NRTA PENSION EDUCATION TOOLKIT

Cost of Living Adjustments (COLAs)

A cost of living adjustment (COLA) is a change in one's monthly retirement benefit to account for increasing prices or inflation.

When it comes to COLAs...

- Rising prices and inflation can very quickly erode the value of retirement income. Even a modest rate of inflation can significantly impact your purchasing power over time, if your benefit does not include a COLA.
- COLAs are very important, because they help to ensure that retirees' purchasing power is maintained, no matter how long they may live, and how quickly prices might rise.
- COLAs may be even more important to those retirees who do not receive Social Security benefits, because without their pension COLA they are likely to have no other retirement income that increases with inflation.
- While COLAs provide important protections for retirees, they do cost money. Any COLA benefits that are promised should be pre-funded, or paid for in the year that they are given.

You may have heard some talk recently about the COLA in your pension plan. You may have wondered: What is a COLA? How much do COLAs matter? If the COLA changes, will I be impacted? What do these trends mean for my retirement? This fact sheet provides some basic information that might help.

Understanding COLAs

A cost of living adjustment (COLA) is a change in one's monthly retirement benefit to account for increasing prices. COLAs help to ensure that your purchasing power remains the same no matter how long you may live, and how quickly prices might rise.

For example, if your retirement benefit is $1,000 per month, you can purchase a certain amount of goods or services with that income—groceries, prescriptions, utilities, etc. However, if the prices of those goods and services increase by, say, 3% in a single year, you can purchase fewer goods with that $1,000 benefit—your "purchasing power" has declined.

If you receive a COLA based on this increase in prices, however, then this year's benefit would increase to $1,030 per month. Thanks to your COLA, you will have the same purchasing power—or the same ability to purchase those same goods—that you did last year with your $1,000 benefit.

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Even Modest Inflation can Significantly Erode Purchasing Power

COLAs may not seem so significant—you may wonder, how important is just $30 per month? Yet rising prices and inflation can very quickly erode your retirement income, even to the point that a retirement benefit that was perfectly adequate to pay your monthly expenses when you retired can become inadequate over time. Like water cutting though a rock, even a modest rate of inflation can significantly erode your purchasing power over time.[1]

Figure 1. **Annual Inflation Rate, 1983-2012**

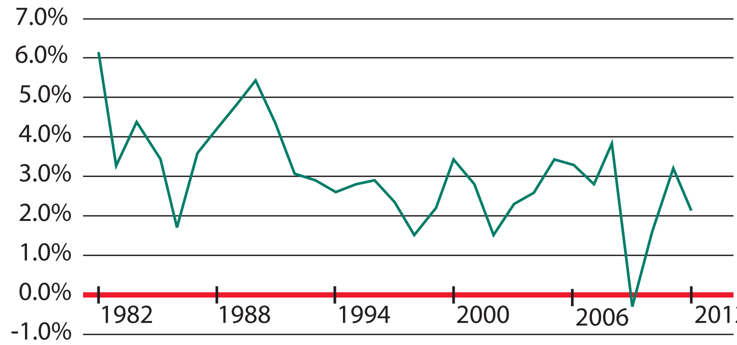
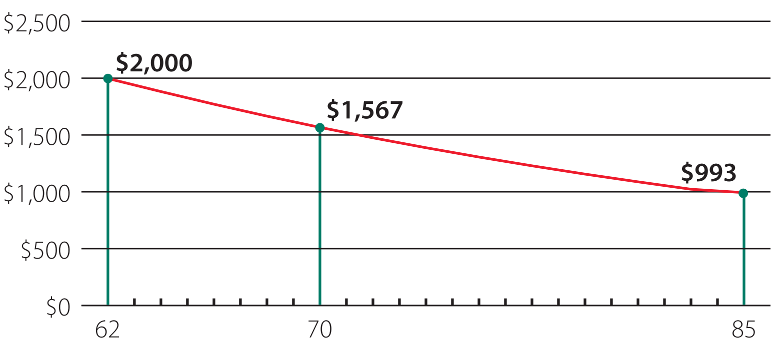


Figure 1 shows the rate of inflation in the U.S. for every year since 1982. The graph clearly shows that inflation has been positive in every year, except 2009. The average rate of inflation in this 30 year period has been nearly 3% annually (3.04% to be exact).[2]

Again, an increase in prices of 3% per year may not seem so significant at first. But your purchasing power can be eroded quite substantially over time due to even relatively small levels of inflation, if you do not have a COLA.

Figure 2. **The Effect of 3% Inflation on a $2,000 Benefit**



For example, let's say that a woman retires at age 62, with a benefit of $2,000 per month. And let's say that inflation averages about 3% per year after she retires. Figure 2 shows the impact that this 3% annual inflation rate has on her purchasing power.

Without any type of COLA, this woman's purchasing power will fall to about $1,500—a 22% drop!—by age 70. By the time she reaches age 85—which happens to be her average life expectancy—her purchasing power will fall to just $993—less than half the value of her initial benefit. Again, this means that she will be able to purchase only half the amount of goods that she was able to buy when she retired. And if she were to live past 85, she would experience even greater reductions in purchasing power.

Luckily, the damaging effects of inflation are well understood, and most state and local retirement systems do offer COLAs, although they can vary in how they are designed.[3]

In some cases, the COLA is prescribed—for example, a fixed 3% per year, or an amount tied to increases in the Consumer Price Index (a measure of the average price of a fixed basket of consumer goods). This type of COLA provides retirees with the security that no matter how much inflation may go up, their benefits will keep the same value. In other words, they will always have the same purchasing power.

COLAs can also be ad-hoc in nature, which means that they are granted at the discretion of the state each year. This can give state employers a bit more flexibility to provide COLAs when revenues are growing and withhold them if tax revenues are fixed or declining. However, ad hoc COLAs are also subject to the uncertainty and complexities of the legislative process.

Social Security and COLAs

Since the 1970s, Social Security benefits have been indexed for inflation, so that retirees can keep their purchasing power. In the public sector, however, as many as 30% of employees are not covered by the Social Security system.[4]

COLAs are an especially important part of the pension benefit for those workers and retirees who do not participate in Social Security, because they are likely to have no other retirement income that increases with inflation. Without a COLA, their purchasing power will steadily decline as they get older. This means that middle-class retirees may find themselves struggling to afford even the basics—food, healthcare, housing, and transportation—in their advanced years.

COLAs Should be Properly Financed

While COLAs provide important protections for retirees, they do cost money. One current concern about COLAs that has arisen recently is the extent to which state and local retirement systems fully account and pay for their COLA obligations in advance (also called "prefunding" a COLA).

One example of the negative consequences that can result when a plan's COLA benefit is not properly prefunded has occurred in the Texas Municipal Retirement System. From the 1940s through 2007, when this system calculated how much it needed employers to contribute to the pension fund in each year, this calculation did not account for the regular COLA the plan provided. As a result, contribution rates were set too low, and the plan did not fully fund its COLA benefits.

Eventually, the system changed its calculation method in order to fully account for these benefits. In doing so, the plan's measured benefit obligations grew and its funded status dropped. Employers had to increase their annual contributions to the pension substantially in order to keep the plan on track toward full funding.[5] This is a good example of how delaying the funding of promised benefits only results in increased costs in the future.

In other words, any benefits that are promised—including COLAs—should be pre-funded, or paid for in the year that they are given.[6]

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[1] National Institute on Retirement Security. 2010. *Public Pension Resource Guide: Strong Public Pensions for Today and Tomorrow.* Washington, DC: National Institute on Retirement Security.

[2] U.S. Bureau of Labor Statistics. *Consumer Price Index Summary.* Washington, DC: U.S. Department of Labor.

[3] Schmidt, D. 2009. *2008 Comparative Study of Major Public Employee Retirement Systems.* Madison, WI: Wisconsin Legislative Council.

[4] U.S. Government Accountability Office. 2007. *State and Local Government Retiree Benefits: Current Status of Benefit Structures, Protections, and Fiscal Outlook for Funding Future Costs.* Washington, DC: U.S. Government Accountability Office.

[5] National Institute on Retirement Security. 2010. *Public Pension Resource Guide: Strong Public Pensions for Today and Tomorrow.* Washington, DC: National Institute on Retirement Security.

[6] Peng, J., and Boivie, I. 2011. L*essons from Well-Funded Public Pensions: An Analysis of Six Plans that Weathered the Financial Storm*. Washington, DC: National Institute on Retirement Security.

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Pension Contribution Requirements

In thinking about pension contribution requirements, remember that…

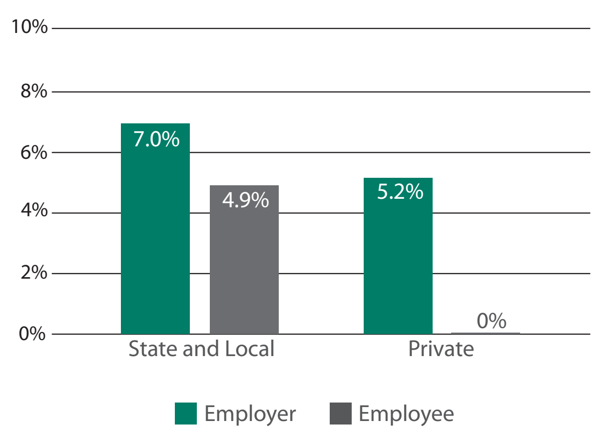
- Pension plans are "pre-funded," which means that regular contributions for employees are made into a retirement fund during their careers.
- In most state and local pension plans, unlike the private sector, employees contribute to their pension directly out of their own paycheck.
- Investment returns make up the bulk of pension fund receipts. A full 63 percent of pension fund receipts are made up of earnings on pension investments.
- Keeping the pension plan well-funded is typically a shared responsibility between employees and employers.
- Some governmental employers have failed to contribute the full amount of money to the pension fund that they should. When pension contributions are pushed into the future, this increases the cost in later years.
- Because of the stock market downturn, pension contributions have gone up. The good news is that these additional contributions—coupled with significant pension reforms that states have made—should fully offset the effects of the economic downturn over time.that states have made—should fully offset the effects of the economic downturn over time

With the economic downturn that began in 2008, many states and municipalities have faced difficult budget gaps. At the same time, pension funds—like all investors—felt the pain of stock market losses. As governments face the challenge of balancing their budgets, while at the same time meeting their pension obligations, you may wonder what may be happening to your pension plan.

Understanding How Pensions are Funded

Pension plans are pre-funded, which means that regular contributions for each worker are made into a retirement fund during the course of that worker's career. In most state and local pension plans, these contributions come from both employers (the city or state) and employees, who contribute to the pension directly out of their own paycheck each month.[1] This differs from the situation in the private sector, where pensions are employer-funded.

Figure 1. **Employer and Employee Contributions as a Percentage of Payroll, by Sector**[2]



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On average, public sector employees contribute about 5% of each paycheck to their pension. Employers contribute 7%. In the private sector, employers contribute 5.2% and employees do not contribute.

All pre-funded group pension plans have the advantage that investment earnings can do much of the work of paying for benefits over time. This is because the contributions that are made for current workers are pooled together, and invested in a diversified mix of assets—stocks, bonds, real estate, government securities, etc. These investment earnings compound over time.

Historically, earnings on investments have made up the bulk of public pension receipts. Between 1993 and 2011, about 63% of receipts came from investment earnings alone. Another 12% came from employee contributions, and about 25% came from employer contributions.[3]

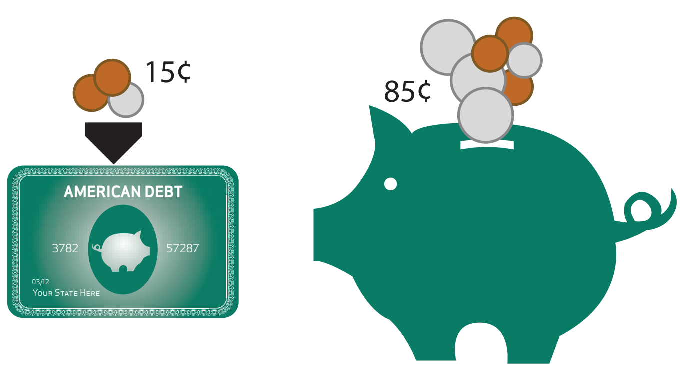
Another way of saying this is that employers contribute just about 25 cents of every dollar of total pension fund receipts. Employees contribute another 12 cents, and the rest—a full 63 cents on the dollar—is made up of investment earnings.

The Importance of Making Contributions on Time and In Full

Normal Cost + Payments on any Unfunded Liability = ARC

In order to figure out how much the employer needs to contribute to the pension fund each year, the plan hires actuaries, who make calculations and determine what the city or state should put in. These actuaries calculate the cost associated with new benefits earned in that year (also called the "normal cost") plus any additional amount that might be required to make up for shortfalls that have developed in the past.[4] Together, these amounts are referred to as the annual required contribution, or "ARC."

It is important that the full amount of the ARC be contributed to the pension trust each year. If a state or city fails to make contributions on time and in full, pension costs will almost assuredly increase in later years.[5] When states contribute less than 100% of their ARC, it is similar to putting the pension obligations on a credit card. They are accruing debt, and the more the balance accrues, the more that must be paid later on.



As a group, public pension plans have been diligent about funding their pensions, especially in recent years. On average, nearly 90% of the ARC was received by the largest state and local retirement systems in the country. Most funds (more than 6 in 10) received payment for the full amount of their ARC or something close to it in 2012, even as contribution requirements have increased.[6]

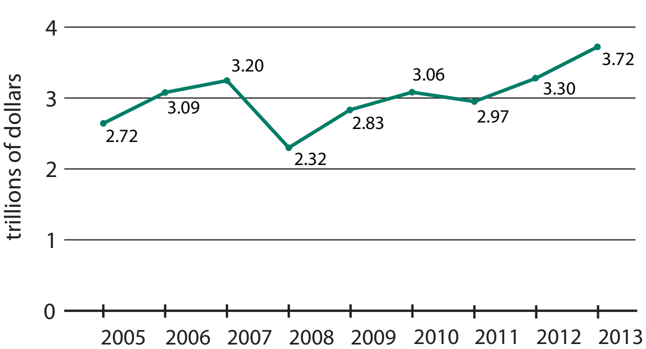
Unfortunately, in the past several years, other states and cities have failed to keep up with their required pension contributions, and are now finding that the consequences of that delay are catching up to them in the form of much higher required pension contributions. In other words, their accrued credit card debt needs to be paid off.

The Economic Downturn Has Caused Contributions to Increase in Many States

Today, even states that have done a good job of keeping up with their pension contributions in the past are facing growing contribution requirements. The economic downturn brought about unprecedented losses in the stock market. Because part of public pension funds are invested in stocks, these plans—like all investors—experienced substantial investment losses.

As the stock market dropped and the economy slid into recession, the market value of public pension holdings fell from $3.2 trillion at the end of 2007 to $2.3 trillion at the end of 2008. As the markets have rebounded, public pensions have benefited. By June 2013, the value of public pension assets had recovered to about $3 trillion[7]—but those gains have not fully made up for the huge prior losses.

Figure 2. **Value of Public Pension Holdings**



Clearly, state and local pension funds took a big hit. And as a result, most funds have required additional contributions to fill the gap.

The good news is that because most states had been paying what they owed each year before the downturn, the increase in cost is manageable for most states. Meanwhile, state and local governments across the country have been making adjustments to their pension systems to ensure that they will be on a strong footing for the long-term. The actions taken by states to date have been quite substantive and varied, including increased employee contributions and lower benefit levels. Boston College finds that for most states, the reforms already implemented should fully offset the effects of the economic downturn, ensuring the plans' long term sustainability.[8]

Unfortunately, the minority of states that had been less disciplined about making contributions before the crisis hit are now experiencing a "double whammy"—they must make up for contributions that were missed in the past *and* also make additional contributions to compensate for stock market losses. It's important to note that this situation may have been avoidable, had the state or city done a better job with making contributions on time and in full.

Pensions Squeeze More Value out of Each Contribution Dollar

Regardless of whether states and cities have been responsible about making their scheduled pension contributions in the past, looking forward, it's important to recognize the benefits that traditional group pension plans provide—not just to employees and retirees, but also to taxpayers.

Group pension plans squeeze more value out of each dollar of contributions—whether they come from employees or taxpayers—as compared with retirement plans made up of individual accounts (so-called "defined contribution plans" plans). Because group pension plans pool their assets and are professionally managed, they are able to achieve better investment returns. Better investment returns can mean that fewer contributions are necessary. Research has found that a group pension can achieve a target retirement benefit at about half the cost of individual, defined contribution accounts.[9]

This means that especially in tough economic times like these, public pension plans make sense. They remain a highly cost-effective way to provide for the retirement security of public sector employees. That makes traditional pensions a good deal for employees, retirees, *and* taxpayers.

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1 Munnell, A.H., Haverstick, K., and Soto, M. 2007. *Why Have Defined Benefit Plans Survived in the Public Sector?* Chestnut Hill, MA: Center for Retirement Research at Boston College.

2 Munnell, A.H., J.P. Aubry, J. Hurwitz, and L. Quimby. 2011. *Comparing Compensation: State-Local Versus Private Sector Workers.* Chestnut Hill, MA: Center for Retirement Research at Boston College.

3 U.S. Census Bureau. 2013. *State and Local Government Employee-Retirement Systems*. Washington, DC: U.S. Census Bureau.

4 Peng, J. 2009. *State and Local Pension Fund Management*. Boca Raton, FL: CRC Press, Taylor & Francis Group.

5 Logue, D.E., and Rader, J.S. 1998. *Managing Pension Plans: A Comprehensive Guide to Improving Plan Performance.* Boston: Harvard Business School Press.

6 Brainard, K. 2013. *Public Fund Survey Summary of Findings for 2012*. National Association of State Retirement Administrators.

7 Lambert, L. 2013. U.S. public pension investments jump, costs surge too. *Reuters*, September 23.

8 Munnell, A.H., J.P. Aubrey, A. Belbase, and J. Hurwitz. 2013. *State and Local Pension Costs: Pre-Crisis, Post-Crisis, and Post-Reform*. Chestnut Hill, MA: Center for Retirement Research at Boston College.

9 Almeida, B., and Fornia, W. 2008. *A Better Bang for the Buck: The Economic Efficiencies of DB Plans*. Washington, DC: National Institute on Retirement Security.

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The Economy and Your Pension

It's important to remember that even in the midst of all the bad economic news, there are some bright spots when it comes to public pensions....

- Group-based pension plans weathered the economic storm better than individual account plans. This continued a long trend of pensions outperforming individual accounts.
- Most states had done a good job of building up their pension plan reserves when the economy was in better shape. When the recession hit, pension plans had enough on hand to continue paying benefits—in most cases, for many years to come.
- In response to the financial crisis, states have already made significant pension reforms. Forecasts show that in most cases, these reforms should fully offset the effects of the economic downturn.
- Pensions are keeping the promise. They provide a critical lifeline for middle-class American seniors.

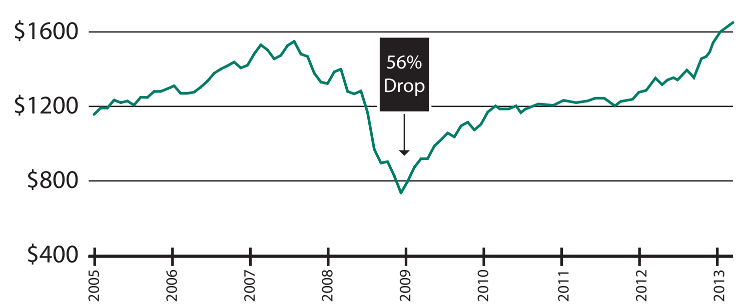
The recent economic downturn has negatively impacted Americans on many fronts. The unprecedented stock market decline of 2008-2009 hurt investors of all stripes—from large financial institutions, to pension funds, to individual families. Soon, the economy slowed to a halt, and even more Americans felt the pain as unemployment began to rise and states struggled to balance their budgets.

You may have wondered—what do these trends mean for my retirement? How have these trends impacted my pension plan? This fact sheet provides some basic information that might help.

Historic Market Decline and Recession

The stock market decline that began in the fall of 2007 and lasted through the spring of 2009 was unprecedented in recent history. The Standard & Poor's 500 Index (a measure of the stock market value of 500 of the largest companies in the U.S.) fell from a high of 1565 in October 2007 to just 676 in March 2009. **That's a 56% drop!**

Figure 1. **Performance of the Standard & Poor 500 Index**



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According to The Wall Street Journal, the wealth of American families in 2008 plunged 18%, or $11 trillion during the market meltdown. The decline marked the biggest loss since the government began keeping track after World War II.[1]

Although the market has rebounded since then, it will still take time for households and institutional investors alike to fully recover. Furthermore, the stock market crash was only the prelude to a long, deep recession that brought pain to every element of our economy—businesses, workers, and state and local governments.

The Impact of the Stock Market Drop on Pensions

Pre-funded pension plans (whether in the public or private sector) work like this: over the course of an employee's career, funds are set aside (by the employer, the employee, or both) and contributed to a group pension fund. These monies are invested by professionals in a range of assets—stocks, bonds, real estate, etc.—with the goal that by the time an employee retires, the initial contributions to the plan will have grown enough to pay benefits for the rest of the retiree's days.

Like all investors, pension plans were hurt in the stock market crash. According to figures from the Federal Reserve, public pensions saw their holdings fall in value by $889 billion between 2007 and 2008.[2] Since that time, as the stock market has rebounded, so has the value of public pension funds—as of June 2013, their aggregate value was nearly $3 trillion.[3] But those gains have not fully made up for the huge prior losses.

One measure of a pension plan's financial health is its funding ratio—that is the ratio of assets held by the plan to the value of benefits it is obligated to pay in the future. For example, if a fund is holding exactly the same amount of assets that it needs to pay all current and future benefits, the plan is 100% funded. If the plan has fewer assets, the funding ratio will be less than 100%. According to the National Association of State Retirement Administrators, the recent stock market decline has caused the aggregate funding ratio of the nation's largest public pension plans to fall from 86.7% in 2007 to 73.5% in 2012.[4]

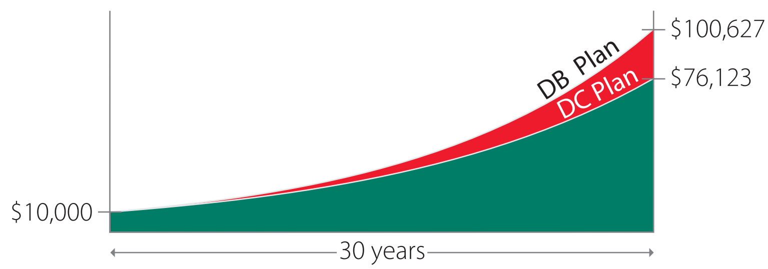
One bright spot is that most states had done a good job of building up their pension reserves back when the economy was in better shape. Like the ant in Aesop's famous fable, states have socked away an average of about 87 cents for every dollar in future benefits they will need to pay before the recession hit.[5] This pre-funding strategy was in place to ensure that if (or when) the economy hit a rough patch (taking state budgets down with it), pension plans could keep on paying benefits as they come due.[6]

This pre-funding strategy has been a success—even during the worst days of the economic crisis, retirees have been able to count on their pension check arriving, just as always. Most public pensions have enough on hand to keep paying benefits for decades.[7]

The other bit of good news is that group pension plans (also called "defined benefit" pensions) weathered the financial storm better than other investors, particularly, individual investors in so-called "defined contribution" plans. A recent analysis by the consulting firm Towers Watson found that defined benefit pensions outperformed defined contribution plans in 2011,[8] continuing a long-term trend of superior investment returns dating back to at least 1995.

That doesn't mean pensions are totally out of the woods though. Just as the stock market has yet to return many investors to their pre-crash levels, so pension funds have some work to do in recovering from the economic storm. Pensions might need additional contributions from employers, employees, or both. If employers and/or employees can't afford these additional contributions, pensions may need to make adjustments to the benefits they will pay in the future

Figure 2. **How $10,000 Invested Grows Over 30 Years**



For some public pension plans, the recovery process will be made more difficult by the tough shape of state budgets.

The Economic Crisis and State Budgets

The economic crisis has negatively impacted state budgets across the country in major ways. According to the National Conference on State Legislatures, states had a cumulative gap of $107 billion in their 2012 budgets and a gap of $55 billion in 2013, both of which they have managed to close.[9] States have implemented various changes in order to balance their budgets, including furloughs and layoffs for state employees.[10] However, significant challenges remain.

As a result, many state and local governments have been evaluating the need for, and even implementing, adjustments to their pension systems to ensure that they will be on a strong footing for the long-term. Fortunately, because most states acted like Aesop's "ants" before the economic winter, there is ample time to make any additional modifications that may be prudent. But like the fabled "grasshopper," other states may have a harder time. The small number of states that were less diligent about pre-funding their pension plans will need to grapple with tough choices sooner and may have fewer options to manage through the tough times.

The good news is that legislatures around the country are, by and large, taking a careful approach to examining benefit levels and financing structures to ensure that pension plans will have what they need to be sustainable over time. While public pension systems have a long term horizon that allows for a patient approach, the uniqueness in plan design, benefit structure, and governance arrangements may dictate different responses among different systems.[11]

According to the National Conference on State Legislatures, the actions taken by states to date have been quite substantive and varied. Five states enacted significant pension reforms in 2013, 10 states enacted reforms in 2012, 32 states enacted reforms in 2011, and 21 did in 2010. In 2013, 4 states increased employee contributions, 4 states increased employer contributions, and 4 states implemented higher age or service requirements. Between 2009 and 2012, 30 states increased employee contributions and 32 states implemented higher age or service requirements.[12] Boston College finds that for most states, the reforms already implemented should fully offset the effects of the economic downturn.[13]

Although a small number of states have moved to restructure retirement benefits entirely, the vast majority have chosen to remain within the traditional defined benefit (DB) structure, acknowledging that these pension plans have a track record of simultaneously meeting the goals of employers, due to their recruitment and retention effects, and the goals of employees, due to the economic security they offer.[14]

Despite Tough Times, Pensions Are Keeping the Promise of Retirement Security

The Great Recession has presented some funding challenges to public pensions. However, the evidence suggests that employees and retirees who can count on group-based, defined benefit pensions are in the best position to weather tough economic storms.

Employees and retirees with pensions can count on a stable and secure retirement income that isn't subject to the volatility of Wall Street. This is possible because group pension plans can do something individual account plans cannot—provide better time diversification of financial market risks. This means that, because pension plans invest for very long time horizons, they are able to diversify their portfolios across broad time periods, and can better withstand market swings. Economists have shown that because of this ability, group pension plans can more effectively capture the excess returns that come from investing in stocks over long periods of time—to the benefit of employees, employers, and taxpayers.

The economic crisis has taught Americans many lessons about getting back to basics. Recent research reaffirms the importance of the traditional "three-legged stool" approach to retirement. A combination of Social Security and a group based defined benefit pension, supplemented with individual savings in a defined contribution plan or on their own, affords ordinary Americans the greatest chance to maintain their middle-class standard of living into retirement.[15]

Earned pension benefits are a critical lifeline to America's middle class seniors. More than 4.5 million retired public employees and nearly 10 million retired private sector employees rely on a pension to make ends meet. Keeping these vital systems healthy should be a high priority for decision-makers at every level, so that pensions can continue to keep the promise for future generations.

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[1] Kalita, M. 2009. Americans see 18% of wealth vanish. *The Wall Street Journal*. March 13.

[2] Board of Governors, Federal Reserve System. 2010. *Flow of Funds Accounts of the United States*. Washington, DC: Board of Governors.

[3] Lambert, L. 2013. U.S. public pension investments jump, costs surge too. *Reuters*, September 23.

[4] Brainard, K. 2013. *Public Fund Survey Summary of Findings for 2012*. National Association of State Retirement Administrators.

[5] Brainard, K. 2012. *Public Fund Survey Summary of Findings for 2012*. National Association of State Retirement Administrators.

[6] Standard and Poor's. 2009. *No Immediate Pension Hardship For State And Local Governments*. Standard and Poor's, June.

[7] Brainard, K. 2009. *Public Fund Survey Summary of Findings for 2008*. National Association of State Retirement Administrators.

[8] Towers Watson. 2013. *Defined Benefit Plans Outperform Defined Contribution Plans Again*. July.

[9] Oliff, P., C. Mai, and V. Palacios. 2012. *States Continue to Feel Recession's Impact*. Washington, DC: Center on Budget and Policy Priorities.

[10] National Conference of State Legislatures. *Actions & Proposals to Balance the FY 2010 Budget: State Employee Actions, Furloughs and Layoffs*. Washington, DC: National Conference of State Legislatures.

[11] Brainard, K. 2009. *Public Fund Survey Summary of Findings for 2008*. National Association of State Retirement Administrators.

[12] Martel, L. and Rivale, T. 2013. *State Retirement Reform Legislation: NCSL Legislative Summit*. Washington, DC: National Conference of State Legislatures.

[13] Munnell, A.H., J.P. Aubrey, A. Belbase, and J. Hurwitz. 2013. *State and Local Pension Costs: Pre-Crisis, Post-Crisis, and Post-Reform*. Chestnut Hill, MA: Center for Retirement Research at Boston College.

[14] Boivie, I., and C. Weller. 2012. *The Great Recession: Pressures on Public Pensions, Employment Relations and Reforms*. Washington, DC: National Institute on Retirement Security.

[15] National Institute on Retirement Security. 2010. *Public Pension Resource Guide: Why Do Pensions Matter?* Washington, DC: National Institute on Retirement Security.

[16] Porell, F., and Oakley, D. 2012. *The Pension Factor 2012: The Role of Defined Benefit Pensions in Reducing Elder Hardships*. Washington, DC: National Institute on Retirement Security.

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Public Pension Fact Sheet

Highlights...

- Pensions serve 4.5 million public sector and 10 million private sector retirees. They are a critical lifeline to America's seniors.

- Group pension plans provide guaranteed, monthly income for life, enhancing retirement security for those who have them. COLAs help protect the value of the benefits retirees have earned.

- Pensions are the most economically efficient way to fund an adequate retirement, making them a good use of taxpayer dollars. States that have studied the issue have concluded that continuing to provide retirement benefits via DB pension plans meets the joint interests of fiscal responsibility for employers and taxpayers, and retirement security for employees.

- Pension expenditures also help to boost local economies, especially in tough economic times, making them good for local businesses nationwide.

- Public pension plans—like all investors—took a hit in the economic crisis, but are recovering. Most funds were well-funded before the crisis, and DB plans have achieved superior investment returns even during the crisis. Moreover, because of the long-term nature of pensions, funding gaps can be filled gradually, over time.

- In most state and local pension plans, unlike the private sector, employees contribute to their pension directly out of their own paychecks. Keeping the pension plan well-funded is typically a shared responsibility between employees and employers.

- In response to the financial crisis, states have already made significant pension reforms. Forecasts show that in most cases, these reforms should full offset the effects of the economic downturn.

Pension Plans Deliver for Employees, Employers, and Taxpayers

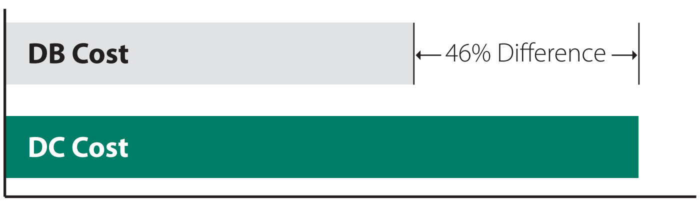
Traditional, defined benefit (DB) pensions are vitally important to the retirement security of American workers. State and local government pension plans serve more than 14 million current workers, while private sector pensions serve an additional 18 million active workers.[1]

Group pension plans provide reliable, monthly income for life, which makes retirement security much more achievable for Americans who have them. While defined contribution (DC) plans were meant to be supplements and were not originally intended to replace DB pension plans, unfortunately, there has been a gradual trend in the private sector away from group pension plans and toward DC plans, such as 401(k)s.

DB pensions often provide other benefits as well, such as disability benefits, spousal protections, and cost of living adjustments (COLAs), each of which makes DB plans unique. COLAs in particular are important for retirees, because inflation can very quickly erode the value of retirement income. COLAs do cost money, however; any COLA benefits that are promised should be pre-funded, or paid for in the year that they are given.[2]

Not only are pensions good at providing retirement security to American workers, but they are also a good deal for taxpayers, because they are an economically efficient way to fund an adequate retirement. By pooling and professionally managing assets, DB plans are able to achieve economies of scale. Research has found that a group pension can achieve a target retirement benefit at about half the cost of DC accounts[3]

Cost to Achieve a Target Benefit in Retirement



Pensions also help boost local economies, especially in tough economic times. In 2009, expenditures made out of public pension benefits supported more than 6.5 million new American jobs and over $1 trillion in total economic output nationwide.[4]

Financing Pensions is a Shared Responsibility

Another reason why pensions work well is because they are "prefunded" systems—regular contributions for each employee are made into a retirement fund during the course of that employee's career. In most state and local pension plans, these contributions come from both employers (the city or state) and employees, who contribute to the pension directly out of their own paycheck each month.[5]

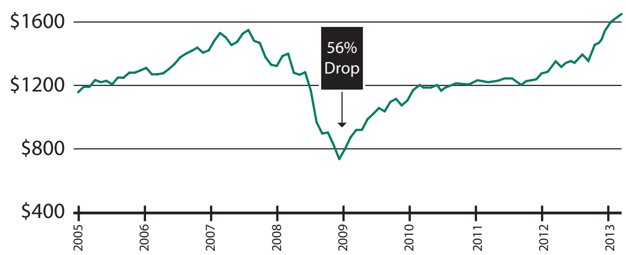
Thanks to pre-funding, investment returns have historically made up the bulk of public pension receipts. Between 1993 and 2011, about 63% of receipts came from investment earnings alone. Another 12% came from employee contributions, and about 25% came from employer (state) contributions.[6]

The Economic Crisis and Public Pensions

Pension plans were not immune to the recent stock market decline that began in the fall of 2007 and lasted through the spring of 2009. When the Standard & Poor's 500 Index fell 56% between October 2007 and March 2009, like all investors, pension plans were hurt.

Public pension holdings fell in value by $889 billion between 2007 and 2008. Since that time, as the stock market has rebounded, so has the value of public pension funds—as of June 2013, their aggregate value was nearly $3 trillion.[7] But those gains have not fully made up for the huge prior losses.

Figure 1. **Performance of the Standard & Poor 500 Index**



At the same time, the economic crisis has also negatively impacted state budgets. States have implemented various changes in order to balance their budgets in 2010 through 2013, including furloughs and layoffs of state employees.[8]

By and large, however, public plans are positioned to recover well, for two main reasons.

First, as a group, most states have been diligent about funding their pensions, especially in recent years. On average, nearly 90% of the annual required contribution (ARC) was received by the largest state and local retirement systems in the country. Most funds (more than 6 in 10) received payment for the full amount of their ARC or something close to it in 2012.[9] As a result, most public pensions have enough money on hand to keep paying benefits for decades.[10]

Secondly, DB pension plans weathered the financial storm better than other investors, particularly, individual investors in DC plans. A recent analysis by the consulting firm Towers Watson found that DB plans outperformed DC plans in 2011,[11] continuing a long-term trend of superior investment returns.

Pension Obligations Are Manageable

Even with pre-funding, unfunded pension liabilities can sometimes emerge, especially in the wake of stock market volatility. It's important to distinguish between plans whose funding gaps are the result of unprecedented market conditions and those where there has been a lack of funding discipline. Today, even states that have done a good job keeping up with their pension contributions in the past are facing growing contribution requirements, due to the significant economic downturn.

But some plans face greater challenges. In the past several years, some governmental employers have failed to contribute their full ARC. If a state or city fails to make contributions on time and in full, pension costs will almost assuredly increase in later years.[12]

Unfunded liabilities do need to be filled, but they may not be so problematic, depending on the specifics of each plan. Because of the long-term nature of pensions if the plan is able to continue to pay promised benefits and the employer can make its required contributions without causing fiscal stress, then the funding gap can be closed gradually.[13] In fact, funding gaps do not need to be closed in a single year, but the payments can be amortized over a number of years, according to governmental accounting standards.

Legislatures around the country are generally taking a careful approach to examining benefit levels and financing structures to ensure that pension plans will have what they need to be sustainable over time. Uniqueness in plan design, benefit structure, and governance arrangements may dictate different responses among different systems.[14]

According to the National Conference of State Legislatures, the actions taken by states to date have been quite substantive and varied. Measures have included increasing employer or employee contributions; changing the benefit calculation in some way; increasing age and service requirements; implementing provisions to limit "spiking" abuses; changing post-retirement COLA increases; and increasing the vesting time period.[15]

These reforms already made have proven financially significant. Forecasts from Boston College show that in most cases, these reforms will fully fill the funding gaps caused by the financial crisis, over time.[16]

Keeping the Promise

Preventing funding gaps from occurring and closing gaps that do emerge is hard work, and requires a disciplined approach to pension fund stewardship. The good news is that a well-managed group pension plan is still the most economical way to achieve retirement security.

Across the nation, states and localities remain committed to their pensions, largely rejecting proposals to substitute DC plans for pensions.

In fact, time and again, states that have carefully studied the issue have concluded that, even in tough economic times, continuing to provide retirement benefits via cost-effective group pension plans meets the joint interests of fiscal responsibility for employers and taxpayers, and retirement security for employees.

The bottom line is that DB pensions are a critical lifeline to America's seniors. More than 4.5 million retired public employees and nearly 10 million retired private sector employees rely on a pension to make ends meet.[17] Keeping these vital systems healthy should be a high priority for decision-makers at every level, so that pensions can continue to keep the promise for future generations.

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[1] Pension Benefit Guaranty Corporation. 2012. *PBGC 2010 Databook*. Washington, DC: PBGC. and U.S. Census Bureau. 2013. State and Local Government Employee-Retirement Systems. Washington, DC: U.S. Census Bureau.
[2] Peng, J., and Boivie, I. 2011. *Lessons from Well-Funded Public Pensions: An Analysis of Six Plans that Weathered the Financial Storm.* Washington, DC: National Institute on Retirement Security.
[3] Almeida, B., and Fornia, W. 2008. *A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans.* Washington, DC: NIRS.
[4] Boivie, I. 2012. *Pensionomics 2012: Measuring the Economic Impact DB Pension Expenditures.* Washington, DC: NIRS.
[5] Munnell, A.H., Haverstick, K., and Soto, M. 2007. *Why Have Defined Benefit Plans Survived in the Public Sector?* Chestnut Hill, MA: Center for Retirement Research at Boston College.
[6] U.S. Census Bureau. 2013. State and Local Government Employee-Retirement Systems. Washington, DC: U.S. Census Bureau.
[7] Lambert, L. 2013. U.S. public pension investments jump, costs surge too. *Reuters*, September 23.
[8] Johnson, N., P. Oliff, and E. Williams. 2011. *An Update on State Budget Cuts: At Least 46 States Have Imposed Cuts That Hurt Vulnerable Residents and the Economy.* Washington, DC: Center on Budget and Policy Priorities.
[9] Brainard, K. 2013. *Public Fund Survey Summary of Findings for 2012*. NASRA.
[10] Brainard, K. 2012. *Public Fund Survey Summary of Findings for 2011*. NASRA.
[11] Towers Watson. 2013. *Defined Benefit Plans Outperform Defined Contribution Plans Again*. July.
[12] Logue, D.E., and Rader, J.S. 1998. *Managing Pension Plans: A Comprehensive Guide to Improving Plan Performance*. Boston: Harvard Business School Press.
[13] Brainard, K. 2009. *Public Fund Survey Summary of Findings for 2008*. NASRA.
[14] Brainard, K. 2009. *Public Fund Survey Summary of Findings for 2008*. NASRA.
[15] Martel, L. and Rivale, T. 2013. *State Retirement Reform Legislation: NCSL Legislative Summit*. Washington, DC: National Conference of State Legislatures.
[16] Munnell, A.H., J.P. Aubrey, A. Belbase, and J. Hurwitz. 2013. *State and Local Pension Costs: Pre-Crisis, Post-Crisis, and Post-Reform*. Chestnut Hill, MA: Center for Retirement Research at Boston College.
[17] Porell, F., and Oakley, D. 2012. *The Pension Factor 2012: The Role of Defined Benefit Pensions in Reducing Elder Hardships.* Washington, DC: National Institute on Retirement Security.

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Frequently Asked Questions

What is a pension?

A traditional pension plan, also called a defined benefit (DB) pension plan, is a pooled retirement plan that offers a predictable, defined, monthly benefit in retirement. A DB pension provides retired workers with a steady income stream that is guaranteed for the remainder of the retiree's life.

How are benefits earned?

In a traditional DB pension plan, coverage is universal; all eligible employees are automatically enrolled in the pension plan. Typically, after an employee has worked a certain number of years, his or her right to receive a pension benefit becomes "vested," meaning that s/he has a legal right to receive benefits. Years of service before vesting are included in the calculation of the pension benefit in retirement.

The amount of monthly income each employee receives is ordinarily a function of the years of service with the employer, the worker's pay at the end of his/her career, and a fixed multiplier that is determined by the plan. Under this design, the plan may provide a benefit multiplier of, for example, 2.0% of pay. If an employee works for 30 years and has a final average salary of $40,000, this employee's annual pension income will be $24,000 (40,000 x 30 x 2.0%), which translates to a pension income of $2,000 per month.

How are pensions funded?

State and local DB pension plans are usually funded by employer contributions and contributions from employees themselves, while private sector pension plans are almost always funded solely by employer contributions.

All DB pensions have the advantage that investment earnings can do much of the work of paying for benefits, because the contributions made on behalf of current workers are invested, and these investment earnings compound over time.

Earnings on investments have historically made up the bulk of pension fund receipts. Between 1993 and 2011, 12% of total state and local pension fund receipts came from employee contributions, 25% from employer contributions, and 63% from investment earnings.

What are the effects of the economic downturn on pensions?

The historic stock market decline that began in 2008 has presented challenges for all investors, including pension plans. Yet the downturn has also highlighted how critical pensions remain in addressing the retirement security challenges for Americans. Indeed, Americans without pension income who must rely solely on their savings and Social Security face the biggest challenges.

Also, despite the market impact, most public pensions have sufficient assets on hand to pay benefits for many years, even decades. Even so, many plans have evaluated benefit levels and financing structures to ensure long-term sustainability, and states have already made significant pension reforms, including increased contribution rates, decreased multipliers, and increased age and service requirements. Boston College finds that for most states, these reforms already implemented should fully offset the effects of the economic downturn. Indeed, as the economy has begun to stabilize, plans are continuing to assess the path forward to ensure they can continue to provide a modest retirement benefit in fiscally responsible manner.

How are contribution rates determined?

The amount needed to contribute to the pension plan each year can be determined through an actuarial analysis. The plan actuary determines the cost associated with new benefits earned in that year (normal cost) plus any additional amount that might be required to make up for shortfalls that have developed in the past.

To ensure that the plan will have enough assets to pay future benefits, it is important that the annual required contribution (ARC) be contributed to the pension trust each year.

Is it important to fund the pension each year?

Yes. It is important that the actuarially required contribution (ARC) be contributed to the pension trust each year, for several reasons. First, if a plan does not fully fund the ARC every year, the plan is likely to become underfunded, which means that the plan's assets will not cover all of the plan's current and future liabilities. Postponing payments will only increase the ARC in future years, because the ARC will now consist of both the normal cost and a portion of the unpaid liabilities from past years, also called the unfunded actuarial accrued liability (UAAL).

Second, if progress is not made toward closing the plans' funding gap over time, the plan sponsor runs the risk of being seen as a greater credit risk; it can be given a lower credit rating, and when this happens, the cost of borrowing increases.

Finally, if a plan is chronically underfunded for a substantial period of time, it may actually run the risk of not having enough assets to pay out current liabilities—in other words, there may not be enough funds in the pension trust to cover payments that must be made to current retirees. In this scenario, the plan is no longer a pre-funded system and becomes a pay-as-you-go system, in which current payments are made out of the current revenues.

Public pension plans as a group have been diligent about pre-funding. Recent investment losses have presented challenges, but most plans are on the path to recovery, having already implemented many adjustments to contribution rates and benefit design.

How are investment decisions made?

DB pension plans are overseen by trustees who have a fiduciary duty to ensure that the retirement fund is operating in the best interest of workers and retirees. These trustees hire professional asset managers to steer the investment of these funds.

Both public and private sector pension plans should maintain a balanced portfolio of equities, bonds, alternative investments, and cash. In doing so, plans follow the general tenets of modern portfolio theory, which holds that an investor can reduce risk and enhance return by diversifying assets across the entire portfolio. In the aggregate, state and local pension plans' asset allocations are likely to look quite similar to those of pension plans in the private sector.

A plan's asset allocation at any one time is not permanent—plans regularly review their portfolio mix, and make revisions when appropriate. A recent study has found that DB pension plans tend to invest pragmatically, looking to the long-term and engaging in prudent investment practices.

What is the difference between a traditional pension and a 401(k)-type plan?

A traditional pension is also called a defined benefit (DB) plan, and a 401(k) is a type of individual retirement savings plan also called a defined contribution (DC) plan. The main difference between DB and DC plans is that DB plans are pooled retirement plans, and DC plans consist of individual accounts. Stemming from this, DB and DC plans differ in contributions, investments, money in retirement, payout in retirement, and supplemental benefits.

	Defined Benefit Plan (Traditional Pension)	**Defined Contribution Plan** (401(k)s, 403(b)s, 457s)
Contributions	In the public and private sectors, contributions are made on behalf of each employee by the employer. In the public sector, many pensions are "contributory," meaning that employees also contribute to the plan out of their own paychecks.	Employees make their own contributions to their savings account at whatever rate they choose. Often, employers will make a certain match—for example, 50 cents on the dollar up to 6% of pay—but they are not required to contribute at all.
Investments	Contributions for all employees are pooled, and invested by professional asset managers in a range of assets—stocks, bonds, real estate, etc.	Employees usually make all investment decisions themselves. They can choose from a range of investment options offered by the plan.

Amount of Money in Retirement	The monthly benefit is determined by a set calculation—usually based on years of service and pay at the end of one's career.	The money available in retirement is simply the amount that one has accumulated in the savings plan, through contributions and investment earnings.
Payout in Retirement	Payouts are typically provided as a monthly income stream that is guaranteed for the remainder of the retiree's life.	Plans are not required to offer a lifetime income payout. Payout is often a one-time, lump sum payment.
Supplemental Benefits	Spousal protections, disability benefits, and cost of living adjustments are common.	Supplemental benefits are not applicable.

Who has a pension?

Of the 35.4 million older American households in 2010, about 42% had income from a DB pension. Of older households with pension income, 13.7 million had pension income from a private sector job, 6.9 million had pension income from a public sector job, and 3.0 million households had both public and private sector pension income.

Among current U.S. workers with a DB pension plan, there are more private sector employees with pensions than public sector employees. In 2010, 17.9 million private-sector American workers had a workplace DB pension plan, while state and local pension plans served 14.6 million workers. In 2011, 78% of public sector employees had a DB pension, as compared with just 18% of private sector workers.

Who is most likely to have a pension?

In the private sector, those workers who are unionized, working for large firms, and/or full-time employees are in general more likely to have DB pension coverage than those who are nonunionized, working for small firms, and/or work part-time.

Among demographic groups, white men are still more likely to have DB pension income than women and members of racial and ethnic minority groups. However, when racial/ethnic minorities and women do have a pension, their pension income plays a unique role in shrinking gender and racial/ethnic income gaps in retirement.

How much pension income do people usually receive?

Although pension income goes a long way in ensuring that Americans have adequate income in their retirement, benefits tend to be relatively modest. Among Americans aged 60 and older receiving a pension from their own former employer, in 2010 the average pension benefit was $19,427 per year, and the median benefit was $14,400 per year.

Breaking out public and private sector pensions, the median amount of public pension income was $22,853, while the median amount of private pension income was $9,593. Pensions are a form of deferred compensation and many public employees work for less salary then their private sector counterparts knowing that their pensions give added value to their compensation. This difference may exist because public employees, unlike private sector workers, contribute to their pensions. Also, public sector workers tend to have longer job tenures than those in the private sector, which can lead to higher pension income. Finally, benefits may be greater to compensate for lack of Social Security coverage in the public sector.

What have been the pension trends over time?

Over the past several decades, traditional pension coverage has been on the decline in the private sector. In 1993, 35% of private sector workers were covered by a DB pension plan; by 2011, that number dropped to just 18%.

The public sector, by contrast, has been able to maintain DB coverage for the vast majority of its employees.

What is the current status of retirement security in america?

We have a retirement savings gap between what American households need to save for retirement and what they have saved that approaches $7 trillion based on household net wealth, including appreciated housing values. American workers are therefore right to be anxious about their retirement security. And only a mere 2% of Americans believe that it will be easier to prepare for retirement in the future.

Older low- to middle-income workers, in particular, are facing a daunting financial challenge. Indeed, 37 percent of the middle-income workers age 45–54 are projected to be downwardly mobile to lower income status in retirement, based on a study by the Urban Institute. All told, 9 out of ten workers fall short of target retirement savings benchmarks designed to allow older Americans to maintain their standard of living prior to reaching typical retirement ages.

One reason for this increase in retirement insecurity in America beyond the economic downturn is that 78 million American workers have no access to any retirement plan at work. Few of these individuals save for retirement on their own outside of the workplace, and many will retire with less than enough money to meet their basic needs.

The typical working-age household has only $3,000 saved in retirement accounts, while the typical near-retirement age working household has just $12,000 saved. To put this amount of retirement savings into context, even the near-retiree savings amount is less than the modest average annual Social Security benefit earned by retired Americans of $15,190.

Why do pensions matter to employees?

Retirement researchers have long acknowledged the importance of the so-called “three-legged” stool—of Social Security benefits, defined benefit (DB) pension income, and supplemental individual savings—in providing Americans the greatest opportunity to achieve financial security in retirement.

Specific characteristics of traditional DB pension plans make them very effective at supporting retirement security for American workers and their families. First and foremost, DB pensions provide lifetime income. Also, DB pensions are broad-based and professionally managed, making them more secure sources of retirement income. Finally, DB pension plans typically provide ancillary benefits such as COLAs, spousal protections and disability benefits.

DB pension income plays a substantial role in ensuring that Americans remain self-sufficient in retirement. Income from DB pensions helped 4.7 million older households avoid being below or close to the poverty line in 2010.

How greatly do workers value their pensions?

Employees value DB pension plans highly, and are more committed to employers who offer them. A 2012 study by Towers Watson shows that DB plans have much stronger recruitment and retention effects among employees than DC plans. A 2008 MetLife survey found that 72% of employees cite retirement benefits as an important factor in their loyalty to their employer.

How do pensions help women and minorities?

Women and racial and ethnic minority groups are more at risk in retirement than their white male counterparts for two reasons. First, they still make less money over their careers, and second, they have less access to workplace retirement plans.

Yet DB pension plans seem to play a unique role in shrinking these gender and racial/ethnic gaps in retirement. That is, the percentage of American households classified as poor and near poor drops across gender and race categories when older Americans have pension income.

Why do pensions matter to employers?

DB pension plans are extremely valuable to employers who have specific human resource goals for their workforces and are an important recruitment and retention tool across industries. Because of their deferred nature, retirement benefits encourage employees to stay with an employer. In a traditional, final pay-based pension plan, workers earn benefits more rapidly the longer they stay on the job; this leads to higher rates of retention. One study found that workers with pensions are 17% more likely than workers without pensions to stay at their jobs in a single year, all else equal. Another found that firms with pension coverage saw lower turnover rates than non-pension firms.

And less job turnover is likely to lead to more knowledgeable employees and less cost for employers to find, hire and train new employees. Among employers, a 2004 survey found that 84% of DB plan sponsors believe that their pension plan has a positive impact on employee retention. Additional research has found that DB pension plans reduce turnover by 13 percentage points, and quit rates by 20 percentage points, on average.

Why do pensions matter to taxpayers?

Especially when compared with other types of retirement benefits, pensions are an economically efficient and prudent use of taxpayer funds.

Are pensions more economically efficient than defined contribution plans?

Yes. A recent analysis of the cost to achieve a target retirement benefit under both a DB and DC structure found that a DB plan cost nearly half as much as the DC plan. That is, the cost to deliver the same retirement income to a group of employees is 46% lower in the DB plan than in the DC plan.

The reason for such cost savings is threefold. First, because DB plans pool the longevity risks of large numbers of individuals, they need only accumulate enough funds to provide benefits for the average life expectancy of the group. Second, DB plans are able to take advantage of the enhanced investment returns that come from a balanced portfolio over long periods of time. Third, DB plans, which have their funds invested by professional asset managers, pay lower fees and achieve greater investment returns than individuals investing their DC accounts.

Is it cheaper for state and local governments to switch from a DB pension to a DC plan?

Studies have found that adjusting the DB benefits is the most cost efficient way to reform pensions. Shifting to DC accounts for new hired would lead to greater costs to reach similar benefit levels. It would cost about 83% more to provide the same level of income in a DC plan than it would through a DB pension. If the switch to the DC plan wanted to lower the costs, benefits would be significantly reduced.

Also, establishing a DC plan or even a hybrid plan for new hires does nothing to reduce unfunded liabilities. This is evident based in the actual experience of the federal government closing the Civilian Retirement System and the State of West Virginia which closed and then reopened its Teachers' Retirement System as benefits were inadequate and funding levels remained low. The State of Utah, which enacted changes still requires public employers to contribute about 9% of salary of all employees towards reducing the unfunded liability.

Are there any other reasons why DBs might be a good deal for taxpayers?

Yes. DB pension plans also save governments money in reducing citizens' need to rely on public assistance. A recent study finds that DB pensions have been instrumental at keeping elder Americans out of poverty. In 2010 poverty rates among older households lacking pension income were about nine times greater than those with such income. Also, 460,000 fewer households experienced a food hardship, 500,000 fewer households experienced a shelter hardship, and 510,000 fewer households experienced a health care hardship, because they had income from a pension.

When fewer households experience poverty and financial hardship, federal, state, and local governments see a cost savings in terms of public assistance expenditures avoided. The report calculates a savings of some $7.9 billion in public assistance expenditures in 2010 attributable to receipt of pension income. This represents about 6.4% of aggregate public assistance dollars received by all American households in 2010.

How do pensions fit into the broader economy?

The economic impact of DB pensions reaches well beyond the retirees who receive pension checks. DB pensions play a vital role in the national economy as well as in local economies across the country, largely due to two different types of economic channels: the benefit channel, in which retirees' spend their benefits, thereby creating incomes for businesses and other workers in the economy, and the investment channel, in which the investment of pension assets provides capital to businesses. Each of these impacts is substantial.

What are the economic effects of retirees spending from their DB pension income?

It is important to note what happens when a retired worker receives their earned pension benefits. They typically spend it, and usually in the economy in which they live. As such, the businesses where this money is spent see a boost in profits, which may allow them to expand their business or even hire more workers, otherwise known as the "multiplier effect."

Expenditures made out of DB pension plans have a broad economic impact, both nationally and on the local level. In 2009, expenditures made out of pension payments supported more than 6.5 million American jobs that paid more than $315 billion in labor income. Pension expenditures also supported over $1 trillion in total economic output nationwide and over $134 billion in federal, state, and local tax revenue.

State and local pension expenditures also have large multiplier effects. For each dollar paid out in pension benefits, $2.37 in total economic output was supported. And for every dollar contributed by taxpayers to state and local pension funds, $8.72 in total output was supported.

What effects do pension investments have on capital markets?

Because DB pensions are prefunded, investment of pension assets provides capital to businesses to help develop products, invest in new technologies, and even create jobs.

DB pensions have longer time horizons than DC plans, and because of this they can achieve greater stability in asset allocations. This "patient capital" offers benefits for financial markets, since professional investors who follow a long-term strategy are less likely to cause market disruptions by chasing short-term returns.

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Pension Funding Gaps

Although it is generally preferable for a pension plan to be "fully funded," it is not unusual for funding gaps to emerge, especially during economic downturns. Putting the gap in context is the key…

- A funding gap (or "unfunded liability") occurs when the benefits owed to current and future retirees exceeds the amount of money the plan has socked away to meet these obligations.
- Funding gaps do need to be filled—but they can be filled gradually, over time.
- For most states, filling funding gaps is manageable. In fact, in response to the financial crisis, states have already made significant pension reforms, and forecasts show that in most cases, these reforms will fully fill the funding gaps over time.
- Closing down a pension plan to newly hired employees will not eliminate a funding gap. Rather, it may be even harder to close the gap, once a plan is "frozen."

Before the economic downturn started in 2008, pension plans sponsored by state and local governments had done a pretty good job of setting aside money to "pre-fund" benefits that will be owed to current and future retirees. But since the unprecedented 2008-2009 drop in the stock market, many pensions have found themselves facing a funding gap.

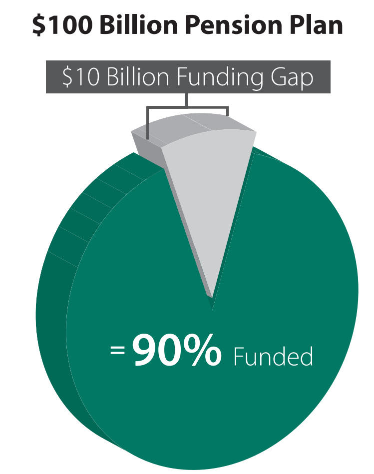
A funding gap occurs when the benefits owed to current and future retirees exceeds the amount of money the plan has socked away to meet these obligations. This fact sheet provides some basic information about pension funding gaps, which are also referred to as "unfunded liabilities." What are they? How much of a problem are they? What's the solution for filling the gap?

Understanding Pension Funding Gaps

A funding gap occurs when there is a mismatch between a plan's obligations and its assets.

A pension plan's obligations are the dollar value of the benefits that have been promised by the plan, and earned by employees and retirees.

AA pension plan's assets consist of financial holdings—cash, stocks, bonds, and other securities—that have been accumulated by the plan over the years. Pension plans are pre-funded, which means that regular contributions for each worker are made into a retirement fund during the course of that worker's career. State and local pension plans are usually funded by employer contributions and contributions from employees themselves. These contributions are invested to generate returns, or investment earnings. Investment earnings can be continually reinvested into the pension fund, until such time as the funds are needed to be paid out in the form of pension benefits.



When a pension plan's obligations exceed its assets, the plan can be described as having a funding gap or an "unfunded liability." To illustrate, imagine a pension plan that will eventually pay out $100 billion in benefits, but only has $90 billion in assets on hand. The funding gap, or unfunded liability, is $10 billion ($100 billion - $90 billion). That seems like a lot of money. But is this pension plan really in trouble?

Sometimes it can be helpful to look at a pension's funding status in percentage terms. A plan's "funding ratio" is calculated by dividing the plan's assets by its obligations. In this case, the plan's $90 billion in assets is divided by the $100 billion in obligations. This plan can be described as 90% funded. In effect, for each dollar in future benefits to be paid, the plan has 90 cents on hand. That sounds a lot more manageable than a plan with a "$10 billion unfunded liability." But both descriptions accurately portray the same plan. Putting some perspective around these numbers is critical to understanding just how much of a problem a funding gap poses.

Another point to remember is that a funding gap does not need to be closed in a single year, but the payments can be spread out (or "amortized") over many years, according to governmental accounting standards.[2] In this way, many observers liken an unfunded liability to a mortgage, which is paid off over time.

Where Do Funding Gaps Come From?

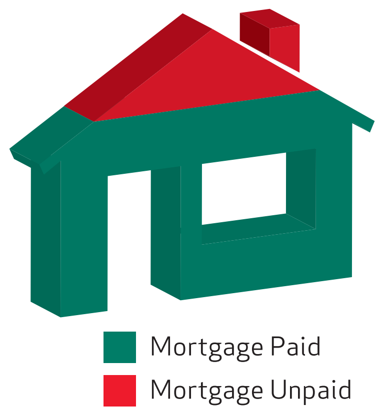
Sharp, unexpected downturns in financial markets can create funding gaps. That's because when the stock market drops, the value of the assets held by the plan drops, as well. The economic downturn of 2008 and 2009 included unprecedented losses in the stock market. Because public pension funds are invested in the market, these plans—like all investors—saw substantial losses in their assets. According to the National Association of State Retirement Administrators, the aggregate funding levels of the nation's largest public pension plans fell from 86.7% in 2007 to 73.5% in 2012.[3]

Funding gaps can also develop when contributions coming into the plan are insufficient to cover promised benefits. The amount necessary to be contributed to the pension fund each year is generally determined through an actuarial analysis. The plan actuary determines the cost associated with new benefits earned in that year (normal cost) plus any additional amount that might be required to make up for shortfalls that have developed in the past. This amount is called the "Annual Required Contribution" or ARC, and this is what the plan sponsor should pay in order to maintain a healthy plan.[4]

It is important that the full amount of the ARC be contributed to the pension trust each year. If not, the plan can develop a funding gap. And if full payments are missed repeatedly, the gap will only grow with each passing year. States and localities have generally done a respectable job with pre-funding.[5] But there have been exceptions, and some governmental employers have failed to contribute the full amount of their ARC each year. According to the National Association of State Retirement

Administrators, in 2012, more than six out of ten pension plans received the full ARC or something close to it—even as employer contribution rates have had to rise in response to the financial crisis.[6]

Funding Gaps can be Addressed over time with a Disciplined Approach



While achieving full funding of a pension plan may be ideal, a funding gap may not be so problematic, depending on the characteristics of the plan and plan sponsor (employer). For example, if the plan is able to continue to pay promised benefits and the plan sponsor can make its required contributions without causing fiscal stress, then the funding gap can be closed gradually over time, by making regular payments to the plan.[7] Actuaries describe this process as "amortizing the unfunded liability." This is similar to the process of paying down a mortgage. As long as payments are being made in full and on schedule, the plan will be on a course toward full funding and the existence of a funding gap may not be considered problematic at all.

It's important to distinguish between plans whose funding gaps are the result of recent market conditions and those where there has been a lack of funding discipline. Addressing the funding gap should be more manageable for those plans where employers were disciplined about funding—the downturn may be a temporary set-back, and restoring the plan to full funding may require only modest adjustments to the plan. Plans whose sponsors were undisciplined about funding will have greater challenges in recovering, and unfortunately, fewer tools at their disposal to address the issue. In fact, many of these plans were experiencing problems even before the stock market downturn, due to the lack of proper funding.

In addition, many state and local governments have been evaluating the need for, and even implementing, adjustments to their pension systems to ensure that they will be on a strong footing for the long-term. The actions taken by states to date have been quite substantive and varied, including increased employee contributions and lower benefit levels. Boston College finds that for most states, the reforms already implemented should fully offset the effects of the economic downturn, ensuring the plans' long term sustainability.[8]

Closing the Pension Plan to New Hires Won't Eliminate the Funding Gap

The only way to eliminate an unfunded liability is to pay it off. While it may be tempting to completely close down a pension plan to new hires due to its unfunded liabilities, this action does nothing to close the plan's funding gap. This is because, whether a pension plan is open or closed, the obligation to pay for benefits earned in the past will remain. Returning to the mortgage analogy, any balance on the mortgage does not vanish simply because you move out of your house—what is owed remains owed.

Cost to Achieve a Target Benefit in Retirement

Furthermore, "freezing" a pension plan and moving new hires to a new defined contribution plan, like a 401(k) or 403(b) plan can actually increase costs to the state. This is because of the additional administrative costs associated with running a second retirement plan. Second, traditional, group-based pensions (defined benefit plans) are associated with several economic efficiencies that defined contribution plans cannot duplicate; forgoing these efficiencies drives up retirement plan costs. Finally, appropriate funding stewardship may require plan sponsors to pay off the unfunded liability faster once a plan is closed to new hires.[9] Accelerating pension contributions is generally unhelpful for states and localities looking for ways to manage through a difficult budgetary environment.

Preventing funding gaps from occurring and closing gaps that do emerge is hard work, and requires a disciplined approach to pension fund stewardship. The good news for employers, employees, and taxpayers is that a well-managed group pension plan is the most economical way to achieve retirement security.

The economic efficiencies embedded in group pension plans are substantial, and stem from the pooled, professionally managed nature of these plans. A recent analysis of the cost to achieve a target retirement benefit under a group pension structure, as compared with a defined contribution plan based on individual accounts, found that a group pension can do the job at almost half the cost of the defined contribution plan.[10]

Time and again, states that have carefully studied the issue have concluded that, even in tough economic times, continuing to provide retirement benefits via cost-effective group pension plans meets the joint interests of fiscal responsibility for employers and taxpayers, and retirement security for employees. This is why the vast majority of states have chosen to stay within the DB structure, even as they implement pension reforms to ensure their long-term sustainability.[11]

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[1] National Institute on Retirement Security. 2010. *Public Pension Resource Guide: Public Pension Basics*. Washington, DC: National Institute on Retirement Security.
[2] Governmental Accounting Standards Board. 2012. *Summary of Statement No. 67: Financial Reporting for Public Pension Plans*. Norwalk, CT: GASB
[3] Brainard, K. 2013. P*ublic Fund Survey Summary of Findings for 2012*. National Association of State Retirement Administrators.
[4] National Institute on Retirement Security. 2010. *Public Pension Resource Guide: Public Pension Basics*. Washington, DC: National Institute on Retirement Security.
[5] National Institute on Retirement Security. 2010. *Public Pension Resource Guide: Public Pension Basics*. Washington, DC: National Institute on Retirement Security.
[6] Brainard, K. 2013. Public Fund Survey Summary of Findings for 2012. National Association of State Retirement Administrators.
[7] Brainard, K. 2009. Public Fund Survey Summary of Findings for 2008. National Association of State Retirement Administrators.
[8] Munnell, A.H., J.P. Aubrey, A. Belbase, and J. Hurwitz. 2013. *State and Local Pension Costs: Pre-Crisis, Post-Crisis, and Post-Reform*. Chestnut Hill, MA: Center for Retirement Research at Boston College.
[9] Boivie, I., and Almeida, B. 2008. *Look Before You Leap: The Unintended Consequences of Pension Freezes*. Washington, DC: National Institute on Retirement Security.
[10] Almeida, B., and Fornia, W. 2008. *A Better Bang for the Buck: The Economic Efficiencies of DB Plans*. Washington, DC: National Institute on Retirement Security.
[11] Boivie, I., and C. Weller. 2012. *The Great Recession: Pressures on Public Pensions, Employment Relations and Reforms*. Washington, DC: National Institute on Retirement Security.

Glossary of Terms

A

Annuity

A specified income payable at regular, stated intervals for a set period of time, often for the remainder of a recipient's life.

Annual required contribution (ARC)

The actuarially determined pension fund contribution in a single year. This includes the normal cost of the plan and also may include another amount that may be required to pay for a portion of benefits earned in past years that have not yet been funded.

Asset allocation*

Investment strategy that apportions a portfolio's assets according to the investor's goals, risk tolerance, and investment horizon. Allocation typically involves selecting assets representing different asset classes. The assets in each class have different levels of risk and return, and may behave differently over time.

B

Benefit multiplier

A fixed percentage that is typically used, in conjunction with an employee's final average salary and years of service, to determine an employee's pension benefits.

Benefit policy

Term used to describe the basis for which employees earn benefits in the plan.

C

Cash balance plan

A type of defined benefit pension in which participants' benefits are expressed as a notional account balance that is eventually translated into lifetime income payments. The benefits are not expressed as a percent of final salary, but rather based on a given percentage of each year's pay that earns a specified interest rate guaranteed by the employer.

Cost of living adjustment (COLA)

A change in one's monthly retirement benefit to account for increasing prices, or inflation. COLAs help to ensure that retirees' purchasing power remains the same no matter how long they may live, and how quickly prices might rise. COLAs can be prescribed—for example, a fixed 3% per year, or an amount tied to increases in the Consumer Price Index. COLAs can also be ad-hoc in nature, which means that they are granted at the discretion of the state each year.

D

Defined benefit (DB) plan*

Employee retirement plan established and maintained by an employer that uses a predetermined formula to calculate the amount of an employee's retirement benefit. Early DB plans (referred to as flat benefit plans) were commonly a set dollar amount that was the same for all employees, regardless of their actual compensation, or a fixed percentage of an employee's compensation. Any employee who worked for the company a minimum number of years received the same dollar amount or fixed percentage upon retirement. Today, DB plans and their formulas are more likely to take into consideration an employee's years of service; such plans are called unit benefit plans. Employer contributions to DB plans are determined actuarially. No individual accounts are maintained, as is done for defined contribution plans. In the United States, [federal law considers] any plan that is not an individual account plan a defined benefit pension plan.

Defined contribution (DC) plan*

As defined by [federal law], a plan that provides an individual retirement account for each participant with benefits based solely on (1) the amount contributed to the participant's account plus (2) any income, expenses, gains, losses and forfeitures from other participants. Contributions to an account may be made by the employee [and/]or the employer. Defined contribution plans include 401(k), 403(b) and 457 plans.

F

Fiduciary*

Person or institution legally responsible for the management, investment, and distribution of a fund. The trustees and administrators who are responsible for the oversight of employee benefit trust funds are considered fiduciaries. [Federal law] defines fiduciary as any person who (1) exercises any discretionary authority or control over the management of a plan or the management or disposition of its assets; (2) renders investment advice for a fee or other compensation with respect to the funds or property of a plan or has the authority to do so; or (3) has any discretionary authority or responsibility in the administration of a plan.

Funding gap

The situation in which a pension plan's obligations (the total dollar value of the benefits that have been promised by the plan, and earned by employees and retirees) exceed the assets set aside to pay for them. Also called an "unfunded liability" or "unfunded actuarial accrued liability."

Funding policy*

Statement(s) clarifying the goals and objectives of a benefits plan, and how to achieve them. This policy should include the amounts and timing of contributions by employers and participants.

H

Hybrid plan

A retirement plan that has the characteristics of both a defined benefit (DB) pension plan and defined contribution savings plan. In general, the DB portion of a hybrid is far less generous than the previous traditional DB plan, and the savings portion with contributions to an individual DC account is meant to offset this reduced benefit in part.

I

Investment policy*

Commonly used to describe how contributions to an employee benefit plan are to be utilized from the time they are received until benefits are paid.

L

Liability

The total dollar value of all the pension benefits that have been promised by the pension plan, and earned by all current employees, terminated vested employees, and retirees.

N

Normal cost

The cost of the pension benefits earned in the current year.

P

Pay-as-you-go retirement system

A system in which current benefits are paid out of the current year's contributions. While some of the cost of future Social Security benefits are prefunded in its trust fund, the program is an example of a pay-as-you-go retirement system in the United States since most of the benefits are paid out of the contributions made on behalf of workers today. By contrast, defined benefit pension plans in the private sector and in state and local government are generally pre-funded systems.

Pension*

Steady income given to a person as the result of service (e.g., employee, military) that begins when a specific event (e.g., disability, retirement) occurs. Pensions are typically paid monthly and based on factors such as years of service and prior compensation. The payment may be made by a government, employer, pension fund, or life insurance company.

Pre-funded retirement system

A system in which the benefits to be paid during retirement are paid for before retirement begins. Typically, regular contributions for each worker are made into a retirement fund during the course of that worker's career, starting with the first paycheck and continuing until the last. These contributions are invested, and contributions plus accumulated investment earnings pay for benefits in retirement.

R

Replacement ratio (replacement rate)

Ratio that compares a household's post-retirement income from all sources (Social Security, pensions, and savings) to its income before retirement. The replacement ratio is a common measure of determining retirement income adequacy. Most experts believe that a replacement ratio of about 80% or higher is needed for middle-class Americans to maintain their pre-retirement standard of living in retirement.

S

Smoothing

The process of amortizing investment gains and losses over a period of time. For example, rather than using the market value of a fund's assets in determining the ARC, actuaries will calculate an actuarial value of assets, by taking, for example, a five year average of assets. This can help to reduce volatility in contribution rates.

T

Trustee*

A person, bank, or trust company that has responsibility over the receipt, disbursement and investment of property or funds for the benefit of another party. When this responsibility is not exercised by a bank or trust company, it is usually exercised by a board of trustees with each trustee given one vote.

U

Unfunded actuarial accrued liability (UAAL)*

An actuarial accrued liability that exceeds the actuarial value of fund assets. If the value is negative, it is referred to as a negative unfunded actuarial accrued liability, or a funding excess. Also referred to as unfunded actuarial liability, or funding gap.

V

Vesting*

The process by which a participant obtains nonforfeitable rights to benefits, such as an employee retirement plan. Typically, these rights accrue based on an employee's years of service to an employer. Vesting can also refer to a set period of time (such as 60 days) before an heir specified in a will can inherit.

* Excerpted from Benefits and Compensation Glossary, 12th Edition, copyright 2010, International Foundation of Employee Benefit Plans, Brookfield, Wis. Copies of the book are available for purchase by calling 888-334-3327, option 4.

NRTA PENSION EDUCATION TOOLKIT

The Importance of Your Pension

Your pension plan is important because…

- The traditional and best approach to achieving retirement security consists of a pension, Social Security, and individual savings. Your pension helps you to maintain your standard of living in retirement, and savings provides important supplemental income for unforeseen expenses.
- Group pension plans provide guaranteed, monthly income for life, which makes financial security in retirement much more achievable for those who have them.
- Not surprisingly, almost all Americans still want pensions.
- Pensions are an economically efficient way to fund retirement, which means they are a prudent use of taxpayer money.
- Pensions also help to boost local economies, especially in tough economic times.

There has been a lot of talk in the media recently about retirement insecurity. For a while now, reporters have been talking about how pensions are "disappearing" and being replaced by 401(k) plans. Then, with the recent economic downturn, many Americans' retirement savings accounts took a big hit.

You may wonder what this means for your retirement security. The good news is, for those who have earned the guaranteed lifetime benefits provided by group pension plans, you are in a far better position to weather the tough economic storms that come your way.

The Current State of Retirement Security in America

According to calculations by researchers at Boston College and at NIRS, the retirement savings gap – the difference between what American households will need to save for retirement and what they are on course to save – is almost $7 trillion based on household net wealth, including appreciated housing values. American workers are therefore right to be anxious about their retirement security in the current economic environment. And only a mere 2% of Americans believe that it will be easier to prepare for retirement in the future.[1]

Older low- to middle-income workers, in particular, are facing a daunting financial challenge recovering from the Great Recession while preparing for retirement. Indeed, 37 percent of the middle-income workers age 45–54 are projected to be downwardly mobile to lower income status in retirement, based on a study by the Urban Institute.[2] All told, 9 out of ten workers fall short of target retirement savings

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benchmarks designed to allow older Americans to maintain their standard of living prior to reaching typical retirement ages.[3]

There are several reasons for this increase in retirement insecurity in America beyond the economic downturn. First, roughly 78 million American workers (both public and private) have no access to any retirement plan at work – the most effective way to save for retirement. Few of these individuals save for retirement on their own, and many will retire, with less than enough money to meet their basic needs.

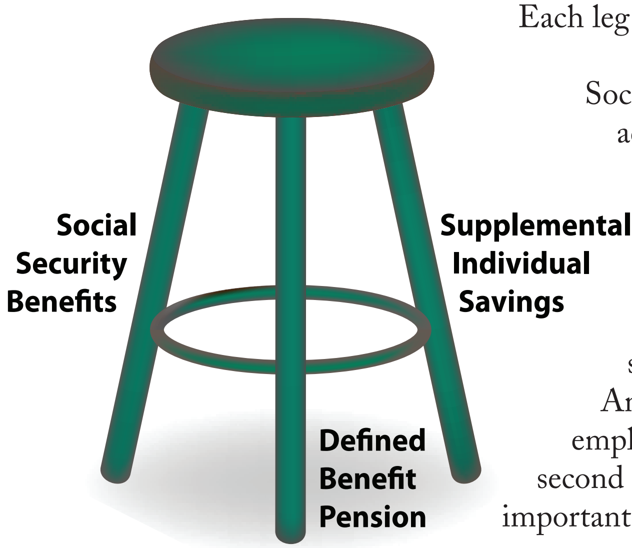
Moreover, in the private sector, and over the last few decades, many companies who do offer retirement plans have been getting rid of their group pension plans and replacing them with individual savings plans, like 401(k) plans.[4] Individual savings plans, like 401(k)s, were not originally intended to serve as the primary source of retirement income for individuals. These plans started out as supplements to group pension plans—and are still very effective as such – but are more suited to provide the additional income that may be needed for retirement, or to deal with extraordinary life events—like an unexpected health crisis, the loss of a spouse, etc.

The typical working-age household has only $3,000 saved in retirement accounts, while the typical near-retirement age working household has just $12,000 saved.[5] To put this amount of retirement savings into context, even the near-retiree savings amount is less than the modest average annual Social Security benefit earned by retired Americans of $15,190.

Due to the above factors, as well as stagnating income, escalating personal debt and rising costs for education and health care, workers today are less likely than their parents or grandparents to enjoy the living standards of their working years when they retire. If these trends continue, Social Security (for those who participate in the program) will be the main source of income for all but retirees in the top one quarter of retiree income levels.

The Best Way to Achieve Retirement Security

Retirement researchers have long acknowledged the importance of Social Security benefits, defined benefit (DB) pension income, and supplemental individual savings—in providing Americans the greatest opportunity to achieve financial security in retirement.[6]



Each leg of this stool fills a specific, unique purpose.

Social Security provides a guaranteed, cost-of-living adjusted income for life in retirement, and has proven to be an effective way to keep older Americans out of poverty.[7] It is the foundation of retirement security for millions of Americans and their families.

Yet Social Security was never meant to be the sole source of retirement income for American workers. And, in fact, as many as 30% of state and local government employees do not participate in Social Security at all.[8] The second component—group pension plans—is also extremely important in providing a reliable, steady source of income in retirement. And for those retirees without Social Security, a pension may represent their only source of guaranteed, inflation-adjusted monthly income, making their pension all the more important.

The final leg of the retirement stool consists of individual savings. You might save for retirement at work in a defined contribution (DC) plan—a 401(k), 403(b), or 457 plan, for example. You might also save in an individual retirement account (IRA), or have other savings. Having individual savings on top of your pension and Social Security is a helpful way to ensure financial security, especially if you experience hardships that may be hard to predict, for example, long-term care costs for yourself or a loved one.

Pensions Provide Guaranteed, Monthly Income for Life

Pensions are fundamentally different from savings because you cannot outlive the guaranteed monthly income provided by your pension. No matter how long you may live, you can be sure that your pension check will continue to come every month. Savings, on the other hand, can run out.

Also, your pension may provide other benefits as well, such as COLAs, disability protections, and benefits for your spouse, should you die first.[9] Each of these characteristics is what makes your pension so unique and so different from defined contribution plans.

	Defined Benefit Plan (Traditional Pension)	**Defined Contribution Plan** (401(k)s, 403(b)s, 457s)
Contributions	In the public and private sectors, contributions are made on behalf of each employee by the employer. In the public sector, many pensions are "contributory," meaning that employees also contribute to the plan out of their own paychecks.	Employees make their own contributions to their savings account at whatever rate they choose. Often, employers will make a certain match—for example, 50 cents on the dollar up to 6% of pay—but they are not required to contribute at all.
Investments	Contributions for all employees are pooled, and invested by professional asset managers in a range of assets—stocks, bonds, real estate, etc.	Employees usually make all investment decisions themselves. They can choose from a range of investment options offered by the plan.
Amount of Money in Retirement	The monthly benefit is determined by a set calculation—usually based on years of service and pay at the end of one's career.	The money available in retirement is simply the amount that one has accumulated in the savings plan, through contributions and investment earnings.

Payout in Retirement	Payouts are typically provided as a monthly income stream that is guaranteed for the remainder of the retiree's life.	Plans are not required to offer a lifetime income payout. Payout is often a one-time, lump sum payment.
Supplemental Benefits	Spousal protections, disability benefits, and cost of living adjustments are common.	Supplemental benefits are not applicable.

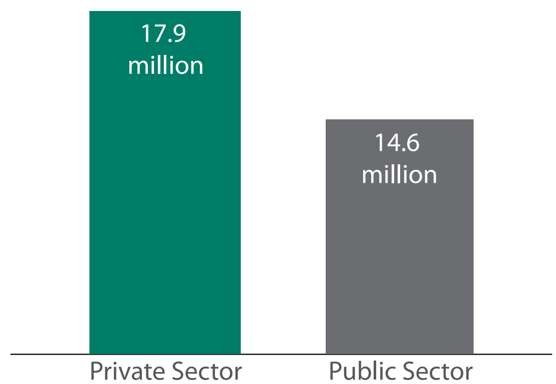
Americans Want Pensions

It is important to note that many Americans do realize just how important pensions are. With the trend away from pensions in the private sector, it seems more and more Americans are anxious about retirement—and are in favor of having a pension.

Recent public opinion research has found…
• More than eight out of ten Americans are worried about their ability to retire.
• 80% believe that the decline of pensions has made it more difficult to achieve the American Dream.
• More than eight in ten Americans would participate in a "new" pension system, if offered.
• 82% of Americans believe that all workers should have a pension plan.[9]

So, it's not just that middle-class Americans *need* pensions. It seems most Americans *want* pensions, too.[11]

Active U.S. Workers with a Group Pension Plan, in millions 2009[10]



Pensions Are an Efficient Use of Taxpayer Funds

Another key feature of group pension plans is their pooled nature—meaning that all of the pension contributions for all workers are put together in the same pot.

This pooled nature is important because it makes pension plans a good value for the money. By pooling and professionally managing assets, pensions are able to achieve "economies of scale." (This is the same reason why shopping at a warehouse club saves consumers money—buying in bulk lowers the price.) Research has found that a group pension can achieve a target retirement benefit at about half the cost of individual retirement accounts.[12]

So not only do group pensions do the retirement job more effectively than individual savings plans, but they're also a lot less expensive to boot—a fact that policymakers and taxpayers alike can take solace in.

Pensions Boost Local Economies

Group pension plans are also likely to benefit local businesses in your town. This is because when you receive your pension check, you probably don't stuff it under your mattress—you spend it in your local economy. And the business where you make that purchase sees a boost in its profits. This means that they may be able to expand their business or even hire more workers.

This simple act of you spending your pension income has very large economic effects. In 2009, expenditures made out of public pension payments supported more than 6.5 million new American jobs and over $1 trillion in total economic output nationwide.[13] Those are some huge economic impacts!

So, pensions do a great job of providing modest, secure retirement benefits—and they remain quite popular among Americans. Public pensions make sense for taxpayers, too, because they are still a good deal. As if that weren't enough, pensions also help boost the economy. It's a classic "win-win" situation for employees, employers, taxpayers, and local business owners.

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[1] Oakley, D., and K. Kenneally. Pensions and Retirement Security 2013: A Roadmap for Policy Makers. Washington, DC: National Institute on Retirement Security.

[2] Butrica, B., and M.Waid. 2013. What Are the Retirement Prospects of Middle-Class Americans? AARP Public Policy Institute Research Report. Washington, DC: AARP.

[3] Rhee, N. 2013. The Retirement Savings Crisis: Is It Worse Than We Think? Washington, DC: National Institute on Retirement Security.

[4] It is important to remember that, despite the trend to 401(k)s, public sector workers are not the only Americans who have defined benefit pension plans. In fact, there are still about 3.3 million more private sector workers with a pension than public sector workers with a pension.

[5] Rhee, op cit.

[6] Munnell, A.H., Soto, M., Webb, A., Golub-Sass, F., and Muldoon, D. 2008. *Health Care Costs Drive up the National Retirement Risk Index.* Issue in Brief No. 8-3. Chestnut Hill, MA: Center for Retirement Research at Boston College. and Munnell, A.H., Webb, A., and Golub-Sass, F. 2007. *Is There Really a Retirement Savings Crisis? An NRRI Analysis*. Issue in Brief No. 7-11 Chestnut Hill, MA: Center for Retirement Research at Boston College.

[7] Engelhardt, C.F., and Gruber, J. 2004. *Social Security and the Evolution of Elderly Poverty*. Working Paper 10466. Cambridge, MA: National Bureau of Economic Research.

[8] U.S. Government Accountability Office. 2007. *State and Local Government Retiree Benefits: Current Status of Benefit Structures, Protections, and Fiscal Outlook for Funding Future Costs*. Washington, DC: U.S. Government Accountability Office.

[9] Almeida, B. 2008. *Retirement Readiness: What Difference Does a Pension Make?* Washington, DC: National Institute on Retirement Security.

[10] Pension Benefit Guaranty Corporation. 2012. *PBGC 2010 Databook*. Washington, DC: PBGC. and U.S. Census Bureau. 2013. State and Local Government Employee-Retirement Systems. Washington, DC: U.S. Census Bureau.

[11] Perlman, B. 2013. P*ensions & Retirement Security 2013: A Roadmap for Policymakers*. Washington, DC: National Institute on Retirement Security.

[12] Almeida, B., and Fornia, W. 2008. A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans. Washington, DC: The National Institute on Retirement Security.

[13] Boivie, I. 2012. Pensionomics 2012: Measuring the Economic Impact of DB Pension Expenditures. Washington, DC: National Institute on Retirement Security.

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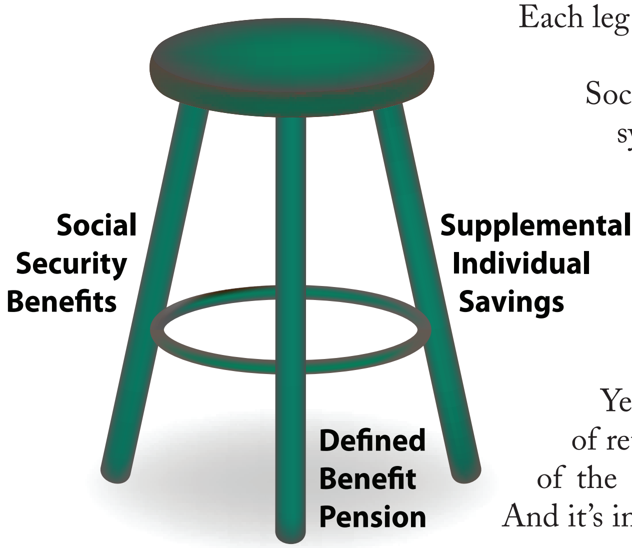

Each leg of this stool fills a specific, unique purpose.

Social Security is our (near) universal social insurance system, administered by the Federal government. It provides a guaranteed, cost-of-living adjusted income for life in retirement and is the foundation of retirement security for millions of Americans and their families. Social Security has also been a very effective way to keep older Americans out of poverty.[7]

Yet Social Security was never meant to be the sole source of retirement income for American workers. The second leg of the stool—group pension plans—are also very important. And it's important to remember that about 30% of state and local government employees do not participate in the Social Security system.[8] So a pension may represent that retired household's only source of guaranteed, inflation-adjusted monthly income.

The final leg of the retirement stool consists of individual savings. You might save for retirement at work in a defined contribution (DC) plan—a 401(k), 403(b), or 457 plan, for example. You might also save in an individual retirement account (IRA), or have other savings. Having individual savings on top of your pension and Social Security is a helpful way to ensure financial security, especially if you experience hardships that may be hard to predict, for example, long-term care costs for yourself or a loved one.

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	Defined Benefit Plan (Traditional Pension)	**Defined Contribution Plan** (401(k)s, 403(b)s, 457s)
Contributions	In the public and private sectors, contributions are made on behalf of each employee by the employer. In the public sector, many pensions are "contributory," meaning that employees also contribute to the plan out of their own paychecks.	Employees make their own contributions to their savings account at whatever rate they choose. Often, employers will make a certain match—for example, 50 cents on the dollar up to 6% of pay—but they are not required to contribute at all.
Investments	Contributions for all employees are pooled, and invested by professional asset managers in a range of assets—stocks, bonds, real estate, etc.	Employees usually make all investment decisions themselves. They can choose from a range of investment options offered by the plan.
Amount of Money in Retirement	The monthly benefit is determined by a set calculation—usually based on years of service and pay at the end of one's career.	The money available in retirement is simply the amount that one has accumulated in the savings plan, through contributions and investment earnings.

Payout in Retirement	Payouts are typically provided as a monthly income stream that is guaranteed for the remainder of the retiree's life.	Plans are not required to offer a lifetime income payout. Payout is often a one-time, lump sum payment.
Supplemental Benefits	Spousal protections, disability benefits, and cost of living adjustments are common.	Supplemental benefits are not applicable.

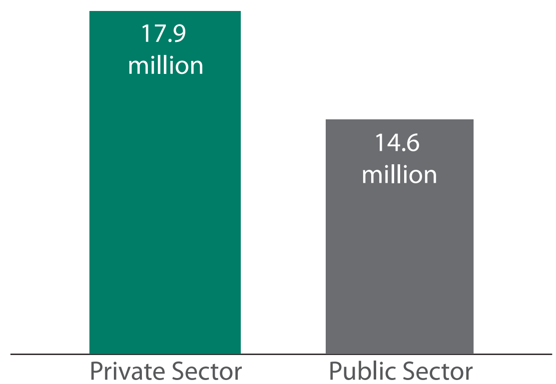
Americans Want Pensions

It is important to note that many Americans do realize just how important pensions are. With the trend away from pensions in the private sector, it seems more and more Americans are anxious about retirement—and are in favor of having a pension.

Recent public opinion research has found…
• More than eight out of ten Americans are worried about their ability to retire.
• 80% believe that the decline of pensions has made it more difficult to achieve the American Dream.
• More than eight in ten Americans would participate in a "new" pension system, if offered.
• 82% of Americans believe that all workers should have a pension plan.[9]

So, it's not just that middle-class Americans *need* pensions. It seems most Americans *want* pensions, too.[11]

Active U.S. Workers with a Group Pension Plan, in millions 2009[10]



Pensions Are an Efficient Use of Taxpayer Funds

Another key feature of group pension plans is their pooled nature—meaning that all of the pension contributions for all workers are put together in the same pot.

This pooled nature is important because it makes pension plans a good value for the money. By pooling and professionally managing assets, pensions are able to achieve "economies of scale." (This is the same reason why shopping at a warehouse club saves consumers money—buying in bulk lowers the price.) Research has found that a group pension can achieve a target retirement benefit at about half the cost of individual retirement accounts.[12]

So not only do group pensions do the retirement job more effectively than individual savings plans, but they're also a lot less expensive to boot—a fact that policymakers and taxpayers alike can take solace in.

Pensions Boost Local Economies

Group pension plans are also likely to benefit local businesses in your town. This is because when you receive your pension check, you probably don't stuff it under your mattress—you spend it in your local economy. And the business where you make that purchase sees a boost in its profits. This means that they may be able to expand their business or even hire more workers.

This simple act of you spending your pension income has very large economic effects. In 2009, expenditures made out of public pension payments supported more than 6.5 million new American jobs and over $1 trillion in total economic output nationwide.[13] Those are some huge economic impacts!

So, pensions do a great job of providing modest, secure retirement benefits—and they remain quite popular among Americans. Public pensions make sense for taxpayers, too, because they are still a good deal. As if that weren't enough, pensions also help boost the economy. It's a classic "win-win" situation for employees, employers, taxpayers, and local business owners.

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[1] Oakley, D., and K. Kenneally. Pensions and Retirement Security 2013: A Roadmap for Policy Makers. Washington, DC: National Institute on Retirement Security.

[2] Butrica, B., and M.Waid. 2013. What Are the Retirement Prospects of Middle-Class Americans? AARP Public Policy Institute Research Report. Washington, DC: AARP.

[3] Rhee, N. 2013. The Retirement Savings Crisis: Is It Worse Than We Think? Washington, DC: National Institute on Retirement Security.

[4] It is important to remember that, despite the trend to 401(k)s, public sector workers are not the only Americans who have defined benefit pension plans. In fact, there are still about 3.3 million more private sector workers with a pension than public sector workers with a pension.

[5] Rhee, op cit.

[6] Munnell, A.H., Soto, M., Webb, A., Golub-Sass, F., and Muldoon, D. 2008. *Health Care Costs Drive up the National Retirement Risk Index.* Issue in Brief No. 8-3. Chestnut Hill, MA: Center for Retirement Research at Boston College. and Munnell, A.H., Webb, A., and Golub-Sass, F. 2007. *Is There Really a Retirement Savings Crisis? An NRRI Analysis*. Issue in Brief No. 7-11 Chestnut Hill, MA: Center for Retirement Research at Boston College.

[7] Engelhardt, C.F., and Gruber, J. 2004. *Social Security and the Evolution of Elderly Poverty*. Working Paper 10466. Cambridge, MA: National Bureau of Economic Research.

[8] U.S. Government Accountability Office. 2007. *State and Local Government Retiree Benefits: Current Status of Benefit Structures, Protections, and Fiscal Outlook for Funding Future Costs*. Washington, DC: U.S. Government Accountability Office.

[9] Almeida, B. 2008. *Retirement Readiness: What Difference Does a Pension Make?* Washington, DC: National Institute on Retirement Security.

[10] Pension Benefit Guaranty Corporation. 2012. *PBGC 2010 Databook*. Washington, DC: PBGC. and U.S. Census Bureau. 2013. State and Local Government Employee-Retirement Systems. Washington, DC: U.S. Census Bureau.

[11] Perlman, B. 2013. P*ensions & Retirement Security 2013: A Roadmap for Policymakers*. Washington, DC: National Institute on Retirement Security.

[12] Almeida, B., and Fornia, W. 2008. A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans. Washington, DC: The National Institute on Retirement Security.

[13] Boivie, I. 2012. Pensionomics 2012: Measuring the Economic Impact of DB Pension Expenditures. Washington, DC: National Institute on Retirement Security.

NRTA PENSION EDUCATION TOOLKIT

Public Pension Reform

Highlights...

- Since 2008, 48 states have passed major pension reform, and many have undertaken more than one round of reform.
- The vast majority of these states have modified their existing defined benefit (DB) pension plans, which provide steady monthly income for life.
- The most common pension plan modifications are lower DB benefits for new hires including higher retirement ages, increased employee contributions, and Cost of Living Adjustment (COLA) reductions for retirees and existing workers.
- While no state has shifted to a defined contribution (DC) plan such as a 401(k) since 2005, 7 states have adopted a hybrid type of retirement arrangement that combines reduced DB pension benefits with a mandatory DC plan, or a "cash balance" plan that expresses its guaranteed benefits using DC plan features.
- Studies have found that adjusting DB benefits is the most cost efficient way to reform pensions and that shifting to DC accounts for new hires would lead to either greater cost to reach similar benefit levels or more significant benefit reductions.
- Most states that have studied the issue have concluded that continuing to provide retirement benefits via DB pension plans meets the joint interests of fiscal responsibility for employers and taxpayers, and retirement security for employees.

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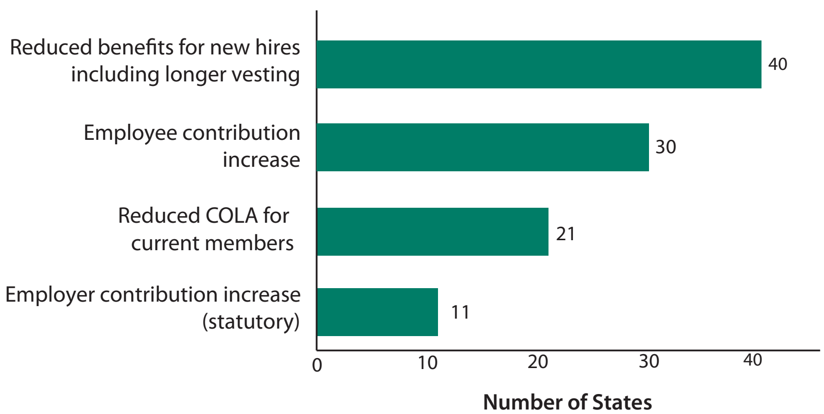
Most State Pension Reforms Are Aimed at Making DB Pensions More Sustainable

Since 2007, 48 states have undertaken significant reforms affecting state administered pensions. Many states have undertaken multiple rounds of reform. The three most common elements of reform are reduced benefits for new hires, increased required employee contributions, and reduced Cost of Living Adjustments (COLAs) for employees and existing retirees (Figure 1).

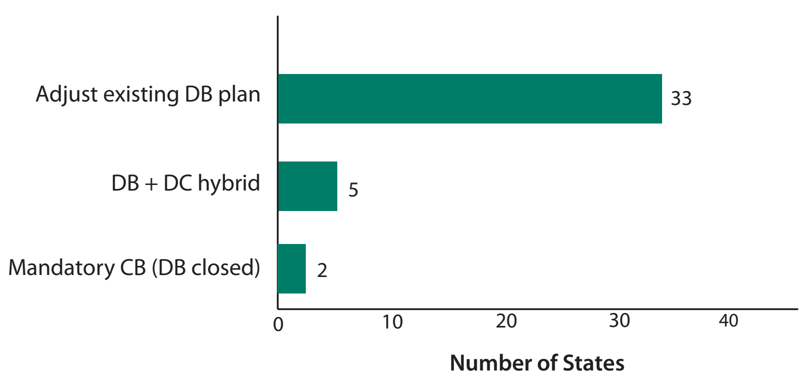
Generally states retained their existing DB platform, with 40 states reducing DB benefits for new hires. In addition, 30 states increased employee contributions. While 6 states limited legislation increasing contributions to only new hires, 24 states increased contributions for at least some existing employees. Employee contribution increases provide additional funds to pension plans and thus make up one of the largest sources of immediate savings from pension reform. Another source of pension reform cost savings came from adjusting the COLA provisions: 21 states reduced COLAs for current members.

Figure 1. **Major Changes Enacted in State Level Pension Reforms, 2008-2013**



Source: Author's analysis of data from the National Conference of State Legislatures. Changes affect some or all members of state-run plans in each state.

Figure 2. **Changes to New Hire Benefits in State Level Pension Reform, 2008 – 2013**



Source: Author's analysis of data from the National Conference of State Legislatures. Changes affect some or all members of state-run plans in each state.

The pension benefits of existing state and local employees have strong protections, with the degree varying under the laws and constitutions of each state.[1] This is one reason that revised benefit designs often apply to only new employees. Nonetheless, a number of states have made some changes in how benefits for existing employees are determined in existing DB plans—for example, changes in the average compensation used to calculate benefits, service credit purchasing rules, and COLAs.[2]

As of this writing, no state has broadly shifted from a DB pension to a DC-only retirement benefit since 2005. Several states have moved to a hybrid platform, either consisting of a combination of reduced DB benefits with a mandatory DC plan, or a cash balance plan.[3] A cash balance plan is a type of DB pension in which participants' benefits are expressed as a notional account balance that is eventually translated into lifetime income payments. The benefits are not expressed as a percent of final salary but rather, based on a given percentage of each year's pay that earns a specified interest rate guaranteed by the employer. To date, Rhode Island is the only state that has applied an entirely new benefit tier to existing public employees. The state entered court-ordered arbitration after unions sued to overthrow the measure.[4] As of this writing, a settlement is still pending.[5]

Closing a DB Pension Increases Unfunded Liabilities

Establishing a DC plan, or even a hybrid plan for new hires, does nothing to reduce existing unfunded liabilities. For example, the federal government still faces massive unfunded liabilities from its frozen DB plan, more than 25 years after it created a hybrid system for new hires.[6]

When a DB pension is closed to new members, this reduces the number of active members and their pension contributions over time. Ultimately, sound pension funding principles require that the employer increase contributions dedicated to paying off unfunded liabilities, until those liabilities are eliminated. Deferring these costs would be contrary to the cost-cutting rationale for pension reform.

An ongoing DB plan has a mixture of early-, mid-, and late-career members, enabling the pension portfolio to be diversified over a long investment horizon. When pension reforms cut off new entrants and their associated contributions, active member contributions will decline over time. In addition, the trustees and the professionals who manage the plan need to make adjustments such as shortening the investment horizon in line with the plan's now fixed obligations. For pension funds following accepted actuarial funding practices, one potential consequence of closing a plan to new entrants is that the time period for paying down existing unfunded liabilities may have to be shortened, depending on the demographic makeup of the plan. This means that liabilities have to be paid down faster, resulting in higher annual required contributions.

Another consequence is that closed plans will over time have to shift assets towards stable, more liquid investments, which have correspondingly lower investment returns. This in turn will raise the cost of funding promised benefits.[7] For this reason, state-level studies have found that closing off a DB pension plan could increase its unfunded liabilities by as much as one-half.

Substituting DB Pensions with DC Accounts Is Inefficient

Proponents of 401(k) style accounts for public sector employees argue that they are both less risky for employers and less costly. DC accounts do indeed shift investment risk and market risk from employers to employees. Also, while a DB pension provides income to retirees for as long as they will live, in a DC account each retiree bears the risk of outliving their savings, which is called longevity risk.

Studies have shown that the inherent efficiencies of DB pensions compared to DC plans—higher returns, lower costs, and pooled longevity risk -- translate to significantly higher funding costs in a DC plan to provide a given level of retirement benefit and a high level of risk for individual employees. This means that for each taxpayer dollar spent on retirement benefits, a DC system yields substantially lower value compared to a DB system.

Lower investment returns. In general, 401(k) accounts generate lower investment returns than do DB pensions, which are professionally managed and can diversify their investment portfolios across a wider array of asset classes and invest over a much longer time horizon. Differences in asset allocation account for about 1 percentage point lower average annual returns in DC accounts than in DB pension funds during the 14 years ending in 2010, according to CEM Benchmarking.[8] This is consistent with a number of other studies on comparative returns in DB pensions and 401(k) accounts over the long term. Furthermore, research in behavioral finance has found that most individuals do not invest in a way that is appropriate for their risk tolerance and age.[9]

Higher expenses/fees. It is well documented that DC plan fees cost more than DB pensions, which have the advantage of economies of scale and centralized investment management. For instance, a study by Deloitte and the Investment Company Institute (ICI) calculates typical DC plan fees at 60 basis points (.6 percent) on an asset-weighted basis.[10] In contrast, researchers at Boston College find that fees average just 25 basis points (.25 percent) for public sector DB plans.[11]

Individual longevity risk. Retirement benefits that rely heavily on 401(k)s also require prudent workers to accumulate assets that will last beyond their average life expectancy, while DB plans pool longevity risk and thus need to be funded only for the group's average life expectancy. In order to assure that workers will not run out of their retirement funds, a DC account requires a contribution rate 28 percent higher than a DB plan.[12] While individuals can theoretically obtain a lifetime incomes stream by purchasing life annuities from private insurance companies, these annuities are much more expensive than public DB pensions.

Because of these and other factors, providing comparable benefits through a DB pension costs 46 percent less than through a 401(k).[13] Conversely, providing the same retirement income through a 401(k) plan costs 83 percent more than it does through a DB pension.

States Have Found Transitioning to DC Plans May Reduce Risk but Cost More

In light of the above realities, public retirement systems that have seriously examined the cost of alternative plans have consistently found DC-centered arrangements to be significantly more costly than DB-centered arrangements for a given level of benefit. Studies indicate that incrementally modifying DB pension benefits to lower long-term costs and increasing contributions is the usually the most cost-efficient option. States that have carefully examined the complexities of pension reform since 2008 have not concluded that shifting to DC plans is the best course of action.

The Employee Retirement System of Texas (ERS) completed a comprehensive report in 2012 that considered multiple factors in designing pension reform, including the role of DB pensions in employee recruitment and retention, the value that pooled investing brings to both workers and the state, and the cost of freezing DB plans.[14] The ERS report noted that in many cases, the increased cost of freezing a DB plan, combined with the inefficiencies of DC plans described earlier in this brief, made it sensible to "modify the existing plan design instead of switching all employees to an alternative plan structure."[15]

The Teacher Retirement System of Texas (TRS) also completed a detailed analysis of the costs and benefits of alternative retirement systems. The study projected incomes from individual DC accounts with the same contributions, using reasonable estimates of returns on worker selected investments. The study concluded that participants would have only a 50 percent chance of earning investment returns high enough to get 60 percent or more of the current DB plan benefit. Conversely, the study found that it would cost 12 to 138 percent more to fund a target benefit through alternative retirement systems. Individually directed DC accounts were found to be the most costly, and a DB system the least costly. Finally, the study estimated that freezing the DB pension could cause the liability to grow by nearly an estimated $11.7 billion—49 percent higher than the current liability.[16]

In Minnesota, a 2011 study on switching to a DC plan for new hires found that it would decrease costs over the medium term and that it would dramatically increase costs in the short term. And over the long term, the DC plan would be less efficient than the existing DB system in cost-benefit terms.[17] The study estimated transition costs of $2.8 billion for the state, due in large part to the impact of switching to more conservative investments in the frozen pension in order to cope with negative cash flow.

Conclusion

Policy makers continue to weigh the pros and cons of different pension reform strategies, including how much risk and cost are acceptable, and how to balance employer and taxpayer costs with important human resource goals. At the same time, if public employers choose to reduce the risk they bear without providing sufficient funding for an adequate retirement benefit, the value of deferred compensation lost to employees will significantly exceed the value of employer savings. This may result in negative consequences for both workers' retirement security and employers' ability to recruit and retain desirable workers.

[1] A. H. Munnell and L. Quinby, 2012 (Aug.), "Legal Constraints on Changes in State and Local Pensions," *State and Local Pension Plans* No. 25, Center for Retirement Research at Boston College, Chestnut Hill, MA.

[2] Louisiana enacted a mandatory cash balance plan in 2012, but the state court ruled the law as unconstitutional on procedural grounds.

[3] NASRA, 2013 (Sep.), "State Hybrid Plans," NASRA Issue Brief, NASRA, Washington, DC.

[4] T. White and T. Nesi, 2012 (Dec. 19), "Judge Orders Mediation in Pension Suit," WPRI.com.

[5] T. Nesi, 2013 (Sep. 25), "Union Leader Sees RI Pension Suit Settlement Soon: Chafee Backs Negotiated Deal; Speaker Fox Worried," WPRI.com.

[6] D. Oakley, 2012, "Federal Employees' Retirement System and the Thrift Savings Plan," National Institute on Retirement Security, Washington, DC.

[7] See, for instance, California Public Employee Retirement System (CalPERS), 2011, "Issue Brief: The Impact of Closing the Defined Benefit Plan at CalPERS," CalPERS, Sacramento, CA.

[8] M. Heale, 2012 (Mar.), Presentation for the 2012 National Institute on Retirement Security Annual Policy Conference, Washington, DC.

[9] A. H. Munnell, J. Libby, J. Prinzivalli, and M. Soto, 2006, "Investment Returns: Defined Benefit vs. 401(k)," *CRR Issue Brief* No. 52, Center for Retirement Research at Boston College, Chestnut Hill, MA.

[10] Munnell, A.H. and A. Sunden, 2004, *Coming Up Short: The Challenge of 401(k) Plans*, Brookings Institution Press, Washington, DC.

[11] "Typical" in this case refers to the median, or 50th percentile, fee level. Deloitte and Investment Company Institute (ICI), 2011 (Nov.),"Inside the Structure of Defined Contribution/401(k) Plan Fees: A Study Assessing the Mechanics of the 'All-In' Fee, Deloitte.

[12] A. H. Munnell, A.H. and M. Soto, 2007 (Nov.), "State and Local Pension Plans are Different from Private Plans," *State and Local Pension Plans*, No. 1, Center for Retirement Research at Boston College, Chestnut Hill, MA.

[13] B. Almeida, and W.B. Fornia, 2008 (Aug.), "A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans," National Institute on Retirement Security, Washington, DC.

[14] Almeida and Fornia, op cit.

[15] Employees Retirement System of Texas (ERS), 2012 (Sep. 4), "Sustainability of the State of Texas Retirement Program—Report to the 82nd Texas Legislature," ERS, Austin, TX.

[16] Ibid., p. 12.

[17] Teacher Retirement System of Texas (TRS), 2012 (Sep. 1), "Pension Benefit Design Study," TRS, Houston, TX.

Pension Trends

Regarding recent pension trends, keep in mind that:

- Public pensions have faced financial challenges in recent years, but have already implemented significant reforms that should fully offset the effects of the economic downturn.
- A small number of states have made more drastic changes, moving to alternative retirement plan designs such as "hybrid" DB/DC plans or cash balance plans.
- Defined benefit (DB) pension plans are still the most economically efficient way to fund retirement.
- Public pension plans can provide a vehicle to expand retirement plan coverage to private sector workers.
- Pension designs from Australia, Canada, and the Netherlands can also offer models to improve the U.S. retirement system.

In the aftermath of the financial crisis, retirement security in the United States has been under new scrutiny. Public sector pension plans have faced some challenges, as the economic downturn caused their funding levels to drop while state budgets were squeezed. Meanwhile, more attention is being given to the broader challenge of retirement security, as more and more Boomers approach retirement age with little set aside to fund their retirement years.

You may have wondered: what are the recent trends in public pension plans? What are the trends for broader retirement security, and can public sector pensions offer a solution to improve the retirement prospects for private sector workers? Can international pensions provide a model for an improved system within the U.S.?

Public Pension Changes: Most States Stay with DB, but Some Have Moved to Alternative Designs

Like all investors, public pension funds took a big financial loss in the 2008-2009 market downturn. Since that time, as the stock market has rebounded, so has the value of public pension funds. But those gains have not fully made up for the huge prior losses.[1]

At the same time, the economic crisis also negatively impacted state budgets across the country. In fiscal year 2013, states faced a cumulative budget gap of $55 billion, which they have managed to close.[2] States have implemented various changes in order to balance their budgets, including furloughs and layoffs for state employees, as well as changes to pension plans.[3]

The pension reforms enacted have been quite substantive and varied, including increasing employer or employee contributions and/or changing the benefit design.[4] These reforms are financially significant. Forecasts from Boston College show that in most cases, the reforms already implemented will, over time, fully fill the funding gaps caused by the financial crisis.[5]

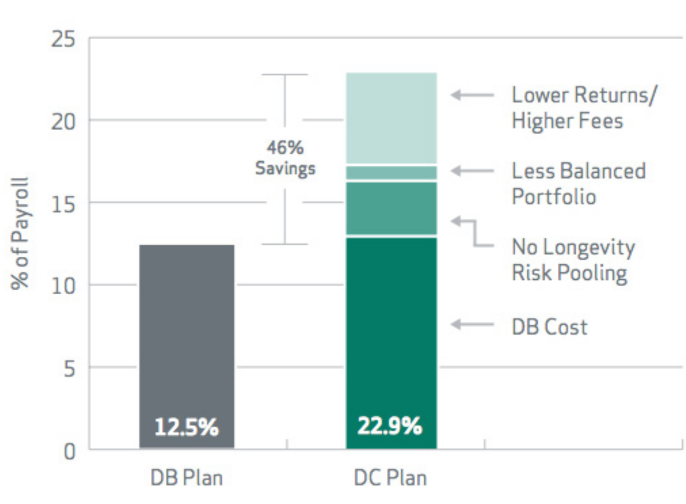
Thus, across the nation, most states and localities remain committed to traditional pensions, with a view to long-term solvency. However, there are some exceptions to this rule, with a handful of states implementing hybrid or cash balance designs.

For instance, Michigan School Employees, Rhode Island, Tennessee, and Virginia recently adopted "hybrid" pension plans. A hybrid design includes both a DB and a DC component. In general, the DB portion of a hybrid is far less generous than the previous DB plan, and the DC component is meant to somewhat offset this lower benefit. In Michigan, the hybrid is for new employees hired after July 2010.[6] Rhode Island moved all employees, except judges and public safety employees, into the hybrid plan in 2012. The Tennessee and Virginia hybrid plans will only be for new members hired as of January 2014.[7]

In Utah, employees hired after January 2011 have an option of either a hybrid plan (with a DB and DC component), or only a DC plan. Employers will contribute no more than 10% of salary for the DB pension of the hybrid plan, and employees will have to make up the difference if this contribution is insufficient to fully fund the benefits. If the DB pension is overfunded, the excess will be deposited into employees' DC accounts. Alternatively, for those employees who choose the DC-only plan, employers will contribute 10% of salary to the employees' DC account.[8]

Kansas and Kentucky have adopted cash balance designs. In a cash balance plan, each employee accrues a pay credit that is deposited by the employer into a "notional account" each year. In addition, a specified annual interest credit accrues on the account balance. A cash balance plan acts like a DB plan in that investments are pooled and collectively managed, the benefit amount is guaranteed in retirement, and there is a lifetime income option. A cash balance "looks" like a DC plan, however, in that an employee notional account grows each year with salary credits and interest credits. The cash balance plans in Kansas and Kentucky are only for newly hired members—in Kansas, those hired as of January 2015, and in Kentucky, as of January 2014.[9]

Cost of DB and DC Plan as % of Payroll



It is important to note that the move to alternative retirement systems does not save money on retirement plan costs. Traditional pension plans remain the most cost-effective way to fund a retirement program, due to their pooled nature and the associated economies of scale.[10] Those states that purport to "save money" by switching are doing so by decreasing the value of the retirement benefit—which ultimately will hurt the retirement security of their public workers.

For example, employer costs under Michigan's hybrid plan are expected to decline, but only because the hybrid plan offers a less generous benefit than the DB pension.[11] In Rhode Island, research shows that the hybrid switch will likely cost taxpayers more money—even as workers' benefits are reduced by as much as 14%.[12]

Public Pension Plans Can Help to Improve Private-Sector Retirement Security

Meanwhile, a national retirement security crisis looms. Half of all workers have no workplace retirement plan at all. For decades, the number of private pension plans has been in decline, likely replaced by 401(k) plans that have succeeded in transferring a variety of risks onto individual employees. The prospects are daunting. Boston College estimates there is currently a deficit of $6.6 trillion between what workers would need today to sufficiently fund their retirement and what they actually have.[13]

As a result, policymakers at the local and national levels have been looking to various solutions to bolster the retirement security for private sector workers. Proposals to improve Americans' retirement prospects have run the gamut, including strengthening existing pensions and encouraging new ones, retooling defined contribution plans, and even implementing entirely new retirement programs.[14]

One potential solution involves opening up public sector pension plans to private workers. The idea is that the public pension system provides a retirement infrastructure that is cost-efficient, with low administrative costs and high quality investments. For those private sector workers with no retirement plan at all, the ability to access and invest in such a system could go a long way in helping them finance their retirement. For small employers, the ability to provide a retirement solution for their employees with minimal legal and administrative burdens could be appealing.

In 2012, California passed legislation to study and create the "California Secure Choice Retirement Savings Program." Sponsors of the law are hoping that it will strengthen the retirement security of the 6.3 million Californians who have no workplace retirement plan at all.[15]

Under the program, Californians whose employers don't offer retirement plans will be enrolled automatically in a low-cost, low-risk retirement account. Those who don't want to participate in the program can opt out at any time. The default contribution is 3 percent, which workers can increase or decrease. Employers have very minimal responsibility—their only obligation is to handle the administration of payroll deduction.

The program works like an Individual Retirement Account (IRA) in some ways, and like a traditional pension in other ways. Like an IRA, a participant's account balance accrues with contributions and investment earnings. Also, accounts are completely portable, so workers can take their benefits from job to job.

Like a pension, contributions are invested in a pooled, professionally managed fund administered by an oversight board. Also, the plan guarantees a minimum return on all investments—so workers are more protected from the volatility of Wall Street. And when workers are ready to retire, low-cost annuities would be provided, so they can receive a monthly check for the rest of their life, just like a defined benefit pension.[16]

In Massachusetts, a similar law was passed in 2012, although it is much more limited in scope—access to the system is limited to nonprofit employers with 20 employees or less. Similar bills have also been proposed or discussed in many other states in recent years, including Connecticut, Illinois, Maryland, Michigan, Pennsylvania, Rhode Island, Vermont, Virginia, Washington, West Virginia, and Wisconsin.[17]

International Pension Systems Can Provide Models to Improve the U.S. System

Other models to improve Americans' retirement prospects can be found abroad. In many countries around the world, more workers are covered, and retirement benefits are higher.

Australia has a universal workplace retirement system, called the Superannuation Guarantee. Although Australia's system is a DC program in which workers bear their own investment risk, the system is relatively strong because 1) coverage is near universal, and 2) employers must make a mandatory contribution that is substantial—currently, 9% of gross pay, rising incrementally to 12% of pay in 2019.

The Netherlands' retirement system provides one of the highest replacement rates in the world. At its center is a DB plan which is funded primarily by employers. Most plans are integrated with the social security system to provide a target total benefit. Unfortunately, due to the market downturn, employers have recently attempted to shift some risks toward employees through the increased use "collective" DC plans, which work as a kind of hybrid between a DB and a DC plan.

In Canada, the centerpiece of their system is an employer-sponsored DB plan, but unlike Australia and the Netherlands, here the system is voluntary. As a result, Canada sees lower DB coverage. However, the country also has a highly progressive and generous social security system, as compared with the United States.[18]

All three countries provide relatively higher retirement income for low- and middle-wage workers through their social security and employer plans combined than does the United States. The three countries vary in the level of risk taken on by employees. However, in all three countries, these risks are either largely borne by the employer or pooled among all workers. Thus, employees individually face far lower risk than in the current U.S. system. The lower the risk, the easier it is for workers as a group to achieve a financially secure retirement.

Overview of Selected International Workplace Retirement Systems[19]

	Australia	Canada	Netherlands	United States
Coverage Rate	95%	32%	95%	40%
Mandatory	Mandatory	Voluntary	Quasi-	Voluntary
Predominant Plan Type	DC	Final Pay DB	Average Pay DB (but moving to hybrid)	DC
Primary Source of Retirement Benefit?	Yes	No	Yes	No

Role of Individual Account (i.e. DC plan)	Minor	Important	Minor	Dominant
Tax Deductible Employee Contributions	No, but taxed at reduced rates	Yes	Yes	DB: No DC: Yes

The bottom line is, while all pension plans—including those abroad and in the public sector—have faced financial challenges in recent years, they remain the most cost-effective way to fund an adequate and secure retirement for employees. Nonetheless, many Americans currently have no access to effective retirement savings plans at work. Consequently, some policymakers are looking to the public pension system, as well as several international models, to offer a new solution for more Americans to retire with dignity after a lifetime of hard work.

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[1] Lambert, L. 2013. U.S. public pension investments jump, costs surge too. *Reuters*, September 23.
[2] Oliff, P., C. Mai, and V. Palacios. 2012. *States Continue to Feel Recession's Impact*. Washington, DC: Center on Budget and Policy Priorities.
[3] National Conference of State Legislatures. *Actions & Proposals to Balance the FY 2010 Budget: State Employee Actions, Furloughs and Layoffs*. Washington, DC: National Conference of State Legislatures.
[4] Martel, L. and Rivale, T. 2013. *State Retirement Reform Legislation: NCSL Legislative Summit*. Washington, DC: National Conference of State Legislatures.
[5] Munnell, A.H., J.P. Aubrey, A. Belbase, and J. Hurwitz. 2013. *State and Local Pension Costs: Pre-Crisis, Post-Crisis, and Post-Reform*. Chestnut Hill, MA: Center for Retirement Research at Boston College.
[6] Michigan House Fiscal Agency. 2010. *Legislative Analysis: A Summary of Senate Bill 1227 as Enacted*. Michigan House Fiscal Agency.
[7] Snell, R. 2012. *Pensions and Retirement Plan Enactments in 2012 State Legislatures*. Washington, DC: National Conference of State Legislatures.
[8] Utah Retirement Systems. No date. URS Senate Bills.
[9] Snell, R. 2012. *Pensions and Retirement Plan Enactments in 2012 State Legislatures*. Washington, DC: National Conference of State Legislatures.
[10] Fornia, W., and Almeida, B. 2008. *A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Plans*. Washington, DC: National Institute on Retirement Security.
[11] Center for State and Local Government Excellence. 2011. *Fact Sheets on States with Defined Contribution Pension Plans, 2011: Michigan School Employees*. Washington, DC: CSLGE.
[12] Hiltonsmith, R. 2013. *Rhode Island's New Hybrid Pension Plan Will Cost the State More While Reducing Retiree Benefits*. Washington, DC: Economic Policy Institute.
[13] Cohn, S. 2010. Retirement on hold: American workers $6 trillion short. *CNBC*, September 15.
[14] National Institute on Retirement Security. 2009. *Raising the Bar: Policy Solutions for Improving Retirement Security*. Washington, DC: NIRS.
[15] Rhee. N. 2012. *6.3 Million Private Sector Workers in California Lack Access to a Retirement Plan on the Job*. University of California, Berkeley Center for Labor Research and Education.
[16] California Legislative Information. 2012. SB-1234 Retirement savings plans.
[17] Scott, D. 2012. State-run pensions for private-sector employees proposed. *Governing*. July 10.
[18] Turner, J.A., and N. Rhee. *Lessons for Private Sector Retirement Security from Australia, Canada, and the Netherlands*. Washington, DC: National Institute on Retirement Security.
[19] Turner, J.A., and N. Rhee. *Lessons for Private Sector Retirement Security from Australia, Canada, and the Netherlands*. Washington, DC: National Institute on Retirement Security.

Background Information

NIRS: Pension Basics In Your State: Constituents with Pensions (Table 1 below, columns 1 & 2)

Key Data:	Provides data on the total number of constituents in your state—both retirees and active workers—covered by a state or local pension plan.
How to Use:	Can be used to show legislators that public pensions are an issue important to many of their constituents.

NIRS: Pension Basics In Your State: Average Benefit Payments (Table 1 below, columns 3 & 4)

Key Data:	Provides information on the average pension benefit in your state.
How to Use:	Can be used to show that public pension benefits, in general, are quite modest.

NIRS: Pension Basics In Your State: Economic Impacts (Table 1 below, columns 5, 6 & 7)

Key Data:	Provides information on the economic impacts from state and local pension expenditures in your state. Includes economic output generated, new jobs created, and new tax revenue received—all as a result of public pensions expenditures.
How to Use:	Can be used to show how important public pension benefits are to state and local economies—expenditures made from these plans provide a much needed economic stimulus in both the private sector, in terms of jobs and economic output, and to state and local governments, in terms of tax revenue.

Legislative Environment

NCSL: State Retirement Reform Legislation

Key Data:	Powerpoint presentation shows the changes made to state retirement systems between 2009-2013.
How to Use:	Can be used to understand and show what actions your state has already taken to keep its pensions solvent.

NCSL: Pensions and Retirement State Legislation Database

Key Data:	Searchable database of all pension legislation in 2013.
How to Use:	Can be used to understand and show the types of pension changes recently considered by your state.

Economic Environment

NCSL: State Budget Update, Fall 2013: Employee Actions

Key Data:	Report includes information on state revenue performance, areas of spending over budget, and includes a summary of state fiscal situations.
How to Use:	Can be used to show legislators a snapshot of the current economic environment—that state budgets appear to be stabilizing and settling into a period of modest growth.

CBPP: States Continue to Feel Recession's Impact

Key Data:	Report shows that in fiscal year 2013 states faced a cumulative budget gap of $55 billion, which they managed to close.
How to Use:	Can be used to show the severity of the problems that your state may still due to the financial crisis on states—but that these problems are nationwide; every state faces these challenges.

NIRS: Pensionomics 2012: Measuring the Economic Impact of DB Pension Expenditures	
Key Data:	Provides information, including state-by-state fact sheets, on the economic impact of DB pension benefits.
How to Use:	Can be used to show that DB pension benefits have a sizable impact that ripples through every state and industry across the nation.

Contribution Requirements/Unfunded Liability

NASRA's Public Fund Survey: Historical ARC Payments (Table 2 below)	
Key Data:	Shows the percentage of annual required contributions (ARCs) paid by the 126 largest state and local retirement systems between 2003 and 2012.
How to Use:	Can be used to educate yourself on how your state has historically kept up with its annual payment obligations. If your state hasn't met its ARC year after year, the funded status will be lower than if it had. The argument could be made that filling this gap should not be made on the backs of workers, who have always paid their fair share.

NASRA: Public Fund Survey: Summary of Findings for FY 2012	
Key Data:	Report provides data on the funded ratios for the largest 126 state and local pension plans in the country, for fiscal year 2012.
How to Use:	Can be used to educate yourself on the extent of the funding gap problems in your state.

Wisconsin Legislative Council: 2012 Comparative Study of Major Public Employee Retirement Systems (Chart III, pp. 21-22)	
Key Data:	The above mentioned Chart III provides employee contributions, employer statutory contributions/normal cost, and vesting periods for state public pension plans.
How to Use:	Can be used to understand and show how much employees have contributed to their pension fund over the years out of their own paychecks.

Center for Retirement Research at Boston College: State and Local Pension Costs: Pre-Crisis, Post-Crisis, and Post-Reform	
Key Data:	Report analyzes pension costs before the financial crisis, after the financial crisis, and after reforms, for 32 plans in 15 states. The report finds that changes to contribution rates and benefit design already implemented should fully offset the effects of the financial downturn for most states.
How to Use:	Can be used to understand and show that no further pension reforms or reductions are necessary.

The Importance of Your Pension

NIRS: A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans	
Key Data:	Report analyzes the cost to fund the same retirement benefit in a defined benefit (DB) plan versus a defined contribution (DC) plan. Report finds that the DB plan is 46% cheaper than the DC plan.
How to Use:	Can be used to understand and show that DB plans are an efficient and prudent use of taxpayer money.

NIRS: The Retirement Savings Crisis: Is It Worse Than We Think?	
Key Data:	Report broadly examines how American households are faring in relation to retirement savings targets recommended by some financial services firms and finds retirement savings are dangerously low, with a U.S. retirement savings deficit between $6.8 and $14.0 trillion.
How to Use:	Can be used to understand and show the current state of retirement insecurity in America.

June 8, 2013 New York Times: For Retirees, a Million-Dollar Illusion	
Article Highlights:	"We're facing a crisis right now, and it's going to get worse," said Alicia Munnell, director of the Center for Retirement Research at Boston College. "Most people haven't saved nearly enough, not even people who have put away $1 million." Without another source of income, perhaps from traditional pensions from either or both spouses…a household like this won't come close to replacing 80 percent of its pre-retirement income — often considered an acceptable target level.

Cost of Living Adjustments (COLAs)

Wisconsin Legislative Council: 2012 Comparative Study of Major Public Employee Retirement Systems (Chart V, pp. 33-34)

Key Data:	The above mentioned Chart V gives data on post-retirement increases (also called "COLAs") by state. Report also gives data on state taxation of pension benefits and Social Security coverage by state.
How to Use:	Can be used to understand the myriad of COLA, Social Security and taxation of pension benefits around the country.

NIRS Interactive COLA Spreadsheet (separate attachment)

Key Data:	Calculator assesses the purchasing power of your pension benefit.
How to Use:	Can be used to gauge whether your pension benefit has kept up with inflation over time.

Table 1. Public Pension Basics and Economic Impacts in Your State, 2009

	Public Pension Basics				Economic Impacts		
State	Active Workers with a Public Pension Benefit	Retirees with a Public Pension Benefit	Average Monthly Benefit	Average Annual Benefit	Total No. of New Jobs Added	Total Output Generated (in millions)	Total State/ Local Tax Revenue Generated (in millions)
Alabama	246,062	111,216	$1,784	$21,404	24,576	$2,909.9	$408.8
Alaska	41,433	35,831	$2,727	$32,720	9,752	$1,358.7	$233.5
Arizona	275,933	129,571	$1,696	$20,352	33,447	$4,509.2	$650.7
Arkansas	132,759	65,399	$1,466	$17,595	11,528	$1,430.6	$230.3
California	1,767,618	1,005,515	$2,488	$29,852	324,761	$52,502.9	$7,686.9
Colorado	223,636	106,391	$2,539	$30,462	31,951	$4,521.2	$663.4
Connecticut	133,148	94,127	$2,682	$32,187	29,005	$4,595.0	$728.0
Delaware	44,640	29,407	$1,479	$17,749	5,540	$882.6	$150.2
Florida	665,145	360,065	$1,668	$20,011	91,741	$11,832.5	$1,596.5
Georgia	392,668	157,013	$2,212	$26,547	51,504	$7,101.3	$913.1
Hawaii	66,589	38,688	$1,827	$21,924	6,706	$877.9	$153.3
Idaho	67,864	35,757	$1,392	$16,698	6,345	$715.5	$105.1
Illinois	633,233	402,312	$2,279	$27,348	127,065	$18,910.5	$2,643.5
Indiana	232,917	114,881	$1,249	$14,990	23,409	$3,237.2	$408.8
Iowa	172,709	95,342	$1,175	$14,106	16,667	$2,162.8	$274.5
Kansas	159,924	75,092	$1,304	$15,652	12,862	$1,710.8	$220.0
Kentucky	223,088	133,604	$1,772	$21,260	29,270	$3,522.9	$510.4
Louisiana	223,996	145,671	$1,722	$20,664	29,869	$3,872.3	$481.7
Maine	50,477	36,802	$1,478	$17,737	7,354	$866.3	$159.9
Maryland	241,199	152,357	$1,740	$20,876	32,004	$4,395.8	$723.1
Massachusetts	315,822	187,931	$2,139	$25,667	49,869	$7,796.0	$1,153.3
Michigan	390,892	301,626	$1,618	$19,413	71,894	$9,222.6	$1,267.4
Minnesota	293,183	165,994	$1,719	$20,633	41,337	$5,739.4	$806.0
Mississippi	167,901	80,719	$1,607	$19,287	14,442	$1,687.5	$225.6
Missouri	265,049	149,001	$1,851	$22,209	38,518	$4,921.5	$640.1
Montana	53,350	34,670	$1,220	$14,642	5,332	$600.3	$94.0
Nebraska	76,508	26,387	$1,741	$20,891	7,126	$992.3	$136.0
Nevada	105.462	55,000	$2,228	$26,736	15,011	$1,963.6	$307.7
New Hampshire	52,576	27,280	$1,551	$18,616	6,129	$808.6	$158.5
New Jersey	525,042	248,462	$2,289	$27,467	67,470	$10,873.0	$1,611.7
New Mexico	122,026	62,109	$1,765	$21,184	12,366	$1,458.6	$203.8
New York	1,201,409	768,392	$2,220	$26,645	200,106	$33,180.9	$5,064.5
North Carolina	494,218	212,910	$1,537	$18,443	45,480	$5,712.6	$814.4

Table 1. Public Pension Basics and Economic Impacts in Your State, 2009 (continued)

North Dakota	31,358	15,678	$1,184	$14,213	2,581	$323.5	$56.0
Ohio	700,709	398,061	$2,129	$25,544	110,513	$13,885.6	$2,030.4
Oklahoma	160,417	95,634	$1,500	$17,998	18,344	$2,445.2	$313.1
Oregon	172,481	113,485	$2,165	$25,981	33,472	$4,185.3	$668.4
Pennsylvania	519,496	384,834	$1,869	$22,424	99,383	$13,720	$1,808.3
Rhode Island	39,474	30,440	$2,401	$28,817	8,489	$1,101.7	$202.9
South Carolina	219,733	119,012	$1,441	$17,293	23,908	$2,689.2	$376.1
South Dakota	39,849	25,203	$1,404	$16,853	3,933	$484.1	$62.0
Tennessee	246,145	131,395	$965	$11,578	21,751	$2,989.7	$357.1
Texas	1,430,210	478,767	$1,776	$21,318	128,204	$20,175.8	$2,482.1
Utah	108,016	45,528	$1,717	$20,605	12,919	$1,583.8	$215.5
Vermont	26,283	13,935	$1,233	$14,794	2,459	$299.8	$61.2
Virginia	408,196	178,278	$1,621	$19,454	36,337	$5,080.7	$731.8
Washington	252,364	136,526	$1,717	$20,606	30,605	$4,468.2	$590.4
West Virginia	74,346	53,591	$1,263	$15,152	8,143	$1,007.9	$131.4
Wisconsin	282,139	164,469	$2,131	$25,577	50,317	$6,249.7	$856.7
Wyoming	40,534	22,175	$1,227	$14,726	2,600	$377.5	$48.9

Source: Boivie, I. Pensionomics 2012: Measuring the Economic Impact of DB Pension Expenditures. Washington, DC: National Institute on Retirement Security

Table 2. Percentage of ARC Made by Large Plans, 2001-2012

State	Plan Name	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
AK	Alaska PERS	110.3%	100%	52.7%	61%	77.3%	111%	116%	114..4%	86%	92.7%
AK	Alaska Teachers	133%	83%	45%	45%	54.1%	62.2%	106%	139.3%	78.6%	84.6%
AL	Alabama ERS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
AL	Alabama Teachers	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
AR	Arkansas PERS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
AR	Arkansas Teachers	102.6%	102.4%	117%	113.5%	108.5%	101.8%	104.4%	104.4%	95.9%	89.9%
AZ	Arizona Public Saftey Personnel	100%	100%	100%	100%	100%	104%	103.1%	104.3%	104.9%	104.6%
AZ	Arizona SRS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
AZ	Phoenix ERS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CA	California PERF	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CA	California Teachers	91%	69%	70%	64%	64%	66%	66%	55%	47%	46%
CA	Contra Costa County	98.6%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CA	LA County ERS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CA	San Diego County	100%	100%	110.6%	119.8%	111.6%	100%	100%	100.6%	114.4%	100%
CA	San Francisco City & County	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CO	Colorado Affiliated Local	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CO	Colorado Fire & Police Statewide	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
CO	Colorado Municipal	69%	62%	62%	85%	84%	98%	96%	101%	101%	163%
CO	Colorado School				62%	60%	68%	65%	70%	70%	84%
CO	Colorado State				58%	56%	63%	61%	62%	62%	83%
CO	Denver Employees	100%	86.6%	99.7%	92.2%	100%	100%	82.7%	86.2%	87.9%	88.8%
CO	Denver Public Schools	36.7%	61%	67.2%	73.3%	82.9%	830.7%		8.0%	8.0%	27.0%
CT	Connecticut SERS	100%	100%	100%	100%	100%	99.3%	86.3%	75.6%	82.6%	100%
CT	Connecticut Teachers		68.5%		91.2%	93.3%	464.2%	101.3%	101%	100.9%	100%
DC	DC Police & Fire	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
DC	DC Teachers	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
DE	Delaware State Employees	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
FL	Florida RS	98%	92%	102%	96%	111%	107%	111%	111%	83%	60%
GA	Georgia ERS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100.2%
GA	Georgia Teachers	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
HI	Hawaii ERS	100%	100%	100%	100%	95.3%	95.7%	109.9%	102.1%	102.1%	102.1%
IA	Iowa PERS	99.2%	90.9%	85.6%	82.7%	83.3%	87.2%	86.9%	90%	82.4%	98.2%
ID	Idaho PERS	110%	97%	100%	105%	110%	109%	123%	109%	85%	84%
IL	Chicago Teachers	75%	82.8%	59.7%	35.9%	33.4%	56.7%	67.8%	81.7%	33.3%	46.5%
IL	Illinois Municipal	100%	100%	100%	100%	100%	100%	100%	91%	95%	98%
IL	Illinois SERS	100%	100%	58.8%	31.3%	43.6%	59.6%	77.2%	93.1%	87.5%	86.2%
IL	Illinois Teachers	74.1%	64.3%	64.3%	35.8%	39.8%	60%	75.9%	90.6%	84.7%	74.6%
IL	Illinois Universities	63%	214.1%	47%	27.2%	54.1%	62.7%	63.2%	63.2%	61.4%	73.1%
IN	Indiana PERF	98%	124%	102%	92%	93.5%	104.6%	91.9%	91.9%	70.8%	78.1%
IN	Indiana Teachers	105.3%	68.6%	78.3%	104.3%	101%	101%	101%	93%	93%	90.9%
KS	Kansas PERS	78.9%	74%	72.4%	63.4%	63.9%	65.1%	68%	72.1%	85%	87%

Table 2. Percentage of ARC Made by Large Plans, 2001-2012 (continued)

State	Plan Name	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
KY	Kentucky County	100.6%	102.1%	102.2%	101.2%	101.7%	65.5%	111.8%	110.2%	112%	105.7%
KY	Kentucky ERS	111.2%	77.4%	54.9%	63.1%	49.8%	22.3%	41.3%	44.1%	52.9%	51.1%
KY	Kentucky Teachers	100%	100%	93%	87%	88%	88%	74%	76%	153%	74%
LA	Louisiana SERS	94.1%	95.4%	100.9%	93.1%	97%	115.4%	98.8%	83.8%	82.2%	89.3%
LA	Louisiana Teachers	98%	93%	105.6%	103.1%	106.5%	116.2%	106.4%	83.5%	90.2%	100%
MA	Massachusetts SERS	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%
MA	Massachusetts Teachers	0%					0%	100%	100%	100%	100%
MD	Maryland PERS	92%	89%	83%	82%	81%	89%	84%	84%	69%	69%
MD	Maryland Teachers	92%	89%	83%	82%	81%	89%	84%	84%	75%	75%
ME	Maine Local	0%	0%	0%	0%	0%	106.1%	104.8%	103.4%	101.7%	100.1%
ME	Maine State and Teacher	109.4%	112.1%	104.8%	105.7%	105.7%	106.1%	104.8%	103.4%	101.7%	100.1%
MI	Michigan Municipal	125%	109%	122%	107%	92%	110%	110%	105%	111%	108%
MI	Michigan Public Schools	85.6%	71.3%	75.7%	85.7%	90.8%	110.5%	101.1%	84.7%	81.5%	83.4%
MI	Michigan SERS	43%	39.6%	83.2%	73.8%	47.7%	115.5%	97.8%	88.4%	94.8%	71.1%
MN	Duluth Teachers	0%	93.2%	100%	72%	62.1%	65.7%	63.8%	61.2%	61.2%	68.7%
MN	Minnesota PERF	74%	83.5%	76.6%	78.1%	84.4%	81%	86.2%	77.3%	111.1%	99.1%
MN	Minnesota State Employees	96%	76.2%	81.9%	64.9%	70.7%	58.3%	59.6%	49.4%	81.8%	80.7%
MN	Minnesota Teachers	220%	159.5%	153%	134.2%	91.1%	82.6%	67.7%	57.4%	63.5%	66.4%
MN	St. Paul Teachers	97.6%	77%	69.3%	65.2%	54.9%	58.4%	85.6%	72.9%	62%	62.1%
MO	Missouri DOT and Highway Patrol	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
MO	Missouri Local	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
MO	Missouri PEERS	92.6%	80.2%	71.8%	77.5%	77%	86%	88.8%	95.5%	100%	100%
MO	Missouri State Employees	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
MO	Missouri Teachers	94.5%	75.7%	65.5%	70.6%	73.2%	79.4%	84.1%	80.6%	86.9%	92.5%
MO	St. Louis School Employees	101.2%	132%	125.4%	114.9%	129.7%	132.5%	100%	134.4%	0%	118.4%
MS	Mississippi PERS	100%	100%	100%	100%	90%	97%	100%	100%	100%	100%
MT	Montana PERS	100%	100%	82.1%	91.5%	100%	110.4%	100%	100%	100%	100%
MT	Montana Teachers	100	100	100	225	130	100	100	98.3	98.3	81.9
NC	North Carolina Local Government	0	0	0	0	0	0	0	0	0	0
NC	North Carolina Teachers and State Employees				101.7	101.7	101.7	101.7	101.7	101.7	101.7
ND	North Dakota PERS	93	74	65	69	61	70	69	56	39	42
ND	North Dakota Teachers	100	81.2	68.3	63.9	63.1	76.4	89.3	76.5	68.4	66.5
NE	Nebraska Schools	100	100	100	100%	100%	100%	100%	100%	89	100%
NH	New Hampshire Retirement System	100	100	100	100	100	75	75	100	100	100
NJ	New Jersey PERS	0	0	0	60	60	56	48.8	45	46.3	52
NJ	New Jersey Police & Fire	0	17.4	17.4	45	68	81.3	93	65.9	67.3	67
NJ	New Jersey Teachers	0	0	0	8	49.1	44.8	6	1.9	1.4	14
NM	New Mexico PERF	100	100	100	100	100	100	102.8	88.9	85.7	85.7
NM	New Mexico Teachers	100	92.8	81.3	75.5	70.3	79	86.2	87.7	81.6	63.4
NV	Nevada Police Officer and Firefighter	0	86	86	91	91	85	85	91	88	96

Table 2. Percentage of ARC Made by Large Plans, 2001-2012 (continued)

State	Plan Name	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
NV	Nevada Regular Employees	89%	100%	100%	97%	97%	96%	93%	93%	89%	96%
NY	New York City ERS	54.6%	57.3%	80.6%	100%	100%	100%	100%	100%	100%	100%
NY	New York City Teachers	79.4%	90.6%	94.2%	100%	100%	100%	100%	100%	100%	100%
NY	New York State Teachers	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
NY	NY State & Local ERS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
NY	NY State & Local Police & Fire	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%
OH	Ohio PERS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OH	Ohio Police & Fire	0%	79%	88%	79%	73%	77%	75%	55%	62%	57%
OH	Ohio School Employees	100%	100%	100%	87%	90%	100%	100%	100%	100%	100%
OH	Ohio Teachers	100%	95%	96%	96%	83%	100%	89%	52%	51%	41%
OK	Oklahoma PERS	59.1%	51.9%	52.5%	55.3%	58.4%	60.5%	75.2%	66.8%	62.9%	109.4%
OK	Oklahoma Teachers	61.9%	70.2%	56.2%	85.8%	93.1%	101.1%	86.6%	83.6%	77.6%	115.9%
OR	Oregon PERS	97.4%	97.4%	99.7%	100.8%	63.4%	74%	100%	100%	100%	83%
PA	Pennsylvania School Employees	100%	100%	100%	34%	39%	41%	29%	27%	27%	38%
PA	Pennsylvania State ERS	123.4%	100%	46.1%	35.6%	39.3%	39.9%	39.1%	31.4%	42.8%	53.9%
RI	Rhode Island ERS	100%	100%	100%	100%	100%	100%	100%	100%	100%	
RI	Rhode Island Municipal	0%	0%	0%	100%	100%	100%	100%	100%	100%	
SC	South Carolina Police	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
SC	South Carolina RS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
SD	South Dakota PERS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
TN	Tennessee Political Subdivisions	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
TN	Tennessee State and Teachers	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
TX	Houston Firefighters	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
TX	City of Austin ERS	81%	82.3%	65.2%	61.8%	65%	70.2%	57.7%	72%	79.3%	104.4%
TX	Texas County & District	101%	101%	101%	105%	102%	102%	104%	102%	109%	106%
TX	Texas ERS	96.7%	89.3%	85.8%	87.2%	88.9%	90.3%	68.4%	63.4%	58.5%	50%
TX	Texas LECOS	0%	100%	100%	100%	100%	100%	62.2%	82.3%	66.5%	66.5%
TX	Texas Municipal	100%	100%	100%	100%	100%	100%	84.8%	88%	92.1%	101.5%
TX	Texas Teachers	84%	81%	82%	83%	85%	102%	108%	86%	86%	74%
UT	Utah Noncontributory	0	100%	100%	100%	100%	100%	100%	100%	100%	100%
VA	Fairfax County Schools	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
VA	Virginia Retirement Systems	100%	100%	85.3%	89.5%	100%	92.6%	81.3%	66.6%	46.7%	59.6%
VT	Vermont State Employees	0%	0%	0%	96.5%	96.5%	96.5%	96.5%			
VT	Vermont Teachers	0%	58.7%	58.7%	43.2%	43.2%	43.2%	43.2%			
WA	Washington LEOFF Plan 1*	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
WA	Washington LEOFF Plan 2	0%	74%	67%	79%	101%	117%	122%	114%	157%	137%
WA	Washington PERS 1	25%	8%	7%	7%	30%	49%	52%	25%	33%	51%
WA	Washington PERS 2/3	0%	36%	33%	33%	73%	88%	119%	85%	80%	94%
WA	Washington School Employees Plan 2/3	0%	17%	16%	37%	64%	69%	89%	75%	70%	88%
WA	Washington Teachers Plan 1	13%	6%	4%	5%	24%	38%	46%	28%	47%	44%
WA	Washington Teachers Plan 2/3	0%	31%	29%	29%	61%	52%	86%	75%	72%	92%

Table 2. Percentage of ARC Made by Large Plans, 2001-2012 (continued)

State	Plan Name	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
WI	Wisconsin Retirement Systems	100%	100%	100%	104%	105%	105%	108%	108%	108%	108%
WV	West Virginia PERS	104.5%	104.5%	104.5%	100%	100%	102.1%	100%	100%	83.3%	83.3%
WV	West Virginia Teachers	105.4%	105.4%	105.4%	100%	100%	100%	100%	100%	100%	100%
WY	Wyoming Public Employees	67%	67%	108%	111%	100%	100%	61%	76%	93%	88%

Source: Brainard, K. 2013. Public Fund Survey. Washington, DC: National Association of State Retirement Administrators.
Blank cells indicate information not available.
Some extremely large ARC payments, such as Illinois University in 2004 and Denver Public Schools in 2008, indicate the issuance of a pension obligation bond.

*Washington LEOFF Plan 1 overfunded, so the ARC itself has been 0 for over a decade.