

Maryland Transit Administration Post-Employment Medical and Life Insurance Benefits

GASB 75 Actuarial Information for the Fiscal Year Ending June 30, 2020



Submitted by: Kevin Binder, FSA Actuary (443)573-3906 kbinder@boltonusa.com



August 21, 2020

Glenn Davis Chief Financial Officer Maryland Transit Administration 6 St. Paul Street, 8th Floor Baltimore, MD 21202

Dear Glenn:

The following report contains the GASB 75 plan accounting actuarial information for the post-employment benefits (OPEB) to be included with the Maryland Transit Administration's (MTA) financial statements. The GASB 75 reporting is for fiscal year ending in 2020. The measurement date is June 30, 2019.

Methodology, Reliance and Certification

This report is prepared for the Maryland Transit Administration. The report contains the actuarial information to be included with the MTA's financial statements (the MTA's fiscal year end date) as required by GASB 75. This information has been prepared for use in the financial statements of the MTA. This information is not intended for, nor should it be used for, any additional purposes.

The MTA has selected a June 30, 2019 measurement date for the FYE 2020 disclosure. The December 2019 Federal appropriations bill eliminated the excise tax on high-cost plans that was part of the Affordable Care Act (this excise tax is commonly referred to as the "Cadillac Tax"). It is our understanding from Paragraph 30 of the GASB 75 Standard that the disclosure should be "in accordance with the benefit terms and any additional legal agreements to provide benefits that are in force at the measurement date". Accordingly, we have not adjusted the results to show the impact of the elimination of the excise tax which was signed into law after the measurement date. The change in the law could reduce retiree health care OPEB accounting liabilities by 3 to 5 percent and will be disclosed on next year's report. You may want to consult with your auditors to ensure that they concur with our understanding.

The total OPEB liability is based on July 1, 2018 valuation data rolled forward to June 30, 2019. The methods, assumptions, participant data, and plan provisions are as detailed in the FYE 2019 GASB 75 report dated September 30, 2019, except as noted below.

The discount rate was lowered to 3.13% as required by GASB 75.



Glenn Davis August 21, 2020 Page 2

Methodology, Reliance and Certification

Because the net impact of COVID-19 on health costs and changes in turnover and retirement behavior is not possible to estimate at this time, we have made no adjustments to any of the assumptions selected before the COVID-19 pandemic.

This is a deterministic valuation in that it is based on a single set of assumptions. This set of assumptions is one possible basis for our calculations. Other assumptions may be equally valid. The future is uncertain, and the plan's actual experience will differ from the assumptions; the differences may be significant or material because the results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions. We may consider that some factors are not material to the valuation of the plan and may not provide a specific assumption for those factors. We may have used other assumptions in the past. We will likely consider changes in assumptions at a future date.

The MTA is responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in this report. The MTA is solely responsible for communicating to Bolton Partners any changes required thereto.

This report is based on plan provisions, census data, and asset data submitted by the MTA. We have relied on this information for purposes of preparing this report but have not performed an audit. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information. The plan sponsor is solely responsible for the validity and completeness of this information.

The MTA is solely responsible for selecting the plan's investment policies, asset allocations and individual investments. Bolton, Inc.'s actuaries have not provided any investment advice to the MTA.

The information in this report was prepared for the internal use of the MTA, the plan and their auditors in connection with our actuarial valuations of the OPEB plan as required by GASB 75. This report may not be used for any other purpose; Bolton Partners. is not responsible for the consequences of any unauthorized use or the reliance on this information by any other party.



Glenn Davis August 21, 2020 Page 3

Methodology, Reliance and Certification

This report provides certain financial calculations for use by the auditor. These values have been computed in accordance with our understanding of generally accepted actuarial principles and practices and fairly reflect the actuarial position of the plan. The various actuarial assumptions and methods which have been used are, in our opinion, appropriate for the purposes of this report.

The report is conditioned on the assumption of an ongoing plan and is not meant to present the actuarial position of the plan in the case of plan termination. 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 (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status), and changes in plan provisions or applicable law.

Bolton Partners is completely independent of the MTA, their programs, activities, and any of their key personnel. Bolton Partners does not have any relationship with the MTA which would impair or appear to impair the objectivity of our work.

The undersigned credentialed actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The FYE 2019 GASB 75 report dated September 30, 2019 contains information that is integral to the results contained herein and a copy may be provided upon request.

Respectfully submitted,

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Kevin Binder, F.S.A., E.A.





Change in Net OPEB Liability

| | Total OPEB Liability (a) | Plan Fiduciary Net Position (b) | Net OPEB Liability (a) - (b) |
|---|--------------------------------|---------------------------------------|---------------------------------|
| Balance as of June 30, 2018 for FYE 2019 | \$728,867,209 | \$0 | \$728,867,209 |
| Changes for the Year | | | |
| Service Cost | 31,898,596 | | 31,898,596 |
| Interest | 26,052,660 | | 26,052,660 |
| Changes of Benefit Terms | 0 | | 0 |
| Experience Losses/(Gains) | (1,120,610) | | (1,120,610) |
| Trust Contribution - Employer | | 17,240,303 | (17,240,303) |
| Net Investment Income | | 0 | 0 |
| Changes in Assumptions | 64,216,889 | | 64,216,889 |
| Benefit Payments (net of retiree contributions) | (17,240,303) | (17,240,303) | 0 |
| Administrative Expense | | 0 | 0 |
| Net Changes | 103,807,232 | 0 | 103,807,232 |
| Balance as of June 30, 2019 for FYE 2020 | \$832,674,441 | \$0 | \$832,674,441 |
| | | | _ |
| Funded status | | 0.00% | |



OPEB Expense - Required by GASB 75

| Service Cost | \$ 31,898,596 |
|---|------------------|
| 2. Interest | 26,052,660 |
| 3. Projected Earnings on OPEB Trust | 0 |
| 4. OPEB Administrative Expense | 0 |
| 5. Changes in Benefit Terms | 0 |
| 6. Differences Between Expected and Actual Earnings | |
| In Current Fiscal Year Recognized in Current Year | 0 |
| From Past Years Recognized in Current Year | 0 |
| Total | 0 |
| 7. Differences Between Expected and Actual Experience | |
| In Current Fiscal Year Recognized in Current Year | (140,076) |
| From Past Years Recognized in Current Year | (1,759,132) |
| Total | (1,899,208) |
| 8. Changes in Assumptions | |
| In Current Fiscal Year Recognized in Current Year | 8,027,111 |
| From Past Years Recognized in Current Year | (32,402,399) |
| Total | (24,375,288) |
| | |
| 9. Total OPEB Expense | \$ 31,676,760 |



Sensitivity of Total and Net OPEB Liability - Required by GASB 75

The following table presents Maryland Transit Administration's Total and Net OPEB liability. We also present the Total and Net OPEB liability if it is calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher.

| | 1% Decrease | Discount Rate | 1% Increase |
|----------------------------|---------------|---------------|---------------|
| Discount Rate | 2.13% | 3.13% | 4.13% |
| Total OPEB Liability | \$988,796,739 | \$832,674,441 | \$708,760,702 |
| Net OPEB Liability/(Asset) | \$988,796,739 | \$832,674,441 | \$708,760,702 |

The following table presents Maryland Transit Administration's Total and Net OPEB liability. We also present the Total and Net OPEB liability if it is calculated using a health care cost trend rate that is 1 percentage point lower or 1 percentage point higher.

| Ultimate Trend | 1% Decrease 2.90% | Medical Trend 3.90% | 1% Increase 4.90% |
|----------------------------|----------------------|------------------------|----------------------|
| Total OPEB Liability | \$684,072,342 | \$832,674,441 | \$1,029,263,856 |
| Net OPEB Liability/(Asset) | \$684,072,342 | \$832,674,441 | \$1,029,263,856 |



Deferred Inflows/Outflows of Resources Related to OPEB - Required by GASB 75

For the fiscal year ended June 30, 2020, Maryland Transit Administration recognized an OPEB expense of \$31,676,760. At June 30, 2020, Maryland Transit Administration reported deferred outflows of resources and deferred inflows of resources related to the OPEB plan from the following sources:

| | ed Outflows esources | erred Inflows f Resources |
|--|-----------------------------|------------------------------|
| | | |
| Differences between expected and actual experience | \$ - | \$ 11,535,323 |
| Changes of assumptions | 56,189,778 | 180,181,451 |
| Net difference between projected and actual earnings | - | - |
| on OPEB plan investments | | |
| Employer contribution subsequent to measurement date | TBD | |
| Total | \$ 56,189,778 | \$ 191,716,774 |

An amount to be determined will be reported as deferred outflows of resources related to OPEB resulting from employer contribution subsequent to measurement date will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2021.

Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the OPEB plan will be recognized in the expense as follows:

| Fiscal Year ended June 30: | |
|----------------------------|--------------------|
| 2021 | \$ (26,274,496) |
| 2022 | (26,274,496) |
| 2023 | (26,274,496) |
| 2024 | (26,274,496) |
| 2025 | (26,274,498) |
| Thereafter | (4,154,514) |



Schedule of Differences between Projected and Actual Earnings on OPEB Plan Investments

In conformity with paragraph 86b of Statement 75, the effects of differences between projected and actual earnings on OPEB plan investments are recognized in collective OPEB expense using a systematic and rational method over a closed five-year period, beginning in the current reporting period. The following table illustrates the application of this requirement.

| Year | Differences between Projected and Actual Earnings on OPEB Plan Investments | Recognition Period (Years) | Increa | | se) in OPEF | 3 Expens | se Arising fr | ecognition | of Differences | between P | | nd Actual Ear | nings on OPEB 2023 | Plan Inve | estments |
|-----------|--|----------------------------------|--------|------|-------------|----------|---------------|------------|----------------|-----------|-----|---------------|-----------------------|-----------|----------|
| 2016 | \$ - | 5 | \$ | - | | - | - | - | - | | | | | | |
| 2017 | - | 5 | | \$ | | - | - | - | - | | - | | | | |
| 2018 | - | 5 | | | | \$ | - | - | - | | - | - | | | |
| 2019 | - | 5 | | | | | | \$ - | - | | - | - | | - | |
| 2020 | - | 5 | | | | | | | \$ - | | - | - | | - | - |
| Net incre | ease (decrease) in OPEB | expense | \$ | - \$ | | - \$ | - | \$ - | \$ - | \$ | - ; | \$ - | \$ | - \$ | - |

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Projected and Actual Earnings on OPEB Plan Investments

| | | | | | | | nces at 30, 2019 | | | | | |
|------|---|--|---|---|----------|--------------------------------------|---------------------|--------------------|--|--|--|--|
| Year | Investment Earnings Less than Projected (a) | Investment Earnings Greater Than Projected (b) | Amounts Recognized in OPEB Expense Through June 30, 2019 (c) | | Outflows | Deferred Outflows of Resources | | d of es) | | | | |
| 2016 | \$ - | \$ - | \$ | - | \$ | - | \$ | - | | | | |
| 2017 | = | - | | - | | - | | - | | | | |
| 2018 | - | - | | - | | - | | - | | | | |
| 2019 | - | - | | - | | - | | - | | | | |
| 2020 | - | - | | - | | - | | - | | | | |
| | | | | | \$ | - | \$ | - | | | | |



Schedule of Differences between Expected and Actual Experience

In conformity with paragraph 86a of Statement 75, the effects of differences between expected and actual experience are recognized in collective OPEB expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with OPEB through the OPEB plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

| Year | Differences between Expected and Actual Experience | Recognition Period (Years) | Prior | 201: | 5 | In 2016 | | ecrease) 2017 | in OPE | B Expens | se Arising from the 2019 | Recognition of | Differences betv | ween Expected a | nd Actual Exper | ience 2024 | 2025 | Thereafter |
|------------|--|----------------------------------|-------|------|------|------------|------|------------------|--------|----------|-----------------------------|----------------|------------------|-----------------|-----------------|----------------|----------------|----------------|
| Prior | | | \$ - | • | - | | - | | - | | - | - | - | - | - | - | - | - |
| 2015 | - | 1 | | \$ | - | | | | | | | | | | | | | |
| 2016 | - | 1 | | | \$ | | - | | | | | | | | | | | |
| 2017 | - | 1 | | | | | \$ | | - | | | | | | | | | |
| 2018 | - | 8 | | | | | | | \$ | | | - | - | - | - | - | - | - |
| 2019 | (14,073,053) | 8 | | | | | | | | | \$ (1,759,132) | (1,759,132) | (1,759,132) | (1,759,132) | (1,759,132) | (1,759,132) | (1,759,132) | (1,759,129) |
| 2020 | (1,120,610) | 8 | | | | | | | | | | \$ (140,076) | (140,076) | (140,076) | (140,076) | (140,076) | (140,076) | (280,154) |
| Net increa | se (decrease) in | OPEB expense | \$ - | - \$ | - \$ | | - \$ | | - \$ | | - \$ (1,759,132) | \$ (1,899,208) | \$ (1,899,208) | \$ (1,899,208) | \$ (1,899,208) | \$ (1,899,208) | \$ (1,899,208) | \$ (2,039,283) |

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Expected and Actual Experience

| | | | | | | | Baland June 30 | |
|-------|----|-------------------------|----|----------------------------|---|-----|--|--|
| Year | Lo | erience esses (a) | | Experience Gains (b) | nounts Recognized in PEB Expense Through June 30, 2019 (c) | Out | ferred flows of cources) - (c) | Deferred Inflows of Resources (b) - (c) |
| Prior | \$ | - - | \$ | - | \$ - | \$ | - | \$ - |
| 2015 | · | - | · | - | - | | - | - |
| 2016 | | - | | - | - | | - | - |
| 2017 | | - | | | - | | - | - |
| 2018 | | - | | - | - | | - | - |
| 2019 | | - | | 14,073,053 | 3,518,264 | | - | 10,554,789 |
| 2020 | | - | | 1,120,610 | 140,076 | | - | 980,534 |
| | | | | | | \$ | - | \$ 11,535,323 |



Schedule of Changes of Assumptions

In conformity with paragraph 86a of Statement 75, the effects of changes of assumptions should be recognized in OPEB expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with OPEB through the OPEB plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

| | | Recognition | | Increase (Decrease) in OPEB Expense Arising from the Effects of Changes of Assumptions | | | | | | | | | | | | | |
|------------|---------------------------|-------------------|-------|--|------|------|----|------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|
| Year | Changes of Assumptions | Period (Years) | Prior | 2015 | | 2016 | 2 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | Thereafter |
| Prior | \$ - | | \$ - | | - | - | | - | - | - | - | - | - | - | - | - | - |
| 2015 | | 1 | | \$ | - | | | | | | | | | | | | |
| 2016 | - | 1 | | | \$ | - | | | | | | | | | | | |
| 2017 | | 1 | | | | | \$ | - | | | | | | | | | |
| 2018 | (113,863,562) | 8 | | | | | | | \$ (14,232,945) | (14,232,945) | (14,232,945) | (14,232,945) | (14,232,945) | (14,232,945) | (14,232,945) | (14,232,947) | - |
| 2019 | (145,355,632) | 8 | | | | | | | | \$ (18,169,454) | (18,169,454) | (18,169,454) | (18,169,454) | (18,169,454) | (18,169,454) | (18,169,454) | (18,169,454) |
| 2020 | 64,216,889 | 8 | | | | | | | | | \$ 8,027,111 | 8,027,111 | 8,027,111 | 8,027,111 | 8,027,111 | 8,027,111 | 16,054,223 |
| Net increa | se (decrease) in OPE | B expense | \$ - | \$ | - \$ | - | \$ | - | \$ (14,232,945) | \$ (32,402,399) | \$ (24,375,288) | \$ (24,375,288) | \$ (24,375,288) | \$ (24,375,288) | \$ (24,375,288) | \$ (24,375,290) | \$ (2,115,231) |

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Changes of Assumptions

| | | | | | | | | | | es at , 2019 |
|---|----|------------|----|-------------|--------------|---------|-----|---------------|--|-----------------|
| Increases in the Total OPEB Decreases in the Liability OPEB Liabil Year (a) (b) | | | | | Amou OPEB | | | | Deferred Inflows of Resources (b) - (c) | |
| Prior | \$ | - | \$ | - | \$ | | - | \$ - | 9 | - |
| 2015 | | - | | - | | | - | | | - |
| 2016 | | - | | - | | | - | | | - |
| 2017 | | - | | - | | | - | | | - |
| 2018 | | - | | 113,863,562 | | 42,698, | 835 | | | 71,164,727 |
| 2019 | | - | | 145,355,632 | | 36,338, | 908 | | | 109,016,724 |
| 2020 | | 64,216,889 | | - | | 8,027, | 111 | 56,189,778 | | - |
| | | | | | | | | \$ 56,189,778 | 9 | 180,181,451 |



Schedule of Changes in the Total Liability and Related Ratios - Required by GASB 75

Changes in Employer's Net OPEB Liability and Related Ratios

Last 10 Fiscal Years

| Disclosure for fiscal year ending: Measurement Date: | 2020 6/30/2019 | 2019 6/30/2018 | 2018 6/30/2017 | 2017 6/30/2016 | 2016 6/30/2015 | 2015 6/30/2014 | 2014 6/30/2013 | 2013 6/30/2012 | 2012 6/30/2011 | 2011 6/30/2010 |
|---|-------------------|-------------------|-------------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Total OPEB liability | | | | | | | | | | |
| Service Cost | \$ 31,898,596 | \$ 41,137,567 | \$ 47,907,217 | | | | | | | |
| Interest Cost | 26,052,660 | 29,486,571 | 25,090,434 | | | | | | | |
| Changes in Benefit Terms | - | - | - | | | | | | | |
| Differences Between Expected and Actual Experience | (1,120,610) | (14,073,053) | - | | | | | | | |
| Changes of Assumptions | 64,216,889 | (145,355,632) | (113,863,562) | Information for FYE 2017 | | | | | | |
| Benefit Payments | (17,240,303) | (15,617,475) | (12,421,897) | | | and earlier is | not available | | | |
| Net Change in Total OPEB Liability | 103,807,232 | (104,422,022) | (53,287,808) | | | | | | | |
| Total OPEB liability - Beginning of Year | 728,867,209 | 833,289,231 | 886,577,039 | | | | | | | |
| Total OPEB Liability - End of Year | 832,674,441 | 728,867,209 | 833,289,231 | | | | | | | |

Plan Fiduciary Net Position

Last 10 Fiscal Years

| Disclosure for fiscal year ending: Measurement Date: | 2020 6/30/2019 | 2019 6/30/2018 | 2018 6/30/2017 | 2017 6/30/2016 | 2016 6/30/2015 | 2015 6/30/2014 | 2014 6/30/2013 | 2013 6/30/2012 | 2012 6/30/2011 | 2011 6/30/2010 |
|--|-------------------|-------------------|-------------------|-------------------|------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | | | | | | | | | | |
| Contributions - Employer | \$ 17,240,303 | \$ 15,617,475 | \$ 13,208,097 | | | | | | | |
| Net Investment Income | - | - | - | | | | | | | |
| Benefit Payments (net of retiree contributions) | (17,240,303) | (15,617,475) | (12,421,897) | | Information for FYE 2017 | | | | | |
| Administrative Expense | - | - | (786,200) | | and earlier is not available | | | | | |
| Net Change in Fiduciary Net Position | - | _ | - | | | | | | | |
| Fiduciary Net Position - Beginning of Year | - | - | - | | | | | | | |
| Fiduciary Net Position - End of Year | - | | - | | | | | | | |
| | | | | | | | | | | |
| Net OPEB Liability | 832,674,441 | 728,867,209 | 833,289,231 | | | | | | | |
| Fiduciary Net Position as a % of Total OPEB Liability | 0.00% | 0.00% | 0.00% | | | | | | | |
| Covered-Employee Payroll ¹ | | | | | | | | | | |
| Net OPEB Liability as a % of Payroll ¹ | | | | | | | | | | |
| | | | | | | | | | | |
| Expected Average Remaining Service Years of All Participants | 8 | 8 | 8 | | | | | | | |

Notes to Schedule:

Benefit changes:

None

Changes of assumptions:

The discount rate was changed as follows ==> 3.13% 3.62% 3.58%

1/ Because this OPEB plan does not depend on salary, we do not have salary information.