



City of Oakland, CA

Other Post-Employment Benefits (OPEB) Funding Analysis and Policy

Prepared on January 14, 2019

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Executive Summary

- The term Other Post-Employment Benefits (OPEB) refers to retiree benefits other than pensions – primarily post-employment healthcare, as provided to City of Oakland retirees.
- Funding OPEB is a challenge across the U.S. public sector, generating significant and fast-rising costs. In Oakland, the City spent \$27.2 million on healthcare payments for current retirees in Fiscal Year (FY) 2017-18. By FY 2026-27, this cost is projected to reach \$50.3 million – a forecasted growth rate more than three times that of projected inflation.
- The recognized best practice for OPEB funding is to set aside resources in a trust during an employee’s active years of service at levels actuarially determined to be sufficient to fund the City share of healthcare in retirement on a pooled basis across all eligible retirees – just as has long been done for pensions.
- Like most governments nationally, however, Oakland only began to prefund OPEB in recent years when the accounting standards for such benefits were changed to require an actuarial perspective – after previously funding only the “pay-go” costs for those who have already retired.
- As a result of only recently beginning to prefund these costs, the City’s accumulated net unfunded liability for future OPEB benefits on an actuarial basis as of June 30, 2017 was \$849.5 million. Overall, the Oakland OPEB plan is just 3.0% funded.
- The implementation of new accounting standards beginning with the fiscal year ending June 30, 2018 will record this entire liability in the City’s Statement of Net Position, more than double the net OPEB obligation of \$360.0 reported for the fiscal year ending June 30, 2017 under previous accounting rules.
- While the City established an OPEB trust for prefunding in FY 2010-11 and has committed an extra \$10 million above pay-go to this trust in each of the past two fiscal years (\$20 million in total), the City’s annual funding levels – even with these extra payments – are less than half of the amounts recommended by the actuaries.
- This shortfall – and the absence of a clear plan to address these OPEB liabilities going forward – are not only of strong concern for the City’s leadership, but they have also been cited in 2018 by an Alameda County Civil Grand Jury and noted as a credit weakness in the City’s 2018 credit reports from independent rating agencies.
- Unchecked OPEB cost growth threatens the City’s overall fiscal condition and its capacity to meet other important service needs.



- To address these challenges and concerns, Oakland City Council authorized this study and the development of an OPEB funding policy.
- The goal of Oakland’s OPEB Policy is to provide a retiree healthcare program that balances affordability, sustainability, and competitiveness concerns.
- Benchmarking conducted for this report indicates that Oakland as of 2018 now provides City employees with highly competitive retiree medical benefits relative to other Bay Area and large California cities.
- Recently negotiated OPEB adjustments for police effective in 2019 will move toward a significantly more affordable and sustainable benefit structure, while remaining regionally competitive. Similar benefit reform opportunities are also available for Oakland firefighters, and this report further identifies additional cost containment options for all employees.
- If reasonable benefit reforms are combined with a sustained City commitment to pay down its unfunded OPEB liability at levels above pay-go costs, Oakland is well positioned to move forward with a positive, long-term plan for sustainable funding.
- The recommended OPEB Policy developed along with this report includes a long-term City funding commitment of 2.5% of payroll above pay-go OPEB costs toward achieving full funding, set forth in tandem with goals for continued labor-management partnership to reduce the rate of growth in the current liability.
- Along with additional provisions for transparency, regular reporting, and a sound actuarial approach, the recommended OPEB Policy provides a framework for a roughly tenfold improvement within a decade in the funded level for that component of the City’s overall OPEB liability associated with direct healthcare payments to retirees (in accounting terms, the “explicit subsidy”).
- With sustained commitment to this recommended approach, the City’s actuaries project full funding of Oakland’s OPEB explicit subsidy in less than 25 years – and potentially sooner.
- Given that Oakland’s current OPEB funding shortfall has been decades in the making, such steady progress toward achieving true sustainability – in conjunction with improved affordability and continued benefit competitiveness – would represent a meaningful plan and positive fiscal stewardship.
- Although further monitoring and future adjustments may well be required as circumstances continue to change and evolve across the years ahead, it is the project team’s strong hope and belief that these actions will position the City of Oakland to meet its long-term commitments effectively.



Project Overview

PFM Group Consulting LLC (PFM) was retained by the City of Oakland to provide consulting services to assist the City in developing a Funding Analysis and Policy regarding Other Post-Employment Benefits (OPEB) – the term commonly used among public employers for retiree benefits other than pensions, principally post-employment healthcare. PFM coordinated efforts with Cheiron, the City’s OPEB plan actuary, to develop the analysis and fiscal estimates used in support of this engagement.

The City of Oakland provides eligible retirees from City government the opportunity to participate in regional health insurance plans offered through the California Public Employees' Retirement System (CalPERS), and covers a portion of the health insurance premiums, varying by class of employment. With a growing number of City retirees, fast-rising medical inflation, and evolving accounting standards increasing focus nationwide on the actuarial cost of OPEB liabilities, Oakland now faces a severe funding challenge – and the imperative for a more financially sustainable OPEB program.

To address this challenge thoughtfully, the City sought assistance in developing a Funding Analysis and Policy in support of affordable, sustainable, and competitive OPEB benefits.

At the same time, it is important to acknowledge that this initiative represents the next step – not the first step – in addressing Oakland’s OPEB liabilities. Prior to publication of this report, the City had already undertaken the following actions to improve OPEB funding:

- *Establishment of an Irrevocable OPEB Trust.* While the City has generally limited its OPEB payments to annual pay-go contributions, the City did join the California Employers’ Retiree Benefit Trust (CERBT) in FY 2010-11. The CERBT is an irrevocable trust, dedicated for long-term OPEB prefunding. In the years from launch in FY 2010-11 through FY 2016-17, the City of Oakland built a modest balance of \$6 million through initial, direct contributions and interest earnings.
- *Supplemental OPEB Prefunding of \$20 Million.* As previously noted, the City has recently increased its OPEB prefunding, contributing \$10 million to the CERBT in both FY 2017-18 and FY 2018-19. This has brought the current trust funding to approximately \$26 million.
- *Police Benefit Restructuring.* As also previously detailed, collective bargaining agreements reached in November 2018 with the City’s police unions will achieve significant long-term OPEB savings, both by containing future cost growth for



current retirees and active employees, and by establishing a more affordable new tier for officers hired after January 1, 2019.

While the above, initial steps have not yet been sufficient to fully resolve the City of Oakland's long-term OPEB challenges, these actions do provide an important foundation upon which an enduring OPEB policy can be shaped.

To develop this forward-looking policy, the PFM-Cheiron team conducted the following major tasks:

- Documented and analyzed the City's OPEB plan, financial characteristics, and key cost drivers in the context of the City's budget and OPEB plan conditions and trends regionally and nationally.
- Benchmarked the City's OPEB plan and funding against other California municipalities and evaluated best practices nationally.
- Met with key stakeholders to gain insight into the OPEB plan and the City's goals and challenges, including City of Oakland municipal employee unions, the Budget Advisory Committee, and other City leadership.
- Conducted financial analysis to model the impact of various alternative benefit and subsidy approaches.
- Developed a recommended funding policy, incorporating the input and analysis outlined above.

This report and recommended funding policy are intended to be presented to City Council for consideration.



OPEB Basics

Other Post-Employment Benefits (OPEB) refers to retiree benefits other than pensions. While this may include retiree life insurance and other types of non-pension benefits, the largest OPEB category nationally is retiree healthcare coverage. For City of Oakland retirees, as with many U.S. public employers, retiree healthcare coverage is the exclusive form of OPEB provided – at a significant and fast-rising cost.

Nationally, the Center for Retirement Research at Boston College estimated¹ that, as of 2013, two thirds of total state and local government OPEB unfunded liabilities were at the local level. More recently, analysis by S&P Global found that the aggregate unfunded OPEB liability for state governments alone had reached \$678 billion by 2017.² Assuming that local government OPEB liabilities continue to be roughly twice as high as such state obligations, this suggests that total U.S. state and local OPEB unfunded liabilities may well now exceed \$2 trillion. In Oakland, the most recent actuarial report estimated the City’s total unfunded liability as of July 1, 2017 at \$849.5 million.

With pension obligations, most employers have been setting aside funding during employees’ active years of service in pension trusts for many decades, anticipating the future cost of these benefits as employees retire. While many such pension systems are now experiencing funding shortfalls of their own – creating major budget pressures – most plans have nonetheless built up some significant level of prefunding. Across the largest public pension systems nationally, for example, plans reported aggregate funding of 71.9% of what is actuarially recommended.³ For the City of Oakland, the Miscellaneous pension plan under CalPERS is 68.2% funded and the Safety plan is 64.2% funded based on the market value of assets as of June 30, 2017.

In contrast, many OPEB plans are almost completely unfunded. This is because most state and local governments have historically paid OPEB costs only for those former employees who have already retired for the benefits they are currently receiving – with little or no prefunding. While this “pay-as-you-go” (pay-go) was manageable for many public employers when healthcare costs were comparatively low and the census of retired employees remained steady, recent and ongoing trends in both healthcare premiums and the number of retired employees are driving OPEB costs to unprecedented levels.

Recognizing this growing challenge, the Government Accounting Standards Board (GASB) issued new standards about a decade ago requiring state and local governments to provide actuarial valuations of their OPEB liabilities. Under more recent

¹ Center for Retirement Research at Boston College, “How Big a Burden are State and Local OPEB Benefits?” (March 2016).

² S&P Global Ratings, “Rising U.S. States’ OPEB Liabilities Signal Higher Costs Ahead” (November 28, 2018).

³ National Association of Retirement System Administrators (NASRA), Public Fund Survey, Summary of Findings for FY 2017 (November 2018).



updates to these standards (GASB 74/75), unfunded OPEB liabilities will be fully reflected on governmental balance sheets under more stringent actuarial requirements, similar to what local governments are required to report for pensions. While this accounting change does not have an immediate impact on the City's underlying finances, it does further highlight the long-term funding issues that the City must address in the coming years.

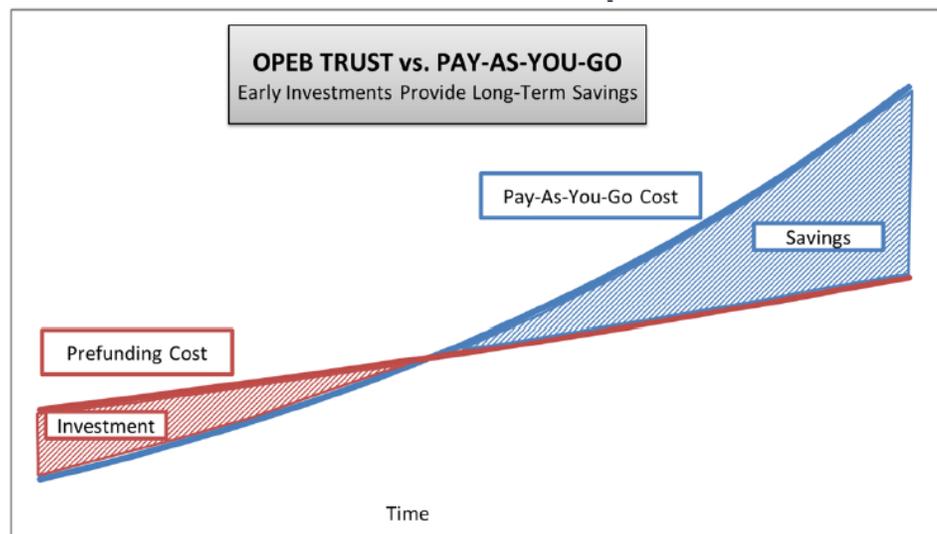
Actuarially Determined Contribution (ADC)

OPEB actuarial valuations include an Actuarially Determined Contribution (ADC), indicating the amount a public employer should fund in a dedicated trust each year, to meet the following commitments:

- To set money aside for future benefits for current employees during their active years of service.
- To amortize any unfunded liabilities for both active and future employees.

If fully funded, an OPEB trust would be expected to pay for all promised benefits, with the trust sustained going forward by the ongoing ADC payments. The term "ADC" as defined under current accounting standards is generally equivalent to the prior concept for OPEB and pensions of an Annual Required Contribution or "ARC."

For a plan that historically has not been well-funded, the short-term ADC cost would typically be much higher than the pay-go cost of claims/premiums for eligible retirees already receiving benefits. Over the long-term, however, funding the ADC allows a City to harness investment returns for prefunded



amounts to pay a portion of future OPEB benefits – generating long-term savings and moderating future budget pressures. This dynamic is illustrated in the accompanying graphic developed by the League of California Cities.⁴

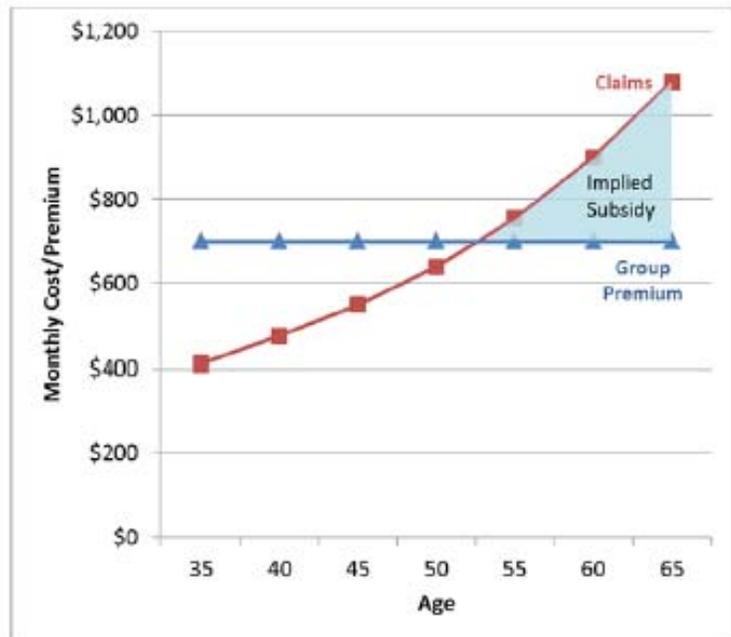
⁴ League of California Cities, "Retiree Health Care: A Cost Containment How-To Guide" (September 2016).



While fully funding the ADC is not a legal requirement, the City must now report its full OPEB liabilities on its balance sheet.

Implicit vs. Explicit Subsidies

Nearly one-quarter of Oakland’s expected OPEB costs is categorized as an “implicit subsidy.” This subsidy arises because medical premium rates for pre-Medicare retirees are pooled together with active employees under the Public Employees Medical & Hospital Care Act (PEHMCA) health plans administered by CalPERS. In turn, this pooling results in an overall higher premium for active employees (who tend to have lower healthcare costs than retirees on average) –and a lower premium for retirees than the “true” cost would reflect. This dynamic is illustrated in the League of California Cities graphic to the right.⁵



This pooling of populations with substantially different healthcare costs effectively results in a subsidy for the premiums for retirees – a cost required to be shown as a liability in the City’s OPEB actuarial valuation. The PEMHCA health plans do not offer the option of using separate rates for active employees and retirees, making this implicit subsidy unavoidable under the current PEMHCA health care program structure.

In contrast, the term “explicit subsidy” refers to the direct payments made by the City to retirees. This is the more visible, and typically larger, component of OPEB costs. For Oakland, the explicit subsidy represents more than three-quarters of current costs.

⁵ League of California Cities, “Retiree Health Care: A Cost Containment How-To Guide” (September 2016).



Current City of Oakland OPEB Benefits

All City of Oakland retirees and their dependents can potentially receive lifetime medical coverage under PEMHCA health plans for retirees and their dependents. To be eligible, an Oakland employee must generally retire from the City with at least five years of service.⁶ Once a retiree turns 65, Oakland OPEB plan participants are required to enroll in a Medicare supplement plan. Spouses and dependent children are covered for the lifetime of the longer-lived employee or the surviving spouse. Additionally, if an active employee who would have been eligible for coverage dies before retiring, the spouse and dependent children are covered for the lifetime of the spouse.⁷

In addition to offering continued coverage in the City's medical plans, Oakland provides financial support to retirees for OPEB in multiple ways. First, consistent with the structure of the PEMHCA plans, the City provides retirees with the implicit subsidy of lower premium costs due to pooling of their coverage with less expensive active employees. Second, Oakland covers a portion of the cost for these reduced health insurance premiums through additional City contributions. As further detailed below, these City contributions vary in amount and structure by employee group, and are subject to collective bargaining for represented employees.

Miscellaneous Employees

For non-Safety employees, the City contributes the "PEMHCA minimum" amount set by CalPERS toward the cost of retiree medical benefits, which will be \$136 per month in 2019 and increases each year by an inflation index. In addition, for retirees with 10 or more years of City service, Oakland provides an additional fixed subsidy reimbursement of up to \$425.42 per month. The combined PEMHCA minimum payment and supplemental reimbursement cannot exceed the CalPERS medical premium. In total, this results in a City contribution for 2019 of up to \$561.42 per month or \$6,737.04 annually.⁸

The following tables show the City and retiree contributions for the Kaiser HMO plans (Pre-Medicare and Medicare) as of 2019. When a retiree becomes eligible for Medicare, the cost for all available plans and coverage levels is typically far lower due to Medicare coordination.

⁶ The service requirement is waived for police or fire employees who become disabled in the line of duty.

⁷ City of Oakland Postretirement Health Insurance Plan, Actuarial Valuation Report as of July 1, 2017, issued June 2018; CalPERS, Health Benefits Circular Letter, May 2018.

⁸ City of Oakland, CalPERS 2019 Monthly Premiums – Bay Area Region.



Table 1: Pre-Medicare Miscellaneous Employees

Pre-Medicare Eligibility Age <65	Coverage Level	Retiree Contribution (Monthly)	City Contribution (Monthly)
Kaiser Bay Area	Retiree	\$206.83	\$561.42
	Retiree + Spouse	\$975.08	\$561.42
	Family	\$1,436.03	\$561.42

Table 2: Medicare Miscellaneous Employees

Medicare Eligibility Age >65	Coverage Level	Retiree Contribution (Monthly)	City Contribution (Monthly)
Kaiser Senior Advantage Bay Area	Retiree	\$0.00	\$323.74
	Retiree + Spouse	\$86.06	\$561.42
	Family ⁹	\$547.01	\$561.42

Police

For members of the Oakland Police Officers Association (OPOA) and Oakland Police Management Association (OPMA), the City will contribute a fixed amount toward retiree medical premiums based on the level of coverage elected, up to \$1,683.80 per month (\$20,205.60 annually) in 2019¹⁰ – subject to growth in future years as premiums increase. This future growth is not capped. Again, the City’s contribution cannot exceed the CalPERS medical premium, and will be adjusted downward if sufficient to cover 100% of a lower cost plan, such as are available for Medicare eligible retirees.

The following tables show the contributions for the Kaiser HMO plan, as of 2019:

Table 3: Pre-Medicare Police Officers

Pre-Medicare Eligibility Age <65	Coverage Level	Retiree Contribution (Monthly)	City Contribution (Monthly)
Kaiser Bay Area	Retiree	\$0.00	\$768.25
	Retiree + Spouse	\$0.00	\$1,536.50
	Family	\$313.65	\$1,683.80

⁹ Medicare family coverage assumes retiree and spouse are Medicare eligible plus one dependent who is not.

¹⁰ City of Oakland, CalPERS 2019 Monthly Premiums – Bay Area Region.



Table 4: Medicare Police Officers

Medicare Eligibility Age >65	Coverage Level	Retiree Contribution (Monthly)	City Contribution (Monthly)
Kaiser Senior Advantage Bay Area	Retiree	\$0.00	\$323.74
	Retiree + Spouse	\$0.00	\$647.48
	Family ¹¹	\$0.00	\$1,108.43

In addition, two closed groups of officers who retired under prior OPEB programs officers also receive additional benefits (known as the Retention I and II programs).

Looking forward, under new collective bargaining agreements reached with OPOA and OPMA in November 2018, a more sustainable retiree medical program has been negotiated to moderate OPEB costs for current and future police retirees.

For active employees and current retirees, the City contribution toward retiree health benefits will now be capped at the Bay Area Kaiser rate for two-party (retiree plus spouse) coverage in 2020, rather than continuing to grow on an uncapped basis. Under the PEMHCA program, the Kaiser rate is also typically more affordable than other available options, and the two-party rate also limits costs while maintaining strong coverage for the retiree and spouse.

For new employees hired after January 1, 2019, the City will provide the same benefit now provided for Miscellaneous employees: City contributions capped at the PEHMCA minimum, plus an additional \$425.40 per month if the employee retires from the City with ten or more years of service.

Fire

For members of the International Association of Fire Fighters (IAFF) Local 55 in 2019, the City will contribute up to \$1,764.14 per month (\$21,169.68 annually) toward the cost of retiree medical benefits prior to Medicare eligibility, depending on the level of coverage elected.¹² As with police retirees prior to the new agreement, this contribution is linked to the CalPERS premium for that year, and is subject to potential cost growth annually as premiums increase, with no cap.

When a retiree becomes eligible for Medicare, the City subsidy covers 100% of the cost for all available plans and coverage levels. As with the other employee groups, the City’s contribution cannot exceed the cost of the CalPERS medical premium.

¹¹ Medicare family coverage assumes retiree and spouse are Medicare eligible plus one dependent who is not.

¹² City of Oakland, CalPERS 2019 Monthly Premiums – Bay Area Region.



The tables below show the City and retiree contributions for the Kaiser HMO plan, as of 2019:

Table 5: Pre-Medicare Firefighters

Pre-Medicare Eligibility Age <65	Coverage Level	Retiree Contribution (Monthly)	City Contribution (Monthly)
Kaiser Bay Area	Retiree	\$0.00	\$768.25
	Retiree + Spouse	\$0.00	\$1,536.50
	Family	\$233.31	\$1,764.14

Table 6: Medicare Firefighters

Medicare Eligibility Age >65	Coverage Level	Retiree Contribution (Monthly)	City Contribution (Monthly)
Kaiser Senior Advantage Bay Area	Retiree	\$0.00	\$323.74
	Retiree + Spouse	\$0.00	\$647.48
	Family ¹³	\$0.00	\$1,108.43

On an annual basis, firefighters also have 100% of unused vacation leave from the previous year deposited into the City’s Health Reimbursement Account (HRA) program.

The City has proposed restructured retiree health care coverage in the current round of labor negotiations with IAFF, Local 55. The parties are currently engaged in binding arbitration process pursuant to the City Charter. As of the completion of this report, that process has not yet been resolved.

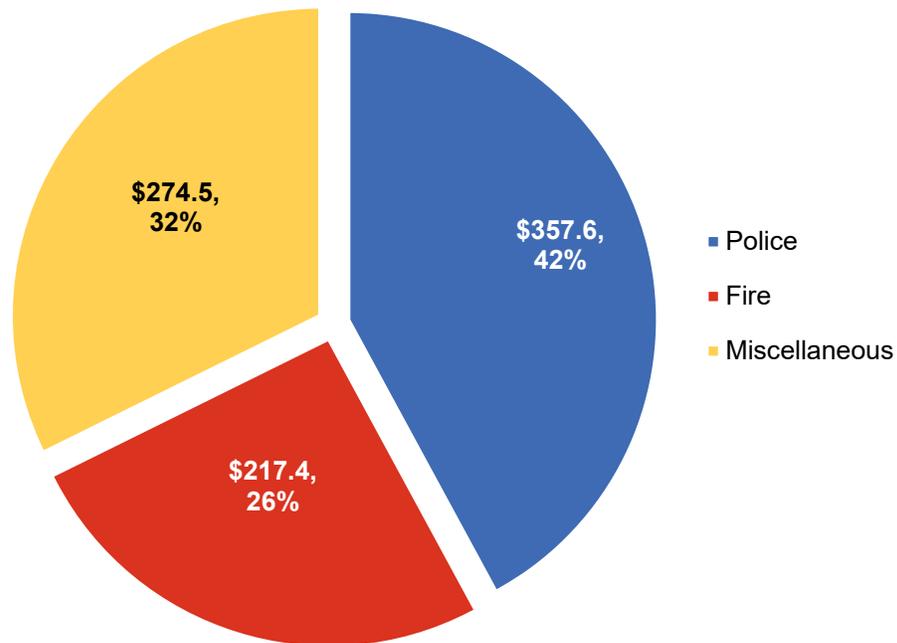
¹³ Medicare family coverage assumes retiree and spouse are Medicare eligible plus one dependent who is not.



Oakland's Unfunded OPEB Liability

As of the City of Oakland's most recent actuarial valuation, the City had a total unfunded OPEB liability of \$849.5 million on July 1, 2017 – with each major employee group representing more than one quarter of the total liability.¹⁴

Figure 1: Unfunded Actuarial Liability (UAL) as of July 1, 2017 by Major Employee Group (\$ in Millions)



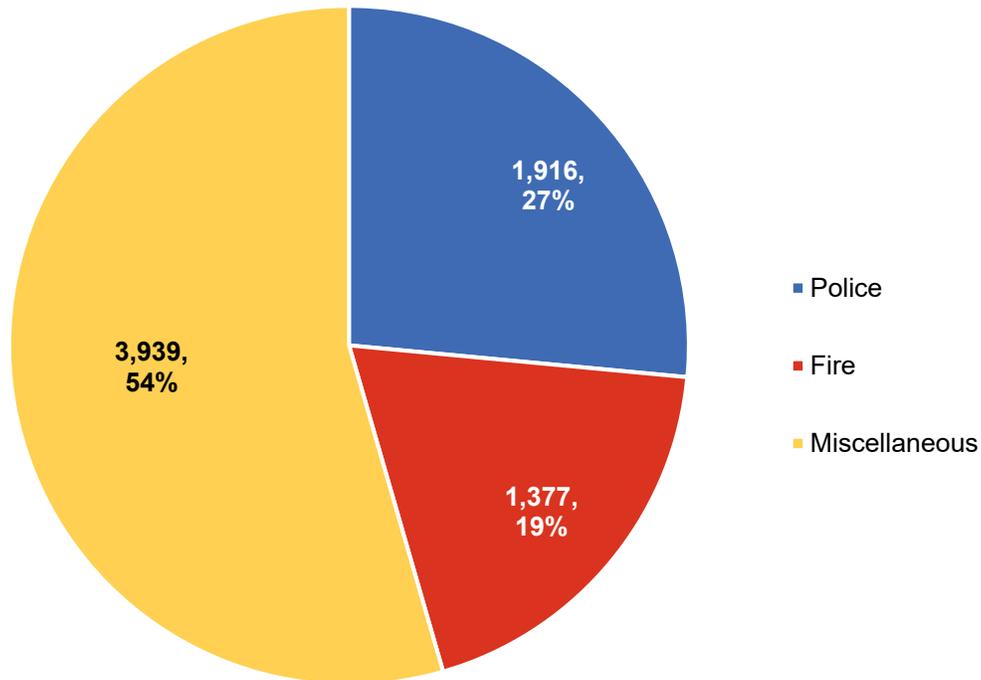
In Figure 2 that follows, the shares of the total liability are further contextualized by a breakdown of the composition of the City's OPEB plan membership by employee group. By number of covered members, the Miscellaneous group represents the largest cohort of municipal employees (54%), outpacing its proportionately smaller share of the total OPEB liability (32%).

This ratio is a function of both the varying level of benefits provided to each group and the earlier retirement eligibility for Safety employees. When employees retire at an earlier age, they will receive benefits for more years than their counterparts retiring at later ages, assuming similar mortality experience – and, typically, more years at the higher rates associated with Pre-Medicare coverage.

¹⁴ City of Oakland Postretirement Health Insurance Plan, Actuarial Valuation Report as of July 1, 2017, issued June 2018.



Figure 2: Membership Data as of July 1, 2017
Active Employees, Retirees, and Beneficiaries by Major Group



For FY 2018-19, Cheiron, the City’s OPEB actuary, calculated an ADC of \$79.4 million in order to actuarially fund the future benefits for current active employees and to pay down a portion of the unfunded liabilities (inclusive of the requirements to meet current “pay-go” costs for those already retired). This is the amount that the City should be funding for the year on an actuarial basis.

In contrast, pay-go costs just for benefits for those already retired were estimated to total \$29.6 million, without setting aside funds for current active employees or otherwise paying down the unfunded liability. In FY 2018-19, the City is fully covering these pay-go OPEB costs and contributing an additional \$10 million¹⁵ into a trust for the unfunded liability.

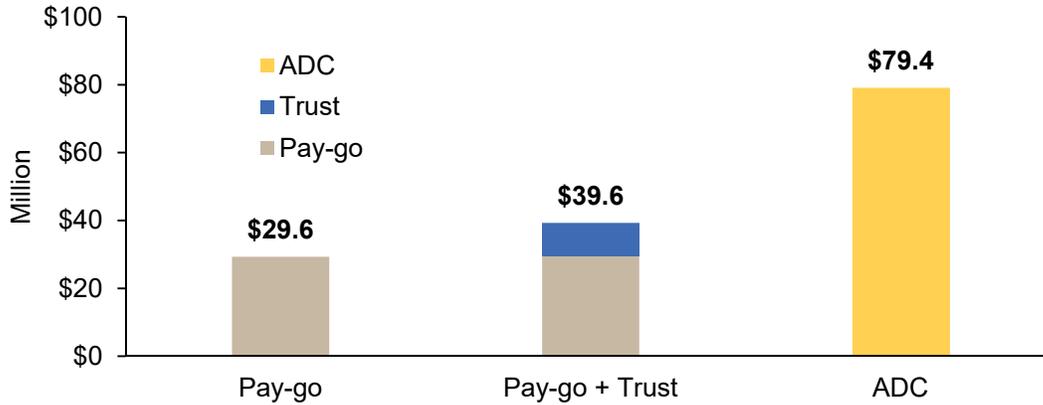
As shown in Figure 3, even with this additional \$10 million, City funding remains \$39.8 million below the ADC – less than half of the actuarially determined level.¹⁶

¹⁵ The City also contributed a supplemental \$10 million above pay-go in FY 2017-18.

¹⁶ City of Oakland Postretirement Health Insurance Plan, Actuarial Valuation Report as of July 1, 2017, issued June 2018; ADC estimates provided by Cheiron based on 7/1/17 valuation, assuming contributions remain at level of current benefit payments plus \$10,000,000 in FY 2017-18 and FY 2018-19 only, with 30-Year closed UAAL amortization.



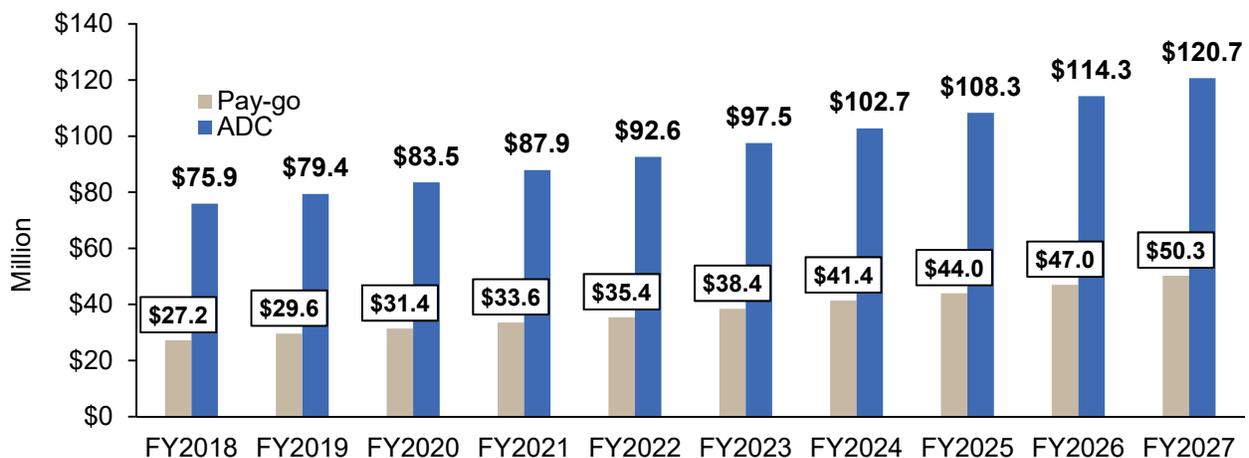
Figure 3: Actual Payments vs. ADC, FY 2018-19



The current shortfall in City contributions relative to the ADC is of strong concern, but it is also important to note that OPEB funding is not just a one-year problem. Rather, this challenge represents an ongoing and growing source of budget pressure that cannot be solved overnight.

Even without funding the City’s full ADC, direct pay-go retiree health expenses alone before corrective action would be projected to rise sharply to over \$50 million per year by FY 2026-27 – a difficult-to-sustain growth rate of 5.3% per year. Over the same period, the ADC would be projected to grow to \$120.7 million – resulting in a \$70.4 million shortfall between pay-go and the ADC in FY 2026-27 alone, as shown in Figure 4 below.¹⁷

Figure 4: Pay-Go v. ADC Projections, FY 2017-18 to FY 2026-27

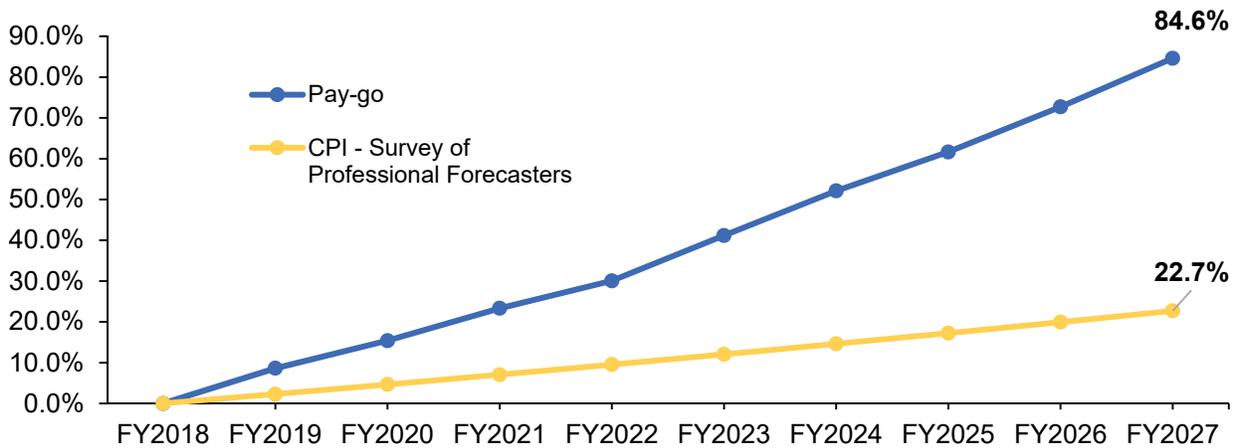


¹⁷ City of Oakland Postretirement Health Insurance Plan, Actuarial Valuation Report as of July 1, 2017, issued June 2018; ADC estimates provided by Cheiron based on 7/1/17 valuation, assuming contributions remain at the level of current benefit payments plus \$10,000,000 in FY 2017-18 and FY 2018-19 only; with a 30-Year closed UAAL amortization. Analysis developed prior to new OPOA agreement, and police contract changes are not reflected.



With compounding, this growth in OPEB pay-go costs from \$27.2 million to \$50.3 million would represent an 84.6% increase in costs – more than three times the projected rate of growth in the Consumer Price Index (CPI) nationally.¹⁸

Figure 5: Pay-Go Projections v. CPI
FY 2017-18 to FY 2026-27



In any municipal cost center, across any period of time, growth in expenditures well above the rate of CPI change would be difficult for a public employer to sustain. Further, rising CalPERS pension costs due largely to the phase-in of new actuarial assumptions, are also creating significant budget pressure for Oakland.

At the same time, it is also important to note that recent City fiscal capacity has been buoyed by a historically lengthy expansion phase of the business cycle. As of year-end 2018, at 113 months and counting, the economy’s expansion phase was in its 10th year following the bottoming out of the Great Recession in June 2009. In contrast, in the prior eleven business cycles since 1945, the average expansion phase lasted only 58.4 months, and the longest (March 1991 to March 2001) had been 120 months.

In the event of the next recession, financial capacity is likely to weaken as Oakland, like many California cities, relies on economically sensitive revenue sources. For example, during the last recession (from FY 2006-07 to FY 2008-09), Oakland’s Real Estate Transfer Tax revenues – the City’s second largest General Fund revenue source – declined by \$27.2 million, or 5.1% of all General Fund revenues.¹⁹ In this context, it is particularly important to address these benefit funding challenges timely to avoid even greater difficulties in fiscal years to come.

¹⁸ City of Oakland Postretirement Health Insurance Plan, Actuarial Valuation Report as of July 1, 2017, issued June 2018; Survey of Professional Forecasters, Q3 2018.

¹⁹ City of Oakland, 2007 and 2009 Comprehensive Audited Financial Statements.

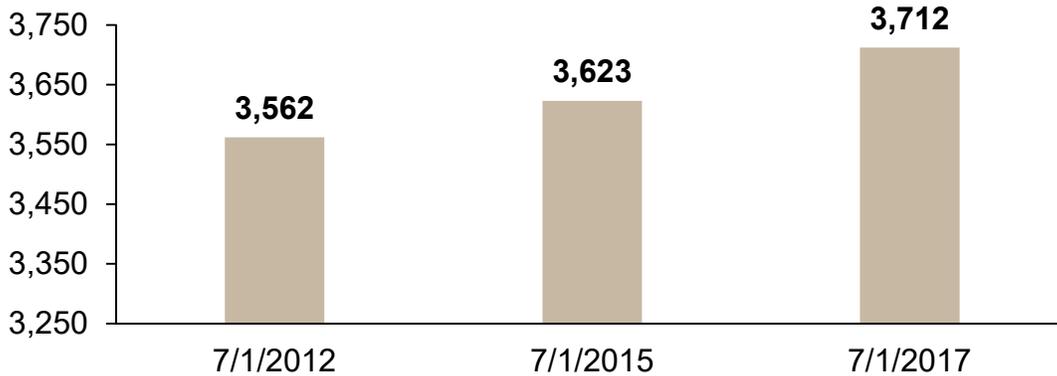


OPEB Cost Drivers

Both recent and projected growth in OPEB costs are driven primarily by two major factors – workforce demographics and medical inflation:

- With baby boomers reaching retirement age, improving mortality, and other factors, the total number of Oakland OPEB beneficiaries grew by 4.2% from FY 2012-13 to FY 2017-18.²⁰

Figure 6: Number of Oakland OPEB Beneficiaries



- Overlapping this period, across the years from 2001 through 2019, PEMHCA Kaiser medical premiums also increased at compound annual growth rates well above general inflation. Pre-Medicare plans grew 7.7% per year, while Medicare plans grew at 5.3% annually. Looking forward, the most recent Oakland OPEB actuarial valuation assumes healthcare inflation factors of 7.0% and 5.0% for Pre-Medicare and Medicare eligible retirees, respectively, beginning in 2017.

Oakland's OPEB valuation also assumes that medical inflation will gradually moderate over the next 20 years to an ultimate rate of 3.5% by 2037. If medical inflation instead were to grow just 1.0% faster than assumed over this period, the unfunded liability as of July 1, 2017 would be over \$130 million higher than now projected.

²⁰ City of Oakland Postretirement Health Insurance Plan, Actuarial Valuation Report as of July 1, 2017, issued June 2018



External Perspectives on Oakland's OPEB Funding Challenge

Throughout this review, City of Oakland officials and other stakeholders have consistently expressed strong concern regarding the long-term sustainability of the City's OPEB program. Paralleling these internal views, key external analysts – from citizens participating in the 2017-2018 Alameda County Civil Grand Jury, to the major national credit rating agencies – have also provided additional perspectives on this OPEB funding challenge.

Alameda County FY 2017-18 Civil Grand Jury

In June 2018, the Final Report of the FY 2017-18 Alameda County Grand Jury included a detailed analysis of Oakland's OPEB program. Key concerns identified by this citizen Grand Jury included:

- Underfunding of the City's actuarial contribution by approximately \$40 million annually.
- An overall unfunded liability well in excess of \$800 million.
- The impact of rapidly increasing retiree health costs on City budget capacity and available resources for essential city services.
- Insufficient revenue streams to fund the City's OPEB liability without corrective action.
- The need for a comprehensive OPEB plan balancing funding commitments and benefit change.

"The city of Oakland currently has no meaningful plan to address its...unfunded OPEB liability, jeopardizing the city's long-term financial viability..."

The city of Oakland must develop and implement a long-term comprehensive plan to address its... unfunded OPEB liability.

Any long-term OPEB plan must include discussion of additional city funding and substantial structural change in benefits that are responsible for these growing liabilities."

2017-2018 Alameda County Grand Jury Final Report (June 1, 2018)



Credit Rating Agencies

Oakland's credit ratings are determined by independent rating agencies, such as S&P Global Ratings and Moody's Investors Service, which evaluate the City's long-term fiscal capacity and creditworthiness based on a set of established criteria. Such credit ratings not only provide a useful independent perspective on the City's finances, but are also important for determining the City's continued access to the capital markets for the cost the City must pay for any long-term borrowing.

A key issue for rating agencies generally is the ability of a local government to maintain overall fiscal health and meet its long-term financial commitments – and there has been growing focus on pension and OPEB funding pressures nationwide. Consistent with this perspective, ratings reports issued specific to Oakland in 2018 highlighted the challenges of funding retirement costs, and the need for a plan moving forward.

“Oakland has a large unfunded OPEB liability of \$860.0 million, an exceptionally high 238.3% of covered payroll, as of the July 1, 2015 actuarial valuation date.”

“Factors that could lead to a downgrade: Inability to manage retirement costs.”

Moody's Investors Service, “City of Oakland, CA, Update to Credit Analysis” (April 19, 2018)

“In our opinion, a credit weakness is Oakland's large pension and OPEB obligation, without a plan in place that we think will sufficiently address the obligation.”

S&P Global Ratings, “Summary: Oakland, California; Appropriations; General Obligation” (April 20, 2018)



Benchmarking

In the general labor market nationally, including both public and private employers, only 18% of large firms (200 or more workers) offered any form of retiree health benefits in 2018 – down from 66% three decades earlier.²¹ Among larger state and local governments, however, such coverage remains more common, with 68% nationally reporting some OPEB program.²² At the same time, even where still provided, retiree healthcare programs vary considerably in cost and design.

To gain insight into such considerations, the project team benchmarked the City's benefit structure relative to eleven (11) other California public employers, representing a mix of Bay Area communities and larger cities statewide. In collective bargaining, different City of Oakland municipal unions use overlapping, but somewhat distinct, universes of comparison employers to inform negotiations. For the purposes of this OPEB evaluation – to provide perspective on mainstream regional approaches and to identify any best practices and innovative approaches – a single comparison grouping was used for benchmarking across all Oakland employee groups.

Of the twelve cities compared in this report, six (including Oakland) are PEMHCA participants, as identified by checkmarks in **Table 7** below.

Table 7: PEMHCA Participants

PEMHCA Participants	
Oakland	✓
Berkeley	
Concord	✓
Fremont	✓
Fresno	
Hayward	✓
Long Beach	
Richmond	✓
Sacramento	
San Francisco	
San Jose	
Vallejo	✓

For communities participating in PEMHCA, there is limited flexibility regarding plan design options and other elements of program structure, however, there also significant

²¹ Kaiser Family Foundation, Employer Health Benefits, 2018 Annual Survey.

²² Ibid.



advantages with regard to the program support and strong purchasing power available under these large CalPERS programs.

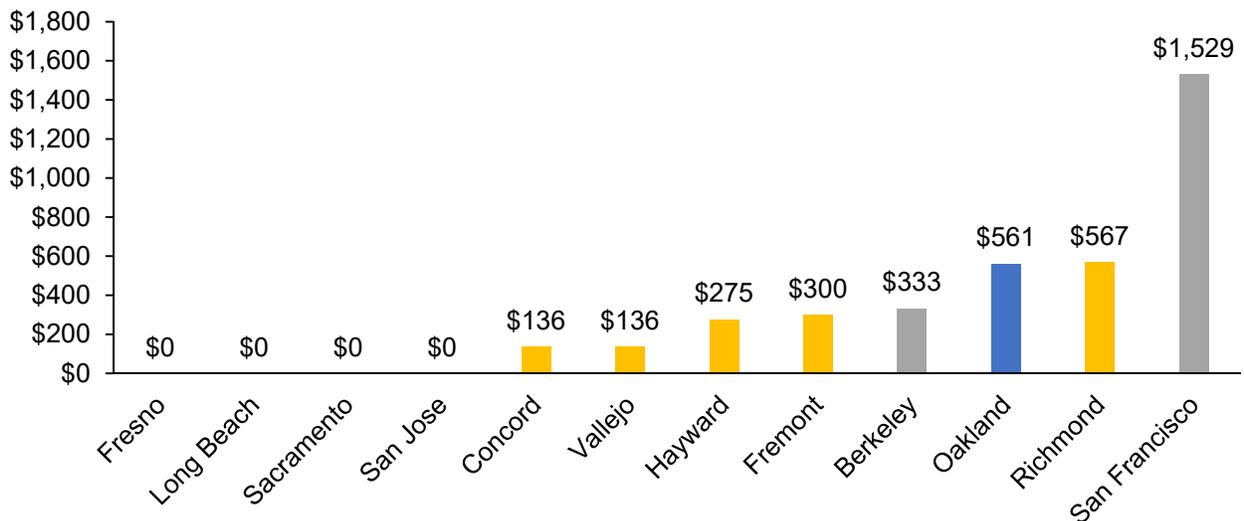
The following sections of this report highlight key cost factors for Oakland relative to these benchmark communities for each of the City’s major employee groups (Miscellaneous, Police, and Fire). These summary-level findings show the employer contributions for Pre-Medicare and Medicare eligible retirees in the highest enrolled plans across the survey group for new hires. In each of these comparison communities, there is typically also a legacy, classic plan cohort “grandfathered” under a benefit tiers or tiers no longer available to newer hires. These and other, more detailed benchmarking results may be found in Appendix A.

Miscellaneous

For Miscellaneous employees across the survey group, Oakland provides a highly competitive benefit to newly hired employees. For example, the City contributes the second largest subsidy within the group for Pre-Medicare retiree coverage at the family level, and Oakland’s contribution for Medicare Eligible family plan coverage is third highest out of twelve (12) overall. Also of note, San Francisco’s more costly benefit is linked to contributions made by active employees not required in Oakland.

These rankings are shown in the charts below for the Pre-Medicare retirees, with the yellow bars representing other PEMHCA plans and the gray bars indicating non-PEMHCA plans.

Figure 7: Employer Contributions for Miscellaneous - New Hires Pre-Medicare Eligible Retirees, Family Coverage

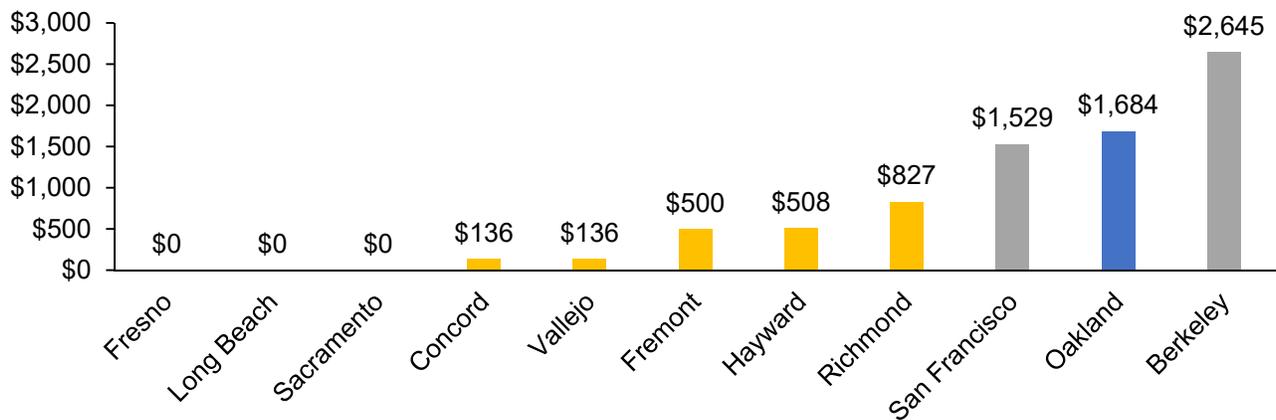




Police

Similarly, Oakland provides one of the largest OPEB subsidies for police employees. While the 2018 charts as shown below do not yet reflect the recently negotiated changes for Oakland's future police hires, this new structure will still rank above the benchmark median and among the most generous for PEMHCA plans.

Figure 8: Employer Contributions for Police - New Hires
Pre-Medicare Eligible Retirees, Family Coverage



Fire

The City of Oakland OPEB subsidy is also among the most competitive for area firefighters.

Figure 9: Employer Contributions for Fire - New Hires
Pre-Medicare Eligible Retirees, Family Coverage





Cost-Containment Approaches

As reflected in the differences in employer cost summarized above, and as further outlined in more detailed plan summaries provided in Appendix A, California governments use a broad range of approaches for the delivery of retiree healthcare benefits. In 2018, the City of Oakland has already achieved significant long-term OPEB savings through new police collective bargaining agreements capping City contributions for current retirees and active employees and creating a new, more affordable benefit tier for future hires.

As options to complement and/or build on this approach going forward, several additional concepts and case studies are highlighted below.

Conversion of Leave to OPEB Coverage

The City of Long Beach supports retiree healthcare coverage by converting unused sick leave into funding for retiree health benefits. Rather than paying out unused sick leave at separation or providing for the conversion of sick leave to CalPERS pension service credit, Long Beach converts accumulated, unused sick leave into a Health Reimbursement Account (HRA) at the point of retirement. The employee is then able to use these dollars to help pay for healthcare premiums in retirement. The specific amount of funding provided to each retiree is based on longevity, use of sick leave, and the rate of pay upon retirement.

The City of Oakland currently provides a form of this benefit to fire personnel, who convert unused vacation into an HRA at the end of each year.

While this approach is similar to the defined contribution structures outlined below, the benefit provided can be significant – and can meaningfully help to bridge any funding gap for employees between retirement and Medicare eligibility. In addition, this structure can recognize and potentially create an incentive for lower sick leave usage during years of active employment – in turn, reducing overtime and staffing pressures for certain types of positions, and enhancing the availability of personnel for service delivery more generally.

Benefit Levels Linked to Career Service

Retiree benefits are generally intended to recognize career service, and employees who spend less than their full career with the City might reasonably be expected to receive only a pro-rated portion of their retiree coverage from the City – providing for the balance of their coverage during their years of service elsewhere.

Under Oakland's current OPEB structure, however, once an employee has ten years of service at retirement from the City – even if that same employee worked decades longer



for another employer – that worker receives the full level of subsidy provided to an employee who spent their entire career with the City.

Both nationally and in several of the California cities benchmarked for this report, an alternative approach can be to tie the scale of the total OPEB benefit to length of City service. For example, the City of Fremont requires 15 years of service for police and fire retirees to be eligible for medical coverage, and then provides a subsidy of \$6.50 per month of service to police retirees with less than 20 years of service and \$10 per month to fire retirees with less than 20 years of service. With 20-24 years of service, Fremont provides Kaiser Health single coverage, and, for those with 25 or more years of service, Fremont funds the Kaiser Health two-party plan.

As an example of how this might be applied in Oakland, instead of the current \$425.40 per month supplemental payment for all Miscellaneous employees and post-2019 Police hires with ten or more years of City service, Oakland could explore negotiation of a graduated benefit based on years of service. For example, the benefit could begin at \$50 per month with ten years of service, and increase by \$25 per year of service, reaching \$425 after a 25-year career. This would preserve an equivalent benefit to the status quo for employees who have spent a significant portion of their career with the City, encourage longer tenure and retention, and focus limited City financial resources on those retirees who have had less opportunity to prepare for retirement with another employer.

OPEB Defined Contribution Models

Another OPEB sustainability strategy adopted by some local governments has been a move from guaranteeing a certain level of benefits toward setting aside a defined contribution toward future medical coverage during an employee's active years of service within a tax-advantaged savings vehicle such as an HRA or Health Savings Account (HSA).

When a City contributes to a defined contribution plan, the benefit becomes a current cost (rather than being deferred until retirement), but such a structure can also eliminate the risk of a future unfunded liability emerging – or, at least, reduce such risk if used as a supplement within a hybrid framework to a more modest guaranteed benefit such as the PEMHCA minimum.

For employees, while a defined contribution structure shifts much of the risk of future medical inflation to the worker, the resulting health savings accounts can potentially have significant benefits (with specifics varying depending on the type of savings vehicle adopted):

- Portability – Employee contributions, and potentially some or all of employer contributions, can remain with the employee upon separation.



- Flexibility – In some cases, retirees may retire from City employment and begin a subsequent second career. If that new employer offers health benefits, Oakland retirees today may be faced with an “either/or” choice between such new coverage or maintaining their retiree plan. With a defined contribution account, however, their accumulated savings might instead be used to offset any cost-sharing with their new employer’s plan – resulting in lower costs overall than available under either plan separately.
- Tax advantages – Some forms of health savings accounts are tax-exempt when contributed, no tax accrues on interest earnings, and the member is not taxed when withdrawing the benefits post-retirement

Examples of cities using defined contribution OPEB approaches include: San Jose, where employees hired after 2013 contribute to a Voluntary Employee Benefit Association (VEBA) at a rate of 2% for Miscellaneous employees and 4% for Safety (the City makes no separate contribution); and, Sacramento, where police employees hired before September 3, 2013 pay 1% of base pay into a Retiree Health Savings Account (RHSA), and employees hired after September 3, 2013 contribute 3% of salary. In another example outside of the core survey group, City of Roseville employees hired after January 1, 2015 contribute to an HRA-starting at 1% of salary and growing to 5%. After five years, Roseville contributes a further \$150 per month to the employee’s HRA, and employees are provided the PEHMCA minimum in retirement.

Employee Contributions Toward OPEB Coverage While Active

As part of the above Defined Contribution OPEB models, it is common for employees to contribute toward their future retiree healthcare coverage costs during their active years of service. This approach is similar to other retirement benefits, such as most traditional pension plans (toward which active employees typically contribute a percentage of their pensionable salary) and Social Security (toward which both the employer and employees contribute 6.2% of salary up to an annually adjusted maximum).

Currently, however, City of Oakland employees do not contribute toward the cost of their future retiree healthcare coverage during their active years of service. As outlined above, this is a common component of Defined Contribution healthcare savings models, such as adopted by Sacramento and San Jose. In addition, under San Francisco’s more traditional OPEB subsidy program, employees hired since January 2009 now contribute 2% of pay during their active years of service, and active City of Richmond employees within a PEMHCA program contribute \$225 per month in 2018 toward future retiree health benefits, rising to \$300 monthly by 2021.



Recommended City of Oakland OPEB Policy

Based on the considerations outlined throughout this report, the project team has developed a recommended City of Oakland OPEB Policy that addresses the key goals we have heard voiced by City stakeholders, as well as key factors identified through our research and analysis. This recommended Policy will be transmitted to City Council separately, and is intended to set forth the City's overall OPEB funding and benefit goals, the benchmarks that will be used to measure progress, and the methods and assumptions that will be used to develop and maintain these benchmarks – taking into account the following:

Program Objectives

Based on stakeholder input, the primary objectives identified for the City's overall OPEB program goals are to provide benefits that are:

- Affordable in the near-term, without crowding out the City's capacity to deliver quality services to the public or to provide reasonable salary increases to active employees;
- Sustainable over the long-term, ensuring that benefits will be secure and reliable for career employees throughout retirement, with substantial intergenerational equity for taxpayers in regard to the funding of benefit costs; and,
- Competitive, to support effective recruitment and retention of a strong municipal workforce.

The specific elements of this funding policy are intended to provide a balanced approach for addressing these goals within the parameters of the City's resources.

Funding Goals

The Policy's recommend funding approach focuses on building a fully funded trust over time with regard to the City's explicit subsidy benefits. For any implicit subsidy, it is the recommended approach that the City continue to ensure that combined employer and employee/retiree contributions are made in full for annual premiums, such that this funding requirement will consistently be met on a yearly basis.

For the explicit subsidy, the Policy recommends continued City participation in an irrevocable Section 115 trust, seeking to set aside sufficient assets during a member's period of active employment to fully finance the benefits the member receives throughout retirement. Toward this objective, the Policy establishes the following OPEB Trust funding and related goals:



- Maintain a stable or increasing ratio of trust assets to accrued liabilities, with the goal of reaching a 100% funded ratio (full funding) for all explicit subsidy benefits. For this purpose, the funded ratio is defined as the actuarial value of trust assets divided by the trust's actuarial accrued liability for explicit subsidy benefits.
- Develop a pattern of stable and regular contribution rates when expressed as a percentage of member payroll as measured by valuations prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board, ultimately reaching a minimum employer contribution level at least equal to the ADC associated with explicit subsidy benefits.
- Manage the cost of benefits through labor-management partnership and collective bargaining to reach and maintain an affordable and sustainable level of coverage.

Benefit Program

The recommended Policy affirms that specific benefit structures will be subject to collective bargaining for represented employees, and that the City respects the negotiation process and values its labor-management partnerships.

Within this context, the Policy calls for regular reviews of the City's retiree healthcare benefits relative to offerings among other Bay Area governments and large California cities. As retiree healthcare benefits are periodically reviewed and renegotiated, the Policy also sets forth the following principles as guidelines for pursuit of any adjustments:

- Until the City's OPEB Trust is fully funded, the affordability and sustainability of the City's retiree medical benefits offerings would be evaluated on the basis of whether the City's ADC for explicit subsidy benefits can be fully funded with a combination of full pay-go funding plus a supplemental employer contribution of no higher than 2.5% of payroll.
- Periodic adjustments to benefits will be pursued as required to ensure full funding and plan sustainability. If the ADC for explicit subsidy benefits exceeds pay-go costs plus a supplemental City payment of 2.5% of payroll, then the City would seek to negotiate approaches to modify benefits to close this sustainability gap. Among the potential approaches for closing this gap, the City may pursue retiree benefit modifications and/or contributions toward future OPEB coverage from active employees.
- The City would also seek to negotiate reopeners for retiree health care benefits in any year during which fiscal difficulties due to a recession or similar factors leads to



a decline in City revenues and/or to revenue growth at less than half the rate of CPI escalation.

- To ensure informed benefit design, the Policy also calls for any proposed OPEB changes to be accompanied by an actuarial valuation projecting the impact on the ADC, funded ratio, and overall OPEB actuarial liability.

The Policy also provides for the City to partner with employee representatives to explore and potentially advocate for appropriate policy changes by CalPERS, to the extent the City continues to provide retiree healthcare benefits through the CalPERS system. Such policy changes may include, but are not limited to the development of plan design changes that do not incur penalty costs under the Affordable Care Act, and the separation of rates for active and retiree healthcare plans to eliminate the implicit subsidy.

Funding Policy for Sustainable Benefits

At a minimum, the Policy reaffirms that the City will fully fund its “pay-go” commitments to eligible retirees and beneficiaries for the benefits they receive each year, inclusive of any implicit subsidy resulting from the blending of active and retiree healthcare rates.

In addition, the Policy calls for the City to continue to make contributions to its OPEB Trust. Once full funding has been achieved on an actuarially sound basis, and as full funding is sustained thereafter, all explicit subsidy payments on behalf of retirees and beneficiaries are to be made from the Trust, with the City also contributing the full ADC associated with explicit subsidy payments each year to ensure the continued health and sustainability of the Trust.

Until the Trust is 100% funded for explicit subsidy benefits, however, the Policy calls for City to make contributions in excess of the annual pay-go cost for current retirees and beneficiaries toward achieving full funding, as outlined below:

- Beginning in FY 2019-20, the City would contribute an additional 2.5% of payroll above pay-go into the OPEB Trust on an annual basis until the liability associated with the explicit subsidy is fully funded.
- If the sum of annual pay-go costs plus the supplemental 2.5% of payroll contribution is less than the ADC for explicit subsidy payments in that same year, then the City would seek to negotiate benefit and/or employee contributions sufficient to close this sustainability gap.
- In addition to the above annual contributions, the City would continue to make further one-time contributions to the OPEB Trust consistent with the Consolidated



Fiscal Policy, when Excess Real Estate Transfer Tax (RETT) thresholds are met. This approach will help to build OPEB funding more rapidly, thereby improving plan stability and reducing future contribution requirements.

- In the event of a severe economic downturn, the City would seek to continue the above payment structure in full. If certain revenue decline thresholds as defined in the recommended Policy are met, however, and if authorized via Council Resolution, the City could temporarily reduce or defer its supplemental payments above pay-go until the City's revenues have recovered.

In no event would the City draw down from its OPEB Trust to meet pay-go costs if the ADC is not made in full for that same fiscal year.

Actuarial Approach

To promote a sound actuarial approach for evaluating OPEB plan funding, the Policy includes the requirement that an actuarial valuation be completed at least biennially, along with a regular actuarial experience at least every five years – with the actuary to recommend actuarial assumptions consistent with Actuarial Standards of Practice (ASOP) and Government Finance Officers Association (GFOA) guidance.

The Policy also provides for use of the entry age normal actuarial cost method, to align with GASB standards. Any unfunded liability is to be amortized over a closed 30-year period, ensuring steadier progress toward full funding than would take place under an open amortization approach.

Transparency and Reporting

The recommended Policy also provides for funding of the City's OPEB program to be transparent to all stakeholders, including City employees, retirees, employee organizations, elected officials, and Oakland residents and taxpayers. This includes a requirement for regular reporting on OPEB funding progress to City Council in conjunction with completion of each actuarial valuation, website publication of this report and that information regarding the City's OPEB plan, contributions to the OPEB Trust, and the funded status of the plan contained in the City's Comprehensive Annual Financial Report (CAFR), and the incorporation of clear and specific appropriations for contributions to the OPEB Trust and pay-go costs in the City's annual operating budget.

Review of the Funding Policy

Finally, recognizing that sustainable OPEB funding requires a long-term commitment, the recommended Policy also includes a provision for regular review and updates, as warranted, to ensure that the City's goals are being met on an ongoing basis.



Projected Results

If adopted by City Council, the recommended City of Oakland OPEB Policy provides the City with a balanced plan, as called for by the rating agencies and Alameda County Grand Jury, to place the OPEB program on a sustainable path toward stable funding.

Based on projections by Cheiron, using assumptions consistent with the City's current actuarial valuations and the proposed new Policy, this approach is projected to achieve the following progress. As further detailed in Appendix B:

- Assuming resolution to the pending firefighter negotiations/arbitration consistent with the recent police settlements:
 - The Policy would be projected to build the City's overall OPEB funded ratio steadily from 3.0% in FY 2018-19 to approximately 25.0% within a decade, and to over 50.0% in less than 20 years.
 - The Policy would increase the City's funded ratio for the explicit subsidy component of the OPEB liability from 4.0% in FY 2018-19 to more than one-third funded within a decade, to over 75.0% funded within 20 years, and to full funding in less than 25 years.
- With additional resources from any Excess Real Estate Transfer Tax transfers under the Consolidated Fiscal Policy and/or further negotiated benefit adjustments, full funding could potentially be reached even sooner.

Given that the City's current OPEB funding shortfall has been decades in the making, such steady progress toward achieving true sustainability, improved affordability, and continued benefit competitiveness would represent a meaningful plan and positive fiscal stewardship.

While further monitoring and future adjustments may well be required as circumstances continue to change and evolve across the years ahead, it is the project team's strong hope and belief that these actions will position the City of Oakland well to meet its long-term commitments effectively.



Appendix A: Detailed Benchmarking Results (2018)

Police New Plan Pre-Medicare²³

	Cost-Share	Active EE Contribution	Retiree Contributions	Employer Contributions	Notes
Oakland	Employer subsidy is based on level of coverage: Single: \$768.25 Two-Party: \$1,536.50 Multi Party: \$1,683.80	--	Single: \$0.00 Two-Party: \$0.00 Multi-Party: \$313.65	Single: \$768.25 Two-Party: \$1,536.50 Multi Party: \$1,683.80	No New Tier
Concord	PEMHCA minimum	--	Single: \$689.99 Two-Party: \$1,509.53 Multi-Party: \$2,057.79	All levels: \$136.00	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Fremont	Employer subsidy is based on YOS: <15 YOS, \$0 15 to 19 YOS, \$5.00/mo. Per YOS 20+ YOS, \$10.00/ mo. Per YOS, with a max of \$500/mo.	--	Single: \$373.65 Two-Party: \$1,141.90 Multi-Party: \$1,602.85	All levels: \$500.00	Retiree pays 100% of dental coverage. Rates include dental
Fresno	RHSA: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	All levels: \$1,240.00	All levels: \$0.00	No New Tier Rates shown include dental and vision
Hayward	Employer contributes a flat dollar subsidy of up to \$508.30/mo	--	Single: \$259.95 Two-Party: \$1,028.20 Multi-Party: \$1,489.15	All levels: \$508.30	Dental premiums excluded from rates shown due to data availability
Long Beach	Trust: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	Single: 1,088.94 Two-Party: \$1,330.30 Multi-Party: \$1,391.88	All levels: \$0.00	No New Tier Rates shown include dental and vision

²³ Rates shown assume maximum employer subsidy.

Comparators may have prior tiers that are not shown. For comparison the two most recent tiers are charted. Retiree + Spouse assumed to be Medicare eligible, dependents assumed to be Non-Medicare eligible. Contribution amounts shown reflect the costs for the reported highest enrolled plan for each employer unless otherwise noted; Enrollment not provided for Fremont, Hayward and Vallejo. For the purposes of comparison, CalPERS Kaiser HMO is used. Fresno and Long Beach: Retiree can use HRA/Trust with accumulated sick leave to reimburse retiree medical expenses. The full cost of benefits is covered by the plan up to the point where the value of the retiree's unused sick leave has been exhausted. Rates shown assumes sick leave is exhausted.



	Cost-Share	Active EE Contribution	Retiree Contributions	Employer Contributions	Notes
Richmond	Employer contributes a flat dollar subsidy of up to \$827	\$225/mo with a planned \$25 increase each year until 2021	Single: \$0.00 Two-Party: \$709.50 Multi-Party: \$1,170.45	Single: \$768.25 Two-Party: \$827.00 Multi-Party: \$827.00	Dental and vision premiums excluded from rates shown due to data availability
Sacramento	RHSA: 100% paid by retiree	1%-3% of pay based on date of hire	Single: \$804.60 Two-Party: \$1,598.92 Multi-Party: \$2,132.04	All levels: \$0.00	Rates shown include dental and vision
San Francisco	Employer contributes a subsidy based on YOS: <5 YOS, ineligible; 5 to <10 YOS, 0% 10 to <15 YOS, 50% 15 to <20 YOS, 75% 20+ YOS, 100%	Employees hired on or after 1/10/2009: 2% of pay	Single: \$45.77 Two-Party: \$394.70 Multi-Party: \$943.62	Single: \$1,225.27 Two-Party: \$1,528.94 Multi-Party: 1,528.94	Retiree pays 100% of dental coverage. Rates include dental
San Jose	VEBA: Defined Contribution	4% of pay	N/A	N/A	--
Vallejo	PEMHCA minimum + RHSA	--	Single: \$632.25 Two-Party: \$1,400.50 Multi-Party: \$1,861.45	All levels: \$136.00	Retirees also receive RHSA funds (Employer contributes 1.5% of salary during employment)



Police New Plan Medicare²⁴

	Cost-Share	Active EE Contribution	Retiree Contributions	Employer Contributions	Other Plan Distinctions
Oakland	Employer contributes subsidy based on level of coverage: Single: \$768.25 Two-Party: \$1,1536.50 Multi Party: \$1,683.80	--	All Levels: \$0.00	Single: \$323.74 Two-Party:\$647.48 Multi-Party: \$971.22	No New Tier
Concord	PEMHCA minimum	--	Single: \$245.48 Two-Party: \$620.51 Multi-Party: \$1,031.56	All levels: \$136.00	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Fremont	Employer subsidy is based on YOS: <15 YOS, \$0 15 to 19 YOS, \$5.00/mo. per YOS 20+ YOS, \$10.00/ mo. per YOS, with a max of \$500/mo.	--	Single: \$105.40 Two-Party: \$252.88 Multi-party: \$576.62	Single: \$323.74 Two-Party: \$500.00 Multi-Party: \$500.00	Retiree pays 100% of dental coverage. Rates include dental
Fresno	RHSA: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	All levels: \$1,240.00	All levels: \$0.00	No New Tier Rates shown include dental and vision
Hayward	Employer contributes a flat dollar subsidy of up to \$508.30/mo	--	Single: \$0.00 Two-party: \$139.18 Multi-Party: \$462.92	Single: \$323.74 Two-Party: \$508.30 Multi-Party: \$508.30	Dental premiums excluded from rates shown due to data availability
Long Beach	Trust: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	Single: \$762.08 Two-Party: \$1,400.31 Multi-Party: \$2,019.72	All levels: \$0.00	No New Tier Rates shown include dental and vision
Richmond	Employer contributes a flat dollar subsidy of up to \$827	\$225/mo with a planned \$25 increase each year until 2021	Single: \$0.00 Two-Party: \$0.00 Multi-Party: \$144.22	Single: \$323.74 Two-Party: \$647.48 Multi-party: \$827.00	Dental and vision premiums excluded from rates shown due to data availability

²⁴ Rates shown assume maximum employer subsidy.

Comparators may have prior tiers that are not shown. For comparison the two most recent tiers are charted. Retiree + Spouse assumed to be Medicare eligible, dependents assumed to be Non-Medicare eligible. Contribution amounts shown reflect the costs for the reported highest enrolled plan for each employer unless otherwise noted. Enrollment not provided for Fremont, Hayward and Vallejo. For the purposes of comparison, CalPERS Kaiser HMO is used. Fresno and Long Beach: Retiree can use HRA/Trust with accumulated sick leave to reimburse retiree medical expenses. The full cost of benefits is covered by the plan up to the point where the value of the retiree's unused sick leave has been exhausted. Rates shown assumes sick leave is exhausted.



	Cost-Share	Active EE Contribution	Retiree Contributions	Employer Contributions	Other Plan Distinctions
Sacramento	RHSA: 100% paid by retiree	1%-3% of pay based on date of hire	Single: \$398.48 Two-Party: \$753.52 Multi-Party: \$1,164.52	All levels: \$0.00	Rates shown include dental and vision
San Francisco	Employer contributes a subsidy based on YOS: <5 YOS, ineligible; 5 to <10 YOS, 0% 10 to <15 YOS, 50% 15 to <20 YOS, 75% 20+ YOS, 100%	2% of pay	Single: \$45.77 Two-Party: \$278.86 Multi-Party: \$1,086.50	Single: \$379.78 Two-Party: \$567.61 Multi-Party: \$567.61	Retiree pays 100% of dental coverage. Rates include dental
San Jose	VEBA: Defined Contribution	4% of pay	N/A	N/A	--
Vallejo	PEMHCA minimum + RHSA	--	Single: \$187.74 Two-Party: \$511.48 Multi-Party: \$835.22	All levels: \$136.00	Retirees also receive RHSA funds (Employer contributes 1.5% of salary during employment)



Police Classic Plan Pre-Medicare

	Cost-Share	Active EE Contribution	Retiree Contributions	Employer Contributions	Notes
Oakland	Employer subsidy is based on level of coverage: Single: \$768.25 Two-Party: \$1,536.50 Multi Party: \$1,683.80	--	Single: \$0.00 Two-Party: \$0.00 Multi-Party: \$313.65	Single: \$768.25 Two-Party: \$1,536.50 Multi Party: \$1,683.80	No New Tier
Concord	Employer subsidy is based on YOS: 0-9 YOS, PEMHCA minimum 10-15 YOS, Two-Party rate 15+ YOS, Multi-Party rate	--	Single: \$57.74 Two-Party: \$109.03 Multi-Party: \$196.34	Single: \$768.25 Two-Party: \$1,536.50 Multi Party: \$1,997.45	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Fremont	Employer subsidy is based on YOS: <15 YOS, \$0 15 to 19 YOS, \$6.50/mo. per YOS 20 to 24 YOS, Kaiser Health Premium for Single coverage at retirement 25+ YOS, Kaiser Health Premium for Two-Party coverage at retirement	--	Single: \$105.40 Two-Party: \$105.40 Multi-Party: \$566.35	Single: \$768.25 Two-Party: \$1,536.50 Multi Party: \$1,536.50	Retiree pays 100% of dental coverage. Rates include dental
Fresno	RHSA: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	All levels: \$1,240.00	All levels: \$0.00	No New Tier Rates shown include dental and vision
Hayward	100% Kaiser Bay Single Premium	--	Single: \$0.00 Two-Party: \$768.25 Multi-Party: \$1,229.20	All levels: \$768.25	Dental premiums excluded from rates shown due to data availability
Long Beach	Trust: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	Single: \$1,088.94 Two-Party: \$1,330.30 Multi-Party: \$1,391.88	All levels: \$0.00	No New Tier Rates shown include dental and vision
Richmond	Employer contributes a flat dollar subsidy of up to \$614	\$225/mo with a planned \$25 increase each year until 2021	Single: \$154.25 Two-Party: \$922.50 Multi-Party: \$1,383.45	All levels: \$614.00	Dental and vision premiums excluded from rates shown due to data availability
Sacramento	RHSA: Employer contributes \$300/mo. + an additional \$65/mo. for Two-Party coverage	1%-3% of pay based on date of hire	Single: \$504.60 Two-Party: \$1,233.92	Single: \$300.00 Two-Party: \$365.00	Retiree pays 100% of dental and vision coverage. Rates shown



Cost-Share		Active EE Contribution	Retiree Contributions	Employer Contributions	Notes
			Multi-Party: \$1,767.04	Multi-Party: \$365.00	include dental and vision
San Francisco	Employer contributes a subsidy of up to \$1,528.94 (regardless of YOS)	Employees hired on or after 1/10/2009: 2% of pay	Single: \$45.77 Two-Party: \$394.70 Multi-Party: \$943.62	Single: \$1,225.27 Two-Party: \$1,528.94 Multi-Party: \$1,528.94	Retiree pays 100% of dental coverage. Rates include dental
San Jose	The employer contributes 100% of the premium for the lowest cost medical plan	8% of pay	Single: \$12.04 Two-Party: \$17.18 Multi-Party: \$30.80	Single: \$495.92 Two-Party: 1,002.00 Multi-Party: 1,492.84	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Vallejo	Employer contributes a subsidy of up to \$300/mo	--	Single: \$468.25 Two-Party: \$1,236.50 Multi-Party: \$1,697.45	All levels: \$300.00	--



Police Classic Plan Medicare

	Cost-Share	Active EE Contribution	Retiree Contributions	Employer Contributions	Notes
Oakland	Employer contributes subsidy based on level of coverage: Single: \$768.25 Two-Party: \$1,1536.50 Multi Party: \$1,683.80	--	All Levels: \$0.00	Single: \$323.74 Two-Party: \$647.48 Multi-Party: \$971.22	No New Tier
Concord	Employer subsidy is based on YOS: 0-9 YOS, PEMHCA minimum 10-15 YOS, Two-Party rate 15+ YOS, Multi-Party rate	--	Single: \$57.74 Two-Party: \$109.03 Multi-Party: \$196.34	Single: \$323.74 Two-Party: \$647.48 Multi-Party: \$971.22	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Fremont	Employer subsidy is based on YOS: <15 YOS, \$0 15 to 19 YOS, \$6.50/mo. per YOS 20 to 24 YOS, Kaiser Health Premium for Single coverage at retirement 25+ YOS, Kaiser Health Premium for Two-Party coverage at retirement	--	Single: \$105.40 Two-Party: \$105.40 Multi-Party: \$429.14	Single: \$323.74 Two-Party: \$647.48 Multi-Party: \$647.48	Retiree pays 100% of dental coverage. Rates include dental
Fresno	RHSA: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	All levels: \$1,240.00	All levels: \$0.00	No New Tier Rates shown include dental and vision
Hayward	100% Kaiser Bay Single Basic Premium	--	Single: \$0.00 Two-Party: \$0.00 Multi-Party: \$202.97	Single: \$323.74 Two-Party: \$647.48 Multi-Party: \$768.25	Dental premiums excluded from rates shown due to data availability
Long Beach	Trust: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	Single: \$762.08 Two-Party: \$1,400.31 Multi-Party: \$2,019.72	All levels: \$0.00	No New Tier Rates shown include dental and vision
Richmond	Employer contributes a flat dollar subsidy of up to \$614	\$225/mo with a planned \$25 increase each year until 2021	Single: \$0.00 Two-Party: \$33.48 Multi-Party: \$357.22	Single: \$323.74 Two-Party: \$614.00 Multi-party: \$614.00	Dental and vision premiums excluded from rates shown due to data availability
Sacramento	RHSA: Employer contributes \$300/mo. + an additional \$65/mo. for Two-Party coverage	1%-3% of pay based on date of hire	Single: \$98.48 Two-Party: \$388.52 Multi-Party: \$799.52	Single: \$300.00 Two-Party: \$365.00 Multi-Party: \$365.00	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision



	Cost-Share	Active EE Contribution	Retiree Contributions	Employer Contributions	Notes
San Francisco	Employer contributes a subsidy of up to \$567.61 (regardless of YOS)	2% of pay	Single: \$45.77 Two-Party: \$278.86 Multi-Party: \$1,086.50	Single: \$379.78 Two-Party: \$567.61 Multi-Party: \$567.61	Retiree pays 100% of dental coverage. Rates include dental
San Jose	The employer contributes 100% of the premium for the lowest cost medical plan	8% of pay	Single: \$12.04 Two-Party: \$17.18 Multi-Party: \$30.80	Single: \$495.92 Two-Party: \$1,002.00 Multi-Party: \$1,492.84	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Vallejo	Employer contributes a subsidy of up to \$300/mo	--	Single: \$23.74 Two-Party: \$347.48 Multi-Party: \$671.22	All levels: \$300.00	--



Fire New Plan Pre-Medicare²⁵

	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
Oakland	Employer contributes a subsidy based on level of coverage: Single: \$768.25 Two-Party: \$1,536.50 Multi-Party: \$1,764.14	--	Single: \$0 Two-Party: \$0 Multi-Party: \$233.31	Single: \$768.25 Two-Party: \$1,536.50 Multi-Party: \$1,764.14	No New Tier Annual deposit of unused vacation leave into an HRA
Contra Costa County	Employer and retiree each contribute 50% of the monthly premium increase of the CalPERS Kaiser Bay Area premium, since Plan Year 2015	--	Single: \$119.78 Two-Party: \$239.56 Multi-Party: \$311.42	Single: \$648.47 Two-Party: \$1,296.94 Multi-Party: \$1,686.03	--
Fremont	Employer subsidy is based on YOS: <25 YOS, PEMHCA minimum or \$10.00/mo. per YOS 25+ YOS, \$500.00/mo	--	Single: \$401.55 Two-Party: \$1,169.80 Multi-Party: \$1,630.75	All levels: \$500.00	Retiree pays 100% of dental coverage. Rates include dental
Fresno	RHSA: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	All levels: \$1,240.00	All levels: \$0.00	No New Tier Rates shown include dental and vision
Hayward	Employer contributes a subsidy of up to \$508.30/mo	1% of pay	Single: \$259.95 Two-Party: \$1,028.20 Multi-Party: \$1,489.15	All levels: \$508.30	No New Tier Dental premiums excluded from rates shown due to data availability
Long Beach	Trust: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	Single: \$1,088.94 Two-Party: \$1,330.30 Multi-Party: \$1,391.88	All levels: \$0.00	No New Tier Rates shown include dental and vision

²⁵ Rates shown assume maximum employer subsidy.

Comparators may have prior tiers that are not shown. For comparison, the two most recent tiers are charted. Retiree + Spouse assumed to be non-Medicare eligible. Contribution amounts shown reflect the costs for the reported highest enrolled plan for each employer unless otherwise noted. Enrollment not provided for Fremont, Hayward and Vallejo. For the purposes of comparison, CalPERS Kaiser HMO is used. Fresno and Long Beach: Retiree can use HRA/Trust with accumulated sick leave to reimburse retiree medical expenses. The full cost of benefits is covered by the plan up to the point where the value of the retiree's unused sick leave has been exhausted. Rates shown assumes sick leave is exhausted



	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
Richmond	The employer contributes 100% of the second highest cost plan based on YOS for each level of coverage: <15 YOS, 0% 15-26 YOS, 90% 27+ YOS, 100%	\$300/mo with a planned \$100 increase each year until 2021	All levels: \$0.00	Single: \$768.25 Two-Party: \$1,536.50 Multi-Party: \$1,997.45	No New Tier Dental and vision premiums excluded from rates shown due to data availability
Sacramento	Employer contributes a subsidy of up to \$774/mo.	\$45/mo	Single: \$65.12 Two-Party: \$824.92 Multi-Party: \$1,358.04	Single: \$739.48 Two-Party: \$774.00 Multi-Party: \$774.00	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
San Francisco	Employer contributes a subsidy based on YOS: <5 YOS, ineligible; 5 to <10 YOS, 0% 10 to <15 YOS, 50% 15 to <20 YOS, 75% 20+ YOS, 100%	Employees hired on or after 1/10/2009: 2% of pay	Single: \$45.77 Two-Party: \$394.70 Multi-Party: \$943.62	Single: \$1,225.27 Two-Party: \$1,528.94 Multi-Party: \$1,528.94	Retiree pays 100% of dental coverage. Rates include dental
San Jose	VEBA: Defined Contribution	4% of pay	N/A	N/A	--
Vallejo	Employer contributes a subsidy of \$300/mo	--	Single: \$468.25 Two-Party: \$1,236.50 Multi-Party: \$1,697.45	All levels: \$300.00	--



Fire New Plan Medicare²⁶

	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
Oakland	Employer contributes a subsidy based on level of coverage: Single: \$768.25 Two-Party: \$1,536.50 Multi-Party: \$1,764.14	--	All levels: \$0.00	Single: \$323.74 Two-Party: \$647.48 Multi-Party: \$971.22	No New Tier Annual deposit of unused vacation leave into an HRA
Contra Costa County	Employer and retiree each contribute 50% of the monthly premium increase of the CalPERS Kaiser Bay Area premium, since Plan Year 2015	--	Single: \$14.12 Two-Party: \$28.24 Multi-Party: \$42.35	Single: \$309.62 Two-Party: \$619.24 Multi-Party: \$928.87	--
Fremont	Employer subsidy is based on YOS: <25 YOS, PEMHCA minimum or \$10.00/mo. per YOS 25+ YOS, \$500.00/mo	--	Single: \$133.30 Two-Party: \$280.78 Multi-Party: \$604.52	Single \$323.74 Two-Party: \$500.00 Multi-Party: \$500.00	Retiree pays 100% of dental coverage. Rates include dental
Fresno	RHSA: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	All levels: \$1,240.00	All levels: \$0.00	No New Tier Rates shown include dental and vision
Hayward	Employer contributes a subsidy of up to \$508.30/mo	1% of pay	Single: \$0.00 Two Party: \$139.18 Multi-Party: \$462.92	Single: \$323.74 Two-Party: \$508.30 Multi-Party: \$508.30	No New Tier
Long Beach	Trust: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	Single: \$762.08 Two-Party: \$1,400.31 Multi-Party: \$2,019.72	All levels: \$0.00	No New Tier Rates shown include dental and vision

²⁶ Rates shown assume maximum employer subsidy. Comparators may have prior tiers that are not shown. For comparison, the two most recent tiers are charted. Retiree + Spouse assumed to be Medicare eligible, dependents assumed to be Non-Medicare eligible. Contribution amounts shown reflect the costs for the reported highest enrolled plan for each employer unless otherwise noted. Enrollment not provided for Fremont, Hayward and Vallejo. For the purposes of comparison, CalPERS Kaiser HMO is used. Fresno and Long Beach: Retiree can use HRA/Trust with accumulated sick leave to reimburse retiree medical expenses. The full cost of benefits is covered by the plan up to the point where the value of the retiree's unused sick leave has been exhausted. Rates shown assumes sick leave is exhausted.



	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
Richmond	The employer contributes 100% of the second highest cost plan based on YOS for each level of coverage: <15 YOS: 0% 15-26 YOS, 90% 27+ YOS, 100%	\$300/mo with a planned \$100 increase each year until 2021	All levels: \$0.00	Single: \$323.74 Two-Party: \$647.48 Multi-Party: \$971.22	No New Tier
Sacramento	Employer contributes a subsidy of up to \$387/mo	\$45/mo	Single: \$65.12 Two-Party: \$366.52 Multi-Party: \$777.52	Single: \$333.36 Two-Party: \$387.00 Multi-Party: \$387.00	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
San Francisco	Employer contributes a subsidy based on YOS: <5 YOS, ineligible; 5 to <10 YOS, 0% 10 to <15 YOS, 50% 15 to <20 YOS, 75% 20+ YOS, 100%	Employees hired on or after 1/10/2009: 2% of pay	Single: \$45.77 Two-Party: \$278.86 Multi-Party: \$1,086.50	Single: \$379.78 Two-Party: \$567.61 Multi-Party: \$567.61	Retiree pays 100% of dental coverage. Rates include dental
San Jose	VEBA: Defined Contribution	4% of pay	N/A	N/A	--
Vallejo	Employer contributes a subsidy of \$300/mo	--	Single: \$23.74 Two-Party: \$347.48 Multi-Party: \$671.22	All levels: \$300.00	--



Fire Classic Plan Pre-Medicare

	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
Oakland	Employer contributes a subsidy based on level of coverage: Single: \$768.25 Two-Party: \$1,536.50 Multi-Party: \$1,764.14	--	Single: \$0 Two-Party: \$0 Multi-Party: \$233.31	Single: \$768.25 Two-Party: \$1,536.50 Multi-Party: \$1,764.14	No New Tier Annual deposit of unused vacation leave into an HRA
Contra Costa County	Employer contributes up to an amount equivalent to 87% of the 2015 CalPERS Kaiser Bay Area premium	--	Data not available		
Fremont	Employer subsidy is based on YOS: <25 YOS, PEMHCA minimum or \$10.00/mo per YOS 25+ YOS, Kaiser Health Premium for Two-Party coverage at retirement	--	Single: \$133.30 Two-Party: \$133.30 Multi-Party: \$594.25	Single: \$768.25 Two-Party: \$1,536.50 Multi-Party: \$1,536.50	Retiree pays 100% of dental coverage. Rates include dental
Fresno	RHSA: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	All levels: \$1,240.00	All levels: \$0.00	No New Tier Rates shown include dental and vision
Hayward	Employer contributes a subsidy of up to \$508.30/mo	1% of pay	Single: \$259.95 Two-Party: \$1,028.20 Multi-Party: \$1,489.15	All levels: \$508.30	No New Tier Dental premiums excluded from rates shown due to data availability
Long Beach	Trust: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	Single: \$1,088.94 Two-Party: \$1,330.30 Multi-Party: \$1,391.88	All levels: \$0.00	No New Tier Rates shown include dental and vision
Richmond	The employer contributes 100% of the second highest cost plan based on YOS for each level of coverage: <15 YOS: 0% 15-26 YOS, 90% 27+ YOS, 100%	\$300/mo with a planned \$100 increase each year until 2021	All levels: \$0.00	Single: \$768.25 Two-Party: \$1,536.50 Multi-Party: \$1,997.45	No New Tier Dental and vision premiums excluded from rates shown due to data availability



	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
Sacramento	Retirees receive a subsidy based on YOS. The maximum subsidy is the total of the lowest cost health and dental plan + \$25, which totals \$860.60 for 2019	\$45/mo	Single: \$65.12 Two-Party: \$717.60 Multi-Party: \$1,243.88	Single: \$739.48 Two-Party: \$860.60 Multi-Party: \$860.60	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
San Francisco	Employer contributes a subsidy of up to \$1,528.94 (regardless of YOS)	Employees hired on or after 1/10/2009: 2% of pay	Single: \$45.77 Two-Party: \$394.70 Multi-Party: \$943.62	Single: \$1,225.27 Two-Party: \$1,528.94 Multi-Party: \$1,528.94	Retiree pays 100% of dental coverage. Rates include dental
San Jose	The employer contributes 100% of the premium for the lowest cost medical plan	8% of pay	Single: \$12.04 Two-Party: \$17.18 Multi-Party: \$30.80	Single: \$495.92 Two-Party: \$1,002.00 Multi-Party: \$1,492.84	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Vallejo	Employer contributes 75% of the Plan Year 2000 Kaiser Bay Area non-Medicare Premium	--	Data not available		



Fire Classic Plan Medicare

	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
Oakland	Employer contributes a subsidy based on level of coverage: Single: \$768.25 Two-Party: \$1,536.50 Multi-Party: \$1,764.14	--	All levels: \$0.00	Single: \$323.74 Two-Party: \$647.48 Multi-Party: \$971.22	No New Tier Annual deposit of unused vacation leave into an HRA
Contra Costa County	Employer contributes up to an amount equivalent to 87% of the 2015 CalPERS Kaiser Bay Area premium	--	Data not available		
Fremont	Employer subsidy is based on YOS: <25 YOS, PEMHCA minimum or \$10.00/mo per YOS 25+ YOS, Kaiser Health Premium for Two-Party coverage at retirement	--	Single: \$133.30 Two-Party: \$133.30 Multi-Party: \$457.04	Single: \$323.74 Two-Party: \$647.48 Multi-Party: \$647.48	Retiree pays 100% of dental coverage. Rates include dental
Fresno	RHSA: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	All levels: \$1,240.00	All levels: \$0.00	No New Tier Rates shown include dental and vision
Hayward	Employer contributes a subsidy of up to \$508.30/mo	1% of pay	Single: \$0.00 Two-Party: \$139.18 Multi-Party: \$462.92	Single: \$323.74 Two-Party: \$508.30 Multi-Party: \$508.30	No New Tier
Long Beach	Trust: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	Single: \$762.08 Two-Party: \$1,400.31 Multi-Party: \$2,019.72	All levels: \$0.00	No New Tier Rates shown include dental and vision
Richmond	The employer contributes 100% of the second highest cost plan based on YOS for each level of coverage: <15 YOS: 0% 15-26 YOS, 90% 27+ YOS, 100%	\$300/mo with a planned \$100 increase each year until 2021	All levels: \$0.00	Single: \$323.74 Two-Party: \$647.48 Multi-Party: \$971.22	No New Tier
Sacramento	Retirees receive a subsidy based on YOS. The maximum subsidy is the total of the lowest cost health and dental plan + \$25, which totals \$860.60 for 2019	\$45/mo	Single: \$65.12 Two-Party: \$119.98 Multi-Party: \$814.96	Single: \$333.36 Two-Party: \$633.54 Multi-Party: \$860.60	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision



	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
San Francisco	Employer contributes a subsidy of up to \$567.61 (regardless of YOS)	Employees hired on or after 1/10/2009: 2% of pay	Single: \$45.77 Two-Party: \$278.86 Multi-Party: \$1,086.50	Single: \$379.78 Two-Party: \$567.61 Multi-Party: \$567.61	Retiree pays 100% of dental coverage. Rates include dental
San Jose	The employer contributes 100% of the premium for the lowest cost medical plan.	8% of pay	Single: \$12.04 Two-Party: \$17.18 Multi-Party: \$30.80	Single: \$495.92 Two-Party: \$1,002.00 Multi-Party: \$1,492.84	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Vallejo	Employer contributes 75% of the Plan Year 2000 Kaiser Bay Area non-Medicare Premium	--	Data not available		



Miscellaneous New Plan Pre-Medicare²⁷

	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
Oakland	Employer contributes the PEMHCA minimum of \$136/mo., plus \$425.42/mo. for retirees with at least 10 YOS	--	Single: \$206.83 Two-Party: \$975.08 Multi Party: \$1,436.03	All levels: \$561.42	No New Tier
Concord	PEMHCA minimum	--	Single: \$685.26 Two-Party: \$1,497.74 Multi Party: \$2,023.17	All levels: \$136.00	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Fremont	Employer contributes a subsidy based on YOS: 0 to 5 YOS, \$0 6 to 10 YOS, \$170/mo. 11 to 19 YOS, \$230/mo. 20+ YOS, \$300/mo.	--	Single: \$590.25 Two-Party: \$1,358.5 Multi Party: \$1,819.45	All levels: \$300.00	Retiree pays 100% of dental coverage. Rates include dental
Fresno	RHSA: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	All levels: \$1,240.00	All levels: \$0.00	No New Tier Rates shown include dental and vision
Hayward	Employer contributes a subsidy based on YOS: <10 YOS, PEMHCA minimum 10+ YOS, \$274.72/mo.	--	Single: \$493.53 Two-Party: \$1,261.78 Multi Party: \$1,722.73	All levels: \$274.72	Dental premiums excluded from rates shown due to data availability
Long Beach	Trust: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	Single: \$1,088.94 Two-Party: \$1,330.30 Multi Party: \$1,391.88	All levels: \$0.00	No New Tier Rates shown include dental and vision
Richmond	Employer contributes a subsidy based on level of coverage: Single: \$435/mo. Two or Multi-Party: \$567/mo.	--	Single: \$333.25 Two-Party: \$969.50 Multi-Party: \$1,430.45	Single: \$435.00 Two-Party: \$567.00 Multi Party: \$567.00	Dental and vision premiums excluded from rates shown due to data availability

²⁷ Rates shown assume maximum employer subsidy.

Comparators may have prior tiers that are not shown. For comparison, the two most recent tiers are charted. Retiree + Spouse assumed to be non-Medicare eligible. Contribution amounts shown reflect the costs for the reported highest enrolled plan for each employer unless otherwise noted. Enrollment not provided for Fremont, Hayward and Vallejo. For the purposes of comparison, CalPERS Kaiser HMO is used. Fresno and Long Beach: Retiree can use HRA/Trust with accumulated sick leave to reimburse retiree medical expenses. The full cost of benefits is covered by the plan up to the point where the value of the retiree's unused sick leave has been exhausted. Rates shown assumes sick leave is exhausted.



	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
Sacramento	RHSA: 100% paid by retiree	--	Single: \$804.60 Two-Party: \$1,598.92 Multi Party: \$2,132.04	All levels: \$0.00	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
San Francisco	Employer contributes a subsidy based on YOS: <5 YOS, ineligible; 5 to <10 YOS, 0% 10 to <15 YOS, 50% 15 to <20 YOS, 75% 20+ YOS, 100%	Employees hired on or after 1/10/2009: 2% of pay	Single: \$45.77 Two-Party: \$394.70 Multi Party: \$943.62	Single: \$1,225.27 Two-Party: \$1,528.94 Multi Party: \$1,528.94	Retiree pays 100% of dental coverage. Rates include dental
San Jose	VEBA: Defined Contribution	2% of pay	N/A	N/A	--
Vallejo	PEMHCA minimum + RHSA	--	Single: \$632.25 Two-Party: \$1,400.50 Multi-Party: \$1,861.45	All levels: \$136.00	Retirees also receive RHSA funds (Employer contributes 1.5% of salary during employment)



Miscellaneous New Plan Medicare²⁸

	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
Oakland	Employer contributes the PEMHCA minimum of \$136/mo., plus \$425.42/mo. for retirees with at least 10 YOS	--	Single: \$0 Two-Party: \$86.06 Multi Party: \$409.80	Single: \$323.74 Two-Party: \$561.42 Multi Party: \$561.42	No New Tier
Concord	PEMHCA minimum	--	Single: \$240.75 Two-Party: \$608.72 Multi Party: \$996.94	All levels: \$136.00	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Fremont	Employer contributes a subsidy based on YOS: 0 to 5 YOS, \$0 6 to 10 YOS, \$170/mo. 11 to 19 YOS, \$230/mo. 20+ YOS, \$300/mo.	--	Single: \$145.74 Two Party: \$469.48 Multi Party: \$793.22	All levels: \$300.00	Retiree pays 100% of dental coverage. Rates include dental
Fresno	RHSA: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	All levels: \$1,240.00	All levels: \$0	No New Tier Rates shown include dental and vision
Hayward	Employer contribute a subsidy based on YOS: <10 YOS, PEMHCA minimum 10+ YOS, \$274.72/mo.	--	Single: \$49.02 Two Party: \$372.76 Multi Party: \$696.50	All levels: \$274.72	Dental premiums excluded from rates shown due to data availability
Long Beach	Trust: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	Single: \$762.08 Two Party: \$1,400.31 Multi Party: \$2,019.72	All levels: \$0.00	No New Tier Rates shown include dental and vision
Richmond	Employer contributes a subsidy based on level of coverage: Single: \$435/mo. Two or Multi-Party: \$567/mo.	--	Single: \$0.00 Two-Party: \$80.48 Multi Party: \$404.22	Single: \$323.74 Two-Party: \$567.00 Multi Party: \$567.00	Dental and vision premiums excluded from rates shown due to data availability

²⁸ Rates shown assume maximum employer subsidy.

Comparators may have prior tiers that are not shown. For comparison, the two most recent tiers are charted. Retiree + Spouse assumed to be Medicare eligible, dependents assumed to be Non-Medicare eligible. Contribution amounts shown reflect the costs for the reported highest enrolled plan for each employer unless otherwise noted. Enrollment not provided for Fremont, Hayward and Vallejo. For the purposes of comparison, CalPERS Kaiser HMO is used. Fresno and Long Beach: Retiree can use HRA/Trust with accumulated sick leave to reimburse retiree medical expenses. The full cost of benefits is covered by the plan up to the point where the value of the retiree's unused sick leave has been exhausted. Rates shown assumes sick leave is exhausted.



	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
Sacramento	RHSA: 100% paid by retiree	--	Single: \$398.48 Two-Party: \$753.52 Multi Party: \$1,164.52	All levels: \$0.00	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
San Francisco	Employer contributes a subsidy based on YOS: <5 YOS, ineligible; 5 to <10 YOS, 0% 10 to <15 YOS, 50% 15 to <20 YOS, 75% 20+ YOS, 100%	2% of pay	Single: \$45.77 Two-Party: \$278.86 Multi Party: \$1,086.50	Single: \$379.78 Two-Party: \$567.61 Multi Party: \$567.61	Retiree pays 100% of dental coverage. Rates include dental
San Jose	VEBA: Defined Contribution	2% of pay	N/A	N/A	--
Vallejo	PEMHCA minimum + RHSA	--	Single: \$187.74 Two-Party: \$511.48 Multi-Party: \$835.22	All levels: \$136.00	Retirees also receive RHSA funds (Employer contributes 1.5% of salary during employment)



Miscellaneous Classic Plan Pre-Medicare

	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
Oakland	Employer contributes the PEMHCA minimum of \$136/mo., plus \$425.42/mo. for retirees with at least 10 YOS	--	Single: \$206.83 Two-Party: \$975.08 Multi-Party: \$1,436.03	All levels: \$561.42	No New Tier
Concord	Employer contributes a subsidy based on Medicare eligibility and level of coverage	--	Single: \$149.44 Two-Party: \$290.09 Multi Party: \$412.43	Single: \$671.82 Two-Party: \$1,343.65 Multi Party: \$1,746.74	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Fremont	Employer contributes a subsidy of up to \$300/mo, regardless of YOS	--	Single: \$590.25 Two-Party: \$1,358.50 Multi Party: \$1,819.45	All levels: \$300.00	Retiree pays 100% of dental coverage. Rates include dental
Fresno	RHSA: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	All levels: \$1,240.00	All levels: \$0.00	No New Tier Rates shown include dental and vision
Hayward	Employer contributes a subsidy of \$226.01/mo.	--	Single: \$542.24 Two-Party: \$1,310.49 Multi Party: \$1,771.44	All levels: \$226.01	Dental premiums excluded from rates shown due to data availability
Long Beach	Trust: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	Single: \$1,089.94 Two-Party: \$1,330.30 Multi Party: \$1,391.88	All levels: \$0.00	No New Tier Rates shown include dental and vision
Richmond	Employer contributes a subsidy based on level of coverage: Single: \$224/mo. Two or Multi-Party: \$344/mo.	--	Single: \$544.25 Two-Party: \$1,202.50 Multi-Party: \$1,663.45	Single: \$224.00 Two-Party: \$344.00 Multi Party: \$344.00	Dental and vision premiums excluded from rates shown due to data availability
Sacramento	RHSA: Employer contributes \$300/mo. + an additional \$65/mo. for Two-Party coverage <10 YOS, 0% 10 to 14 YOS, 50% 15 to 19 YOS, 75% 20+ YOS, 100%	--	Single: \$504.60 Two-Party: \$1,233.92 Multi-Party: \$1,767.04	Single: \$300.00 Two-Party: \$365.00 Multi Party: \$365.00	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
San Francisco	Employer contributes a subsidy of up to \$1,528.94 (regardless of YOS)	Employees hired on or after 1/10/2009: 2% of pay	Single: \$45.77 Two-Party: \$394.70 Multi Party: \$943.62	Single: \$1,225.27 Two-Party: \$1,528.94 Multi Party: \$1,528.94	Retiree pays 100% of dental coverage. Rates include dental



	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
San Jose	The employer contributes 100% of the premium for the lowest cost medical plan	7.5% of pay	Single: \$12.04 Two-Party: \$17.18 Multi-Party: \$30.80	Single: \$495.92 Two-Party: \$1,002.00 Multi Party: \$1,492.84	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Vallejo	Employer contributes a subsidy of up to \$300/mo	--	Single: \$468.25 Two-Party: \$1,236.50 Multi-Party: \$1,697.45	All levels: \$300.00	--



Miscellaneous Classic Plan Medicare

	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
Oakland	Employer contributes the PEMHCA minimum of \$136/mo., plus \$425.42/mo. for retirees with at least 10 YOS	--	Single: \$0 Two-Party: \$86.06 Multi Party: \$409.80	Single: \$323.74 Two-Party: \$561.42 Multi Party: \$561.42	No New Tier
Concord	Employer contributes a subsidy based on Medicare eligibility and level of coverage	--	Single: \$89.23 Two-Party: \$169.68 Multi Party: \$270.38	Single: \$287.52 Two-Party: \$575.04 Multi Party: \$862.56	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Fremont	Employer contributes a subsidy of up to \$300/mo, regardless of YOS	--	Single: \$145.74 Two-Party: \$469.48 Multi Party: \$793.22	All levels: \$300.00	Retiree pays 100% of dental coverage. Rates include dental
Fresno	RHSA: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	All levels: \$1,240.00	All levels: \$0.00	No New Tier Rates shown include dental and vision
Hayward	Employers contribute a flat dollar subsidy of \$226.01/mo.	--	Single: \$97.73 Two-Party: \$421.47 Multi Party: \$745.21	All levels: \$226.01	Dental premiums excluded from rates shown due to data availability
Long Beach	Trust: 100% paid by retiree with accumulated sick leave. The full cost of benefits is covered by the plan up to the point where the value of the retirees unused sick leave has been exhausted	--	Single: \$762.08 Two Party: \$1,400.31 Multi Party: \$2,019.72	All levels: \$0.00	No New Tier Rates shown include dental and vision
Richmond	Employer contributes a subsidy based on level of coverage: Single: \$182/mo. Two or Multi-Party: \$284/mo.	--	Single: \$0.00 Two-Party: \$363.48 Multi Party: \$687.22	Single: \$182.00 Two-Party: \$284.00 Multi Party: \$284.00	Dental and vision premiums excluded from rates shown due to data availability
Sacramento	RHSA: Employer contributes \$300/mo. + an additional \$65/mo. for Two-Party coverage <10 YOS, 0% 10 to 14 YOS, 50% 15 to 19 YOS, 75% 20+ YOS, 100%	--	Single: \$98.48 Two-Party: \$388.52 Multi-Party: \$799.52	Single: \$300.00 Two-Party: \$365.00 Multi Party: \$365.00	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
San Francisco	Employer contributes a subsidy of up to \$567.61 (regardless of YOS)	2% of pay	Single: \$45.77 Two-Party: \$278.86 Multi Party: \$1,086.50	Single: \$379.78 Two-Party: \$567.61 Multi Party: \$567.61	Retiree pays 100% of dental coverage. Rates include dental



	Cost-Share	Active EE Contributions	Retiree Contributions	Employer Contributions	Notes
San Jose	The employer contributes 100% of the premium for the lowest cost medical plan.	7.5% of pay	Single: \$12.04 Two-Party: \$17.18 Multi-Party: \$30.80	Single: \$495.92 Two-Party: \$1,002.00 Multi Party: \$1,492.84	Retiree pays 100% of dental and vision coverage. Rates shown include dental and vision
Vallejo	Employer contributes a subsidy of up to \$300/mo	--	Single: \$23.74 Two-Party: \$347.48 Multi-Party: \$671.22	All levels: \$300.00	--



Appendix B: Actuarial Projections – Recommended Policy

The following projections were developed by Cheiron assuming that Police and Fire receive Kaiser plus one premiums trended to FY 2019-20 and then capped, with the PEMHCA minimum plus a \$425 subsidy for new hires after FY 2019-20. A 30-year closed amortization period is assumed, with the City funding pay-go plus an additional 2.5% of salary annually. Dollars shown are in millions.

Fund Cash Flows

FY Ending	Implicit & ACA	Explicit	% of Pay	Retiree	Total
	Net Benefits	Net Benefits		Contribs	Benefits
2018	\$ 6.1	\$ 21.2	7.6%	\$ 25.3	\$ 52.5
2019	6.7	22.9	8.0%	28.1	57.7
2020	7.1	24.3	8.3%	30.9	62.3
2021	8.3	27.5	9.2%	36.2	72.0
2022	8.4	28.2	9.2%	38.6	75.1
2023	9.6	29.0	9.5%	46.3	85.0
2024	10.5	30.0	9.7%	49.4	89.9
2025	11.0	30.8	9.8%	52.0	93.8
2026	11.9	31.8	10.0%	55.0	98.7
2027	12.9	32.8	10.2%	57.9	103.6
2028	13.7	33.7	10.3%	60.7	108.1
2029	14.7	34.7	10.4%	63.4	112.8
2030	15.5	35.4	10.5%	65.8	116.8
2031	16.0	36.0	10.5%	68.0	120.0
2032	16.3	36.5	10.4%	69.7	122.6
2033	17.0	37.1	10.4%	71.6	125.6
2034	17.2	37.4	10.2%	73.0	127.6
2035	17.4	37.5	10.0%	74.0	128.8
2036	17.4	37.4	9.8%	74.7	129.6
2037	17.4	37.3	9.5%	75.3	129.9
2038	17.8	37.0	9.3%	75.9	130.6

Contributions		Invest	Net Cash
Employer	Employee	Income	Flow
\$ 37.2	\$ -	\$ 0.7	\$ 10.7
39.6	-	1.4	11.4
40.9	-	2.3	11.7
45.5	-	3.1	12.8
46.5	-	4.1	14.0
48.8	-	5.1	15.3
50.9	-	6.2	16.7
52.5	-	7.4	18.1
54.7	-	8.8	19.7
56.9	-	10.2	21.5
59.0	-	11.8	23.3
61.2	-	13.5	25.3
63.1	-	15.4	27.5
64.4	-	17.4	29.8
65.6	-	19.5	32.3
67.1	-	21.9	35.0
68.0	-	24.5	37.8
68.5	-	27.2	40.9
68.9	-	30.2	44.3
69.1	-	33.5	47.9
69.5	-	37.0	51.7



Assets and Liabilities

July 1,	AL	Assets	UAL	Funded Ratio %	Discount Rate
2017	\$ 854.5	\$ 4.3	\$ 850.2	0.5%	3.58%
2018	\$ 895.9	\$ 15.0	\$ 880.9	1.7%	3.58%
2019	\$ 937.9	\$ 26.4	\$ 911.5	2.8%	3.58%
2020	\$ 713.5	\$ 38.2	\$ 675.3	5.4%	4.86%
2021	\$ 721.1	\$ 51.0	\$ 670.1	7.1%	5.07%
2022	\$ 724.3	\$ 65.0	\$ 659.3	9.0%	5.35%
2023	\$ 736.1	\$ 80.3	\$ 655.8	10.9%	5.51%
2024	\$ 749.2	\$ 97.0	\$ 652.2	12.9%	5.66%
2025	\$ 764.3	\$ 115.1	\$ 649.2	15.1%	5.79%
2026	\$ 776.0	\$ 134.9	\$ 641.1	17.4%	5.96%
2027	\$ 791.3	\$ 156.3	\$ 634.9	19.8%	6.09%
2028	\$ 813.2	\$ 179.7	\$ 633.5	22.1%	6.14%
2029	\$ 829.4	\$ 205.0	\$ 624.5	24.7%	6.26%
2030	\$ 847.6	\$ 232.4	\$ 615.2	27.4%	6.36%
2031	\$ 862.6	\$ 262.2	\$ 600.4	30.4%	6.50%
2032	\$ 876.2	\$ 294.5	\$ 581.7	33.6%	6.68%
2033	\$ 882.4	\$ 329.5	\$ 552.9	37.3%	6.94%
2034	\$ 882.3	\$ 367.3	\$ 515.1	41.6%	7.28%
2035	\$ 916.4	\$ 408.2	\$ 508.2	44.5%	7.28%
2036	\$ 953.5	\$ 452.5	\$ 501.0	47.5%	7.28%
2037	\$ 994.2	\$ 500.4	\$ 493.9	50.3%	7.28%

AL: Actuarial Liability

UAL: Unfunded Actuarial Liability



GASB Actuarially Determined Contribution

FY Ending	Net Normal Cost %	Net Normal Cost	Amortization Payment*	Actuarially Determined Contribution	Payroll	% Pay
2018	10.3%	\$ 37.2	\$ 33.2	\$ 70.4	\$ 360.3	19.5%
2019	10.5%	38.7	35.4	74.1	369.3	20.1%
2020	10.6%	40.3	37.8	78.0	378.5	20.6%
2021	8.3%	32.3	28.9	61.1	388.0	15.8%
2022	8.4%	33.5	29.6	63.1	397.7	15.9%
2023	8.5%	34.7	30.1	64.9	407.7	15.9%
2024	8.6%	36.0	31.1	67.1	417.8	16.1%
2025	8.7%	37.4	32.1	69.4	428.3	16.2%
2026	8.8%	38.8	33.2	72.0	439.0	16.4%
2027	8.9%	40.2	34.2	74.4	450.0	16.5%
2028	9.0%	41.7	35.4	77.1	461.2	16.7%
2029	9.2%	43.3	37.0	80.2	472.8	17.0%
2030	9.3%	44.9	38.3	83.2	484.6	17.2%
2031	9.4%	46.6	39.7	86.3	496.7	17.4%
2032	9.5%	48.3	41.0	89.3	509.1	17.5%
2033	9.6%	50.1	42.1	92.3	521.8	17.7%
2034	9.7%	52.0	42.7	94.7	534.9	17.7%
2035	9.8%	54.0	42.6	96.6	548.3	17.6%
2036	10.0%	56.0	45.3	101.3	562.0	18.0%
2037	10.1%	58.1	48.5	106.6	576.0	18.5%
2038	10.2%	60.3	52.3	112.6	590.4	19.1%

* Amortization is based on a closed 30 year level percent of pay.



Assets and Liabilities (Explicit Subsidy Component Only)

July 1,	AL	Assets	UAL	Funded Ratio %	Discount Rate
2017	\$ 652.0	\$ 4.3	\$ 647.7	0.7%	3.58%
2018	\$ 681.9	\$ 15.0	\$ 666.9	2.2%	3.58%
2019	\$ 712.4	\$ 26.4	\$ 685.9	3.7%	3.58%
2020	\$ 510.0	\$ 38.2	\$ 471.8	7.5%	4.86%
2021	\$ 511.2	\$ 51.0	\$ 460.2	10.0%	5.07%
2022	\$ 509.2	\$ 65.0	\$ 444.1	12.8%	5.35%
2023	\$ 513.6	\$ 80.3	\$ 433.3	15.6%	5.51%
2024	\$ 519.2	\$ 97.0	\$ 422.2	18.7%	5.66%
2025	\$ 526.1	\$ 115.1	\$ 410.9	21.9%	5.79%
2026	\$ 530.7	\$ 134.9	\$ 395.9	25.4%	5.96%
2027	\$ 538.0	\$ 156.3	\$ 381.7	29.1%	6.09%
2028	\$ 549.9	\$ 179.7	\$ 370.3	32.7%	6.14%
2029	\$ 558.1	\$ 205.0	\$ 353.1	36.7%	6.26%
2030	\$ 567.6	\$ 232.4	\$ 335.2	40.9%	6.36%
2031	\$ 575.0	\$ 262.2	\$ 312.8	45.6%	6.50%
2032	\$ 581.4	\$ 294.5	\$ 286.9	50.7%	6.68%
2033	\$ 583.1	\$ 329.5	\$ 253.6	56.5%	6.94%
2034	\$ 580.7	\$ 367.3	\$ 213.4	63.3%	7.28%
2035	\$ 600.3	\$ 408.2	\$ 192.1	68.0%	7.28%
2036	\$ 621.7	\$ 452.5	\$ 169.2	72.8%	7.28%
2037	\$ 645.2	\$ 500.4	\$ 144.8	77.6%	7.28%

AL: Actuarial Liability

UAL: Unfunded Actuarial Liability



GASB Actuarially Determined Contribution (Explicit Subsidy Component Only)

FY Ending	Net Normal Cost %	Net Normal Cost	Amortization Payment*	Actuarially Determined Contribution	Payroll	% Pay
2018	7.5%	\$ 27.1	\$ 25.3	\$ 52.4	\$ 360.3	14.6%
2019	7.7%	28.3	26.8	55.1	369.3	14.9%
2020	7.8%	29.4	28.4	57.9	378.5	15.3%
2021	5.2%	20.3	20.2	40.4	388.0	10.4%
2022	5.3%	21.0	20.3	41.3	397.7	10.4%
2023	5.3%	21.7	20.3	42.0	407.7	10.3%
2024	5.4%	22.5	20.5	43.0	417.8	10.3%
2025	5.4%	23.3	20.8	44.1	428.3	10.3%
2026	5.5%	24.1	21.0	45.1	439.0	10.3%
2027	5.6%	25.0	21.1	46.1	450.0	10.2%
2028	5.6%	25.9	21.3	47.1	461.2	10.2%
2029	5.7%	26.8	21.6	48.4	472.8	10.2%
2030	5.7%	27.7	21.6	49.4	484.6	10.2%
2031	5.8%	28.7	21.6	50.3	496.7	10.1%
2032	5.8%	29.7	21.3	51.1	509.1	10.0%
2033	5.9%	30.8	20.8	51.6	521.8	9.9%
2034	6.0%	31.9	19.6	51.5	534.9	9.6%
2035	6.0%	33.0	17.7	50.7	548.3	9.2%
2036	6.1%	34.2	17.1	51.3	562.0	9.1%
2037	6.1%	35.4	16.4	51.8	576.0	9.0%
2038	6.2%	36.7	15.3	52.0	590.4	8.8%