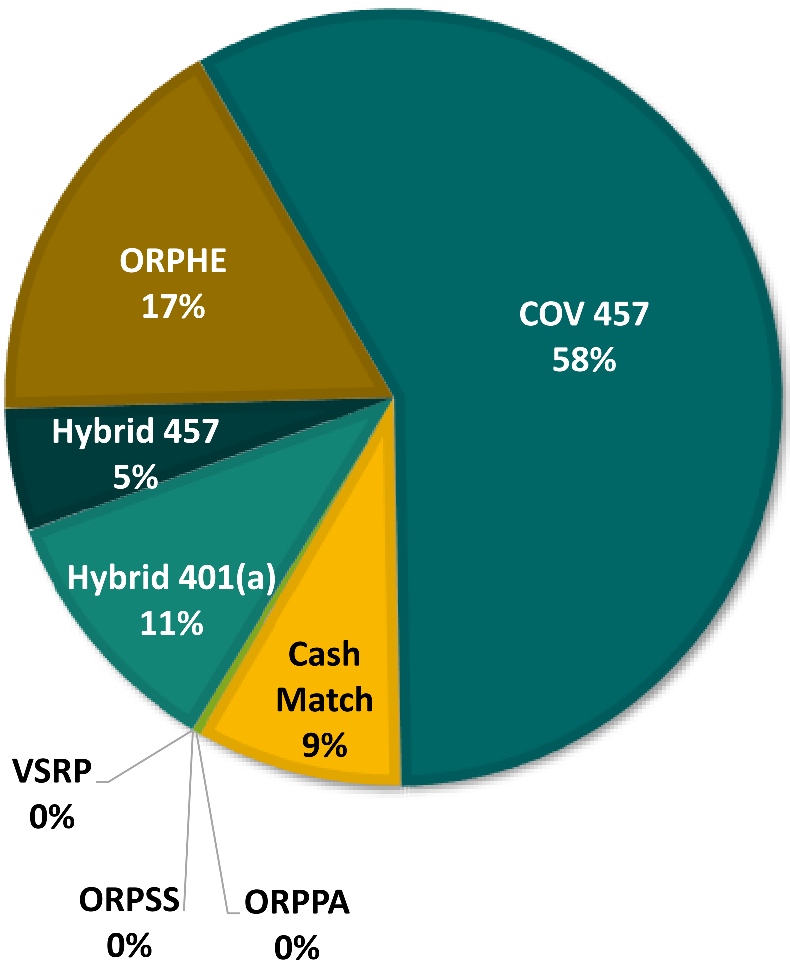


Note: Data reflects totals as of calendar year end and includes ORPHE selected providers and ICMA-RC participant, beneficiary, forfeiture & reserve accounts.
*Does not indicate unique participants.

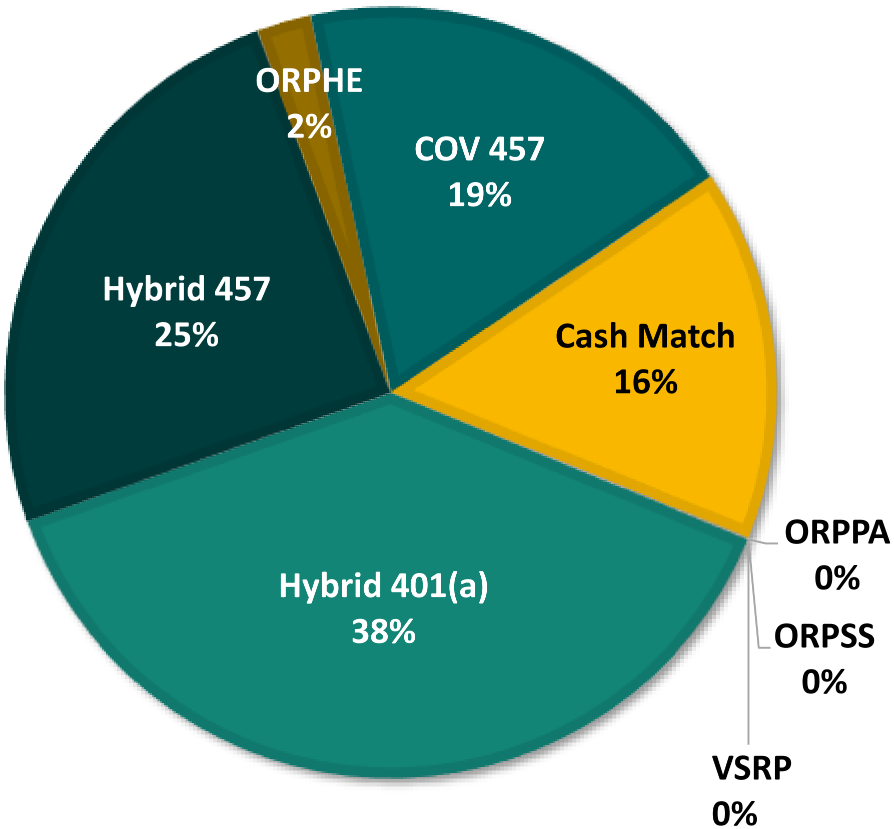
Total Assets and Accounts Under Management by Plan as of 12/31/2020

Virginia Retirement System

Assets Under Management



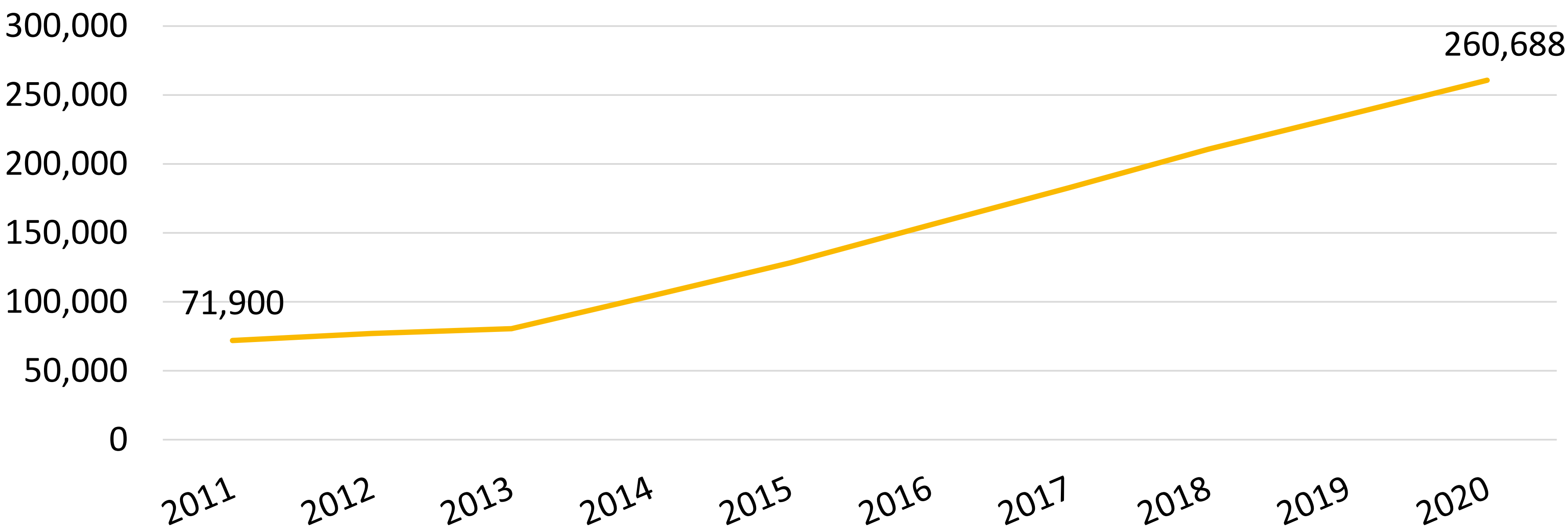
Accounts* Under Management



*Does not indicate unique participants.

Unbundled Plans - Unique Participants as of 12/31/2020

Significant growth continues in the unbundled plans, primarily due to new hires into the Hybrid Retirement Plan.



Plans Included:

- COV 457 Plan
- VA Cash Match Plan
- Hybrid 401(a) Cash Match Plan
- Hybrid 457 Deferred Compensation Plan
- ORP for Political Appointees
- ORP for School Superintendents
- VA Supplemental Retirement Plan
- ORP for Higher Education (DCP option ONLY)

DCP
Virginia Retirement System

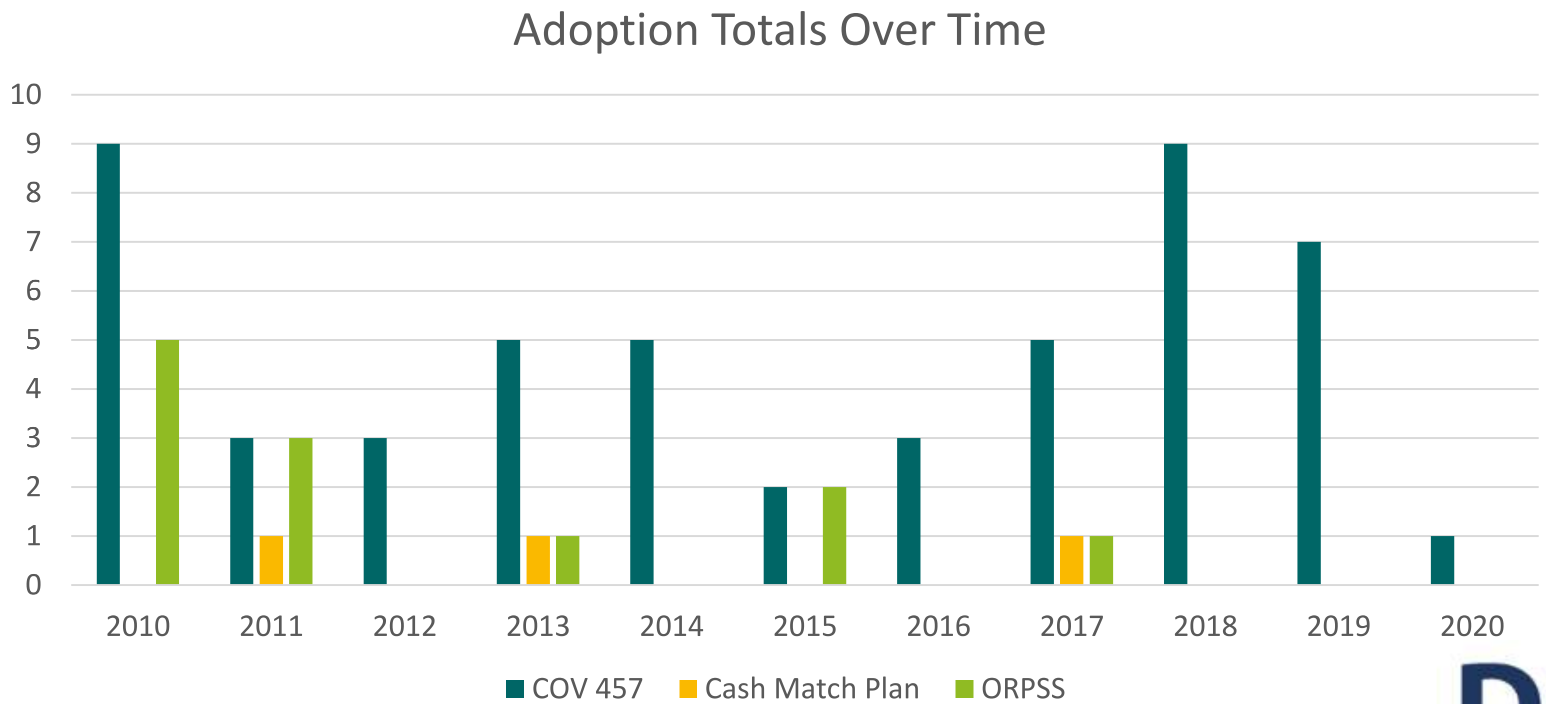
Note: Data reflects totals as of calendar year end and includes ICMA-RC participant & beneficiary accounts.

Unbundled Plans – Plan Adoptions

Fewer adoptions in 2020 than in previous years, which is likely related to the pandemic.

New Coverage

- COV 457 Plan - Blue Ridge Resource Authority effective 1/1/2021
- Optional Retirement Plan for School Superintendents (ORPSS) – Prince William effective 3/1/2021



Note: Data reflects totals as of calendar year end.

Financial Planning Services with ICMA-RC

Financial planning website to go live on April 15, 2021
www.varetire.org/make-a-plan

- Individual consultation scheduler
- Webinar schedule and registration
- Overview of available services
- How to Prepare for Your Consultation flyer
- References to financial wellness resources available in myVRS

ICMA-RC Name Change

Virginia Retirement System

MissionSquare
RETIREMENT

ICMA-RC Announces Plans for a New Name

MissionSquare Retirement to Build on ICMA-RC's Heritage

- Plan sponsor notification on March 18th
- Participant notification on April 8th
- Six-month transition to new name to be completed by the end of September 2021

DCP
Virginia Retirement System

Coronavirus-Related Distributions (CRDs)
Available through 12/31/2020

Virginia Retirement System

92% taken by active participants accounting for 0.82% of eligible active participant assets

Over 70% from the COV 457 Plan

$25,444,733 disbursed

5,610 distributions

2,785 unique participants

(1% of DCP unique participant count)

Over 73% of distributions were under $5,000

Note: CRDs were available from April 27 – December 31, 2020 from the COV 457 Plan, Virginia Cash Match Plan and Hybrid 457 Plan. Data is through December 31, 2020.

*Source: Public Retirement Research Lab (PRRL), 2020 https://www.prrl.org/impact-of-cares-act-distribution-provisions-on-government-dc-plans.html

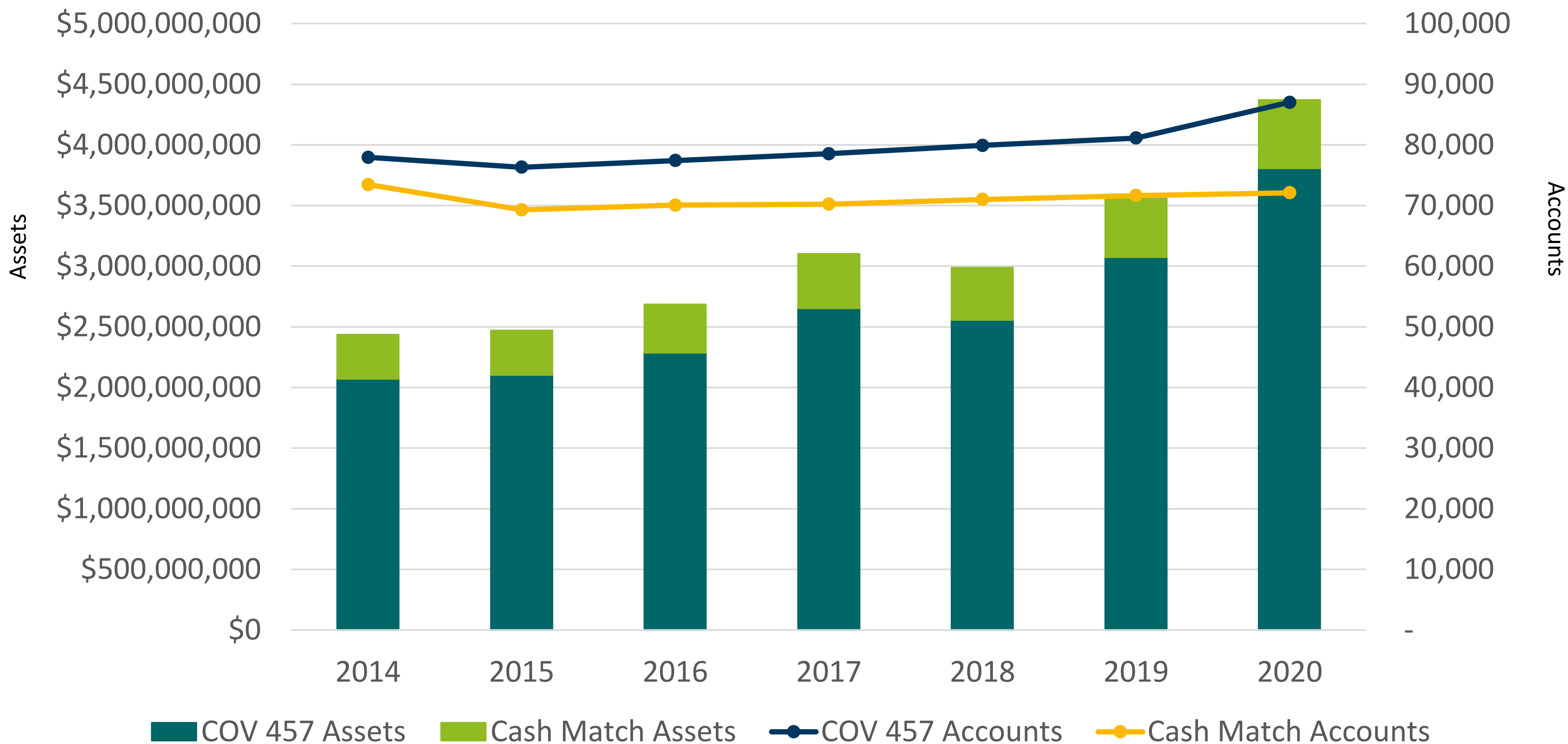
DCP
Virginia Retirement System

COV 457/Cash Match Plan Assets and Accounts

Virginia Retirement System

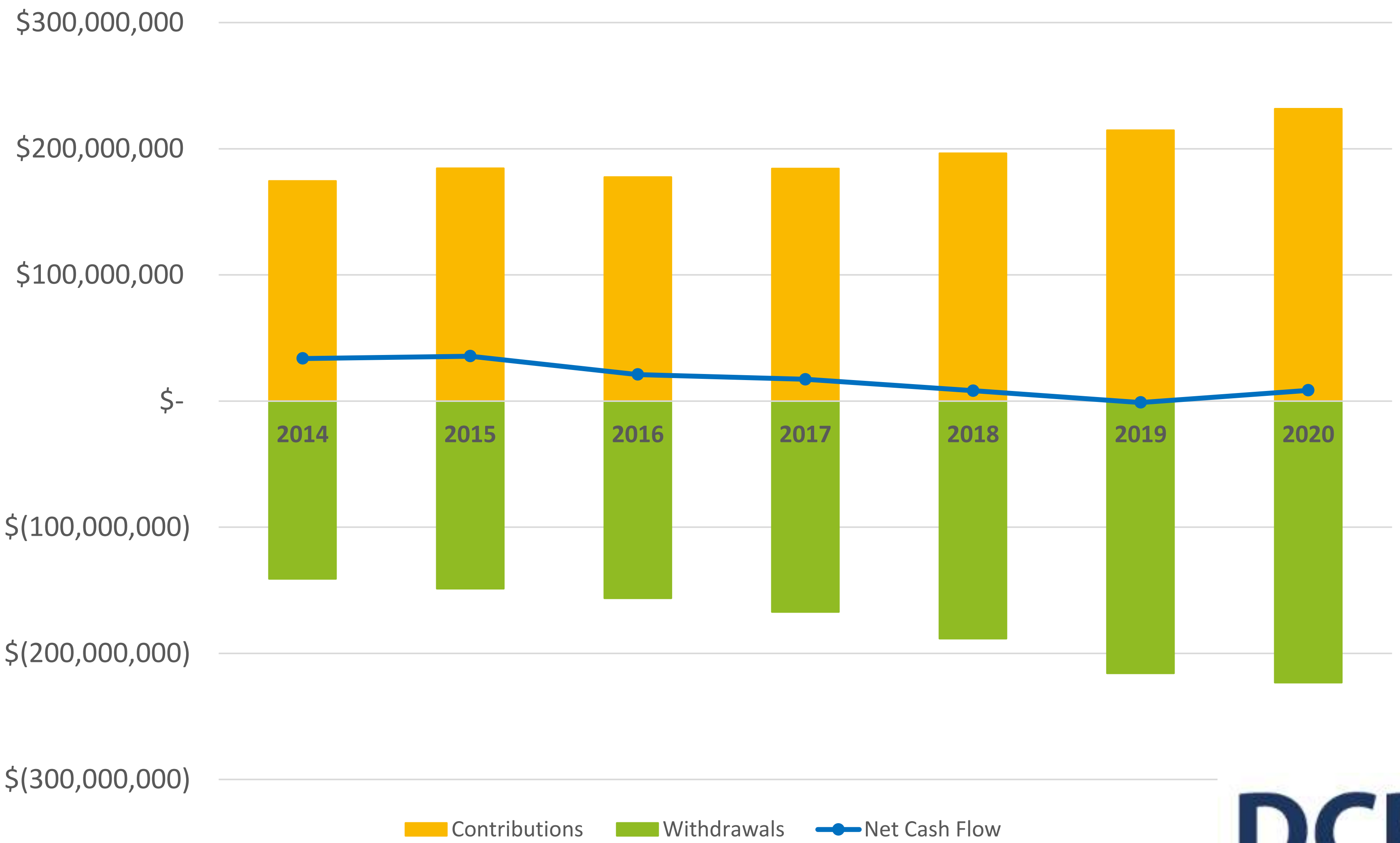
Totals as of 12/31/2020	Assets	Accounts
COV 457	$3,807,729,076	87,028
Cash Match	$564,166,840	72,114

Assets ↑ 10% since September 30, 2020



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

COV 457/Cash Match Plan Cash Flow



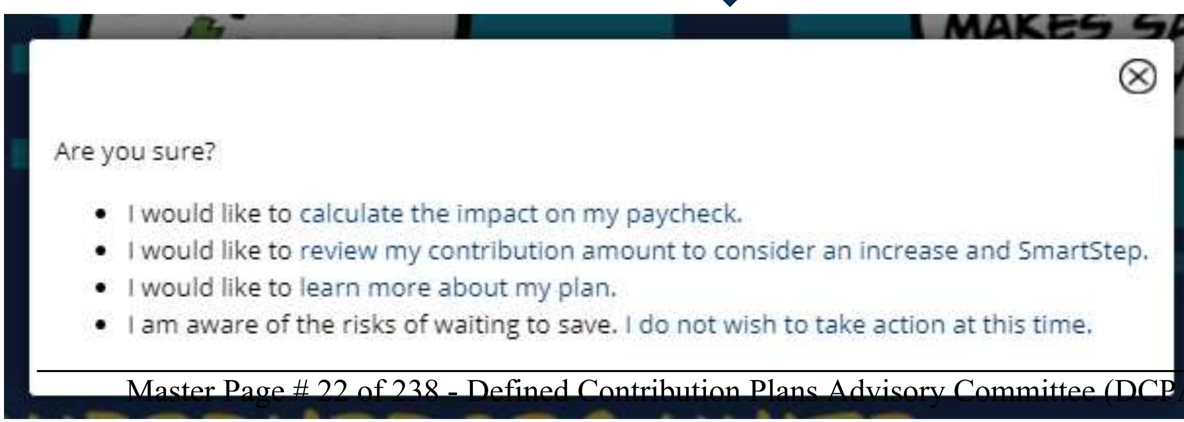
Note: Data reflects totals as of calendar year end and includes ICMA-RC participant & beneficiary accounts.

COV 457/Cash Match Plan Initiatives

Virginia Retirement System

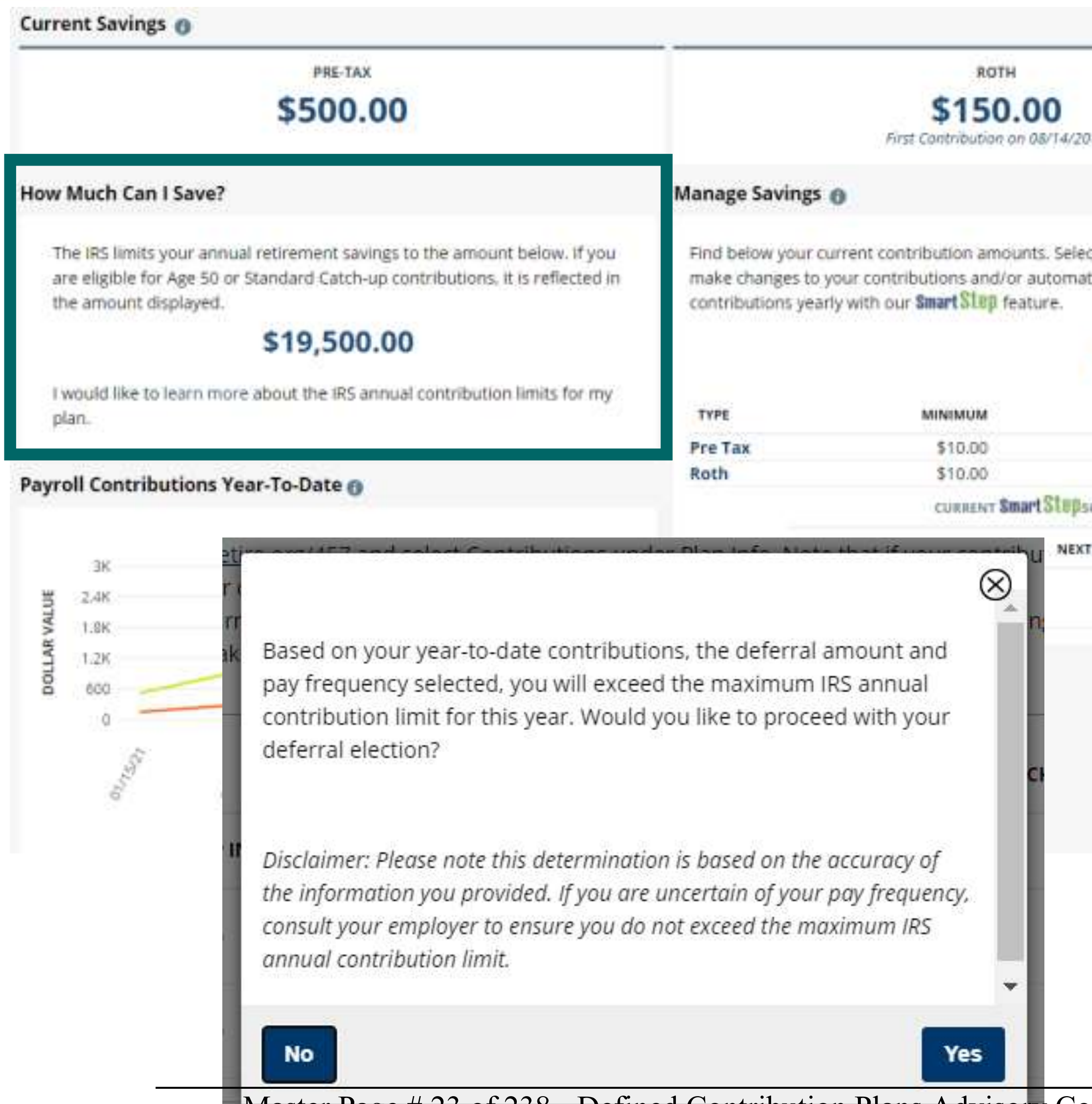
Superhero-themed Splash Screen provided behind Account Access login for active COV 457 participants.

- Choice of three buttons:
  - Save more now
  - Choose a SmartStep month and amount
  - Wait to save



COV 457/Cash Match Plan Initiatives

Virginia Retirement System



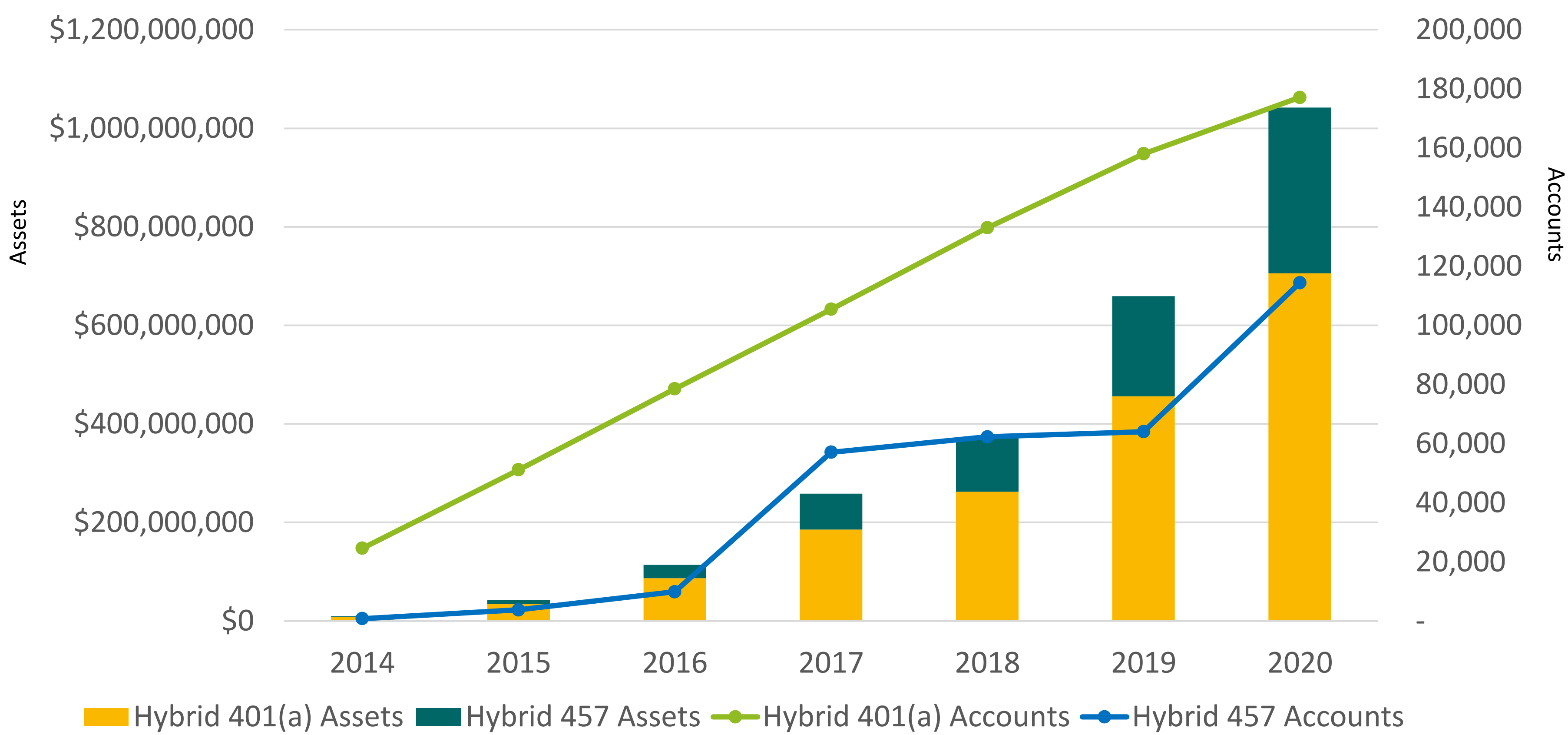
Contribution screen enhancements to display information and pop-up messages that highlight:

- Annual IRS limits
  - Limits for Age 50 Plus and Standard Catch-up
- Deferral amounts by pay period and above a certain threshold
- Message for hybrid plan members contributing to COV 457 but not maximizing full 4% voluntary contributions in Hybrid 457

Hybrid Retirement Plan
Assets and Accounts (DC only)

Totals as of 12/31/2020	Assets	Accounts
Hybrid 401(a)	$705,539,820	177,071
Hybrid 457	$336,604,658	114,383

Assets ↑ 22%
Accounts ↑ 1%
since September 30, 2020

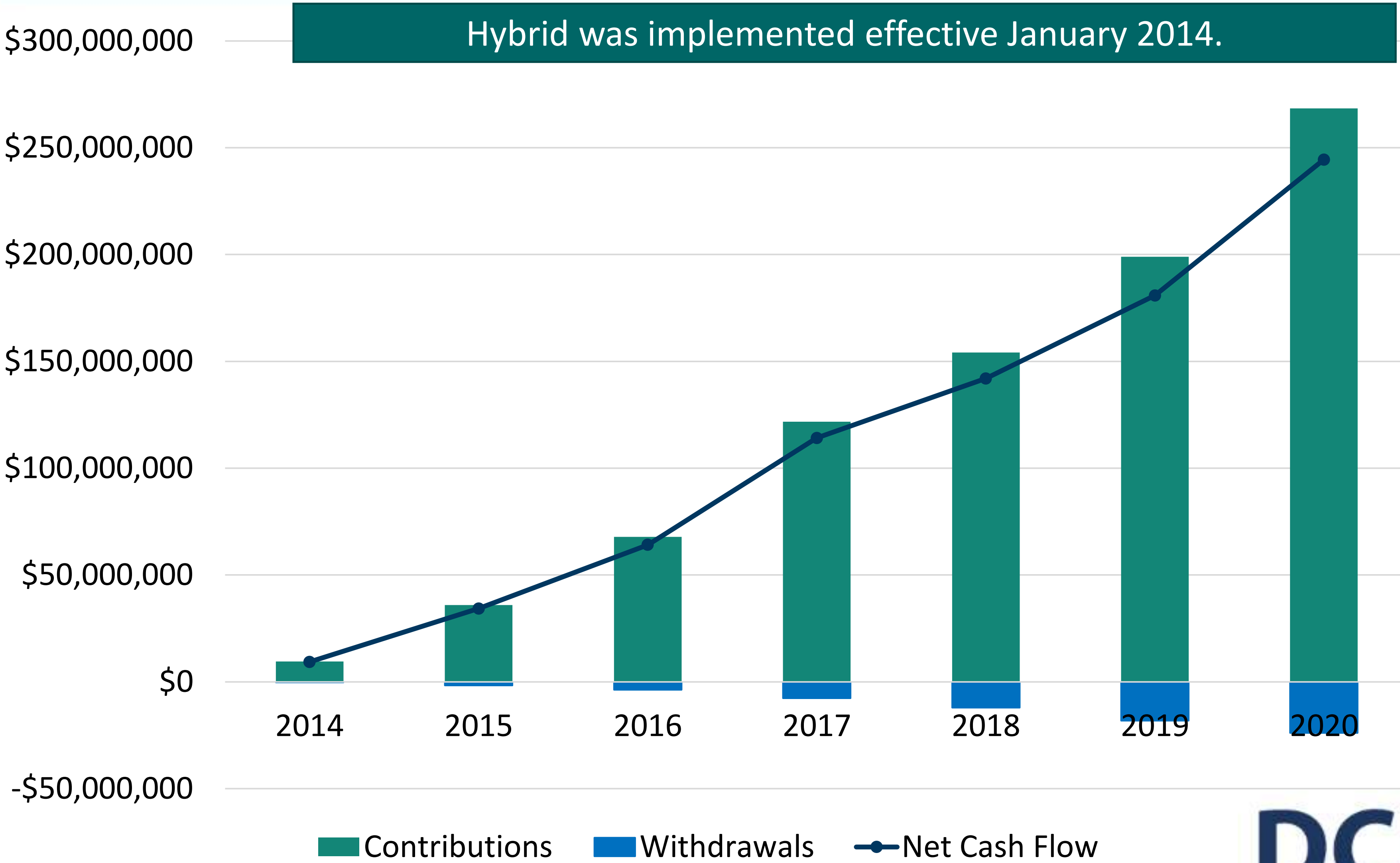


Note: Data reflects totals as of calendar year end and includes ICMA-RC participant, beneficiary & forfeiture accounts.

Hybrid Retirement Plan Cash Flow (DC only)

Virginia Retirement System

Hybrid was implemented effective January 2014.



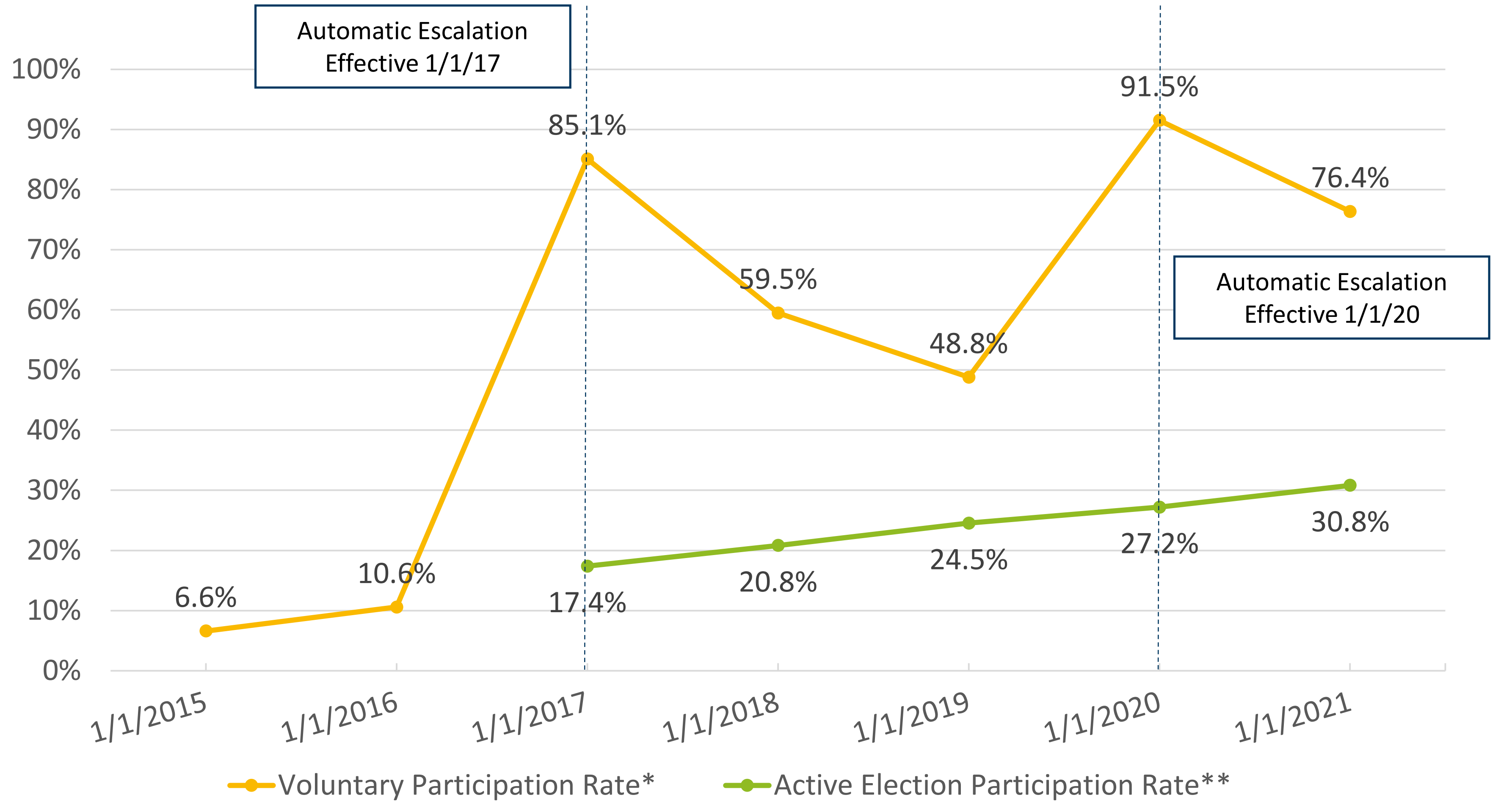
Note: Data reflects totals as of calendar year end and includes ICMA-RC participant & beneficiary accounts.

DCP Virginia Retirement System

Hybrid 457 Plan – Voluntary Participation Rate*

Virginia Retirement System

As of 1/1/2021, 76% of hybrid plan members (96,455 out of 126,296) have a voluntary contribution percentage with ICMA-RC. 31% made an Active Election.**



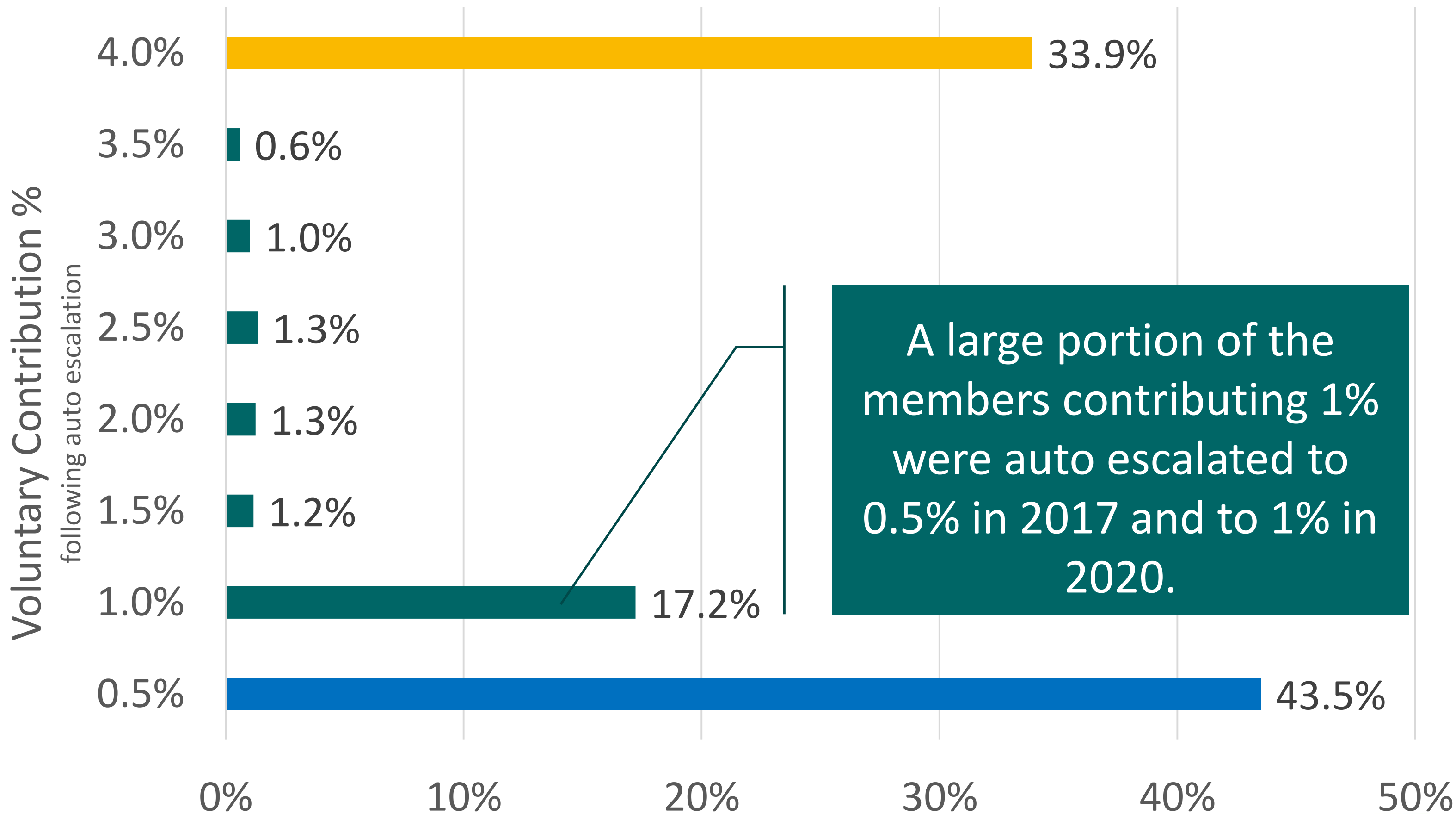
*All data is as of 1/1 and represents elections made during Q4 of the prior year.

**Includes members who had a self-selected voluntary election on file prior to the automatic escalation that occurred on 12/16/2019.

Hybrid 457 Plan - Voluntary Contribution Elections

Virginia Retirement System

Active members with a voluntary contribution election on file as of December 15, 2020.



DCP Virginia Retirement System

Data is as of 1/1/21. Includes members who are actively covered by the Hybrid Retirement Plan with a balance in the Hybrid 401(a).

2020 Auto-Escalation Status

Virginia Retirement System

79,751
People auto-escalated by 0.5% effective 1/1/2020

75%
(59,939)
People remained at their auto-escalated voluntary %

9%
(7,207)*
People increased their voluntary %

6% of total
(5,044)*
People increased to 4%

3%
(2,085)*
People who decreased their voluntary %

Note: Data as of 1/1/21. Percentages do not equal 100% due to employee separations and job changes.
* Counts are cumulative since 1/1/20

Hybrid 403(b) Participation

Virginia Retirement System

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

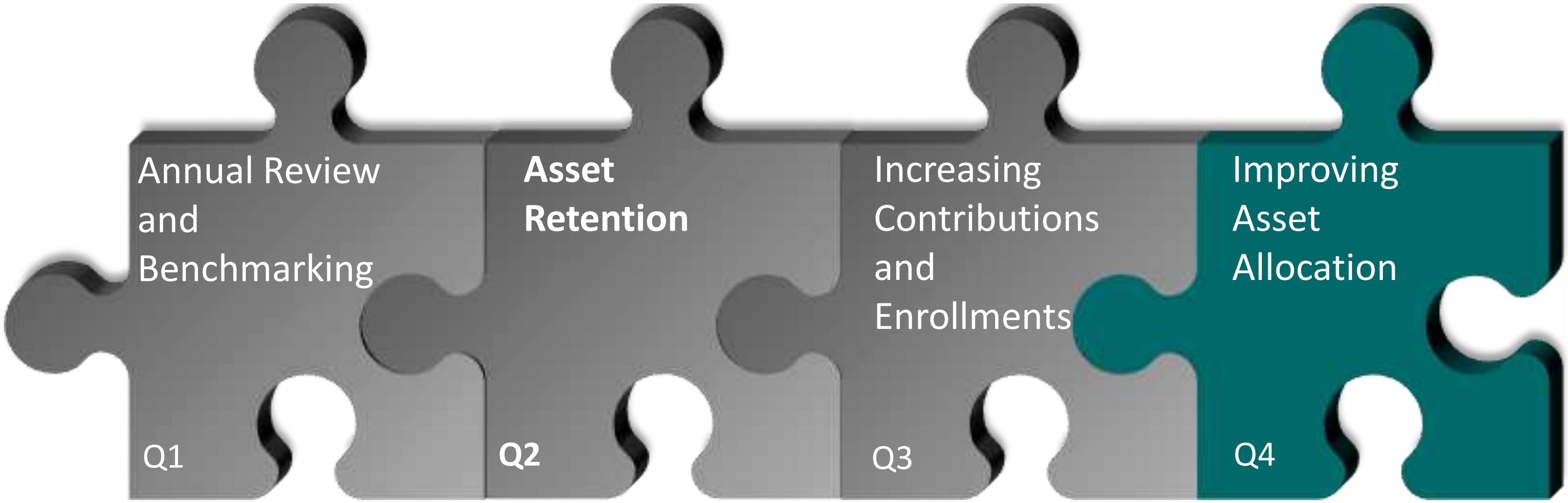
Schools can change their election annually by November 1. Members can elect by November 30.

- 12 school divisions offer the 403(b) for 2021
  - No new employers picked up
- 341 members elected the 403(b) for 2021
  - 3% increase over 2020

Employers with the highest increase in elections:

- Carroll County Public Schools
- Charlotte County School Board
- Galax City Public Schools

Improving Asset Allocation



Related Initiatives

Newsletter articles:
Q2 – COVID-19 and Investing
Q4 – National retirement Security Week

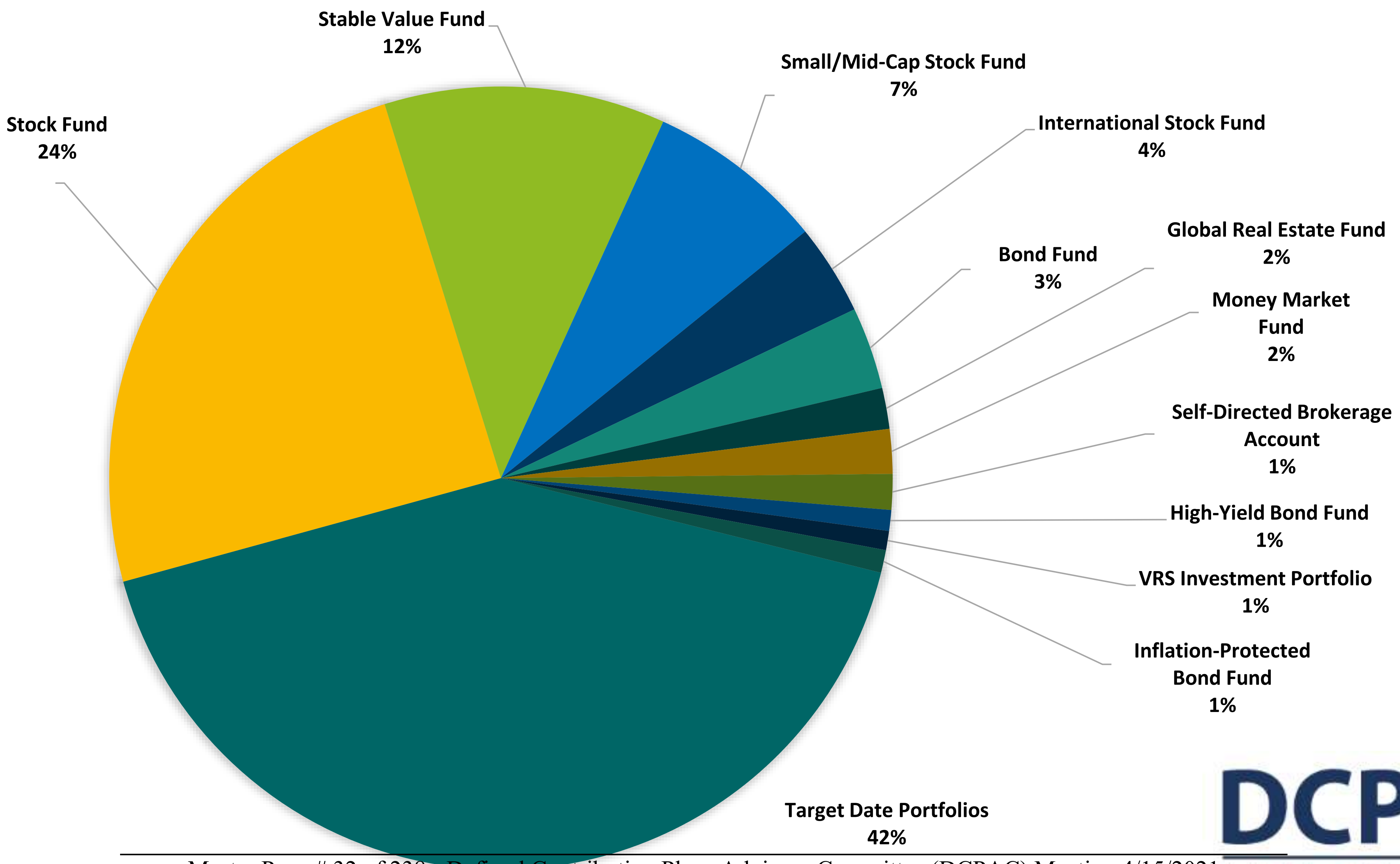
Recorded webinars:
Investing Made Simple
Investing in Volatile Markets
Investment Paths

Ongoing education:
Investment Guide
Fund profiles

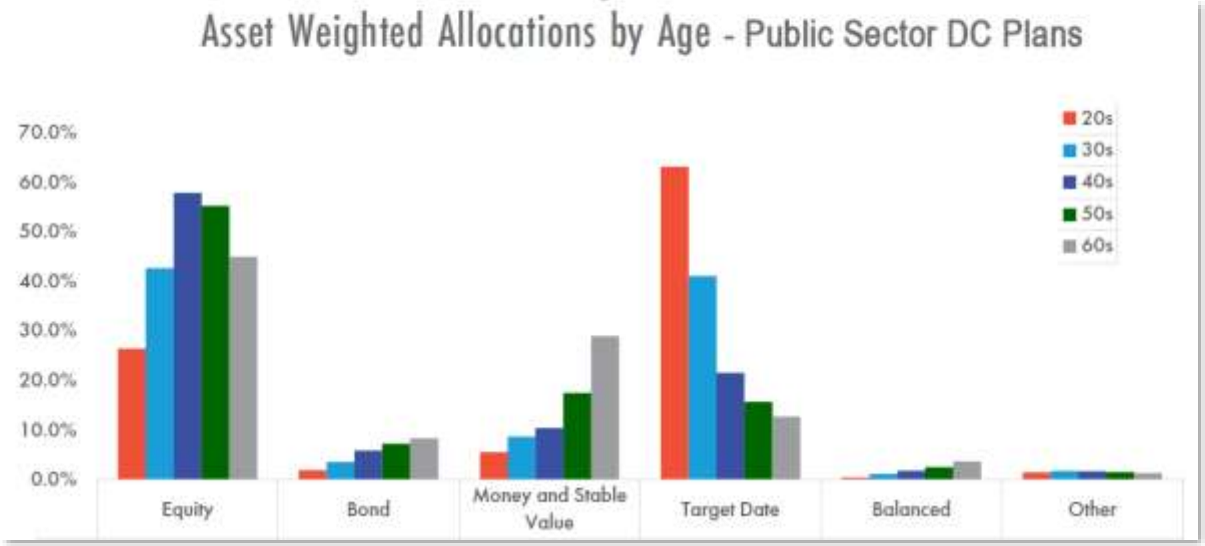
Live webinars:
Understanding Your Plan Investments

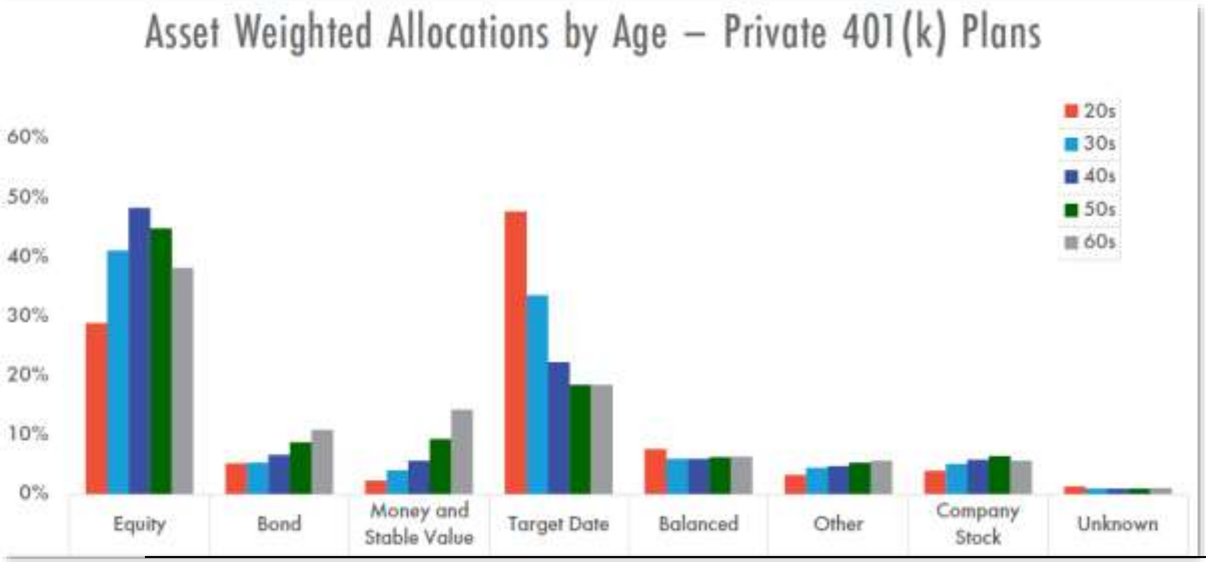
Informational flyers:
Market Unpredictability
Market Returns: Positive vs. Negative Years

Plan Assets by Fund – All Plans



Asset Allocations – Public Retirement Research Lab Study (PRRL)





Asset allocation behaviors align across public and private sector plan participants:

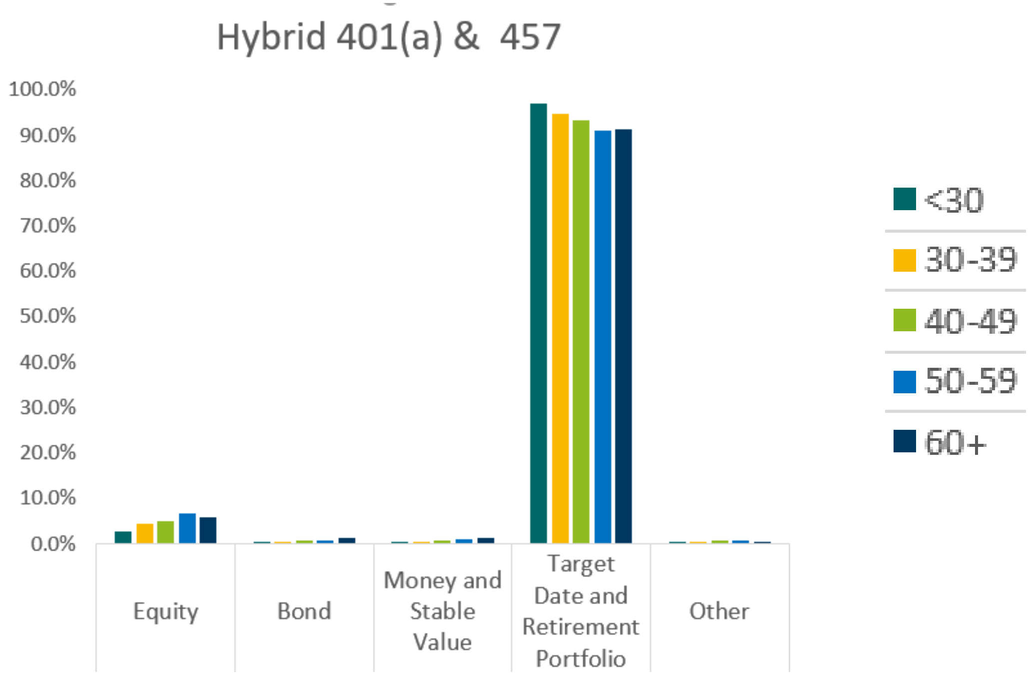
- Equity assets peak in the 40s cohort
- Use of safer assets such as bonds, money market & stable value products increase with age
- Use of target date funds is concentrated in younger cohorts

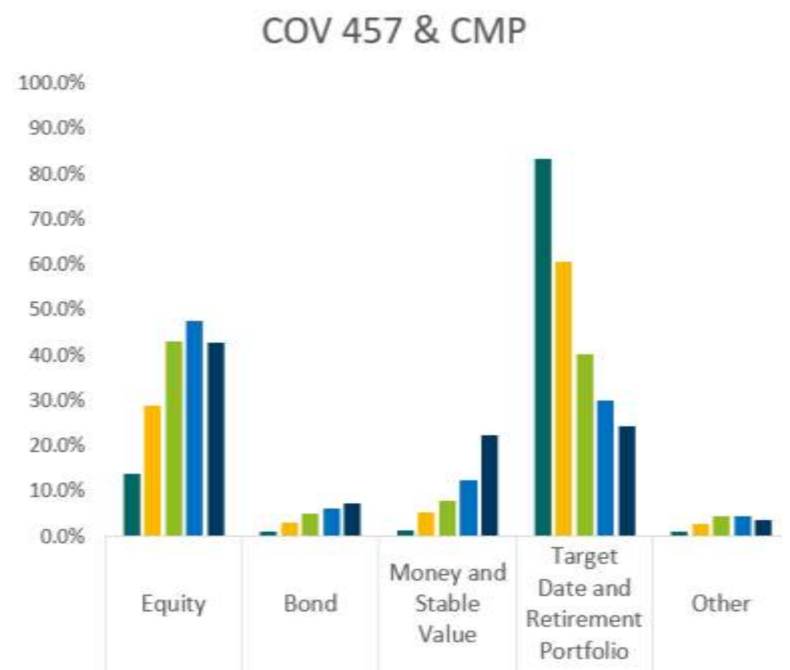
Source: Jack VanDerhei, Sarah Holden, Luis Alonso, and Steven Bass. "401(k) Plan Asset Allocation, Account Balances, and Loan CI Research Perspective, Vol. 24, no. 6 (September 2018).

Source: THE STATE OF PUBLIC SECTOR DC PLANS: A FIRST LOOK AT THE PRRL DATABASE. Research Study No.2, Published 2/25/21.

Comparison – VRS Unbundled Plans Asset Allocations by Age

Virginia Retirement System





Asset allocation in the Hybrid DC plans deviates significantly from the PRRL study.

- Majority of participants stay in the default investment
- Participants are potentially less engaged

Asset allocation in the supplemental plans follows along with the PRRL study.

- Many participants have a long tenure in the plan and have selected varying investment options over time.

Number of Investments Held By Participants

Note: Includes All Plans; Forfeiture and Reserve Accounts Excluded

- Until 2020, there has been a slight year-over-year increase in participants holding a single investment.
  - The number of new hybrid members was significantly lower in 2020 than in previous years, which likely contributed to the slight decrease.

	2016	2017	2018	2019	2020
% in a single investment	75.8%	78.9%	81.6%	83.1%	82.9%

  - Of participants holding a single fund, the majority are in a target date portfolio.
    - 79% in the COV 457 Plan.
    - 99.5% in the Hybrid 401(a) Plan.
- 15% of participants hold between two and five funds.
- 2% of participants hold six or more funds.

Participant Self-Directed Brokerage Account Usage

COV 457 Deferred Compensation Plan

2020
- 652 Accounts
- $76,435,502

2019
- 540 Accounts
- $51,666,964

Virginia Cash Match Plan

2020
- 86 Accounts
- $1,719,612

2019
- 74 Accounts
- $1,453,518

Hybrid Cash Match Plan

2020
- 77 Accounts
- $1,004,959

2019
- 34 Accounts
- $268,003

Hybrid 457 Deferred Compensation Plan

2020
- 49 Accounts
- $685,380

2019
- 27 Accounts
- $178,778

ORPHE

TIAA
- 33 Accounts
- $3,783,675

DCP
- 0 Accounts

ORPPA

2020
- 14 Accounts
- $1,534,328

2019
- 3 Accounts
- $357,788

Participant SDBA Usage
Top Ten Holdings

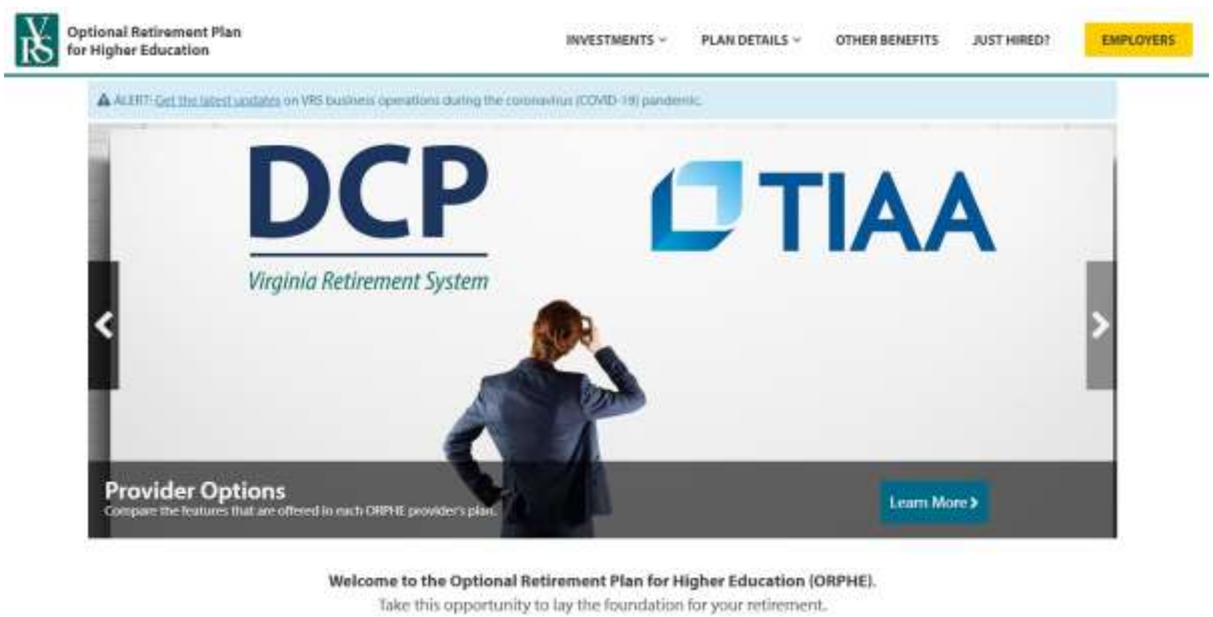
Rank	DCP – TD Ameritrade	Market Value Assets
1	APPLE INC COM	$2,361,243
2	TESLA INC COM	$2,851,612
3	AMAZON COM INC COM	$1,980,213
4	ARROWHEAD PHARMACEUTICALS INC COM	$1,306,635
5	ADVANCED MICRO DEVICES INC COM	$1,085,112
6	MICROSOFT CORP COM	$1,060,245
7	NETFLIX INC COM	$839,753
8	BERKSHIRE HATHAWAY INC COM CL B	$698,624
9	ISHARES TRUST CORE S&P MCP ETF	$667,006
10	ALTRIA GROUP INC COM	$578,474

Rank	TIAA	Market Value Assets
1	HIVE BLOCKCHAIN TECHNOLOGIES LTD COM	$283,317.37
2	VANGUARD INTL EQUITY INDEX FDS GLOBAL EX-US REAL ESTATE INDEX FD ETF SHS	$238,964.00
3	FIDELITY COVINGTON TR MSCI REAL ESTATE INDEX ETF	$230,958.00
4	VANGUARD BALANCED INDEX FUND ADMIRAL SHARES	$227,400.57
5	TESLA INC COM	$191,942.24
6	VANGUARD INFORMATION TECHNOLOGY ETF	$162,743.40
7	ISHARES SILVER TR ISHARES	$124,078.50
8	FRANKLIN TEMPLETON ETF TR FRANKLIN FTSE JAPAN ETF	$104,230.00
9	ABERDEEN STD PLATINUM ETF TR PHYSICAL PLATINUM SHS ETF	$85,620.50
10	SANGAMO THERAPEUTICS INC COM	$84,984.83

Reporting Period: 10/01/2020 Through 12/31/2020

Administrative Summary
ORPHE

ORPHE Totals*			
	9/30/2020	**12/31/2020**	% Change
Assets	$1,028,348,161	**$1,122,929,680**	9%
Participants	10,607	**10,564**	0%
Average Balance	$96,950	**$106,298**	10%



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

Administrative Summary
ORPHE

DCP

	9/30/2020	**12/31/2020**	% Change
Assets	$123,209,063	**$137,782,478**	12%
Participants	2,289	**2,276**	-1%
Average Balance	$53,827	**$60,537**	12%

TIAA*

	9/30/2020	**12/31/2020**	% Change
Assets	$905,139,098	**$985,147,202**	9%
Participants	8,318	**8,288**	0%
Average Balance	$108,817	**$118,864**	9%

Deselected Providers**

	9/30/2020	**12/31/2020^**	% Change
Assets	$141,796,678	**$155,935,340**	10%
Participants	1,522	**3,635**	139%

*Includes assets in GRA/RA and RC contracts.

**Fidelity became a deselected provider effective 1/1/2020. Also included are Empower, T. Rowe Price, AIG and Metlife.

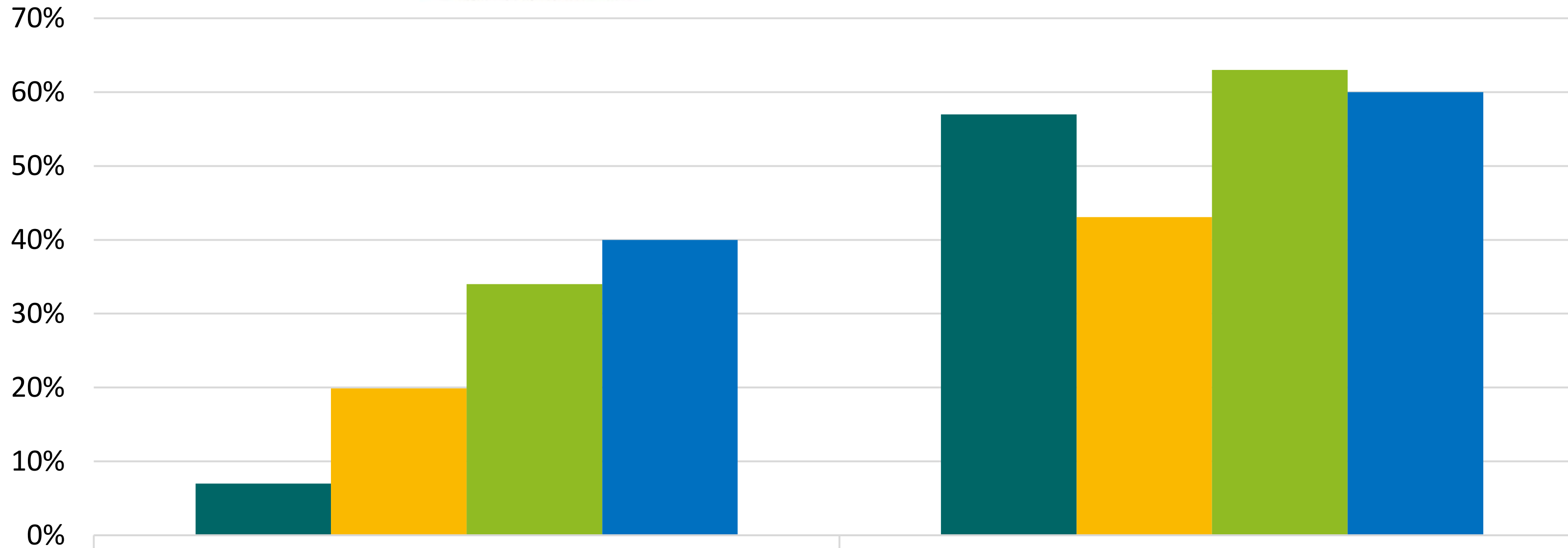
^Fidelity revenue credit of approximately $65,000 applied late to 2,138 zero balance accounts. Had credit been applied timely in 2019, assets would have been included in transition to TIAA/DCP or along with Fidelity lump sum distributions/rollovers.

+Data is as of 3/31/2020. Active is defined as actively employed with an opt-in higher education institution and covered by ORPHE.

Administrative Summary
ORPHE New Hire Provider Selections

DCP
Virginia Retirement System

TIAA



	DCP	TIAA
2017	7%	57%
2018	20%	43%
2019	34%	63%
2020	40%	60%

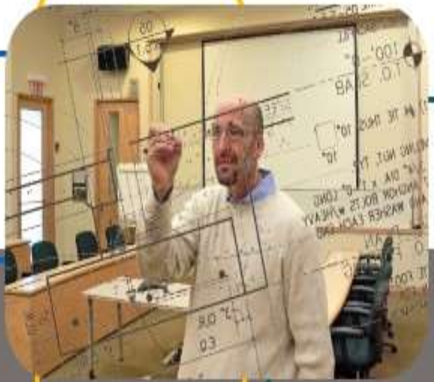
All data is as of calendar year-end.
Note: The DCP option became available January 1, 2017. The myVRS online plan election and provider selection tool became available on December 1, 2017. Fidelity was removed as an option for new hires effective June 1, 2019.

Pensions & Investments – Eddy Award

First Place – Conversions/403(b) Consolidations

VRS and TIAA submitted a joint entry for the ORPHE 2020 plan changes initiative where we migrated an estimated 3,100 accounts, or 28% of the overall ORP population, from Fidelity to TIAA or DCP (record kept by ICMA-RC) and updated investment options for current TIAA participants.

Virginia
Retirement
System



Thank You!

Virginia Retirement System

DC Plans Investments

April 15, 2021

Agenda Items

- Performance
- Callan 2021 DC Trends Survey Highlights
- VRS DC Investment Belief Statements

Virginia Retirement System

February 28, 2021 Performance

Below are the totals for the period ending February 28, 2021. 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	**0.36**	**2.20**	**0.04**	**13.68**	**8.07**	**8.12**	**6.01**	**0.08**	**8/1/05**	**423,168,928**	**7.4**	**6.9**
Custom Benchmark	0.38	2.19	0.05	13.58	7.99	8.06	5.98					
Target Date 2025 Portfolio	**0.78**	**3.13**	**0.46**	**16.51**	**8.58**	**9.85**	**7.04**	**0.08**	**7/5/06**	**312,996,379[24]**	**5.5**	**7.5**
Custom Benchmark	0.80	3.14	0.47	16.44	8.46	9.77	6.98					
Target Date 2030 Portfolio	**1.26**	**4.16**	**0.93**	**19.69**	**9.27**	**10.98**	**7.63**	**0.08**	**8/1/05**	**294,354,130**	**5.2**	**9.2**
Custom Benchmark	1.27	4.16	0.94	19.64	9.12	10.87	7.55					
Target Date 2035 Portfolio	**1.71**	**5.16**	**1.39**	**22.80**	**9.93**	**12.07**	**8.18**	**0.08**	**7/5/06**	**293,060,412**	**5.1**	**10.5**
Custom Benchmark	1.73	5.15	1.39	22.78	9.75	11.92	8.07					
Target Date 2040 Portfolio	**2.12**	**6.05**	**1.79**	**25.63**	**10.49**	**13.02**	**8.64**	**0.08**	**8/1/05**	**246,694,984**	**4.3**	**10.6**
Custom Benchmark	2.13	6.03	1.79	25.64	10.29	12.85	8.52					
Target Date 2045 Portfolio	**2.45**	**6.76**	**2.11**	**28.02**	**10.96**	**13.67**	**9.01**	**0.08**	**7/5/06**	**229,264,279**	**4.0**	**12.0**
Custom Benchmark	2.46	6.74	2.11	28.01	10.74	13.48	8.86					
Target Date 2050 Portfolio	**2.63**	**7.13**	**2.29**	**29.21**	**11.20**	**13.93**	**9.20**	**0.08**	**9/30/07**	**227,627,739**	**4.0**	**13.9**
Custom Benchmark	2.63	7.10	2.27	29.26	10.98	13.75	9.06					
Target Date 2055 Portfolio	**2.66**	**7.17**	**2.31**	**29.41**	**11.26**	**13.96**	**9.35**	**0.08**	**5/19/10**	**268,115,815**	**4.7**	**18.7**
Custom Benchmark	2.67	7.17	2.30	29.49	11.04	13.78	9.20					
Target Date 2060 Portfolio	**2.65**	**7.16**	**2.30**	**29.38**	**11.25**	**13.94**	**9.49**	**0.08**	**11/17/14**	**110,611,494**	**1.9**	**13.4**
Custom Benchmark	2.66	7.16	2.30	29.49	11.04	13.78	9.34					
Target Date 2065 Portfolio	**2.64**	**7.14**	**2.28**	**29.14**	**n/a**	**n/a**	**18.17**	**0.08**	**9/23/19**	**4,269,906**	**0.1**	**1.3**
Custom Benchmark	2.66	7.16	2.30	29.49	n/a	n/a	18.29					
Help-Me-Do-It: Individual Options												
Money Market Fund[5,6]	**0.01**	**0.05**	**0.03**	**0.40**	**1.65**	**1.38**	**0.72**	**0.08**	**11/1/99**	**100,170,768**	**1.8**	**2.4**
FTSE 3 Month Treasury Bill Index	0.01	0.02	0.01	0.33	1.49	1.16	0.60					
Yield as of 02/28/21: 0.17%[7]												
Stable Value Fund[8,9]	**0.14**	**0.46**	**0.28**	**2.08**	**2.28**	**2.09**	**2.01**	**0.24**	**2/1/95**	**645,763,418**	**11.3**	**9.2**
Custom Benchmark[10]	0.03	0.10	0.07	0.45	1.78	1.72	1.47					
Yield as of 02/28/21: 1.81%[11]												
Bond Fund[12]	**-1.46**	**-2.02**	**-2.16**	**1.46**	**5.37**	**3.60**	**3.63**	**0.03**	**11/1/99**	**182,702,649**	**3.2**	**4.4**
Bloomberg Barclays U.S. Aggregate Bond Index	-1.44	-2.02	-2.15	1.38	5.32	3.55	3.58					
Inflation-Protected Bond Fund[13]	**-1.61**	**-0.15**	**-1.27**	**6.05**	**6.23**	**4.40**	**3.66**	**0.03**	**7/30/02**	**53,199,484**	**0.9**	**1.7**
Bloomberg Barclays U.S. TIPS Index	-1.61	-0.15	-1.29	5.85	6.11	4.27	3.57					
High-Yield Bond Fund[14]	**0.91**	**3.67**	**1.66**	**7.78**	**6.53**	**8.20**	**6.49**	**0.40**	**5/31/04**	**48,601,511**	**0.9**	**2.2**
ICE BofA U.S. High-Yield BB-B Constrained Index	0.16	1.86	0.26	8.04	6.51	8.17	6.32					
Stock Fund[15]	**2.78**	**5.65**	**1.74**	**31.40**	**14.19**	**16.86**	**13.46**	**0.01**	**11/1/99**	**1,382,272,806**	**24.2**	**12.5**
S&P 500 Index	2.76	5.63	1.72	31.29	14.14	16.82	13.43					
Small/Mid-Cap Stock Fund[16]	**6.55**	**17.44**	**9.13**	**45.99**	**15.11**	**17.48**	**12.27**	**0.02**	**11/1/99**	**447,696,705**	**7.8**	**7.0**
Russell 2500 Index[17]	6.52	17.44	9.13	45.90	15.08	17.42	12.18					
International Stock Fund[18]	**2.16**	**8.08**	**2.34**	**26.96**	**5.94**	**11.19**	**5.65**	**0.06**	**11/1/99**	**214,813,847**	**3.8**	**5.8**
MSCI ACWI ex-U.S. IMI Index[19]	2.20	8.12	2.37	27.24	5.44	10.89	5.33					
Global Real Estate Fund[20]	**3.83**	**6.76**	**3.04**	**1.96**	**5.73**	**6.13**	**7.20**	**0.09**	**10/1/02**	**95,704,617**	**1.7**	**3.7**
FTSE EPRA/NAREIT Developed Index[21]	3.70	6.47	2.86	1.12	4.89	5.16	6.56					
VRSIP[22]	**0.00**	**10.05**	**0.00**	**10.57**	**7.19**	**9.57**	**8.10**	**0.60**	**7/1/08**	**43,657,815[25]**	**0.8**	**0.6**
VRS Custom Benchmark[23]	-0.32	8.13	-0.32	9.54	7.07	9.40	7.74					
VRSIP and benchmark returns are reported with a one month lag. [Return information shown is as of January 31, 2021.] [Market value as of January 31, 2021 was $43,070,383.]												
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**	**89,539,483**	**1.6**	**0.2**
Total										**$5,714,287,169[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 Barclays U.S. Aggregate Bond Index, Bloomberg Barclays 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 ICMA-RC 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 $286,494.

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

26 Includes $3,750,345 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, 2020. There were 393,259 participant accounts as of December 31, 2020 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 ICMA-RC 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 ICMA-RC. Benchmark returns are provided by BlackRock, Russell/Mellon Analytical Services, Galliard, and ICMA-RC. 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.

Unbundled DC Plans Update

- Effective April 1, 2021 the Pending Account VRSIP (PENDVRSIP) changed from the Target Date 2025 Portfolio to the Target Date 2035 Portfolio
  - The PENDVRSIP is a daily valued account where contributions and investment transfers are held until invested in the VRSIP

- Wells Fargo recently announced it reached an agreement with private equity firms GTCR LLC and Reverence Capital Partners, L.P. to acquire Wells Fargo Asset Management
  - The deal includes Galliard Capital Management (VRS' stable value investment manager)
  - The transaction is expected to close in the second half of 2021
  - Staff continues to monitor developments

Defined Contribution Plans Advisory Committee Report

TIAA RC Contract Investment Performance

Below are the totals for the period ending Febuary 28, 2021. 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	**0.36**	**2.20**	**0.04**	**13.68**	**8.07**	**8.12**	**6.01**	**0.08**	**8/1/05**	**28,386,361**	**9.4**	**9.8**
Custom Benchmark	0.38	2.19	0.05	13.58	7.99	8.06	5.98					
BlackRock LifePath Index 2025 Fund O	**0.78**	**3.13**	**0.46**	**16.51**	**8.58**	**9.85**	**7.04**	**0.08**	**7/5/06**	**20,440,053**	**6.8**	**6.9**
Custom Benchmark	0.80	3.14	0.47	16.44	8.46	9.77	6.98					
BlackRock LifePath Index 2030 Fund O	**1.26**	**4.16**	**0.93**	**19.69**	**9.27**	**10.98**	**7.63**	**0.08**	**8/1/05**	**26,961,136**	**8.9**	**8.7**
Custom Benchmark	1.27	4.16	0.94	19.64	9.12	10.87	7.55					
BlackRock LifePath Index 2035 Fund O	**1.71**	**5.16**	**1.39**	**22.80**	**9.93**	**12.07**	**8.18**	**0.08**	**7/5/06**	**21,142,974**	**7.0**	**9.0**
Custom Benchmark	1.73	5.15	1.39	22.78	9.75	11.92	8.07					
BlackRock LifePath Index 2040 Fund O	**2.12**	**6.05**	**1.79**	**25.63**	**10.49**	**13.02**	**8.64**	**0.08**	**8/1/05**	**23,077,604**	**7.6**	**9.5**
Custom Benchmark	2.13	6.03	1.79	25.64	10.29	12.85	8.52					
BlackRock LifePath Index 2045 Fund O	**2.45**	**6.76**	**2.11**	**28.02**	**10.96**	**13.67**	**9.01**	**0.08**	**7/5/06**	**19,594,928**	**6.5**	**10.1**
Custom Benchmark	2.46	6.74	2.11	28.01	10.74	13.48	8.86					
BlackRock LifePath Index 2050 Fund O	**2.63**	**7.13**	**2.29**	**29.21**	**11.20**	**13.93**	**9.20**	**0.08**	**9/30/07**	**10,904,386**	**3.6**	**7.8**
Custom Benchmark	2.63	7.10	2.27	29.26	10.98	13.75	9.06					
BlackRock LifePath Index 2055 Fund O	**2.66**	**7.17**	**2.31**	**29.41**	**11.26**	**13.96**	**9.35**	**0.08**	**5/19/10**	**4,782,882**	**1.6**	**5.2**
Custom Benchmark	2.67	7.17	2.30	29.49	11.04	13.78	9.20					
BlackRock LifePath Index 2060 Fund O	**2.65**	**7.16**	**2.30**	**29.38**	**11.25**	**13.94**	**9.49**	**0.08**	**11/17/14**	**906,476**	**0.3**	**1.9**
Custom Benchmark	2.66	7.16	2.30	29.49	11.04	13.78	9.34					
BlackRock LifePath Index 2065 Fund O	**2.64**	**7.14**	**2.28**	**29.14**	**n/a**	**n/a**	**18.17**	**0.08**	**9/23/19**	**638,255**	**0.2**	**0.4**
Custom Benchmark	2.66	7.16	2.30	29.49	n/a	n/a	18.29					
Individual Options												
BlackRock Short-Term Investment Fund W [5]	**0.01**	**0.05**	**0.03**	**0.40**	**1.65**	**1.39**	**0.80**	**0.08**	**7/1/03**	**5,956,642**	**2.0**	**8.2**
FTSE 3 Month Treasury Bill Index	0.01	0.02	0.01	0.33	1.49	1.16	0.60					
Yield as of 02/28/21: 0.17%[6]												
BlackRock U.S. Debt Index Fund M [7]	**-1.46**	**-2.02**	**-2.16**	**1.46**	**5.37**	**3.60**	**3.64**	**0.03**	**6/6/96**	**8,800,184**	**2.9**	**19.6**
Bloomberg Barclays U.S. Aggregate Bond Index	-1.44	-2.02	-2.15	1.38	5.32	3.55	3.58					
BlackRock U.S. TIPS Fund M [8]	**-1.61**	**-0.15**	**-1.27**	**6.05**	**6.23**	**4.40**	**3.66**	**0.03**	**7/30/02**	**4,700,881**	**1.6**	**13.1**
Bloomberg Barclays U.S. TIPS Index	-1.61	-0.15	-1.29	5.85	6.11	4.27	3.57					
BlackRock Equity Index Fund J [9]	**2.78**	**5.65**	**1.74**	**31.40**	**14.20**	**16.87**	**13.47**	**0.01**	**3/5/97**	**29,354,564**	**9.7**	**25.0**
S&P 500 Index	2.76	5.63	1.72	31.29	14.14	16.82	13.43					
BlackRock Russell 2500 Index Fund M [10]	**6.54**	**17.43**	**9.13**	**45.98**	**15.10**	**17.48**	**12.37**	**0.04**	**9/30/08**	**8,585,862**	**2.8**	**3.8**
Russell 2500 Index	6.52	17.44	9.13	45.90	15.08	17.42	12.27					
BlackRock MSCI ACWI ex-U.S. IMI Index Fund M [11]	**2.15**	**8.07**	**2.33**	**26.91**	**5.89**	**11.54**	**5.14**	**0.11**	**2/28/11**	**16,930,057**	**5.6**	**19.3**
MSCI ACWI ex-U.S. IMI Index	2.20	8.12	2.37	27.24	5.44	11.29	4.96					
BlackRock MSCI ACWI IMI Index Non-Lendable Fund M [12]	**2.72**	**7.62**	**2.52**	**31.49**	**10.73**	**14.68**	**10.33**	**0.05**	**4/12/13**	**39,192,776**	**13.0**	**34.5**
MSCI ACWI IMI Index	2.66	7.57	2.48	31.49	10.25	14.29	9.94					
TIAA Real Estate Account [13]	**0.63**	**1.54**	**1.21**	**0.28**	**3.48**	**3.80**	**7.08**	**0.78**	**10/2/95**	**7,696,974**	**2.6**	**27.7**
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]	**0.30**	**0.96**	**0.63**	**3.99**	**4.04**	**4.11**	**4.23**	**0.46**	**8/1/05**	**19,798,362**	**6.6**	**29.4**
Self-Directed Brokerage Account												
TIAA-CREF Self-Directed Account	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**4,520,998**	**1.5**	**0.6**
Total										**$302,372,355**		

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 Barclays U.S. Aggregate Bond Index, Bloomberg Barclays 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 Barclays 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 2.75%.

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 46 basis points (0.46%) 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, 2020. There were 5,147 (RC contract) participants as of December 31, 2020.

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.

Virginia Retirement System

Callan 2021 DC Trends Survey Highlights

Callan 2021 DC Trends Survey Highlights

Virginia Retirement System

Respondent Characteristics

Callan conducted our 14th annual *DC Survey* online in September and October of 2020 (*2021 DC Survey*). The survey incorporates responses from 93 large DC plan sponsors, including both Callan clients and other organizations.

Respondents span a range of industries; the top industries represented are financial services/insurance, energy/utilities, government, automotive/construction & mining/manufacturing, and health care. Note, the survey requests what is 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 90% of plans in the survey had over $100 million in assets; moreover, 60.9% were "mega plans" with more than $1 billion in assets. The majority of respondents (57.8%) had more than 10,000 participants.

Primary industry employees hired from

Financial Services / Insurance	20%
Energy / Utilities	16%
Government	13%
Automotive / Construction & Mining / Manufacturing	13%
Health Care	10%
Technology	7%
Aerospace / Defense	5%
Retail	4%
Professional Services	4%
Other	8%

Other categories: education (2%), entertainment / media (2%), nonprofit (2%), and transportation (1%).

Number of participants in DC plan

> 100,000	13%
50,001 to 100,000	7%
10,001 to 50,000	38%
5,001 to 10,000	13%
1,001 to 5,000	17%
≤ 1,000	12%

Assets in DC plan

> $5 billion	29%
$1 to $5 billion	32%
$500.1 mm to $1 bn	12%
$200.1 to $500 million	10%
$100.1 to $200 million	10%
≤ $100 million	8%

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

Callan 2021 DC Trends Survey Highlights

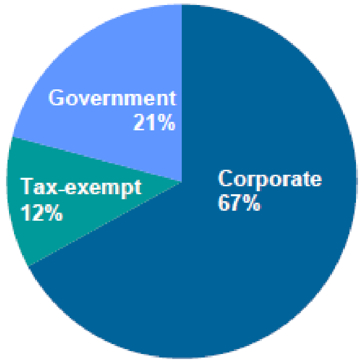
Two-thirds of respondents surveyed are corporate organizations, followed by governmental (20.9%) and tax-exempt (12.1%) entities.

As seen in prior surveys, a 401(k) plan is the primary DC offering (81.7%). The majority of tax-exempt entities (e.g., hospitals and non-profit organizations) offer a 403(b) plan as their primary DC plan (72.7%).

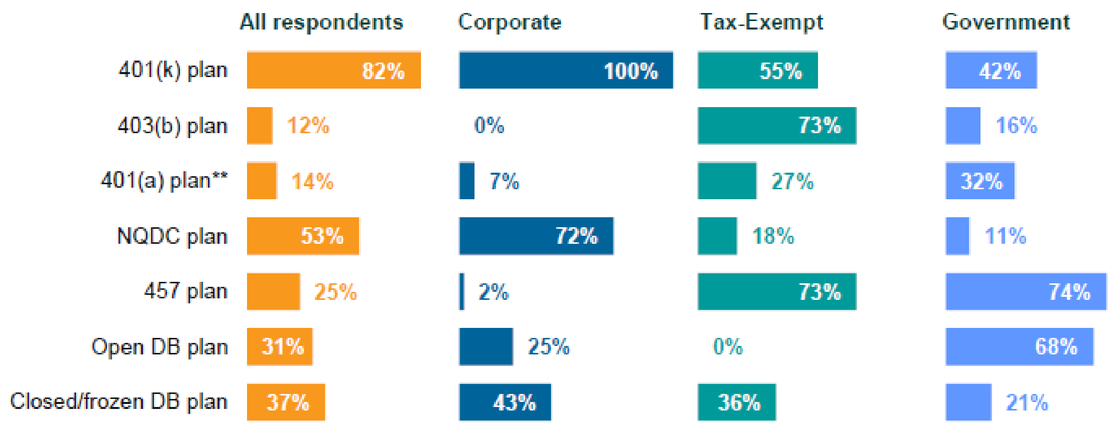
Roughly 7 in 10 corporate respondents (72.1%) offer a nonqualified deferred compensation (NQDC) plan, while a similar portion of tax-exempt (72.7%) and governmental (73.7%) entities offer a 457 plan.

About 3 in 10 (31.2%) DC plan sponsors surveyed offer an open defined benefit (DB) plan, compared to 39.0% in 2015. Governmental entities are more likely to offer an open DB plan (68.4%), while corporate plan sponsors are the most likely to have a closed or frozen DB plan (42.6%).

Organization type



Retirement benefits offered*



Callan 2021 DC Trends Survey Highlights

Virginia Retirement System

Key Findings: DC Trends in Governance, Plan Design, and Investments

Top Areas of Focus

1. Governance and process
2. Investment structure evaluation
3. Fund / manager due diligence

See page 6 for details

Planned for 2021

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

See page 7 for details

71% of plan sponsors are either somewhat or very likely to conduct a fee study in 2021

See page 12 for details

20% increase in total committee meetings

Virtual Up 86%

In-person down 62%

See page 13 for details

49% offer a managed account

87% with > 50k participants

See page 17 for details

7 in 10 completed a plan design evaluation in past 3 years

8 in 10 offer Roth

6 in 10 offer Roth in-plan conversions

7 in 10 have automatic enrollment

83% seek to retain assets of retirees

63% offer a retirement income solution

See pages 21 & 22 for details

2x as many plans suspended or reduced the matching contribution in 2020

86% indicated they would reinstate

91% have taken steps to prevent plan leakage

3.5 actions taken, on average, to reduce leakage

Callan 2021 DC Trends Survey Highlights

DC Plan Governance Trends: Fiduciary Initiatives

In 2019 and 2020, DC plan sponsors were largely focused on actions that support governance responsibilities such as fiduciary training, investment structure, and documentation (i.e., investment policy statement (IPS)).

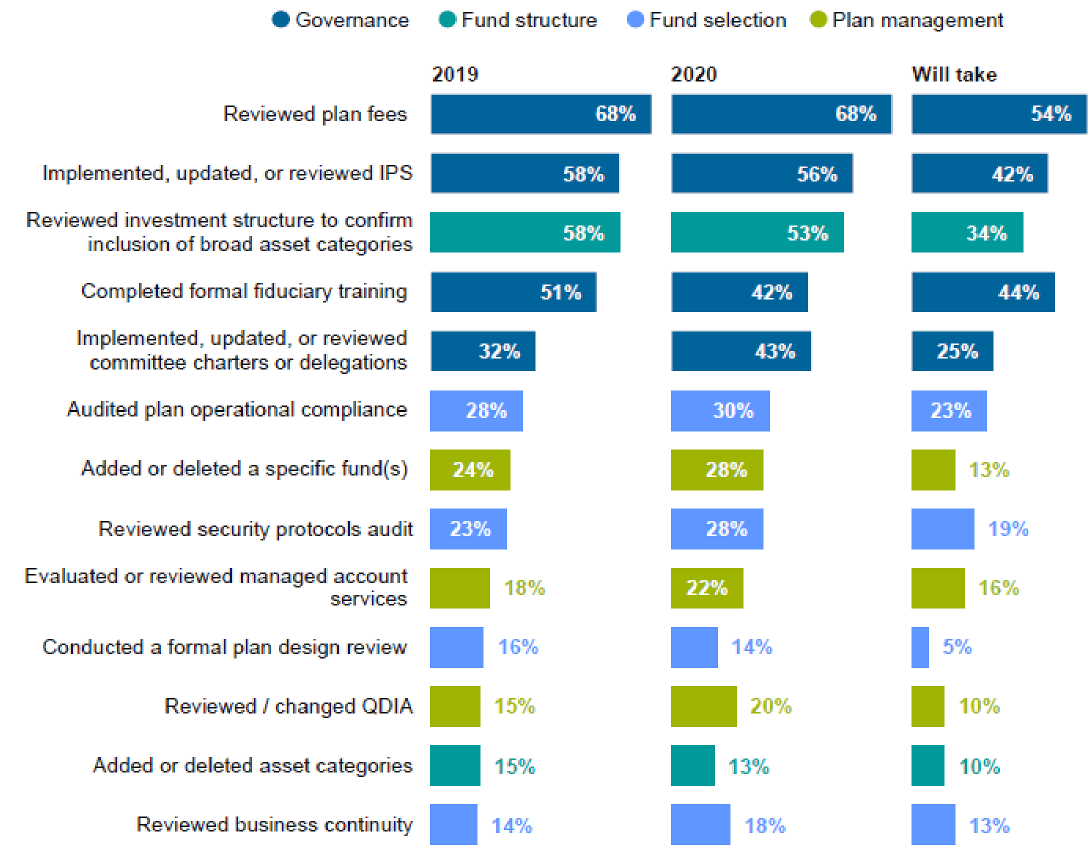
Around one-quarter of respondents added or deleted a fund in 2019 or 2020, but fewer plan to do so in 2021 (12.7%). This drop-off reflects the general nature of fund changes: they are not necessarily premeditated many months in advance, and plan sponsors may act relatively quickly once any decision has been made.

Few respondents took action on services and capabilities utilized at the plan level (e.g., reviewed business continuity) or for participant use (e.g., managed accounts).

Top Actions Planned for 2021

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

Fiduciary actions DC plans has taken or will take*



*Multiple responses allowed

Callan 2021 DC Trends Survey Highlights

DC Plan Governance Trends: Investment Structure

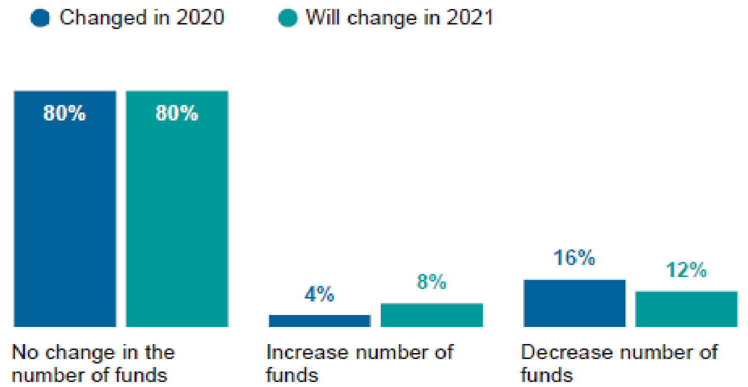
The events of 2020, including the COVID-19 pandemic and economic turmoil, seem to have slowed the pace of change made to investment structures.

Only 16.2% of plan sponsors report making changes to the investment structure in 2020, down from 25.3% in 2019. Furthermore, more sponsors indicate they are planning a change next year—19.1% of all respondents, or 25.5% when governmental plans are removed from the dataset, compared to 15.7% of respondents in last year's survey, which did not include governmental plans.

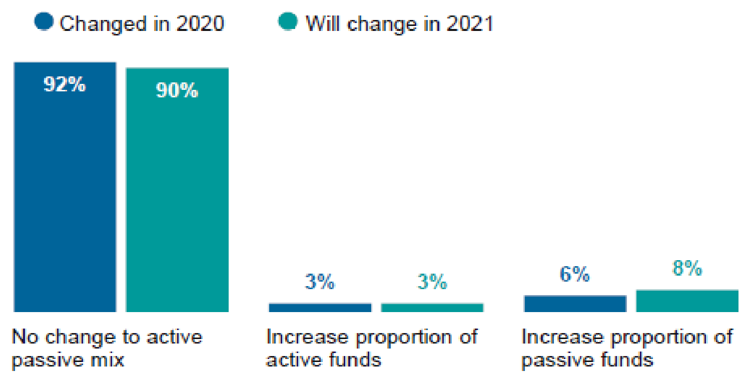
The most common action in 2020 or planned for 2021 was to decrease the number of funds (25.5%). Only 9.8% of respondents indicated they would increase the number of funds in either year.

Just **2 in 10** plan sponsors are **planning changes to the investment structure** in 2021.

Investment structure change in fund quantity



Investment structure change in fund style



Callan 2021 DC Trends Survey Highlights

DC Plan Governance Trends: Fee Payment

Investment management fees are most often paid entirely by participants (79.0%), and almost always at least partially paid by participants (86.4%). By contrast, nearly half (49.4%) of all administrative fees are paid entirely by participants, up slightly from last year. Most plan sponsors (80.2%) note that at least some administrative fees are paid for by participants.

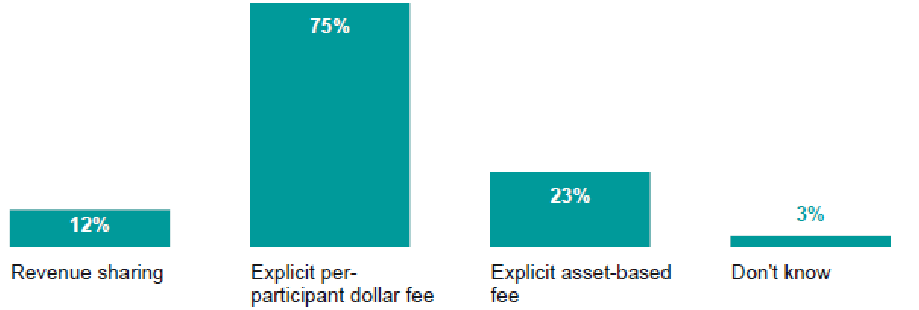
More than three-quarters of plan sponsors report using a per-participant fee for plan administration. Flat, per-participant fees continue to be more popular than asset-based fees that fluctuate based on account balances (75.4% vs. 23.0%, respectively).

92.6% of respondents are somewhat or very **unlikely to change the way fees are paid** (e.g., move from asset-based to flat, per-participant fee) in 2021.

How investment management fees are paid

How administrative fees are paid

How participants pay for plan administration*



*Multiple responses allowed.

Callan 2021 DC Trends Survey Highlights

Virginia Retirement System

DC Plan Governance Trends: Fee Initiatives

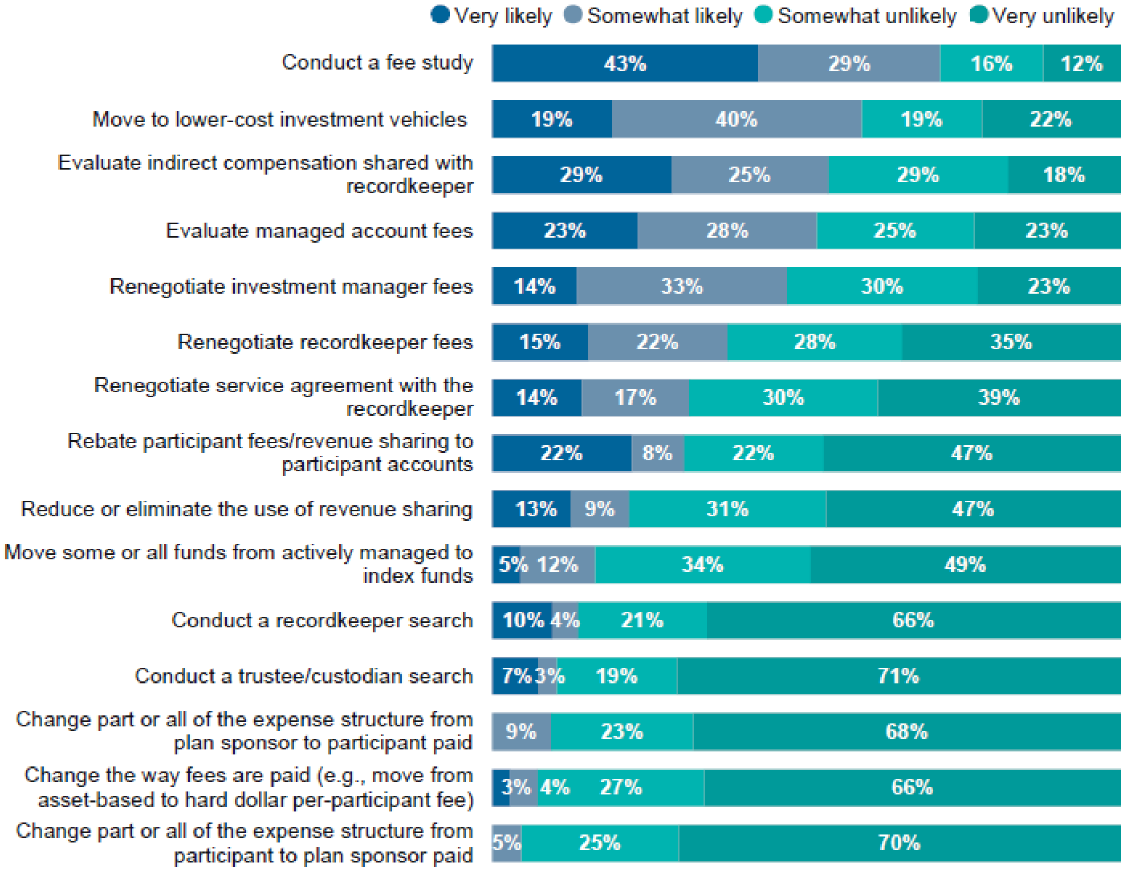
More than two-thirds of plan sponsors are either somewhat or very likely to conduct a fee study in 2021 (71.2%), an increase from the prior year's DC survey (55.7%). Most respondents also indicate that they are very or somewhat likely to review other fee types (e.g., managed account services fees) and indirect revenue (e.g., revenue shared from the managed account or rollover provider).

Fewer plan sponsors report exploring a recordkeeper search in the coming year. Just 13.7% of respondents are somewhat or very likely to conduct a recordkeeper search in 2021, compared to nearly one-quarter in last year's survey.

A clear majority (58.8%) of respondents are likely to move to lower-cost investment vehicles (e.g., move from an R6 share class to a collective investment trust) in 2021, albeit a decrease from the prior year.

Other somewhat or very likely actions include renegotiating investment manager and recordkeeper fees (47.0% and 37.5%, respectively).

Fee initiatives planned for 2021



Callan 2021 DC Trends Survey Highlights

DC Plan Governance Trends: Use of Investment Consultants

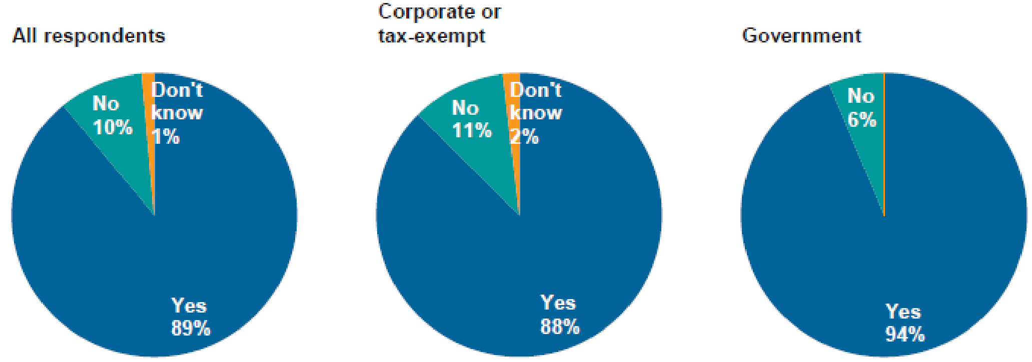
Nearly 9 in 10 (89.0%) plan sponsors engaged an investment consultant in 2020, in line with 2019 (89.2%) and up from 2018 (84.1%). Of those that utilize an investment consultant, 54.8% solely use a 3(21) non-discretionary adviser. Government plan sponsors are more likely to use an investment consultant (93.8%) but are less certain of the adviser's role (discretionary vs. non-discretionary). A notable portion of corporate and tax-exempt plan sponsors (21.4%) were unsure which type of consultant they use.

A handful of corporate and tax-exempt entities report using a 3(38) discretionary adviser, either exclusively or partially, while no government plans confirmed using this type of consultant. This low uptake may reflect that these plan sponsors are less likely to participate in these types of surveys, as they have delegated several facets of fiduciary responsibility.

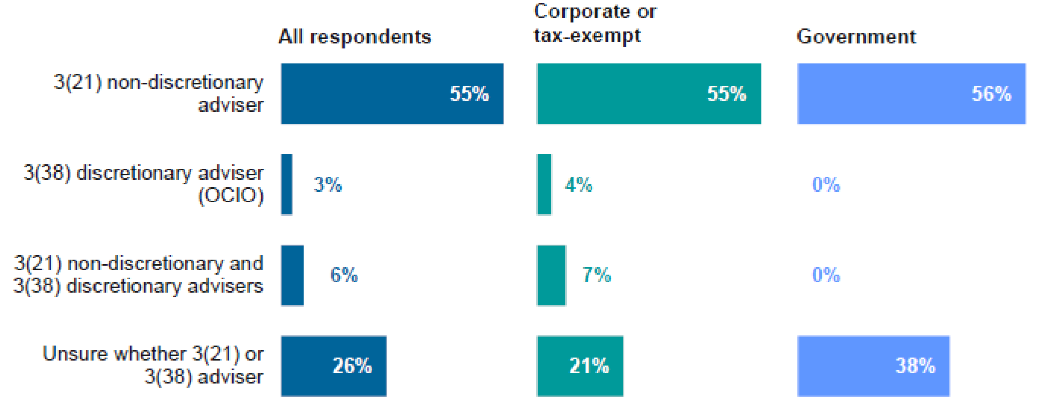
3(38) discretionary consultant: The investment consultant selects and monitors funds and acts as a co-fiduciary (also known as an outsourced chief investment officer or OCIO model).

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)



Type of consultant used



Callan 2021 DC Trends Survey Highlights

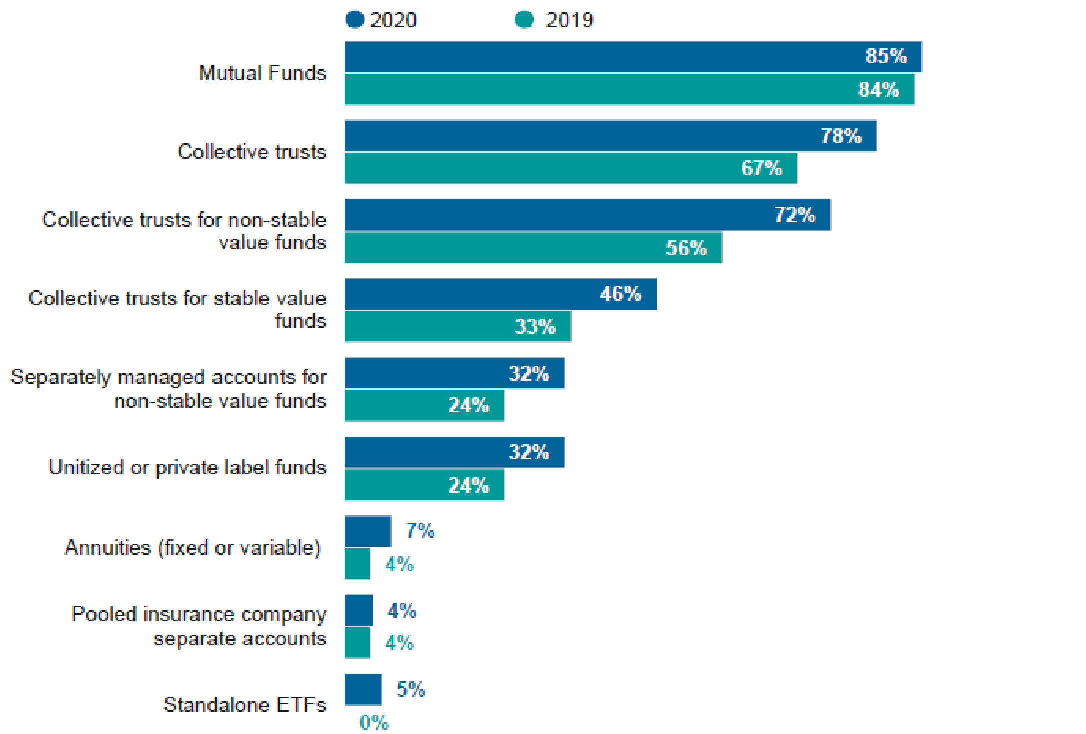
DC Plan Investment Trends: Types of Investment Vehicles

Mutual funds (85.1%) and collective trusts (78.4%) continue to be the most prevalent investment vehicles. Plans are less likely to use collective trusts for stable value funds (45.9%) than non-stable value options (71.6%).

Over the past decade, the use of mutual funds has decreased by nearly 10% while the use of collective trusts has increased by about 25%. In 2020, separate account usage for non-stable value funds increased slightly from 2019 (23.5%).

The proportion of plans using unitized funds increased from 23.5% in 2019 to 32.4% in 2020. The majority of plans that use unitized funds (95.8%) have over $1 billion in assets.

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 2021 DC Trends Survey Highlights

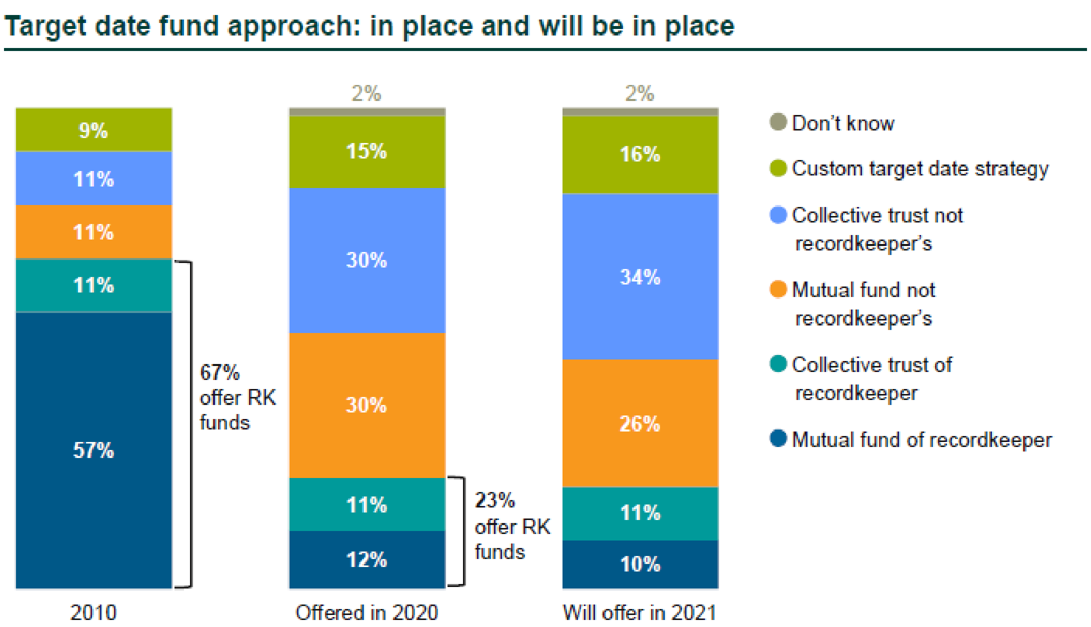
Virginia Retirement System

DC Plan Investment Trends: Target Date Fund Approaches

The usage of recordkeeper target date vehicles in DC plans continues to drop over time.

Only 22.7% of respondents used their recordkeeper's target date option in 2020, a sharp decrease from 67.4% from a decade ago. That number is projected to decrease slightly in 2021 to 21.3%.

The prevalence of mutual funds for the target date fund is on the decline, as well. In 2010, 67.4% of plans used a mutual fund for their target date fund compared to 42.4% in 2020.



Callan 2021 DC Trends Survey Highlights

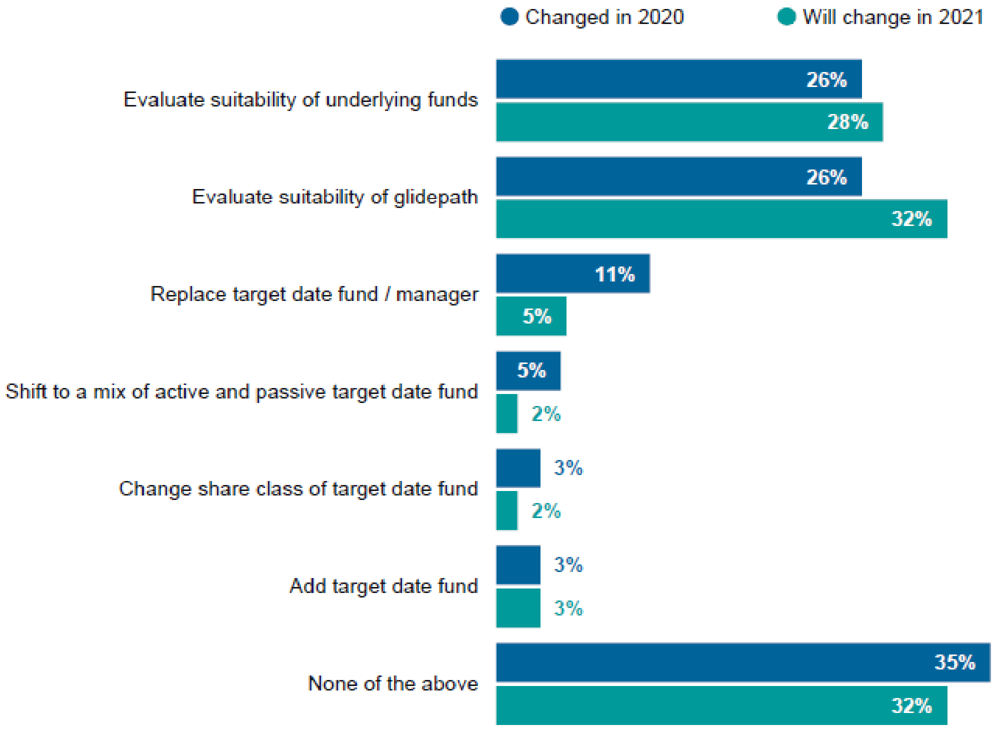
DC Plan Investment Trends: Actions Around Target Date Funds

Most plans took at least one action around the target date fund in 2020 (64.6%). The most common actions were to evaluate the suitability of the underlying funds and the glidepath (26.2% each). A slightly higher percentage of plans aim to accomplish these tasks in 2021.

4 in 10 respondents that reviewed the underlying funds in 2020 also report they would do so in 2021; only two in 10 that reviewed the glidepath will do so both years.

Notably, 15.4% of respondents indicated they were changing the target date fund/manager in either 2020 or 2021.

Actions taken or planning to take regarding target date fund suite*



Additional categories with <2% (2020): Shift to all passive, move to dynamic QDIA, move to target date collective trust, move to custom target date funds, eliminate target date fund.

*Multiple responses allowed

Callan 2021 DC Trends Survey Highlights

DC Plan Investment Trends: Managed Accounts and Advice

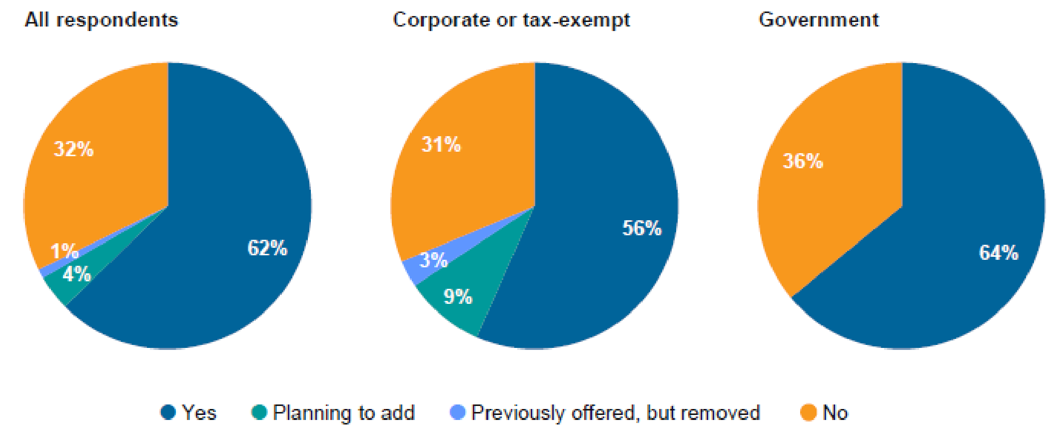
Most DC plan sponsors (62.0%) offer either managed account services or advice to support plan participants.

While the definition of a fiduciary who provides advice has been in flux over the years, advice itself is generally limited to a recommendation on how to manage investments without actually implementing that advice.

One-quarter of respondents indicate they **offer advice only.**

Managed account services are geared toward “do-it-for-me” investors who desire greater personalization. Managed account providers are investment managers under the Employee Retirement Income Security Act (ERISA) section 3(38). They offer independent, third-party advice and implement the portfolio recommendations, with a glidepath, and ongoing rebalancing. In addition, the services include a variety of tools, communication, education, and in-person or phone counseling for participants. **Nearly half of plans report offering managed accounts.**

Offer managed accounts services or advice*



Virginia Retirement System

VRS DC Investment Belief Statements

VRS DC Investment Belief Statements

Virginia Retirement System

- VRS developed a set of twelve DC Plans Investment Beliefs Statements November 12, 2015
- Purpose of the statements are to help guide the strategic management of the VRS DC Plans investment program
- Over the next couple of months staff and DCPAC members to review the statements
- During the DCPAC's June 24, 2021 meeting discuss whether any changes to the document should be made and brought to the VRS Board of Trustees for their consideration

VRS Defined Contribution Plans Investment Belief Statements

Approved by the Board of Trustees: November 12, 2015

---

1. Introduction

The VRS Board of Trustees developed a set of twelve Defined Contribution (DC) Plans Investment Beliefs intended to help guide the strategic management of the VRS DC Plans investment program. These DC Investment Beliefs represent a high-level framework for making decisions that often require balancing multiple, often competing, factors and issues. In addition, the DC Investment Beliefs provide context for VRS actions and reflect VRS values, with a focus on VRS maintaining its long-term commitment to provide benefits to its participants.

2. VRS DC Investment Belief Statements

With the assistance of an outside expert, the Board developed the following twelve DC Investment Belief Statements to guide the Board in future decisions and provide an anchor to the Board's stated goals and objectives.

1) The DC Plans should continue to seek investment program best practices by establishing, monitoring, and reporting on key quantitative and qualitative measures of the DC investment program.

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

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

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

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

a) Investment options should provide competitive net-of-cost risk-adjusted returns;

b) The DC Plans' costs should be transparent to the individual participant;

c) Given VRS' large-scale in the institutional marketplace, it is beneficial for the individual participant to access VRS' expertise and capabilities;

d) Unbundling of DC administration and investment activities should lead to improved cost management.

4) The VRS should seek to inform DC plan participants about key retirement planning risks.

   a) <u>Shortfall risk</u> – the probability or potential that an individual may not meet his/her long-term retirement savings goals;

   b) <u>Longevity risk</u> – the potential that an individual may outlive his/her retirement assets;

   c) <u>Drawdown risk</u> – the impact that short-term declines in portfolio values can have on long-term success.

5) To the best extent possible, the Board should continue to explore and implement capabilities, controls, and procedures that are transferrable from VRS' DB activities to VRS' DC Plans, particularly with respect to investments.

6) The VRS DC Plans are responsible for offering a reasonable range of diversified portfolios to serve as the Plans' default investment option as well as to participants that do not have the time, desire, or expertise to manage a diversified portfolio.

7) The VRS DC Plans investment offerings must be wide-ranging to accommodate participants' varying investment knowledge and/or interest in managing their investments and address the difference between participants who are early on or in the midst of their careers and those who are nearing or in retirement.

   a) Individuals must recognize their specific programs require a long-term, multi-decade planning/investment horizon;

   b) Investment horizons are unique to each individual participant and may extend beyond the accumulation phase into the retirement (decumulation) phase; and

c) Administrative and investment aspects of the overall program need to be unbundled/disaggregated to allow for maximum design flexibility.

8) A minimum level of participant investment education is necessary for a successful program.

Education should cover certain key topics:

a) Key retirement planning risks (see Belief Statement 4);

b) Accumulation phase vs. decumulation phase;

c) How to analyze the costs associated with various investment options;

d) Consideration of non-plan (outside) assets.

9) To provide investment flexibility to individual participants, a self-directed brokerage window can be an effective feature of the VRS DC Plans.

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

11) Managing the decumulation of retirement assets is critical. The VRS DC Plans will continue to explore viable solutions in this area.

12) Investment education can be a valuable resource to individual participants. In this context, VRS DC plan decision-makers should explore making available various investment advice and financial planning solutions/products.

About David A. Winter

Dave Winter of Winter HR Consulting, LLC (www.winterhr.com) is an experienced human resources professional with broad knowledge of HR strategies, functions and processes. Winter HR Consulting serves organizations and individuals with a wide range of HR and management consulting services. Solutions are custom-designed for the specific needs of clients, which include individuals, small businesses, non-profit organizations and larger companies. Services include HR leadership and projects, organizational design and development, compensation and benefits, training and talent management programs and individual coaching.

Dave has served as the top HR executive for service and manufacturing companies in multi-national settings, has held management and staff roles in the legal and finance areas and has been a line manager. He holds a BA in Psychology from the University of Virginia and an MBA from the University of Richmond. Dave is a member of the Society for Human Resource Management (SHRM), the Richmond Human Resource Management Association and the International Coach Federation of Virginia. He is certified as a Senior Professional in Human Resources (SPHR) by the HR Certification Institute and is a SHRM Senior Certified Professional (SHRM-CP). Dave serves on the Virginia Retirement System Defined Contribution Plans Advisory Committee and is a past board member of the Richmond Human Resource Management Association.

Dave grew up in a US Air Force family, living in France, California, Alaska and Virginia. He is a long-time resident of the Richmond, VA, area after living in Maryland, Texas and California during his career. Dave enjoys volunteering as a mentor for University of Richmond MBA students, with Career Prospectors, a networking group for job seekers, and with the Virginia Voice, a radio reading service for the visually impaired. Most of all, he loves spending time with his two grown children and three grandchildren.

Rick Larson

Biographical Statement

In his role as Assistant Vice President for Human Resources (HR), Training and Performance at James Madison University (JMU) in Harrisonburg, Virginia, Rick is responsible for the HR and Talent Development departments. Rick earned an M.S. Ed. in Adult Education and Human Resource Development from JMU, and his Bachelor of Individualized Study as a JMU undergraduate, while working full time for the university.

Rick has worked in higher education for over 40 years, holding positions in administration, finance, and student affairs. Rick is a certified Senior Professional in Human Resources (SPHR) and a Society of Human Resource Management Senior Certified Professional (SHRM-SCP).

Rick is a widower whose daughter, Katy, lives in Fredericksburg with her husband, Jon, and their two children, Henry and Maggie.

SHANNON T. IRVIN

Assistant Superintendent for Administration

Extensively experienced and goal-oriented school administrator with a demonstrated track record of leading the preparation and analysis of financial reports to summarize and forecast financial position. Proven expertise in driving efficiency and productivity through evaluation of financial management systems and implementation of process improvements. Talented leader directing highly skilled financial management teams to support achievement of overall division goals and objectives. *Core competencies include:*

- Accounting Management
- Financial Analysis
- Forecasting
- Purchasing
- Insurances
- Cash Management
- Budgeting
- Cost Reductions
- Recruiting/Licensure
- Employee Benefits
- Technology Integration
- Regulatory Compliance
- Efficiency Improvements
- Personnel Management
- Retirement Counseling

CAREER EXPERIENCE

Nelson County Public Schools, Lovington, Virginia, 1993 – Present

Assistant Superintendent for Administration – 2007 - Present

Assistant Superintendent for Finance & Personnel – 2000 – 2007

Executive Director for Finance and Personnel – 1995 – 2000

Supervisor of Finance – 1993 – 1995

Direct financial management functions including development of monthly/quarterly financial statements, financial forecasts, and budgets. Oversee general accounting functions, including AR/AP, payroll, employee benefits, account reconciliation, and cash management. Administer all financial management systems, evaluating and integrating new applications. Develop highly skilled accounting and financial management team to achieve established objectives. Interact with the School Board and Superintendent concerning financial forecasts and reports.

- Oversight responsibility for Technology – Technology Plan development and integration of purchases with accompanying E-Rate Reimbursements. Highlights include 1:1 Computer initiative division-wide.

- Oversight responsibility for Food Services including Financial Reporting and Verifications. Began with program with minimal cash balances to now having three month operating cash reserves while also changing to more healthful choices for students in program offerings.

Continued…

- Oversight responsibility for Transportation and Facilities Maintenance including development of the Capital Improvement Plan (CIP). During course of employment, the County built new or renovated all school facilities.
- Responsible for Teacher Licensure, Teacher Recruitment and Retention as well as employee compensation and benefits programs. The division maintains 100% Highly Qualified Status for Instructional Personnel.
- During course of employment led division to increase beginning teacher compensation from 106^{th} in the State of Virginia to 9^{th} in the State of Virginia

County of Campbell, Rustburg, Virginia, 1991 – 1993

Director of Finance & Budget

Prepared financial reports, developed budgets, and performed variance analysis in accordance with Generally Accepted Accounting Principles (GAAP). Compiled periodic financial reporting packages for County Administrator. Carried out internal audits to ensure regulatory compliance and operational efficiency/accuracy. Built and led teams in carrying out special projects.

- Secured Bonds for Capital Improvement Projects
- Served as Human Resource Specialist for Employee Benefit and Retirement Counseling

Lynchburg College, Lynchburg, Virginia 1988 – 1991

Senior Accountant

Closed and prepared monthly financial statements and audit reports. Performed monthly account reconciliations and monitored general ledger transactions. Worked in collaboration with the Controller to ensure accuracy and integrity of financial information in support of overall business objectives.

Key Achievements:

- Collected Past Due Accounts on College-owned Rental Property
- Conducted Campus-wide inventory in accordance with GASB 34.

Southern States Cooperative, Richmond, Virginia, 1986 – 1988

Accountant

Carried out general ledger functions, including account analysis and reconciliation, journal entries, and AR/AP. Prepared financial statements

Key Achievement:

- Consistently met deadlines while demonstrating strong analytical and problem-solving skills to achieve corporate objectives.

EDUCATION

Master of Administration, Personnel Management (1991) GPA 3.78/4.00

LYNCHBURG COLLEGE – Lynchburg, Virginia

Bachelor of Business Administration, Concentration in Accounting (1985) cum laude

RADFORD UNIVERSITY – Radford, Virginia

Postgraduate coursework through Virginia Tech and Lynchburg College

EDUCATION CONTINUED

PROFESSIONAL ORGANIZATIONS

VIRGINIA ASSOCIATION OF SCHOOL BUSINESS OFFICIALS (VASBO) - PRESIDENT 2016/2017;

REGISTERED SCHOOL BUSINESS ADMINISTRATOR

SOUTHEAST ASSOCIATION OF SCHOOL BUSINESS OFFICIALS (SASBO)

LIFETIME MEMBER

AMERICAN ASSOCIATION OF SCHOOL BUSINESS OFFICIALS (ASBO)

CERTIFIED ADMINISTRATOR OF SCHOOL FINANCE & OPERATIONS (SFO)

VIRGINIA ASSOCIATION OF SCHOOL PERSONNEL ADMINISTRATORS (VASPA) – REGION V REPRESENTATIVE

SCHOOL SYSTEMS OF VIRGINIA WORKERS COMPENSATION INSURANCE POOL - BOARD MEMBER

ADVISORY BOARD FOR THE SCHOOL OF EDUCATION, LEADERSHIP STUDIES AND COUNSELING – UNIVERSITY OF LYNCHBURG, LYNCHBURG, VIRGINIA 24501 – BOARD MEMBER

ADVISORY BOARD FOR THE VIRGINIA RETIREMENT SYSTEM DEFINED CONTRIBUTION PLANS- 1200 EAST MAIN STREET, RICHMOND, VIRGINIA 23219 – BOARD MEMBER

Virginia Retirement System

Request for Board Action
RBA 2021-04-____

Reappointment of DCPAC Members.

Requested Action

The Board reappoints Shannon T. Irvin, Rick Larson and David A. Winter to the Defined Contribution Plans Advisory Committee (DCPAC), each for a two-year term ending June 20, 2023.

Rationale for Requested Action

Ms. Irvin, Mr. Larson and Mr. Winter currently serve on the DCPAC and are willing to be reappointed for another two-year term. Ms. Irvin is Assistant Superintendent for Administration at Nelson County Public Schools, Mr. Larson is the Assistant Vice President for Human Resources, Training and Performance at James Madison University, and Mr. Winter is the owner of Winter HR Consulting, LLC.

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, Chairman Date
VRS Board of Trustees

VRS Defined Contribution Plans
Quarterly Review

As of 4th Quarter 2020

DC Plan Assets and Accounts

Note: All data is as of 12/31/2020 unless otherwise stated.

Assets and Participants – Eight VRS Unbundled Defined Contribution Plans

Note: Includes Beneficiary Plans and Forfeiture Accounts

	December 31, 2018		December 31, 2019		2018 to 2019		December 31, 2020		2019 to 2020	
	Assets	Accounts	Assets	Accounts	(%) Change in Assets	(%) Change in Accounts	Assets	Accounts	(%) Change in Assets	(%) Change in Accounts
457 Deferred Compensation[1]	$2,555,924,425	79,907	$3,073,576,871	81,130	20.25%	1.53%	$3,807,729,076	87,028	23.89%	7.27%
401(a) Cash Match	$431,052,562	71,005	$509,664,512	71,654	18.24%	0.91%	$564,166,840	72,114	10.69%	0.64%
ORP Political Appointees	$14,449,002	372	$19,149,465	380	32.53%	2.15%	$22,861,626	383	19.39%	0.79%
ORP School Superintendents	$207,193	2	$232,939	2	12.43%	0.00%	$253,964	2	9.03%	0.00%
Supplemental Retirement	$121,954	2	$152,262	2	24.85%	0.00%	$171,993	2	12.96%	0.00%
ORP Higher Education[2]	$1,296,336	124	$3,980,923	284	207.09%	129.03%	$137,782,478	2,276	3,361.07%	701.41%
Hybrid 401[3]	$262,131,317	132,981	$455,933,958	158,052	73.93%	18.85%	$705,539,820	177,071	54.75%	12.03%
Hybrid 457	$110,325,905	62,278	$203,523,738	64,045	84.48%	2.84%	$336,604,658	114,383	65.39%	78.60%
Total	**$3,375,508,695**	**346,671**	**4,266,214,667**	**375,549**	**26.39%**	**8.33%**	**$5,575,110,453**	**453,259**	**30.68%**	**20.69%**

[1] Includes reserve account

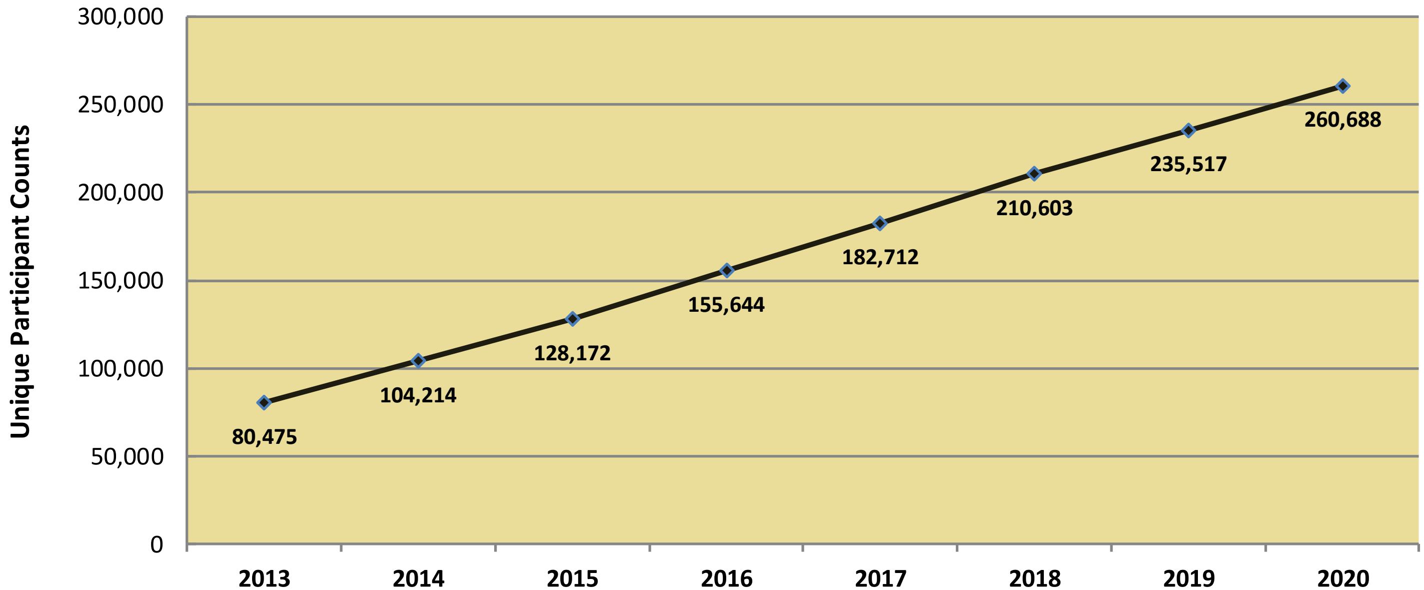
[2] Includes Welcome Account from Plan Transition = $65.55

[3] Includes 787 forfeiture accounts with balances = $3,043,595.52

Unique Participant Count – All Plans

Note: Forfeiture Accounts Excluded

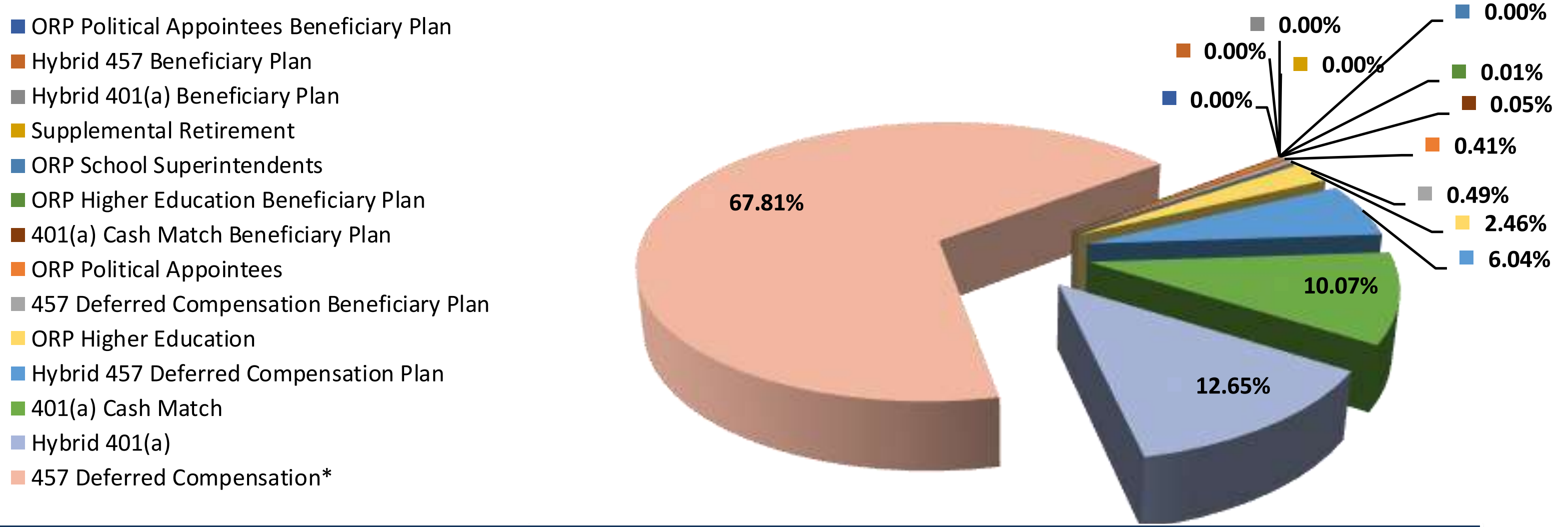
DCP
Virginia Retirement System



Period	Unique Participant Counts
2013	80,475
2014	104,214
2015	128,172
2016	155,644
2017	182,712
2018	210,603
2019	235,517
2020	260,688
Q1 2020	247,804
Q2 2020	248,879
Q3 2020	255,885
Q4 2020	260,688

Assets and Accounts – All Plans

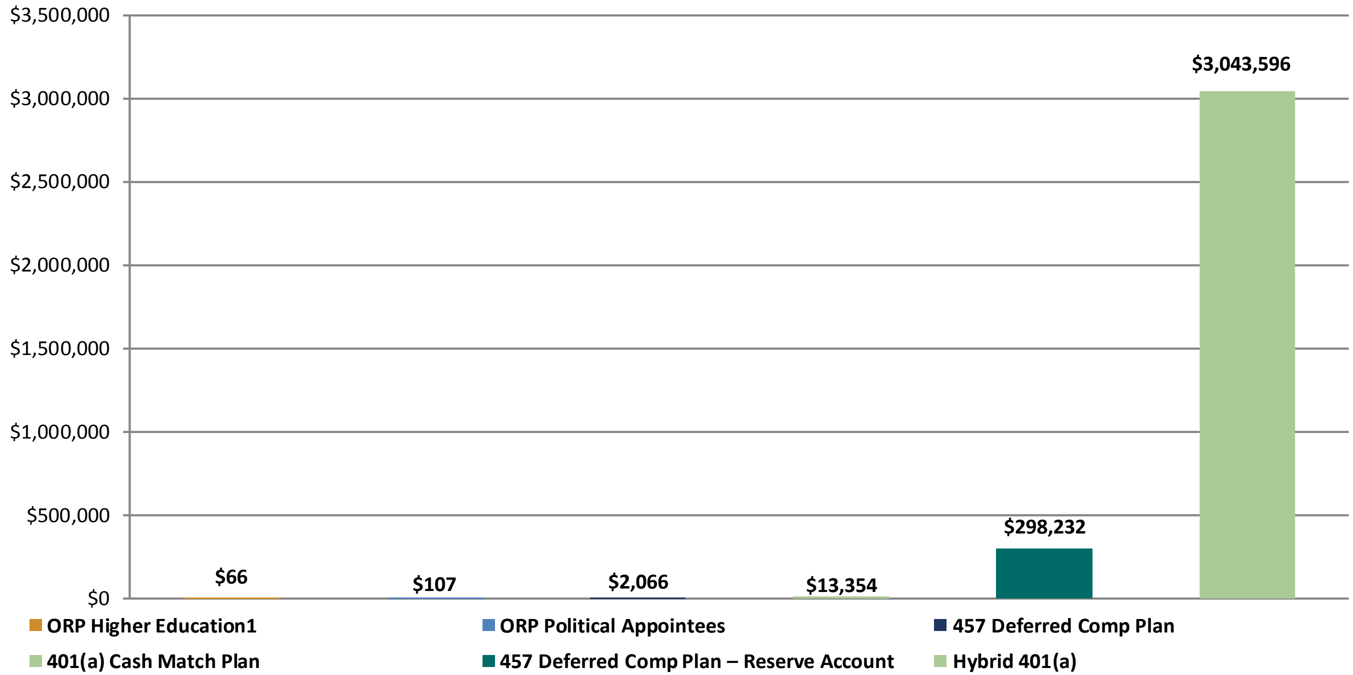
Note: Includes Forfeiture Accounts



Plan Name	Balances – 12/31/2020	% of Plan Assets	Number of Accounts
ORP Political Appointees Beneficiary Plan	$23,740.15	0.00%	1
Hybrid 457 Beneficiary Plan	$24,125.87	0.00%	4
Hybrid 401(a) Beneficiary Plan	$50,848.00	0.00%	11
Supplemental Retirement	$171,992.58	0.00%	2
ORP School Superintendents	$253,963.82	0.00%	2
ORP Higher Education Beneficiary Plan	$763,410.32	0.01%	10
401(a) Cash Match Beneficiary Plan	$2,670,507.40	0.05%	206
ORP Political Appointees	$22,837,885.65	0.41%	382
457 Deferred Compensation Beneficiary Plan	$27,125,867.76	0.49%	343
ORP Higher Education	$137,019,067.70	2.46%	2,266
Hybrid 457 Deferred Compensation Plan	$336,580,531.66	6.04%	114,379
401(a) Cash Match	$561,496,332.34	10.07%	71,908
Hybrid 401(a)	$705,488,971.75	12.65%	177,060
457 Deferred Compensation*	$3,780,603,208.43	67.81%	86,685
Total All VRS Plans	**$5,575,110,453.43**	**100.00%**	**453,259**

* Includes reserve account. Reserve account balance may at times be $0.00.

Forfeiture & Reserve Accounts – Balances and Counts

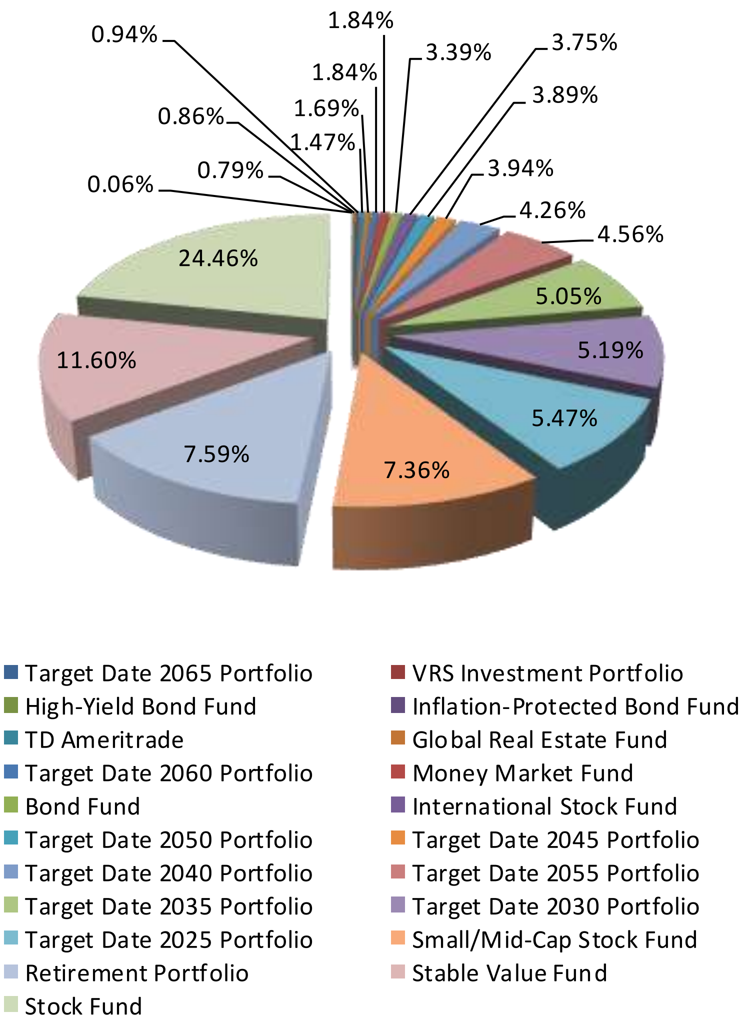


Plan	Balance – 12/31/2020	Number of Accounts
ORP Higher Education[1]	$66	1
ORP Political Appointees	$107	1
457 Deferred Comp Plan	$2,066	1
401(a) Cash Match Plan	$13,354	1
457 Deferred Comp Plan – Reserve Account	$298,232	1
Hybrid 401(a)	$3,043,596	787
Total	**$3,357,419**	**792**

[1] ORPHE balance is a result of the plan transition and does not represent forfeited assets.

Plan Assets by Fund – All Plans

DCP
Virginia Retirement System

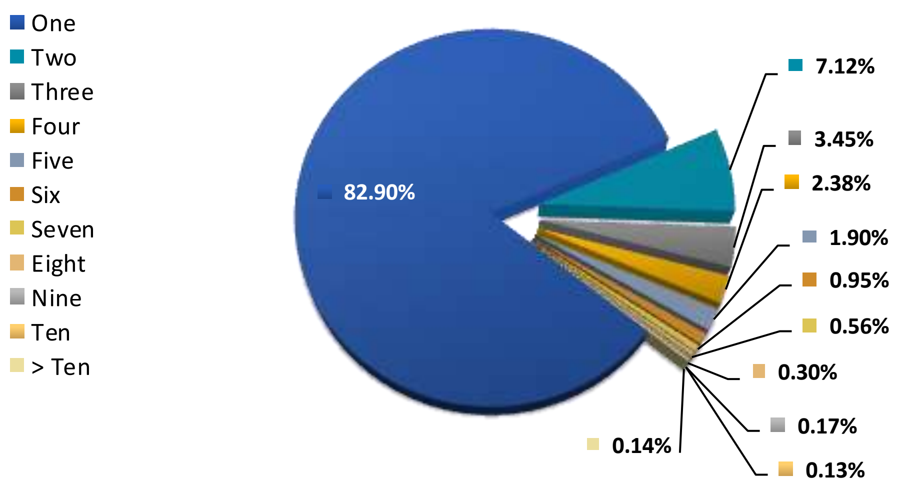


Fund Name	Fund Balance 12/31/2020	% of Plan Assets
Target Date 2065 Portfolio	$3,440,953.23	0.06%
VRS Investment Portfolio	$44,319,551.10	0.79%
High-Yield Bond Fund	$47,829,685.84	0.86%
Inflation-Protected Bond Fund	$52,486,969.86	0.94%
TD Ameritrade	$81,978,595.87	1.47%
Global Real Estate Fund	$94,021,512.91	1.69%
Target Date 2060 Portfolio	$102,318,324.92	1.84%
Money Market Fund	$102,475,357.56	1.84%
Bond Fund	$189,074,345.34	3.39%
International Stock Fund	$209,052,593.34	3.75%
Target Date 2050 Portfolio	$216,775,708.37	3.89%
Target Date 2045 Portfolio	$219,921,750.84	3.94%
Target Date 2040 Portfolio	$237,519,144.71	4.26%
Target Date 2055 Portfolio	$254,330,655.67	4.56%
Target Date 2035 Portfolio	$281,463,640.69	5.05%
Target Date 2030 Portfolio	$289,232,746.00	5.19%
Target Date 2025 Portfolio	$304,972,412.85	5.47%
Small/Mid-Cap Stock Fund	$410,073,831.43	7.36%
Retirement Portfolio	$423,250,267.11	7.59%
Stable Value Fund	$646,862,664.93	11.60%
Stock Fund	$1,363,709,740.86	24.46%
Total	**$5,575,110,453.43**	**100.00%**

Number of Investments Held By Participants

Note: Includes All Plans; Forfeiture and Reserve Accounts Excluded

DCP
Virginia Retirement System



Number of Investments Held	Number of Participants	% of Participants
One	216,107	82.90%
Two	18,564	7.12%
Three	8,986	3.45%
Four	6,197	2.38%
Five	4,963	1.90%
Six	2,465	0.95%
Seven	1,457	0.56%
Eight	785	0.30%
Nine	455	0.17%
Ten	333	0.13%
> Ten	376	0.14%
Total	**260,688**	**100.00%**

Data as of 12/31/2020

COV 457 and Hybrid 401(a) Plans – Participants Invested In a Single Fund

DCP
Virginia Retirement System

Note: Beneficiary Plans and Forfeiture Accounts Excluded

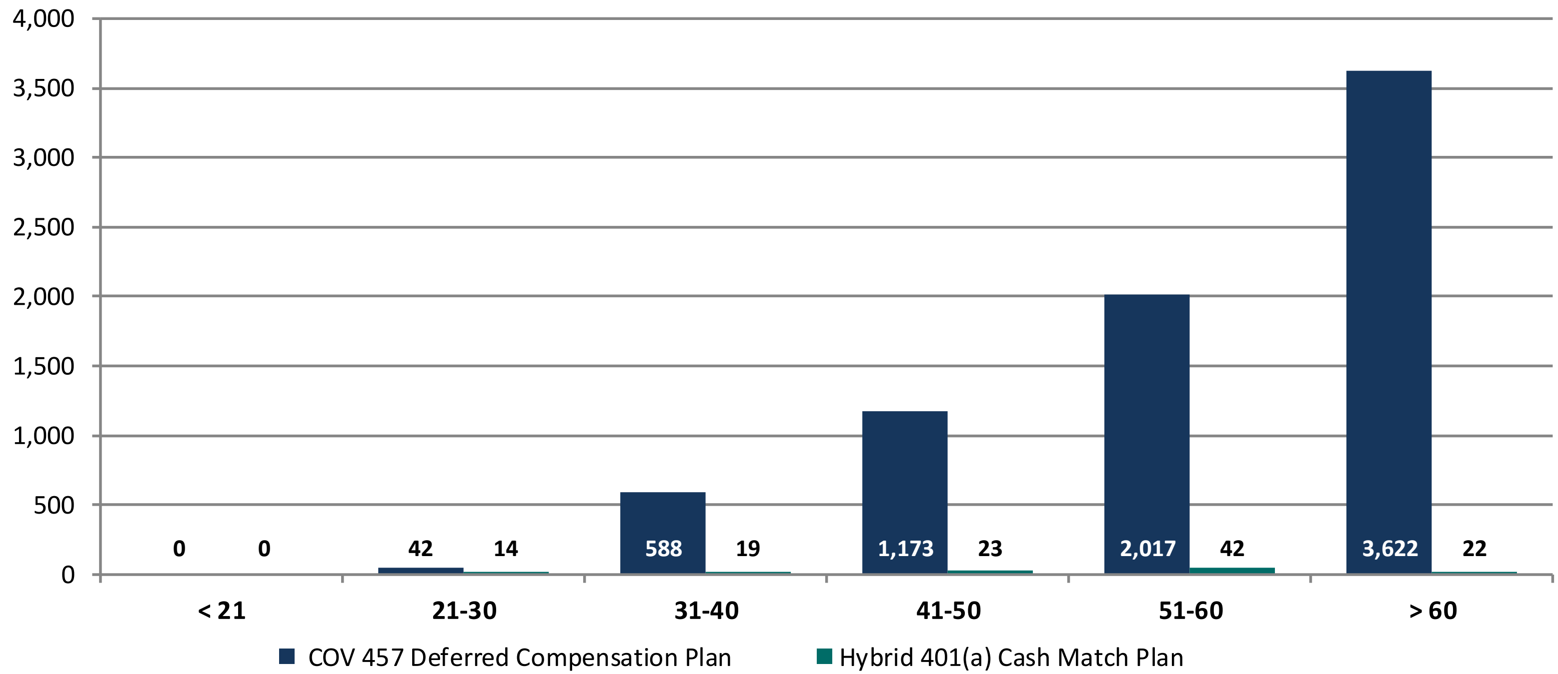
COV 457 Deferred Compensation Plan		
Fund Name	**# of Accounts**	**% of Total**
Bond Fund	246	0.44%
Global Real Estate Fund	123	0.22%
High-Yield Bond Fund	84	0.15%
Inflation-Protected Bond Fund	67	0.12%
International Stock Fund	174	0.31%
Money Market Fund	534	0.95%
Small/Mid-Cap Stock Fund	286	0.51%
Stable Value Fund	7,442	13.29%
Stock Fund	2,734	4.88%
TD Ameritrade	21	0.04%
VRS Investment Portfolio	62	0.11%
All Target Date Portfolio	44,214	78.97%
Retirement Portfolio	4,147	
Target Date 2025 Portfolio	4,051	
Target Date 2030 Portfolio	4,583	
Target Date 2035 Portfolio	5,018	
Target Date 2040 Portfolio	5,102	
Target Date 2045 Portfolio	6,117	
Target Date 2050 Portfolio	6,785	
Target Date 2055 Portfolio	5,607	
Target Date 2060 Portfolio	2,510	
Target Date 2065 Portfolio	294	
Participants With Single Fund	**55,987**	**100.00%**

Hybrid 401(a) Cash Match Plan		
Fund Name	**# of Accounts**	**% of Total**
Bond Fund	16	0.01%
Global Real Estate Fund	12	0.01%
High-Yield Bond Fund	5	0.00%
Inflation-Protected Bond Fund	14	0.01%
International Stock Fund	9	0.01%
Money Market Fund	63	0.04%
Small/Mid-Cap Stock Fund	55	0.03%
Stable Value Fund	120	0.07%
Stock Fund	545	0.32%
TD Ameritrade	1	0.00%
VRS Investment Portfolio	1	0.00%
All Target Date Portfolio	170,760	99.51%
Retirement Portfolio	6,096	
Target Date 2025 Portfolio	9,165	
Target Date 2030 Portfolio	12,803	
Target Date 2035 Portfolio	15,812	
Target Date 2040 Portfolio	16,525	
Target Date 2045 Portfolio	19,098	
Target Date 2050 Portfolio	23,496	
Target Date 2055 Portfolio	36,871	
Target Date 2060 Portfolio	28,982	
Target Date 2065 Portfolio	1,912	
Participants With Single Fund	**171,601**	**100.00%**

COV 457 and Hybrid 401(a) Plans – Stable Value as Sole Fund Held – Age Ranges

DCP Virginia Retirement System

Note: Forfeiture Accounts Excluded



COV 457 Deferred Compensation Plan	
Age Range	**Number of Participants**
<21	0
21-30	42
31-40	588
41-50	1,173
51-60	2,017
>60	3,622
Total	**7,442**

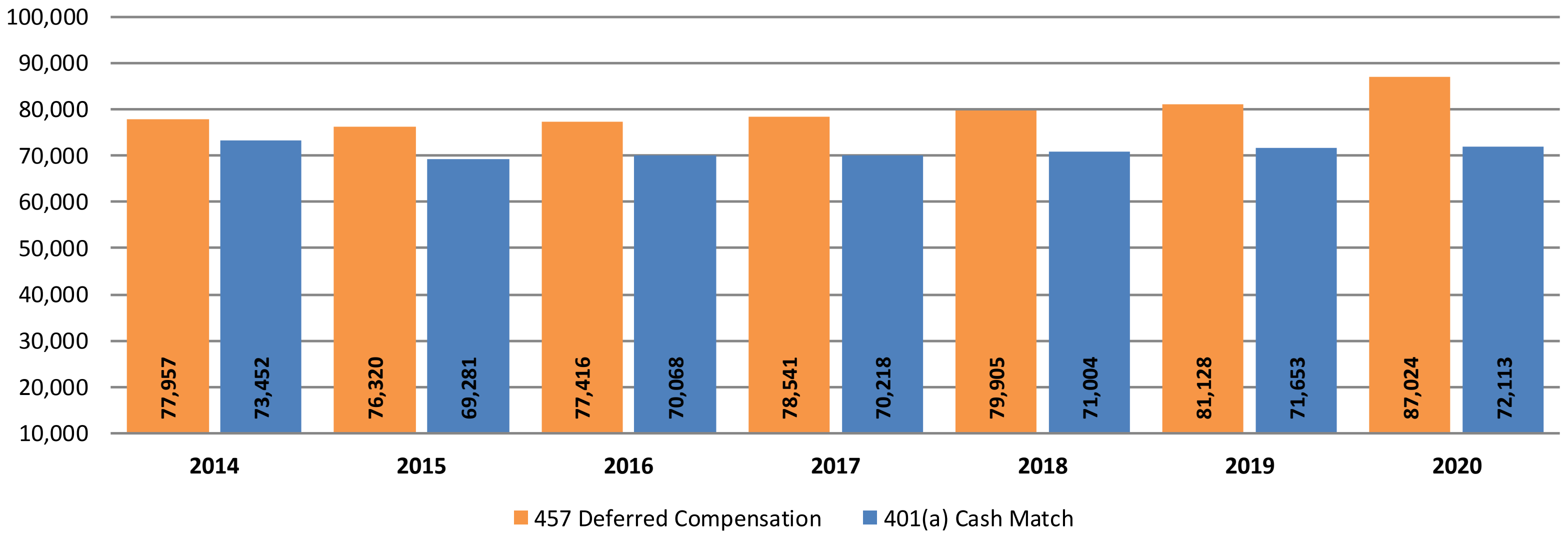
Hybrid 401(a) Cash Match Plan	
Age Range	**Number of Participants**
<21	0
21-30	14
31-40	19
41-50	23
51-60	42
>60	22
Total	**120**

Commonwealth of Virginia
457 Deferred Compensation Plan
401(a) Cash Match Plan
ORP for Political Appointees

Note: All data is as of 12/31/2020 unless otherwise stated.

457 and 401(a) Cash Match Plans – Number of Participant Accounts

Note: Includes Beneficiary Plans; Forfeiture Accounts and 457 Reserve Account Excluded

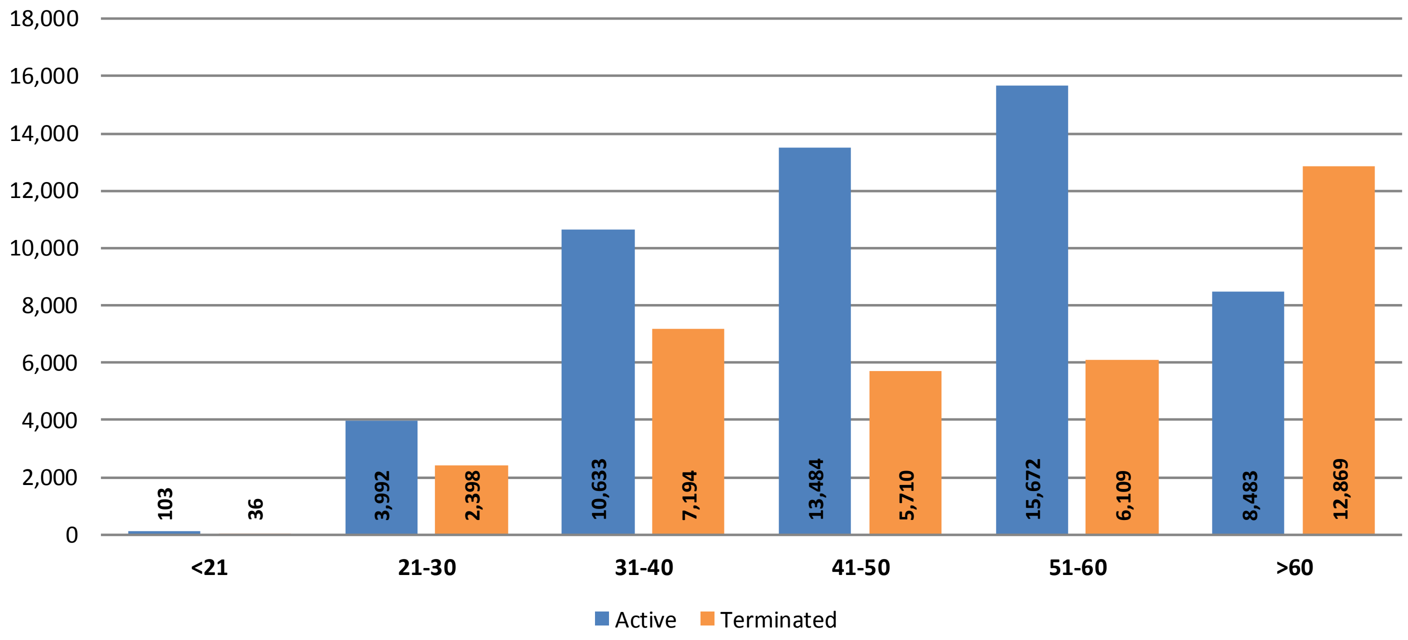


Period	457 Deferred Compensation	401(a) Cash Match	Total
2014	77,957	73,452	151,409
2015	76,320	69,281	145,601
2016	77,416	70,068	147,484
2017	78,541	70,218	148,759
2018	79,905	71,004	150,909
2019	81,128	71,653	152,781
2020	87,024	72,113	159,137
Q1 2020	87,392	72,539	159,931
Q2 2020	87,031	72,350	159,381
Q3 2020	87,124	72,435	159,559
Q4 2020	87,024	72,113	159,137

457 Plan – Participant Status Count by Age

Note: Beneficiary Plan Accounts, Forfeiture Account and Reserve Account Excluded

DCP
Virginia Retirement System



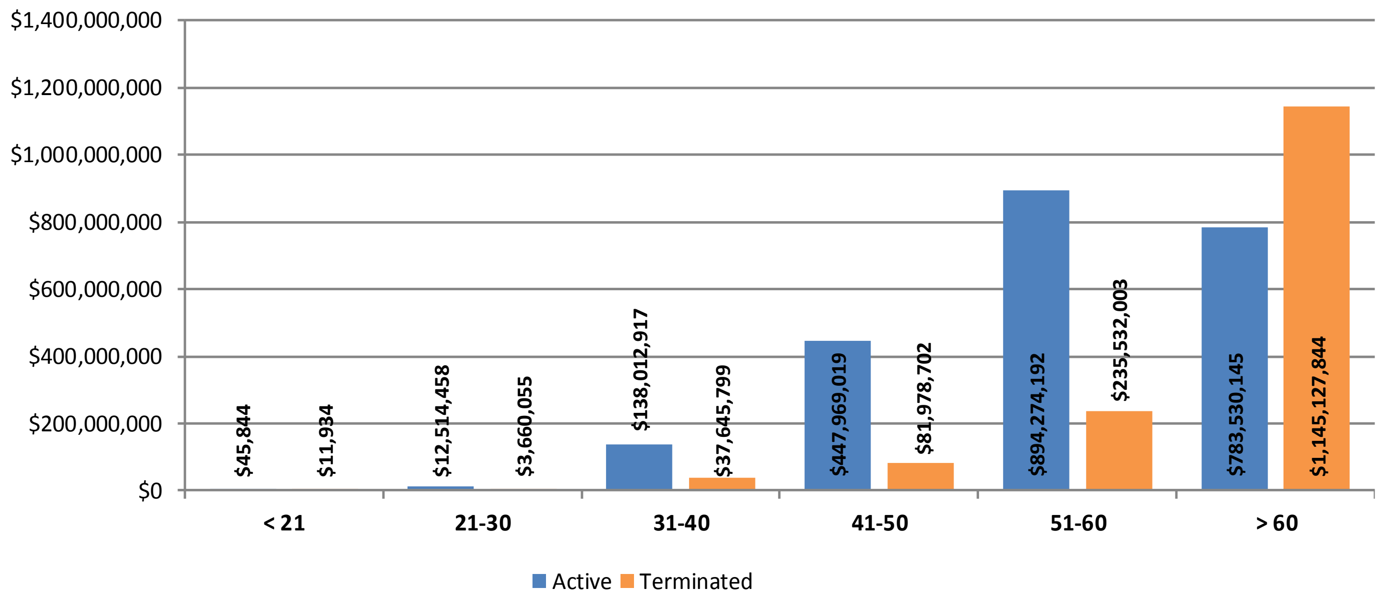
Age Range	Active	Terminated	Total
<21	103	36	139
21-30	3,992	2,398	6,390
31-40	10,633	7,194	17,827
41-50	13,484	5,710	19,194
51-60	15,672	6,109	21,781
>60	8,483	12,869	21,352
Total	**52,367**	**34,316**	**86,683**

* Active Participants do not have a termination date on file and may not have made a contribution during the quarter. Terminated Participants have a terminate date on file.

457 Plan – Participant Status Assets by Age

Note: Beneficiary Plan Accounts, Forfeiture Account and Reserve Account Excluded

DCP
Virginia Retirement System

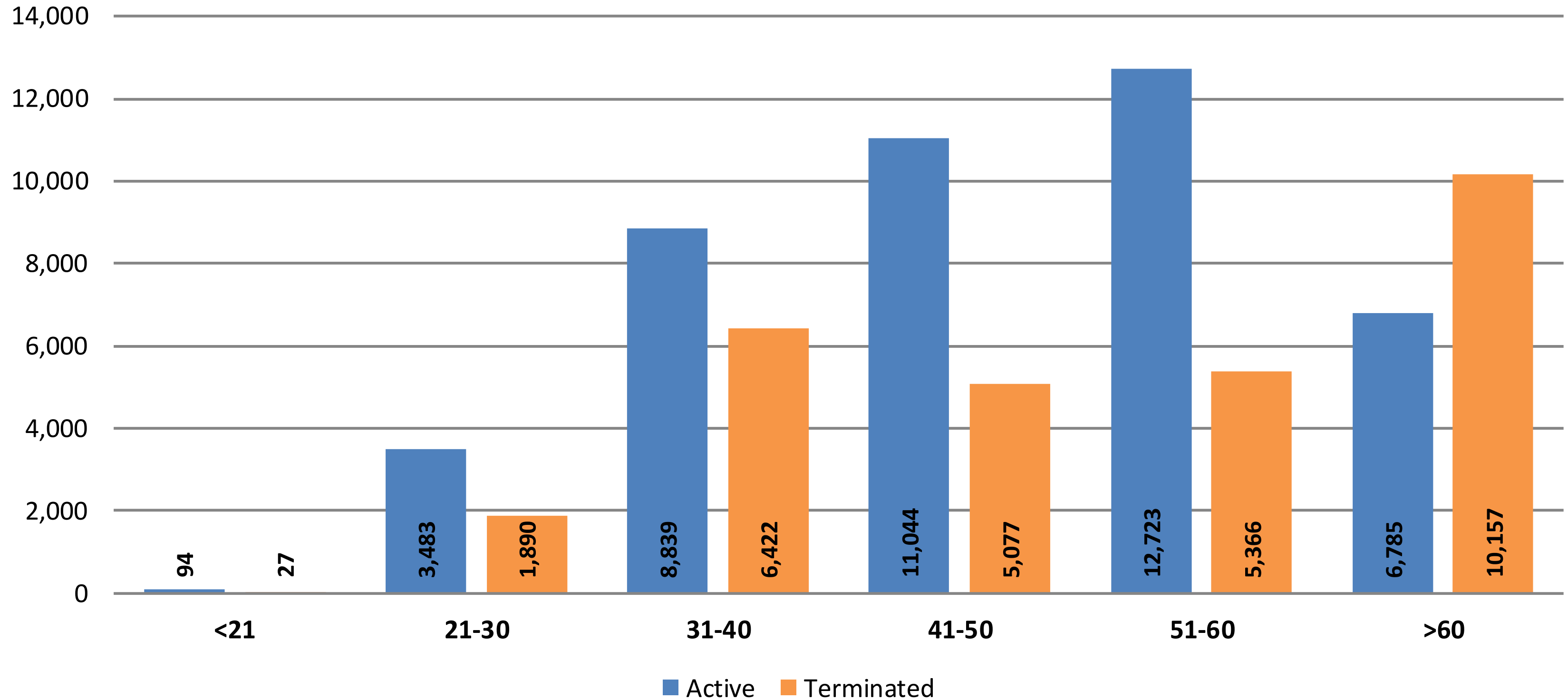


Age	Active	Terminated	Total
< 21	$45,844	$11,934	$57,778
21-30	$12,514,458	$3,660,055	$16,174,513
31-40	$138,012,917	$37,645,799	$175,658,716
41-50	$447,969,019	$81,978,702	$529,947,721
51-60	$894,274,192	$235,532,003	$1,129,806,195
> 60	$783,530,145	$1,145,127,844	$1,928,657,988
Total	**$2,276,346,576**	**$1,503,956,335**	**$3,780,302,911**

* Active Participants do not have a termination date on file and may not have made a contribution during the quarter. Terminated Participants have a terminate date on file.

401(a) Cash Match Plan – Participant Status Count by Age

Note: Beneficiary Plan and Forfeiture Account Excluded



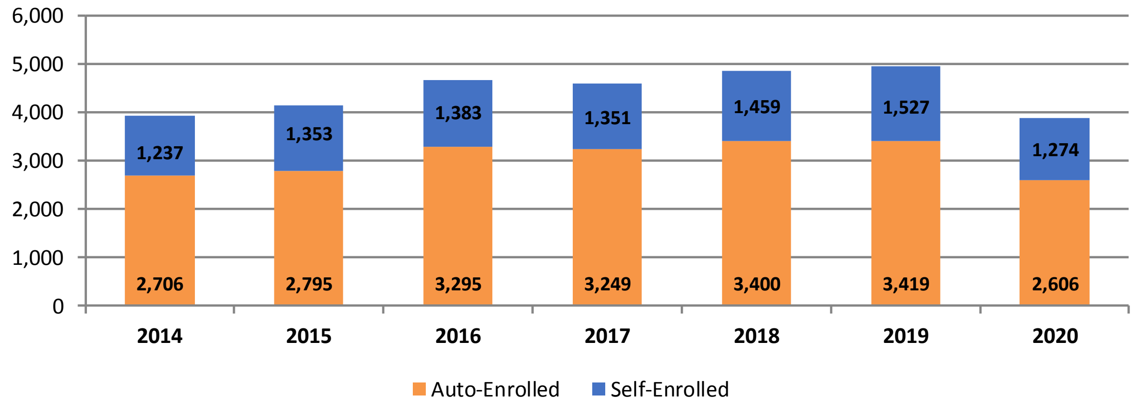
Age Range	Active	Terminated	Total
<21	94	27	121
21-30	3,483	1,890	5,373
31-40	8,839	6,422	15,261
41-50	11,044	5,077	16,121
51-60	12,723	5,366	18,089
>60	6,785	10,157	16,942
Total	**42,968**	**28,939**	**71,907**

* Active Participants do not have a termination date on file and may not have made a contribution during the quarter. Terminated Participants have a terminate date on file.

457 Plan – New Enrollments

Note: Auto-enrolled category includes participants designated as auto-enroll eligible on incoming indicative data files during the quarter as well as those auto-enrolled during the quarter

DCP
Virginia Retirement System



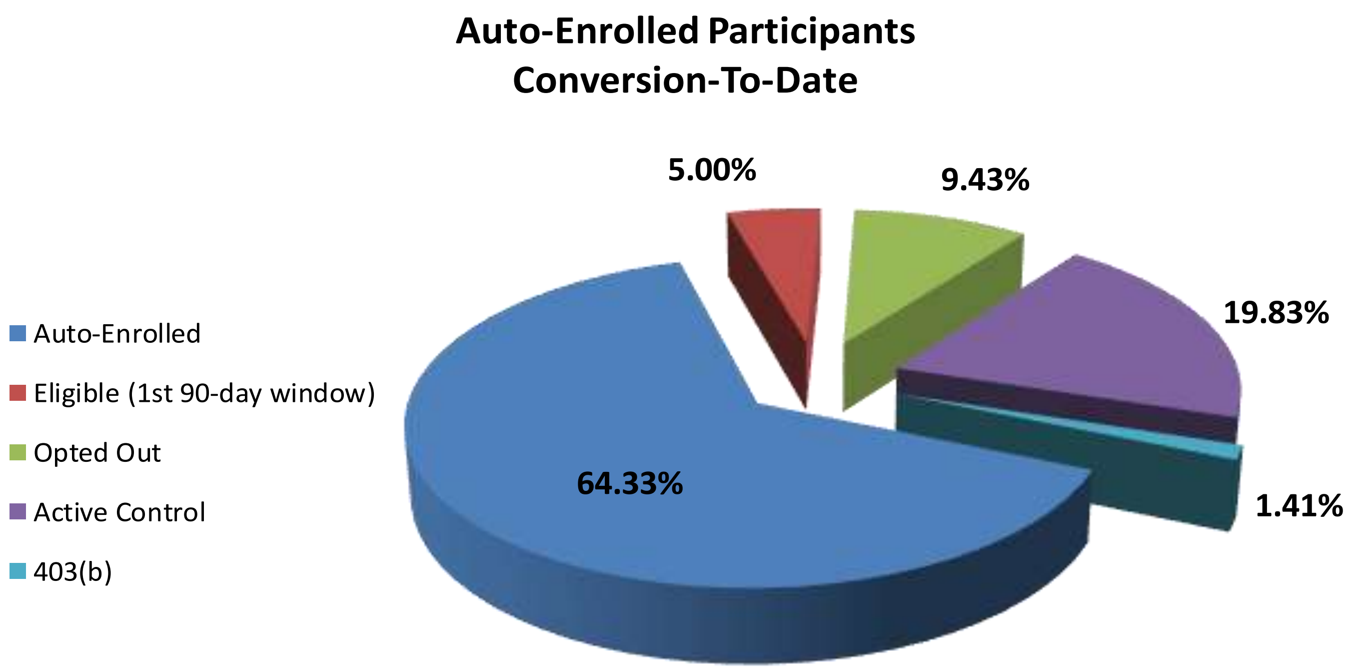
Period	Auto-Enrolled	Self-Enrolled	Total Enrolled
2014	2,706	1,237	3,943
2015	2,795	1,353	4,148
2016	3,295	1,383	4,678
2017	3,249	1,351	4,600
2018	3,400	1,459	4,859
2019	3,419	1,527	4,946
2020	2,606	1,274	3,880
Q1 2020	746	442	1,188
Q2 2020	467	239	706
Q3 2020	711	302	1,013
Q4 2020	659	291	950

Period	Schools		Political Sub-Divisions		State Agencies		Total Enrolled
	Auto-Enrolled	Self-Enrolled	Auto-Enrolled	Self-Enrolled	Auto-Enrolled	Self-Enrolled	
2019	n/a	209	n/a	195	3,419	1,123	4,946
2020	n/a	204	n/a	171	2,606	899	3,880
Q1 2020	n/a	62	n/a	80	746	300	1,188
Q2 2020	n/a	40	n/a	32	467	167	706
Q3 2020	n/a	38	n/a	30	711	234	1,013
Q4 2020	n/a	64	n/a	29	659	198	950

457 Plan – Automatic Enrollment Snapshot

Note: Chart shows current status of active participants set up as auto-enroll eligible after plan conversion, January 6, 2014; excludes terminated participants

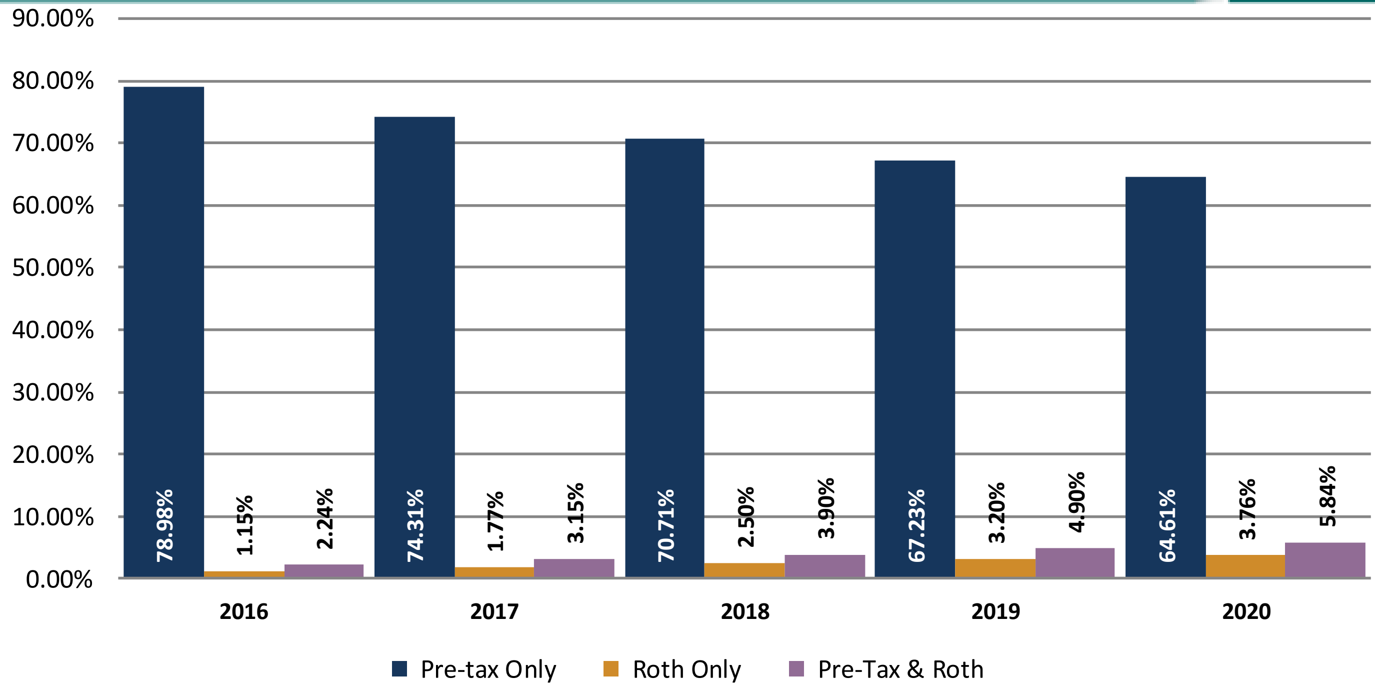
DCP
Virginia Retirement System



Enrollment Category	Active	% of Active Participants
Auto-Enrolled	7,061	64.33%
Eligible (1st 90-day window)	549	5.00%
Opted Out	1,035	9.43%
Active Control	2,176	19.83%
403(b)	155	1.41%

457 Plan – Deferral Types

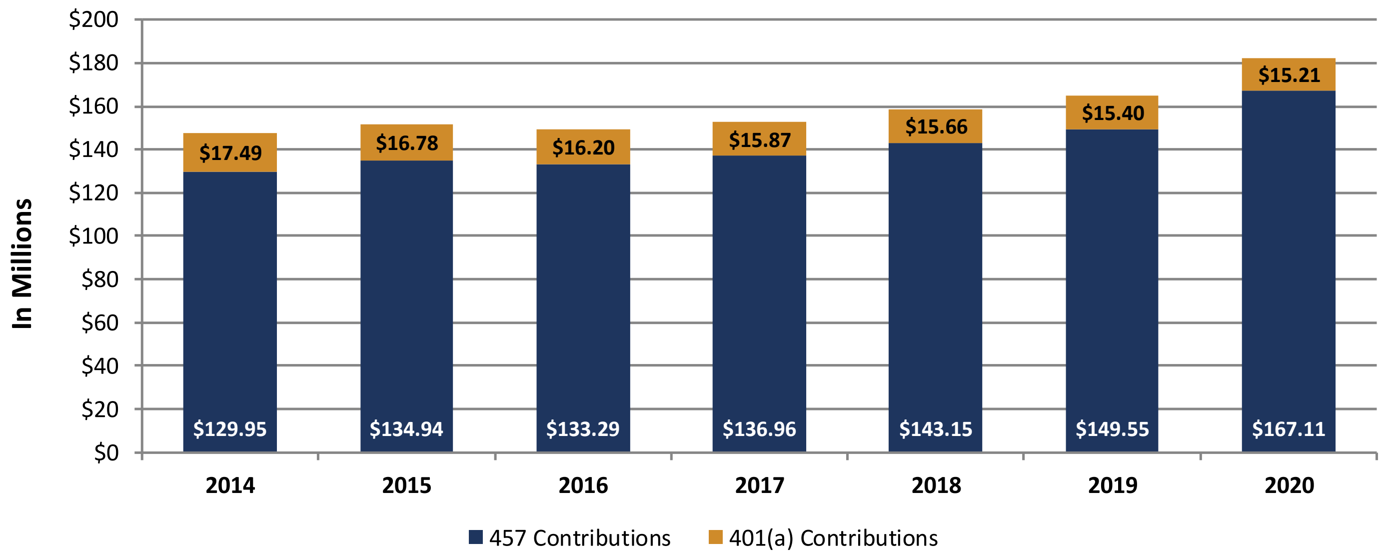
Note: Active count — all active participants, including participants who do not have a balance in the plan



Period	Active Participants	Pre-tax Only	Roth Only	Pre-Tax & Roth	% of Participants With Deferrals
2016	57,510	78.98%	1.15%	2.24%	82.37%
2017	59,104	74.31%	1.77%	3.15%	79.23%
2018	60,399	70.71%	2.50%	3.90%	77.11%
2019	61,554	67.23%	3.20%	4.90%	75.33%
2020	64,569	64.61%	3.76%	5.84%	74.21%
Q1 2020	65,228	67.11%	3.39%	5.14%	75.64%
Q2 2020	65,180	66.26%	3.50%	5.33%	75.09%
Q3 2020	64,531	66.13%	3.66%	5.63%	75.42%
Q4 2020	64,569	64.61%	3.76%	5.84%	74.21%

457 and 401(a) Cash Match Plans – Contributions

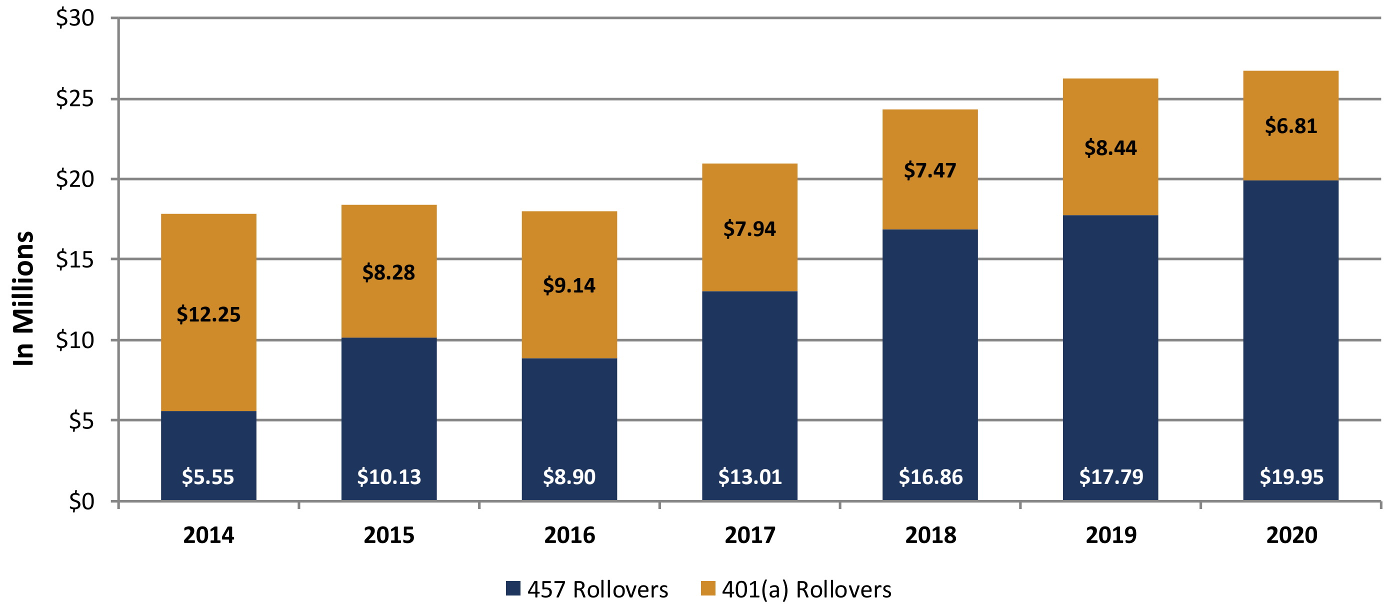
DCP
Virginia Retirement System



Period	457 Contributions	401(a) Contributions	Total
2014	$129.95	$17.49	$147.44
2015	$134.94	$16.78	$151.72
2016	$133.29	$16.20	$149.49
2017	$136.96	$15.87	$152.83
2018	$143.15	$15.66	$158.82
2019	$149.55	$15.40	$164.95
2020	$167.11	$15.21	$182.32
Q1 2020	$43.84	$3.83	$47.67
Q2 2020	$35.93	$3.24	$39.17
Q3 2020	$46.14	$4.38	$50.52
Q4 2020	$41.20	$3.76	$44.96

457 and 401(a) Cash Match Plans – Incoming Rollovers

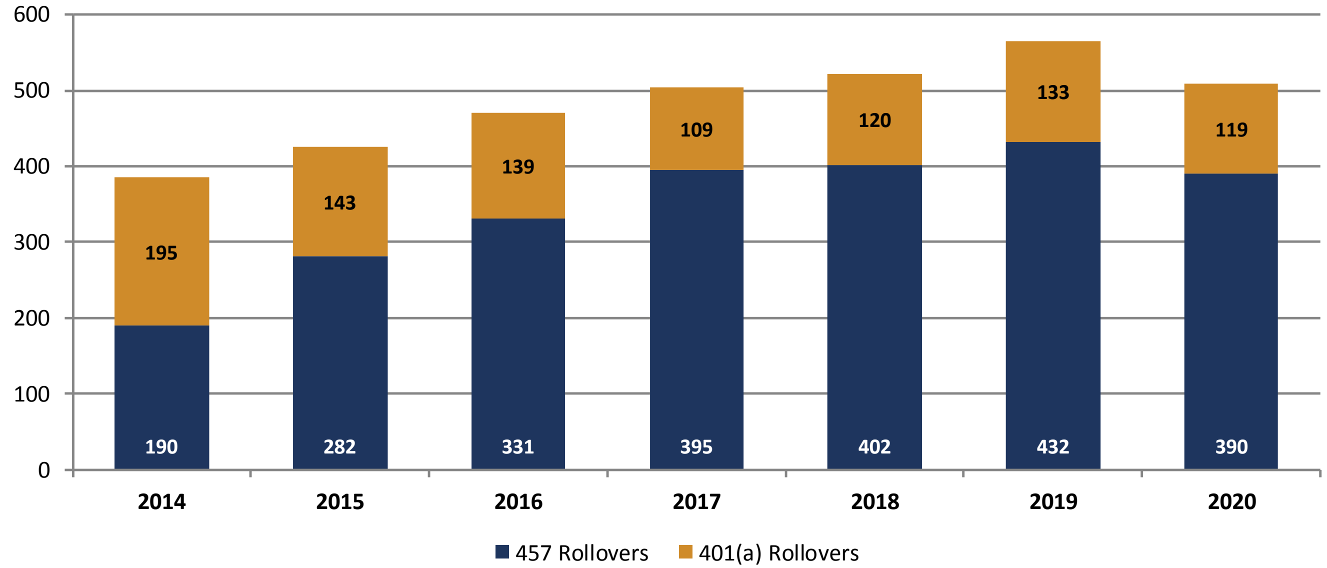
DCP
Virginia Retirement System



Period	457 Rollovers	401(a) Rollovers	Total
2014	$5.55	$12.25	$17.81
2015	$10.13	$8.28	$18.41
2016	$8.90	$9.14	$18.04
2017	$13.01	$7.94	$20.95
2018	$16.86	$7.47	$24.33
2019	$17.79	$8.44	$26.23
2020	$19.95	$6.81	$26.76
Q1 2020	$7.54	$1.95	$9.49
Q2 2020	$2.85	$1.61	$4.46
Q3 2020	$4.27	$1.80	$6.07
Q4 2020	$5.28	$1.46	$6.74

Data as of 12/31/2020

457 and 401(a) Cash Match Plans – Incoming Rollovers – Counts

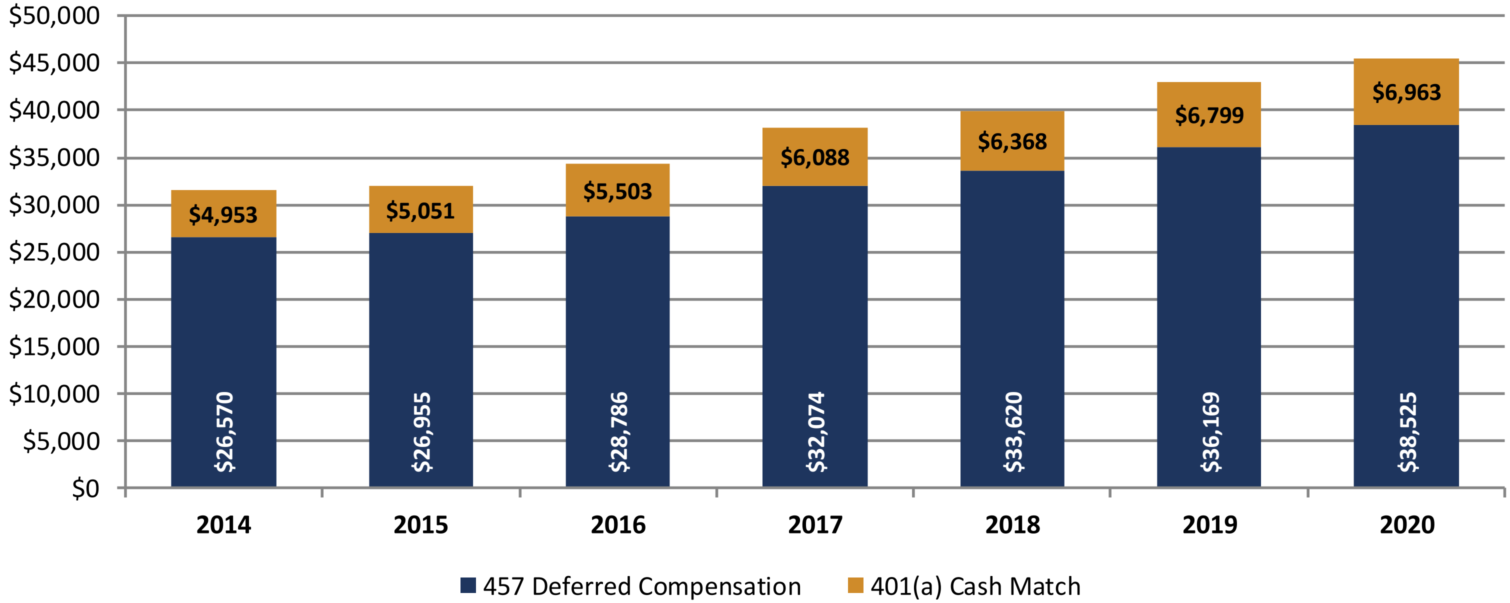


Period	457 Rollovers	401(a) Rollovers	Total
2014	190	195	385
2015	282	143	425
2016	331	139	470
2017	395	109	504
2018	402	120	522
2019	432	133	565
2020	390	119	509
Q1 2020	138	41	179
Q2 2020	63	24	87
Q3 2020	91	26	117
Q4 2020	98	28	126

Data as of 12/31/2020

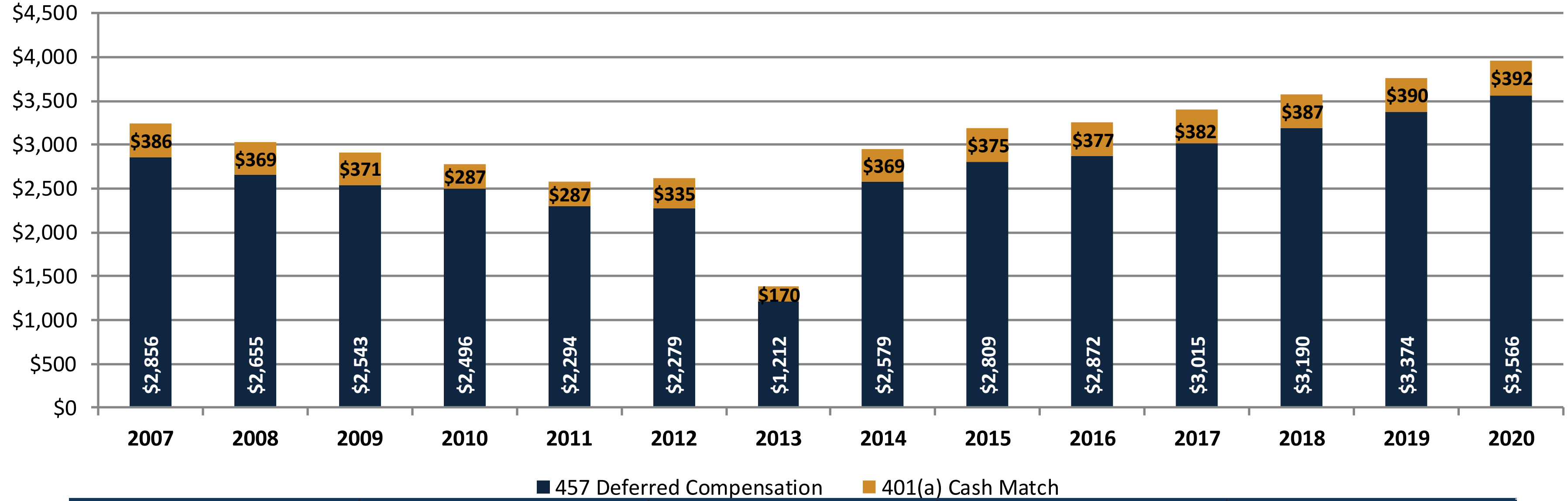
457 and 401(a) Cash Match Plans – Participant Average Account Balance

Note: Includes Beneficiary Plans



Period	457 Deferred Compensation	401(a) Cash Match	Total
2014	$26,570.18	$4,953.42	$31,523.60
2015	$26,954.62	$5,051.05	$32,005.67
2016	$28,786.34	$5,502.95	$34,289.28
2017	$32,073.51	$6,087.86	$38,161.37
2018	$33,619.62	$6,367.88	$39,987.50
2019	$36,168.70	$6,798.54	$42,967.24
2020	$38,525.35	$6,963.06	$45,488.41
Q1 2020	$33,119.10	$6,071.46	$39,190.56
Q2 2020	$37,586.54	$6,816.63	$44,403.17
Q3 2020	$39,666.81	$7,145.89	$46,812.70
Q4 2020	$43,750.47	$7,823.19	$51,573.66

457 and 401(a) Cash Match Plans – Participant Average Annual Deferral and Average Annual Employer Match



Period	457 Deferred Compensation	401(a) Cash Match	Total	Maximum State Match*
2007	$2,856	$386	$3,242	$480
2008	$2,655	$369	$3,024	$480
2009	$2,543	$371	$2,914	$480
2010	$2,496	$287	$2,783	$480
2011	$2,294	$287	$2,581	$480
2012	$2,279	$335	$2,614	$480
2013	$1,212	$170	$1,382	$480
2014	$2,579	$369	$2,948	$480
2015	$2,809	$375	$3,184	$480
2016	$2,872	$377	$3,250	$480
2017	$3,015	$382	$3,397	$480
2018	$3,190	$387	$3,576	$480
2019	$3,374	$390	$3,764	$480
2020	$3,566	$392	$3,958	$480

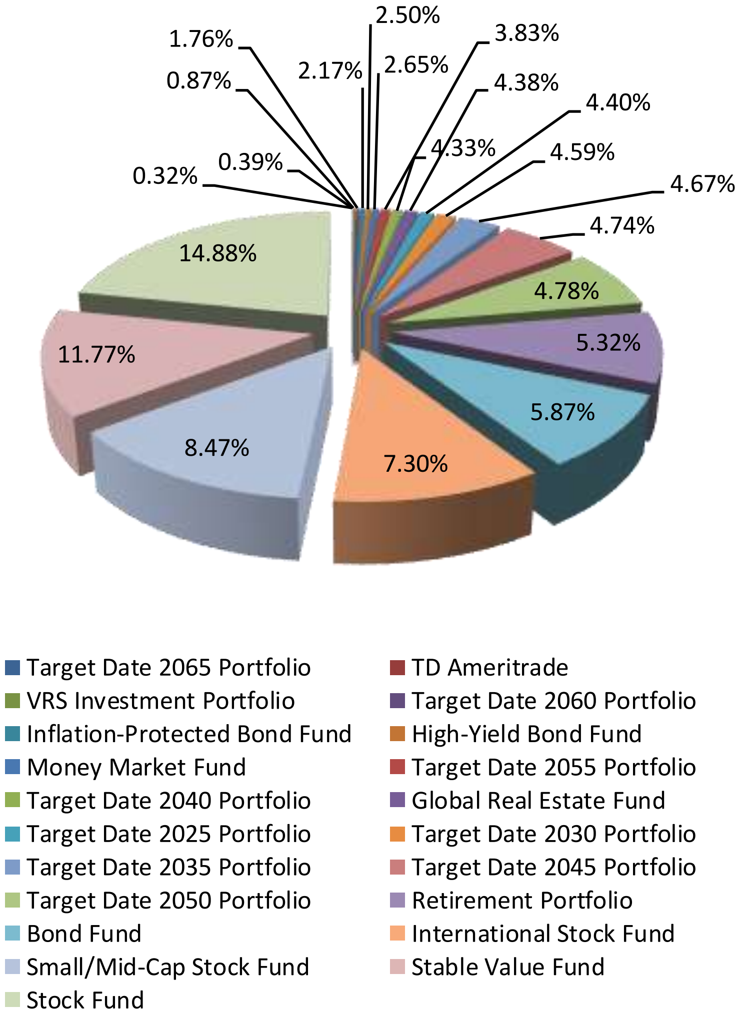
* Non-state employers set their own match. Auto-enroll began 2008.

Data as of 12/31/2020

457 Plan – Participant Use of Funds

Note: Includes Beneficiary Plan and Reserve Account

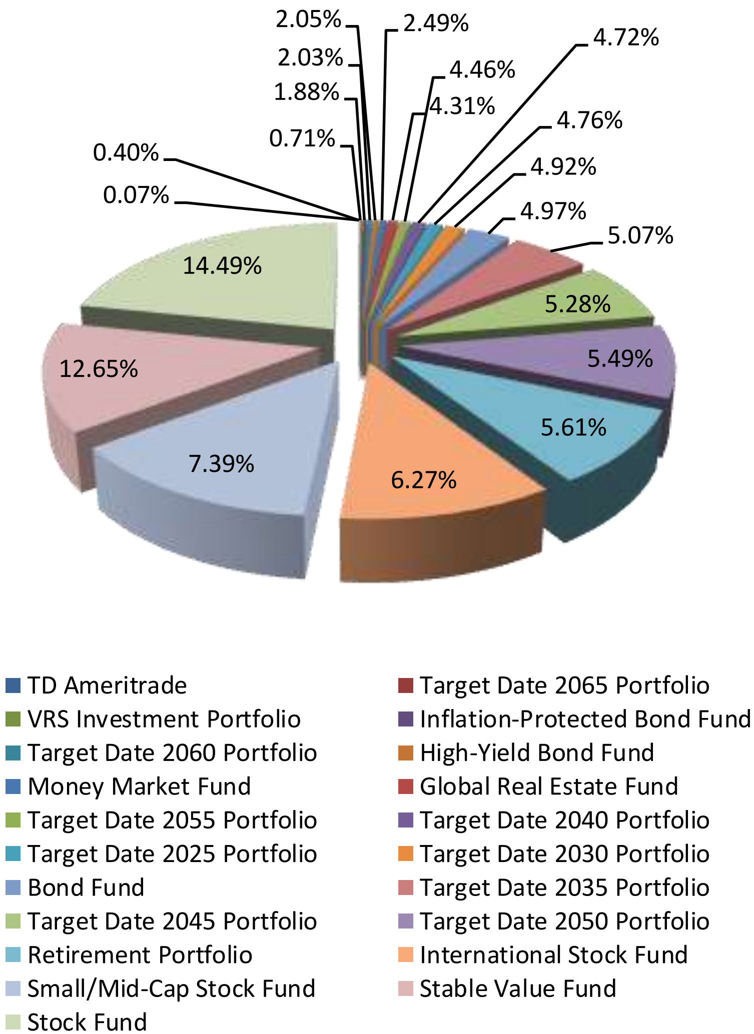
DCP
Virginia Retirement System



Fund Name	Participant Count 12/31/2019	Participant Count 12/31/2020	% of Participants 12/31/2020	% Change
Target Date 2065 Portfolio	228	536	0.32%	135.09%
TD Ameritrade	537	646	0.39%	20.30%
VRS Investment Portfolio	1,484	1,437	0.87%	-3.17%
Target Date 2060 Portfolio	2,660	2,917	1.76%	9.66%
Inflation-Protected Bond Fund	3,496	3,598	2.17%	2.92%
High-Yield Bond Fund	4,243	4,132	2.50%	-2.62%
Money Market Fund	4,278	4,383	2.65%	2.45%
Target Date 2055 Portfolio	5,969	6,335	3.83%	6.13%
Target Date 2040 Portfolio	6,654	7,166	4.33%	7.69%
Global Real Estate Fund	7,681	7,243	4.38%	-5.70%
Target Date 2025 Portfolio	6,945	7,278	4.40%	4.79%
Target Date 2030 Portfolio	7,106	7,590	4.59%	6.81%
Target Date 2035 Portfolio	7,165	7,726	4.67%	7.83%
Target Date 2045 Portfolio	7,388	7,844	4.74%	6.17%
Target Date 2050 Portfolio	7,536	7,905	4.78%	4.90%
Retirement Portfolio	9,147	8,806	5.32%	-3.73%
Bond Fund	8,361	9,708	5.87%	16.11%
International Stock Fund	10,721	12,082	7.30%	12.69%
Small/Mid-Cap Stock Fund	12,492	14,020	8.47%	12.23%
Stable Value Fund	16,339	19,467	11.77%	19.14%
Stock Fund	22,461	24,614	14.88%	9.59%

401(a) Cash Match – Participant Use of Funds

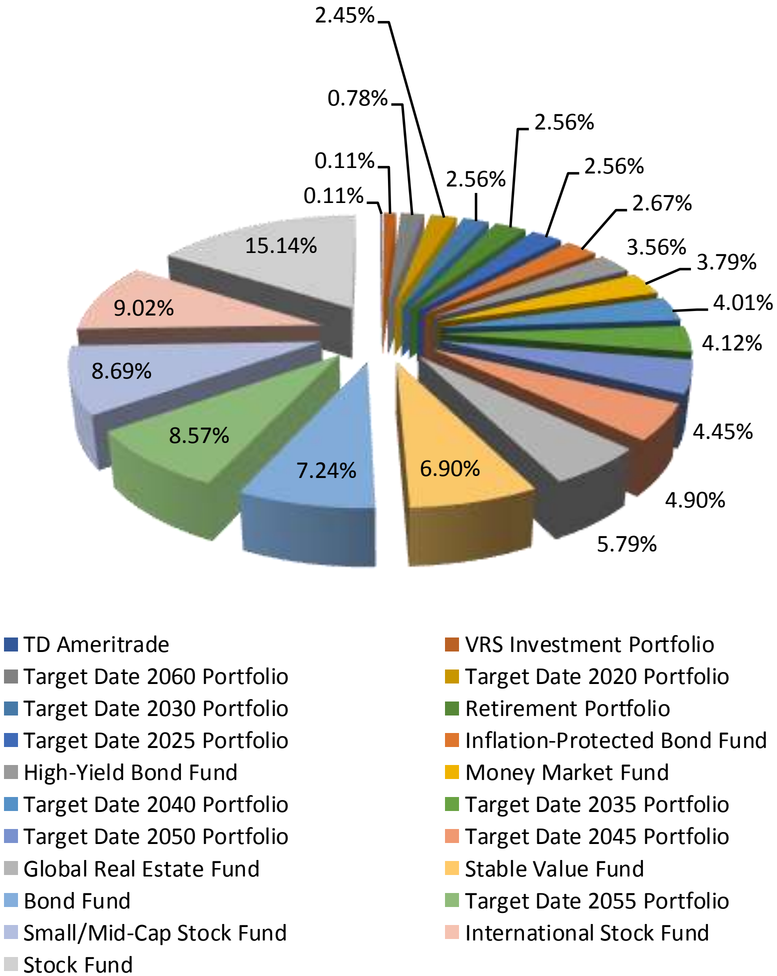
Note: Includes Beneficiary Plan



Fund Name	Participant Count 12/31/2019	Participant Count 12/31/2020	% of Participants 12/31/2020	% Change
TD Ameritrade	74	86	0.07%	16.22%
Target Date 2065 Portfolio	229	490	0.40%	113.97%
VRS Investment Portfolio	903	873	0.71%	-3.32%
Inflation-Protected Bond Fund	2,253	2,292	1.88%	1.73%
Target Date 2060 Portfolio	2,300	2,477	2.03%	7.70%
High-Yield Bond Fund	2,585	2,507	2.05%	-3.02%
Money Market Fund	3,007	3,037	2.49%	1.00%
Global Real Estate Fund	5,558	5,262	4.31%	-5.33%
Target Date 2055 Portfolio	5,251	5,446	4.46%	3.71%
Target Date 2040 Portfolio	5,633	5,762	4.72%	2.29%
Target Date 2025 Portfolio	5,816	5,813	4.76%	-0.05%
Target Date 2030 Portfolio	5,968	6,009	4.92%	0.69%
Bond Fund	5,991	6,066	4.97%	1.25%
Target Date 2035 Portfolio	6,069	6,197	5.07%	2.11%
Target Date 2045 Portfolio	6,335	6,445	5.28%	1.74%
Target Date 2050 Portfolio	6,557	6,707	5.49%	2.29%
Retirement Portfolio	7,254	6,848	5.61%	-5.60%
International Stock Fund	7,814	7,662	6.27%	-1.95%
Small/Mid-Cap Stock Fund	9,218	9,034	7.39%	-2.00%
Stable Value Fund	15,631	15,456	12.65%	-1.12%
Stock Fund	17,994	17,702	14.49%	-1.62%

ORP for Political Appointees – Participant Use of Funds

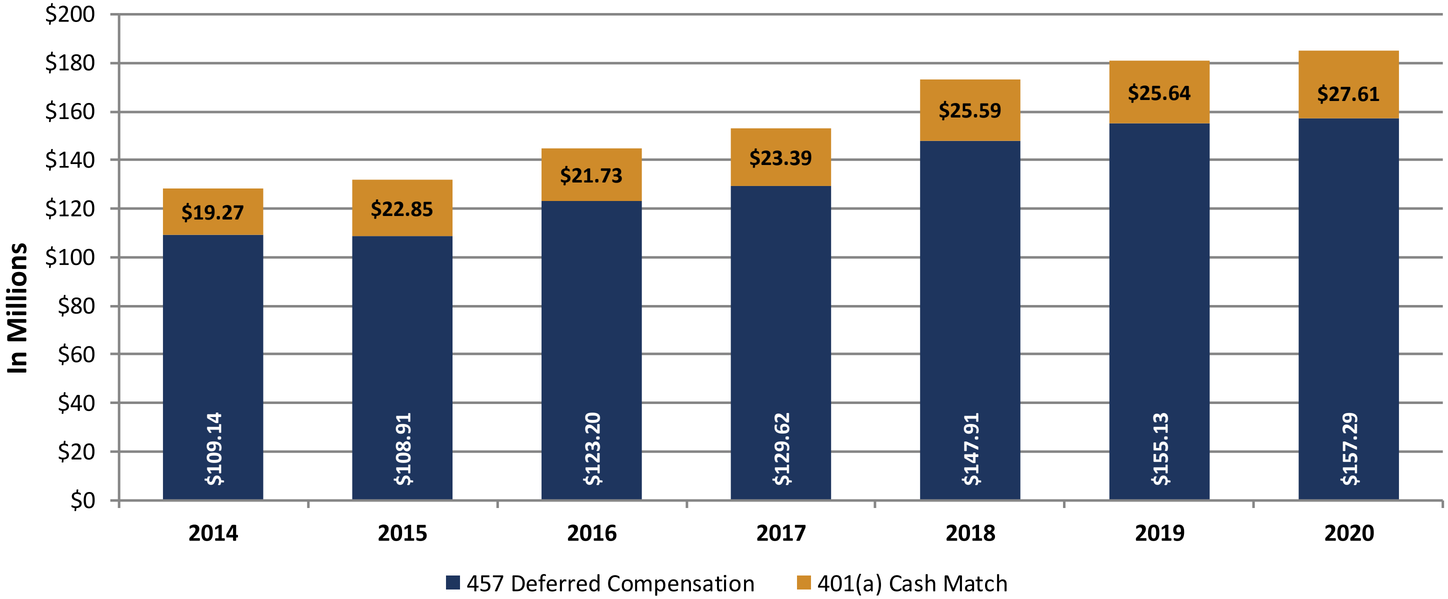
DCP
Virginia Retirement System



Fund Name	Participant Count 12/31/2019	Participant Count 12/31/2020	Participant Count 12/31/2020	% Change
Target Date 2065 Portfolio	0	1	0.11%	n/a
TD Ameritrade	1	1	0.11%	0.00%
VRS Investment Portfolio	7	7	0.78%	0.00%
Money Market Fund	26	22	2.45%	-15.38%
Inflation-Protected Bond Fund	22	23	2.56%	4.55%
Target Date 2025 Portfolio	23	23	2.56%	0.00%
Target Date 2030 Portfolio	22	23	2.56%	4.55%
High-Yield Bond Fund	24	24	2.67%	0.00%
Target Date 2060 Portfolio	28	32	3.56%	14.29%
Target Date 2040 Portfolio	33	34	3.79%	3.03%
Target Date 2035 Portfolio	34	36	4.01%	5.88%
Retirement Portfolio	39	37	4.12%	-5.13%
Target Date 2050 Portfolio	41	40	4.45%	-2.44%
Global Real Estate Fund	48	44	4.90%	-8.33%
Target Date 2045 Portfolio	47	52	5.79%	10.64%
Stable Value Fund	62	62	6.90%	0.00%
Bond Fund	66	65	7.24%	-1.52%
Small/Mid-Cap Stock Fund	81	77	8.57%	-4.94%
Target Date 2055 Portfolio	79	78	8.69%	-1.27%
International Stock Fund	84	81	9.02%	-3.57%
Stock Fund	145	136	15.14%	-6.21%

457 and 401(a) Cash Match Plans – Distributions

Note: Beneficiary Plans Excluded



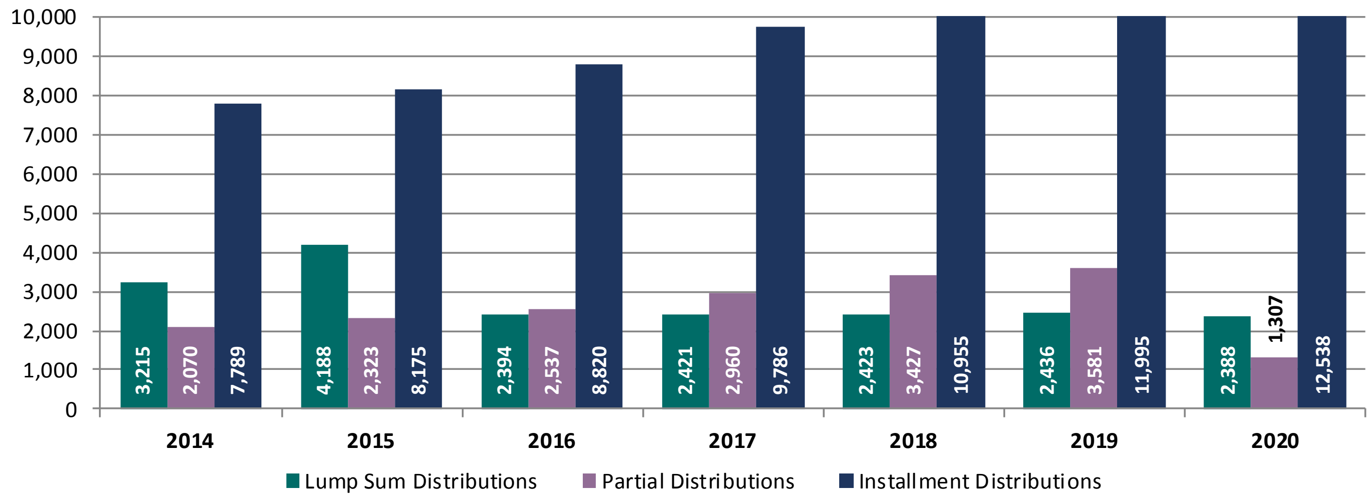
Period	457 Deferred Compensation	401(a) Cash Match	Total
2014	$109.14	$19.27	$128.41
2015	$108.91	$22.85	$131.77
2016	$123.20	$21.73	$144.93
2017	$129.62	$23.39	$153.01
2018	$147.91	$25.59	$173.50
2019	$155.13	$25.64	$180.77
2020	$157.29	$27.61	$184.90
Q1 2020	$44.36	$6.87	$51.24
Q2 2020	$33.07	$5.87	$38.94
Q3 2020	$36.13	$6.79	$42.92
Q4 2020	$43.73	$8.08	$51.81

* Q4 distribution amounts include Coronavirus-Related Distributions that totaled $2,164,635.85 for the 401(a) Cash Match Plan and $5,975,507.79 for the 457 Deferred Compensation Plan.

457 Plan – Distributions by Type

Note: Beneficiary Plan Excluded; Rollover Distributions Excluded and Reported on Subsequent Pages

DCP
Virginia Retirement System



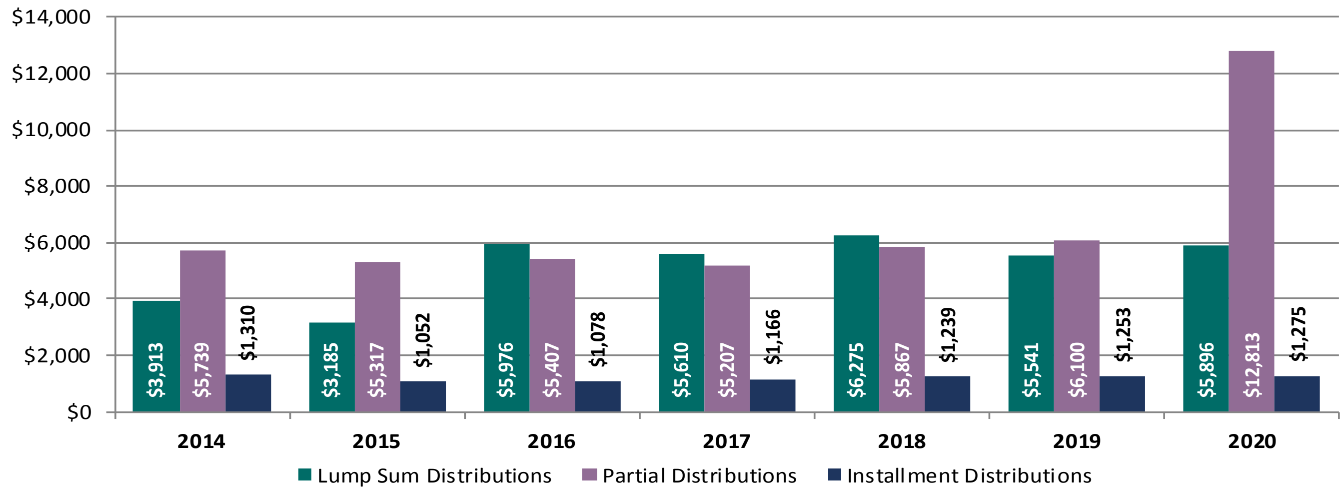
Period	Lump Sum Distributions*	Partial Distributions	Installment Distributions
2014	3,215	2,070	7,789
2015	4,188	2,323	8,175
2016	2,394	2,537	8,820
2017	2,421	2,960	9,786
2018	2,423	3,427	10,955
2019	2,436	3,581	11,995
2020	2,388	1,307	12,538
Q1 2020	434	491	3,150
Q2 2020	912	191	3,142
Q3 2020	411	299	2,889
Q4 2020	631	326	3,357

- Includes EACA distributions.
- Q4 distribution counts do not include Coronavirus-Related Distributions that totaled 71 lump sum distributions and 969 partial distributions in the 457 Deferred Compensation Plan.

457 Plan – Distribution Average Amounts

Note: Beneficiary Plan Excluded; Rollover Distributions Excluded and Reported on Subsequent Pages

DCP
Virginia Retirement System

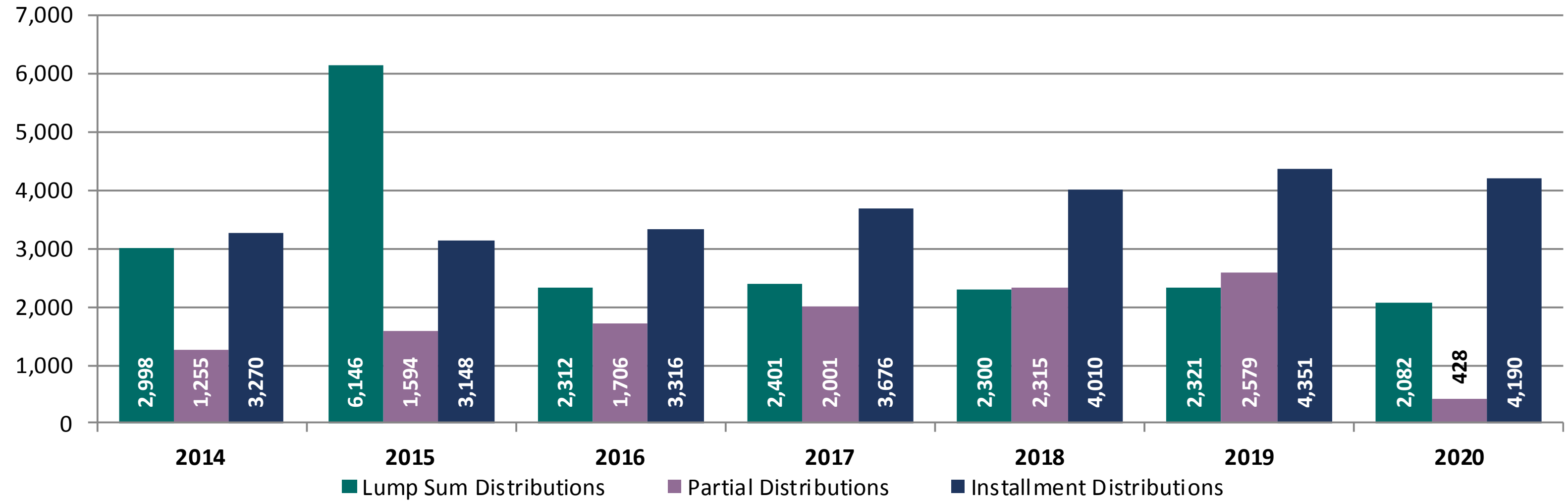


Period	Lump Sum Distributions	Partial Distributions	Installment Distributions
2014	$3,913	$5,739	$1,310
2015	$3,185	$5,317	$1,052
2016	$5,976	$5,407	$1,078
2017	$5,610	$5,207	$1,166
2018	$6,275	$5,867	$1,239
2019	$5,541	$6,100	$1,253
2020	$5,896	$12,813	$1,275
Q1 2020	$10,340	$13,945	$1,211
Q2 2020	$3,456	$14,116	$1,157
Q3 2020	$7,390	$10,951	$1,081
Q4 2020	$5,393	$12,052	$1,611

* Q4 distribution amounts do not include Coronavirus-Related Distributions that totaled $306,062.66 for lump sum distributions and $5,669,445.13 for partial distributions in the 457 Deferred Compensation Plan.

401(a) Cash Match – Distributions by Type

Note: Beneficiary Plan Excluded; Rollover Distributions Excluded and Reported on Subsequent Pages



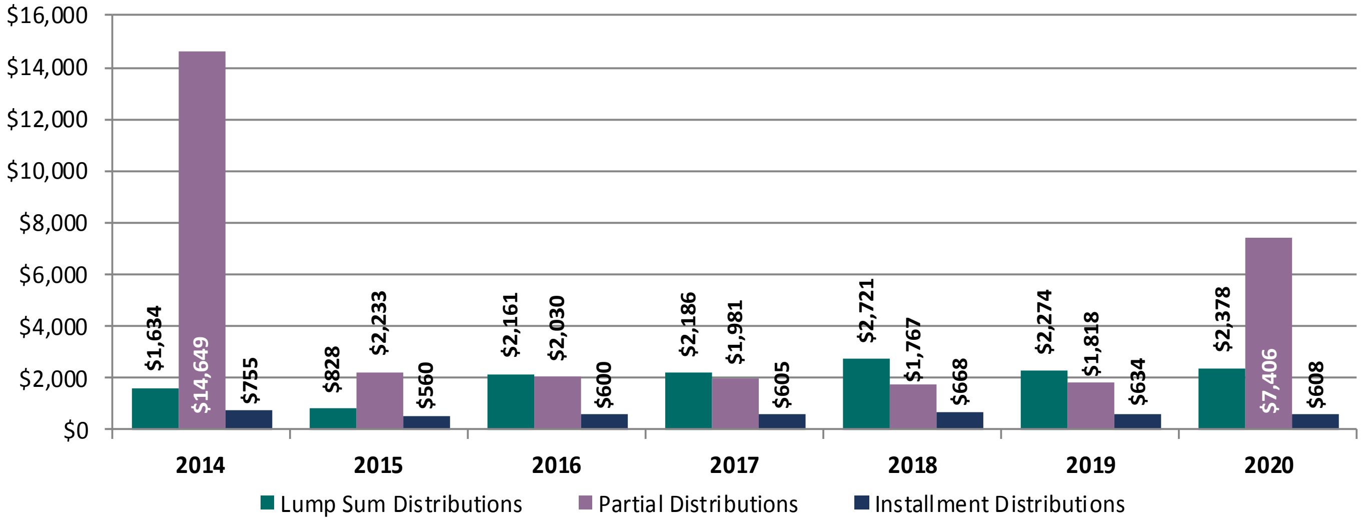
Period	Lump Sum Distributions	Partial Distributions	Installment Distributions
2014	2,998	1,255	3,270
2015	6,146	1,594	3,148
2016	2,312	1,706	3,316
2017	2,401	2,001	3,676
2018	2,300	2,315	4,010
2019	2,321	2,579	4,351
2020	2,082	428	4,190
Q1 2020	356	164	1,054
Q2 2020	683	62	1,029
Q3 2020	353	95	939
Q4 2020	690	107	1,168

* Q4 distribution counts do not include Coronavirus-Related Distributions that totaled 69 lump sum distributions and 679 partial distributions in the 401(a) Cash Match Plan.

401(a) Cash Match Plan – Distribution Average Amounts

DCP
Virginia Retirement System

Note: Beneficiary Plan Excluded; Rollover Distributions Excluded and Reported on Subsequent Pages

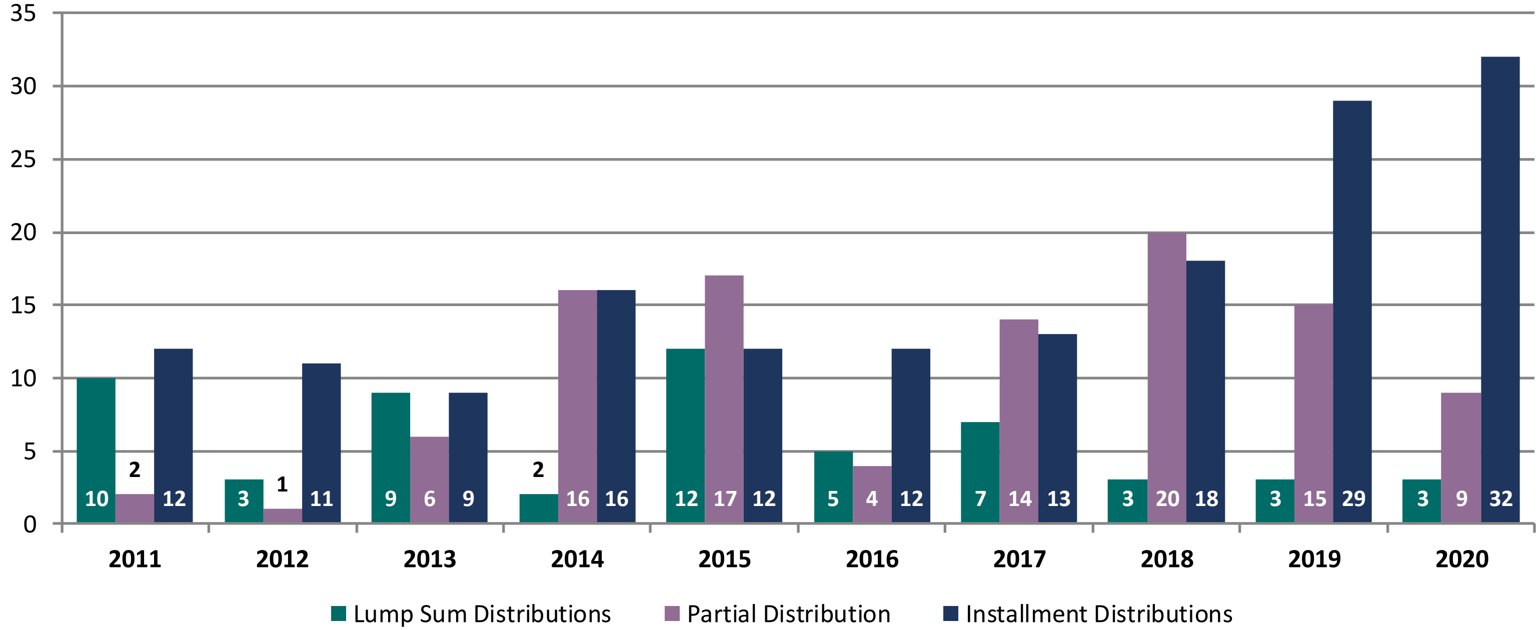


Period	Lump Sum Distributions	Partial Distributions	Installment Distributions
2014	$1,634	$14,649	$755
2015	$828	$2,233	$560
2016	$2,161	$2,030	$600
2017	$2,186	$1,981	$605
2018	$2,721	$1,767	$668
2019	$2,274	$1,818	$634
2020	$2,378	$7,406	$608
Q1 2020	$4,258	$6,855	$640
Q2 2020	$1,520	$11,146	$596
Q3 2020	$3,581	$5,753	$529
Q4 2020	$1,642	$7,551	$655

* Q4 distribution amounts do not include Coronavirus-Related Distributions that totaled $258,548.48 for lump sum distributions and $1,906,087.37 for partial distributions in the 401(a) Cash Match Plan.

ORP for Political Appointees – Distributions by Type

DCP
Virginia Retirement System

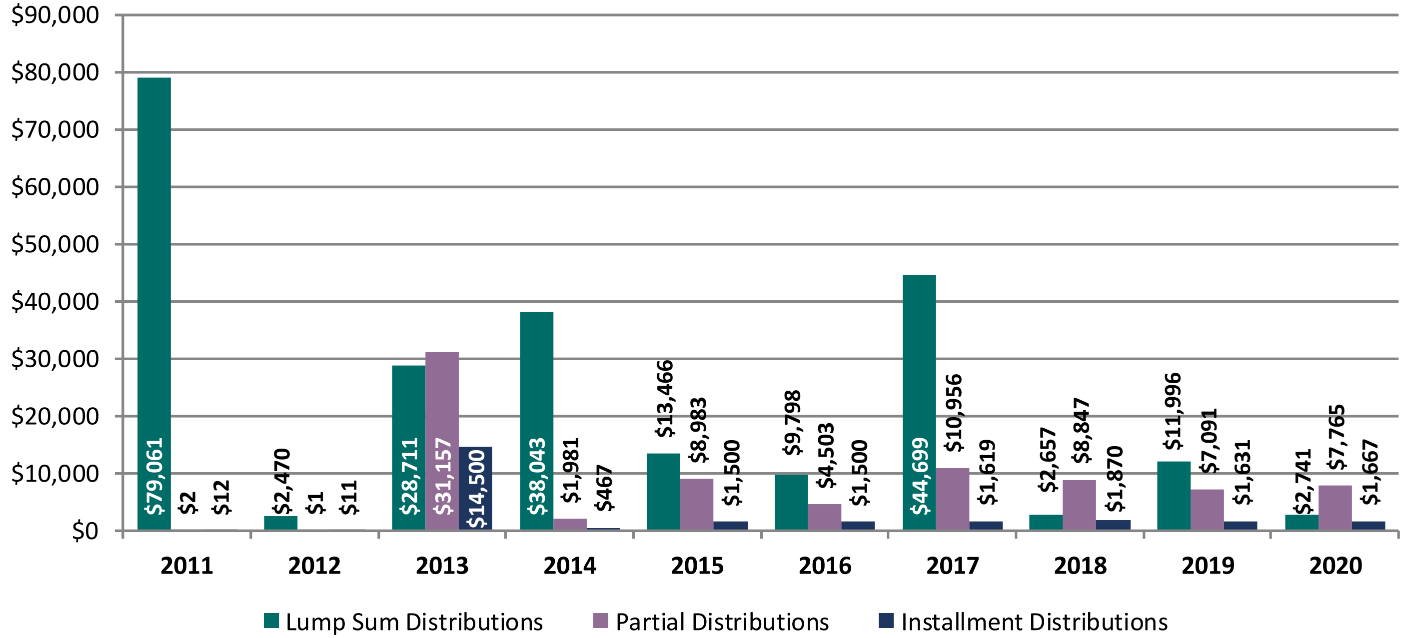


Period	Lump Sum Distributions	Partial Distribution	Installment Distributions
2011	10	2	12
2012	3	1	11
2013	9	6	9
2014	2	16	16
2015	12	17	12
2016	5	4	12
2017	7	14	13
2018	3	20	18
2019	3	15	29
2020	3	9	32

Data as of 12/31/2020

ORP for Political Appointees – Distribution Average Amounts

DCP
Virginia Retirement System

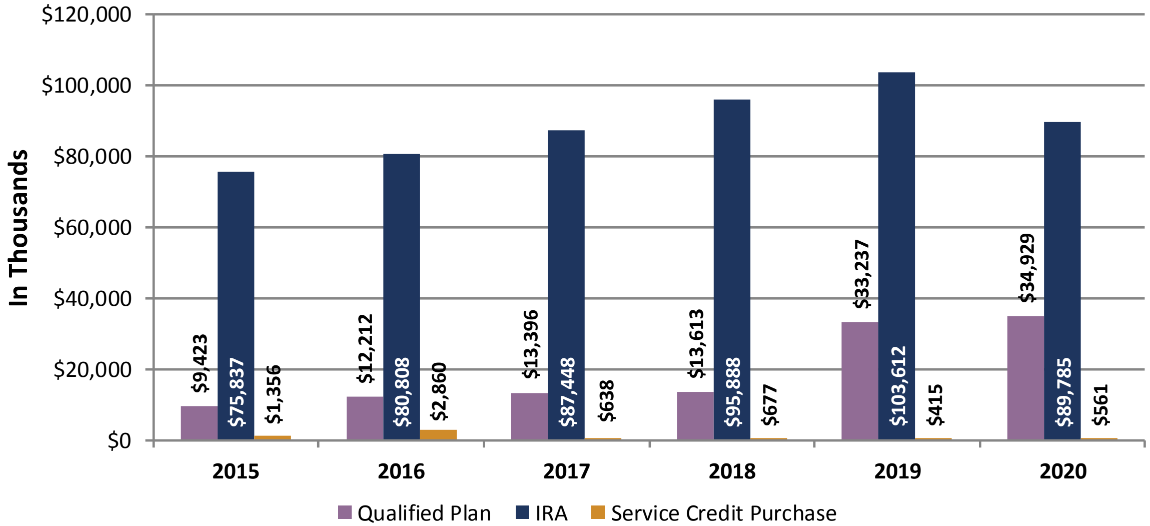


Period	Lump Sum Distributions	Partial Distributions	Installment Distributions
2011	$79,061	$2	$12
2012	$2,470	$1	$11
2013	$28,711	$31,157	$14,500
2014	$38,043	$1,981	$467
2015	$13,466	$8,983	$1,500
2016	$9,798	$4,503	$1,500
2017	$44,699	$10,956	$1,619
2018	$2,657	$8,847	$1,870
2019	$11,996	$7,091	$1,631
2020	$2,741	$7,765	$1,667

457 and 401(a) Plans – Rollover Distribution Destinations – Total Amounts

Note: Beneficiary Plan Excluded

DCP
Virginia Retirement System



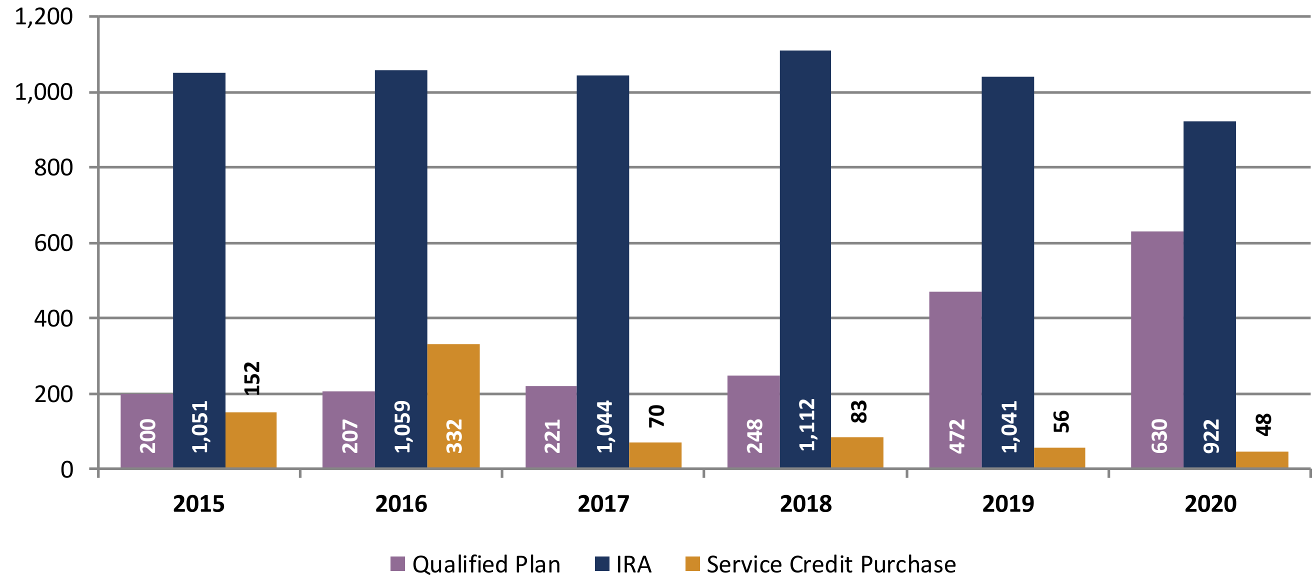
Period	Qualified Plan	IRA	Service Credit Purchase	Total
2015	$9,423	$75,837	$1,356	$86,616
2016	$12,212	$80,808	$2,860	$95,880
2017	$13,396	$87,448	$638	$101,481
2018	$13,613	$95,888	$677	$110,178
2019	$33,237	$103,612	$415	$137,264
2020	$34,929	$89,785	$561	$125,275
Q1 2020	$17,074	$27,426	$161	$44,661
Q2 2020	$4,379	$19,871	$89	$24,338
Q3 2020	$6,714	$18,411	$31	$25,156
Q4 2020	$6,762	$24,077	$281	$31,120

Data as of 12/31/2020

457 Plan – Rollover Distribution Destinations

Note: Beneficiary Plan Excluded

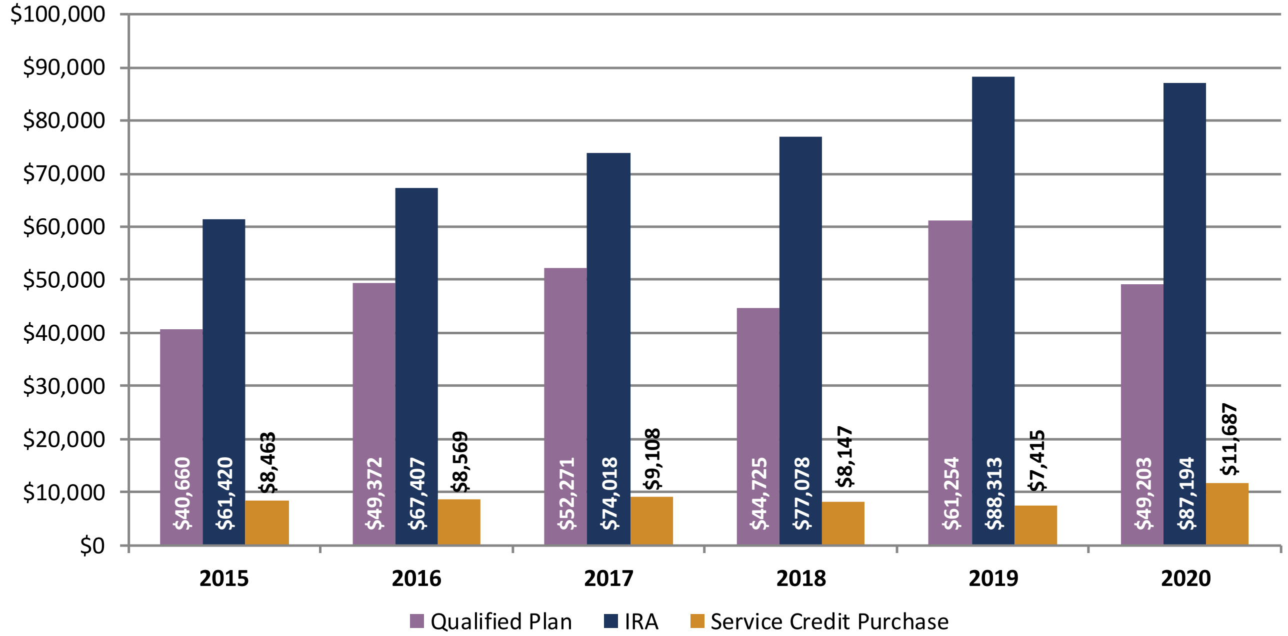
DCP
Virginia Retirement System



Period	Qualified Plan	IRA	Service Credit Purchase	Total Rollover Distributions
2015	200	1,051	152	1,403
2016	207	1,059	332	1,598
2017	221	1,044	70	1,335
2018	248	1,112	83	1,443
2019	472	1,041	56	1,569
2020	630	922	48	1,600
Q1 2020	257	274	18	549
Q2 2020	112	205	7	324
Q3 2020	134	210	10	354
Q4 2020	127	233	13	373

457 Plan – Rollover Distribution Average Amounts

Note: Beneficiary Plan Excluded

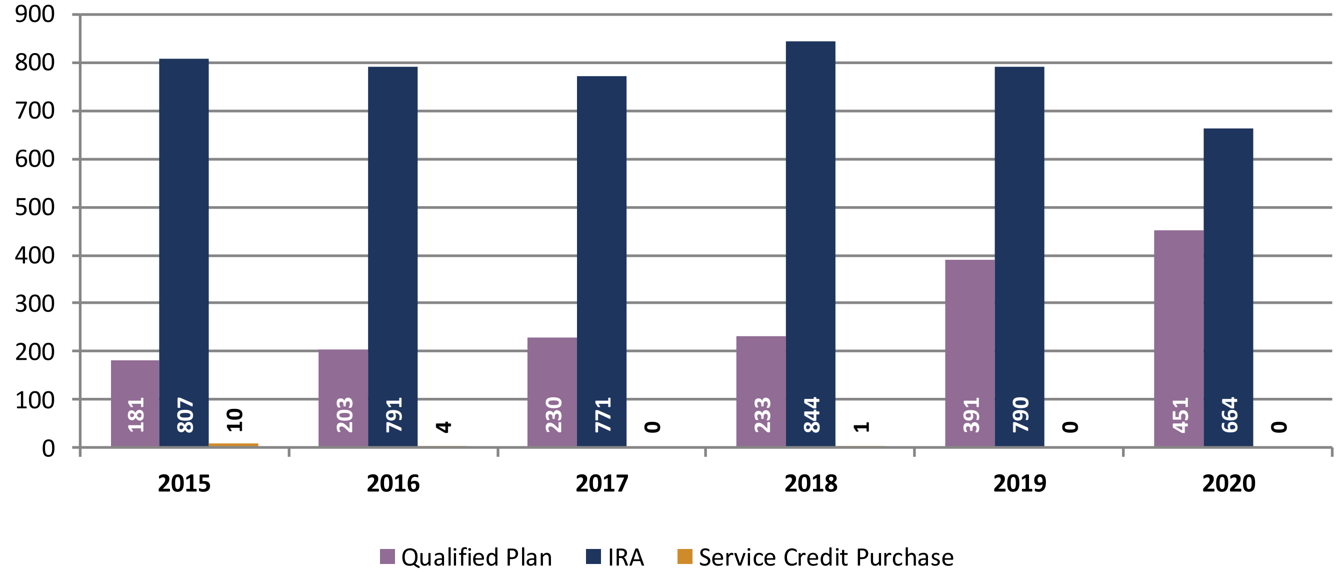


Period	Qualified Plan	IRA	Service Credit Purchase	Average Rollover Distribution
2015	$40,660	$61,420	$8,463	$52,855
2016	$49,372	$67,407	$8,569	$52,847
2017	$52,271	$74,018	$9,108	$67,015
2018	$44,725	$77,078	$8,147	$67,553
2019	$61,254	$88,313	$7,415	$77,285
2020	$49,203	$87,194	$11,687	$69,970
Q1 2020	$59,782	$90,132	$8,937	$73,262
Q2 2020	$33,502	$86,850	$12,677	$66,806
Q3 2020	$45,771	$78,635	$3,074	$64,060
Q4 2020	$45,261	$91,757	$21,586	$73,481

Data as of 12/31/2020

401(a) Cash Match Plan – Rollover Distribution Destinations

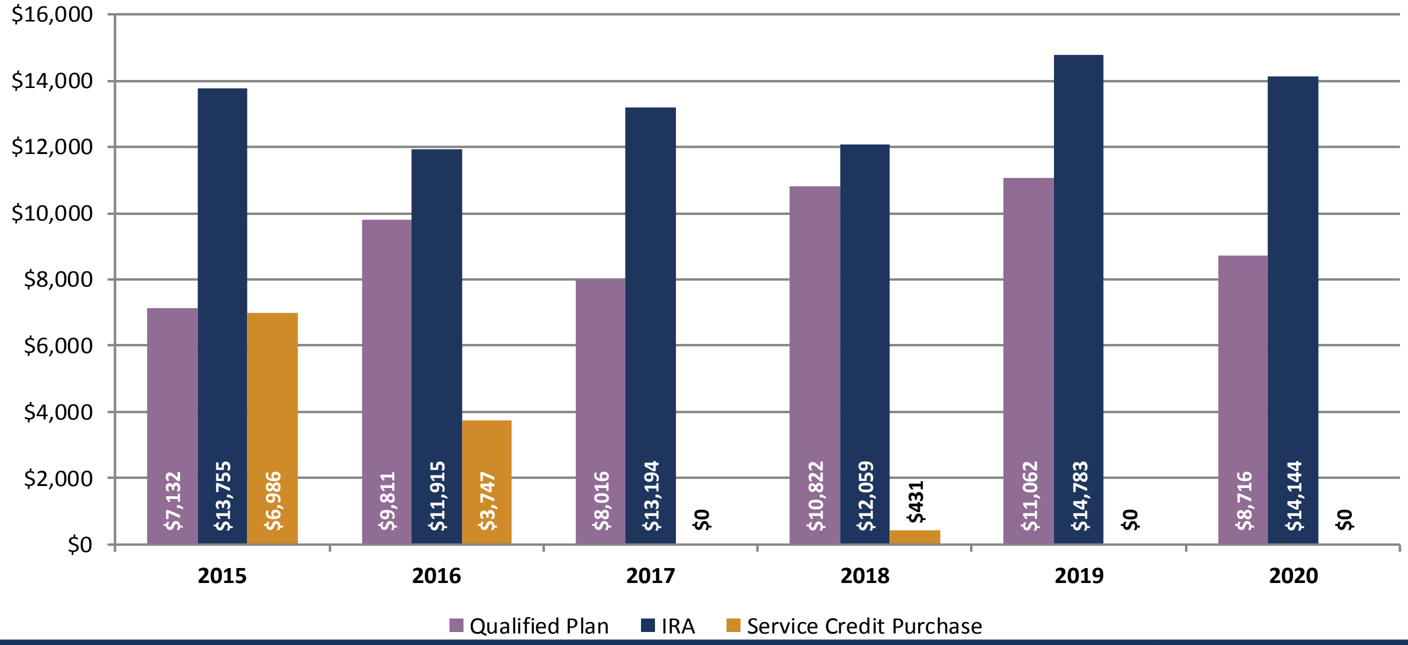
Note: Beneficiary Plan Excluded



Period	Qualified Plan	IRA	Service Credit Purchase	Total Rollover Distributions
2015	181	807	10	998
2016	203	791	4	998
2017	230	771	0	1,001
2018	233	844	1	1,078
2019	391	790	0	1,181
2020	451	664	0	1,115
Q1 2020	160	203	0	363
Q2 2020	96	137	0	233
Q3 2020	108	148	0	256
Q4 2020	87	176	0	263

401(a) Cash Match Plan – Rollover Distribution Average Amounts

Note: Beneficiary Plan Excluded

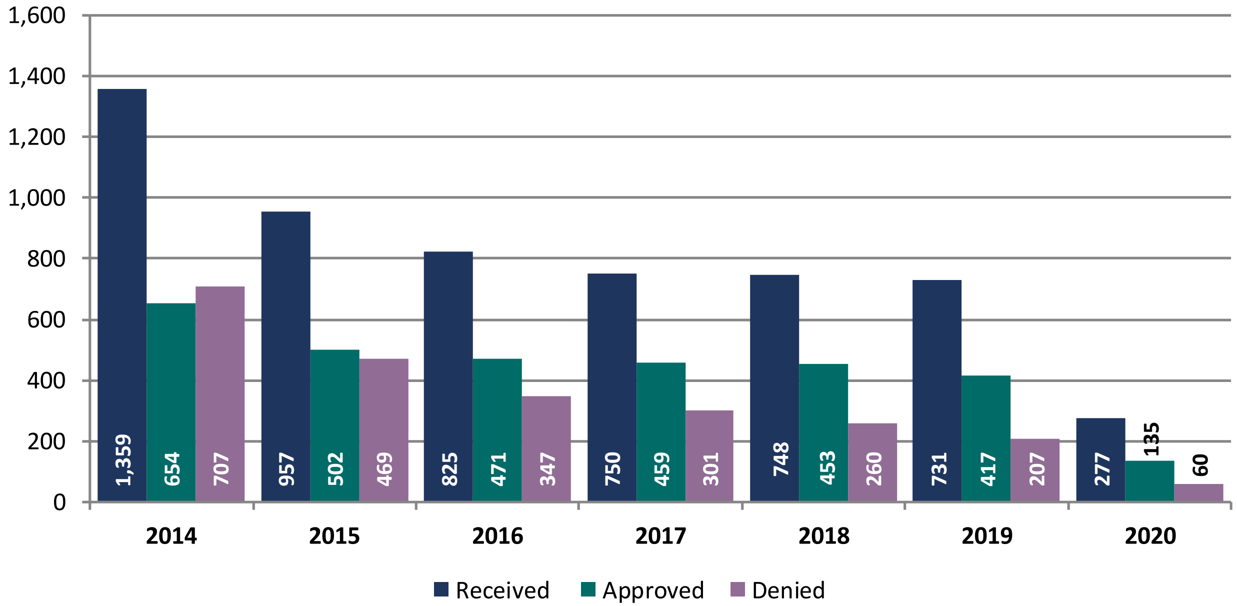


Period	Qualified Plan	IRA	Service Credit Purchase	Average Rollover Distribution
2015	$7,132	$13,755	$6,986	$12,486
2016	$9,811	$11,915	$3,747	$11,454
2017	$8,016	$13,194	$0	$12,005
2018	$10,822	$12,059	$431	$11,781
2019	$11,062	$14,783	$0	$13,551
2020	$8,716	$14,144	$0	$11,949
Q1 2020	$10,689	$13,447	$0	$12,231
Q2 2020	$6,525	$15,086	$0	$11,559
Q3 2020	$5,375	$12,823	$0	$9,681
Q4 2020	$11,654	$15,326	$0	$14,111

457 Plan – Unforeseeable Emergency Withdrawals

DCP Virginia Retirement System

Note: Reporting for Withdrawal Reasons Started In 2015



Withdrawal Reason	2015	2016	2017	2018	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020
	Withdrawals Approved and Paid									
Eviction	121	118	98	103	122	29	23	1	2	3
Foreclosure	48	52	50	29	24	6	4	2	0	0
Funeral Expenses	14	14	11	9	12	4	2	0	1	1
Lost Wages*	0	0	5	29	33	12	7	4	0	1
Medical Bills	312	279	288	269	215	82	34	21	11	16
Property Damage	7	8	7	14	11	2	1	0	1	0
Total Paid	**502**	**471**	**459**	**453**	**417**	**135**	**71**	**28**	**15**	**21**

* New category added in October 2017.

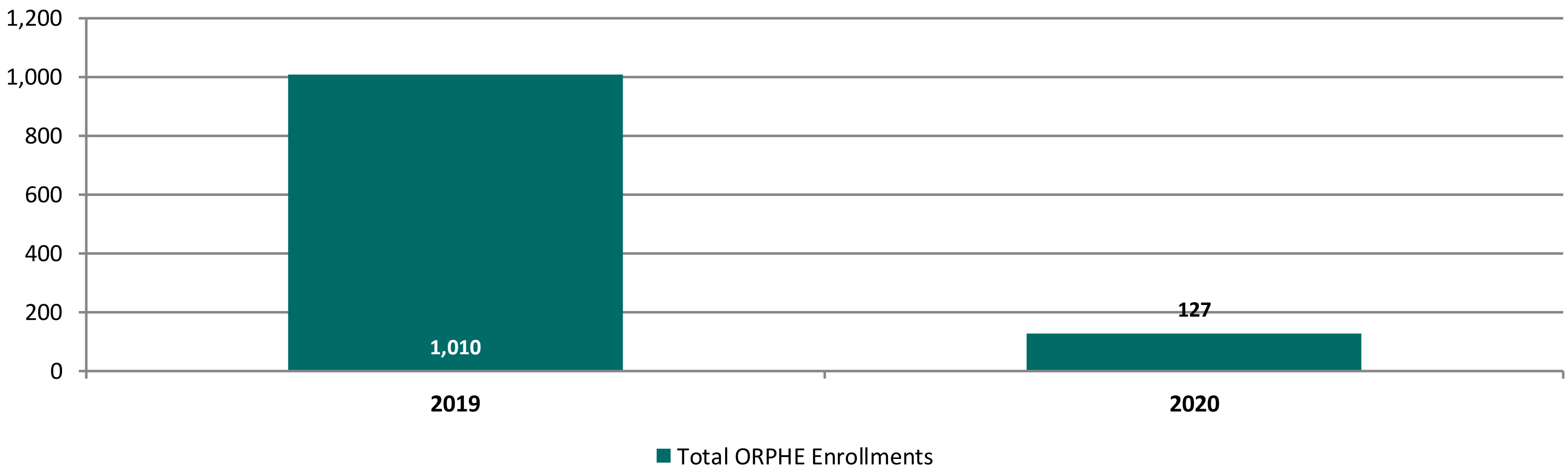
During Q2 2020 a moratorium was placed on Evictions as a result of the COVID-19 pandemic. Other UEWs throughout 2020 may have been impacted as a result of the pandemic.

DCP
Virginia Retirement System

ORP for Higher Ed

Note: All data is as of 12/31/2020 unless otherwise stated.

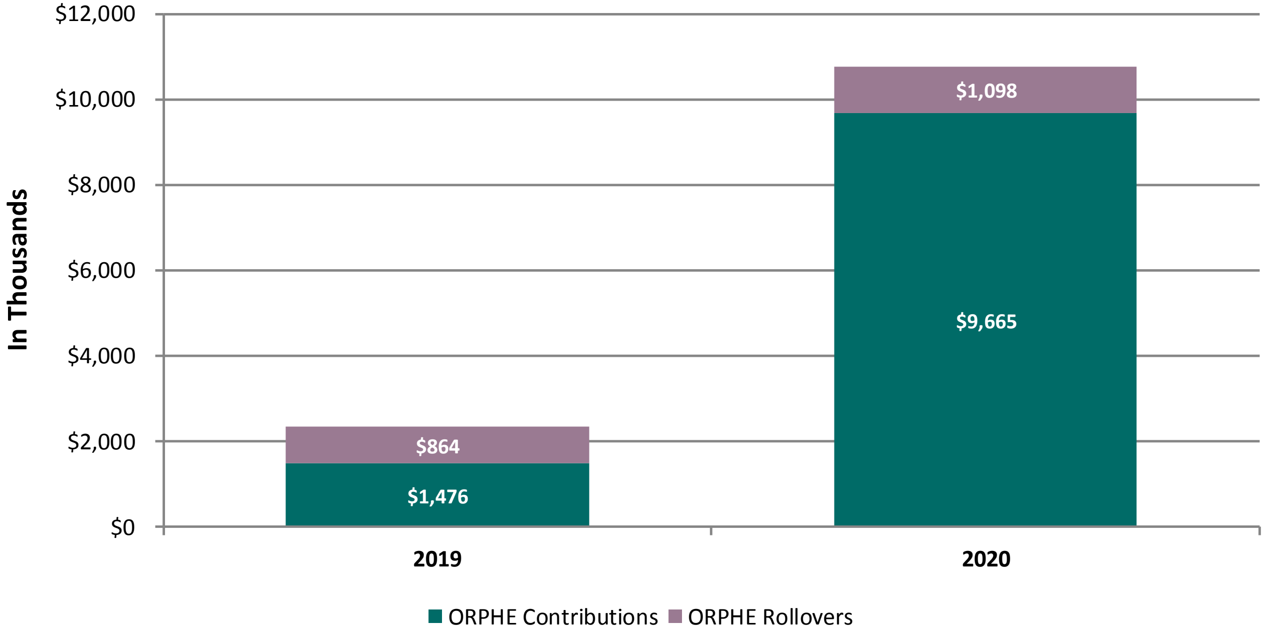
ORPHE Plan – New Enrollments



Period	Total ORPHE Enrollments
2019	1,010
2020	127
Q1 2020	42
Q2 2020	13
Q3 2020	40
Q4 2020	32

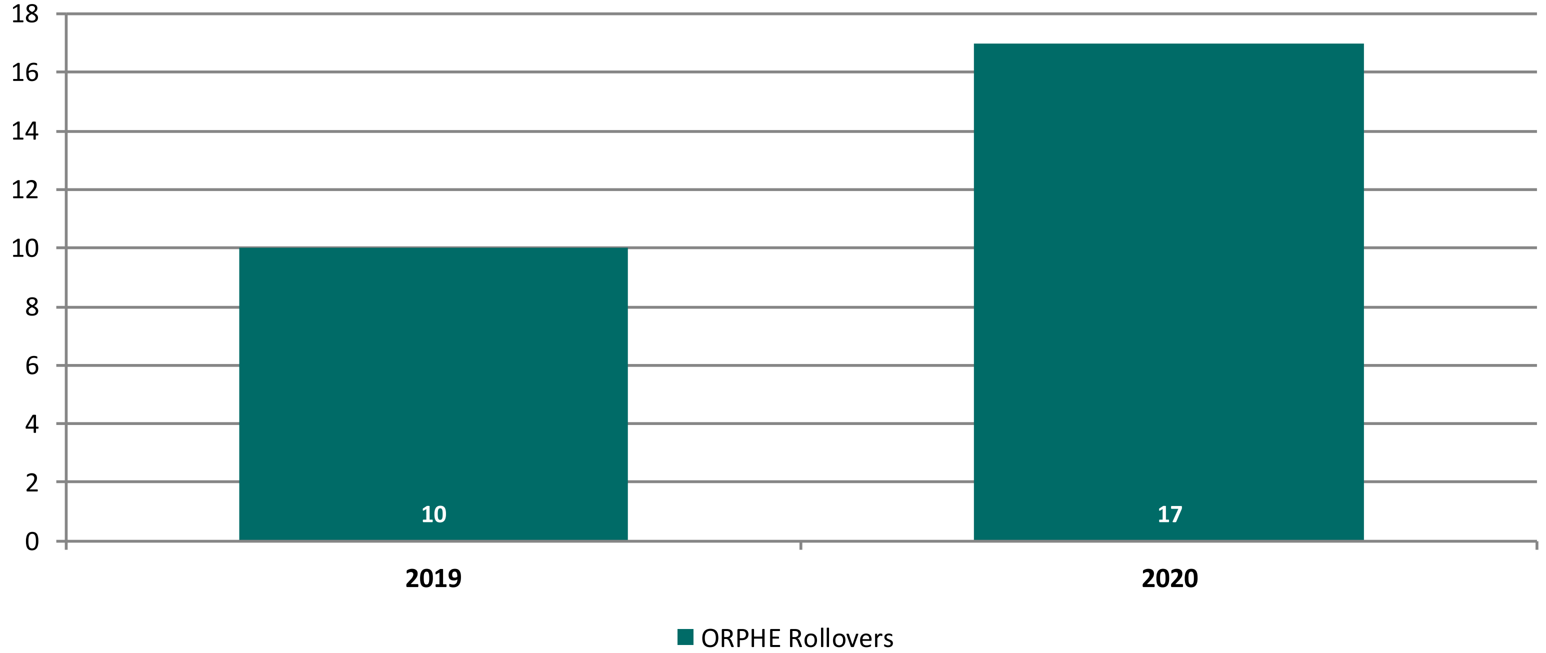
ORPHE Plan – Contributions and Incoming Rollovers

DCP Virginia Retirement System



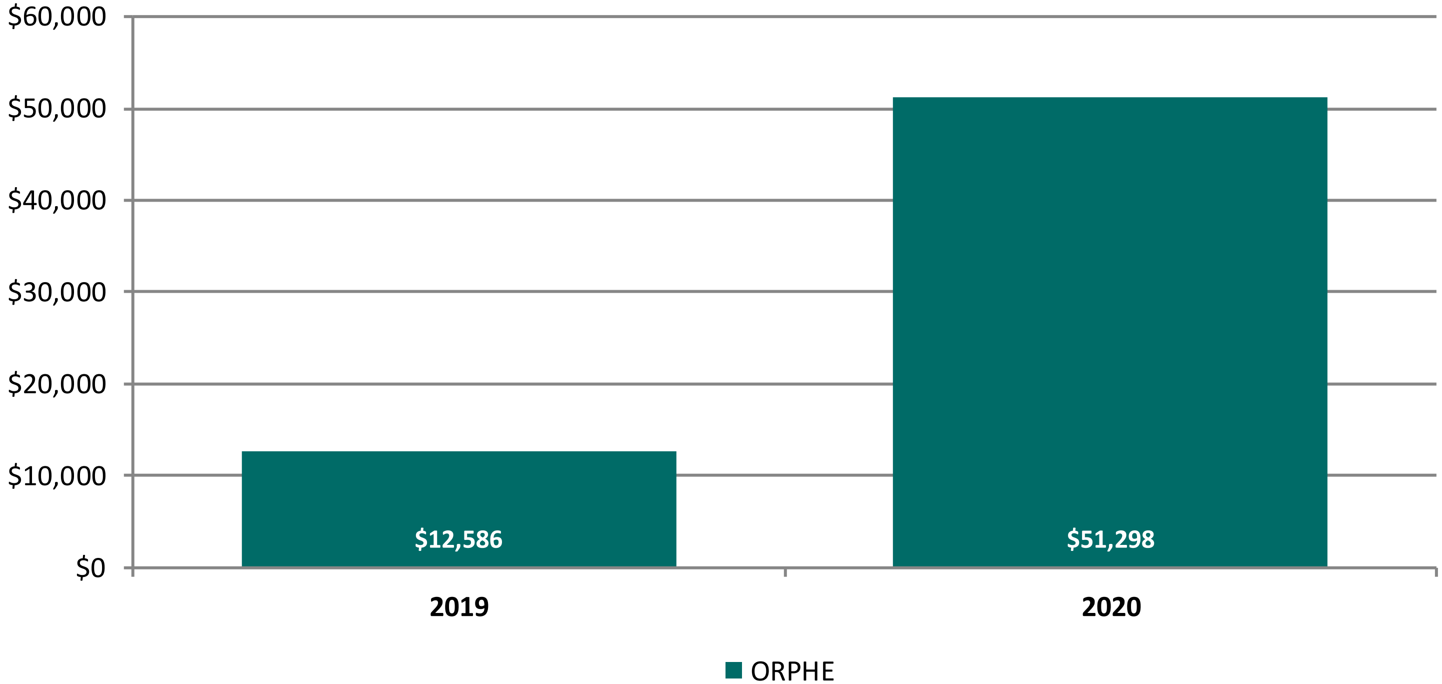
Period	ORPHE Contributions	ORPHE Rollovers	Total
2019	$1,476.42	$864.47	$2,340.89
2020	$9,664.81	$1,097.86	$10,762.67
Q1 2020	$2,410.65	$607.12	$3,017.77
Q2 2020	$2,153.40	$209.01	$2,362.41
Q3 2020	$2,673.69	$175.45	$2,849.13
Q4 2020	$2,427.07	$106.28	$2,533.35

ORPHE Plan – Incoming Rollovers – Counts



Period	ORPHE Rollovers
2019	10
2020	17
Q1 2020	6
Q2 2020	4
Q3 2020	3
Q4 2020	4

ORPHE Plan – Participant Average Account Balance



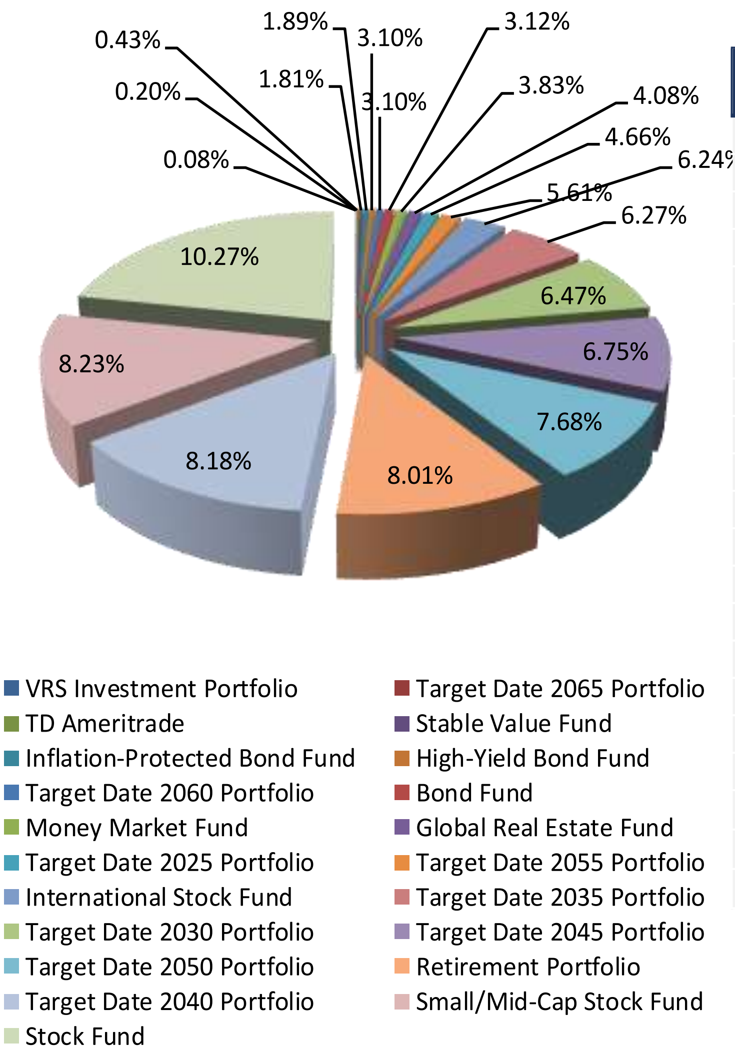
Period	ORPHE
2019	$12,586
2020	$51,298
Q1 2020	$40,893
Q2 2020	$50,588
Q3 2020	$53,842
Q4 2020	$60,564

Data as of 12/31/2020

ORPHE– Participant Use of Funds

Note: Includes Beneficiary Plan

DCP
Virginia Retirement System

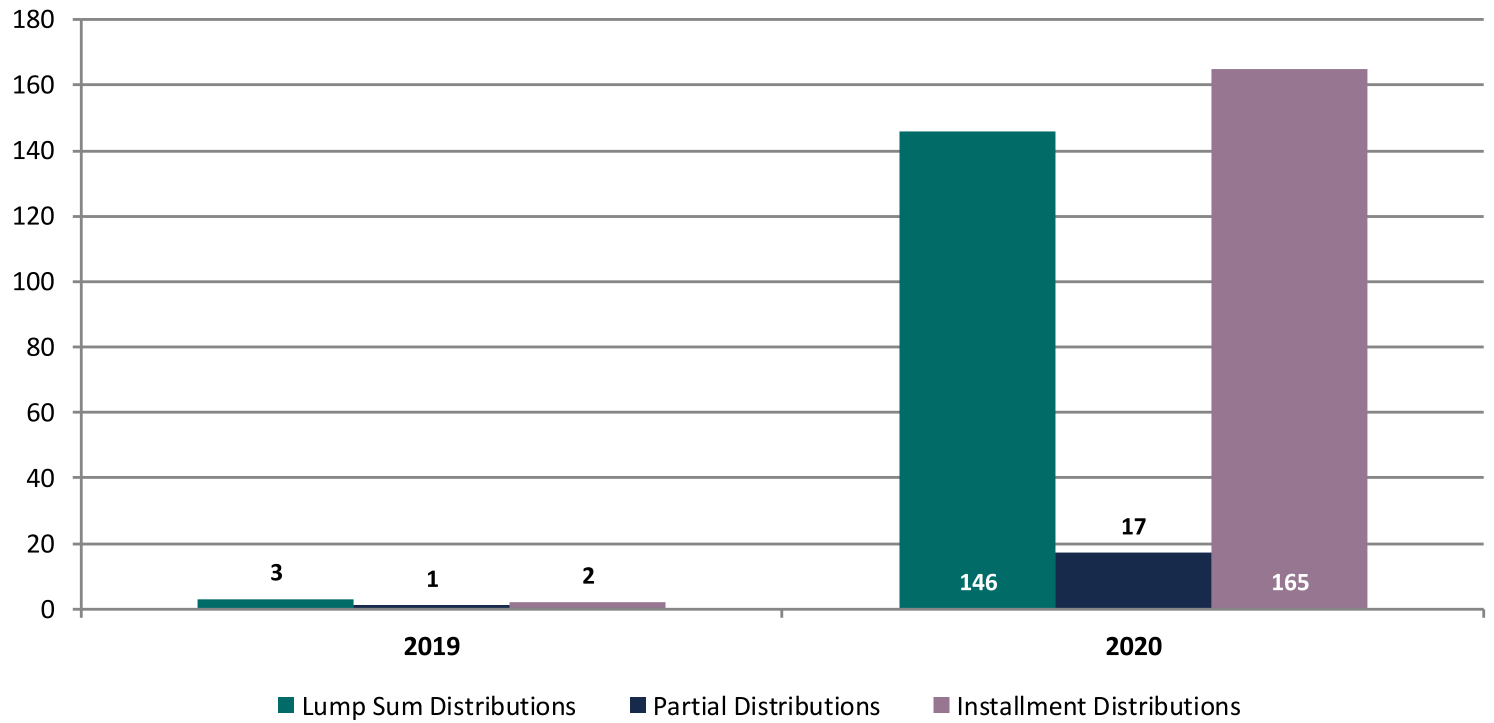


Fund Name	Participant Count 12/31/2019	Participant Count 12/31/2020	% of Participants 12/31/2020	% Change
VRS Investment Portfolio	7	3	0.08%	-57.14%
Target Date 2065 Portfolio	0	8	0.20%	n/a
TD Ameritrade	1	17	0.43%	1600.00%
Stable Value Fund	62	72	1.81%	16.13%
Inflation-Protected Bond Fund	22	75	1.89%	240.91%
High-Yield Bond Fund	24	123	3.10%	412.50%
Target Date 2060 Portfolio	28	123	3.10%	339.29%
Bond Fund	66	124	3.12%	87.88%
Money Market Fund	26	152	3.83%	484.62%
Global Real Estate Fund	48	162	4.08%	237.50%
Target Date 2025 Portfolio	23	185	4.66%	704.35%
Target Date 2055 Portfolio	79	223	5.61%	182.28%
International Stock Fund	84	248	6.24%	195.24%
Target Date 2035 Portfolio	34	249	6.27%	632.35%
Target Date 2030 Portfolio	22	257	6.47%	1068.18%
Target Date 2045 Portfolio	47	268	6.75%	470.21%
Target Date 2050 Portfolio	41	305	7.68%	643.90%
Retirement Portfolio	39	318	8.01%	715.38%
Target Date 2040 Portfolio	33	325	8.18%	884.85%
Small/Mid-Cap Stock Fund	81	327	8.23%	303.70%
Stock Fund	145	408	10.27%	181.38%

ORPHE Plan – Distributions by Type

Note: Rollover Distributions Excluded and Reported on Subsequent Pages

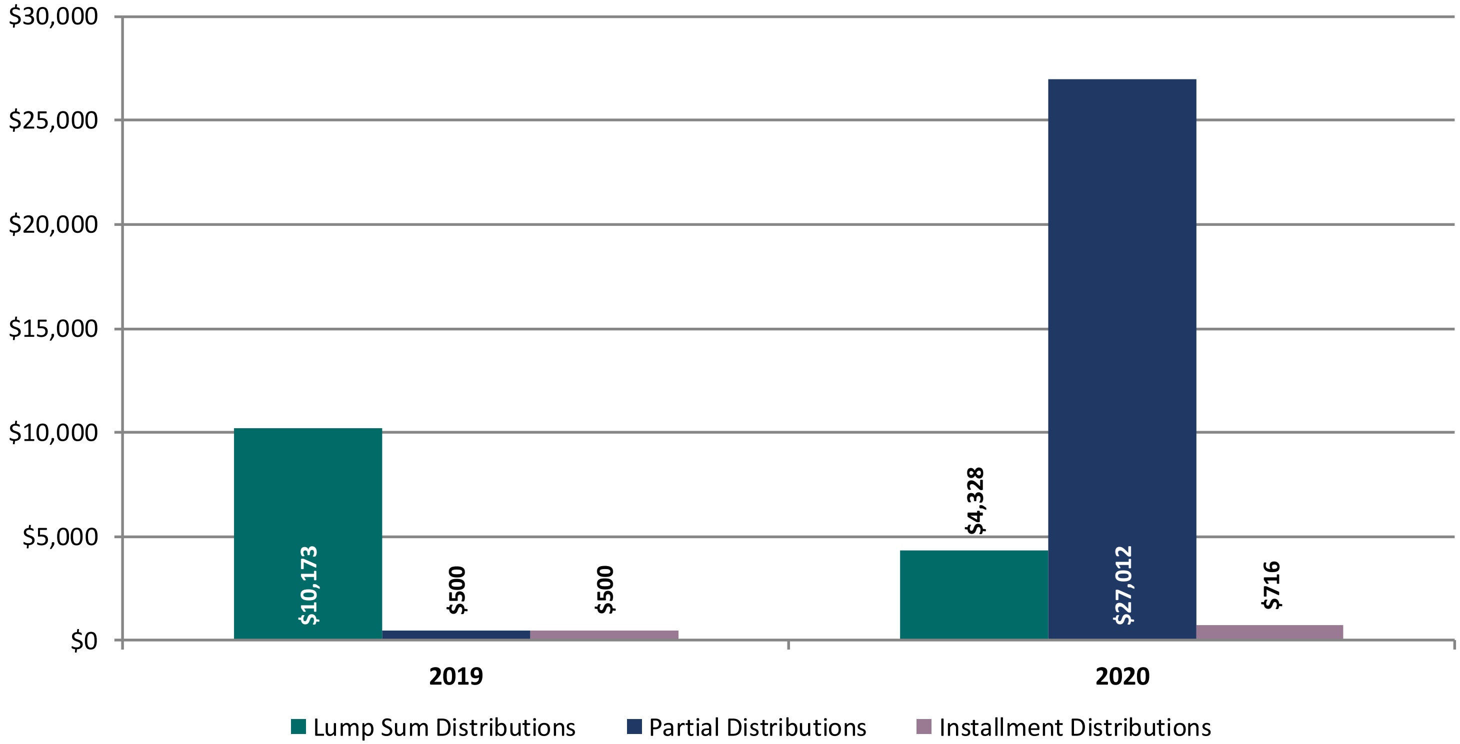
DCP
Virginia Retirement System



Period	Lump Sum Distributions	Partial Distributions	Installment Distributions
2019	3	1	2
2020	146	17	165
Q1 2020	3	3	26
Q2 2020	124	0	45
Q3 2020	8	7	45
Q4 2020	11	7	49

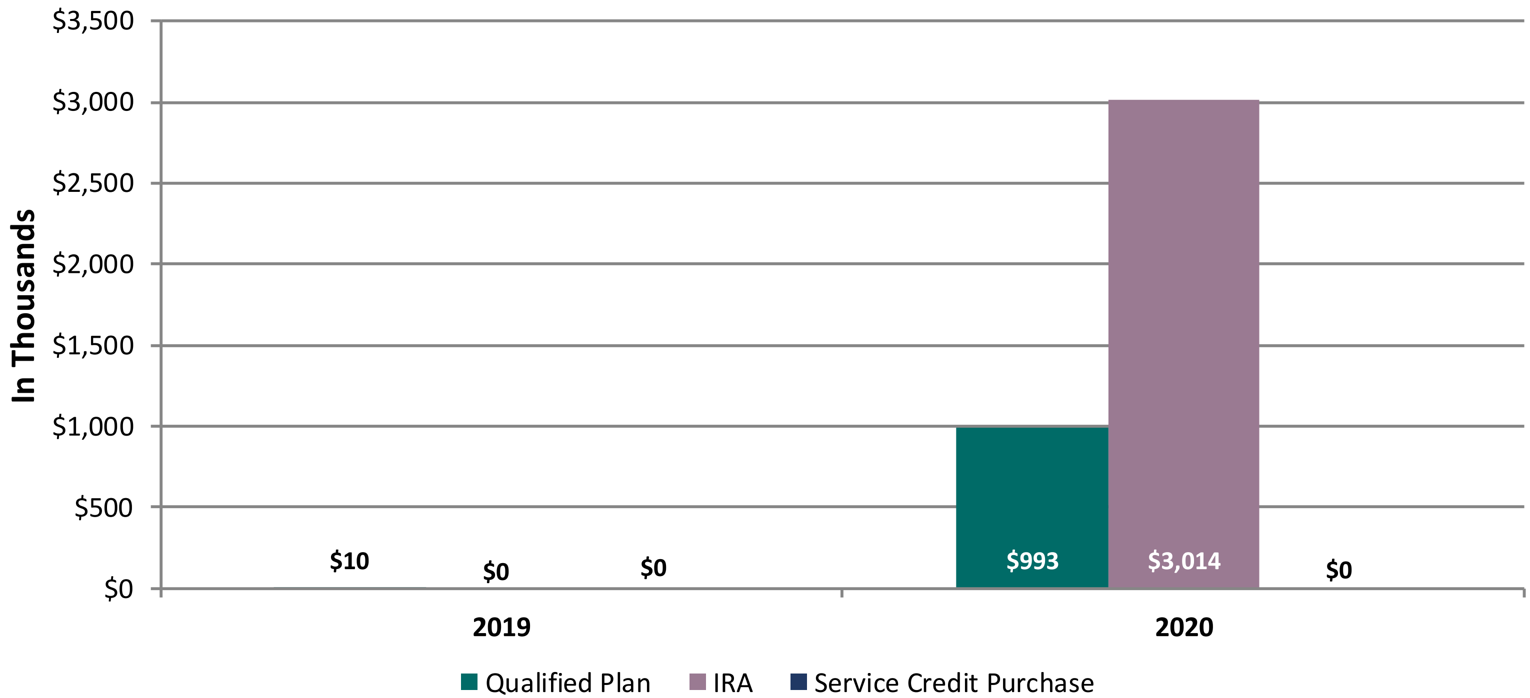
ORPHE Plan – Average Distribution Amount

Note: Rollover Distributions Excluded and Reported on Subsequent Pages



Period	Lump Sum Distributions	Partial Distributions	Installment Distributions
2019	$10,173	$500	$500
2020	$4,328	$27,012	$716
Q1 2020	$24,947	$6,822	$1,032
Q2 2020	$3,171	$0	$502
Q3 2020	$8,294	$31,051	$627
Q4 2020	$8,861	$31,626	$826

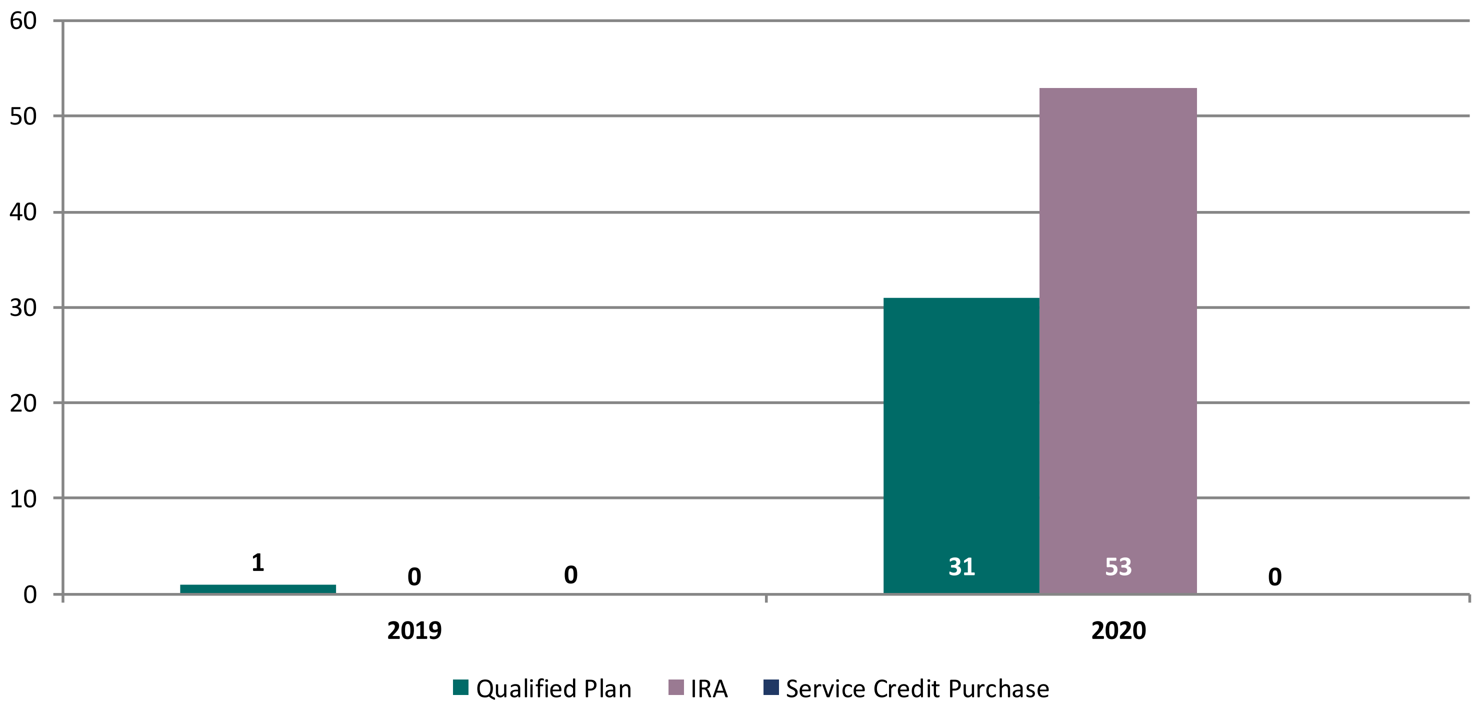
ORPHE Plan – Rollover Distribution Destinations – Total Amounts



Period	Qualified Plan	IRA	Service Credit Purchase	Total
2019	$10	$0	$0	$10
2020	$993	$3,014	$0	$4,007
Q1 2020	$38	$901	$0	$939
Q2 2020	$196	$533	$0	$728
Q3 2020	$194	$561	$0	$755
Q4 2020	$566	$1,018	$0	$1,584

Data as of 12/31/2020

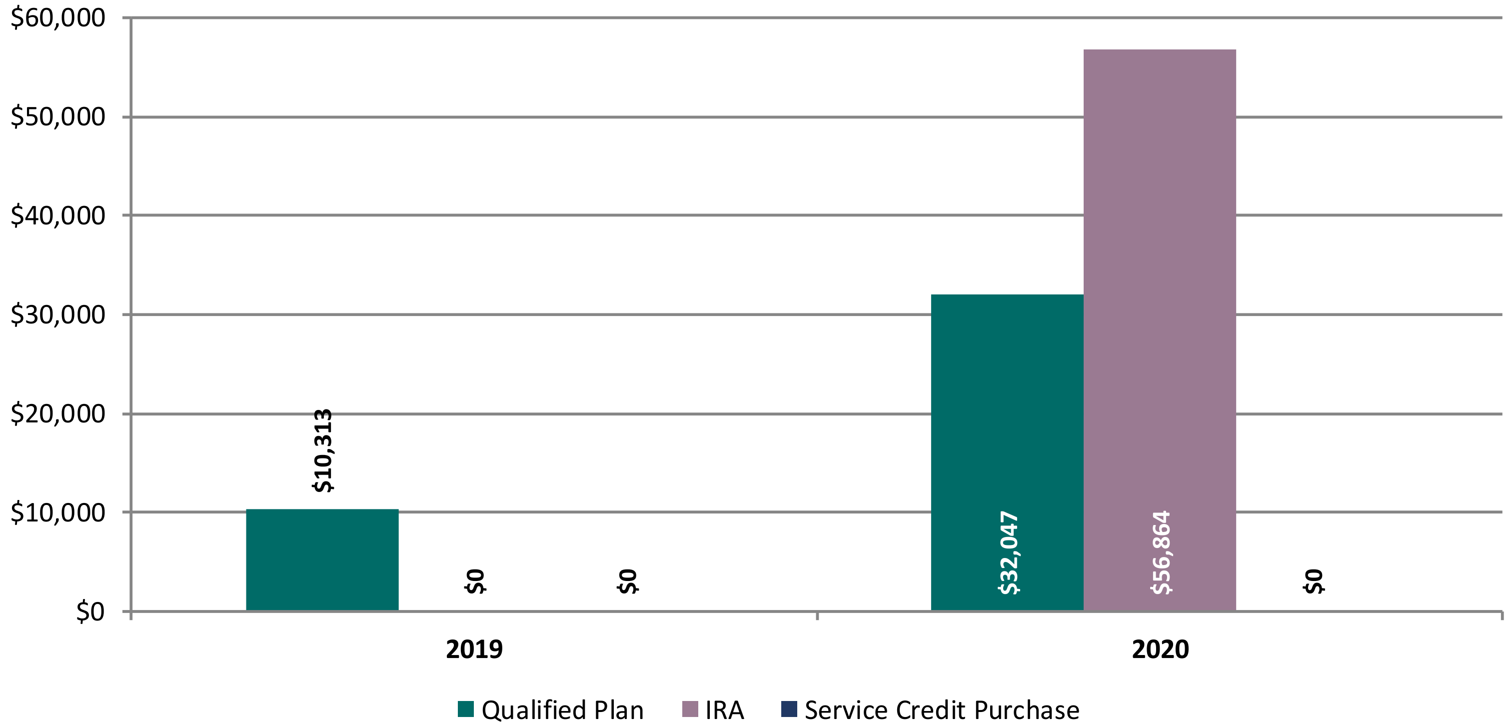
ORPHE Plan – Rollover Distribution Destinations



Period	Qualified Plan	IRA	Service Credit Purchase	Total Rollover Distributions
2019	1	0	0	1
2020	31	53	0	84
Q1 2020	3	11	0	14
Q2 2020	10	11	0	21
Q3 2020	7	12	0	19
Q4 2020	11	19	0	30

ORPHE Plan – Rollover Distribution Average Amounts

DCP Virginia Retirement System



Period	Qualified Plan	IRA	Service Credit Purchase	Average Rollover Distribution
2019	$10,313	$0	$0	$10,313
2020	$32,047	$56,864	$0	$47,705
Q1 2020	$12,656	$81,941	$0	$67,095
Q2 2020	$19,572	$48,432	$0	$34,689
Q3 2020	$27,708	$46,773	$0	$39,749
Q4 2020	$51,437	$53,600	$0	$52,807

Data as of 12/31/2020

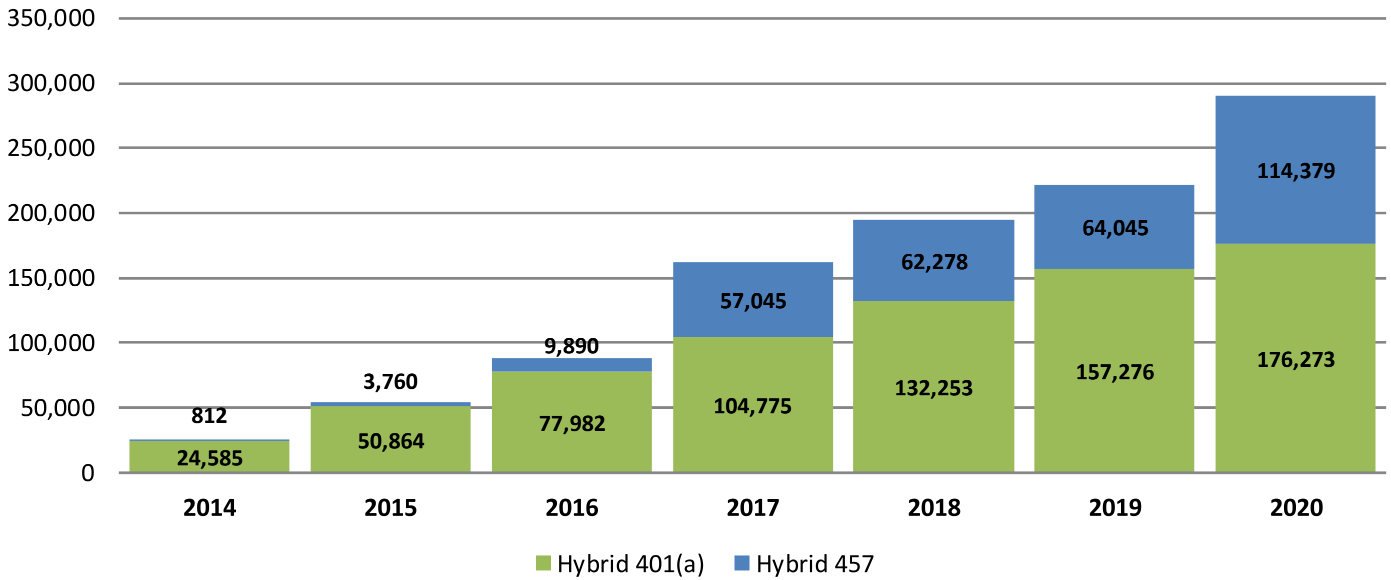
Hybrid Retirement Plan

Note: All data is as of 12/31/2020 unless otherwise stated.

Hybrid 401(a) & 457 Plans – Number of Participant Accounts

Note: Beneficiary Plans excluded; Forfeiture Accounts excluded starting in 2015; Counts include Active and Terminated Members

DCP Virginia Retirement System

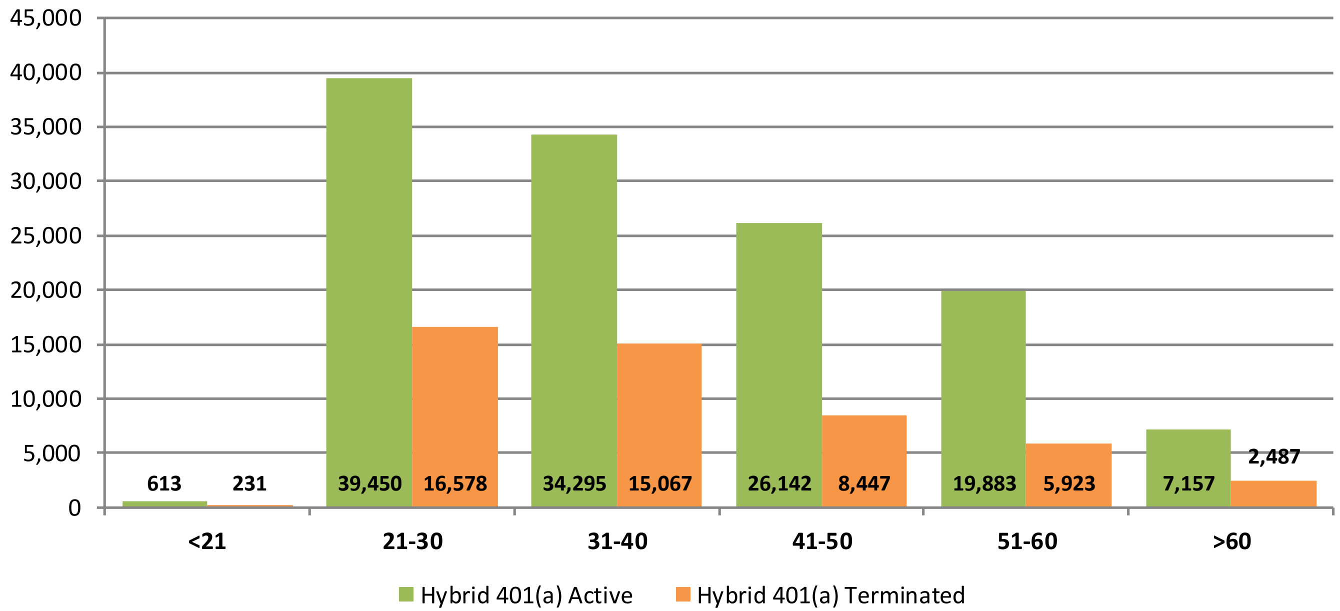


Period	Hybrid 401(a)	Hybrid 457	Total
2014	24,585	812	25,397
2015	50,864	3,760	54,624
2016	77,982	9,890	87,872
2017	104,775	57,045	161,820
2018	132,253	62,278	194,531
2019	157,276	64,045	221,321
2020	176,273	114,379	290,652
Q1 2020	162,271	116,413	278,684
Q2 2020	164,059	116,755	280,814
Q3 2020	171,067	117,086	288,153
Q4 2020	176,273	114,379	290,652

Hybrid 401(a) Plan – Participant Status Count by Age

Note: Beneficiary Plans and Forfeiture Accounts Excluded

DCP Virginia Retirement System



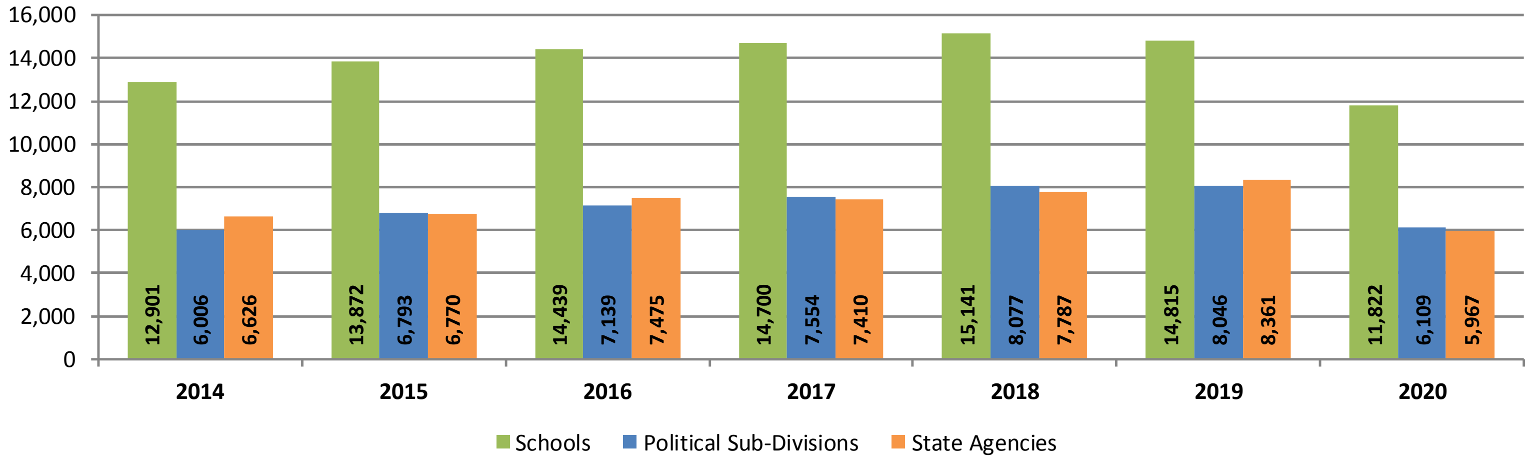
Age Range	Hybrid 401(a)*		
	Active	Terminated	Total
<21	613	231	844
21-30	39,450	16,578	56,028
31-40	34,295	15,067	49,362
41-50	26,142	8,447	34,589
51-60	19,883	5,923	25,806
>60	7,157	2,487	9,644
Total	**127,540**	**48,733**	**176,273**

* Chart shows Hybrid 401(a) counts only, since all participants in the Hybrid 457 counts are included in the Hybrid 401(a) counts.

** Active Participants do not have a termination date on file and may not have made a contribution during the quarter. Terminated Participants have a terminate date on file.

Hybrid 401(a) Plan – New Enrollments

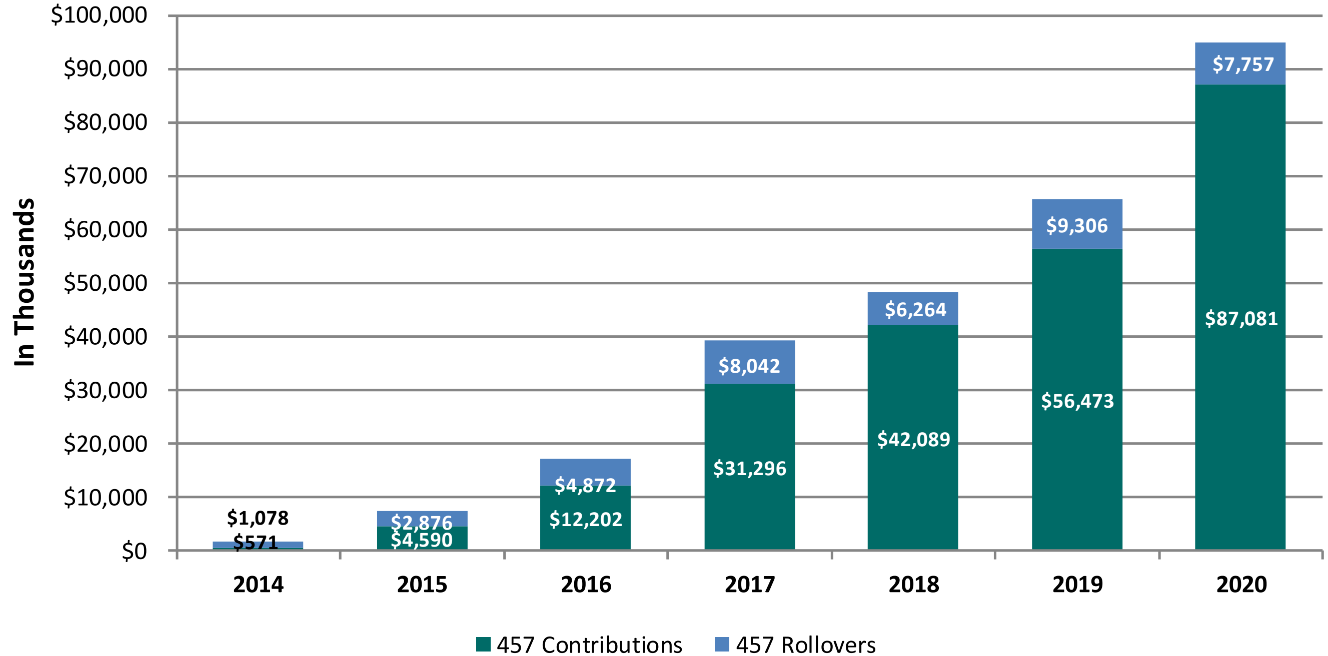
DCP
Virginia Retirement System



Period	Schools	Political Sub-Divisions	State Agencies	Total Hybrid Enrollments
2014	12,901	6,006	6,626	25,533
2015	13,872	6,793	6,770	27,435
2016	14,439	7,139	7,475	29,053
2017	14,700	7,554	7,410	29,664
2018	15,141	8,077	7,787	31,005
2019	14,815	8,046	8,361	31,222
2020	11,822	6,109	5,967	23,898
Q1 2020	1,998	1,987	1,843	5,828
Q2 2020	395	1,087	1,029	2,511
Q3 2020	7,059	1,435	1,520	10,014
Q4 2020	2,370	1,600	1,575	5,545

Hybrid 457 Plan – Contributions and Incoming Rollovers

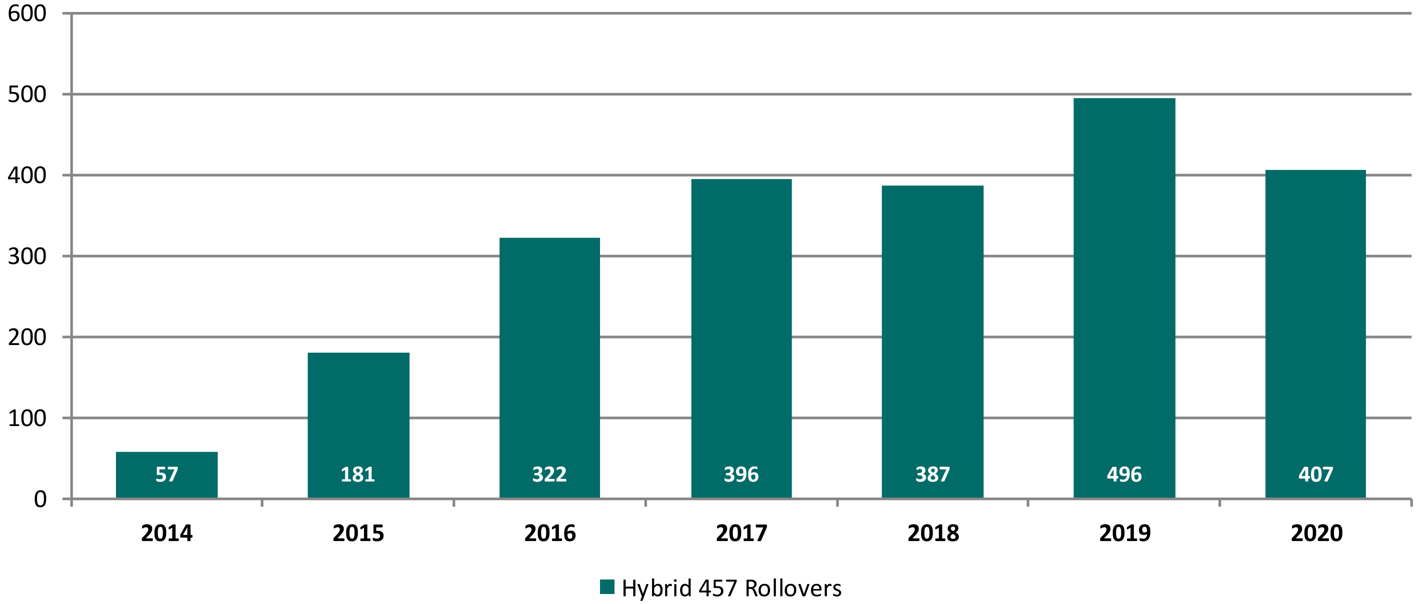
DCP
Virginia Retirement System



Period	457 Contributions	457 Rollovers	Total
2014	$571.04	$1,078.49	$1,649.53
2015	$4,590.00	$2,876.02	$7,466.02
2016	$12,202.01	$4,872.44	$17,074.45
2017	$31,295.56	$8,042.46	$39,338.02
2018	$42,088.69	$6,264.32	$48,353.01
2019	$56,472.59	$9,305.69	$65,778.28
2020	$87,080.69	$7,757.06	$94,837.75
Q1 2020	$21,773.85	$2,807.32	$24,581.16
Q2 2020	$21,740.80	$1,076.92	$22,817.71
Q3 2020	$18,838.72	$1,142.81	$19,981.53
Q4 2020	$24,727.33	$2,730.02	$27,457.35

Hybrid 457 Plan – Incoming Rollovers – Counts

DCP
Virginia Retirement System

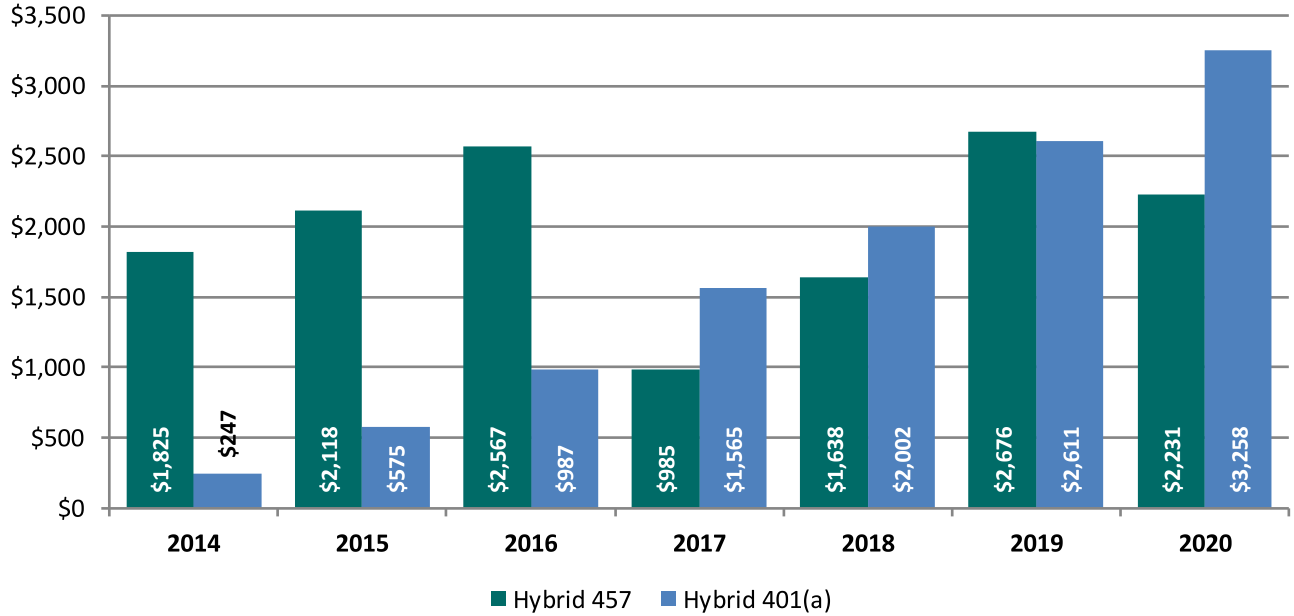


Period	Hybrid 457 Rollovers
2014	57
2015	181
2016	322
2017	396
2018	387
2019	496
2020	407
Q1 2020	135
Q2 2020	91
Q3 2020	84
Q4 2020	97

Data as of 12/31/2020

Hybrid 401(a) & 457 Plans – Participant Average Account Balance

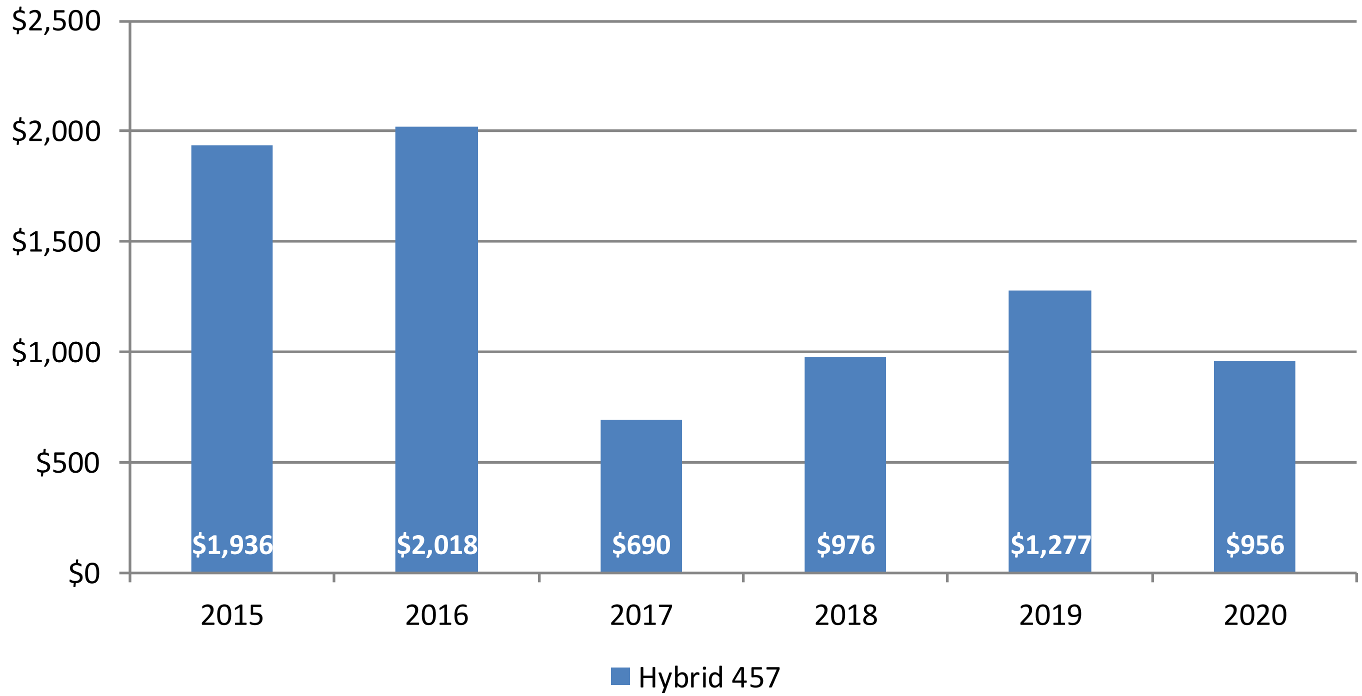
Note: Beneficiary Plans Included; Forfeiture Accounts Excluded Starting 2015



Period	Hybrid 457	Hybrid 401(a)
2014	$1,825	$247
2015	$2,118	$575
2016	$2,567	$987
2017	$985	$1,565
2018	$1,638	$2,002
2019	$2,676	$2,611
2020	$2,231	$3,258
Q1 2020	$1,598	$2,474
Q2 2020	$2,053	$3,119
Q3 2020	$2,343	$3,387
Q4 2020	$2,943	$3,985

Hybrid 457 Plan – Participant Average Annual Deferral

Note: Beneficiary Plans Included; Forfeiture Accounts Excluded Starting 2015

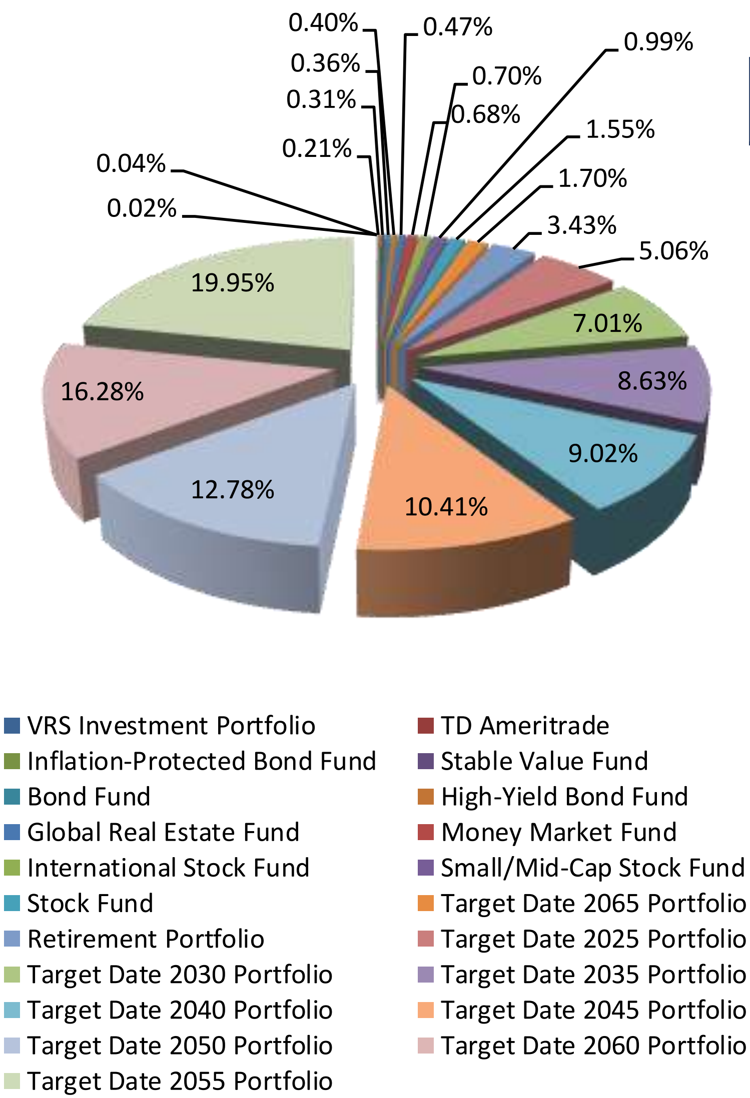


Period	Hybrid 457
2015	$1,936.44
2016	$2,018.25
2017	$690.30
2018	$975.66
2019	$1,276.85
2020	$956.39

Hybrid 401(a) Plan – Participant Use of Funds

Note: Includes Beneficiary Plan

DCP
Virginia Retirement System

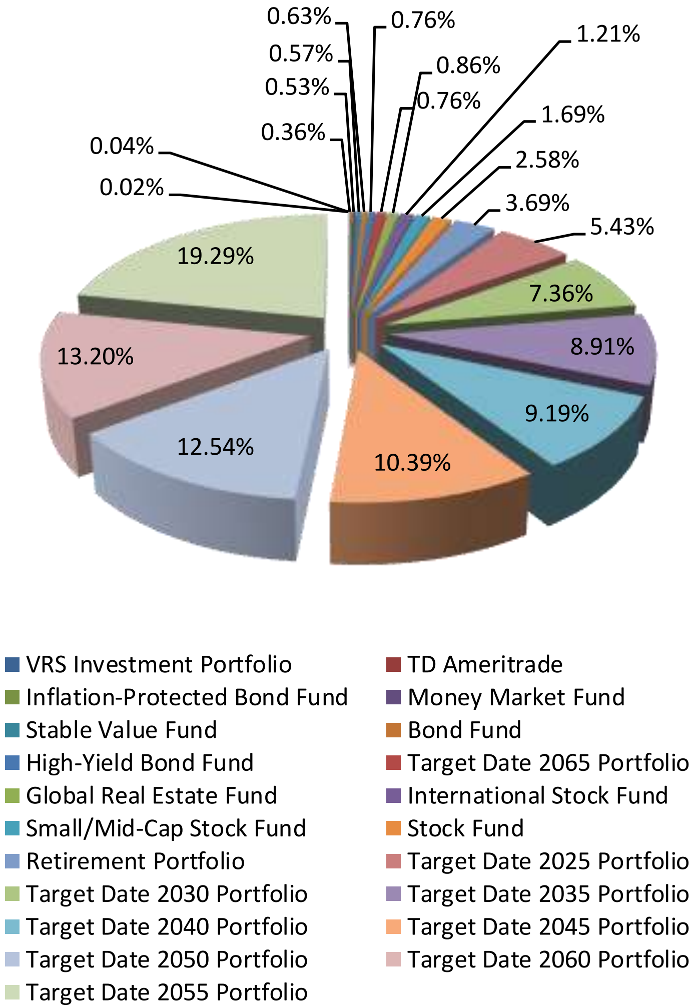


Fund Name	Participant Count 12/31/2019	Participant Count 12/31/2020	% of Participants 12/31/2020	% Change
VRS Investment Portfolio	26	36	0.02%	38.46%
TD Ameritrade	34	77	0.04%	126.47%
Inflation-Protected Bond Fund	274	390	0.21%	42.34%
Stable Value Fund	440	587	0.31%	33.41%
Bond Fund	508	676	0.36%	33.07%
High-Yield Bond Fund	631	746	0.40%	18.23%
Global Real Estate Fund	790	887	0.47%	12.28%
Money Market Fund	1,146	1,271	0.68%	10.91%
International Stock Fund	1,100	1,319	0.70%	19.91%
Small/Mid-Cap Stock Fund	1,571	1,851	0.99%	17.82%
Stock Fund	2,249	2,907	1.55%	29.26%
Target Date 2065 Portfolio	848	3,186	1.70%	275.71%
Retirement Portfolio	6,223	6,425	3.43%	3.25%
Target Date 2025 Portfolio	8,801	9,479	5.06%	7.70%
Target Date 2030 Portfolio	11,990	13,149	7.01%	9.67%
Target Date 2035 Portfolio	14,667	16,181	8.63%	10.32%
Target Date 2040 Portfolio	15,288	16,906	9.02%	10.58%
Target Date 2045 Portfolio	17,813	19,522	10.41%	9.59%
Target Date 2050 Portfolio	21,938	23,962	12.78%	9.23%
Target Date 2060 Portfolio	25,216	30,520	16.28%	21.03%
Target Date 2055 Portfolio	34,852	37,399	19.95%	7.31%

Hybrid 457 Plan – Participant Use of Funds

Note: Includes Beneficiary Plan

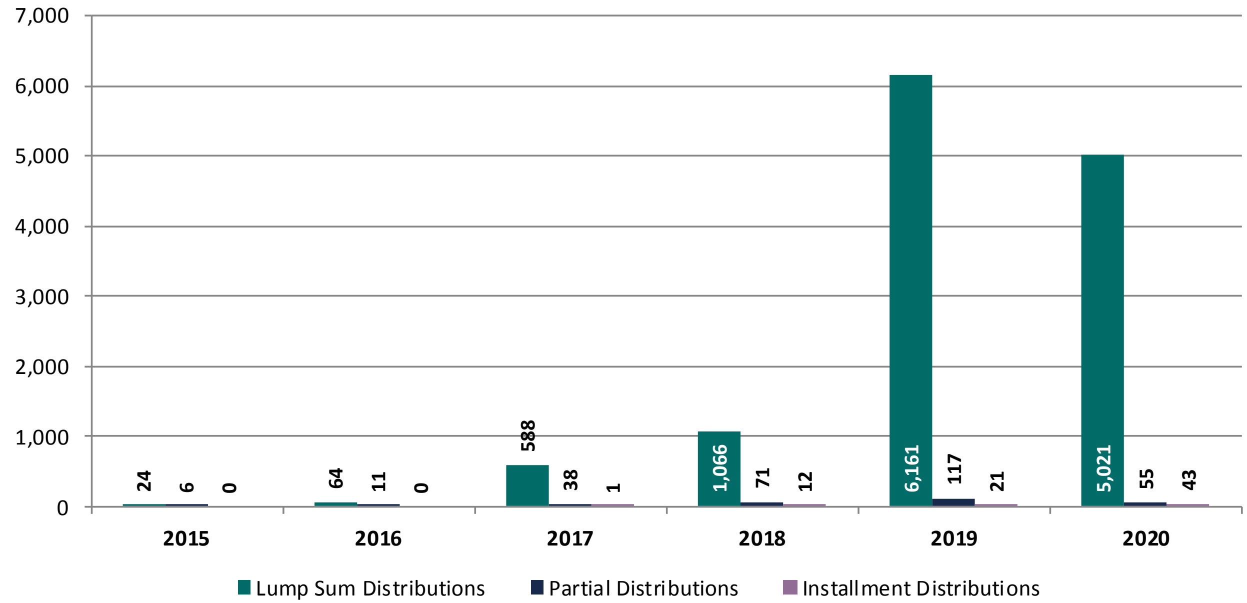
DCP
Virginia Retirement System



Fund Name	Participant Count 12/31/2019	Participant Count 12/31/2020	% of Participants 12/31/2020	% Change
VRS Investment Portfolio	14	23	0.02%	64.29%
TD Ameritrade	27	49	0.04%	81.48%
Inflation-Protected Bond Fund	339	451	0.36%	33.04%
Money Market Fund	508	663	0.53%	30.51%
Stable Value Fund	557	704	0.57%	26.39%
Bond Fund	611	785	0.63%	28.48%
High-Yield Bond Fund	808	944	0.76%	16.83%
Target Date 2065 Portfolio	40	948	0.76%	2270.00%
Global Real Estate Fund	920	1,075	0.86%	16.85%
International Stock Fund	1,275	1,501	1.21%	17.73%
Small/Mid-Cap Stock Fund	1,773	2,097	1.69%	18.27%
Stock Fund	2,528	3,215	2.58%	27.18%
Retirement Portfolio	2,962	4,590	3.69%	54.96%
Target Date 2025 Portfolio	4,117	6,754	5.43%	64.05%
Target Date 2030 Portfolio	5,503	9,155	7.36%	66.36%
Target Date 2035 Portfolio	6,446	11,080	8.91%	71.89%
Target Date 2040 Portfolio	6,453	11,429	9.19%	77.11%
Target Date 2045 Portfolio	7,353	12,921	10.39%	75.72%
Target Date 2050 Portfolio	9,192	15,605	12.54%	69.77%
Target Date 2060 Portfolio	5,993	16,416	13.20%	173.92%
Target Date 2055 Portfolio	14,815	23,997	19.29%	61.98%

Hybrid 457 Plan – Distributions by Type

Note: Rollover Distributions Excluded and Reported on Subsequent Pages



Period	Lump Sum Distributions	Partial Distributions	Installment Distributions
2015	24	6	0
2016	64	11	0
2017	588	38	1
2018	1,066	71	12
2019	6,161	117	21
2020	5,021	55	43
Q1 2020	265	22	8
Q2 2020	577	5	7
Q3 2020	431	8	11
Q4 2020	3,748	20	17

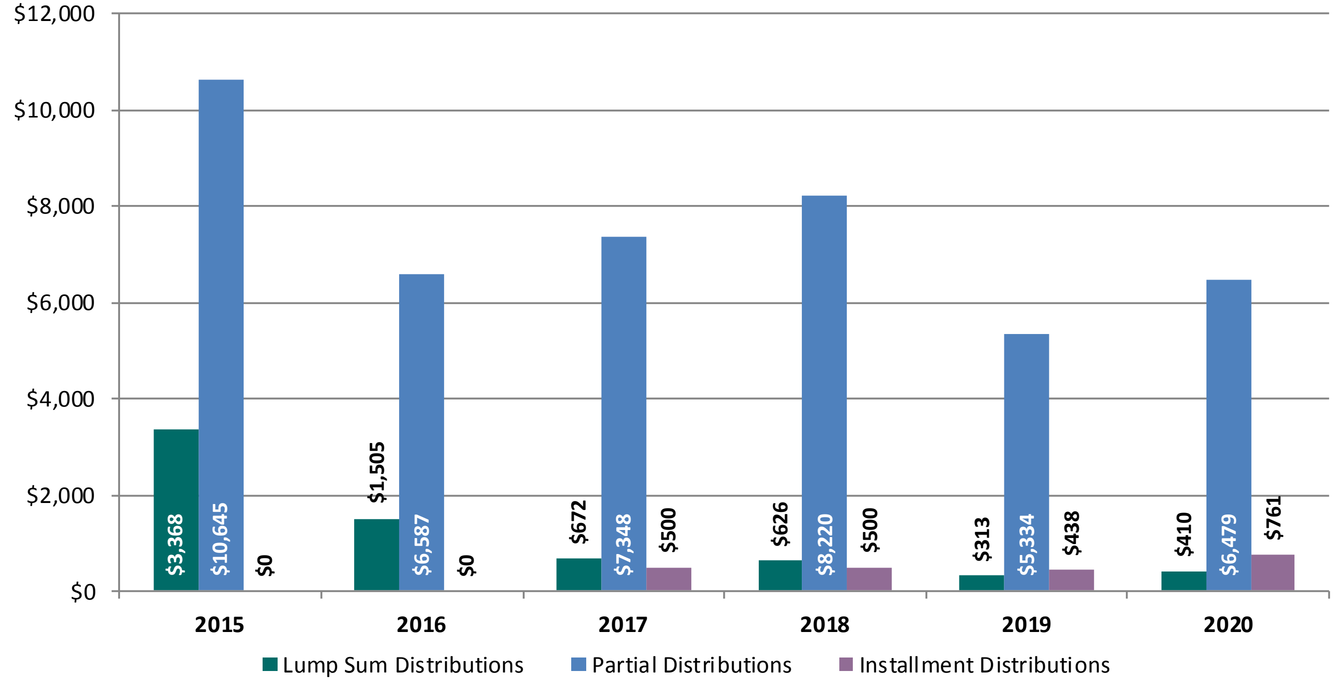
Note: Data not available for 2014. Tracking started in 2015.
Small Balance payouts started in Q2 2019.

* Q4 distribution counts do not include Coronavirus-Related Distributions that totaled 72 lump sum distributions and 269 partial distributions in the Hybrid 457 Plan.

Hybrid 457 Plan – Average Distribution Amount

Note: Rollover Distributions Excluded and Reported on Subsequent Pages

DCP
Virginia Retirement System



Period	Lump Sum Distributions	Partial Distributions	Installment Distributions
2015	$3,368	$10,645	$0
2016	$1,505	$6,587	$0
2017	$672	$7,348	$500
2018	$626	$8,220	$500
2019	$313	$5,334	$438
2020	$410	$6,479	$761
Q1 2020	$1,459	$9,951	$3,296
Q2 2020	$510	$12,090	$72
Q3 2020	$1,265	$2,839	$195
Q4 2020	$222	$2,712	$218

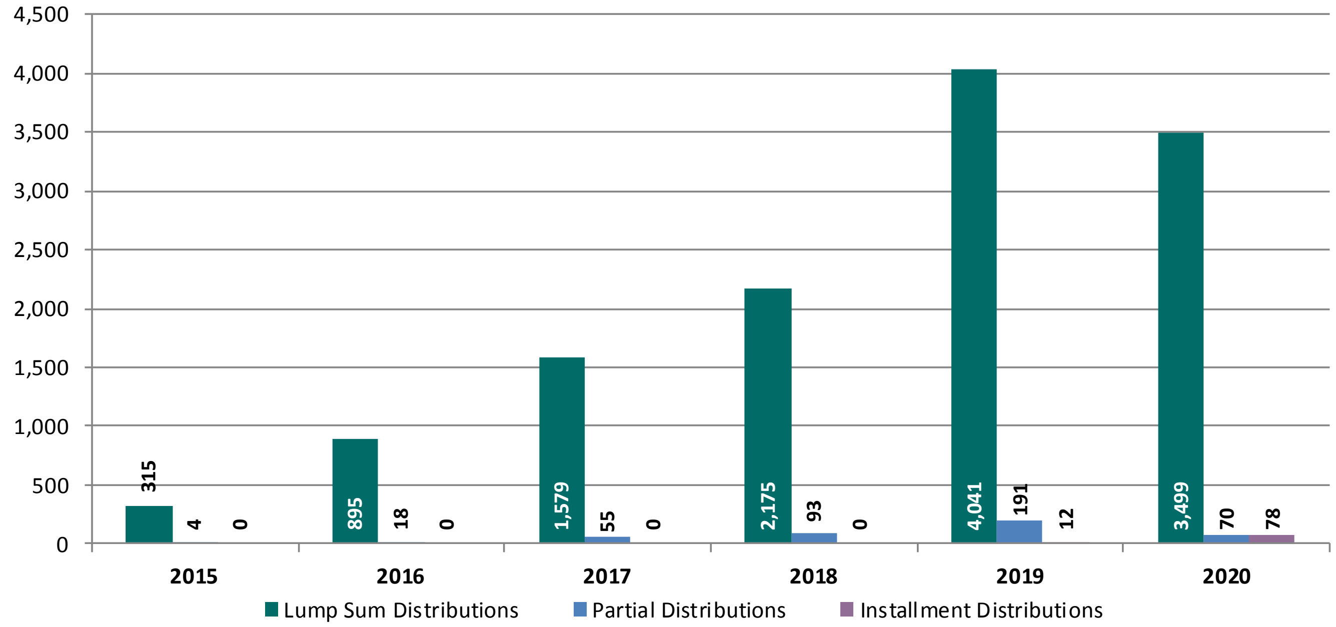
Note: Data not available for 2014. Tracking started in 2015.

* ~~Q4 distribution amounts do not include Coronavirus-Related Distributions that totaled $116,684.14 for lump sum distributions and $582,367.66 for partial distributions~~ in the 401(a) Cash Match Plan.

Hybrid 401(a) Plan – Distributions by Type

Note: Rollover Distributions Excluded and Reported on Subsequent Pages

DCP
Virginia Retirement System

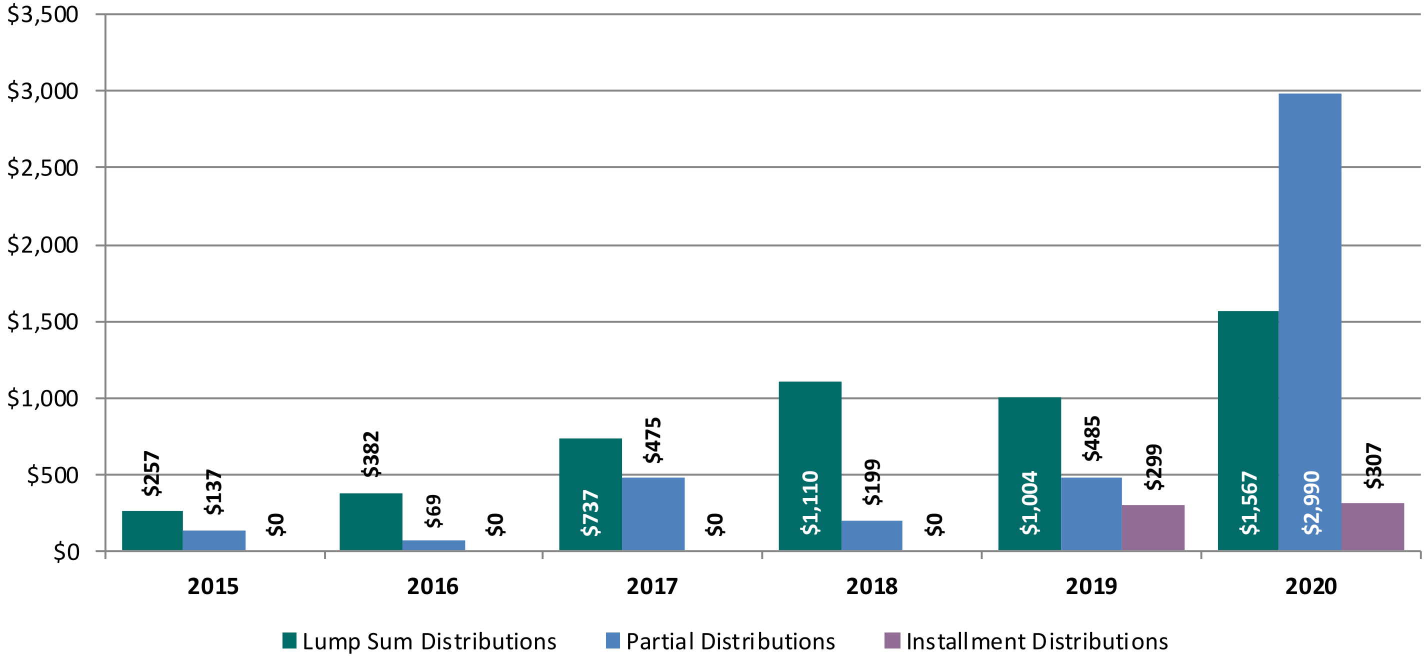


Period	Lump Sum Distributions	Partial Distributions	Installment Distributions
2015	315	4	0
2016	895	18	0
2017	1,579	55	0
2018	2,175	93	0
2019	4,041	191	12
2020	3,499	70	78
Q1 2020	629	11	10
Q2 2020	850	10	12
Q3 2020	829	25	18
Q4 2020	1,191	24	38

Note: Data not available for 2014.
Small balance payouts started in Q2 2019.

Hybrid 401(a) Plan – Average Distribution Amount

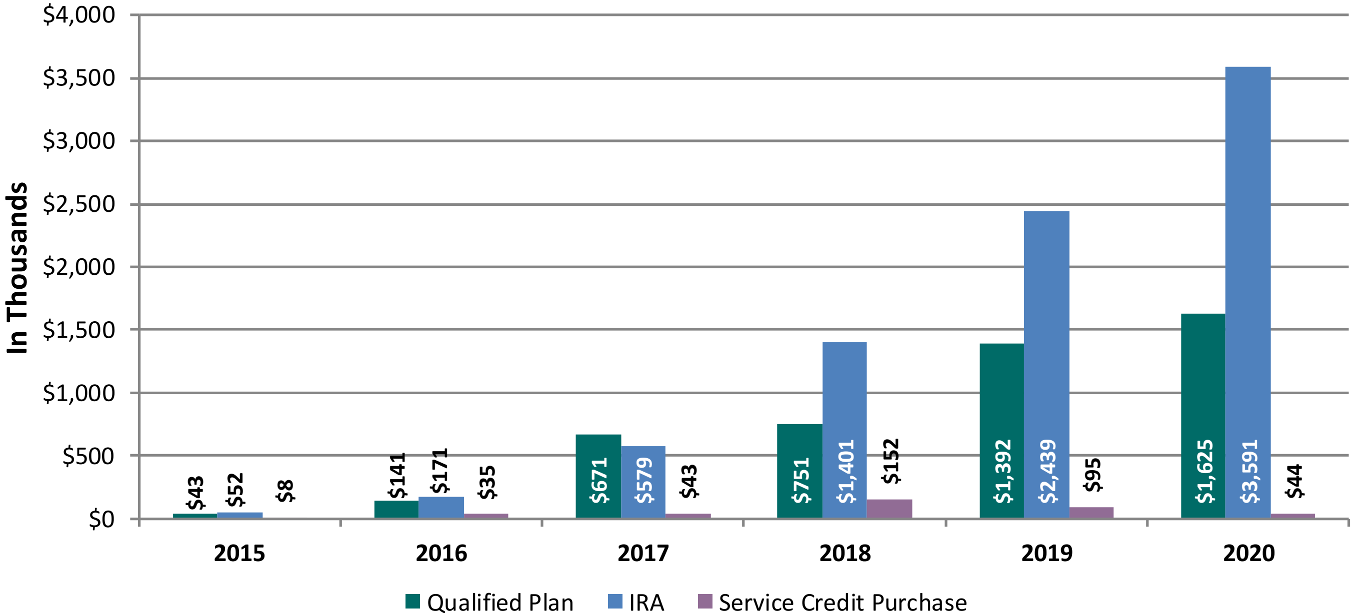
Note: Rollover Distributions Excluded and Reported on Subsequent Pages



Period	Lump Sum Distributions	Partial Distributions	Installment Distributions
2015	$257	$137	$0
2016	$382	$69	$0
2017	$737	$475	$0
2018	$1,110	$199	$0
2019	$1,004	$485	$299
2020	$1,567	$2,990	$307
Q1 2020	$1,918	$4,031	$140
Q2 2020	$830	$2,806	$138
Q3 2020	$1,868	$2,932	$222
Q4 2020	$1,697	$2,651	$445

Note: Data not available for 2014.

Hybrid 401(a) & 457 Plans – Rollover Distribution Destinations – Total Amounts

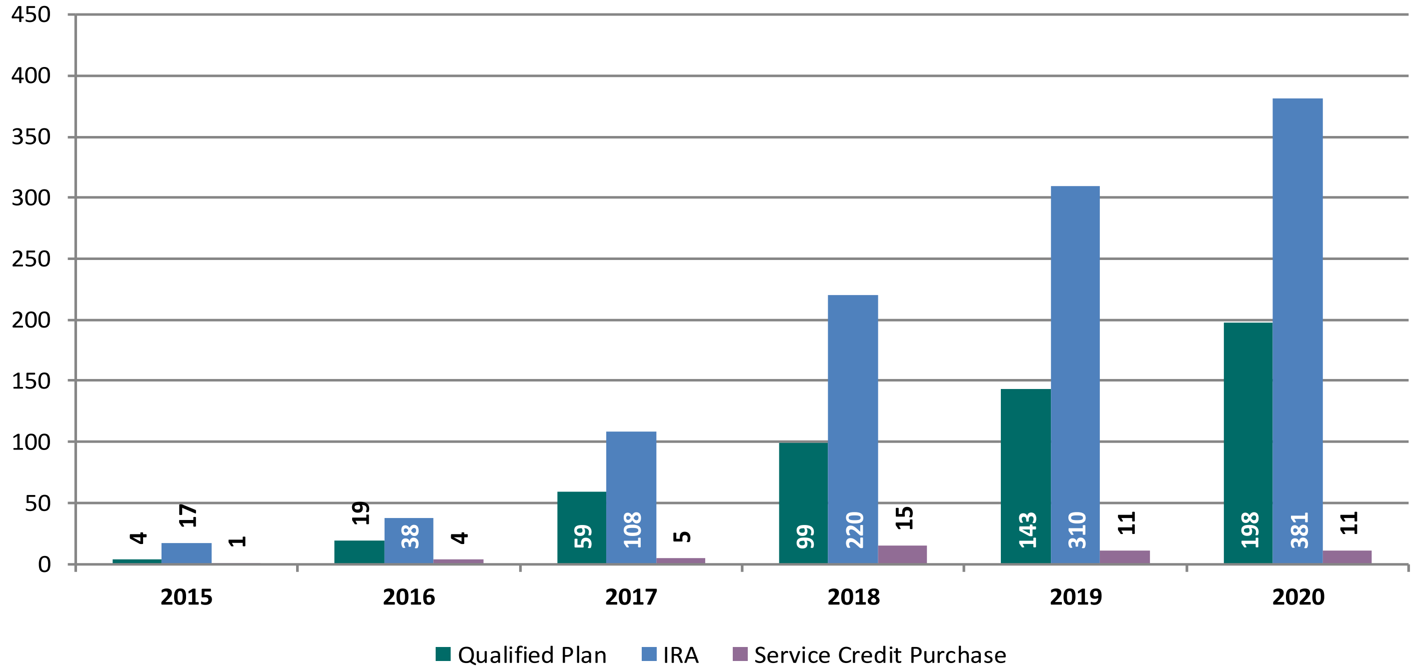


Period	Qualified Plan	IRA	Service Credit Purchase	Total
2015	$43	$52	$8	$103
2016	$141	$171	$35	$347
2017	$671	$579	$43	$1,293
2018	$751	$1,401	$152	$2,305
2019	$1,392	$2,439	$95	$3,926
2020	$1,625	$3,591	$44	$5,260
Q1 2020	$282	$941	$32	$1,255
Q2 2020	$363	$620	$0	$983
Q3 2020	$457	$893	$11	$1,360
Q4 2020	$524	$1,137	$1	$1,662

Note: Data not available for 2014. Tracking started in 2015.

Hybrid 457 Plan – Rollover Distribution Destinations

DCP
Virginia Retirement System

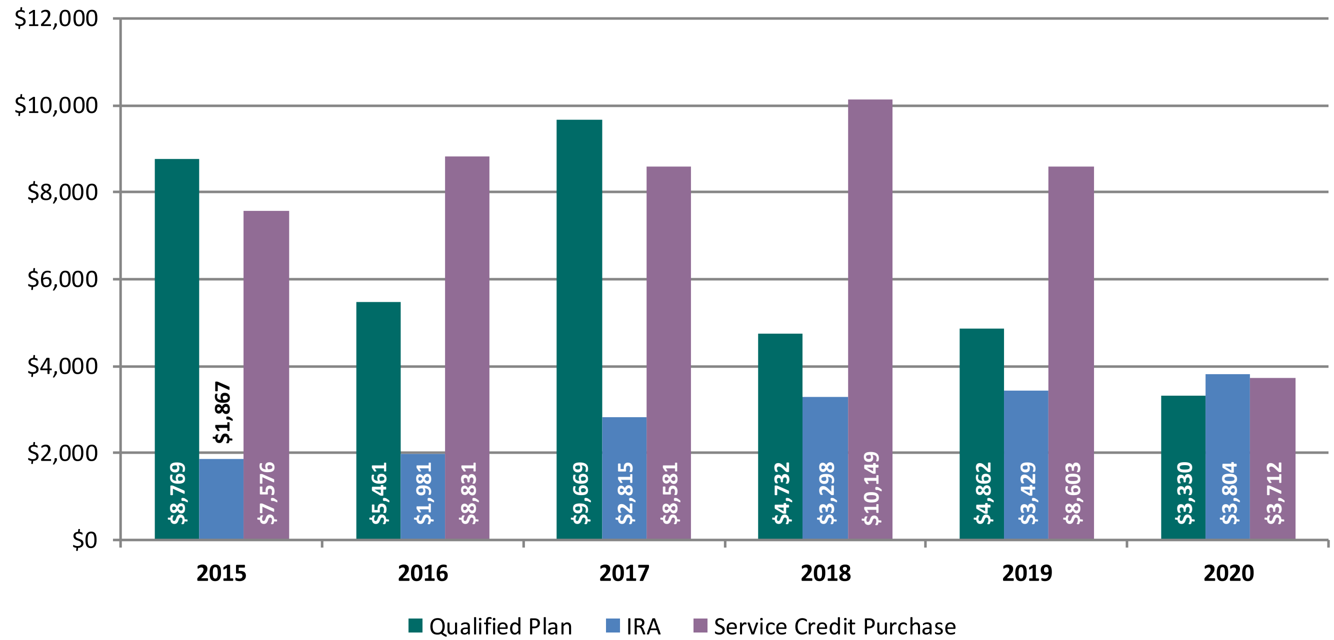


Period	Qualified Plan	IRA	Service Credit Purchase	Total Rollover Distributions
2015	4	17	1	22
2016	19	38	4	61
2017	59	108	5	172
2018	99	220	15	334
2019	143	310	11	464
2020	198	381	11	590
Q1 2020	40	95	5	140
Q2 2020	47	71	0	118
Q3 2020	45	89	1	135
Q4 2020	66	126	5	197

Note: Data not available for 2014. Tracking started in 2015.

Hybrid 457 Plan – Rollover Distribution Average Amounts

DCP
Virginia Retirement System

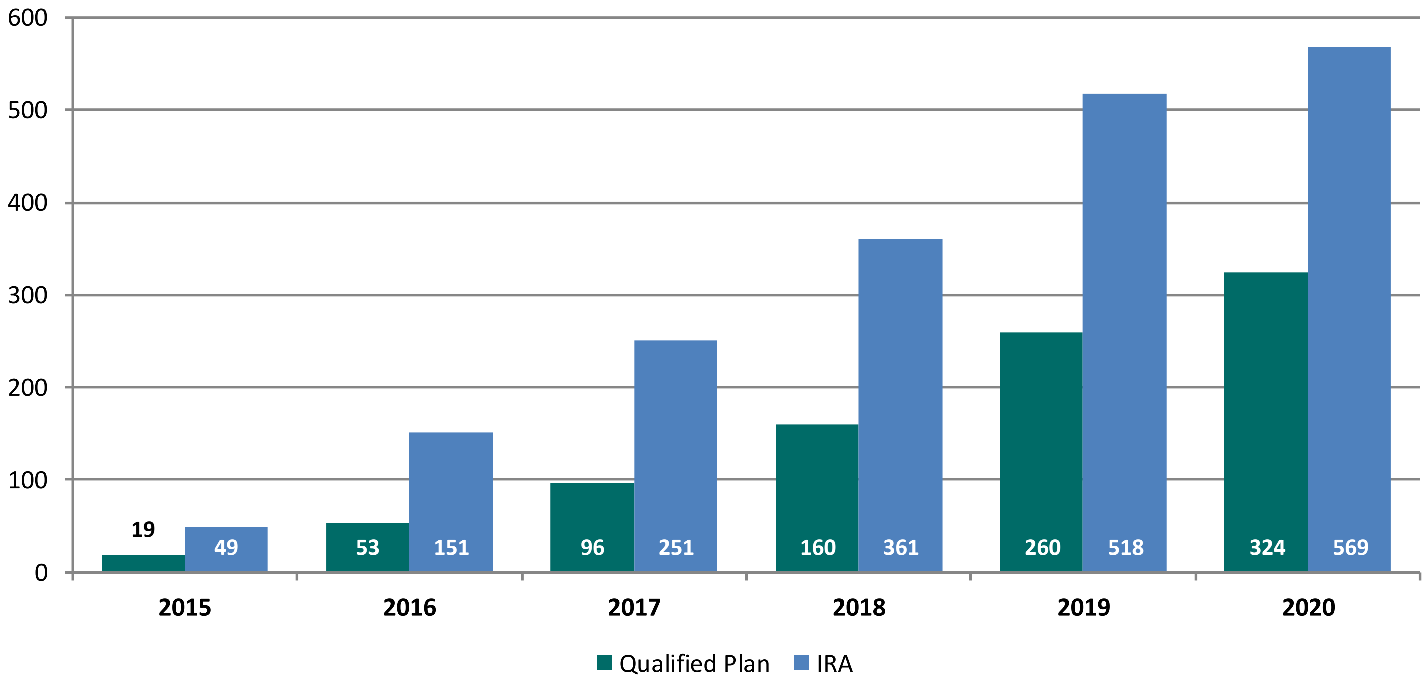


Period	Qualified Plan	IRA	Service Credit Purchase	Average Rollover Distribution
2015	$8,769	$1,867	$7,576	$3,381
2016	$5,461	$1,981	$8,831	$3,514
2017	$9,669	$2,815	$8,581	$5,334
2018	$4,732	$3,298	$10,149	$4,031
2019	$4,862	$3,429	$8,603	$3,993
2020	$3,330	$3,804	$3,712	$3,643
Q1 2020	$2,863	$4,068	$6,389	$3,807
Q2 2020	$3,379	$3,462	$0	$3,429
Q3 2020	$3,893	$3,825	$7,685	$3,876
Q4 2020	$3,194	$3,784	$240	$3,496

Note: Data not available for 2014. Tracking started in 2015.

Hybrid 401(a) Plan – Rollover Distribution Destinations

DCP
Virginia Retirement System



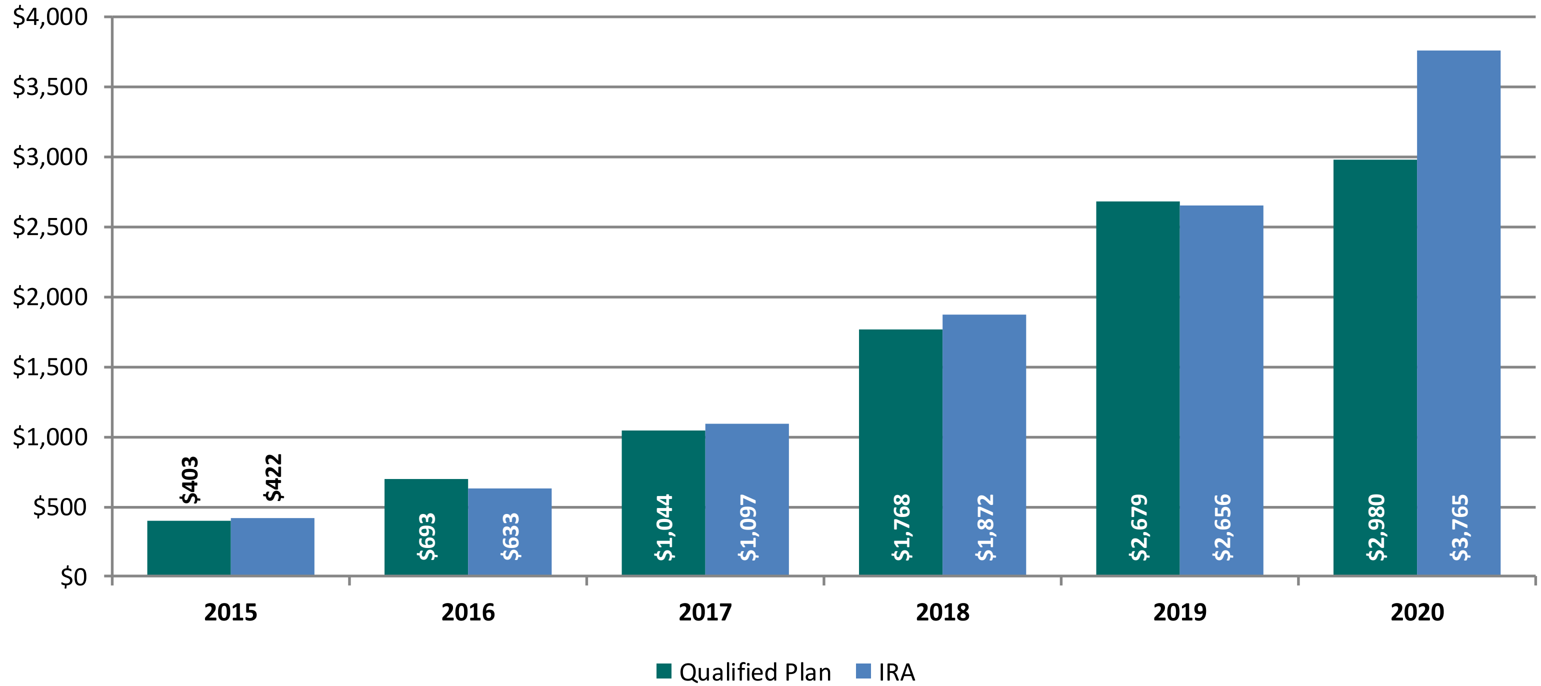
Period	Qualified Plan	IRA	Total Rollover Distributions*
2015	19	49	68
2016	53	151	204
2017	96	251	347
2018	160	361	521
2019	260	518	778
2020	324	569	893
Q1 2020	83	156	239
Q2 2020	65	109	174
Q3 2020	70	137	207
Q4 2020	106	167	273

* Service Credit Purchases are not allowed from the Hybrid 401 plan.
Note: Data not available for 2014. Tracking started in 2015.

Data as of 12/31/2020

Hybrid 401(a) Plan – Rollover Distribution Average Amounts

DCP Virginia Retirement System



Period	Qualified Plan	IRA	Average Rollover Distribution*
2015	$403	$422	$416
2016	$693	$633	$648
2017	$1,044	$1,097	$1,083
2018	$1,768	$1,872	$1,840
2019	$2,679	$2,656	$2,664
2020	$2,980	$3,765	$3,480
Q1 2020	$2,017	$3,558	$3,023
Q2 2020	$3,137	$3,435	$3,324
Q3 2020	$4,020	$4,032	$4,028
Q4 2020	$2,950	$3,954	$3,564

* Service Credit Purchases are not allowed from the Hybrid 401 plan.

Note: Data not available for 2014. Tracking started in 2015.

Data as of 12/31/2020

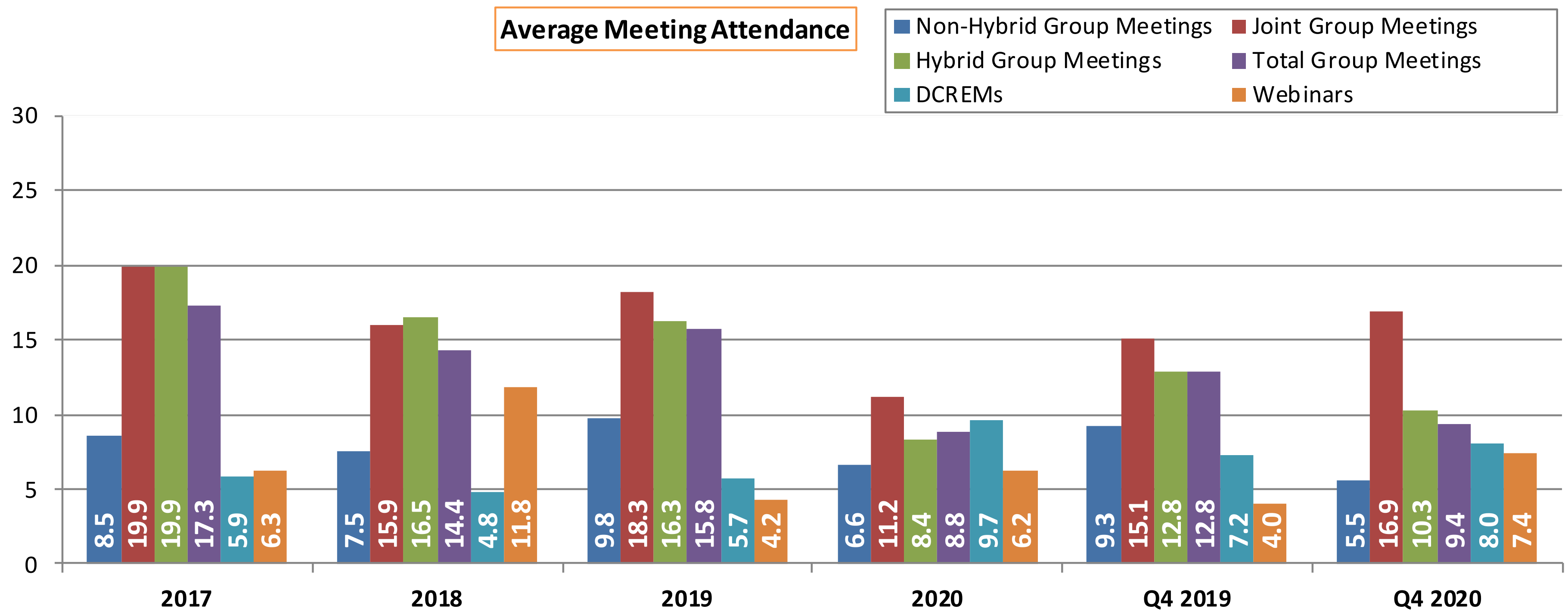
DCP
Virginia Retirement System

Field Education Services

Note: All data is as of 12/31/2020 unless otherwise stated.

Virginia Service Center – 2020 Activity

DCP
Virginia Retirement System



	2017		2018		2019		2020		Q4-2019		Q4-2020	
Type	Number of Meetings	Attendance	Number of Meetings	Attendance	Number of Meetings	Attendance	Number of Meetings	Attendance	Number of Meetings	Attendance	Number of Meetings	Attendance
Non-Hybrid Group Meetings	480	4,087	396	2,968	409	3,998	356	2,346	112	1,038	114	631
Joint Group Meetings	976	19,463	972	15,503	877	16,007	400	4,476	176	2,658	49	830
Hybrid Group Meetings	623	12,424	552	9,085	599	9,739	360	3,015	131	1,679	90	923
Total Group Meetings	**2,079**	**35,974**	**1,920**	**27,556**	**1,885**	**29,744**	**1,116**	**9,837**	**419**	**5,375**	**253**	**2,384**
DCREM (Publicly Scheduled)	252	1,487	235	1,135	185	1,049	238	2,298	31	224	77	618
Webinars	53	332	54	638	81	344	495	3,078	14	56	235	1,736

Field Activity 2014 – 2020

DCP
Virginia Retirement System

Individual Counseling Sessions/Office Activity				
Period	**Number of Individual Counseling Sessions**		**Virginia Service Center Calls Handled**	**Virginia Service Center Walk-ins**
Q4 2020	Non-Hybrid	823	463	0*
	Hybrid	787		
Q3 2020	Non-Hybrid	938	525	0*
	Hybrid	700		
Q2 2020	Non-Hybrid	1,007	526	0*
	Hybrid	625		
Q1 2020	Non-Hybrid	1,447	633	45*
	Hybrid	709		
2020	Non-Hybrid	4,215	2,147	45*
	Hybrid	2,821		
2019	Non-Hybrid	4,601	2,042	221
	Hybrid	3,410		
2018	Non-Hybrid	5,248	1,734	151
	Hybrid	3,070		
2017	Non-Hybrid	5,947	1,552	201
	Hybrid	3,125		
2016	Non-Hybrid	5,720	1,693	251
	Hybrid	2,639		

* Virginia Service Center closed to participants for Walk-ins on March 23, 2020 due to the COVID-19 pandemic. Reopen TBD.

Data as of 12/31/2020

Survey Highlights – Q4 2020

DCP
Virginia Retirement System

- Audience
  - COV 457 Presentations (114 group meetings)
  - Hybrid Presentations (90 group meetings)
  - Joint Group Presentations (49 group meetings)
  - Individual Meetings (823 Non-Hybrid, 787 Hybrid)
  - Survey: 492 Respondents (286 Non-Hybrid, 206 Hybrid)
- Responses – Meetings
  - 96% or more strongly agreed or agreed: presenter was professional and prepared (99.1%), clearly explained concepts (98.6%), kept employees engaged (96.8%), and met employee’s expectations (96.8%)
  - 95% or more strongly agreed or agreed: seminar provided a clear understanding of the content (95.4%), was of value (98.2%), was recommendable to a co-worker (97.2%), and met their expectations (96.3%)
- Responses – Individual Consultations
  - 98% or more of participants who met individually with reps strongly agreed or agreed: presenter was professional (100.0%), prepared (99.4%), knowledgeable (100.0%), allowed ample time (99.4%), and met their overall expectations (98.7%)
  - 98% or more of participants who met individually with reps strongly agreed or agreed: their concerns were addressed (99.4%), the presenter provided value (98.7%), they would recommend to a co-worker (98.7%), and the personalized consultation met their expectations (98.7%)

Survey Highlights – Q4 2020

DCP Virginia Retirement System

Action Taken as result of:	Meetings		Individual Consultations	
	Hybrid	*Non-Hybrid*	*Hybrid*	*Non-Hybrid*
Enrolled in the retirement program	2.3%	2.3%	10.8%	5.8%
Began making voluntary contributions	0.0%	0.0%	0.0%	0.0%
Increased contributions	10.5%	4.6%	17.5%	16.9%
Reviewed my investment options	25.6%	28.8%	35.0%	33.8%
Reallocated my account	3.5%	3.8%	9.2%	12.3%
Signed up for standard catch-up	2.3%	0.8%	0.8%	0.7%
Signed up for e-Delivery	0.0%	0.0%	0.0%	0.0%
Updated beneficiary information	12.8%	6.1%	22.5%	16.2%
Took no action	41.9%	53.8%	30.0%	30.5%
Other	17.4%	20.5%	16.7%	17.5%

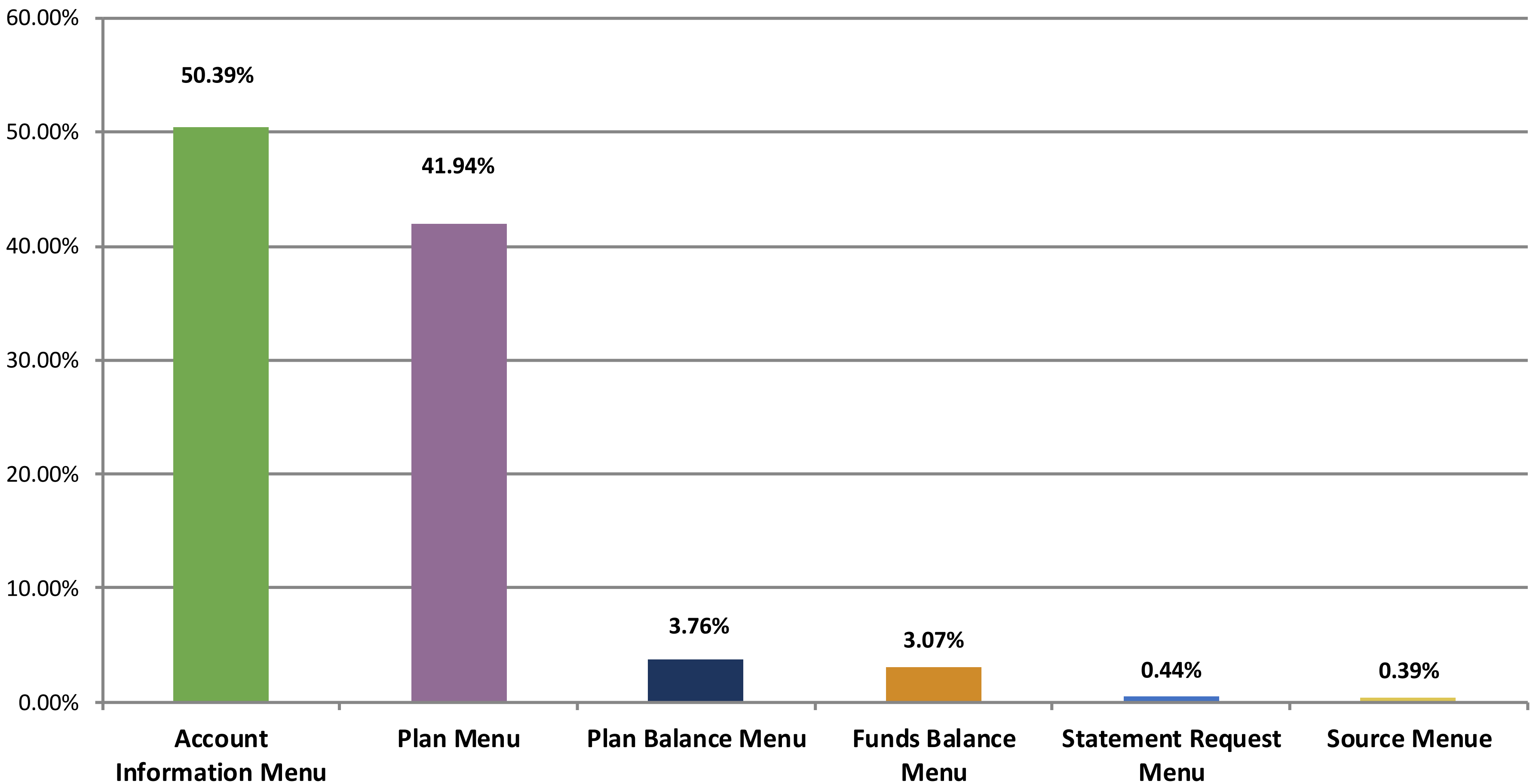
*"Other" includes inquiries such as: Indicative Data, Account Access or Disbursements.

Note: Survey totals may equal less than 100% because respondents may not complete all sections of the survey. Survey totals may exceed 100% because participants chose multiple items.

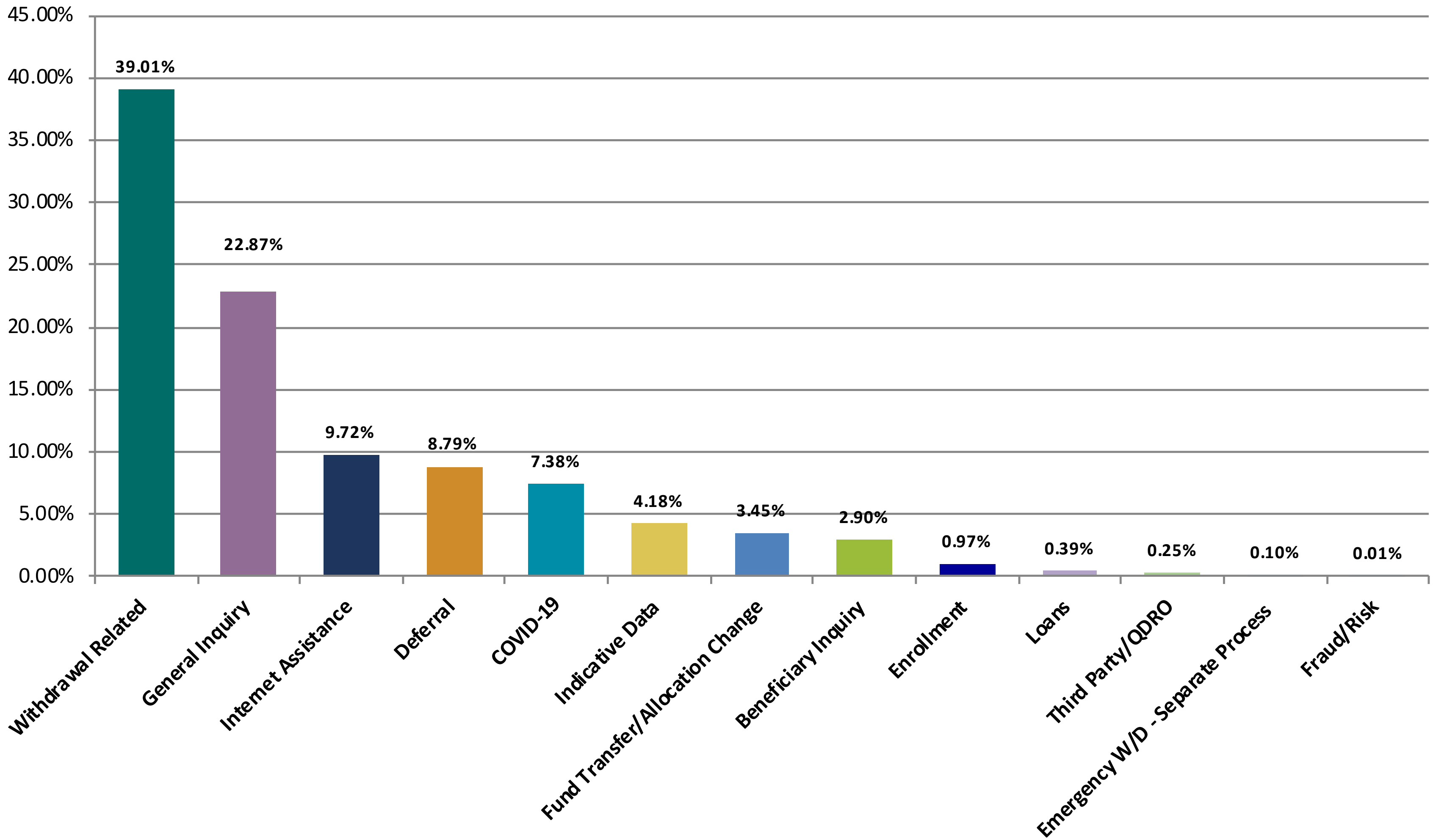
Participant Contact Summary

Note: All data is as of 12/31/2020 unless otherwise stated.

Voice Response Unit Activity by Type – 2020

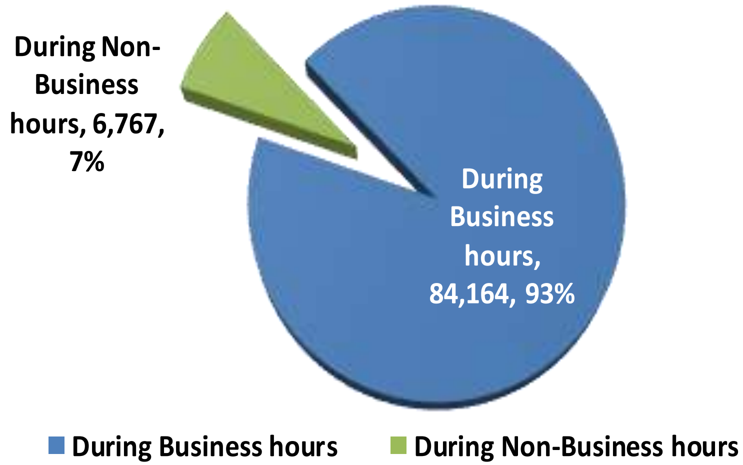


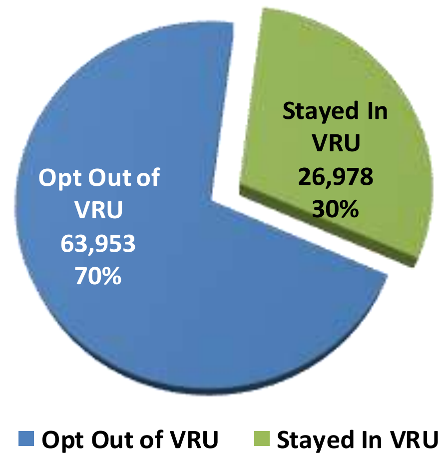
Participant Calls by Topic – 2020



Call Center Activity – 2020

Note: Call Center business hours are 8:30 am to 9:00pm Monday-Friday ET





Annual Total

Total Participant Calls	During Business Hours	During Non-Business Hours	Call Center	VRU
90,931	84,164	6,767	63,953	26,978

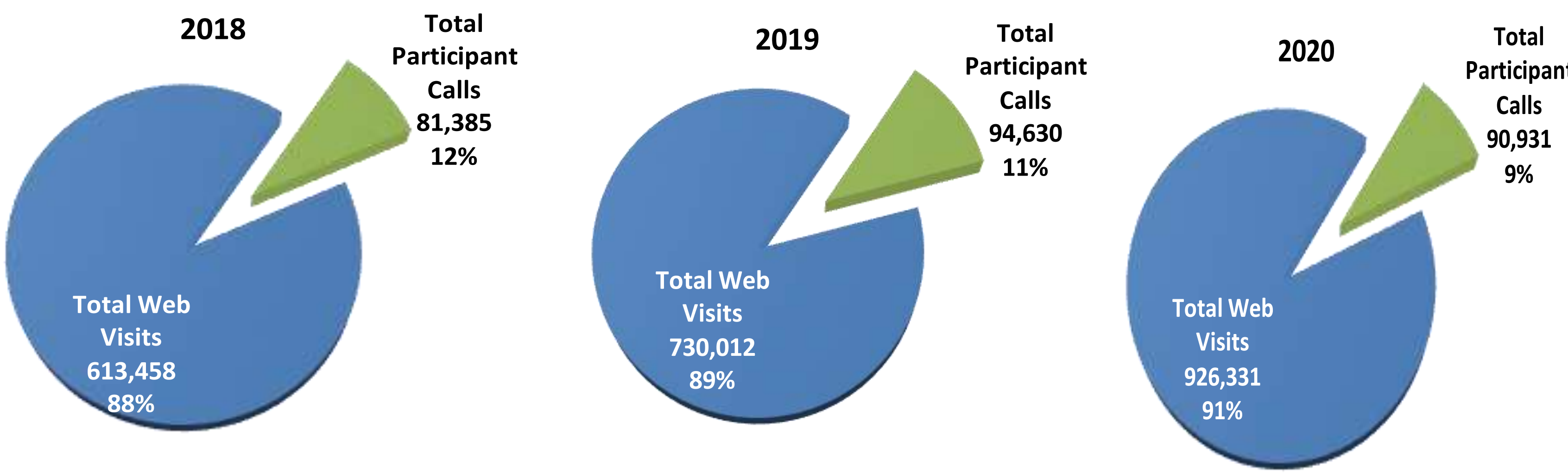
Quarter	Calls Answered By Rep	* Average Speed of Answer (Seconds)	Average Call Length (Minutes)
Q1 2020	17,377	1:10	8:49
Q2 2020	13,998	0:40	9:18
Q3 2020	16,075	0:32	8:28
Q4 2020	16,503	0:13	8:40
Annual Total	**63,953**	**0:35**	**8:48**

- Annualized Average Speed of Answer (ASA) per Quarterly Basis calculated based on excluded days.

Participant Contact Summary – 2020

Call Center and Account Access

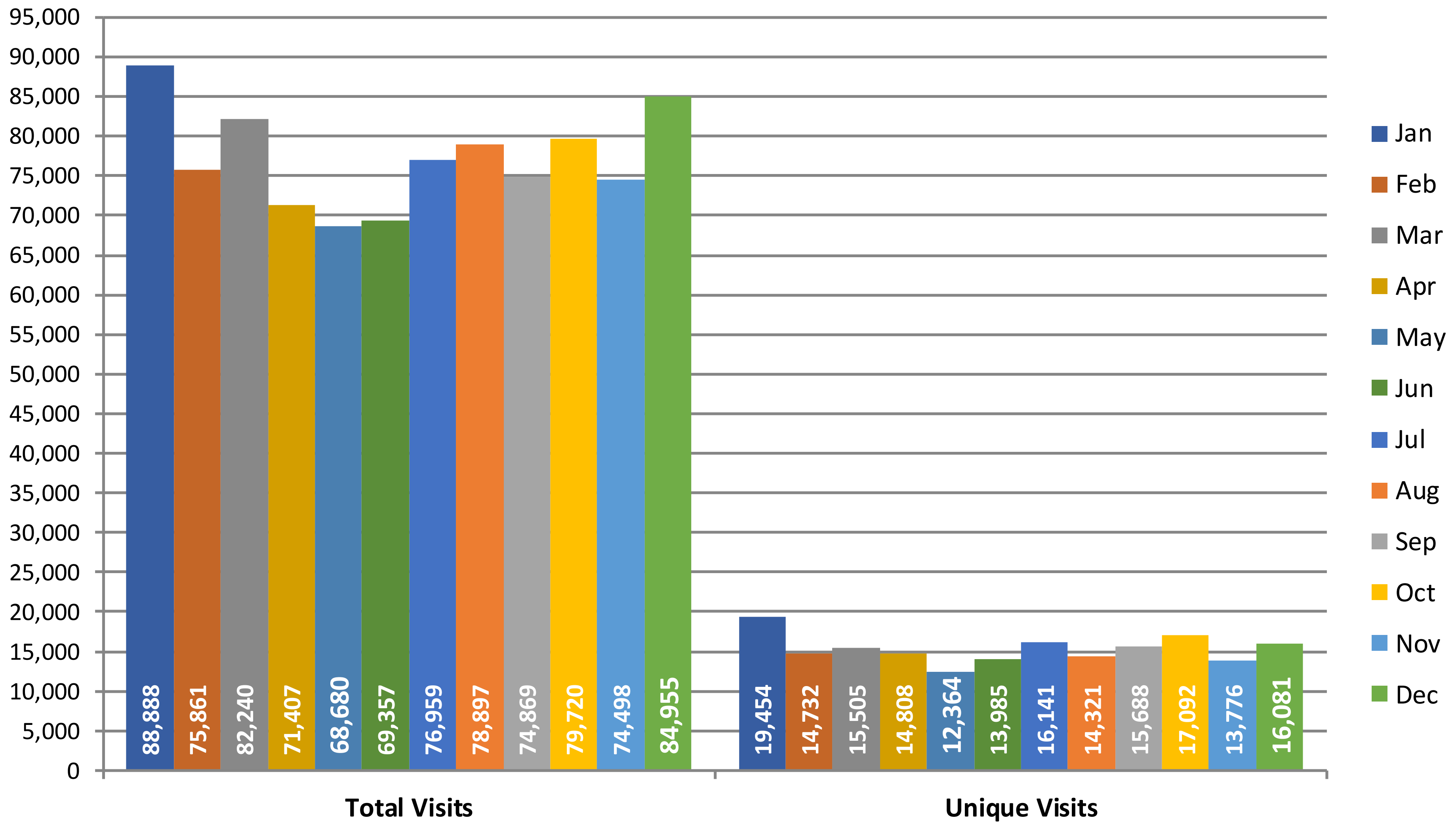
DCP
Virginia Retirement System



Period	Calls Taken By IS Representative	Total Participant Calls	Total Web Visits
2015	44,008	68,965	379,896
2016	46,383	79,131	421,954
2017	52,026	85,968	492,020
2018	54,406	81,385	613,458
2019	61,384	94,630	730,012
2020	63,953	90,931	926,331

Total Account Access Visitors – 2020

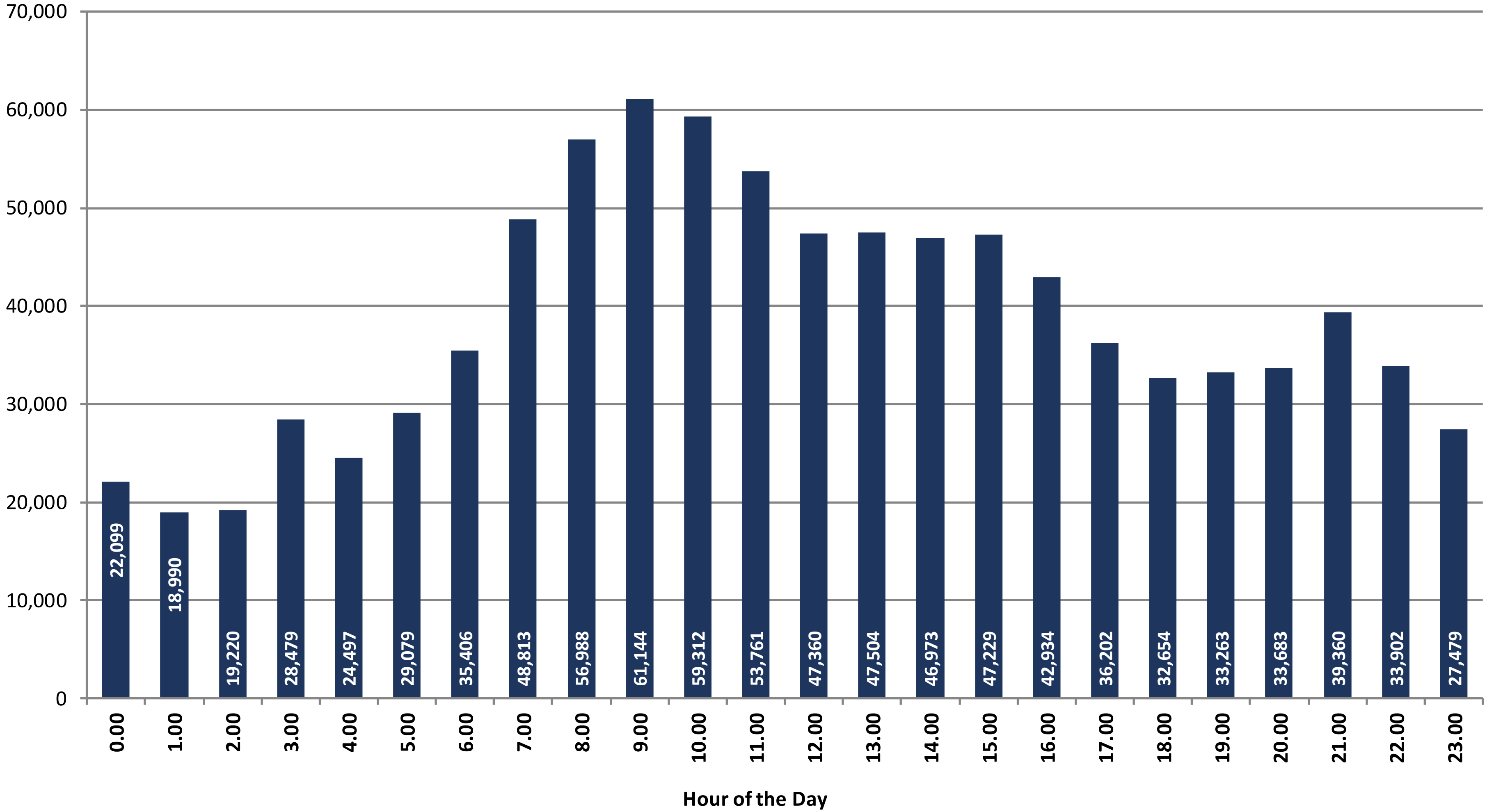
DCP
Virginia Retirement System



Data as of 12/31/2020

Account Access Visits by Hour of the Day – 2020

DCP
Virginia Retirement System

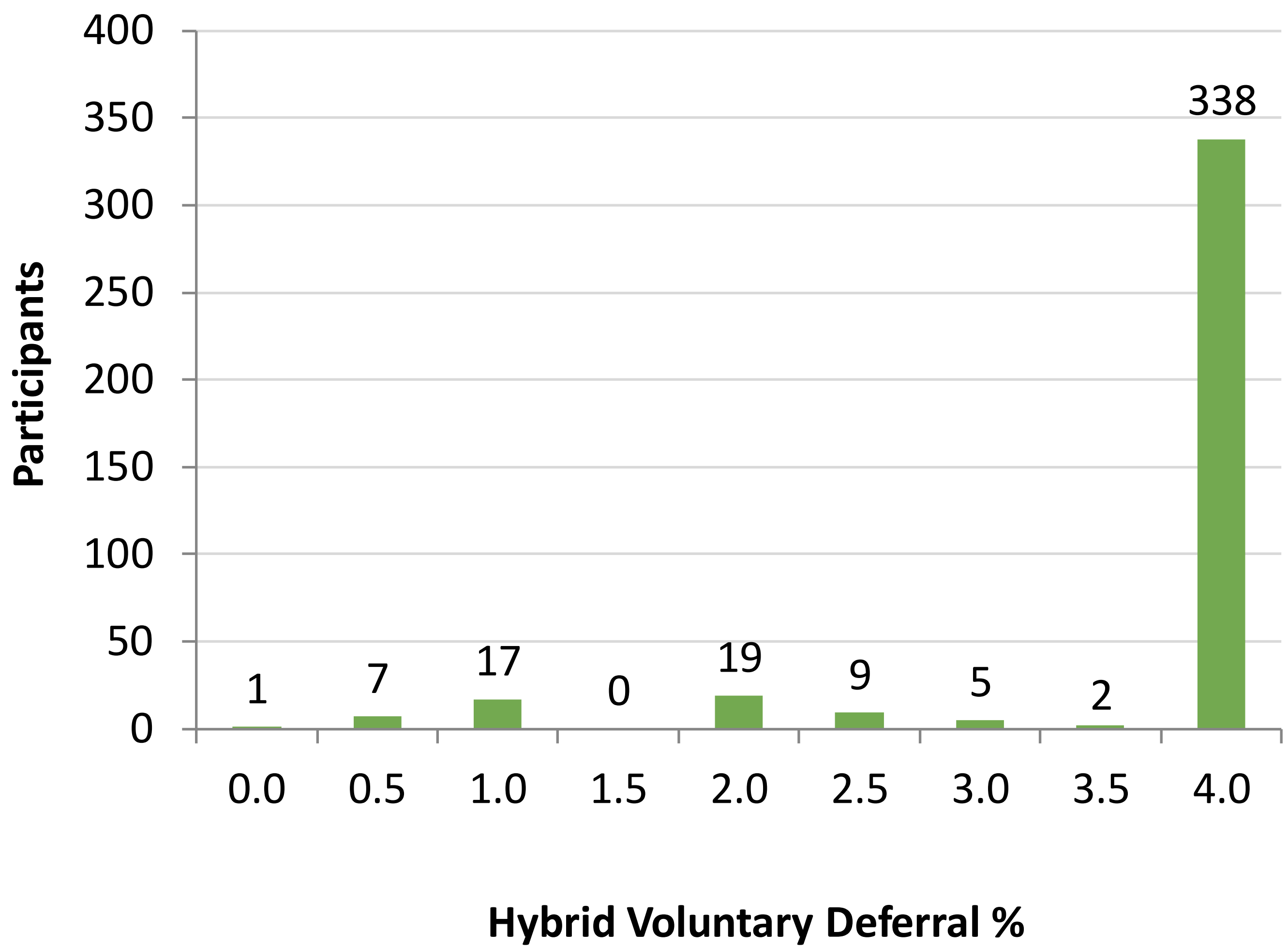


Online Resources

Note: All data is as of 12/31/2020 unless otherwise stated.

Hybrid Voluntary Preset

Since Inception: June 2018

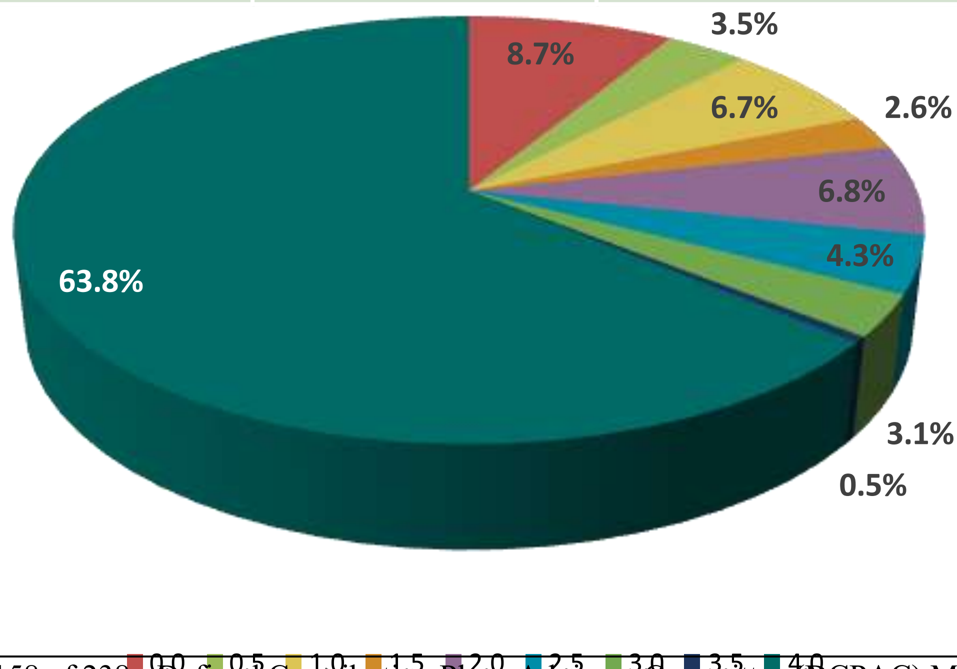


Members Who Saw the Splash Screen & Subsequent Action

Since Launch of Latest Campaign: December 17, 2019

Hybrid members who were not maxing out their contributions at 4% and saw the splash screen

	Button Options:		
Action	**Save 4% Now**	**Choose an amount to save**	**Wait to Save**
Increased Contributions	493	233	381
Decreased Contributions	3	33	121
Remained the Same	5	1	6



SmartStep – COV Plan

DCP
Virginia Retirement System

- Launched November 2018
  - 1,350 Participants have signed up
  - Average Pre-Tax SmartStep Election – $61.72
  - Average Roth SmartStep Election – $16.78

DCP
Virginia Retirement System

SmartStep – Hybrid Plan

- Launched October 2017
  - 2,362 Members have signed up
  - Average SmartStep Election – 1.08%
  - 51.52% of members elected 0.5%
  - 26.76% of members elected 1.0%

VRS Defined Contribution Plans
End of Quarterly Review

Virginia Retirement System

THE VRS INVESTMENT PORTFOLIO (VRSIP)

This Disclosure summarizes information about the VRSIP (the "Fund") offered as an investment option under the Commonwealth of Virginia 457 Deferred Compensation Plan, the Virginia Cash Match Plan, the Virginia Hybrid 457 Deferred Compensation Plan, the Virginia Hybrid 401(a) Cash Match Plan, the Optional Retirement Plan for Political Appointees, the Optional Retirement Plan for Public School Superintendents, the Optional Retirement Plan for Employees of Institutions of Higher Education, and the Virginia Supplemental Retirement Plan. Plan participants should read and retain this Disclosure for future reference. This document will be updated periodically as necessary.

TABLE OF CONTENTS **PAGE**

KEY INFORMATION

The Virginia Retirement System (VRS) has been established for the purpose of providing retirement and other benefits to teachers, state employees, and employees of participating political subdivisions. VRS manages more than $92.5[1] billion in defined benefit plan and other non-pension trust assets and oversees more than $5.9[1] billion in defined contribution plans assets.

The $92.5[1] billion investment pool has been unitized to provide participants in the Commonwealth of Virginia 457 Deferred Compensation Plan, the Virginia Cash Match Plan, the Virginia Hybrid 457 Deferred Compensation Plan, the Virginia Hybrid 401(a) Cash Match Plan, the Optional Retirement Plan for Political Appointees, the Optional Retirement Plan for Public School Superintendents, the Optional Retirement Plan for Employees of Institutions of Higher Education, and the Virginia Supplemental Retirement Plan the opportunity to invest in the VRSIP.

It is important to note that by investing in the VRSIP you are not investing in a defined benefit (DB) pension plan. Investing in the VRSIP does not provide you with the opportunity to purchase additional DB plan service credit or increase your monthly DB pension benefit. Like other core investment options, participants investing in the VRSIP are subject to investment risks, including loss of principal and earnings.

The VRSIP is a diversified portfolio that invests in numerous asset classes. Because some of the underlying asset classes are illiquid in nature (such as real assets and private equity) **the VRSIP is officially valued on a calendar quarter basis. Thus, the VRSIP is open to contributions and incoming and outgoing transfers only on a quarterly basis.**

Revised March, 2021

Participants investing in the VRSIP are responsible for making transfers out of the Fund in a timely manner to cover any requested distributions and to meet the IRS required minimum distribution upon reaching age 72. In order to fulfill a year-end RMD from VRSIP assets, you must initiate the transfer of funds to your core account no later than 4:00 pm ET on the last business day of September. Participants using the VRSIP are also required to maintain at least $2,500 in the target date portfolios and/or other core investments for each VRSIP plan in which they invest.

Please read this information carefully and consider the administrative parameters, investment objectives, risks, and fees before investing.

Investments in the VRSIP are NOT guaranteed by the Virginia Retirement System or the underlying investment managers, the Commonwealth of Virginia, the Federal Deposit Insurance Corporation, or any other agency of the U.S. Government, and are subject to investment risks, including loss of principal and earnings. The Fund is not an investment company and, accordingly, is not required to be registered under the Investment Company Act of 1940.

WHO SHOULD CONSIDER INVESTING

You may wish to consider investing in the VRSIP if:

- You understand the risks involved in investing in the VRSIP;
- The Fund's investment policy and strategies are consistent with your investment objectives and risk tolerance; and
- You are comfortable with the administrative parameters (refer to Administrative Parameters Section) regarding investing in the VRSIP.

You probably should not consider investing in the VRSIP if:

- You are looking for FDIC insurance coverage or interest that is guaranteed for a specific period, such as a certificate of deposit;
- You are unwilling to accept the risks involved in the securities market and the likelihood that the Fund will sometimes experience losses; and
- You are not comfortable with the long-term investment horizon of the Fund (10 years or longer).

FUND GOVERNANCE AND MANAGEMENT

The VRS Board of Trustees ("Board") is responsible for establishing broad policy guidelines and benchmarks that should help enable the Fund to achieve its investment objective. The Board is comprised of nine members as follows: five members are appointed by the Governor and four members are appointed by the General Assembly's Joint Rules Committee. All appointees must be confirmed by an affirmative vote of a majority of those voting in each house of the General Assembly.

The Board establishes policy in the areas of asset allocation targets (policy risk/reward parameters), allowable ranges around policy targets, total fund and program level benchmarks, and active risk ranges relative to policy. Refer to Appendix 1 for these Board approved investment parameters. These parameters are subject to change when warranted by changes in the investment marketplace. Beyond these broad policy decisions, the Board has delegated to the Chief Investment Officer (CIO) all other decision making relating to the investment of VRS assets. In carrying out its fiduciary duty to oversee the investments of the Fund, the Board also considers advice and recommendations provided by the VRS Investment Advisory Committee (IAC). The IAC consists of seven to nine members with each member appointment requiring a two-thirds vote of the Board. The composition of the Board, IAC members, and VRS investment staff may change from time to time.

Investment activities are accomplished through direct management by VRS investment staff as well as external investment managers. The Board has granted the CIO the authority to hire and terminate investment managers at any time using processes deemed likely to achieve the best investment results for the Fund.

The VRS Annual Report includes a list of Board members, IAC members and investment executive team members as of the date of its compilation. A copy of the Annual Report is available on the VRS website at *www.varetire.org* or in hardcopy upon request.

INVESTMENT OBJECTIVE AND POLICIES

Objective: The investment objective of the VRSIP is to maximize return while managing risk (refer to Risk Section) within an acceptable range. Due to the long-term nature of the defined benefit plan's liabilities, the horizon for investment decisions is generally defined as 10 years or longer. *There is no assurance that the portfolio will achieve its objective.*

Strategy: The VRSIP will pursue its objective through the active and passive management of a diversified portfolio of investments. The Fund may use a variety of investment techniques and strategies to achieve desired portfolio results within particular investment mandates. Such strategies may include, but not be limited to, the use of illiquid securities, derivatives, leverage, short sales, swaps, foreign currency transactions and loaning of securities.

Asset Allocation/Rebalancing: Asset allocation policy is important because it defines the basic risk and return characteristics of the VRSIP. The Board, while considering IAC and CIO recommendations, sets the Fund's strategic asset allocation mix and reviews the mix periodically. The Board also establishes an allowable range around each asset class target weight within which the CIO is granted discretion. The strategic asset allocation mix and allowable ranges may change as needs arise. Appendix 1 shows the Fund's strategic asset allocation mix and the allowable range for each asset class as of the date of the printing of this document. Interested parties may view the Fund's quarterly profile sheet by visiting the VRS website at *www.varetire.org* and selecting a Plan under the *Defined Contribution Plans* tab. Then, select "*Investments", click on "Fund Profiles", and click "VRSIP Disclosure".* Or, call the toll-free Plan Information Line at 1-VRS-DCPLAN1 (1-877-327-5261, select option 1) to have one mailed to you.

RISK

Risk is assessed in an asset-liability framework, and the Board establishes asset allocation policy based primarily on the expected volatility in the pension plan's funded status and contribution rate volatility.

Primary risk objectives for the Fund are to 1) manage the volatility of the Fund within a reasonable range around a targeted volatility as established in the asset allocation process, and 2) manage the tracking error of the Fund within the tracking error range as established by the total Fund risk budget. Tracking error is a statistical measure describing the degree of variability around the Total Fund Custom Benchmark and is calculated as the standard deviation of the difference between the Fund's return and the benchmark's return. Appendix 1 shows the tracking error target ranges as of the date of the printing of this document.

The Board may change the risk target and strategy for the Fund at any time, based on the needs of the pension plan and changing market conditions. In general, the investment strategies and risk measures used in managing the Fund are designed to help the Board control risks in a manner appropriate for a long-term pension plan with liquidity needs. Such strategies and risk measures may not be consistent with the risk tolerance and objectives of individual investors, and participants should carefully assess the suitability of the Fund in light of their own specific objectives.

PERFORMANCE BENCHMARK

In analyzing the performance of the VRSIP, the Board uses a Custom Benchmark consisting of a blend of the asset class benchmarks at policy weights.

FEES AND EXPENSES

The following information describes the fees and expenses of the Fund. Each investment manager charges a basic investment management fee for the management of investments. Some investment management contracts contain performance fees wherein the manager may receive additional compensation based on the manager's investment performance. Investment management fees and any performance-based fees vary by the manager's investment mandate and contract. Other Fund expenses include: custody, transaction costs, VRS internal operating costs, legal fees, and other administrative expenses.

As of fiscal year ended June 30, 2021 the expense ratio for the VRSIP was 0.60%. The VRS Annual Report lists fees incurred by the Fund at the most recent fiscal year end. A copy of the Annual Report is available on the VRS website at *www.varetire.org* or in hardcopy upon request.

In addition to the fees described above, participants will incur a fee related to money held in the Pending Account VRSIP (PENDVRSIP). The Target Date 2035 Portfolio currently serves as the PENDVRSIP so please see the 2035 Portfolio fund profile on *www.varetire.org* under the *Defined Contribution Plans* tab for specific expense ratio information.

The third-party administrator's record keeping and communication services fee is a fixed annual fee charged to each unique participant of $30.50 (about $2.54 will be deducted each month). If you are participating in multiple plans the fee is a total of $30.50 for all accounts.

VALUATION OF UNITS

The Bank of New York Mellon, as the custodian for the VRS investment pool, will calculate a unit value for the VRSIP as of the close of each month. However, under the plans, participants are permitted in and out of the VRSIP only on the basis of quarterly unit values. This is because many of the Fund's illiquid holdings such as real assets and private equity typically have quarterly valuations. Although interim unit values are provided as of the end of each month, they will not be based on up-to-date values for some of the Fund's holdings. Interim unit values should only be viewed as estimates to assist you in keeping track of your VRSIP account between quarterly valuations.

Month end unit values for the VRSIP are calculated on the eighth business day following each month's end. When accessing your account via the website, remember unit values for January, February, April, May, July, August, October and November are just estimates. Only quarterly unit values for March, June, September and December are used for Fund entry or exit.

ADMINISTRATIVE PARAMETERS

<u>**Terms**</u>
VRS Investment Portfolio (VRSIP) – An investment pool managed by VRS.
Pending Account VRSIP (PENDVRSIP) – A daily valued account where contributions and investment transfers are held until invested in the VRSIP. The balances in the PENDVRSIP are invested in the Target Date 2035 Portfolio.
Preliminary Investment Portfolio VRSIP (PIPVRSIP) – A non-interest bearing holding account where PENDVRSIP balances are moved to after the last business day of the quarter and prior to being swept into the VRSIP. Balances held in the PIPVRSIP account are not available for transfer out or withdrawal.

Target date portfolios and other core investment options – Investment options offered by the VRS defined contribution plans.

The VRSIP operates differently than the target date portfolios and other core investment options offered by the VRS defined contribution plans because it is officially valued quarterly. The following parameters are provided to help you understand these differences and what you should consider prior to investing in the VRSIP and keep in mind when managing your account.

- **Getting started**
  - Once you have read the *Who Should Consider Investing* section of this Disclosure document and understand the investment objective and risks as well as the administrative parameters regarding the VRSIP, go to *www.varetire.org* and select *Account Log-in* under the *Defined Contribution Plans* tab to access your account. Then, select the *Manage Funds option* to establish a future allocation and/or to transfer from your existing funds into the PENDVRSIP.

- **Contribution allocation to the PENDVRSIP**
  - You can allocate a maximum of 95% of your on-going contribution amount to the PENDVRSIP. To log-in to your account, go to *www.varetire.org* and select *Account Log-in* under the *Defined Contribution Plans* tab. Then, choose *Manage Funds* and select the *Future Allocations* option to enter the percentage you will allocate to the PENDVRSIP.
  - Your contributions designated for the VRSIP are first deposited to the PENDVRSIP where they are held until the last business day of each quarter. Money held in the PENDVRSIP is available for transfers out and withdrawals up until market close (4:00 p.m. Eastern time) the last business day of each quarter.

- **Timing of your contribution allocation to the VRSIP**
  - After market close on the last business day of each quarter, all balances held in the PENDVRSIP are transferred into the PIPVRSIP account where they are held until a unit value is established for the VRSIP. Balances held in the PIPVRSIP account are not available for transfer out or withdrawal.
  - The VRSIP unit value will be established by the eighth business day following quarter end, at which time balances will be transferred from the PIPVRSIP to the VRSIP. Balances transferred to the VRSIP on the eighth business day will be treated as if they were invested in the VRSIP on the last business day of the prior quarter.

- **Transfers in to the PENDVRSIP**
  - You can transfer money from the target date portfolios and/or other core investment options to the VRSIP by logging into your account at *www.varetire.org*. To do so, select *Account Log-in* under the *Defined Contribution Plans* tab. Choose *Manage Funds* and select the appropriate Fund Transfer option to enter the amount you wish to transfer from your existing target date portfolios and/or other core funds into the PENDVRSIP.
  - For each plan in which you wish to invest in the VRSIP, you must retain at least $2,500 in the target date portfolios and/or other core investments when transferring money to the PENDVRSIP.
  - After market close on the last business day of each quarter, balances held in the PENDVRSIP are transferred into the PIPVRSIP where they are held until a unit value is established for the VRSIP. Amounts held in the PIPVRSIP account are not available for transfer out or withdrawal.
  - The VRSIP unit value will be established by the eighth business day following quarter end, at which time balances will be transferred from the PIPVRSIP to the VRSIP. Fund amounts transferred into the VRSIP on the eighth business day will be treated as if they were invested in the VRSIP on the last business day of the prior quarter.

- **Transfers out of the VRSIP**
  - You can transfer money from the VRSIP to the target date portfolios and/or other core investment options by logging into your account at *www.varetire.org*. To do so, select *Account Log-in* under the *Defined Contribution Plans* tab. Under the *My Account* tab, choose *Manage Funds* and select the appropriate Fund Transfer option to enter the amount you wish to transfer from the VRSIP into the other investment options.
  - ***Important*: Transfer requests from the VRSIP are not processed immediately.** Transfer requests from the VRSIP made prior to quarter end will be held in pending status until the eighth business day of the following quarter. The transfer request will then be processed on the eighth business day following quarter end and will receive the VRSIP unit value as of the last business day of the prior quarter. The balance transferred out of the VRSIP will be reinvested using the unit values (of the fund(s) you have selected) on the eighth business day of the current quarter. **Because of the lag inherent in the valuation process, dollars being transferred out of the VRSIP will not be invested in the market during this eight business day time frame. This may translate to 11 to 14 calendar days.**

- **Withdrawals from the VRS defined contribution plans when you have a balance in the VRSIP**
  - **You cannot make a plan withdrawal from your VRSIP account balance from any of the VRS administered defined contribution plans including an emergency withdrawal from the Commonwealth of Virginia 457 Plan.**
  - To request a full withdrawal from your account with the VRS defined contribution plans, you must first transfer your balance in the VRSIP back into the other plan investment options. Please see "Transfers out of the VRSIP" above for more information.
  - **You must transfer sufficient funds to process your request.** If you do not have sufficient funds in your investment options, your request will be processed to the extent possible from those investment options. However, this could result in a smaller payout than requested.
  - **If you are required to take a minimum distribution from a plan, you must transfer to the target date portfolios and/or other core investments the amount needed to satisfy your Required Minimum Distribution.** **In order to fulfill a year-end RMD from VRSIP assets, you must initiate transfer of funds to your core account no later than 4:00 pm ET on the last business day of September.** The RMD amount is in addition to the $2,500 you are required to maintain in the core investments.

- **Tracking your account between quarters**
  - Month end unit values for the VRSIP are calculated on the eighth business day following each month's end. When accessing your account via the website, remember unit values for January, February, April, May, July, August, October and November are just estimates. Only quarterly unit values for March, June, September and December are used for Fund entry or exit.
  - Although interim unit values are provided as of the end of each month, they will not be based on up-to-date values for some of the Fund's holdings. Interim unit values should only be viewed as estimates to assist you in keeping track of your VRSIP account between quarterly valuations.

Footnotes

[1] As of January, 2021

COPIES OF THE DISCLOSURE AND ACCOUNT INFORMATION

Copies of the Disclosure. For additional copies of this Disclosure, please go to *www.varetire.org*. Or, call the toll-free Plan Information Line at 1-VRS-DC-PLAN1 (1-877-327-5261) and select option 1 to speak to an Investor Services associate.

Account Information. For account balance, performance and other information, go to *www.varetire.org*. Or, call the toll-free Plan Information Line at 1-VRS-DC-PLAN1 (1-877-327-5261).

For additional information about the Virginia Retirement System, please visit the website at *www.varetire.org* or write to the following address:

The Virginia Retirement System
Attn: Public Relations Director
PO Box 2500
Richmond, VA 23218

VRS Defined Benefit Plan Investment Policy Statement

as of July 1, 2020 **

Appendix 1

Asset Class (Strategies)	Policy Target %	Allowable Range	Benchmark	Tracking Error Range
Global Public Equity	37.0%	32% - 42%	MSCI ACWI IMI Index Net*	
Global Equity	-	-		
Equity Hedge Funds	-	-		
Fixed Income	16.0%	13% - 21%	Fixed Income Custom	
Core	-		Bloomberg Barclays US Aggregate Bond Index	
High Yield	-		Bloomberg Barclays US HY Ba/B 2% Issuer Cap Index	
Emerging Market Debt	-		JP Morgan EMBI Global Core Index	
Credit Strategies	14.0%	9% - 19%	Credit Strategies Custom	
Rate Sensitive Credit	-	-	Rate Sensitive Custom	
Non-Rate Sensitive Credit	-	-	S&P Performing Loan Index	
Real Assets	14.0%	9% - 19%	Real Assets Custom	
Public Real Estate	-	-	FTSE/EPRA/NAREIT Developed REIT Index	
Private Real Estate	-	-	NCREIF ODCE Index Net	
Other Real Assets	-	-	CPI-U + 400 bps	
Private Equity	13.0%	8% - 18%	Private Equity Custom	
Multi-Asset Public Strategies	3.0%	2% - 4%	MAPS Custom	
Dynamic Strategies	-		DStrat Custom	
Risk-Based Investments	-		RBI Custom	
Private Investment Partnerships	2.0%	1% - 4%	PIP Custom	
Cash	1.0%	0% - 5%	Merrill Lynch 91-day T-Bill Index	
Total Fund	100.0%		VRS Custom Benchmark	100 - 300 bps
Hedge Funds (Strategies)	≤ 15.0%	n/a	varies by program	

* "Net" means net of VRS foreign tax withholding.

Notes:

The Board establishes and reviews the total fund tracking error range. The total fund tracking error range is the allowable observed tracking error calculated quarterly using 5 years of history. Should the plan experience active risk outside of the tracking error range, the CIO is responsible for communicating the variance to the Board on a timely basis. The total fund tracking error range is the amount of expected tracking error based on the total fund's current mix and strategies. The CIO establishes individual program tracking error ranges.

Staff will not, by its tactical actions, underweight or overweight any asset class beyond the minimum and maximum allowable ranges. However, market action could drop or raise an asset class temporarily below the minimum allowable range or above the maximum allowable range. In such rare cases, staff will establish an action plan to move the applicable asset class back into compliance with policy. In addition, the CIO will communicate the variance to the Board on a timely basis.

The Fixed Income Custom Benchmark is a blend of the Bloomberg Barclays US Aggregate Bond Index (90%), Bloomberg Barclays US High Yield Ba/B 2% Issuer Cap Index (5%) and JP Morgan EMBI Global Core Index (5%).

The Credit Strategies Custom Benchmark is blend of the S&P Performing Loan Index (60%), Bloomberg Barclays US High Yield Ba/B 2% Issuer Cap Index (30%) and Bloomberg Barclays US Aggregate Bond Index (10%).

The Rate Sensitive Custom Benchmark is a blend of the Bloomberg Barclays US High Yield Ba/B 2% Issuer Cap Index (75%) and the Bloomberg Barclays Us Aggregate Bond Index (25%).

The Real Assets Custom Benchmark is the market value weighted blend of the Total Real Estate Benchmark, of which 85% is the NCREIF Private Real Estate Benchmark (ODCE Index (net) lagged by three months) and 15% is the Total REIT Benchmark (FTSE/EPRA/NAREIT Developed REIT Index) and the Other Real Assets Custom Benchmark (the CPI-U Index plus 400 basis points per annum lagged by three months) with modified benchmarking for Other Real Assets during the increased allocation period.

The Private Equity Custom Benchmark is the MSCI ACWI IMI (net VRS tax rates) lagged by three months with modified benchmarking during the increased allocation period.

The Multi-Asset Public Strategies (MAPS) Custom Benchmark is the market value weighted average of the benchmarks of the mandates (Dynamic Strategies and Risk-Based Investments) within the program.

The Dynamic Strategies (DStrat) Custom Benchmark is a blend of the MSCI ACWI IMI Index (net VRS tax rates) (60%), the Bloomberg Barclays US Aggregate Bond Index (20%), the Bloomberg Barclays US HY Ba/B 2% Issuer Cap Index (10%) and the JP Morgan EMBI Global Core Index (10%).

The Risk-Based Investments (RBI) Custom Benchmark is a blend of the RBI Diversifiers Benchmarks (80%) and the S&P Risk Parity 12% Volatility Benchmark (20%). The RBI Diversifiers Benchmark is composed of Bloomberg Barclays US Treasury Bellwethers: 3 month plus 250 basis points per annum.

The Private Investment Partnerships (PIP) Custom Benchmark is a weighted average of the custom Private Equity Benchmark (MSCI ACWI IMI Index (net VRS tax rates) lagged by three months) (40%), the NCREIF Private Real Estate Benchmark (ODCE Index (net) lagged by three months) (30%), the Other Real Assets Custom Benchmark (the CPI-U Index plus 400 basis points per annum lagged by three months) (10%), the Bloomberg Barclays US HY Ba/B 2% Issuer Cap Index (10%), and the S&P Performing Loan Index (10%).

The VRS Custom Benchmark is a blend of the Asset Class Benchmarks at policy weights.

Hedge Funds are a collection of active strategies that may be used in any VRS investment program that fits the underlying assets.

** Previous date was February 1, 2020

Callan Institute

Research

2021 Defined Contribution Survey

Table of Contents

Introduction

The world is changing dramatically, and our annual *Defined Contribution Survey* is evolving to fit the shifting landscape. The 14th Annual DC Survey now covers the SECURE and CARES Acts, the impacts of the COVID-19 pandemic, along with the key tenets of DC plan management, financial wellness, and HSAs. The insights and experience distilled in our DC Survey inform this discussion and we are grateful to all of those who contributed.

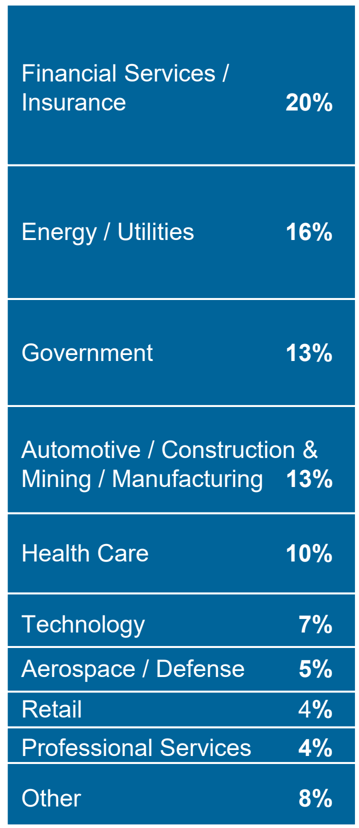
Respondent Characteristics

Callan conducted our 14th annual *DC Survey* online in September and October of 2020 (*2021 DC Survey*). The survey incorporates responses from 93 large DC plan sponsors, including both Callan clients and other organizations.

Respondents span a range of industries; the top industries represented are financial services/insurance, energy/utilities, government, automotive/construction & mining/manufacturing, and health care. Note, the survey requests what is 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.

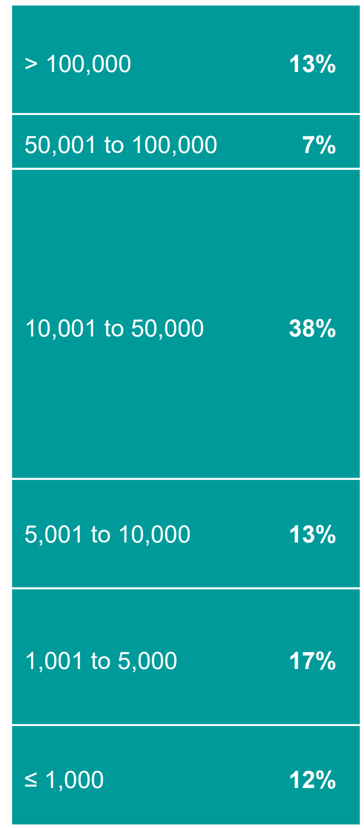
More than 90% of plans in the survey had over $100 million in assets; moreover, 60.9% were "mega plans" with more than $1 billion in assets. The majority of respondents (57.8%) had more than 10,000 participants.

Primary industry employees hired from

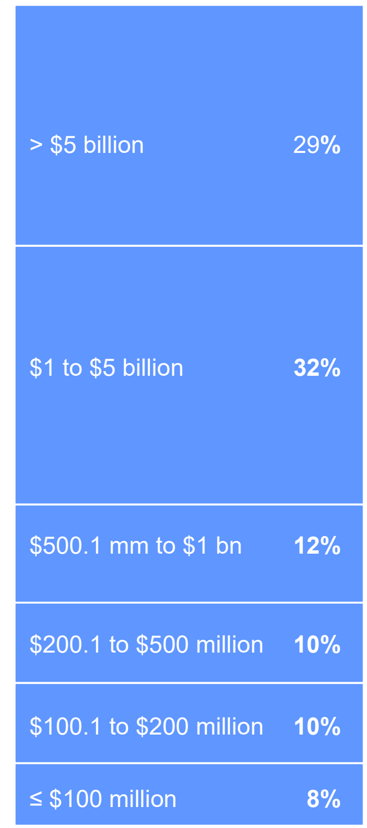


Other categories: education (2%), entertainment / media (2%), nonprofit (2%), and transportation (1%).

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)

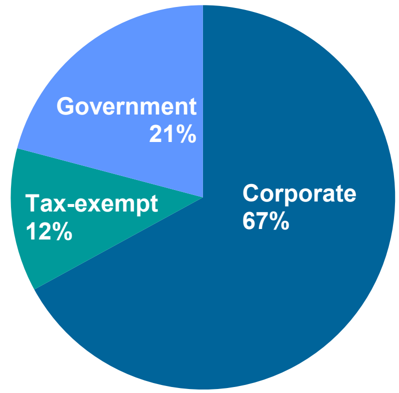
Two-thirds of respondents surveyed are corporate organizations, followed by governmental (20.9%) and tax-exempt (12.1%) entities.

As seen in prior surveys, a 401(k) plan is the primary DC offering (81.7%). The majority of tax-exempt entities (e.g., hospitals and non-profit organizations) offer a 403(b) plan as their primary DC plan (72.7%).

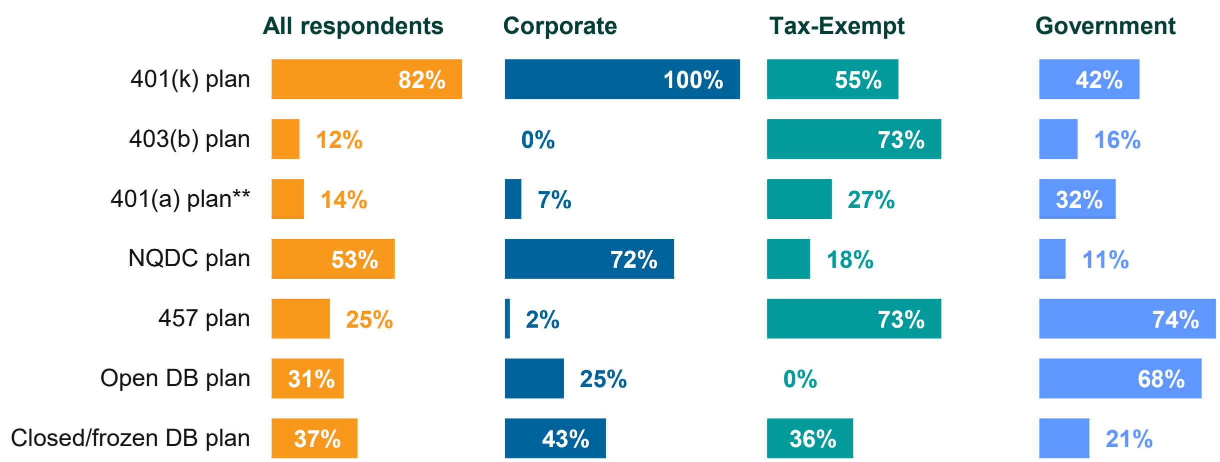
Roughly 7 in 10 corporate respondents (72.1%) offer a nonqualified deferred compensation (NQDC) plan, while a similar portion of tax-exempt (72.7%) and governmental (73.7%) entities offer a 457 plan.

About 3 in 10 (31.2%) DC plan sponsors surveyed offer an open defined benefit (DB) plan, compared to 39.0% in 2015. Governmental entities are more likely to offer an open DB plan (68.4%), while corporate plan sponsors are the most likely to have a closed or frozen DB plan (42.6%).

Organization type



Retirement benefits offered*



*Multiple responses allowed. **401(a) plans include DC plans with no deferrals.

Key Findings: DC Trends in Governance, Plan Design, and Investments

Top Areas of Focus

1. Governance and process
2. Investment structure evaluation
3. Fund / manager due diligence

See page 6 for details

Planned for 2021

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

See page 7 for details

71% of plan sponsors are either somewhat or very likely to conduct a fee study in 2021

See page 12 for details

20% increase in total committee meetings

Virtual Up 86%

down 62% In-person

See page 13 for details

49% offer a managed account

87% with > 50k participants

See page 17 for details

7 in 10 completed a plan design evaluation in past 3 years

8 in 10 offer Roth

6 in 10 offer Roth in-plan conversions

7 in 10 have automatic enrollment

See pages 16 & 18 for details

83% seek to retain assets of retirees

***63%** offer a retirement income solution*

See pages 21 & 22 for details

2x as many plans suspended or reduced the matching contribution in 2020

86% indicated they would reinstate

See page 19 for details

91% have taken steps to prevent plan leakage

***3.5** actions taken, on average, to reduce leakage*

See page 20 for details

DC Plan Governance Trends: Areas of Focus

Following a decade of abundant litigation, DC committees have refined the elements of plan governance. The *2021 DC Survey* reflects multiple new topics that plan sponsors consider regarding plan governance; the resulting rankings are more diluted and nuanced, and span a broader range, than in previous years.

Respondents rank plan governance and process (a category added to the survey this year) as the top area of focus by a notable margin. 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 tied for second.

Notably, we broke out total plan fees into administration fee and investment fee categories in this year's survey. More than half of respondents (53.2%) count investment fees as one of the top five areas of focus compared to 39.0% for administration fees. 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.

Top areas of focus for DC plan committee(s)

2020		2019		2018	
Plan governance and process	**3.9**	Total plan fees	**3.5**	Total plan fees	**3.6**
Investment structure evaluation	**2.7**	Participant education and communications	**3.5**	Participant education and communications	**3.5**
Fund / manager due diligence	**2.7**	Fund / manager due diligence	**3.3**	Financial wellness	3.4
Plan investment management fees	**2.3**	Financial wellness	3.3	Fund / manager due diligence	**3.2**
Asset allocation and diversification	**1.2**	Retirement readiness of participants	3.2	Investment structure evaluation	**3.1**
Participant education and communications	**1.2**	Investment structure evaluation	**3.1**	Retirement readiness of participants	3.1
Committee education and fiduciary training	**1.1**	Cybersecurity	2.9	Committee education and fiduciary training	**2.5**
Qualified default fund selection	**1.1**	Evaluation of providers	2.8	Plan design	2.5
Plan administration fees	**1.1**	Plan design	2.7	Evaluation of providers	2.5
		Committee education and fiduciary training	**2.5**	Cybersecurity	2.4

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

Additional 2020 categories: plan operational compliance, retirement readiness of participants (0.8); plan design, evaluation of providers (0.7); cybersecurity (0.5); market volatility, financial wellness (0.4); lifetime income options (0.3); alternative asset class (0.2)

DC Plan Governance Trends: Fiduciary Initiatives

In 2019 and 2020, DC plan sponsors were largely focused on actions that support governance responsibilities such as fiduciary training, investment structure, and documentation (i.e., investment policy statement (IPS)).

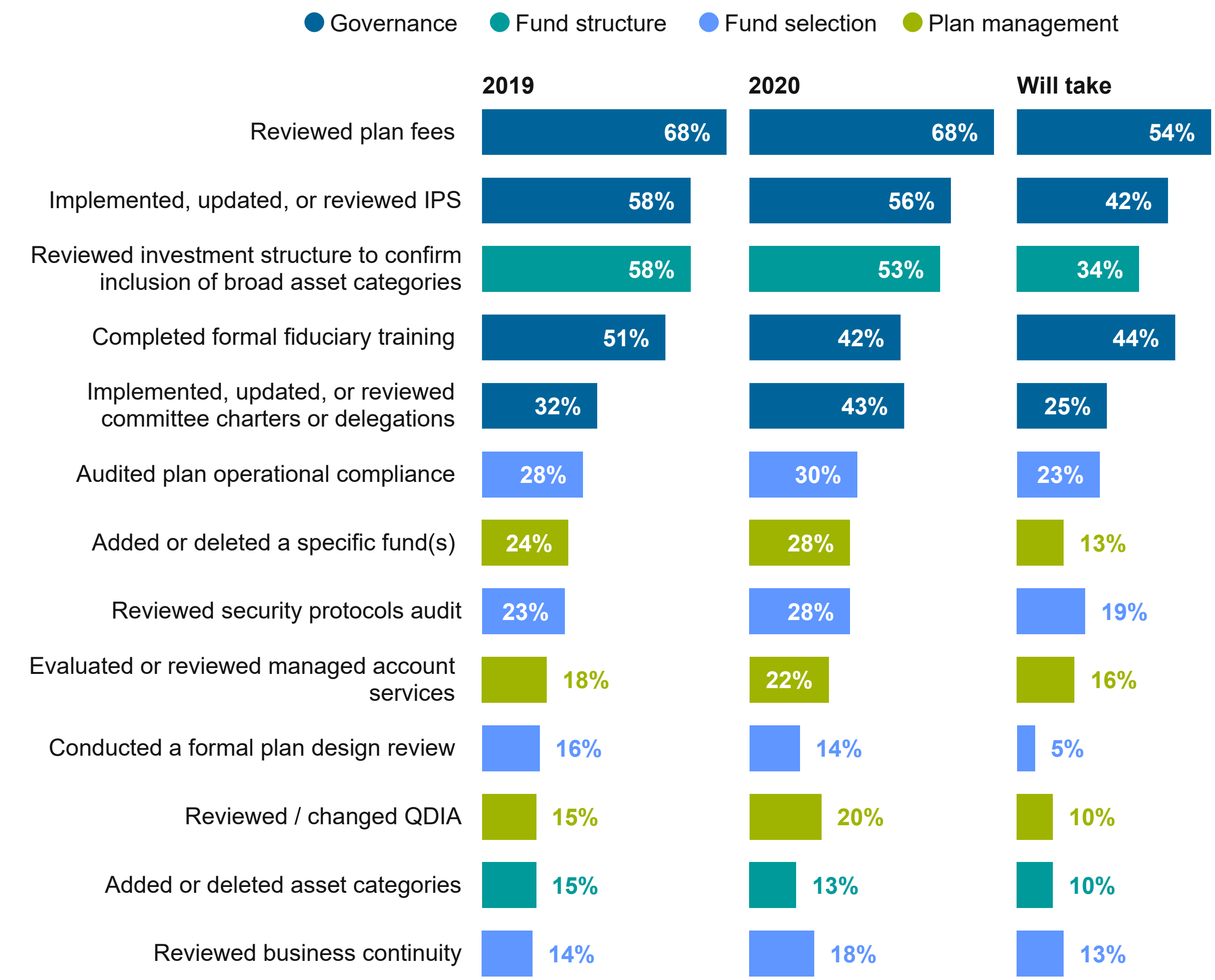
Around one-quarter of respondents added or deleted a fund in 2019 or 2020, but fewer plan to do so in 2021 (12.7%). This drop-off reflects the general nature of fund changes: they are not necessarily premeditated many months in advance, and plan sponsors may act relatively quickly once any decision has been made.

Few respondents took action on services and capabilities utilized at the plan level (e.g., reviewed business continuity) or for participant use (e.g., managed accounts).

Top Actions Planned for 2021

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

Fiduciary actions DC plans has taken or will take*



*Multiple responses allowed.

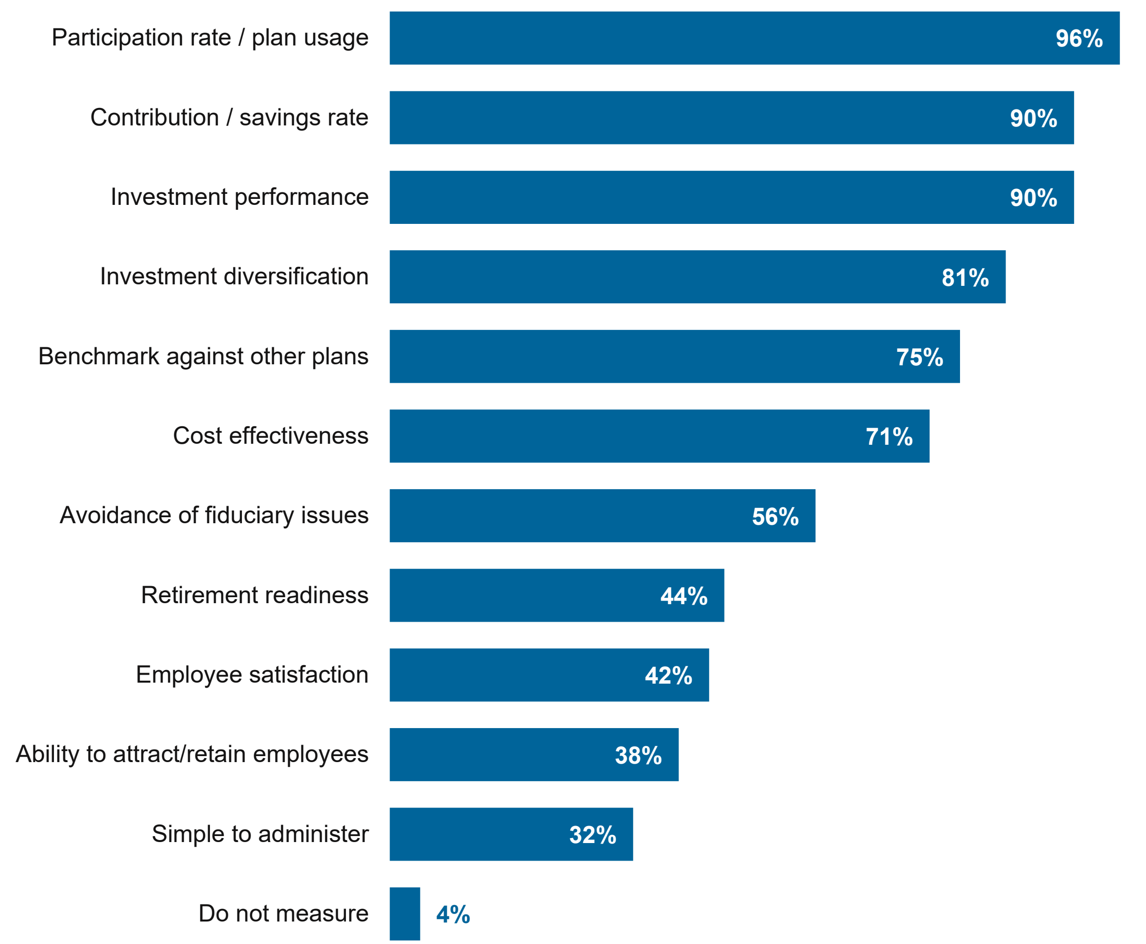
DC Plan Governance Trends: DC Plan Measurement

Survey respondents monitor 4.7 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.

More than **7 in 10** plans benchmark themselves against other plans and assess cost effectiveness in gauging plan success.

Criteria used to measure plan success*



*Multiple responses allowed.

DC Plan Governance Trends: Investment Structure

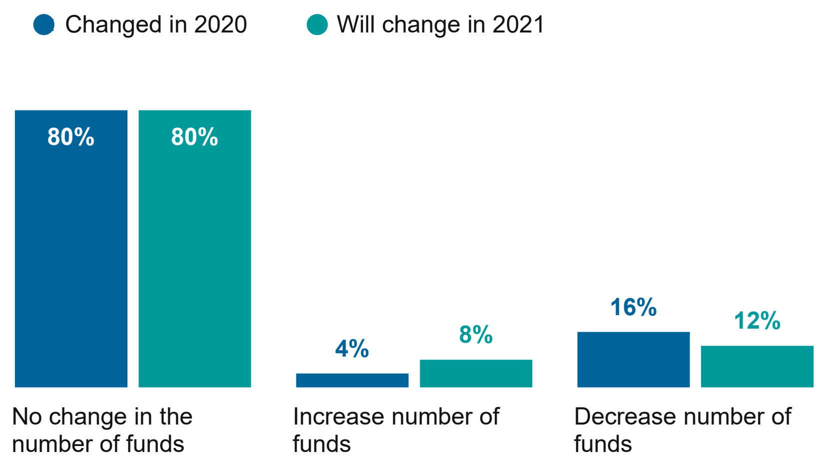
The events of 2020, including the COVID-19 pandemic and economic turmoil, seem to have slowed the pace of change made to investment structures.

Only 16.2% of plan sponsors report making changes to the investment structure in 2020, down from 25.3% in 2019. Furthermore, more sponsors indicate they are planning a change next year—19.1% of all respondents, or 25.5% when governmental plans are removed from the dataset, compared to 15.7% of respondents in last year's survey, which did not include governmental plans.

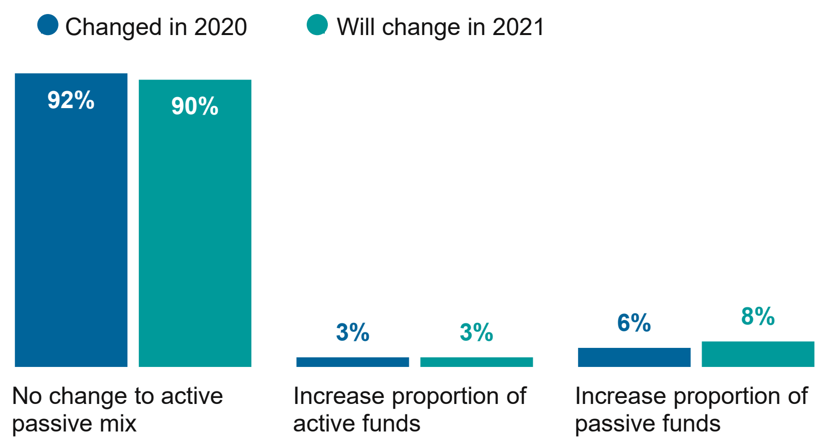
The most common action in 2020 or planned for 2021 was to decrease the number of funds (25.5%). Only 9.8% of respondents indicated they would increase the number of funds in either year.

Just **2 in 10** plan sponsors are **planning changes to the investment structure** in 2021.

Investment structure change in fund quantity



Investment structure change in fund style



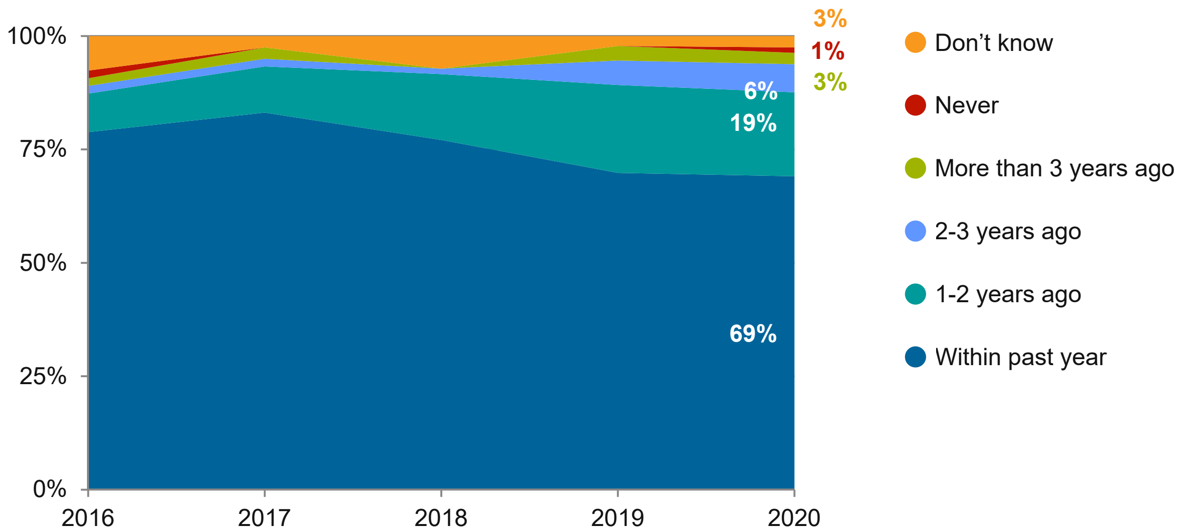
DC Plan Governance Trends: Fee Calculation

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 18.5% have done so in the past one to two years. Only 2.5% were unsure of the last time all-in fees were calculated.

.

Last time all-in plan fees were calculated*



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

DC Plan Governance Trends: Fee Payment

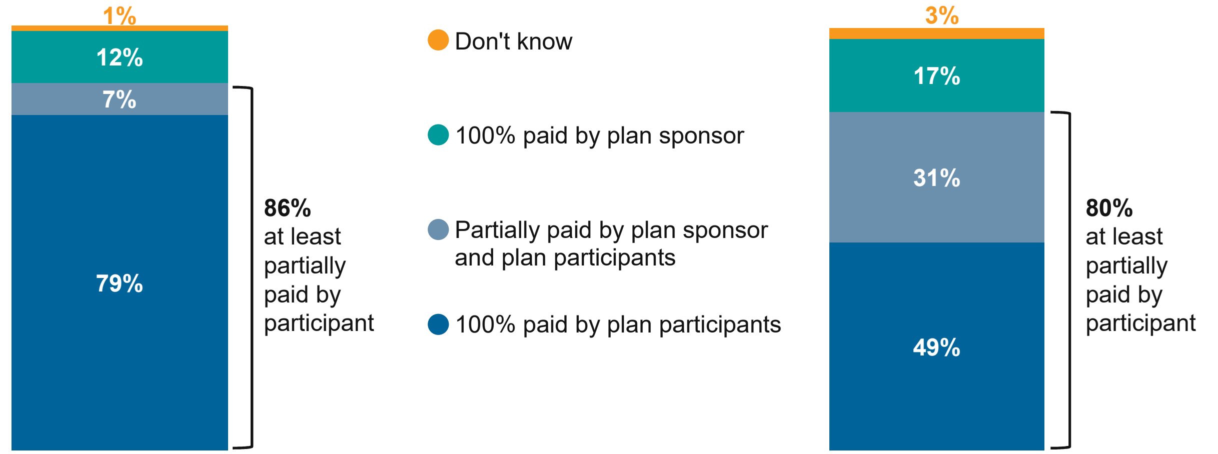
Investment management fees are most often paid entirely by participants (79.0%), and almost always at least partially paid by participants (86.4%). By contrast, nearly half (49.4%) of all administrative fees are paid entirely by participants, up slightly from last year. Most plan sponsors (80.2%) note that at least some administrative fees are paid for by participants.

More than three-quarters of plan sponsors report using a per-participant fee for plan administration. Flat, per-participant fees continue to be more popular than asset-based fees that fluctuate based on account balances (75.4% vs. 23.0%, respectively).

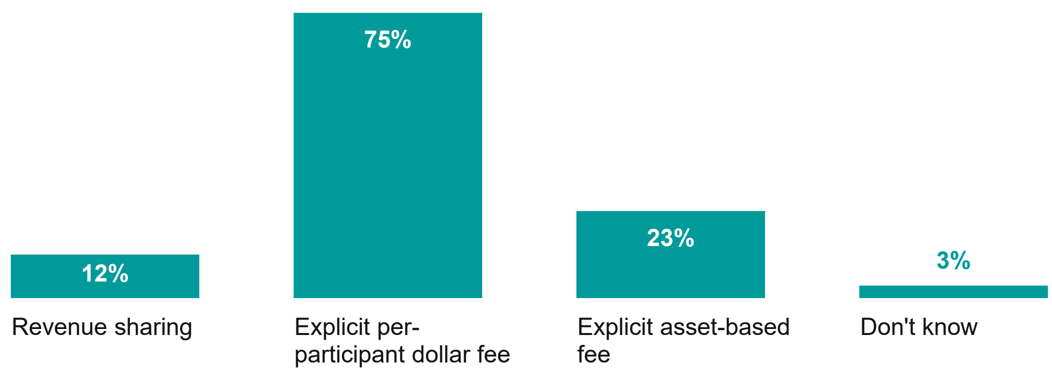
92.6% of respondents are somewhat or very **unlikely to change the way fees are paid** (e.g., move from asset-based to flat, per-participant fee) in 2021.

How investment management fees are paid

How administrative fees are paid



How participants pay for plan administration*



*Multiple responses allowed.

DC Plan Governance Trends: Fee Initiatives

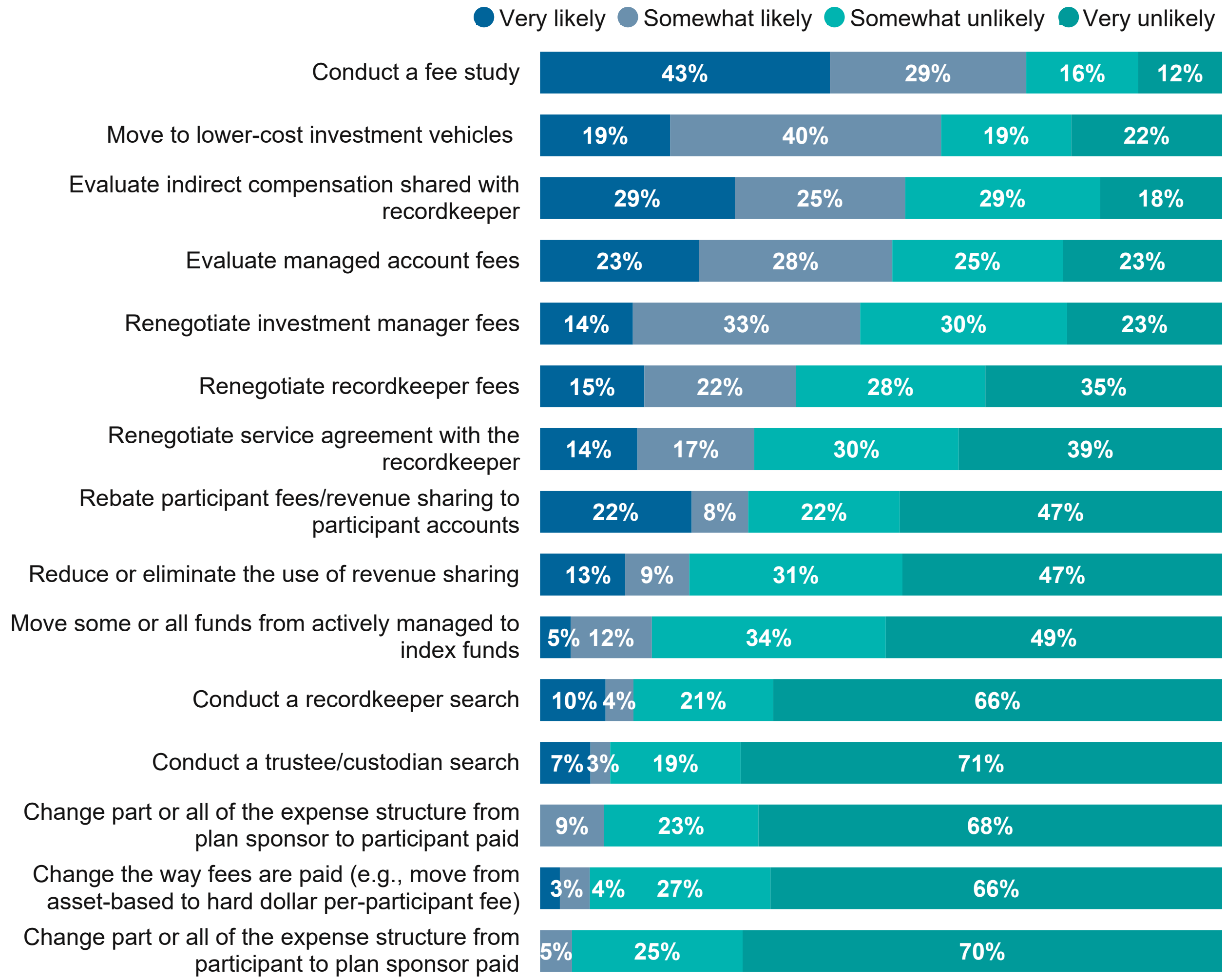
More than two-thirds of plan sponsors are either somewhat or very likely to conduct a fee study in 2021 (71.2%), an increase from the prior year's DC survey (55.7%). Most respondents also indicate that they are very or somewhat likely to review other fee types (e.g., managed account services fees) and indirect revenue (e.g., revenue shared from the managed account or rollover provider).

Fewer plan sponsors report exploring a recordkeeper search in the coming year. Just 13.7% of respondents are somewhat or very likely to conduct a recordkeeper search in 2021, compared to nearly one-quarter in last year's survey.

A clear majority (58.8%) of respondents are likely to move to lower-cost investment vehicles (e.g., move from an R6 share class to a collective investment trust) in 2021, albeit a decrease from the prior year.

Other somewhat or very likely actions include renegotiating investment manager and recordkeeper fees (47.0% and 37.5%, respectively).

Fee initiatives planned for 2021



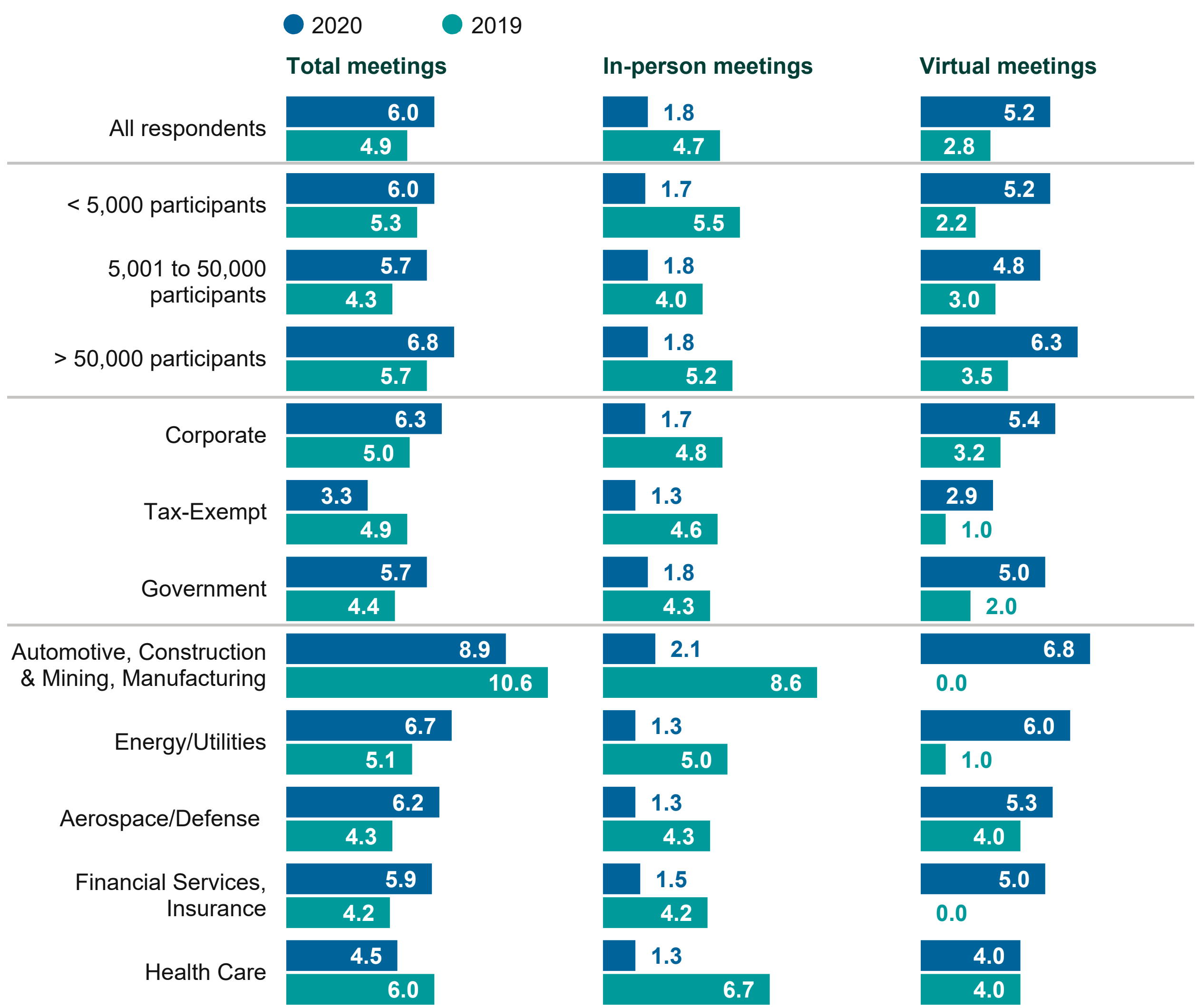
DC Plan Governance Trends: Meeting Delivery and Frequency

Plan sponsors report a typical committee meeting schedule in 2019, with around five in-person meetings per year, on average. On the other hand, the findings for 2020 were atypical. The total number of meetings increased to six due to a pronounced rise in virtual meetings. In-person meetings dropped from around five to two, on average, as people were asked to limit activities outside of their households and travel was severely restricted.

Additional committee meetings could be attributed to the extreme market volatility that occurred during the year or passage of CARES legislation addressing the impact of the pandemic.

Health care plan sponsors reported fewer investment committee meetings on average (4.5 in 2020 versus 6.0 in 2019) as they balanced multiple business concerns during the pandemic.

In-person and virtual DC plan committee meetings held annually



DC Plan Governance Trends: Non-Committee Member Attendees

Investment consultants are the most likely non-committee member to attend committee meetings in both the *2021 DC Survey* and Callan's *2017 Governance Survey*.

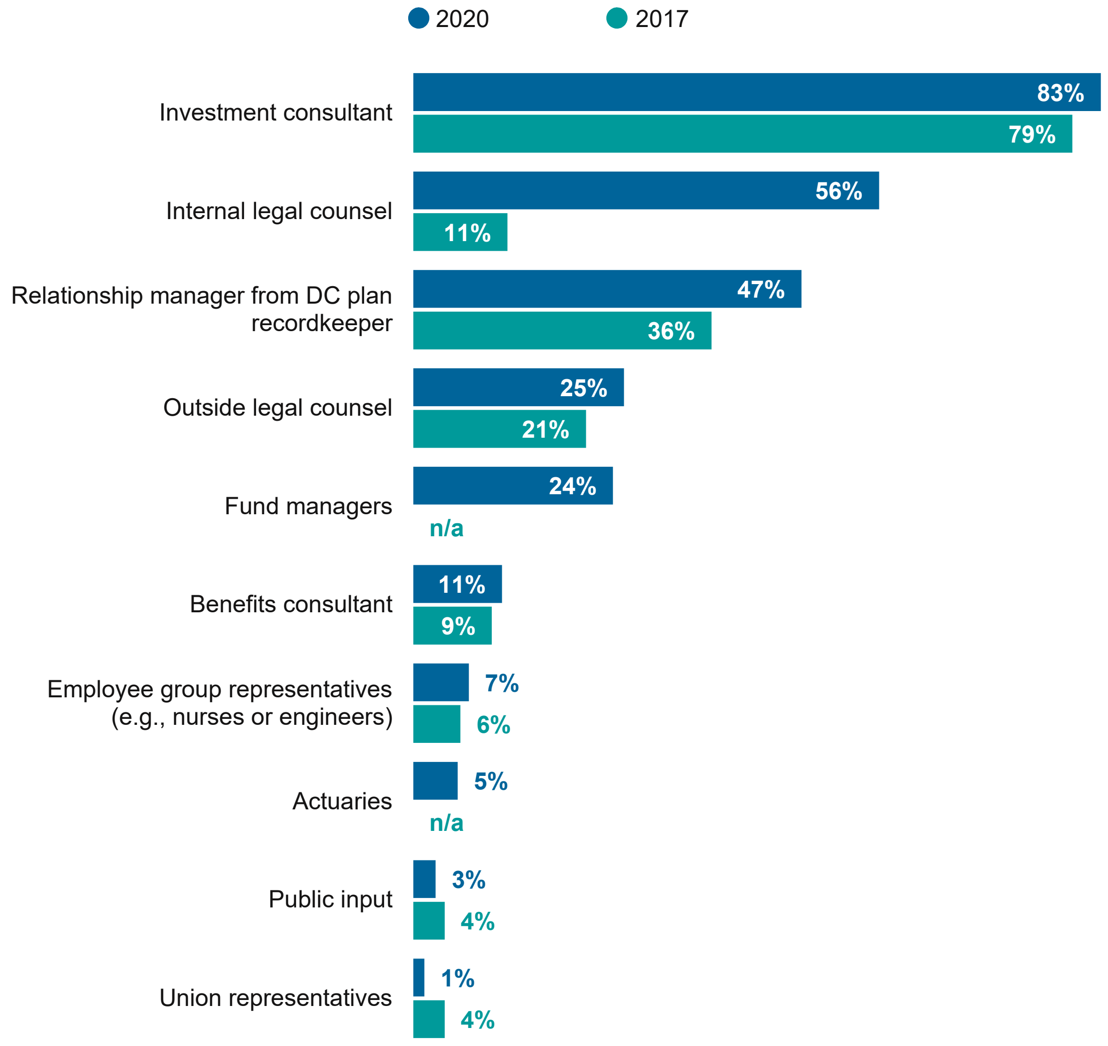
We observe a sharp increase in internal legal counsel attending meetings (from 11.3% to 56.0%) and a slight increase in external legal counsel (20.8% to 25.3%) over three years. More survey respondents indicate that the relationship manager from the DC plan recordkeeper attended meetings in 2020 than 2017.

Few plans include employee representatives, actuaries, public input, or union representatives at committee meetings.

Most common non-committee attendees

1. Investment consultant
2. Legal counsel
3. DC plan recordkeeper relationship manager

Non-committee advisers that attend the committee meetings*



*Multiple responses allowed.

DC Plan Governance Trends: Use of Investment Consultants

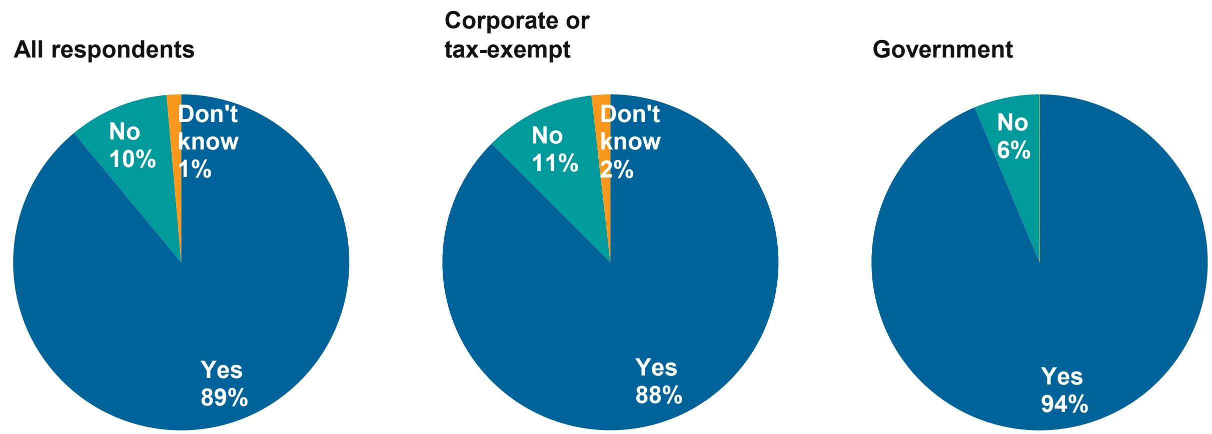
Nearly 9 in 10 (89.0%) plan sponsors engaged an investment consultant in 2020, in line with 2019 (89.2%) and up from 2018 (84.1%). Of those that utilize an investment consultant, 54.8% solely use a 3(21) non-discretionary adviser. Government plan sponsors are more likely to use an investment consultant (93.8%) but are less certain of the adviser's role (discretionary vs. non-discretionary). A notable portion of corporate and tax-exempt plan sponsors (21.4%) were unsure which type of consultant they use.

A handful of corporate and tax-exempt entities report using a 3(38) discretionary adviser, either exclusively or partially, while no government plans confirmed using this type of consultant. This low uptake may reflect that these plan sponsors are less likely to participate in these types of surveys, as they have delegated several facets of fiduciary responsibility.

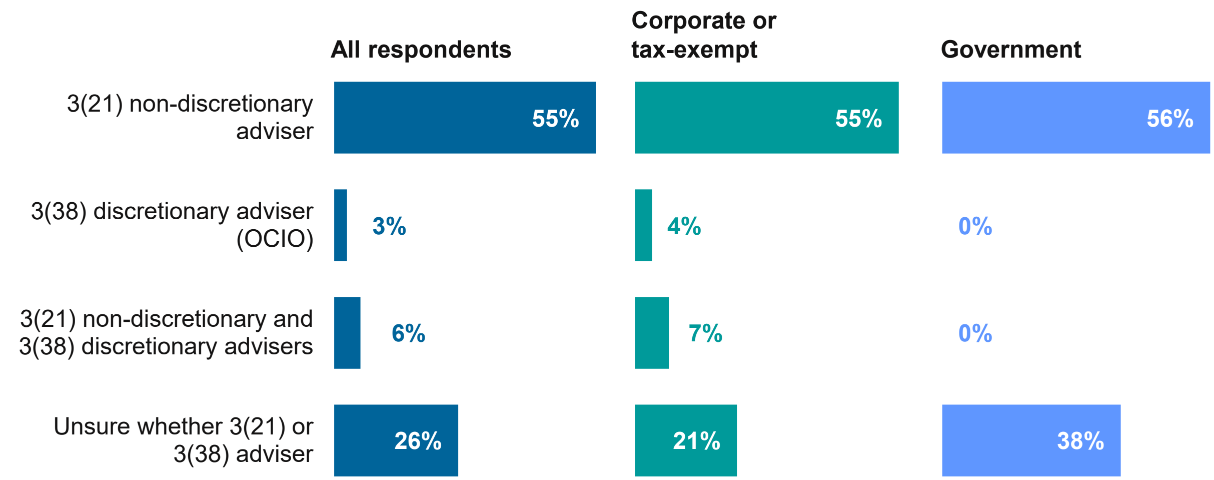
3(38) discretionary consultant: The investment consultant selects and monitors funds and acts as a co-fiduciary (also known as an outsourced chief investment officer or OCIO model).

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)



Type of consultant used



DC Plan Design Trends: Prevalence

Roth deferrals (79.2%) and automatic enrollment (70.4%) are the most common enhanced savings features available. Both features were formalized at a federal level by the Pension Protection Act of 2006 (PPA) and have had more than a decade to become majority practice. (Technically Roth 401(k) deferrals were originally available in 2004, but had a 5-year sunset; PPA removed the sunset.) In 2010, our survey found that 37.0% of plan sponsors offered Roth deferrals. Traditional after-tax contributions (68.1%) are seeing a renaissance due in large part to the availability of Roth in-plan conversions. Roth in-plan conversions were first available in 2010 on a limited basis and expanded in 2013.

The Roth deferral feature is the most common planned enhancement for 2021 (8.3%), followed by automatic enrollment ADP/ACP safe harbor (6.9%), and Roth in-plan conversions (5.6%).

Notably, 43.8% of plans indicate they currently utilize a safe harbor plan design.

Explainer: Plans that utilize a safe harbor plan design are not subject to annual nondiscrimination testing, avoiding the complexity of testing and minimizing the economic and employee impact of a failed test.

DC plan savings features availability

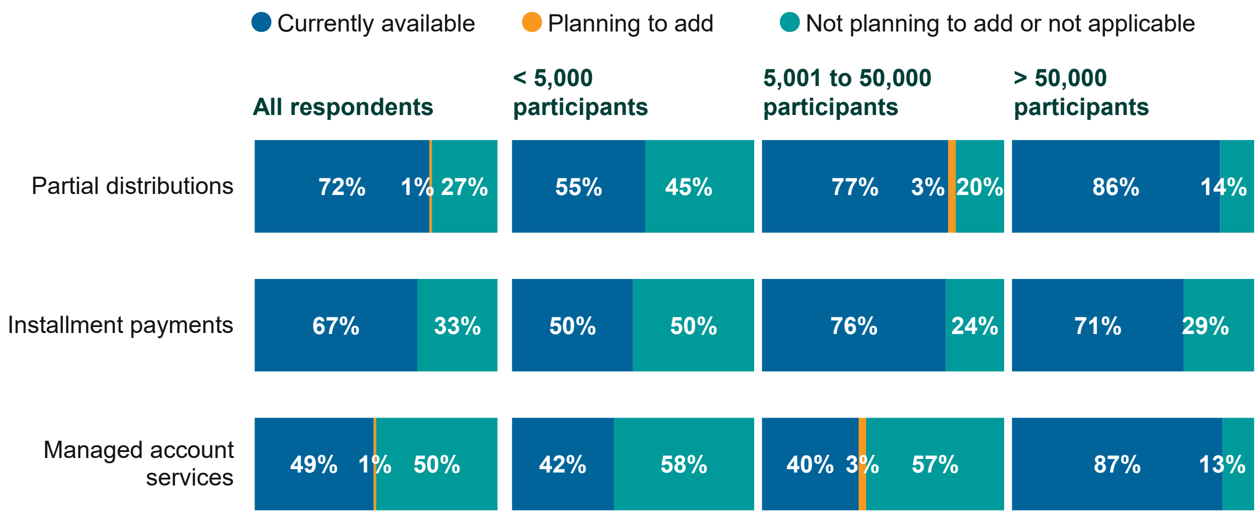
DC Plan Design Trends: Prevalence

Partial distributions (71.8%) and installment payments (67.1%) are the most common decumulation features. Both have been available for decades and, while the rules have varied over time, their prevalence has increased steadily as plan sponsors explore retirement income options.

Large plans are the most likely to offer managed accounts.

Only **3%** of respondents **removed managed accounts** from their plan in 2019 or 2020. (This group is not included in the chart to the right.)

DC plan decumulation features availability



DC Plan Design Trends: Evaluation

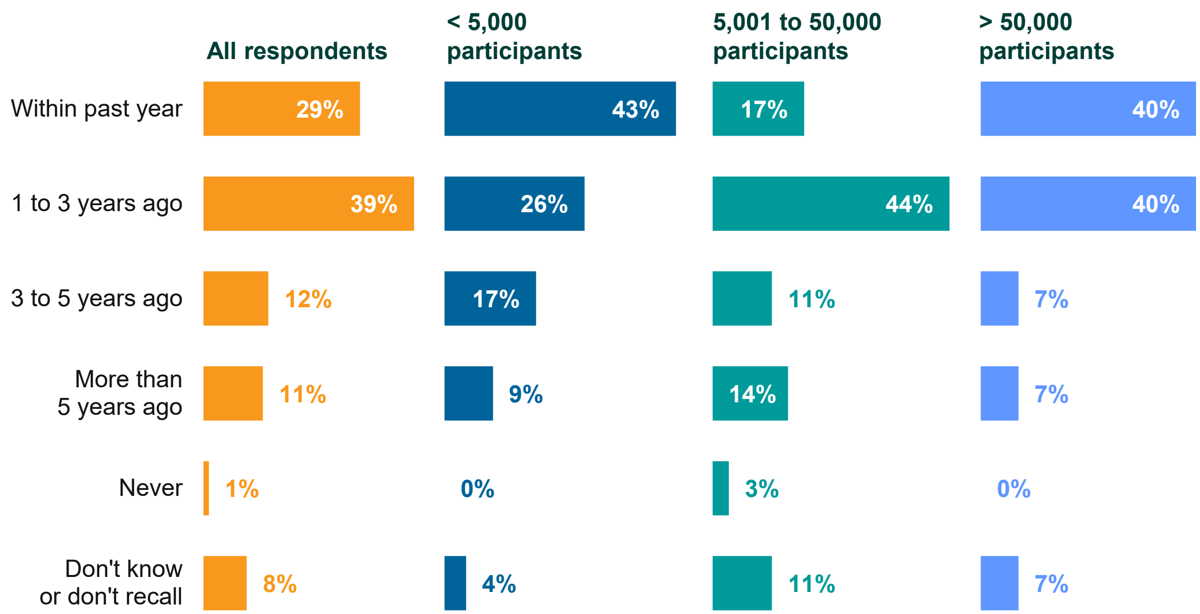
Most respondents indicate they completed a formal plan design evaluation to understand DC plan gaps and needs during the past three years.

In contrast to other fiduciary elements, evaluating and setting the plan design are generally considered settlor actions. This type of evaluation may be driven by:

1. Plan sponsor review of benefits broadly
2. Competitive analysis by industry, geography, or both
3. Administrative or compliance issues (e.g., failing nondiscrimination testing or to allow accelerated savings options)

Nearly **7 in 10** respondents completed a **plan design evaluation** in the past three years.

Frequency of formal plan design evaluations



DC Plan Design Trends: Company Match

Most survey respondents (84.4%) indicate they did not make a change to their matching contribution in 2020.

15.6% of plan sponsors report making a change to their company match in some fashion, an increase from last year (13.6%). Of those that made a change, the most common action was to eliminate, suspend, or reduce the match (70.0%). Last year's survey found that the most common action was to restructure the match (41.7%).

The percentage of plan sponsors that eliminated, suspended, or reduced the matching contribution doubled in 2020 compared to previous years. Of those that reported any type of change to the match, 6 in 10 indicated they would reinstate it in 2020 or 2021. None of the plans surveyed expect to eliminate or reduce the match in 2021.

1 in 10 plans reduced or suspended the match in 2020.

More than 8 in 10 of that group will reinstate the match.

Company match actions*

Took step in 2020		Will take step in 2021	
Eliminate, suspend, or reduce match	70%	Reinstate the match if suspended	50%
Reinstate the match if suspended	10%	Improve matching formulas	20%
Improve matching formulas	10%	Change to stretch match	20%
Add a match true-up feature	10%	Change timing of contributions	10%
Change to stretch match	0%	Move to safe harbor design	10%
Change timing of contributions	0%	Eliminate, suspend, or reduce match	0%
Move to safe harbor design	0%	Add a match true-up feature	0%

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

DC Plan Design Trends: Plan Leakage

Most plan sponsors (91.4%) have taken steps to prevent plan leakage. Actions include offering partial distributions (69.2% in 2020 vs. 56.7% in 2018) and installment payments (63.5% in 2020 vs. 44.8% in 2018). These types of distribution options can help prevent plan leakage since the participant is not forced to take a total distribution.

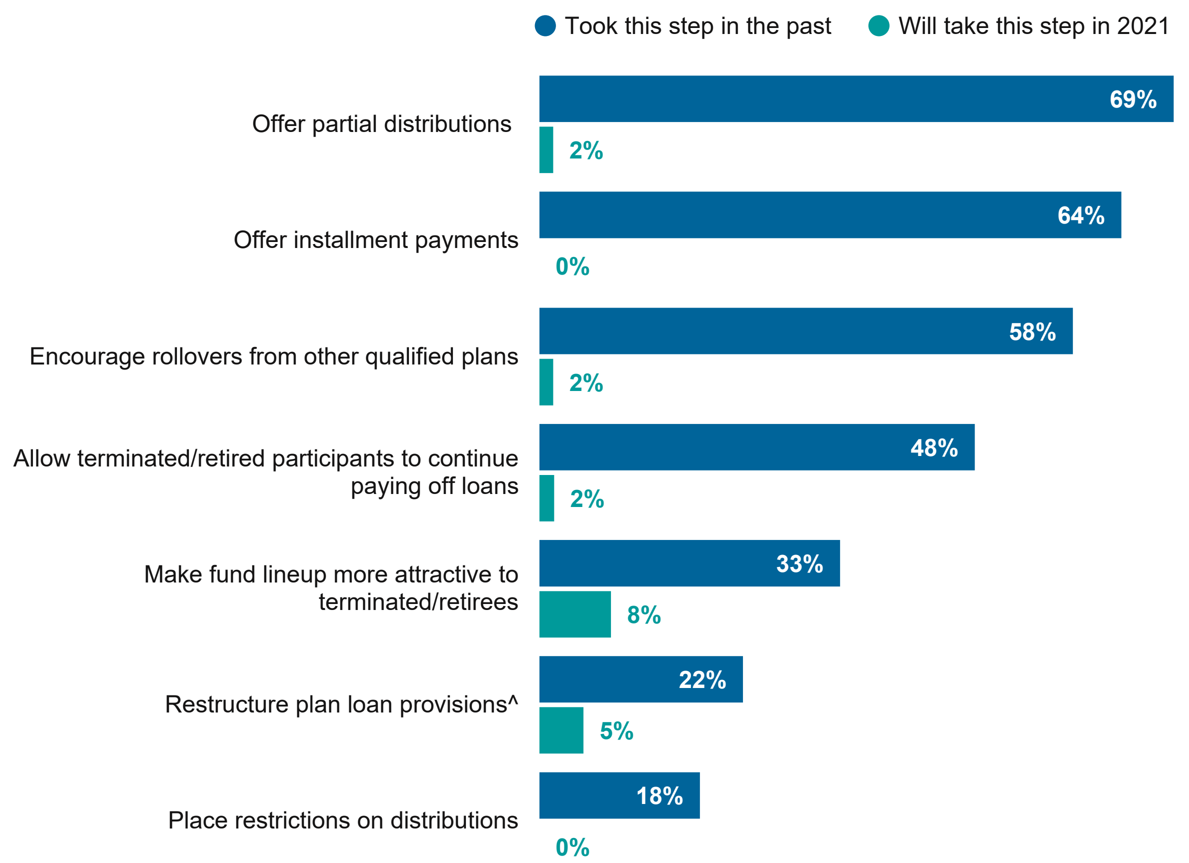
Slightly less than half of survey respondents (47.5%) allow terminated participants to continue repaying their DC plan loans.

Only 14.3% of respondents anticipate taking additional steps to prevent plan leakage in 2021—most notably, to make the fund lineup more attractive to retirees. This is a sharp decrease from prior years, which may be due to a strong drive to mitigate plan leakage in prior years, or a reflection of other business needs taking priority in 2021.

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

These plan sponsors report taking an **average of 3.5 actions** to reduce leakage.

Steps taken to prevent plan leakage*



*Multiple responses allowed.

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

DC Plan Design Trends: Post-Employment Assets

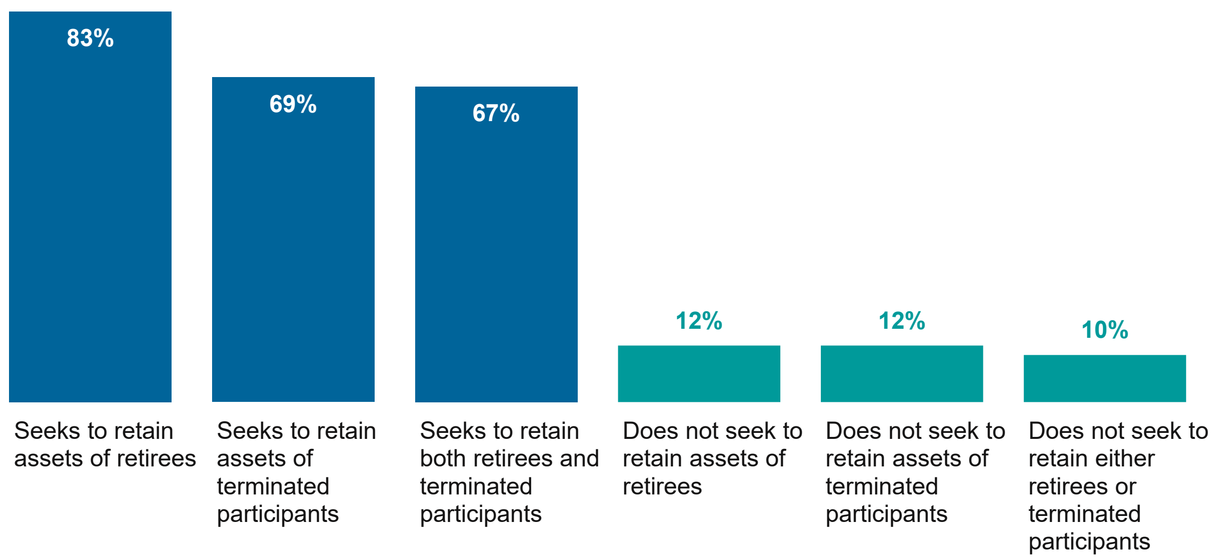
The majority of plan sponsors seek to retain the assets of both retiree and terminated participants (66.7%), a notable increase from five years ago (43.5%). More than 8 in 10 respondents with a defined strategy around this issue seek to retain retiree assets.

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).

Around one-third of plan sponsors do not have an asset retention policy. Interestingly, the proportion of active versus terminated participants had no impact on the sponsors' likelihood of having a policy in place to address those assets.

Strategies to retain retiree / terminated assets*



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

DC Plan Design Trends: Retirement Income Solutions

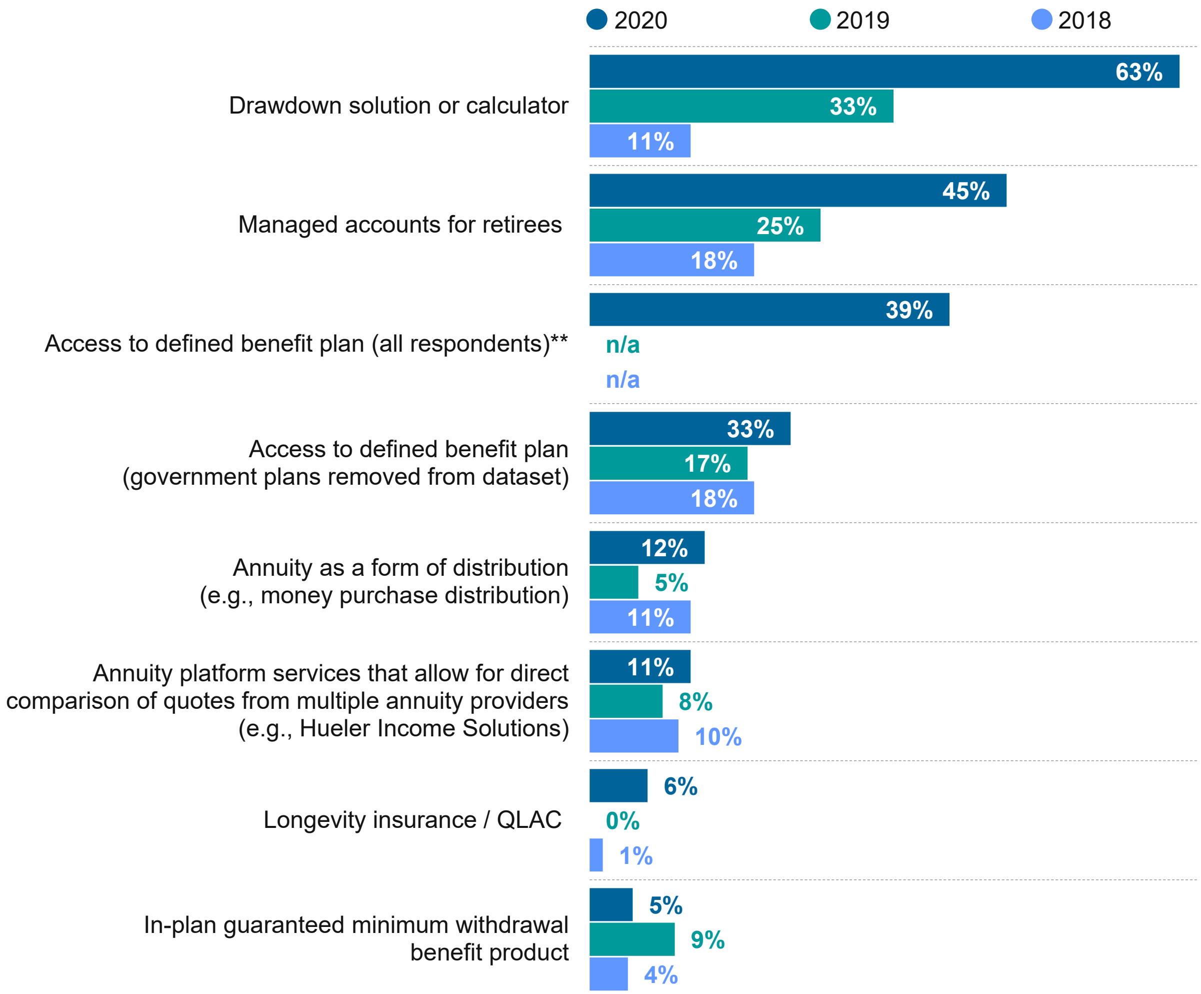
Nearly two-thirds of plans (63.1%) offered some sort of retirement income solution to employees in 2020. Providing access to a drawdown solution or managed account service were the two most common.

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.

Few 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. Nearly 5% of plan sponsors indicate they are planning to add an in-plan guaranteed minimum withdrawal benefit product or a form of longevity insurance.

63.1% of plan sponsors offer a **retirement income solution.**

Retirement income solutions offered*



*Multiple responses allowed.
**Government plans were not included in the DC Survey for 2018 and 2019 plan years. Including governmental plans artificially inflates the 2020 experience, in comparison.

DC Plan Trends: Participant Communication

When ranking priorities for participant communications, plan sponsors focus on topics that will help improve participants' position within the DC plan: savings rates, plan participation, and retirement readiness are tightly grouped in the top three. Financial wellness, which was ranked number one in last year's survey, dropped to number five. This may reflect an increased focus on getting back to basics, as a result of the current environment.

New categories that we introduced in this year's survey—communicating plan design changes and investing strategy considerations driven by the 2020 pandemic—ranked in the bottom half of communication priorities.

Areas of communication focus

	Ranking
Increasing savings rates	5.2
Plan participation	4.9
Retirement readiness (e.g., income replacement levels)	4.7
Investing (e.g., market activity, use of funds, diversification, market timing)	3.9
Financial wellness	3.0
Fees	2.1
Managing income in retirement	1.5

(7=Most focus. Total ranking is weighted average score.)
Additional categories: Plan design changes driven by 2020 pandemic (1.4); loans (1.1); withdrawals/distributions (1.1); managed account services (0.8); investing strategies driven by 2020 pandemic (0.7); company stock (0.4).

*Multiple responses allowed.

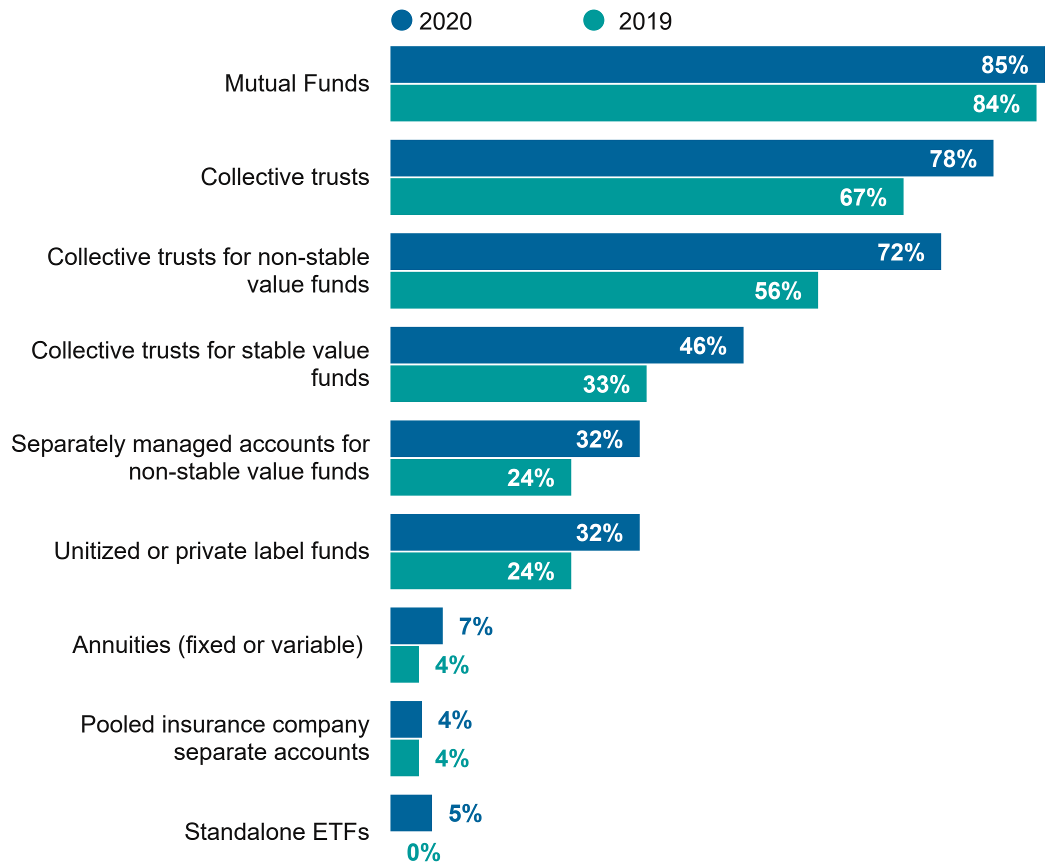
DC Plan Investment Trends: Types of Investment Vehicles

Mutual funds (85.1%) and collective trusts (78.4%) continue to be the most prevalent investment vehicles. Plans are less likely to use collective trusts for stable value funds (45.9%) than non-stable value options (71.6%).

Over the past decade, the use of mutual funds has decreased by nearly 10% while the use of collective trusts has increased by about 25%. In 2020, separate account usage for non-stable value funds increased slightly from 2019 (23.5%).

The proportion of plans using unitized funds increased from 23.5% in 2019 to 32.4% in 2020. The majority of plans that use unitized funds (95.8%) have over $1 billion in assets.

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).

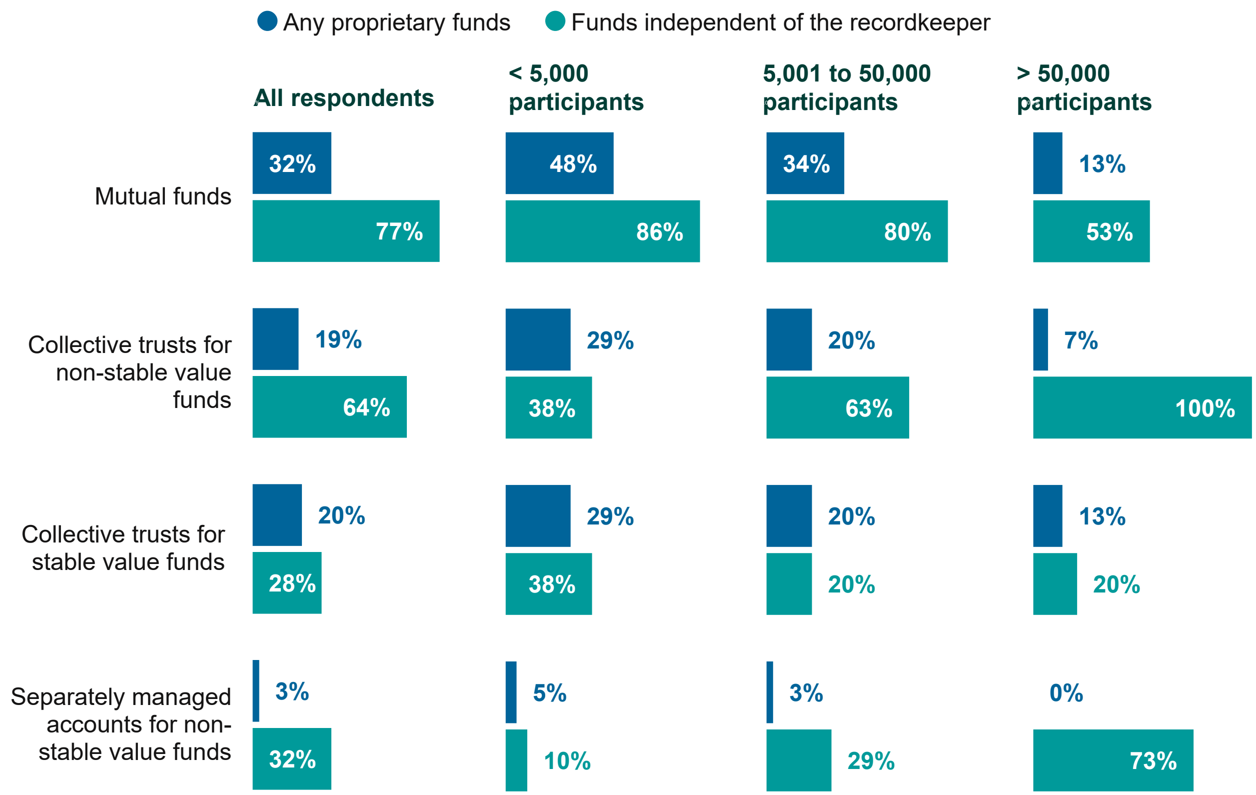
DC Plan Investment Trends: Recordkeeper's Investment Vehicles

While it is commonplace for DC plans to include a fund that is proprietary to the plan's recordkeeper, it becomes significantly less common as the number of plan participants increases.

All plans with more than 5,000 participants offer funds that are independent of the recordkeeper; 9 in 10 plans with fewer than 5,000 participants offer independent funds.

Plans with more participants are more likely to use collective trusts. Only 13.3% of the largest plans offer a mutual fund managed by their recordkeeper and few large plans offer proprietary recordkeeper collective trusts for non-stable value funds.

Plans offering proprietary vs. independent investment options



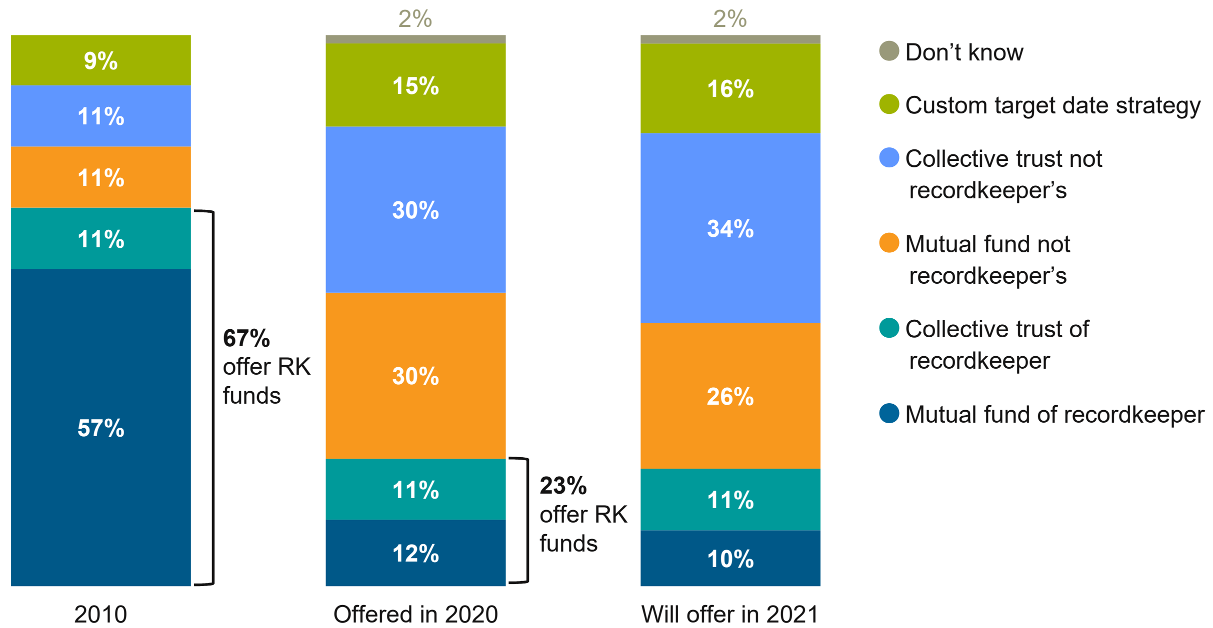
DC Plan Investment Trends: Target Date Fund Approaches

The usage of recordkeeper target date vehicles in DC plans continues to drop over time.

Only 22.7% of respondents used their recordkeeper's target date option in 2020, a sharp decrease from 67.4% from a decade ago. That number is projected to decrease slightly in 2021 to 21.3%.

The prevalence of mutual funds for the target date fund is on the decline, as well. In 2010, 67.4% of plans used a mutual fund for their target date fund compared to 42.4% in 2020.

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



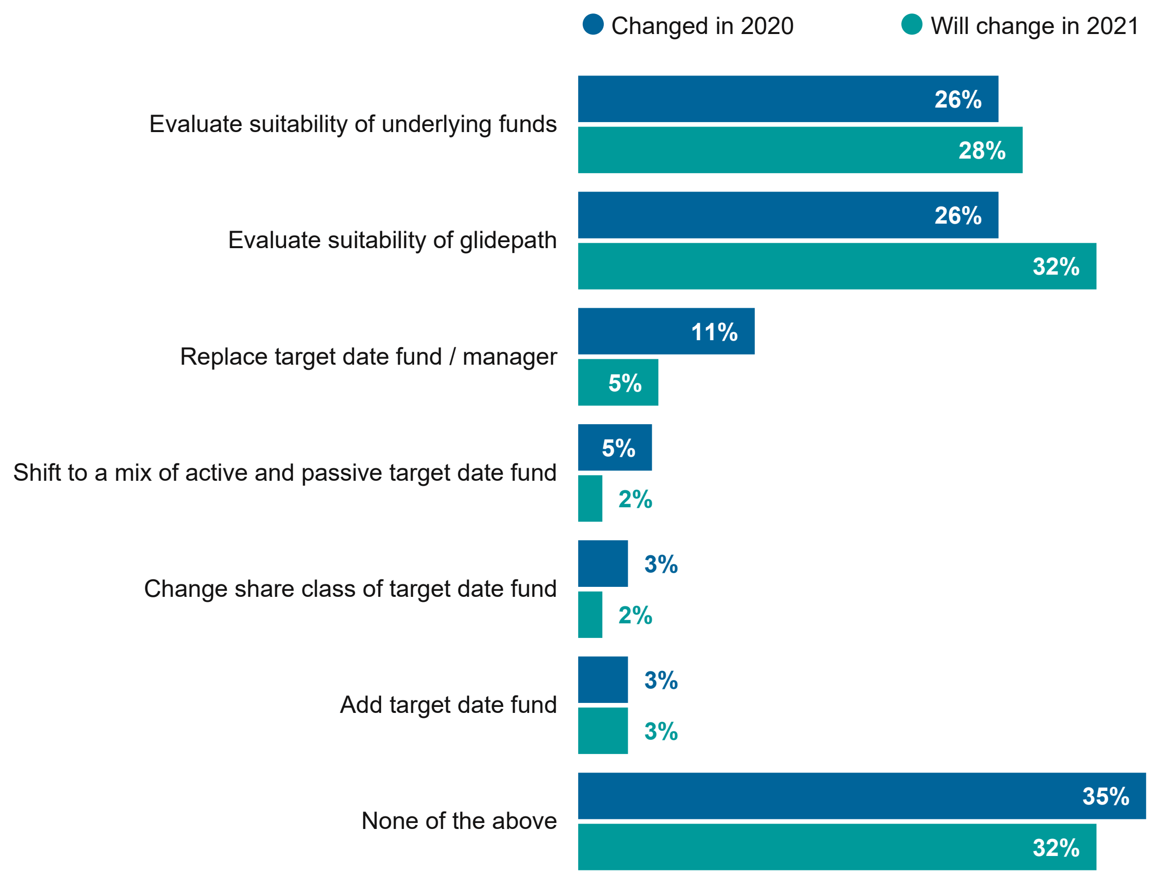
DC Plan Investment Trends: Actions Around Target Date Funds

Most plans took at least one action around the target date fund in 2020 (64.6%). The most common actions were to evaluate the suitability of the underlying funds and the glidepath (26.2% each). A slightly higher percentage of plans aim to accomplish these tasks in 2021.

4 in 10 respondents that reviewed the underlying funds in 2020 also report they would do so in 2021; only two in 10 that reviewed the glidepath will do so both years.

Notably, 15.4% of respondents indicated they were changing the target date fund/manager in either 2020 or 2021.

Actions taken or planning to take regarding target date fund suite*



Additional categories with <2% (2020): Shift to all passive, move to dynamic QDIA, move to target date collective trust, move to custom target date funds, eliminate target date fund.

*Multiple responses allowed.

DC Plan Investment Trends: Managed Accounts and Advice

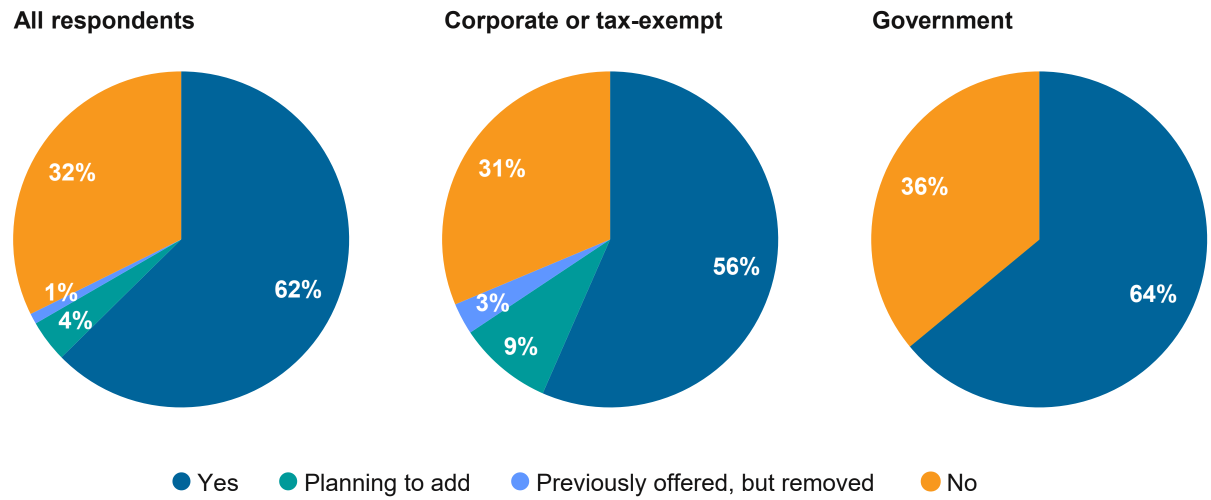
Most DC plan sponsors (62.0%) offer either managed account services or advice to support plan participants.

While the definition of a fiduciary who provides advice has been in flux over the years, advice itself is generally limited to a recommendation on how to manage investments without actually implementing that advice.

One-quarter of respondents indicate they **offer advice only.**

Managed account services are geared toward "do-it-for-me" investors who desire greater personalization. Managed account providers are investment managers under the Employee Retirement Income Security Act (ERISA) section 3(38). They offer independent, third-party advice and implement the portfolio recommendations, with a glidepath, and ongoing rebalancing. In addition, the services include a variety of tools, communication, education, and in-person or phone counseling for participants. **Nearly half of plans report offering managed accounts.**

Offer managed accounts services or advice*



*Managed account products include an advice component.

There are two basic types of fiduciary arrangements for managed account services and advice providers:

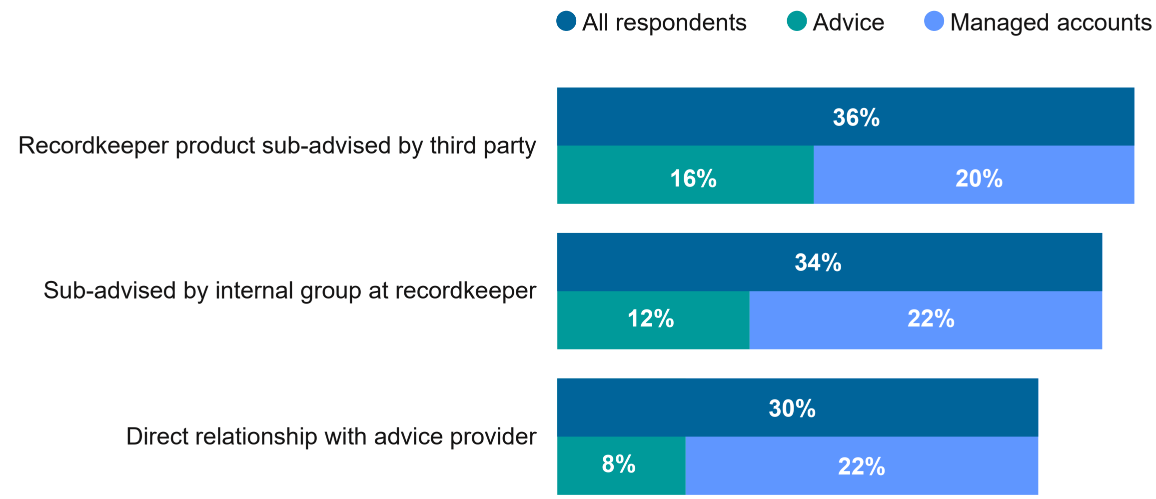
Sub-Advised Relationship
The recordkeeper (or an affiliate) is the adviser and fiduciary; the advice provider serves as a sub-adviser. The communications and call center are supported by the recordkeeper. The recordkeeper sets the fees and pays the advice provider a sub-advisory fee, if applicable.

This relationship is the most common for plan sponsors who include both managed account and advice services (26.5%).

Managed accounts services are most commonly offered through a recordkeeper product, with similar rates for a managed account product powered by an internally (16.2%) or by a separate party (14.7%).

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

Fiduciary relationship of managed accounts services or advice*



*Managed account products include an advice component. Multiple responses allowed.

DC Plan Investment Trends: Anticipated Changes to Company Stock

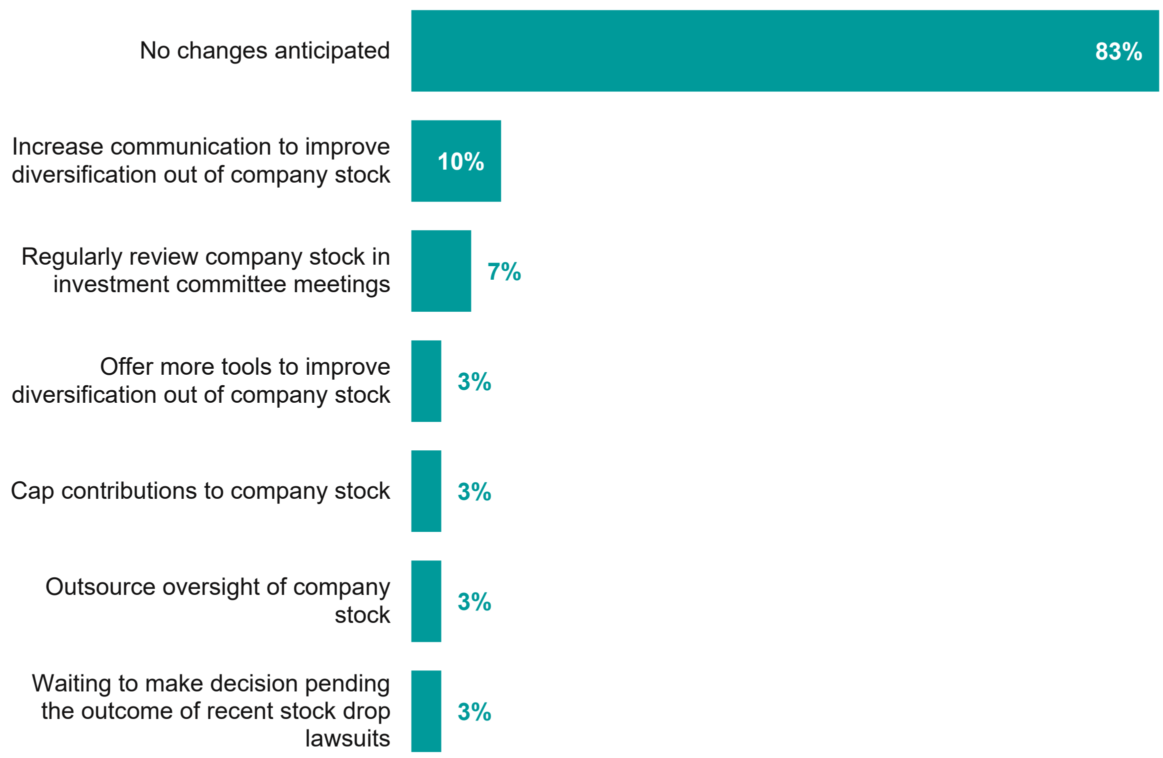
More than 4 in 5 respondents (83.3%) with company stock do not anticipate making changes to their company stock fund in the coming year, which represents a slight increase over prior years (81.8% in 2018, 66.7% in 2016, 72.7% in 2014).

The respondents that are planning changes in 2021 indicate they will take 1 to 2 actions, on average.

Next year, 10.0% of plan sponsors with company stock in the lineup will increase communication around participant diversification away from company stock. Similar to last year's findings, no respondents intend to eliminate company stock in 2021, in contrast to 2.8% in 2016.

Slightly less than one-third of plan sponsors include company stock in the DC plan.

Changes regarding company stock next year*



Additional categories with 0%: Eliminate insiders from investment committee; hardwire company stock into the plan document; freeze company stock; eliminate company stock as a plan option.

*Multiple responses allowed.

Key Findings: Legislation

SECURE Act (Setting Every Community Up for Retirement Enhancement): Uncertainty exists around adoption due in part to competing priorities and limited guidance. These headwinds and relative newness are reflected in the reported implementation.

32%

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

See page 34 for details

Multiple Employer Plan (MEP) / Pooled Employer Plan (PEP) Adoption

76% of DC plans signaled they are **very unlikely** to join an MEP or PEP once they are available

Top Concerns

- 76% Less control over plan administration
- 69% Complexity around administration
- 67% Competitiveness relative to existing plan

See pages 39 & 40 for details

1/3

are unsure if they will add annuities and are waiting for further guidance

See pages 36 & 37 for details

Largest plans' top concerns for MEP / PEP

Limited cost efficiencies

Competitiveness relative to existing plans

See page 40 for details

CARES Act

(Coronavirus Aid, Relief, and Economic Security)

73% adopted coronavirus-related distributions (CRDs)

See page 42 for details

~40%

increased loan maximums

See page 43 for details

63%

of governmental plans offered CRDs

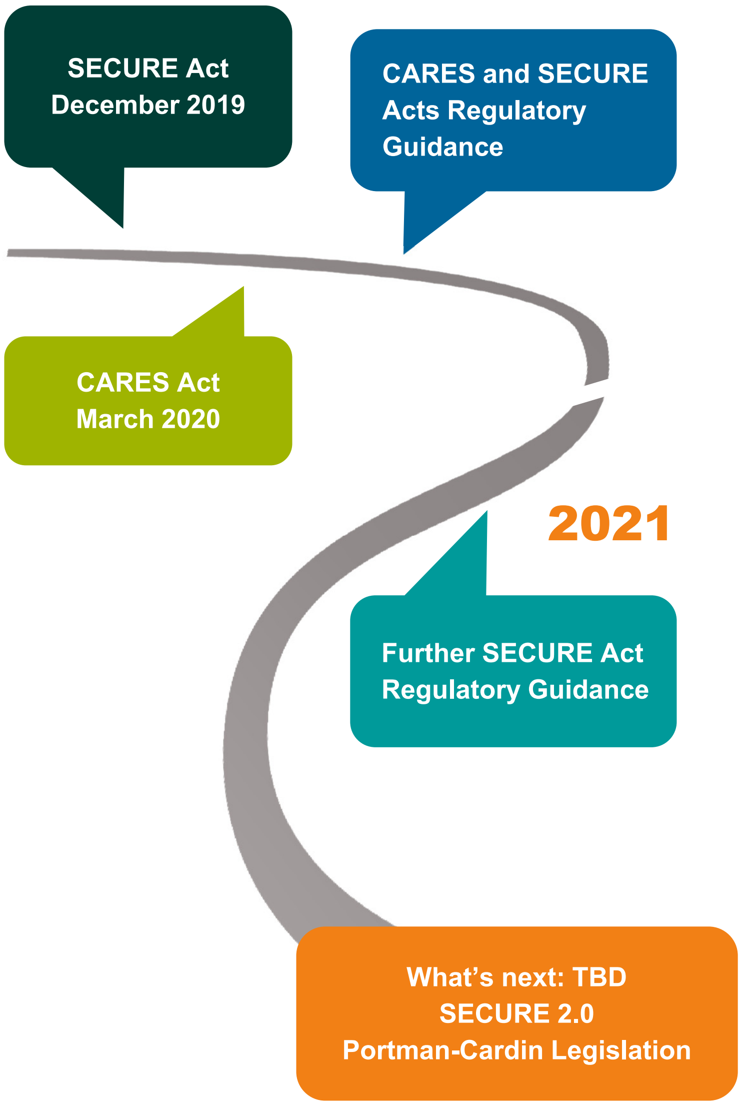
13% **increased loan maximums**

See page 42 & 43 for details

Employers that reported taking a workforce action (e.g., salary reductions, layoffs) were more likely to adopt CARES provisions

See page 46 for details

CARES and SECURE Legislation



Two recent bodies of law impacting retirement—the Setting Every Community Up for Retirement Enhancement (SECURE) Act and Coronavirus Aid, Relief, and Economic Security (CARES) Act—followed widely different paths to enactment with wildly divergent purposes.

The SECURE Act, passed in **December 2019**, was the first major retirement-related legislation enacted since the Pension Protection Act (PPA) in 2006. SECURE represents the culmination of years spent negotiating and revising the bill. Its primary goal was to increase coverage—increasing the deferral cap in certain safe harbor plans, adding the new requirement to let "long-term part-time" employees defer into a 401(k) plan, and devising the new Pooled Employer Plan (PEP) and revised Multiple Employer Plan (MEP) structures, among others. The effective date of those provisions ranges between 2020 and 2024.

In contrast, the CARES Act was introduced to Congress as the second round of federal stimulus on **March 25, 2020**, and passed on **March 27**, with some retirement provisions effective immediately. While SECURE's aim is to expand retirement savings opportunities, CARES' focus is to make retirement assets available to participants with as few barriers as possible.

Both bodies of law included optional and mandatory provisions.

Due to the urgent needs generated by the pandemic for participants, plan sponsors, recordkeepers, and regulators, the implementation of SECURE has been more limited than had been anticipated at the outset of 2020. Instead of pushing through a swath of regulation needed to implement the provisions of SECURE, the Internal Revenue Service (IRS) and Department of Labor (DOL) were sidetracked with the volume of guidance needed to support the immediacy of CARES.

As a part of the *2021 DC Survey*, Callan looked to understand the degree of implementation and where uncertainty remains for both pieces of legislation.

SECURE Act

- A fair amount of uncertainty exists around adoption, in part due to competing priorities and limited guidance.

What you need to know

- Trends in DC plan design are largely driven by regulatory and legislative catalysts (e.g., target date funds, auto features)
- The SECURE Act will likely have significant impacts on DC plans; its rollout was hindered by the pandemic's impact on plan sponsors' organizational priorities and regulatory agencies' priorities

- A modest but notable percentage of automatic enrollment safe harbor plans will increase the cap on deferrals.

Broadening Coverage

- Increases the deferral cap from 10% to 15% in automatic enrollment safe harbor plans
- Expands availability of open MEPs and created PEPs
- Long-term part-time employees must be permitted to make deferrals

- The pool of plan sponsors willing to implement an annuity product is limited, particularly when guidance has not yet been issued on the new safe harbor.

Increases Decumulation Flexibility

- Increases the age to commence required minimum distributions
- Requires annual lifetime income projection disclosures
- Safe harbor for annuity provider selection plus portability

- Certain provisions that are not effective in 2020 or 2021 will still require programming and tracking in the near term (e.g., long-term part-time employee hours counting).

Implementation

- The volume of changes has led recordkeepers and plan sponsors to scramble to update programming, plan documents, tax withholding and reporting, required notices, communications, forms, and SPDs
- A number of provisions are still awaiting further clarification/guidance

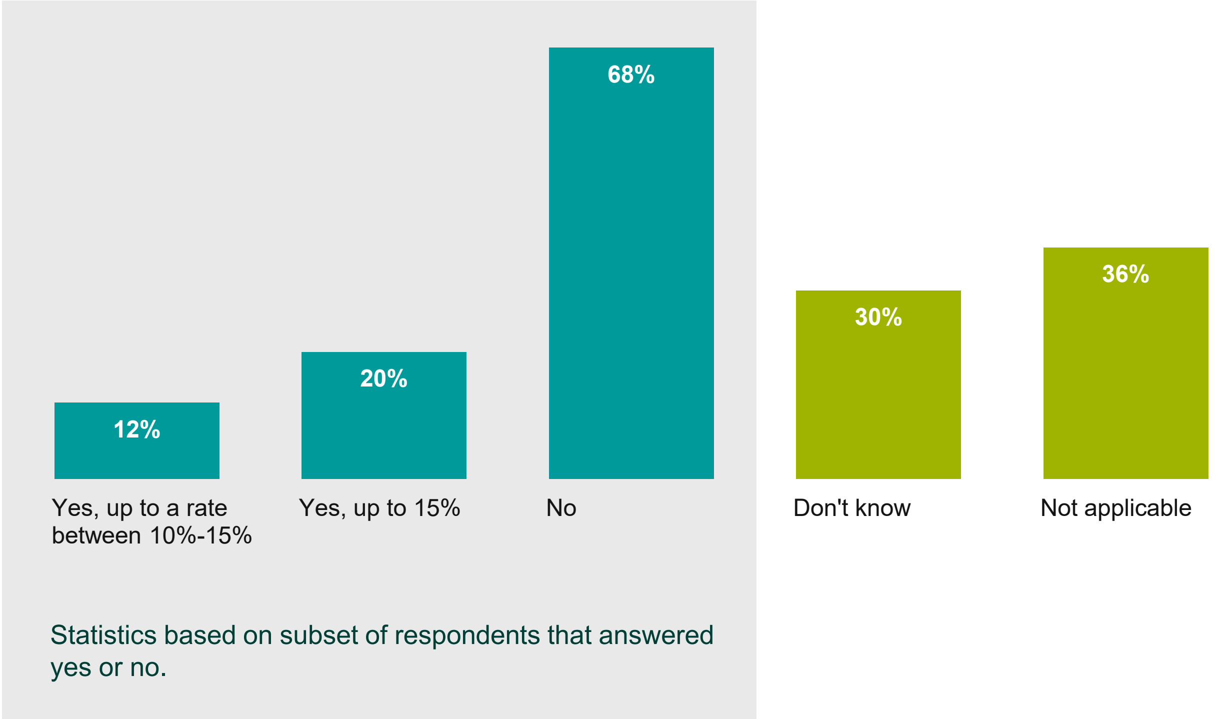
SECURE Act: Encouraging Retirement Savings

The SECURE Act, passed in December 2019, 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 (PPA).

Only 24.1% of the total survey respondent pool currently utilize this plan design feature. Remarkably, 20% of the plan sponsors that have a QACA indicate they will increase the automatic escalation cap to 15% and another 12% indicated that they would increase the cap between 10% and 15%.

While 68% 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.

Have or will increase automatic escalation cap in QACAs



32% of plan sponsors with a QACA will **increase their automatic escalation rate** as a result of SECURE Act.

SECURE Act: Encouraging Retirement Savings

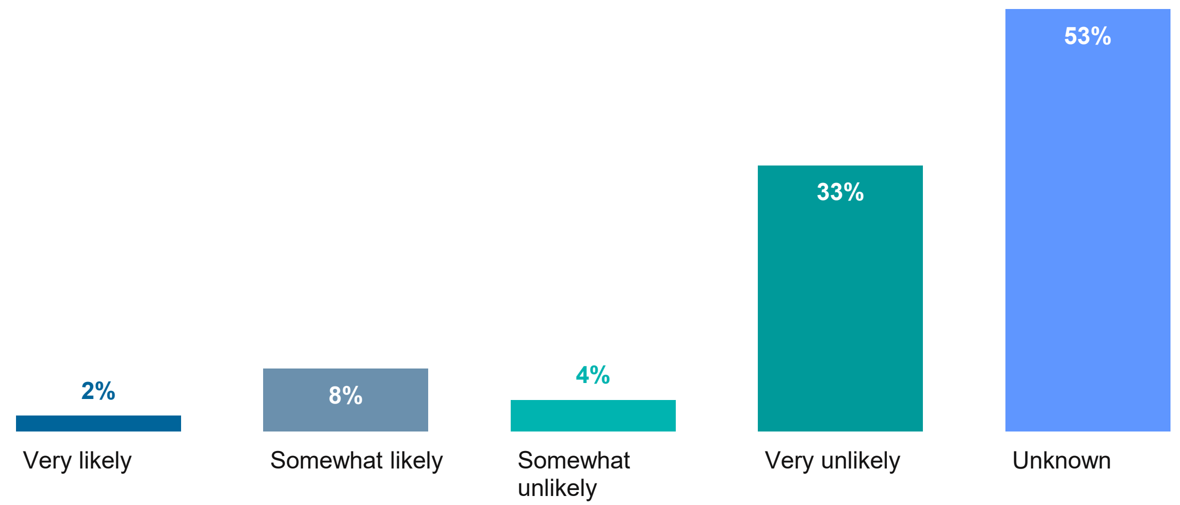
A safe harbor plan design can eliminate the burden and consequences of nondiscrimination testing. Testing failures are generally corrected by refunding excess amounts from the plan or making additional contributions to lower-paid employees.

Historically the safe harbor contribution had to be communicated to participants at least 30 days prior to the plan year, leaving plan sponsors with limited options to address testing issues in the current year. The SECURE Act changes that timing and allows plan sponsors to add a safe harbor non-elective contribution prior to year-end (3% employer contribution) or prior to the end of the next tax year (4% employer contribution).

Very few respondents indicate that they are very or somewhat likely to add a safe harbor non-elective contribution at some point in the future. Most respondents are uncertain if they would utilize it in the future. The uptake of this option will likely evolve over time.

More than half of respondents **are uncertain** if they would take advantage of the more flexible **safe harbor plan**.

Willing to adopt a safe harbor non-elective contribution after the beginning of the plan year



SECURE Act: In-Plan Annuity Safe Harbor

Plan sponsors cited several reasons why they are unlikely to offer an annuity-type product in Callan's *2020 DC Survey*, such as being uncomfortable or unclear about the fiduciary implications, and viewing an annuity-type product as unnecessary or not a priority. Respondents also indicated that a lack of participant need or demand, concern over insurer risk, and concern over cost drove the decision to not offer these products.

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

In the past three years of survey data, between 5% and 10% of respondents indicated that they currently offered an annuity product. This year 7% of respondents indicated they offer an annuity option (3% of government respondents, 3% of the tax-exempt employers, and 4% corporate).

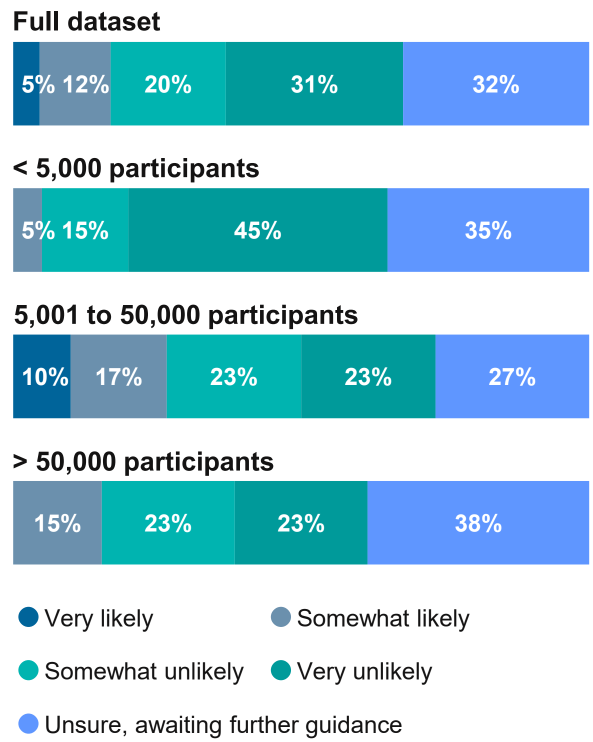
17% of respondents indicated they are very or somewhat likely to **add an annuity option** following the SECURE Act. Mid-sized plans (5,000-50,000 participants) expressed the most willingness to add an annuity.

Reasons for not offering an annuity-type product (*2020 DC Survey*)

	Ranking
Uncomfortable/unclear about fiduciary implications	3.6
Unnecessary or not a priority	3.4
No participant need or demand	3.2
Concerned about insurer risk	3.0
Too costly to plan sponsors/participants	2.3
Difficult to communicate to participants	2.1
Uncomfortable with available products	2.1
Too administratively complex	2.0
Availability of DB plan	2.0
Products are not portable	1.8
Lack of product knowledge	1.5
Recordkeeper will not support this product	1.1

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

Willingness to add an annuity option following SECURE



SECURE Act: Annuity Portability

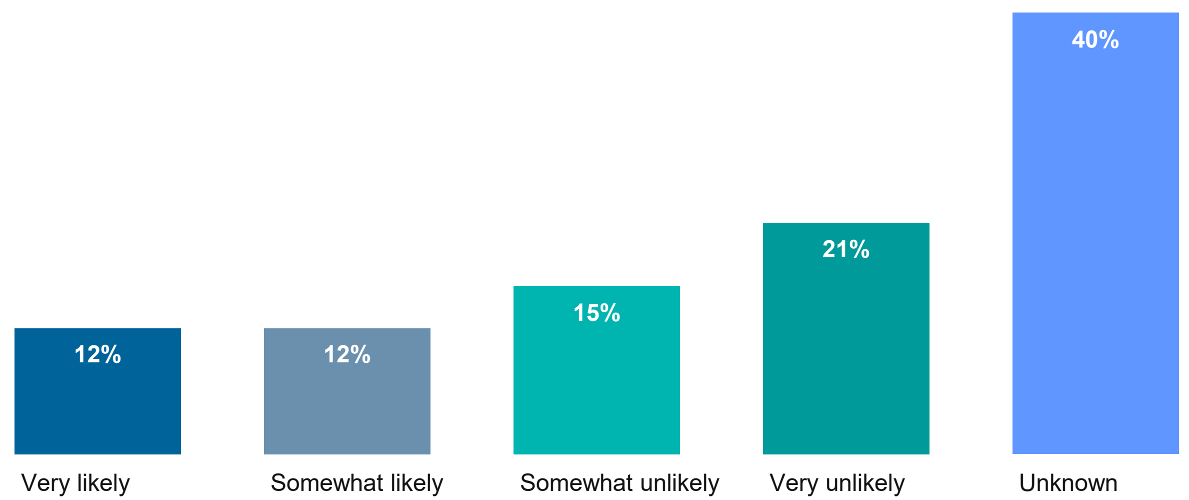
Until the SECURE Act, DC plans that allowed investment in a lifetime income investment faced a dilemma if they wished to remove the product from the plan or move to a new recordkeeping platform that did not support the product.

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. Distributions must occur within a limited time frame (no earlier than 90 days prior to the lifetime income investment being removed).

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. It allows plan sponsors to consider in-plan annuities or a guaranteed product without having their hands tied should they elect to remove the option or change to a different recordkeeper in the future.

Given the forward-looking nature of this feature, usage is difficult to gauge at this point.

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



SECURE Act: New Withdrawal Types

Birth/Adoption Withdrawals

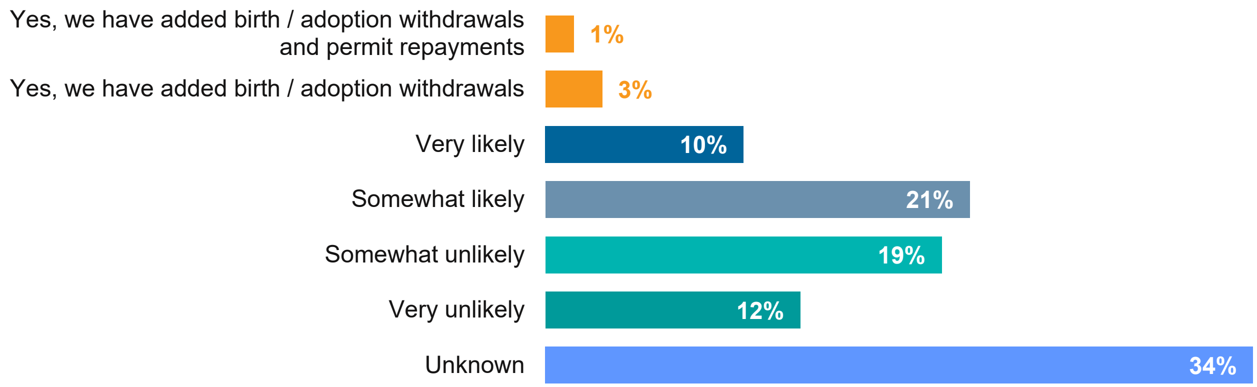
SECURE allows parents to take early withdrawals of up to $5,000 per child from their retirement accounts within a year of a child's birth or adoption, effective Jan. 1, 2020. These withdrawals are not subject to the 10% excise tax for distributions prior to age 59 ½ or the 20% mandatory withholding. Participants can repay this type of withdrawal to the distributing plan (if it accepts rollover contributions). **Only 4% currently offer birth / adoption withdrawals.**

Qualified Disaster Withdrawals

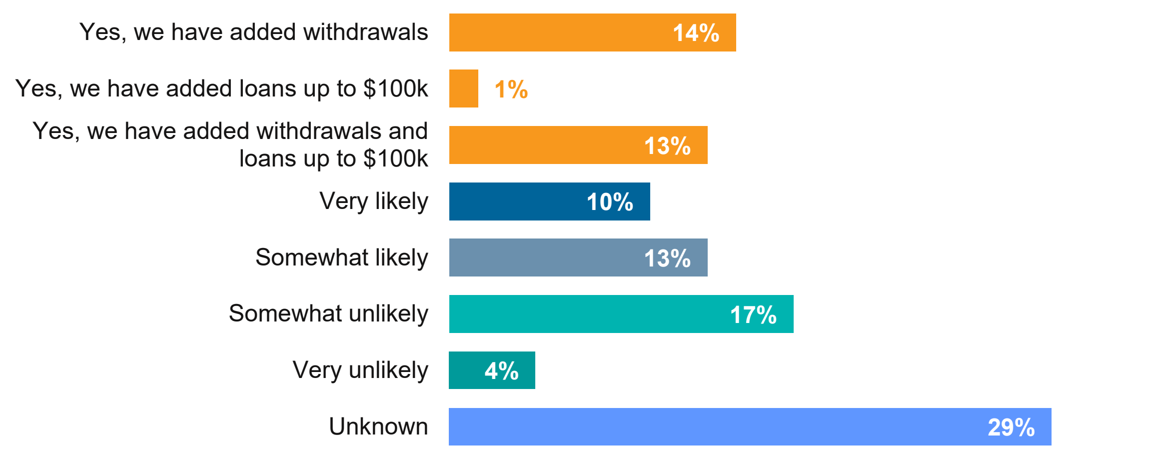
SECURE provides a framework for disaster withdrawals. For nationally declared disasters from Jan. 1, 2018, through Feb. 18, 2020, impacted participants can take a loan or distribution up to $100,000 (with no 10% early withdrawal tax) which can be recontributed within three years. The funds must be taken within 180 days of the enactment of the SECURE Act. Key features of this relief include: (1) extending the loan for an additional year, (2) repayment of hardship withdrawals for home purchases in the disaster area, and (3) the ability to spread taxation over a three-year period.

28% of plan sponsors added either the qualified disaster withdrawals and/or loans.

Birth or adoption withdrawals



Withdrawal or loan option for expenses associated with a "qualified disaster"



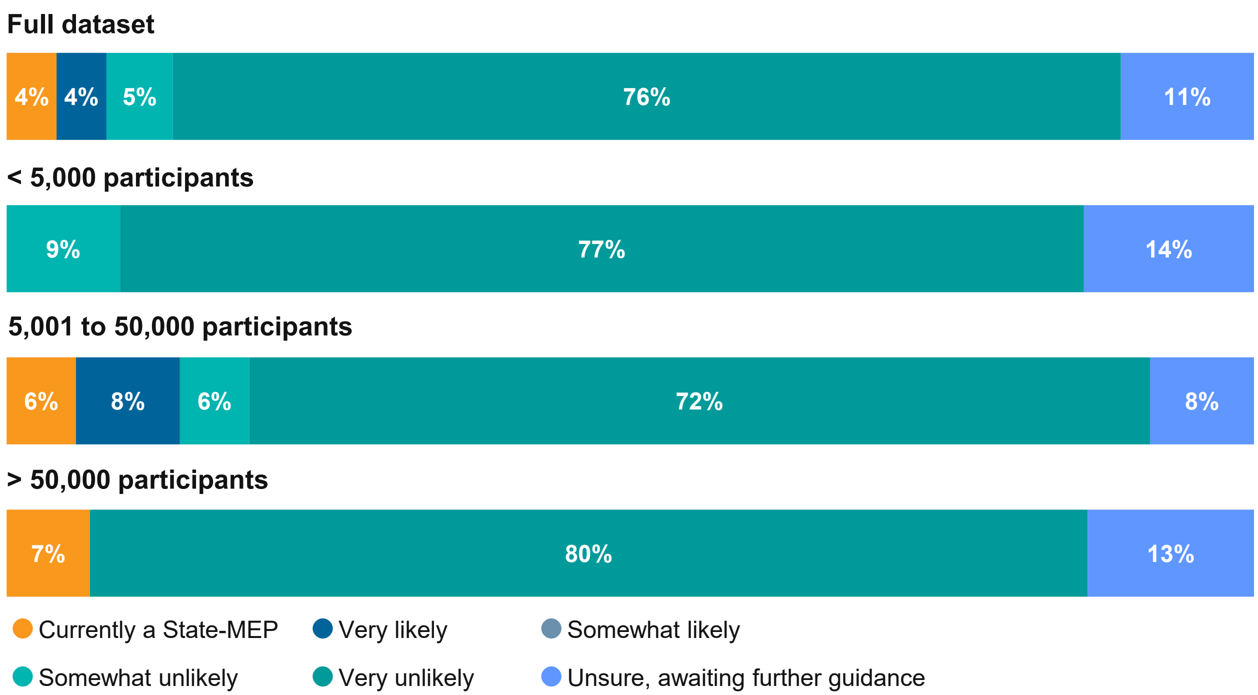
SECURE Act: MEP / PEP Adoption

SECURE paves the way to expand open MEP usage by removing the need for participating employers to 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 PEPs, 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. These new plan types are available beginning January 1, 2021. To date very little guidance has been issued around them. 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



Most respondents signaled they are **very unlikely to join an MEP or PEP** (76.0%). Only 4.0% of respondents are very likely to participate in these plan types. No respondents are somewhat likely to join and just 5.3% are somewhat unlikely, while 10.7% are awaiting further guidance.

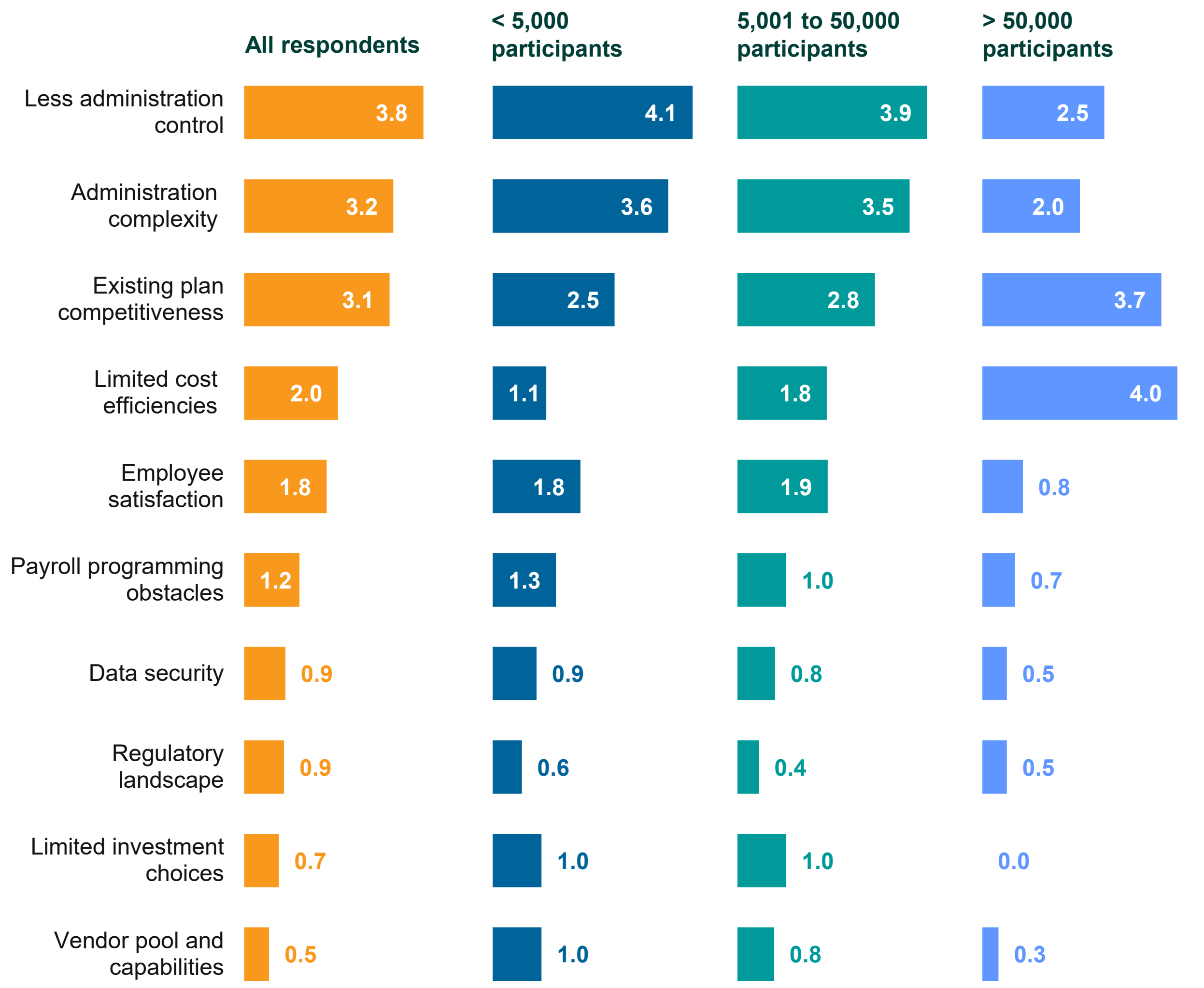
SECURE Act: MEP / PEP Concerns

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: 75.6% of respondents identified less control over plan administration as a concern (3.8 weighted rating out of 5). Administration complexity was cited by 68.9% of respondents (3.2). Competitiveness relative to the existing plan was a concern for 66.7% of respondents (3.2).

Plan size affects top concerns. **The largest plans flagged limited cost efficiencies** first (due to efficiencies in the current plan), followed by **competitiveness** relative to the existing plan. The largest plans are the least likely to participate in an MEP or PEP.

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



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

The Coronavirus Aid, Relief, and Economic Security (CARES) Act

- Respondents implemented an average of 2.3 CARES provisions
- Governmental plans reported the lowest uptake of CARES options

What you need to know

The CARES Act is Federal economic stimulus passed to address the economic tremors stemming from the coronavirus pandemic. The legislation provided multiple forms of financial relief for individuals, including access to retirement savings.

- Only 33.8% of DC plans allowed Required Minimum Distributions (RMDs) to be repaid to the plan, the lowest of any of the CARES Act provisions addressed in this survey

Lmited Access

– Access to liberalized loan and distribution availability is limited to certain DC plan participants ("qualified individuals")

– Certain provisions are optional while others appear to be mandatory

- Coronavirus-related distributions (CRDs) were the most common provision adopted (73.2%), a 40% increase in adoption relative to Callan's April 2020 CARES Flash Survey* (52.4%)

Increases Access to DC Plan Monies

– Provides access to deferrals while employed by the plan sponsor

– Permits special distributions of up to $100k for qualified individuals

– Waives required minimum distributions due in 2020

- Only 42.3% of plans adopted the higher loan maximums; this is a 1.0% increase from the April CARES survey

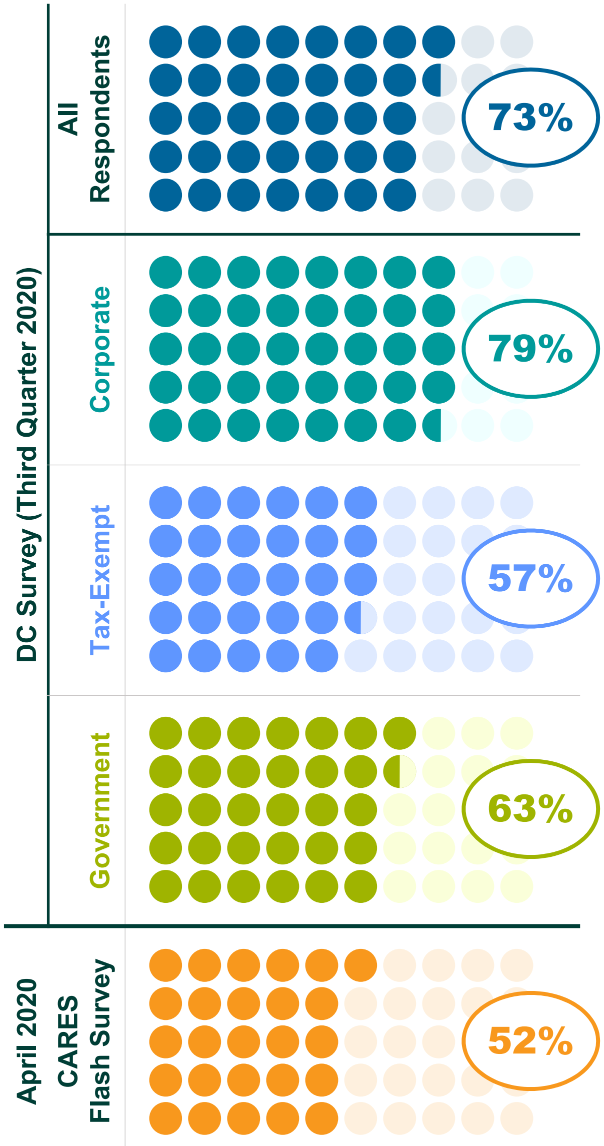
Liberalized Loan Options

– Loan maximums were expanded

– Loan repayments and defaults were delayed

*https://www.callan.com/blog-archive/dc-plans-cares-survey/

CARES Act: Coronavirus-Related Distributions



Coronavirus-Related Distributions

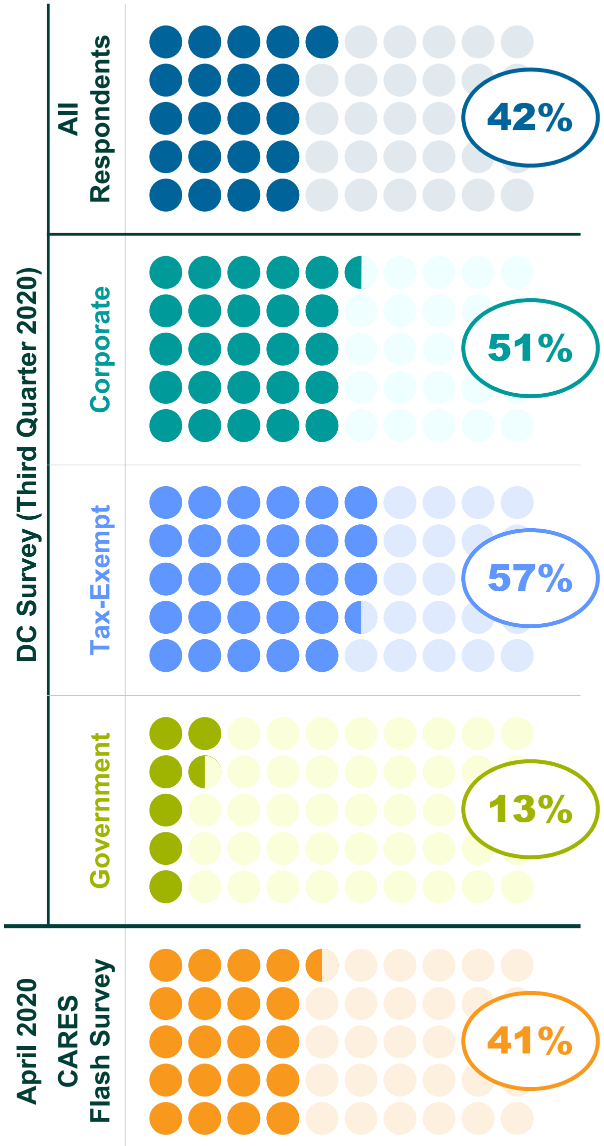
Although the CARES Act liberalized distribution and loan provisions, it also recognizes that DC plan monies are intended to support retirement needs and thus limits access to these loans and distributions to certain employees impacted by the pandemic.

CARES established coronavirus-related distributions for qualified individuals. Normally employees are not permitted to take withdrawals of their deferrals prior to attaining age 59½ or while employed with the plan sponsor. This limitation was waived for CRDs taken in 2020. The total amount of CRDs an individual takes cannot exceed $100,000 in a taxable year, across plans and employers.

CRDs were also spared the 10% additional tax for early distributions and mandatory withholding. Unless the taxpayer elects otherwise, any amount included in gross income due to a CRD will be spread ratably over a three-year period. Additionally, a qualified individual can repay a CRD as a rollover contribution within three years of taking the distribution.

CRDs were the most common CARES Act provision to be added to DC plans (73.2%) when this survey was conducted in October 2020. This is consistent with the findings from our April CARES survey, when 52.4% of respondents had adopted CRDs.

CARES Act: Increased Maximum Loan Amount



Increased Maximum Loan Adoption

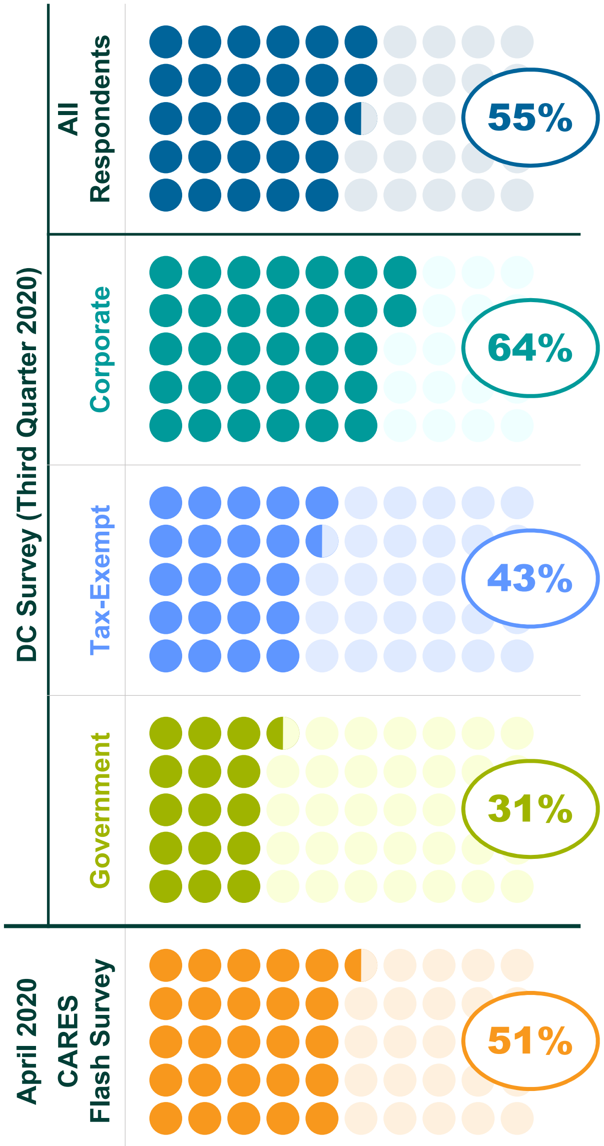
The CARES Act looked to support qualified individuals' immediate financial needs by increasing the maximum available loan from a DC plan. Pre-CARES, the maximum amount available for a DC plan loan is the lesser of $50,000 or 50% of the vested account balance.

CARES increased the maximum amount available to the lesser of $100,000 or 100% of the vested balance. These loans were available only for qualified individuals between March 27 and September 22, 2020.

Slightly more than half of corporate or tax-exempt respondents indicated that they had increased the maximum available loan amount. This is an approximate 10% increase from our April CARES survey, which did not include governmental DC plans. Nearly 21% of respondents in the *2021 DC Survey* sponsor a governmental DC plan, which depressed the overall adoption of rate. Government plans are generally guided by statute and making a complicated change to the loans for a relatively short time period may have had limited appeal. While 63% of governmental plans offered CRDs, only 13% offered increased loan maximums.

Due to the abbreviated period between drafting the bill and the effective date, this provision was difficult for some recordkeepers to administer, as their systems are hard-coded to reject loans above the pre-CARES designated maximums. Some recordkeepers would have required manual intervention for some or all of the time period these loans were available. As always, any administrative tasks that require manual intervention should be audited closely.

CARES Act: Loan Repayment Suspensions



Loan Repayment Suspension Adoption

The CARES Act looked to limit the impact of the pandemic and fallout by allowing qualified individuals to suspend DC plan loan repayments and prevent loan defaults.

The maximum term for a general purpose loan is five years. If the DC plan permits, the loan term for the purchase of a primary residence could be longer. If a participant misses a loan repayment and does not make up the payment within the cure period,* the remaining loan is deemed distributed from the DC plan. When this happens, the outstanding loan balance is treated as a distribution and is subject to income tax and the 10% early distribution penalty, if applicable, and reported on Form 1099-R.

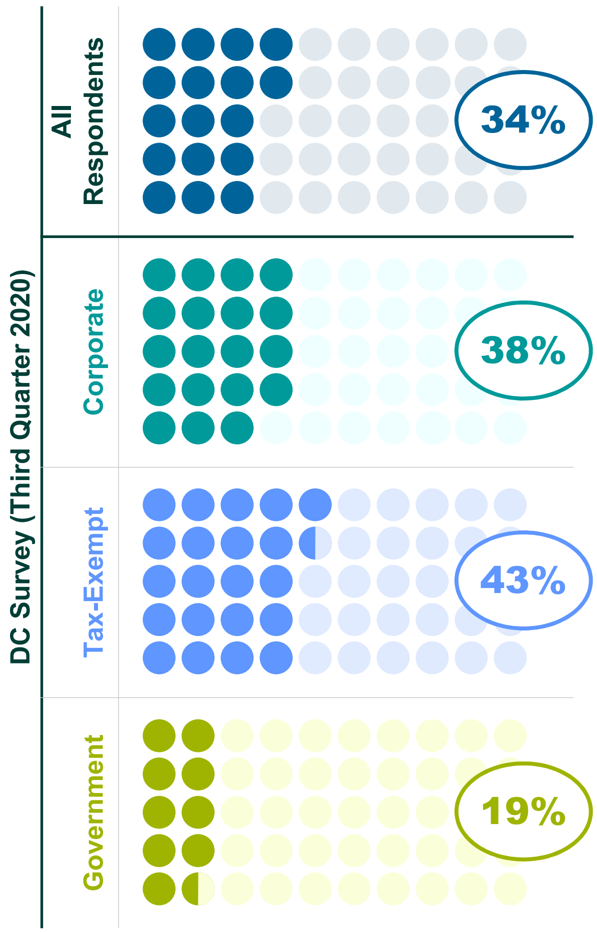
Under the CARES Act, DC plans could allow qualified plan individuals to suspend DC plan loan repayments any time between March 27 and December 31, 2020. The plan may also extend the loan term by up to one year. Repayments must resume in January 2021 and must be adjusted to reflect the new loan term, plus applicable interest.

Missed loan repayments by participants who are not considered qualified individuals will continue to trigger a default.

The changes to the default process for qualified individuals could be problematic to administer, as plan sponsors and recordkeepers would need to identify and track qualified individuals who took advantage of the suspension. Additionally, the responsible parties will also need to re-amortize those loans, document the variation for audit purposes, update loan procedures, and communicate with employees.

*DC plans may (but are not required to) offer a "cure period"

CARES Act: Repay Required Minimum Distributions



Repay Required Minimum Distributions (RMD) Adoption

The RMD provisions of CARES Act and SECURE Act intersected in 2020.

Before 2020, participants were required to take minimum distributions from their retirement accounts once they had reached age of 70.5. Plans could (but were not required to) delay those distributions until the participant had both terminated service and reached age 70.5.

The SECURE Act, passed in December 2019, increased the age to begin RMD from 70.5 to 72. Because of this, DC plan recordkeepers will need to track and maintain two different rules and calculations based on birth date (i.e., participants born before and after 6/30/1949). The initial RMD has to be taken by April 1 following the year in which the participant becomes eligible.

The CARES Act allowed plan participants to waive the RMD paid in 2020. In a down market, delaying these distributions permits participants to continue to invest and recover from the downturn. Because of the timing behind the passage of the CARES Act and the resulting financial turmoil, some participants were forced to take a distribution on or before April 1 at the low point of the market decline.

In June 2020, the IRS issued guidance allowing participants to repay the RMD paid in 2020 by August 31. This may be the simplest aspect of CARES to implement, as a similar waiver was granted in 2009.

Workforce Actions Impact CARES Adoption

As a part of the *2021 DC Survey*, we asked respondents to identify any workforce actions they had taken in 2020. We compared these actions against the CARES' adoption rates.

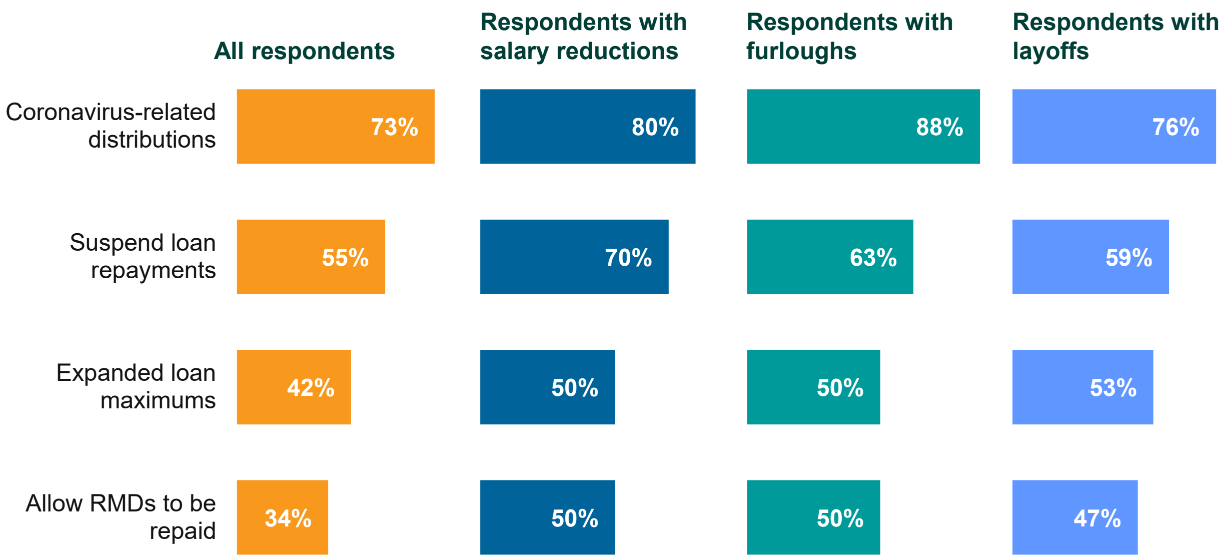
Unsurprisingly, respondents that had undertaken any workforce action were more likely to adopt the CARES Act provisions compared to respondents that did not experience salary reductions, furloughs, or layoffs.

Approximately half of the respondents that had taken any workforce action adopted the provision expanding the loan maximum. Employers that had furloughed employees were more likely than other groups to add the CRD provision (87.5%). Furloughed employees technically remain employed, leaving them with fewer distribution options than a person who is laid off.

Employers that had salary reductions were the most likely to suspend loan repayments (70.0%). Maintaining loan payments could be a burden for employees who had reduced paychecks.

Repaying RMDs is the CARES provision with the lowest adoption by plan sponsors.

CARES Act plan provisions influenced by workforce actions*



*Percentages out of those that had taken a workforce action in 2020. Multiple responses allowed.

Key Findings: Financial Wellness

Financial wellness is an umbrella term covering a myriad of financial concepts that help employees become financially fit and able to act intelligently with respect to their own financial matters in all stages of life.

50%

conducted an internal employee survey

Top financial needs

Retirement savings

Emergency savings

Debt management

See page 51 for details

Most common financial wellness benefits:

Life insurance

Tuition assistance

Critical illness

See page 48 for details

Top reason to offer a financial wellness program

Organizational philosophy to support employees **89%**

See page 50 for details

6.4

(scale of 1-10)

Average program effectiveness

Newer programs reported the lowest satisfaction

Programs with the highest ratings were in place 3 to 6 years

See page 54 for details

14%

offer a standalone financial wellness program

36%

have plans to develop one

See page 49 for details

9 in 10

respondents indicate they get information on financial wellness benefits from their current service providers

See page 53 for details

In response to the pandemic, employers prioritized immediate employee financial needs

See page 56 for details

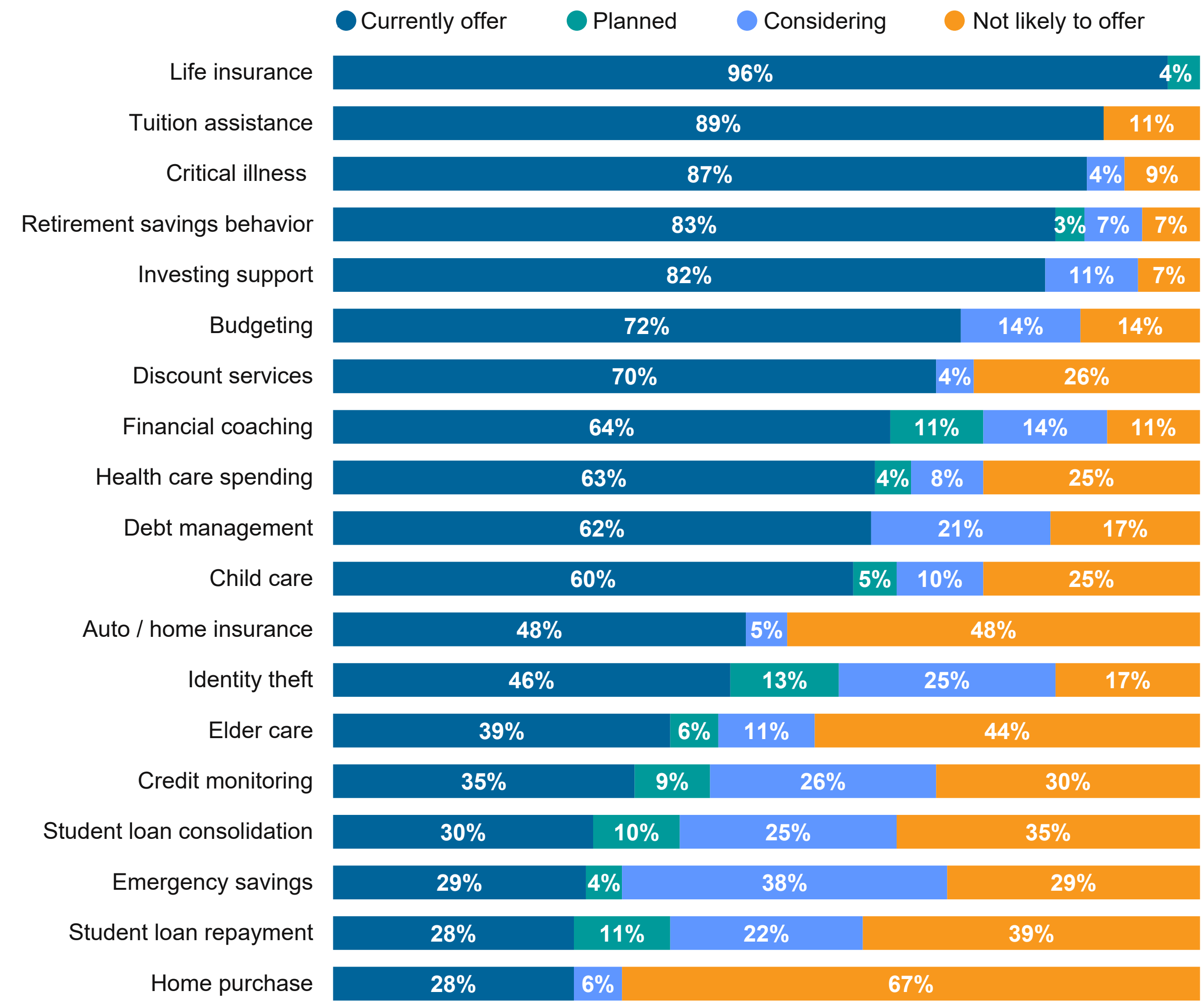
Elements of Financial Wellness

This year's survey introduces new questions around financial wellness themes and programs.

Financial wellness is an umbrella term covering a myriad of financial concepts that help employees become financially fit and able to act intelligently with respect to their own financial matters in all stages of life. The most common types of benefits tend to be traditional benefit programs where regulatory guidance is available. Life insurance, critical illness (leave or long-term care), and tuition assistance are the most prevalent.

Regarding future planned enhancements, the services with the most traction include identity theft, financial coaching, student loan repayment programs, and student loan consolidation support. These programs were becoming more prevalent prior to the 2020 pandemic and financial shocks. Many respondents are considering whether to offer additional financial wellness services such as emergency savings and credit monitoring support in the future.

Financial wellness program services included



Financial Wellness Prevalence

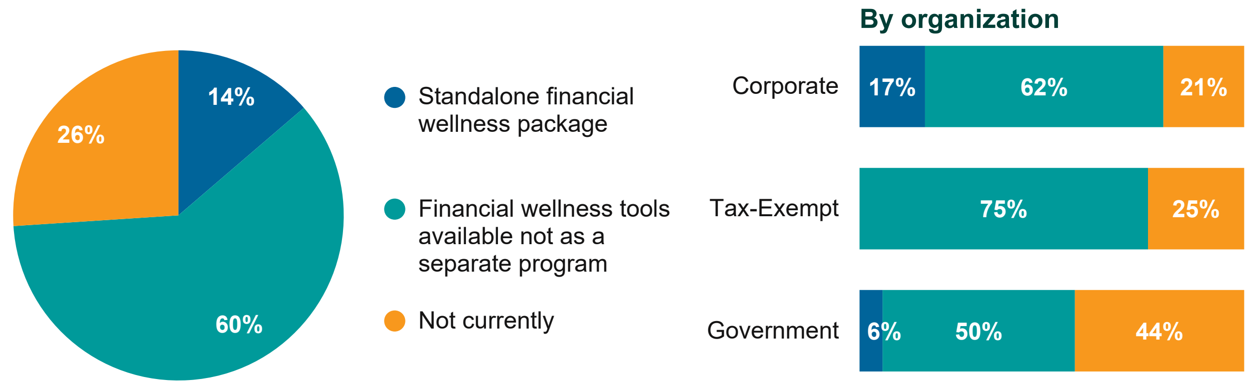
Financial wellness has been a topic of interest for several years, yet most employers do not have a formal standalone financial wellness program. Instead, most respondents provide financial wellness tools in conjunction with other benefits (e.g., retirement or health and welfare benefits). Only 26% do not offer any financial wellness tools.

Corporate plan sponsors are the most likely to offer a standalone financial wellness program (17.0%) and tax-exempt entities are most likely to offer financial wellness tools (75.0%) in conjunction with other benefits. Governmental entities are the least likely to offer a financial wellness program (43.8%).

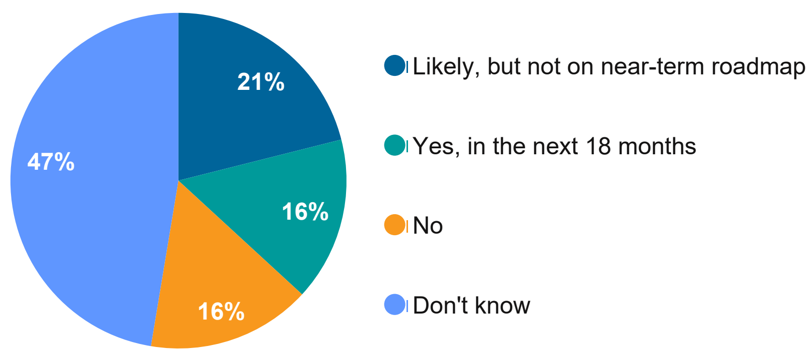
More than one-third of respondents (36.8%) without a financial wellness program are likely to offer a program in the future.

7 in 10 employers offer financial wellness support.

Financial wellness program availability



If none, plans to create a financial wellness program for employees

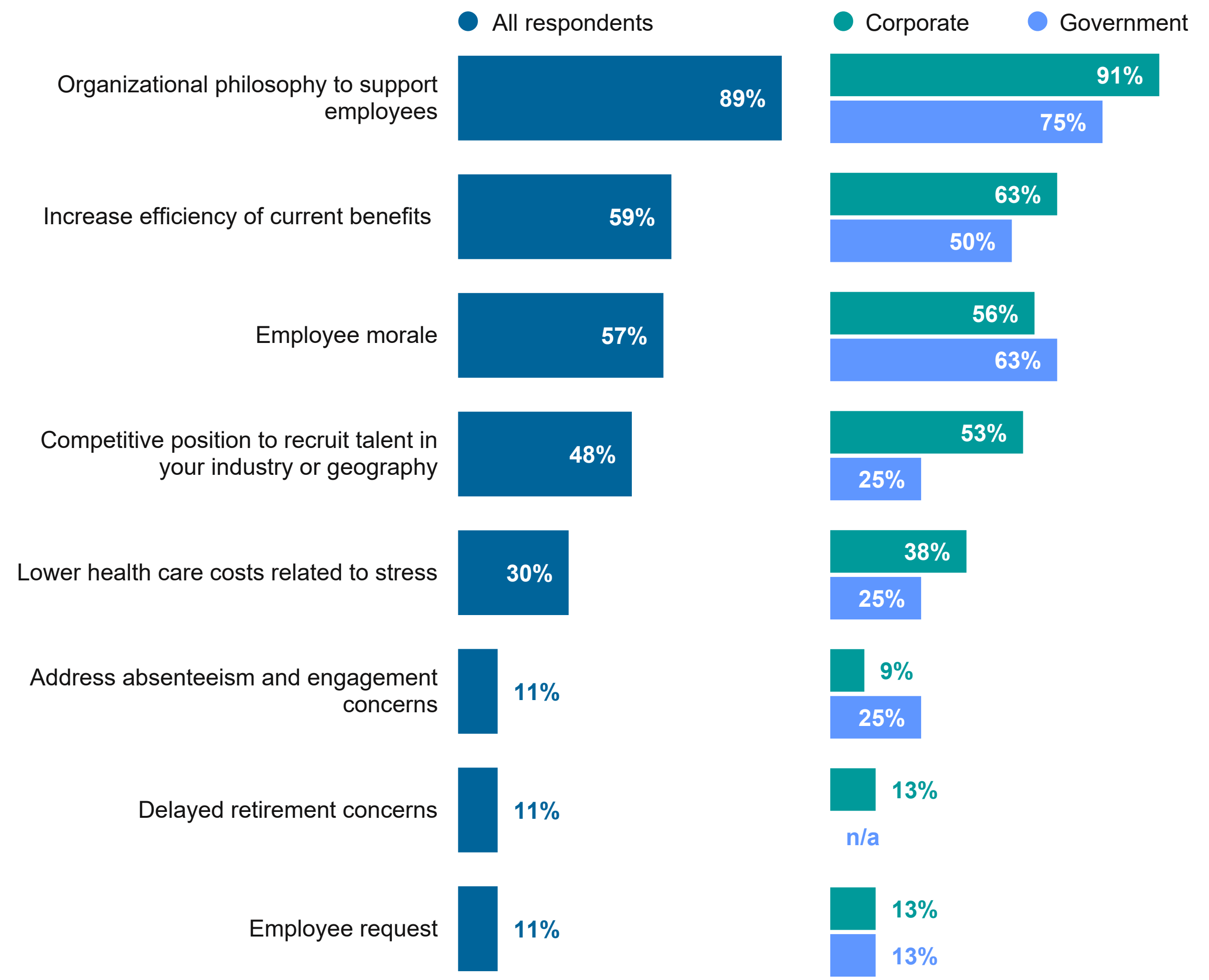


Rationale for Offering Financial Wellness

The top reason plan sponsors offer financial wellness support is due to the organizational philosophy to support employees (89.1%).

A greater percentage of corporate plans (90.6%) cited organizational philosophy than governmental employers (75.0%). Government benefit offerings are often tied to statute. These plans are more likely to cite employee morale (62.5%) than corporate plans (56.3%) as a reason to offer financial wellness support.

Reasons for offering financial wellness support to employees*



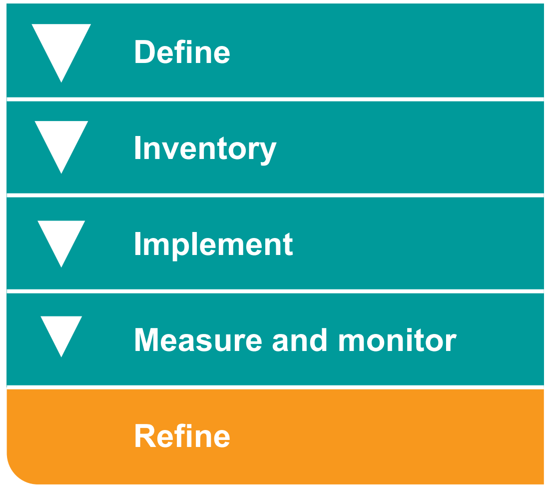
*Multiple responses allowed

Financial Wellness Needs and Objectives

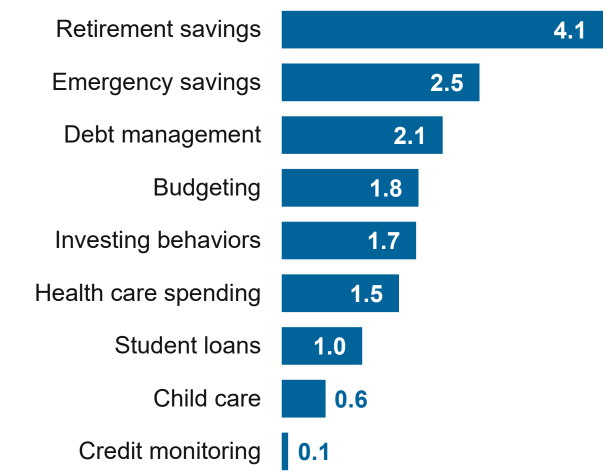
Following these steps can help employers implement financial wellness strategies that meet the needs of their population:

1. Define financial wellness and identify the targeted employee groups (e.g., conduct a survey, solicit feedback).
2. Take inventory of the tools and educational resources already offered by the current service providers (e.g., retirement, health and welfare).
3. Identify providers (e.g., RFP) to support the program, implement services, design a communication campaign introducing the program, and simplify access (e.g., employer's intranet). After the providers have been identified, the employer should implement new services and consider communicating the existing options to support program needs and identify gaps.
4. Measure success metrics and usage statistics.
5. As a newer benefit, employers should review the plan success metrics to understand what works and what may need to be revisited.

3 in 10 report offering financial or non-financial incentives to participate.

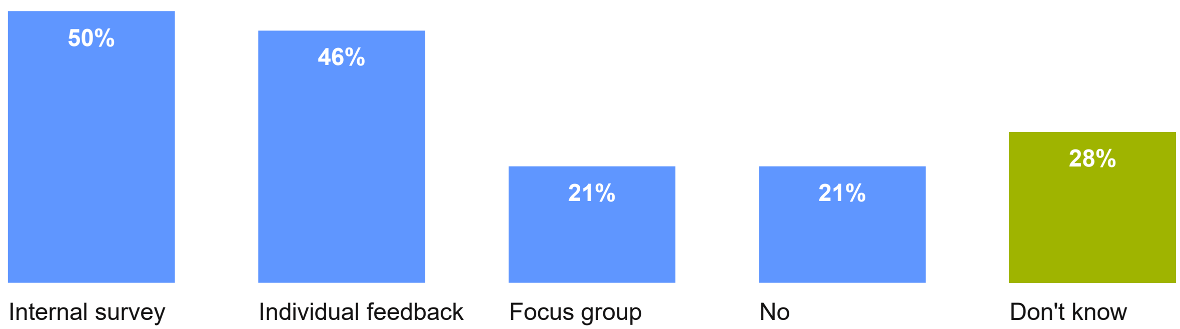


Top financial needs identified



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

Employee feedback solicitation to gauge financial wellness needs*



*Multiple responses allowed.

Financial Wellness Focus and Delivery May Vary by Generation

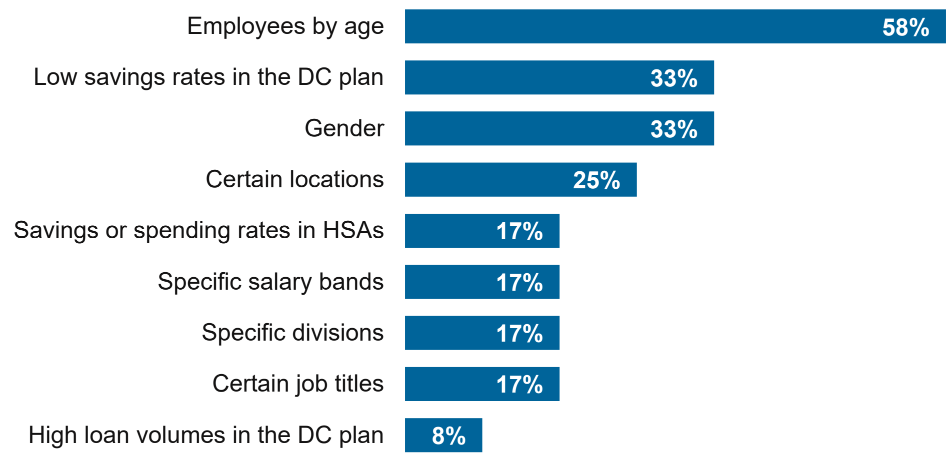
Financial needs change with career stage

Early Career
- Pay off education debt
- Develop a budget
- Build a good credit score
- Evaluate decisions about buying vs. renting/leasing
- Develop a savings and investing plan
- Monies may be invested by the participant

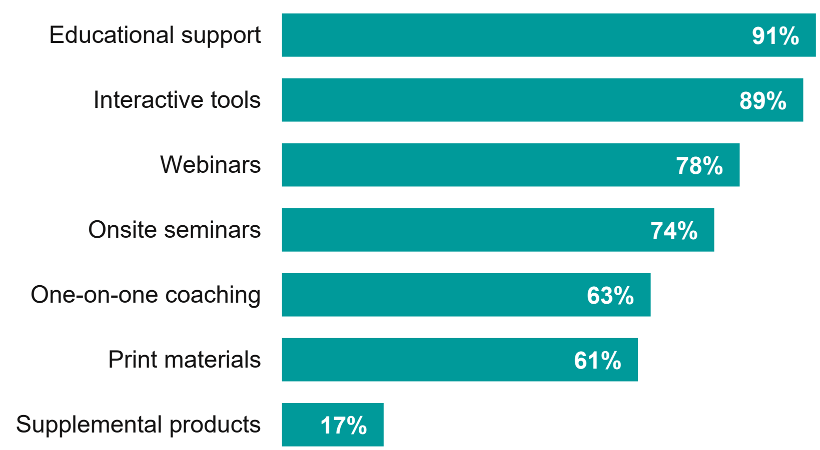
Mid-career
- Funding education expenses
- Develop strategies for saving and investing for retirement
- Maximizing cash flow
- Risk management/insurance planning
- Estate planning
- Caring for elderly parents

Late-career
- Focus on retirement or life after retirement
- Retirement cash flow and distribution planning
- Investing during retirement
- Health care protection
- Social Security and Medicare
- Estate planning

Features tailored to address the needs of specific employee populations*



Financial wellness tools / support offered*



*Multiple responses allowed

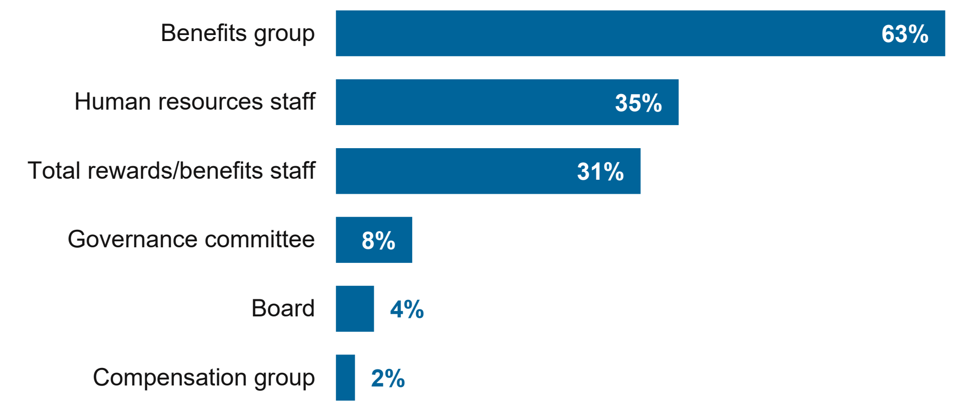
Financial Wellness: Employer Education

The responsibility for designing and monitoring the financial wellness program most often falls within the staff's purview. Unlike most DC plans (and certain health and welfare plans), financial wellness generally does not fall under ERISA and is not tied to specific fiduciary responsibilities. This can pose difficulties in monitoring and supporting these benefits.

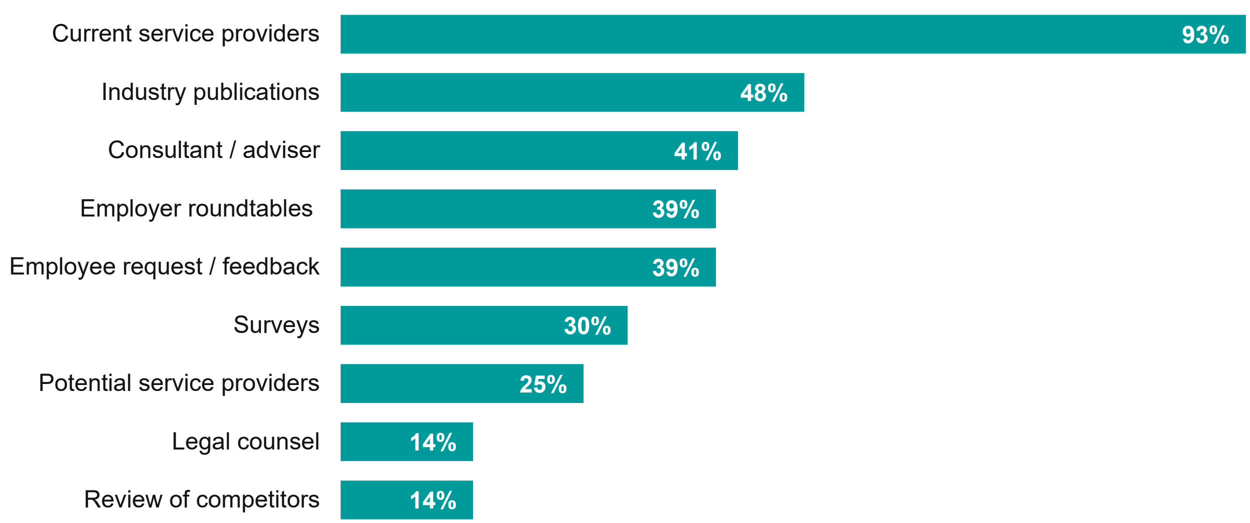
While the two programs (DC and financial wellness) may interact, they are monitored by separate bodies, which can lead to efficiency gaps. DC plan fiduciaries may require regular reporting on the financial wellness program in conjunction with their ongoing monitoring to ensure both programs are operating optimally.

9 in 10 respondents indicate they get information on financial wellness benefits from their current service providers (e.g., retirement or health and welfare). This may create a blind spot, as the providers are most familiar with their own offering and the efficacy of their programs. Many survey respondents supplement the information provided by their current service providers with information from industry publications, consultants, advisers, and other sources.

Responsibility for designing and monitoring the financial wellness program*



Financial wellness benefits information providers*



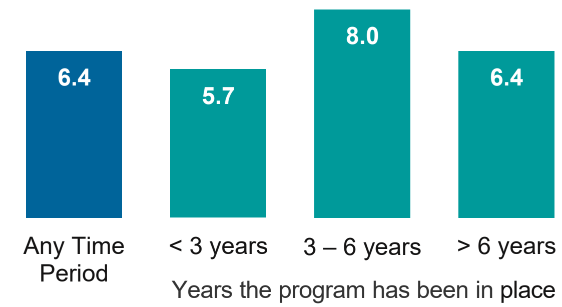
*Multiple responses allowed.

Financial Wellness Effectiveness

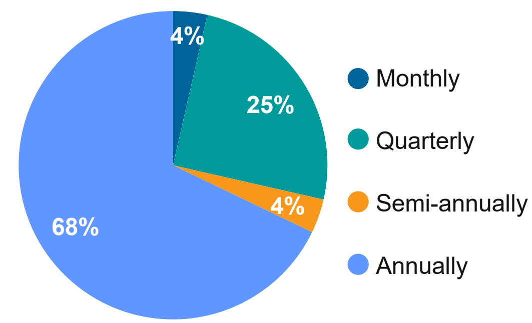
Survey respondents report maintaining a formal financial wellness program for 6 years, on average (median 5 years). They ranked program effectiveness (formal or informal program) at 6.4, on average, on a scale of 1 to 10 (10 = highest). or a median score of 7. Newer programs reported the lowest average effectiveness rate (5.7) while the most mature programs deemed their programs slightly more effective (6.4). The programs that had the highest ratings were those that had been in place between 3 and 6 years, suggesting that programs that have been designed more recently with sufficient time to implement and socialize the programs are the most effective.

Respondents prioritize usage, participant feedback or surveys, and increased engagement to measure financial wellness program success. With the exception of participant feedback, the elements being measured vary based on the self-assessed effectiveness rating. Those that rated their program as highly effective (i.e., 7 or greater "Effectiveness Score") relied on metrics specific to the financial wellness program. Highly rated programs focus on usage (+0.2) and return on investment (+0.4) to measure success, compared to those who rated their program less effective (i.e., less than 7) where there was an outsized focus on cost (+0.8) and impact on DC savings behaviors (+0.6).

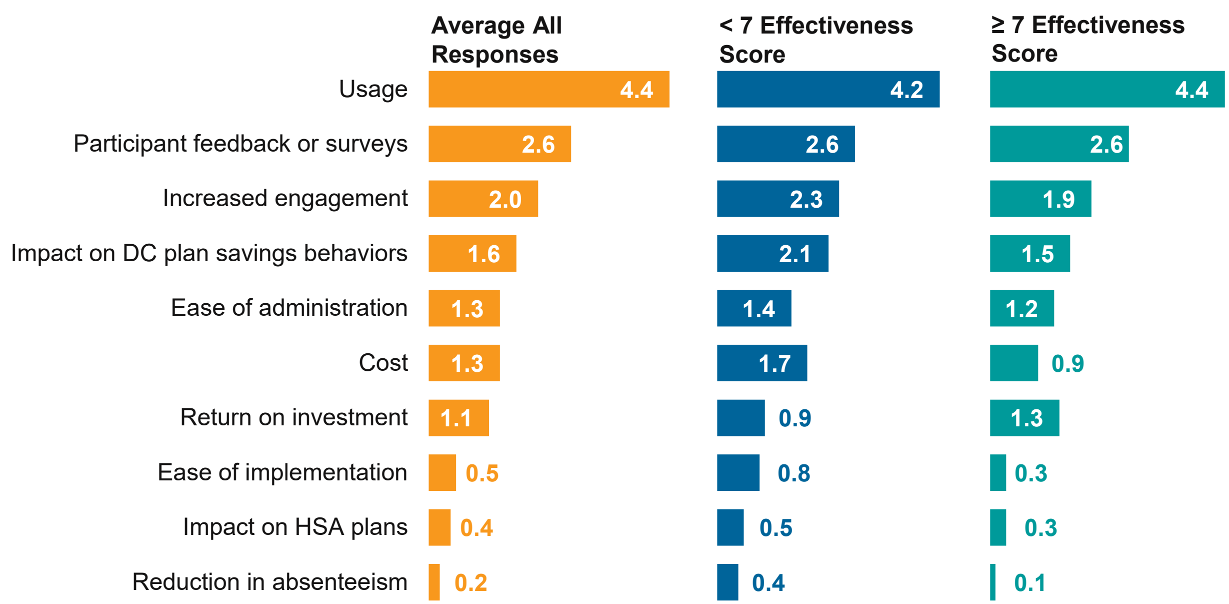
Average reported program effectiveness



Success measurement frequency



Top criteria to gauge success of financial wellness program



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

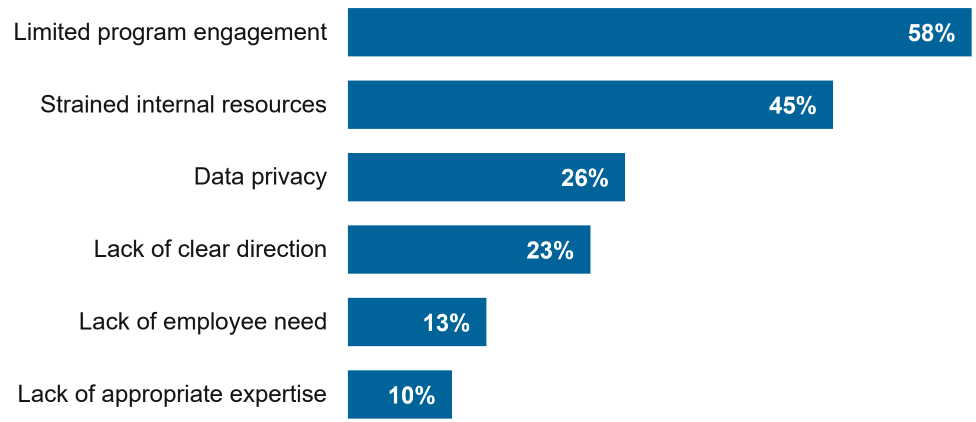
Financial Wellness Concerns

Limited program engagement and strained internal resources are the chief concerns cited by survey respondents around offering financial wellness support for employees. Any additional employee benefits demand attention and resources from both employees and employers.

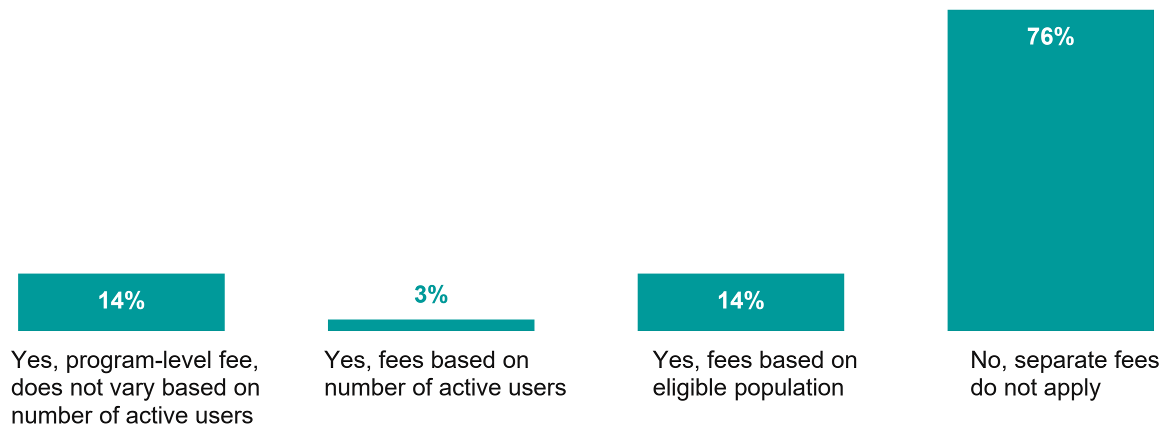
Most programs do not generate additional fees, either for the employer or employee; many of these programs are supported in part or in full by existing vendors. Employees who utilize programs that are supported by a retirement plan vendor may be engaging these benefits for individuals that are not plan participants.

For financial wellness programs with separate fees, **7 in 10** employers pay those fees.

Concerns around offering financial wellness support*



Additional costs for financial wellness program*



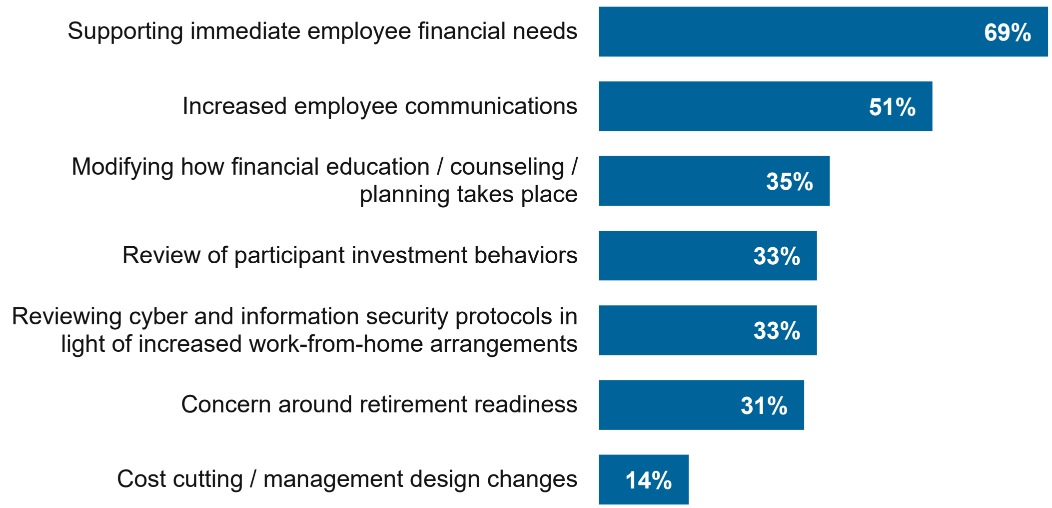
*Multiple responses allowed

Immediate Impact of COVID-19 Pandemic

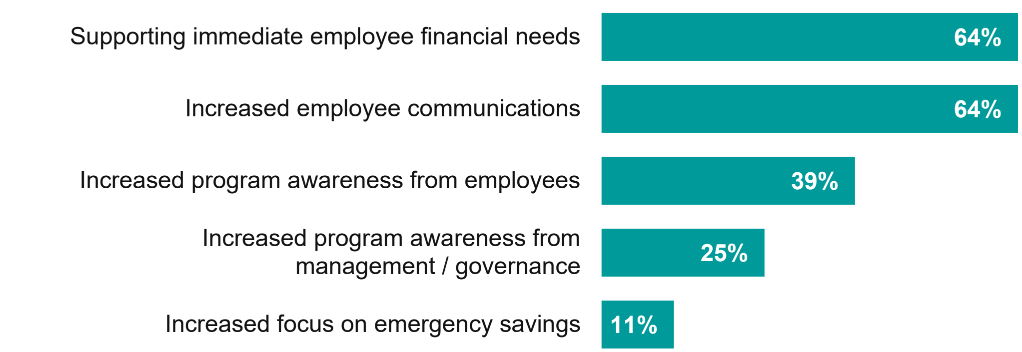
In response to the massive disruptions to multiple facets of daily life wrought by COVID-19, employers prioritized supporting immediate employee financial needs and increased employee communications. These priorities were consistent from both DC plan and financial wellness program perspectives.

DC plans also indicated a greater focus on participant investment behaviors and concern around retirement readiness, as employees have been forced to react in uncertain circumstances.

DC plan priority changes due to the coronavirus pandemic*



Financial wellness priority changes in response to the coronavirus pandemic*



*Multiple responses allowed.

Key Findings: Health Savings Accounts

A **Health Savings Account** is a special-purpose account owned by an individual employee. Contributions are made on a pre-tax basis. Any withdrawals for medical expenses are tax-free and non-medical withdrawals after age 65 are taxed as regular income.

65%
offer an HSA
See page 59 for details

Participation and Cost tied for top concerns
53%
See page 63 for details

Savings rates were monitored in
35% of **HSAs**
and **90%** of **DC plans**
See page 63 for details

HSAs are tax-advantaged at the time of deferral and distribution
See page 58 for details

Prevalence of HSAs for those with a DC plan only
58%

44%
with a closed DB plan

19%
with an open DB plan
See page 59 for details

22%
Bundle HSA and DC services
See page 61 for details

Only 17% of sponsors select the HSA provider ***and*** take on the additional responsibility of selecting and monitoring underlying investments

10% offer a DC plan investment menu mirror in the HSA
6% are planning to offer an investment menu mirror
See page 61 for details

The benefits committee has oversight over the HSA program
6 in 10
See page 60 for details

Health Savings Accounts

This year's survey introduces a review of Health Savings Accounts (HSAs). An HSA is a special-purpose account owned by an individual employee (unlike a DC plan, where the account is part of a trust or custodial account).

HSAs are considered the most tax-favored savings option because:

1. Contributions to the HSA are tax-deductible.
2. Employee contributions to an HSA via a Section 125 salary reduction arrangement are not subject to FICA.
3. Investment growth and interest are tax-exempt.
4. Withdrawals avoid taxes if they are spent on qualified medical expenditures. If the monies are used for other purposes, the account holder will incur income taxes and, if under age 65, an additional 20% penalty.

Types of Health Spending Accounts

Health Savings Account (HSA)

– Supports both spending and saving
– Only available in conjunction with a High Deductible Health Plan (HDHP)
– Owned by the employee and portable following termination of employment
– Amounts roll over to following year
– May include employee and employer contributions
– Monies may be invested by the participant

Health Reimbursement Account (HRA)

– Supports spending and may offer an opportunity to save
– Owned by employer; if the employee leaves service with the employer, the remaining balance may be forfeited or the employee may be allowed to spend down the balance
– Amounts may be permitted to roll over to following year
– Usually no opportunity to earn interest
– Not limited to HDHPs
– HRA is funded solely by the employer

Flexible Spending Account (FSA)

– Owned by the employer, not portable following termination of employment
– Not limited to HDHP/CDHP
– Monies that are not used by the deadline are forfeited
– Depending on plan rules, users may carry over up to $500 OR use a 2.5-month grace period into the next calendar year

HSA Trends

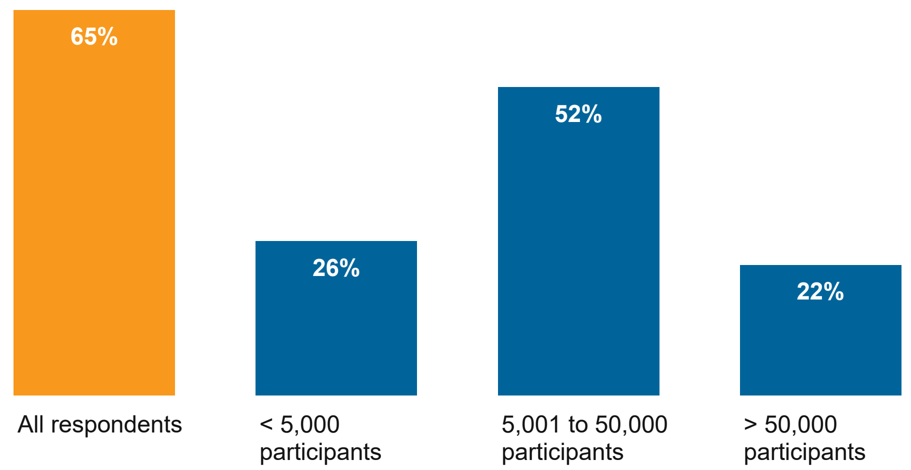
Most DC plan sponsors offer an HSA arrangement.

"Shared Responsibility" Model

Employees share in benefit costs and take responsibility for understanding and planning for their current and future needs, including retirement (e.g., DC plans instead of DB plans) and health care.

Reflecting the shared responsibility benefit trend, we note that employers with a DC plan only are the most likely to offer an HSA (58%). That number decreases for employers with a closed DB plan (44%). In contrast, the prevalence of HSAs drops to 19% for respondents with an open DB plan.

HSA availability



HSA and ERISA and OCIO

Understanding HSAs in the context of ERISA is vital. HSAs are generally *not* subject to ERISA, contingent on the employer's limited involvement with the HSA product. Should the HSA become subject to ERISA, the employer would have to maintain a plan document and summary plan description, and file a Form 5500 with the Department of Labor annually, as well as being subject to the range of ERISA fiduciary responsibilities.

DOL guidance indicates that employers can select an HSA provider, without becoming subject to ERISA, so long as employees have a "reasonable choice" of investment options based on the relevant circumstances.

Outsourcing investment selection for HSA programs is an underutilized option for employers seeking to limit exposure to ERISA, while also providing meaningful access to a curated menu of investments that meet the needs of an HSA holder. It is noteworthy that the parallel savings and spending objectives in an HSA may require other investment options that may not be appropriate for the long-term investment horizon in a DC plan.

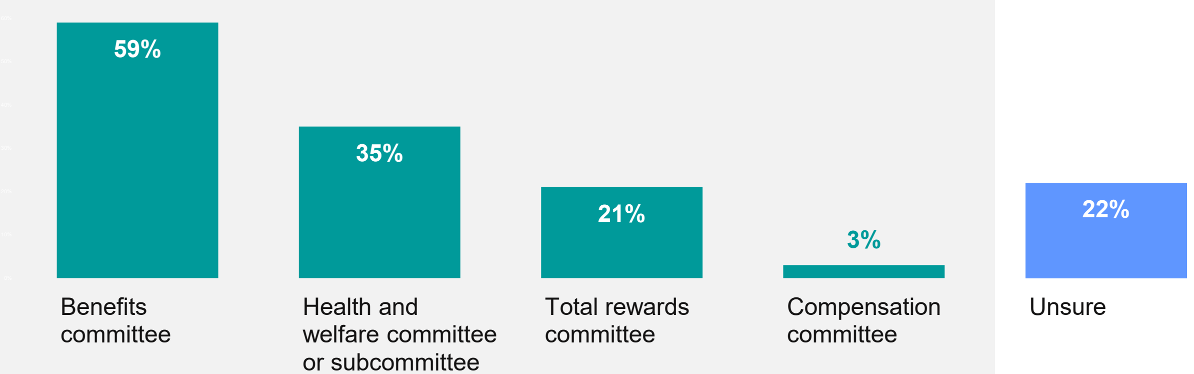
Utilizing a OCIO model would allow plan sponsors to delegate investment decisions to an independent third-party, with the intent of offering best-in-class funds for HSA programs, while limiting the ERISA exposure.

In order to limit ERISA exposure, the employer cannot:

– Make or influence HSA investment decisions.
– Make participation involuntary (i.e., no employee funded automatic enrollment).
– Limit employees' ability to move funds to another HSA or take a distribution.
– Represent the program as a "welfare benefit program."
– Receive compensation from the HSA arrangement (e.g., revenue sharing).

Only **17%** of sponsors select the HSA provider ***and*** take on the additional responsibility to select and monitor underlying investments.

HSA monitoring in governance structure



Statistics based on subset of respondents that identified a governance structure.

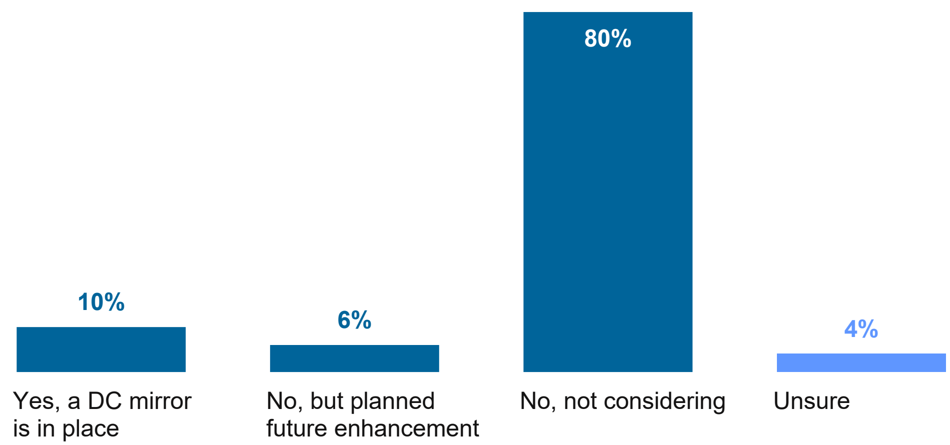
HSA Investment Options

Often, the DC plan and HSA fall under different governance models, which may account for the limited bundling of DC providers. Further, a significant minority report they mirror the DC plan investments in the HSA program and fewer are planning on moving to an investment mirror.

8 in 10 plans are not considering a DC plan mirror for the HSA. This may be in part due to limited overlap in governance models between the two benefit types, as well as a reluctance to trigger ERISA by making active investment menu decisions.

Only **22%** of respondents use a solution that **bundles DC and HSA services**.

Investment structure mirrors DC plan investment lineup



Explainer: The majority of recordkeepers do not administer HSA programs directly. The HSA products are structured as distinct accounts per user, compared to the omnibus trust solution utilized by DC plans.

Some DC plan recordkeepers partner with an external HSA provider or offer these services internally. It is not uncommon in these arrangements to see a majority of investment options available for HSA holders limited to those offered by the recordkeeper.

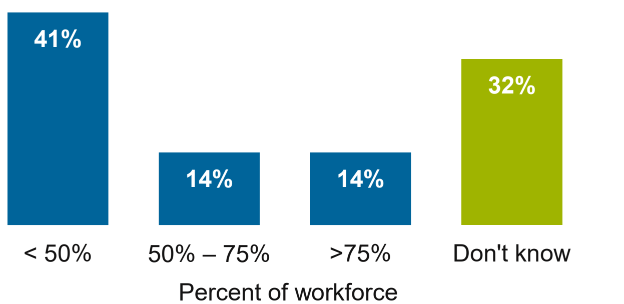
HSA Utilization

HSA reporting can be more difficult to obtain than DC plan reporting, due in part to differences in governance structures and vendor limitations. HSAs are individual accounts, thus deferrals and spending patterns are not tracked in an omnibus account. Accordingly, nearly one-third of survey respondents are not sure of the HSA plan statistics.

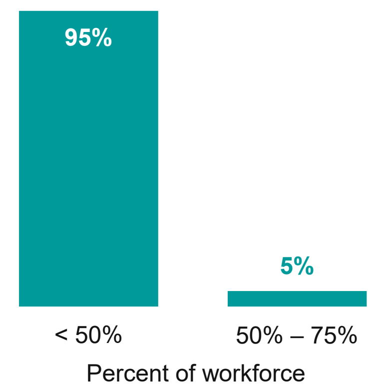
For employers that do track HSA statistics, we note lower utilization (participation and contributing to the maximum), which are driven in part by the lack of automated solutions available for HSA programs. Further, many plan participants do not know much about these relatively new products. While FSAs have been in place since 1978, HSAs have only been widely available since 2004 and are not offered by all employers.

Notably, HSA participants can invest the balances in their accounts. Initial deferrals are generally invested in a low-interest bank account until a discretionary account limit has been met. After meeting the account minimum, participants can make investment allocation elections. HSA account balances can be spent in the current year or saved; thus, HSA investment time horizons vary more than those in DC plans.

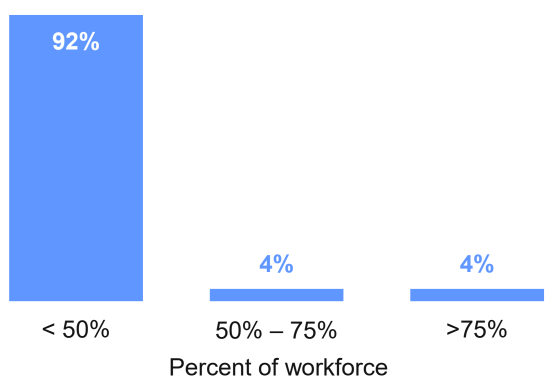
Percentage of eligible workforce participating in an HSA



Percentage of eligible workforce contributing maximum to an HSA



Percentage of eligible workforce who take action to invest the funds in their HSA

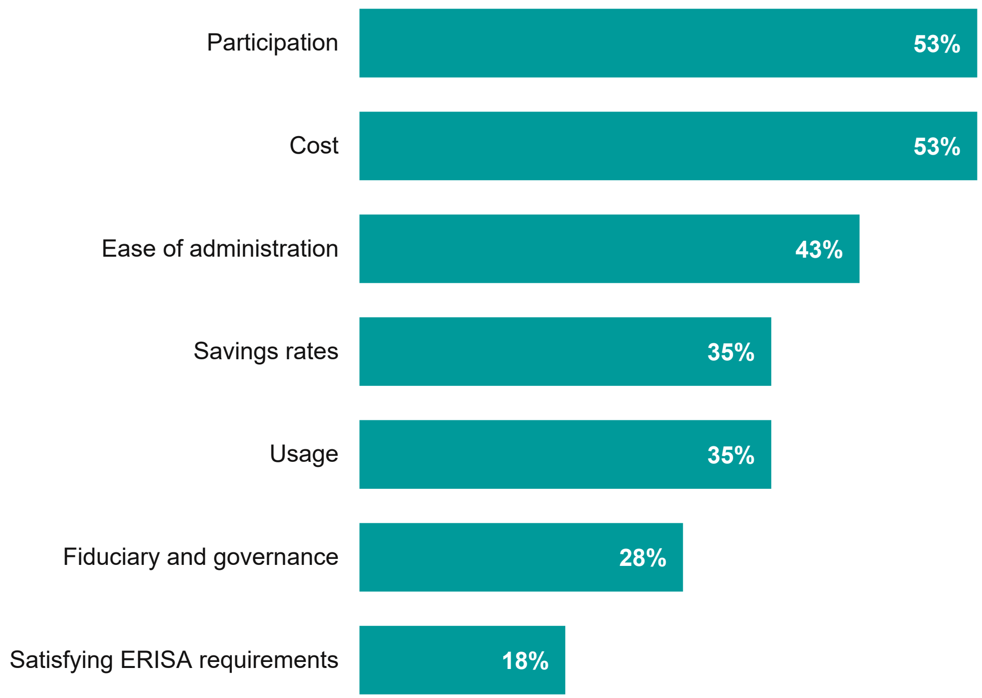


Monitoring HSA Programs

Survey respondents with HSA programs indicate they monitor an average of 2.6 elements related to the program. Top concerns for HSA programs include participation and cost (52.5% for both).

By comparison, survey respondents report monitoring 4.7 elements, on average, within their DC plans. Participation (95.8%) was the element most used to measure the success of the DC plan. Savings rates were monitored in 90.3% of DC plans, compared to 35.0% in HSAs.

Top concerns with the HSA program*



*Multiple responses allowed.

Callan Institute

About the Survey Contributors

Defined Contribution Consulting

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

15+ Years of average industry experience

65 DC projects in 2020 (i.e., investment structure or target date suitability studies, vendor search and fee studies)

42 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 | Jana Steele **(Primary author of 2021 DC Survey)** | Ben Taylor | Greg Ungerman, CFA | James Veneruso, CFA, FRM, CAIA | Patrick Wisdom

Disclosure

About Callan

Callan was founded as an employee-owned investment consulting firm in 1973. Ever since, we have empowered institutional clients with creative, customized investment solutions that are backed by proprietary research, exclusive data, and ongoing education. Today, Callan advises on more than $2 trillion in total fund sponsor assets, which makes it among the largest independently owned investment consulting firms in the U.S. Callan uses a client-focused consulting model to serve pension and defined contribution plan sponsors, endowments, foundations, independent investment advisors, investment managers, and other asset owners. Callan has six offices throughout the U.S. For more information, please visit www.callan.com.

About the Callan Institute

The Callan Institute, established in 1980, is a source of continuing education for those in the institutional investment community. The Institute conducts conferences and workshops and provides published research, surveys and newsletters. The Institute strives to present the most timely and relevant research and education available so our clients and our associates stay abreast of important trends in the investments industry.

For more information about this report, please contact:

Your Callan consultant or Jana Steele at steelej@callan.com

Callan

Corporate Headquarters

600 Montgomery Street
Suite 800
San Francisco, CA 94111
800.227.3288
415.974.5060

www.callan.com

Regional Offices

Atlanta
800.522.9782

Chicago
800.999.3536

Denver
855.864.3377

New Jersey
800.274.5878

Portland
800.227.3288

@CallanLLC

Callan