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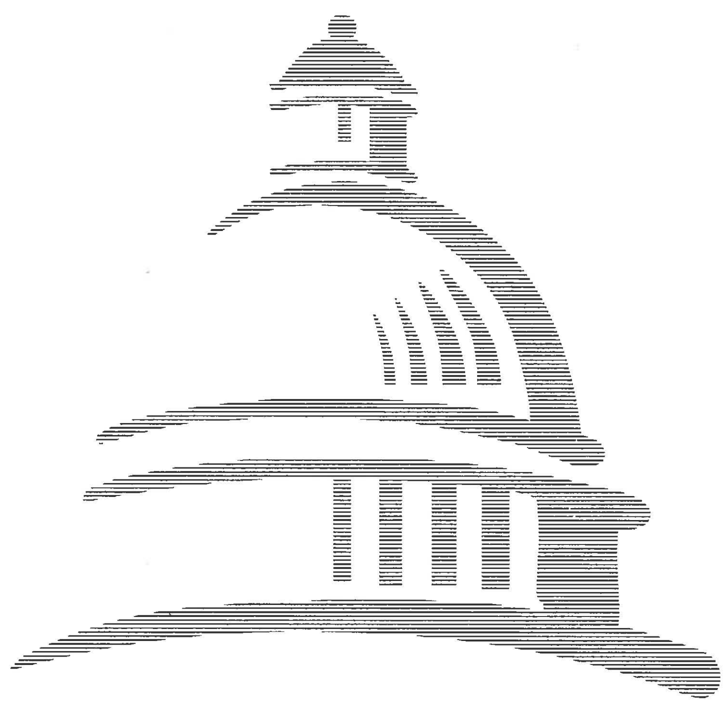
Retirement Security and the Great Recession

LEGISLATIVE ANALYST'S OFFICE

Prepared for:

The California Legislature Pursuant to

Supplemental Report of the 2015-16 Budget Package



Introduction

In the *Supplemental Report of the 2015-16 Budget Package*, the Legislature directed our office to issue a report evaluating defined contribution retirement benefits provided to public employees and the effect the Great Recession had on these benefits. At the request of legislative staff, we have completed this response quickly. In our review of studies and other resources produced by academicians, governmental agencies, and other organizations, we found that much of the existing literature (1) on the Great Recession's effects on retirement security pertain to national populations and (2) on defined contribution benefits include governmental and nongovernmental employees. In our analysis, we attempt to provide as much focus as possible on California governmental employees; however, we also provide discussion on retirement benefits of other workers.

Retirement Security

It is difficult to generalize how much money a person needs at any stage in life because a person's financial security depends on a number of personal choices, circumstances, and assumptions regarding the future. This is particularly true regarding a person's retirement security. That is, how do you determine whether a person will have enough money in the future to pay all expenses incurred from the date he or she exits the workforce until he or she dies?

Income Replacement Ratio. One common metric among financial planners and economists for assessing a person's retirement security is known as the income replacement ratio. This ratio attempts to determine how much annual income a person needs to sustain a certain standard of living in retirement. This ratio is a person's expected retirement income expressed as a percentage of the income the person earned in a typical year during his or her career. If a person's ratio exceeds a given target, he or she is more likely to have enough income to maintain his or her preretirement standard of living. There is no one-size-fits-all replacement ratio. In 2005, a publication of Boston College's Center for Retirement Research (Boston College) found: "Overall, the range of studies that have examined [the] issue consistently finds that middle class people need between 65 percent and 75 percent of their preretirement earnings to maintain their lifestyle when they stop working." Similar to the 2005 study, a 2010 U.S. Census Bureau paper found that replacement ratio for the median individual—as of 2004—was between 66 percent and 75 percent of preretirement income. In general, lower-income workers will need a higher replacement ratio because they are expected to spend a higher proportion of their income on food, clothing, housing, transportation, health care, and other essentials.

Factors That Affect Retirement Security. The amount of money that a person can expect to need in retirement depends on a variety of factors that are unique to his or her circumstance. Some of the key factors to consider when assessing one's retirement security are:

- ***Expected Lifespan.*** A person's life expectancy depends on their sex (women, on average, live longer than men), lifestyle, and personal and family medical history. While the average 65 year old in 2015 can expect to live into his or her mid-80s, the federal Social Security Administration reports that one out of every ten individuals who are 65 years old in 2015 will live past the age of 95 years. Due in large part to advances in medical treatments, Americans are expected to live longer in the future.

- ***Retirement Age.*** In general, deferring retirement enhances an individual's retirement security because he or she (1) can use the extra time at work to save money for retirement and (2) will live in retirement for a shorter period of time. Boston College reported in March 2015 that the average retirement age for Americans was about 64 years for men and 62 years for women. Among public employees in California who are members of a state defined benefit pension system, the average age at retirement is 60 years in the case of the California Public Employees' Retirement System (CalPERS) and the University of California Retirement System (UCRS) and 61 years in the case of the California State Teachers' Retirement System (CalSTRS).

- ***Post-Retirement Standard of Living.*** The degree of wealth and material comfort that a person expects in retirement greatly determines how much money a person would need in retirement. For example, participating in leisure activities such as travel requires more money. Although many Americans wish to maintain the same standard of living in retirement as they had while working, Boston College has found that about half of American households are at risk of not being able to do so.

- ***Employer-Funded Benefits.*** In addition to employer-sponsored retirement benefits designed to replace some share of an employee's income (discussed in greater detail later in this analysis), some employers provide employees other employer-funded benefits that can greatly influence a retiree's financial security. For example, many public employees in California receive contributions towards health insurance from their previous employers after they have retired.

- ***Health Costs.*** Although health care can be expensive at any stage in life, it typically is most expensive for elderly populations and for care received at the end of life. A person's overall health can greatly influence how much money they will need in retirement.

Three-Legged Stool of Retirement Security in the United States

Much of what we recognize as retirement today is the product of a number of federal tax and social programs that were instituted in the 20th Century. According to the federal Social Security Administration, life expectancy at birth for Americans in the

1930s was 58 years for men and 62 years for women. These life expectancy numbers, combined with a concern of poverty among older and disabled Americans during the Great Depression, led to the establishment of the federal Social Security program in 1935. Over the decades since Social Security was established, retirement security in the United States has evolved into what is referred to as the "three-legged stool" of retirement security whereby a typical retired worker is expected to receive income in retirement from a combination of three sources: Social Security, employer-sponsored retirement plans, and personal financial assets.

Social Security

Federal Retirement Plan. Most employed individuals in the United States are required to participate in the federal Social Security program. (Some state and local governmental employees—for example, school teachers and peace officers—do not participate in the program.) During an employee's career, both the employer and employee pay taxes on earnings. In 2015, both the employee and the employer pay 6.2 percent of the employee's pay—up to a limit of $118,500—towards Social Security. According to the Social Security Administration, these payroll taxes constitute about 85 percent of the program's income. When a worker retires, he or she receives monthly benefit payments from the program. In 2012 (the most recent data reported by the Social Security Administration), 86 percent of people 65 years and older receive Social Security benefits.

Benefit Based on Earnings During Career. Social Security provides monthly payments to retired individuals based on how old they are when they begin receiving Social Security benefits and how much money they earned during their career (up to the wage limit discussed above). While the Social Security benefit generally replaces a larger share of earnings for individuals who were lower wage earners during their career, the benefit is designed to replace about 40 percent of a person's career earnings at the age of 65. In 2015, the average recipient of Social Security over the age of 65 years receives more than $1,300 each month from Social Security.

Many People Rely Heavily on Social Security. Social Security originally was designed as a safety net to keep elderly Americans from falling into poverty. The program is not designed to be the only source of income for retired Americans; however, a large proportion of retirees depend on their Social Security benefits to pay for expenses. The Social Security Administration reports that of the people over the age of 65 years receiving Social Security benefits in 2012, nearly 65 percent relied on Social Security to provide more than 50 percent of their income in retirement and nearly 24 percent relied on the benefit as their only source of income in retirement.

Benefits Scheduled to Be Relatively Smaller for Future Retirees. Under existing federal policy, future retirees generally will need to work longer before collecting their Social Security benefit. Boston College estimates that the average benefit received by someone 65 years old in 2030 will replace about 30 percent of his or her career earnings.

Projected Funding Issues. Currently, payroll taxes and other revenue to the Social Security program essentially cover the costs of program payments to retired workers. Revenue to the pension system above benefit payments has been invested in U.S. Treasury securities. In 2014, the system's reserves were about $2.8 trillion. Actuaries estimate that as more people retire and more people live longer in retirement, benefit payments will exceed income and the system will draw down its reserves in the 2020s. The drawdown of these reserves will put pressure on the rest of the federal budget. By the mid-2030s, actuaries project that the reserves will be depleted and revenue to the system will cover only 79 percent of the benefits due. This projected funding shortfall will need to be addressed through changes in federal policy that either reduce benefits received by current or future retirees, increase taxes (such as the payroll tax on active workers and employers), divert revenue from other federal programs, or some combination of these actions.

Employer-Sponsored Retirement Plans

Federal law allows both public and private sector employers to sponsor retirement plans for their employees. These retirement plans can be included as part of an employer's compensation package it offers to employees. These retirement plans typically are either defined benefit pension plans, defined contribution plans, or hybrid plans. The largest difference among these different types of retirement plans is whether the employer or the employee bears the risk of assumptions not materializing—for example, whether a person lives longer than expected or assets gain a lower-than-expected return on investment. Over the past few decades, the number of private sector employers providing defined benefit plans has declined and the number providing only defined contribution plans has increased. In the public sector, the majority of governmental employees receive an employer-sponsored defined benefit pension. However, as we discuss in greater detail later, some states provide different types of retirement benefits to their employees.

Defined Benefit Plans

Lifetime Retirement Income Guaranteed. Under a defined benefit program, a retired employee receives a set pension amount based on a formula that includes factors at the time the employee retires—such as the employees' age, salary, and number of years of service with the employer. These benefits are guaranteed lifetime annuities. These types of retirement plans are employer-specific—meaning they are not portable—and create an incentive for employees to work extended periods of time with the same employer.

Risk Borne by Employer. The "normal cost" of a defined benefit pension plan is the amount of money that actuaries estimate is necessary—combined with assumed future investment earnings—to pay the cost of pension benefits that employees earn in a given year. In the event that actual investment returns are less than what actuaries assume, an "unfunded liability" results. The employer is responsible for paying any unfunded liabilities. Accordingly, when there are investment losses, the employer's contributions will increase but employees' contributions and pension benefits are not directly affected.

Defined Contribution Plans

Flexible and Portable Benefit. A defined contribution plan—for example, a 401(k), 403(b), or 457(b)—is a retirement savings plan that allows employees to make salary deferral contributions to a retirement savings account established by the employer. Within the limitations established by federal law, defined contribution plans are flexible for employees in that employees choose how much money to contribute to the plan, how to invest the money, when to begin withdrawing funds, and whether they want to rollover or cash out funds when changing employers. Employers may make contributions on behalf of eligible employees. Employer contributions often take the form of matching employee contributions or contributing a specified percentage of pay or dollar amount. These employer contributions are subject to limitations established under federal law.

Risk Borne by Employee. There is no guarantee—either by the employer or provided by government insurance—of assets held in a defined contribution plan or to any benefit in retirement. Accordingly, under a defined contribution plan, all of the risk of funding shortfalls are borne by the employee. For example, a retiree who lives longer than expected or whose investments have a lower return than assumed could find that there was insufficient income in retirement.

Hybrid Plans

A growing number of employers offer employees a hybrid plan that combines elements of traditional defined contribution and defined benefit pension plans.

- ***Parallel Hybrid.*** A parallel hybrid plan provides employees both a defined benefit pension and a defined contribution plan. Typically, the defined benefit and defined contribution components of the plan are smaller than if the employer offered only a defined benefit or only a defined contribution plan. The amount of money the employer contributes to both plans is based on an employee's total pay.

- ***Stacked Hybrid.*** A stacked hybrid plan provides employees a defined benefit pension as the primary retirement benefit based on income up to a certain threshold. If an employee's income exceeds the threshold, he or she receives contributions towards a defined contribution plan for the income above the threshold. Under these types of plans, lower-income workers' retirement benefits likely come exclusively from a defined benefit pension whereas higher-income workers' retirement benefits likely come from a combination of a defined benefit pension and a defined contribution plan.

- ***Cash Balance.*** A cash balance plan is a defined benefit plan that resembles many characteristics of a defined contribution plan. An employer contributes money each year—either as a percentage of pay or as a flat dollar amount—into a trust fund on the employee's behalf. Assets in the plan are pooled and invested by the employer. The employer guarantees a minimum annual rate of return on funds that are contributed to the plan but makes no guarantee on the benefit level received by employees in retirement. (In the public sector, both employers and employees typically make regular contributions to a cash balance plan.)

Personal Financial Assets

Financial assets—for example, cash, land, or investments—can be used to generate income in retirement. For most retirees, their largest asset is the equity in their home. Home equity can be used to generate retirement income in a few ways. For example, a retiree might sell a home and purchase a less expensive home or stay in the home and use the equity to receive a reverse mortgage. People can save money for retirement using different types of investment vehicles, including accounts that are specifically designed for saving for retirement (for example, an Individual Retirement Account [IRA]). Depending on how people choose to invest their money, people take on varying levels of risk and can expect varying returns on the investment. Studies have shown that wealthier retirees tend to have more diverse portfolios that take advantage of multiple types of investments and poorer retirees typically rely on investment vehicles that are tied to interest rates.

Governmental Employee Compensation

Many People Employed by State and Local Governments. The U.S. Census Bureau estimates that the approximately 90,000 state and local governments in the United States employed more than 16 million full-time equivalent employees in 2013. More than half of these governmental employees work in education at elementary schools, secondary schools, or higher education campuses.

Three Main Elements of Compensation. State and local governmental employers compete with other governmental and nongovernmental employers to attract workers in the labor market. As part of their compensation packages, governmental employers typically offer full-time employees a salary, various benefits (such as health benefits for employees and their dependents), and retirement benefits (including a defined benefit pension, defined contribution plan, or hybrid plan, and perhaps retiree health benefits).

Retirement Benefits for California Governmental Employees

The vast majority of governmental employees in California are members of a defined benefit pension plan. The state provides defined benefit retirement plans for its employees and for those of public schools and community colleges. CalSTRS administers plans for school and community college teaching employees. CalPERS administers the retirement plans for state employees, California State University faculty and staff, and nonteaching school and community college employees. The University of California (UC) administers its own retirement system for its faculty and staff—known as the UCRS. Local governments generally also provide these types of plans for their employees. While some local governments have their own retirement boards to administer their plans, most cities, counties, and special districts have CalPERS or their county retirement system administer their plans. In addition to the pension benefits, many California governmental employees also receive retiree health benefits, Social Security, and Medicare in retirement.

Defined Benefit Based on Formula. When an employee retires, he or she receives a pension that is determined using a mathematical formula. A typical formula is the number of years of service credited to the employee multiplied by a rate of accrual (determined by the employee's age at the time of retirement) multiplied by the employee's final salary level. Retirees typically receive a cost-of-living adjustment each year to at least partially offset erosions in purchasing power resulting from inflation.

Pension Boards Serve as Fiduciary. In 1992, voters approved Proposition 162. This proposition amended the California Constitution to give the board of each public pension system authority and fiduciary responsibility for investment of moneys and the administration of the pension system. As a result of this proposition, the California Constitution makes a pension board the exclusive authority over the investment decisions and administration of its pension system. In managing the pension system, boards determine how much risk the pension fund should be exposed to by determining the fund's investment asset allocation. The pension board also adopts all actuarial assumptions used to calculate costs associated with the pension system.

Pension Benefit Funding. Most defined benefit pension plans have three main sources of funding:

- ***Investment Returns.*** Investment returns are the biggest component of a defined benefit-funding model. In the case of CalPERS, the system reports that about two-thirds of every dollar paid to its retirees is paid from investment returns. Revenues from investment returns vary significantly year to year depending on market performance; however, pension boards adopt actuarial assumptions that assume average investment returns over an extended time horizon. For example, in the systems' 2014 actuarial valuations, CalPERS, CalSTRS, and UCRS each assumed its investments will, on average, annually yield a 7.5 percent return. In recent months, all three systems have discussed changing asset allocations to less risky investment choices and lower discount rates. CalPERS plans on reducing this assumption to around 6.5 percent slowly over time; the CalSTRS board has had conversations on the topic and will continue the discussion at its February 2016 meeting; and UCRS will use a 7.25 percent discount rate beginning in its 2015 actuarial valuation.

- ***Employee and Employer Contributions for Normal Cost.*** The normal cost typically is shared between the employer and employee, with the employer paying half—or somewhat more—of the normal cost. In the case of most state employees, the state and employee each pay about half of the normal cost. In the case of most non-safety state employees, the state and employees each contribute about 8 percent of pay towards the normal cost in 2015-16.

- ***Employer Contributions for Unfunded Liabilities.*** To the extent that a pension plan does not have enough money to pay for all future benefit payments earned to date, an unfunded liability results. Pension boards typically set employer rates to pay off any unfunded liabilities over a specified number of years—known as an amortization period. The longer an amortization period, the lower an employer's near-term annual costs to pay off any unfunded liabilities but the higher the employer's total costs over the entire amortization period. Because a fund can incur losses or gains in any given year, the unfunded liability—and consequently, the employer's contributions—can vary year to year depending on investment returns. A plan is considered fully funded when actuaries determine that the plan—based on an assumed rate of future investment returns and other assumptions—has sufficient assets to pay for all future benefit payments earned to date. In the case of most non-safety state employees, the state pays about 16 percent of pay towards unfunded liabilities in 2015-16.

In most cases, the amount of resources from each of these three sources fluctuates based on market conditions, actuarial assumptions, and other factors. In the case of funding for CalSTRS pension benefits, (1) state contributions provide a fourth source of funding and (2) all contributions—from the state, school or community college district employer, and employees—are fixed in statute established by the Legislature and Governor.

Limited Ability to Change Retirement Benefits for Current Employees and Retirees. Contracts related to pensions, retiree health benefits, and other retirement benefits often are included in collective bargaining agreements or in statutes. In other cases, however, they may be "implicit" (or unwritten) commitments based on an employer's past practices. Both the U.S. and California Constitutions contain a clause—known as the Contract Clause—that prohibit the state or its voters from impairing contractual obligations. In the context of pension benefits, California courts have ruled for many decades that the Contract Clause generally prohibits reductions to pension benefits accrued by governmental employees for work already performed. In addition, the courts have determined that these benefits generally are promised to an employee on the day he or she is hired and so, under what is referred to as the "California Rule," employees have a right to pension benefits accrued in the future for work yet to be performed. In the case of both past and future pension benefit accruals, pension benefits for current governmental employees can be reduced only in rare circumstances—generally, when governmental employers provide a benefit that is comparable and offsets the pension contract that is being impaired or when employers previously have reserved the right to modify pension arrangements.

Retirement Benefits for Governmental Employees in Other States

Most Other States Provide Defined Benefit Pensions. Across the United States, defined benefit pension plans are the most common primary retirement benefit provided to governmental employees. That being said, a growing number of states have adopted other types of retirement benefits for their employees.

- ***Defined Contribution Plan.*** Three states—Alaska, Michigan, and Oklahoma—provide *new* governmental employees a defined contribution plan as their primary retirement benefit.

- ***Hybrid Plans.*** Nine states provide *new* governmental employees a hybrid plan as their primary retirement benefit. Six of these states—Georgia, Indiana, Oregon, Rhode Island, Tennessee, and Virginia—use either a stacked or parallel plan. The remaining three states—Kansas, Kentucky, and Nebraska—use a cash balance plan. (Since 1987, civilian federal governmental employees also have received a hybrid retirement benefit.)

- ***Choice of Primary Retirement Benefit.*** Seven states—Colorado, Florida, Montana, Ohio, South Carolina, Utah, and Washington—give employees options about their primary retirement benefit. In most cases, these states give employees the option between a defined contribution and a defined benefit pension plan. In the case of Utah, employees have the choice between a parallel hybrid plan and a defined contribution plan.

Changes to Mandatory Defined Contribution Benefits in Two States. Two states—West Virginia and Nebraska—at one time required employees to participate in a defined contribution plan but recently changed the primary retirement benefit available to new employees.

- ***West Virginia.*** The state established a defined contribution plan for teachers and closed the existing defined benefit plan to future teachers in 1991. In 2008, the state opened the defined benefit plan to teachers and allowed individual members of the defined contribution plan to become members of the defined benefit pension system.

- ***Nebraska.*** From 1967 to 2002, the primary retirement benefit offered to Nebraska governmental employees was a defined contribution plan. That defined contribution plan was closed and replaced by a cash balance plan for employees hired after January 1, 2003.

Great Recession

The U.S. economy—measured by the Gross Domestic Product (GDP)—grows and contracts depending on a variety of factors including policy decisions and events. Contractionary periods are referred to as recessions and are seen as a normal part of the economic cycle following a period of economic expansion. Recessions often are exhibited by declines in markets—like the stock or housing markets—resulting in a loss of wealth and reductions in employment and income. What makes the most recent recession—from December 2007 through June 2009—notable are the magnitude of the recession—U.S. GDP shrank by 2.8 percent in 2009—and the amount of time that it took for the economy to recover. Due to the severity of the recession, it commonly is referred to as the "Great Recession." The Great Recession was a global economic contraction that was second only to the Great Depression of the 1930s in the modern era.

Significant Decline in Markets. Markets and banking systems around the world crashed during the Great Recession. U.S. stocks—as measured by the Dow Jones

Industrial Average—lost more than half of their value between October 2007 and March 2009. Many American homeowners lost the equity they had in their homes as the "housing bubble" collapsed. A number of financial institutions were forced to close or be bailed out by the federal government. The decline in markets in 2008 erased more than $15 trillion in national wealth in the United States.

Significant Loss in Income. In addition to a loss of wealth, the United States also experienced a significant loss of income during the Great Recession. The U.S. Census Bureau reported that the number of Americans living in poverty grew by 2.6 million between 2009 and 2010. The loss of income largely resulted from significant job losses. The United States lost more than 8.5 million jobs and unemployment doubled and peaked at more than 10 percent. California's job losses were greater in the Great Recession than in prior economic downturns. Between July 2007 and early 2010, the state lost a net 1.3 million nonfarm jobs. This loss in income greatly affected individual behavior—for example, the number of people renting rather than owning their home increased significantly during the recession.

Slow Recovery. Estimates indicate that it took nearly seven years for California to recover the jobs that were lost during the Great Recession with jobs reaching July 2007 levels in June 2014. The time it took California to recover lost jobs was significantly longer than in prior recessions. For example, this recovery period was more than twice the time it took California to recover from job losses resulting from the recession in 2001 and nearly two years longer than the recovery from the recession that occurred between 1990 and 1991.

Effects on Defined Benefit Plans

Increased Unfunded Liabilities. The market losses experienced during the Great Recession resulted in significant investment losses for most defined benefit pension funds in the United States. In California, all three of the largest public pension systems—CalPERS, CalSTRS, and UCRS—experienced significant losses during the recession. (Both CalPERS and CalSTRS reported losses in 2009 that exceeded 20 percent while UCRS reported a 19 percent investment loss.) The loss of assets in the pension funds resulted in unfunded liabilities for these pension systems. These rising unfunded liabilities—combined with decisions made by pension boards to change actuarial assumptions—resulted in employer contributions rising. For example, the state's contribution for a typical state employee increased from 16.6 percent of pay in 2007-08 to 25.1 percent of pay in 2015-16. To mitigate the rising costs to provide defined benefit pensions, the California Legislature adopted two key policy changes discussed below. In addition, the UC increased both employer and employee contributions to the UCRS.

Indirect Effects on Compensation. The Great Recession resulted in lower revenue levels for most California governments. These lower revenues combined with costs to pay for rising pension unfunded liabilities created pressure for governmental employers to reduce payroll costs from what they otherwise might have been through actions such as increasing employee contributions to pension funds, freezing or reducing pay, shifting health costs onto employees, or laying off employees. For example, for five budget years beginning in 2008-09, the state imposed furloughs on many employees that reduced their pay by between 5 percent and 14 percent.

Legislative Changes to California Governmental Pension Benefits. Chapter 296 of 2012 (AB 340, Furutani), referred to as the Public Employees' Pension Reform Act of 2013 (PEPRA), made significant changes to California governmental employee pension benefits. The law applies to employees of most governmental employers but does not apply to some, notably the UC and retirement systems established under city or county charters. The law affects "classic members"—generally, those hired before 2013—differently than "PEPRA members"—generally, those hired after January 1, 2013.

- ***Classic Members.*** PEPRA established a standard that governmental employees pay at least half of normal cost. Although the law does not require employers to implement the standard, it does give employers the authority to impose the standard in 2018 after reaching impasse in collective bargaining. Many classic members—including teachers and most state employees—paid at least half of normal cost prior to PEPRA.

- ***PEPRA Members.*** Pension benefits for PEPRA members are less generous than those earned by classic members so that PEPRA members must work a few more years to earn a pension comparable to that provided to a classic member. The law also requires PEPRA members to pay at least half of the amount of money that actuaries estimate as the normal cost to prefund the pension plan and limits the amount of a PEPRA member's salary that applies to his or her pension benefit.

In addition to PEPRA, the Legislature and Governor adopted a plan to increase contributions to CalSTRS (Chapter 47 of 2014 [AB 1469, Bonta]). The 2014 CalSTRS funding plan increased contributions from the state, school and community college district employers, and teachers beginning in 2014-15. The plan aims to fully fund CalSTRS' key pension program by the mid-2040s.

Little Change to Benefits of Existing California Governmental Employees. Current employees generally contribute more money towards their defined benefit pensions today than they did prior to the Great Recession. However—largely because of the contractual obligations that we discussed earlier that protect existing employees' pension benefits for prospective service—these changes generally do not affect the benefit that existing employees will receive in retirement. Reductions in retirement benefits under these policies generally affect future employees.

Effects on Defined Contribution Plans and Other Retirement Savings

The amount of money in individuals' defined contribution plans depend on market performance and decisions related to investment options and contributions. As we discuss below, the Great Recession resulted in significant investment losses and also affected the amount of money that employers and employees contributed towards these plans. Although we discuss these effects in general terms, studies have found that they varied by an individual's age, tenure, income, and industry.

Heavy Investment Losses. The steep decline in market values during the recession translated into heavy losses among retirement savings accounts. Retirement account balances—including defined contribution plans and IRAs—peaked at $8.7 trillion in 2007 and dropped more than 30 percent through the first quarter of 2009. Some studies (conducted prior to market declines in recent months) suggest that retirement savings accounts with diverse investments largely have recovered from the losses during the recession. (People who rely on investment vehicles based on interest rates—typically less wealthy individuals—have seen their savings grow very slowly as interest rates have remained low and flat since the recession.)

Although many Americans' retirement savings may have recovered from losses sustained during the recession, the average American has saved little for retirement. A Boston College study found that a typical household approaching retirement in 2013 had only $40,000 in retirement savings through a 401(k) and/or IRA. This is a low account balance that would produce little income in retirement. Low account balances likely affect employees' decisions regarding when to exit the workforce and when to begin collecting Social Security benefits.

Contributions Declined. Both employer and employee contributions to defined contribution plans decreased during the Great Recession. This likely was a response to economic uncertainty and the decline in income. Long-term reductions in contributions to defined contribution plans may result in considerably lower retirement wealth.

LAO Comments

Effect of Great Recession on Retirement Security

All Types of Retirement Plans Affected by Great Recession . . . Both defined contribution and defined benefit retirement plans rely on investment earnings to provide a significant share of a plan's assets. In years when there are significant market losses—like the market crashes during the Great Recession—both types of retirement plans lose assets and become less likely to have sufficient assets on hand to pay for members' retirements. Conversely, in years when there are significant market gains—for example, the tech boom of the 1990s—assets in both types of plans grow significantly and there is greater likelihood of the plan having sufficient assets on hand to provide income to retirees.

. . . But With Different Effects on Individuals' Retirement Security. The difference between how defined contribution and defined benefit plans affect retirement security boils down to a question of risk: Who bears the risk when there are insufficient assets on hand to provide retirement income?

In the case of a defined benefit plan, the employer bears all of this risk. Accordingly, during periods of market losses, employers typically must contribute larger sums of money to fund the pension benefits. As we discussed earlier, increased employer costs can lead to indirect effects in employees' compensation to the extent that employers choose to cut pay, reduce or shift benefits costs, lay off employees, or take other actions that affect compensation. However, an employee or a retiree's retirement security generally is not directly affected by the market loss. In the case of a defined contribution plan, the employee bears all of the risk when there are insufficient assets to provide a desired income in retirement. Because market losses in defined contribution plans generally have no direct effect on employers' costs, these employees may experience fewer—or less severe—indirect effects on their compensation. To make up for market losses, employees who are approaching retirement age must do some combination of the following: (1) increase contributions to retirement savings, (2) delay retirement, or (3) accept a lower-than-planned level of income in retirement. Market losses have less of an effect—if any—on the retirement security of younger workers as their accounts are more likely to recover before reaching retirement age.

Things to Consider Before Changing Benefits

Effects on Existing Pension Plans. Changing benefits from a defined benefit to a defined contribution retirement plan can affect the cost to continue providing the defined benefit to current employees. In general, closing existing pension plans to new members increases the cost to provide the benefit to existing members. As closed plans "wind down" over the decades, their pension boards likely would change investments to those with lower risk and lower expected returns. These lower expected investment returns would result in actuaries determining that employers must contribute more money to the pension fund to pay for benefits earned by current and retired employees who are members of the pension plan.

Potential Federal Policy Changes. Federal policies related to Social Security and health care have the potential to significantly change the retirement security of future retirees.

- ***Social Security.*** When addressing the likely future shortfall in Social Security benefits, the federal government could choose to reduce Social Security benefits for future retirees. If this were the case, future retirees would need to rely more heavily on their employer-sponsored retirement benefits and their personal savings in retirement.

- ***Health Care.*** Health care costs are highest for patients who are elderly or receiving end of life care. Through both the federal Affordable Care Act and Medicare, federal policies directly affect health care costs. Retirees' income needs will be affected to the extent that future federal policies affect health care costs.

Effects on Other Elements of Compensation. Any reduction in retirement benefits for governmental employees likely would lead to pressure for governmental employers to increase other elements of compensation to attract and retain employees. This could produce compensation packages that look very different from those offered to current governmental employees and have different cost implications for governmental employers.

Demographic Trends Create Risk for All Retirement Plans. Regardless of whether a person is in a defined contribution plan or a defined benefit pension plan, the fact that Americans are living longer creates a greater risk that a plan has insufficient assets on hand to ensure adequate income in retirement. In the case of a defined contribution plan, this risk is borne by the plan participants in that they may outlive the assets they have put aside to provide their retirement income. In the case of a defined benefit pension plan, this risk is borne by the employer in that the employer will need to contribute additional money towards the unfunded liability.