City of Cincinnati Retirement System
Board of Trustees Meeting

Agenda

March 2, 2023 / 2:00 P.M.
City Hall, Council Chambers and via Zoom

Members
Bill Moller, Chair
Tom Gamel, Vice Chair
Kathy Rahtz
Mark Menkhaus, Jr.
Monica Morton
John Juech
Tom West
Seth Walsh

CRS Staff
TBD

Law
Ann Schooley
Linda Smith

Call to Order

Public Comment

Approval of Minutes
- Meeting Minutes – February 2, 2023

Report from Performance Evaluation Committee

Report from Benefits Committee

Informational - Executive Director's Report
- Procurement Update (RFPs)
- Status of Board Letters Approved at Jan. 2023 Meeting
- NCPERS 2023 Public Employee Retirement Systems Study

Old Business
- Legal Opinions Discussion Update
- Status of Disabled Adult Children Ordinance
- Disability Application (Documents in Board's Portal)
- Executive Session re Disability Application

New Business
- Cheiron Presentation re CRS Experience Study (CY2017-CY2021)

Adjournment

Next Meeting: Thursday, April 6, 2023, 2:00 P.M. City Hall Council Chambers and via Zoom city of CINCINNATI RETIREMENT

City of Cincinnati Retirement System
Board of Trustees Meeting
Minutes
February 2, 2023/ 2:00 P.M.
City Hall – Council Chambers and remote

Board Members Present
Bill Moller, Chair
Kathy Rahtz
Mark Menkhaus, Jr.
John Juech
Monica Morton
Tom West

Administration
Mike Barnhill
Bev Nussman

Law Department
Linda Smith

CALL TO ORDER

Chair Moller called the meeting to order at 2:02pm and a roll call of attendance was taken. Trustees Moller, Menkhaus, Rahtz, Juech (departed at 2:30pm), Morton and West (departed at 2:06pm) were present. Trustee Gamel and Trustee-appointee Walsh were absent.

PUBLIC COMMENT

No public comment.

APPROVAL OF MINUTES

Approval of the minutes of the Board meeting of January 12, 2022, was moved by Trustee Menkhaus and seconded by Trustee Juech. The minutes were approved by unanimous roll call vote.

Report from the Investment Committee

Trustee Moller provided the report from the Benefits Committee.

Trustee Moller presented the following motion approved by the Benefits Committee:

1. Increase the target weight of the Core Bond asset allocation from 6% to 8%.
2. Increase the target weight of the Core Plus asset allocation from 6% to 11.5%.
3. Decrease the target weight of the US Large Cap Value asset allocation from 3.5% to 2.5%.
4. Decrease the target weight of the US Small Cap Value asset allocation from 3.5% to 2.5%.
5. Decrease the target weight of the Non-US Equity asset allocation from 18% to 16%.
6. Eliminate the 2.5% Risk Parity asset allocation.

7. Vacate the Board’s previous approval of increasing the allocation to Volatility Risk Premia from 2.5% to 5%.
8. Decrease the target weight of the Private Equity asset allocation from 10% to 8%.
9. Implement the elimination of the Risk Parity asset allocation immediately. 50% of the proceeds to remain in cash for system liquidity needs. 50% of the proceeds to be transferred upon receipt to Northern Trust Global Investments Core Bond portfolio.
10. Withdraw $8mm from JPMorgan infrastructure.
11. Withdraw an additional $17mm from IFM infrastructure.

Trustee Moller summarized by saying these changes increase the fixed income asset allocation. The Board approved the Committee’s action by unanimous roll call vote.

<u>New Business</u>

<u>Disability Application</u>

Trustee West departed the meeting at 2:06pm. Director Barnhill advised the Board that documents related to a new application for disability retirement matter are posted in the Board’s confidential portal. Director Barnhill summarized the requirements for disability retirement and briefly explained each of the background documents in the meeting packet.

Trustee Moller observed that five trustees remained in the meeting, and therefore there was no quorum to take up a motion to go into executive session. Ms. Smith from the Law Department concurred. Trustee Moller indicated that this item would be deferred to the next meeting in March.

<u>Informational – Executive Director’s Report</u>

Director Barnhill provided the following report:

- 4th Qtr. Demographic Report; number of actives continues to increase, number of retirees continues to decrease, number of deaths continues to trend around 200/year (sometimes higher, sometimes lower)
- 4th Qtr. DROP report; the number of participants decreased from 194 to 173; average balances remain about the same. Trustee Moller referred to a previous estimate of DROP actuarial liability of approx.. $11mm, and asked about the status of this evaluation. Director Barnhill reported that the Law Department conducted an RFP, and selected the Foster & Foster actuary firm. Work has yet to be initiated.
- 4th Qtr. Budget Report; operating expenses came in under budget. A budget trend spreadsheet is in the Board meeting packet. Total spend is 38bps or 0.38% of assets under management.
- Procurement Update; CRS is awaiting approval of DEI waivers by the City Manager’s Office in order to begin drafting the Investment Consultant and Fiduciary Audit RFPs. Preparation of an Actuary RFP is scheduled to begin in the 4thQ of 2023.
- Status of Board Letters Approved at Jan. 2023 Meeting. The letters have been finalized and posted on the CRS website. The letters have been forwarded to the City Manager’s Office for transmittal to the Mayor and members of City Council. The City Manager’s Office has not yet transmitted the letters. Chair Moller suggests that the Board transmit them directly.
- Survivor Benefits Analysis Update; Cheiron is working on updated scenarios for the next Benefits Committee meeting.
- NCPERS Communications Summit; Director Barnhill summarized his recent presentation to the NCPERS Communications Summit on the effort to seek additional funding for Alaska PERS/TRS.

Old Business

Legal Opinions Discussion Update

Director Barnhill reported that a meeting has been scheduled in March between Trustee Rahtz and the Solicitor's Office to discuss the recent legal opinions.

Status of Disabled Adult Children Ordinance

Director Barnhill has not seen a draft. Ms. Smith reported that the draft remains under review.

Committee Assignments Update

Trustee Moller reported that he intends to assign Trustee-appointee Walsh to the Governance, Performance Evaluation and Elections committee at the next meeting. All trustees serve on the Investment Committee.

New Business

Departure of Director Barnhill

Director Barnhill has submitted his resignation effective February 17. Trustee Moller reported on efforts underway for succession planning (short term and long term) and that he is working with the City Manager's Office on this. Director Barnhill has offered to provide assistance during the transition.

Trustees offered departing comments of gratitude to Director Barnhill. Director Barnhill expressed appreciation to the Board for their support and expressed hope that his offer to provide assistance during the transition period can be realized.

Adjournment

Following a motion to adjourn by Trustee Morton and seconded by Trustee Menkhaus, the Board approved the motion by unanimous roll call vote. The meeting adjourned at 2:35pm.

Meeting video link: https://archive.org/details/crs-board-2-2-23

Next Meeting: March 2, 2023 at 2:00 p.m.

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Secretary

NCPERS 2023 Public Retirement Systems Study:

Trends in Fiscal, Operational, and Business Practices

Study conducted by the National Conference on Public Employee Retirement Systems and Cobalt Community Research

Table of Contents

This study reviews funds' current fiscal condition and steps they are taking to ensure fiscal and operational integrity.

Overview

From September to December 2022, the National Conference on Public Employee Retirement Systems (NCPERS) undertook a comprehensive study exploring the retirement practices of the public sector. In partnership with Cobalt Community Research, NCPERS has collected and analyzed the most current data available on funds' fiscal condition and steps they are taking to ensure fiscal and operational integrity.

NCPERS 2023 Public Retirement Systems Study: Trends in Fiscal, Operational, and Business Practices includes responses from 195 state and local government pension funds with more than 19.6 million active and retired members and assets exceeding $3 trillion. About 56 percent are local funds while 44 percent are statewide funds.

NCPERS members can access an interactive dashboard with the survey data, where they can filter data by total number of participants, type of employee/beneficiary, and more. To access the dashboard and previous editions of this report, please visit: www.NCPERS.org/public-retirement-systems-study.

Questions? Please contact Lizzy Lees, Director of Communications, at lizzy@ncpers.org.

> "Public pensions remain dedicated to maximizing returns while managing risks in order to efficiently deliver retirement benefits to public servants all over the country."
> - Hank Kim, Executive Director, NCPERS

About NCPERS
NCPERS is the largest trade association for public-sector pension funds, representing approximately 500 funds throughout the United States and Canada. The membership is a unique network of public trustees, administrators, public officials, and investment professionals who collectively oversee nearly $4 trillion in retirement funds managed on behalf of seven million retirees and nearly 15 million active public servants, including firefighters, law enforcement officers, and teachers.

Founded in 1941, NCPERS is the principal trade association working to promote and protect pensions by focusing on advocacy, research, and education for the benefit of public-sector pension stakeholders.

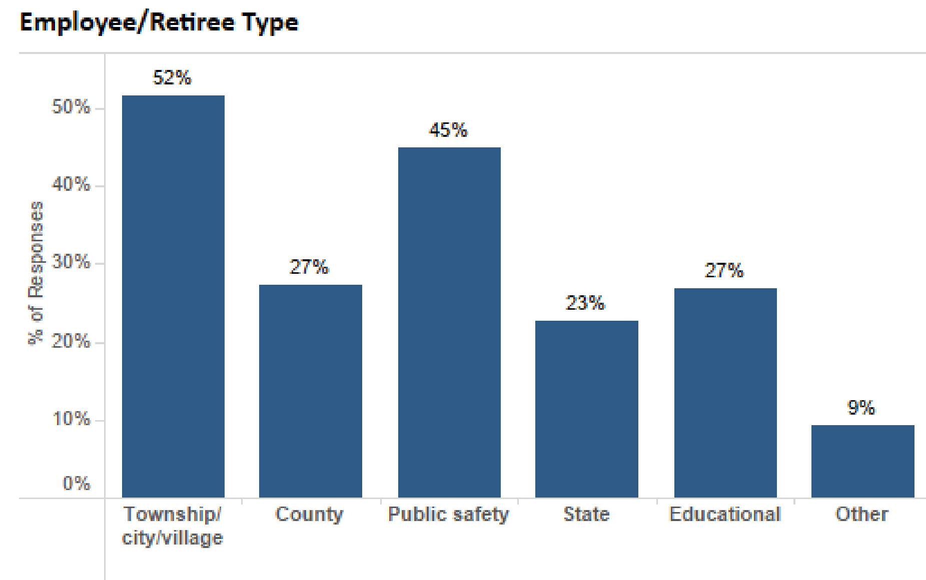
About Cobalt Community Research
Cobalt Community Research is a national 501 c (3) nonprofit, nonpartisan coalition that helps local governments, schools, and membership organizations affordably engage their communities through high-quality data, benchmarking, geofencing, and community engagement. Cobalt is headquartered in Charlotte, Michigan.

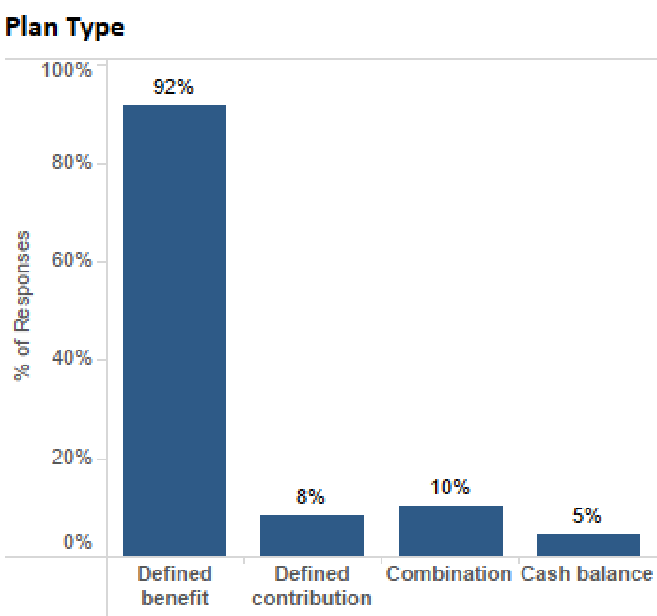
Who Responded?

Overall, 195 public retirement funds participated in *NCPERS 2023 Public Retirement Systems Study*. Of these survey respondents, 108 also participated in the previous year's study.

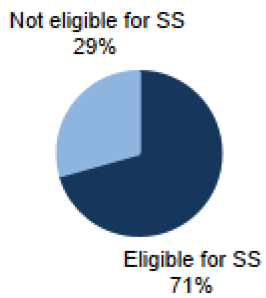
About 52 percent of all responding funds serve township, city, and village employees and beneficiaries, down from 56 percent in the prior year. About 45 percent of the responding funds serve police and fire employees, down from 59 percent in the prior year. The graph below shows the distribution of employee types served by the funds. The bottom graph shows response by type of plan provided. Totals may exceed 100 percent because of multiple responses.

The overall distribution of the groups served by responding funds is similar to prior years; however, police/fire funds were a smaller proportion of the response compared with last year.





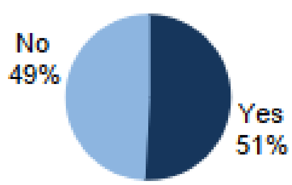
Members' Social Security Eligibility



About 71 percent of responding funds have members who are eligible for Social Security, and 29 percent have members who are not eligible. In this report, breakdowns are presented for funds whose members are or are not eligible for Social Security.

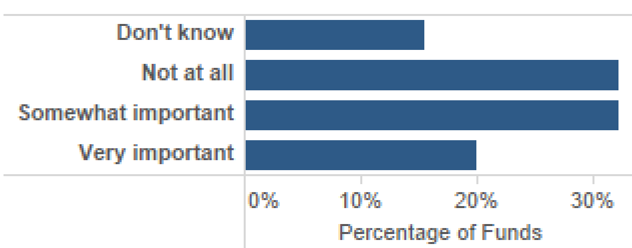
Funds whose members are not eligible for Social Security tend to offer higher levels of benefits to make up for the loss of income typically supplemented by Social Security.

Inclusion of Overtime in Benefit Calculation



Inclusion of overtime in the calculation of a retirement benefit has been an area of interest to public funds. Forty-nine percent of respondent funds exclude overtime in the benefit calculation, which is 5 percentage points lower than last year. Funds responding to both this year's study and last year's study remained at 54 percent.

How important are ESG (environmental, social, and governance) factors in your fund's investment decisions?



New this year, funds were asked about the role of environmental, social, and governance (ESG) factors in their investment decisions. About 54 percent of respondents said they are somewhat or very important in their investment decisions.

Key Takeaways

1. Reporting funds saw, on average, one-year returns of around 11.4 percent. The five-year, 10-year, and 20-year averages were above the assumed rate of return. Those funds that also participated in last year's study show similar patterns, although this cohort saw, on average, one-year returns around 10.3 percent. Real estate and private equity were the asset classes with highest returns.

2. The average funded level is 77.8 percent, up from 74.7 percent last year; moreover, funds reporting both years saw funded levels increase from 72.3 percent to 77.0 percent. Social Security eligible funds reached an overall 80 percent funded level.

3. The average investment assumed rate of return for responding funds is 6.86 percent, compared with 7.07 percent last year. Plans that responded both years saw a similar reduction.

4. The average investment-smoothing period for respondents increased from 5.2 to 5.5 years, and it rose from 4.9 to 5.2 among participants in both the 2021 and 2022 surveys. The distribution of responding funds on the graph below shows that the majority have smoothing periods of five years or shorter. For funds with Social Security-eligible members, the smoothing period was 5.7 years. Funds with members who are not Social Security eligible have an average smoothing period of 5.1 years.

5. The overall average expense for all respondents to administer the funds and to pay investment management fees is 64 basis points (100 basis points equals 1 percentage point). This is above the 54 basis points in the prior year. Both administrative and investment expenses were higher than in the prior year. According to the 2022 Investment Company Fact Book, the average expense of hybrid funds is 57 basis points.

6. The aggregated average cost-of-living adjustments (COLAs) offered to members was 2.0 percent, which is slightly higher than 1.7 percent offered last year. Many responding funds did not offer a COLA in the most recent fiscal year. Funds with members who are not eligible for Social Security tend to offer higher COLAs (2.5 percent) than those with members who are eligible for Social Security (1.8 percent). Small funds have an average COLA that is 0.25 of a percentage point higher than large funds.

7. More responding plans are offering defined contribution plans, deferred compensation plans, and combination plans. There is growing interest in consideration of various COLA changes and DROP plans.

8. The amortization period continues to be reduced. For responding funds, that period of time averages 20.8 years, down from 21.8 years. Funds that responded both years saw a reduction in the period of time by about 0.7 years. Overall, the percentage of closed/fixed funds declined from 74 percent to 70 percent.

9. The survey asked, "How satisfied are you with your readiness to address retirement trends and issues over the next two years?" Respondents provided an overall "confidence" rating of 7.8 on a 10-point scale (very satisfied = 10). This is slightly lower than last year and well above the 7.4 in 2011. Funds that also participated in the prior year's survey saw their confidence rating decrease from 8.0 to 7.7.

10. About 54 percent of respondents say that environmental, social, and governance (ESG) factors are somewhat or very important in their investment decisions.

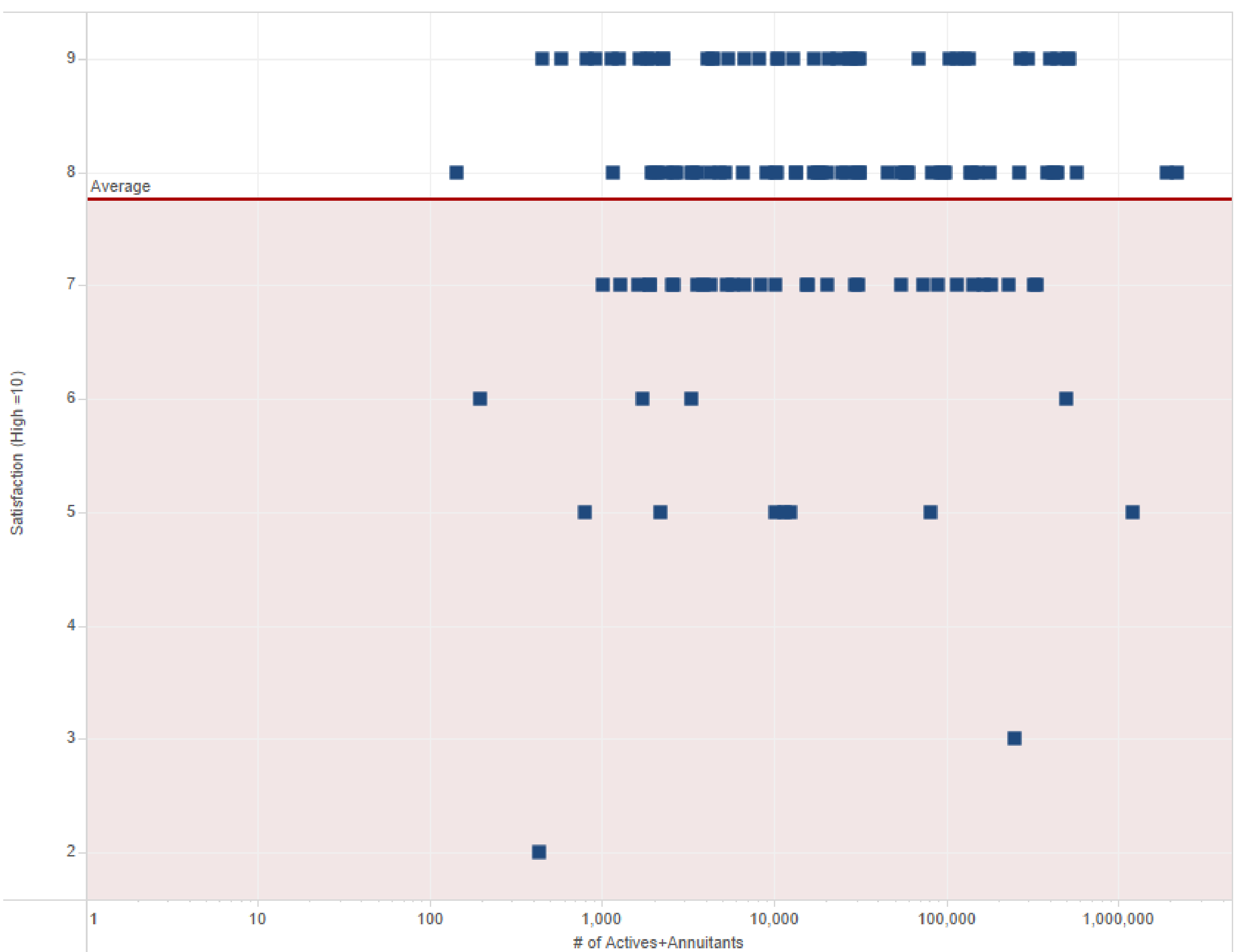
Fund Confidence

Surveyed funds were asked, "How satisfied are you with your readiness to address retirement trends and issues over the next two years?" Respondents provided an overall "confidence" rating of 7.8 on a 10-point scale (very satisfied = 10). This is slightly lower than last year and well above the 7.4 in 2011. Responding funds have been proactive in making changes to their plan assumptions and benefits to ensure sustainability.

Responding funds were slightly less confident in their ability to adapt to and address issues in the volatile environment surrounding public pensions. Overall, average confidence softened from 8.0 to 7.8.

Funds that also participated in the prior year's survey saw their confidence rating decrease from 8.0 to 7.7. Funds with members eligible and members ineligible for Social Security responded with a rating of 7.8 and 7.4, respectively.

Fund Confidence



Expenses

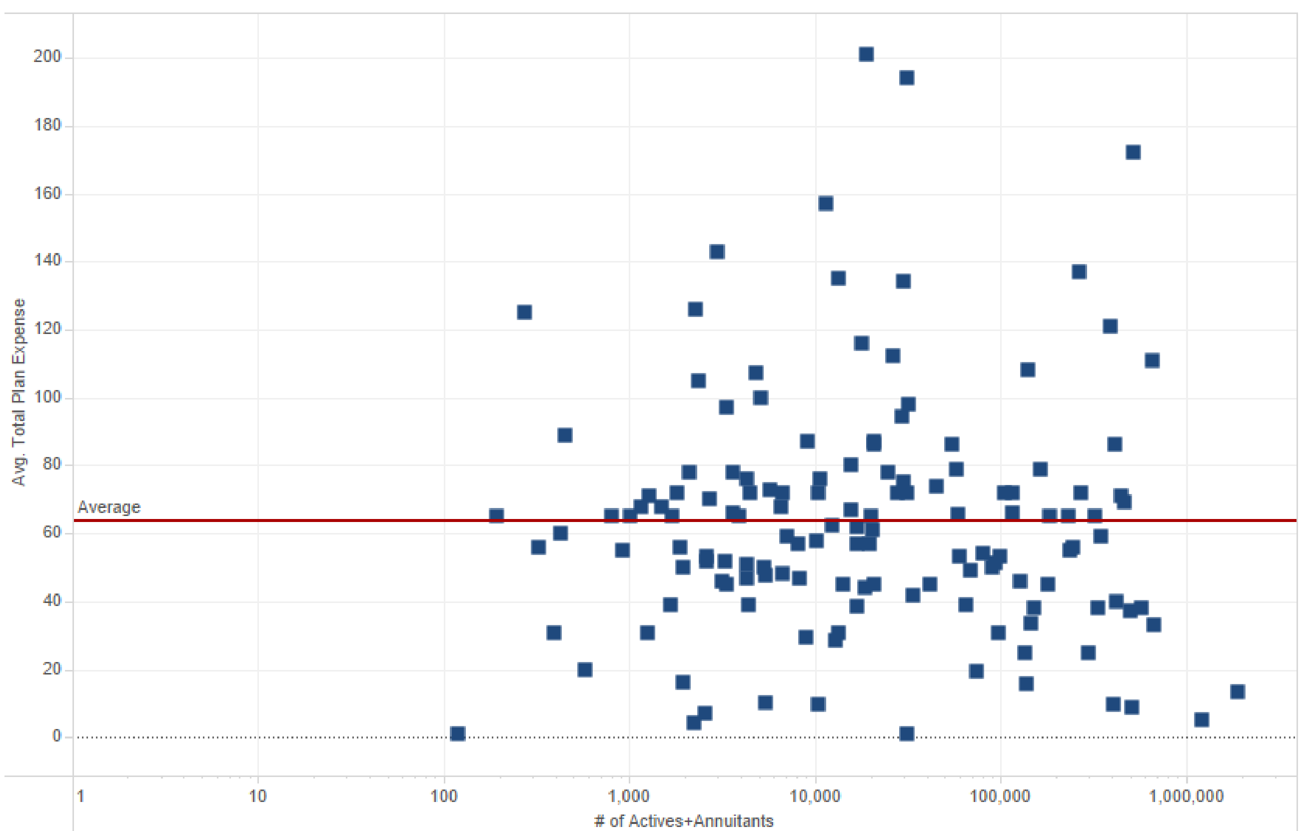
The overall average expense for all respondents to administer the funds and to pay investment management fees is 64 basis points (100 basis points equals 1 percentage point). This is above the 54 basis points in the prior year. Both administrative and investment expenses were higher than in the prior year.

According to the *2022 Investment Company Fact Book*, the average expense of hybrid funds is 57 basis points.

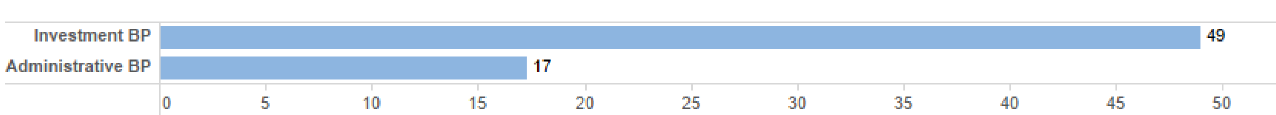
The top graph on this page shows the distribution of total expenses (in basis points) on the vertical axis and the size of the fund (by total participants) on the horizontal. The red line represents the average expense.

The bottom graph shows the average administrative and investment expenses. Note: The averages in the bottom graph do not total the average expenses in the top graph because not all funds reported both investment and administrative numbers.

Total Expenses by Size of Fund

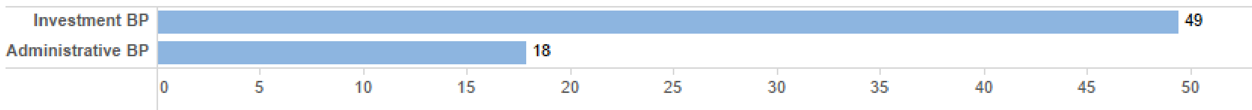


Average Fund Expenses (Basis Points)

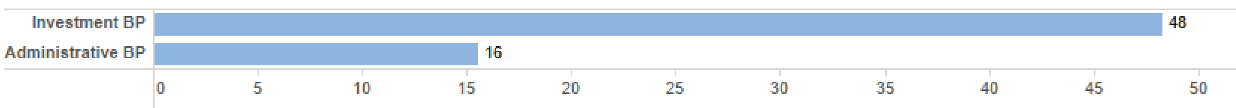


Below are average expenses broken out by funds whose members are and are not eligible for Social Security. Total expenses are 52 and 58, respectively. Note: The averages below do not total the average expenses because not all funds reported both investment and administrative numbers.

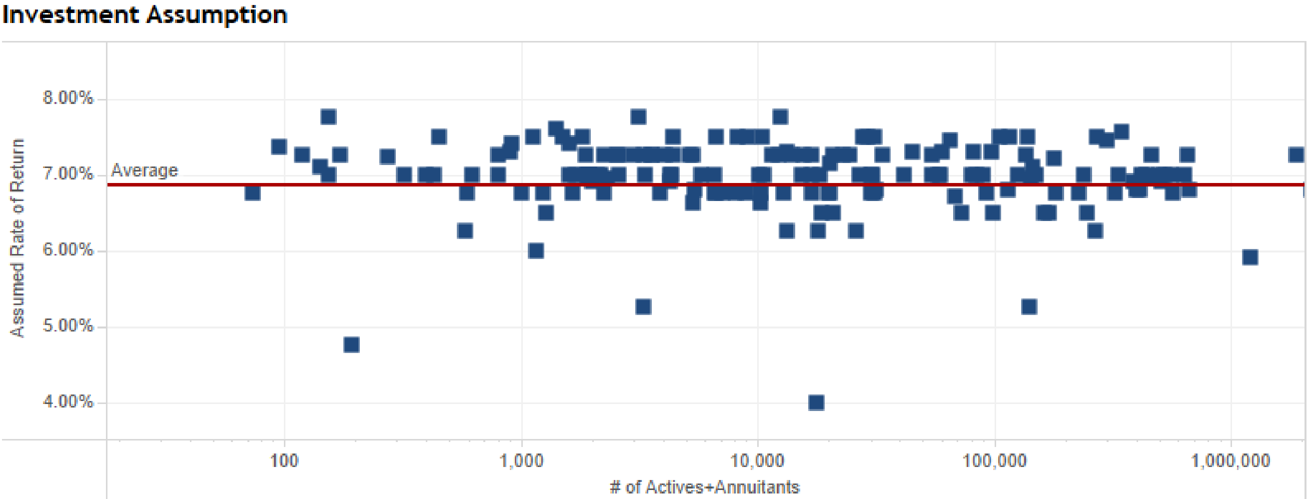
Average Fund Expenses: Social Security Eligible (Basis Points)



Average Fund Expenses: Not Social Security Eligible (Basis Points)



Actuarial Assumptions

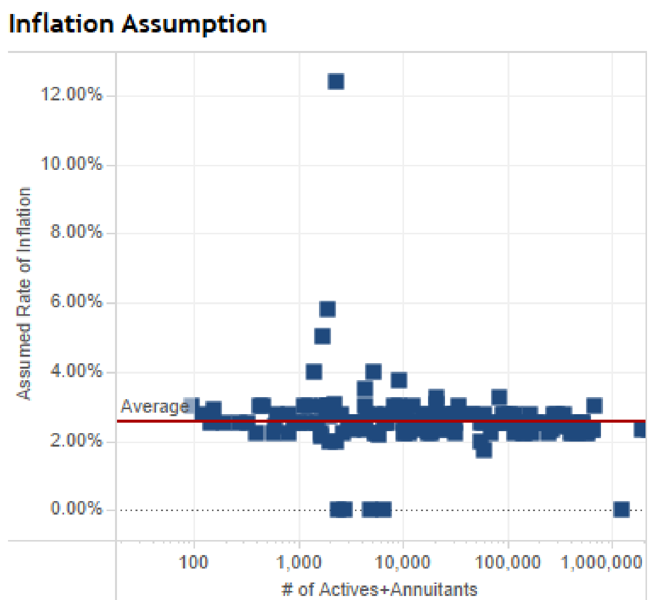


Retirement funds employ a long-term planning horizon to ensure that liabilities are fully funded at the time they are due to be paid. To set contribution rates and measure progress toward meeting their financial obligations, funds make actuarial assumptions to estimate the likely investment and demographic experience over that time horizon.

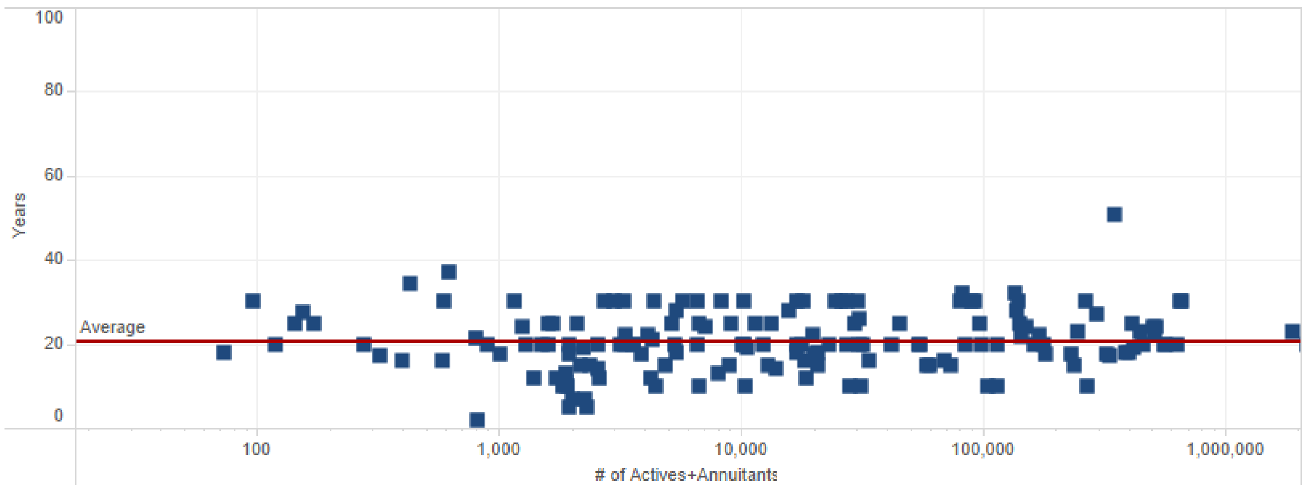
Such assumptions have powerful effects on the funded level of a plan and on required contributions to pay for future benefits. Overly optimistic assumptions (high market returns, lower-than-expected retirement rates) tend to increase a plan's funded level and reduce the contribution rates an employer is obligated to pay today. Conversely, overly pessimistic assumptions reduce the funded level and increase short-term contribution rates.

The average investment assumed rate of return for responding funds is 6.86 percent, compared with 7.07 percent the year prior. Plans that responded both years saw a similar reduction.

The aggregated assumed rate of inflation is 2.6 percent, and it was 2.7 percent in the prior year.



Amortization Period



Pension funds are designed to fund liabilities over a period of time, which ensures long-term stability and makes annual budgeting easier through more predictable contribution levels.

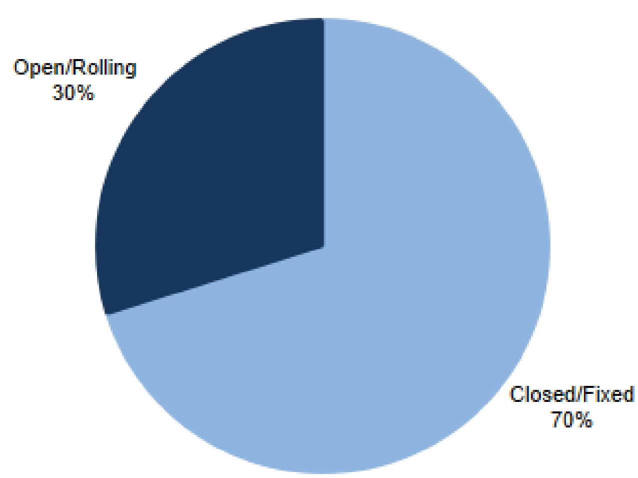
For responding funds, that period of time averages 20.8 years, down from 21.8 years. Funds that also participated in the survey the year before saw a reduction in the period of time by about 0.7 years.

Groups can tighten their amortization period by adjusting the period in years or using a fixed (or closed) method that pays all liabilities in a fixed time frame.

Open (or rolling) amortization periods are used to determine the actuarially required payment, but they are recalculated each year. The same number of years is used in determining the payment each year. Overall, the percentage of closed/fixed funds declined from 74 percent to 70 percent.

Larger funds are much more likely to have closed/fixed amortization periods – about 74 percent are closed.

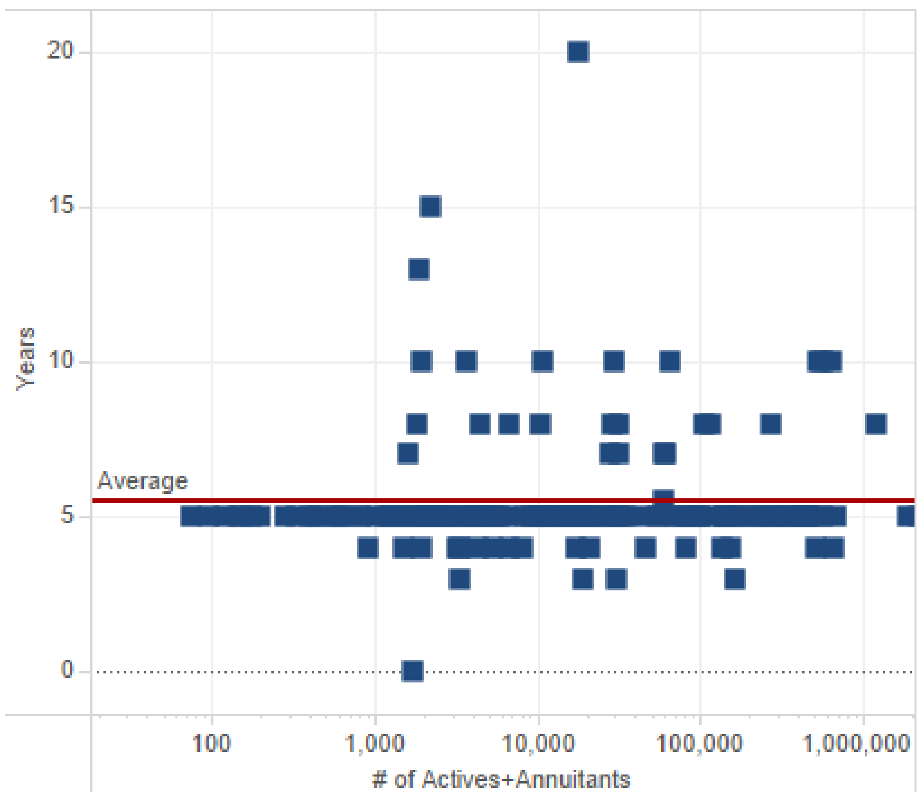
Type of Amortization Period



The investment-smoothing period is a key factor in calculating the assets currently held by the fund and the contribution levels required to continue moving toward full funding over the amortization period. By smoothing investments, funds dampen sharp changes in short-term investment returns. This helps stabilize contribution levels over time without undermining the long-term integrity of the funding mechanism.

The average investment-smoothing period for respondents increased from 5.2 to 5.5 years, and it rose from 4.9 to 5.2 among funds that responded to both the 2021 and 2022 surveys. The distribution of responding funds on the graph below shows that the majority have smoothing periods of five years or shorter. For funds with Social Security-eligible members, the smoothing period was 5.7 years. Funds with members who are not Social Security eligible have an average smoothing period of 5.1 years.

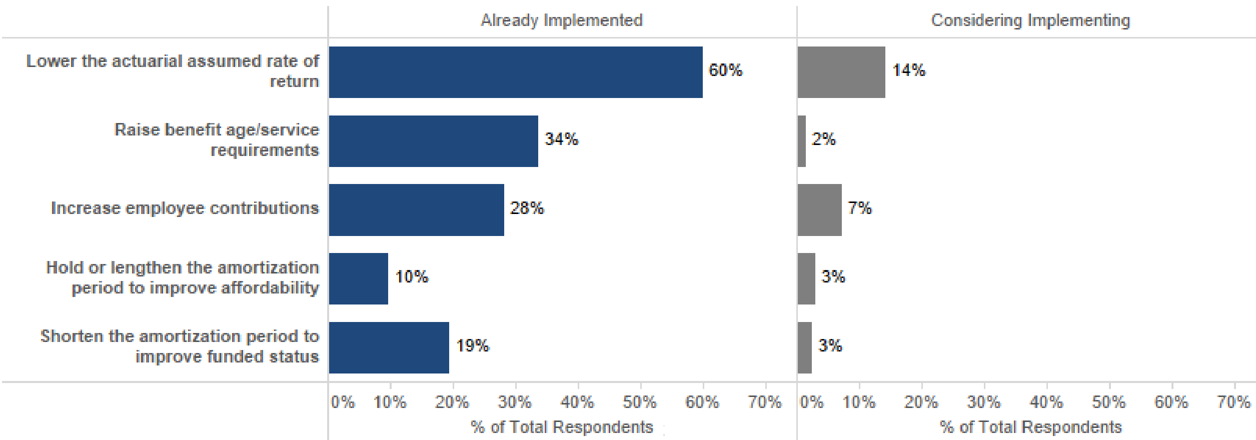
Investment Smoothing



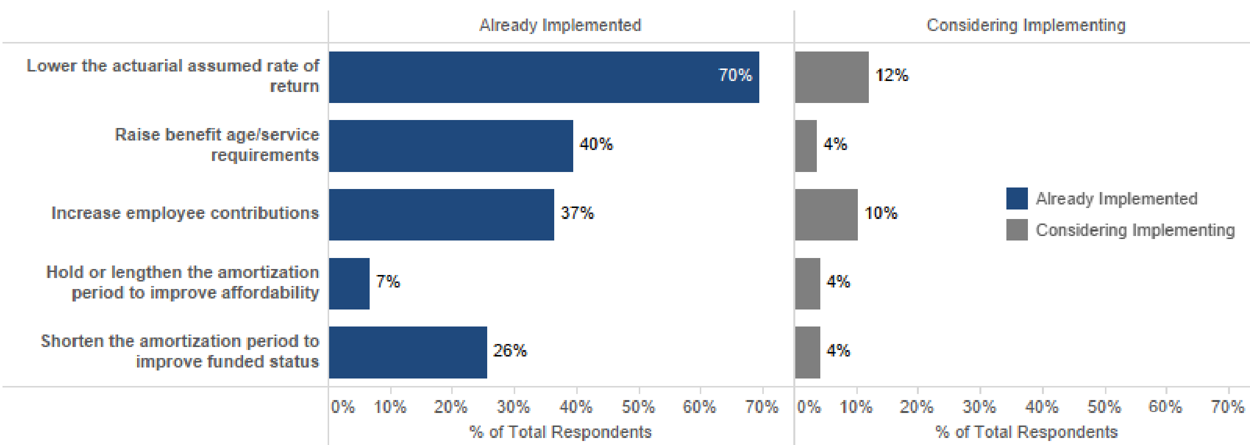
Trends in Plan Changes

As changes emerge in the political, economic, and demographic landscape, funds adapt their design and assumptions to respond and to maintain their sustainability. Funds slowed implementation of plan changes, but there was increased implementation of holding or lengthening the amortization period and interest in lowering the assumed rate of return. The charts below look at the year-over-year plan changes based on data collected in 2022 and 2021.

2022 Retirement Plan Changes

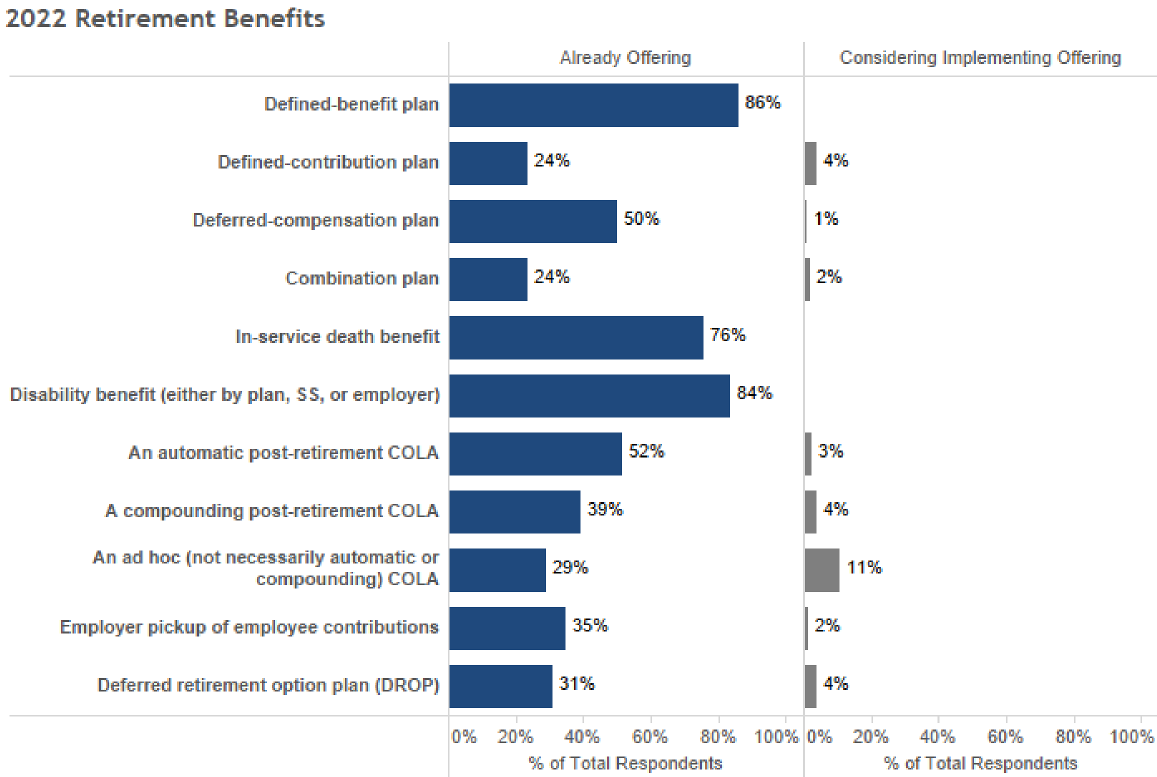


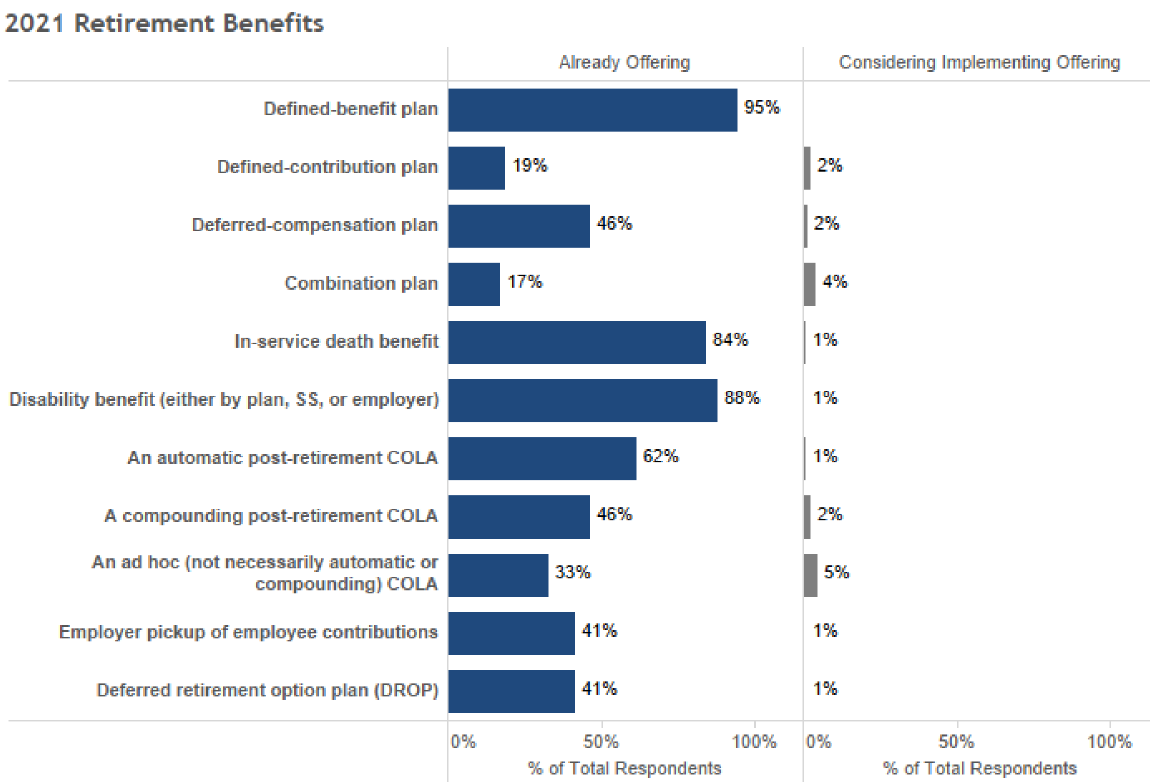
2021 Retirement Plan Changes



Trends in Retirement Benefits

More responding plans are offering defined contribution plans, deferred compensation plans, and combination plans. There is growing interest in consideration of various COLA changes and DROP plans. The charts below compare year-over-year data collected in 2022 and 2021.



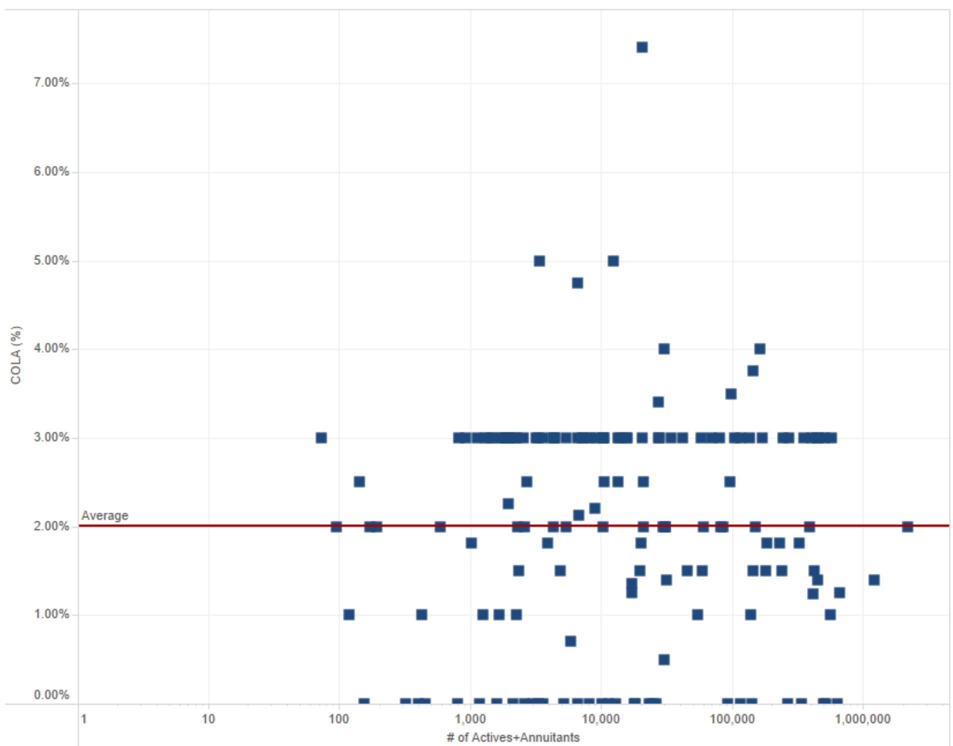


Cost-of-Living Adjustments

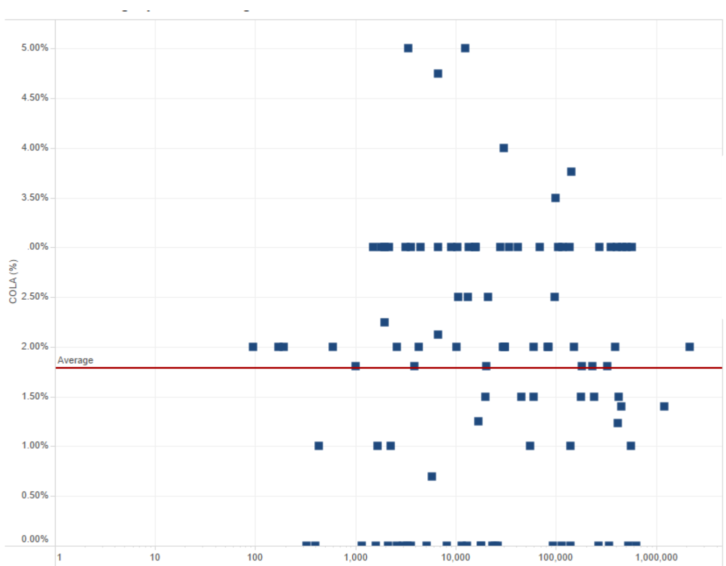
The top chart below shows the distribution of funds offering various percentages of cost-of-living adjustments (COLAs). The aggregated average COLA offered to members was 2.0 percent, which is slightly higher than 1.7 percent last year. Many responding funds did not offer a COLA in the most recent fiscal year.

Funds with members who are not eligible for Social Security tend to offer higher COLAs (2.5 percent) than those with members who are eligible for Social Security (1.8 percent). Small funds have an average COLA that is 0.25 percentage point higher than large funds.

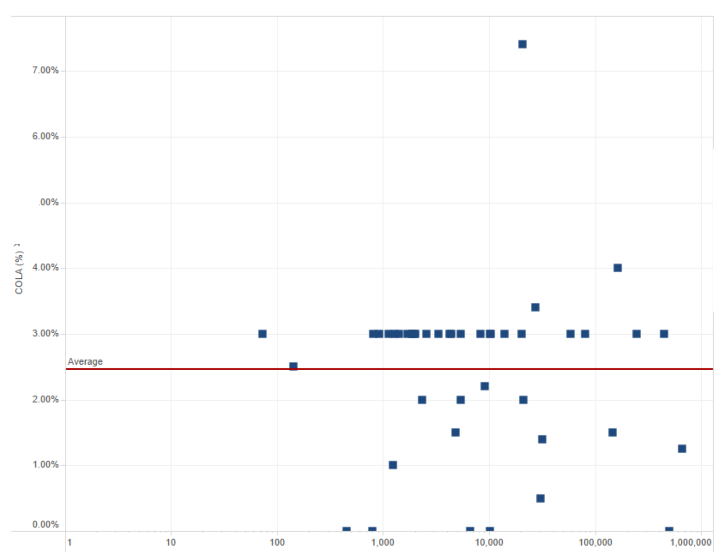
Overall Cost-of-Living Adjustment Offerings



Social Security Eligible

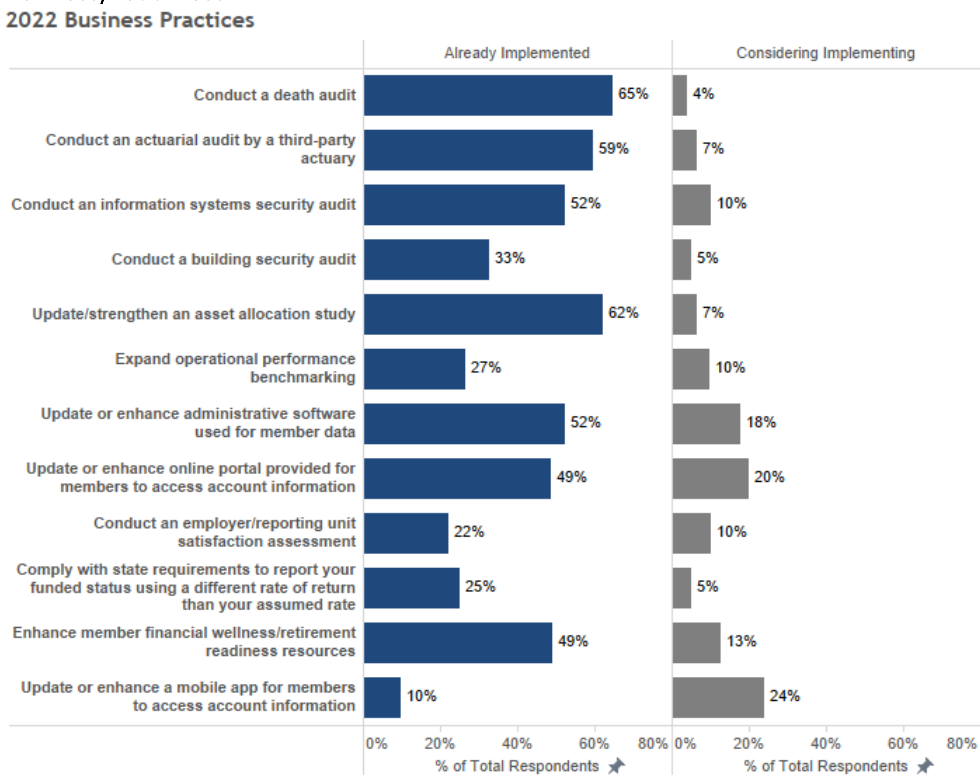


Not Social Security Eligible



Trends in Business Practices

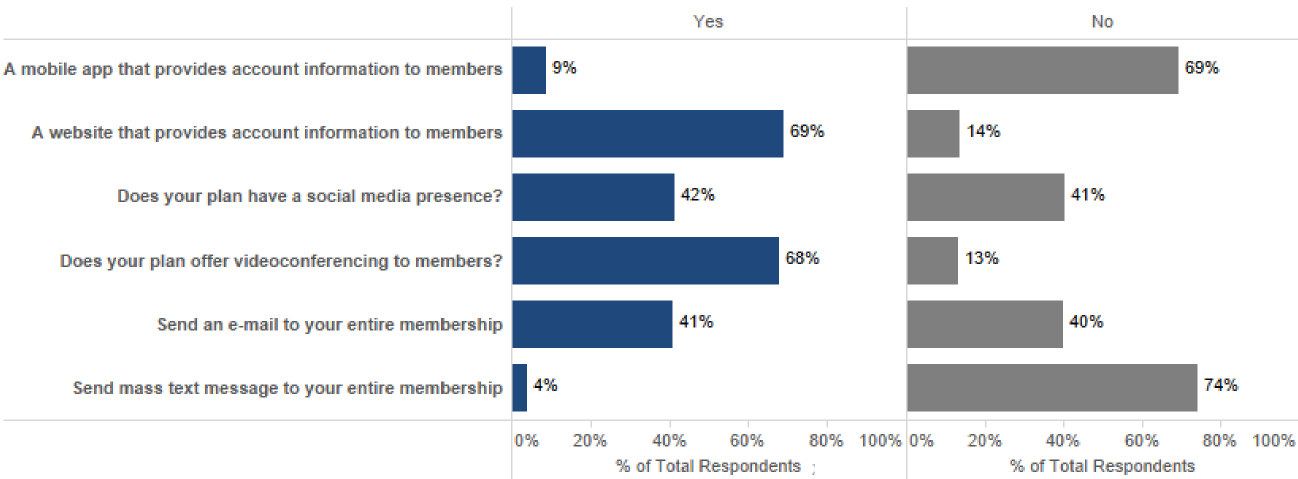
There was no significant shift in business practices being implemented, although there was an increase in several practices being considered compared to the year prior. Increases include enhancing online and mobile member account access, administration software, compliance with state regulations, and enhanced financial wellness/readiness.



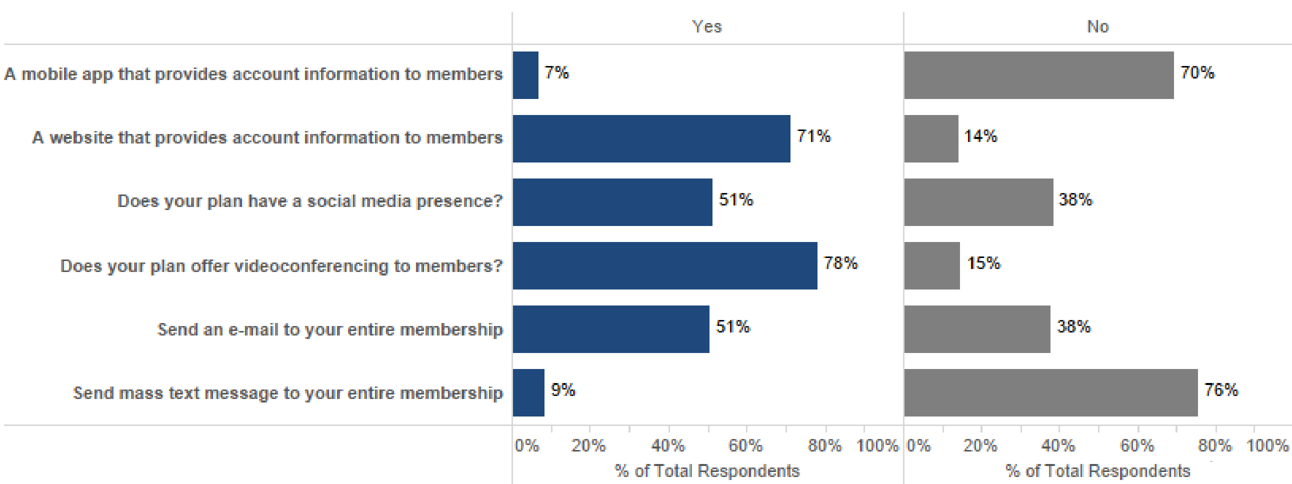
Communication Capabilities

Pension fund's communication capabilities did not change significantly year-over-year. Text message capability and mobile app use continues to be limited.

2022 Communication Capabilities

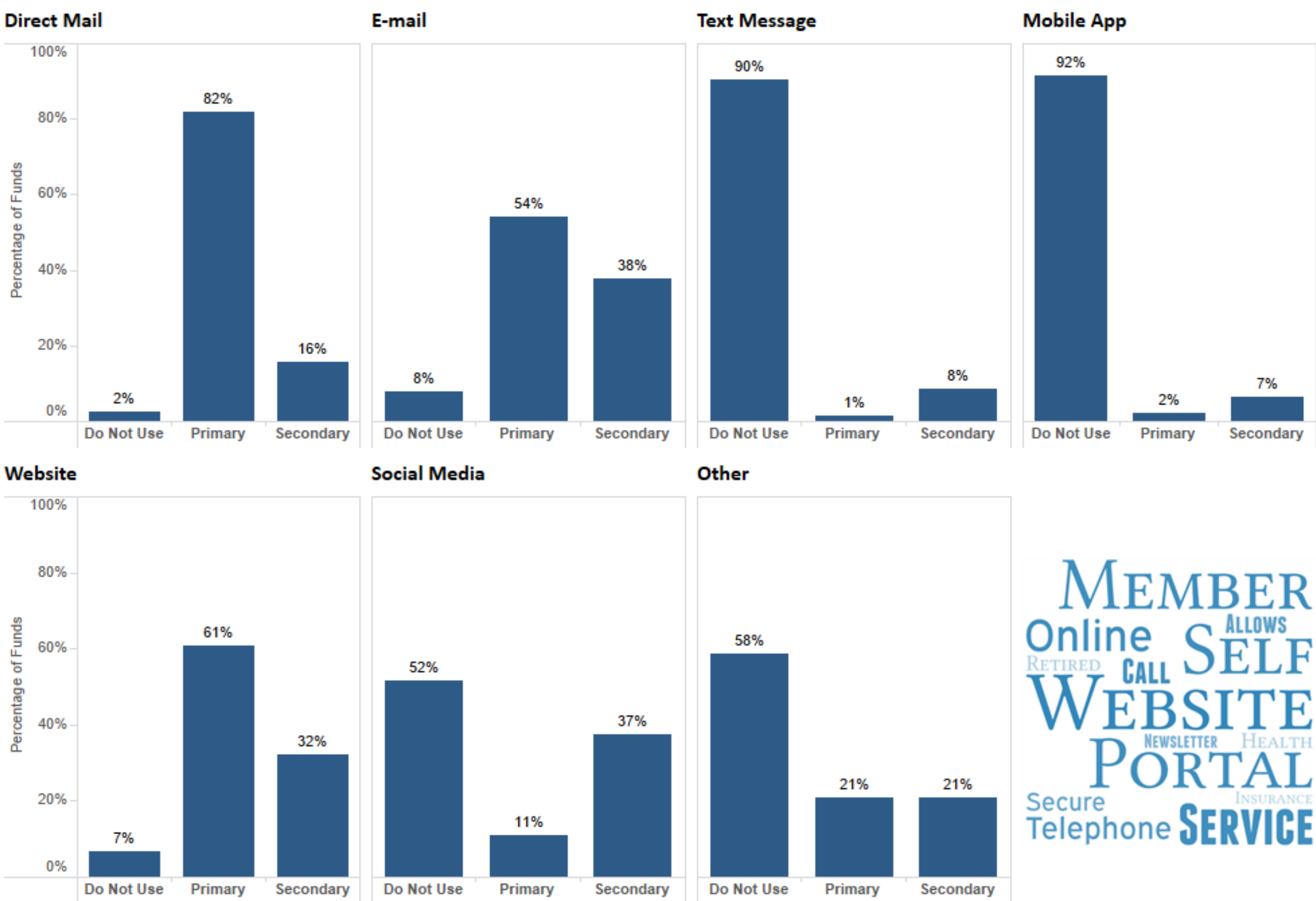


2021 Communication Capabilities



Outbound Communication

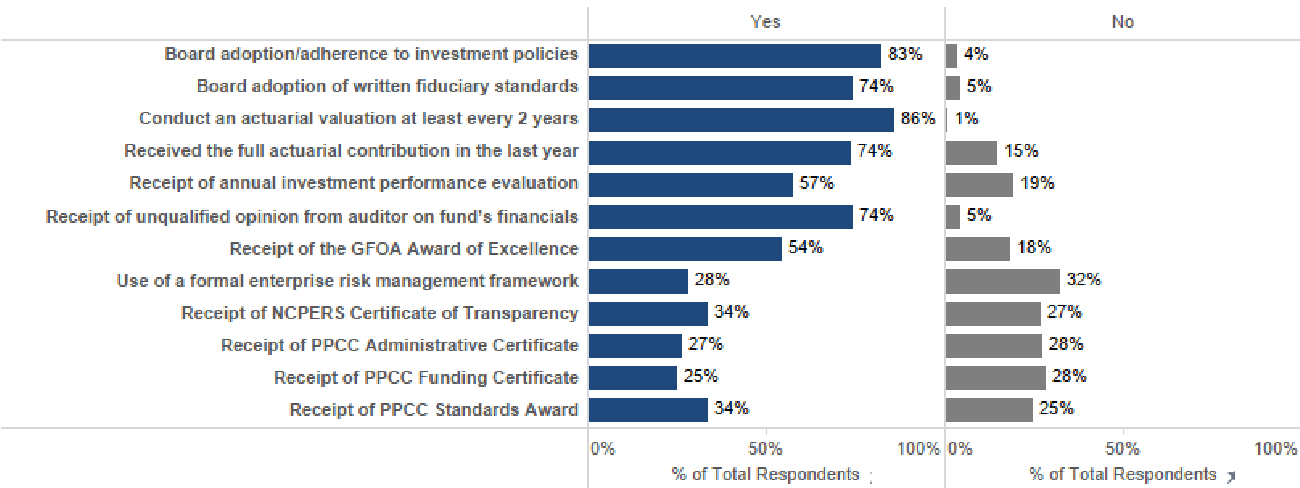
The primary communication modes used by respondents to communicate with members include direct mail, e-mail, and the website. Secondary modes include e-mail, social media, website.



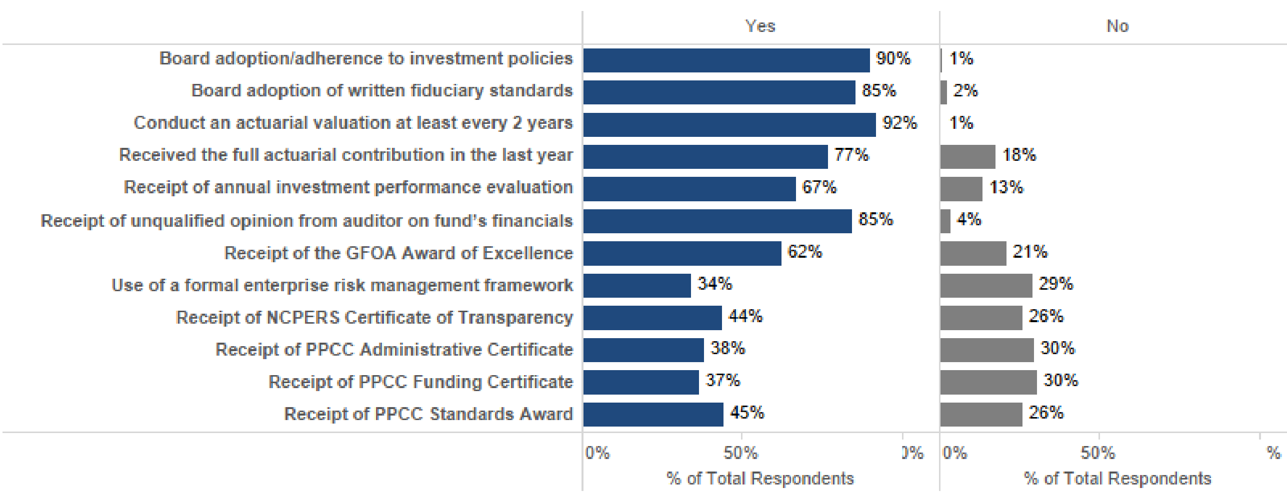
Trends in Oversight Practices

Overall, responding funds' showed similar oversight practices compared to prior year. Top practices include actuarial valuations at least every two years, board adoption/adherence to investment policies, board adoption of written fiduciary standards, receipt of full actuarial contribution, and unqualified opinion from fund's auditor. Overall percentages were generally slightly lower as not all responding funds responded to each practice.

2022 Oversight Practices



2021 Oversight Practices



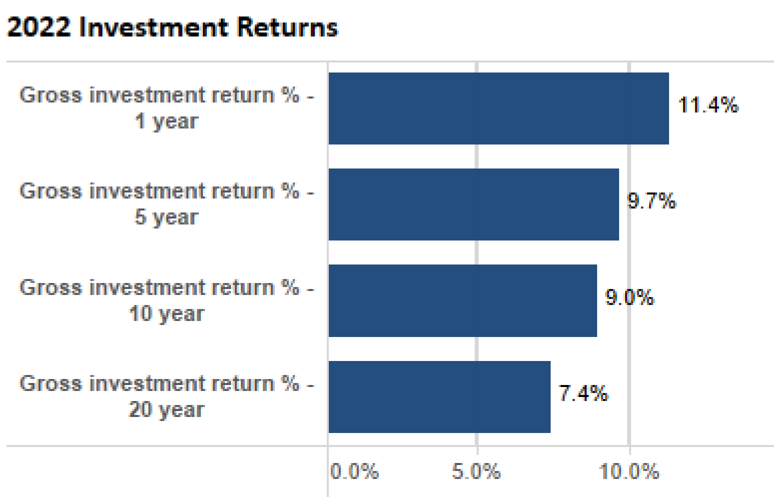
Note: GFOA = Government Finance Officers Association; PPCC = Public Pension Coordinating Council.

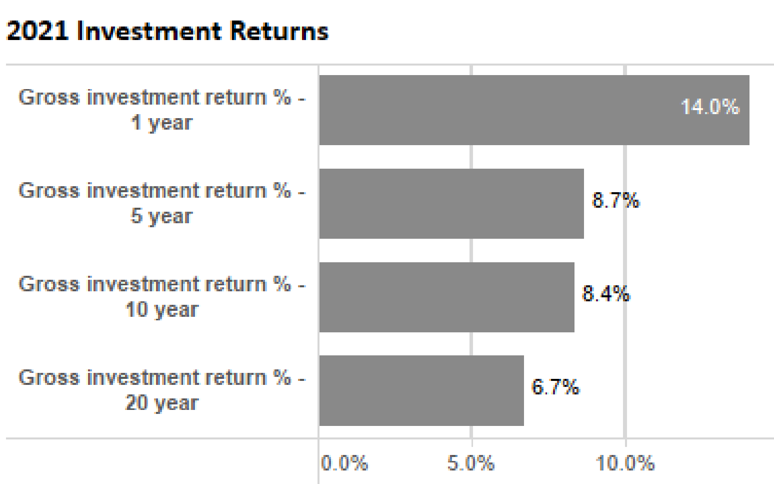
Investment Returns

Reporting funds saw, on average, one-year returns of around 11.4 percent. The five-year, 10-year, and 20-year averages were above the assumed rate of return. Those funds that also participated in last year's study show similar patterns, although this cohort saw, on average, one-year returns around 10.3 percent.

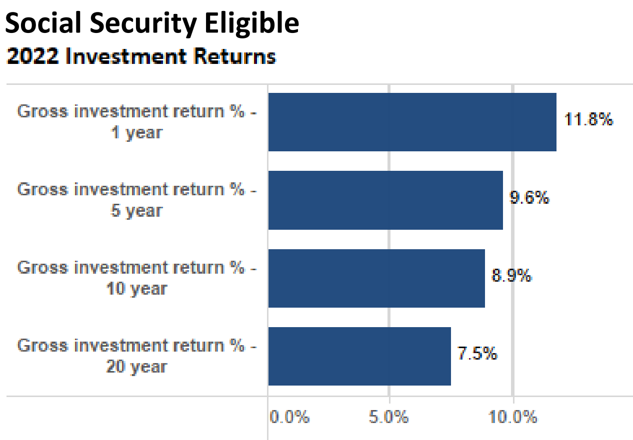
It is important to note that not all responding funds have the same fiscal year-end date. The timing of a fiscal year-end accounts for a significant share of the difference in investment experience between funds. Funds that have a December fiscal year-end date saw one-year returns of 15.0 percent, and those that have a June fiscal year-end date saw one-year returns of 7.6 percent.

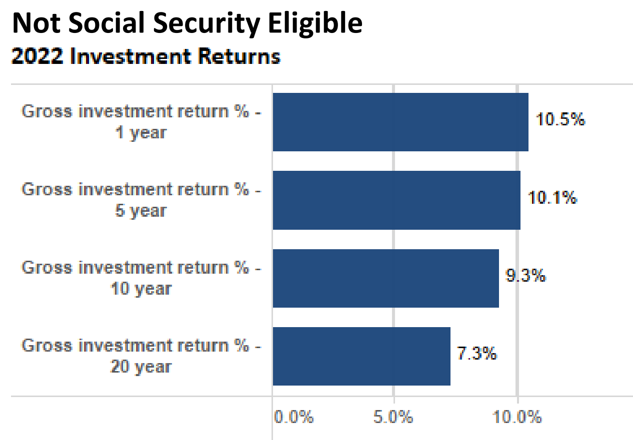
The charts below compare investment returns based on data collected in 2022 and 2021.



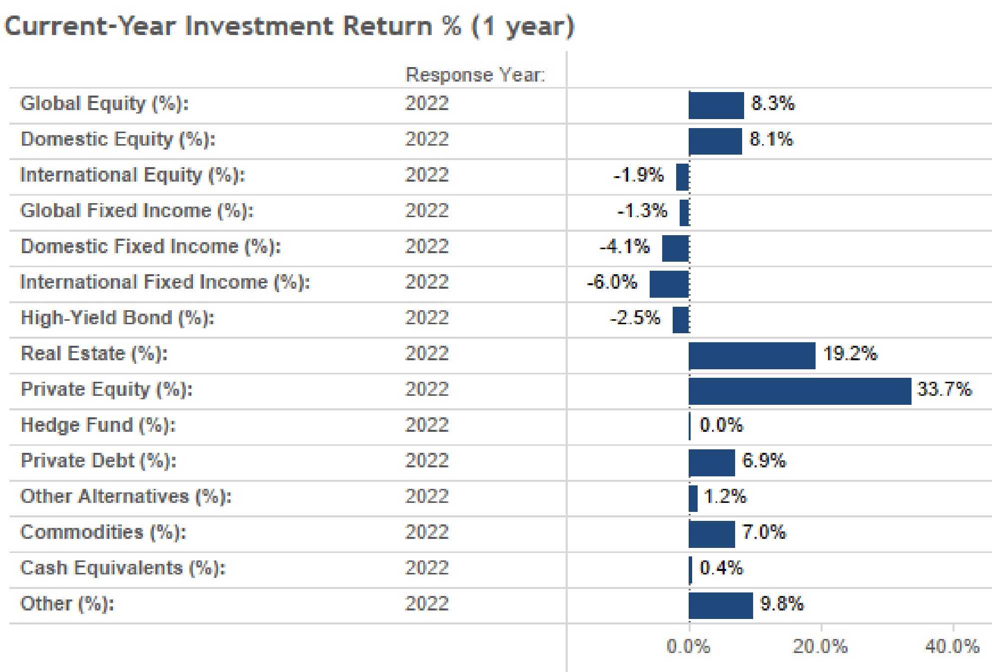


Funds with members who are Social Security eligible reported higher one-year returns than funds with members who are not Social Security eligible.





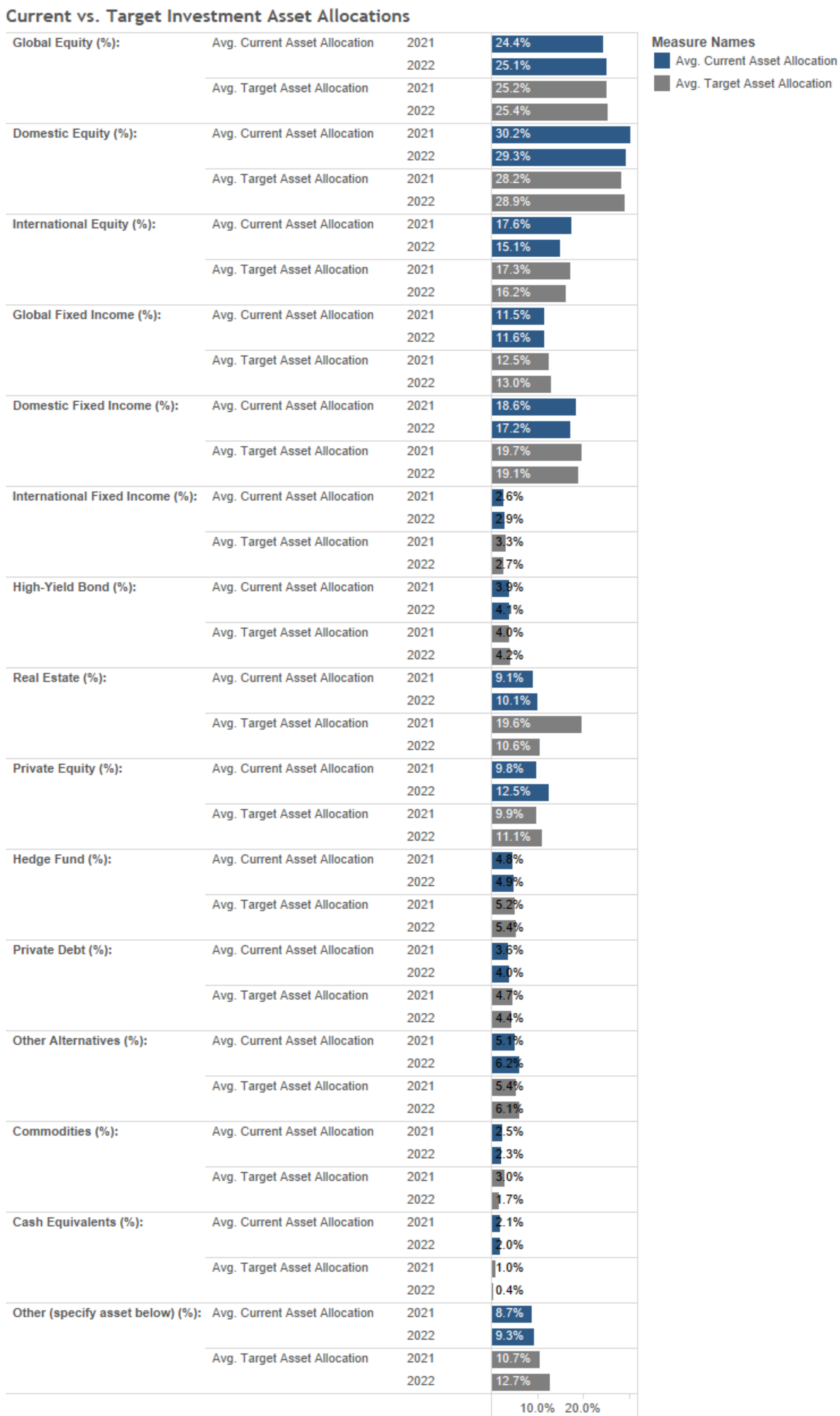
The graph below shows the one-year investment returns based on the various asset classes in which responding funds are invested. Real estate and private equity saw the largest returns.



Investment Asset Allocation

Responding funds had similar allocations to asset classes as they did in 2021.

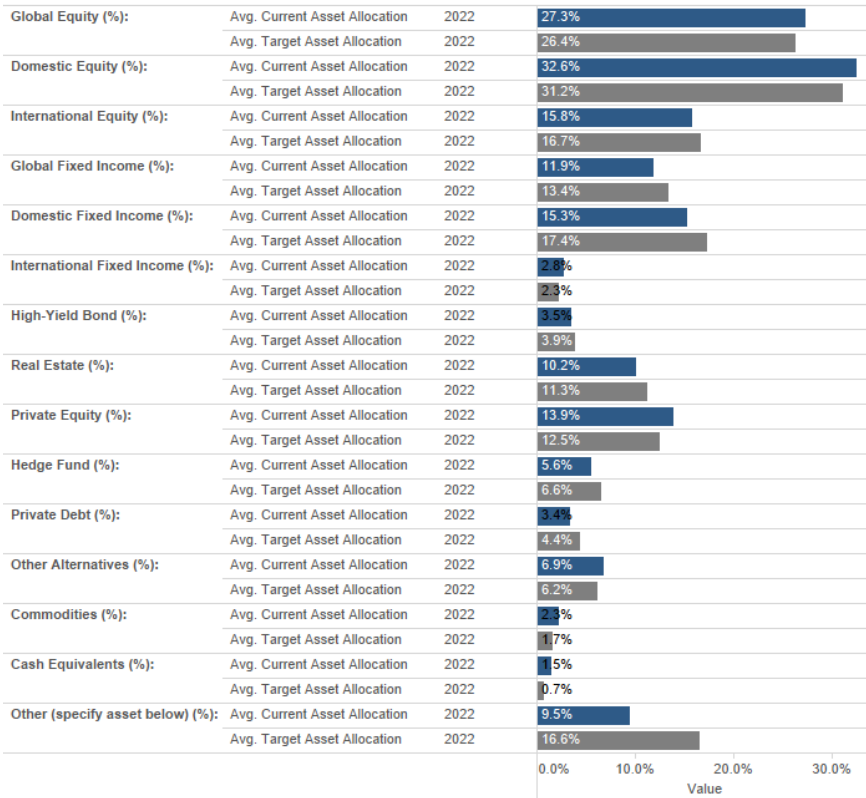
Note: Average allocations in each asset class do not total to 100 percent because of how individual allocations were reported.



Below are two graphs that show the asset allocations for those funds that reported higher-than-average one-year and 10-year investment returns, respectively.

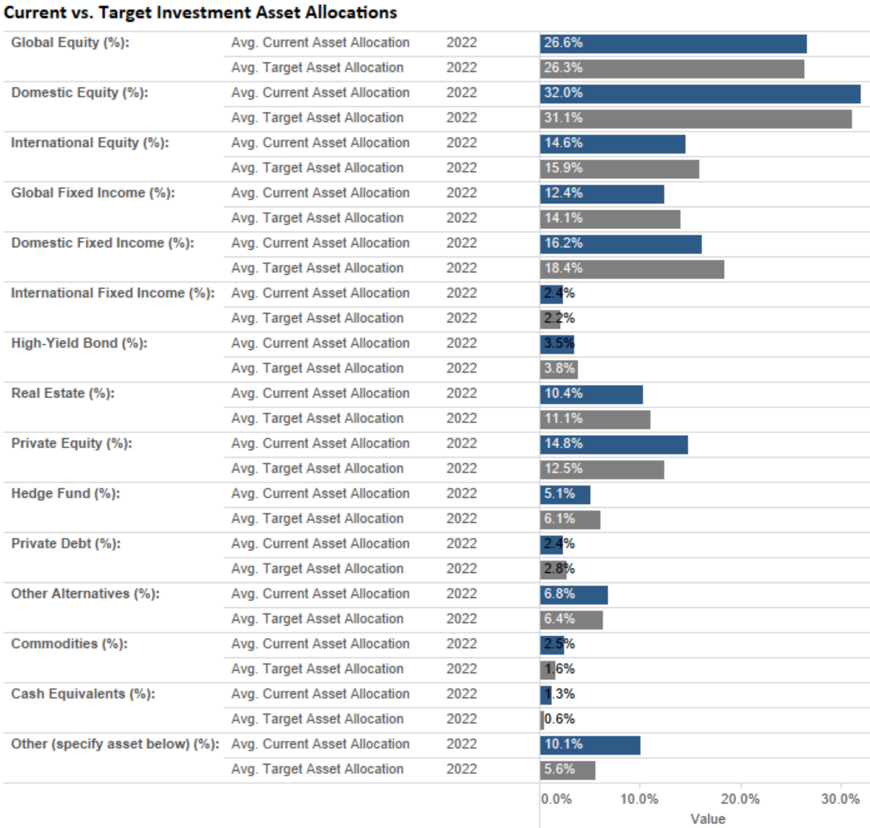
Highest One-Year Return

Current vs. Target Investment Asset Allocations



Highest 10-Year Return

Current vs. Target Investment Asset Allocations

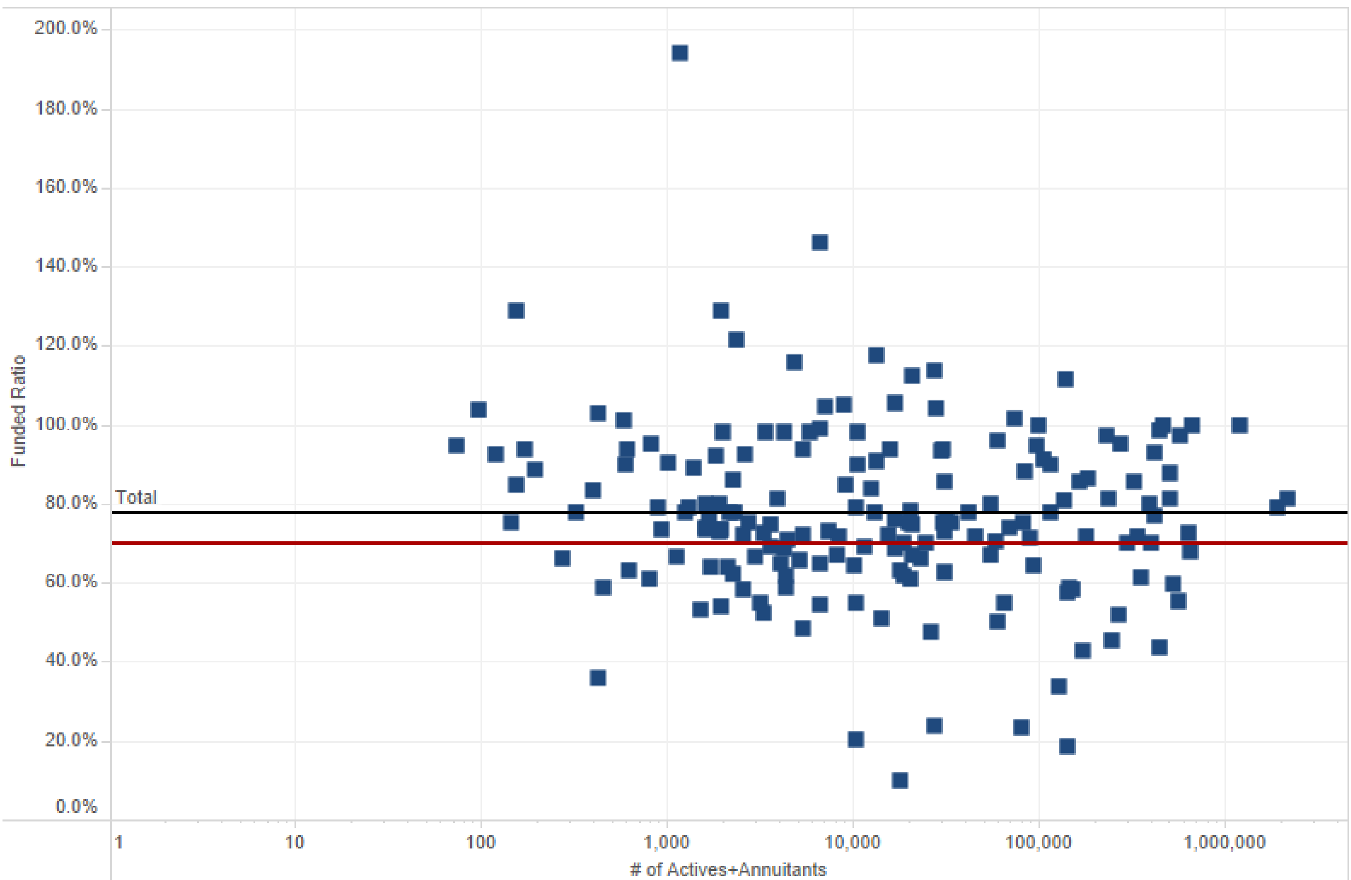


Funding Levels

The average funded level is 77.8 percent, up from 74.7 percent last year; moreover, funds reporting both years saw funded levels increase from 72.3 percent to 77.0 percent.

The graph below shows the distribution of funded levels and fund size. The vertical axis shows the level of funding, and the horizontal axis shows the size of the fund by total active and retired participants. The black center line denotes the average of 77.8 percent, and the red center line denotes the 70 percent funding target that Fitch Ratings considers to be adequate.

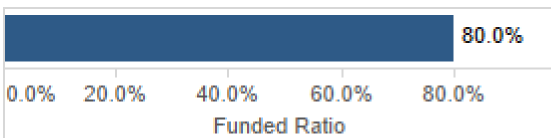
Funded Level Distribution



Many funds include members who are not eligible to receive Social Security at the time of retirement. Such funds often have higher benefit levels to offset the loss of this source of retirement income. Those funds that include such members report an average funded level of 71.3 percent, which is above the 68.8 percent reported in the most recent study. Similarly, funds with members who are eligible for Social Security saw funding levels rise from 77.2 percent to 80.0 percent year-over-year.

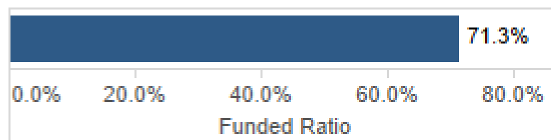
Social Security Eligible

Funded Levels



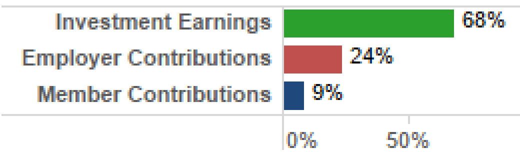
Not Social Security Eligible

Funded Levels

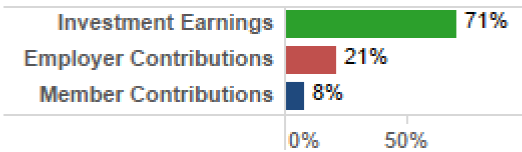


Sources of Funding

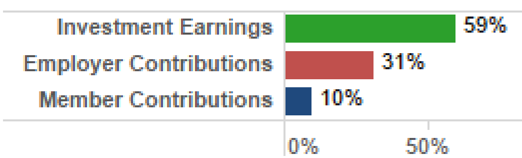
All Responses



Social Security Eligible



Not Social Security Eligible



Income used to fund pension programs generally comes from three sources: member contributions, employer contributions, and investment returns. The chart to the left shows the proportion of funding provided by each of these sources based on reported data.

Investment returns are by far the most significant source of revenue (68 percent). Employer contributions rose by 1 percentage points compared with last year, and member contributions also increased by 1 percentage point.

The graphs to the left also show revenue sources for funds whose members are and are not eligible for Social Security.

Funds whose members are eligible for Social Security show income sourced from employer contributions dipped by 1 percentage point and member contributions rose by 1 percentage point. Funds whose members are not eligible for Social Security showed an increase in income sourced by employer contributions by 6 percentage points while member contributions remained the same.

Contribution Rates as a Percentage of Payroll – All Respondents

Percentage of Payroll

	2021	2022
Member Contributions	8%	9%
Employer Contributions	23%	24%
All Contributions	32%	32%

Contribution Rates – Respondents in Both Years

Percentage of Payroll

	2021	2022
Member Contributions	8%	9%
Employer Contributions	23%	24%
All Contributions	31%	33%

The tables to the left show contribution rates as a percentage of payroll. The top table shows contribution rates for all survey responses, while the bottom table shows responses for those who participated in the past two years. Contribution rates were slightly higher for the current year.

Reducing Liability

Respondents were asked to share strategies they have put in place to reduce accrued actuarial liabilities beyond traditional amortization. Below is a text cloud showing the words that appear most often in respondents' comments. Larger words appear more often. The themes relating to these words are listed to the left, and the verbatim comments are provided below.

- **Increase** – Increased employer contributions; automatic adjustments to employer/employee contributions; implemented tiers with increased contribution levels
- **Fund** – Legislative changes to fully fund the system; increased funding; funding increase from more conservative assumptions such as lower assumed rate of return
- **Employer** – Increased employer contributions; ensuring employer contributions are received; encouraged employers to make additional payments

Strategies to reduce unfunded accrued actuarial liability
1. General Assembly has stated their intent to fully fund the system going forward, and; 2. State budget has been adopted that fully funds the system through fiscal year 2024, which would be eight years that the system has received substantially all of the funding recommended by the actuary; and 3. A new benefit tier was effective, January 1, 2022 that puts any future unfunded liability on the system instead of the state.
20 year layered amortization of UAL.
A dedicated conversation on a proposed plan with the actuary to reduce the unfunded.
A new tier was enacted in 2010 to reduce plan liability and increase plan sustainability. To date, approximately 57% of active membership is in the new tier. The Board has adopted a modified asset allocation and has systematically reduced the investment return assumption.
Additional payments to UAL when there are high investment returns.
Advocating for annual incremental increases in employer contributions.
Advocating for continued budgetary funding of the employers' actuarially determined contribution.
An additional contribution rate is charged to employers to pay for the UAAL in our Plans 1.
An Additional contribution rate is charged to employers to pay the Plans 1 UAAL.
As of 12/31, we did not have an unfunded actuarial liability.
Automatic adjustments of employer/employee contributions and benefit recipient annual increases based on valuation results
Changed funding policy. Actively engage with auditor to assess and address data anomalies.
Changes to asset allocation, increased employer/employee contributions.
Changes to the plan were implemented in 2011, including creation of tiers and an increase in contributions which will sunset upon achieving 100% funded status, which helped to address funding issues.
Close amortization period, lower rate of return.
Contribute an amount in excess of the actuarially calculated contribution.
Contribution rates and benefit formulas are set by the legislature. When our amortization period is greater than 30 years we recommend legislative changes to increase funding.
Current 20-year amortization to be revisited prior the 15 years remaining.
Dedicated Gains. In 2017 the board adopted a dedicated gains policy that capitalizes on years of high investment return to reduce the AROR without increasing the UAAL.
Employee and employer contributions are projected to be sufficient. The plan has always been adequately funded.
Employee and Employer contributions are projected to be sufficient. The State of Nebraska contributed 2% of member salary to the plan.
Employees and Employers have voted to increase contributions. Changed contribution methodology for closed plans.
Ensuring 100% of the actuarial determined employer contribution is received each month and continuing to reduce the amortization schedule.
Everything is being considered to lower the sponsor's contributions in the near term.
Fixed payments over 30 years on UAAL as of 7/1/2016 based on lowered return assumption and benefits changes.
For retirees that return to work, employers pay the equivalency of their contributions to the plan and that goes directly against the UAL. In 2021, that was $60m.

Funding reform that occurred through the Retirement System Funding and Administration Act of 2017 has continued to prove to be successful. The act decreased the assumed rate of return from 7.5% to 7.25% effective July 1, 2017. This rate remained in effect through July 1, 2021. Effective July 1, 2021, the assumed rate of return decreased from 7.25% to 7%. The Act also changed employee and employer contribution rates effective July 1, 2017. While employee rates were increased and capped, employer rates for SCRS and PORS increased by 2%. A schedule of rates includes additional 1% increases annually through July 1, 2022; however, the General Assembly included a provision in its continuing resolution suspending the statutory employer contribution rate increase for fiscal year 2021. Rate increases resumed in fiscal year 2022. While, as expected, the dollar amount of the UAAL has increased in the near term, the additional contributions required by the 2017 legislation have reduced the funding period to pay off that liability. If actuarial assumptions are met, the funding period is expected to continue to shorten over time. The actual reduction in the amortization period will depend upon emerging experience, including investment experience.
funding schedule cut 2 years off from prior schedule.
General Assembly has appropriated additional funding to the system and implemented a buyout plan.
Goal of obtaining a 100% funded ratio within a reasonable period of time.
Have encouraged employer units to make additional payments toward their unfunded liability.
House Bill 8 was passed during the 2021 Regular Session by the Kentucky General Assembly. This piece of legislation changed the method of calculating the Kentucky Employees Retirement System (KERS) Nonhazardous employer contribution from percent of pay to a two-part calculation– normal cost as a percent of pay plus flat monthly payments against UAL. This includes a requirement that each KERS Nonhazardous employer pay its own portion of the total KERS Nonhazardous unfunded pension liability regardless of covered payroll.
Implemented a Funding Policy
Implemented an additional contribution rate paid by employers to fund the Plan 1 UAAL.
Implemented Tier II plan for new hires.
Increase contribution percentage.
Increase contributions at legislative level, offered benefit reductions when contributions increase legislation fails.
Increase of employer contributions effective 7/1/2020. Police/Fire 41%; General Employee 24%.
increase to Employer contribution by an incremental 2% each year through 2025.
Legislation
Limited COLA, raised contribution rates, reduced benefits for new hires.
Lowered AARR/Increase Contributions/Reduced Interest on PROP Accounts/Closed PROP.
Lowering assumed rate of return, tweak asset allocation, increased member contributions.
Maine's Constitution requires exhaustion of the largest portion of the UAL by 2028.
N/A
No unfunded liability.
None
None as we are nearly 100% funded.
Not applicable; funded on the Aggregate Method.
Nothing non-traditional - freeze benefits, reduce future benefits, get rid of DROP and COLA on future benefit, increase both member and city contributions, change all vendors and outdated assumptions. Reduce vendor fees.
NYSLRS uses the aggregate funding method which means there is no unfunded accrued liability.
Once the previous liability is eliminated, it will be part of the annual rate.
Over contributing.
Pay-as-you-go Funding by ER, Contribution Increase from EE and ER, Plan Sponsor Covering Plan Expenses.
Pension Liability Surtax.
propose legislation as our legislature provides funding for our plans.
PSPRS has prioritized employer education regarding pension financing and unfunded pension liabilities. These efforts have included outreach to employers by senior management and staff who have assisted more than 100 employers and policymakers, most of whom by now have made substantial contributions (beyond actuarially required contributions) to pay down pension debts and save taxpayers money.
Recommendation to the employer to institute UAAL buydown program or policy, effectively to make contributions greater than actuarially required.
Reduce investment fees; Employers making additional contributions towards the UAL; lowering assumed rate; optimizing investment portfolio.
Review assumptions every year and ensure ADC is paid on an annual basis.
Setting realistic expectations for return.
Shortened amortization period for annual changes in the UAAL to 20 years; retained contribution rates at higher of current requirement or prior levels; solicited and received periodic contribution infusions in excess of the ADC.
State managed plan.
State Statute mandatory employee and employer contributions; suspending COLA's until fully funded.

STRS Ohio continues to phase-in changes from the 2013 multifaceted pension reform plan to strengthen the financial condition of the pension fund. Further, the COLA reduction to 0% in 2017continues to have a positive impact on the UAAL. The board voted to lower the actuarial investment return assumption to 7.00% to 7.45%, for the June 30, 2021, and June 30, 2022, valuations and will continue to evaluate this rate continually. STRS Ohio completed the Actuarial Experience Review, conducted by the system's actuarial consultant every five years, and made certain demographic assumptions. The experience review looks at all economic and demographic assumptions the system uses and compares them to the system's actual experience over the past five years. The study helps the board decide the assumptions used to evaluate the funded status.
The City has committed to pay extra contributions above the required contribution calculated by the actuary.
The City makes an additional fixed contribution to eliminate the unfunded liability in 2 years.
The Legislature has used the sale of bonds (2015 and 2021) and additional appropriations to the KPERS Trust Fund (2018, 2019 and 2022) to improve the funded status of the System. Part of pension reforms that were passed in 2012, the statutory employer contribution rate was allowed to increase more quickly in order to have the statutory employer contribution rate equal the actuarial determined employer contribution rate. In FY 2021, all employer groups had reached the full actuarial determined contribution rate.
The municipality issued bonds in February of 2022 that had investment returns not gone negative would have gotten the plan to 100% funded.
The Plan Sponsor has adopted funding goals over and above the ADC.
The plan Sponsor has issued a funding note to make payments over 30 years.
The Retirement Commission reduced the assumed rate of return from 7.25% to 6.75%. The employer raised the retirement eligibility requirements: raise retirement age, increased vesting requirements, decreased the Defined Benefit (DB) multiplier to 1.25% (previous multipliers varied i.e., 2%, 2.5%, 2.65%) for all DB plans.
The State of Iowa provides a supplemental appropriation of $5 million each fiscal year to supplement the employer share until the plan reaches 85% funded status.
The TRS Board of Trustees certifies both the amount required under state law and the amount required under an actuarial process (different cost method, shorter amortization) that begins to reduce the unfunded liability.
The TRS Board of Trustees have adopted a pension policy that requires TRS to request state funds when the UAAL grows. TRS continues to implement Legislative mandated contribution increases that were authorized in 2019 and are anticipated to lower the UAAL. TRS is also working to educate stakeholders on the UAAL and how additional liabilities are detrimental to the health of the fund.
TRS has, as of 9/30/2021, closed the entire UAAL over a 27-year period. In addition to this, we have implemented a 20-year layered amortization of future experience gain/losses beginning 9/30/2028, when the amortization period for the entire UAAL is 20 years.
Two of our employers have and/or are making supplemental contributions to accelerate the paydown of the UAAL.
UAL payment floor based upon a benchmark year. For SDCERS this is the 2018 valuation. This is relevant as the layered amortization is scheduled to significantly decrease in 10 years and holding the UAL payment constant will accelerate funding to 100% in the final amortization years.
Various strategies are reviewed by the NYC Office of the Actuary with the TRSNYC Board of Trustees, as well as a bi-annual audit oversight.
We carved the unfunded accrued actuarial liability out of our current actuarially determined employer contribution and put it on its own payment schedule.
We have and will continue to bring legislation to help our unfunded liability decrease.
We have established a contribution rate stabilization reserve fund to accelerate funding.
we look at COLA and possible benefit correction action, when certain thresholds/triggers are met.
We offset the cost of lowering the assumed rate of return with excess gains from the unusually high returns of FY 21 rather than increase the unfunded accrued actuarial liability.
We use a closed amortization coupled with ADC.
We've adopted best actuarial practices around amortization periods and lowered the assumed rate of return to better reflect forward looking investment expectations.
Work with consultant and actuary to make sure we are fully funded by the State mandated date.
Working with the City to support an increase in contributions.

Innovations and Best Practices

In the study, respondents were asked to share a success story regarding best practices or innovations that other plans might like to learn about. Below is a text cloud showing the words that appear most often in respondents' comments. Larger words appear more often. The themes relating to these words are listed to the left, and the verbatim comments are provided below.

- **Member** – Improved online access to member data/self-service; greater member engagement to improve educational experiences and outreach effectiveness
- **Plan** – Work with members to enhance retirement and financial planning; adapting or introducing plans to better meet the financial responsibilities of the system
- **Contribution** – Improved modeling of financial scenarios to anticipate needed contribution levels; implemented/enhanced defined contribution plans, including introduction of lifetime income element; develop mechanisms for deposit of additional contributions when funds are available

Think about best practices. Please share a success story ...
- TRS implemented a Communication Strategy to improve the member's experience, which includes member surveys to learn about the pain points and educate members on the benefits and services TRS provides. The strategy also incorporates interviews with members and our member facing "frontline" staff to capture both sides of the equation. The overall purpose is to improve the quality of our members experience throughout the entire TRS membership lifecycle. - TRS also streamlined its investment- asset reconciliation practices.
1. 66% through a four-year pension administration system upgrade we remain on schedule. 2. Implementing hybrid work schedules post-COVID.
1. The new benefit tier effective January 1, 2022, is a combination of a defined benefit and defined contribution plan and if there is an unfunded liability in the future, it is the responsibility of the system and the members; and 2. Our health insurance trust is using Personalized Medicine (pharmacogenomics) to lower prescription drug costs to the trust and, more importantly, improve health outcomes for our members
Allowing the Board, the ability to give a discretionary stipend in times of historic inflation without changing the cap for the COLA.
An interactive dashboard with basic data on members, actuarial information, finances, and investments.
Annual Participant Statements received a facelift.
Building of a modern PAS to better serve our members
Clearly separate the discount rate from portfolio design.
Conducted RFP for voluntary 457 plan to consolidate six plans. Saved employees over $300,000 in fees.
Considering recruitment and retainment issues, we have adopted a strategy to recruit recent college graduates with little to no job experience. As part of their onboarding process, we have a robust in-house training program. Turnover is minimal at this point.
Continue to offer hybrid work schedules key to attracting and retaining employees and essential to work life balance.
Contribution Prepayment Program offers employers a way to invest excess funds and use them when needed for contribution payments. https://www.azasrs.gov/content/contribution-prepayment-program
Conversion to new software/database
Created a two-year professionally guided LACERS Fellowship program that will guide discovery on frameworks for professional success at LACERS. Design and development of LACERS specific learning journeys to satisfy DEI needs of staff.
Detailed asset liability study that examines cashflows over next few decades. Create a plan to manage through a period of extreme negative cashflows as sponsor contributions go to zero for a few years.
During FY 2022 we engaged with third-party vendor to implement formal data governance practices. As the importance and reliance on data increases across the business, we needed to take more control over how our data is handled, both for security reasons and for business reasons. We are engaged in a "soft" implementation of data governance, which allows for more flexibility as we issue new policies and procedures related to data. Data governance is also going to play an important role in improving the quality of the data through a larger data cleansing effort.
Education is key to informing City officials and Legislators regarding the financial position of the Retirement System. Working on producing a single page informational flyer to use as a handout and quick resource providing facts about the Retirement System.
Formal strategic planning policy where strategic initiatives will be monitored annually and official updated at least every 5 years.
Functionally Focused Portfolio asset allocation policy

Verbatim Comments, continued

Holding member social events to increase annual affidavit compliance
Implemented a lifetime income solution in our defined contribution plans. Undergoing complete pension system replacement.
Instructed actuary to suggest a strategy to become 100% funded within a reasonable period of time.
Lean Six Sigma evaluation of certain processes to determine areas where efficiencies can be made.
Leveraging technology to ensure efficient operations, while still providing robust service to the membership and participating employers.
Marketing and member engagement utilizing a data driven approach. We're actively looking for ways to move paper processes to more efficient and accurate on-line processes.
N/A
NYSTRS received the Government Finance Officers Association's (GFOA) Triple Crown award for excellence in clear, detailed and transparent financial reporting. NYSTRS is one of only four public pension plans in the U.S. and Canada to earn the Triple Crown award for fiscal year 2019 reporting, the most recent year covered. The award is given to government organizations that received all three of GFOA's major awards in one year: the Certificate of Achievement for Excellence in Financial Reporting Award, the Distinguished Budget Presentation Award, and the Popular Annual Financial Reporting Award.
One plan sponsor imposes a funding floor of 90% to 95%. If the plan drops below 90% funding, the plan sponsor elects to make additional UAL contributions to raise funding level to 90%. If between 90% and 95%, plan sponsor elects to make additional UAL contribution to raise funding percentage by 1%
Our online portal for active members, which includes a Daily Statement, that literally adds a day of service each day and shows the member's projected benefit at various ages, has been very popular
Over the past two years we have been holding virtual retirement seminars at the request of employers for their employees. Following these webinars, we conduct virtual individual one-on-one retirement consultations with those employees who are close to retirement. These sessions are still being done virtually while some are done in person or a hybrid approach. We are conducting more consultations virtually rather than in person and have upgraded our benefit calculator to enable members to estimate their benefits based on their account information, therefore providing members with more self-service tools and enabling us to reach more members.

Pension Reform:
The Governor and General Assembly have focused on reducing plan costs and liabilities with a multipronged approach that included:
• Implementing plan design changes (VRS Plan 2 for all employees and the Hybrid Retirement Plan non-public-safety employees) that have lowered future benefit costs
• The Hybrid Retirement Plan is the dominant plan for all new hires except public safety employees.
• The Hybrid plan has a defined benefit and a defined contribution component:
  • Reduces future benefit costs
  • Introduces risk-sharing between employer and employee
  • Lowers defined benefit risk to employers by approximately one-third
Funding:
• Providing infusion of significant contribution amounts in excess of the ADC which are intended to pay down the UAAL
• Setting contribution rates for FY 2023 and FY 2024 at the FY 2022 level or the new actuarially determined rate, whichever was higher.
myVRS Financial Wellness:
• In its quest to help members plan for tomorrow, today, VRS launched an innovative online program in 2017 to provide financial wellness education for its members, as well as free educational resources for citizens of the Commonwealth. The System continues to promote this education opportunity and enhance the materials that are available.
• Recognizing that many VRS members would like to improve their knowledge but do not have access to personal finance education, VRS seized an opportunity to integrate financial wellness content on the public website and with the retirement planning tools within the agency's secure myVRS online member portal. VRS partnered with its service provider, iGrad, creator of Enrich financial literacy content, to develop myVRS Financial Wellness.
• VRS appears to be the first state retirement system to offer financial wellness content through its public website and personalized content – based on the member's profile – through a secure member portal. The program is aimed at helping members make informed and educated decisions on everyday financial matters while saving for the future and retirement security. Users find tools, tips and time-savers that help them with debt and credit management, personal budgeting, spending habits, saving for goals, student loan repayment and career-development strategies.
Advancements in Technology and Security:
• VRS continued the Modernization journey. Successfully transitioned retirement processing and disbursements to a cloud-based environment and decommissioned the legacy mainframe, including the transfer of over 400 million records.
• Successfully disburses more than 250,000 payments monthly to retirees and beneficiaries under the new system that was implemented in May, 2019 with approximately 98% done electronically.
myVRS Online Self-service Member Portal Enhancements:
• Enhancements to myVRS now enable members to complete their retirement applications online. The online system provides the user with regular feedback and embedded education to enhance the user experience.
• Enhanced the online Self-service portal to allow members and retirees to update and manage beneficiaries, change bank account information for direct deposits, and update Health Insurance Credit information.

Similar to many, ensuring core lines of business continue has been a focus during COVID. In March of this year most team members returned to a hybrid in office work schedule.
Stakeholder Education. As part of the effort to educate stakeholders, TRS created a video series found at https://www.trs.texas.gov/Pages/403b_active_awareness_videos.aspx and https://www.trs.texas.gov/Pages/active_member_planning_retirement.aspx. These videos are designed to assist members with retirement readiness. They also help TRS explain that supplemental payments require more than the pension fund be actuarially sound. Instead, the full costs of benefit enhancements without contribution increases or cash influx is large future deficits. TRS beneficiaries have received supplemental payments paid for with state funds in each of the last two years. This is impressive in a system where automatic increases are not guaranteed. Regional Offices. TRS will open its first regional office in El Paso in late fall 2022; other locations will be explored in the future. Regional Offices will serve a large population of members who cannot easily visit TRS headquarters due to their distance from Austin. Statewide Employer. TRS has expanded recruiting efforts for 100% remote work positions from within the Austin metropolitan area to the state of Texas. These positions are primarily Contact Center positions which have the highest turnover compared to other positions within the Pension Benefit Services Division. TRS received inadequate numbers of Contact Center applicants in the Austin area; expanding recruiting efforts to other cities within Texas has delivered larger applicant pools. In addition, TRS has expanded hiring outside of the Austin metropolitan area for employer coaching positions. Better Staff Recruitment and Retention. The TRS Board of Trustees authorized TRS to transition from the Texas State Classification Plan to a new TRS-specific classification structure. This marks the beginning of the official implementation of a TRS Compensation Plan that can be tailored to meet TRS' specific business needs, is tied to market data for talent, and provides an efficient and flexible framework to effectively recruit and retain staff. Developing this new system allows TRS to respond timely and more competitively to shifts in the labor market. In the future, TRS may pursue recruitment beyond Texas contingent upon the necessary resources to pursue such an initiative.
STRS Ohio completed several important studies including fiduciary audit, actuarial audit, asset liability study and actuarial experience review. The studies provided STRS Ohio guidance on funding, return expectations and system operations. In addition, the board approved a one-time 3% cost-of-living increase paid to eligible benefit recipients effective July 1, 2022 and eliminated the age 60 requirement for service retirement eligibility that was to take effect in 2026. In accordance with laws in effect, these changes were reviewed by the board's actuarial consultant.
The Board of Trustees hired a part-time Plan Administrator to manage the day-to-day administrative duties of the retirement system and the retiree health care trust. These duties were previously managed by the City Treasurer in between his Treasurer duties and responsibilities. Having a dedicated employee for the retirement system manage a pension office has turned out to be a valuable enhancement for the retirement system.
The Plan verifies payments to inactive members annually.
The Retirement System implemented technological apparatuses (Zoom and WebEx) to maintain communication with participants. One-on-One and group meetings with the plans' Retirement Counselor/Advisor, and educational webinars are conducted with this technology, and proved to be amazingly popular with participants due to the convenience of time and location for the meetings.
Through unitization we have created separate investment pools for plans with different liabilities.
Transitioned Medicare-eligible population to the Medicare Exchange
Twice per year internal audit of member data.
Unique corridor funding method for employer's normal cost contribution and fixed 30-year payments on UAAL as of 7/1/2016, and statutory prohibition on changing funding method.
Updated pension administration system to a web-based platform that is faster and more secure. Implemented electronic payment of contributions from employers.
Video Stories from Retirees about their Pension Benefit
We are implementing a pension system modernization project which requires us to scrutinize and evaluate so as to improve our practices and processes. Additional changes are being implemented in our investment program.
We are rolling online withdrawals and are starting requirements gathering for online retirement application. Our member surveys indicate that all members want and expect online transactions.
We are very happy with our custom pension administration software. It took 10 years and $20 million to get it working great.
We consider our educational outreach to be a best practice and a substantial achievement. Over the past two and a half fiscal years, this outreach has resulted in employers paying down approximately $4.85 billion of unfunded liabilities. Initial estimates indicate that this employer activity has helped increase our public safety plan funding level approximately 17 percent (48 to est. 65% from FY20 to FY22) and corrections officers plan funding level 29 percent (54 to est. 83 percent from FY20 to FY22). PSPRS has also implemented what it believes best practices in investments. The team has engaged with our actuaries to conduct future cash flow studies to inform decision making about risk appetite and asset allocation. The investment department team members also engage in predictive analytics exercises that require assigning a level of confidence when predicting future outcomes. Over time, members of the investment team have improved upon their "calibration." Over time, members of the investment team have improved upon their decision-making "calibration." The requirement has the additional benefit of encouraging and equalizing the contributions of individual team members for investment discussions and decisions.
We continue to offer hybrid training programs for employers and members. They can choose in-person events or virtual events based on personal preference and convenience. We continue to partner with a Social Security consultant to offer counseling in the WEP and GPO, as well as Medicare benefits.
We have a very robust Death Match process that we run through multiple processes on a weekly basis.
We have been working with GGA on board policies and oversight with a more detailed and adhered to committee structure. While we are still a work in progress, this move has benefitted our small staff (7) to make sure we are utilizing everyone more efficiently.
We implemented an auto-approval process for return-to-work applications. This has drastically reduced processing time and allows our employers to quickly fill open teacher positions.
We perform actuarial "stress tests" annually. We perform "experience studies" every three years as opposed to our past practice of every five years.

Appendix A: Other Investments

Respondents were asked to specify what “other” asset classes they invested in. Below is a text cloud showing the words that appear most often in respondents’ comments. Larger words appear more often. The themes relating to these words are listed to the left, and the verbatim comments are provided below.

- **Asset** – Tangible assets, real assets, multi asset class
- **Equity** – Private equity, emerging equity
- **Return** – Real return

Other Investments
"Other alternatives" is Infrastructure and "Commodities" is Natural Resources. Internally, Equity exposure is broken into US equity, Developed Market Equity, and Emerging Market Equity. Fixed Income is broken into Investment Grade Bonds, Long-Term Government Bonds, TIPS, Foreign Bonds, Emerging Markets Bonds, High Yield Bonds, and Bank Loans.
Capital Efficiency Alpha Pool (5.10), Midstream (6.3)
Distressed debt, opportunistic credit, bank loans, high yield
Domestic Fixed Income = Core/Core Plus Fixed Income (10.6%), United States Treasury (8.7%) and Public Credit (5.2%). Other Alternatives = Real Assets 27.6%, Liquid Real Return 0.1%, Absolute Return - Growth (8.2%), and Absolute Return - Diversifying 2.0%
Dynamic Asset
Dynamic Assets
Economically Targeted Investments
emerging equity
Emerging Market Equity (1 yr return -32.3%), TIPS (1yr return -5.2%), Emerging Market Debt (1 yr return -18.2%), Multi Asset Class Solutions (1 yr return -16.3%)
For the above question, domestic equity, international equity, fixed income, and cash equivalents are gross returns. Real estate and private equity are net of external investment management fees and costs, including carried interest and other fund expenses. Additionally, the private equity return is our total alternative investment asset class return. Total alternative investments include private equity and opportunistic / diversified investments.
Global Asset Allocation
Global Tactical Asset Allocation
GTAA
Hybrid
Inflation protection
Inflation Sensitive - Asset Allocation(15.4%/16.0%) Investment Return(6.0%) and Multi Asset - Asset Allocation(3.4%, 3.4%) Investment Return (16.3%)
Infrastructure
Infrastructure
Infrastructure - 0% actual, 5% target
Low Volatility Hedge

Verbatim Comments, continued

MACS
Master Limited Partnership
midstream energy
MLP's
Multi Asset
Multi Asset Class
Mutual and Commingled Funds
N/A
Natural resources and infrastructure.
Natural Resources: 2.6% and Infrastructure: 2.7%
Note: International Fixed Income, Hedge Funds, Other Alts and Commodities are N/A
Opportunity Fund
Other - Infrastructure
Other alternatives equal Public and Private Infrastructure and financing (excluding a Tail Risk program).
Other Alts = Infrastructure; Commodities = Midstream Energy (MLP)
Other Alts = Infrastructure; Commodities = Midstream Energy (MLP)
Other consists of REITS and TIPS
Other- Real Assets
Portfolio Completion Strategies
Private Equity reported above includes private debt, which is not broken out separately in our reports.
Private Real Assets (4%, 4%, 24.6%) and Public Real Assets (6.2%, 4%, 8.6%)
Private Real Estate
public equity 50%, private equity 10%, Fixed rate bonds 10%, Float Rate debt 15%, Core Private equity real estate 10% and Value add equity real estate 5%
Public equity, fixed income, Credit strategies, multi-asset public strategies, private investment partnerships
Real assets
real return
real return
Return for "Other" represents Unallocated Cash.
Risk Parity
Risk Parity
Risk Parity and Crisis Risk Offset
Risk-Based Asset Allocation as of 6/30/2022 (Actual/Target): Broad Growth (68.0%/67.5%/-7.05%), Diversifying Strategies (29.7%/32.5%/12.87%), Other (2.4%/0.0%/-14.85%)
See details on https://lsers.net/home/investments/investment-reports/.
Short Term Investments
Stable Value, Real Return, Risk Parity, Asset Allocation Leverage
Tangible assets
Tangible assets
Tangible assets
Tangible assets
Tangible assets
Tangible assets
Tangible assets
Tangible assets
Tangible assets
Timber
Timber
timberland
TIPs
TIPS
TIPS, Global Inflation Linked Bonds, Infrastructure, Timber
Treasury Protection

Appendix B: 2022 Study Instrument

National Conference on Public Employee Retirement Systems
The Voice for Public Pensions

Cobalt Community Research

2022 NCPERS PUBLIC RETIREMENT SYSTEMS STUDY

Please share your feedback so we can continue to provide the most up-to-date data addressing retirement issues for public pension plans across the nation. Your most recent Annual Comprehensive Financial Report will help answer most questions.

If you administer more than one plan, copy this survey for each and note the name of the fund. If you are a multiple employer plan, use aggregate numbers from your ACFR and respond to questions in the generally applicable way for most of your plans.

Please enter your ID number from the cover email: ☐

Plan name: ☐

What type of plan is this? (**Mark all that apply.**)

☐ *Defined Benefit Plan (Traditional Pension Plan)*
☐ *Defined Contribution Plan (Mandatory Retirement Account)*
☐ *Combination Plan (Blends Defined Benefit & Defined Contribution)*
☐ *Cash Balance Plan*

Plan Statistics

1. Fund statistics **from most recently completed fiscal year** (if applicable). Please do not use commas, dollar signs or percentage marks in the field - it is numeric only.

Total number of members (actives + deferred + retirees + beneficiaries): ☐

Total number of staff who administer the fund (full-time equivalent): ☐

Fiscal year of your CAFR referenced for this survey (MM/DD/YYYY): ☐

Market value of plan assets ($ in thousands from actuarial valuation): ☐

Total pension assets (a) ($ in thousands from actuarial valuation): ☐

Total pension liability (b) ($ in thousands from actuarial valuation): ☐

Current funded ratio (a divided by b) (%): ☐

Cost of Living Adjustment (COLA) offered by plan in last fiscal year (%): ☐

Did your plan receive the full (100%) actuarially determined contribution in the last fiscal year? ☐ *Yes* ☐ *No*

Member contributions as percent of payroll (%): ☐

Employer contributions as percent of payroll (%): ☐

Investment manager expenses (basis points): ☐

Administrative expenses (basis points): ☐

Investment assumption/discount rate (%): ☐

Inflation assumption (%): ☐

Investment smoothing period (years): ☐

Amortization period (years): ☐

Type of amortization period: ☐ *Open/Rolling* ☐ *Closed/Fixed*

Investment return % (1 year): ☐

Investment return % (5 year): ☐

Investment return % (10 year): ☐

Investment return % (20 year): ☐

Are these investment returns Net or Gross? ☐ *Net* ☐ *Gross*

Current and Target Asset Allocation / Investment Return

2. For each of the asset classes below, please specify your *CURRENT* and *TARGET* asset allocation and your *1 YEAR INVESTMENT RETURN* (%) for each asset class. **Please note**: percentages for asset allocation should equal 100%. If your target assets are a range, please use middle of the range.

***CURRENT* asset allocation:**		***TARGET* asset allocation:**		***Investment return % (1 yr):***	
Global Equity (%):		Global Equity (%):		Global Equity (%):	
Domestic Equity (%):		Domestic Equity (%):		Domestic Equity (%):	
International Equity (%):		International Equity (%):		International Equity (%):	
Global Fixed Income (%):		Global Fixed Income (%):		Global Fixed Income (%):	
Domestic Fixed Income (%):		Domestic Fixed Income (%):		Domestic Fixed Income (%):	
International Fixed Income (%):		International Fixed Income (%):		International Fixed Income (%):	
High Yield Bond (%):		High Yield Bond (%):		High Yield Bond (%):	
Real Estate (%):		Real Estate (%):		Real Estate (%):	
Private Equity (%):		Private Equity (%):		Private Equity (%):	
Hedge Fund (%):		Hedge Fund (%):		Hedge Fund (%):	
Private Debt (%):		Private Debt (%):		Private Debt (%):	
Other Alternatives (%):		Other Alternatives (%):		Other Alternatives (%):	
Commodities (%):		Commodities (%):		Commodities (%):	
Cash Equivalents (%):		Cash Equivalents (%):		Cash Equivalents (%):	
Other (specify asset below) (%):		Other (specify asset below) (%):		Other (specify asset below) (%):	

Are these investment returns Net or Gross? ☐ *Net* ☐ *Gross*

If you entered an "Other" asset class above, please specify the other class(es) in which your fund is currently invested:

3. Which *retirement benefits* below does your plan offer or is considering offering? Please skip individual items below if not applicable.

	Already Offering	*Considering Offering*
Defined Benefit Plan (traditional pension plan in which the benefit is defined by a formula based on service and average wages)	☐	☐
Defined Contribution Plan (retirement account such as a 403(b) or 401(k) in which an employer's contribution is specified and employee participation is generally mandatory)	☐	☐
Deferred Compensation Plan (tax-deferred retirement savings account such as a 457 in which employee participation is voluntary)	☐	☐
Combination Plan (blends Defined Benefit and Defined Contribution elements)	☐	☐
In-service death benefit	☐	☐
Disability benefit provided either within the plan, by Social Security or by employer	☐	☐
An automatic post-retirement adjustment of payments (e.g. COLA)	☐	☐
A compounding post-retirement adjustment of payments (e.g. COLA)	☐	☐
An ad hoc (not necessarily automatic or compounding) post-retirement adjustment of payments (e.g. COLA)	☐	☐
Employer pick up of employee contributions	☐	☐
Deferred Retirement Option Plan (DROP - in all forms)	☐	☐

4. Which ***retirement plan changes*** below have been implemented or are being considered by the plan or plan sponsors? Please skip individual changes below if not applicable.

	Already Implemented	*Considering Implementing*
Lower the actuarial assumed rate of return	☐	☐
Raise benefit age/service requirements	☐	☐
Increase employee contributions	☐	☐
Hold or lengthen the amortization period to improve affordability	☐	☐
Shorten the amortization period to improve funded status	☐	☐

5. Which ***business practices*** below have been implemented or are being considered by the plan or plan sponsors? Please skip individual items below if not conducted.

	Already Implemented	*Considering Implementing*
Conduct a death audit	☐	☐
Conduct an actuarial audit by a third party actuary (includes replication of valuation and opinion on actuarial assumptions)	☐	☐
Conduct an information systems security audit	☐	☐
Conduct a building security audit	☐	☐
Update/strengthen an asset allocation study	☐	☐
Expand operational performance benchmarking	☐	☐
Update or enhance administrative software used for member data	☐	☐
Update or enhance online portal provided for members to access account information	☐	☐
Update or enhance a mobile app for members to access account information	☐	☐
Conduct an employer/reporting unit satisfaction assessment	☐	☐
Comply with new State statutory or regulatory requirements to report your funded status based on a rate of return different from your assumed rate of return	☐	☐
Enhance member financial wellness/retirement readiness resources	☐	☐

6. Which of the following ***communication methods*** does your plan or plan sponsor have?

	Yes	*No*
A website that provides account information to members	☐	☐
A mobile app that provides account information to members	☐	☐
Capacity to send a mass text message to your entire membership	☐	☐
Capacity to send an e-mail to your entire membership	☐	☐
Does your plan have a social media presence?	☐	☐
Does your plan offer video conferencing to members (Zoom, Teams, WebEx, etc.)?	☐	☐

7. Please indicate how important each of the following are for outbound communication with your members

	Primary Way to Communicate	*Secondary Way to Communicate*	*Do Not Use*
Direct mail	☐	☐	☐
E-mail	☐	☐	☐
Text message	☐	☐	☐
Mobile app	☐	☐	☐
Website	☐	☐	☐
Social media	☐	☐	☐
Other (note below)	☐	☐	☐

8. Which *oversight practices* below have been implemented? Please skip individual practices below if not conducted.

	Yes	No
Receipt of the GFOA Award of Excellence for the most recent award cycle	☐	☐
Receipt of NCPERS Certificate of Transparency	☐	☐
Receipt of PPCC Standards Award	☐	☐
Receipt of PPCC Administrative Certificate	☐	☐
Receipt of PPCC Funding Certificate	☐	☐
Receipt of an unqualified opinion from the auditor on the fund's financial statements, internal controls, and compliance with applicable laws and regulations	☐	☐
Conduct an actuarial valuation at least every 2 years	☐	☐
Board adoption and adherence to written investment policies	☐	☐
Board adoption of written fiduciary standards	☐	☐
Receipt of annual investment performance evaluation from an outside independent investment review entity	☐	☐
Use of a formal enterprise risk management framework	☐	☐

9. How important, if at all, are ESG (environmental, social, and governance) factors in your fund's investment decisions?

☐ *Very important* ☐ *Somewhat important* ☐ *Not at all* ☐ *Don't know*

10. How satisfied are you with your plan's readiness to address retirement trends and issues over the next 2 years?

Very Dissatisfied= 1	2	3	4	5	6	7	8	9	Very Satisfied= 10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

11. If you have an unfunded accrued actuarial liability, what strategies have you put in place to reduce it beyond traditional amortization?

12. Think about best practices. Please share a success story or plan innovation you are considering that other plans may like to learn about:

13. Which categories best describe your innovation or best practice story above? (**Please mark all that apply.**)

☐ *Retirement benefit* ☐ *Business practice* ☐ *Oversight practice*
☐ *Plan change* ☐ *Communication/ engagement practice* ☐ *Investment*

Questions about your fund (your responses will be confidential)

14. What type of employees/beneficiaries does your fund serve? (**Please mark all that apply.**)

☐ *Local (township/city/village)* ☐ *Public safety* ☐ *Educational*
☐ *County* ☐ *State* ☐ *Other*

15. Are your members eligible for Social Security coverage? ☐ *Yes* ☐ *No*

16. Are your members eligible for Medicare coverage? ☐ *Yes* ☐ *No*

17. Do you include overtime in the calculation of the retirement benefit? ☐ *Yes* ☐ *No* ☐ *N/A*

18. Does your plan allow Board Members the ability to participate via teleconference or webconference (Zoom, Teams, Webex) and vote? ☐ *Yes* ☐ *No*

19. Which role(s) best describe your relationship to the fund? (**Please mark all that apply.**) ☐ *Staff* ☐ *Plan consultant* ☐ *Board member/ trustee* ☐ *Other*

20. May we contact you if we have additional questions? ☐ *Yes* ☐ *No*

Your Name ______ Your Email ______

21. If the contact for next year will be different, who should we contact? ☐ *Same as above* ☐ *Different person (note below)*

Name ______ Email ______

This concludes the study. Thank you for your time and cooperation.

For more information:

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