KENSINGTON POLICE PROTECTION DISTRICT

Actuarial Valuation of

Postemployment Medical Benefits

Valuation Date: July 1, 2016

NICOLAY CONSULTING

NICOLAY CONSULTING GROUP

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February 2, 2017

Chief Rickey Hull
Interim General Manager/Chief of Police
Kensington Police Protection and Community Services District
217 Arlington Avenue
Kensington, CA 94707-1401

Dear Chief Hull:

Re: Actuarial Valuation of Postemployment Medical Plans

Kensington Police Protection District has retained Nicolay Consulting Group to complete this valuation of the Kensington Police Protection District postemployment medical program as of July 1, 2016.

The purpose of this valuation is to determine the value of the expected postretirement benefits for current and future retirees and the Actuarial Accrued Liability and Annual Required Contribution recognized under Government Accounting Standards Board Statement No. 45 (GASB 45) requirements for the fiscal year ending June 30, 2017. The amounts reported herein are not necessarily appropriate for use for a different fiscal year without adjustment.

In preparing this report we relied on employee data and plan information provided by the District. The results of the valuation are dependent on the accuracy of the data and other information provided. These data are not audited by Nicolay Consulting Group, although they were reviewed for reasonableness. Calculations presented in this valuation do not reflect any other postemployment benefits than those described in this report.

The financial projections presented in this report are intended for internal use in evaluating the potential cost of the retiree medical program and for the plan sponsor's financial statements. Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. No one may make any representations or warranties based on any statements or conclusions contained in this report without the written consent of Nicolay Consulting Group.

On the basis of the data provided, this report has been prepared in accordance with generally accepted actuarial principles and methods. The assumptions for termination, retirement, mortality and health care claims morbidity rates are those used in the most recent California PERS Public Agency retirement plan valuations.

Mortality improvement was reflected based on the most recent tables published by the Society of Actuaries. Morbidity rates for age-adjusting claims rates are based on the most recent tables published by CalPERS. Certain other assumptions were selected specifically for this valuation, and in many cases, including assumed health care trend, reflect changes from that used in the prior valuation. For all other assumptions, we believe they are reasonable for the measurement of the obligation involved. It should be recognized, however, that there can be significant differences between actual experience and the assumptions. Moreover, other sets of reasonable assumptions can yield materially lesser or greater results.

GASB stipulates that if the plan is prefunded, the discount rate should be the long-term yield on investments to be used to pay plan benefits. The District pre-funds liabilities by contributing to the California Employees Retirement Benefit Trust (CERBT). Based on the investment portfolio of this Trust, the long-term yield is expected to be 7.28%. Since the District's funding policy is to contribute the full ARC to the Trust, the discount rate used in this valuation is based entirely on the Trust expected return of 7.28%. Any changes in funding policy or asset allocation may result in changes to the 7.28% discount rate assumption.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: retiree group benefits program experience differing from that anticipated by the assumptions; changes in assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. Because of limited scope, we have not performed analysis of the potential range of such future differences.

Based on the foregoing, the cost results and actuarial exhibits presented in this report were determined on a consistent and objective basis in accordance with applicable Actuarial Standards of Practice and generally accepted actuarial procedures. We believe they fully and fairly disclose the actuarial position of the Plan based on the plan provisions, employee and plan cost data submitted.

The passage of healthcare reform in March 2010 ushered in a number of changes that might be expected to impact postretirement medical plans over time. We considered the possible effects of these changes for the District and summarized the results in this report.

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On December 18, 2015, President Obama signed the Omnibus Appropriations Act of 2016. There are significant provisions in this law relating to the Cadillac tax, the annual fee on health insurers, and the medical device tax. This valuation reflects this new legislation.

This report represents a statement of actuarial opinion by the undersigned actuary, who is a member of the American Academy of Actuaries (AAA) and is qualified to issue that opinion. Questions about the report should be directed to Gary Cline at (415) 512-5300 x231.

Sincerely,

By: 

Gary E. Cline, ASA, FCA, MAAA

KENSINGTON POLICE PROTECTION DISTRICT

Actuarial Valuation of

Postemployment Medical Benefits

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SECTION I

Summary of Valuation Results

Table 1-1

Summary of Valuation Results

	7/1/2016	7/1/2015**
Present Value of Future Benefits		
Active	$2,826,298	$994,305
Retiree	$2,405,178	$1,885,328
Total	$5,231,476	$2,879,633
Actuarial Accrued Liability		
Active	$1,446,394	$479,375
Retiree	$2,405,178	$1,885,328
Total	$3,851,572	$2,364,703
Actuarial Value of Assets	$804,775	$630,782
Unfunded Actuarial Accrued Liability	**$3,046,797**	**$1,733,921**
Expected Employer Share of Current Year Plan Cost (Pay-as-you-go)	**$157,361 ***	**$187,551**
Annual Required Contribution (ARC)	**$404,577**	**173,677**
Number of Plan Participants		
Actives	10	9
Retirees & Surviving Spouses	13	14
Total	23	23
Discount rate	**7.28%**	**7.00%**
Assumed Increase in Per-Capita Claim Costs		
Initial Rate		
Pre-65	8.00%	4.00%
Post-65	5.50%	4.00%
Ultimate Rate	5.00%	4.00%
Year Ultimate Rate Reached	2029	2015

*Excludes implicit subsidy related to retiree premiums (since unadjusted premiums represent the current cash cost) and the implied subsidy related to active employee premiums (but the District can elect to recognize this as a retiree cash cost under GASB 45).

**From Total Compensation Systems, Inc. July 1, 2015 report

The Actuarial Accrued Liability (AAL) has increased $1,486,869 from $2,364,703 as of July 1, 2015 to $3,851,572 as of July 1, 2016. A breakdown of the sources of this change in liability is shown in Table 1-2.

Table 1-2
Estimated Sources of Liability Change (thousands)

	Amount	Percent
Expected Benefits Earned, Benefit Payments and Interest	$25	1%
Recognition of an Age-Related Implicit Subsidy	$865	37%
Revised Health Care Cost Assumed Trend Rates	$376	16%
Revised Child Coverage Assumptions	$164	7%
Revised CalPERS Assumed Mortality Rates	$131	6%
Revised Employer Contribution Caps	$111	5%
Revised CalPERS Assumed Retirement Rates	($45)	(2%)
Revised Discount Rate	($84)	(4%)
New Retiree Contribution Provision	($263)	(11%)
Demographic and Other Experience	$207	8%
Total Liability Change*	$1,487	63%

*Individual amounts may not add to total due to rounding.

Expected Benefits Earned, Benefit Payments and Interest: The liabilities were expected to increase 1% from the prior actuarial valuation due to net effect of active employees continuing to earn benefits, retirees receiving benefit payments, and interest.

Recognition of an Age-Related Implicit Subsidy: Since healthcare costs generally increase with age, an implied subsidy exists. This subsidy is caused by the difference between the flat-rate premiums participants are charged and the assumed average age-related claims costs.

Effective with measurement dates on or after March 31, 2015, Actuarial Standard of Practice No. 6 (ASOP 6) requires actuarial valuations to reflect the impact of aging on claims for "community-rated" plans. For the District, this means we were required to revise the pre and post-Medicare plan liabilities to base them on a claims cost curve as opposed to premiums. The resulting implicit subsidy identified from this assumption increased liabilities approximately $865,000, or roughly 37%. This subsidy is positive (an increase in the liability), which reflects the fact that the flat-rate premiums are lower than the assumed age-adjusted cost of coverage (e.g., for the pre-Medicare plans the younger active employees are subsidizing the older retired participants).

Revised Health Care Cost Assumed Trend Rates: Initial trend rates in the July 1, 2015 valuation was a fixed 4.0% increase. For the July 1, 2016 valuation we adopted stand-alone initial pre- and post-Medicare trend rates. This change generally raised the

assumed trend rates for both pre-Medicare and post-Medicare plans, resulting in a 16% increase in liabilities.

Revised Child Coverage Assumptions: We updated child coverage assumptions according to the plan provisions, which cover retirees and any dependents. The report from TCS had an assumption about spouse coverage, but not child coverage. This resulted in a 7% increase in liabilities.

Revised CalPERS Assumed Mortality Rates: We updated the valuation assumed mortality rates to reflect those rates most recently published by CalPERS, and the projection scales most recently published by the Society of Actuaries, which drove a 6% increase in liabilities. This increase is primarily caused by an observed improvement in longevity for the overall population in the SOA study.

Revised Employer Contribution Caps: The increase in caps from 2015 to 2016 was higher than assumed, resulting in a 5% increase in liabilities.

Revised CalPERS Assumed Retirement Rates: We updated the valuation assumed retirement rates to reflect those rates most recently published by CalPERS, which drove a 2% decrease in liabilities.

Revised Discount Rate: The discount rate was increased, from 7.00% in the July 1, 2015 valuation, to 7.28% in the July 1, 2016 valuation. This resulted in a 4% decrease in liabilities.

New Retiree Contribution Provision: Effective January 1, 2016, employees are required to contribute $85 per month, in addition to what they pay if their premium exceeds the Kaiser cap. Effective July 1, 2017, this contribution increases to $125 per month. This decreased liabilities by 11%.

Demographic and Other Experience: This is a catch-all category that refers to experience other than expected. It includes demographic experience (i.e., withdrawals, retirement, deaths, and new entrants other than assumed) and is driven by the participant census data we collect from the District for our valuations. Other experience includes things like retirees selecting different health plans, retirees opting out of certain benefits, or similar changes. Demograhic and other experience since the July 1, 2015 valuation resulted in an overall 8% increase in the liability.

SECTION II

Development of ARC and GASB 45 Disclosures

Table 2-1 presents the Present Value of Future Benefits (i.e., liability based on all future service) and the Actuarial Accrued Liability (i.e., liability based on past service only) broken down by participant status and benefit type.

The implicit subsidy is the obligation associated with the difference between premiums and the assumed true per capita healthcare costs for the District participants.

Table 2-1

Present Value of Future Postemployment Medical Benefits
As of July 1, 2016
Entry Age Normal Actuarial Cost Method
Discount Rate: 7.28%

	District Contribution	Implicit Subsidy	Total
Present Value of Future Benefits			
Actives	$1,974,845	$851,453	$2,826,298
Retirees	$1,975,702	$429,476	$2,405,178
Total	$3,950,547	$1,280,929	$5,231,476
Actuarial Accrued Liability (AAL)			
Actives	$1,010,945	$435,449	$1,446,394
Retirees	$1,975,702	$429,476	$2,405,178
Total	$2,986,647	$864,925	$3,851,572

This valuation was completed using the Entry Age Normal Actuarial Cost method and assumes a closed 30-year amortization (started in 2009) of the Unfunded Actuarial Accrued Liability using the level percent of pay amortization method.

Projected Expected Health Benefit Payments

Table 2-2 contains a ten-year projection of the District pay-as-you-go cost to provide postemployment medical benefits and the total Expected Benefit Payments.

Table 2-2

Projected Expected Benefit Payments

	District Premiums*	Implicit Subsidy	Total
2016/17	$157,361	$51,766	$209,127
2017/18	$163,502	$53,834	$217,336
2018/19	$181,331	$66,836	$248,167
2019/20	$187,901	$64,031	$251,932
2020/21	$187,477	$60,777	$248,254
2021/22	$207,256	$75,640	$282,896
2022/23	$205,321	$70,573	$275,894
2023/24	$209,864	$75,033	$284,897
2024/25	$220,971	$69,867	$290,838
2025/26	$244,682	$84,027	$328,709

*This is actual pay-as-you-go cost and excludes the implicit subsidy related to retiree premiums (since unadjusted premiums represent the current cash cost) and the implied subsidy related to active employee premiums (but the District can elect to recognize this as a retiree cost under GASB 45).

Health Benefit Costs Under GASB 45

The Annual Required Contribution (ARC) consists of the Normal Cost plus the current period amortization of the Unfunded Actuarial Accrued Liability.

Normal Cost is the portion of the actuarial present value of future benefits that is allocated to a particular year. Another interpretation is that the Normal Cost is the present value of future benefits that are "earned" by employees for service rendered during the current year. This valuation is based on the Entry Age Normal actuarial cost method and an attribution period that runs from date of hire until the expected retirement date.

Employers are allowed to amortize the Unfunded Actuarial Accrued Liability (UAAL) over a period not to exceed 30 years. The following Tables are based on amortization of the UAAL over a closed 30-year period using the level percent of pay amortization method. The District adopted GASB 45 in the 2008/09 fiscal year. The remaining amortization period is 23 years.

Table 2-3

Fiscal Year 2016/17 OPEB Annual Required Contribution

	2016/17	2015/16
Discount rate	7.28%	7.00%
Actuarial Accrued Liability	$3,851,572	$2,364,703*
Actuarial Value of Assets	$804,775	$630,782*
Unfunded Actuarial Accrued Liability	$3,046,797	$1,733,921*
Remaining Amortization Period	23 years	24 years*
Level percent pf pay Amortization Factor (based on the discount rate and a salary scale of 2.75%)	13.824	14.435**
Normal Cost (based on the Entry Age Normal Method)	$184,178	$53,559*
Annual Level Percent of Pay Amort. of Unfunded AAL	$220,399	$120,118*
Annual Required Contribution	$404,577	$173,677*
Interest on Net OPEB Obligation	$297	***
Adjustment to ARC	($295)	***
Annual OPEB Cost	$404,579	$199,136****
Estimated Contribution	($404,577)	($163,595)****
Increase in Net OPEB Obligation	$2	$35,541****
Net OPEB Obligation – Beginning of Year	$4,078	($31,463)****
Net OPEB Obligation – End of Year	$4,080	$4,078****

*From Total Compensation Systems, Inc. July 1, 2015 report
**Calculated by the UAAL divided by the Annual Level Dollar Amort. of UAAL
***Not available
****From June 30, 2016 Notes to Financial Statements

Table 2-4 presents a projection of the Trustt funding policy contributions. The funding policy contributions shown below include (i) pay-go costs unreimbursed by the Trust, (ii) $188,723 cash contributions to the District and (iii) active implicit rate subsidy contributions that could be transferred to OPEB accounting.

Table 2-4

Total Trust and Non-Trust OPEB Contributions for Year Ending June 30, 2017

Active Benefit Expense Transfer of Premium Implicit Subsidies and Pay-go Costs

	FYE June 30, 2017
Cash Contributions to the Trust	$204,723
Projected Pay-go Costs*	$157,361
Active Implicit Rate Subsidy**	$42,495
Cross-Employer Subsidy***	0
Estimated Total OPEB Contributions	**$404,577**
ARC Explicit Subsidy****	$285,971
ARC Implicit Subsidy*****	$118,606
Total ARC	$404,577

*Retiree premiums paid by the District.

**The active implicit rate subsidy represents a subsidy toward pre-Medicare retiree medical costs paid via active premiums. It arises because the claims from both groups are combined to calculate a blended premium. The amount ($42,495) should be transferred from active employee benefit expense to OPEB expense and counted as a contribution toward the ARC. This amount ($42,495) should equal the retiree implicit subsidy ($51,766) for 2016/17 shown on page 5 of this report. Since it is less, then there is a cross-employer subsidy equal to the difference ($9,271).

***Per footnote **, there is a cross-employer subsidy ($9,271) because Kensington's active implicit rate subsidy ($42,495) paid is not fully funding the retiree implicit subsidy ($51,766) received. In other words, Kensington's retirees are receiving a subsidy from other employer's active employees. This may be counted as a contribution to OPEB, but GASB has not yet provided guidance on this issue. To consider it a contribution to OPEB, the District should seek approval from their auditor.

****The portion of the ARC attributable to current and future retiree premiums paid by the District.

*****The portion of the ARC attributable to pre-Medicare retiree average claims costs in excess of premiums.

In order for the District to reflect the active implicit rate subsidy as an OPEB contribution, it must transfer the amount ($42,495 in FYE 2017) from active benefit expense (cash accounting) to OPEB contributions (accrual accounting).

Explicit subsidies (i.e., retiree premiums paid by the District) are being prefunded by assets in the Trust. In order to ensure the explicit subsidy portion of the ARC is prefunded

properly, the District should confirm that cash plus pay-go contributions are at equal to or more than the ARC Explicit Subsidy.

Plan Assets

The District pre-funds liabilities by contributing to CERBT. We understand that the District's Trust Fund balance was $670,646 as of June 30, 2016. Using five-year asset smoothing, we have determined the Actuarial Value of Assets to be $804,775, by the calculations shown in Table 2-6.

Table 2-6
Calculation of Actuarial Value of Assets
Using Five-Year Asset Smoothing

a. Actuarial Value of Assets as of July 1, 2015	$630,782
b. Employer Contribution in FY 2015/16	$163,595
c. Expected Investment Earnings = (a) x 7%	$44,155
d. Expected Actuarial Value of Assets = (a) + (b) + (c)	$838,532
e. Market Value of Assets as of June 30, 2016	$670,646
f. Preliminary Actuarial Value of Assets = (d) + ((e) – (d)) x 1/5	$804,955
g. Minimum Actuarial Value of Assets = (e) x 80%	$536,517
h. Maximum Actuarial Value of Assets = (e) x 120%	$804,775
i. Actuarial Value of Assets as of July 1, 2016 = Max((g), Min((f), (h)))	**$804,775**

SECTION III

Plan Description and Demographic Summary

Eligibility and Contribution Requirements

The District provides lifetime retiree medical coverage to eligible employees who retire at age 50, along with their dependents. The medical plan benefits are contracted with the California Public Employees' Retirement System under the public Employees' Medical and Hospital Care Act (PEMHCA).

The District contributes the entire cost of postemployment medical coverage up to pre determined limits that are established each year.

Eligible retirees may enroll in any of the plans available through the PERS Program. Table 3-1 contains 2016 and 2017 Bay Area CalPERS monthly premium rates. Retirees are subject to a cap of the Kaiser Bay Area rates for the coverage selected.

Effective January 1, 2017, all eligible employees will be required to contribute at least $85 monthly towards the cost of healthcare, regardless of the level of coverage selected. Effective June 30, 2017, all eligible employees will be required to contribute ate least $125 monthly, regardless of the level of coverage selected. The $125 monthly is assumed not to increase in future years.

Retirees are eligible for Delta Dental and the VSP vision plan.

Table 3-1

Cal PERS Bay Area Retiree or Spouse
Calendar Year Monthly Premium Rates

2016

	Younger than Age 65			Age 65 or Older		
Plan	EE	EE+1	EE+2 or more	EE	EE+1	EE+2 or more
Blue Shield Access+	$1,016.18	$2,032.36	$2,642.07	n/a	n/a	n/a
Blue Shield NetValue	$1,033.86	$2,067.72	$2,688.04	n/a	n/a	n/a
Kaiser	$746.47	$1,492.94	$1,940.82	$297.23	$594.46	$891.69
PERS Choice	$798.36	$1,596.72	$2,075.74	$366.38	$732.76	$1,099.14
PERS Select	$730.07	$1,460.14	$1,898.18	$366.38	$732.76	$1,099.14
PERS Care	$889.27	$1,778.54	$2,312.10	$408.04	$816.08	$1,224.12
PORAC	$699.00	$1,399.00	$1,789.00	$442.00	$881.00	$1,408.00
United Healthcare	$955.44	$1,910.88	$2,484.14	$320.98	$641.96	$962.94

2017

	Younger than Age 65			Age 65 or Older		
Plan	EE	EE+1	EE+2 or more	EE	EE+1	EE+2 or more
Blue Shield Access+	$1,024.85	$2,049.70	$2,664.61	n/a	n/a	n/a
Blue Shield NetValue	n/a	n/a	n/a	n/a	n/a	n/a
Kaiser	$733.29	$1,466.78	$1,906.81	$300.48	$600.96	$901.44
PERS Choice	$830.30	$1,660.60	$2,158.78	$353.63	$707.26	$1,060.89
PERS Select	$736.27	$1,472.54	$1,914.30	$353.63	$707.26	$1,060.89
PERS Care	$932.39	$1,864.78	$2,424.21	$389.76	$779.52	$1,169.28
PORAC	$699.00	$1,467.00	$1,876.00	$464.00	$924.00	$1,477.00
United Healthcare	$1,062.26	$12,124.52	$2,761.88	$324.21	$648.42	$972.63

2016/17 Dental and Vision Rates

Delta Dental	
Single	$64.41
2-Party	$124.48
Family	$202.72
VSP	
Composite Rate	$31.52

Demographic Data

Tables 3-2 and 3-3 contain summaries of the demographic information provided by the District.

Table 3-2

Age and Service Table of
Active Employees included in the valuation
as of July 1, 2016

	Years of Service						
Age	**<5**	**5-9**	**10-14**	**15-19**	**20-24**	**25+**	**Total**
Under 25	0	0	0	0	0	0	**0**
25 - 29	1	0	0	0	0	0	**1**
30 - 34	0	0	0	0	0	0	**0**
35 - 39	0	1	1	0	0	0	**2**
40 - 44	1	1	1	0	0	0	**3**
45 - 49	0	1	1	0	0	0	**2**
50 - 54	0	0	0	1	0	0	**1**
55 - 59	1	0	0	0	0	0	**1**
60 - 64	0	0	0	0	0	0	**0**
65 - 69	0	0	0	0	0	0	**0**
70+	0	0	0	0	0	0	**0**
Total	**3**	**3**	**3**	**1**	**0**	**0**	**10**

Table 3-3

Age Table for Retirees
as of July 1, 2016

Age	**Female**	**Male**	**Total**
Under 55	0	0	**0**
55-59	0	2	**2**
60-64	0	4	**4**
65-69	0	1	**1**
70-74	0	3	**3**
75+	3	0	**3**
Total	**3**	**10**	**13**

SECTION IV

Actuarial Method and Assumptions

In order to project the District's liabilities into the future, a number of economic, demographic, and baseline cost assumptions are necessary. For this valuation, we have used assumptions consistent with those specified in the "OPEB Assumption Model" released by the CalPERS Health Benefits Committee.

Actuarial Cost Method

The valuation was completed using the Entry Age Normal Cost Method. An Actuarial Cost Method is a procedure for allocating the actuarial present value of benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability. The Entry Age Normal cost method allocates the present value of future benefits on a level basis over the earnings or service (in this case earnings) of each employee between the hire date and assumed retirement age. The portion of the present value of future benefits allocated to a valuation year is called the Normal Cost. The portion allocated to all prior years is called the Actuarial Accrued Liability.

Valuation Date

The valuation date is July 1, 2016. This date is the starting point from which current health premium costs are increased according to the assumed annual rates of health care cost trend. The District census is projected from the valuation date to the date of the final benefit payment for each employee and retiree on the census. After calculating future costs for the projected retiree and dependent population, all liabilities are discounted back to the valuation date to obtain the present value of future costs.

Economic Assumptions

Discount Rate

GASB 45 requires an employer to select a discount rate that approximates the "estimated long-term investment yield on the investments that are expected to be used to finance the payments of benefits". The District pre-funds liabilities by contributing to CERBT. Based on the investment portfolio of this Trust (Asset Allocation Strategy 1), we understand the long-term yield is expected to be 7.28%. Since the District's funding policy is to contribute the full ARC to the Trust, the discount rate used in this valuation is based entirely on the Trust long-term expected return of 7.28%. Any changes in funding policy or asset allocation may result in changes to the 7.28% discount rate assumption. For 2015 the assumed rate was 7.0%

Health Care Trend

The rate of increase in per capita health care costs is commonly referred to as the *health care trend* rate.

Based on our extensive experience with postemployment health plans, we selected the following annual trend rates for use in this valuation:

Table 4-1

Annual Health Care Cost Trend Rate Assumption

Year Beginning	Increase in CalPERS Regional Premium Rates Pre-65	Post-65
January 1, 2018	8.00%	5.25%
January 1, 2019	7.75%	5.00%
January 1, 2020	7.50%	5.00%
January 1, 2021	7.25%	5.00%
January 1, 2022	7.00%	5.00%
January 1, 2023	6.75%	5.00%
January 1, 2024	6.50%	5.00%
January 1, 2025	6.25%	5.00%
January 1, 2026	6.00%	5.00%
January 1, 2027	5.75%	5.00%
January 1, 2028	5.50%	5.00%
January 1, 2029	5.25%	5.00%
January 1, 2030 and later	5.00%	5.00%

The initial trend rate assumption represents an estimate of short term cost increases based on recent health care marketplace experience, and taking into consideration the cost characteristics of plans available to District retirees. Annual increases in national health expenditures have exceeded the general growth in GDP for many years. However, there are practical limitations to how long these trends can continue. Therefore, over the long term we expect that health care costs will be constrained by the public's ability and willingness to pay the higher cost of health care coverage. This assumption implies that the ultimate trend rate should be related to the expected long-term growth in the economy.

Therefore, we assume the ultimate rate to be comprised of real growth in per capita GDP, long-term growth attributable to technology innovations, and the assumed long-term inflation rate. The initial trend is assumed to decrease ratably to this ultimate rate over time.

Cap Increase

The cap is assumed to increase at the same rate as the pre-Medicare trend.

Amortization Methodology

GASB 45 allows amortization of the Unfunded Actuarial Accrued Liability based on a level dollar approach or as a level percentage of covered payroll. The maximum amortization period is 30 years.

This valuation is based on a closed, 30-year amortization of the Unfunded Actuarial Accrued Liability. The amortization payment is level dollar and will decrease in proportion to the Unfunded Actuarial Accrued Liability. The amortization will continue for the next 23 years.

Per Capita Health Plan Costs

Due to the small size of the retiree population, the per capita claims were developed using the age adjusted premiums for the current CalPERS population. These premiums are assumed to include administrative costs. The premiums for CalPERS are based on community-rated claims experience by region for all CalPERS member agencies.

Administrative Expenses

We did not include any internal administrative expenses in this valuation, as it has been assumed that expenses are included as part of the health premium.

Age-Adjusted Costs

The gender distinct age morbidity factors for pre- and post-Medicare morbidity were developed by CalPERS based on 2013 data. CalPERS developed these tables for use in complying with ASOP 6. Table 4-2 illustrates the age-graded premiums based on the premiums and the male and female morbidity factors that were provided by CalPERS for HMO plans. Because the sample size is so small, we calculated the age-graded premiums based on the average of all premiums for current and future retirees. Because so few have elected PPO plans, and because nearly all employees and retirees are covering spouses, we used a blended male/female HMO curve for all plan participants. For the community-rated premiums on which we based the age-weighted premiums, we used the weighted average of all participants' plan premiums.

Table 4-2

Age-Adjusted Costs at Selected Ages

Age	Cost
50	$9,338
55	$12,116
60	$14,661
65	$2,890
70	$3,345
75	$3,742
80	$4,059
85	$4,180

Demographic Assumptions

In estimating this obligation, a number of demographic assumptions are needed. These assumptions are the same as those used in the most recent California PERS valuation.

Withdrawal

For Police Safety employees we selected withdrawal rates used in the most recent California PERS Police 3% @50 retirement plan valuations. Selected rates are shown below.

Table 4-3
Police Safety Employees
Annual Withdrawal Rates

	Age						
Service	20	25	30	35	40	45	50
0	0.10130	0.10130	0.10130	0.10130	0.10130	0.10130	0.10130
1	0.06360	0.06360	0.06360	0.06360	0.06360	0.06360	0.06360
2	0.02710	0.02710	0.02710	0.02710	0.02710	0.02710	0.02710
3	0.02580	0.02580	0.02580	0.02580	0.02580	0.02580	0.02580
4	0.02450	0.02450	0.02450	0.02450	0.02450	0.02450	0.02450
5	0.02490	0.02490	0.02490	0.02490	0.02490	0.02490	0.00860
6		0.02360	0.02360	0.02360	0.02360	0.02360	0.00790
7		0.02210	0.02210	0.02210	0.02210	0.02210	0.00720
8		0.02080	0.02080	0.02080	0.02080	0.02080	0.00660
9		0.01930	0.01930	0.01930	0.01930	0.01930	0.00590
10		0.01790	0.01790	0.01790	0.01790	0.01790	0.00530
15			0.01090	0.01090	0.01090	0.01090	0.00270
20				0.00820	0.00820	0.00820	0.00170
25					0.00700	0.00700	0.00120
30						0.00650	0.00090
35							0.00090

For the July 1, 2015 valuation, the same withdrawal rates were used.

Disability

Sample disability rates for Police employees are shown in Table 4-4. These rates match those used in the most recent California PERS pension valuations.

Table 4-4
Annual Rates of Disability

Age	Rate
25	0.175%
30	0.496%
35	0.818%
40	1.140%
45	1.462%
50	1.926%
55	4.915%

No disability assumption was mentioned in the TCS report.

Retirement Rates

We used the retirement rates that match those used in the most recent California PERS retirement plan valuations.

For Police safety employees we selected the retirement rates used in the most recent California PERS 3% @50 Police retirement plan valuation. Sample rates are shown below.

Table 4-5a
Police Safety Employees
Annual Rates of Retirement

	Years of Service						
Age	5	10	15	20	25	30	35
50	0.0500	0.0500	0.0500	0.0990	0.2400	0.3140	0.3790
51	0.0340	0.0340	0.0340	0.0720	0.1980	0.2600	0.3120
52	0.0330	0.0330	0.0330	0.0710	0.1980	0.2590	0.3110
53	0.0390	0.0390	0.0390	0.0800	0.2120	0.2770	0.3330
54	0.0450	0.0450	0.0450	0.0920	0.2290	0.3000	0.3610
55	0.0520	0.0520	0.0520	0.1050	0.2480	0.3230	0.3890
56	0.0420	0.0420	0.0420	0.0870	0.2210	0.2890	0.3470
57	0.0430	0.0430	0.0430	0.0880	0.2230	0.2920	0.3510
58	0.0540	0.0540	0.0540	0.1090	0.2550	0.3330	0.4010
59	0.0540	0.0540	0.0540	0.1080	0.2530	0.3300	0.3980
60	0.0600	0.0600	0.0600	0.1210	0.2720	0.3550	0.4280
61	0.0480	0.0480	0.0480	0.0980	0.2380	0.3110	0.3750
62	0.0610	0.0610	0.0610	0.1220	0.2740	0.3570	0.4310
63	0.0570	0.0570	0.0570	0.1150	0.2630	0.3430	0.4140
64	0.0690	0.0690	0.0690	0.1370	0.2960	0.3850	0.4660
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

All Police safety employees hired on or after January 1, 2013, are under the 2.7% @ 57 plan. Sample rates are shown below.

Table 4-5b
Police Safety Employees
CalPERS 2.7%@57 Annual Rates of Retirement

	Years of Service						
Age	5	10	15	20	25	30	35
50	0.0138	0.0138	0.0138	0.0138	0.0253	0.0451	0.0535
51	0.0123	0.0123	0.0123	0.0123	0.0226	0.0402	0.0477
52	0.0249	0.0249	0.0249	0.0249	0.0456	0.0812	0.0963
53	0.0497	0.0497	0.0497	0.0497	0.0909	0.1621	0.1920
54	0.0662	0.0662	0.0662	0.0662	0.1211	0.2160	0.2559
55	0.0854	0.0854	0.0854	0.0854	0.1563	0.2785	0.3300
56	0.0606	0.0606	0.0606	0.0606	0.1108	0.1975	0.2340
57	0.0711	0.0711	0.0711	0.0711	0.1300	0.2318	0.2747
58	0.0628	0.0628	0.0628	0.0628	0.1149	0.2049	0.2427
59	0.1396	0.1396	0.1396	0.1396	0.1735	0.2544	0.3014
60	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506	0.2969
61	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506	0.2969
62	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506	0.2969
63	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506	0.2969
64	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506	0.2969
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

For the July 1, 2015 valuation, the 2010 California PERS Police 3% @ 50 rates were used.

Mortality

The mortality rates used in this valuation are those used in the most recent California PERS pension valuations. These rates provide a starting point for the projection of future mortality rates. The mortality rates for each future year were determined based on a generational mortality projection using Projection Scale MP-2014. This scale consists of a set of Annual Mortality improvement factors as a function of age and sex. The resulting projected mortality rates were applied to each employee and retiree.

Table 4-6
Sample Mortality Rates
(prior to the application of Projection Scale MP-2014)

	Non-Safety Employees		Safety Employees		Retired Employees	
Age	Male	Female	Male	Female	Male	Female
55	0.228%	0.138%	0.244%	0.154%	0.599%	0.416%
60	0.308%	0.182%	0.325%	0.199%	0.710%	0.436%
65	0.400%	0.257%	0.418%	0.275%	0.829%	0.588%
70	0.524%	0.367%			1.305%	0.993%
75					2.205%	1.722%
80					3.899%	2.902%
85					6.969%	5.243%
90					12.974%	9.887%

For the July 1, 2015 valuation, the 2010 California PERS mortality rates were used.

Health Plan Participation

We assumed that 100% of eligible retirees and spouses will enroll in one of the CalPERS medical plans and that all current and future retirees will remain married to their current spouse (if any). We assumed male spouses are three years older than female spouses, that 90% will elect to cover children, and that employees are 35 years older than their children.

Medicare Coverage

We assumed that all future retirees will be eligible for Medicare when they reach age 65.

Plan Selection

We assumed that all future retirees will switch to an HMO plan at retirement.

Health Care Reform Considerations

Health care delivery is going through an evolution due to enactment of Health Care Reform. The Patient Protection and Affordable Care Act (PPACA), was signed March 23, 2010, with further changes enacted by the Health Care and Education Affordability Reconciliation Act (HCEARA), signed March 30, 2010. This valuation uses various assumptions that may have been modified based on considerations under PPACA. This section discusses particular legislative changes that were reflected in our assumptions. We have not identified any other specific provision of PPACA that would be expected to have a significant impact on the measured obligation. As additional guidance on the Act continues to be issued, we'll continue to monitor impacts.

Individual Mandate

Under PPACA, individuals (whether actively employed or otherwise) must be covered by health insurance or else pay a penalty tax to the government. While it is not anticipated that the Act will result in universal coverage, it is expected to increase the overall portion of the population with coverage. We believe this will result in an increased demand on health care providers, resulting in higher trend for medical services for non-Medicare eligible retirees. (Medicare costs are constrained by Medicare payment mechanisms already in place, plus additional reforms added by PPACA and HCEARA.) While we believe that the mandate may result in somewhat higher participation overall, this issue is moot since we assume 100% participation upon retirement.

Employer Mandate

Health Care Reform includes various provisions mandating employer coverage for active employees, with penalties for non-compliance. Those provisions do not directly apply to the postemployment coverage included in this valuation.

Medicare Advantage Plans

Effective January 1, 2011, the Law provides for reductions to the amounts that would be provided to Medicare Advantage plans starting in 2011. We considered the effect of these reductions in federal payments to Medicare Advantage plans when setting our trend assumption.

Expansion of Child Coverage to Age 26

Health Care Reform mandates that coverage be offered to any child, dependent or not, through age 26, consistent with coverage for any other dependent. We assume that this change has been reflected in current premium rates. While this plan covers dependents, we do not currently assume non-spouse dependent coverage. We believe the impact this assumption has on the valuation is immaterial due to the lack of retirees

that have had or are expected to have non-spouse dependents for any significant amount of time during retirement.

Elimination of Annual or Lifetime Maximums

Health Care Reform provides that annual or lifetime maximums have to be eliminated for all "essential services." We assume that current premium rates already reflect the elimination of any historic maximums.

Cadillac Tax (High Cost Plan Excise Tax)

The PPACA legislation added a new High-Cost Plan Excise Tax (also known as the "Cadillac Tax") starting in calendar year 2020. For valuation purposes, we assumed that the value of the tax will be passed back to the plan in higher premium rates.

- The tax is 40% of the excess of (a) the cost of coverage over (b) the limit. We modeled the cost of the tax by calculating (a) using the working rates projected with trend. We calculated (b) starting with the statutory limits ($10,200 single and $27,500 family), adjusted for the following:
    - Limits will increase from 2020 to 2021 by 4.25% (CPI plus 1%);
    - Limits will increase after 2021 by 3.25% (CPI); and
    - For retirees over age 55 and not on Medicare, the limit is increased by an additional dollar amount of $1,650 for single coverage and $3,450 for family coverage.
- Based on the above assumptions, we estimate that the tax will apply as early as 2020 for some of the District's pre-Medicare plans. In addition, we estimate that the tax will not apply to any of the post-Medicare plans.

Other Revenue Raisers

The Health Care Reform includes a variety of other revenue raisers that involve additional costs on providers (such as medical device manufacturers) and insurers. We considered these factors when developing the trend assumptions.

SECTION V
Glossary

- Accrual Accounting – A method of matching the cost of an employee's service, including long term obligations such as OPEB, to that employee's period of active service.

- Actuarial Accrued Liability (AAL) – The Actuarial Present Value of all postemployment benefits attributable to past service. Note: the AAL is sometimes referred to as the Past Service Liability.

- Actuarial Cost Method – A procedure for allocating the actuarial present value of benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.

- Actuarial Present Value – The value of an amount or series of amounts payable or receivable at various times. Each such amount or series of amounts is:

  a. adjusted for the probable financial effect of certain intervening events (such as changes in healthcare costs, compensation levels, Medicare, marital status, etc.)

  b. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and

  c. discounted according to an assumed rate (or rates) of return to reflect the time value of money

- Actuarial Valuation – The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets and related Actuarial Present Values.

- Actuarial Value of Assets – The value of cash, investments and other property belonging to a plan. These are amounts that may be applied to fund the Actuarial Accrued Liability. Note: assets must be segregated and placed in a Trust in order to be considered OPEB assets

- Age-Adjusted Costs – The process of converting flat premiums to average annual health care costs that vary by age.

- Amortization Payment – That portion of the Annual OPEB cost which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

  In the year that Statement 45 becomes effective an employer is allowed to commence amortization of the Unfunded Actuarial Accrued Liability, over a period not to exceed 30 years.

- Annual Other Postemployment Benefit (OPEB) Cost - An accrual-basis measure of the periodic cost of an employer's participation in a defined benefit OPEB plan. The annual OPEB cost is the amount that must be calculated and reported as an expense.

  When an employer has no net OPEB obligation (e.g., in the year of implementation) the annual OPEB cost is equal to the Annual Required Contribution (ARC).

  In subsequent years the Annual OPEB cost will include:

  - the ARC (equal to the Normal Cost plus one year's amortization of the Unfunded Actuarial Accrued Liability);
  - one year's interest on the net OPEB obligation at the beginning of the year using the valuation discount rate; and
  - an adjustment to the ARC. This adjustment is intended to provide a reasonable approximation of that portion of the ARC that consists of interest associated with past contribution deficiencies. GASB Statement No. 45 specifies that this adjustment should be equal to an amortization of the discounted present value of the net OPEB obligation at the beginning of the year. The amortization should be calculated using the same amortization method and period used in determining the ARC for that year. If the net OPEB obligation is positive the adjustment should be deducted from the ARC.
  - Note: As long as the net OPEB obligation is zero, there will not be any interest charge or adjustment to the ARC. However, if an employer does not contribute the full amount of the ARC, a net OPEB obligation will emerge.

- Annual required contributions of the employer (ARC) - The employer's periodic required contributions to a defined benefit OPEB plan, calculated in accordance with the parameters.

- ASOP 6 – Actuarial Standards of Practice No. 6 (ASOP 6) – *Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions*, is published by the American Academy of Actuary's Actuarial Standards Board.

- Cadillac Tax – The Patient Protection and Affordability Care Act's (PPACA) high-cost plan tax (HCPT), popularly known as the "Cadillac tax," is a 40% excise tax on employer health plans exceeding $10,200 in premiums per year for individuals and $27,500 for families. The tax only applies on amounts exceeding these thresholds and is scheduled to take effect in 2020.

- Defined benefit OPEB plan - An OPEB plan having terms that specify the *benefits* to be provided at or after separation from employment. The benefits may be specified in dollars (for example, a flat dollar payment or an amount based on one or more factors, such as age, years of service, and compensation), or as a type or level of coverage (for example, prescription drugs or a percentage of healthcare insurance premiums).

- Defined contribution plan - A pension or OPEB plan having terms that (a) provide an individual account for each plan member and (b) specify how contributions to an active plan member's account are to be determined, rather than the income or other benefits the member or his beneficiaries are to receive at or after separation from employment. Those benefits will depend only on the amounts contributed to the member's account, earnings on investments of those contributions, and forfeitures of contributions made for other members that may be allocated to the member's account. For example, an employer may contribute a specified amount to each active member's postemployment healthcare account each month. At or after separation from employment, the balance of the account may be used by the member or on the member's behalf for the purchase of health insurance or other healthcare benefits.

- Employer's contributions - Contributions made in relation to the annual required contributions of the employer (ARC). An employer has made a contribution in relation to the ARC if the employer has (a) made payments of benefits directly to or on behalf of a retiree or beneficiary, (b) made premium payments to an insurer, or (c) irrevocably transferred assets to a trust, or an equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the employer(s) or plan administrator.

- Entry Age Normal Actuarial Cost Method – An actuarial cost method under which the Actuarial Present Value of the Projected Benefits of each individual included in the valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost.

- Explicit Subsidy – The portion of the retiree health premium borne by the employer.

- HCEARA - The Health Care and Education Affordability Reconciliation Act of 2010 was signed into law on March 30, 2010. Together HCEARA and PPACA, or Patient

Protection and Affordability Care Act of 2010 (signed into law on March 23, 2010), comprise what we usually think of as "ObamaCare".

- Healthcare cost trend rate - The rate of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.

- Implicit Subsidy – The implicit subsidy is the difference between average claims cost and the premiums paid for retirees. CalPERS charges the same flat premium for both active employees and retirees. However, retirees are observed to have a higher incidence of ill health (morbidity) on average than active employees. As a result, active employee premiums are subsidizing the cost of the retiree medical plan premiums. Therefore, basing retiree medical valuations on premiums would tend to understate the true liabilities of the plan.

- Investment return assumption (discount rate) - The rate used to adjust a series of future payments to reflect the time value of money.

- Morbidity and Mortality – Morbidity refers to the incidence of ill health within a population. Mortality refers to the incidence of death within a population.

- Net OPEB obligation - The cumulative difference since the effective date of GASB Statement 45 between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.

  Most employers will have no net OPEB obligation at the beginning of the year in which Statement 45 is implemented.

  If an employer contributes the annual OPEB cost to the plan each year, and there are no actuarial or investment gains or losses then the net OPEB Obligation will remain zero.

- Normal Cost - That portion of the Actuarial Present Value of benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method. Another interpretation is that the Normal Cost is the present value of future benefits that are "earned" by employees for service rendered during the current year.

- OPEB assets - The amount recognized by an employer for contributions to an OPEB plan greater than OPEB expenses.

- OPEB expense - The amount recognized by an employer in each accounting period for contributions to an OPEB plan on the accrual basis of accounting.

- Other postemployment benefits (OPEB) - Postemployment benefits other than pension benefits. Other postemployment benefits (OPEB) include postemployment healthcare benefits, regardless of the type of plan that provides them, and all postemployment benefits provided separately from a pension plan, except benefits defined as special termination benefits.

- Plan assets - Resources, usually in the form of stocks, bonds, and other classes of investments, that have been segregated and restricted in a trust, or in an equivalent arrangement, in which (a) employer contributions to the plan are irrevocable, (b) assets are dedicated to providing benefits to retirees and their beneficiaries, and (c) assets are legally protected from creditors of the employer(s) or plan administrator, for the payment of benefits in accordance with the terms of the plan.

- PPACA - The Patient Protection and Affordability Care Act of 2010 was signed into law on March 23, 2010. Together PPACA and HCEARA, or Health Care and Education Affordability Reconciliation Act of 2010 (signed into law on March 30, 2010), comprise what we usually think of as "ObamaCare".

- Present Value – See Actuarial Present Value.

- Projected Unit Credit Cost Method – An actuarial cost method under which the projected benefits of each individual included in an Actuarial Valuation are separately calculated and allocated to each year service by a consistent formula.

- Substantive plan - The terms of an OPEB plan as understood by the employer(s) and plan members.

- Unfunded Actuarial Accrued Liability (UAAL) – The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.

- Valuation date – The date as of which the postemployment benefit obligation is determined.

- Withdrawal Rates – The incidence of termination from active employment within a population.