

**HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND**  
**RETIREE HEALTH CARE PLAN**  
**ACTUARIAL VALUATION REPORT**  
**AS OF JULY 1, 2015**

January 26, 2016

Mr. Derek Mizuno  
EUTF Administrator  
Hawaii Employer-Union Health Benefits Trust Fund  
201 Merchant St.; Suite 1520  
Honolulu, Hawaii 96813

Dear Mr. Mizuno:

Submitted in this report are the results of an actuarial valuation for the Hawaii Employer-Union Health Benefits Trust Fund (EUTF) of the liabilities associated with the employer financed retiree health benefits provided through the EUTF. The date of the valuation was July 1, 2015. The annual required contribution has been calculated for the fiscal year beginning July 1, 2016.

The actuarial calculations were prepared to determine the annual required employer contributions to satisfy the requirements of ACT 268, SLH 2013 ("ACT 268") and to comply with the requirements of Statement 43 of the Governmental Accounting Standards Board (GASB). The calculations reported herein have been made on a basis consistent with our understanding of these accounting standards. Determinations of the liability associated with the benefits described in this report for purposes other than satisfying the Trust's financial reporting requirements may produce significantly different results. This report may be provided to parties other than the EUTF only in its entirety and only with the permission of the EUTF.

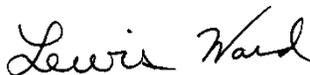
The valuation was based upon information, furnished by the EUTF and the Employees' Retirement System of the State of Hawaii (ERS), concerning retiree health benefits, members' census and financial data. Data was checked for internal consistency but was not otherwise audited. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

The signing actuaries are independent of the plan sponsor. To the best of our knowledge, this report is complete and accurate and was made in accordance with generally recognized actuarial methods. Joseph Newton and Mehdi Riazi are members of the American Academy of Actuaries and meet the Qualification Standards of the Academy of Actuaries to render the actuarial opinion herein.

Respectfully submitted,



Joseph P. Newton, FSA, FCA, EA  
Senior Consultant



Lewis Ward  
Consultant



Mehdi Riazi, FSA, EA  
Consultant

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## **SECTION A**

### OVERVIEW

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The following table summarizes the key results of the July 1, 2015 Other Post-Employment Benefits (OPEB) valuation for the EUTF.

| Executive Summary                           |                       |                       |
|---|-----------------------|-----------------------|
|   | July 1, 2015          | July 1, 2013          |
| <b>Membership</b>                           |                       |                       |
| Number of                                   |                       |                       |
| -Retirees                                   | 45,234                | 43,345                |
| -Deferred Inactives                         | 6,639                 | 6,632                 |
| -Active Employees                           | 66,869                | 66,108                |
| Covered Payroll*                            | \$ 4,161,386,000      | \$ 3,881,223,000      |
| <b>Actuarial Summary</b>                    |                       |                       |
| Discount Rate                               | 7.0%                  | 7.0%                  |
| Payroll Growth Rate                         | 3.5%                  | 3.5%                  |
| Present Value of Benefits                   | \$ 15,041,417,000     | \$ 13,838,987,000     |
| Actuarial Accrued Liability                 | \$ 12,615,528,000     | \$ 11,477,633,000     |
| Market Value of Assets                      | \$ 843,520,000        | \$ 296,124,000        |
| Unfunded Actuarial Accrued Liability        | \$ 11,772,008,000     | \$ 11,181,509,000     |
| Funded Ratio                                | 6.7%                  | 2.6%                  |
| ARC as % of Payroll                         | 23.2%                 | 23.7%                 |
| Fiscal Year Ending                          | June 30, 2017         | June 30, 2015         |
| <b>ACT 268 Minimum Contribution Summary</b> |                       |                       |
| Fiscal Year Ending                          | June 30, 2017         | June 30, 2015         |
| Annual Required Contribution (ARC)          | \$ 1,001,042,000      | \$ 952,205,000        |
| Projected pay-as-you-go benefits            | \$ (489,749,000)      | \$ (412,469,000)      |
| OPEB Trust Contribution to Fully Fund ARC   | \$ 511,293,000        | \$ 539,736,000        |
| ACT 268 Phase-In                            | 60%                   | 20%                   |
| <b>Minimum OPEB Trust Contribution</b>      | <b>\$ 306,777,000</b> | <b>\$ 107,947,000</b> |
| Fiscal Year Ending                          | June 30, 2018         | June 30, 2016         |
| Annual Required Contribution (ARC)          | \$ 1,036,080,000      | \$ 985,529,000        |
| Projected pay-as-you-go benefits            | \$ (541,366,000)      | \$ (454,252,000)      |
| OPEB Trust Contribution to Fully Fund ARC   | \$ 494,714,000        | \$ 531,277,000        |
| ACT 268 Phase-In                            | 80%                   | 40%                   |
| <b>Minimum OPEB Trust Contribution</b>      | <b>\$ 395,772,000</b> | <b>\$ 212,510,000</b> |

\*The Covered Payroll for the June 30, 2015 valuation is equal to the projected payroll for FYE June 30, 2016.

This report provides information for the EUTF to comply with accounting standards issued by the Government Accounting Standards Board (GASB), Statement No. 43, relating to Other Post-Employment Benefits (OPEB). These benefits primarily include medical, prescription drug, dental, vision, and life insurance benefits provided to eligible retirees. Any other OPEB benefits offered to the employees of the participating employers are outside the scope of this report. It is important to note that GASB Statement No. 74 will replace Statement No. 43 starting in fiscal year ending June 30, 2017. A separate actuarial report will provide the information needed to comply with GASB No. 74 for fiscal year ending June 30, 2017.

This report also summarizes the minimum OPEB trust contributions required to satisfy the funding requirements of ACT 268 by the participating employers. The Annual Required Contributions (ARC) developed in this report are for the fiscal years ending June 30, 2017 and June 30, 2018. Subsequently, each biennial valuation will be applicable for the two fiscal years which begin one year after the valuation date. The one year lag between the valuation date and the applicable fiscal years will allow appropriate time for budgeting and management of the appropriations.

Section C provides a 30-year projection of liability and contribution information useful to management for the operation of the OPEB program.

### **Agent Multiple-Employer Plans under GASB 43 & 45**

Under GASB 43, an Agent multiple-employer plan is defined as, “An aggregation of single-employer plans, with pooled administrative and investment functions. Separate accounts are maintained for each employer so that the employer’s contributions provide benefits only for the employees of that employer. A separate actuarial valuation is performed for each individual employer’s plan to determine the employer’s periodic contribution rate and other information for the individual plan, based on the benefit formula selected by the employer and the individual plan’s proportionate share of the pooled assets. The results of the individual valuations are aggregated at the administrative level.”

In a cost-sharing arrangement, such as the Employees’ Retirement System of the State of Hawaii (ERS), the plan’s assets can be used to pay the benefits for the retirees of any participating employer. By contrast, the assets of the participating government employers in an *agent multiple-employer plan* are pooled for investment purposes but separate accounts are maintained for each individual employer. As such, each employer’s assets at EUTF can only be used to pay benefits for that employer’s retirees. Each employer’s unfunded actuarial accrued liability and annual required contribution for retiree medical benefits will be determined based solely on that employer’s membership and assets.

**ACT 268**

Pursuant to ACT 268, the EUTF created a separate trust fund (The OPEB Trust), as of June 30, 2013, specifically for pre-funding the participating employers OPEB benefits. Previous pre-funding contributions and related net investment earnings were transferred to each employer’s respective OPEB Trust account. As required by ACT 268, contributions to the OPEB Trust shall be irrevocable and the assets of the fund shall be dedicated exclusively to providing health and other benefits to retirees and their eligible dependents. The assets in the OPEB Trust shall not be subject to appropriation for any other purpose and shall not be subject to claims by creditors of the employers or the board or plan administrator.

ACT 268 establishes an “annual required contribution” (ARC) equal to (a) the normal cost, plus (b) an amortization payment to fund the unfunded actuarial accrued liability over a period of thirty years. Moreover, employers are required to contribute 100% of the ARC starting in fiscal year ending June 30, 2019. ACT 268 establishes mechanisms for funding the ARC if the employer fails to do so. Full funding of the ARC is phased-in according to the following schedule:

| Fiscal Year | ARC Phase-in |
|-------------|--------------|
| 2014-2015   | 20%          |
| 2015-2016   | 40%          |
| 2016-2017   | 60%          |
| 2017-2018   | 80%          |
| 2018-2019   | 100%         |

For financial reporting purposes, the discount rate used in the valuation should equal the estimated long-term investment yield on the investments that are expected to be used to finance the payment of benefits. Based on the provisions of GASB statements 43 and 45, the investments expected to be used to finance the payment of benefits are “the plan assets for plans for which the funding policy is to contribute consistently an amount at least equal to the ARC”. ACT 268 has established a funding policy which ensures the ARC will be consistently met. As a result, the liabilities in this valuation have been calculated using a 7.0% assumed long-term investment return on the OPEB Trust’s assets. The 7.0% return assumption is based on the OPEB Trust’s investment policy and we believe the assumption is consistent with the target asset allocation.

**Actuarial Assumptions and Methods**

In any long-term Actuarial Valuation (such as for Pensions and OPEB), certain demographic, economic and behavioral assumptions are made concerning the population, the investment discount rates and the benefits provided. These Actuarial Assumptions form the basis for the actuarial model which is used to project the future population, the future benefits provided, and the future contributions collected. Then the investment discount rate assumption is used to discount those projected net OPEB benefits to a present value. This and other related present values are used to calculate the Annual Required Contribution.

**Actuarial Assumptions and Methods (Continued)**

This Actuarial Valuation is similar to the Actuarial Valuations performed for the State's pension plans. In fact, the demographic assumptions used in this OPEB Valuation were identical to those used in the June 30, 2015 ERS valuation. Because the assumptions were based upon the most recent actuarial experience study adopted by the Trustees of ERS, they were deemed reasonable for this OPEB Valuation and were employed in this report.

There are some economic and behavioral assumptions which are unique to medical benefits. It would be instructive to review the Section of this Report titled, "Actuarial Assumptions and Methods" for a detailed discussion and disclosure of all the relevant Actuarial Assumptions used in this Valuation.

GASB Statement No. 43 provides an acceptable range of flexibility to governmental employers (and their actuaries) in the use of various actuarial cost methods. The Entry Age Normal Cost Method was used in this valuation. This is both an acceptable and reasonable cost method. Furthermore, the Normal Costs and the amortization of any Unfunded Actuarial Accrued Liabilities were calculated using a level percent of pay.

**Summary of Changes**

The actuarial accrued liability increased from \$11.48 billion to \$12.62 billion. The increase was less than expected mainly because of the plan's favorable claims experience compared to the prior trend assumption and the revised Part B trend assumption. The impact of the large increase to the BMC in 2016 was mitigated by the 2015 BMC experience (BMC remained level in 2015) and the revised Part B trend assumption for 2017 and 2018.

The market value of assets increased from \$0.30 billion to \$0.84 billion, primarily due to employer contributions. The funded ratio of the plan, increased from 2.6% to 6.7%. The unfunded actuarial accrued liability increased from \$11.18 billion to \$11.77 billion. The increase to the unfunded actuarial accrued liability was less than expected mainly due to the plan's favorable claims experience, the Part B trend adjustment, and the contributions to the plan which exceeded the minimums required by ACT 268.

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**SECTION B**

VALUATION RESULTS

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## Results by Employer

| (\$ Thousands)                            | State of Hawaii   | City & County of Honolulu | HART*         | County of Hawaii | County of Maui   | County of Kauai | Kauai - Department of Water | Board of Water Supply - Honolulu | Hawaii Department of Water Supply | Total             |
|---|-------------------|---------------------------|---------------|------------------|------------------|-----------------|-----------------------------|----------------------------------|-----------------------------------|-------------------|
| Discount Rate                             | 7.0%              | 7.0%                      | 7.0%          | 7.0%             | 7.0%             | 7.0%            | 7.0%                        | 7.0%                             | 7.0%                              | 7.0%              |
| Payroll Growth Rate                       | 3.5%              | 3.5%                      | 3.5%          | 3.5%             | 3.5%             | 3.5%            | 3.5%                        | 3.5%                             | 3.5%                              | 3.5%              |
| Present Value of Benefits                 | \$ 11,082,903     | \$ 2,366,343              | \$ 6,569      | \$ 566,192       | \$ 546,365       | \$ 266,647      | \$ 17,796                   | \$ 154,526                       | \$ 34,076                         | \$ 15,041,417     |
| Actuarial Accrued Liability               | \$ 9,287,120      | \$ 2,009,083              | \$ 4,627      | \$ 466,874       | \$ 445,986       | \$ 221,289      | \$ 14,848                   | \$ 137,018                       | \$ 28,683                         | \$ 12,615,528     |
| Market Value of Assets                    | \$ 221,194        | \$ 242,593                | \$ 95         | \$ 91,579        | \$ 148,983       | \$ 70,857       | \$ 6,006                    | \$ 50,689                        | \$ 11,524                         | \$ 843,520        |
| Unfunded Actuarial Accrued Liability      | \$ 9,065,926      | \$ 1,766,490              | \$ 4,532      | \$ 375,295       | \$ 297,003       | \$ 150,432      | \$ 8,842                    | \$ 86,329                        | \$ 17,159                         | \$ 11,772,008     |
| Funded Ratio                              | 2.4%              | 12.1%                     | 2.1%          | 19.6%            | 33.4%            | 32.0%           | 40.4%                       | 37.0%                            | 40.2%                             | 6.7%              |
| ARC as % of Payroll for FYE 2017          | 23.2%             | 25.4%                     | 7.2%          | 22.1%            | 18.6%            | 20.5%           | 18.5%                       | 23.1%                            | 19.4%                             | 23.2%             |
| <u>Fiscal Year Ending June 30, 2017</u>   |                   |                           |               |                  |                  |                 |                             |                                  |                                   |                   |
| Annual Required Contribution (ARC)        | \$ 744,248        | \$ 161,233                | \$ 574        | \$ 36,472        | \$ 31,778        | \$ 15,721       | \$ 968                      | \$ 8,181                         | \$ 1,867                          | \$ 1,001,042      |
| Projected pay-as-you-go benefits          | \$ (360,606)      | \$ (79,905)               | \$ (98)       | \$ (17,374)      | \$ (15,606)      | \$ (8,305)      | \$ (540)                    | \$ (6,276)                       | \$ (1,039)                        | \$ (489,749)      |
| OPEB Trust Contribution to Fully Fund ARC | \$ 383,642        | \$ 81,328                 | \$ 476        | \$ 19,098        | \$ 16,172        | \$ 7,416        | \$ 428                      | \$ 1,905                         | \$ 828                            | \$ 511,293        |
| ACT 268 Phase-In                          | 60%               | 60%                       | 60%           | 60%              | 60%              | 60%             | 60%                         | 60%                              | 60%                               | 60%               |
| <b>Minimum OPEB Trust Contribution</b>    | <b>\$ 230,185</b> | <b>\$ 48,797</b>          | <b>\$ 286</b> | <b>\$ 11,459</b> | <b>\$ 9,703</b>  | <b>\$ 4,450</b> | <b>\$ 257</b>               | <b>\$ 1,143</b>                  | <b>\$ 497</b>                     | <b>\$ 306,777</b> |
| <u>Fiscal Year Ending June 30, 2018</u>   |                   |                           |               |                  |                  |                 |                             |                                  |                                   |                   |
| Annual Required Contribution (ARC)        | \$ 770,297        | \$ 166,876                | \$ 594        | \$ 37,748        | \$ 32,891        | \$ 16,272       | \$ 1,002                    | \$ 8,467                         | \$ 1,933                          | \$ 1,036,080      |
| Projected pay-as-you-go benefits          | \$ (398,968)      | \$ (87,989)               | \$ (112)      | \$ (19,209)      | \$ (17,309)      | \$ (9,232)      | \$ (579)                    | \$ (6,801)                       | \$ (1,167)                        | \$ (541,366)      |
| OPEB Trust Contribution to Fully Fund ARC | \$ 371,329        | \$ 78,887                 | \$ 482        | \$ 18,539        | \$ 15,582        | \$ 7,040        | \$ 423                      | \$ 1,666                         | \$ 766                            | \$ 494,714        |
| ACT 268 Phase-In                          | 80%               | 80%                       | 80%           | 80%              | 80%              | 80%             | 80%                         | 80%                              | 80%                               | 80%               |
| <b>Minimum OPEB Trust Contribution</b>    | <b>\$ 297,063</b> | <b>\$ 63,110</b>          | <b>\$ 386</b> | <b>\$ 14,831</b> | <b>\$ 12,466</b> | <b>\$ 5,632</b> | <b>\$ 338</b>               | <b>\$ 1,333</b>                  | <b>\$ 613</b>                     | <b>\$ 395,772</b> |

\*Honolulu Authority of Rapid Transportation

## Liabilities

The liabilities shown in the following exhibit were calculated as of July 1, 2015.

|                                   | Medical/<br>Prescription Drug/<br>Dental/Vision/Life | Medicare Part B*        | Total                    |
|-----------------------------------|--|-------------------------|--------------------------|
| Present Value of Benefits (PVB)   |  |                         |                          |
| Retirees                          | \$ 5,380,154,000                                     | \$ 1,079,547,000        | \$ 6,459,701,000         |
| Deferred Inactives                | 652,032,000  | 177,367,000             | 829,399,000              |
| Actives                           | 6,322,456,000  | 1,429,861,000           | 7,752,317,000            |
| <b>Total PVB</b>                  | <b>\$ 12,354,642,000</b>                             | <b>\$ 2,686,775,000</b> | <b>\$ 15,041,417,000</b> |
| Actuarial Accrued Liability (AAL) |  |                         |                          |
| Retirees                          | \$ 5,380,154,000                                     | \$ 1,079,547,000        | \$ 6,459,701,000         |
| Deferred Inactives                | 652,032,000  | 177,367,000             | 829,399,000              |
| Actives                           | 4,428,088,000  | 898,340,000             | 5,326,428,000            |
| <b>Total AAL</b>                  | <b>\$ 10,460,274,000</b>                             | <b>\$ 2,155,254,000</b> | <b>\$ 12,615,528,000</b> |
| Normal Cost                       | \$ 231,268,000                                       | \$ 67,765,000           | \$ 299,033,000           |

\* The plan reimburses retirees for their Medicare Part B premiums.

## Plan Assets

| <b>Statement of Changes in Plan Net Assets</b>  |                                     |                                     |
|---|-------------------------------------|-------------------------------------|
|   | <b>Year Ended<br/>June 30, 2015</b> | <b>Year Ended<br/>June 30, 2014</b> |
| Assets available at beginning of year   | \$ 626,068,015                      | \$ 296,123,770                      |
| Adjustment*   | 0                                   | 18,639,806                          |
|   | <u>626,068,015</u>                  | <u>314,763,576</u>                  |
| Contributions   | 199,789,992                         | 262,625,686                         |
| Interest and Dividends  | 13,659,449                          | 8,985,653                           |
| Investment Expense  | (527,715)                           | (136,911)                           |
| Realized and Unrealized gains (Losses)  | 4,762,140                           | 40,016,078                          |
| Benefit Payments  | 0                                   | 0                                   |
| Administrative Expenses   | (231,636)                           | (186,067)                           |
| Increase in net assets  | <u>217,452,230</u>                  | <u>311,304,439</u>                  |
| Assets available at end of year   | \$ 843,520,245                      | \$ 626,068,015                      |
| Investment Return, net of expenses  | 2.43%                               | 10.91%                              |
| <p>* Change due to difference between asset value used for prior valuation and audited asset value reported the following year.</p> <p>Note: The net investment earnings for FYE14 as a percentage of the beginning of year assets was 15.47%. The dollar weighed return of 10.91% was heavily influenced by the timing of contributions.</p> |                                     |                                     |

## Projected Benefits

The table below provides the EUTF’s estimated benefit payments (“pay-as-you-go”) for the 15 years following the valuation date.

| Projected Benefit Payments |  |                  |                |
|----------------------------|--|------------------|----------------|
| Year Ending<br>June 30,    | Medical/<br>Prescription Drug/<br>Dental/Vision/Life | Medicare Part B* | Total          |
| 2016                       | \$ 370,101,000                                       | \$ 64,995,000    | \$ 435,096,000 |
| 2017                       | 414,831,000  | 74,919,000       | 489,749,000    |
| 2018                       | 455,404,000  | 85,962,000       | 541,366,000    |
| 2019                       | 498,533,000  | 93,056,000       | 591,589,000    |
| 2020                       | 545,058,000  | 101,130,000      | 646,188,000    |
| 2021                       | 594,200,000  | 109,578,000      | 703,778,000    |
| 2022                       | 645,752,000  | 118,239,000      | 763,991,000    |
| 2023                       | 691,925,000  | 127,198,000      | 819,123,000    |
| 2024                       | 732,474,000  | 136,581,000      | 869,055,000    |
| 2025                       | 773,836,000  | 146,390,000      | 920,226,000    |
| 2026                       | 815,468,000  | 156,607,000      | 972,075,000    |
| 2027                       | 858,533,000  | 167,325,000      | 1,025,858,000  |
| 2028                       | 902,860,000  | 178,477,000      | 1,081,336,000  |
| 2029                       | 947,822,000  | 189,933,000      | 1,137,755,000  |
| 2030                       | 991,050,000  | 202,113,000      | 1,193,163,000  |

\* The plan reimburses retirees for their Medicare Part B premiums.

## Annual Required Contribution (ARC)

Entry Age Normal Cost Actuarial Method

|                      | FYE 6/30/2017         | FYE 6/30/2018         |
|----------------------|-----------------------|-----------------------|
| Discount Rate Used   | 7.0%                  | 7.0%                  |
| Normal Cost          | \$ 309,499,000        | \$ 320,332,000        |
| Amortization of UAAL | <u>\$ 691,543,000</u> | <u>\$ 715,748,000</u> |
| Total ARC            | \$ 1,001,042,000      | \$ 1,036,080,000      |
| % Payroll            | 23.2%                 | 23.2%                 |

The Annual Required Contribution is equal to the Normal Cost, the present value of benefits earned by the current employees in the respective fiscal year, plus an amortization payment to fund the liability attributable to past service. Consistent with the payroll growth assumption, the ARC for fiscal year ending June 30, 2018 is 3.5% higher than the ARC for fiscal year ending June 30, 2017.

The table above provides the combined ARC for all participating employers. It is important to keep in mind that each participating employer is responsible for the amount that they contribute towards their own ARC.

## GASB Accounting Schedules

### Schedule of Funding Progress

| Valuation Date | Actuarial Value of Assets<br>(a) | Actuarial Accrued Liability (AAL)<br>(b) | Unfunded AAL<br>(b) - (a) | Funded Ratio<br>(a)/(b) | Covered Payroll<br>(c) | Unfunded AAL as a % of Covered Payroll<br>(b - a)/(c) |
|----------------|----------------------------------|--|---------------------------|-------------------------|------------------------|---|
| July 1, 2007   | \$ 0                             | \$ 9,194,300,000                         | \$ 9,194,300,000          | 0.0%                    | \$ 2,789,000,000       | 329.7%  |
| July 1, 2009   | \$ 115,500,000                   | \$ 14,662,100,000                        | \$ 14,546,600,000         | 0.8%                    | \$ 2,758,000,000       | 527.4%  |
| July 1, 2011   | \$ 178,200,000                   | \$ 16,458,800,000                        | \$ 16,280,600,000         | 1.1%                    | \$ 3,743,000,000       | 435.0%  |
| July 1, 2013   | \$ 296,124,000                   | \$ 11,477,633,000                        | \$ 11,181,509,000         | 2.6%                    | \$ 3,881,223,000       | 288.1%  |
| July 1, 2015   | \$ 843,520,000                   | \$ 12,615,528,000                        | \$ 11,772,008,000         | 6.7%                    | \$ 4,161,386,000       | 282.9%  |

Prior to July 1, 2013, the Actuarial Accrued Liability (AAL) was calculated using a 4.00% discount rate for the State of Hawaii, the largest participating employer, and using a 7.00% discount rate for the other participating employers. The AAL for all employers as of July 1, 2013 and July 1, 2015 was based on a 7.00% discount rate.

### Schedule of Employer Contributions

| Fiscal Year Ended | Annual Required Contribution (ARC) | Percentage of ARC Contributed |
|-------------------|------------------------------------|-------------------------------|
| 6/30/2013         | \$ 1,219,917,000                   | 35.7%                         |
| 6/30/2014         | \$ 1,271,562,000                   | 50.9%                         |
| 6/30/2015         | \$ 952,205,000                     | 60.9%                         |

## Actuarial Methods and Assumptions

### Actuarial Methods and Assumptions

|                                       |  |
|---------------------------------------|--|
| Inflation rate                        | 3.00%  |
| Investment rate of return             | 7.00%  |
| Actuarial Cost method                 | Entry Age Normal   |
| Amortization method*                  | Level percent, closed  |
| Equivalent Single Amortization Period | 26.2   |
| Payroll Growth                        | 3.50%  |
| Asset Method                          | Market   |
| Healthcare cost trend rate            |  |
| PPO**                                 | Initial rate of 9.00% , declining to a rate of 5.00% after 8 years |
| HMO**                                 | Initial rate of 7.00% , declining to a rate of 5.00% after 8 years |
| Part B                                | Initial rate of 3.00% for the first two years, 5.00% afterwards    |
| Dental                                | 4.00%  |
| Vision                                | 3.00%  |
| Life Insurance                        | 0.00%  |

\* Closed bases are established at each valuation for new unfunded liabilities.

\*\* Includes prescription drug assumptions.

## Trend Sensitivity

Actuarial valuations are based on the cost of benefits to be paid in the future. The payments considered will range from one month in the future to decades from the valuation date. When the benefits being valued are health benefits, a key factor is the future cost of the medical benefits being promised. The future benefits are projected using the current cost of the health care benefits and assumed future health care cost increases. The final cost of providing retiree health care benefits will depend upon how the charges for health care services actually increase in the future.

In order to demonstrate how the cost of these benefits can vary depending upon future health care cost increases, we have performed additional valuations based upon alternative health care cost increase assumptions. The following table shows the impact of a 1.0% increase or decrease in the assumed healthcare trend rates.

|                                 | -1% Trend         | Baseline          | +1% Trend         |
|---------------------------------|-------------------|-------------------|-------------------|
| Present Value of Benefits (PVB) | \$ 12,830,727,000 | \$ 15,041,417,000 | \$ 17,880,235,000 |
| Funded Status                   |                   |                   |                   |
| Actuarial Accrued Liability     | \$ 10,972,528,000 | \$ 12,615,528,000 | \$ 14,667,465,000 |
| Assets                          | 843,520,000       | 843,520,000       | 843,520,000       |
| Unfunded AAL                    | 10,129,008,000    | 11,772,008,000    | 13,823,945,000    |
| ARC for FYE17                   | \$ 837,729,000    | \$ 1,001,042,000  | \$ 1,205,710,000  |

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**SECTION C**  
PROJECTIONS

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## Summary of Funding Projections

The projection in this section provides estimated future liabilities, assets, contributions and benefit payments based on census data as of July 1, 2015 and the actuarial assumptions/methods described in Section G of this report. The projections provide insight into how the employers' contributions and the financial condition of the plan are assumed to change over time. Key items from the projections are:

- Prefunding the OPEB liability will require a significant commitment. However, the long-term savings will also be significant. Once the plan is well funded, the percentage of the benefits paid for by investment earnings is typically over 50%.
- The Annual Required Contribution (ARC) is developed using a level percentage of payroll amortization. Said another way, the ARC is assumed to grow at the same rate as payroll, 3.50%.
- The ARC is expected to remain level, as a percentage of payroll, until the initial amortization bases are paid off.
- The projection assumes the employers will phase into the full ARC by paying the minimum amount required by ACT 268.
- For this purpose, the prefunding period is defined as the number of years before the combined benefit payments exceed the combined employer contributions.
- The additional cost of prefunding and the projected assets at the end of the prefunding period are shown at the top of the projection.
- Upcoming changes to the accounting rules will require employers to recognize a balance sheet liability similar to the Unfunded Actuarial Accrued Liability (UAAL).
- The projections include liabilities for future employees. However, the total number of active employees is assumed to remain level.
- The projection provides estimated future results for the combined status of the plan. It is important to keep in mind that each participating employer is responsible for the amount that they contribute towards their own ARC.

Please bear in mind that, depending on plan experience, actual results could deviate significantly from the actuarial projections. The key assumptions in the projections are:

1. the assumed 7.00% rate of investment return
2. future medical inflation
3. that the benefits and cost sharing provisions will remain the same as they currently are

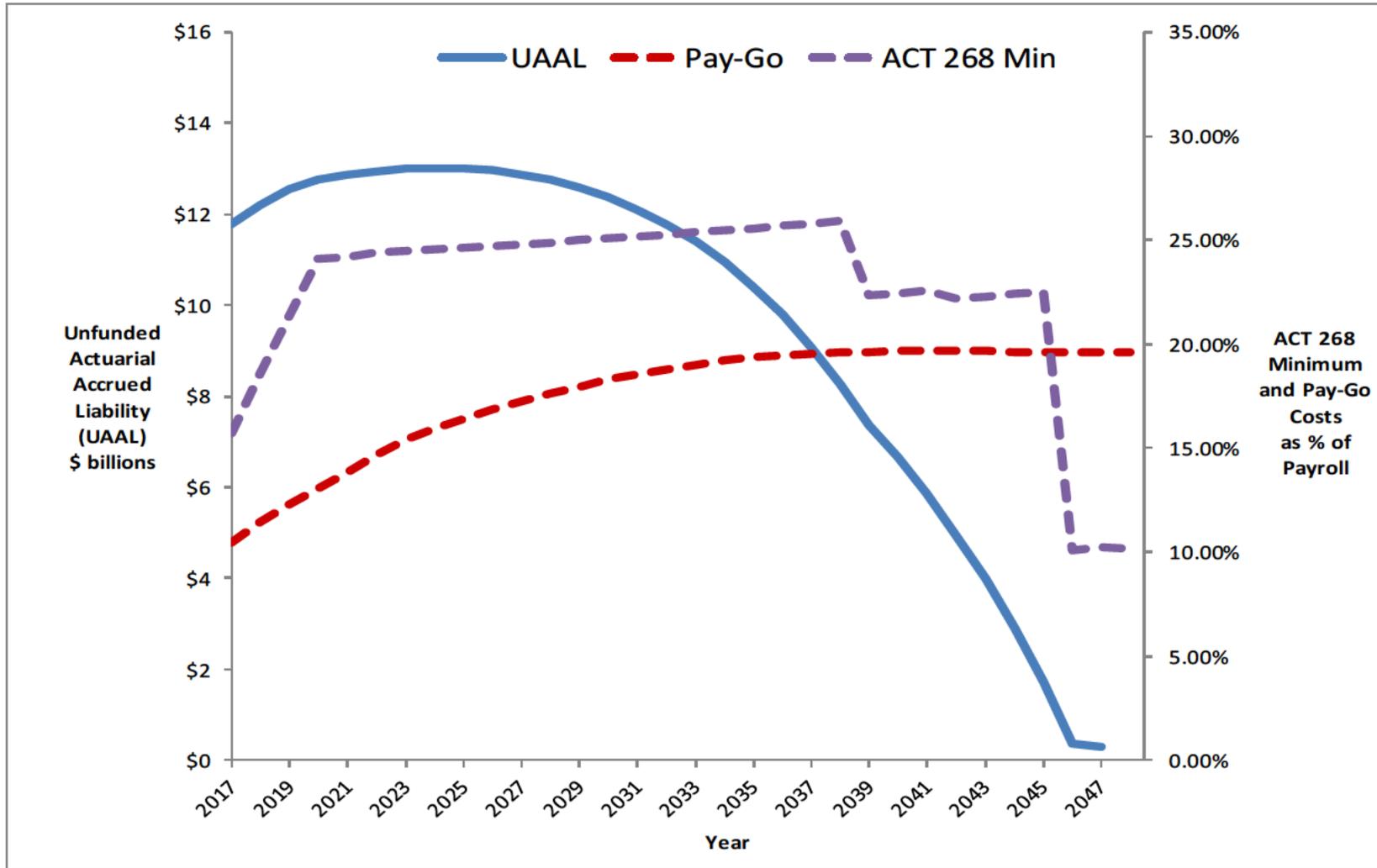
**Minimum Contribution Required by ACT 268**

Over the next 29 years, the additional cost of prefunding is \$11.3 billion.  
However, at the end of the prefunding period, the projected assets are \$42.3 billion.

| Fiscal Year Ending | Payroll          | Actuarial Accrued Liability (AAL) | Beginning of Year Assets | Unfunded AAL (UAAL) | Funded Ratio | Annual Required Contribution | Actual Contribution | Contribution as % of Payroll | Benefit Payment Total | Benefits as % of Payroll | Additional Cost of Prefunding |
|--------------------|------------------|-----------------------------------|--------------------------|---------------------|--------------|------------------------------|---------------------|------------------------------|-----------------------|--------------------------|-------------------------------|
| (a)                | (b)              | (c)                               | (d)                      | (e)                 | (f)          | (g)                          | (h)                 | (i)                          | (j)                   | (k)                      | (l)                           |
| 2016               | \$ 4,161,386,000 | \$ 12,615,528,000                 | \$ 843,520,000           | \$ 11,772,008,000   | 6.7%         | \$ 985,529,000               | \$ 647,608,000      | 15.6%                        | \$ 435,098,000        | 10.5%                    | \$ 212,510,000                |
| 2017               | 4,271,060,000    | 13,339,266,000                    | 1,130,739,000            | 12,208,527,000      | 8.5%         | 1,001,042,000                | 796,531,000         | 18.6%                        | 489,754,000           | 11.5%                    | 306,777,000                   |
| 2018               | 4,394,140,000    | 14,076,497,000                    | 1,527,598,000            | 12,548,899,000      | 10.9%        | 1,036,080,000                | 937,137,000         | 21.3%                        | 541,365,000           | 12.3%                    | 395,772,000                   |
| 2019               | 4,525,797,000    | 14,821,713,000                    | 2,044,255,000            | 12,777,458,000      | 13.8%        | 1,091,024,000                | 1,091,024,000       | 24.1%                        | 591,585,000           | 13.1%                    | 499,439,000                   |
| 2020               | 4,665,050,000    | 15,577,580,000                    | 2,704,273,000            | 12,873,307,000      | 17.4%        | 1,128,746,000                | 1,128,746,000       | 24.2%                        | 646,185,000           | 13.9%                    | 482,561,000                   |
| 2021               | 4,811,139,000    | 16,341,128,000                    | 3,393,024,000            | 12,948,104,000      | 20.8%        | 1,173,697,000                | 1,173,697,000       | 24.4%                        | 703,776,000           | 14.6%                    | 469,921,000                   |
| 2022               | 4,963,656,000    | 17,110,583,000                    | 4,116,906,000            | 12,993,677,000      | 24.1%        | 1,215,182,000                | 1,215,182,000       | 24.5%                        | 763,987,000           | 15.4%                    | 451,195,000                   |
| 2023               | 5,124,079,000    | 17,884,482,000                    | 4,872,079,000            | 13,012,403,000      | 27.2%        | 1,258,521,000                | 1,258,521,000       | 24.6%                        | 819,118,000           | 16.0%                    | 439,403,000                   |
| 2024               | 5,291,489,000    | 18,669,203,000                    | 5,667,908,000            | 13,001,295,000      | 30.4%        | 1,303,748,000                | 1,303,748,000       | 24.6%                        | 869,051,000           | 16.4%                    | 434,697,000                   |
| 2025               | 5,465,261,000    | 19,471,799,000                    | 6,514,573,000            | 12,957,226,000      | 33.5%        | 1,350,852,000                | 1,350,852,000       | 24.7%                        | 920,221,000           | 16.8%                    | 430,631,000                   |
| 2026               | 5,644,843,000    | 20,293,078,000                    | 7,416,297,000            | 12,876,781,000      | 36.5%        | 1,400,068,000                | 1,400,068,000       | 24.8%                        | 972,069,000           | 17.2%                    | 427,999,000                   |
| 2027               | 5,830,817,000    | 21,134,596,000                    | 8,378,415,000            | 12,756,181,000      | 39.6%        | 1,451,383,000                | 1,451,383,000       | 24.9%                        | 1,025,852,000         | 17.6%                    | 425,531,000                   |
| 2028               | 6,023,926,000    | 21,996,822,000                    | 9,405,329,000            | 12,591,493,000      | 42.8%        | 1,505,088,000                | 1,505,088,000       | 25.0%                        | 1,081,331,000         | 18.0%                    | 423,757,000                   |
| 2029               | 6,224,857,000    | 22,880,574,000                    | 10,502,289,000           | 12,378,285,000      | 45.9%        | 1,561,290,000                | 1,561,290,000       | 25.1%                        | 1,137,751,000         | 18.3%                    | 423,539,000                   |
| 2030               | 6,434,326,000    | 23,787,622,000                    | 11,675,812,000           | 12,111,810,000      | 49.1%        | 1,619,957,000                | 1,619,957,000       | 25.2%                        | 1,193,162,000         | 18.5%                    | 426,795,000                   |
| 2031               | 6,651,881,000    | 24,721,833,000                    | 12,934,850,000           | 11,786,983,000      | 52.3%        | 1,681,200,000                | 1,681,200,000       | 25.3%                        | 1,248,984,000         | 18.8%                    | 432,216,000                   |
| 2032               | 6,878,068,000    | 25,685,989,000                    | 14,287,633,000           | 11,398,356,000      | 55.6%        | 1,745,104,000                | 1,745,104,000       | 25.4%                        | 1,306,551,000         | 19.0%                    | 438,553,000                   |
| 2033               | 7,112,632,000    | 26,681,707,000                    | 15,741,670,000           | 10,940,037,000      | 59.0%        | 1,811,769,000                | 1,811,769,000       | 25.5%                        | 1,365,755,000         | 19.2%                    | 446,014,000                   |
| 2034               | 7,355,673,000    | 27,710,887,000                    | 17,305,213,000           | 10,405,674,000      | 62.4%        | 1,881,423,000                | 1,881,423,000       | 25.6%                        | 1,424,322,000         | 19.4%                    | 457,101,000                   |
| 2035               | 7,608,286,000    | 28,778,022,000                    | 18,989,677,000           | 9,788,345,000       | 66.0%        | 1,954,131,000                | 1,954,131,000       | 25.7%                        | 1,481,396,000         | 19.5%                    | 472,735,000                   |
| 2036               | 7,870,155,000    | 29,888,869,000                    | 20,808,235,000           | 9,080,634,000       | 69.6%        | 2,029,818,000                | 2,029,818,000       | 25.8%                        | 1,537,388,000         | 19.5%                    | 492,430,000                   |
| 2037               | 8,140,950,000    | 31,049,126,000                    | 22,774,475,000           | 8,274,651,000       | 73.3%        | 2,108,906,000                | 2,108,906,000       | 25.9%                        | 1,594,592,000         | 19.6%                    | 514,314,000                   |
| 2038               | 8,422,505,000    | 32,262,686,000                    | 24,901,002,000           | 7,361,684,000       | 77.2%        | 1,882,276,000                | 1,882,276,000       | 22.3%                        | 1,653,478,000         | 19.6%                    | 228,798,000                   |
| 2039               | 8,715,801,000    | 33,533,240,000                    | 26,880,880,000           | 6,652,360,000       | 80.2%        | 1,957,400,000                | 1,957,400,000       | 22.5%                        | 1,712,848,000         | 19.7%                    | 244,552,000                   |
| 2040               | 9,020,437,000    | 34,866,077,000                    | 29,015,653,000           | 5,850,424,000       | 83.2%        | 2,035,734,000                | 2,035,734,000       | 22.6%                        | 1,773,360,000         | 19.7%                    | 262,374,000                   |
| 2041               | 9,335,873,000    | 36,266,183,000                    | 31,318,305,000           | 4,947,878,000       | 86.4%        | 2,070,800,000                | 2,070,800,000       | 22.2%                        | 1,835,510,000         | 19.7%                    | 235,290,000                   |
| 2042               | 9,662,656,000    | 37,738,488,000                    | 33,754,111,000           | 3,984,377,000       | 89.4%        | 2,154,278,000                | 2,154,278,000       | 22.3%                        | 1,899,045,000         | 19.7%                    | 255,233,000                   |
| 2043               | 10,001,002,000   | 39,288,530,000                    | 36,381,063,000           | 2,907,467,000       | 92.6%        | 2,241,054,000                | 2,241,054,000       | 22.4%                        | 1,964,479,000         | 19.6%                    | 276,575,000                   |
| 2044               | 10,351,418,000   | 40,921,892,000                    | 39,213,992,000           | 1,707,900,000       | 95.8%        | 2,331,969,000                | 2,331,969,000       | 22.5%                        | 2,032,347,000         | 19.6%                    | 299,622,000                   |
| 2045               | 10,714,493,000   | 42,644,025,000                    | 42,269,080,000           | 374,945,000         | 99.1%        | 1,080,448,000                | 1,080,448,000       | 10.1%                        | 2,102,433,000         | 19.6%                    | (1,021,985,000)               |
| 2046               | 11,089,351,000   | 44,461,104,000                    | 44,170,160,000           | 290,944,000         | 99.3%        | 1,131,729,000                | 1,131,729,000       | 10.2%                        | 2,175,128,000         | 19.6%                    | (1,043,399,000)               |
| 2047               | 11,476,494,000   | 46,379,435,000                    | 46,182,150,000           | 197,285,000         | 99.6%        | 1,163,611,000                | 1,163,611,000       | 10.1%                        | 2,251,022,000         | 19.6%                    | (1,087,411,000)               |

The projection assumes a constant workforce.

**Minimum Contribution Required by ACT 268**  
**Trust contribution is less than benefits paid starting in fiscal year ending June 30, 2045**



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## **SECTION D**

### DEVELOPMENT OF BASELINE COSTS

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## DEVELOPMENT OF BASELINE COSTS

The underlying retiree claims costs were estimated using the plan premiums effective January 1, 2016, and are used for both current and future retirees. An inherent assumption in this methodology is that the projected future retirees will have a similar distribution by plan type as the current retirees (82% PPO and 18% HMO). The fully-insured retiree plans are separate from the active plans and are underwritten using the claims experience of the retired members only. The contracts for the retiree plans do not allow for any cross subsidization of premiums or rates. The prescription drug benefit for the PPO plan is self-insured. Based on conversations with EUTF’s health care consultant (Segal), we did not believe it was necessary to independently verify the premiums for the PPO prescription drug benefit. The estimated age-adjusted claims shown below include administration fees and are net of prescription drug rebates.

Age graded and sex distinct premiums are utilized by this valuation. These costs are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process “distributes” the average premium over all age/sex combinations and assigns a unique premium for each combination. The age/sex specific costs more accurately reflect the health care utilization and cost at that age.

| Baseline Costs for Retirees and Spouses (Medical and Prescription Drug)<br>(Expected Monthly Per Capita Costs for Calendar Year 2016) |            |          |          |          |              |          |          |          |
|---|------------|----------|----------|----------|--------------|----------|----------|----------|
|   | HMSA (PPO) |          |          |          | Kaiser (HMO) |          |          |          |
|   | EUTF       |          | HSTA     |          | EUTF         |          | HSTA     |          |
| Age   | Male       | Female   | Male     | Female   | Male         | Female   | Male     | Female   |
| 50  | \$411.42   | \$466.16 | \$418.51 | \$474.19 | \$436.27     | \$494.32 | \$430.43 | \$487.70 |
| 55  | 537.71     | 552.72   | 546.98   | 562.25   | 570.20       | 586.11   | 562.57   | 578.27   |
| 60  | 675.52     | 649.33   | 687.16   | 660.52   | 716.33       | 688.55   | 706.74   | 679.34   |
| 65  | 351.41     | 323.60   | 350.83   | 323.07   | 353.32       | 325.36   | 361.80   | 333.17   |
| 70  | 405.35     | 364.49   | 404.68   | 363.89   | 407.55       | 366.47   | 417.34   | 375.27   |
| 75  | 450.01     | 399.37   | 449.27   | 398.71   | 452.45       | 401.54   | 463.32   | 411.18   |
| 80  | 482.50     | 425.31   | 481.71   | 424.61   | 485.12       | 427.62   | 496.77   | 437.89   |

Dental and vision benefits are not included in the age-adjusted benefits shown above. The underlying claims for the dental and vision benefits were not age-rated. Premiums for all medical, prescription drug, dental, and vision plans are shown in Section E.

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**SECTION E**

SUMMARY OF BENEFIT PROVISIONS

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## SUMMARY OF THE SUBSTANTIVE PLAN PROVISIONS

### PLAN PARTICIPANTS

Plan participants are retired members of the employees' retirement system; the county pension system; or the police, firefighters, or bandsmen pension system of the State or county.

### BASE MONTHLY CONTRIBUTION AMOUNT

| <b>January 1, 2016 - Base Monthly Contribution</b> |             |                  |               |
|--|-------------|------------------|---------------|
|  | <u>Self</u> | <u>Two-Party</u> | <u>Family</u> |
| Non-Medicare                                       | \$855.18    | \$1,723.76       | \$2,522.92    |
| Medicare   | 609.20      | 1,221.02         | 1,778.40      |

The Base Monthly Contribution (BMC) determines the maximum amount provided by the employer to cover premiums for medical, prescription drug, dental and vision care. The BMC is adjusted annually based on the change in the Medicare Part B premium. The employer's costs for providing the Medicare Part B premium reimbursement and the life insurance benefit are in addition to the contribution related to the BMC.

### DEFERRED RETIREMENT

Employees who terminate employment are eligible for retiree health care benefits upon commencing a retirement or pension allowance.

### DISABILITY RETIREMENT

Employees who terminate due to disability are eligible for retiree health care benefits upon commencing a retirement or pension allowance from the State or county.

### NON-DUTY DEATH IN SERVICE RETIREMENT

If an active employee dies while in service and is eligible to retire at the time of death, the retirement system will retire the employee and the surviving spouse, domestic or civil union partner and eligible dependents are eligible for retiree medical benefits. If the member was not eligible for retirement at the time of death, the surviving spouse, domestic or civil union partner and eligible dependents are eligible for COBRA benefits only.

### DUTY DEATH IN SERVICE RETIREMENT

The surviving spouse, domestic or civil union partner and eligible dependents of an employee who is killed in the performance of the employee's duty are eligible for retiree health care benefits. Regardless of the employee's date of hire or years of service, the employer will pay up to the BMC for a spouse, domestic or civil union partner and eligible dependents of an employee who is killed in the performance of duty. Coverage ends when the surviving spouse or domestic or civil union partner remarries or enters into another domestic or civil union partnership or when the surviving child reaches age 19 or 24 if the child is a full-time student.

**SURVIVING SPOUSES OF RETIRED EMPLOYEES**

The employer's contribution percentage for a surviving spouse, domestic or civil union partner and eligible dependent of a retiree who was hired prior to July 1, 2001 will remain the same as the deceased retiree. For a surviving spouse, domestic or civil union partner and eligible dependent of a retiree who was hired after June 30, 2001, the employer's contribution percentage will be half of the deceased retirees' employer contribution percentage.

**LIFE INSURANCE**

Retiree life insurance benefit is \$2,235 as of July 1, 2015, and is provided at no cost to the retiree.

**MEDICARE PART B REIMBURSEMENT**

Retirees and spouse/domestic and civil union partners are required to enroll in Medicare Part B coverage when they become eligible and enrolled in a medical and/or prescription drug plan. The employer reimburses the premium for both retiree and spouse/domestic or civil union partner at 100%. Surviving spouses/domestic or civil union partners, regardless of hire date, continue to receive the Part B reimbursement. The 2016 Medicare Part B premium is \$104.90 per month for most retirees and \$121.80 per month for retirees enrolling in Part B for the first time or not enrolled in Social Security. EUTF will reimburse the entire Part B premium for retirees who pay income adjusted Part B premiums if they submit proof.

**EMPLOYER'S CONTRIBUTION**

The Employer's percentage of the BMC for the year determines the maximum employer contribution payable. Any difference between the maximum employer contribution and the total premium for plans selected (medical, prescription drug, dental and vision) will be paid by the retiree.

| Hire Date          | Year of Service | % of BMC* |
|--------------------|-----------------|-----------|
| Before<br>7/1/1996 | < 10            | 50%       |
|                    | 10+             | 100%      |
| Post<br>7/1/1996   | < 10            | 0%        |
|                    | 10-14           | 50%       |
|                    | 15-24           | 75%       |
|                    | 25+             | 100%      |

\*Employees hired after 6/30/2001 only receive the % of the "Self" BMC.

**EUTF Monthly Retiree Rates  
 Effective January 1, 2016 through December 31, 2016**

| <b>Benefit Plan</b>                                 | <b>Type of Enrollment</b> | <b>Total Contribution Required</b> |
|---|---------------------------|------------------------------------|
| <b><i>MEDICAL PLANS - MEDICARE</i></b>              |                           |                                    |
| HMSA PPO Medicare                                   | Self                      | \$211.74                           |
|   | Two-Party                 | \$412.60                           |
|   | Family                    | \$611.64                           |
| United Healthcare (UHC) Medicare Advantage PPO      | Self                      | \$53.06                            |
|   | Two-Party                 | \$106.12                           |
| Medicare Prescription Drug                          | Self                      | \$205.20                           |
|   | Two-Party                 | \$399.58                           |
|   | Family                    | \$592.44                           |
| Kaiser HMO Medicare<br>Kaiser Prescription Drug     | Self                      | \$418.92                           |
|   | Two-Party                 | \$817.12                           |
|   | Family                    | \$1,211.14                         |
| <b><i>MEDICAL PLANS - NON-MEDICARE</i></b>          |                           |                                    |
| HMSA PPO Non-Medicare                               | Self                      | \$469.86                           |
|   | Two-Party                 | \$915.60                           |
|   | Family                    | \$1,357.32                         |
| Non-Medicare Prescription Drug                      | Self                      | \$198.10                           |
|   | Two-Party                 | \$385.84                           |
|   | Family                    | 572.06                             |
| Kaiser HMO Non-Medicare<br>Kaiser Prescription Drug | Self                      | \$688.18                           |
|   | Two-Party                 | \$1,393.02                         |
|   | Family                    | \$2,056.52                         |
| <b><i>DENTAL PLAN</i></b>                           |                           |                                    |
| HDS Dental - Retiree                                | Self                      | \$36.06                            |
|   | Two-Party                 | \$70.32                            |
|   | Family                    | \$86.14                            |
| <b><i>VISION PLAN</i></b>                           |                           |                                    |
| VSP Vision - Retiree                                | Self                      | \$5.48                             |
|   | Two-Party                 | \$10.96                            |
|   | Family                    | \$14.70                            |
| <b><i>LIFE INSURANCE</i></b>                        |                           |                                    |
| Royal State National Life Insurance (Retiree only)  | Self                      | \$4.12                             |

**HSTA VB Monthly Retiree Rates  
 Effective January 1, 2016 through December 31, 2016**

| Benefit Plan   | Type of Enrollment | Total Contribution Required |
|--|--------------------|-----------------------------|
| <i><b>MEDICAL PLANS - MEDICARE</b></i>   |                    |                             |
| HSTA VB Retiree - HMSA PPO Medicare<br>Medical, Drug RSN Chiropractic, VSP Vision  | Self               | \$419.62                    |
|  | Two-Party          | \$817.88                    |
|  | Family             | \$1,209.74                  |
| HSTA VB Retiree - Kaiser HMO Medicare<br>Medical, Drug RSN Chiropractic, VSP Vision  | Self               | \$432.46                    |
|  | Two-Party          | \$843.96                    |
|  | Family             | \$1,248.16                  |
| <i><b>MEDICAL PLANS - NON-MEDICARE</b></i>   |                    |                             |
| HSTA VB Retiree - HMSA PPO Non-Medicare<br>Medical, Drug, RSN Chiropractic, VSP Vision   | Self               | \$682.96                    |
|  | Two-Party          | \$1,330.88                  |
|  | Family             | \$1,970.34                  |
| HSTA VB Retiree - Kaiser PPO Non-Medicare<br>Medical, Drug, RSN Chiropractic, VSP Vision   | Self               | \$682.56                    |
|  | Two-Party          | \$1,380.76                  |
|  | Family             | \$2,035.38                  |
| <i><b>DENTAL PLAN</b></i>  |                    |                             |
| HDS Dental - Retiree   | Self               | \$35.84                     |
|  | Two-Party          | \$69.84                     |
|  | Family             | \$85.56                     |
| <i><b>VISION PLAN</b></i><br><i>(Only for retirees enrolled in an out-of-state Kaiser Multi-Site or Sr. Advantage Plan - not a HSTA VEBA Plan)</i> |                    |                             |
| VSP Vision - Retiree   | Self               | \$5.48                      |
|  | Two-Party          | \$10.96                     |
|  | Family             | \$14.70                     |
| <i><b>LIFE INSURANCE</b></i>   |                    |                             |
| Royal State National Life Insurance (Retiree only)   | Self               | \$4.12                      |
|  |                    |                             |

**Medical Plan Coverage Chart (HMSA and Kaiser) – EUTF  
Non-Medicare Retirees**

| Plan Provisions                                    | HMSA PPO   |                           | Kaiser HMO                                       |
|--|--|---------------------------|--|
| <b>General</b>                                     |  |                           |  |
| Calendar Year Deductible Single/Family             | \$100 per person<br>Maximum \$300 per family     |                           | None/None  |
| Calendar Year Out-of-pocket limit<br>Single/Family | \$2,500 per person<br>Maximum \$7,500 per family |                           | \$2,000 per person<br>Maximum \$6,000 per family |
| Lifetime Benefit Maximum                           | None   |                           | None   |
|  | <b>Your Copayment</b>                            |                           |  |
|  | <b>In-Network</b>                                | <b>Out-of-Network</b>     |  |
| <b>Physician Services</b>                          |  |                           |  |
| Primary Care Office Visit                          | 10% *  | 30%                       | \$15   |
| Specialist Office Visit                            | 10% *  | 30%                       | \$15   |
| Routine physical exams                             | Not Covered                                      | Not Covered               | No Charge  |
| Mammography  | 20% *  | 30% *                     | No Charge  |
| Second opinion – surgery                           | 10% *  | 30%                       | \$15   |
| Emergency Room (ER care)                           | 10% *  | 10% *                     | \$50 in area / 20% out                           |
| Ambulance  | 20%  | 30%                       | 20%  |
| <b>Inpatient Hospital Services</b>                 |  |                           |  |
| Room & Board                                       | 10% *  | 30%                       | No Charge  |
| Ancillary Services                                 | 10% *  | 30%                       | No Charge  |
| Physician services                                 | 10% *  | 30%                       | No Charge  |
| Surgery  | 10% *  | 30%                       | No Charge  |
| Anesthesia   | 10% *  | 30%                       | No Charge  |
| <b>Outpatient Services</b>                         |  |                           |  |
| Chemotherapy                                       | 20%  | 30%                       | \$15   |
| Radiation Therapy                                  | 20% *  | 30%                       | \$15   |
| Surgery  | 10%* (Cutting)                                   | 30%                       | \$15   |
| Allergy Testing                                    | 20%  | 30%                       | \$15   |
| Other Diag. Lab, X-ray & Psych Testing             | 20% *  | 30%                       | \$15   |
| Anesthesia   | 10% *  | 30%                       | No Charge; \$15 office visit copay applies       |
| <b>Mental Health Services</b>                      |  |                           |  |
| Inpatient care                                     | 10% *  | 30%                       | No Charge  |
| Outpatient Care                                    | 10% *  | 30%                       | \$15   |
| <b>Other Services</b>                              |  |                           |  |
| Durable Medical Equipment                          | 20%  | 30%                       | 20%  |
| Home Health care                                   | No Charge*                                       | 30%                       | No Charge  |
| Hospice Care                                       | No Charge*                                       | Not Covered               | No Charge  |
| Nursing facility - skilled care                    | 10%*,<br>120 days per year                       | 30%,<br>120 days per year | No Charge,<br>100 days per benefit period        |
| Physical & Occupational Therapy                    | 20%  | 30%                       | \$15   |

\*Deductible does not apply

## Medical Plan Coverage Chart (HMSA and Kaiser) – HSTA VB Non-Medicare Retirees

| <b>SUMMARY OF YOUR PAYMENT OBLIGATIONS UNDER EACH PLAN</b><br>Benefits will be administered as described in each plan's documents. |  |  |  |
|--|--|--|--|
| <b>Plan Provisions</b>   | <b>HMSA PPO</b>  |  | <b>Kaiser HMO</b>                                |
| <b>General</b>   |  |  |  |
| Calendar Year Deductible Single/Family   | \$100 per person<br>Maximum \$300 per family                                     |  | None/None  |
| Calendar Year Out-of-pocket limit<br>Single/Family   | \$2,000 per person<br>Maximum \$6,000 per family                                 |  | \$2,000 per person<br>Maximum \$6,000 per family |
| Lifetime Benefit Maximum   | \$2,000,000  |  | None   |
|  | <b>Your Copayment</b>  |  |  |
|  | <b>In-Network</b>  | <b>Out-of-Network</b>  |  |
| <b>Physician Services</b>  |  |  |  |
| Primary Care Office Visit  | 10%*   | 30%  | \$15   |
| Specialist Office Visit  | 10%*   | 30%  | \$15   |
| Routine physical exams   | No Charge*; limited<br>to<br>combined CY dollar<br>max depending on age<br>scale | No Charge*; limited<br>to<br>combined CY dollar<br>max depending on age<br>scale | No Charge  |
| Mammography  | 10%*   | 30%  | No Charge  |
| Second opinion – surgery   | 10%*   | 30%  | \$15   |
| Emergency Room (ER care)   | 10%*   | 10%*   | \$50 in area /20% out                            |
| Ambulance  | 10%*   | 30%  | 20%  |
| <b>Inpatient Hospital Services</b>   |  |  |  |
| Room & Board   | 10%*   | 30%  | No Charge  |
| Ancillary Services   | 10%*   | 30%  | No Charge  |
| Physician services   | 10%*   | 30%  | No Charge  |
| Surgery  | 10%*   | 30%  | No Charge  |
| Anesthesia   | 10%*   | 30%  | No Charge  |
| <b>Outpatient Services</b>   |  |  |  |
| Chemotherapy   | 10%*   | 30%  | \$15   |
| Radiation Therapy  | 10%*   | 30%  | \$15   |
| Surgery  | 10%*   | 30%  | \$15   |
| Allergy Testing  | 10%*   | 30%  | \$15   |
| Other Diag. Lab, X-ray & Psych Testing   | 10%*   | 30%  | \$15   |
| Anesthesia   | 10%*   | 30%  | No Charge; \$15 office visit<br>copay applies    |
| <b>Mental Health Services</b>  |  |  |  |
| Inpatient care   | 10%*   | 30%  | No Charge  |
| Outpatient Care  | 10%*   | 30%  | \$15   |
| <b>Other Services</b>  |  |  |  |
| Durable Medical Equipment  | 10%*   | 30%  | 20%  |
| Home Health care   | No Charge*   | 30%  | No Charge  |
| Hospice Care   | No Charge*   | Not Covered  | No Charge  |
| Nursing facility - skilled care  | 10%*;<br>120 days per year   | 30%;<br>120 days per year  | No Charge,<br>100 days benefit period            |
| Physical & Occupational Therapy  | 10%*   | 30%  | \$15   |

\*Deductible does not apply.

**PPO and HMO Prescription Drug Plans – EUTF  
 Non-Medicare Retirees**

| COVERAGE  | PPO Prescription Drug Plan<br>(administered by CVS Caremark)*  |                                  | HMO<br>Prescription<br>Drug Plan<br>(Kaiser)  |
|---|--|----------------------------------|---|
|   | Participating Pharmacy   | Non-participating<br>Pharmacy**  | Copayment<br>up to  |
| <b>RETAIL &amp; MAIL PRESCRIPTION PROGRAM (30/90 day supply)<br/>                     Maintenance medications must be filled in a 90-day supply after the first 3-30 day initial fills. +</b> |  |                                  |   |
| Generic   | \$5/\$10 copayment   | \$5 + 20% of<br>eligible charges | \$15/\$30 mail only   |
| Preferred Brand Name  | \$15/\$30 copayment  | \$15 + 20% of eligible charges   | \$15/\$30 mail only   |
| Other Brand Name  | \$30/\$60 copayment  | \$30 + 20% of eligible charges   | \$15/\$30 mail only   |
| <b>Injectables and Specialty<br/>Drug</b>   | 20% of eligible charges; Up to \$250 maximum per prescription<br>fill;<br><br>\$2,000 out-of-pocket<br>maximum per plan year; \$30 copay oral oncology specialty<br>medications. Specialty drugs are not available through mail-order<br>and only dispensed up to a 30-day supply. |                                  | Injectables: \$15/<br>Not available<br>through mail-order<br>Specialty Drugs:<br>\$15/\$30 mail-order<br>for eligible drugs |
| <b>Insulin</b>  |  |                                  |   |
| Preferred Insulin   | \$5/\$10 copayment   | \$5 + 20% of<br>eligible charges | \$15<br>Not available<br>through mail-order   |
| Other Insulin   | \$15/\$30 copayment  | \$15 + 20% of eligible charges   | \$15<br>Not available<br>through mail-order   |
| <b>Diabetic Supplies</b>  |  |                                  |   |
| Preferred Diabetic Supplies   | No copayment   | No copayment                     | \$15/\$30 mail only   |
| Other Diabetic Supplies   | \$15/\$30 copayment  | \$15 + 20% of eligible charges   | \$15/\$30 mail only   |

\*This plan is the prescription drug coverage for the HIVISA PPO medical plan options and is administered by CVS Caremark.

\*\*If you receive services from a non-participating (out-of-network) pharmacy you will pay full price for the prescription and must file a claim for reimbursement. You are responsible for the copayment (including the penalty %) and any difference between the actual charge and the eligible charge.

+Note: Maintenance medication can be filled through mail-order, at Longs Drugs/CVS, or at any retail network pharmacy.

**PPO and HMO Prescription Drug Plans – HSTA VB  
 Non-Medicare Retirees**

| COVERAGE   | PPO Prescription Drug Plan<br>(administered by CVS Caremark)*  |                                | HMO Prescription Drug Plan<br>(Kaiser)  |
|--|--|--------------------------------|---|
|  | Participating Pharmacy   | Non-participating Pharmacy**   | Copayment up to   |
| <b>RETAIL &amp; MAIL PRESCRIPTION PROGRAM (30/90 day supply)</b> |  |                                |   |
| <b>Generic and Insulin</b>                                       | \$5/\$9 copayment  | \$5 + 30% of eligible charges  | \$10/\$20 mail only. Insulin not available through mail-order   |
| <b>All covered Brand Name</b>                                    | \$15/\$27 copayment  | \$15 + 30% of eligible charges | \$10/\$20 mail only   |
| <b>Specialty Drug &amp; Injectables</b>                          | Specialty medications are subject to the applicable Brand/Generic copayment. Specialty drugs are not available through mail-order and only dispensed up to a 30-day supply |                                | Injectables: \$10/ Not available through mail-order<br>Specialty Drugs: \$10/\$20 mail-order for eligible drugs |
| <b>Lancets, Strips and Meters</b>                                | No copayment   |                                | 50% coinsurance   |

\*This plan is the prescription drug coverage for the HNISA PPO medical plan options and is administered by CVS Caremark.

\*\*If you receive services from a nonparticipating (out-of-network) pharmacy you will pay full price for the prescription and must file a claim for reimbursement. You are responsible for the copayment (including the penalty %) and any difference between the actual charge and the eligible charge.

## Medical Plan Coverage Chart (HMSA and Kaiser) – EUTF Medicare Retirees

| Plan Provisions                                    | HMSA PPO   |                           | Kaiser HMO**                                     |
|--|--|---------------------------|--|
| General  | Your HMSA coverage coordinates with<br>your Medicare Coverage. |                           | Kaiser Senior Advantage Plan                     |
| Calendar Year Deductible Single/Family             | \$100 per person<br>Maximum \$300 per family                   |                           | None/None  |
| Calendar Year Out-of-pocket limit<br>Single/Family | \$2,500 per person<br>Maximum \$7,500 per family               |                           | \$2,000 per person<br>Maximum \$6,000 per family |
| Lifetime Benefit Maximum                           | None   |                           | None   |
|  | Your Copayment   |                           |  |
|  | In-Network   | Out-of-Network            |  |
| Physician Services                                 |  |                           |  |
| Primary Care Office Visit                          | 10%*   | 30%                       | \$15   |
| Specialist Office Visit                            | 10%*   | 30%                       | \$15   |
| Routine physical exams                             | Not Covered  | Not Covered               | No Charge  |
| Mammography  | 20%*   | 30%*                      | No Charge  |
| Second opinion – surgery                           | 10%*   | 30%                       | \$15   |
| Emergency Room (ER care)                           | 10%*   | 10%*                      | \$50   |
| Ambulance  | 20%  | 30%                       | 20%  |
| Inpatient Hospital Services                        |  |                           |  |
| Room & Board                                       | 10%*   | 30%                       | No Charge  |
| Ancillary Services                                 | 10%*   | 30%                       | No Charge  |
| Physician services                                 | 10%*   | 30%                       | No Charge  |
| Surgery  | 10%*   | 30%                       | No Charge  |
| Anesthesia   | 10%*   | 30%                       | No Charge  |
| Outpatient Services                                |  |                           |  |
| Chemotherapy                                       | 20%  | 30%                       | \$15   |
| Radiation Therapy                                  | 20%*   | 30%                       | \$15   |
| Surgery  | 10%* (Cutting)   | 30%                       | \$15   |
| Allergy Testing                                    | 20%  | 30%                       | \$15   |
| Other Diag. Lab, X-ray & Psych Testing             | 20%*   | 30%                       | No Charge  |
| Anesthesia   | 10%*   | 30%                       | \$15   |
| Mental Health Services                             |  |                           |  |
| Inpatient care                                     | 10%*   | 30%                       | No Charge  |
| Outpatient Care                                    | 10%*   | 30%                       | \$15   |
| Other Services                                     |  |                           |  |
| Durable Medical Equipment                          | 20%  | 30%                       | 20%  |
| Home Health care                                   | No Charge*   | 30%                       | No Charge  |
| Hospice Care                                       | No Charge*   | Not Covered               | No Charge, Home Care                             |
| Nursing facility - skilled care                    | 10%*,<br>120 days per year                                     | 30%,<br>120 days per year | No Charge,<br>100 days per benefit period        |
| Physical & Occupational Therapy                    | 20%  | 30%                       | \$15   |

\*HMSA Deductible does not apply. \*\*If you and/or your dependent are Medicare eligible, you must enroll in the Kaiser Senior Advantage Plan.

**Medical Plan Coverage Chart (UnitedHealthcare)  
Medicare Advantage PPO**

| Plan Provisions                                       | UnitedHealthcare Group Medicare Advantage (PPO) <sup>3</sup> |  |
|---|--|--|
|   | In-Network   | Out-of-Network                                 |
| Annual Deductible                                     | \$100  |  |
| Annual Out-of-pocket limit                            | \$2,500  |  |
| Lifetime Benefit Maximum                              | None   |  |
|   | <b>Your Copayment</b>  |  |
|   | <b>In-Network</b>  | <b>Out-of-Network</b>                          |
| <b>Physician Services</b>                             |  |  |
| Primary Care Office Visit                             | 10% <sup>1</sup>   | 10%  |
| Specialist Office Visit                               | 10% <sup>1</sup>   | 10%  |
| Annual Wellness Visit                                 | No Charge  | No Charge                                      |
| Mammography   | 20% <sup>1</sup>   | 20%  |
| Second opinion – surgery                              | 10% <sup>1</sup>   | 10%  |
| Emergency Room (ER care)                              | \$50 <sup>1</sup>  | \$50 <sup>1</sup>                              |
| Ambulance   | 20%  | 20%  |
| <b>Inpatient Hospital Services</b>                    |  |  |
| Room & Board  | 10% <sup>1</sup>   | 10%  |
| Ancillary Services                                    | 10% <sup>1</sup>   | 10%  |
| Physician services                                    | 10% <sup>1</sup>   | 10%  |
| Surgery   | 10% <sup>1</sup>   | 10%  |
| Anesthesia  | 10% <sup>1</sup>   | 10%  |
| <b>Outpatient Services</b>                            |  |  |
| Chemotherapy  | 20% <sup>1</sup>   | 20%  |
| Radiation Therapy                                     | 20% <sup>1</sup>   | 20%  |
| Surgery   | 10% <sup>1</sup>   | 10%  |
| Allergy Testing                                       | 20% <sup>1</sup>   | 20%  |
| Other Diag. Lab, X-ray & Psych Testing                | 20% <sup>1</sup>   | 20%  |
| Anesthesia  | 10% <sup>1</sup>   | 10%  |
| <b>Mental Health Services</b>                         |  |  |
| Inpatient care  | 10% <sup>1</sup>   | 10%  |
| Outpatient Care                                       | 10% <sup>1</sup>   | 30%  |
| <b>Other Services</b>                                 |  |  |
| Durable Medical Equipment                             | 20%  | 20%  |
| Home Health care                                      | No Charge  | No Charge                                      |
| Hospice Care  | No Charge  | No Charge                                      |
| Nursing facility - skilled care                       | 10%, 100 days per year <sup>1</sup>                          | 10%, 100 days per year                         |
| Physical & Occupational Therapy                       | 20%  | 20%  |
| Routine Eye Examination every 12 months               | 10% <sup>1,2</sup>   | 10% <sup>1,2</sup>                             |
| Routine Hearing Exam – every 12 months                | No Charge  | No Charge                                      |
| Hearing Aid Allowance – includes Digital hearing aids | \$500 allowance every 36 months <sup>1,2</sup>               | \$500 allowance every 36 months <sup>1,2</sup> |

<sup>1</sup>The Plan Deductible does not apply to this service.

<sup>2</sup>Covered Services that do not count towards out-of-pocket amount.

<sup>3</sup>Please contact UnitedHealthcare for questions regarding the Medicare Advantage PPO Plan.

## Medical Plan Coverage Chart (HMSA and Kaiser) – HSTA VB Medicare Retirees

| SUMMARY OF YOUR PAYMENT OBLIGATIONS UNDER EACH PLAN<br>Benefits will be administered as described in each plan's documents. |   |   |  |
|---|---|---|--|
| Plan Provisions   | HMSA PPO  |   | Kaiser HMO**                                     |
| <b>General</b>  | <b>HSMA coverage coordinates with your Medicare coverage.</b>           |   |  |
| Calendar Year Deductible Single/Family  | \$100 per person<br>Maximum \$300 per family                            |   | None/None  |
| Calendar Year Out-of-pocket limit Single/Family   | \$2,000 per person<br>Maximum \$6,000 per family                        |   | \$2,000 per person<br>Maximum \$6,000 per family |
| Lifetime Benefit Maximum  | \$2,000,000   |   | None   |
|   | <b>Your Copayment</b>   |   |  |
|   | <b>In-Network</b>   | <b>Out-of-Network</b>   |  |
| <b>Physician Services</b>   |   |   |  |
| Primary Care Office Visit   | 10%*  | 30%   | \$15   |
| Specialist Office Visit   | 10%*  | 30%   | \$15   |
| Routine physical exams  | No Charge*;<br>limited to combined CY dollar max depending on age scale | No Charge*;<br>limited to combined CY dollar max depending on age scale | No Charge  |
| Mammography   | 10%*  | 30%   | No Charge  |
| Second opinion – surgery  | 10%*  | 30%   | \$15   |
| Emergency Room (ER care)  | 10%*  | 10%*  | \$50   |
| Ambulance   | 10%*  | 30%   | 20%  |
| <b>Inpatient Hospital Services</b>  |   |   |  |
| Room & Board  | 10%*  | 30%   | No Charge  |
| Ancillary Services  | 10%*  | 30%   | No Charge  |
| Physician services  | 10%*  | 30%   | No Charge  |
| Surgery   | 10%*  | 30%   | No Charge  |
| Anesthesia  | 10%*  | 30%   | No Charge  |
| <b>Outpatient Services</b>  |   |   |  |
| Chemotherapy  | 10%*  | 30%   | \$15   |
| Radiation Therapy   | 10%*  | 30%   | \$15   |
| Surgery   | 10%*  | 30%   | \$15   |
| Allergy Testing   | 10%*  | 30%   | \$15   |
| Other Diag. Lab, X-ray & Psych Testing  | 10%*  | 30%   | No Charge  |
| Anesthesia  | 10%*  | 30%   | No Charge; \$15 office visit copay applies       |
| <b>Mental Health Services</b>   |   |   |  |
| Inpatient care  | 10%*  | 30%   | No Charge  |
| Outpatient Care   | 10%*  | 30%   | \$15   |
| <b>Other Services</b>   |   |   |  |
| Durable Medical Equipment   | 10%*  | 30%   | 20%  |
| Home Health care  | No Charge*  | 30%   | No Charge  |
| Hospice Care  | No Charge*  | Not Covered   | No Charge, Home Care                             |
| Nursing facility - skilled care   | 10%*;<br>120 days per year  | 30%;<br>120 days per year   | No Charge,<br>100 days benefit period            |
| Physical & Occupational Therapy   | 10%*  | 30%   | \$15   |

\*HMSA Deductible does not apply.

\*\*If you and your dependent are Medicare eligible, you must enroll in the Kaiser Senior Advantage Plan.

**Medicare Part D Prescription Drug Plans – EUTF**

| <b>COVERAGE</b>  | <b>PPO Prescription Drug Plan<br/>(Administered by SilverScript)</b>                                       | <b>HMO Prescription<br/>Drug Plan<br/>(Kaiser)</b> |
|--|--|--|
| <b>RETAIL PRESCRIPTION PROGRAM (30/60/90 day supply)</b>     | <b>Participating Pharmacy</b>  | <b>Copayment up to</b>                             |
| <b>Generic</b>   | \$5/\$10/\$10 copayment  | \$15/\$30/\$45 copayment                           |
| <b>Preferred Brand Name</b>                                  | \$15/\$30/\$30 copayment   | \$15/\$30/\$45 copayment                           |
| <b>Non-Preferred Brand Name</b>                              | \$30/\$60/\$60 copayment   | \$15/\$30/\$45 copayment                           |
| <b>Specialty Drug</b>  | 20% coinsurance<br>Up to a \$250 copay max per fill,<br>\$2,000 out-of-pocket maximum per<br>calendar year | \$15/\$30/\$45 copayment                           |
| <b>Insulin</b>   |  |  |
| Covered Insulin Products                                     | \$5/\$10/\$10 copayment  | \$15/\$30/\$45 copayment                           |
| <b>Diabetic Supplies</b>                                     |  |  |
| Lancets, Strips and Meters                                   | No copayment   | \$15/\$30/\$45 copayment                           |
| <b>MAIL ORDER PRESCRIPTION PROGRAM (30/60/90 day supply)</b> | <b>SilverScript Mail Order</b>   |  |
| <b>Generic</b>   | \$5/\$10/\$10 copayment  | \$15/\$30/\$30 copayment                           |
| <b>Preferred Brand Name</b>                                  | \$15/\$30/\$30 copayment   | \$15/\$30/\$30 copayment                           |
| <b>Non-Preferred Brand Name</b>                              | \$30/\$60/\$60 copayment   | \$15/\$30/\$30 copayment                           |
| <b>Specialty Drug</b>  | Not Available  | \$15/\$30/\$30 copayment                           |
| <b>Insulin</b>   |  |  |
| Covered Insulin Products                                     | \$5/\$10/\$10 copayment  | Not available through<br>Mail Order                |
| <b>Diabetic Supplies</b>                                     |  |  |
| Lancets, Strips and Meters                                   | Not available through<br>Mail Order  | \$15/\$30/\$30 copayment                           |

**Medicare Part D Prescription Drug Plans – HSTA VB**

| <b>COVERAGE</b>  | <b>PPO Prescription Drug Plan<br/>(Administered by SilverScript)</b>        | <b>HMO Prescription Drug Plan<br/>(Kaiser)</b>                        |
|--|---|---|
| <b>RETAIL PRESCRIPTION PROGRAM (30/60/90 day supply)</b>     | <b>Participating Pharmacy</b>   | <b>Copayment up to</b>  |
| <b>Generic and Covered Insulin Products</b>                  | \$3/\$9/\$9 copayment   | \$10/\$20/\$30 copayment  |
| <b>All Covered Brand Name</b>                                | \$9/\$27/\$27 copayment   | \$10/\$20/\$30 copayment  |
| <b>Specialty</b>   | Specialty medications are subject to the applicable Brand/Generic copayment | \$10/\$20/\$30 copayment  |
| <b>Diabetic Supplies</b>                                     |   |   |
| Lancets, Strips and Meters                                   | No copayment  | 20%   |
| <b>MAIL ORDER PRESCRIPTION PROGRAM (30/60/90 day supply)</b> | <b>SilverScript Mail Order</b>  |   |
| <b>Generic and Covered Insulin Products</b>                  | \$3/\$9/\$9 copayment   | \$10/\$20/\$20 copayment;<br>Insulin not available through Mail Order |
| <b>All Covered Brand Name</b>                                | \$9/\$27/\$27 copayment   | \$10/\$20/\$20 copayment  |
| <b>Specialty</b>   | Not available   | \$10/\$20/\$20 copayment  |
| <b>Diabetic Supplies</b>                                     |   |   |
| Lancets, Strips and Meters                                   | Not available through Mail Order  | 20%   |

**ALL RETIREES**

**Dental Plan Benefits (Hawaii Dental Service [HDS]) – EUTF**

| BENEFIT  | PLAN COVERS |
|--|-------------|
| PLAN MAXIMUM per calendar year per member (Jan 1 — Dec 31)   | \$2,000     |
| <b>DIAGNOSTIC</b>  |             |
| Examinations - twice per calendar year   | 100%        |
| Bitewing X-rays - twice per calendar year through age 14; once per calendar year thereafter  | 100%        |
| Other X-rays (full mouth X-rays limited to once every 5 years)   | 100%        |
| <b>PREVENTIVE</b>  |             |
| Cleanings — twice per calendar year  | 100%        |
| <ul style="list-style-type: none"> <li>• Diabetic Patients — four Cleanings or *Periodontal Maintenance per calendar year</li> <li>• Expectant Mothers — three Cleanings or *Periodontal Maintenance per calendar year</li> </ul>                        |             |
| *Periodontal Maintenance benefit level   | *60%        |
| <ul style="list-style-type: none"> <li>• Fluoride (twice per calendar year through age 19)</li> <li>• Fluoride — high risk — once per calendar year</li> </ul>   | 100%        |
| Space maintainers (through age 17)   | 100%        |
| Sealants (through age 18) — one treatment application, once per lifetime only to permanent molars with no prior occlusal restorations, regardless of the number of surfaces sealed.  | 100%        |
| <b>RESTORATIVE</b>   |             |
| Amalgam (silver-colored) fillings  | 60%         |
| Composite (white-colored) fillings — limited to the anterior (front) teeth   | 60%         |
| Crowns and gold restorations (once every 5 years when teeth cannot be restored with amalgam or composite fillings)   | 60%         |
| Note: Composite (white) and porcelain (white) restorations on posterior (back) teeth will be processed as the alternate benefit of the metallic equivalent — the patient is responsible for the cost difference up to the amount charged by the dentist. |             |
| <b>ENDODONTICS</b>   | 60%         |
| Pulpal therapy   |             |
| Root canal treatment, retreatment, apexification, apicoectomy  |             |
| <b>PERIODONTICS</b>  | 60%         |
| Periodontal scaling and root planing (once every two years)  |             |
| Gingivectomy, flap curettage and osseous surgery (once every three years)  |             |
| Periodontal Maintenance — twice per calendar year after qualifying periodontal treatment   |             |
| <b>PROSTHODONTICS</b>  | 60%         |
| Fixed bridges (once every 5 years; ages 16 and older)  |             |
| Dentures (complete and partial — once every 5 years; ages 16 and older)  |             |
| Implants Services  |             |
| <b>ORAL SURGERY</b>  | 60%         |
| <b>ADJUNCTIVE GENERAL SERVICES</b>   | 60%         |
| Palliative treatment (for relief of pain but not to cure)  | 100%        |

The annual plan maximum is \$2,000 per calendar year for EUTF retirees enrolled in the dental plan provided by HDS.

**Dental Plan Benefits (Hawaii Dental Service [HDS]) – HSTA VB**

| BENEFIT  | PLAN COVERS |
|--|-------------|
| PLAN MAXIMUM per calendar year per member (Jan 1 — Dec 31)   | \$1,000     |
| <b>DIAGNOSTIC</b>  |             |
| Examinations - twice per calendar year   | 100%        |
| Bitewing X-rays - twice per calendar year through age 14; once per calendar year thereafter  | 100%        |
| Other X-rays (full mouth X-rays limited to once every 5 years)   | 100%        |
| <b>PREVENTIVE</b>  |             |
| Cleanings — twice per calendar year  | 100%        |
| <ul style="list-style-type: none"> <li>• Diabetic Patients — four Cleanings or *Periodontal Maintenance per calendar year</li> <li>• Expectant Mothers — three Cleanings or *Periodontal Maintenance per calendar year</li> </ul>                        |             |
| *Periodontal Maintenance benefit level   | *60%        |
| <ul style="list-style-type: none"> <li>• Fluoride (once per calendar year through age 19)</li> <li>• Fluoride — high risk — once per calendar year</li> </ul>  | 100%        |
| Space maintainers (through age 17)   | 100%        |
| Sealants (through age 18) — one treatment application, once per lifetime only to permanent molars with no prior occlusal restorations, regardless of the number of surfaces sealed.  | 100%        |
| <b>RESTORATIVE</b>   |             |
| Amalgam (silver-colored) fillings  | 60%         |
| Composite (white-colored) fillings — limited to the anterior (front) teeth   | 60%         |
| Crowns and gold restorations (once every 5 years when teeth cannot be restored with amalgam or composite fillings)   | 60%         |
| Note: Composite (white) and porcelain (white) restorations on posterior (back) teeth will be processed as the alternate benefit of the metallic equivalent — the patient is responsible for the cost difference up to the amount charged by the dentist. |             |
| <b>ENDODONTICS</b>   | 60%         |
| Pulpal therapy   |             |
| Root canal treatment, retreatment, apexification, apicoectomy  |             |
| <b>PERIODONTICS</b>  | 60%         |
| Periodontal scaling and root planing (once every two years)  |             |
| Gingivectomy, flap curettage and osseous surgery (once every three years)  |             |
| Periodontal Maintenance — twice per calendar year after qualifying periodontal treatment   |             |
| <b>PROSTHODONTICS</b>  | 60%         |
| Fixed bridges (once every 5 years; ages 16 and older)  |             |
| Dentures (complete and partial — once every 5 years; ages 16 and older)  |             |
| Implants (covered as alternate benefit) when one tooth is missing between two natural teeth  |             |
| <b>ORAL SURGERY</b>  | 60%         |
| <b>ADJUNCTIVE GENERAL SERVICES</b>   | 60%         |
| Palliative treatment (for relief of pain but not to cure)  | 100%        |

The annual plan maximum is \$1,000 per calendar year for HSTA VB retirees enrolled in the dental plan provided by HDS.

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## Vision Plan Benefits (Vision Service Plan [VSP]) – EUTF & HSTA VB

### *Your coverage with VSP Doctors and Affiliate Providers:*

Exam covered in full ..... every calendar year, after \$10 Copay

#### Prescription Glasses

Lenses covered in full ..... every calendar year, after \$25 Copay

- Single vision, lined bifocal and lined trifocal lenses
- Polycarbonate lenses for dependent children up to age 18

Frame ..... every other calendar year

- \$120 allowance, plus 20% off any out-of-pocket costs; or \$65 allowance at Costco

—OR—

Contact Lenses ..... every calendar year

- \$120 allowance (applies to cost of contacts and fitting & evaluation)

### *Extra Discounts and Savings from VSP Doctors\**

#### **Glasses & Sunglasses**

- Average 35-40% savings on all non-covered lens options (such as tints, progressive lenses, anti-scratch coatings, etc.) UV coating is covered at no extra charge.
- 30% off additional glasses & sunglasses, including lens options, from the same VSP doctor on the same day as your Exam. Or 20% off from any VSP doctor within 12 months of your last Exam.

#### **Retinal Screening**

Guaranteed pricing on retinal screening as an enhancement to your Exam.

#### **Contact Lenses**

- 15% off cost of contact lens exam (fitting & evaluation)
- VSP has partnered with leading contact lens manufacturers to provide VSP members exclusive offers. Check out [www.vsp.com](http://www.vsp.com) for details.

#### **Laser Vision Correction**

- Average 15% off the regular price or 5% off the promotional price from VSP-contracted facilities.
- After surgery, use your frame allowance (if eligible) for sunglasses from any VSP doctor.

*\*Costco Pricing applies; there are no additional discounts. All other affiliate provider locations 20% off additional glasses and 15% off contact lens services within one year. Discounts available only through a VSP Preferred Provider: LVC discounts, Retinal screening not to exceed pricing, contact lens rebates.*

If you see a non-VSP provider, you'll typically pay more out-of-pocket.

**Summary of Benefit Eligibility  
(For Members Hired Prior to 7/1/2012)**

|                                     | <u>Noncontributory Plan</u>   | <u>Contributory Plan</u>   | <u>Hybrid Plan</u>   |
|-------------------------------------|---|--|--|
| <b>Normal Retirement</b>            | Age 62 and 10 years credited service; or age 55 and 30 years credited service | Age 55 and 5 years credited service                              | Age 62 and 5 years credited service; or age 55 and 30 years credited service |
| <b>Early Retirement</b>             | Age 55 and 20 years credited service  | Any age and 25 years credited service                            | Age 55 with 20 years credited service  |
| <b>Deferred Vesting</b>             | 10 years credited service   | 5 years credited service and contributions left in the ERS       | 5 years credited service and contributions left in the ERS                   |
| <b>Ordinary Disability</b>          | 10 years credited service   | 10 years credited service  | 10 years credited service  |
| <b>Service-Connected Disability</b> | Any age or credited service   | Any age or credited service                                      | Any age or credited service  |
| <b>Ordinary Death</b>               | Active employee at time of death with at least 10 years of credited service   | Active employee at time of death with at least 1 year of service | Active employee at time of death with at least 5 years of service            |
| <b>Service-Connected Death</b>      | Any age or service  | Any age or service   | Any age or service   |

The benefit eligibilities summarized above apply to teachers and most State and County employees. Special provisions applicable to other groups of employees are outlined below:

Police officers, firefighters, investigators of the Department of the Prosecuting Attorney and the Attorney General, narcotic enforcement investigators, and public safety investigators may retire at age 55 with 5 years of credited service or at any age with 25 years of credited service.

Judges, elected officials, and legislative officers may retire at age 55 with at least 5 years of credited service, or at any age with at least 10 years of credited service. Judges hired after June 30, 1999 require 25 years of credited service in order to retire before age 55.

Sewer workers in specified classifications, water safety officers, and emergency medical technicians (EMTs) may retire at any age if they are credited with 25 years of such service with the last 5 or more years in these occupations. (The 25-year feature is phased in through 7/1/2008 for EMTs.)

Sewer workers in specified classifications, water safety officers, and emergency medical technicians (EMTs) that transfer to the Hybrid Plan may retire at age 62 with 5 years of credited service or at any age if they are credited with 25 years of such service with the last 5 or more years in these occupations.

**Summary of Benefit Eligibility  
 (For Members Hired After 6/30/2012)**

|                                     | <b>Contributory Plan<br/>(for Police/Fire)</b>                             | <b>Contributory Plan<br/>(for Judges/Elected Officers)</b>                      | <b>Hybrid Plan</b>   |
|-------------------------------------|--|---|--|
| <b>Normal Retirement</b>            | Age 60 and 10 years credited service                                       | Age 60 and 10 years credited service  | Age 65 and 10 years credited service; or Age 60 and 30 years credited service<br>Sewer workers, water safety officers, and EMTs may retire with 25 years credited service at age 55. |
| <b>Early Retirement</b>             | Age 55 and 25 years credited service                                       | Age 55 and 25 years credited service any age with 10 years for elected officers | Age 55 with 20 years credited service<br>Sewer workers, water safety officers, and emergency medical technicians (EMTs) may retire with 25 years credited service.                   |
| <b>Deferred Vesting</b>             | 10 years credited service and contributions left in the ERS                | 10 years credited service and contributions left in the ERS                     | 10 years credited service and contributions left in the ERS  |
| <b>Ordinary Disability</b>          | 10 years credited service  | 10 years credited service   | 10 years credited service  |
| <b>Service-Connected Disability</b> | Any age or credited service  | Any age or credited service   | Any age or credited service  |
| <b>Ordinary Death</b>               | Active employee at time of death with at least 1 years of credited service | Active employee at time of death with at least 1 years of credited service      | Active employee at time of death with at least 10 years of service   |
| <b>Service-Connected Death</b>      | Any age or service   | Any age or service  | Any age or service   |

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## **SECTION F**

### SUMMARY OF PARTICIPANT DATA

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**Active Employee Age/Service Distribution**

| Attained Age | Years of Credited Service |       |       |       |       |        |        |       |       |       |       |           | Total  |
|--------------|---------------------------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|-----------|--------|
|              | 0                         | 1     | 2     | 3     | 4     | 5-9    | 10-14  | 15-19 | 20-24 | 25-29 | 30-34 | 35 & Over |        |
| Under 25     | 359                       | 192   | 49    | 22    | 5     | 1      | -      | -     | -     | -     | -     | -         | 628    |
| 25-29        | 1,111                     | 822   | 702   | 442   | 285   | 361    | -      | -     | -     | -     | -     | -         | 3,723  |
| 30-34        | 1,030                     | 697   | 668   | 563   | 525   | 2,385  | 325    | -     | -     | -     | -     | -         | 6,193  |
| 35-39        | 799                       | 556   | 532   | 458   | 395   | 2,436  | 2,138  | 237   | -     | -     | -     | -         | 7,551  |
| 40-44        | 606                       | 396   | 393   | 332   | 277   | 1,921  | 2,223  | 1,803 | 310   | 4     | -     | -         | 8,265  |
| 45-49        | 517                       | 337   | 282   | 289   | 262   | 1,640  | 1,818  | 1,724 | 2,093 | 421   | -     | -         | 9,383  |
| 50-54        | 411                       | 306   | 243   | 246   | 193   | 1,616  | 1,562  | 1,222 | 2,006 | 1,962 | 291   | 3         | 10,061 |
| 55-59        | 318                       | 252   | 252   | 207   | 176   | 1,318  | 1,408  | 1,207 | 1,609 | 1,803 | 899   | 171       | 9,620  |
| 60-64        | 216                       | 145   | 154   | 146   | 131   | 998    | 1,118  | 882   | 1,132 | 1,119 | 705   | 609       | 7,355  |
| 65 & Over    | 162                       | 55    | 88    | 60    | 72    | 587    | 645    | 475   | 525   | 526   | 302   | 593       | 4,090  |
| Total        | 5,529                     | 3,758 | 3,363 | 2,765 | 2,321 | 13,263 | 11,237 | 7,550 | 7,675 | 5,835 | 2,197 | 1,376     | 66,869 |

**Inactive Age Distribution**

| Age   | Inactives | Retirees | Total  |
|-------|-----------|----------|--------|
| <35   | 291       | 22       | 313    |
| 35-39 | 453       | 4        | 457    |
| 40-44 | 635       | 30       | 665    |
| 45-49 | 1,064     | 116      | 1,180  |
| 50-54 | 1,263     | 437      | 1,700  |
| 55-59 | 1,364     | 1,887    | 3,251  |
| 60-64 | 1,212     | 5,485    | 6,697  |
| 65-69 | 288       | 9,965    | 10,253 |
| 70-74 | 61        | 8,795    | 8,856  |
| 75-79 | 7         | 6,268    | 6,275  |
| 80-84 | 1         | 5,427    | 5,428  |
| 85-89 | 0         | 4,086    | 4,086  |
| 90-94 | 0         | 2,084    | 2,084  |
| 95+   | 0         | 628      | 628    |
| Total | 6,639     | 45,234   | 51,873 |

**Hawaii Employee-Union Trust Fund  
 Distribution by Health Plan and Coverage Type**

**Actives**

|                             | <u>Single</u> | <u>Two-Party</u> | <u>Family</u> | <u>Waived</u> | <u>Total</u>  |
|-----------------------------|---------------|------------------|---------------|---------------|---------------|
| PPO                         | 19,272        | 6,277            | 10,832        | N/A           | 36,381        |
| HMO                         | 8,617         | 2,498            | 3,571         | N/A           | 14,686        |
| Others                      | 0             | 0                | 18            | N/A           | 18            |
| Waived                      |               |                  |               | 15,784        | 15,784        |
| <b><i>Total Medical</i></b> |               |                  |               |               | <b>66,869</b> |
| Dental                      | 26,602        | 12,092           | 16,788        | 11,387        | <b>66,869</b> |
| Vision                      | 26,432        | 10,732           | 15,248        | 14,457        | <b>66,869</b> |

**Retirees**

|                             | <u>Single</u> | <u>Two-Party</u> | <u>Family</u> | <u>Total</u>  |
|-----------------------------|---------------|------------------|---------------|---------------|
| PPO                         | 20,716        | 13,559           | 1,377         | 35,652        |
| HMO                         | 4,588         | 2,575            | 296           | 7,459         |
| Others                      | 121           | 64               | 3             | 188           |
| <b><i>Total Medical</i></b> |               |                  |               | <b>43,299</b> |
| Dental                      | 25,512        | 16,189           | 1,582         | <b>43,283</b> |
| Vision                      | 25,467        | 16,520           | 1,701         | <b>43,688</b> |
| Life                        |               |                  |               | <b>40,025</b> |

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## **SECTION G**

### ACTUARIAL ASSUMPTIONS AND METHODS

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## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

The actuarial assumptions used in the valuation are shown in this Section. Assumptions that are specific to certain groups (i.e. General Employees, Teachers, Police and Firefighters) are discussed under the first subsection that follows. Assumptions that are common to all types of members and unique to this valuation are then shown on the following pages.

### **Demographic and Certain Economic Assumptions**

This Actuarial Valuation of the OPEB is similar to the Actuarial Valuations performed for ERS. All of the demographic assumptions and most of the economic assumptions used in this OPEB Valuation were identical to those used in the June 30, 2015 retirement system valuations performed by Gabriel, Roeder, Smith and Company. For the Honolulu Authority of Rapid Transportation (HART) valuation, the withdrawal rates were adjusted to reflect anticipated reductions in workforce. The assumptions which are common to the pension and OPEB valuations are described in Appendix A of this report.

**Healthcare and Other Economic Assumptions**

*General Inflation* was assumed to be 3.00% per year.

*The rate of investment return* was assumed to be 7.00% a year, compounded annually net after investment expenses. The assumed real return is the rate of return in excess of price inflation. Considering other assumptions used in the valuation, the nominal rate translates to a net real return of 4.00% a year.

*Health Cost and Premium Increases – See table below*

| <i>Year</i>                  | <i>HMSA<br/>(PPO)</i> | <i>Kaiser<br/>(HMO)</i> | <i>Dental</i> | <i>Vision</i> | <i>Part B<br/>Premiums*</i> |
|------------------------------|-----------------------|-------------------------|---------------|---------------|-----------------------------|
| <b>2016</b>                  | 9.00%                 | 7.00%                   | 4.00%         | 3.00%         | 3.00%                       |
| <b>2017</b>                  | 9.00%                 | 6.75%                   | 4.00%         | 3.00%         | 3.00%                       |
| <b>2018</b>                  | 9.00%                 | 6.50%                   | 4.00%         | 3.00%         | 5.00%                       |
| <b>2019</b>                  | 9.00%                 | 6.25%                   | 4.00%         | 3.00%         | 5.00%                       |
| <b>2020</b>                  | 9.00%                 | 6.00%                   | 4.00%         | 3.00%         | 5.00%                       |
| <b>2021</b>                  | 9.00%                 | 5.75%                   | 4.00%         | 3.00%         | 5.00%                       |
| <b>2022</b>                  | 5.50%                 | 5.50%                   | 4.00%         | 3.00%         | 5.00%                       |
| <b>2023</b>                  | 5.25%                 | 5.25%                   | 4.00%         | 3.00%         | 5.00%                       |
| <b>2024 &amp;<br/>Beyond</b> | 5.00%                 | 5.00%                   | 4.00%         | 3.00%         | 5.00%                       |

*The premiums for 2015 and 2016 were known at the time of the valuation. Therefore, the first trend rate shown above (2016) is assumed to occur at 1/1/2017. Future increases are also assumed to occur on 1/1. The HMSA and Kaiser trend rates are blended rates used to project both medical and prescription drug costs.*

*\* The trend rates shown above for the Part B premiums apply to the BMC and the Part B premiums that will be \$121.80/mo. in 2016. As a result of the “hold harmless” provision in the Part B statutes, retirees who were enrolled in Social Security in 2015 will not see an increase in their Part B premium in 2016. As a result, it was assumed that the Part B premiums for the participants who were retired as of the valuation date would increase by 19.60% effective 1/1/2017. Said another way, it was assumed that there would be a single Part B premium for all retirees starting in 2017.*

The assumed trend rates for the PPO plan reflect a gradual wear-away of the savings associated with the EWGP Wrap Plan design.

**Healthcare and Other Economic Assumptions (Continued)**

***Plan Participation***

The plan participation rates were assumed to vary based on the employer contribution percentage, as follows:

| Employer Contribution | Rates of Participation                        |                |                 |
|-----------------------|---|----------------|-----------------|
|                       | Medical, Prescription Drug, Dental and Vision | Life Insurance | Medicare Part B |
| 0%                    | 25%   | 100%           | 98%             |
| 50%                   | 65%   | 100%           | 98%             |
| 75%                   | 90%   | 100%           | 98%             |
| 100%                  | 98%   | 100%           | 98%             |

The same assumptions were used for terminated participants with vested pension benefits. However, current active employees who terminate service prior to the age of 35 are not assumed to ever participate in the retiree health plan.

For current retirees, the actual family coverage election is used. For future retirees, the family coverage assumptions are 50% single / 45% two-party / 5% family prior to age 65 and 50% single / 50% two-party after the age of 65. For those that elect two-party or family coverage, it was assumed that coverage would continue to the spouse upon death of the retiree.

***Plan Elections***

For current retirees, plan elections were based on the plan in which they are currently enrolled. For future retirees, plan participation was assumed to be 82% HMSA / 18% Kaiser.

***Administration Fees***

The following table provides the assumed 2016 administration fees. For the purpose of the OPEB valuation, it was assumed that administration fees would be in addition to the premiums shown in Section E.

| Monthly Fee      | Single Party | Two-Party | Family  |
|------------------|--------------|-----------|---------|
| Medical and Drug | \$3.44       | \$6.88    | \$10.32 |
| Dental           | \$0.24       | \$0.48    | \$0.72  |
| Vision           | \$0.04       | \$0.08    | \$0.12  |
| Life             | \$0.02       | n/a       | n/a     |

**Healthcare and Other Economic Assumptions (Continued)**

*Aging Factors:* In any given year, the cost of medical and prescription drug benefits vary by age. As the ages of retirees in the covered population increase so does the cost of benefits. Morbidity tables are employed to develop Per Capita Costs at every relevant age. The following table represents the percent by which the cost of medical and prescription drug benefits at one age is higher than the cost for the previous age. For example, according to the following table, the cost of benefits for a male age 55 is 5.13% higher than for one age 54. These percentages below are separate from the annual Medical Trend, which operates to increase costs independent of and in addition to the Aging Factors shown below.

| Sample Ages | Cost Increases by Age |        |
|-------------|-----------------------|--------|
|             | Male                  | Female |
| 45          | 6.43%                 | 2.89%  |
| 50          | 6.01%                 | 3.36%  |
| 55          | 5.13%                 | 3.48%  |
| 60          | 4.35%                 | 3.10%  |
| 65          | 3.40%                 | 2.73%  |
| 70          | 2.57%                 | 2.19%  |
| 75          | 1.82%                 | 1.61%  |
| 80          | 1.14%                 | 1.04%  |
| 85          | 0.57%                 | 0.49%  |
| 90          | 0.00%                 | 0.00%  |

**Actuarial Methods**

*The individual entry age actuarial cost method* was used in determining liabilities and normal cost. Differences between assumed experience and actual experience (“actuarial gains and/or losses”) become part of actuarial accrued liabilities.

Unfunded actuarial accrued liabilities are amortized to produce payments (principal & interest) which are a level percent of payroll. Closed bases will be established at each valuation for new unfunded liabilities. If experience produces a gain during a valuation cycle, the new base will be netted against the most recent loss that has not been fully offset. This process substantially reduces volatility as bases are fully amortized.

**Miscellaneous and Technical Assumptions**

|                                 |   |
|---------------------------------|---|
| Actuarial Value of Assets:      | Market Value  |
| Marriage Assumption:            | 100% of males and females are assumed to be married for purposes of death-in-service benefits. For future retirees, husbands are assumed to be four years older than wives.                                     |
| Pay Increase Timing:            | Beginning of (fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.  |
| Decrement Timing:               | Except for teachers, decrements of all types are assumed to occur mid-year. For teachers, the normal retirement, early retirement and termination decrements are assumed to occur at the beginning of the year. |
| Eligibility Testing:            | Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.  |
| Decrement Operation:            | Disability and mortality decrements are added to the termination decrements during the first 5 years. Disability is added to the retirement decrement during retirement eligibility.                            |
| Deferred Age:                   | Terminated employees with vested pension benefits are assumed to commence their benefit at age 62 or their current age if they are older than 62 as of the valuation date.                                      |
| Incidence of ARC Contributions: | The ARC is assumed to be received at the middle of the year.  |
| Administrative Expenses:        | Administrative expenses are included in the age-rated costs the premiums.   |
| Reliance on Other Actuaries     | We have relied on the premiums develop by Segal Consulting for the self-insured PPO prescription drug benefit.  |

**Miscellaneous and Technical Assumptions (continued)**

Excise Tax and  
Health Care Reform

The 5.00% ultimate trend assumption includes a 0.17% component associated with the excise tax on high-cost employer health plans effective January 1, 2018. The “Cadillac” tax is a 40% excise tax paid by the coverage provider (employer and/or insurer) on the value of health plan costs in excess of legislated thresholds.

The excise tax is expected to increase the present value of projected medical and Rx benefits by 5.5% for pre-65 retirees and by 1.4% for post-65 retirees. There is no anticipated impact on the liability associated with the employer paid Part B premiums, dental, vision or life insurance benefits. In addition, the employer caps will limit the liability for retirees who receive 75% or 50% of the BMC. The overall impact of the excise tax, after considering the percentage of the OPEB liability attributable to each type of benefit, was determined to be 1.6% of the present value of future benefits. The component of the ultimate trend assumption related to the excise tax produces approximately the same impact on the liabilities.

Assumption/Method  
Changes

1. The trend rate assumption on the Part B premiums/BMC was decreased from 5.0% to 3.0% effective 1/1/2017 and 1/1/2018 to reflect the anticipated adjustment to the Part B premiums once the “hold harmless” provision no longer applies. This change decreased the ARC and associated liabilities.
2. The ultimate trend assumption includes an explicit component related to the anticipated impact of the excise tax.

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## **APPENDIX A**

### DEMOGRAPHIC AND CERTAIN ECONOMIC ASSUMPTIONS

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DEMOGRAPHIC AND CERTAIN ECONOMIC ASSUMPTIONS

A. Economic Assumptions

1. Payroll growth rate: 3.50% per annum.
2. Salary increase rate: As shown below

| Years of Service | General Employees         |   | Teachers                  |   |
|------------------|---------------------------|---|---------------------------|---|
|                  | Service-related Component | Total Annual Rate of Increase Including 3.00% Inflation Component and 1.00% General Increase Rate | Service-related Component | Total Annual Rate of Increase Including 3.00% Inflation Component and 1.50% General Increase Rate |
| (1)              | (2)                       | (3)   | (2)                       | (3)   |
| 1                | 4.00%                     | 8.00%   | 4.00%                     | 8.50%   |
| 2                | 3.00%                     | 7.00%   | 3.25%                     | 7.75%   |
| 3                | 2.00%                     | 6.00%   | 2.50%                     | 7.00%   |
| 4                | 1.25%                     | 5.25%   | 2.00%                     | 6.50%   |
| 5                | 1.00%                     | 5.00%   | 1.50%                     | 6.00%   |
| 6                | 0.75%                     | 4.75%   | 1.00%                     | 5.50%   |
| 7                | 0.50%                     | 4.50%   | 1.00%                     | 5.50%   |
| 8                | 0.50%                     | 4.50%   | 0.75%                     | 5.25%   |
| 9                | 0.50%                     | 4.50%   | 0.75%                     | 5.25%   |
| 10               | 0.25%                     | 4.25%   | 0.75%                     | 5.25%   |
| 11               | 0.25%                     | 4.25%   | 0.50%                     | 5.00%   |
| 12               | 0.25%                     | 4.25%   | 0.50%                     | 5.00%   |
| 13               | 0.25%                     | 4.25%   | 0.50%                     | 5.00%   |
| 14               | 0.25%                     | 4.25%   | 0.50%                     | 5.00%   |
| 15 or more       | 0.00%                     | 4.00%   | 0.00%                     | 4.50%   |

| Police & Firefighters |                           |   |
|-----------------------|---------------------------|---|
| Years of Service      | Service-related Component | Total Annual Rate of Increase Including 3.00% Inflation Component and 2.00% General Increase Rate |
| (1)                   | (2)                       | (3)   |
| 0                     | 14.00%                    | 19.00%  |
| 1                     | 12.00%                    | 17.00%  |
| 2 or more             | 0.00%                     | 5.00%   |

Salary increases are assumed to occur once a year, on July 1. Therefore the pay used for the period between the valuation date and the first anniversary of the valuation date is equal to the reported pay for the prior year, annualized if necessary, and then increased by the salary increase assumption.

B. Demographic Assumptions

1. Post-Retirement Mortality rates

General Employees

- a. Healthy males – Client Specific Table for males, 89% multiplier.
- b. Healthy females - Client Specific Table for females, 89% multiplier.
- c. Disabled males - 1994 US Group Annuity Mortality Static Table for males set forward nine years.
- d. Disabled females - 1994 US Group Annuity Mortality Static Table for females set forward nine years.

Teachers

- a. Healthy males – Client Specific Table for male teachers, 65% multiplier.
- b. Healthy females - Client Specific Table for female teachers, 67% multiplier.
- c. Disabled males - 1994 US Group Annuity Mortality Static Table for males set forward five years.
- d. Disabled females - 1994 US Group Annuity Mortality Static Table for females set forward six years.

Police and Fire

- a. Healthy males – 1994 US Group Annuity Mortality Static Table for males, 85% multiplier.
- b. Healthy females - 1994 US Group Annuity Mortality Static Table for females, 85% multiplier.
- c. Disabled males - 1994 US Group Annuity Mortality Static Table for males set forward three years.
- d. Disabled females - 1994 US Group Annuity Mortality Static Table for females set forward three years.

Mortality Improvement: To account for future mortality improvement, the healthy mortality rates were chosen so that the assumed mortality rates are smaller than the rates observed in the most recent experience study (dated 12-20-2010). The margin at the time of the study was at least 7% for all groups (i.e. 7% more actual male deaths than expected). No future mortality improvement after the measurement date is assumed except as described above.

2. Pre-retirement Mortality Rates

The male pre-retirement mortality rates are multiples of a table that has the RP-2000 Male Employee rates for ages 1 to 70 and the RP-2000 Combined Male rates for ages above 70. Similarly, the female pre-retirement rates are multiples of a table that has the RP-2000 Female Employee rates for ages 1 to 70 and the RP-2000 Combined Female rates for ages above 70. The following table shows the factors that are used in conjunction with the tables described above to derive the final ordinary and accidental death rates.

| Type       | General Employees |         | Teachers |         | Police and Fire |         |
|------------|-------------------|---------|----------|---------|-----------------|---------|
|            | Males             | Females | Males    | Females | Males           | Females |
| Ordinary   | 64%               | 48%     | 50%      | 40%     | 15%             | 15%     |
| Accidental | 16%               | 12%     | 10%      | 5%      | 35%             | 35%     |

3. Disability rates – The assumed total disability rates for employees covered by the contributory plan, hybrid plan and the noncontributory plan at select ages are multiples of the client specific table that follows:

| Age | Male & Female |
|-----|---------------|
| 25  | 0.000%        |
| 30  | 0.001%        |
| 35  | 0.008%        |
| 40  | 0.026%        |
| 45  | 0.064%        |
| 50  | 0.146%        |
| 55  | 0.198%        |
| 60  | 0.217%        |

Note: The disability rates project the percentage of employees at each age that is assumed to become disabled before retiring. Multiples of the rates above are assumed to be ordinary disability or accidental disability, and vary by employee group as follows:

| Type     | General Employees |        | Teachers |        | Police and Fire |
|----------|-------------------|--------|----------|--------|-----------------|
|          | Male              | Female | Male     | Female | Male & Female   |
| Ordinary | 135%              | 85%    | 50%      | 40%    | 70%             |
| Duty     | 30%               | 7%     | 5%       | 5%     | 35%             |

4. Termination Rates - Separate male and female rates, based on both age and service, developed from 2010 Experience Study. Rates reflect terminations for causes other than death, disability or retirement. Employees eligible for retirement are assumed to have no probability of termination. Sample rates are shown below:

For first 6 years of service

| Group             | Expected Terminations per 100 Lives (Male Members) |      |      |      |      |     |
|-------------------|--|------|------|------|------|-----|
|                   | Years of Service                                   |      |      |      |      |     |
|                   | 0  | 1    | 2    | 3    | 4    | 5   |
| General Employees | 15.5   | 12.5 | 10.5 | 9.0  | 7.0  | 6.0 |
| Teachers          | 33.0   | 23.0 | 15.0 | 13.0 | 11.0 | 9.0 |
| Police & Fire     | 12.0   | 9.0  | 4.0  | 4.0  | 4.0  | 4.0 |

| Group             | Expected Terminations per 100 Lives (Female Members) |      |      |      |      |     |
|-------------------|--|------|------|------|------|-----|
|                   | Years of Service                                     |      |      |      |      |     |
|                   | 0  | 1    | 2    | 3    | 4    | 5   |
| General Employees | 18.5   | 16.5 | 12.5 | 10.0 | 8.0  | 7.0 |
| Teachers          | 28.0   | 23.0 | 16.0 | 14.0 | 12.0 | 8.0 |
| Police & Fire     | 12.0   | 9.0  | 4.0  | 4.0  | 4.0  | 4.0 |

After first 6 years of service

| Age | Expected Terminations per 100 Lives |                                 |                   |                     |                  |
|-----|-------------------------------------|---------------------------------|-------------------|---------------------|------------------|
|     | Years of Service                    |                                 |                   |                     |                  |
|     | General<br>Employees<br>Males       | General<br>Employees<br>Females | Teachers<br>Males | Teachers<br>Females | Police &<br>Fire |
| (1) | (2)                                 | (3)                             | (4)               | (5)                 | (6)              |
| 20  | 7.15                                | 8.12                            | 6.22              | 7.12                | 2.03             |
| 25  | 6.50                                | 7.83                            | 4.98              | 6.72                | 1.91             |
| 30  | 5.46                                | 5.84                            | 4.12              | 6.15                | 2.53             |
| 35  | 4.40                                | 4.04                            | 3.95              | 4.99                | 2.75             |
| 40  | 3.60                                | 3.30                            | 3.60              | 3.70                | 2.01             |
| 45  | 3.02                                | 2.65                            | 2.88              | 2.88                | 1.18             |
| 50  | 2.54                                | 2.41                            | 2.34              | 2.36                | 0.79             |
| 55  | 2.52                                | 2.41                            | 2.34              | 2.36                | 0.24             |
| 60  | 2.52                                | 2.41                            | 2.34              | 2.36                | 0.00             |

5. Retirement rates - Separate male and female rates, based on age, developed from the 2010 Experience Study. Sample rates are shown below:

Contributory Plan and Hybrid Plan

| Age | Expected Retirements per 100 Lives |        |          |        |                 |
|-----|------------------------------------|--------|----------|--------|-----------------|
|     | General Employees                  |        | Teachers |        | Police and Fire |
|     | Male                               | Female | Male     | Female | Male & Female   |
| 45  | 2                                  | 1      | 0        | 0      | 13              |
| 46  | 2                                  | 1      | 0        | 0      | 13              |
| 47  | 2                                  | 1      | 0        | 0      | 13              |
| 48  | 2                                  | 1      | 0        | 0      | 13              |
| 49  | 2                                  | 1      | 0        | 0      | 13              |
| 50  | 2                                  | 1      | 1        | 0      | 15              |
| 51  | 2                                  | 1      | 1        | 1      | 15              |
| 52  | 2                                  | 1      | 1        | 1      | 15              |
| 53  | 2                                  | 2      | 2        | 2      | 15              |
| 54  | 3                                  | 3      | 3        | 3      | 15              |
| 55  | 16                                 | 13     | 20       | 18     | 20              |
| 56  | 14                                 | 13     | 15       | 16     | 20              |
| 57  | 14                                 | 13     | 15       | 16     | 20              |
| 58  | 14                                 | 13     | 15       | 16     | 20              |
| 59  | 14                                 | 13     | 15       | 16     | 20              |
| 60  | 14                                 | 15     | 14       | 18     | 30              |
| 61  | 15                                 | 15     | 14       | 18     | 30              |
| 62  | 25                                 | 25     | 14       | 25     | 30              |
| 63  | 20                                 | 20     | 14       | 20     | 30              |
| 64  | 20                                 | 20     | 14       | 15     | 30              |
| 65  | 25                                 | 25     | 20       | 25     | 100             |
| 66  | 25                                 | 25     | 15       | 25     | 100             |
| 67  | 20                                 | 20     | 15       | 20     | 100             |
| 68  | 20                                 | 20     | 15       | 20     | 100             |
| 69  | 20                                 | 20     | 15       | 20     | 100             |
| 70  | 20                                 | 20     | 15       | 20     | 100             |
| 71  | 20                                 | 20     | 15       | 20     | 100             |
| 72  | 20                                 | 20     | 15       | 20     | 100             |
| 73  | 20                                 | 20     | 15       | 20     | 100             |
| 74  | 20                                 | 20     | 15       | 20     | 100             |
| 75  | 100                                | 100    | 100      | 100    | 100             |

Retirement rates for 25 & out group ages 50-54 are 10% for both males and females

Noncontributory Plan

Expected Retirements per 100 Lives

| Age | General Employees    |        |                    |        | Teachers             |     |                    |        |
|-----|----------------------|--------|--------------------|--------|----------------------|-----|--------------------|--------|
|     | Unreduced Retirement |        | Reduced Retirement |        | Unreduced Retirement |     | Reduced Retirement |        |
|     | Male                 | Female | Male               | Female |                      |     | Male               | Female |
| 55  | 13                   | 12     | 2                  | 2      | 10                   | 13  | 2                  | 3      |
| 56  | 13                   | 12     | 2                  | 2      | 10                   | 13  | 2                  | 3      |
| 57  | 13                   | 12     | 2                  | 2      | 10                   | 14  | 2                  | 3      |
| 58  | 13                   | 12     | 2                  | 2      | 10                   | 15  | 2                  | 3      |
| 59  | 13                   | 12     | 3                  | 3      | 10                   | 16  | 3                  | 3      |
| 60  | 14                   | 15     | 4                  | 4      | 10                   | 17  | 5                  | 5      |
| 61  | 14                   | 18     | 5                  | 5      | 10                   | 18  | 10                 | 5      |
| 62  | 25                   | 25     |                    |        | 16                   | 25  |                    |        |
| 63  | 25                   | 25     |                    |        | 12                   | 20  |                    |        |
| 64  | 20                   | 20     |                    |        | 10                   | 18  |                    |        |
| 65  | 25                   | 22     |                    |        | 20                   | 30  |                    |        |
| 66  | 25                   | 22     |                    |        | 15                   | 25  |                    |        |
| 67  | 25                   | 22     |                    |        | 15                   | 25  |                    |        |
| 68  | 25                   | 22     |                    |        | 15                   | 25  |                    |        |
| 69  | 25                   | 22     |                    |        | 15                   | 25  |                    |        |
| 70  | 20                   | 20     |                    |        | 15                   | 25  |                    |        |
| 71  | 20                   | 20     |                    |        | 15                   | 25  |                    |        |
| 72  | 20                   | 20     |                    |        | 15                   | 25  |                    |        |
| 73  | 20                   | 20     |                    |        | 15                   | 25  |                    |        |
| 74  | 20                   | 20     |                    |        | 15                   | 25  |                    |        |
| 75  | 100                  | 100    |                    |        | 100                  | 100 |                    |        |

Retirement rates for the 25 & out group ages 50-54 are 10% for both males and females

For Hybrid plan, early retirement rates are reduced by a factor of 10% for each year prior to age 65 (if hired after June 30, 2012) or 62 (if hired before July 1, 2012) for a maximum of 10 years.

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## **APPENDIX B**

### GLOSSARY

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## Glossary

**Accrued Service.** The service credited under the plan which was rendered before the date of the actuarial valuation.

**Actuarial Accrued Liability.** The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

**Actuarial Assumptions.** Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

**Actuarial Cost Method.** A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

**Actuarial Equivalent.** A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

**Actuarial Present Value.** The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

**Amortization.** Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

**Annual Required Contribution (ARC).** The ARC is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The ARC is an amount that is actuarially determined in accordance with the requirements so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded liability.

**Governmental Accounting Standards Board (GASB).** GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

**Medical Trend Rate (Health Inflation).** The increase in the plan's cost over time. Trend includes all elements that may influence a plan's cost, assuming that enrollments and the plan benefits do not change. Trend includes such elements as, pure price inflation, changes in utilization, advances in medical technology, and cost shifting.

**Normal Cost.** The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

**Other Post-Employment Employee Benefits (OPEB).** OPEB are post-employment benefits other than pensions. OPEB generally takes the form of health insurance and dental, vision, prescription drugs or other healthcare benefits.

**Reserve Account.** An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

**Unfunded Actuarial Accrued Liability.** The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

**Valuation Assets.** The value of current plan assets recognized for valuation purposes.