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STATE OF HAWAII
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND

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October 10, 2024

ADDENDUM NO. 2
TO
REQUEST FOR PROPOSALS
NO. 25-001
ACTUARIAL VALUATION SERVICES
FOR
OTHER POST-EMPLOYMENT BENEFITS

The following are responses to written questions received:

	Question	Answer
1	What have been the total fees for the annual OPEB valuation the last 3 years?	7/1/21: Actuarial valuation \$140,000 and GASB \$40,000 7/1/22: Actuarial valuation \$145,000 and GASB \$40,000 7/1/23: Actuarial valuation \$150,000 and GASB \$40,000
2	What have been the fees for supplemental services the last 3 years? Please provide high level description of supplemental services performed.	No fees as no services were required
3	The Additional Services (included in Base Services) under Section 2.2 Scope of Services as the respondent to include 30 hours of time for miscellaneous analysis. Please provide a summary of how many of these hours have been used over the last 4 years and the types of projects/analysis performed.	See attached
4	For GASB 75 reporting, does the current actuary break down the liability and required disclosures for each participating employer or does the State provide the breakdowns?	Current actuary.
5	Please provide the most recent GASB 74 and 75 reports.	See attached GASB 75 report for the State only. Other employer GASB 75 reports are similar.
6	Approximately when is the census data received?	September
7	Our firm prefers to contract for actuarial services with a limit on liability for ordinary mistakes. However, we accept unlimited liability for: (i) willful, fraudulent, or criminal misconduct; (ii) breach of the confidentiality provisions; and (iii) bodily injury, including death or damage to tangible personal or real property incurred while performing the	See RFP 25-001 Section 3.7 Exceptions.

EUTF's Mission: We care for the health and well being of our beneficiaries by striving to provide quality benefit plans that are affordable, reliable, and meet their changing needs. We provide informed service that is excellent, courteous, and compassionate.

	Question	Answer
	Services and to the extent cause by the negligent or willful acts or omissions of our personnel. Please confirm that Hawaii is willing to negotiate a prudent amount of potential payment that is acceptable to both parties, with exceptions noted.	
8	Our firm requires a reasonable limit of liability and a hold harmless/indemnification provision in all of its services contracts. Would this requirement prevent our proposal from being considered?	See RFP 25-001 Section 3.7 Exceptions. The State, pursuant to the Hawaii State Constitution, is prohibited from indemnifying any Contractor.
9	Section 1.28 (Special Conditions) on pag1 11 of RFP No. 25-001, item #4 outlines the insurance coverage acceptable to the State. Is the State open to modified limits, terms, or coverages outline in item #4? If yes, where should we include our exceptions to the insurance requirements?	See RFP 25-001 Section 3.7 Exceptions.

Hours Used	Date	Description
30	8/13/19	Proposed legislation support related to retirees to eliminate Medicare Part B IRMAA and spouse premium reimbursements for new hires and limit the same new hires to a 90/10 or 80/20 medical plan instead of the current 100% plan
3	2/5/21	Board request to investigate reducing the large drop in ARC payments once the State's initial loss base is paid off in 2044.
4	1/1/22	Additional projection for four employers if only premium payments were made in fiscal years 2022 and 2023
4	2/23/22	Support for State's bond offering presentation
2.5	4/12/22	Review of proposed bill, HB2240, related to OPEB obligation bonds.
8.5	1/5/23	Calculations if the base monthly contribution amounts were not reset by the legislature in 2004 and 2014
8	8/16/24	Calculation of the impact of extending coverage to dependent child until age 26 for medical, prescription drug, dental and vision.
5	10/15/24	Support for State's bond offering presentation

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State of Hawaii Retiree Health Care Plan

GASB Statement No. 75, Accounting and Financial Reporting for
Postemployment Benefits Other Than Pensions

Prepared for Fiscal Year Ending June 30, 2024





September 5, 2024

Luis Salaveria
Director of Budget and Finance
State of Hawaii – Department of Budget and Finance
250 South Hotel Street, Room 305
Honolulu, Hawaii 96813

Dear Mr. Salaveria:

This report provides information on behalf of the State of Hawaii in connection with the Governmental Accounting Standards Board (GASB) Statement No. 75. GASB Statement No. 75 establishes accounting and financial reporting requirements for state and local government employers that provide their employees with postemployment benefits other than pensions.

The calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB Statement No. 75. The calculation of the plan's liability for this report is not applicable for other purposes, such as determining the plans' funding requirements. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement No. 75 may produce significantly different results. This report may be provided to parties other than the State of Hawaii only in its entirety and only with the permission of the State of Hawaii. GRS is not responsible for unauthorized use of this report.

This report complements the actuarial valuation report prepared as of July 1, 2023, and information herein should be considered along with the information from that report, especially for additional discussions of the nature of actuarial calculations and for more information related to participant data, economic, demographic, health care trend, morbidity assumptions, and benefit provisions.

This report is based upon information, furnished to us by the State of Hawaii and the Hawaii Employer-Union Health Benefits Trust Fund (EUTF), concerning other postemployment benefits (OPEB), active members, deferred vested members, retirees and beneficiaries, and financial data. This information was checked for internal consistency, but it was not audited.

Based on the available data, the information contained in this report is accurate and fairly represents the actuarial position of the State of Hawaii as of the reporting date. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as the Actuarial Standards of Practice. The assumptions used for the measurements are reasonable and appropriate for the purposes for which they have been used. If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the author of the report prior to making such decision.

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

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 Blake Orth 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,
Gabriel, Roeder, Smith & Company



Joseph P. Newton, FSA, FCA, EA, MAAA
Pension Market Leader



Lewis Ward
Consultant



Blake Orth, FSA, EA, MAAA
Consultant



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SECTION A

EXECUTIVE SUMMARY

Auditor's Note – This information is intended to assist in preparation of the financial statements of the State of Hawaii. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Executive Summary

Actuarial Valuation Date	July 1, 2023
Measurement Date of the Net OPEB Liability	July 1, 2023
Employer's Fiscal Year Ending Date (Reporting Date)	June 30, 2024

Membership

Number of	
- Retirees and Beneficiaries	40,136
- Inactive, Nonretired Members	7,520
- Active Members	48,709
- Total	96,365
Covered-employee Payroll	\$ 3,440,256,183

Total OPEB Liability

Total OPEB Liability	\$ 11,390,406,535
Plan Fiduciary Net Position	4,663,044,663
Net OPEB Liability	\$ 6,727,361,872
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	40.94 %
Net OPEB Liability as a Percentage of Covered Payroll	195.55 %

Development of the Single Discount Rate

Single Discount Rate	7.00 %
Long-Term Expected Rate of Investment Return	7.00 %
Long-Term Municipal Bond Rate*	3.86 %

Total OPEB Expense \$ 279,522,586

Balances of Deferred Outflows and Deferred Inflows Related to OPEB

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Difference between expected and actual experience	\$ 0	\$ 1,198,727,706
Changes in assumptions	11,230,925	204,651,026
Net difference between projected and actual earnings on investments	153,258,024	
Contributions subsequent to the measurement date	TBD	
Total	<u>TBD</u>	<u>\$ 1,403,378,732</u>

*Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 30, 2023.



Discussion

Accounting Standard

GASB Statement No. 75 replaces the requirements of Statements No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions, as amended, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans, for OPEB.

Reporting under GASB Statement No. 75 is effective for fiscal years commencing after June 15, 2017.

The following discussion provides a summary of the information that is required to be disclosed under this new accounting standard. A number of these disclosure items are provided in this report. However, certain information, such as notes regarding accounting policies and investments, is not included in this report. As a result, the employer is responsible for preparing and disclosing the non-actuarial information needed to comply with these accounting standards

Financial Statements

GASB Statement No. 75 requires state and local government employers to recognize the net OPEB liability and the OPEB expense on their financial statements, along with the related deferred outflows and inflows of resources. The net OPEB liability is the difference between the total OPEB liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets.

The OPEB expense recognized each fiscal year is equal to the change in the net OPEB liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

GASB Statement No. 75 states the employer contributions made to the OPEB plan subsequent to the measurement date and before the end of the employer's reporting period should be reported as a deferred outflow of resources. The information contained in this report does not incorporate any employer contributions made subsequent to the measurement date of July 1, 2023.

Notes to Financial Statements

Paragraphs 47 through 58 of GASB Statement No. 75 discuss the note disclosures and RSI for single and agent employers. We recommend employers review these paragraphs as well as Illustration 1 in Appendix C of GASB Statement No. 75. Note disclosures and RSI for agent plans are very similar to those for single employer plans.

GASB Statement No. 75 requires the notes of the employer's financial statements to disclose the total OPEB expense, the OPEB plan's liabilities and assets, deferred outflows of resources and inflows of resources related to OPEB, and descriptive information about the plan.

Notes to Financial Statements (continued)

In addition, GASB Statement No. 75 requires the notes of the financial statements include certain additional information, including:

- **Plan Description:**
 - The name of the OPEB plan, the administrator of the OPEB plan; and the identification of whether the OPEB plan is a single-employer, agent, or cost-sharing OPEB plan.
 - A brief description of the types of benefits provided by the plan, automatic or ad hoc postemployment benefit changes including COLAs, and terms or policies regarding the sharing of benefit-related costs with inactive plan members.
 - The authority under which benefit terms are established or may be changed.
 - The number of plan members by category and if the plan is closed.
 - A brief description of contribution requirements, including a description of the plan's funding policy, as well as member and employer contribution requirements.
 - The availability of a stand-alone financial report for the OPEB plan.
- **Components of the net OPEB liability:**
 - The total OPEB liability; the fiduciary net position; and the net OPEB liability.
- **Significant assumptions and other inputs used to measure the total OPEB liability:**
 - Significant assumptions include: Inflation, healthcare cost trend rates, salary changes, ad hoc postemployment benefit changes, and the sharing of benefit-related costs with inactive plan members.
 - If applicable, the patterns of practice relied upon for projecting the sharing of benefit-related costs with inactive plan members.
 - Source of the assumptions for mortality and dates of experience studies.
- **Measure of the net OPEB liability using +/- 1% on the health care trend rate.**
- **On the discount rate:**
 - The discount rate used and the change in the discount rate since the prior fiscal year-end.
 - Assumptions about projected cash flows.
 - The long-term expected rate of return on OPEB investments and a description of how it was determined.
 - The municipal bond rate used and the source of that rate.
 - The periods of projected benefit payments to which the long-term expected rate of return are used.
 - The assumed asset allocation of the portfolio and the long-term expected real rate of return for each major asset class, and whether the returns are arithmetic or geometric.
 - Measure of the net OPEB liability using +/- 1% on the discount rate.
- **The measurement date, the date of the actuarial valuation, and if applicable the fact that update procedures were used to roll forward the total OPEB liability.**
- **A brief description of changes in benefit terms or assumptions that affected the measurement of the total OPEB liability since the prior measurement date.**
- **A brief description of changes made between the measurement date and reporting date.**
- **The employer's contributions made subsequent to the measurement date.**

Required Supplementary Information

GASB Statement No. 75 requires a 10-year fiscal history of:

- sources of changes in the net OPEB liability
- information about the components of the net OPEB liability and related ratios, including the OPEB plan's fiduciary net position as a percentage of the total OPEB liability, and the net OPEB liability as a percent of covered-employee payroll
- comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy
- for plans with an actuarially determined contribution, the schedule covering each of the 10 most recent fiscal years of the actuarially determined contribution, contributions to the OPEB plan and related ratios.

Timing and Frequency of the Actuarial Valuation

An actuarial valuation to determine the total OPEB liability is required to be performed at least every two years. For the employer's financial reporting purposes, the net OPEB liability and OPEB expense should be measured as of the employer's "measurement date," which may not be earlier than the employer's prior fiscal year end-date. If the actuarial valuation used to determine the total OPEB liability is not calculated as of the measurement date, the total OPEB liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total OPEB liability shown in this report is based on an actuarial valuation performed as of July 1, 2023 and a measurement date of July 1, 2023.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects (1) a long-term expected rate of return on OPEB plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits), and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on OPEB plan investments is 7.00%; the municipal bond rate is 3.86% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index"); and the resulting Single Discount Rate is 7.00%. See additional information related to the calculation of the Single Discount Rate in Section B of this report.

Actuarial Assumptions

The actuarial assumptions used to value the liabilities are the same as those used in the valuation report as of July 1, 2023. The assumptions include details on the health care trend assumption, the aging factors as well as the cost method used to develop the OPEB expense. The demographic assumptions are based on the 2022 Hawaii Employees' Retirement System (ERS) actuarial experience study. OPEB-specific assumptions, such as the participation assumption for future retirees, health care trend, etc. are reviewed during each valuation. There were no assumption changes during the current measurement period.

Future Uncertainty or Risk

Future results may differ from those anticipated in this valuation. Reasons include, but are not limited to:

- actual health care trend differing from expected;
- changes in the healthcare plan designs offered to active and retired members; and
- participant behavior differing from expected, e.g.,
 - elections at retirement;
 - one-person versus two-person coverage elections; and
 - time of retirement or termination.

Benefits Valued

The benefit provisions are the same as those used in the valuation report as of July 1, 2023.

Effective Date and Transition

GASB Statement No. 75 is effective for fiscal years beginning after June 15, 2017.

SECTION B

FINANCIAL SCHEDULES

Schedule of Changes in Net OPEB Liability Fiscal Year Ending June 30, 2024

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Beginning balance	\$ 10,908,073,664	\$ 4,060,123,965	\$ 6,847,949,699
Service cost	220,965,246		220,965,246
Interest on the total OPEB liability	756,571,914		756,571,914
Changes of benefit terms	0		0
Difference between expected and actual experience	(74,432,125)		(74,432,125)
Changes of assumptions	0		0
Employer contributions		839,445,000	(839,445,000)
Net investment income		183,748,923	(183,748,923)
Benefit payments	(420,772,164)	(420,772,164)	0
Administrative expense		(259,870)	259,870
Other		758,809	(758,809)
Net changes	\$ 482,332,871	602,920,698	(120,587,827)
Ending balance	\$ 11,390,406,535	4,663,044,663	6,727,361,872

Ending balances are as of the measurement date, July 1, 2023. The Net investment income, Benefit payments and Other rows include an allocation from the plan's operating asset pool.

Recognition of Deferred Outflows and Deferred Inflows

Differences between expected and actual experience and changes in assumptions are recognized in OPEB expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with OPEB through the OPEB plan (active employees and inactive employees) determined as of the beginning of the measurement period.

The expected remaining service lives of all active employees in the plan were approximately 581,021 years. Additionally, the total plan membership (active employees and inactive employees) was 95,568. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the current measurement period is 6.0797 years.

Additionally, differences between projected and actual earnings on OPEB plan investments should be recognized in OPEB expense using a systematic and rational method over a closed five-year period. For this purpose, the deferred outflows and inflows of resources are recognized in the OPEB expense as a level dollar amount over the closed period identified above.



Statement of Outflows and Inflows Arising from Current Reporting Period

	Recognition Period (or amortization years)	Total (Inflow) or Outflow	2024 Recognized in current OPEB expense	Deferred (Inflow) or Outflow in future expense
Due to Liabilities:				
Differences in expected actual and experience	6.0797	\$ (74,432,125)	\$ (12,242,730)	\$ (62,189,395)
Assumption changes	6.0797	\$ 0	\$ 0	\$ 0
Due to Assets:				
Excess Investment Returns	5.0000	\$ 115,104,208	\$ 23,020,842	\$ 92,083,366
Total		\$ 40,672,083	\$ 10,778,112	\$ 29,893,971

This table is provided to document sources of the new deferred inflows and outflows resulting from the current reporting year. The table is not a required disclosure. The required disclosures regarding deferred inflows and outflows of resources related to OPEB are shown on the following page.

Schedule of OPEB Expense under GASB Statement No. 75 Fiscal Year Ending June 30, 2024

Service Cost	\$ 220,965,246
Interest on the Total OPEB Liability	756,571,914
Current-Period Benefit Changes	0
Employee Contributions	0
Projected Earnings on Plan Investments	(298,853,131)
OPEB Plan Administrative Expense	259,870
Other changes in Plan Fiduciary Net Position	(758,809)
Recognition of Outflow (Inflow) due to Liabilities	(433,940,989)
Recognition of Outflow (Inflow) due to Assets	35,278,485
Total OPEB Expense	\$ 279,522,586



Balances of Deferred Outflows and Deferred Inflows Related to OPEB

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Difference between expected and actual experience	\$ 0	\$ 1,198,727,706
Changes in assumptions	11,230,925	204,651,026
Net difference between projected and actual earnings on investments	153,258,024	
Contributions subsequent to the measurement date	TBD	
Total	<u>TBD</u>	<u>\$ 1,403,378,732</u>

Employer contributions made subsequent to the measurement date of the total OPEB liability (July 1, 2023) and prior to the end of the employer's reporting period (June 30, 2024) should be reported by the employer as a deferred outflow related to OPEB. See paragraph 44 of GASB Statement No. 75 for single/agent employers that have formal assets.

The information contained in this report does not incorporate any contributions made subsequent to the measurement date.

Deferred Outflows and Inflows to be Recognized in Future OPEB Expense

<u>Year Ending June 30</u>	<u>Net Deferred Outflows (Inflows)</u>
2025	\$ (392,293,208)
2026	(422,072,513)
2027	(204,076,214)
2028	(207,229,373)
2029	(12,242,730)
Thereafter	(975,745)
Total	<u>\$ (1,238,889,783)</u>

Deferred Outflows and Inflows – Amortization Schedule

	Remaining Recognition Period	Outflow (Inflow), Beginning of Fiscal Year (or created during the year)	Fiscal Year Ending						Thereafter	Outflow (Inflow), end of Fiscal Year
			2024	2025	2026	2027	2028	2029		
Differences in Experience										
2024	6.0797	(74,432,125)	(12,242,730)	(12,242,730)	(12,242,730)	(12,242,730)	(12,242,730)	(12,242,730)	(975,745)	(62,189,395)
2023	4.9445	(908,819,850)	(183,804,196)	(183,804,196)	(183,804,196)	(183,804,196)	(173,603,066)	0	0	(725,015,654)
2022	4.0028	(222,122,384)	(55,491,752)	(55,491,752)	(55,491,752)	(55,491,752)	(155,376)	0	0	(166,630,632)
2021	3.0072	(363,301,479)	(120,810,547)	(120,810,547)	(120,810,547)	(869,838)	0	0	0	(242,490,932)
2020	2.0547	(2,105,365)	(1,024,658)	(1,024,658)	(56,049)	0	0	0	0	(1,080,707)
2019	1.0380	(36,067,398)	(34,747,012)	(1,320,386)	0	0	0	0	0	(1,320,386)
Total			\$ (408,120,895)	\$ (374,694,269)	\$ (372,405,274)	\$ (252,408,516)	\$ (186,001,172)	\$ (12,242,730)	\$ (975,745)	\$ (1,198,727,706)
Assumption Changes										
2024	6.0797	0	0	0	0	0	0	0	0	0
2023	4.9445	(231,645,721)	(46,849,170)	(46,849,170)	(46,849,170)	(46,849,170)	(44,249,041)	0	0	(184,796,551)
2022	4.0028	0	0	0	0	0	0	0	0	0
2021	3.0072	(29,746,103)	(9,891,628)	(9,891,628)	(9,891,628)	(71,219)	0	0	0	(19,854,475)
2020	2.0547	20,322,541	9,890,757	9,890,757	541,027	0	0	0	0	10,431,784
2019	1.0380	21,829,088	21,029,947	799,141	0	0	0	0	0	799,141
Total			\$ (25,820,094)	\$ (46,050,900)	\$ (56,199,771)	\$ (46,920,389)	\$ (44,249,041)	\$ 0	\$ 0	\$ (193,420,101)
Excess Investment Returns										
2024	5.0000	115,104,208	23,020,842	23,020,842	23,020,842	23,020,842	23,020,840	0	0	92,083,366
2023	4.0000	288,927,396	72,231,849	72,231,849	72,231,849	72,231,849	0	0	0	216,695,547
2022	3.0000	(266,160,475)	(88,720,158)	(88,720,158)	(88,720,159)	0	0	0	0	(177,440,317)
2021	2.0000	43,838,854	21,919,426	21,919,428	0	0	0	0	0	21,919,428
2020	1.0000	6,826,526	6,826,526	0	0	0	0	0	0	0
Total			\$ 35,278,485	\$ 28,451,961	\$ 6,532,532	\$ 95,252,691	\$ 23,020,840	\$ 0	\$ 0	\$ 153,258,024
Total Recognized in Future Expense				\$ (392,293,208)	\$ (422,072,513)	\$ (204,076,214)	\$ (207,229,373)	\$ (12,242,730)	\$ (975,745)	\$ (1,238,889,783)

This table is provided to document sources of the outstanding deferred inflows and outflows from year to year. The table is not a required disclosure. The required disclosures regarding deferred inflows and outflows of resources related to OPEB are shown on the previous page.

Actuarial Assumptions and Methods

Valuation Date: July 1, 2023

Methods and Assumptions:

Actuarial Cost Method	Entry Age Normal
Discount Rate	7.00%
Inflation	2.50%
Salary Increases	3.75% to 6.75% including inflation
Demographic Assumptions	Based on the 2022 Hawaii ERS Actuarial Experience Study, as conducted June 30, 2021 for the Hawaii Employees' Retirement System (ERS)
Mortality	System-specific mortality tables utilizing ultimate scale MP2021 to project generational mortality improvement
Participation Rates	98% healthcare participation assumption for retirees that receive 100% of the Base Monthly Contribution (BMC). Healthcare participation rates of 25%, 65%, and 90% for retirees that receive 0%, 50%, or 75% of the base monthly contribution, respectively. 100% for Life Insurance and 98% for Medicare Part B
Healthcare cost trend rates	
PPO*	Initial rate of 6.30%, declining to a rate of 4.25% after 21 years
HMO**	Initial rate of 6.30%, declining to a rate of 4.25% after 21 years
Part B & Base Monthly Contribution (BMC)	Initial rate of 5.00%, declining to a rate of 4.25% after 21 years
Dental	4.00%
Vision	2.50%
Life Insurance	0.00%

* *Blended rates for medical and prescription drug*

** Includes prescription drug assumptions.

Single Discount Rate

A Single Discount Rate of 7.00% was used to measure the total OPEB liability. This Single Discount Rate was based on the expected rate of return on OPEB plan investments of 7.00%. Beginning with the FYE19 contribution, the funding policy of the State of Hawaii is to pay the recommended actuarially determined contribution, which is based on layered, closed amortization periods. As a result, the OPEB plan's fiduciary net position is expected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Target Asset Allocation

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Private Equity	15.0%	10.00%
US Microcap	3.0%	8.70%
Global Equity	27.5%	7.60%
Global Options	0.0%	4.90%
Real Assets	12.0%	4.30%
Private Credit	10.0%	7.80%
TIPS	5.0%	2.00%
Long Treasuries	5.5%	2.40%
Reinsurance	5.0%	3.40%
Alternative Risk Premia	5.0%	3.30%
Trend Following	10.0%	2.40%
Tail Risk / Long Volatility	2.0%	-1.10%
Total	100.0%	

The long-term expected real rates of return provided above are arithmetic returns.

Summary of Membership Information

The following table provides a summary of the number of participants in the plan as of July 1, 2023:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	40,136
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	7,520
Active Plan Members	48,709
Total Plan Members	96,365

Sensitivity of Net OPEB Liability

Regarding the sensitivity of the net OPEB liability to changes in the Single Discount Rate, the following presents the plan’s net OPEB liability, calculated using a Single Discount Rate of 7.00%, as well as what the plan’s net OPEB liability would be if it were calculated using a Single Discount Rate that is one percent lower or one percent higher:

Sensitivity of Net OPEB Liability to the Single Discount Rate Assumption

1% Decrease 6.00%	Current Discount Rate Assumption 7.00%	1% Increase 8.00%
\$ 8,412,447,294	\$ 6,727,361,872	\$ 5,382,377,334

Regarding the sensitivity of the net OPEB liability to changes in the healthcare cost trend rates, the following presents the plan’s net OPEB liability, calculated using the assumed trend rates as well as what the plan’s net OPEB liability would be if it were calculated using a trend rate that is one percent lower or one percent higher:

Sensitivity of Net OPEB Liability to the Healthcare Cost Trend Rate Assumption

1% Decrease	Current Healthcare Cost Trend Rate Assumption	1% Increase
\$ 5,223,113,176	\$ 6,727,361,872	\$ 8,652,747,721

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Net OPEB Liability and Related Ratios

Measurement Period Ending June 30,	2023	2022	2021	2020	2019	2018	2017
Total OPEB liability							
Service cost	\$ 220,965,246	\$ 241,724,795	\$ 236,421,280	\$ 246,845,777	\$ 236,384,112	\$ 229,156,739	\$ 220,828,344
Interest on the total OPEB liability	756,571,914	807,583,350	784,812,428	792,683,374	745,104,060	709,521,879	670,530,206
Changes of benefit terms	0	0	0	0	0	0	0
Difference between expected and actual experience of the total OPEB liability	(74,432,125)	(1,092,624,046)	(333,105,888)	(725,733,120)	(6,203,997)	(209,802,458)	0
Changes of assumptions	0	(278,494,891)	0	(59,420,987)	59,885,569	126,978,823	0
Benefit payments	(420,772,164)	(372,316,297)	(358,645,091)	(364,564,672)	(356,827,495)	(345,476,116)	(331,521,564)
Net change in total OPEB liability	<u>482,332,871</u>	<u>(694,127,089)</u>	<u>329,482,729</u>	<u>(110,189,628)</u>	<u>678,342,249</u>	<u>510,378,867</u>	<u>559,836,986</u>
Total OPEB liability – beginning	<u>10,908,073,664</u>	<u>11,602,200,753</u>	<u>11,272,718,024</u>	<u>11,382,907,652</u>	<u>10,704,565,403</u>	<u>10,194,186,536</u>	<u>9,634,349,550</u>
Total OPEB liability – ending	<u>\$ 11,390,406,535</u>	<u>\$ 10,908,073,664</u>	<u>\$ 11,602,200,753</u>	<u>\$ 11,272,718,024</u>	<u>\$ 11,382,907,652</u>	<u>\$ 10,704,565,403</u>	<u>\$ 10,194,186,536</u>
Plan fiduciary net position							
Employer contributions	\$ 839,445,000	\$ 533,563,242	\$ 1,232,456,000	\$ 814,659,000	\$ 787,110,000	\$ 682,605,116	\$ 659,271,064
Net investment income	183,748,923	(77,248,509)	646,072,788	43,496,593	71,562,559	78,648,156	66,007,236
Benefit payments	(420,772,164)	(372,316,297)	(358,645,091)	(364,564,672)	(356,827,495)	(345,476,116)	(331,521,564)
OPEB plan administrative expense	(259,870)	(319,517)	(329,828)	(306,882)	(491,610)	(257,869)	(169,043)
Other	758,809	1,041,099	133,515	273,029	165,770,165	0	5,300,394
Net change in plan fiduciary net position	<u>602,920,698</u>	<u>84,720,018</u>	<u>1,519,687,384</u>	<u>493,557,068</u>	<u>667,123,619</u>	<u>415,519,287</u>	<u>398,888,087</u>
Plan fiduciary net position - beginning	<u>4,060,123,965</u>	<u>3,975,403,947</u>	<u>2,455,716,563</u>	<u>1,962,159,495</u>	<u>1,295,035,876</u>	<u>879,516,589</u>	<u>480,628,502</u>
Plan fiduciary net position - ending	<u>\$ 4,663,044,663</u>	<u>\$ 4,060,123,965</u>	<u>\$ 3,975,403,947</u>	<u>\$ 2,455,716,563</u>	<u>\$ 1,962,159,495</u>	<u>\$ 1,295,035,876</u>	<u>\$ 879,516,589</u>
Net OPEB liability - ending	<u>\$ 6,727,361,872</u>	<u>\$ 6,847,949,699</u>	<u>\$ 7,626,796,806</u>	<u>\$ 8,817,001,461</u>	<u>\$ 9,420,748,157</u>	<u>\$ 9,409,529,527</u>	<u>\$ 9,314,669,947</u>
Plan fiduciary net position as a percentage of total OPEB liability	40.94 %	37.22 %	34.26 %	21.78 %	17.24 %	12.10 %	8.63 %
Covered-employee payroll	\$ 3,440,256,183	\$ 3,307,642,525	\$ 3,422,361,643	\$ 3,295,290,584	\$ 3,218,942,157	\$ 3,131,514,726	\$ 3,146,365,014
Net OPEB liability as a percentage of covered-employee payroll	195.55%	207.03%	222.85%	267.56%	292.67%	300.48%	296.05%

Notes to Schedule:

2022: The demographic assumptions were updated to reflect the 2022 ERS Actuarial Experience Study. Additionally, short-term healthcare trend assumptions were updated.

2020: The trend rates were updated to reflect the repeal of the excise tax on high-cost employer health plans.

2019: The demographic assumptions were updated to reflect the 2019 ERS Actuarial Experience Study. Additionally, the participation assumptions were updated to better reflect the plan's anticipated experience.

2018: The short-term healthcare trend assumptions were updated.



Schedule of Contributions

FY Ending June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered-employee Payroll	Actual Contribution as a % of Covered Payroll
2018	\$ 770,297,000	\$ 682,605,116	\$ 87,691,884	\$ 3,131,514,726	21.80%
2019	787,110,000	787,110,000	0	3,218,942,157	24.45%
2020	814,659,000	814,659,000	0	3,295,290,584	24.72%
2021	842,456,000	1,232,456,000	(390,000,000)	3,422,361,643	36.01%
2022	877,193,000	533,563,242	343,629,758	3,307,642,525	16.13%
2023	839,445,000	839,445,000	0	3,440,256,183	24.40%
2024	821,984,000	TBD	TBD	TBD	TBD

Notes to Schedule of Contributions

Valuation Date: The Actuarially determined contribution for fiscal year ending June 30, 2024 was developed in the July 1, 2021 valuation.

Methods and Assumptions:

Actuarial Cost Method	Individual Entry Age Normal
Discount Rate	7.00%
Inflation	2.50%
Amortization method	Level percent. Closed bases are established at each valuation for new unfunded liabilities.
Equivalent Single Amortization Period	21.0 as of fiscal year ending June 30, 2024
Asset Valuation Method	4-year smoothed market
Payroll Growth	3.50%
Salary Increases	3.50% to 7.00% including inflation
Demographic Assumptions	Based on the experience study covering the five year period ending June 30, 2018 as conducted for the Hawaii Employees' Retirement System (ERS)
Mortality	System-specific mortality tables utilizing scale BB to project generational mortality improvement
Participation Rates	98% healthcare participation assumption for retirees that receive 100% of the Base Monthly Contribution (BMC). Healthcare participation rates of 25%, 65%, and 90% for retirees that receive 0%, 50%, or 75% of the base monthly contribution, respectively. 100% for Life Insurance and 98% for Medicare Part B
Healthcare cost trend rates	
PPO*	Initial rate of 7.25%, declining to an ultimate rate of 4.70% after 12 years
HMO*	Initial rate of 7.25%, declining to an ultimate rate of 4.70% after 12 years
Part B	Initial rate of 5.00%, declining to an ultimate rate of 4.70% after 9 years
Dental	4.00%
Vision	2.50%
Life Insurance	0.00%

* Includes prescription drug assumptions.



SECTION D

GLOSSARY OF TERMS

Glossary of Terms

Accrued Service	Service credited under the system that was rendered before the date of the actuarial valuation.
Actuarial Accrued Liability (AAL)	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."
Actuarial Assumptions	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption 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 the OPEB trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
Actuarial Gain (Loss)	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
Actuarial Present Value (APV)	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.
Actuarial Valuation	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total OPEB liability, and related actuarial present value of projected benefit payments for OPEB.
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.

Glossary of Terms

Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)	A calculated contribution into an OPEB plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.
Amortization Method	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be “open” (meaning, reset each year) or “closed” (the number of years remaining will decline each year).
Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit OPEB Plan (cost-sharing OPEB plan)	A multiple-employer defined benefit OPEB plan in which the OPEB obligations to the employees of more than one employer are pooled and OPEB plan assets can be used to pay the benefits of the employees of any employer that provides benefits through the OPEB plan.
Covered-Employee Payroll	The payroll of employees that are provided with benefits through the OPEB plan.
Deferred Inflows and Outflows	The deferred inflows and outflows of OPEB resources are amounts used under GASB Statement No. 75 in developing the annual OPEB expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in the OPEB expense should be included in the deferred inflows or outflows of resources.
Discount Rate	For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically: <ol style="list-style-type: none">1. The benefit payments to be made while the OPEB plans’ fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.

Glossary of Terms

Entry Age Actuarial Cost Method (EAN)

The EAN is a cost method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit ages(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.

Fiduciary Net Position

The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.

GASB

The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.

Long-Term Expected Rate of Return

The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.

Money-Weighted Rate of Return

The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 74, the money-weighted rate of return is calculated as the internal rate of return on OPEB plan investments, net of OPEB plan investment expense.

Multiple-Employer Defined Benefit OPEB Plan

A multiple-employer plan is a defined benefit OPEB plan that is used to provide OPEB payments to the employees of more than one employer.

Municipal Bond Rate

The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.

Net OPEB Liability (NOL)

The NOL is the liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit OPEB plan.

Non-Employer Contributing Entities

Non-employer contributing entities are entities that make contributions to an OPEB plan that is used to provide OPEB payments to the employees of other entities. For purposes of the GASB accounting statements, plan members are not considered non-employer contributing entities.

Glossary of Terms

Normal Cost	The portion of the actuarial present value allocated to a valuation year is called the normal cost. For purposes of application to the requirements of this Statement, the term normal cost is the equivalent of service cost.
Other Postemployment Benefits (OPEB)	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.
Real Rate of Return	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
Service Cost	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
Total OPEB Expense	The total OPEB expense is the sum of the following items that are recognized at the end of the employer’s fiscal year: <ol style="list-style-type: none">1. Service Cost2. Interest on the Total OPEB Liability3. Current-Period Benefit Changes4. Employee Contributions (made negative for addition here)5. Projected Earnings on Plan Investments (made negative for addition here)6. OPEB Plan Administrative Expense7. Other Changes in Plan Fiduciary Net Position8. Recognition of Outflow (Inflow) of Resources due to Liabilities9. Recognition of Outflow (Inflow) of Resources due to Assets
Total OPEB Liability (TOL)	The TOL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.
Unfunded Actuarial Accrued Liability (UAAL)	The UAAL is the difference between actuarial accrued liability and valuation assets.
Valuation Assets	The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of GASB Statement Nos. 74 and 75, the valuation assets are equal to the market value of assets.