2015 NCPERS
Public Retirement Systems Study

November 2015

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

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

Overview

Public funds remain confident in their ability to address retirement trends and issues over the next two years through lower expenses, active administration, solid investment returns and adjusting benefits

Executive Summary
In July, August and September 2015, the National Conference on Public Employee Retirement Systems (NCPERS) undertook a comprehensive study exploring retirement practices of the public sector. In partnership with Cobalt Community Research, NCPERS has collected and analyzed the most current data available on member funds' fiscal condition and steps they are taking to ensure fiscal and operational integrity.

The *2015 NCPERS Public Employee Retirement Systems Study* includes responses from 179 state, local and provincial government pension funds with more than 13.5 million active and retired memberships and assets exceeding $2.0 trillion. The majority – 68 percent – were local pension funds, while 32 percent were state pension funds.

The study finds that public funds continue to respond to changes in the economic, political and social landscape by adopting substantial organizational and operational changes to ensure long-term sustainability for their stakeholders. Efforts include increasing member contribution rates, expanding operational benchmarking and more diligent oversight.

NCPERS is the largest trade association for public sector pension funds, representing more than 550 funds throughout the United States and Canada. It is a unique nonprofit network of public trustees, administrators, public officials and investment professionals who collectively manage nearly $3 trillion in pension assets. Founded in 1941, NCPERS has been 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.

To access the interactive 2015 NCPERS Public Employee Retirement Systems Study interactive dashboard, please contact Amanda Rok, Communication & Social Media Manager at Amanda@NCPERS.org.

To view previous editions of this report, please visit: www.NCPERS.org/surveys.

About Cobalt Community Research

Cobalt Community Research is a nonprofit research coalition created to help governments, local schools and other nonprofit organizations measure, benchmark and manage their efforts through high-quality affordable surveys, focus groups and facilitated meetings. Cobalt is headquartered in Lansing, Michigan.

Overview *- Continued*

2015 Key Findings

1. Public funds are becoming more cost effective. Responding funds report the total cost of administering their funds and paying investment managers is 60 basis points (100 basis points equals 1 percentage point.) This is a decrease of one basis point from 2014. According to the *2015 Investment Company Fact Book*, the average expenses of most equity funds average 70 basis points and hybrid funds average 78 basis points. This means funds with lower expenses provide a higher level of benefit to members (and produce a higher economic impact for the communities those members live in) than most mutual funds.

2. Funds continue to tighten benefits, assumptions and governance. Examples include a continued trend of shortening amortization periods, increasing member contribution rates and lowering actuarial assumed rates of return.

3. Funds are currently experiencing healthy 1-year, 3-year, 5-year and 20-year returns. 10-year returns are reported at 7.0 percent. Respondents' continue to work toward offsetting sharp losses from 2008 and 2009 by strengthening investment discipline. Signs point to long-term improvement in public retirement systems' funded status.

4. Funds experienced an increase in average funded level. Responding funds report an average funded level of 74.1 percent, up from 71.5 percent in 2014. Three factors contributed to the change. First, on average funds saw 1-year investment returns of 11 percent. Second, funds continue to lower amortization periods. Third, the 2008 market crash is no longer eroding the actuarial assets of funds using a 5-year investment smoothing period.

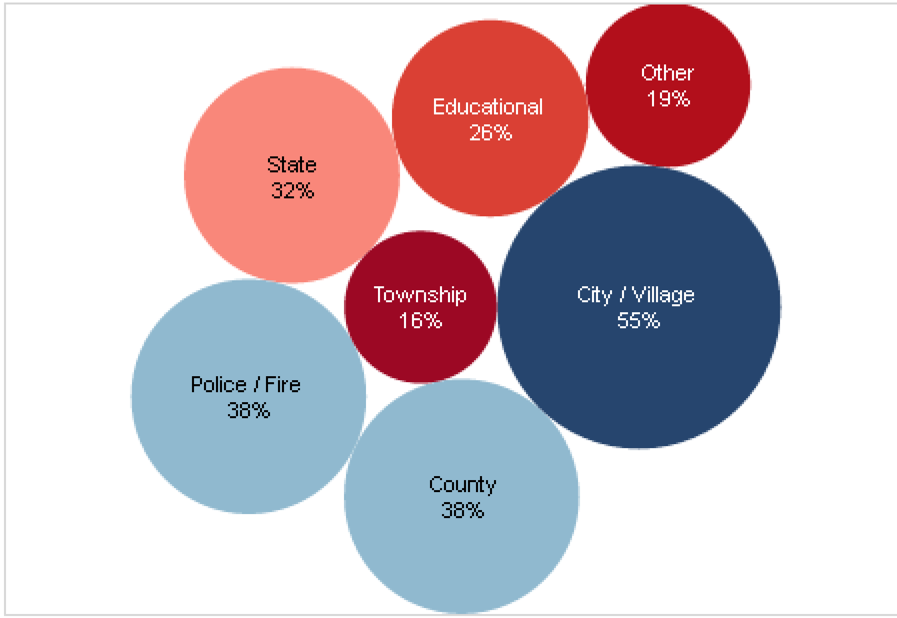
5. Income used to fund pension programs generally comes from three sources: member contributions, employer contributions and investment returns. Investment returns are the most significant source (75 percent). Member contributions make up 7 percent of fund income. Employer contributions equal about 19 percent.

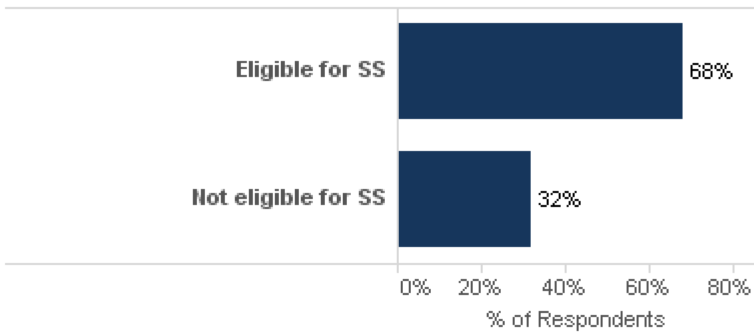
Who Responded

For the 2015 study, 179 respondents provided feedback to NCPERS using the most recently available data. Of the 179 respondents, 151 gave permission to group their data for reporting purposes. Data on the following pages reflect the findings from the 151 funds.

55 percent serve city and village jurisdictions. About 40 percent of the responding funds serve police and fire employees. The graph to the right shows the 2015 distribution of jurisdictions that the funds serve (totals may exceed 100 percent because of multiple response).

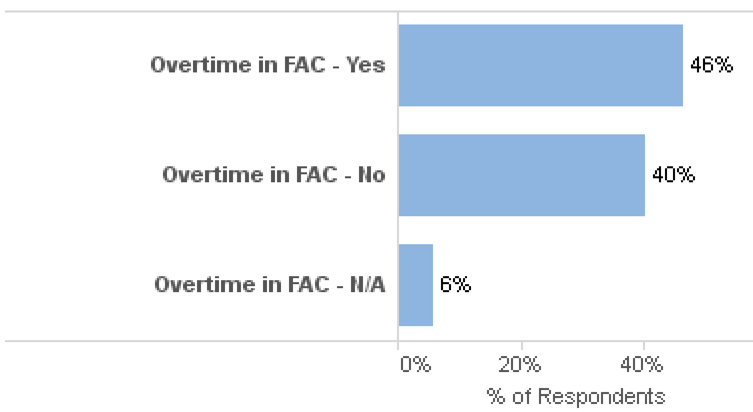
The overall distribution of responding funds is similar to 2011, 2012, 2013 and 2014; however, there was a 13 percent increase in the number of State entities.



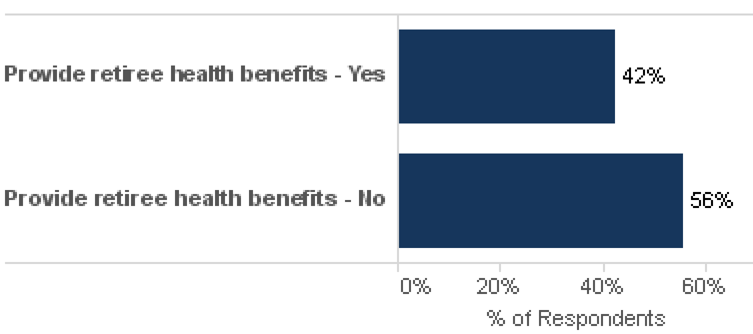


About 70 percent of responding funds have members who are eligible for Social Security; and 32 percent are not eligible. In this report, breakdowns are presented for "Eligible for Social Security" and for "Not Eligible for Social Security."

Two areas of interest in public retirement are the inclusion of overtime in the calculation of a retirement benefit and also the provision of health care benefits to retirees.



According to the 2015 study respondents, 46 percent include overtime in the benefit calculation. The same percentage reported last year.



42 percent provide some level of health coverage for retirees, which is slightly higher than last year's study.

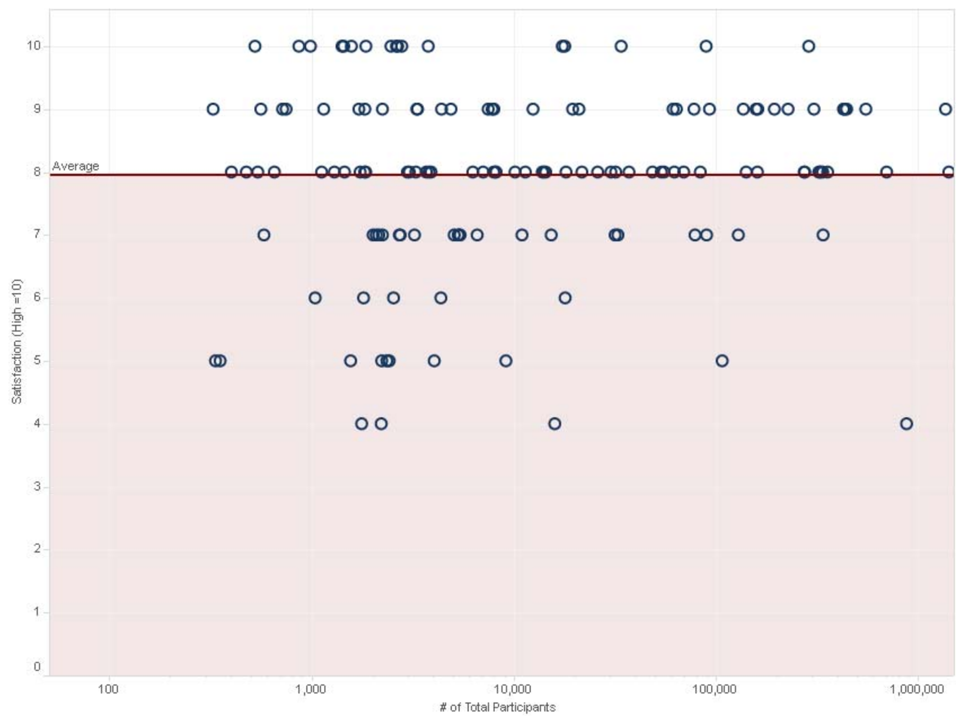
Fund Confidence

The study asked respondents "How satisfied are you with your readiness to address retirement trends and issues over the next two years?" Overall, respondents provided an overall "confidence" rating of 8.0 on a 10-point scale (very satisfied =10). This was up from 7.9 in 2014 and a 7.4 in 2011.

The increases over the last 4 years show retirement systems across the country and becoming more cognizant and confident in their abilities to address concerns in an increasingly volatile environment.

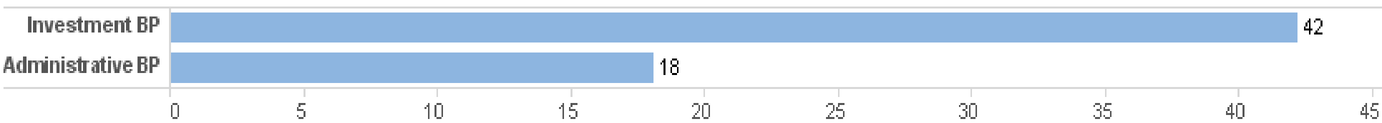
Social Security eligible and non-eligible funds rated this question 7.8 (same as last year) and 8.2 (up 0.2 from 2014) respectively.

Fund Confidence



Expenses

2015 Study Plan Expenses (Basis Points)

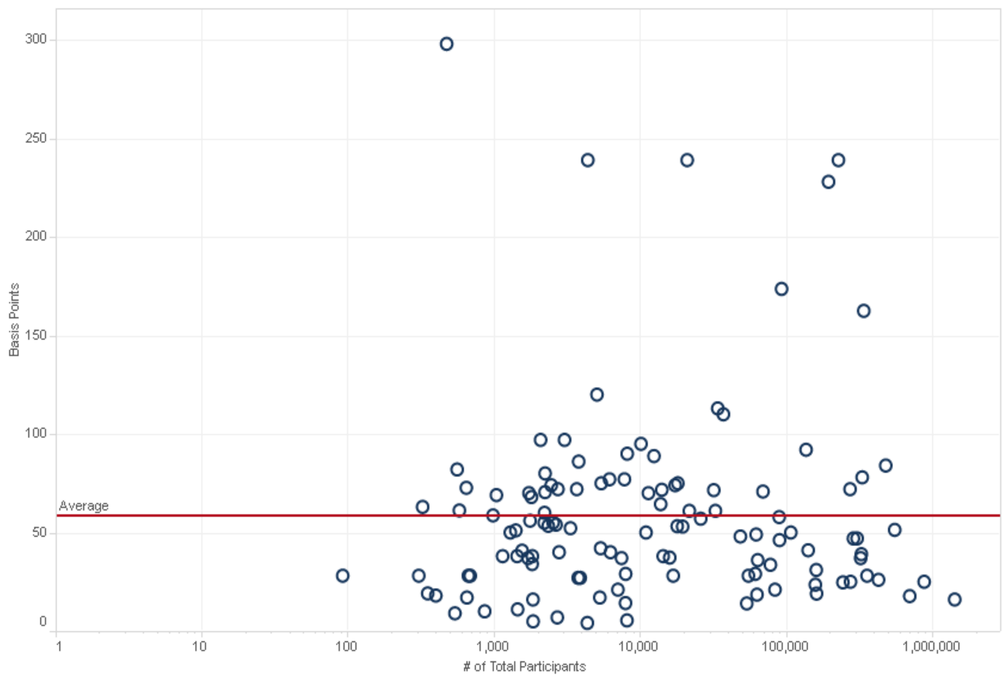


The overall average expense for respondents to administer the funds and to pay investment manager fees is 60 basis points (100 basis points equals 1 percentage point). This is a decrease from the 2014 level of 61.1.

According to the *2015 Investment Company Fact Book*, the average expenses of most equity funds average 70 basis points and hybrid funds average 78 basis points. This means that funds with lower expenses provide a higher level of benefit to members (and produce a higher economic impact for the communities those members live in) than most mutual funds.

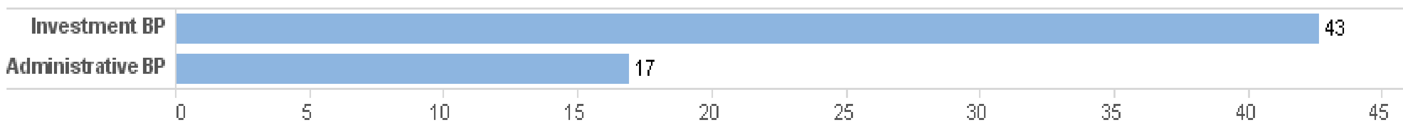
The graph to the right shows the distribution of total expenses (in basis points) on the vertical axis and the size of the fund (by total participants) on the horizontal axis. The red line denotes the average expense.

2015 Plan Expense by Fund Size

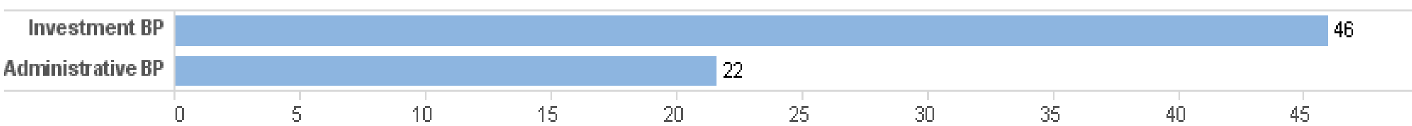


Below are expenses separated by funds eligible for Social Security and Not Social Security eligible. Total expenses are 60 and 68 respectively.

Plan Expenses: Social Security Eligible



Plan Expenses: Not Social Security Eligible



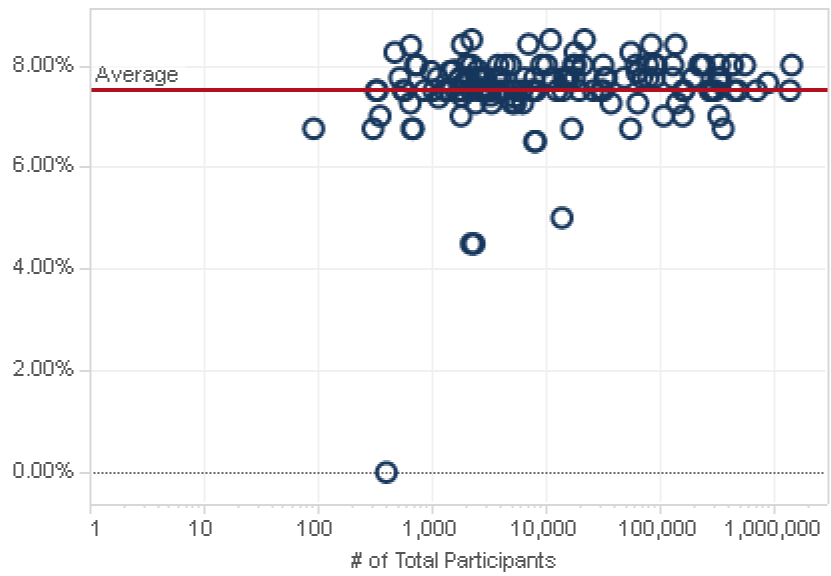
Actuarial Assumptions

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

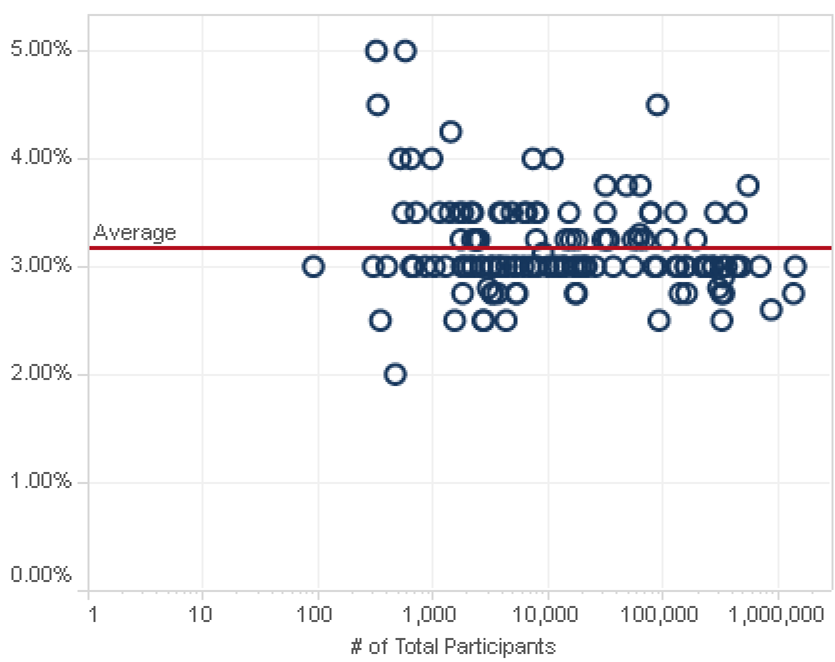
Such assumptions have powerful effects on the funding level of a plan and what the required contributions will be to pay for future benefits. Assumptions that are overly optimistic (high market returns, lower-than-expected retirement rates) tend to increase a plan's funded level and reduce the contribution 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 assumption for responding funds is 7.5 percent, down 0.2 percent from 2014. The inflation assumption remained steady at 3.2 percent.

Investment Assumption



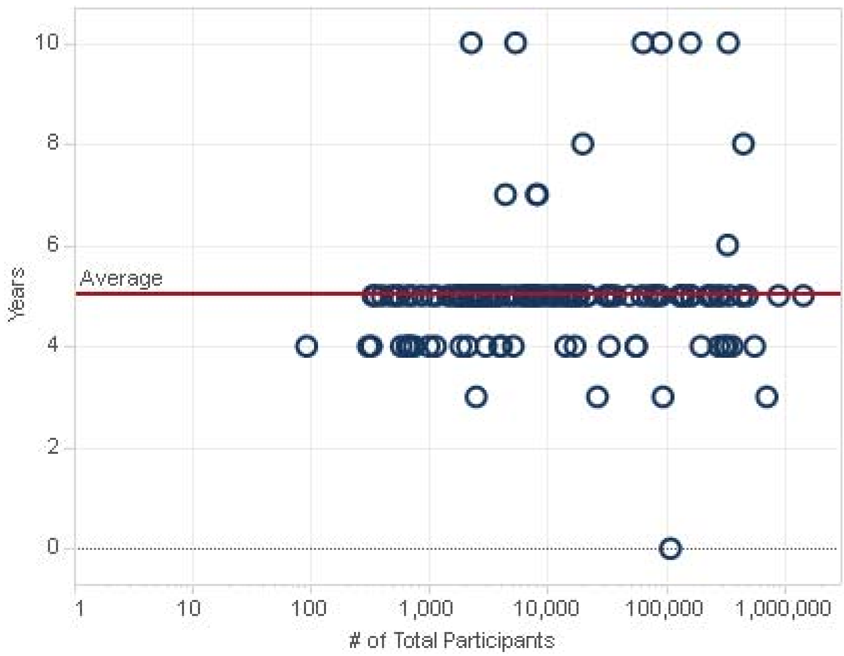
Inflation Assumption



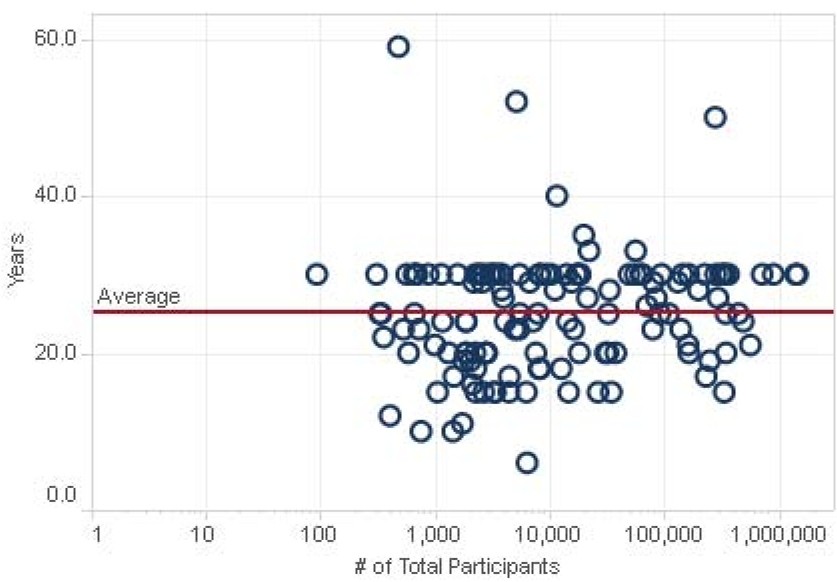
The investment smoothing period is a key factor in calculating the assets currently held by the fund and the contribution levels required to continue moving toward full funding over the amortization period. By smoothing investments, funds are able to dampen sharp changes in short-term investment returns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

The average investment smoothing period for respondents is 5.0 years, down from 5.2 years in 2014. For Social Security eligible funds, the smoothing period averages 5.2 years, down from 5.3 years last year. Non Social Security eligible plans have an average smoothing period of 5.0 years.

Investment Smoothing



Amortization Period

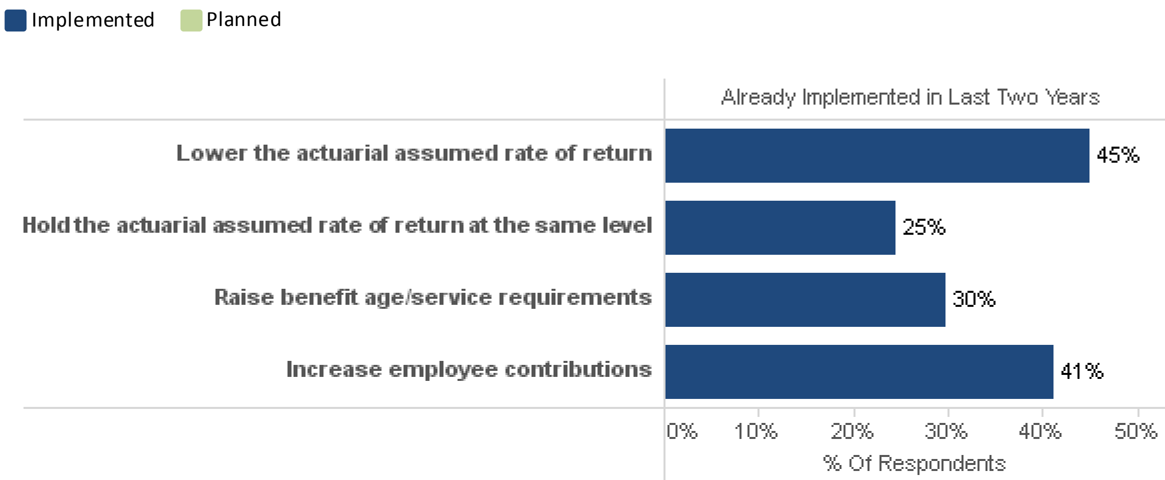


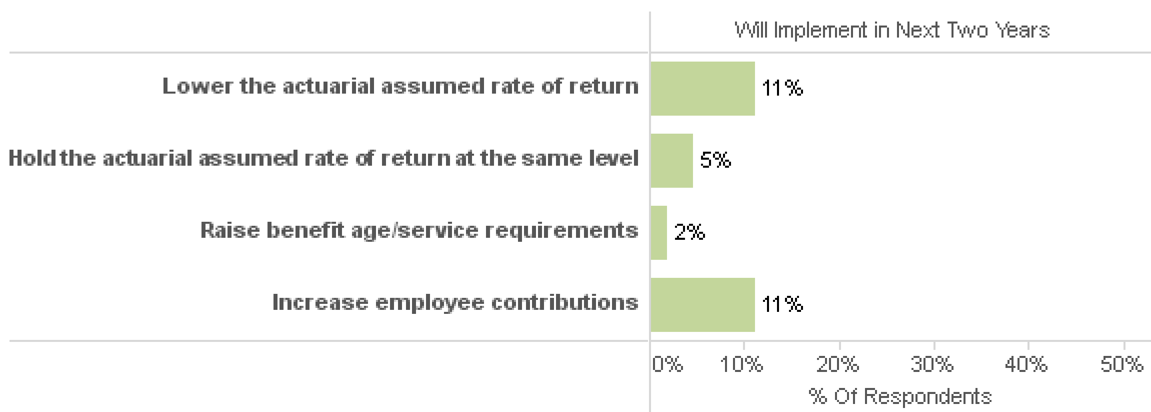
Pension funds are designed to fund liabilities over a period of time, which ensures long-term stability and makes annual budgeting easier through more predictable contribution levels.

For responding funds, that period of time averages to 25.2 years, down slightly from 25.9 years in 2014.

Trends in Plan Changes

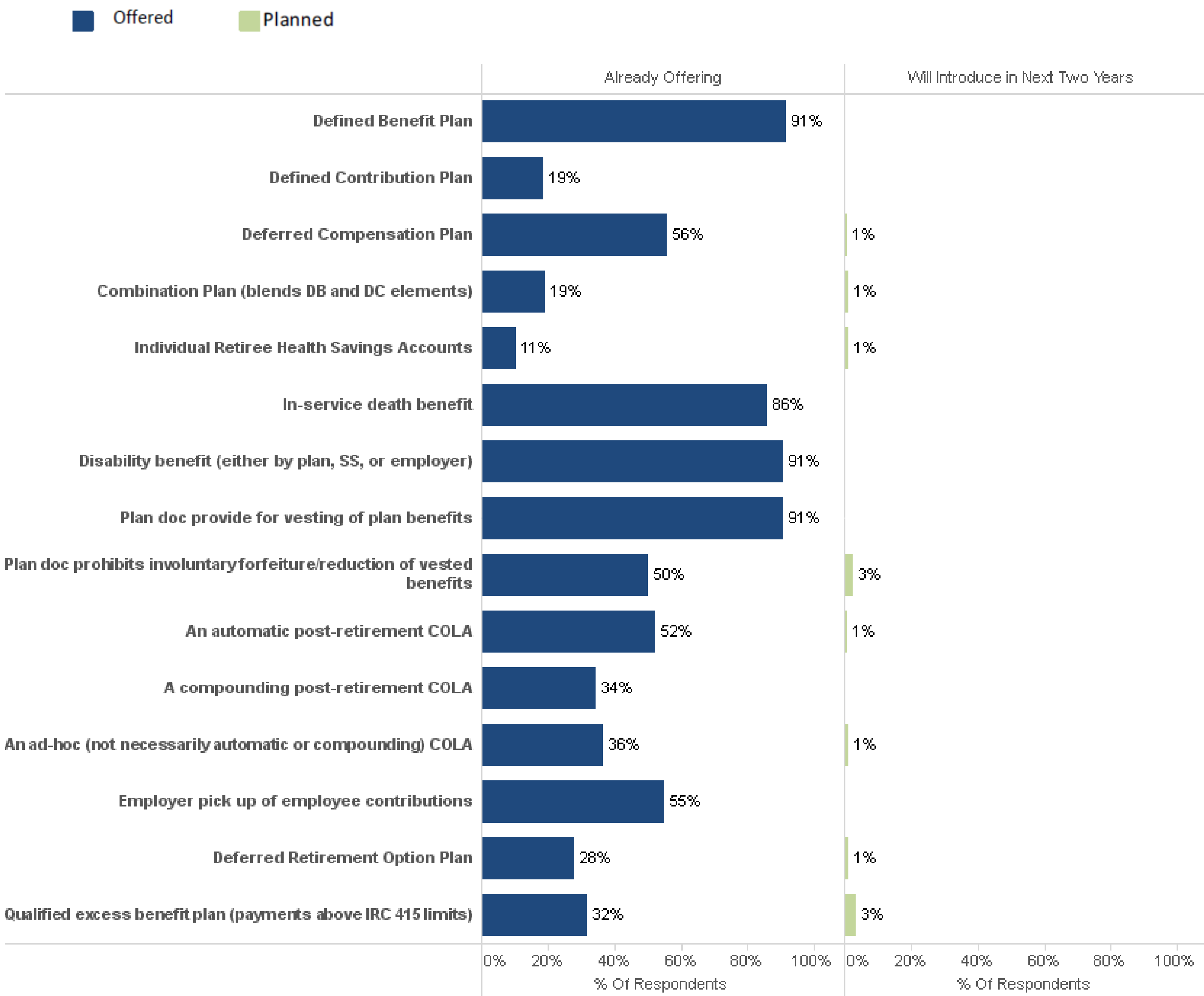
As changes emerge in the political, economic and demographic landscape, funds are adapting their design and assumptions to respond and to maintain the sustainability of the plans. Several areas that showed increased activity over the 2014 study include: lowering the actuarial assumed rate of return (10 percent increase), increasing employee contributions (7 percent increase.)





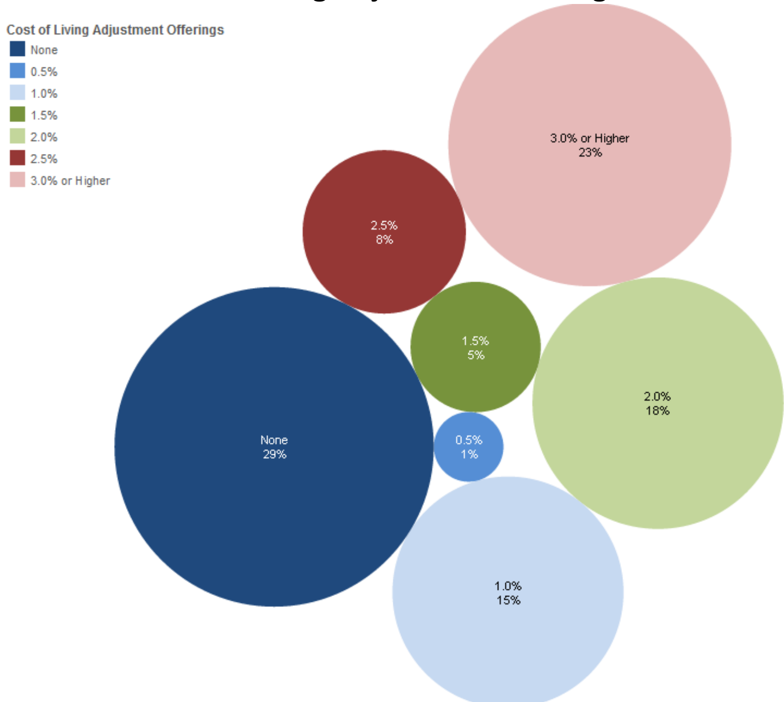
Trends in Retirement Benefits

Areas with increase compared with the 2014 study include: offering an in-service death benefit (7 percent), offering a Deferred Compensation Plan (4 percent increase) and offering an employer pick up of employee contributions (4 percent increase.)



Cost of Living Adjustments

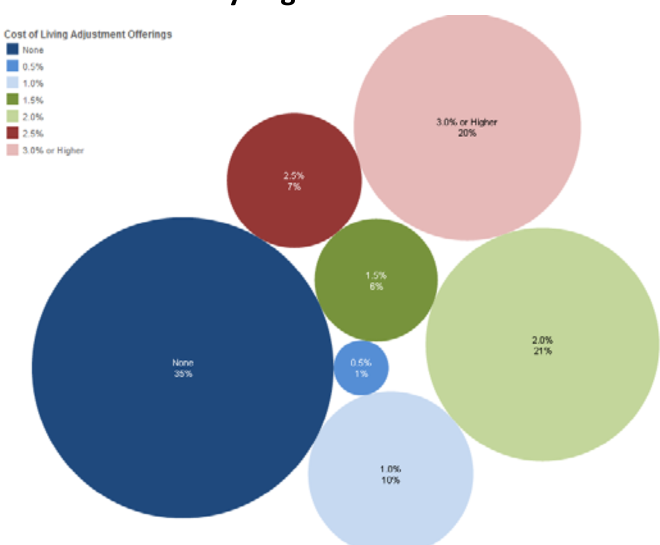
Overall Cost of Living Adjustment Offerings



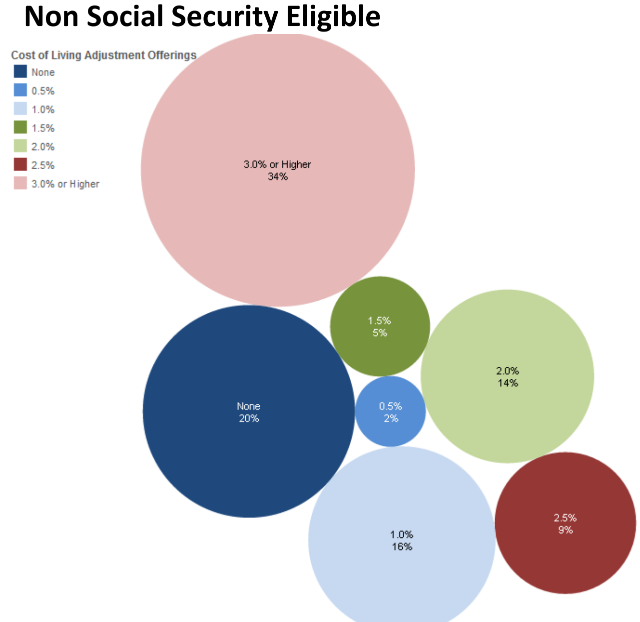
The chart at the left shows the proportion of funds offering various percentages of cost of living adjustments (COLA.) 29 percent of responding funds do not offer a COLA (up from 25 percent last year.) An additional 23 percent offer a COLA of 3 percent or higher (down from 35 percent in 2014).

Funds with members who are not eligible for Social Security offer significantly higher cost of living adjustments.

Social Security Eligible

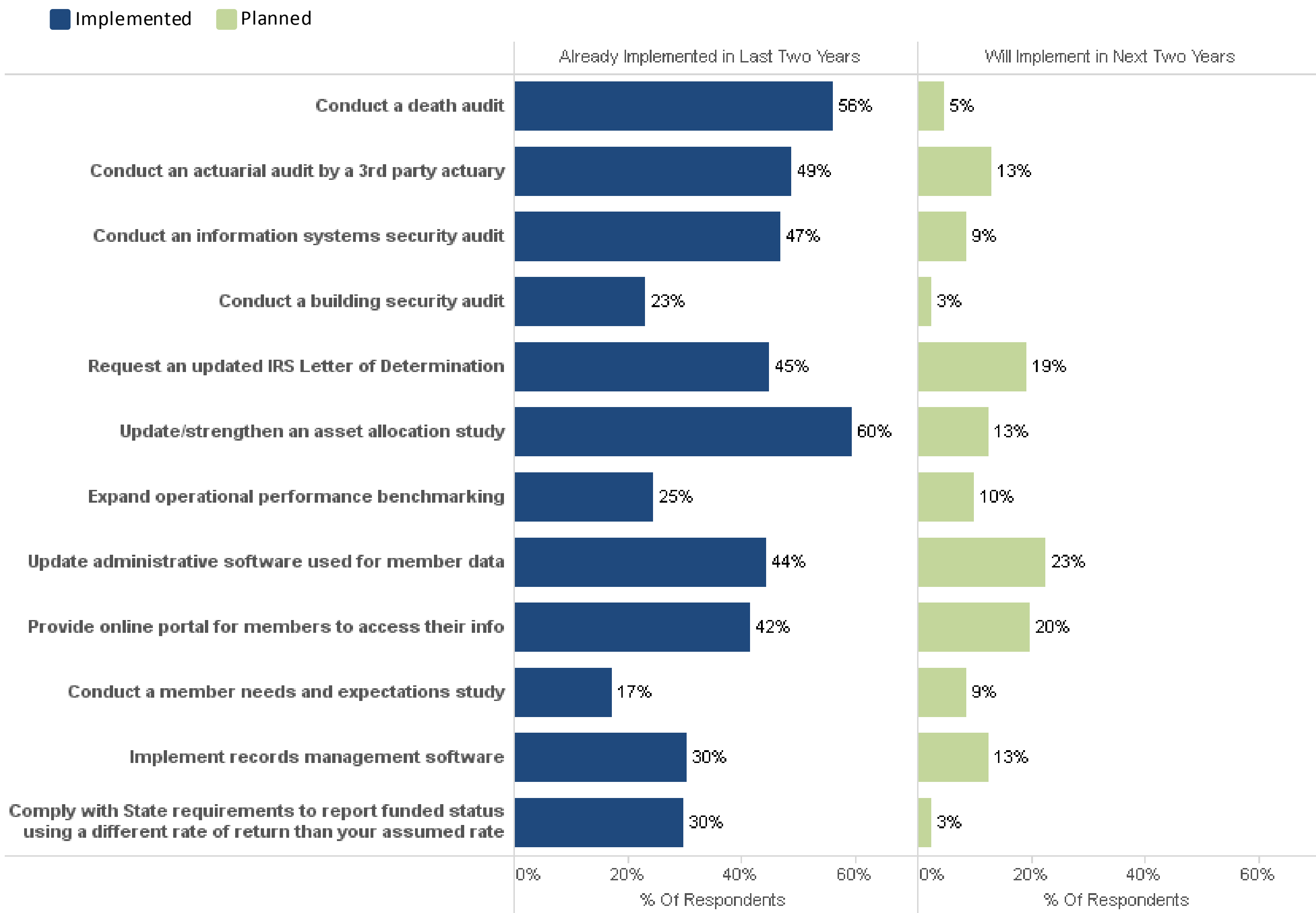


Non Social Security Eligible



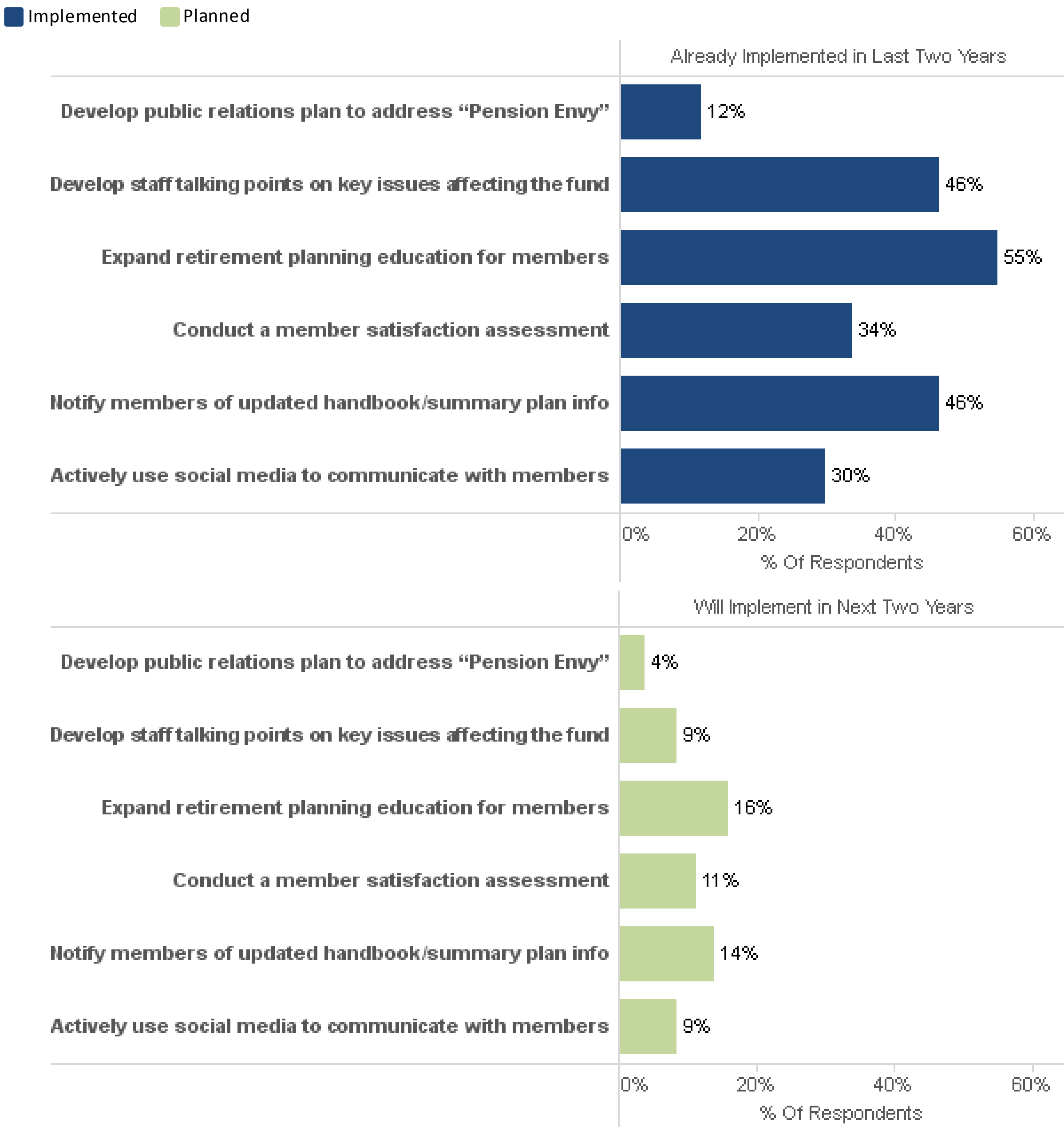
Trends in Business Practices

Several areas that showed increased activity over the 2014 study include: 13 percent increase in funds conducting information systems security audits, 9 percent increase providing an online portal for members, 8 percent increase in conducting an actuarial audit and a 7 percent increase in funds complying with State requirements to report funded status using a different rate of return than your assumed rate.



Trends in Engagement

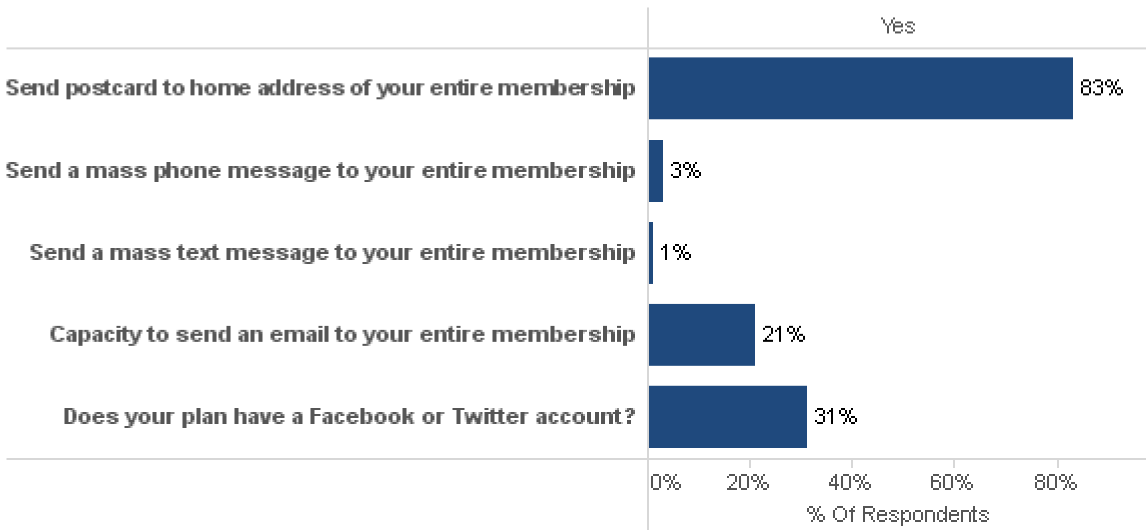
Areas with significant increase compared with the 2014 study include: assessing member satisfaction (13 percent increase), actively using social media to communicate with members (11 percent) and developing staff talking points (11 percent increase.)



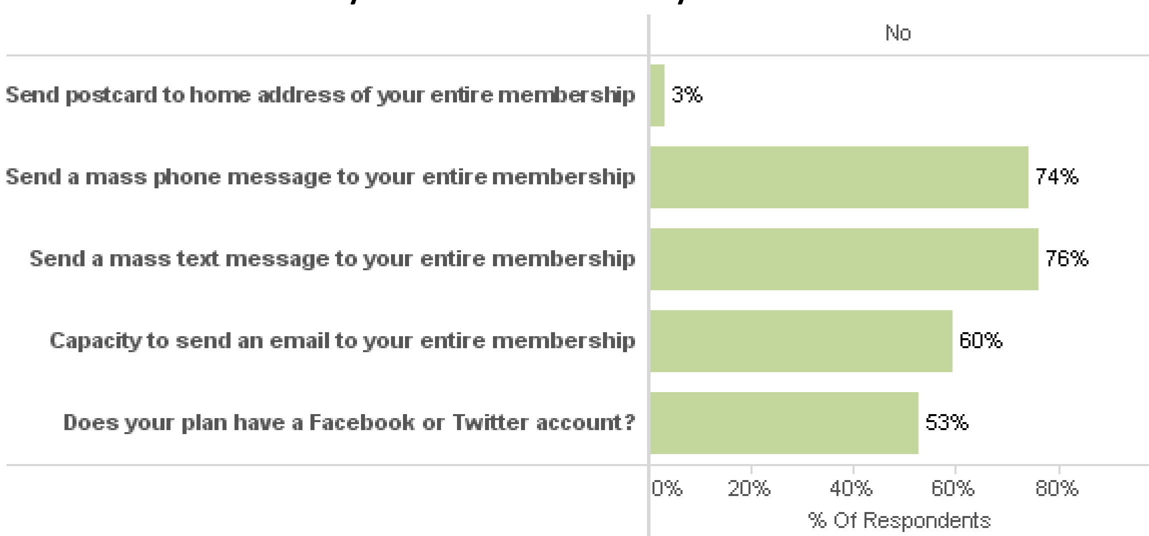
Newly tracked for 2015 is a question determining public employee retirement funds' ability to communicate with their membership using different mass communications.

Yes No

Does your fund have the ability to…YES

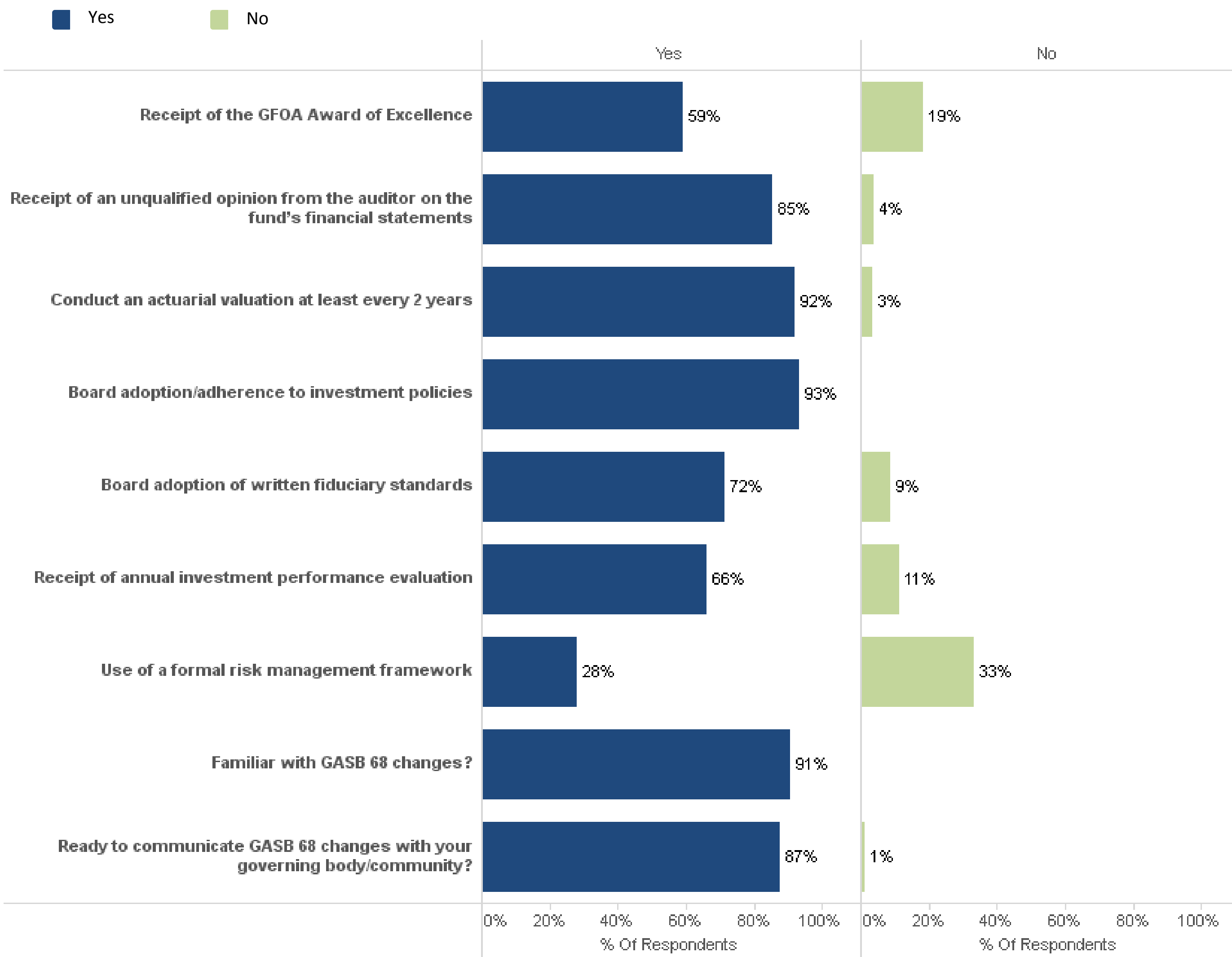


Does your fund have the ability to…NO



Trends in Oversight Practices

Several areas showed increased activity compared with 2014, including: funds' readiness to communicate GASB 68 changes with their governing board and community (21 percent increase), receipt of the GFOA Award of Excellence (14 percent), and receipt of an independent annual investment performance.



Investment Returns

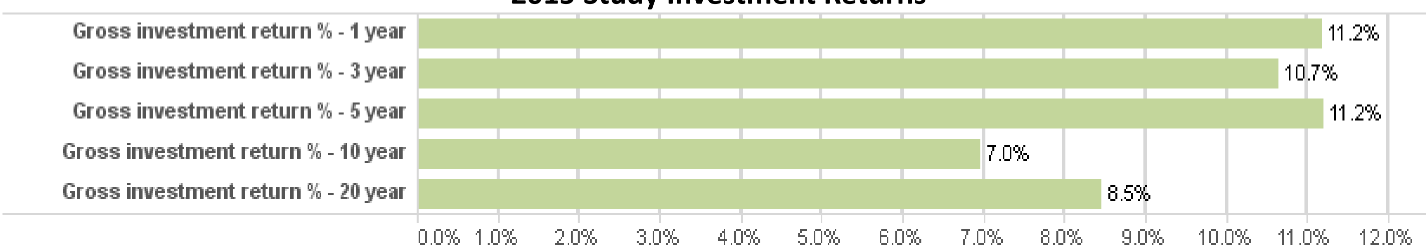
Reporting funds saw, on average, 1-year returns exceeding 11 percent. The 3-year and 5-year average returns hovered around 11 percent.

The 20-year returns reported by participating funds point to continuing long-term improvement in funded status.

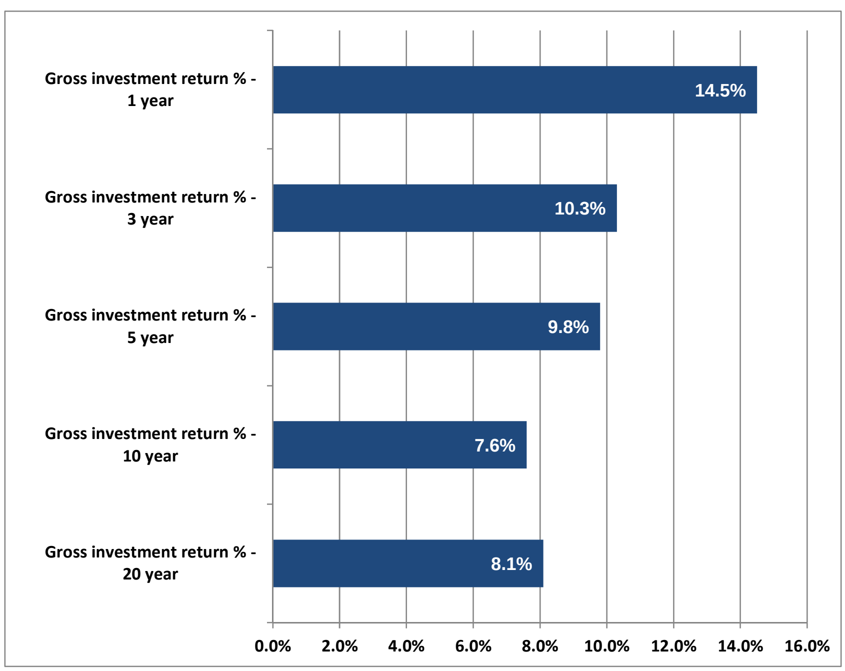
It is important to note not all responding funds have the same fiscal year end date. The timing of when a fiscal year ended accounts for significant difference in investment experience between funds, especially for the shorter return periods.

The graphs below show average reported returns.

2015 Study Investment Returns

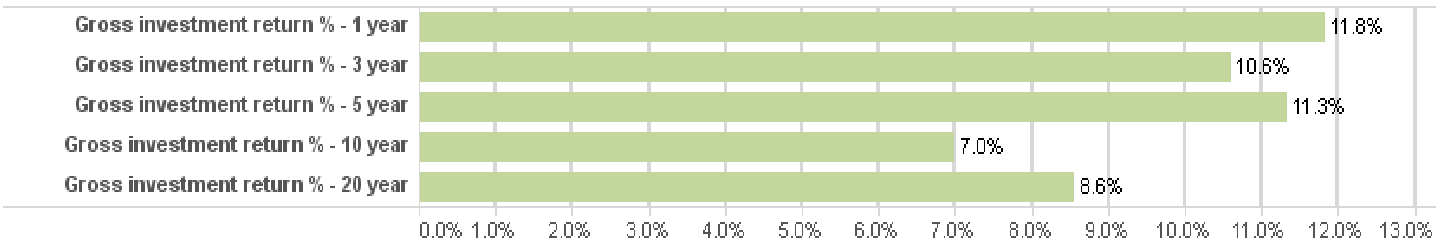


2014 Study Investment Returns

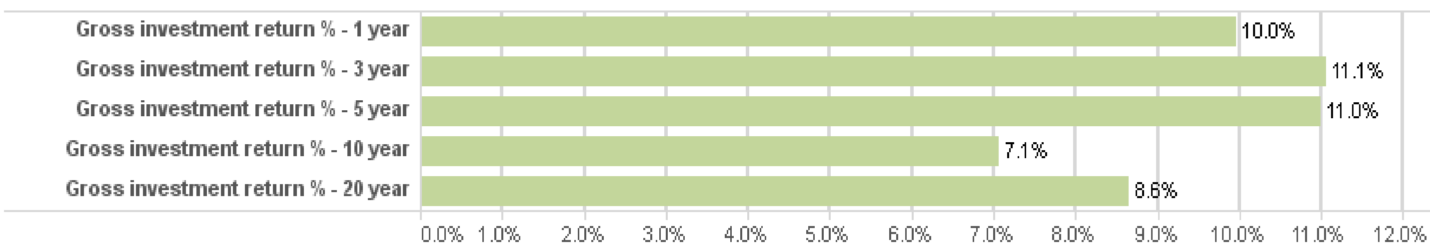


Funds with members who are Social Security eligible reported slightly higher 1-year returns than non Social Security eligible funds.

2015 Returns: Social Security Eligible



2015 Returns: Not Social Security Eligible

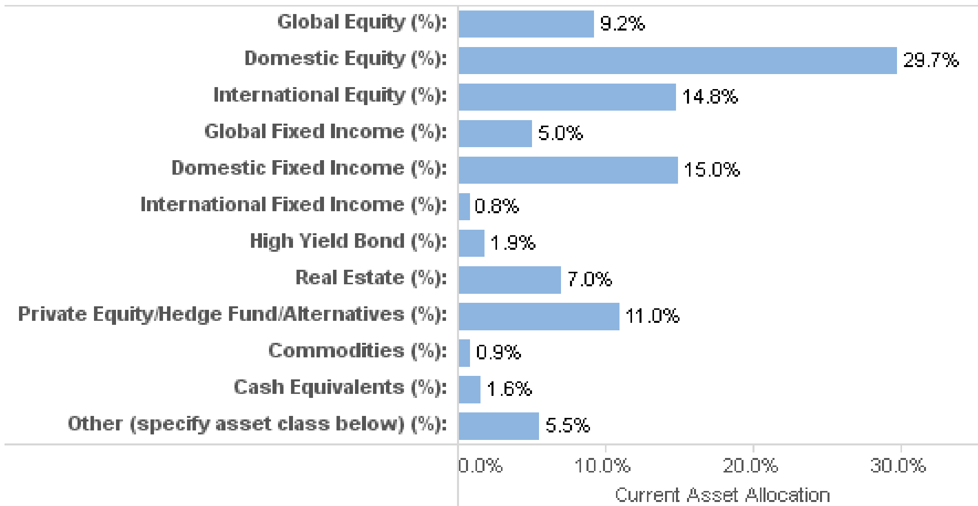


Investment Asset Allocation

Newly added assets for the 2015 study include global equity and global fixed income. Between 2014 and 2015, funds slightly increased their exposure to equities and fixed income by 1 percent and increased private equity/hedge fund/alternatives by 3 percent.

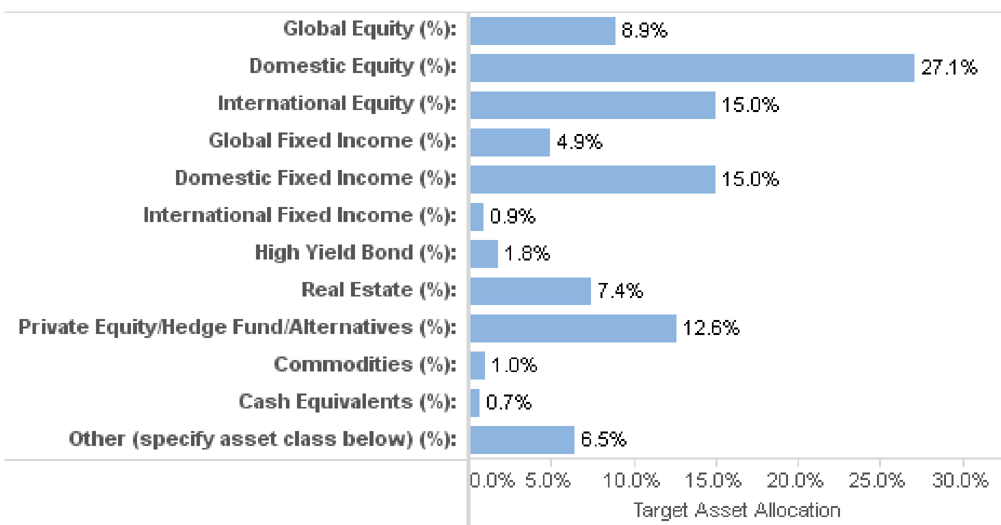
"Other investments" saw a 2 percent decrease in exposure. (See Appendix A for the open-ended response to "other.")

2015 Current Investment Asset Allocation

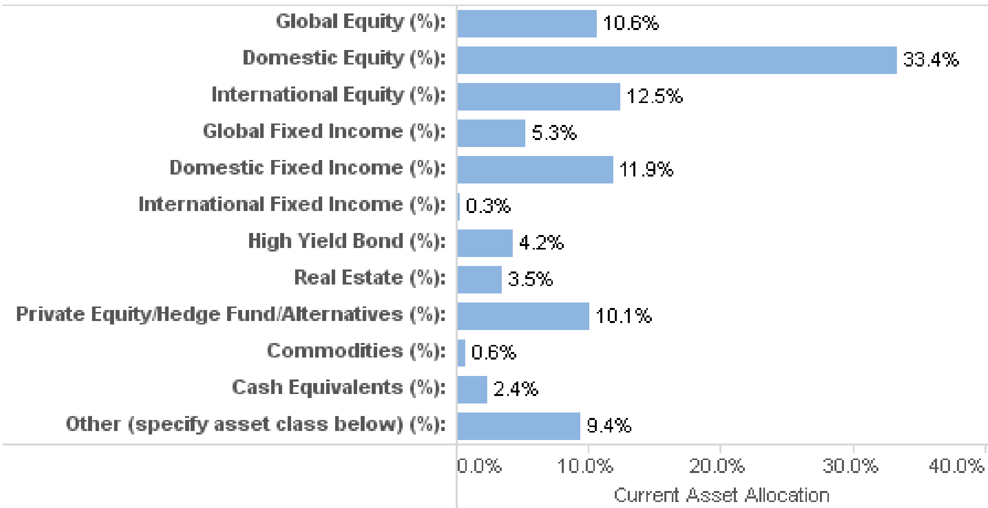


Over the next year, target asset allocations show increased exposure to private equity/hedge fund/alternatives and a slight decrease to real estate.

2015 Target Investment Asset Allocation



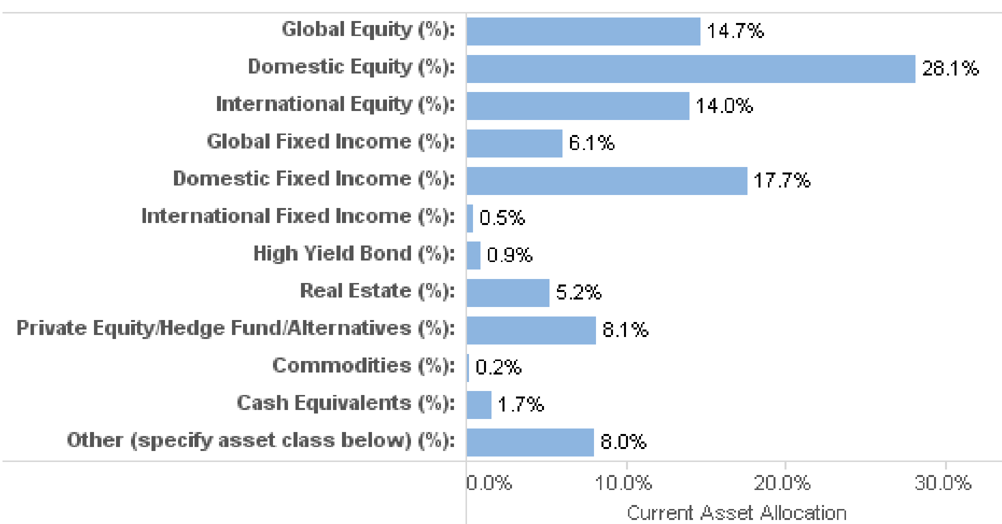
Highest 1-Year Return



On the left are two graphs that show the asset allocations for 20 funds who reported the highest 1-year and the highest 10-year investment returns.

Funds with the highest 1-year return had higher allocations to equities and lower exposure to real estate.

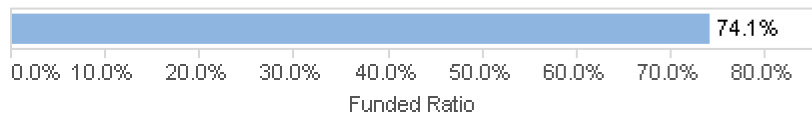
Highest 10-Year Return



Funds with the highest 10-year returns have slightly higher allocations to fixed income and equities with lower allocations to private equity/hedge funds/ alternatives.

Funding Levels

2015 Funded Level

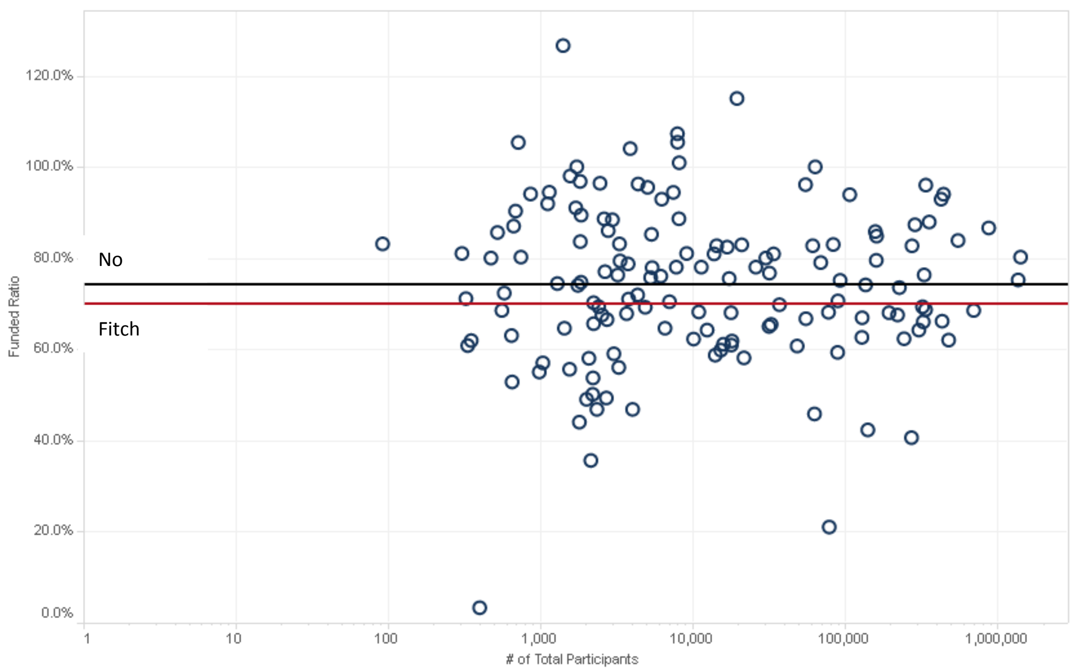


Based on responses to the 2015 study, average funded level is a solid 74.1 percent, up from 71.5 in 2014.

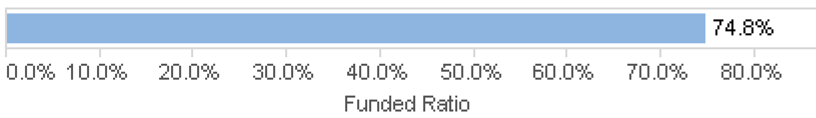
The most significant reason for this increase were strong market returns in 2014.

The graph to the right shows the distribution of funded levels and fund size. The vertical axis shows level of funding, and the horizontal axis shows the size of the fund by total active and retired participants.

The black line denotes the average of 74.1 percent, and the red line denotes the 70-percent funding target that Fitch Ratings considers to be adequate.

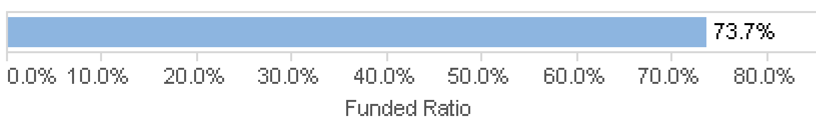


Funds Not Eligible for Social Security



Many funds include members who are not eligible to receive Social Security at the time of retirement. For this reason, such funds often have higher benefit levels to offset the loss of this source of retirement funding. Those funds that include such members report an average funded level of 74.8 percent, up from 67.7 percent in the 2014 study.

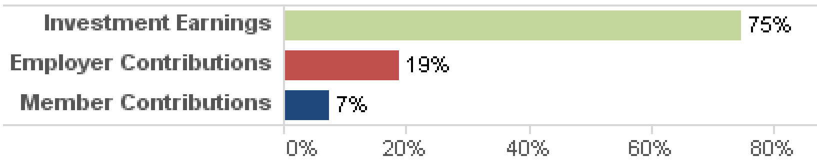
Funds Eligible for Social Security



The graph to the left shows the funded level for those plans that include members who are eligible for Social Security. The average funded level for this group is 73.7 percent, down from 73.9 percent in the 2014 study.

Sources of Funding

Overall Sources of Revenue

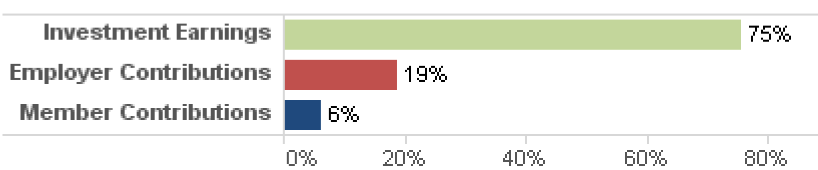


Income used to fund pension programs generally comes from three sources: member contributions, employer contributions and investment returns. The chart at the left shows the proportion of funding provided through each of these sources based on reported data.

Investment returns are by far the most significant source of revenue (75 percent.) This is a two percent increase from 2014, as evidenced by the higher 1 year gross returns. Member contributions stayed dropped one percent between 2015 and 2014. Employer contributions equal approximately 19 percent, consistent with 2014.

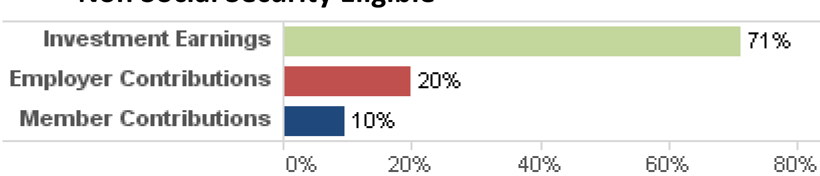
The findings in this study are consistent with other industry studies showing annual fund expenditures and economic impact significantly exceed the annual contributions made by the employers.

Social Security Eligible



The charts to the left show funds with members who are not eligible for Social Security reported higher member and employer contributions.

Non Social Security Eligible



Reducing Liability

Respondents were asked to share strategies they have put in place to reduce unfunded accrued actuarial liabilities beyond traditional amortization. Below is a text cloud showing the words that appear most often in respondents' comments. Below the text cloud are the verbatim comments.

Top Themes:

1. Increased employee and employer contributions
2. Changed/reduced benefits for current and future employees (new tiers, lengthen vesting, etc.)
3. Closed amortization period

▪Ability to adjust employee and employer contribution rates and keep rates above the actuarially determined rate until funding benchmarks are met.
▪Accelerated amortization for closed groups, bridge down future benefit accruals, increased employee cost sharing, hybrid plans
▪Addressed the amortization period and benefit changes. All other options need to be addressed by the employer. (Rate, benefit, contribution, etc.)
▪Adopted a rate collar which defers extreme increases or decreases in employer contribution rates to future biennia.
▪Amount of employer contributions used to pay down unfunded liabilities is set based on meeting defined funding targets
▪Assembly Bill 1469, signed into law by Governor Edmund G. Brown Jr. on June 24, 2014, as part of the 2014-15 budget, increases member, employer and state contributions over the next several years in order to eliminate the unfunded actuarial obligation of the Defined Benefit Program by June 30, 2046.
▪Change of Assumed ROR, include other asset classes
▪Change service requirements, increase employee contributions
▪Changed benefits and increased contributions
▪Changed benefits and increased contributions
▪Changed employer contribution requirements in law (Code)
▪Changed the plan for new hires hired after January 31, 2009
▪Changes to asset allocation - further diversification
▪Changes to asset allocation - further diversification
▪ Closed the amortization period on unfunded liability and reduce each year
▪Colorado Senate Bill 12-149, increase employer and employee contributions, no refund of matching contributions
▪Continue to fund actuarial required contribution
▪Continue to fund actuarial required contribution
▪Cut benefits for active members, new members, and beneficiaries. Increased member and employer contributions
▪Educating the board on more current actuarial standards, certifying higher state funding requirements in addition to those required under state law, including the higher amount in our publications and presentations to educate stakeholders, legislators, and executive branch
▪Employee and employer contributions are sufficient. The State of NE also contributes 2% of member salary
▪Funding Schedule
▪Gradual increase in both employee and employer contribution rates legislation making contribution and benefit changes resulting in an actuarially sound pension trust fund and the first COLA for retirees in almost a decade. Major provisions include: • State contribution rate set at 6.8% for FY 14 and FY 15. • Member contribution rate of 6.4% in FY 14, 6.7% in FY 15, 7.2% in FY 16, and 7.7% in FY 17. • 1.5% contribution by school districts for those TRS members who do not participate in Social Security beginning in fiscal year 2015. • Any reduction in state contribution rate reduces member and school district rate by corresponding tenth. • Rule of 80 + Minimum age 62 is now normal-age retirement for new hires and members who are not vested (less than 5 years of service) on 8/31/2014. The previous minimum age was 60. • Penalty of 5% per year for each year of retirement below age 62. • Provides a COLA of 3% (capped at $100) to those who retired 8/31/04 or earlier. • Reduce interest on withdrawn service from 5% to 2% prospectively. As of 08/31/14, the pension fund was actuarially sound and can pay off its unfunded liability in 29.8 years. The funding period is expected to increase slightly over the next few years before declining again. It is anticipated, however, to remain a finite number until the fund is fully funded

Reducing Liability *- Continued*

- Increase contribution rates. Created a Tier 2 retirement system
- Increase employer and employee contributions, lengthen vesting period, advance full funding date to a later year
- Increase in employee contributions, increase in employer contributions, bonds
- Increase member and employer contributions, reduce COLA
- Increase normal retirement age and number of years used to calculate AFC for new members, increased ER and EE contributions, supplemental contributions from the State
- Increased City and member contribution rates. Implemented Tier II plan benefits for new hires
- Increased contribution rates, introduced lower benefit tier for new employees
- Increased employee and employer contributions being phased in over time
- Increased employee contributions. Reduced benefits for current employees. Started two-tier system for new hires. Eliminated retiree healthcare for new hires.
- Increased employer and employee contributions, changed plan benefits/options for new members
- Increased member and employer contribution rates; raised benefit age and service requirements; raised FAS period and vesting requirements
- Increasing employer and employer contributions as well a constraining post-retirement benefit increases
- Lengthen vesting period
- Lower assumed rate of return from 8.0% to 7.5% over the next 5 years
- Lowered the assumed rate of return (short term hit/long term positive). Increased employee and employer contributions
- Mandatory employer contributions (enforceable through offset of state and local employer tax receipts and right to sue for unpaid contributions); ability for the employer to make additional annual contributions to lower the unfunded actuarial accrued liability; internal restructuring for investment disciplines to provide better investments returns; and the use of third party investment manager services to provide the best returns possible
- Members have increased their contributions. The plan sponsor has increased their contribution
- New tier for employees enrolled after 7/1/2011 with less-expensive benefit structure
- None
- None
- Only traditional amortization
- Our amortization period declines by one year each year
- Our amortization period declines by one year each year
- Our amortization period declines by one year each year
- Our amortization period declines by one year each year
- Payment of actuarial determined contribution is required plus a closed amortization period.
- Plan Design Changes, i.e. benefit multiplier, years of service, minimum age, vesting, etc. and Increase in Contribution rate for both employee and employer
- Raised both employer and employee contribution rates
- Raised contribution rates, and dropped accrual percentage for each year worked. Signed up additional employers to the Plan. Withheld COLAs on Plan until further notice. Increased vesting and other eligibility requirements, especially for new hires
- Reduce investment expenses
- Reduced office expenses and hired a new Investment Consultant Group
- See Public Act 095-0708
- State constitution requires funding of IUAL by 2029 and actuarial funding. Employer contribution rate includes debt payment, as calculated by System Actuary
- Stopped funding the health care plan, increased member contributions, benefit plan design changes
- The Board of Trustees have adopted a 20 year amortization of the unfunded accrued actuarial liability. The liability will be fully paid in 2031
- The City issued a Pension Obligation Bond in 2012
- The New Hampshire Constitution (Part I , Article 36-a) requires Trustees to set actuarially sound employer rates and requires employers to pay those rates in full.
- The plan sponsor reinvests a portion of the savings generated by the 2011 reforms into the plan above the statutorily required employer contribution rate. For fiscal 2016, that amount equaled $75 million
- The system is funded in accordance with the Aggregate Cost Method, which does not identify of separately amortize unfunded actuarial liabilities. Costs are determined by amortizing the unfunded present value of benefits over the average future working lifetime of active plan members
- The unfunded accrued liability will be paid off in 2018
- There are no strategies beyond traditional amortization
- We closed all plans to new participants. New employees are now participants in the State of Delaware County/Municipal General Plan. We have not authorized any COLA's since 2006. We have made no plan improvements
- We collect our full Actuarially Required Contribution (ARC) every year
- We have adopted a funding policy with provides reasonable assurance that unfunded liabilities will be paid within 25 years
- We have closed our amortization period, and are projected to have the UAAL paid off by 2038
- With the OPERS-recommended and Legislature-enactment of significant pension reform legislation that went into effect in 2013, combined with the changes OPERS made to the health care program, OPERS is meeting its objective of reducing subsidized benefits. The strategy aligns benefits with funding sources. For example, service credit purchases for such time as military and elected official service must be purchases at 100 percent actuarial value
- Work to increase payroll growth by influencing sponsor to fill vacancy positions!

Innovations/Best Practices

In the study, respondents were asked to share a success story regarding a best practice or innovation that other plans may like to learn about. Below is a text cloud showing those words that appear most often in respondents' comments. Below the text cloud are the verbatim comments.

Top Themes:

1. Providing tools to help members focus and prepare for retirement
2. Helping members address health care in retirement
3. Organizational efficiencies (work flow, internal audit, establishing metrics)

- Automated workflow management process - faster, more efficient, easier access and better reporting
- Board of Trustees has adopted strategic plan, Board education policy and succession plan.
- CalSTRS administers a three part hybrid system that includes a traditional Defined Benefit plan, a Cash Balance plan, and a voluntary Defined Contribution plan.
- Created an internal audit function
- Currently in the process of the implementation of plan/benefit changes following a two year benefit study to ensure the financial sustainability of the plan. Changes include a reduction in the benefit multiplier and increase in retirement eligibility age and service criteria for new hires, the introduction of a retirement health savings account and eliminate of supplemental benefit tied to health insurance rates for new hires, as well as the introduction of a Hybrid (combined DB and DC) Plan option for new hires.

The introduction of employee contribution for new hires will be implemented in FY 14-15 with the expectation of the implementation of contributions for current members anticipated within the next 2 years.

- Disability participation is low and remain so since we adopted DROP programs and communicate to members regarding educational assistance program available for members injured in line of duty.
- Document imaging/work flow
- Employee Self Service, whereby employees have real time access to their retirement account and personal information. The ability to produce future dated monthly benefit estimates based upon a number or criteria. The ability to pull all retirement funding sources together into one program including SS to produce a more complete picture of anticipate retirement income.
- Implementation of paperless/electronic Board agenda and backup material system
- Moved from a stagnant contribution rate set in statute to a flexible employee and employer contribution rate based on an actuarial rate determined in compliance with actuarial assumptions and methods and funding policy adopted by the Board.

Innovations/Best Practices *– Continued*

▪NHRS undertook a 24-month employer/stakeholder/taxpayer education effort surrounding the implementation of GASB 67 & 68 that includes live presentations, a dedicated web page and weekly emails to employers in the months leading up to the release of GASB 68 employer-level data.

▪Oregon PERS has implemented an Outcomes-Based Management system.

▪Our Cash Balance has been successful.

▪Require 100% funding level for benefit enhancements, both before and after using supplemental valuations

▪Scorecard for evaluating plan funding that includes different metrics.

▪Staff responded to members who requested smaller retirement seminars at their worksites. Staff developed a flexible program allowing members and/or supervisors to request a retirement program at their work location. These programs are based on the needs of the members at the work site. Members can request a group presentation, one-on-one meetings or combination. The group presentations can focus on those within a few years of retirement, new hires, etc. This program focuses on the needs of the particular worksite and eliminates travel time for those that participate. These sessions have become very popular with retirement staff visiting many work sites more than once.

▪Strategic plan includes a Key Result Area that focuses on workforce engagement. Our key performance measure for workforce engagement is to achieve top 10% ranking using a national benchmark; in 2014, we achieved a ranking in the 97th percentile in employee engagement. Part of our objective to foster and maintain an engaged workforce includes analyzing our employee engagement survey reports to identify and implement improvements. Through this analysis, two distinct employee engagement action plans were developed for 2015; one that focuses on improving a key engagement driver at the fund-wide level, and one that focuses on improvements at the department-level. The fund-wide action plan includes a team of leaders and employees whose focus is to enhance inter-departmental relationships. For 2015, this team is implementing three fund-wide initiatives which include: • You Make a Difference Award: Every other month, one department awards the You Make a Difference designation to another department as a thank you for their great work. The giving department fills a basket full of goodies for the receiving department and writes a note of gratitude to be presented to the recipients. The department that receives the award is then responsible for giving it to another department. • Philanthropy Committee, which is implementing both an on-site and off-site volunteer event for staff. • Implementing two fund-wide events, including a company-wide picnic and Diversity Potluck. The fund's department-level action planning focuses on improvement opportunities within each department. Leaders initially meet with Human Resources to analyze their survey results and determine 2 to 3 improvement opportunities. Leaders then meet with their teams to review their department-specific survey results and develop an action plan using a standardized Action Plan Worksheet. This worksheet helps leaders focus on improvement activities, key timelines and measurements of success. Leaders are asked to regularly review the status of their action plans with their teams.

▪The OPERS Board of Trustees and staff have redesigned the health care program with a goal to provide access to sustainable health care coverage to our retirees within an allocation of four percent employer contribution rate target. Plan changes were made to drive the cost of health care down to equal the 4% contribution rate (down from about 9%) in combination with an assumed investment earnings of 4%. We also developed a funding framework that adds a stabilization fund that will complement the redesigned health care program. The stabilization fund is derived when investment earnings on the health care fund exceed 4%. This fund will be used to fund health care in years when the investment earnings are below 4% or when, due to needs on the pension funding, we are unable to allocate 4% of the employer contribution rate. This will minimize future health care changes for our retirees due to volatility in investment returns, inflation and payroll growth. These changes in total provide an increase in the solvency period from 10 years in 2011 to an indefinite time period (over 100 years). The health care changes to the plan were substantial, but were offset by the change to a connector with an HRA subsidy for the over-65 retirees. On average, our over-65 retirees will receive about $337 per month (after we transition down to this level in 2018) and through the connector can purchase a better plan than OPERS has previously been able to offer for $237 per month. The additional funding can be used for qualified health care expenses by the retiree for themselves or spouse or dependent. Within the comprehensive strategy of planning and communicating these changes to OPERS members/retirees, OPERS has developed planning tools to address what we have termed “Milestone 2015 (MS 2015).” OPERS reviewed the data on how many members were eligible to retire prior to the effective date of pension legislation. It was projected that there would be an influx of retirements due to members wanting to retire ahead of the changes. This came to be known as “rush to the door.” MS 2015 arose out of the fact that “rush to the door” implied that members were forced to retire. Just like members have a path toward their retirement, OPERS has a path toward meeting funding levels for pension benefits and improving the solvency of the health care fund. Along that internal path there are “milestones” that will be implement that must be addressed to achieve the established objectives. Now with the implementation of health care changes on the horizon, OPERS expects that certain members may decide to retire solely due to health care eligibility changes. However, that decision might not be the best decision for all members. Therefore, OPERS designed “Learn, Plan, Act,” a section on its website designed to provide members eligible to retire prior to January 7, 2018 with planning tools necessary to make informed decisions about their retirement and health care coverage. The “Retirement Planner” allows members to estimate pension and health care costs utilizing different retirement dates. In addition, OPERS is utilizing all communications channels available to communicate with its members about the impending changes.

Innovations/Best Practices *– Continued*

▪The system has implemented a benefit administration system that integrated both active and retired data which also allows members to review their pension information as well as calculate a benefit estimate in real time.

▪There are three things we do, that every pension plan must do to remain sustainable. We manage the assets, and our returns have been strong. We collect the ARC in full every year, as described above. And we manage our liabilities. Over ten years ago, in 2004 when our plan was 99% funded, we lowered the plan formula multiplier from 2.0% per year of service to 1.5% per year of service, for all new hires. And that was approximately five years before everyone else took similar steps to reduce future costs. As a result, eleven years later, more than 57 % of our active workforce is now either in that lower-cost benefit tier, or in our lowest-cost benefit tier which was put in place in 2011. As a result, our Normal Cost has come down considerably and it will continue to track downward as the workforce continues to turn over.

▪TMRS is currently implementing "straight-through processing" which will allow participating cities, members, and retirees to access, update, and/or change their plan/account information online.

▪TRS' five-year Strategic Plan was released in July 2014 for fiscal years 2015-2019. The Strategic Plan establishes goals and provides stronger metrics to gauge success throughout the year. To prepare for the increased emphasis on the Strategic Plan and its impact on agency operations, the Division of Strategic Initiatives (DSI) was established in 2013 to raise the profile of the Strategic Plan. In late 2013, members of the TRS Executive Council were tasked with formulating specific goals and objectives for the organization. At the beginning of 2014, a Strategic Planning Team comprised of employees from various divisions of the agency was appointed to build upon the Executive Council's goals and objectives. The Strategic Planning Team was tasked with developing strategies and tactics for each of the goals and objectives. This collaborative process resulted in a document known as the GOST (Goals, Objectives, Strategies and Tactics). The GOST provided the foundation for the Strategic Plan and includes 5 goals, 12 objectives, 44 strategies, and 148 tactics. Once the Strategic Plan was approved by the Board of Trustees, Organizational Change Management, a department within the Human Resources division, assisted the DSI with an awareness and engagement campaign. The purpose of the campaign was to demonstrate how each employee contributes to the overall success of the Strategic Plan through their work on specific strategies and tactics. Only through these contributions is TRS able to achieve its goals and objectives. The campaign included posters and learning maps for each division. Representatives from the DSI met with each division, distributed reference materials to demonstrate how each employee has a place in the Strategic Plan, and explained how each employee serves as a critical component to the success of the Strategic Plan. The integration of Strategic Planning and Enterprise Risk Management (ERM) continues to evolve. With the identification of new goals, objectives, strategies and tactics, the Department of Risk Management performed a gap analysis by mapping the GOST to the risk categories included in the ERM Stoplight report. Work is currently underway to address the gaps that were identified in this process. Finally, Human Resources is using the GOST to incorporate performance of certain tactics into job descriptions and performance management. TRS is exploring the possibility of performance pay related to successful completion of projects associated with certain strategies and tactics.

▪We are implementing an online retirement application process which guides the retiring member through the process of completing the forms required to make a retirement application. Approximately 58% of our retiring members applied for retirement using this process.

▪We continue to increase contribution rates and drop accruals for years work, as well as increase eligibility requirements for new hires. To do this the last go around, we conducted an Employee Satisfaction Survey, and asked the active participants in the Plan how we were managing it, and how to improve it. We took those comments/recommendations into account last year when upping contribution rate another .5%. Because we asked beforehand, little blowback from participants with regard to announced increase.

▪We engage 50-75% of our membership annually

▪We have been proactive in meeting with media around the state to discuss pension reform initiatives and GASB changes. Including members of the community in media visits proved very valuable. We invited school treasurers to our media meetings on GASB. They had established relationships with their local media which made the meetings productive. Several favorable articles were written following those meetings.

▪We have successfully transitioned to an electronic agenda/board meeting materials format.

▪We offer members a mobile app for smartphones, tablets and PCs.

▪We passed legislation affecting our governing statute in recent state legislature in a lukewarm pension environment by acknowledging "pension reform" may be necessary for some plans that have allowed themselves to get in trouble, but not the case with the Austin firefighters and gave them examples such as: no pension spiking allowed and not allowing overtime in benefit calculations. COLA's are not automatic, but only on an ad-hoc basis when actuarially affordable and limited to the actual CPI-U data. Adhering to strong fiduciary standards and code of ethics. Making sound investments, within a strategic investment policy, with an appropriate risk/reward balance under the guidance of a professional investment consultant. Maintaining a strong funded ratio and keeping the amortization period down. Developing a partnership with the city to maintain strong employee and employer contribution rates to recognize we both have some skin in the game.

▪We updated our website to provide more tools to our members and make it easier to administer the plan.

▪We were one of the first plans in the country to comprehensively solve our sustainability issues in 2010 through bi-partisan legislation. We engaged all stakeholders in that process and continue to have a comprehensive stakeholder engagement strategy that works. We have successfully defended legal challenges to the comprehensive solution and we are on the path to full funding in 35 years.

Appendix A

In the study, respondents were asked to specify what “other” asset class they invested in. Below is a text cloud showing those words that appear most often in respondents’ comments. Below the text cloud are the verbatim comments.

Top Themes:

1. Real assets/return
2. Private equity
3. Emerging markets

▪Absolute return
▪Alternative
▪Alternative = Private equity + Hedge Fund + Real Estate
▪Alternative Illiquids
▪Alternative Investments
▪AmSouth Timber Funds
▪Arbitrage
▪Commodities = timber; Other = VC
▪Convertible bonds
▪Convertible Securities 4%, Alternative Assets - Infrastructure 3%
▪Covered Calls
▪Credit opportunities, real return and absolute return
▪CURRENT asset allocation: Fixed Income Global & Domestic: 19.8%; Real Assets: 9.3% TARGET asset allocation: Fixed Income: 20%; Real Assets: 11%; Opportunistic: 5%
▪Current: public equity 53.1, private equity 10.5, global fixed income 15.6, real assets 10, liquidity 3, inflation assets 3.3, Absolute return strategies 1.5. Target: Public equity 50, private equity 14, global fixed income 17, real assets 11, liquidity 4, inflation assets 4.
▪Emerging Market Public Equity, 3.0, 5.0, -4.5; Core Fixed Income, 7.8, 8,0, 2.1; Short Duration/High Quality Fixed Income, 7.2, 8.0, 1.0; Alternatives 2.3, 12.5, -2.0; Opportunity Portfolio, 1.6, 0.0, -0.7
▪Emerging markets
▪Emerging markets
▪Emerging markets
▪Emerging markets
▪Emerging markets
▪Fixed Income Composite
▪Fixed Income Composite
▪Funds Invested with the Pension Reserves Investment Management Board
▪GIC 11%; Hedge Fund 11%, Private Equity 6% - returns: Stable Value 1.19%, Hedge Fund 6.33%, PE 2.44%
▪Global Asset Allocation
▪Global Asset Allocation
▪GTAA
▪GTAA
▪GTAA
▪GTAA
▪Hedge Fund of Funds-1) Equity and 2) Fixed Income
▪Hedge Funds
▪MLP
▪MLP's were in Column. We also had Timber. The three columns are 1.3, 3.5 and 8.99
▪Money Market Securities, U.S. Government Bonds, U.S. Agency Bonds, Mortgage-Backed Securities
▪Money Market Securities, U.S. Government Bonds, U.S. Agency Securities, Mortgage-Backed Securities
▪Mortgages
▪Net returns
▪No targets - member selected investments
▪No targets - member selected investments
▪No targets - member selected investments
▪No targets - member selected investments

Other Investments *– Continued*

- Opportunistic. Also, gross investment return above, cannot calculate combined return on HF and PE. PE: 24.7; HF: 11.6
- Opportunity Fund
- Other = Bank Loans   Note: Gross returns are not available by category.
- Other = MLPs (10%)
- Other = Risk Parity
- Other Gross investment return - TIPS = -4.26, Infrastructure = -4.66, and Absolute Return = 1.02
- Other includes timber and infrastructure. Note that gross returns above are not available for private equity, timber, and infrastructure, so net reports are reported.
- Other=Non-core fixed income = 10%; Real Return=5%; Gross Investment Return-Other: Non Core fixed income has only 1 quarter return available.
- Others = MLPs
- Private Equity 18.04, Equity long/short 7.96, Absolute return 5.67, Managed futures 15.46
- Private Equity gross investment return = 17.8%; Hedge Fund gross investment return = 7.0%
- Private equity, commodities, hedge funds, real assets, and managed futures
- Private Markets (includes private equity and real estate)
- Public Equity: 23.6%, 22.5%, 22.5%; Fixed Income Ex-Inflation Linked: 22.2%, 22.0%, 7.1%; Fixed Income Inflation Linked: 9.4%, 10.0%, 5.4%; Absolute Return: 8.7%, 10.0%, 10.3%; Risk Parity: 10.2%, 10.0%, 16.7%
- Real assets
- Real Assets (energy, real estate, public REITS, infrastructure, natural resources)
- Real Assets: MLPs and Infrastructure
- Real Return
- Real Return (current % 8.4, target % 9.0, 1-year gross return % 5.3), Yield Driven (current % 5.7, target % 6.0, 1-year gross return % 17.0), Fixed Income (current % 14.7, target % 15.0, 1-year gross return % 5.9)
- Real Return, and Diversified Credit
- Real return/opportunistic & absolute return
- Real return/opportunistic & absolute return
- Real return/opportunistic & absolute return
- Risk Parity
- Risk Parity = Current = 6.4, Target = 6.0, Return = -0.9 | MLP = Current = 3.1, Target = 4.0, Return = -12.9
- Risk Parity, GTAA, Other Pension Assets, Liquidity
- Target allocation to Public Equity is 37%. We don't have underlying policy targets. We don't report gross investment returns, only net.
- Timber
- Timber
- Timber and Infrastructure 5% each
- Timberland and Energy Infrastructure
- TIPS 3.8% (target 4.0%, GOF -2.3%), Emerging Market Debt 3.0% (target 3.0%, GOF n/a)-New Mandate, Infrastructure/Opportunity Fund 0.4% (target 1.0%, GOF 5.4%)

Appendix B

2015 Study Instrument

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

NCPERS PUBLIC EMPLOYEE RETIREMENT SYSTEMS STUDY

Please share your feedback so we can continue to provide the most up-to-date information addressing retirement issues for public pension plans across the nation. You will need your most recent Comprehensive Annual Financial Report (CAFR) to complete these questions.

If you administer more than one plan, please copy this survey for each and note the name of the fund. If you are a multi-employer plan, you may use aggregate numbers from your CAFR and respond to the questions in the generally applicable way for most of the plans you administer. Your response will remain confidential and will not be shared without your permission.

Please enter your 5 digit ZIP code: ☐

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 active members: ☐

Total number of annuitants: ☐

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

Total number of managers and supervisors who oversee fund staff (exclude Board members): ☐

Fiscal year end (Month): ☐

Fiscal year of your CAFR referenced for this survey: ☐

Current funded ratio (%): ☐

Total assets - market ($ in thousands): ☐

Total assets - actuarial ($ in thousands): ☐

Total liabilities - actuarial ($ in thousands): ☐

Approximately which percentage does this plan offer for Cost of Living Adjustments (COLA)?

☐ *None* ☐ *1.0%* ☐ *2.0%* ☐ *3.0% +*
☐ *0.5%* ☐ *1.5%* ☐ *2.5%*

Does this plan require member contributions?

☐ *Yes* ☐ *No*

Member contributions as % of payroll (%): ☐

Employer contributions as % of payroll (%): ☐

Investment manager expenses (basis points): ☐

Administrative expenses (basis points): ☐

Investment assumption/discount rate (%): ☐

Inflation assumption (%): ☐

Investment smoothing period (years): ☐

Amortization period (years): ☐

Continued from page 1...Fund statistics **from most recently completed fiscal year** (if applicable).

Gross investment return % (1 year):	
Gross investment return % (3 year):	
Gross investment return % (5 year):	
Gross investment return % (10 year):	
Gross investment return % (20 year):	

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 GROSS INVESTMENT RETURN*** (%) for each asset class. **Please note**: percentages for asset allocation should equal 100%.

***CURRENT* asset allocation:**		***TARGET* asset allocation:**		***Gross 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/Hedge Fund/ Alternatives (%):		Private Equity/Hedge Fund/ Alternatives (%):		Private Equity/Hedge Fund/Alternatives (%):	
Commodities (%):		Commodities (%):		Commodities (%):	
Cash Equivalents (%):		Cash Equivalents (%):		Cash Equivalents (%):	
Other (specify asset below) (%):		Other (specify asset below) (%):		Other (specify asset below) (%):	

If you entered an "Other" asset class above, please specify what other class(es) your fund is currently invested?

3. Which ***retirement benefits*** below are offered or will be introduced by the plan or plan sponsors in the next two years? Please skip individual items below if not applicable.

	Already Offering	*Will Introduce in Next Two Years*
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 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, 403b, 401k; employee participation is voluntary)	☐	☐
Combination Plan (blends Defined Benefit and Defined Contribution elements)	☐	☐
Individual Retiree Health Savings Accounts	☐	☐
In-service death benefit of at least the return of employee contributions or a comparable benefit	☐	☐
Disability benefit provided either within the plan, by Social Security or by employer	☐	☐
Plan documents provide for vesting of plan benefits	☐	☐
Plan documents prohibits involuntary forfeiture or reduction of vested benefits	☐	☐
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)	☐	☐

Continued from page 2...Which ***retirement benefits*** below are offered or will be introduced in the next two years?

	Already Offering	*Will Introduce in Next Two Years*
Employer pick up of employee contributions		
Deferred Retirement Option Plan (DROP - in all forms)		
Qualified excess benefit plan (for payments above IRC 415 limits)		

4. Which ***retirement plan changes*** below have been implemented in the last two years or will be implemented by the plan or plan sponsors in the next two years? Please skip individual changes below if not applicable.

	Already Implemented in Last Two Years	*Will Implement in Next Two Years*
Lower the actuarial assumed rate of return		
Hold the actuarial assumed rate of return at the same level		
Raise benefit age/service requirements		
Increase employee contributions		

5. Which ***business practices*** below have been implemented in the last two years or will be implemented by the plan or plan sponsors in the next two years? Please skip individual items below if not conducted.

	Already Implemented in Last TwoYears	*Will Implement in Next Two Years*
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		
Request an updated IRS Letter of Determination		
Update/strengthen an asset allocation study		
Expand operational performance benchmarking		
Update administrative software used for member data		
Provide online portal for members to access account information		
Conduct a member needs and expectations study		
Implement records management software		
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		

6. Which ***communications and member engagement practices*** below have been implemented in the last two years or will be implemented by the plan or plan sponsors in the next two years? Please skip individual practices below if not conducted.

	Already Implemented in Last TwoYears	*Will Implement in Next Two Years*
Develop public relations plan to address "Pension Envy"		
Develop staff talking points on key issues affecting the fund		
Expand retirement planning education for members		
Conduct a member satisfaction assessment		
Notify members of updated handbook/summary plan description (electronically or paper)		
Actively use social media (Facebook, Twitter, etc.) to share messages with members		

7. Which of the following ***communication methods*** does your plan or plan sponsor have the ability to conduct?

	Yes	*No*
Capacity to send a postcard to the home address of your entire membership		
Capacity to send a mass phone message to your entire membership		
Capacity to send a mass text message to your entire membership		
Capacity to send an email to your entire membership		
Does your plan have a Facebook or Twitter account?		

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 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	☐	☐
Are you familiar with the GASB 68 changes on how you report retirement plan funding in your Comprehensive Annual Financial Report (CAFR)?	☐	☐
Are you ready to communicate the GASB 68 changes to your governing body and community?	☐	☐

9. 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*
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

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

11. As you think about best practices and innovation, please share a success story other plans may like to learn about:

12. 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)

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

☐ *Township* ☐ *County* ☐ *State* ☐ *Other*
☐ *City/village* ☐ *Police/fire* ☐ *Educational*

14. Are your members eligible for Social Security coverage?

☐ *Yes* ☐ *No*

15. Are your members eligible for Medicare coverage?

☐ *Yes* ☐ *No*

16. Do you include overtime in the calculation of the retirement benefit?

☐ *Yes* ☐ *No* ☐ *Not applicable*

17. Does your plan provide retiree health benefits?

☐ *Yes* ☐ *No*

18. Which role do you serve on the Board? (**Please mark all that apply.**)

☐ *Board chair* ☐ *Board secretary* ☐ *Appointment by plan sponsor* ☐ *Elected by members* ☐ *Selected by other trustees* ☐ *Staff*

19. May we contact you if we have additional questions?

☐ *Yes* ☐ *No*

20. Do you allow NCPERS to group your data with reported information from other respondents? **Note:** Unique, identifiable information (Plan name, State) will NOT be shared to protect your identity. Grouping allows funds to see how other comparable sized funds responded to each question. For example, asset allocation for funds with more than 50,000 participants.

Selecting "*Yes*" will give you access to the interactive comparison dashboard. NCPERS will provide the link on a password protected site.

☐ *Yes* ☐ *No*

21. If you selected "*Yes*" above, please provide your name and email so we may follow up with you regarding the comparison dashboard.

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

For more information:

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