

The NCPERS 2012 Fund Membership Study

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

Table of Contents



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

Overview	3
Who Responded	5
Funding Levels	8
Assumptions	11
Fund Confidence	13
Sources of Funding	14
Investment Returns	15
Investment Allocation	17
Expenses	19
Trends in Plan Changes	21
Trends in Retirement Benefits	22
Trends in Business Practices	23
Trends in Engagement	24
Trends in Oversight Practices	25
Fund Staffing	26
Reducing Liability	27
Innovations/Best Practices	29
Appendix A: Investment “Other”	31
Appendix B: Study Instrument	32

Overview

Public funds are adopting substantial organizational and operational changes to ensure long-term sustainability for their stakeholders

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 April and May 2012, the National Conference on Public Employee Retirement Systems (NCPERS) undertook the most comprehensive study to date addressing retirement issues for this segment 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 2012 NCPERS Fund Membership Study includes responses from 147 state and local government pension funds with a total number of active and retired memberships surpassing 7.5 million and assets exceeding \$1.2 trillion. The majority – 84 percent – were local pension funds, while 16 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 age and service requirements, increasing member contributions, stronger operational practices 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.

Key Findings

1. With the market declines in recent years, the market and actuarial value of fund assets has declined; however, both 1-year and 20-year returns reported by participating funds points to continuing long-term improvement in funded status. While the 1-year returns were slightly lower than 2011, all longer-term returns are higher.

Overview - Continued

Key Findings – Continued

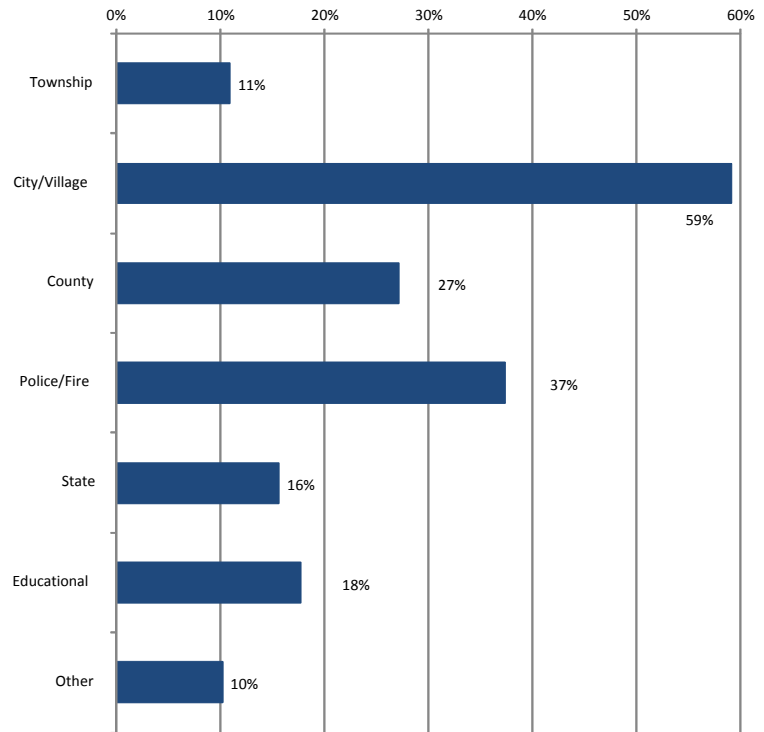
2. Income used to fund pension programs generally comes from three sources: member contributions, employer contributions and investment returns. Investment returns are the most significant source (73 percent). Member contributions make up 10 percent of fund income. Employer contributions equal about 17 percent.
3. Overall, funds reported domestic equity exposure at 36 percent (down from 39 percent in the 2011 study), and international equity exposure remaining steady at 17 percent. In the next two years, funds plan to reduce domestic equity slightly and increase allocations to private equity/hedge funds, commodities, and other investments. Funds with the highest 10-year returns had significantly lower allocation to domestic equity, international fixed income and high-yield bonds, but they had higher allocations to international equity, domestic fixed income, and “other” asset classes.
4. Based on responses to the 2012 study, average funded level is a solid 74.9 percent, slightly below 76.1 percent in the 2011 study. Plans that include members who are eligible for Social Security have an average funded level of 80.4 percent, down from 84.7 percent in the 2011 study. The most significant reason for this decline was market volatility.
5. Pension funds are designed to pay off liabilities over a period of time (amortization period) to ensure long-term stability and to make annual budgeting easier through more predictable contribution levels. For responding funds, that period of time averages to 24.6 years, down from 25.8 years in 2011.
6. 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 7.7 on a 10-point scale (very satisfied =10). This was up from 7.4 in 2011. Social Security eligible and non-eligible funds rated this question 7.8 and 7.4 respectively.
7. The overall average expense for respondents to administer the funds and to pay investment manager fees is 73.1 basis points (100 basis points equals 1 percentage point). This is a slight increase from the 2011 level of 69.2. According to the *2011 Investment Company Fact Book*, the average expenses and fees of most equity/hybrid mutual funds average 95 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.
8. Several areas that showed increased activity over the 2011 study include : increased employee contributions, increased age/service requirements, reduced wage inflation assumption, tightened use of overtime in the calculation of a benefit, made benefit enhancements more difficult, reduced the multiplier, shortened the amortization period, and closed plans to new hires.
9. Other areas that showed increased activity over the 2011 study include: increased audit of actuarial practices, increased death audits, strengthened asset allocation studies, improved records management and scanning, destruction of old copier hard drives, and increased operational benchmarking.

Who Responded

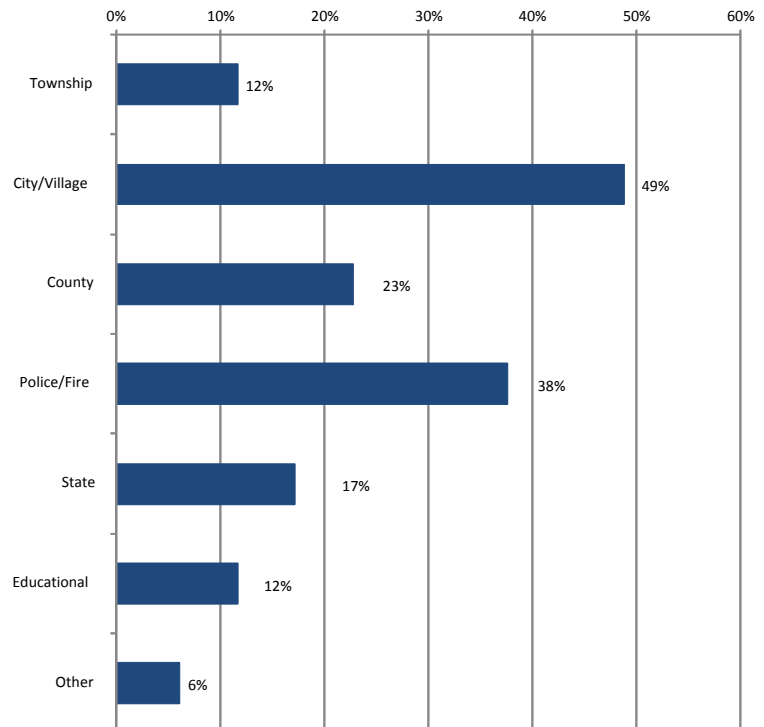
For the 2012 study, 147 respondents provided feedback to NCPERS using the most recent data they have available. Responding funds are members of NCPERS, and 59 percent served city and village jurisdictions. About 27 percent of the responding funds serve police and fire employees. The top graph to the right shows the 2012 distribution of jurisdictions that the funds serve (totals may exceed 100 percent because of multiple response).

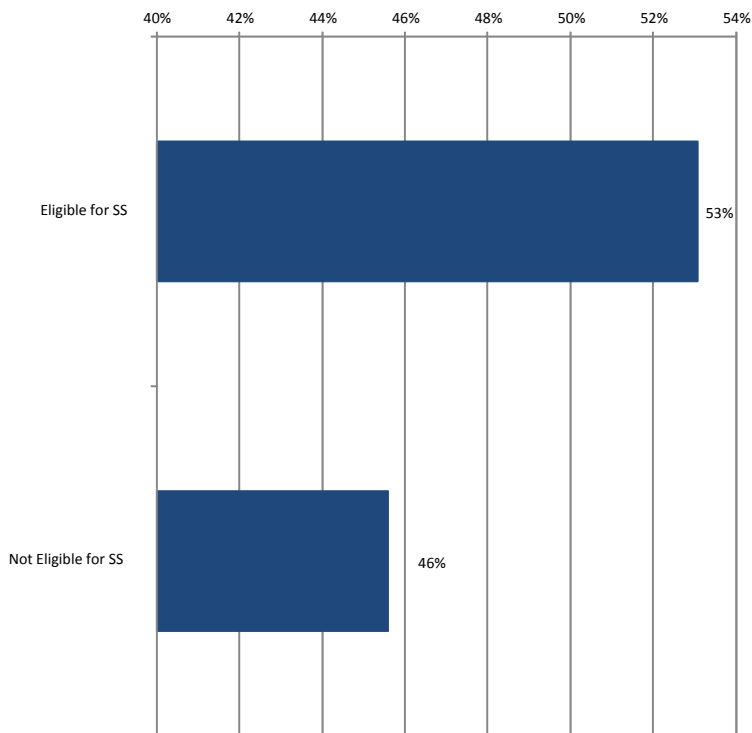
The bottom graph to the right shows response distribution in 2011. The overall distribution of responding funds is similar for both years.

2012

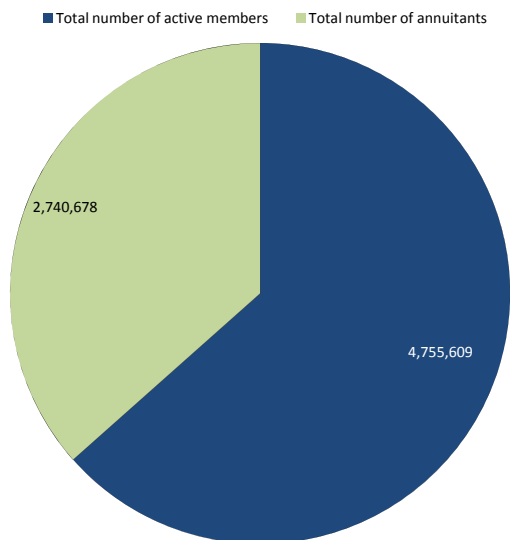


2011





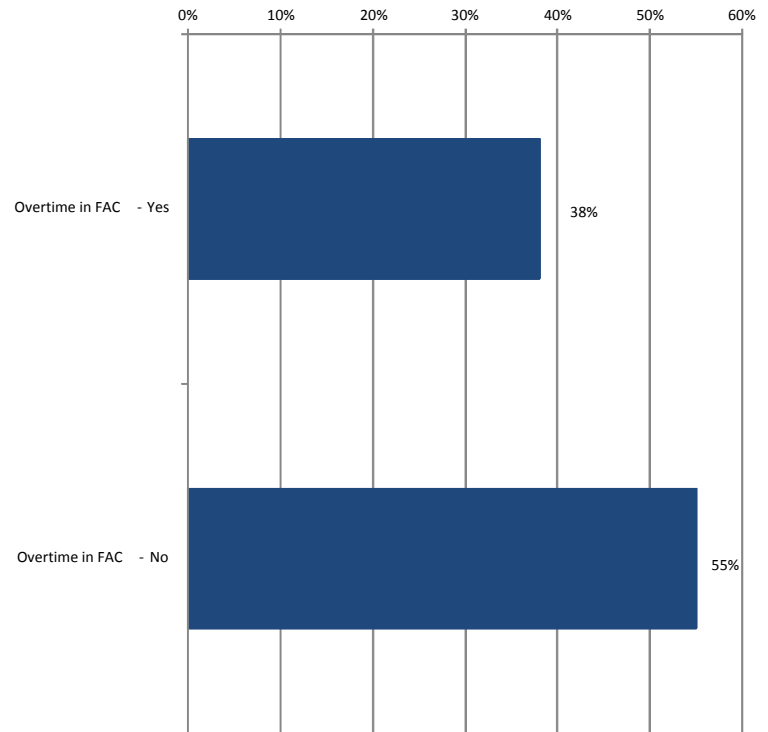
Approximately 53 percent of responding funds have members who are eligible for Social Security, 46 percent are not eligible. In this report, breakdowns are presented for “Eligible for Social Security” and for “Not Eligible for Social Security.”



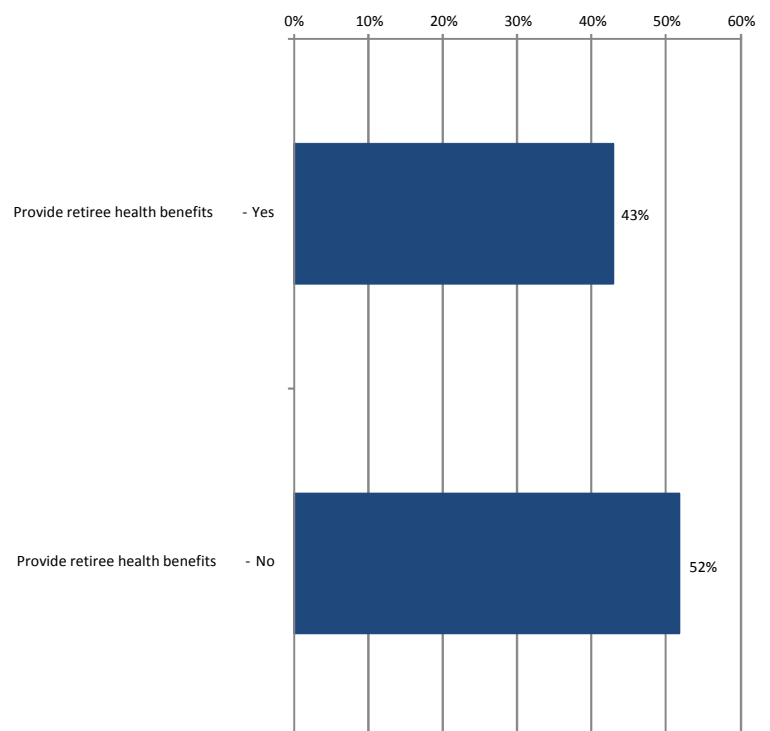
The graph to the left shows the number of active members and retiree/beneficiaries represented by these funds. This totals approximately 7,500,000 covered lives. The ratio is 1.7 actives per retiree.

Two areas of interest in public retirement is the inclusion of overtime in the calculation of a retirement benefit and also the provision of health care benefits to retirees. According to the 2012 study respondents, 38 percent include overtime in the benefit calculation. About 43 percent provide some level of health coverage for retirees.

Inclusion of Overtime in Benefit Calculation



Provision of Health Benefits to Retirees

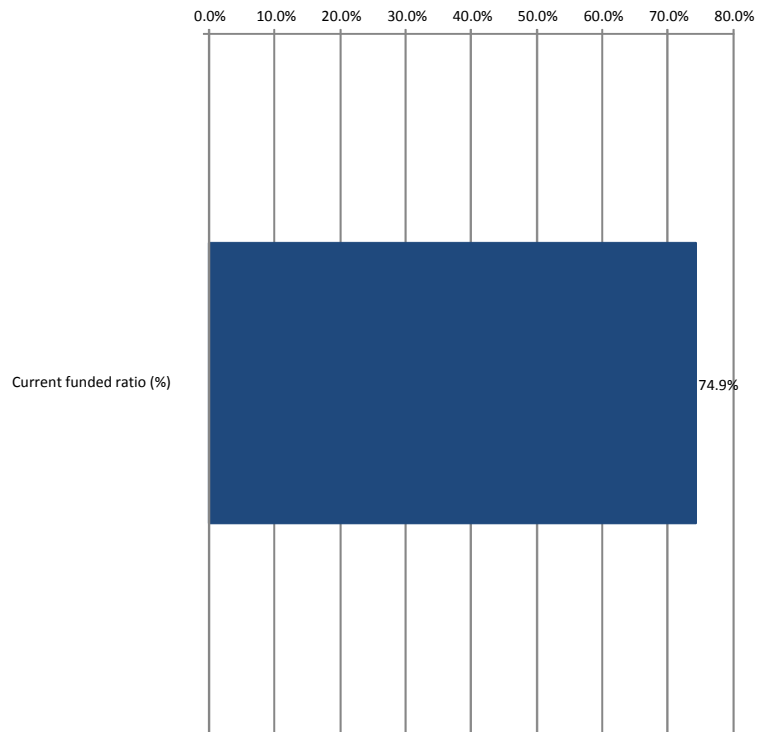


Funding Levels

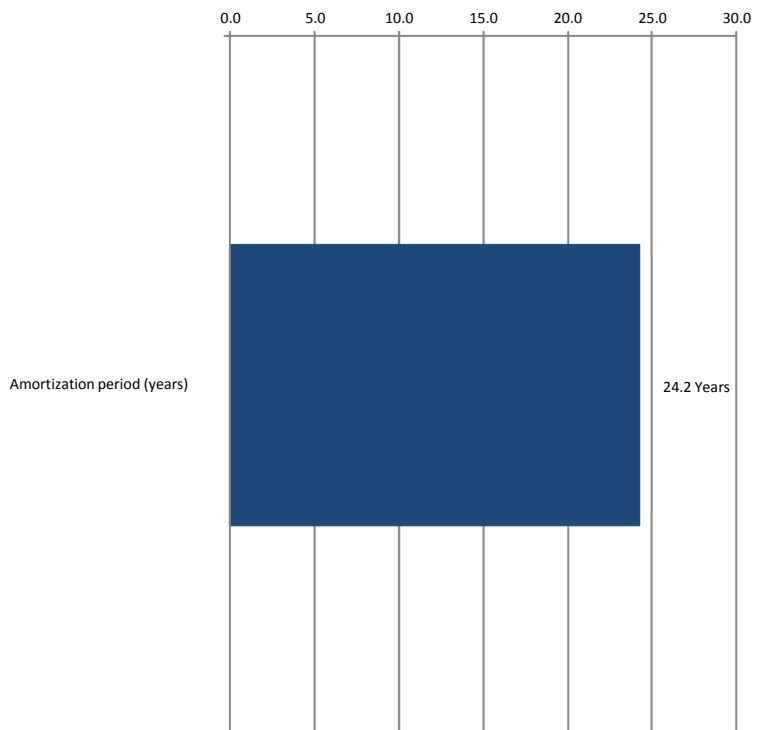
Based on responses to the 2012 study, average funded level is a solid 74.9 percent (top right), slightly below 76.1 percent in the 2011 study. The most significant reason for this decline was market volatility.

Pension funds are designed to pay off liabilities over a period of time to ensure long-term stability and to make annual budgeting easier through more predictable contribution levels. For responding funds, that period of time averages to 24.6 years, down from 25.8 years in 2011. The bottom graph shows average amortization status for all responding funds.

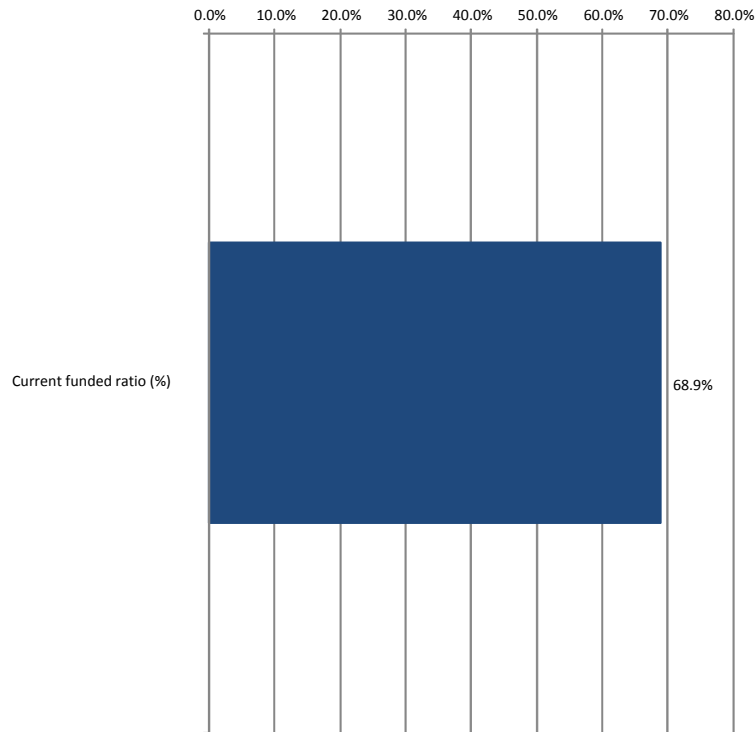
2012 Funded Level



Amortization

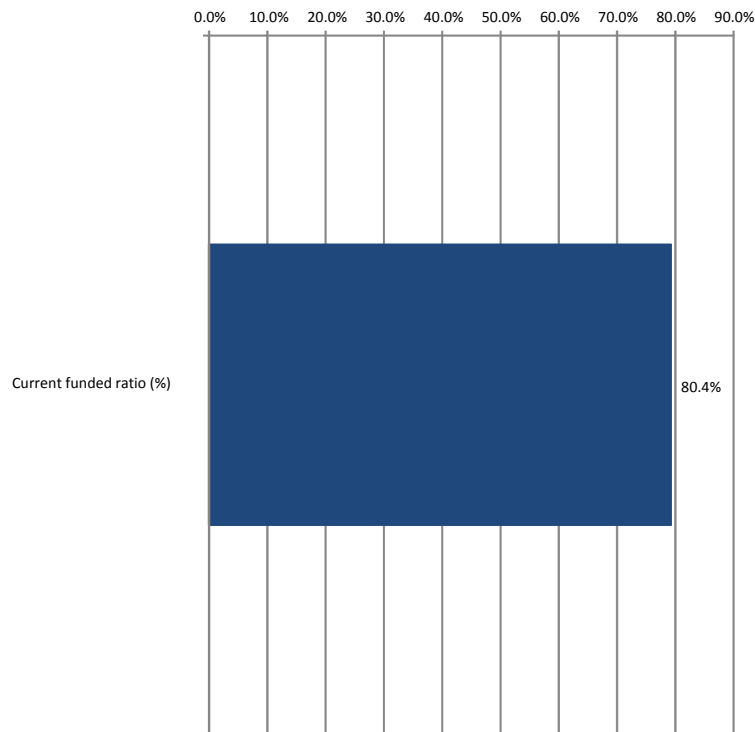


Funds Not Eligible for Social Security



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 68.9 percent, down from 71.3 percent in the 2011 study.

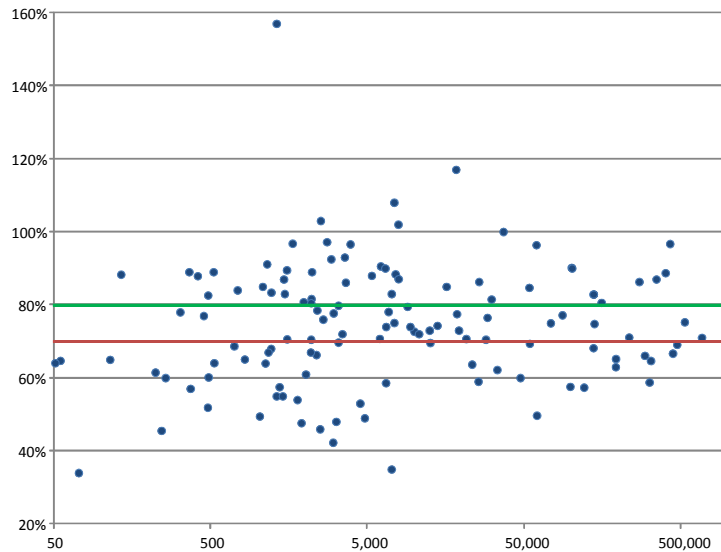
Funds Eligible for Social Security



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 80.4 percent, down from 84.7 percent in the 2011 study.

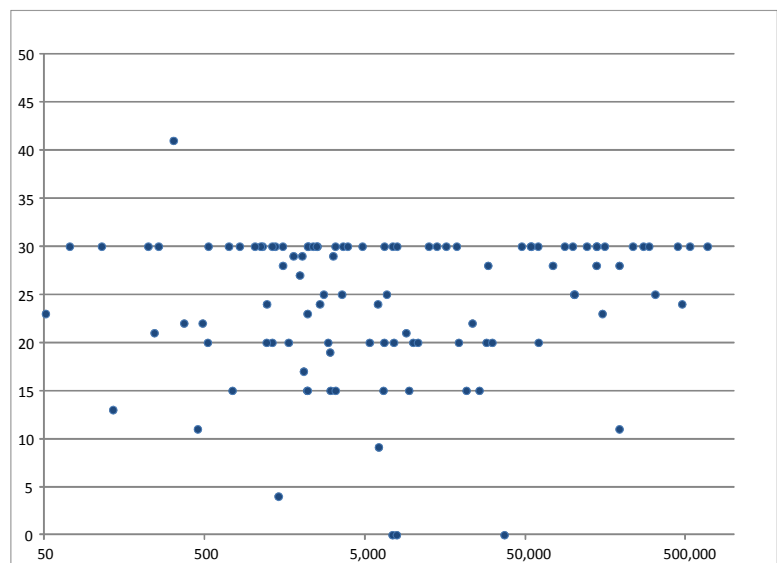
Based on responses to the 2012 study, average funded level is a solid 74.9 percent. The graph at the top right shows the distribution of funded levels and fund size. The vertical axis shows level of funding, and the horizontal axis shows the size of the fund by total active and retired participants. The green line denotes the 80-percent funding target identified by the Government Accountability Office, and the red line denotes the 70-percent funding target that Fitch Ratings considers to be adequate.

2012 Funded Level Distribution



Pension funds are designed to pay off liabilities over a period of time to ensure long-term stability and to make annual budgeting easier through more predictable contribution levels. For responding funds, that period of time averages 24.6 years, down from 25.8 years in 2011. The bottom graph shows amortization status for each responding fund. The vertical axis shows the amortization period, and the horizontal axis shows the size of the fund by total active and retired participants.

Amortization Distribution



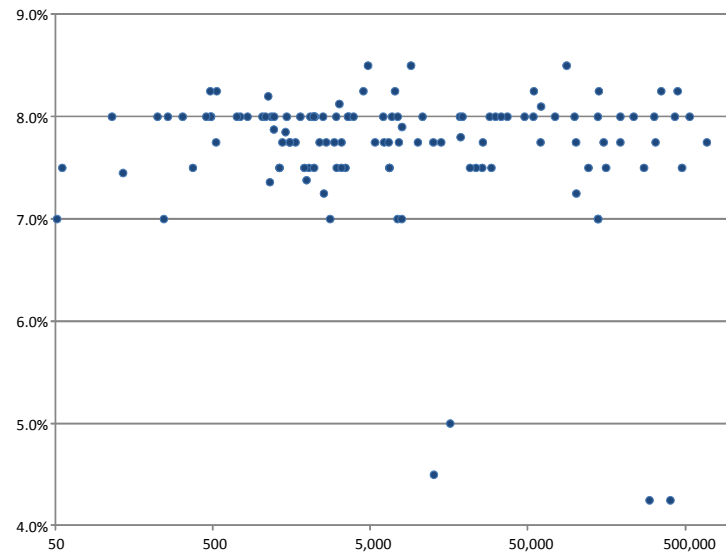
Assumptions

Retirement funds often 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 assumptions to estimate what investment and demographic experience is likely to be over that time horizon.

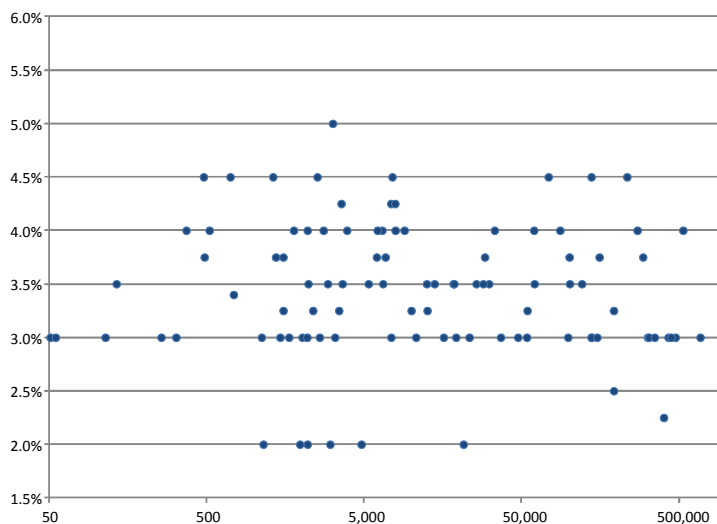
Such assumptions have powerful effects on the funding level of a plan and what the required contributions will be to pay for future benefits. Assumptions that are overly optimistic (high market returns, lower-than-expected retirement rates) tend to increase a plan's funded level and reduce the contribution 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 7.7 percent, the same as in 2011. The inflation assumption fell to 3.4 percent from 3.5 percent in 2011.

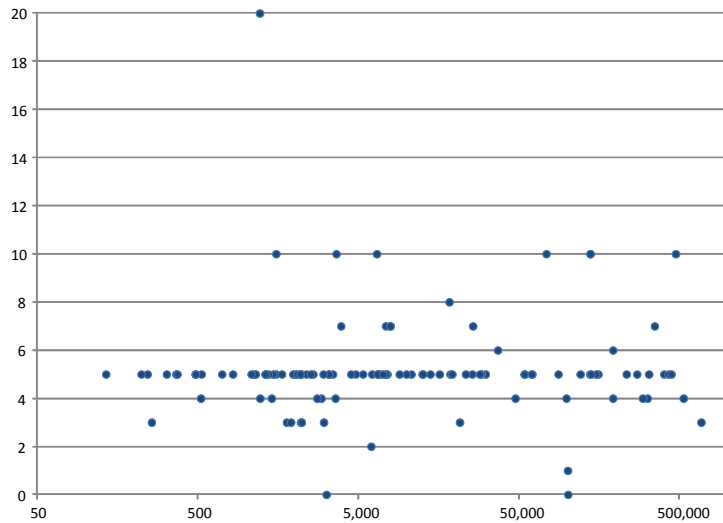
Investment Assumption



Inflation Assumption



Investment Smoothing



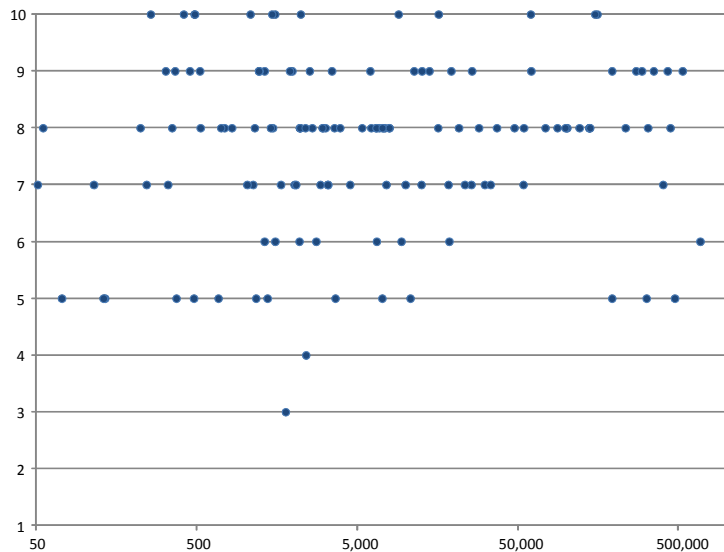
The investment smoothing period is a key factor in calculating the assets currently held by the fund and the contribution levels required to continue moving toward full funding over the amortization period. By smoothing investments, funds are able to dampen sharp changes in short-term asset levels and 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 5.2 years, up slightly from 5.0 years in 2011. For Social Security eligible funds, the smoothing period averages 5.3 years, up from 4.8 years in 2011. Non Social Security eligible plans have an average smoothing period of 5.0 years.

Fund Confidence

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

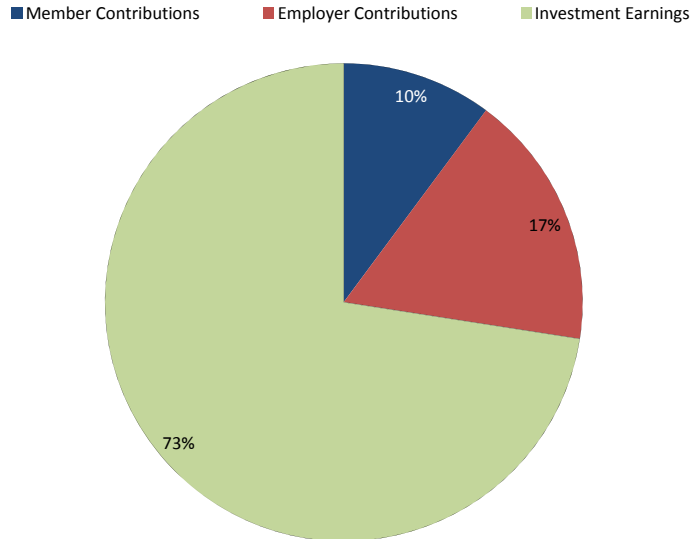
Overall, respondents provided an overall “confidence” rating of 7.7 on a 10-point scale (very satisfied =10). This was up from 7.4 in 2011. Social Security eligible and non-eligible funds rated this question 7.8 and 7.4 respectively.

Fund Confidence

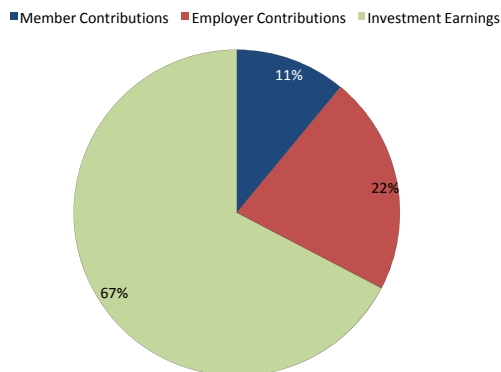


Sources of Funding

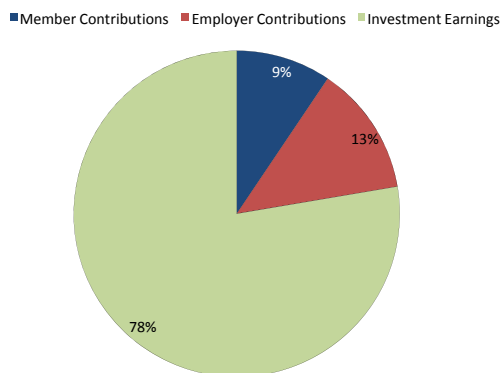
Overall Sources of Revenue



Social Security Eligible



Non Social Security Eligible



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. By far, investment returns are the most significant source of revenue (73 percent). Member contributions make up 10 percent of fund income. Employer contributions equal about 17 percent. These findings are somewhat different from 2011 in which both member contribution rates and employer contribution rates were somewhat higher. Both this study and other industry studies show annual fund expenditures and economic impact significantly exceed the annual contributions made by the employers.

The pie charts on this page show the overall sources of funding for responding funds. Funds with members who are not eligible for Social Security reported a higher proportion of investment income in the study.

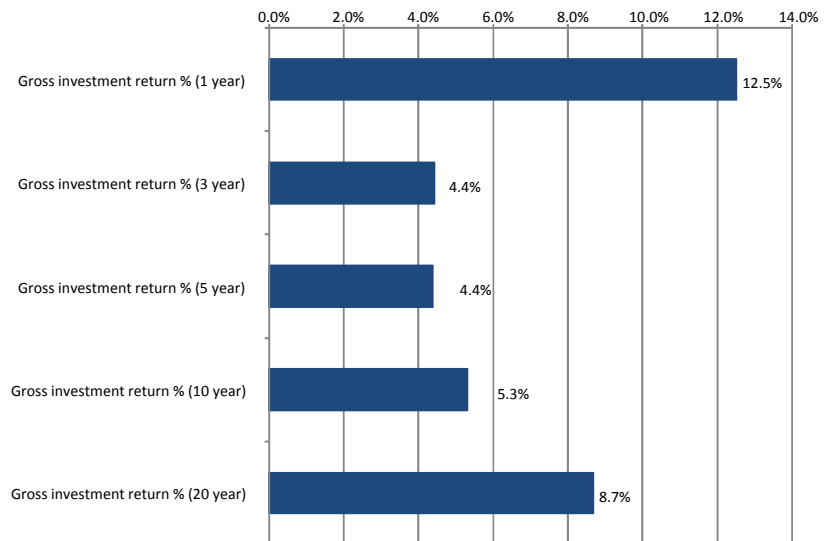
Investment Returns

2012 Study Investment Returns

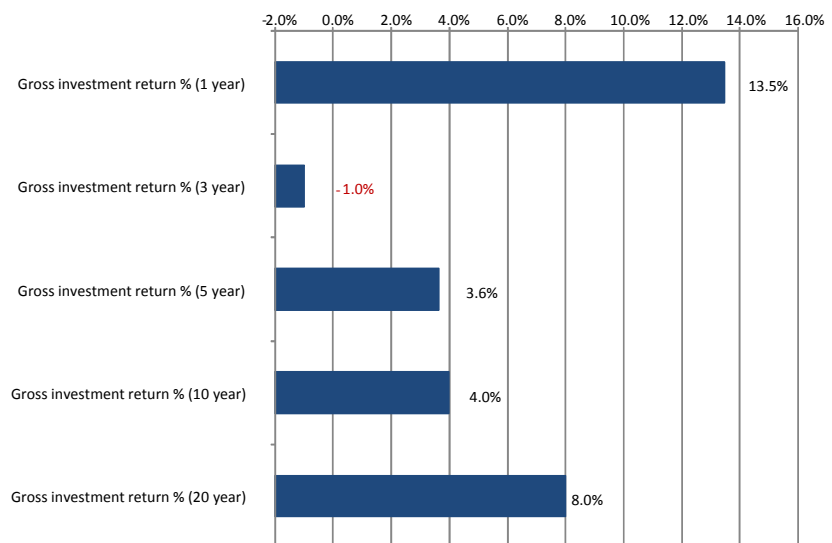
Funding level is affected by the average investment returns a fund experiences over a set number of years. For respondents, the average number of years used in the calculation is 5.2 years. This is done to keep employer contribution rates more stable, as annual market return fluctuations would create significant volatility in the budgeting process. With the market declines in recent years, the market and actuarial value of fund assets has declined; however, both 1-year and 20-year returns reported by participating funds points to continuing long-term improvement in funded status. While the 1-year returns were slightly lower than 2011, all longer-term returns are higher.

It is important to note that not all funds have the same fiscal year. Because of the volatility in the 2011 market, the timing of when a fiscal year ended accounts for significant difference in investment experience between funds.

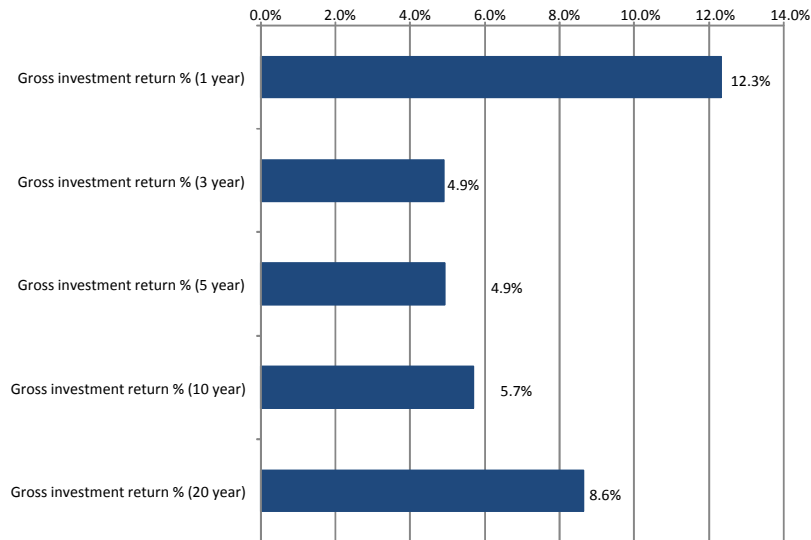
The graphs at the right show average reported returns.



2011 Study Investment Returns

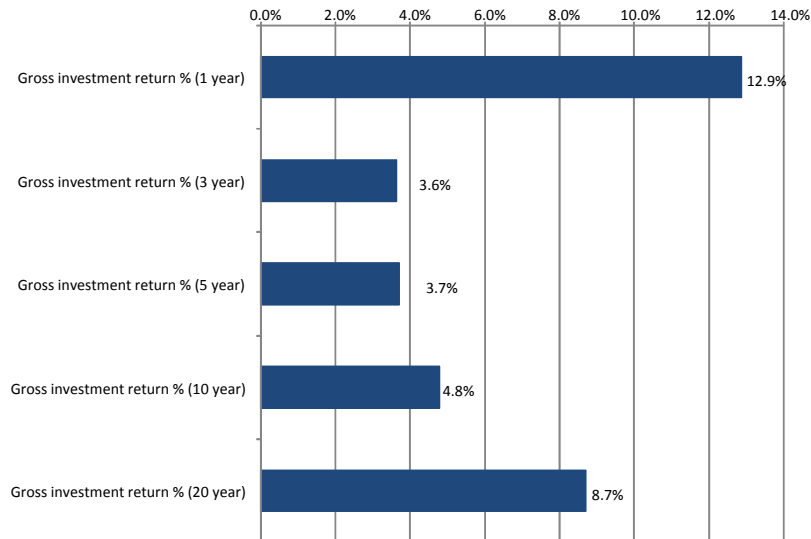


2012 Returns: Social Security Eligible



Funds with members who are not eligible for Social Security reported slightly higher returns than Social Security eligible funds. While 1-year returns were slightly lower than the 2011 study, all longer-term returns were higher.

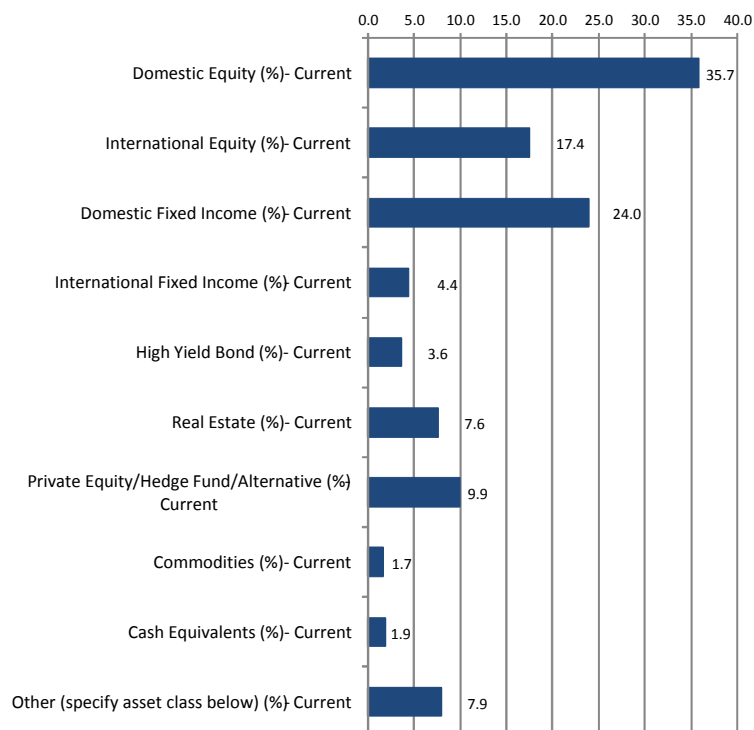
2012 Returns: Not Social Security Eligible



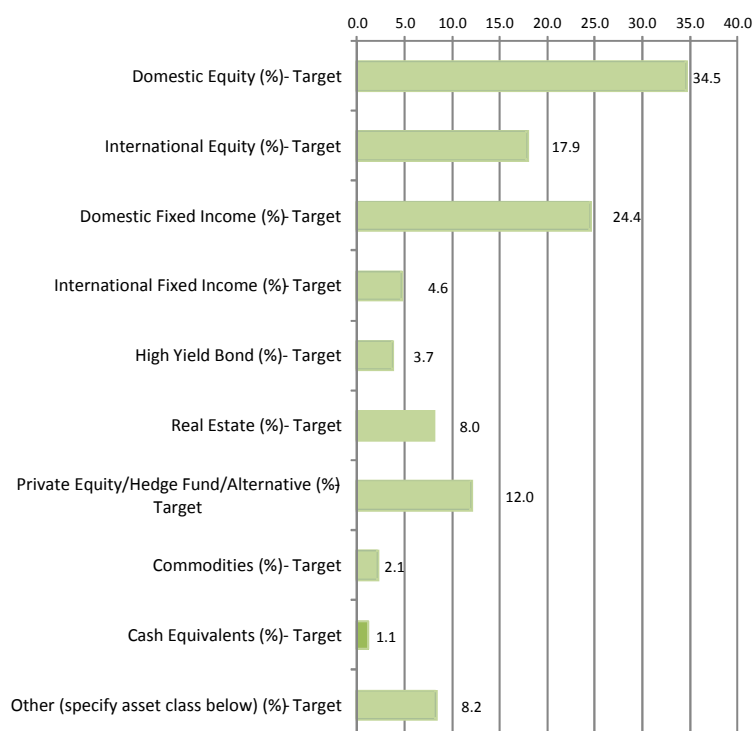
Investment Asset Allocation

Overall, funds reported domestic equity exposure at 36 percent (down from 39 percent), and international equity exposure remaining steady at 17 percent. In the next two years, funds plan to reduce domestic equity slightly and increase allocations to private equity/hedge funds, commodities, and other investments. (See Appendix A for the open-ended response to “other.”)

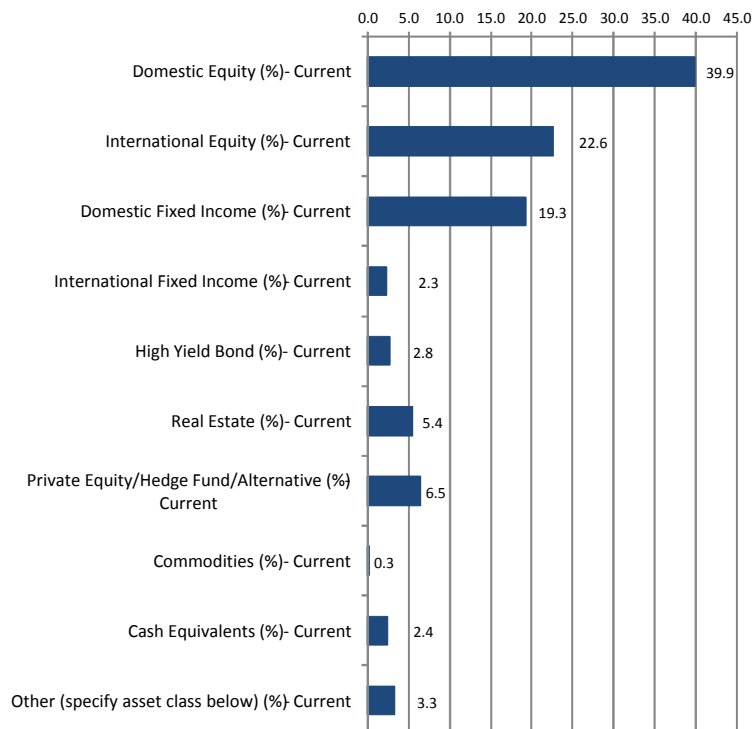
2012 Study Investment Asset Allocation



2012 Target Investment Asset Allocation



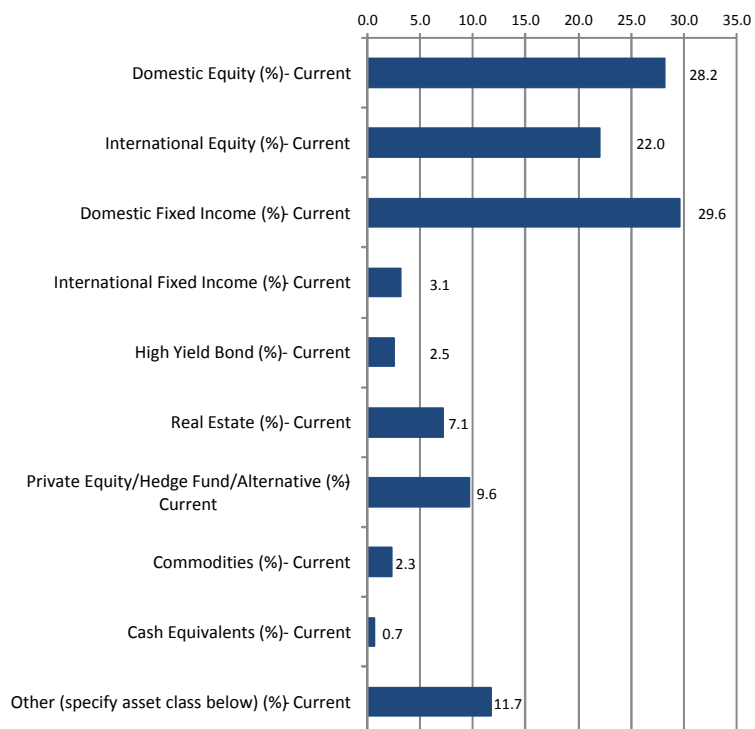
Highest 1-Year Return



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

Funds with the highest 1-year return had higher allocations to domestic and international equity, with lower allocations to most other asset classes.

Highest 10-Year Return



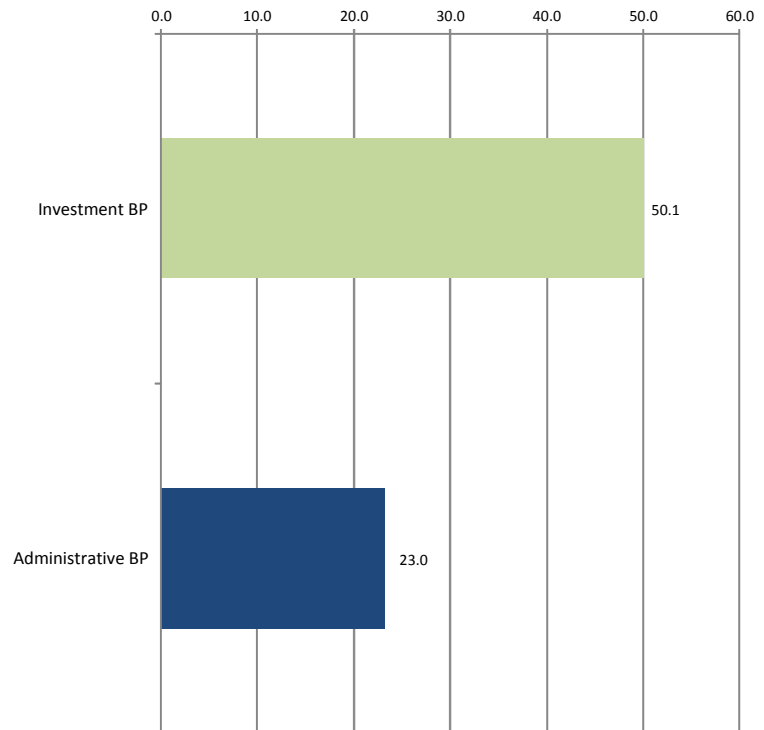
Funds with the highest 10-year returns had significantly lower allocation to domestic equity, international fixed income and high-yield bonds, but had higher allocations to international equity, domestic fixed income, and “other” asset classes (see Appendix A).

Expenses

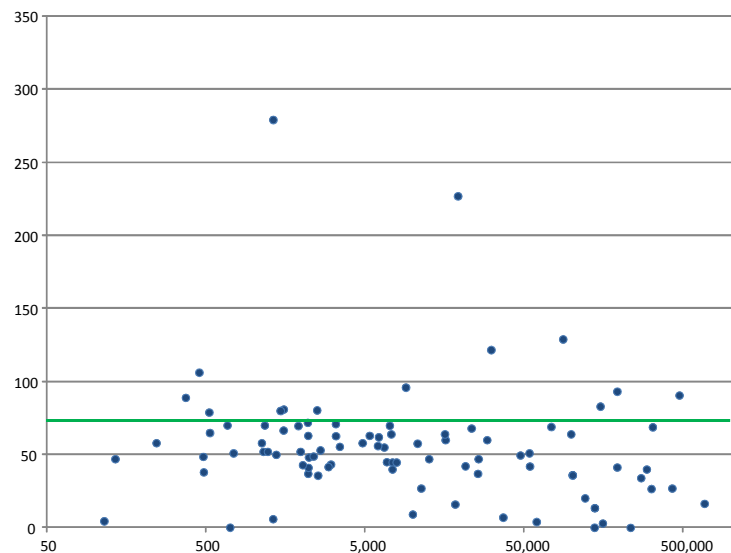
The overall average expense for respondents to administer the funds and to pay investment manager fees is 73.1 basis points (100 basis points equals 1 percentage point). This is a slight increase from the 2011 level of 69.2. According to the *2011 Investment Company Fact Book*, the average expenses and fees of most equity/hybrid mutual funds average 95 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 in the bottom right corner shows the distribution of total expense (in basis points) on the vertical axis and the size of the fund (by total participants) on the horizontal axis. The green line denotes the average expense, and that average is higher because of a few funds reporting especially high expense levels. It is important to note the plurality of funds are below the average score.

2012 Study Plan Expenses (Basis Points)

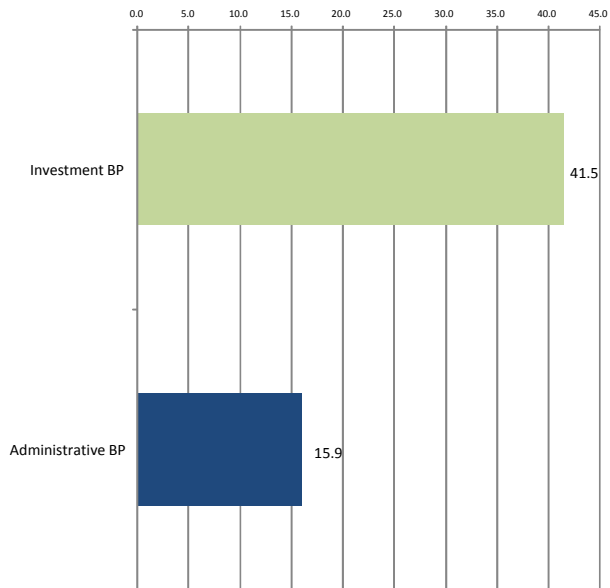


2012 Plan Expense by Fund Size

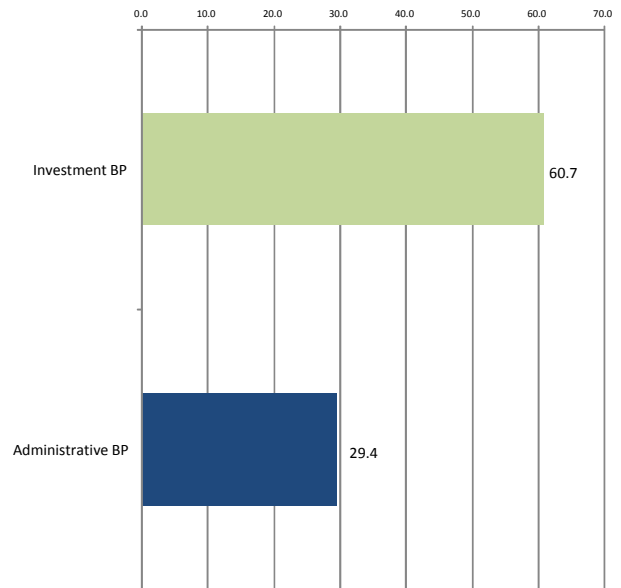


Below are expenses separated by type of fund and size of fund. Fund size is based on if the fund has more than or fewer than 10,000 participants.

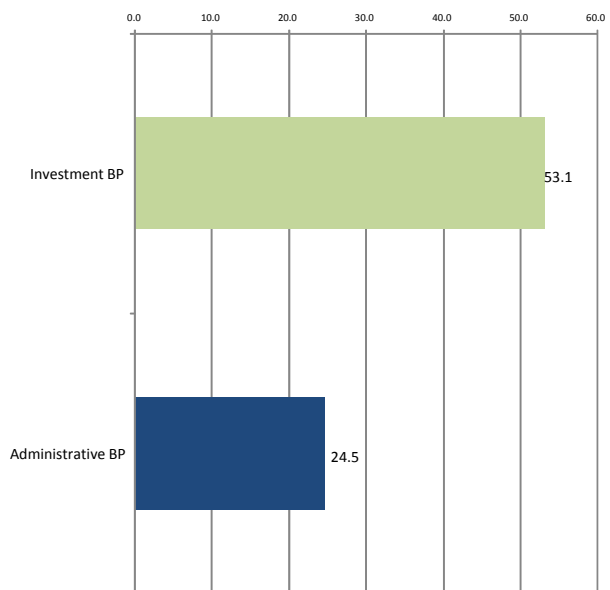
Plan Expenses: Not Social Security Eligible



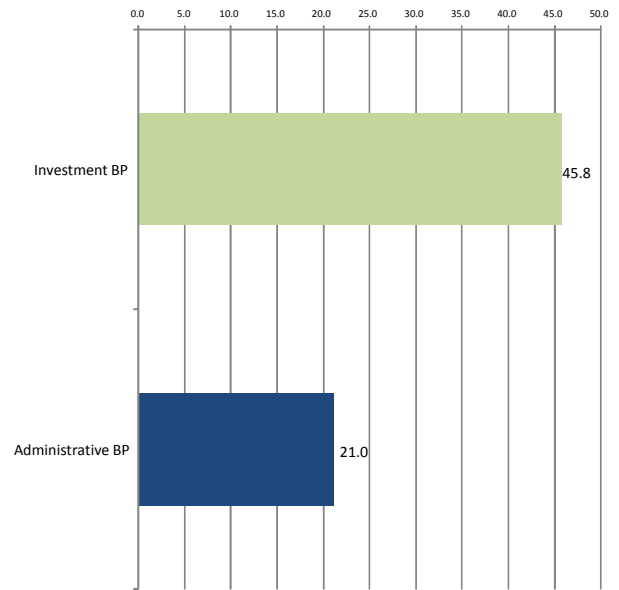
Plan Expenses: Social Security Eligible



Plan Expenses: Small Plans (<10,000 participants)



Plan Expenses: Large Plans (>10,000 participants)

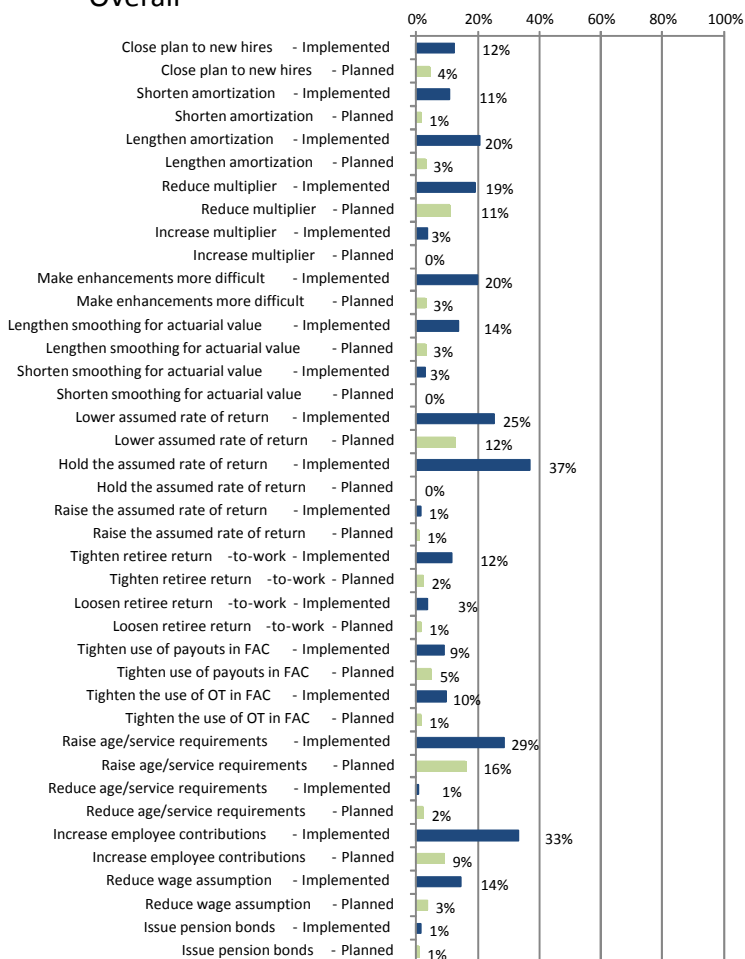


Trends in Plan Changes

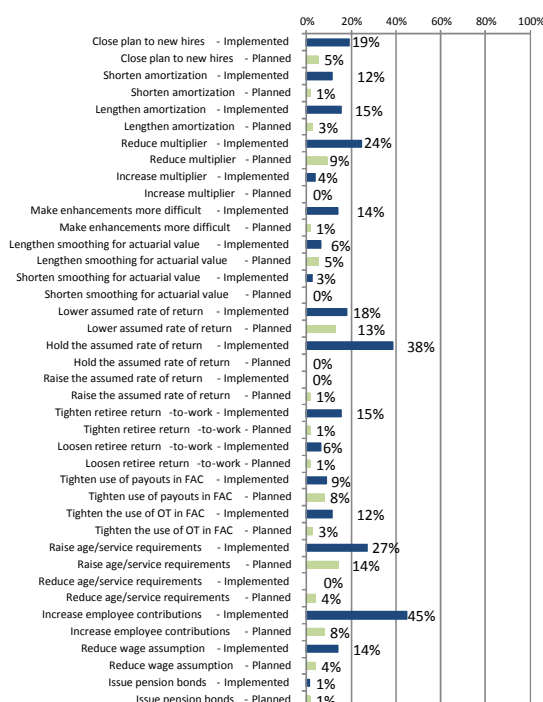
■ Implemented ■ Planned

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 2011 study include increased employee contributions, increased age/service requirements, reduced wage inflation assumption, tightened use of overtime in the calculation of a benefit, made benefit enhancements more difficult, reduced the multiplier, shortened the amortization period and closed plans to new hires.

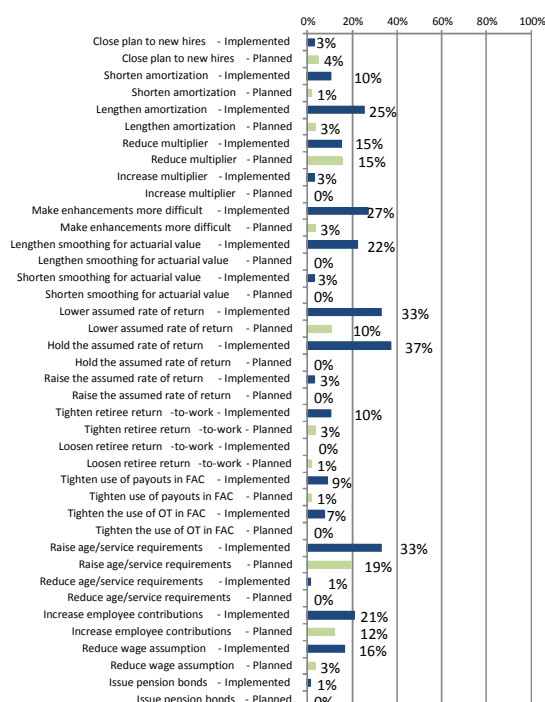
Overall



Social Security Eligible



Not Social Security Eligible

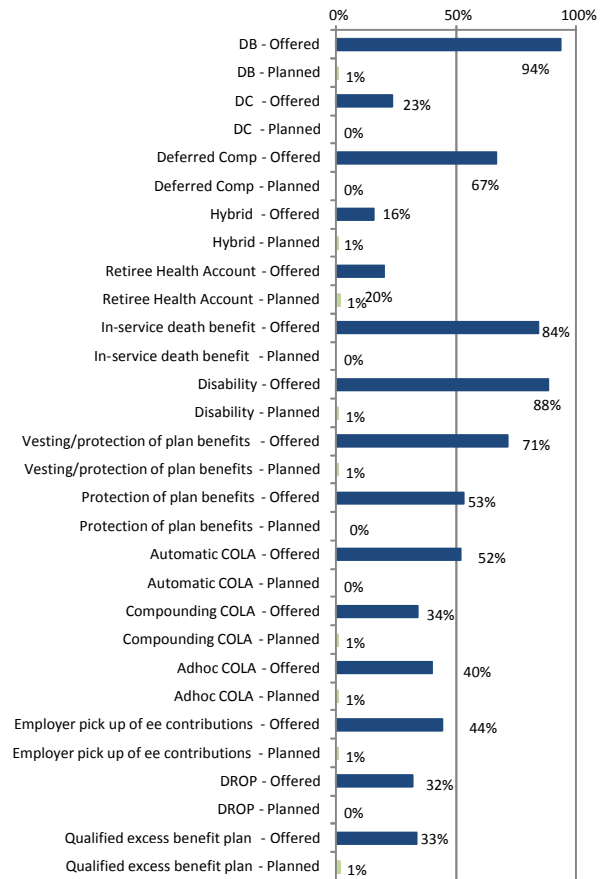


Trends in Retirement Benefits

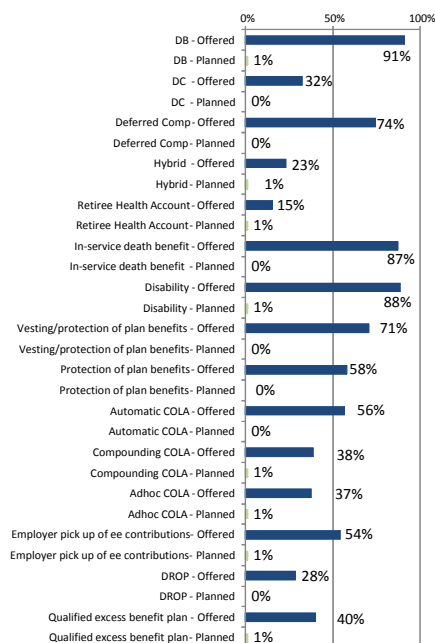
■ Implemented ■ Planned

Areas with significant increase compared with the 2011 study include offering a hybrid plan, individual retiree health accounts, in-service death benefits, vesting/protection of plan benefits and qualified excess benefit plans.

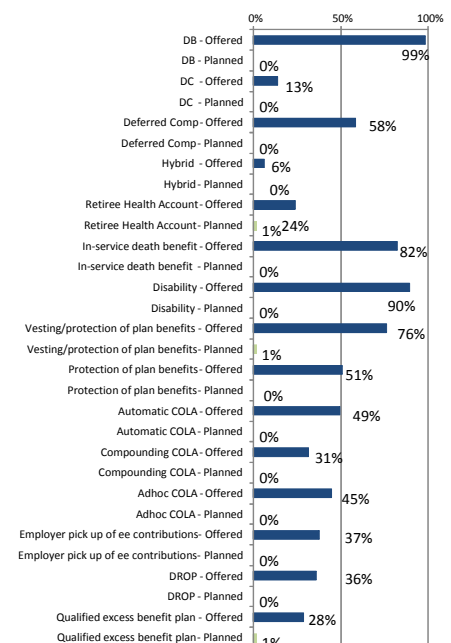
Overall



Social Security Eligible



Not Social Security Eligible

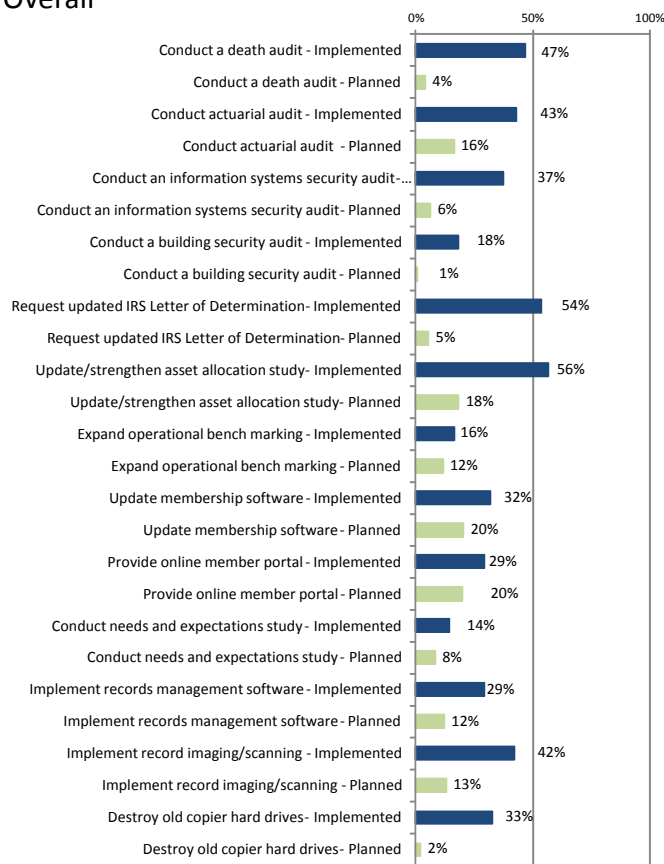


Trends in Business Practices

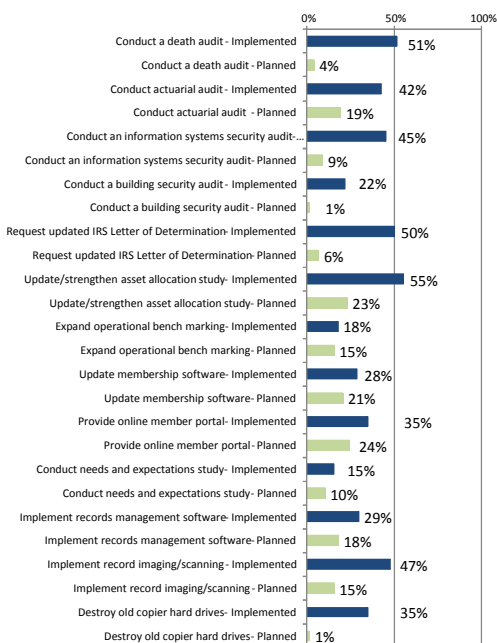
■ Implemented ■ Planned

Several areas that showed increased activity over the 2011 study include increased audit of actuarial practices, increased death audits, strengthened asset allocation studies, improved records management and scanning, destruction of old copier hard drives and increased operational benchmarking.

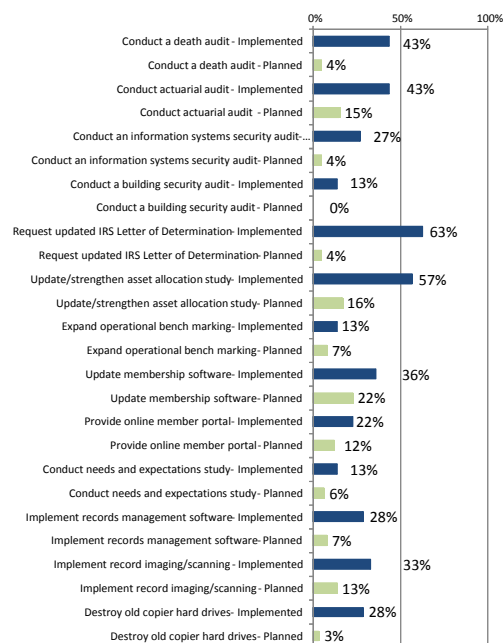
Overall



Social Security Eligible



Not Social Security Eligible

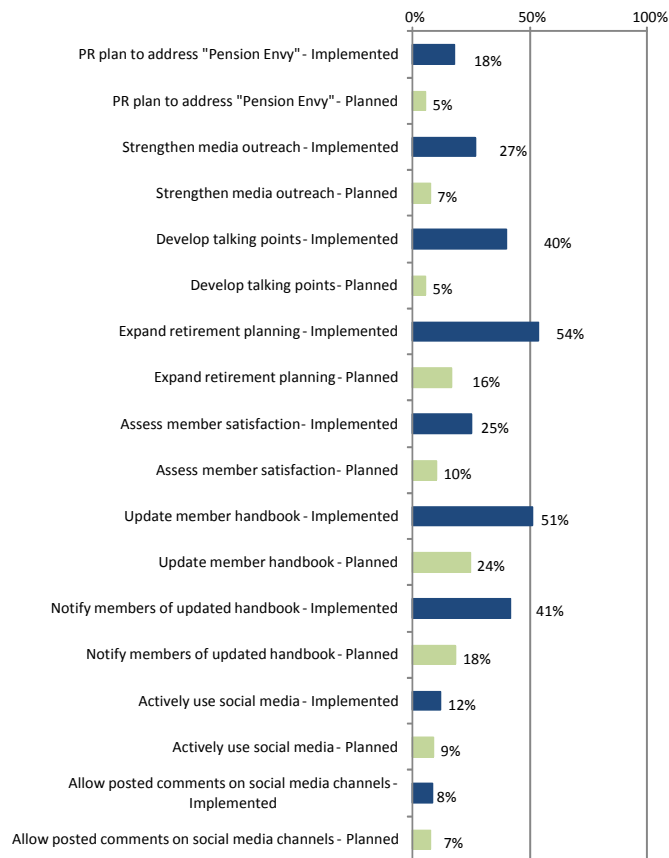


Trends in Engagement

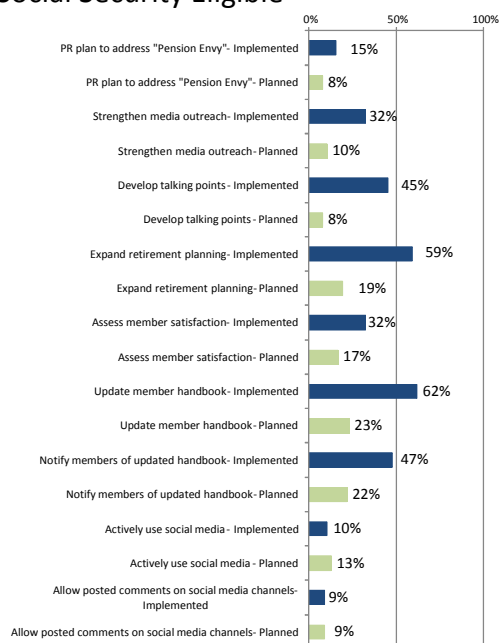
■ Implemented ■ Planned

Areas with significant increase compared with the 2011 study include expanded retirement planning, increased media outreach, development of staff talking points, and updated member handbooks. Newly tracked for 2012 is use of social media (12 percent) and allowing individuals to post comments on social media channels (8 percent).

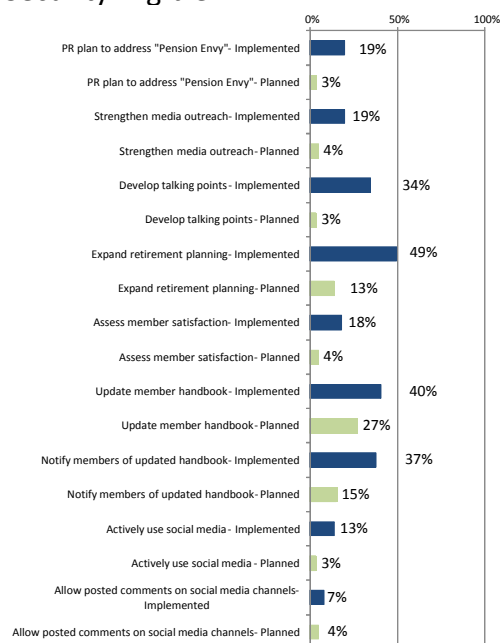
Overall



Social Security Eligible



Not Social Security Eligible

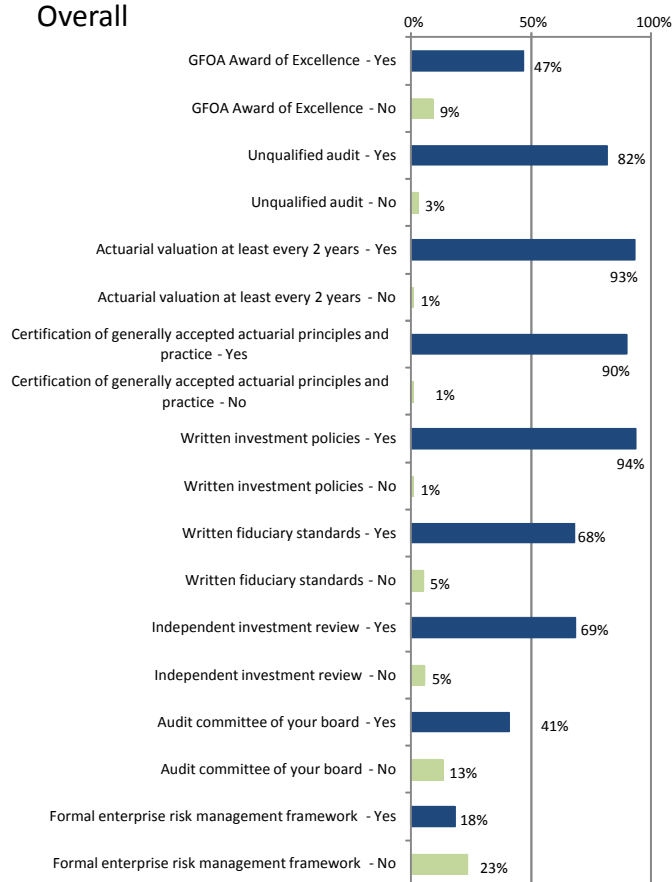


Trends in Oversight Practices

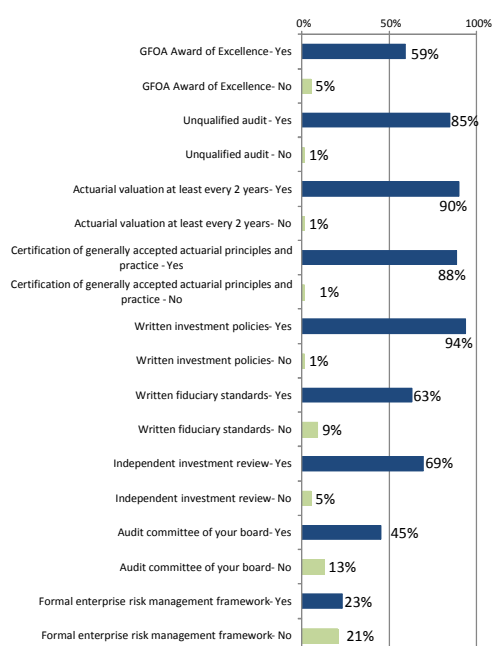
■ Implemented ■ Planned

Areas with significant increase compared with the 2011 study include receipt of an annual independent investment performance evaluation, certification that plan valuation was performed using generally accepted actuarial principles and practice, receipt of an unqualified opinion from the auditor and receipt of the GFOA Award of Excellence for the most recent cycle. Newly tracked for 2012 is the use of an audit committee by the governing board (41 percent say “yes”) and use of a formal enterprise risk management framework (18 percent say “yes”).

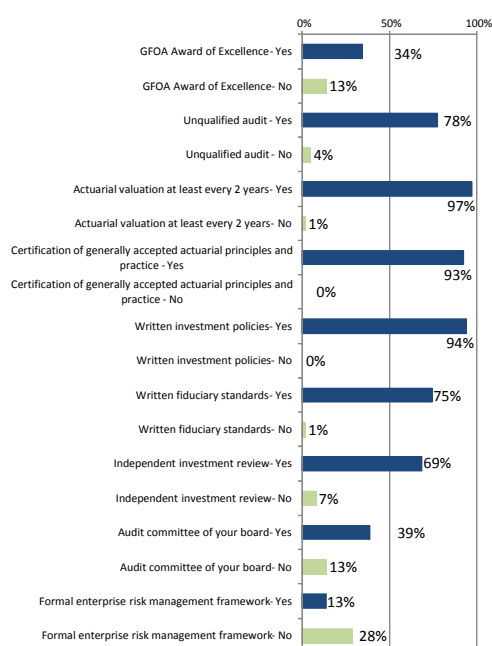
Overall



Social Security Eligible



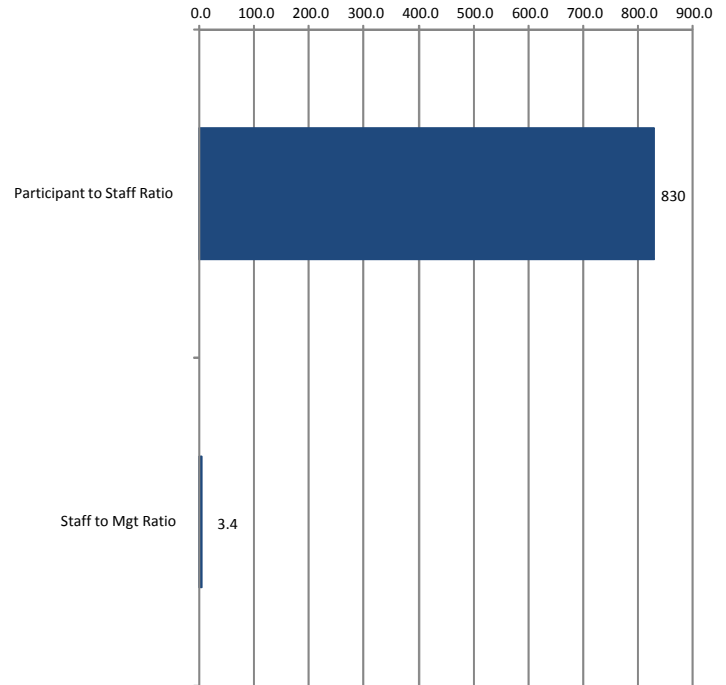
Not Social Security Eligible



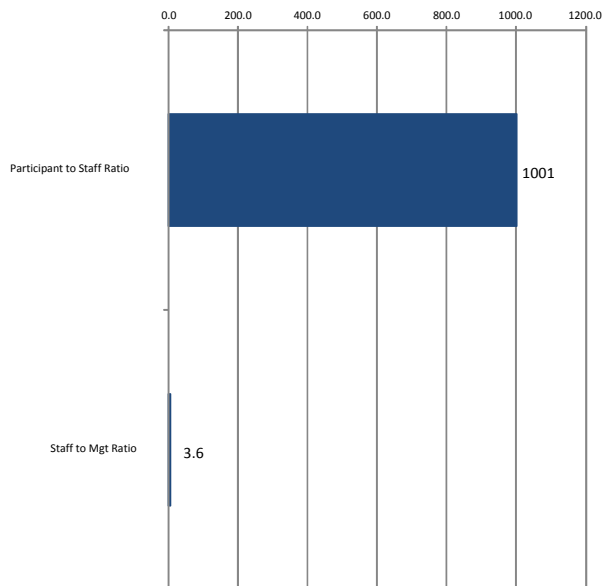
Fund Staffing

Staff information is an area newly tracked for 2012. The average participant to staff ratio is 830:1, with ratios of 1001:1 and 653:1 for Social Security eligible and non Social Security eligible plans respectively. The average staff to management ratio is 3.4:1, with ratios of 3.6:1 and 3.1:1 for Social Security eligible and non Social Security eligible plans respectively.

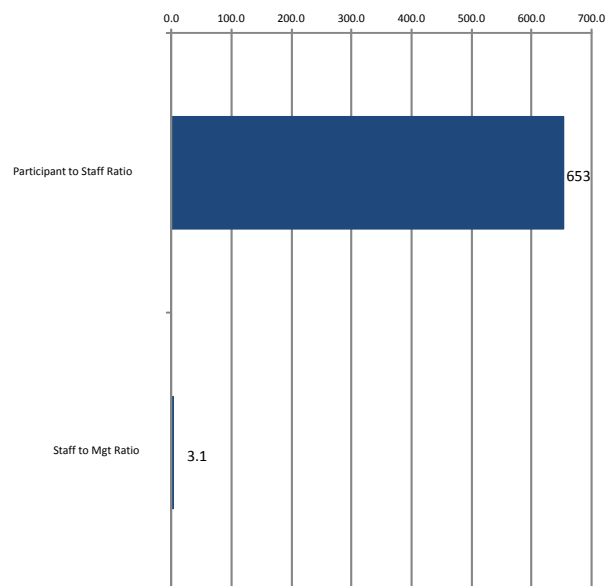
Overall



Social Security Eligible



Not Social Security Eligible



Reducing Liability

In the study, respondents were asked to share which strategies they have put in place to reduce unfunded accrued actuarial liabilities beyond traditional amortization.

Below is a text cloud showing those words that appear most often in respondents' comments. Below the text cloud are the actual verbatim comments.



- Implemented a closed 25 or 30 year amortization period in conjunction with a change in actuarial cost method from unit credit to projected unit credit; ad hoc benefit enhancements amortized on a level dollar basis over a closed 15 year amortization period, and; allowed participating employers to contribute amounts in excess of the ARC, including lump sum contributions.
- (1) Implemented a benefit tier for new hires which has a lower multiplier, a 3-year FAC and lower COLA. (2) Implemented a strategically diversified allocation designed to lower the portfolio's overall risk, produce moderate returns in up markets and protect those gains in volatile markets.
- Increased sponsor contributions
- Increases employer and employee contribution rates
- Significant pension reform legislation was passed in 2010 that reduced benefits prospectively for new hires, shorten the amortization schedule for gains and losses, extended the smoothing period for gains and losses and instituted controlled employer contribution rate increases through the use of gradually

- increasing employer contribution rate caps.
- We are in the process of slowly moving to a more liability driven investing perspective
- Smoothing
- The Board of Trustees worked with our actuary to come up with a plan to get us to 30-year funded. New plan has 11 elements that affects new hires, actives and retirees. Legislation currently being drafted to implement approved plan.
- Implemented a new reduced tier of benefits for new hires to reduce future costs for new hires and increase sustainability of the system.
- Reduce IRR and strengthen assets allocation
- No benefit enhancement for a local government unless the municipality is 100% funded before and after the benefit enhancement. Local government must also be current on their contributions and have a supplemental valuation done. We also have local governments who make extra voluntary employer contributions to reduce the UAL. We have also implemented a bridged benefit with a lower multiplier on a prospective basis.
- A package of plan design changes and

- contribution increases has been before the legislature for three years.
- Plan is currently 90% funded. We believe that lengthening the asset smoothing period and the use of traditional amortization methods will allow us to address the UAAL appropriately and still provide an employer contribution rate that is not excessive.
- Experience study to make sure assumptions used for liabilities are correct. Lowe interest assumption
- The City has been making extra contributions. But this may stop in the coming year.
- The system continues to work with affected stakeholders to help develop a solution to the current funding shortfall in a manner that reflects the current budget situation.
- We use the Aggregate actuarial cost method which does not establish an unfunded actuarial accrued liability
- Seeking legislation to reduce benefits for new hires and increase contributions, change actuarial assumptions to reflect current experience
- Higher contribution rates, longer period for FAC calculation, reduced accrual rate.

Reducing Liability - *Continued*

- Indefinite suspension of automatic COLA provision
- Increase contributions, reduce benefit accrual formula for new hires, reassess actuarial assumptions that affect the liability.
- Continue to propose pension reform that will help the unfunded status.
- The state legislature enacted pension reform in 2011.
- Our Board has consistently set our employer rate higher than the actuarial computed amount.
- In three years, the discount rate will begin to be lowered. The amortization period will be reduced if "peer review" so indicates.
- Committee to study cash flow needs and benefits structure; separate allocation for DROP
- Proposed legislative changes to plan design
- Improve investment performance, only allow adhoc COLAs, increase member and employer contributions
- Special 30 year amortization period for one-half of 2008 losses
- Denver enacted a full slate of changes for new hires effective 7/1/11, including increasing the highest average salary calculation from 3 years to 5 years, moving the early retirement age to 60 from 55, moving to Rule of 85 (age 60 minimum) from Rule of 75 (age 55 minimum) and moving to actuarially equivalent early retirement reduction factors. We also have a 40+ year history of receiving the full ARC from our Plan Sponsor. And very proactively back in 2004, and before almost anyone else, we lowered our plan multiplier for new hires

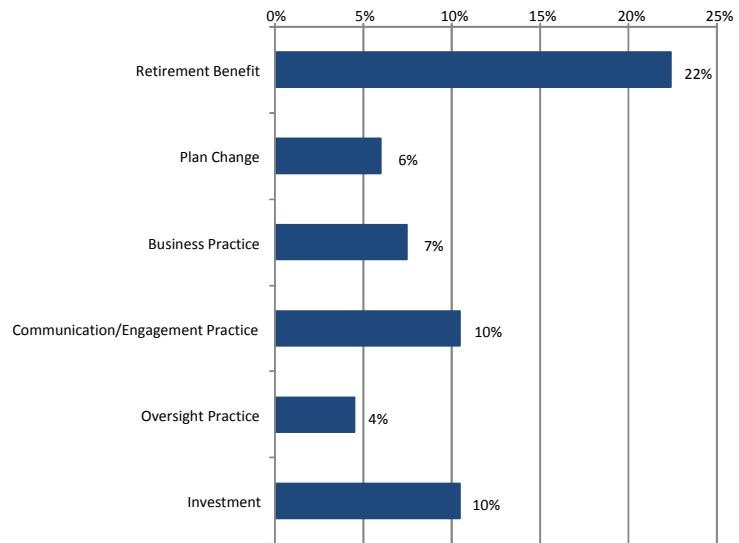
from 2% to 1.5%. By the time the recession hit in 2008, more than a third of our workforce had turned over, thereby qualifying them for the new lower multiplier. We know that lower costs are coming. On the asset side, changes to our portfolio asset allocation have been made to enhance our risk-adjusted returns.

- Secured additional funding from a pension obligation bond; Revised actuarial assumptions to more closely reflect experience; Refined investment performance and closely control costs
- possible benefit changes, not providing COLA's
- We have changed the future new hire benefit structure, reduce current benefit annual increases and increased the contribution rates for employees and employers to fully fund the plans on 30 year closed amortization basis through legislation adopted in 2010
- Legislators proposed plan for new hires
- We have set an appropriation schedule that is consistent in percentage increases
- Legislators proposed plan for new hires
- Requested City to transfer real estate, issue POB, insure Unfunded
- 1) Lowered investment return assumption from 8% to 7.5% this past year; 2) Closed Defined Benefit Plan to new general employees hired/rehired on or after 7/1/2006 and offered a mandatory Defined Contribution plan; 3) Persuaded City Council to contribute more than the Annual Required Contribution in 2 of the past 7 years; 4) Pursued alternative investment strategies in private equity/real estate to boost investment returns.

- Increase employee and employer contributions
- Lower: the inflation rate, salary growth rate, regular interest rate for active and ret mbrs. Introduced a funding corridor, amortization - target 100% funding of the unfunded liabilities ending in FY2023.
- Incorporation of alternative investments to increase asset value to offset increasing liability
- Increase employer contributions and reduce benefits for future employees
- Plan changes to reduce liabilities
- Lowered assumption rate.
- Extended funding schedule to 2031 from 2018
- Discussions for possible Pension Obligation Bonds.
- working with actuary to address liability
- Contribute the ARC.
- More contributions. Investment policy. Look at the benefits.
- Increased member contribution.
- froze the plan in 2010
- Conduct actuarial study every 2 years and update funding schedule accordingly.
- Lowered actuarial assumed rate of return, increased allocation to alternative investments
- Adoption of supplementary rules and regulations in conjunction with 840 CMR's.
- Held employer contribution rates steady although actuarial recommendation was to reduce.
- Extend the funding schedule, Lower assumed rate of return on investment, lower increase in salary assumption

Innovations

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 actual verbatim comments. The categories the comments supported are profiled at the right.



■Based on legislative enactments in 2009 and 2011, the plan is in the process of investment diversification and has implemented internal fund restructuring. In 2007, the traditional advisory group was expanded to a standing 19-member advisory committee, comprised of all major stakeholder groups, including management, employee associations and elected officials. This body was instrumental in crafting proposed legislation, making recommendations to the Board of Trustees for their consideration, and providing the support needed for legislative adoption.

Additional strategies that helped with these changes were increased transparency of operations and communication regarding the need for these improvements.

- The system implemented a strategically diversified portfolio designed to produce moderate but steady gains in up markets and protect assets during market downturns. The fund topped 21% for the fiscal year (the 12-month period ending June 30, 2011) and exceeded 6% for the calendar year 2011 when markets were challenging. By protecting more of its assets during the down markets of third

quarter 2011, the system began fourth quarter at a better starting place than most funds, resulting in higher overall calendar year returns. These results were achieved by having a relatively low allocation to equities and a relatively high allocation to Treasuries, which results in a more balanced distribution of risk. Traditionally, equity risk has dominated the portfolios of most institutional investors leaving the funds vulnerable to fluctuations in the equities markets.

Innovations – Continued

- Do not provide benefit enhancements until and unless the system can afford it.
- Over communicate with Legislators
- With recent proposed legislation impacting the system, our social media (Facebook and Twitter) accounts have become key tools. Member participation on our social media pages continues to increase. We also recently launched a broadcast email service for all active and retired members, the system Member Connection, as another communication method for members to receive time-sensitive news directly in their inbox. the system also offers live online webinars for HR Agency Liaison Open Forums as an alternative to traveling to the system. With our most recent forum held in early March, attendance doubled due to webinar participation. We will continue to offer all of these communication methods to our members, as we have received nothing but positive feedback.
- The system Plan 2 Retirement Board committed in 2003 to full funding and stable rates for the Plan; Adopted a 4-year rate plan based on historical and expected long term costs of the plan. Resulted in maintaining full funding, stable contribution rates allowing for better budgeting by employers, and no increase in rates for members and employers during down economic period.
- Over the past few months, the Board has been very receptive to education on pension risk topics, including plan maturity risk, current contribution and funding risk and a thorough understanding of what the discount rate means and why there is divisiveness in its interpretation. Shortly, the Board will undertake a thorough analysis regarding ways to mitigate pension risk
- Self-Directed DROPs
- After much planning and implementation we brought our Defined Contribution plan in house for administration resulting in lower fees for the plan participants.
- Brought Defined Contribution Plan in house for administration resulting in lower costs for plan participants
- 1) Benefit improvements allowed in 2005 were done on a prospective basis only. 2) Settlement of a lawsuit involving pay elements to be included in "final average compensation" was done via a lump-sum amount and did not add to the ongoing future liabilities of the retirement plan.
- Created our own benchmarking survey
- The system administers a three part hybrid system that includes a traditional DB plan, a CB plan and a voluntary DC plan. Within the CB

component are two programs: the Defined Benefit Supplement Program (full-time educators) and the Cash Balance Program (part-time educators). The DBS program combines a benefit based on the member's balance at the time of retirement with a guaranteed minimum interest rate based on the 30-year U.S. Treasury bonds. By combining features of a DC plan and a DB plan, the member and employer share the risk. Neither the member nor the employer faces much risk of market downturn, because the benefit is guaranteed, but the nature of the benefit is an easily attainable interest benchmark. Since contributions to the DBS Program are based on extra duty assignments and/or extra compensation, the the system hybrid system prevents extra compensation from figuring into the member's final compensation thus preventing inappropriate benefit enhancements.

- Applying for the state equivalent of the National Baldrige Award
- The introduction of social media with Facebook and Twitter for our members and retirees to access; working on the implementation of a new computer system for member and retiree benefits - greater efficiency and access for members and retirees
- Investment program for identifying, hiring, overseeing emerging managers
- We set aside an additional 16% of assets above liabilities as a cushion against market downturns. No additional enhancements may occur until assets exceed 116%.
- Proposed an innovative way to address "spiking" of system
- Improved investment performance from bottom quartile to top quartile over the last 3 year investment period
- The system is implementing the risk parity strategy which weights the assets in a portfolio by risk rather than by asset class and balances the portfolio to withstand various economic scenarios. The system has engaged two risk parity managers – one has a stand-alone portfolio/strategy, while the other is a completion fund that monitors the entire system portfolio and fills in the gaps that exist to meet the overall risk parity objectives and the total fund level
- We do the "three things" that pension systems have to do to remain sustainable, which are 1) managing assets, 2) managing liabilities, and 3) receiving in full, every year, the full ARC from the Plan sponsor. Sustainable plans do all three, all the time, and that is our model.
- Added two outside experts as non-voting members of the board's investment committee;

Developed and Implemented Plan to Prefund Health Insurance Benefit eliminating \$3.3 billion liability

- We obtained bi-partisan legislation in 2010 to raise employee and employer contribution rates, reduce the future cost of the benefit structure for new hires and reduce the current annual increase for benefits to obtain a 30-year amortization for all unfunded liabilities on closed basis
- Transfer of City property for actuarial credit, redevelop property, secure rental income
- The plan sponsor recently allowed members to select a lower multiplier for future service and stay at their current contribution rate, or stay at the same multiplier and pay an increased contribution rate. This will lower the employer's liability and decrease its costs over time.
- The Retirement Board of Trustees began pursuing alternative investment strategies in private real estate and private equity (Debtor in Possession Financing, Mezzanine, etc.) and achieved total fund returns (net of fees) of 22.6% and 15.2% in FY11 and FY10 respectively; outpacing 75% and 84% of other public funds within the Independent Consultants Cooperative Public Fund Universe.
- We had very few calls/complaints when the retirement contribution increase hit employee paychecks. We did a lot of communication and the employees were well aware that this was necessary and going to happen.
- See <http://www.coaers.org/FundingBenefitStructureTalks.html> for a description of our sustainability efforts.
- In general, have tried to educate and inform local elected officials of the need to fully fund to mutually agreed upon actuarial recommendations. Strived to educate citizens through letter writing of the "facts" of the pension plan versus the misinformation generated by municipal conference, and NW municipal leagues etc. in portraying benefits as too "rich" in spite of a 9.5 contribution level of participants.
- Negotiating a higher employee contribution rate to the DB plan in order to position the County for longevity and sustainability of the plan over time.
- Workmen Comp.
- Implemented a disaster recovery plan by utilizing offsite backup of system data
- Educating members so that they are able to make optimal retirement choices for themselves.

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 actual verbatim comments.



- | | | |
|--|---|--|
| <ul style="list-style-type: none"> ▪1% TIPS ▪alternative convertibles ▪Alternative Investments ▪Alternatives (including real estate) ▪Asset Allocation and Hedge ▪Asset Allocation & Hedge ▪Bridgewater All Weather Total Global Asset Allocation ▪Bridgewater All Weather Total Global Asset Allocation ▪Cash ▪Cash ▪convertible arb 2% TIPS 0% ▪Emerging Market Equity ▪Emerging Market Equity ▪Emerging Mkt; 7.35%; value-added Fixed 7.01;private equity .28% ▪Global Asset ▪Global Asset ▪Global Asset Allocation ▪Global Asset Allocation ▪Global Asset Allocation & Better Beta ▪Global Asset Allocation & Better Beta ▪global balanced 15 ▪Global Equity ▪Global Equity ▪Global tactical asset allocation ▪Global tactical asset allocation ▪Hedge ▪Hedge ▪Inflation Sensitive + Alpha ▪Inflation Sensitive + Alpha | <ul style="list-style-type: none"> ▪Infrastructure ▪Infrastructure ▪Infrastructure ▪Infrastructure ▪Innovation 0, Tangible Assets 5 ▪Innovation 2.04, Tangible Assets 1.15 ▪Managed Futures ▪Mass. PRIT Fund ▪Mass. PRIT Fund ▪MLP ▪MLP ▪MLP (Master Limited Partnerships) ▪MLP (Master Limited Partnerships) ▪Mortgages ▪Mortgages ▪Natural Resources and Other ▪Natural Resources and Other ▪New Fixed Income Mandates (TIPS) ▪notional exposure exceeding cash holdings ▪Opportunistic ▪Opportunistic ▪Pension Reserves Investment Trust MA ▪PRIT CORE FUND ▪PRIT CORE FUND ▪private equity in secondary market- .6 global balanced 15.2 ▪Real Assets ▪Real Assets ▪Real Assets ▪Real estate, Managed Futures | <ul style="list-style-type: none"> ▪Real Return ▪Real Return ▪real return ▪Real Return ▪Real Return ▪real return and workout ▪Risk Parity: 4.7 ▪Risk Parity: 5.0 ▪SA ▪Special Investments ▪State pension fund ▪Timber ▪Timber ▪Timber, Emerging Markets, DISCO, Managed futures ▪Timberland; Additional Categories ▪Timberland; Additional Categories ▪TIPS ▪TIPS ▪TIPS ▪TIPS ▪TIPS ▪TIPS ▪TIPS Timber ▪TIPS Timber ▪TIPS, GLOBAL ASSET ▪TIPS, GLOBAL ASSET ▪TIPS, GLOBAL ASSET ▪TIPS, GLOBAL ASSET ALTERNATIVES |
|--|---|--|

Appendix B

2012 Study Instrument



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

NCPERS PUBLIC FUND ASSESSMENT

Please share your feedback so we can continue to strengthen your service experience and represent you more effectively. Your responses are confidential. You will need your most recently completed Consolidated Annual Financial Report (CAFR) to complete these questions. If you administer more than one plan, please repeat this survey for each and note the name of the fund following your survey ID number.

Please enter your survey ID number from your cover message. If you administer more than one plan, please repeat this survey for each and note the name of the plan below. (Your responses will remain confidential):

Plan Name:

What type of plan is this?

- ☐ Defined Benefit Plan (Traditional Pension Plan) ☐ Cash Balance Plan
☐ Defined Contribution Plan (Mandatory Retirement Account) ☐ Hybrid Plan

1. 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)	<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/Hybrid 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 and prohibits involuntary forfeiture or reduction of vested 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 adhoc (not necessarily automatic or compounding) post-retirement adjustment of payments (e.g. COLA)	<input type="checkbox"/>	<input type="checkbox"/>
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"/>

2. 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
Close plan to new hires	<input type="checkbox"/>	<input type="checkbox"/>
Shorten amortization period of unfunded liabilities	<input type="checkbox"/>	<input type="checkbox"/>
Lengthen amortization period of unfunded liabilities	<input type="checkbox"/>	<input type="checkbox"/>
Reduce multiplier	<input type="checkbox"/>	<input type="checkbox"/>
Increase multiplier	<input type="checkbox"/>	<input type="checkbox"/>
Make benefit enhancements more difficult	<input type="checkbox"/>	<input type="checkbox"/>
Lengthen smoothing period for actuarial value of assets	<input type="checkbox"/>	<input type="checkbox"/>
Shorten smoothing period for actuarial value of assets	<input type="checkbox"/>	<input type="checkbox"/>
Lower the actuarial assumed rate of return	<input type="checkbox"/>	<input type="checkbox"/>
Hold the actuarial assumed rate of return at the same level	<input type="checkbox"/>	<input type="checkbox"/>
Raise the actuarial assumed rate of return	<input type="checkbox"/>	<input type="checkbox"/>
Tighten retiree return-to-work rules	<input type="checkbox"/>	<input type="checkbox"/>
Loosen retiree return-to-work rules	<input type="checkbox"/>	<input type="checkbox"/>
Tighten the use of lump sum payouts in the final average compensation (sick leave, annual leave, or other paid time off)	<input type="checkbox"/>	<input type="checkbox"/>
Tighten the use of overtime payments in the final average compensation	<input type="checkbox"/>	<input type="checkbox"/>
Raise benefit age/service requirements	<input type="checkbox"/>	<input type="checkbox"/>
Reduce benefit age/service requirements	<input type="checkbox"/>	<input type="checkbox"/>
Increase employee contributions	<input type="checkbox"/>	<input type="checkbox"/>
Reduce wage inflation assumption	<input type="checkbox"/>	<input type="checkbox"/>
Issue pension bonds to fund liabilities	<input type="checkbox"/>	<input type="checkbox"/>

3. 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 Two Years	Will Implement in Next Two Years
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"/>
Implement records management software	<input type="checkbox"/>	<input type="checkbox"/>
Implement record imaging/scanning	<input type="checkbox"/>	<input type="checkbox"/>
Destroy hard drives of copiers when you dispose of them	<input type="checkbox"/>	<input type="checkbox"/>

4. 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 Two Years	Will Implement in Next Two Years
Develop public relations plan to address "Pension Envy"	<input type="checkbox"/>	<input type="checkbox"/>
Strengthen media outreach efforts	<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"/>
Update member handbook/summary plan description (either electronically or paper)	<input type="checkbox"/>	<input type="checkbox"/>
Notify members of updated handbook/summary plan description (either electronically or paper)	<input type="checkbox"/>	<input type="checkbox"/>
Actively use social media (such as Facebook, Twitter, etc.) to share messages with member groups	<input type="checkbox"/>	<input type="checkbox"/>
Allow member groups to post comments back regarding messages shared through your social media channels	<input type="checkbox"/>	<input type="checkbox"/>

5. 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"/>
Actuary certification stating that the valuation was performed using generally accepted actuarial principles and practice	<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 an audit committee by your governing board	<input type="checkbox"/>	<input type="checkbox"/>
Use of a formal enterprise risk management framework	<input type="checkbox"/>	<input type="checkbox"/>

6. How satisfied are you with your readiness to address retirement trends and issues over the next 2 years? Use a 10 point scale where 1 means "Very Dissatisfied" and 10 means "Very Satisfied."

Very Dissatisfied = 1	2	3	4	5	6	7	8	9	Very Satisfied = 10
<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"/>

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

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

9. Which strategic category best describes your innovation or best practice story above?

<input type="checkbox"/> Retirement Benefit	<input type="checkbox"/> Business Practice	<input type="checkbox"/> Oversight Practice
<input type="checkbox"/> Plan Change	<input type="checkbox"/> Communication/Engagement Practice	<input type="checkbox"/> Investment

Questions about your plan

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

Total number of active members:	<input type="text"/>
Total number of annuitants:	<input type="text"/>
Total number of staff who administer the fund:	<input type="text"/>

Total number of managers and supervisors who oversee fund staff:	<input type="text"/>
Fiscal year end (Month):	<input type="text"/>
Fiscal year of your CAFR referenced for this survey:	<input type="text"/>
Current funded ratio (%):	<input type="text"/>
Annual Required Contribution (ARC) (\$):	<input type="text"/>
Percentage of ARC paid in most recently completed fiscal year (%):	<input type="text"/>
Total assets - market (\$ in thousands):	<input type="text"/>
Total assets - actuarial (\$ in thousands):	<input type="text"/>
Total liabilities - actuarial (\$ in thousands):	<input type="text"/>
Discount rate (%):	<input type="text"/>
Does this plan require member contributions?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Income from member contributions (\$ in thousands):	<input type="text"/>
Member contributions as % of payroll (%)	<input type="text"/>
Income from employer contributions (\$ in thousands):	<input type="text"/>
Employer contributions as % of payroll (%)	<input type="text"/>
Income from investment earnings (\$ in thousands):	<input type="text"/>
Total expenses, including pension payments (\$ in thousands):	<input type="text"/>
Investment manager expenses (basis points):	<input type="text"/>
Administrative expenses (basis points):	<input type="text"/>
Investment assumption (%):	<input type="text"/>
Inflation assumption (%):	<input type="text"/>
Investment smoothing period (years):	<input type="text"/>
Amortization period (years):	<input type="text"/>
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"/>

What is your approximate allocation to the following asset classes

11. What is your **CURRENT** allocation to the following asset classes (percentages should equal 100%):

Domestic Equity (%):	<input type="text"/>
International Equity (%):	<input type="text"/>
Domestic Fixed Income (%):	<input type="text"/>
International Fixed Income (%):	<input type="text"/>
High Yield Bond (%):	<input type="text"/>
Real Estate (%):	<input type="text"/>
Private Equity/Hedge Fund/Alternative (%):	<input type="text"/>
Commodities (%):	<input type="text"/>
Cash Equivalents (%):	<input type="text"/>
Other (specify asset class below) (%):	<input type="text"/>
	<input type="text"/>

12. What is your **TARGET** allocation to the following asset classes (percentages should equal 100%):

Domestic Equity (%):	<input type="text"/>
International Equity (%):	<input type="text"/>
Domestic Fixed Income (%):	<input type="text"/>
International Fixed Income (%):	<input type="text"/>
High Yield Bond (%):	<input type="text"/>
Real Estate (%):	<input type="text"/>
Private Equity/Hedge Fund/Alternative (%):	<input type="text"/>
Commodities (%):	<input type="text"/>
Cash Equivalents (%):	<input type="text"/>
Other (specify asset class below) (%):	<input type="text"/>
	<input type="text"/>

Questions about you (your responses will be confidential)

13. What type of jurisdiction does your fund serve? (Please mark all that apply.)

<input type="checkbox"/> Township	<input type="checkbox"/> County	<input type="checkbox"/> State	<input type="checkbox"/> Other (specify below)
<input type="checkbox"/> City/Village	<input type="checkbox"/> Police/Fire	<input type="checkbox"/> Educational	

Please specify "other":

14. Are your members eligible for Social Security coverage?	<input type="checkbox"/> Yes	<input type="checkbox"/> No				
15. Do you include overtime in the calculation of the retirement benefit?	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Not applicable				
16. Does your plan provide retiree health benefits	<input type="checkbox"/> Yes	<input type="checkbox"/> No				
17. Which role do you serve on the Board? (Check all that apply.)	<input type="checkbox"/> Board Chair	<input type="checkbox"/> Board Secretary	<input type="checkbox"/> Appointment by Plan Sponsor	<input type="checkbox"/> Elected by Members	<input type="checkbox"/> Selected by Other Trustees	<input type="checkbox"/> Staff
18. May we contact you if we have additional questions?	<input type="checkbox"/> No	<input type="checkbox"/> Yes				

For more information:

National Conference on Public Employee
Retirement Systems (NCPERS)
444 N. Capitol St., NW Suite 630
Washington, D.C. 20001
Tel: 1-877-202-5706