Summary of Findings for FY 2012 December 2013

About the Public Fund Survey

The Public Fund Survey is an online compendium of key characteristics of most of the nation's largest public retirement systems. The Survey is sponsored by the National Association of State Retirement Administrators and the National Council on Teacher Retirement. Keith Brainard maintains the Survey.

Beginning with fiscal year 2001, the Survey contains data on public retirement systems that provide pension and other benefits for 12.9 million active (working) members and 7.8 million annuitants (those receiving a regular benefit, including retirees, disabilitants and beneficiaries). At the end of FY 12, systems in the Survey held assets of $2.63 trillion. The membership and assets of systems included in the Survey comprise approximately 85 percent of the entire state and local government retirement system community.

The primary source of Survey data is public retirement system annual financial reports. Data also is culled from actuarial valuations, benefits guides, system websites, and input from system representatives. The Survey is updated continuously as new information, particularly annual financial reports, becomes available. This report focuses on fiscal year 2012. Using graphs, this summary describes changes and trends in selected elements of the survey.

Summary of Findings

Figure A plots the aggregate actuarial funding level among plans in the Survey since its inception in FY 2001. The funding level in FY 12 declined to 73.5 percent, down from 75.8 percent the prior year. The aggregate actuarial value of assets increased to $2.67 trillion, an increase of 0.9 percent. This increase was outpaced by growth in the actuarial value of liabilities, from $3.49 trillion to $3.63 trillion, or 4.1 percent. Liabilities grow primarily as active (working) plan participants accrue retirement benefit service credits.

Most plans have completed, or are nearing completion, of recognition of the sharp investment losses incurred in 2008-09. Those losses are being offset by asset gains since the market decline.

Figure A

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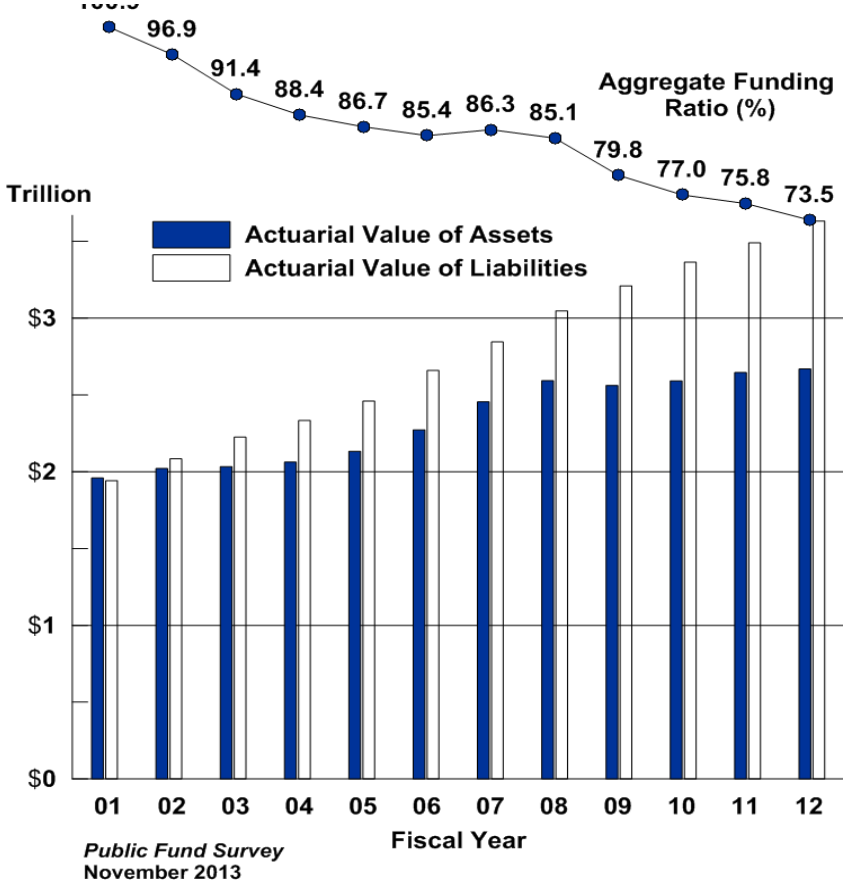
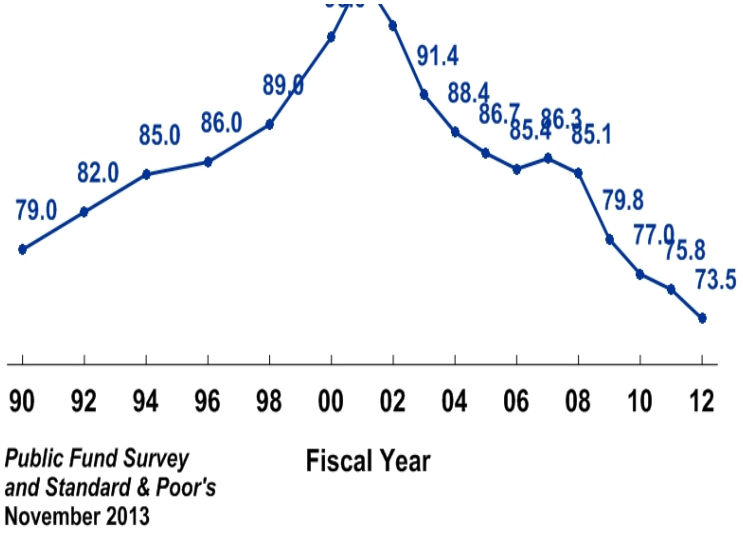


Figure B presents the aggregate actuarial funding level since 1990, measured by Standard & Poor's from 1990 to 2000 and the Survey since 2001. This figure illustrates the substantial effect investment returns have on a pension plan's funding level: investment market performance was relatively strong during the 1990s, followed by two periods, from 2000-2002 and 2008-09, of sharp market declines. Other factors also affect a plan's funding level, including contributions made relative to those that are required; changes in benefits; and rates of employee salary growth.

Figure B



The individual funding levels of the 126 plans in the Survey are depicted in Figure C. The size of each circle in the chart is roughly proportionate to the size of each plan's actuarial liabilities—larger bubbles reflect larger plans and smaller bubbles reflect smaller plans. The median funding level is 73.1 percent.

Figure C

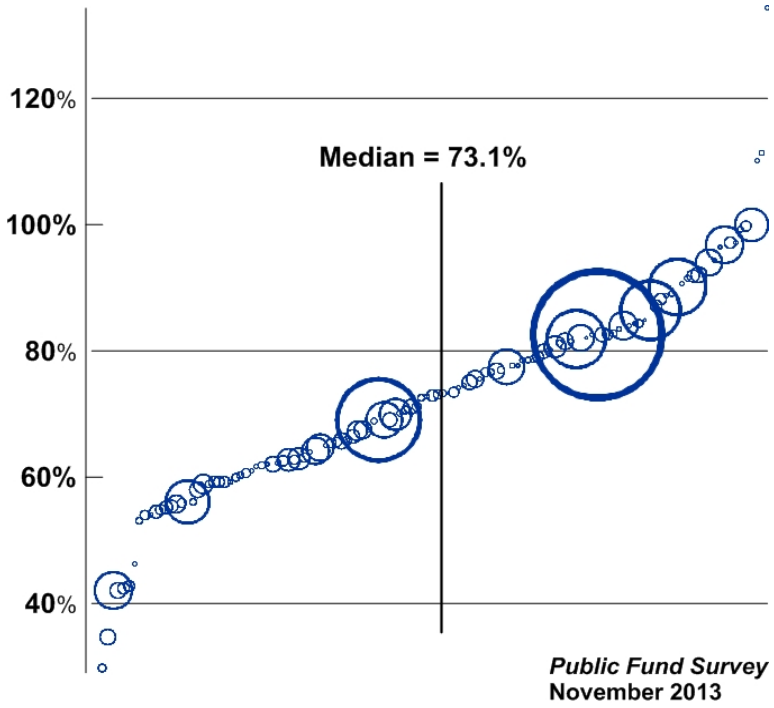
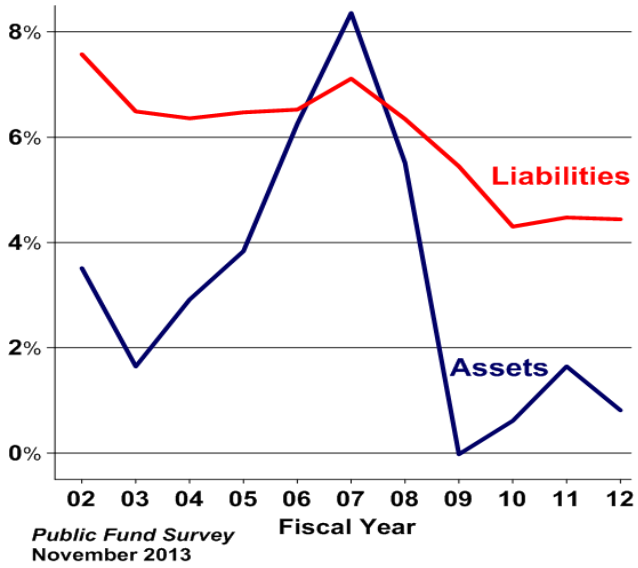


Figure D plots the median annual change among plans in the Survey in the actuarial value of assets and liabilities since FY 01. As the chart shows, liability growth has declined noticeably since the onset of the recession in 2007, likely due to several factors, including low salary growth in recent years. Declines in the rate of liability growth can be offset by the effects of changes in actuarial assumptions. The many plans that have reduced their investment return assumption in recent years is sustaining what otherwise would be an even lower median rate of liability growth.

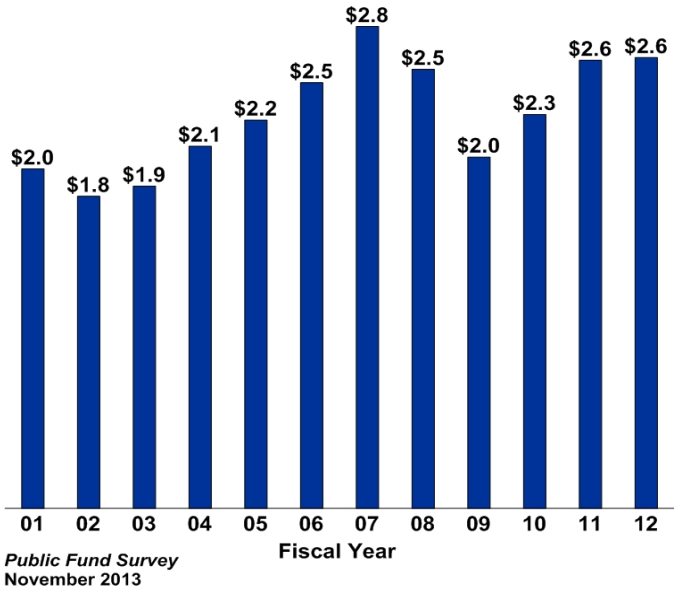
Tepid asset growth reflects the phased recognition (also known as actuarial smoothing of assets) of the sharp market declines experienced in 2008 and 2009, exacerbated by low returns in FY 12 for most funds in the survey (see Figure M).

Figure D



On a market value basis, as of FY 12, systems in the Public Fund Survey held some $2.6 trillion in assets. Figure E, which plots the fiscal year-end value of public pension funds in the Survey, reflects the result on these funds of market volatility in recent years.

Figure E



The Survey measures two types of retirement system members: Actives and Annuitants. Actives

are those who are currently working and earning retirement service credits. Annuitants are those who receive a regular benefit from a public retirement system. These are predominantly retired members, but also include those who receive a disability benefit, and survivors of retired members or disabilitants.

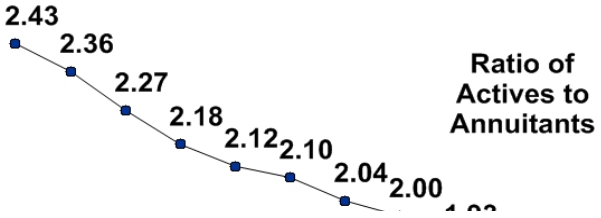
As shown in Figure E, for the second consecutive year, the number of annuitants among systems in the Survey rose by 4.2 percent. Meanwhile, for the fourth consecutive year, the number of active members declined. This decline is consistent with US Census Bureau reports showing a reduction in the number of persons employed by state and local government, a trend Census data shows began in August 2008.

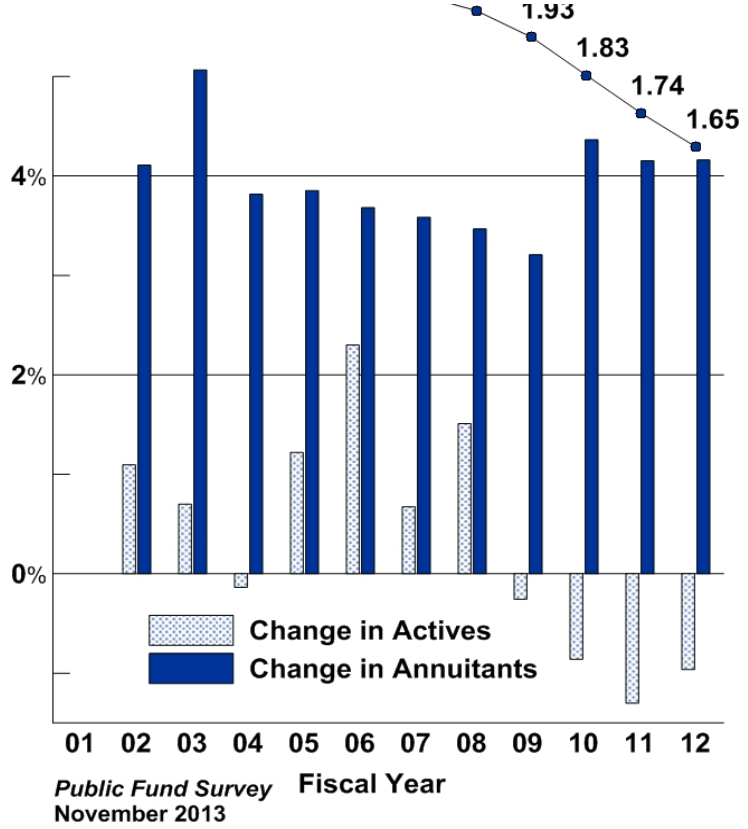
The difference between the continued increase in annuitants and a declining number of active members is driving a sustained reduction in the overall ratio of actives to annuitants. In FY 12, this ratio dropped to 1.65.

A low or declining ratio of actives to annuitants is not, per se, problematic for a public pension plan. This is because the typical public pension funding model features accumulation, during plan participants' working years, of assets needed to fund retirement benefits.

When combined with an unfunded liability, however, a low or declining ratio of actives to annuitants can cause fiscal distress for pension plan sponsors. An unfunded liability represents a shortfall in accumulated assets, and increases the required cost of the plan. A lower ratio of actives to annuitants results in costs to amortize a plan's unfunded liability over a smaller payroll base, which increases the cost of the plan as a percentage of employee payroll. Thus, although a declining active-annuitant ratio does not, by itself, indicate a problem with the pension plan, when combined with a poorly-funded plan, a low or declining ratio of actives to annuitants can result in relatively high required pension costs.

Figure F



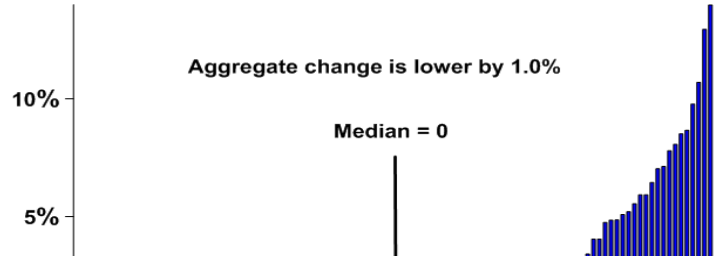


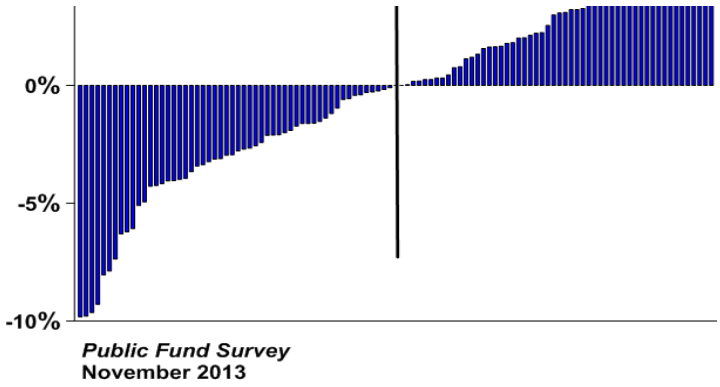
Recent data provided by the U.S. Bureau of Labor Statistics suggest that the decline in state and local government employment may be ending, as the sectors' combined employment in October 2013 was at its highest point in more than two years.

Figure G plots the distribution of changes in payroll over a two-year period, from FY 10 to FY 12, among 110 plans in the survey for which this data is available. (The chart excludes plans in the Survey that are closed to new hires: the Alaska PERS and TRS, Michigan SERS, and three plans in Washington state.)

As the chart shows, the median change in payroll over this two-year period was zero, although plans' experience covered a wide range (from a decline of 9.8 percent to an increase of 14.0 percent). Eighty-five percent of the plans had payroll growth over the two-year period of less than five percent, and the aggregate change was lower by 1.0 percent. The low rate of change in payroll reflects two basic factors: stagnant or declining employment levels and modest salary growth. Information provided by the U.S. Bureau of Labor Statistics indicates that annual growth in wages and salaries for employees of state and local government has remained below 2.0 percent since mid-2009 and below 1.5 percent since early 2010.

Figure G



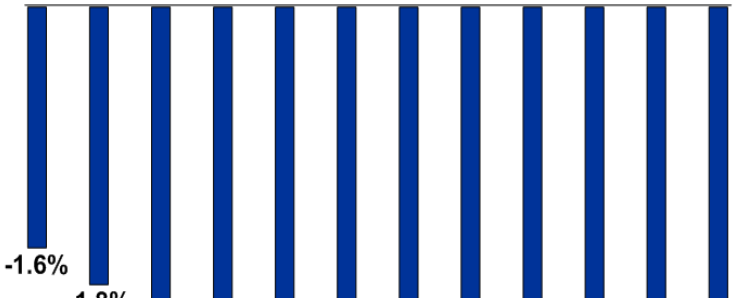


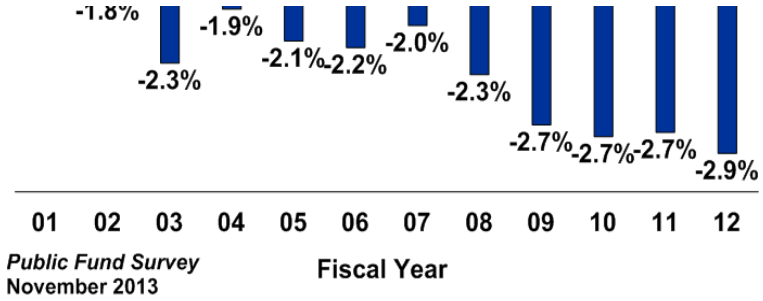
A growing number of annuitants, combined with a low or negative rate of increase among active members will result in a reduction in a retirement system's external cash flow. External cash flow is defined as the difference between a system's revenue from contributions, and payouts by the system for benefits and administrative expenses, divided into the value of the system's assets.

Figure H plots the median external cash flow since FY 01. By itself, a negative cash flow is not an indication of fiscal or actuarial distress. Nearly all systems in the survey have an external cash flow that is negative, meaning they pay out each year more than they collect in contributions. One effect of a lower (more negative) cash flow is to require the system's assets to be managed more conservatively, with a larger allocation to more liquid assets in order to meet current benefit payroll requirements.

This year's increase in negative cash flow is an outcome of a combination of stagnant asset values and growth in benefits payments that exceeds growth in contributions. This slow growth in contributions is partly a result of declining public employment levels (discussed above), and slow to stagnant rates of salary growth.

Figure H





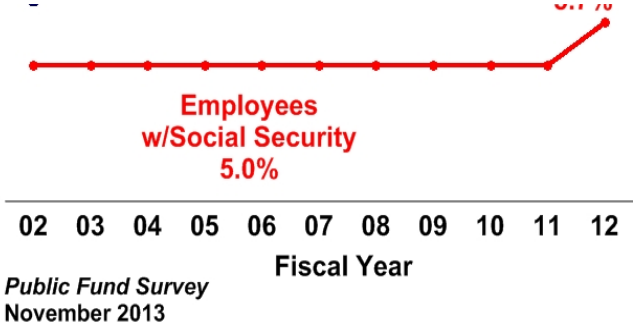
Figures I and J reflect changes in median employee and employer contribution rates. Figure I includes active members who also participate in Social Security; Figure J includes those who do not participate in Social Security. These contribution rates apply to general employees and public school teachers; the rates do not reflect those for public safety workers and other groups of workers (judges, elected officials, etc.).

Roughly 30 percent of employees of state and local government do not participate in Social Security, including approximately 40 percent of all public school teachers, and most to substantially all state and local government workers in Alaska, Colorado, Louisiana, Maine, Massachusetts, Nevada, and Ohio.

Nearly every state has made changes to its pension plan in recent years; the most common change has been an increase in required employee contribution rates. This trend is reflected in Figure I, which shows the median employee rate changing, for the first time since the inception of this survey, from 5.0 percent to 5.7 percent. Contribution rates among employers in both groups continued recent upward trends.

Figure I

Figure J



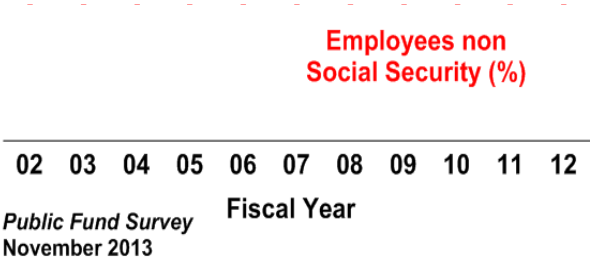
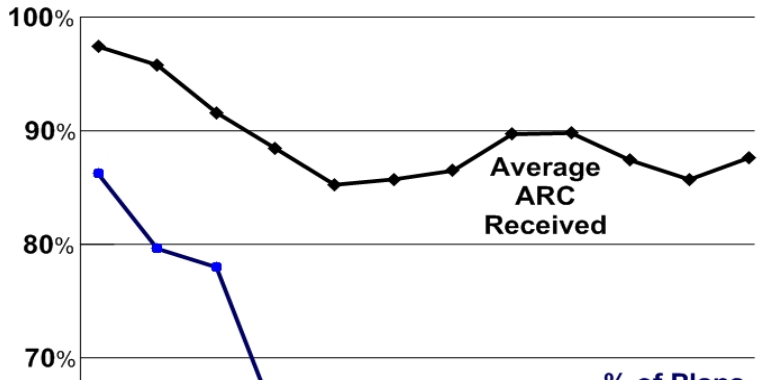


Figure K illustrates the changes over time in two measures pertaining to the Annual Required Contribution (ARC): the average ARC received by all plans in the Survey; and the percentage of plans that received at least 90 percent of their ARC (an arbitrary benchmark denoting a "good faith" effort). The investment market losses experienced by public pension funds in 2008-09 increased public pensions' unfunded liabilities, which, in turn, increases the cost of the plan. Meanwhile, the Great Recession decimated state and (and especially) local government revenues, an experience from which most plan sponsors still are recovering.

Implementing higher contributions, from employees and employers, takes time, as the effect of changes, such as investment losses, must first be measured through an actuarial valuation; then a legislature or other governing body must approve new contribution rates. This cycle, from actuarial event to implementation of higher contribution rates, can take several years.

Figure K suggests that efforts to fund public pensions, in general, are stabilizing after a period of declining ARC effort during and after the Great Recession. This "declining" effort occurred despite increasing contributions from both employees and employers (see Figure L), as required pension costs grew faster than the contributions that were made.

Figure K



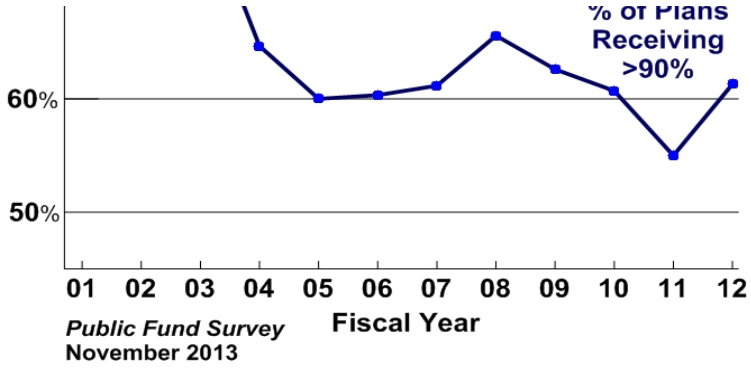
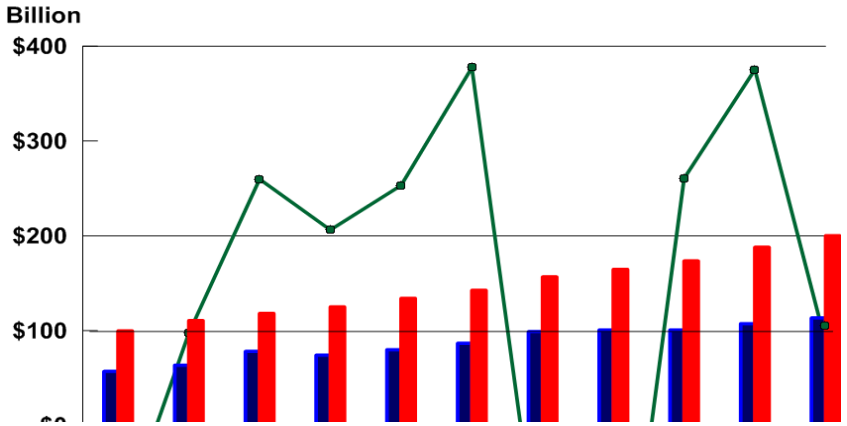
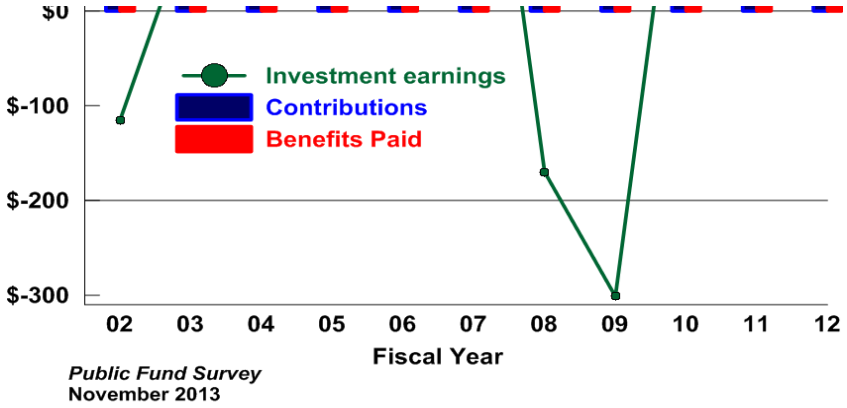


Figure L plots the combined revenue and expenditures of the systems in the Public Fund Survey. The green line reflects investment gains and losses, which tend to vacillate from one year to the next. Blue bars indicate contributions, from employees and employers, and red bars depict benefit payments. Contributions and investment earnings accrue to pension trust funds, established for the sole purpose of paying benefits and funding administrative costs. The benefits paid by public retirement systems are paid from pension trust funds, not from state and local government operating budgets or general funds.

Figure L



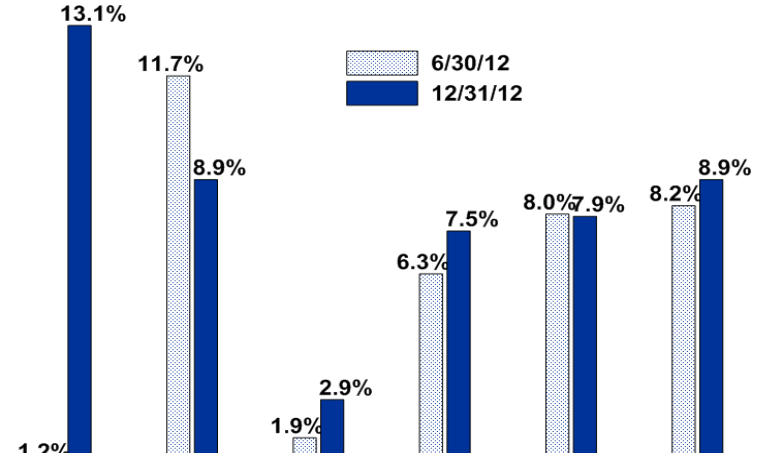


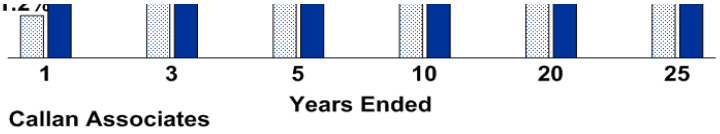
Of all actuarial assumptions, a public pension plan's investment return assumption has the greatest effect on the long-term cost of the plan. This is because a majority of revenues of a typical public pension fund come from investment earnings. Even a minor change in a plan's investment return assumption can impose a disproportionate impact on a plan's funding level and cost.

As shown in Figure M, the median investment return for plans with a FY-end date of June 30, 2012 (which is approximately three-fourths of the funds in the survey), barely exceeded one percent. By contrast, the median one-year return for funds with a FY-end date of December 31, 2012, was a robust 13.1 percent.

Returns for five-year periods ended in FY 12 remain depressed, as they continue to reflect the result of the sharp decline in 2008-09. For longer periods, particularly 10 years and higher, median public pension fund returns are closer to the investment return assumptions used by most plans.

Figure M

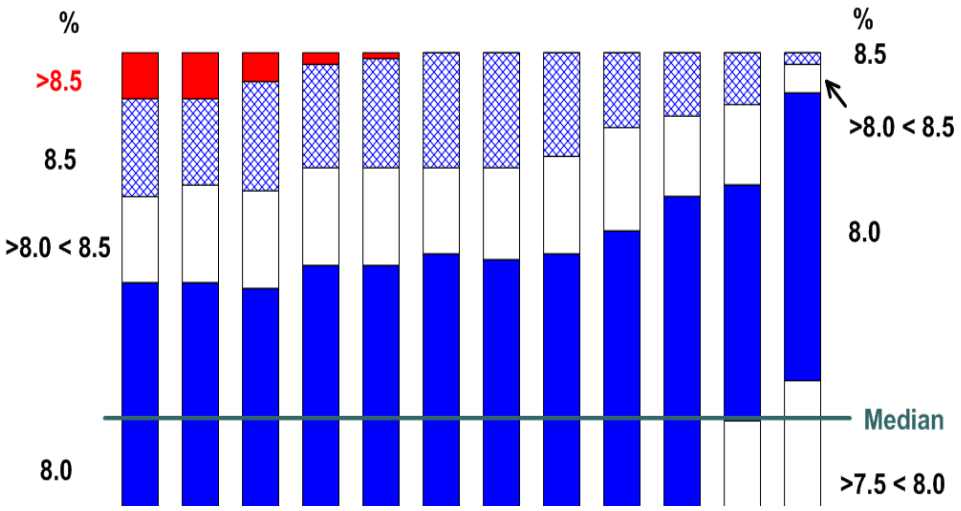




For most of the Public Fund Survey's measurement period, the most common investment return assumption used by public pension plans was 8.0 percent, with some plans using rates above and below that benchmark. Since 2009, an unprecedented number of plans have reduced their investment return assumption. Figure M compares the distribution of investment return assumptions since the inception of the Survey.

Some features of Figure N are notable: a) the reduction of the median assumption below 8.0 percent; b) the abandonment of rates above 8.5 percent; and c) adoption for the first time for plans in the Survey of a rate, for plans in Indiana and the District of Columbia, below 7.0 percent.

Figure N



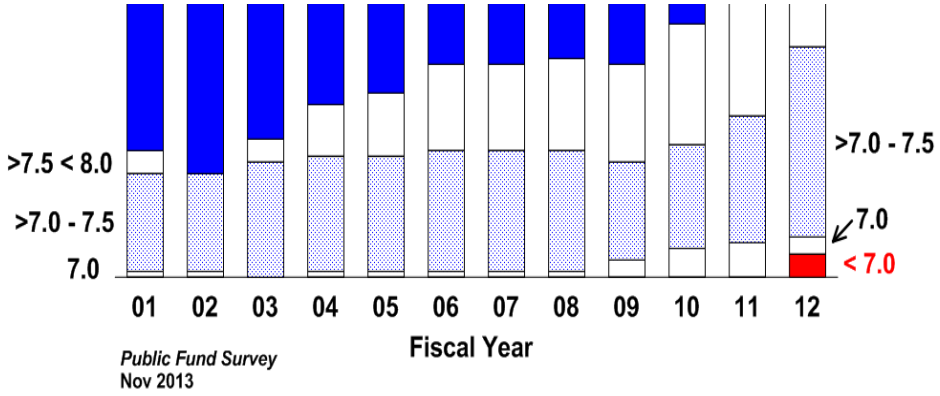
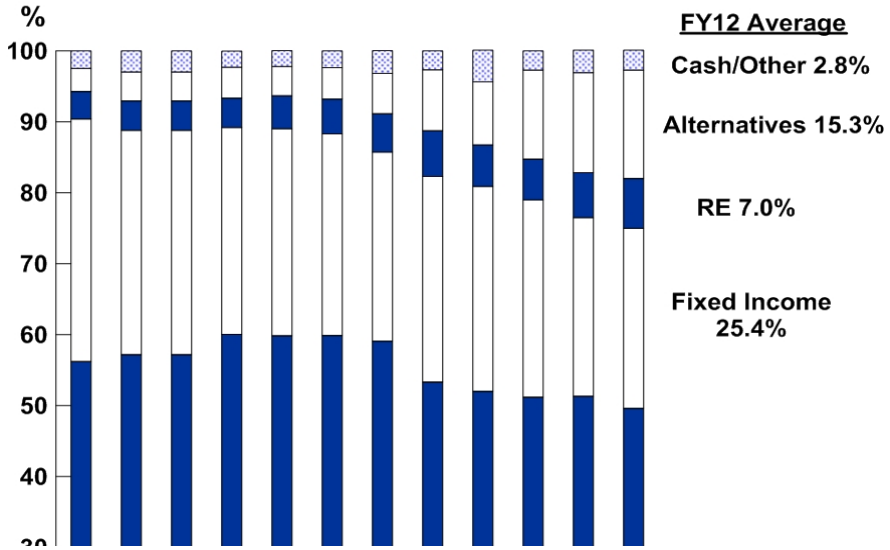
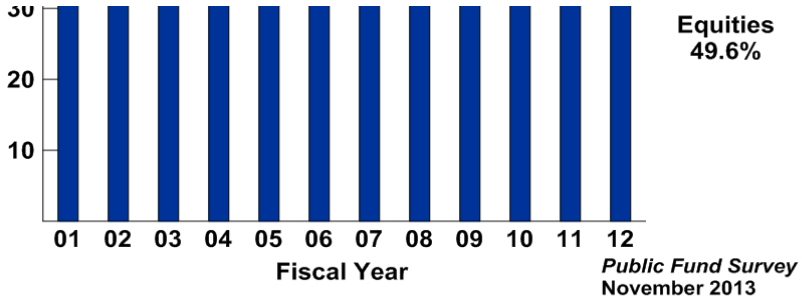


Figure O plots the average asset allocation of 96 funds in the Public Fund Survey since its inception. Key secular trends continued in FY 12, including a) a slow but steady decline in the average allocation to Public Equities; and b) a consistent increase in allocations to Real Estate and Alternatives (composed primarily of private equity and hedge funds). Reversing a long-term trend, after reaching its lowest-ever point in FY 11, the allocation to Fixed Income rose in FY 12 for the first time, to 25.4 percent.

Figure O





Appendix A and B are accessible via the Report Selection page to registered users of the Public Survey. Access these appendices by logging in via the **User Login page**.

- Appendix A presents a listing of systems in the survey, including their market value of assets and membership counts.
- Appendix B presents a listing of plans in the survey, including their actuarial value of assets and liabilities and funding levels.