

# 2016 NCPERS Public Retirement Systems Study

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December 2016

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*

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# Overview

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*Over the last 5 years, responding funds have become increasingly confident in their ability to adapt and address issues in this volatile environment surrounding public pensions.*

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## **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.*

## **Executive Summary**

In September, October and November 2016, 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 *2016 NCPERS Public Employee Retirement Systems Study* includes responses from 159 state, local and provincial government pension funds with more than 10 million active and retired memberships and assets exceeding \$1.5 trillion. The majority – 77 percent – were local pension funds, while 23 percent were state pension funds.

NCPERS is the largest trade association for public sector pension funds, representing more than 500 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 \$3.7 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 2016 NCPERS Public Employee Retirement Systems Study interactive dashboard, please contact Amanda Rok, Communication & Social Media Manager at [Amanda@NCPERS.org](mailto:Amanda@NCPERS.org).

To view previous editions of this report, please visit: [www.NCPERS.org/surveys](http://www.NCPERS.org/surveys).

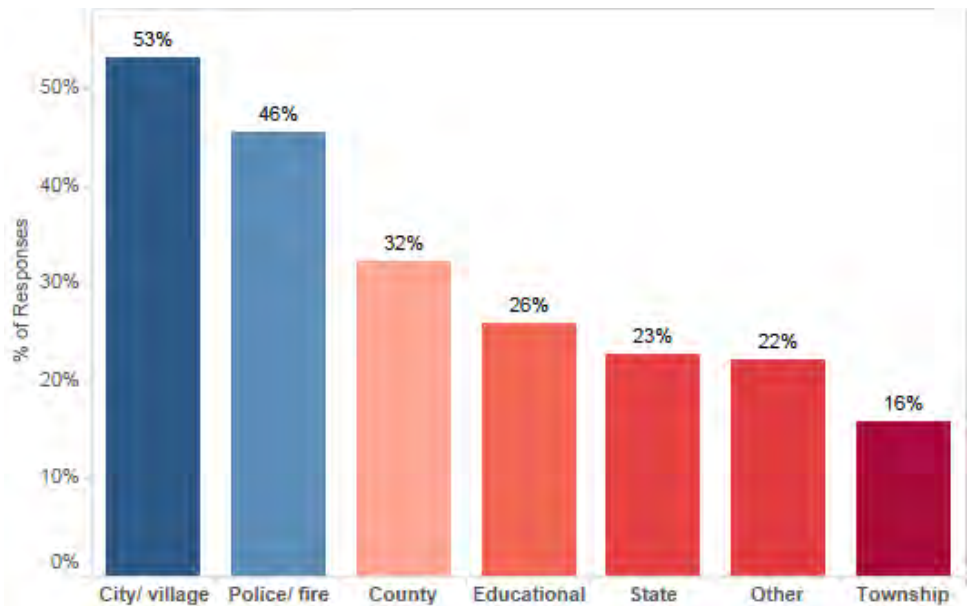
# Overview - Continued

## 2016 Key Findings

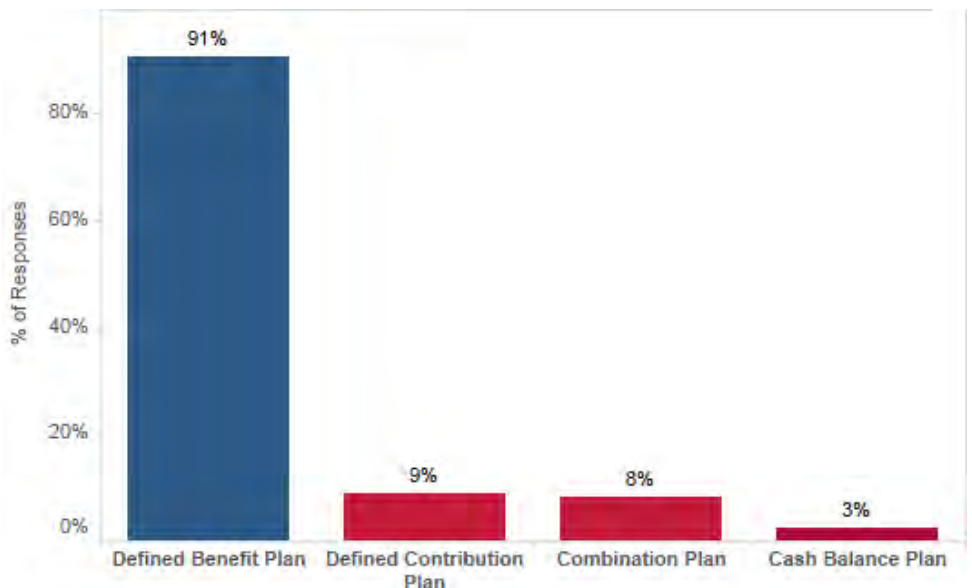
1. The trend of public funds becoming more cost effective continues. Responding funds report the total cost of administering their funds and paying investment managers is 56 basis points (100 basis points equals 1 percentage point.) This is a decrease of four basis point from 2015. According to the *2016 Investment Company Fact Book*, the average expenses of most equity mutual funds average 68 basis points and hybrid mutual funds average 77 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 and assumptions. Almost 40 percent of responding funds have lowered their actuarial assumed rate of return, and nearly an additional 30 percent are considering lowering in the future. More than 30 percent of respondents have increased employee contributions and raised benefit age or service requirements.
3. Funds are currently experiencing healthy 3-year, 5-year and 20-year returns (close to or exceeding 8 percent). Aggregated 10-year returns are reported at 6.2 percent. Gross 1-year returns averaged 1.7 percent, and varied between 1.2 percent (June) and 2.4 percent (December) depending on two common fiscal year end dates. Signs continue to point toward long-term improvement in responding public retirement systems' funded status.
4. For the third consecutive year, responding funds experienced an increase in average funded level. The aggregated average funded level is 76.2, up from 74.1 in 2015 and 71.5 in 2014. While 1-year investment returns were not strong in 2015, almost 70 percent of responding funds have investment smoothing periods containing strong investment returns from the 2012, 2013 and 2014 fiscal years. In addition, funds continue to lower amortization periods which lowers the amount of time to fully fund the plan.
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 (73.8 percent). Member contributions make up 7.5 percent of fund income. Employer contributions equal about 18.7 percent.

# Who Responded

For the 2016 study, 159 respondents provided feedback to NCPERS using the most recently available data. Of the 159 respondents, 71 also responded to the 2015 study. This group provides direct comparisons on several key dimensions in the survey, such as: funded status, contribution rates, and actuarial assumptions. Data on the following pages reflect the findings from the 159 funds and references the group of 71 comparable funds. .

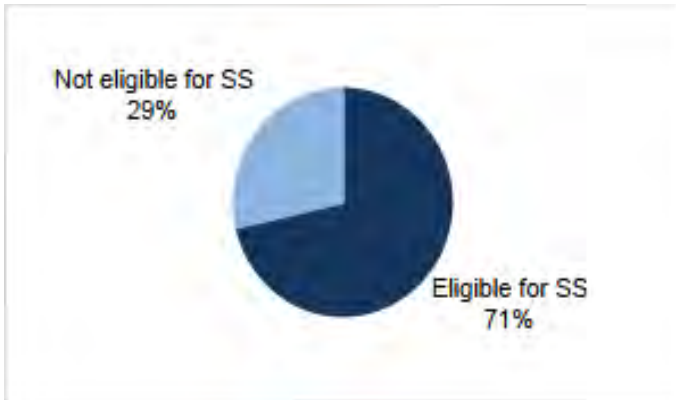


55 percent serve city and village jurisdictions. About 45 percent of the responding funds serve police and fire employees. The graph in the top right portion shows the 2016 distribution of jurisdictions the funds serve (totals may exceed 100 percent because of multiple response).



The overall distribution of responding funds is similar to 2011, 2012, 2013, 2014 and 2015; however, there was an 8 percent increase in the number of Police/Fire funds and a 9 percent reduction in State entities.

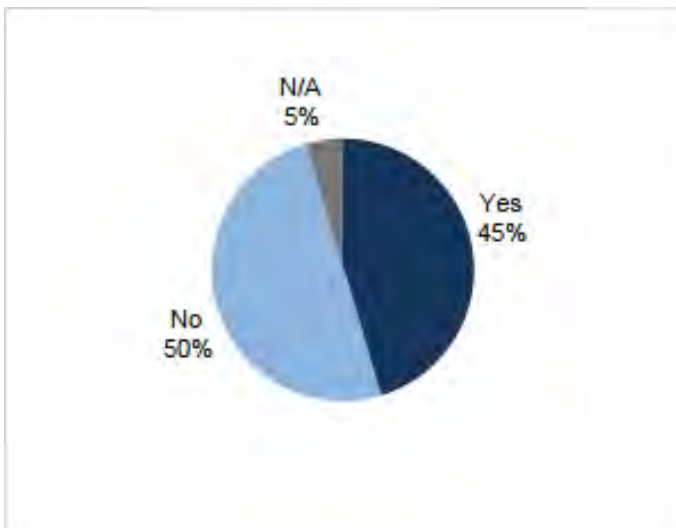
### Members' Social Security Eligibility



More than 70 percent of responding funds have members who are eligible for Social Security; and 29 percent are not eligible. In this report, breakdowns are presented for “Eligible for Social Security” and for “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.

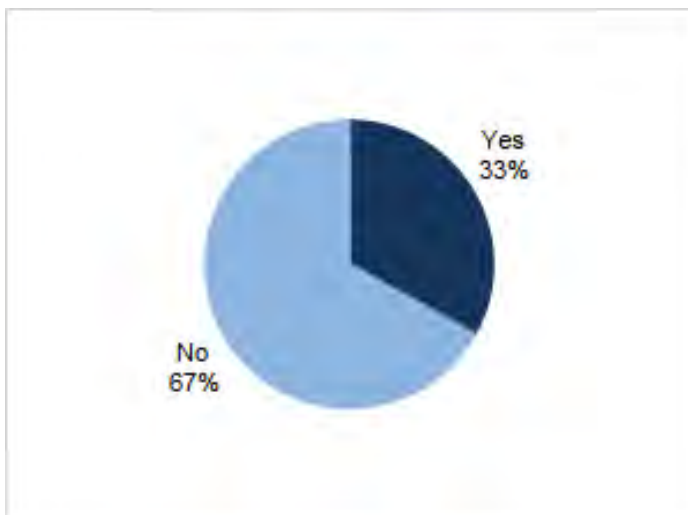
### Includes Overtime in Benefit Calculation



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 2016 study respondents, 45 percent include overtime in the benefit calculation. Which is the same percentage reported last year.

### Provides Retiree Health Benefits



33 percent provide some level of health coverage for retirees. This is a 9 percent decline from what was reported in 2015.

For more information regarding funds and their health plan(s), see page 28.

# Fund Confidence

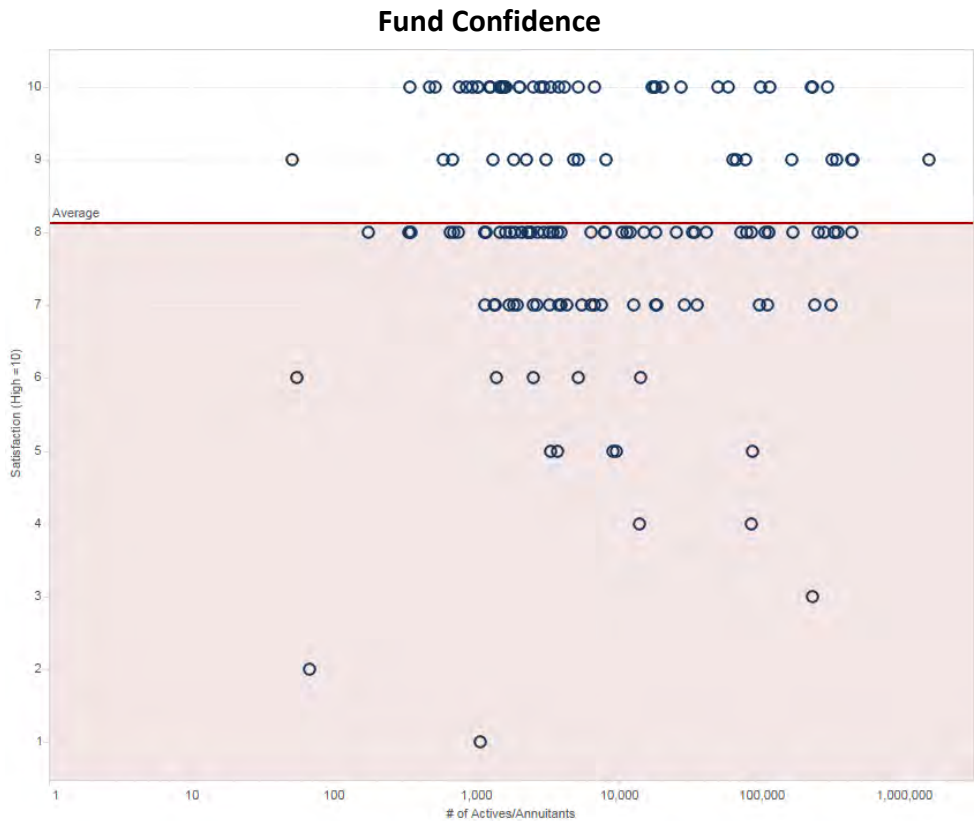
The study asked respondents “How satisfied are you with your readiness to address retirement trends and issues over the next two years?”

Respondents provided an overall “confidence” rating of 8.1 on a 10-point scale (very satisfied =10). This score is up from 8.0 in 2015, 7.9 in 2014 and a 7.4 in 2011.

Over the last 5 years, responding funds have become increasingly confident in their ability to adapt and address issues in this volatile environment surrounding public pensions.

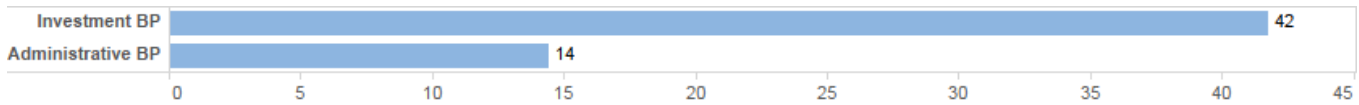
Responding funds have been proactive in making changes to their plans (adjusting assumptions) and benefits (increasing contributions) to ensure their sustainability.

Social Security eligible and non-eligible funds rated this question 8.1 (up 0.3 from last year) and 8.3 (up 0.1 from 2015) respectively.



# Expenses

### 2016 Study Plan Expenses (Basis Points)



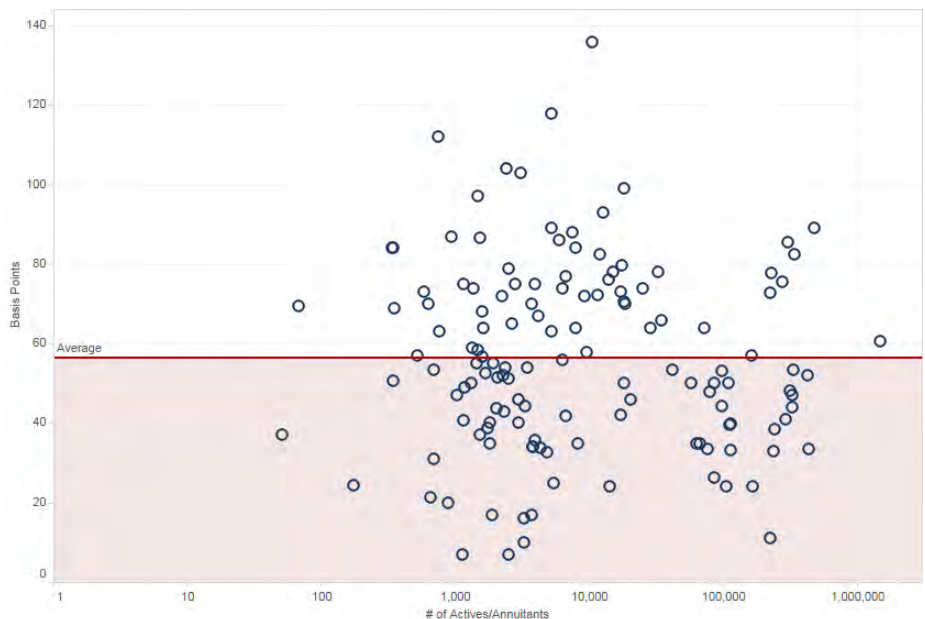
The overall average expense for respondents to administer the funds and to pay investment manager fees is 56 basis points (100 basis points equals 1 percentage point). This is a decrease from 60 bps in 2015, and 61 bps in 2014.

While the respondent pool between studies has fluctuated, the general theme is funds have reduced fees the last few years by automating processes, gaining workflow efficiencies and negotiating fee structures with investment managers.

According to the *2016 Investment Company Fact Book*, the average expenses of most equity funds average 68 basis points and hybrid funds average 77 bps. This means responding funds with lower expenses than most mutual funds provide a higher level of benefit to members (and produce a higher economic impact for the communities those members live in).

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.

### 2016 Total Plan Expense by Fund Size

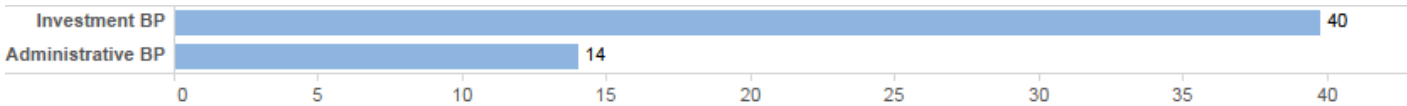




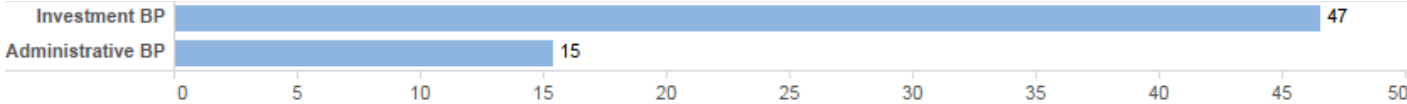
Below are expenses separated by funds eligible for Social Security and Not Social Security eligible. Total expenses are 54 and 62 respectively.

In 2015, Social Security eligible funds reported total plan expenses at 60 basis points, while Not Social Security reported 68 bps.

### Plan Expenses: Social Security Eligible



### Plan Expenses: Not Social Security Eligible



# Actuarial Assumptions

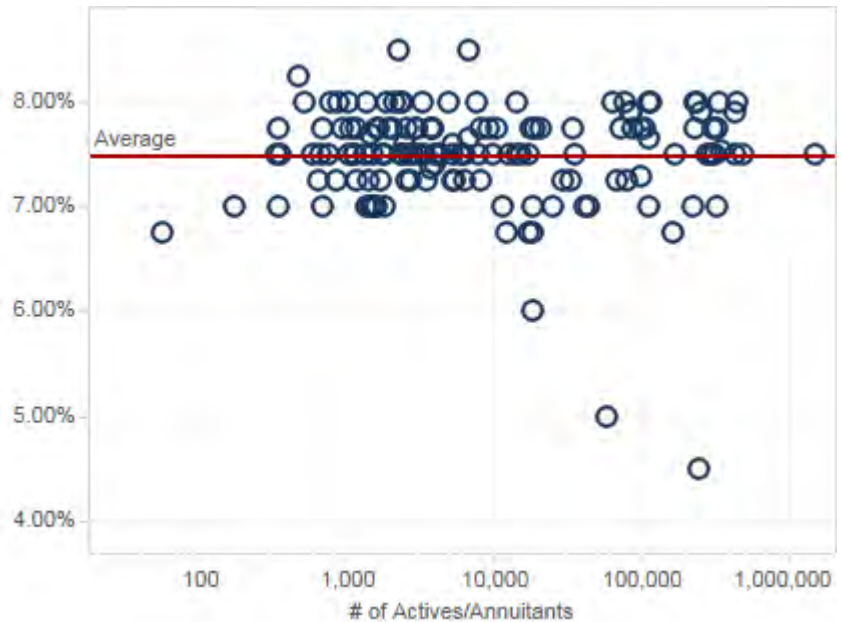
Retirement funds utilize a long-term planning horizon to ensure liabilities are fully funded at the time the liability is due to be paid. To help a fund set contribution rates and measure progress toward meeting its financial obligations, funds make actuarial assumptions to estimate what investment and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

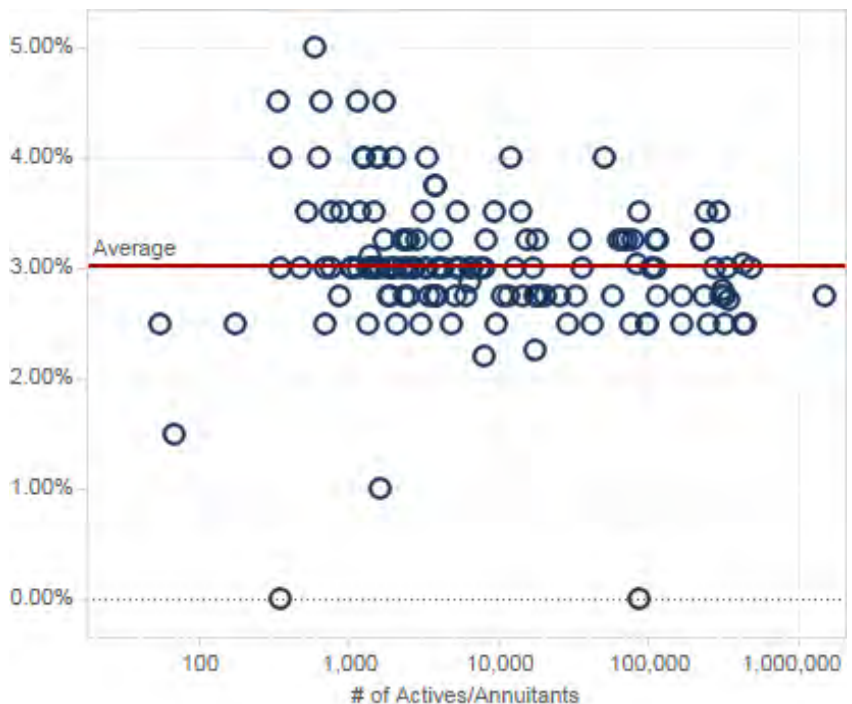
The average investment assumption for responding funds is 7.5 percent, the same aggregated average as 2015. However, almost a quarter of funds who also responded in 2015 reduced their investment assumption. Among those who made a change from 2015 to 2016, their investment assumption was lowered by 0.26 percent.

The aggregated inflation assumption in 2016 is 3 percent, down 0.2 from 2015. Almost 40 percent of the comparable group reduced their inflation assumption between 2015 and 2016. This group lowered their inflation assumption by an average of 0.39 percent.

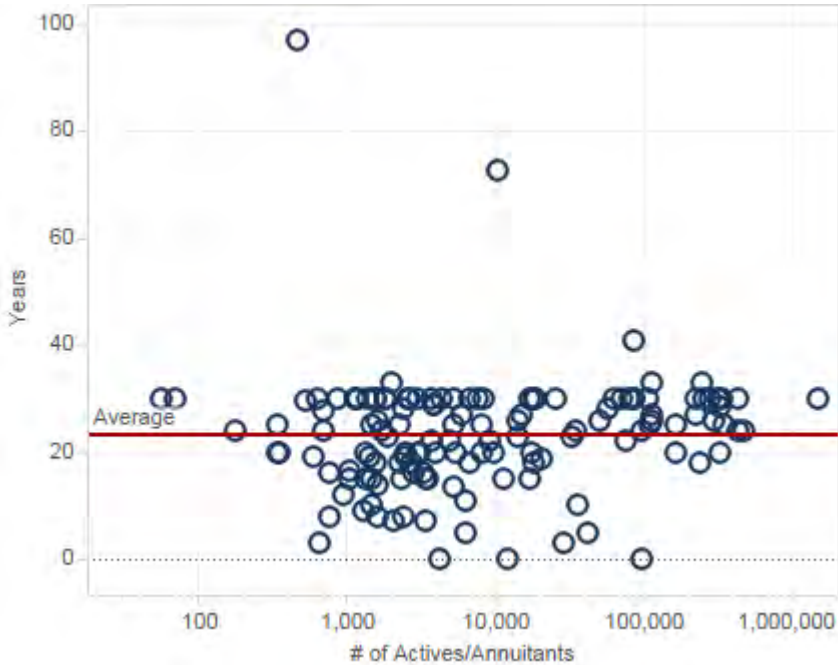
## Investment Assumption



## Inflation Assumption



## 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 23.3 years, down from 25.2 in 2015 and 25.9 in 2014.

34 percent of respondents who also responded in 2015 reduced their amortization between the two studies. The comparable group collectively shortened their amortization period by an aggregate average of 5.2 years.

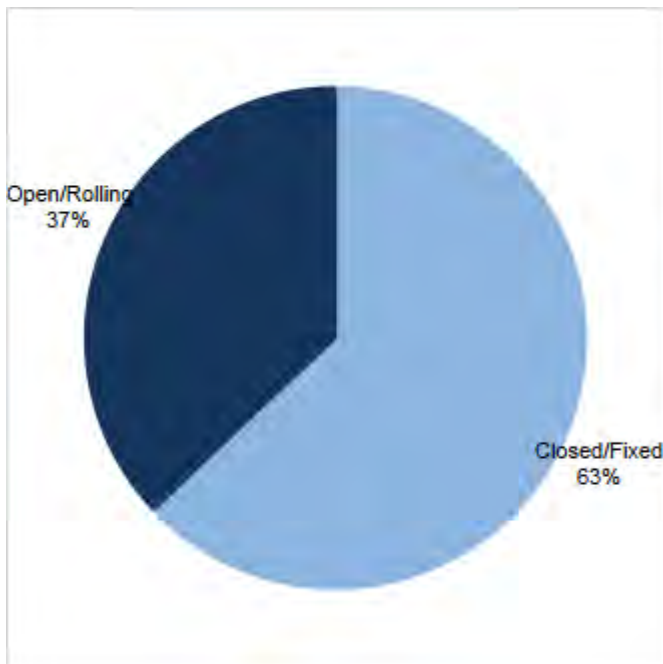
Groups can shorten their amortization period by adjusting the period or using a fixed or closed method which reduces the period over time.

Newly tracked in 2016 is asking funds whether their amortization period is open or closed.

Open amortization periods are used to determine the actuarially required payment but does not change over time. The same number of years is used in determining the period each year.

58 percent of Social Security eligible funds have a closed amortization period, while 74 percent of non eligible funds have a closed period.

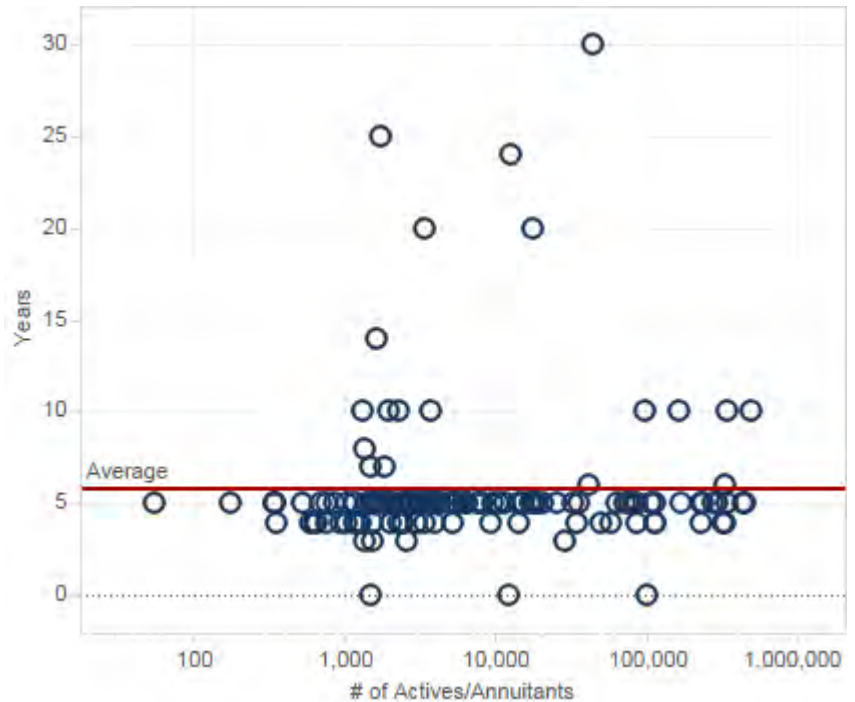
## Type of Amortization Period



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 are able to 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 is 5.7 years, up from 5.0 years in 2015. However, the distribution of responding funds on the graph to the left shows the vast majority have 5 year smoothing periods. A couple outliers have caused the aggregate average to go higher in 2016. For Social Security eligible funds, the smoothing period averages 6.0 years, up from 5.2 years last year. Non Social Security eligible plans have an average smoothing period of 4.6 years.

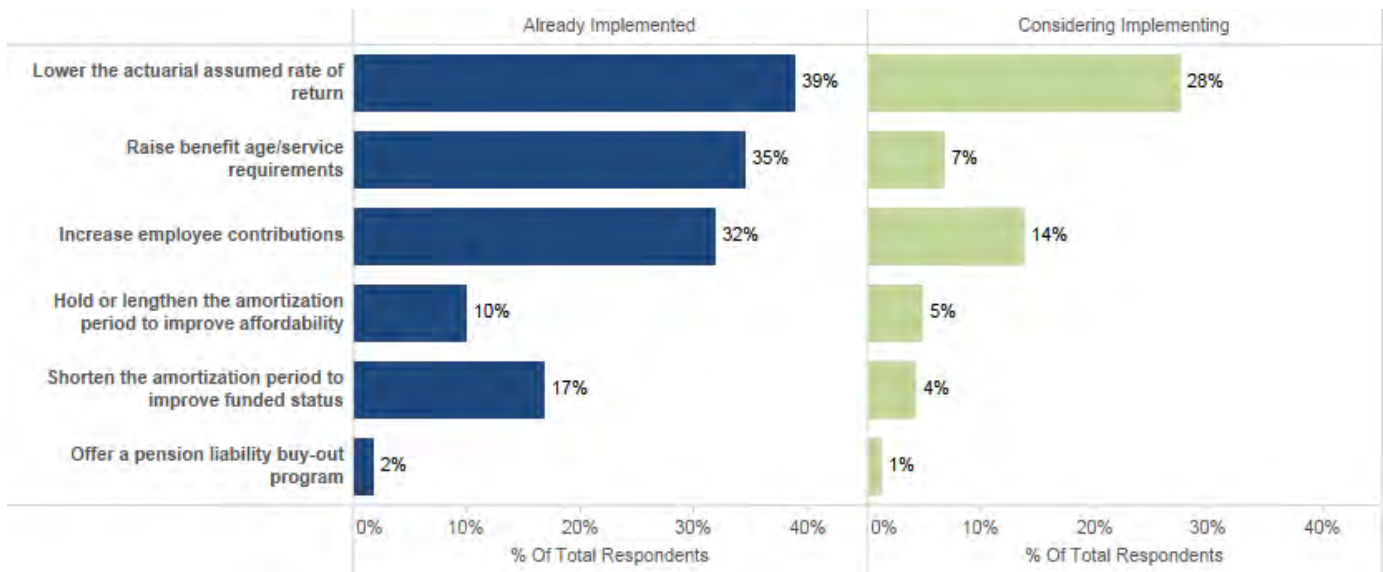
### Investment Smoothing



# 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. The wording for the response options changed between the 2015 and 2016 studies, therefore no comparisons can be drawn. It is important to note more than a quarter of all responding funds are considering an adjustment to their actuarial assumed rate of return.

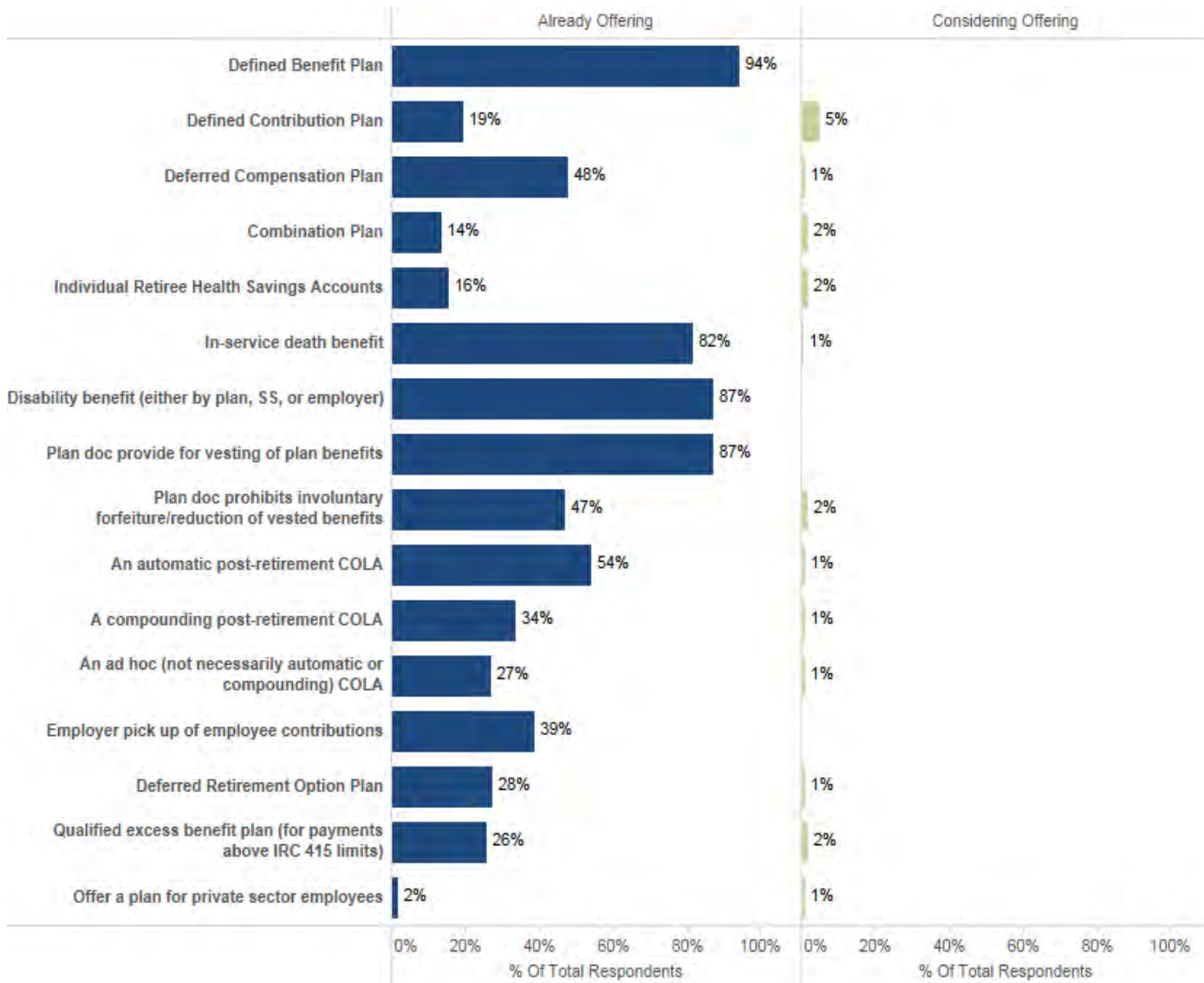
■ Already Implemented
 ■ Considering Implementing



# Trends in Retirement Benefits

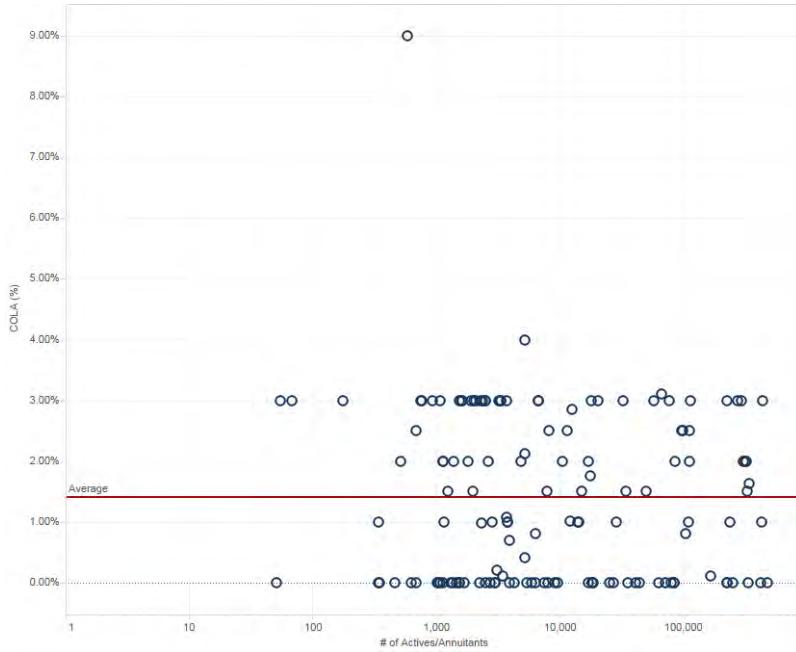
There is minimal activity in terms of responding funds considering offering additional benefits to their members. Most funds provide a disability benefit, in-service death benefit and some variation of a cost of living adjustment (COLA). A new question in 2016 asked whether or not funds offer, or are considering offering, a plan for private sector employees.

■ Already Offering
 ■ Considering Offering



# Cost of Living Adjustments

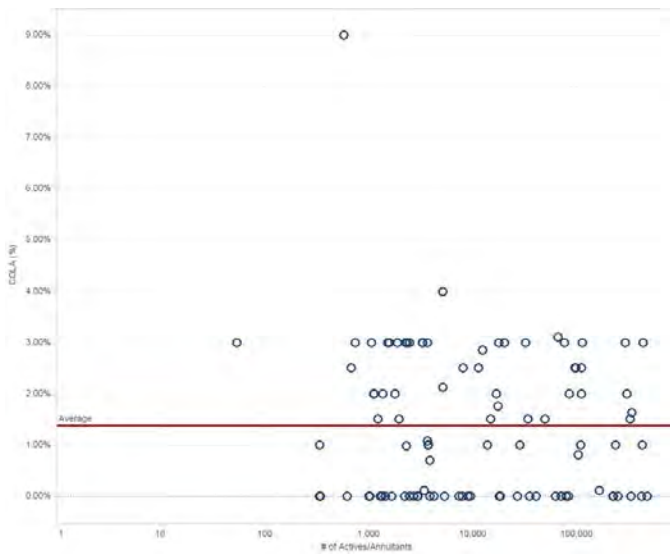
## Overall Cost of Living Adjustment Offerings



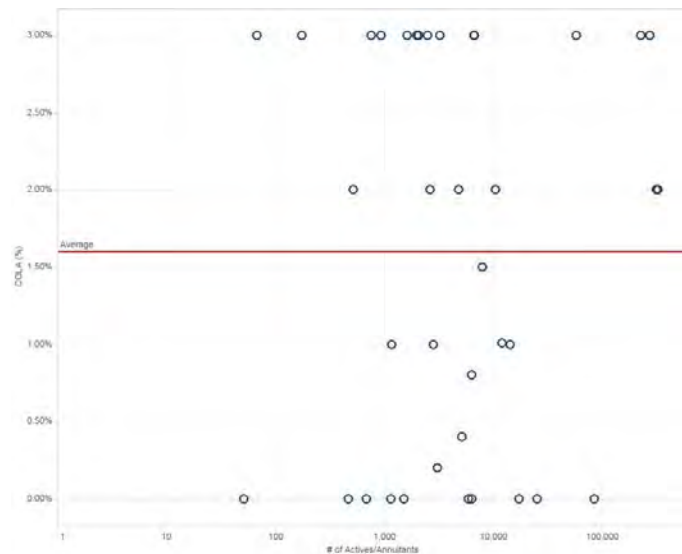
The chart at the left shows the distribution of funds offering various percentages of cost of living adjustments (COLA.) In prior studies, funds selected from a set of pre-determined options. In 2016, they were provided a blank space and were allowed to enter any number of percentages. The aggregated average COLA offered to members was 1.4 percent. 34 percent of responding funds did not offer a COLA in the most recent fiscal year.

Funds with members who are not eligible for Social Security (1.6 percent) tend to offer higher cost of living adjustments than those who are (1.4 percent).

## Social Security Eligible



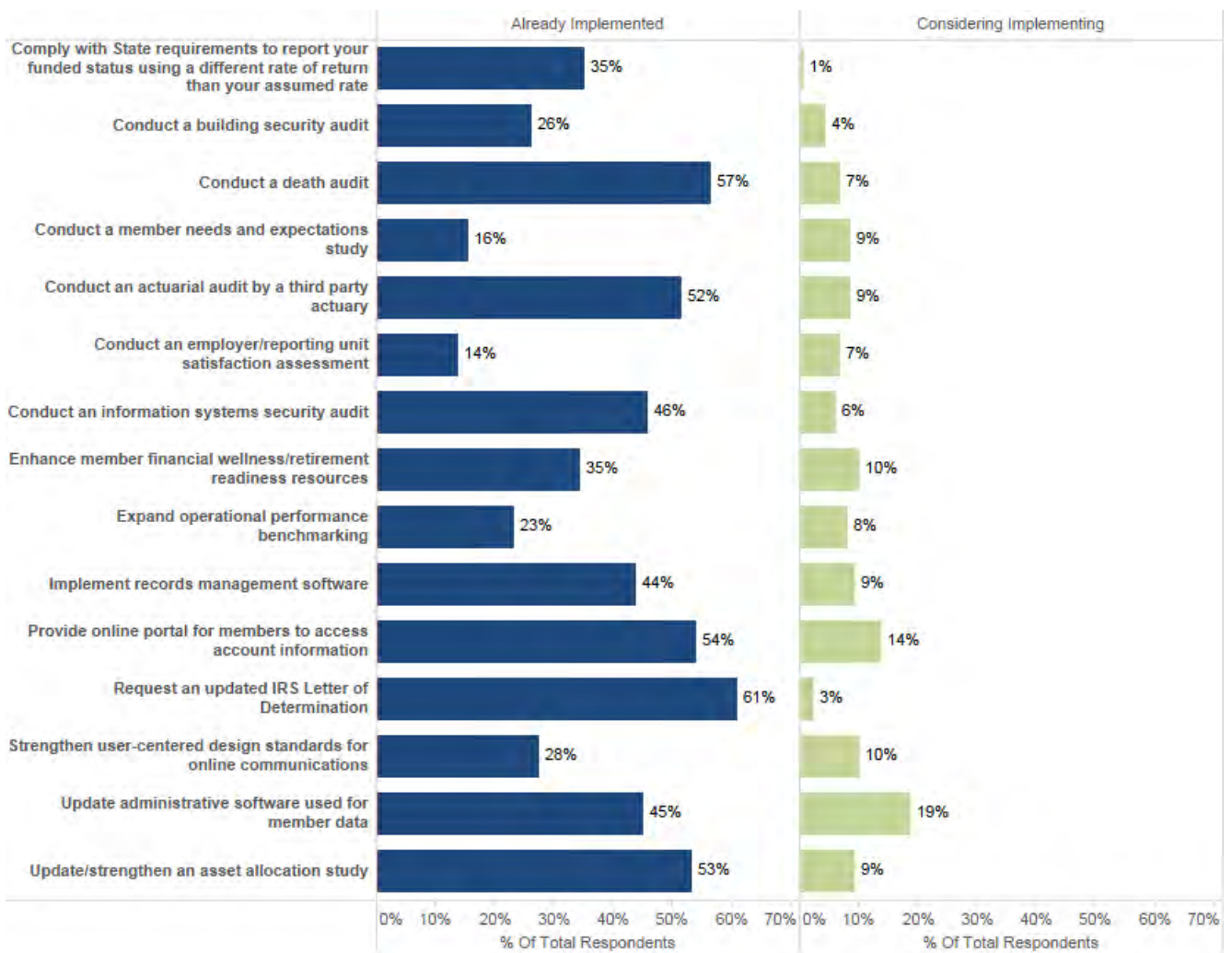
## Non Social Security Eligible



# Trends in Business Practices

The majority of responding funds have requested an updated Internal Revenue Service Letter of Determination. Areas that may see increased activity in the over the next year include providing and updating online member portals. Newly tracked in 2016 include: Enhance member financial wellness/retirement readiness, Strengthen design standards for online communications, Conduct employer/reporting unit satisfaction survey.

■ Already Implemented
 ■ Considering Implementing





# Trends in Engagement

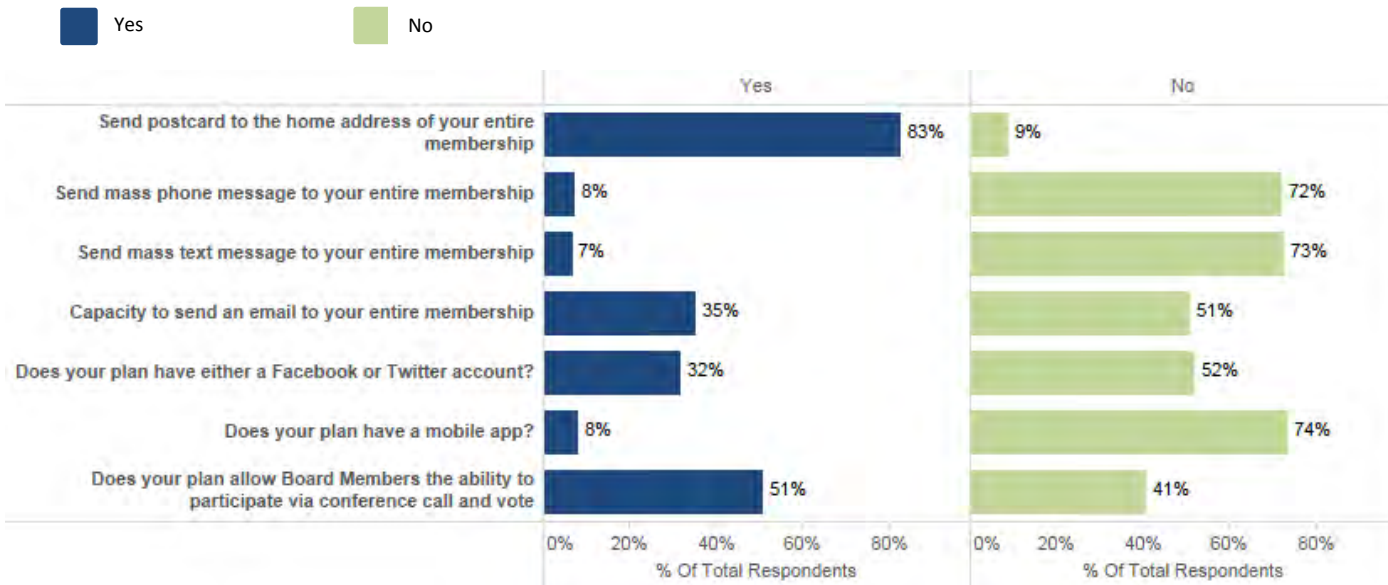
Responding funds have focused or will be focusing on expanding retirement planning education for their members. Providing fund staff with talking points on key issues and notifying members of updated handbooks and summary plan information also have more activity than other areas measured.

■ Already Implemented
 ■ Considering Implementing



Areas with increased activity over 2015 includes participating in social media (Facebook or Twitter) and the ability to send mass phone and text messages to their entire membership. Newly tracked in 2016 includes whether or not funds have a mobile application, and if they allow Board members to participate and vote via conference call.

### 2016 Communication Capabilities

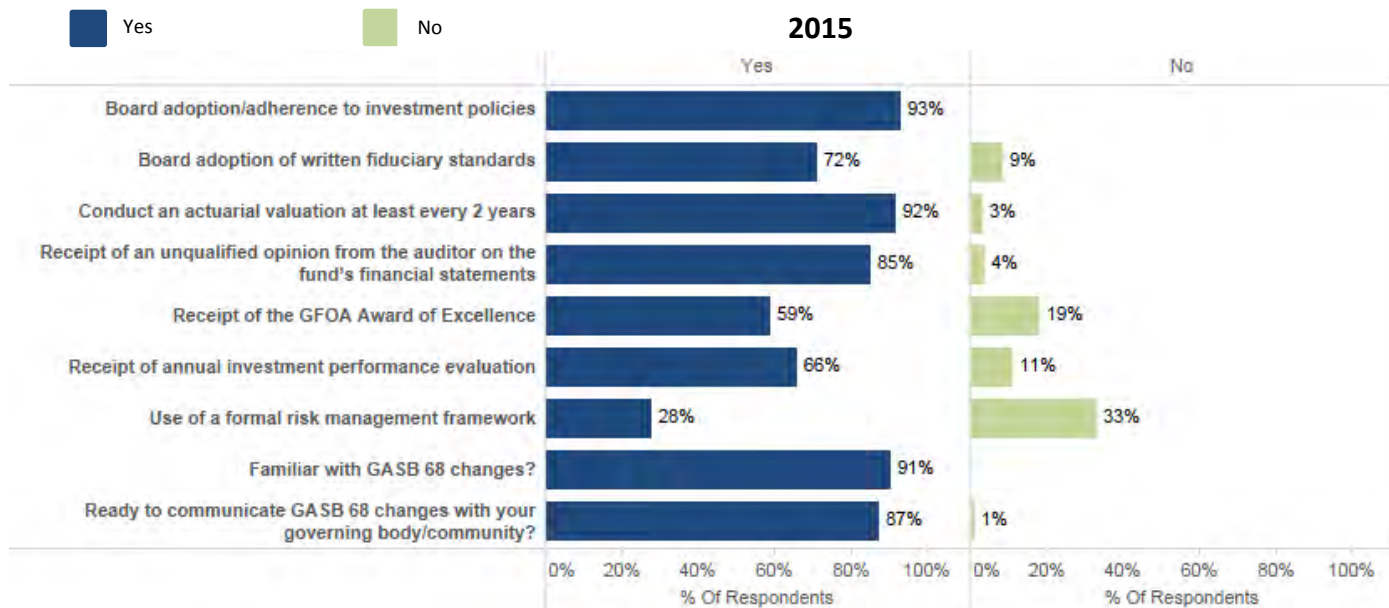
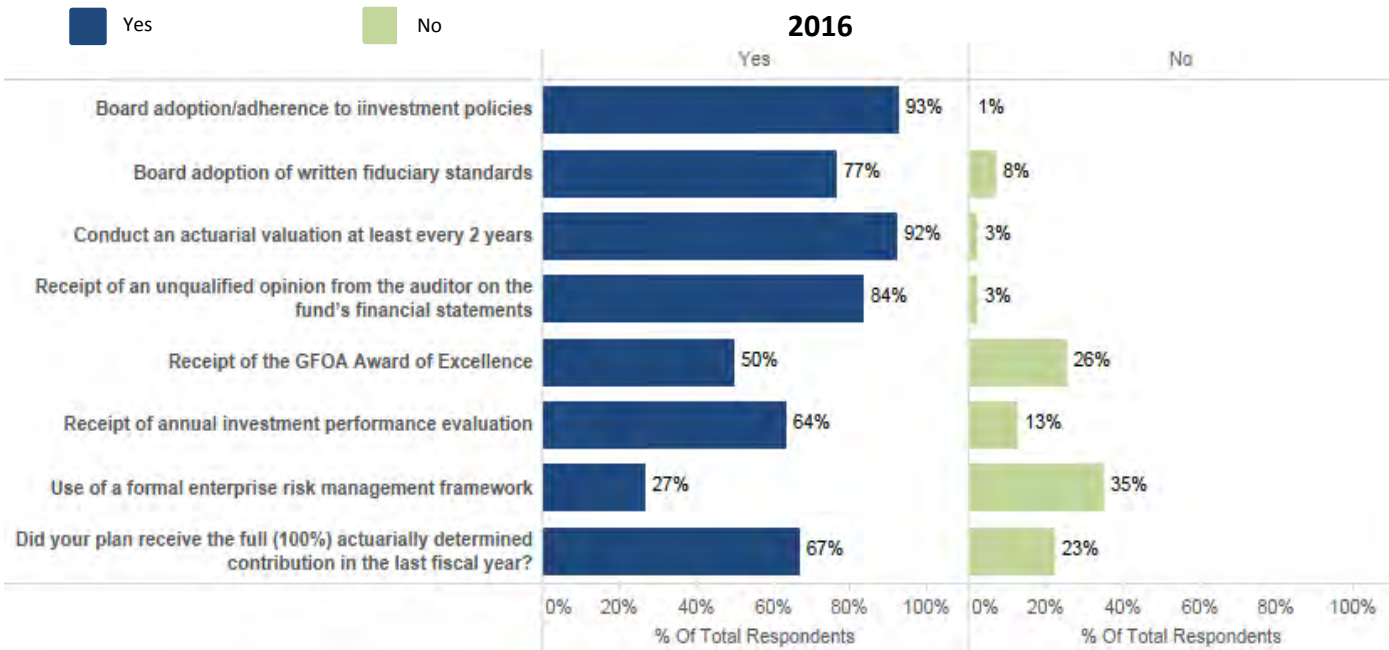


### 2015 Communication Capabilities



# Trends in Oversight Practices

Most oversight practices stayed saw little fluctuation between the 2015 and 2016 studies. A new question in 2016 asked funds whether or not they received the full actuarially determined contribution in the last fiscal year. Two thirds of responding funds indicated they received 100 percent of the determined contribution.



# Investment Returns

Reporting funds saw, on average, 1-year returns around 2 percent. The 3-year, 5-year and 20-year average returns hovered around 8 percent. The latter percentages point to continuing long-term improvement in funded status.

10-year returns, driven by the market crash of 2008 have aggregated returns around 6 percent.

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. Funds who have June fiscal year ends saw returns averaging nearly 2.5 percent. December year ends had returns slightly above 1 percent.

The graphs below show average reported returns.

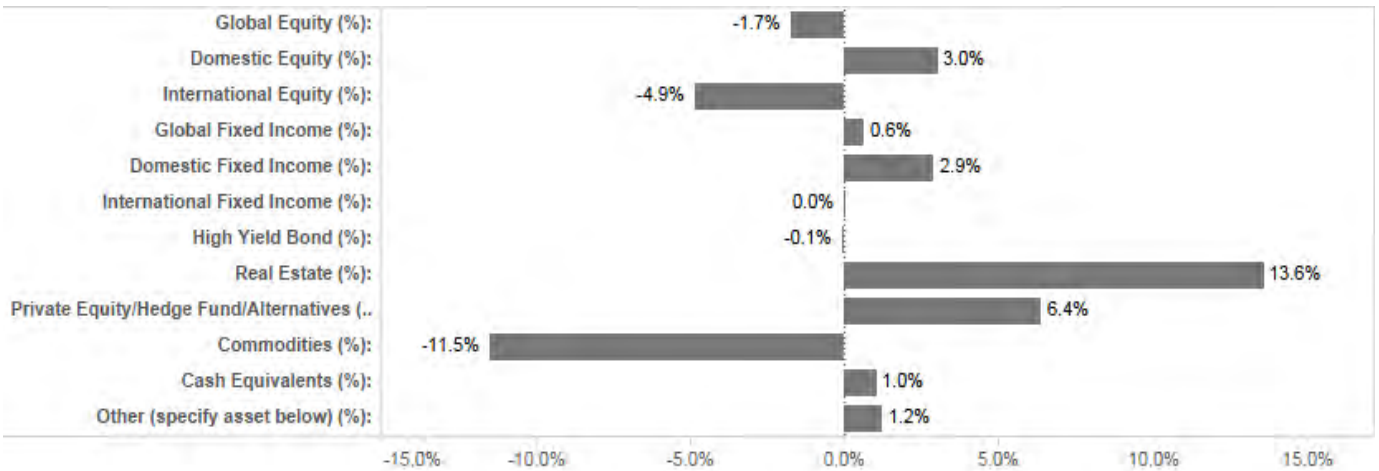
**2016 Study Investment Returns**



**2015 Study Investment Returns**



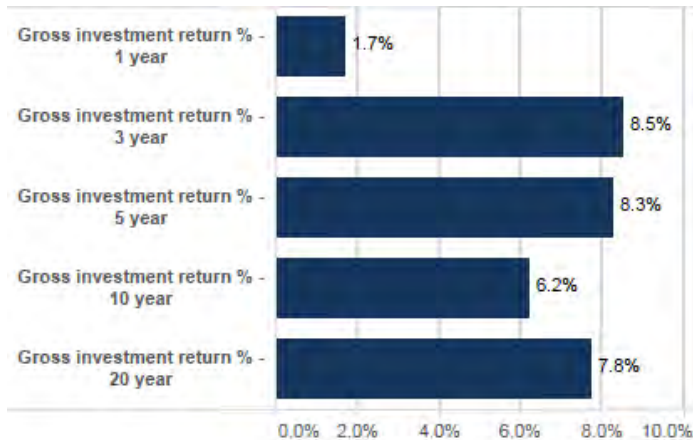
The graph below shows the 1-year gross investment returns based on the various asset classes responding funds are invested. Real estate and Private equity/Hedge fund/Alternatives saw the largest returns. Commodities, International equity and Global equity experienced negative returns.



Funds with members who are Social Security eligible reported slightly higher 1-year returns than non Social Security eligible funds. However, both experienced similar returns over the last 20 years.

### 2016 Returns: Social Security Eligible

### 2016 Returns: Not Social Security Eligible



# Investment Asset Allocation

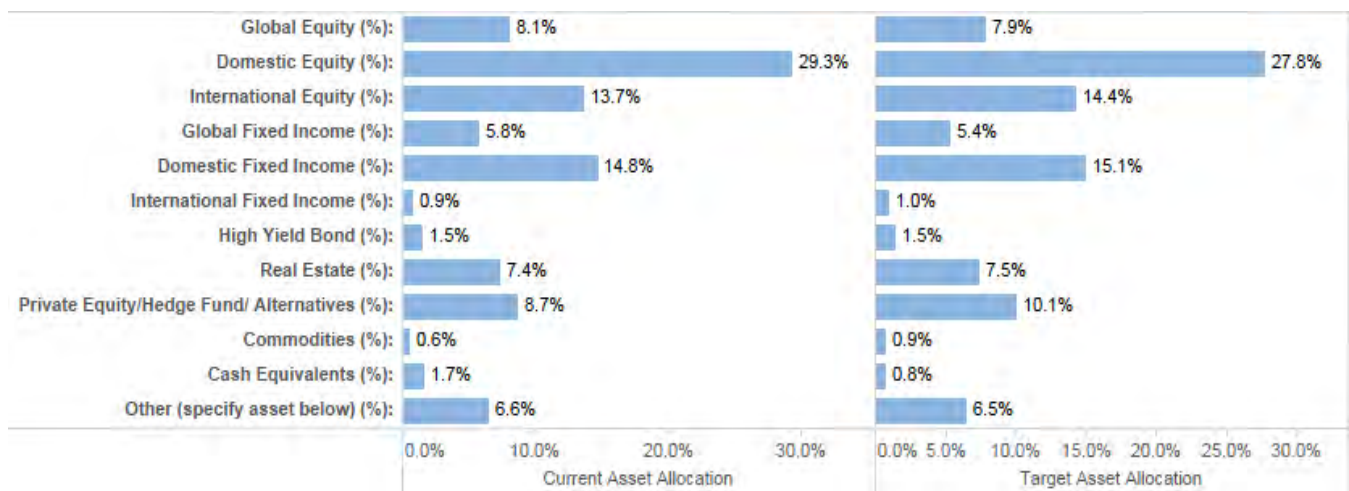
Between 2015 and 2016, responding funds decreased their exposure to equities from 54 percent to 51 percent. Private equity/Hedge fund/Alternatives saw nearly a 3 percent decrease.

“Other investments” saw a 1 percent increase in exposure. (See Appendix A for the open-ended response to “other.”)

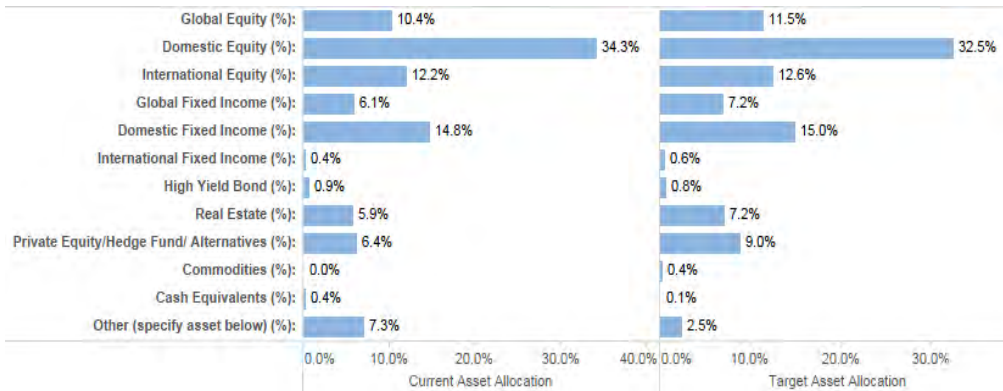
Compared to current allocations, target asset allocations show decreased exposure to equities, and increases in private equity/hedge fund/alternatives.

**2016 Current Investment Asset Allocation**

**2016 Target Investment Asset Allocation**



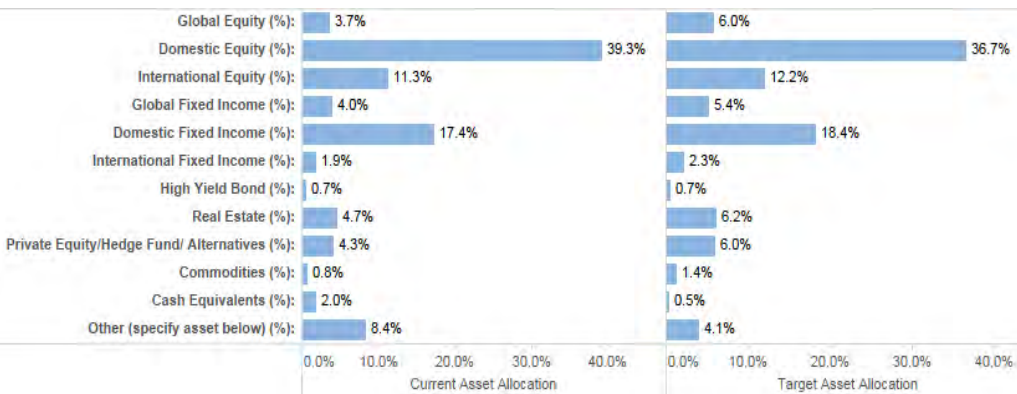
## Highest 1-Year Return



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 private equity/hedge fund/alternatives.

## Highest 10-Year Return



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

# Funding Levels

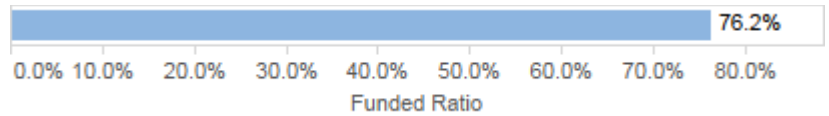
Based on responses to the 2016 study, aggregate average funded level is a solid 76.2 percent, up from 74.1 in 2015.

The forty five percent of responding funds who provided data in 2015 saw an aggregated funded status increase from 76.4 to 76.7 percent.

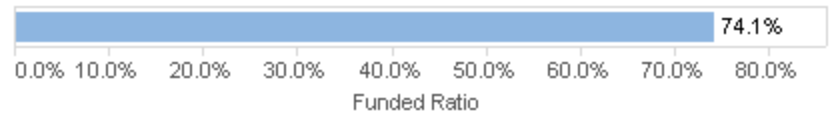
The graph to the right shows the distribution of funded levels and fund size. The vertical axis shows level of funding, and the horizontal axis shows the size of the fund by total active and retired participants.

The black line denotes the average of 76.2 percent, and the red line denotes the 70-percent funding target that Fitch Ratings considers to be adequate.

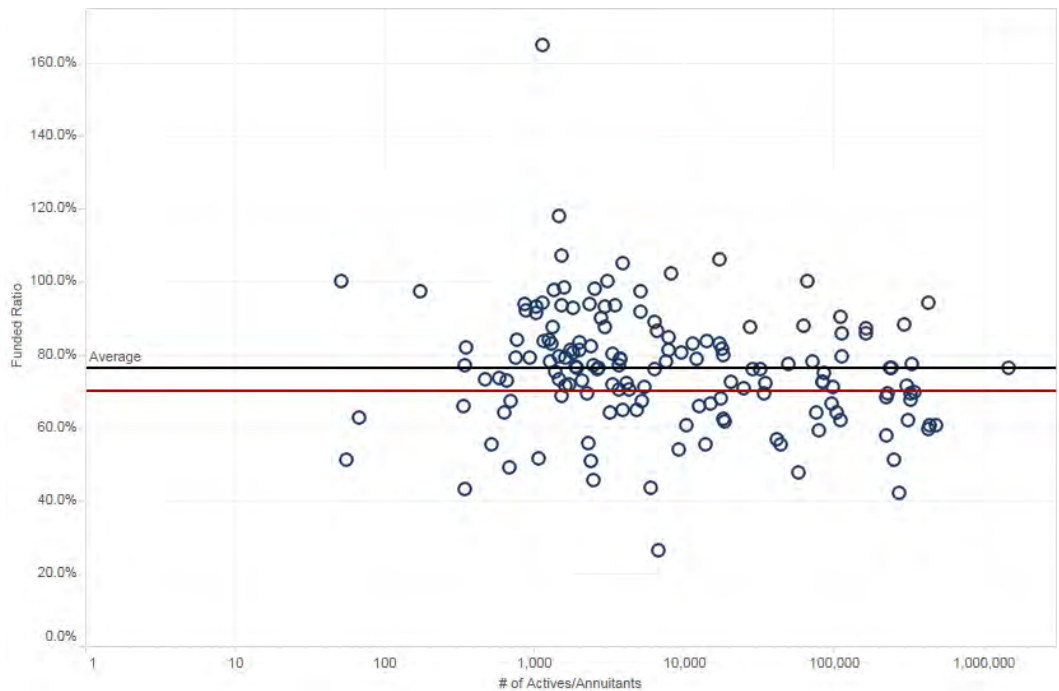
## 2016 Funded Level



## 2015 Funded Level

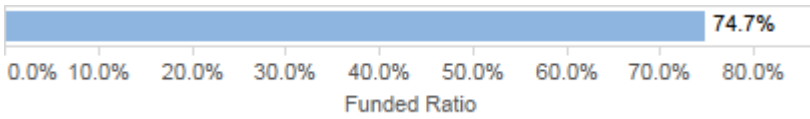


## 2016 Funded Level Distribution



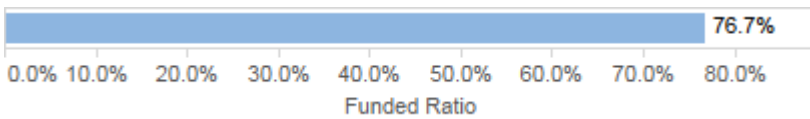


### Funds Not Eligible for Social Security



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 74.7 percent, which is down slightly from 74.8 percent in the 2014 study.

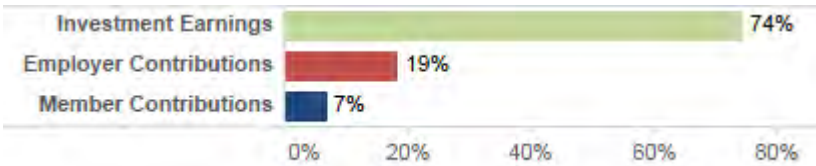
### Funds Eligible for Social Security



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 76.7 percent, up from 73.7 percent in the 2015 study.

# Sources of Funding

## Overall Sources of Revenue

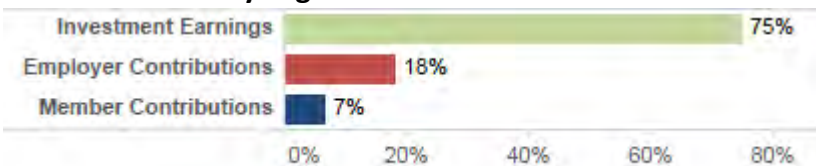


Income used to fund pension programs generally comes from three sources: member contributions, employer contributions and investment returns. The chart at the left shows the proportion of funding provided through each of these sources based on reported data.

Investment returns are by far the most significant source of revenue (74 percent.) This is the same percentage reported in 2015. Member contributions stayed the same between 2016 and 2015. Employer contributions equal approximately 19 percent, consistent with 2014 and 2015.

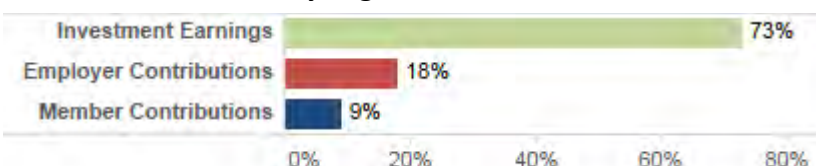
The findings in this study are consistent with other industry studies showing annual fund expenditures and economic impact significantly exceed the annual contributions made by the plan sponsors/employers.

## Social Security Eligible



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

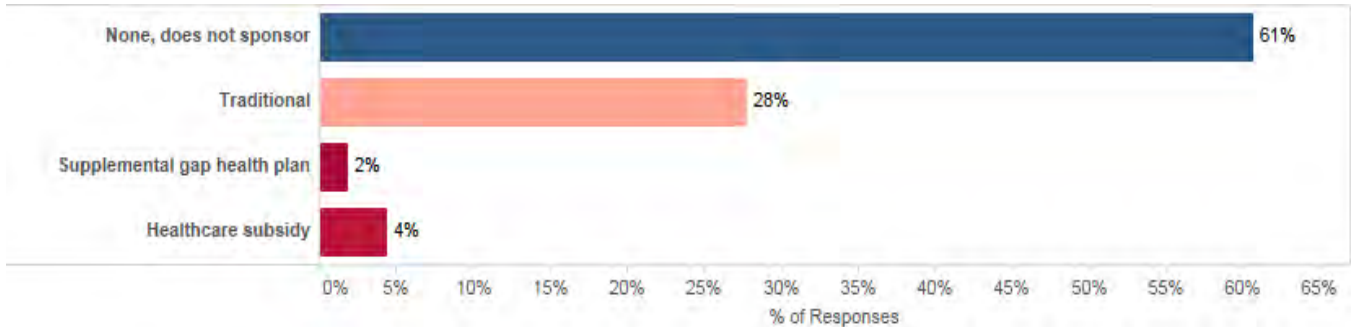
## Non Social Security Eligible



# Health Plans

Newly tracked in 2016 were two questions regarding health care plans. First, responding funds were asked whether or not the pension plan sponsors a health plan. Nearly two thirds of funds do not currently sponsor a health plan.

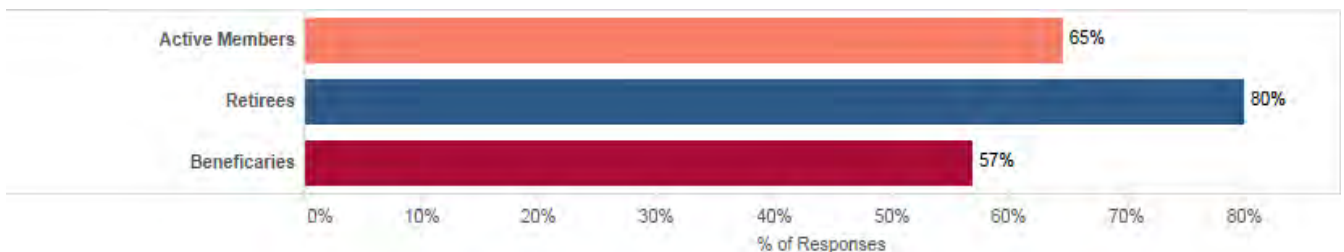
## What type of health plan does your pension plan sponsor?



The 65 funds who do sponsor some sort of health plan or subsidy were also asked to report what type of members are eligible for the plan.

80 percent of responding funds who sponsor allow retirees to participate; 65 percent allow active members and 57 percent allow beneficiaries to be eligible for the sponsored health plan.

## Who is eligible for the health plan?





# Reducing Liability - *Continued*

- Lowering the investment rate of return to 7.75% effective 9/30/17 by lowering half way at 9/30/16 and the remainder by 9/30/17
- 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 contributions; requirements for employers to pay costs attributable to certain salary increases above assumed raises immediately, rather than being amortized over the full amortization period
  - N/A
  - New Tier II plan
  - None
- Our amortization period declines by 1 year each calendar year
- Our amortization period declines by 1 year each calendar year
- Our amortization period declines by 1 year each calendar year
- Our plan amortizes in 24 years. The Board's goal which is formalized in policy it be 100% funded
- Over the past 4 years, a second tier of benefits was introduced and contributions were increased
- Past investment gains and losses were fully recognized in the Actuarial Value of Assets at July 1, 2013. Future investment gains and losses will be recognized over five years beginning July 1, 2014. The valuation programming for benefits for participants in the DROP was adjusted based on a review of the assumptions and plan provisions. The Unfunded Actuarial Accrued Liability (Surplus), including the effects of actuarial gains and losses, is amortized as a level percentage of payroll over 30 Years.
- Pay annual Actuarial Required Contribution (ARC) plus extra funds
- Payment of Actuarially Determined Employer Contribution (ADEC) is required including a closed amortization period not to exceed 25 years. Additional employer contributions are permitted to reduce liability
- Pension reform introduced new benefit tier, increased employee/employer contributions and reduced cost of living adjustments for retired members.
- Pension reforms in 2012, Increased employer contributions 2017
- Per State Statute the Board can set the contribution rate at the prior year's rate if the rate would have otherwise decreased.
- Plan sponsor has bargained for increased employee contributions to cover UAAL and eliminated some pensionable comp pay items. Plan sponsor has also made additional payments towards UAAL and formed an Ad hoc Pension Reform Committee.
- Prior changes include increased employee and employer contributions, reduced COLA's, and eliminating early retirement subsidies.
- Prior changes include increased employee and employer contributions, reduced COLA's, and eliminating early retirement subsidies.
- Reduce assumed rate of return, maintain employer contribution levels as funding increases.
- Reduce thresholds for membership, update assumptions
- Reduction of amortization period 2 years for every one year, employer lengthened retirement date and years used for AFC calculation (from 3/4 or 5 to 10)
- Renegotiate union contracts re: benefit levels
- Seek statutory changes.
- System has created a new defined benefit tier for new employees.
- The amortization period will reduce from 30 to 20 years beginning with fiscal year 2017 as our funded ratio has reached 72%.
- The board annually certifies an alternative state funding requirement (higher than what state law requires) that would start reducing unfunded liability. This is a formal way of notifying the executive and legislative branches and others that current funding is not sufficient.
- The Board of Trustees does not have the authority to change benefit provisions or contribution levels; the plan sponsor has that authority. The FWERF is participating on a City Manager pension Task Force to evaluate options to reduce the amortization period of the unfunded liability.
- 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 Funding Policy was changed to limit funding of discretionary benefits until pension funding reaches 90%
- The plan recently closed the amortization period and also continues to make the minimum required contribution each year.
- The POA helps address the issue as well as the City of Detroit administration looking into funding alternatives.
- Two of our three plan sponsors are paying supplemental contributions to reduce the UAAL.
- Utilizing non-vested assets from the defined contribution plan, and transferring those to the defined benefit plan as "extra" contributions. Spreading the unfunded liability across the entire organization (representative of the liability being an organizations - not just for those that are currently in the program), so regardless if employees are in DB or DC - the liability is spread equally.
- We are at various stages of studying and implementing a comprehensive Asset Liability Management plan.
- We are currently pursuing legislation that would lower the COLA from 2% to 1.5% and increase contributions by 3%
- We are fortunate that our past legislators had the foresight to build funding mechanisms into statute to assure that we maintain a funding policy which addresses amortization of the UAAL. We do not need additional strategies at this point in time.
- We have been de-risking the plan for the last two years, offering cash outs to deferred vested participants, reducing liability with some plan changes regarding sick leave and vacation, converting guaranteed periods to lump sum payments.

# Reducing Liability - *Continued*

- We have implemented a better method of amortizing our UAAL which consists of using a level dollar, closed, and layered amortization method over a 25-year period. This will ensure the UAAL will be paid off over 25 years.
- We have implemented a scorecard to help the Board evaluate when to make plan changes to keep the plan financially sound. The scorecard provides measures around funded ratio, funded status, economic conditions and the chances of a significant event dropping funding below 50% and the funded period reaching beyond 100 years.
- We have implemented several plan design changes that have resulted in liability reductions, such as reducing the discount rate used to calculate the APV for service purchase from 8% to 6% and lowered the interest accrual for the purposes of refund from 8% to 4% to 2%.
- We just increased the EE and ER contribution rates in 2016. We are considering increasing both again in 2017 and 2019 with a substantial increase in ER contributions
- We must adhere to the policies outline in the Plan of Adjustment.
- Will be fully funded in 2 years



# Innovations/Best Practices – *Continued*

- Issue bonds to pay off unfunded liability while interest rates are at historic lows
- Leverage the use of the Member Portal and Employer Reporting Portal. The online communication resources ensures both the members and employers have access to real-time information. And for the members, the ability to see their plan-specific information has increased their understanding of the benefit structure.
- N/A
- New computer software programs for member services and accounting.
- On-going implementation of straight-through processing; added online member enrollment for cities; address change for members and retirees and tax withholding changes for retirees.
- Our strategic plan includes a Key Result Area on workforce engagement. One strategy within this area is regarding succession planning. IMRF has embarked on a structured system of evaluating all employees on readiness and willingness to move up in the organization using a "9-Box" rating system, which is determined by a specific set of questions regarding the employee's performance and leadership qualities and is then calibrated by all leaders.
- Our Tier II plan has caused a lot of problems for employers and employees. I do not recommend.
- Pension committee that engages in dynamic analysis
- Plan change to allow guaranteed period beneficiaries to choose a one-time present value lump sum from the plan.
- Reduced portfolio's volatility
- Require 100% funding for benefit enhancements, both before and after using supplemental valuations
- Retirement educational seminars
- RS received the Stand-Out Institutional Investor Award from ConsortiumEAST (NY, NY) in recognition of its ongoing efforts to nurture minority-owned emerging investment managers across the country.
- Specific funding rate for administrative costs will prevent a portion of the investment returns that would otherwise be used up to pay for administrative costs.
- The FWERF Board adopted a thematic approach to asset allocation in early 2016 and has conducted structure studies for the new thematic allocation buckets. The approach focuses on the risk and return role the asset plays in the total portfolio: high growth, growth, diversification, capital preservation, inflation, and liquidity.
- The organization brought in UHY to review and optimize current business practices, and assist in the selection and implementation of an ERP system.
- The system implemented a benefit administration system that integrated active and retired data, which also allows members to review their pension information, and calculate a benefit estimate in real time.
- URS rolled out its retirement planning advisory program
- We are a small DC plan, we really have nothing to share on the innovative side! Sorry
- We are aggressively targeting our young new members to the plan with educational programs regarding the value of the benefit. The new hires will need to understand the plan so they can defend it. We aim to do our best to be in front of these folks in their first 12 months of employment.
- We are interested to see how our new tier 3/stacked hybrid plan affects our funded status and the political impression of our fund.
- We have continued to work on our customer service focus and identifying opportunities for obtaining feedback. We mail paper surveys to members who have interactions with our staff, we have an online survey feature on our website which invites member / retiree participation and every week the executive director personally calls ten members or retirees who have had contact with our staff to hear about their experience. The combination of these outreach methods continuously identifies opportunities for improvement as well as validation of processes that are working well.



# Appendix A

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. Underneath the text cloud are the verbatim comments.



## Top Themes:

1. Real assets/return
  2. Treasury Inflation Protected Securities (TIPS)
  3. Opportunistic investments
  4. Master limited partnerships (MLP)
- 2.9% MLPs, 0.6% Infrastructure Investment returns are reported NET OF INVESTMENT EXPENSES
  - Absolute Return, TIPS, Energy
  - Absolute Returns
  - Alternative = Private Equity + Hedge Fund + Real Estate
  - Alternative = Private Equity + Hedge Fund + Real Estate
  - Alternatives are Real Estate and Commodities
  - Alternatives, opportunity
  - Arbitrage
  - Bank Loans = 4.3% (Current), 4% (Target), 3.37% (Gross return – fixed income composite); Public Real Assets = 9.9% (Current), 5% (Target), 3.42% (Gross return); Private Real Assets = 11.6% (Current), 15% (Target), 5.9% (Gross return)
  - Convertible Bonds
  - Convertible Securities
  - Covered Calls
  - Current Asset Allocation, Target Asset Allocation, Gross returns (1yr) respectively, as follows: Risk Factors 1.7, 0.00, 4.4; Multi Asset Class 3.0, 5.0, -10.4; Opportunistic Equity 0.9, 0.0, 6.6; Private Debt 8.2, 10.0, 9.2; Opportunistic Debt 3.4, 0.0, -5.0; Farmland & Timber 0.6, 0.0, 4.1; Infrastructure 1.0 0.0, 1
  - Current NonCore FI=4.0; Real Return=6.37 Target NonCore FI=20% Real Return=10% Total 1 year gross NonCore=.67+ Real Return <2.136>
  - Diversified Multi-Asset
  - Diversified, Emerging Markets
  - Emerging Markets
  - Emerging Markets
  - Emerging Markets, Timber
  - Fixed Income Composite
  - Fixed Income Composite
  - Global Asset Allocation/ Better Beta
  - Global Convertible Securities, Master Limited Partnership, Income opportunity
  - GTAA
  - GVT Securities
  - Inflation Hedge - 5% and Opportunistic .5%
  - Infrastructure
  - MASTER LIMITED PARTNERSHIPS
  - Master Ltd Partnerships
  - MLP
  - Mortgages
  - Multi-asset, Risk Parity
  - Multi-class managers
  - NOTE: Investment returns in Column 3 are Net
  - Opportunistic
  - Opportunistic fixed income
  - Opportunistic Investments
  - Opportunity Fund all assets that don't fit the other categories
  - Other contains a variety of asset types that the system is in the process of liquidating
  - Other includes timberland and infrastructure. Gross returns are not available for private equity and other, so net returns are provided for these categories.
  - Our total fixed income target is 30%
  - PRIT - Pension Reserves Investment Trust
  - PRIT fund core asset allocation

# Other Investments – *Continued*

- Private Equity, etc., should read 3-15%, but the survey would not permit that type of entry.
- Private markets, including private real assets, private real estate, private debt and private equity
- Real assets
- Real assets, Diversifying strategies
- Real Assets, Global Opportunistic, and Risk Parity
- Real return
- Real Return, Other
- Risk Parity
- Risk Parity
- Risk Parity 6.3%; MLP's 2.7% (Liquid Alternatives Asset Class)
- The allocation of assets as reported to the board are as follows: Equity securities 37.8%, Debt securities 20.8%, Absolute return 15.5%, Private equity 12.1% and Real assets 13.9%.
- Timber
- TIPS
- TIPS - 10%; MLPs - 5%
- TIPS; Molpus Woodlands
- Total Balanced
- US non-investment grade fixed income
- US Treasuries, TIPS, Investment grade credit, Venture capital
- US Treasuries, TIPS, Investment grade credit, Venture capital
- US Treasuries, TIPS, Investment grade credit, Venture capital
- We are part of the State of MASS-PRIT Fund

# Appendix B

## 2016 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 data addressing retirement issues for public pension plans across the nation. Your most recent Comprehensive Annual Financial Report will help answer most 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)*       *Combination Plan (Blends Defined Benefit & Defined Contribution)*

*Defined Contribution Plan (Mandatory Retirement Account)*       *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):

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 % 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):

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

# Appendix B

## 2016 Study Instrument

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

Gross investment return % (1 year):	<input type="text"/>
Gross investment return % (3 year):	<input type="text"/>
Gross investment return % (5 year):	<input type="text"/>
Gross investment return % (10 year):	<input type="text"/>
Gross investment return % (20 year):	<input type="text"/>

### 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%.

<b>CURRENT asset allocation:</b>		<b>TARGET asset allocation:</b>		<b>Gross investment return % (1 yr):</b>	
Global Equity (%):	<input type="text"/>	Global Equity (%):	<input type="text"/>	Global Equity (%):	<input type="text"/>
Domestic Equity (%):	<input type="text"/>	Domestic Equity (%):	<input type="text"/>	Domestic Equity (%):	<input type="text"/>
International Equity (%):	<input type="text"/>	International Equity (%):	<input type="text"/>	International Equity (%):	<input type="text"/>
Global Fixed Income (%):	<input type="text"/>	Global Fixed Income (%):	<input type="text"/>	Global Fixed Income (%):	<input type="text"/>
Domestic Fixed Income (%):	<input type="text"/>	Domestic Fixed Income (%):	<input type="text"/>	Domestic Fixed Income (%):	<input type="text"/>
International Fixed Income (%):	<input type="text"/>	International Fixed Income (%):	<input type="text"/>	International Fixed Income (%):	<input type="text"/>
High Yield Bond (%):	<input type="text"/>	High Yield Bond (%):	<input type="text"/>	High Yield Bond (%):	<input type="text"/>
Real Estate (%):	<input type="text"/>	Real Estate (%):	<input type="text"/>	Real Estate (%):	<input type="text"/>
Private Equity/Hedge Fund/ Alternatives (%):	<input type="text"/>	Private Equity/Hedge Fund/ Alternatives (%):	<input type="text"/>	Private Equity/Hedge Fund/ Alternatives (%):	<input type="text"/>
Commodities (%):	<input type="text"/>	Commodities (%):	<input type="text"/>	Commodities (%):	<input type="text"/>
Cash Equivalents (%):	<input type="text"/>	Cash Equivalents (%):	<input type="text"/>	Cash Equivalents (%):	<input type="text"/>
Other (specify asset below) (%):	<input type="text"/>	Other (specify asset below) (%):	<input type="text"/>	Other (specify asset below) (%):	<input type="text"/>

If you entered an "Other" asset class above, please specify what other class(es) 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)	<input type="checkbox"/>	<input type="checkbox"/>
Defined Contribution Plan (retirement account in which an employer's contribution is specified and employee participation is generally mandatory)	<input type="checkbox"/>	<input type="checkbox"/>
Deferred Compensation Plan (tax-deferred retirement savings account such as a 457, 403b, 401k; employee participation is voluntary)	<input type="checkbox"/>	<input type="checkbox"/>
Combination Plan (blends Defined Benefit and Defined Contribution elements)	<input type="checkbox"/>	<input type="checkbox"/>
Individual Retiree Health Savings Accounts	<input type="checkbox"/>	<input type="checkbox"/>
In-service death benefit of at least the return of employee contributions or a comparable benefit	<input type="checkbox"/>	<input type="checkbox"/>
Disability benefit provided either within the plan, by Social Security or by employer	<input type="checkbox"/>	<input type="checkbox"/>
Plan documents provide for vesting of plan benefits	<input type="checkbox"/>	<input type="checkbox"/>
Plan documents prohibits involuntary forfeiture or reduction of vested benefits	<input type="checkbox"/>	<input type="checkbox"/>
An automatic post-retirement adjustment of payments (e.g. COLA)	<input type="checkbox"/>	<input type="checkbox"/>
A compounding post-retirement adjustment of payments (e.g. COLA)	<input type="checkbox"/>	<input type="checkbox"/>
An ad hoc (not necessarily automatic or compounding) post-retirement adjustment of payments (e.g. COLA)	<input type="checkbox"/>	<input type="checkbox"/>

# Appendix B

## 2016 Study Instrument

Continued from page 2...Which *retirement benefits* below are offered or are under consideration?

	Already Offering	Considering Offering
Employer pick up of employee contributions	<input type="checkbox"/>	<input type="checkbox"/>
Deferred Retirement Option Plan (DROP - in all forms)	<input type="checkbox"/>	<input type="checkbox"/>
Qualified excess benefit plan (for payments above IRC 415 limits)	<input type="checkbox"/>	<input type="checkbox"/>
Offer a plan for private sector employees	<input type="checkbox"/>	<input type="checkbox"/>

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	<input type="checkbox"/>	<input type="checkbox"/>
Raise benefit age/service requirements	<input type="checkbox"/>	<input type="checkbox"/>
Increase employee contributions	<input type="checkbox"/>	<input type="checkbox"/>
Hold or lengthen the amortization period to improve affordability	<input type="checkbox"/>	<input type="checkbox"/>
Shorten the amortization period to improve funded status	<input type="checkbox"/>	<input type="checkbox"/>
Offer a pension liability buy-out program	<input type="checkbox"/>	<input type="checkbox"/>

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	<input type="checkbox"/>	<input type="checkbox"/>
Conduct an actuarial audit by a third party actuary (includes replication of valuation and opinion on actuarial assumptions)	<input type="checkbox"/>	<input type="checkbox"/>
Conduct an information systems security audit	<input type="checkbox"/>	<input type="checkbox"/>
Conduct a building security audit	<input type="checkbox"/>	<input type="checkbox"/>
Request an updated IRS Letter of Determination	<input type="checkbox"/>	<input type="checkbox"/>
Update/strengthen an asset allocation study	<input type="checkbox"/>	<input type="checkbox"/>
Expand operational performance benchmarking	<input type="checkbox"/>	<input type="checkbox"/>
Update administrative software used for member data	<input type="checkbox"/>	<input type="checkbox"/>
Provide online portal for members to access account information	<input type="checkbox"/>	<input type="checkbox"/>
Conduct a member needs and expectations study	<input type="checkbox"/>	<input type="checkbox"/>
Conduct an employer/reporting unit satisfaction assessment	<input type="checkbox"/>	<input type="checkbox"/>
Implement records management software	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
Enhance member financial wellness/retirement readiness resources	<input type="checkbox"/>	<input type="checkbox"/>
Strengthen user-centered design standards for online communications	<input type="checkbox"/>	<input type="checkbox"/>

6. Which *communications and member engagement practices* below have been implemented or are under consideration by the plan or plan sponsors? Please skip individual practices below if not conducted.

	Already Implemented	Considering Implementing
Develop public relations plan to address "Pension Envy"	<input type="checkbox"/>	<input type="checkbox"/>
Develop staff talking points on key issues affecting the fund	<input type="checkbox"/>	<input type="checkbox"/>
Expand retirement planning education for members	<input type="checkbox"/>	<input type="checkbox"/>
Conduct a member satisfaction assessment	<input type="checkbox"/>	<input type="checkbox"/>
Notify members of updated handbook/summary plan description (electronically or paper)	<input type="checkbox"/>	<input type="checkbox"/>
Actively use social media (Facebook, Twitter, etc.) to share messages with members	<input type="checkbox"/>	<input type="checkbox"/>

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	<input type="checkbox"/>	<input type="checkbox"/>
Capacity to send a mass phone message to your entire membership	<input type="checkbox"/>	<input type="checkbox"/>
Capacity to send a mass text message to your entire membership	<input type="checkbox"/>	<input type="checkbox"/>

# Appendix B

## 2016 Study Instrument

Continued from page 3...Which of the following *communication methods* does your plan or plan sponsor have the ability to conduct?

	Yes	No
Capacity to send an email to your entire membership	<input type="checkbox"/>	<input type="checkbox"/>
Does your plan have a Facebook or Twitter account?	<input type="checkbox"/>	<input type="checkbox"/>
Does your plan have a mobile app?	<input type="checkbox"/>	<input type="checkbox"/>

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	<input type="checkbox"/>	<input type="checkbox"/>
Receipt of an unqualified opinion from the auditor on the fund's financial statements, internal controls and compliance with applicable laws and regulations	<input type="checkbox"/>	<input type="checkbox"/>
Conduct an actuarial valuation at least every 2 years	<input type="checkbox"/>	<input type="checkbox"/>
Board adoption and adherence to written investment policies	<input type="checkbox"/>	<input type="checkbox"/>
Board adoption of written fiduciary standards	<input type="checkbox"/>	<input type="checkbox"/>
Receipt of annual investment performance evaluation from an outside independent investment review entity	<input type="checkbox"/>	<input type="checkbox"/>
Use of a formal enterprise risk management framework	<input type="checkbox"/>	<input type="checkbox"/>

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
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

11. Think about best practices. Please share a success story or plan innovation you are considering that 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. What type of health plan does your pension plan sponsor? **(Please mark all that apply.)**

- None, does not sponsor (skip to Q16)
  Supplemental gap health plan  
 Traditional (HMO, PPO, POS, etc.)
  Healthcare subsidy

15. Who is eligible for the health plan? **(Please mark all that apply.)**

- Active members
  Retirees
  Beneficiaries

16. Are your members eligible for Social Security coverage?

- Yes
  No

17. Are your members eligible for Medicare coverage?

- Yes
  No

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

- Yes
  No
  N/A

19. Does your plan provide retiree health benefits?

- Yes
  No

20. 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

21. Does your plan allow Board Members the ability to participate via conference call and vote?

- Yes
  No

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

- Yes
  No

23. Please provide your name and email so we may provide access to the interactive comparison dashboard.

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

For more information:

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