

Kansas City Area Transportation Authority

Actuarial Valuation Report (GASB 75)

As of January 1, 2019

Prepared for the Year Ending December 31, 2019

Prepared by:
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Overview of GASB 74 and 75

GASB - Acronym that stands for Governmental Accounting Standards Board. This is the accounting board that sets standards for governmental entities. Following GASB standards allows for the preparation of financial statements that are in conformity with Generally Accepted Accounting Principles (GAAP).

Before Statements 74 and 75, GASB statement 45 established the reporting standards for Other Postemployment Benefit (“OPEB”) plans. It was designed to recognize the Other Postemployment Benefits earned by employees throughout their working career vs. when they are paid in retirement - accrual accounting vs. “pay-as-you-go” accounting. Additionally, each eligible active employee earns benefits each year representing benefits to be paid in retirement or a “Service Cost”. These amounts are reflected in the financial statement each year so that OPEB benefits for an eligible employee shall be fully charged to the financial statement when that eligible employee terminates employment.

In 2012 GASB issued GASB Statements 67 and 68 to update and standardize the financial reporting of pension liabilities. This increased the transparency of pension liabilities by moving them to the balance sheet and made financial statement disclosures of pension liabilities more comparable between municipal entities. GASB Statements 74 and 75 are designed to have the same effect on OPEB plans.

GASB 74 and 75 require retiree medical plans to disclose information about asset and liability levels and show historical contribution information. GASB 74 only applies in situations where a separate trust is established to prefund these benefits. GASB 75 requires employers to perform periodic actuarial valuations to determine annual accounting costs and to keep a running tally of the extent to which these amounts are over or under funded.

GASB 74 and 75 apply to those benefits provided after retirement, except for pension benefits, such as medical, dental and life insurance. The philosophy behind the accounting standard is that these postemployment benefits are part of the compensation earned by employees in return for their services, and the cost of these benefits should be recognized while employees are providing those services, rather than after they have retired. This philosophy has already been applied for years to defined benefit pensions; GASB 74 and 75 extend this practice to all other postemployment benefits.

The process of determining the liability for OPEB benefits is based on many assumptions about future events. The key actuarial assumptions are:

- Turnover and retirement rates: How likely is it that an employee will qualify for postemployment benefits and when will they start?
- Medical inflation and per capita cost assumptions: When an employee starts receiving postemployment benefits many years from now, how much will be paid each year for the benefits and how rapidly will the costs grow?
- Mortality assumption: How long is a retiree likely to receive benefits?
- Discount rate assumption: What is the present value of those future benefit payments in terms of today’s dollars?

Since the liability is being recognized over the employee’s whole career with the authority, the present value is divided into three pieces: the part that is attributed to past years (the “Total OPEB Liability” or “Past Service Liability”), the part that is being earned this year (the “Service Cost”), and the part that will be earned in future years (the “Future Service Liability”).

Actuarial Valuation Opinion

This report presents results of the actuarial valuation of the Kansas City Area Transportation Authority Retiree Health Benefit Program (“the Plan”) as of January 1, 2019. In our opinion, this report is complete and accurate and represents fairly the actuarial position of the Plan for the purposes stated herein.

The Kansas City Area Transportation Authority provided the participant data, financial information and plan descriptions used in this valuation. The actuary has analyzed the data and other information provided for reasonableness, but has not independently audited the data or other information provided. The actuary has no reason to believe the data or other information provided is not complete and accurate and knows of no further information that is essential to the preparation of the actuarial valuation.

Actuarial information under Government Accounting Standards Board Statement No. 75 (GASB No. 75) is for purposes of fulfilling employer financial accounting requirements. The results have been prepared on a basis consistent with our understanding of GASB No. 75 and are based upon assumptions prescribed by the authority. Determinations for purposes other than meeting employer financial accounting requirements may be significantly different from the results reported herein.

In our opinion, all costs, liabilities, rates of interest, and other factors underlying these actuarial computations have been determined on the basis of actuarial assumptions and methods that are each reasonable (or consistent with authoritative guidance) for the purposes herein taking into account the experience of the Plan and future expectations.

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 operations of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in program provisions or applicable law.

Our scope for this actuarial valuation did not include analyzing the potential range of such future measurements, and we did not perform that analysis.

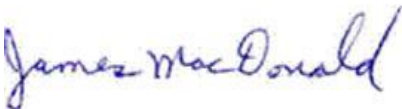
The undersigned with actuarial credentials collectively meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

This report was prepared solely for the benefit and internal use of the plan sponsor. This report is not intended for the benefit of any other party and may not be relied upon by any third party for any purpose, and Jefferson Solutions, Inc. accepts no responsibility or liability with respect to any party other than the plan sponsor.

To the best of our knowledge, no employee of the Jefferson Solutions, Inc. is an officer or director of the employer. In addition, we are not aware of any relationship between the Jefferson Solutions, Inc. and the employer that may impair or appear to impair the objectivity of the work detailed in this report.

Jefferson Solutions, Inc.

April 6, 2020



James MacDonald, FSA, EA, MAAA

Specialist Leader



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Executive Summary

Governmental Accounting Requirements and Report Purposes

The Governmental Accounting Standards Board released the Statement of Governmental Accounting Standards No. 74 and No. 75 in June 2015. These statements require trusts (GASB No. 74) and employers (GASB No. 75) to accrue the cost of post-employment benefits other than pensions ("OPEB") while eligible employees are providing services to the employer.

The purposes of this actuarial valuation report are to provide the authority with:

- 1) Status of the retiree health benefit program's accrued liabilities (Total OPEB Liability) using the most recent census data and health plan rates;
- 2) Projected cash contributions (pay-as-you-go costs); and
- 3) Projected GASB No. 75 expense for the current fiscal year. GASB No. 75 disclosure information to fulfill the authority's financial reporting requirements is provided in this valuation report.

Funding Policy

Currently, the authority does not pre-fund retiree health benefits and instead provides for benefits on a pay-as-you-go basis.

The key measures from the actuarial valuation of retiree health benefits with valuation date of January 1, 2019 and measurement date of December 31, 2019 are:

| | January 1, 2019 |
|----------------------------------|-----------------|
| Present Value of Future Benefits | \$ 40,210,137 |
| Total OPEB liability | \$ 19,432,248 |

| | December 31, 2019 |
|---|-------------------|
| OPEB Expense | \$ 2,829,719 |
| Projected cash and implicit contributions | \$ 760,129 |

OPEB Liability and Participant Information:

| | January 1, 2019 | Head Count |
|----------------------|-----------------|------------|
| Active | \$ 16,110,662 | 651 |
| Retired (Inactive) | 3,321,586 | 358 |
| Total OPEB liability | \$ 19,432,248 | 1,009 |

Continued

JEFFERSON SOLUTIONS, INC.

Executive Summary (Continued)

Significant Changes from the Previous Actuarial Valuation

- Decreasing the discount rate from 4.10% to 2.74%.
- Trend rate: The current year rate was adjusted to reflect actual experience.
- Mortality assumption changed from SOA RP-2014 Total Dataset Mortality with Scale MP-2017 to Pub-2010 General Employees Headcount-Weighted Mortality (SOA Scale MP-2019).
- Morbidity factors were adjusted to reflect rates that better reflect expected underlying costs.

Key Assumptions:

| | |
|---|--------------------------------------|
| Census Collection Date | January 1, 2019 |
| Discount Rate | 2.74% |
| Year 1 Inflation Rate | 14.79% |
| Year 2 Inflation Rate | 7.00% |
| Ultimate Inflation Rate | 6.00% |
| Year Ultimate Inflation Rate is Reached | 2040 |
| Actuarial Cost Method..... | Entry Age Normal (Percent of Salary) |

Discount Rate Comment:

As prescribed by GASB No. 75, the discount rate will be based on the index rate for 20-year tax-exempt general obligation municipal bond index rate with an average rating of AA/Aa or higher as of the measurement date. To comply with this provision, the *Bond Buyer 20-Bond General Obligation Index* will be used. The discount rate of 2.74% is the December 31, 2019 value of this index.

Cash Costs vs. Implicit Rate Subsidy:

GASB No. 75 requires that employers recognize the expected claims of the retiree population less the expected contributions by those retirees. This is not necessarily the same determination as the expected cash payments of the employer for retiree health benefits. The difference is that many post-employment health plans (including the authority’s program) charge the same premium rates for all participants in a non-Medicare plan regardless of their age. This single premium rate is called a blended premium rate because it blends the expected claims of both active and retired participants. Retirees are generally older than the average participant in a non-Medicare plan, which means they are expected to generate higher claims than the average participant of the plan; therefore, they are receiving a subsidy even if they pay 100% of the blended premium rate because they would be paying less in premiums than their claims costs. This subsidy is referred to as the “Implicit Rate Subsidy”.

Another way of considering the Implicit Rate Subsidy is to assume the retirees were removed from a blended plan and, instead, separately rated. In this scenario, the premium rate for the remaining active population would be lower; therefore, the retirees’ premium rate is being subsidized by the premiums for active employees. Since the employer generally pays a portion of the premiums for the active employees, this subsidy creates a liability for the employer.

By comparison, the cash costs are the actual dollars paid by the employer to cover a portion or all of the retirees’ premium rates. This is sometimes referred to as the “Explicit Rate Subsidy”. This is the benefit that is explicitly stated by the authority that will be paid on behalf of retirees.

GASB 75 reports are required to value both the Implicit Rate Subsidy and the Explicit Rate Subsidy. This report values both the Explicit Subsidy and the Implicit Rate Subsidy.

Overview of OPEB Plan

1. PLAN TYPES:

The authority provides medical, prescription drug, dental insurance and vision benefits to its eligible retirees. A Medicare stipend is paid to retirees that are enrolled in the Medicare Part B program. Pre and post-Medicare retiree experience is co-mingled with the experience of active employees. KCATA provides benefits through fully insured plan, and the same premium rate is charged to all eligible members.

Group Life Insurance Retirees also receive a group life benefit as follows:

- Union Retirees:\$1,000
- Salary Retirees\$2,000

2. ELIGIBILITY: Employees are required to reach age 55 and have 15 years of service to qualify for OPEB.

3. BENEFIT COST SHARING - RETIREE: The retiree pays 10% of the medical premiums for the plan elected. Retirees do not contribute towards the cost for the life insurance coverage.

Dental and vision benefits provided are for access only. The retiree is required to pay 100% for dental and vision elected coverage. Dental and vision are not included in the actuarial study.

4. BENEFIT COST SHARING - SPOUSE: Spouses and dependents of retired employees are provided with access (only) to the authority’s medical, prescription and dental plans. Covered spouses and dependents are required to continue to pay 100% of the premium for their elected coverage.

5. IMPLICIT OPEB: In addition to the explicit liability described above for the employer paid portion of the retiree medical premiums, the OPEB liability includes the implicit subsidy based on the excess of the age-adjusted premium for pre-65 retirees and covered spouses and the actual premium.

Refer to Item 11 on page 20 for a further explanation of the implicit subsidy.

See examples for the calculation of the per capita cost on page 21.

6. SURVIVING SPOUSE BENEFIT: Spouses may continue coverage for up to 3 years following the death of the retired employee but are required to pay 100% of the premium.

7. DURATION OF BENEFITS (MEDICAL, PRESCRIPTION DRUG AND DENTAL): The medical benefits offered to retirees and spouses after age 65 are provided on an access only basis. Retirees over 65 pay 100% of the premium. However the plan provides a Medicare stipend starting at age 65 to retirees only.

Annual Gross Premiums:

| Plan | 2019 | | 2020 | |
|---------------------------------|-------------|-------------|-------------|-------------|
| | Single | Two Person | Single | Two Person |
| Rate Saver | \$9,740.64 | \$20,457.96 | \$11,181.60 | \$23,484.36 |
| Blue Care HMO | \$11,478.24 | \$24,107.40 | \$13,176.36 | \$27,673.68 |
| Preferred Care Blue PPO | \$12,132.00 | \$25,515.72 | \$13,926.72 | \$29,290.32 |
| Medical Reimbursement (Buy-Out) | \$1,200.00 | NA | \$1,200.00 | NA |
| Medicare Stipend | \$258.00 | NA | \$258.00 | NA |

Principal Results

This section provides a summary of the actuarial valuation results. All information is provided as of the measurement date except for census data. The valuation results were based on January 1, 2019 census data. All liabilities are net of expected retiree contributions.

| | January 1, 2019 | | |
|---|-----------------|---------------|---------------|
| | Salary | Union | TOTAL |
| Present Value of Future Benefits | | | |
| Actives | \$ 7,364,926 | \$ 29,523,625 | \$ 36,888,551 |
| Retired | 753,710 | 2,567,876 | 3,321,586 |
| Total | \$ 8,118,636 | \$ 32,091,501 | \$ 40,210,137 |

Total OPEB Liability (Individual Entry Age Normal)

| | | | |
|---------|--------------|---------------|---------------|
| Active | \$ 3,011,189 | \$ 13,099,473 | \$ 16,110,662 |
| Retired | 753,710 | 2,567,876 | 3,321,586 |
| Total | \$ 3,764,899 | \$ 15,667,349 | \$ 19,432,248 |

OPEB EXPENSE

| | Fiscal Year Ending December 31, 2019 | | |
|---|--------------------------------------|--------------|--------------|
| | Salary | Union | TOTAL |
| Service Cost | \$ 312,641 | \$ 1,221,718 | \$ 1,534,359 |
| Interest | 100,765 | 421,265 | 522,030 |
| Deferred (Inflows)/Outflows from Expected & Actual Experience | 94,859 | 396,270 | 491,129 |
| Deferred (Inflows)/Outflows from Changes in Assumptions | 54,505 | 227,696 | 282,201 |
| Net OPEB Expense | \$ 562,770 | \$ 2,266,949 | \$ 2,829,719 |

| | | | |
|--|--------------|--------------|--------------|
| Funded Ratio | NA | NA | NA |
| Annual Covered Payroll | \$10,341,883 | \$26,576,342 | \$36,918,225 |
| Net OPEB Liability (Asset) as % of Covered Payroll | 36.40% | 58.95% | 52.64% |
| Discount Rate | 2.74% | 2.74% | 2.74% |

Summary of Assets

The plan Retiree Health Benefit Program is currently funded on a pay-as-you-go basis. Therefore at all times the net assets available for plan benefits is zero.

Development of Total OPEB Liability

| | <u>January 1, 2019</u> |
|---|-----------------------------|
| Present Value of Future Benefits | |
| Active Participants | \$ 36,888,551 |
| Retired Participants | <u>3,321,586</u> |
| Total Present Value of Future Benefits | \$ 40,210,137 |
| Less Total Present Value of Future Normal Costs | <u>20,777,889</u> |
| Total OPEB Liability | <u><u>\$ 19,432,248</u></u> |

Key Assumptions:

| | |
|---|--------------------------------------|
| Census Collection Date | January 1, 2019 |
| Discount Rate | 2.74% |
| Year 1 Inflation Rate | 14.79% |
| Year 2 Inflation Rate | 7.00% |
| Ultimate Inflation Rate | 6.00% |
| Year Ultimate Inflation Rate is Reached | 2040 |
| Actuarial Cost Method..... | Entry Age Normal (Percent of Salary) |

Actuarially Determined Contribution

| | December 31, 2019 |
|---|----------------------|
| Service Cost | \$ 1,534,359 |
| 30 year amortization of NOL | 958,391 |
| Actuarially Determined Contribution | \$ 2,492,750 |
| Actual Contribution | 760,129 |
| Contribution deficiency | \$ 1,732,621 |
| | |
| Covered payroll | \$36,918,225 |
| Actuarially determined contribution as a % of covered payroll | 6.75% |

Key Assumptions:

| | |
|---|--------------------------------------|
| Census Collection Date | January 1, 2019 |
| Discount Rate | 2.74% |
| Year 1 Inflation Rate | 14.79% |
| Year 2 Inflation Rate | 7.00% |
| Ultimate Inflation Rate | 6.00% |
| Year Ultimate Inflation Rate is Reached | 2040 |
| Actuarial Cost Method | Entry Age Normal (Percent of Salary) |

Actuarial Gain / Loss

| | Fiscal Year Ending December 31, 2019 |
|--|---|
| Total OPEB Liability, December 31, 2018 | \$ 12,857,805 |
| Fiduciary net Position, December 31, 2018 | - |
| Net OPEB Liability, December 31, 2018 | \$ 12,857,805 |
| Service Cost | 1,534,359 |
| Contributions | (760,129) |
| Interest @ 2.74% | 522,030 |
| Changes in Assumptions | 2,843,634 |
| Expected Net OPEB Obligation, December 31, 2019 | \$ 16,997,699 |
| Loss attributable to experience | 3,730,809 |
| Total OPEB Liability, End of Year, December 31, 2019 | \$ 20,728,508 |

Key Assumptions:

| | |
|---|--------------------------------------|
| Census Collection Date | January 1, 2019 |
| Discount Rate | 2.74% |
| Year 1 Inflation Rate | 14.79% |
| Year 2 Inflation Rate | 7.00% |
| Ultimate Inflation Rate | 6.00% |
| Year Ultimate Inflation Rate is Reached | 2040 |
| Actuarial Cost Method..... | Entry Age Normal (Percent of Salary) |

Schedule of Deferred Outflows and Deferred Inflows of Resources

| | Experience | | | Changes in Assumptions | | |
|---|----------------------|----------------------|--------------|------------------------|----------------------|----------------------|
| | December 31, 2018 | December 31, 2019 | Experience | December 31, 2018 | December 31, 2019 | Total Assumptions |
| Amortization Period 01/01/2019 | 6.4113 | 7.5800 | | 6.4113 | 7.5800 | |
| Deferred Charges as of 01/01/2019 | \$ (6,809) | \$ 3,730,809 | \$ 3,724,000 | \$ (595,925) | \$ 2,843,634 | \$ 2,247,709 |
| Amortized in fiscal year ending December 31, 2019 | (1,062) | 492,191 | 491,129 | (92,949) | 375,150 | 282,201 |
| Deferred Charges as of 01/01/2020 | \$ (5,747) | \$ 3,238,618 | \$ 3,232,871 | \$ (502,976) | \$ 2,468,484 | \$ 1,965,508 |

Amortization Schedule

| | | | | | | |
|--------------------|------------|--------------|--------------|--------------|--------------|--------------|
| December 31, 2019 | \$ (1,062) | \$ 492,191 | \$ 491,129 | \$ (92,949) | \$ 375,150 | \$ 282,201 |
| December 31, 2020 | (1,062) | 492,191 | 491,129 | (92,949) | 375,150 | 282,201 |
| December 31, 2021 | (1,062) | 492,191 | 491,129 | (92,949) | 375,150 | 282,201 |
| December 31, 2022 | (1,062) | 492,191 | 491,129 | (92,949) | 375,150 | 282,201 |
| December 31, 2023 | (1,062) | 492,191 | 491,129 | (92,949) | 375,150 | 282,201 |
| December 31, 2024 | (1,062) | 492,191 | 491,129 | (92,949) | 375,150 | 282,201 |
| There After | (437) | 777,663 | 777,226 | (38,231) | 592,734 | 554,503 |
| Total Amortization | \$ (6,809) | \$ 3,730,809 | \$ 3,724,000 | \$ (595,925) | \$ 2,843,634 | \$ 2,247,709 |

Guidance on Amortization

Investment gains or losses: Straight-Line amortization over 5 years

Economic/demographic gains or losses (Experience): Straight-Line amortization over Expected Working Life (currently 7.5800)

Assumptions changes or inputs: Straight-Line amortization over Expected Working Life (currently 7.5800)

10-Year Projection of Employer Benefit Payments

Presented in this section are the projected employer benefit payments for the next ten years based on the program design effective in the 01/01/2019 - 12/31/2019 fiscal year. These projected benefit payments are based on the actuarial methods and assumptions are described in the section(s) Actuarial Methods on page 17 and Assumptions And Methodology beginning on page 18. If actual experience differs from those expected by the actuarial assumptions, the actual benefit payments will vary from those presented below.

| Period | Explicit Subsidy | Implicit Subsidy | Total |
|------------|------------------|------------------|-------------|
| 12/31/2019 | \$435,961 | \$324,168 | \$760,129 |
| 12/31/2020 | \$447,907 | \$333,050 | \$780,957 |
| 12/31/2021 | \$493,482 | \$394,164 | \$887,646 |
| 12/31/2022 | \$496,099 | \$417,258 | \$913,357 |
| 12/31/2023 | \$529,126 | \$475,397 | \$1,004,523 |
| 12/31/2024 | \$560,465 | \$527,551 | \$1,088,016 |
| 12/31/2025 | \$599,765 | \$586,169 | \$1,185,934 |
| 12/31/2026 | \$659,480 | \$672,853 | \$1,332,333 |
| 12/31/2027 | \$670,382 | \$701,844 | \$1,372,226 |
| 12/31/2028 | \$695,908 | \$717,831 | \$1,413,739 |

Assumption Sensitivity

This section provides information about the sensitivity of the Total OPEB Liability to certain assumptions made in this actuarial valuation. The discount rate and benefit cost trend rate are the most significant assumptions used in this valuation. The table below shows the effect of increasing and decreasing those assumptions by 100 basis points above/below their projected levels in all future years.

Discount Rate Plus 1.00%

| | |
|--------------------------------------|---------------|
| Current OPEB Liability, 12/31/2019 | \$20,728,508 |
| OPEB Liability - Discount Plus 1.00% | \$19,191,735 |
| Decrease | (\$1,536,773) |
| Percent Decrease | (7.30%) |

Discount Rate Minus 1.00%

| | |
|---------------------------------------|--------------|
| Current OPEB Liability, 12/31/2019 | \$20,728,508 |
| OPEB Liability - Discount Minus 1.00% | \$22,324,133 |
| Increase | \$1,595,625 |
| Percent Increase | 7.57% |

Trend Plus 1.00%

| | |
|------------------------------------|--------------|
| Current OPEB Liability, 12/31/2019 | \$20,728,508 |
| OPEB Liability - Trend Plus 1.00% | \$23,667,879 |
| Increase | \$2,939,371 |
| Percent Increase | 15.09% |

Trend Minus 1.00%

| | |
|------------------------------------|---------------|
| Current OPEB Liability, 12/31/2019 | \$20,728,508 |
| OPEB Liability - Trend Minus 1.00% | \$18,191,731 |
| Decrease | (\$2,536,777) |
| Percent Decrease | (12.94%) |

Summary of Demographic Information

This section details the statistics related to the participants in the post-employment benefit plan. The census collection date is January 1, 2019.

The file that was used to prepare the GASB 75 valuation was provided by the authority. Our understanding is that this file represents the population of the authority's active and retired employees as of January 1, 2019, the census collection date.

CENSUS RECONCILIATION COMMENT: The census file contained 1,110 records. The GASB 75 valuation excluded 101 records because the employee may have been hired after the census collection date (January 1, 2019) or the records represented individuals that are not entitled to benefits.

All Active and Retired Employees:

| | Actives | Retirees | Total |
|--------|---------|----------|-------|
| Male | 397 | 276 | 673 |
| Female | 254 | 82 | 336 |
| Total | 651 | 358 | 1,009 |

Active Employees:

| Age | Not Currently Eligible to Retire | Currently Eligible to Retire ¹ | TOTAL |
|-----------------|----------------------------------|---|-------|
| 29 and Under | 26 | - | 26 |
| 30 - 34 | 42 | - | 42 |
| 35 - 39 | 59 | - | 59 |
| 40 - 44 | 77 | - | 77 |
| 45 - 49 | 104 | - | 104 |
| 50 - 54 | 110 | - | 110 |
| 55 - 59 | 62 | 49 | 111 |
| 60 - 64 | 36 | 45 | 81 |
| 65 and Over | 20 | 21 | 41 |
| Total | 536 | 115 | 651 |
| Average Age | 49.4 | | |
| Average Service | 11.2 | | |

Continued

¹ These active employees have met the minimum age and service requirements needed to vest in an OPEB benefit upon retirement.

Summary of Demographic Information (Continued)

Current Retirees:

| Age | Retirees | Spouses | TOTAL |
|--------------|----------|---------|-------|
| 54 and Under | 3 | - | 3 |
| 55 - 59 | 5 | - | 5 |
| 60 - 64 | 36 | 1 | 37 |
| 65 - 69 | 107 | - | 107 |
| 70 - 74 | 85 | - | 85 |
| 75 - 79 | 60 | - | 60 |
| 80 and Over | 62 | - | 62 |
| Total | 358 | 1 | 359 |

Average Age for Retired Employees: 72.4

Continued

JEFFERSON SOLUTIONS, INC.

Summary of Demographic Information (Continued)

| Age | Years of Service | | | | | | | | TOTAL |
|----------|------------------|--------|----------|----------|----------|----------|----------|---------|-------|
| | Under 5 | 5 to 9 | 10 to 14 | 15 to 19 | 20 to 24 | 25 to 29 | 30 to 34 | 35 Plus | |
| <20 | - | - | - | - | - | - | - | - | - |
| 20 to 24 | 3 | - | - | - | - | - | - | - | 3 |
| 25 to 29 | 17 | 6 | - | - | - | - | - | - | 23 |
| 30 to 34 | 19 | 20 | 3 | - | - | - | - | - | 42 |
| 35 to 39 | 24 | 13 | 18 | 4 | - | - | - | - | 59 |
| 40 to 44 | 27 | 17 | 16 | 11 | 6 | - | - | - | 77 |
| 45 to 49 | 21 | 34 | 18 | 15 | 15 | - | 1 | - | 104 |
| 50 to 54 | 30 | 21 | 21 | 20 | 14 | 3 | 1 | - | 110 |
| 55 to 59 | 19 | 23 | 17 | 13 | 20 | 5 | 10 | 4 | 111 |
| 60 to 64 | 9 | 14 | 13 | 12 | 5 | 8 | 13 | 7 | 81 |
| 65 Plus | 11 | 4 | 5 | 6 | 5 | 1 | 1 | 8 | 41 |
| TOTAL | 180 | 152 | 111 | 81 | 65 | 17 | 26 | 19 | 651 |

Average Age 49.4

Average Service 11.2

Actuarial Methods

Actuarial Cost Method

The Actuarial Cost Method used to determine the Total OPEB Liability and the Annual Required Contribution is the Entry Age Normal (EAN) method as prescribed by GASB No. 75. This method is in the family of future benefit cost methods, which requires an estimate of the projected benefit payable at retirement to determine costs and liabilities.

The Normal Cost (or Service Cost) is the annual allocation required for each participant from entry date to the assumed retirement date so that the accumulated allocation at retirement is equal to the liability for the projected benefit. The projected benefits are based on estimates of future years of service and projected health benefit costs. The normal cost is developed as a level percent of compensation as prescribed by GASB No. 75.

The Present Value of Future Benefits is equal to the value of the projected benefit payable at retirement discounted back to the participant's current age. Discounts include such items as interest and mortality. The present value of future normal cost allocations is equal to the discounted value of the normal costs allocated from the member's current age to retirement age.

The difference between the Present Value of Future Benefits and the present value of future normal cost allocations represents the Total OPEB Liability at the participant's current age.

The Total OPEB Liability for participants currently receiving payments is calculated as the actuarial present value of future benefits expected to be paid. No normal cost is allocated for these participants.

Financial and Census Data

The authority provided the participant data, financial information and plan descriptions used in this valuation. The actuary has checked the data for reasonableness, but has not independently audited the data. The actuary has no reason to believe the data is not complete and accurate, and knows of no further information that is essential to the preparation of the actuarial valuation.

Plan Fiduciary Net Position

Market value of assets as of the measurement date is zero because the plan is funded on a pay-as-you-go basis.

Method Changes Since Last Year

None.

Assumptions and Methodology

Economic Assumptions

1. **DISCOUNT RATE:** An interest rate of 2.74% was used to calculate the December 31, 2019 net OPEB expense.
2. **PAYROLL GROWTH:** 2.50% per year.
3. **TREND:** It was assumed that health care costs would increase in accordance with the trend rates in the following table:

| Period | Medical Trend |
|-----------------|---------------|
| 2019 | 14.79% |
| 2020 to 2039 | 7.00% |
| 2040 and Beyond | 6.00% |

Demographic Assumptions

4. **CENSUS COLLECTION DATE:** The census used in this report represents the eligible population as of January 1, 2019. The valuation date is January 1, 2019 and the measurement date is December 31, 2019.
5. **MORTALITY:** Pub-2010 General Employees Headcount-Weighted Mortality (SOA Scale MP-2019).
6. **RETIREMENT RATES:** The following are representative assumed retirement rates for eligible employees:

| Age | Rate |
|-------|---------|
| 55-59 | 0.03000 |
| 60 | 0.23000 |
| 61 | 0.05000 |
| 62 | 0.25000 |
| 63-64 | 0.10000 |
| 65 | 1.00000 |

7. **TERMINATION RATES:** These rates represent the percentage of employees who will terminate employment at the given age each year, for reasons other than death, or retirement:

| Age | Rate |
|-----|---------|
| 25 | 0.05270 |
| 30 | 0.04830 |
| 35 | 0.04470 |
| 40 | 0.03840 |
| 45 | 0.03210 |
| 50 | 0.01520 |
| 55 | 0.00000 |

Continued

Assumptions and Methodology (Continued)

Benefit Assumptions

8. **PARTICIPATION RATE:** The following assumptions have been made with respect to the percentages of currently active employees who will participate in the authority's OPEB plan upon retirement:

| Pre 65 | | Post 65 Medical | | Post 65 Stipend | |
|----------|-------|-----------------|-------|-----------------|-------|
| Salaried | Union | Salaried | Union | Salaried | Union |
| 90% | 80% | 10% | 10% | 100% | 100% |

9. **PERCENT MARRIED:** It was assumed that 35% of future retirees will be married, with male spouses assumed to be 3 years older than female spouses. For current retirees, actual census information was used.

10. **PER CAPITA COSTS:** The following rates were used in the development of per capita costs:

| Plan | 2019 | | 2020 | |
|---------------------------------|-------------|-------------|-------------|-------------|
| | Single | Two Person | Single | Two Person |
| Rate Saver | \$9,740.64 | \$20,457.96 | \$11,181.60 | \$23,484.36 |
| Blue Care HMO | \$11,478.24 | \$24,107.40 | \$13,176.36 | \$27,673.68 |
| Preferred Care Blue PPO | \$12,132.00 | \$25,515.72 | \$13,926.72 | \$29,290.32 |
| Medical Reimbursement (Buy-Out) | \$1,200.00 | NA | \$1,200.00 | NA |
| Medicare Stipend | \$258.00 | NA | \$258.00 | NA |

Continued

Assumptions and Methodology (Continued)

11. **IMPLICIT SUBSIDY:** GASB No. 75 requires that employers recognize the expected claims of the retiree population less the expected contributions by those retirees. This is not necessarily the same determination as the expected cash payments of the employer for retiree health benefits. The difference is that many post-employment health plans (including the authority's program) charge the same premium rates for all participants in a non-Medicare plan regardless of their age. This single premium rate is called a blended premium rate because it blends the expected claims of both active and retired participants. Retirees are generally older than the average participant in a non-Medicare plan, which means they are expected to generate higher claims than the average participant of the plan; therefore, they are receiving a subsidy even if they pay 100% of the blended premium rate because they would be paying less in premiums than their claims costs. This subsidy is referred to as the "Implicit Rate Subsidy".

The following age-based factors were used to adjust for the implicit subsidy and are based on an average age of 49. The following example is for the Rate Saver plan:

| Age | Medical Premium | Percent of Premium | Age Factor |
|-----|-----------------|--------------------|------------|
| 20 | \$3,726.40 | 38.26% | 3.30% |
| 25 | \$4,383.20 | 45.00% | 3.30% |
| 30 | \$5,155.77 | 52.93% | 3.30% |
| 35 | \$6,064.50 | 62.26% | 3.30% |
| 40 | \$7,133.40 | 73.23% | 3.30% |
| 45 | \$8,390.70 | 86.14% | 3.80% |
| 49 | \$9,740.64 | 100.00% | 3.80% |
| 50 | \$10,110.78 | 103.80% | 4.30% |
| 55 | \$12,479.76 | 128.12% | 4.40% |
| 60 | \$15,477.79 | 158.90% | 3.80% |

See example of how this implicit subsidy is applied on page 21.

Other Assumptions

12. **ACTUARIAL VALUE OF ASSETS:** None
13. **ADMINISTRATIVE EXPENSES:** Included in the premiums used

Calculation of Per Capita Costs

An example for a female electing the Rate Saver plan, assumed to be age 57 with a spouse assumed to be age 60

| | 2019 | | | |
|---|-------------|----------|-------------|---------|
| | Retiree | | Spouse | |
| | Pre 65 | Post 65 | Pre 65 | Post 65 |
| 1. Medical Premium (Rate Saver) | \$9,740.64 | NA | \$20,457.96 | NA |
| 2. Less Individual Premium (1) | - | NA | \$9,740.64 | NA |
| 3. Age adjustment factor | 1.3964 | NA | 1.5890 | NA |
| 4. Age Adjusted Medical ([1 - 2] * 3) | \$13,602.14 | NA | \$17,029.72 | NA |
| 5. Contribution Percentage | 10% | NA | 100% | NA |
| 6. Retiree Contribution ([1 - 2] * 5) | \$974.06 | NA | \$10,717.32 | NA |
| 7. Medicare Stipend | - | \$258.00 | - | NA |
| Net Cost to authority (4 + 7 - 6) | \$12,628.08 | \$258.00 | \$6,312.40 | NA |

Glossary

Brief explanations of terms used in this report:

Annual OPEB Expense

The amount recognized by an employer in each accounting period for contributions to a defined benefit OPEB plan on the modified accrual basis of accounting.

Collective deferred outflows of resources and deferred inflows of resources related to OPEB

Deferred outflows of resources and deferred inflows of resources related to OPEB arising from certain changes in the collective net OPEB liability or collective total OPEB liability.

Covered Payroll

Annual compensation paid (or expected to be paid) to active employees covered by an OPEB plan, in aggregate.

Net OPEB liability (NOL)

The liability of employers and nonemployer contributing entities to plan members for benefits provided through a defined benefit OPEB plan that is administered through a trust that meets the criteria of the GASB Statements.

Normal Cost or Service Cost

The portion of the Total Present Value of Future Benefits attributed to employee service during the current fiscal year by the actuarial cost method. These terms are used interchangeably. Service cost appears as a component of the annual OPEB costs.

Other Postemployment Benefits (OPEB)

Retiree health care benefits and post-employment benefits provided separately from a pension plan (excluding termination offers and benefits).

Plan Fiduciary Net Position (FNP)

Set equal to the market value of assets as of the measurement date.

Present Value of Future Benefits (PVFB)

The value, as of the valuation date, of the projected benefits payable to all members for their accrued service and their expected future service, discounted to reflect the time value (present value) of money and adjusted for the probabilities of retirement, withdrawal, death and disability.

Total OPEB liability (TOL)

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service in conformity with the GASB Statements. The TOL is the liability of employers and nonemployer contributing entities to plan members for benefits provided through a defined benefit OPEB plan that is not administered through a trust that meets the criteria of the GASB Statements.

Suggested Footnotes for OPEB

Plan description:

The authority's defined benefit OPEB plan, provides OPEB for all full-time employees of the authority. No assets are accumulated in a trust that meets the criteria in paragraph 4 of Statement 75. The Retiree Health Plan does not issue a publicly available financial report.

Benefits provided:

Employees who have attained age 55 and retire from active employment with 15 consecutive years of service are eligible for retiree benefits. Eligible retirees and their dependents receive medical and pharmacy benefits through a fully-insured plan. These are the same plans that are available for active employees. The Authority also provides a life insurance benefit of \$1,000 to each retiree.

Contributions:

The Authority establishes and amends contribution requirements. Currently, retirees less than age 65 pay 10 percent of active premium rates, while the Authority contributes 90 percent. Retirees equal to or greater than age 65 pay 100 percent of the premium rates paid by active employees. Spouses pay 100 percent of the active premium rates. The current funding policy of the Authority is to pay premiums as they occur on a pay-as-you-go basis.

Employees covered by benefit terms:

As of January 1, 2019, the following employees were covered by the benefit terms:

| | |
|---|-------|
| <i>Inactive employees or beneficiaries currently receiving benefit payments</i> | 358 |
| <i>Inactive employees entitled to but not yet receiving benefit payments</i> | - |
| <i>Active Employees</i> | 651 |
| <i>Total Participants covered by OPEB Plan</i> | 1,009 |

Total OPEB Liability:

The authority's total OPEB liability of \$20,728,508 was measured as of December 31, 2019, and was determined by an actuarial valuation as of January 1, 2019.

Actuarial assumptions and other inputs:

| | |
|--------------------------------|--------|
| Discount Rate | 2.74% |
| Healthcare Cost Trend Rates: | |
| 2019 Current Year Trend | 14.79% |
| Ultimate Trend | 6.00% |
| Year Ultimate Trend is Reached | 2040 |
| Salary Increases | 2.50% |

The discount rate was based on the index provided by *Bond Buyer 20-Bond General Obligation Index* based on the 20 year AA municipal bond rate as of December 31, 2019.

Mortality rates: Pub-2010 General Employees Headcount-Weighted Mortality (SOA Scale MP-2019).

Continued

Suggested Footnotes for OPEB (Continued)

Changes of assumptions

The discount rate was changed from 4.10% percent at the beginning of the year to 2.74% percent at the end of the year, the actuarial method changed from *Projected Unit Credit* to *Entry-Age-Normal as a Percentage of Salary*, mortality assumption changed from RP-2000 Projected 10 Years using Projection Scale AA to Pub-2010 General Employees Headcount-Weighted Mortality (SOA Scale MP-2019). This resulted in a \$2,843,634 increase in the total OPEB liability.

Other Changes from the Previous Actuarial Valuation

- Decreasing the discount rate from 4.10% to 2.74%.
- Trend rate: The current year rate was adjusted to reflect actual experience.
- Mortality assumption changed from RP-2000 Projected 10 Years using Projection Scale AA to Pub-2010 General Employees Headcount-Weighted Mortality (SOA Scale MP-2019).
- Morbidity factors were adjusted to reflect rates that better reflect expected underlying costs.

Changes in the Total OPEB Liability:

| | Fiscal Year Ending December 31, 2019 | | |
|---|--------------------------------------|---------------|---------------|
| | Salary | Union | TOTAL |
| OPEB Liability as of 01/01/2019 | \$ 2,267,675 | \$ 10,590,130 | \$ 12,857,805 |
| Changes for the Year | | | |
| Service Cost | 312,641 | 1,221,718 | 1,534,359 |
| Interest | 100,765 | 421,265 | 522,030 |
| Assumption Changes | 763,779 | 2,079,855 | 2,843,634 |
| Difference Between Actual and Expected Experience | 733,445 | 2,997,364 | 3,730,809 |
| Difference Between Actual and Expected Experience | | | - |
| Change in Actuarial Cost Method | | | - |
| Benefit payments | (174,714) | (585,416) | (760,130) |
| OPEB Liability as of 12/31/2019 | \$ 4,003,591 | \$ 16,724,917 | \$ 20,728,508 |

Sensitivity of the total OPEB liability to changes in the discount rate:

The following presents the total OPEB Liability, calculated using the discount rate of 2.74%, as well as what the total OPEB Liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

| Total OPEB Liability | Discount Rate | | |
|----------------------|---------------|--------------|--------------|
| | 1% Decrease | Baseline | 1% Increase |
| December 31, 2019 | \$22,324,133 | \$20,728,508 | \$19,191,735 |

Sensitivity of the total OPEB liability to changes in the healthcare cost trend rates:

The following presents the total OPEB Liability, calculated using the trend rate of 14.79%, as well as what the total OPEB Liability would be if it were calculated using a trend rate that is one percentage point lower or one percentage point higher than the current rate:

| Total OPEB Liability | Healthcare Cost Trend Rates | | |
|----------------------|-----------------------------|--------------|--------------|
| | 1% Decrease | Baseline | 1% Increase |
| December 31, 2019 | \$23,667,879 | \$20,728,508 | \$18,191,731 |

Continued

JEFFERSON SOLUTIONS, INC.

Suggested Footnotes for OPEB (Continued)

OPEB Expense:

| | Fiscal Year Ending December 31, 2019 | | |
|---|--------------------------------------|--------------|--------------|
| | Salary | Union | TOTAL |
| Service Cost | \$ 312,641 | \$ 1,221,718 | \$ 1,534,359 |
| Interest | 100,765 | 421,265 | 522,030 |
| Deferred (Inflows)/Outflows from Expected & Actual Experience | 94,859 | 396,270 | 491,129 |
| Deferred (Inflows)/Outflows from Changes in Assumptions | 54,505 | 227,696 | 282,201 |
| Net OPEB Expense | \$ 562,770 | \$ 2,266,949 | \$ 2,829,719 |

Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB:

| | Attributable to | | | |
|-----------------------------------|--------------------------------|--------------------|--------------|--------------------------------|
| | Actual vs. Expected Experience | Assumption Changes | Plan Changes | Expected Return on Investments |
| Deferred Outflow | \$3,238,618 | \$2,468,484 | - | - |
| Deferred Inflow | (\$5,747) | (\$502,976) | - | - |
| Deferred Charges as of 01/01/2020 | \$3,232,871 | \$1,965,508 | - | - |

Amounts reported as deferred outflows of resources and deferred (inflows) of resources related to OPEB will be recognized in OPEB expense as follows:

| Period | Amortization of | | | |
|-------------------|--------------------------------|--------------------|--------------|--------------------------------|
| | Actual vs. Expected Experience | Assumption Changes | Plan Changes | Expected Return on Investments |
| December 31, 2020 | \$491,129 | \$282,201 | - | - |
| December 31, 2021 | \$491,129 | \$282,201 | - | - |
| December 31, 2022 | \$491,129 | \$282,201 | - | - |
| December 31, 2023 | \$491,129 | \$282,201 | - | - |
| December 31, 2024 | \$491,129 | \$282,201 | - | - |
| There After | \$777,226 | \$554,503 | - | - |

Schedules of Required Supplementary Information

Schedule of Changes in the authority's Total OPEB Liability and Related Ratios

| | Fiscal Year Ending December 31, 2019 | | |
|--|--------------------------------------|---------------|---------------|
| | Salary | Union | TOTAL |
| OPEB Liability as of 01/01/2019 | \$ 2,267,675 | \$ 10,590,130 | \$ 12,857,805 |
| Changes for the Year | | | |
| Service Cost | 312,641 | 1,221,718 | 1,534,359 |
| Interest | 100,765 | 421,265 | 522,030 |
| Assumption Changes | 763,779 | 2,079,855 | 2,843,634 |
| Difference Between Actual and Expected Experience | 733,445 | 2,997,364 | 3,730,809 |
| Difference Between Actual and Expected Experience | | | - |
| Change in Actuarial Cost Method | | | - |
| Benefit payments | (174,714) | (585,416) | (760,130) |
| OPEB Liability as of 12/31/2019 | \$ 4,003,591 | \$ 16,724,917 | \$ 20,728,508 |
| Annual Covered Payroll | \$10,341,883 | \$26,576,342 | \$36,918,225 |
| Net OPEB Liability (Asset) as % of Covered Payroll | 36.40% | 58.95% | 52.64% |