Introduction

In 2013, the California legislature passed and Governor Jerry Brown signed the Public Employees’ Pension Reform Act of 2013 (PEPRA). PEPRA lowers pension benefits for new members of most public retirement systems and requires some public employees to contribute more toward funding their defined benefit (DB) pension plans.

DB plans have been, and continue to be, an important component of public employee compensation. PEPRA changes California public employees’ overall compensation by reducing benefits, which should lower employer DB plan contributions.

This paper:
• Explains components of public employee compensation and retirement benefits
• Compares California state and local government salaries and retirement expenditures to other states
• Uses hypothetical scenarios to estimate:
  ▪ The monetary value of DB plans and Social Security
  ▪ PEPRA benefit formula impacts

Compensation and retirement benefits

To attract and retain quality employees, government employers balance salaries, pensions and other benefits. While salaries provide immediate compensation, retirement benefits provide deferred compensation. The deferred nature of retirement benefits allows employers to offset present-day salaries by leveraging long-term investment returns for compensation in retirement.
Most state and local government employers provide a DB plan and, in some cases, participate in Social Security to support employee retirement. Typically, both employers and employees contribute to the normal cost\(^1\) of funding a DB plan and, if applicable, the employer is responsible for any unfunded liability. The plan administrator professionally invests contributions and disburses benefit payments (or annuity). The benefit reflects a retirement formula based on age, years of service and average salary over a specific number of years. Under a DB plan, the employer incurs the risk that the collective membership may outlive plan assets (longevity risk) and that plan investments may not meet projected investment returns (investment risk).

Currently, if an employer participates in Social Security, the employer and employee each pay 6.2 percent of wages up to the $113,700 salary cap (2013). The Social Security Administration invests these payroll taxes in federally guaranteed securities. Upon retirement, participants receive a monthly benefit based on age, lifetime earnings and credits.\(^2\)

To meet their retirement goals, public employees may augment their DB plan and Social Security with personal savings through defined contribution plans or individual retirement accounts. As with any personal savings, the individual decides how much to contribute and is responsible for managing the investments. At retirement, the employee can access accumulated savings and investment returns.\(^3\) When employees rely on personal savings for retirement, they incur longevity and investment risks. Figure 1 shows components of public employee retirement.

**Figure 1: Typical public employee retirement components**

<table>
<thead>
<tr>
<th>Component</th>
<th>Contributions</th>
<th>Investments</th>
<th>Retiree income</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Defined benefit</strong></td>
<td>Employee – share of normal cost</td>
<td>Professionally managed</td>
<td>Monthly benefit based on age, length of service &amp; final average compensation</td>
</tr>
<tr>
<td></td>
<td>Employer – share of normal cost &amp; unfunded liability</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social Security</strong></td>
<td>Employee – 6.2% of wages</td>
<td>Federally guaranteed securities</td>
<td>Monthly benefit based on age, lifetime earnings &amp; credits</td>
</tr>
<tr>
<td></td>
<td>Employer – 6.2% of wages</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Personal savings</strong></td>
<td>Employee – discretionary</td>
<td>Self-managed</td>
<td>Total accumulated savings &amp; interest</td>
</tr>
</tbody>
</table>

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Comparing government compensation expenditures

To address concerns regarding California state and local government spending on compensation, CalPERS researchers compared state and local government compensation across all states and the District of Columbia. Although compensation can include other benefits such as health insurance, this study focuses only on salary and retirement benefit compensation. Retirement benefit compensation includes only DB plan and Social Security benefits.

State and local government participation in Social Security varies and many offer enhanced DB plans to compensate for lack of participation. To account for varied Social Security participation and DB plan benefits, this study calculates retirement contributions in total.

CalPERS researchers used U.S. Census Bureau data to estimate government employee compensation (salaries, retirement and total) as a percent of total government expenditures, by state. Researchers also identified highest and lowest levels of employee compensation spending. The following table summarizes the findings:

<table>
<thead>
<tr>
<th>2010 Compensation</th>
<th>All States and District of Columbia</th>
<th>California</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average</td>
<td>Low</td>
</tr>
<tr>
<td>Total Compensation</td>
<td>30.98%</td>
<td>25.09%</td>
</tr>
<tr>
<td>Salaries</td>
<td>27.05%</td>
<td>22.50%</td>
</tr>
<tr>
<td>Retirement (DB plan &amp; Social Security)</td>
<td>3.94%</td>
<td>2.29%</td>
</tr>
</tbody>
</table>

Comparatively, California state and local government spent 0.06 percent less than the national average on total employee compensation, 0.37 percent less on salaries and 0.30 percent more on retirement benefits. In 2010, California government expenditures supporting public employee compensation were consistent with other states. PEPRA, however, changes overall compensation by decreasing benefits for new employees and by requiring some employees to contribute toward their DB plan’s normal cost.

Scenario assumptions

CalPERS researchers developed hypothetical scenarios using CalPERS Classic and PEPRA employee benefit formulas and Social Security benefit calculations to compare the monetary value of retirement benefit types and the impact of the PEPRA formula on benefits. New CalPERS members are PEPRA employees; others are Classic employees. Although Classic and PEPRA employee benefits apply to public employees based on date of membership, this
study uses the same membership and retirement dates for a consistent comparison. This study’s hypothetical scenarios assume the employees:

- Receive a starting annual salary of $46,000 in 2013
- Participate in Social Security throughout their working life
- Earn 20 years of CalPERS service credit
- Receive a benefit based on the Miscellaneous Classic or PEPRA formula
- Retire on December 31, 2033 at age 62 and one month
- Live to age 82

**Monetary value of benefit type**

While retirement plans provide social and economic value, this study calculates the monetary value of retirement compensation. To determine the monetary value of CalPERS DB plan and Social Security benefits, this study:

- Uses scenario assumptions to calculate total:
  - Normal cost contributions
  - Projected retirement distributions
- Brings total contributions and projected retirement distribution to 2013 dollars
- Divides the total retirement distribution by the total contribution

This study’s hypothetical scenarios show that for every contribution dollar, government employers and public employees will receive an estimated:

- $3.00 from CalPERS
- $1.66 from Social Security

CalPERS exceeds Social Security’s monetary value by approximately $1.34 for every contribution dollar, reflecting CalPERS professional investment management and portfolio diversification.

**PEPRA formula impact**

PEPRA changes the benefit formula for new public employees and impacts the balance between salaries and retirement benefits. It reduces benefit formulas and increases retirement ages. PEPRA also standardizes California’s pension benefits by decreasing the number of DB plan formulas for each employee category. As a result, new employees will receive less in DB plan retirement income than Classic employees who retire at the same age with the same years of service credit.
To estimate PEPRA’s impact on new employees, CalPERS researchers entered this study’s scenario assumptions into CalPERS and Social Security benefit calculators and converted the results to 2013 dollars. The CalPERS Classic employee would receive an Unmodified Allowance of $2,140 per month, while the PEPRA employee would receive $1,705. In these hypothetical scenarios, both would also receive $1,428 each month from Social Security. Figure 2 displays the retirement benefit for each employee by benefit formula type.

Figure 2: Monthly retirement allowance (miscellaneous employees, Unmodified Allowance, 2013 dollars)

The PEPRA employee would receive $435 less per month in retirement income than the Classic employee due to the benefit formula changes. PEPRA employees who wish to retire with the same income as Classic employees will need to work longer or save to make up the difference. If they choose to save, they will likely need to save even more than the $435 monthly retirement income difference because of longevity and investment risks associated with personal savings.

A CalPERS white paper titled, *The Emerging Role of Defined Contribution Plans for California Public Employment*, estimates the PEPRA employee with the same scenario assumptions will need to save $483 monthly with a 6 percent return on investment or $682 monthly with a 3 percent return on investment. To compete for quality employees, government employers may find they need to adjust salaries to make up for the reduction in retirement compensation.
Conclusions

This study shows that while California government employers spent slightly more on retirement benefits than the national average in 2010, they spent less on overall compensation when considering salaries and retirement benefits. Using hypothetical scenario assumptions for Classic and PEPRA Miscellaneous employees, researchers found that CalPERS returned approximately $3.00 for each dollar contributed by employees and employers to the pension fund. This is a result of a DB plan’s ability to manage investments professionally and to invest for the long-term.

PEPRA changes compensation by reducing benefits for new public employees and requiring others to pay more of the DB plans’ normal costs. CalPERS estimated that a legislative proposal similar to PEPRA might save its plans between $42 billion and $55 billion over the next 30 years. The CalPERS PEPRA employee in this study will receive $435 less per month in retirement income than his or her Classic employee peers. To retire with the same income as their Classic employee peers, PEPRA employees will likely need to save more to mitigate longevity and investment risks.

While PEPRA is projected to decrease California state and local government retirement contributions in the long run, it also decreases employee compensation. Unless government employers adjust total compensation, this could impact their ability to attract and retain quality employees. To stay competitive and support employee retirement security, government employers may consider creative employee compensation strategies and provide employees with opportunities to enhance personal savings so they can meet their retirement goals.
Endnotes

1 The normal cost is the annual cost of active employees’ service accrual for the upcoming fiscal year. Required employee contributions are part of the total normal cost. The remaining portion is the employer normal cost. Actuaries view this portion as the long-term employer contribution rate.

2 According to the Social Security Administration, if you were born in 1929 or later, you need 40 credits to retire. In 2013, participants must have annual covered earnings of $1,160 to earn one Social Security credit or annual covered earnings of $4,640 to earn four Social Security credits.

3 Distribution rules vary by plan type.


5 Researchers determined the approximate percent of government salaries covered by Social Security using the percent estimated in a 2010 Governmental Accountability Office Report. Researchers calculated the Social Security contribution by applying the tax rate to total covered salaries. This study did not take into account the Social Security maximum taxable earnings limit. Therefore, Social Security and retirement costs may be slightly overstated.

6 According to the U.S. Census Bureau website, expenditures are all amounts of money paid out by a government—net of recoveries and other correcting transactions—other than for retirement of debt, investment in securities, extension of credit, or as agency transactions.

7 Researchers based starting annual salary on the approximate starting salary of a Staff Services Analyst - Range C (State).

8 Social Security provides benefits based on an employee’s entire working life, regardless of public or private employment.

9 Researchers assumed 20 years of service based on the average years of service for all service retirements as of June 30, 2012.

10 The Classic Miscellaneous employee formula is 2 percent at age 55 and the PEPRA Miscellaneous employee formula is 2 percent at age 62. In these scenarios, the Classic employee retiring at age 62 has a 2.438 percent benefit factor. The PEPRA employee retiring at age 62 has a 2 percent benefit factor.

11 Adjusted contributions and benefit payments to reflect purchasing power in 2013 dollars.

12 PEPRA Miscellaneous employees receive a 2 percent at age 62 benefit formula. PEPRA State Tier II employees receive 1.25 percent at age 67. PEPRA Safety employees receive one of three benefit formulas: 2.7 percent at age 57, 2.5 percent at age 57 or 2 percent at age 57.

13 The Unmodified Allowance is the highest benefit payable with no optional benefit for a beneficiary upon the member’s death.


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