



AFFILIATED AGENCIES

*Orange County
Transit District*

*Local Transportation
Authority*

*Service Authority for
Freeway Emergencies*

*Consolidated Transportation
Service Agency*

*Congestion Management
Agency*

*Service Authority for
Abandoned Vehicles*

March 3, 2022

**SUBJECT: Informal Request for Proposals (RFP) 2-2222
“Actuarial Valuation Services”**

Gentlemen/Ladies:

This letter shall serve as Addendum No. 1 to the above RFP issued by the Orange County Transportation Authority (Authority). Offerors are reminded that the bid submittal date is at or before **2:00 p.m., March 10, 2022.**

The following questions were submitted by the deadline:

1. Q - Can we get copies of the prior valuation reports for both plans?

A – Yes, please see Attachments A-1, A-2, B-1, B-2, and B-3 to this Addendum No. 1.

2. Q - For the 19-month term of the contract, is the 7/1/2022 a full report and the 7/1/2023 a rollforward report for the Retiree Health Insurance (OPEB) plan?

A – For OPEB, the full valuation report will be done as of January 1, 2022 and is completed prior to OCTA's fiscal year end of June 30, 2022. Then a rollforward report is due after June 30, 2022 and June 30, 2023 for financial reporting.

3. Q - Is this the same schedule for the ARBA plan or does it have a full valuation every year?

A – For ARBA, a full valuation report is due prior to OCTA's fiscal year end for the actuarially required contribution rate only. No roll-forward report is required for ARBA. A full valuation for both plans is done every two (2) years.

4. Q - In exhibit A, task 1 mentions draft reports are due five months from calendar year-end. If the fiscal year is July 1, is the data collected as of January 1, to meet the 5-month draft deadline?

A – Yes, data is as of January 1, 2022.

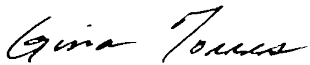
5. Q - In exhibit A, task 2, it mentions roll forward reports for both fiscal years for both plans. And in exhibit A, task 3, it mentions the “Final roll forward reports for fiscal year 2022” and the “Final roll forward reports for the fiscal year 2023”. Is one of these a full report?

A - The roll forward reports are only for OPEB plan. The full reports are required prior to June 30, 2022 (May 2022) for both plans.

Offerors are reminded to acknowledge receipt of this Addendum No. 1 in Exhibit B, “Price Summary Sheet.” All changes addressed in this Addendum No. 1 shall be incorporated into the final Agreement.

Questions regarding this Addendum No. 1 should be directed to the undersigned at gtorres@octa.net.

Sincerely,



Gina Torres
Contract Administrator
Contracts Administration and Materials Management

Attachments:

- Attachment A-1 – Actuarial Valuation – Additional Retiree Benefit Account (ARBA) – GASB 67 and GASB 68
- Attachment A-2 – Actuarial Valuation – GASB Statement No. 68 Supplemental Schedules
- Attachment B-1 – Actuarial Valuation Report (GASB 75)
- Attachment B-2 – Actuarial Valuation Report (GASB 75) - Includes: TCU, Non Union Administrative and Coach Operators)
- Attachment B-3 – Actuarial Valuation – Post-Employment Medical Benefits Plan GASB 75 Disclosure Information



August 21, 2020

Mr. Changsu Lee
Manager, General Accounting & Financial Reporting
Orange County Transportation Authority
550 South Main Street
Orange, CA 92863

Re: Orange County Transportation Authority ("Authority") GASB 68 Valuation

Dear Mr. Lee:

This report sets forth the results of our GASB 68 actuarial valuation of the Authority's Additional Retiree Benefit Account ("ARBA") as of January 1, 2020.

In June 2012, the Governmental Accounting Standards Board (GASB) issued new accrual accounting standards for pension benefits, GASB 67 and GASB 68. GASB 67/68 require public employers such as the Authority to perform periodic actuarial valuations to measure and disclose their pension liabilities for the financial statements of both the employer and the trust, if any, set aside to pre-fund these liabilities. The Authority must obtain actuarial valuations of the ARBA under GASB 68 not less frequently than once every two years.

To accomplish these objectives the Authority selected DFA, LLC (DFA) to perform an actuarial valuation of ARBA as of January 1, 2020, for fiscal years ending June 30, 2020 and 2021.

Basis for Actuarial Valuation

To perform the valuation, we relied on the following information provided by the Authority:

- Census data for active employees and retirees
- Copies of relevant sections of pension documents, and
- (If applicable) trust statements prepared by the trustee

We also made certain assumptions regarding rates of employee turnover, retirement, and mortality, as well as economic assumptions regarding inflation and interest rates. Our assumptions are based on a standard set of assumptions used for similar valuations, modified as appropriate for the Authority.

A complete description of the actuarial assumptions used in the valuation is set forth in the Actuarial Assumptions section.

Orange County Transportation Authority
August 21, 2020
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Certification

The actuarial certification, including a caveat regarding limitations of scope, if any, is contained in the Actuarial Certification section.

We have enjoyed working with the Authority on this project and are available to answer any questions you may have concerning any information contained herein.

Disclosure of Risk

Considering recent events, it is important to call attention to the external risk factors associated with actuarial projections. An event like the COVID-19 pandemic has the potential to affect future measurements that would deviate from current long-term expectations. The following factors will specifically impact Pension liabilities:

- Census – retirement, turnover, and mortality experience different than expected.
- Investment performance – (for funded plans) investment performance different than the long-term expected return. Investment performance may also affect the discount rate.

The current environment's impact on these factors will continue to unfold. We are available to discuss both short-term and long-term impact upon request.

Sincerely,
DFA, LLC



Carlos Diaz, ASA, EA, MAAA
Actuary



Molly McGee, ASA, EA, MAAA
Actuary

Summary of Results

We have determined that the present value of benefits under the ARBA is \$21,048,123 as of January 1, 2020. This represents the present value of all plan benefits expected to be paid by the Authority for its current and future retirees. If the Authority were to place this amount in a fund earning interest at the rate of 7.25% per year, and all other actuarial assumptions were exactly met, the fund would have exactly enough to pay all expected benefits. This value is given for informational purposes only and is not required to be included in the Authority's financial statement.

When we apportion the \$21,048,123 into past service and future service components under the Entry Age, Level Percent of Pay Cost Method, the past service liability (or "Total Pension Liability") component is \$18,763,665 as of January 1, 2020. This represents the present value of all benefits accrued through the valuation date assuming that each employee's liability is expensed from hire date until retirement date as a level percentage of pay. The \$18,763,665 is comprised of liabilities of \$6,780,089 for active employees and \$11,983,576 for retirees. The Authority has established a trust account with BlackRock for the pre-funding of plan benefits. Trust assets (referred to as the "Fiduciary Net Position" under GASB 68) have an actuarial value of \$17,149,513 as of January 1, 2020, so the Net Pension Liability (the Total Pension Liability less the Fiduciary Net Position) is \$1,614,152.

This valuation includes benefits for 795 retirees and 1,313 active employees who may become eligible to retire and receive benefits in the future.

A comparison between the January 1, 2020 valuation and the January 1, 2018 valuation, prepared by Jefferson Solutions, Inc., is shown below:

Measurement Date	1/1/2020	1/1/2018
Present Value of Benefits		
Active employees	\$9,064,547	\$9,708,987
Retirees	11,983,576	10,584,034
Total Present Value of Benefits	\$21,048,123	\$20,293,021
Entry Age Accrued Liability		
Active employees	\$6,780,089	\$8,060,033
Retirees	11,983,576	10,584,034
Total Pension Liability	\$18,763,665	\$18,644,067
Actuarial Value of Assets	(17,149,513)	(16,225,187)
Net Pension Liability	\$1,614,152	\$2,418,880

The results of this valuation are to be used for the Authority's June 30, 2020 and June 30, 2021 disclosures. The June 30, 2020 disclosures will be based on an update (roll-forward) of the results contained in this valuation. The update will involve actual, rather than expected, benefit payments, actual employer contributions, trust assets as of the measurement date, and possibly a change in discount rate, if conditions change sufficiently between now and then.

Actuarial Value of Assets

The actuarial value of assets (AVA) defers the recognition of the difference between the expected return and the actual return on assets over a five-year period.

	12/31/2016	12/31/2017	12/31/2018	12/31/2019
Actual Rate of Return	6.47%	15.06%	-4.82%	19.47%
Expected Rate of Return	7.25%	7.25%	7.25%	7.25%
Actual Investment Earnings	905,169	2,213,268	(774,480)	3,252,194
Expected Investment Earnings	1,039,887	1,135,660	1,165,474	1,213,387
Gain/(Loss)	(134,718)	1,077,608	(1,939,954)	2,038,807
Percent Recognized	80%	60%	40%	20%
Recognized Gain/(Loss)	(107,774)	645,565	(775,982)	407,761

1. Market Value of Assets at December 31, 2019	\$18,020,688
2. Total Actual Investment Earnings	5,596,151
3. Total Expected Investment Earnings	4,554,407
4. Total Gain/(Loss)	1,041,744
5. Total Recognized Gain/(Loss)	170,569
6. Actuarial Value of Assets at December 31 2019 (1.-4.+5.)	\$17,149,513

Actuarially Determined Contribution

The Actuarially Determined Contribution (ADC) is a target contribution to a defined benefit pension plan determined in conformity with actuarial standards of practice.

The following ADC calculation was determined as of the valuation date at January 1, 2020. The Net Pension Liability is amortized on a level dollar basis over a 12-year period.

	1/1/2020	1/1/2021
Long Term Rate of Return	7.25%	7.25%
Salary Scale	3.25%	3.25%
Total Pension Liability	\$18,763,665	
Actuarial Value of Assets	(17,149,513)	
Net Pension Liability	1,614,152	
Service Cost (end of year)	351,983	363,422
Amortization of Net Pension Liability	212,634	219,545
Actuarially Determined Contribution	\$564,617	\$582,967

GASB 68 Accounting Results

For financial reporting purposes, GASB 68 requires a discount rate equal to a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale). Based on these requirements and the following information, we have determined a discount rate of 7.25% for GASB 68 reporting purposes:

Long-Term Expected Return on General Assets	7.25%
Fidelity General Obligations AA - 20 Years Index at January 1, 2020	2.75%
GASB 68 Discount Rate	7.25%

Schedule of Changes in Net Pension Liability (July 1, 2019 to June 30, 2020)

1. Total Pension Liability	
a. Total Pension Liability at July 1, 2019 ¹	\$19,841,430
b. Service Cost ²	322,982
c. Expected Interest Cost	1,200,970
d. Expected Benefit Payments	(1,362,151)
e. Changes of benefit terms ³	0
f. Difference between expected and actual experience ³	(1,115,228)
g. Changes of assumptions ³	0
h. Estimated Total Pension Liability at June 30, 2020 ⁴	\$18,888,003
2. Plan Fiduciary Net Position	
a. Plan Fiduciary Net Position at July 1, 2019 ^{1,5}	\$17,190,938
b. Expected Contributions - employer	623,579
c. Expected Contributions - member	0
d. Expected investment income	1,220,038
e. Expected Benefit payments	(1,362,151)
f. Expected Trustee fees	(23,878)
g. Estimated Plan Fiduciary Net Position at June 30, 2020 ⁴	\$17,648,526
3. Estimated Net Pension Liability: (1h) – (2g)	\$1,239,477
4. Discount Rate	7.25%

¹ From June 30, 2019 disclosure report, based on the January 1, 2018 actuarial valuation.

² Discounted from January 1, 2020 valuation.

³ Deferred (Outflow)/Inflow of Resources established as of June 30, 2020.

⁴ For the Authority's 2020 financial statements, DFA will provide separate schedules based on actual benefit payments and asset information for the Authority as of June 30, 2020.

⁵ Fair value of assets at July 1, 2019.

GASB 68 Accounting Results (continued)

Deferred Inflows and Deferred Outflows of Resources Related to Pension

Type	Initial Amount	Date Established	Period (Years)	Annual Recognition
Difference between expected/actual experience	0	06/30/2015	0.0	0
Difference between expected/actual return on assets	473,010	06/30/2015	5.0	94,602
Changes in assumptions or other inputs	206,631	06/30/2015	9.0	22,959
Difference between expected/actual experience	(99,112)	06/30/2016	9.0	(11,012)
Difference between expected/actual return on assets	753,257	06/30/2016	5.0	150,651
Changes in assumptions or other inputs	(2,140,078)	06/30/2016	9.0	(237,786)
Difference between expected/actual experience	0	06/30/2017	0.0	0
Difference between expected/actual return on assets	(569,142)	06/30/2017	5.0	(113,828)
Changes in assumptions or other inputs	0	06/30/2017	0.0	0
Difference between expected/actual experience	(1,220,147)	06/30/2018	7.0	(174,307)
Difference between expected/actual return on assets	9,039	06/30/2018	5.0	1,808
Changes in assumptions or other inputs	0	06/30/2018	0.0	0
Difference between expected/actual experience	(175,206)	06/30/2019	6.0	(29,201)
Difference between expected/actual return on assets	(58,197)	06/30/2019	5.0	(11,639)
Changes in assumptions or other inputs	2,365,670	06/30/2019	7.0	337,953
Difference between expected/actual experience	(1,115,228)	06/30/2020	7.0	(159,318)
Difference between expected/actual return on assets	TBD	06/30/2020	5.0	TBD
Changes in assumptions or other inputs	TBD	06/30/2020	7.0	TBD

Net Pension Expense

We have determined the following components of the Authority's Net Pension Expense for the measurement year ending June 30, 2020: Service Cost of \$322,982, Interest Cost of \$1,200,970, Expected Return on Assets of (\$1,220,038), and Deferred Outflows and Inflows (determined as of the valuation date).

- Service Cost represents the present value of benefits accruing in the current year.
- Interest Cost represents the interest on the Total Pension Obligation and interest on the Service Cost.
- Expected Return on Assets is the expected return based on a 7.25% investment rate of return.
- Deferred Outflows and Inflows of Resources (determined as of the valuation date) are changes in the Net Pension Liability resulting from differences between projected and actual plan experience, from differences between projected and actual Pension plan investments, and from changes in assumptions.

The Net Pension Expense will reflect additional Deferred Outflows and Inflows that will be determined based on the Net Pension Obligation as of June 30, 2020.

DFA will be available to assist the Authority and its auditors in preparing the footnotes and required supplemental information for compliance with GASB 68. In the meantime, we are available to answer any questions the Authority may have concerning the report.

GASB 68 Accounting Results (continued)

Actuarially Determined Contribution

We have calculated an actuarially determined contribution representing the Service Cost and a 12-year amortization (as a level dollar) of the Net OPEB Liability.

An actuarially determined contribution is a potential payment to the plan determined using a contribution allocation procedure. It is not a required contribution, but a measurement commonly used to prefund Pension benefits. We provide the amounts for illustrative purposes.

	6/30/2020	6/30/2021
Long Term Rate of Return	7.25%	7.25%
Salary Scale	3.25%	3.25%
Actuarially Determined Contribution	\$569,903 ⁶	\$573,792

⁶ The ADC from July 1, 2019 to December 31, 2019 was determined in the January 1, 2018 ARBA actuarial report.

Funding Schedules

There are many ways to approach the pre-funding of postretirement benefits. In the earlier sections of this report, we have determined the net pension liability and annual pension expense for all Authority-paid benefits under the accrual accounting standards of GASB 68. The expense is an orderly methodology, developed by the GASB, to account for pension benefits. However, the GASB 68 results have no direct relation to amounts the Authority may set aside to pre-fund its pension benefits.

The table on the next page provides the Authority with three alternative schedules for funding (as contrasted with expensing) pension benefits. The schedules all assume that the Authority's trust fund earns 7.25% per annum on its investments, a starting trust balance of \$17,149,513 as of January 1, 2020, and that contributions and benefits are paid mid-year.

The schedules are:

1. A level contribution amount for the next 20 years.
2. A level percent of the Unfunded Accrued Liability.
3. A constant percentage (3.25%) increase for the next 20 years.

We provide these funding schedules to give the Authority a sense of the various alternatives available to it to pre-fund its pension obligation with respect to the ARBA Plan. The three funding schedules are simply three different examples of how the Authority may choose to spread its costs.

By comparing the schedules, you can see the effect that early pre-funding has on the total amount the Authority will eventually have to pay. Because of investment earnings on fund assets, the earlier contributions are made, the less the Authority will have to pay in the long run. Of course, the advantages of pre-funding will have to be weighed against other uses of the money.

The table on the following page shows the required annual outlay under the pay-as-you-go method and each of the above schedules. **The three funding schedules include the "pay-as-you-go" costs; therefore, the amount of pre-funding is the excess over the "pay-as-you-go" amount.**

Funding Schedules (continued)

Sample Funding Schedules (Closed Group)
Starting Trust Value of \$17,149,513 as of January 1, 2020

Year Beginning	Pay-as-you-go	Level Contribution for 20 years	Level % of Unfunded Liability	Constant Percentage Increase
2020	\$1,397,703	\$363,870	\$201,204	\$284,065
2021	1,448,595	363,870	229,303	293,298
2022	1,496,663	363,870	255,157	302,830
2023	1,543,070	363,870	278,714	312,672
2024	1,586,591	363,870	299,948	322,834
2025	1,626,229	363,870	318,823	333,326
2026	1,661,697	363,870	335,308	344,159
2027	1,693,050	363,870	349,381	355,344
2028	1,719,150	363,870	361,035	366,893
2029	1,740,405	363,870	370,269	378,817
2030	1,758,532	363,870	377,103	391,128
2031	1,771,086	363,870	381,577	403,840
2032	1,777,456	363,870	383,730	416,964
2033	1,775,959	363,870	383,620	430,516
2034	1,767,724	363,870	381,318	444,508
2035	1,753,739	363,870	368,962	458,954
2036	1,734,139	363,870	348,192	473,870
2037	1,708,475	363,870	328,598	489,271
2038	1,678,152	363,870	310,112	505,172
2039	1,643,264	363,870	292,671	521,590
2040	1,605,028	0	276,216	0
2041	1,563,311	0	260,690	0
2042	1,518,603	0	246,040	0
2043	1,471,424	0	232,218	0
2044	1,422,191	0	219,175	0
2045	1,370,771	0	206,867	0
2046	1,317,700	0	195,252	0
2047	1,263,503	0	184,292	0
2048	1,208,419	0	173,948	0
2049	1,152,878	0	164,186	0
2050	1,097,725	0	154,973	0
2055	832,983	0	116,112	0
2060	600,097	0	86,994	0
2065	408,348	0	65,167	0
2070	262,163	0	48,801	0
2075	157,733	0	36,530	0
2080	87,664	0	27,332	0
2085	43,571	0	20,441	0

Plan Provisions

This report analyzes the actuarially projected costs of the Orange County Transportation Authority's Additional Retiree Benefit Account. These benefits are considered pensions and are provided through the BlackRock Trust.

Eligibility

Employees who have attained age 50 and completed 10 years of service with the Authority are eligible for the ARBA benefit in retirement.

Benefits

The ARBA monthly benefit is calculated using years of service. An eligible employee earns \$10 per month for every year of service with the Authority. The maximum monthly benefit is \$150 per month. The monthly benefit does not change and is paid for the lifetime of the retiree.

The ARBA plan does not include any benefits for termination, disability, or death. The ARBA benefit does not continue to a surviving spouse.

Valuation Data

Retiree Census - Age distribution of retirees receiving ARBA benefits

Age	Total
Under 55	10
55-59	41
60-64	126
65-69	228
70-74	184
75-79	141
80-84	42
85+	23
All Ages	795
Average Age	70.17

Active Census - Age/service distribution of active employees included in the valuation

Age	Years of Service									Total
	< 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
<25	5	8	0	0	0	0	0	0	0	13
25-29	31	38	7	0	0	0	0	0	0	76
30-34	29	30	22	4	0	0	0	0	0	85
35-39	15	29	20	31	8	0	0	0	0	103
40-44	19	23	22	36	42	6	0	0	0	148
45-49	29	26	21	31	43	20	7	0	0	177
50-54	30	26	29	29	63	26	14	10	0	227
55-59	11	16	19	34	77	30	26	25	7	245
60-64	6	12	14	23	43	23	20	18	15	174
65+	0	2	8	7	23	9	6	4	6	65
All Ages	175	210	162	195	299	114	73	57	28	1,313

Average Age: 49.6
Average Service: 12.9

Actuarial Assumptions

The liabilities set forth in this report are based on the actuarial assumptions described in this section.

Valuation Date:	January 1, 2020
Actuarial Cost Method:	Entry Age, Level Percent of Pay
Discount Rate:	7.25% per annum, net of investment expenses
Salary Increases:	3.25% per annum for all purposes
Withdrawal:	OCERS termination rates for General OCTA employees from December 31, 2018 actuarial valuation.
Pre-retirement Mortality:	Headcount-Weighted RP-2014 (RPH-2014) Employee Mortality Tables multiplied by 80%, projected generationally with the two-dimensional MP-2016 projection scale.
Postretirement Mortality:	Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, projected generationally with the two-dimensional MP-2016 projection scale.
Retirement:	OCERS retirement rates for General Non-Enhanced employees from December 31, 2018 actuarial valuation
Normal Form of Payment:	Life Annuity.
Optional Forms of Payment:	Not Applicable.

Actuarial Certification

The results set forth in this report are based on our actuarial valuation of the Additional Retiree Benefit Account of the Orange County Transportation Authority ("Authority") as of January 1, 2020.

The valuation was performed in accordance with generally accepted actuarial principles and practices. We relied on census data for active employees and retirees provided to us by the Authority. We also made use of copies of relevant sections of pension documents provided to us by the Authority, as well as trust account values as reported to the Authority by BlackRock.

The assumptions used in performing the valuation, as summarized in this report, and the results based thereupon, represent our best estimate of the actuarial costs of the program under GASB 68, and the existing and proposed Actuarial Standards of Practice for measuring pension benefits.

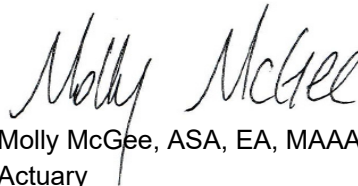
Throughout the report, we have used unrounded numbers, because rounding and the reconciliation of the rounded results would add an additional, and in our opinion unnecessary, layer of complexity to the valuation process. By our publishing of unrounded results, no implication is made as to the degree of precision inherent in those results. Clients and their auditors should use their own judgment as to the desirability of rounding when transferring the results of this valuation report to the clients' financial statements.

Each undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Certified by:



Carlos Diaz, ASA, EA, MAAA
Actuary



Molly McGee, ASA, EA, MAAA
Actuary



GASB Statement No. 68

**Supplemental Schedules
for Orange County Transportation Authority**

<i>Reporting Period:</i>	<i>July 1, 2019 to June 30, 2020</i>
<i>Measurement Period:</i>	<i>July 1, 2019 to June 30, 2020</i>
<i>Valuation Date:</i>	<i>January 1, 2020</i>

August 21, 2020

**Orange County Transportation Authority
Defined Benefit Pension Plan**

GASB 68 Disclosure Information

Note to Auditors

DFA, LLC (DFA) has prepared the following supplemental schedules to accompany the Authority's actuarial valuation as of January 1, 2020 to (1) facilitate preparation of GASB 68 reporting and (2) provide information that (if applicable) was not determinable as of the valuation date. We have prepared this supplement based on the results of our actuarial valuation and (if applicable) subsequent projections. We are available to discuss any differences between our calculations and your records.

Our actuarial valuation report is intended to comply with GASB 68's valuation requirements (at least one every two years); the following schedules are intended to provide the reporting information specific to the applicable reporting period (July 1, 2019 to June 30, 2020), with updates to the measurement date (June 30, 2020).

Notes to the Financial Statements for the Year Ended June 30, 2020

Plan Description

Plan administration. The Authority administers an Additional Retiree Benefit Account (ARBA). These benefits are considered pensions and are provided through the BlackRock Trust.

Benefits provided. Employees who have attained age 50 and completed 10 years of service with the Authority are eligible for the ARBA benefit in retirement.

The ARBA monthly benefit is calculated using years of service. An eligible employee earns \$10 per month for every year of service with the Authority. The maximum monthly benefit is \$150 per month. The monthly benefit does not change and is paid for the lifetime of the retiree.

The ARBA plan does not include any benefits for termination, disability, or death. The ARBA benefit does not continue to a surviving spouse.

Plan membership. At January 1, 2020, membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefit payments	795
Inactive plan members or beneficiaries entitled but not yet receiving benefit payments	0
Active plan members	1,313

Contributions. The Authority has established a trust account with BlackRock for the pre-funding of plan benefits. The Authority contributed \$622,196 to the trust for the fiscal year ending June 30, 2020.



**Orange County Transportation Authority
Defined Benefit Pension Plan**

GASB 68 Disclosure Information

Net Pension Liability

The Authority's Net Pension Liability was measured as of June 30, 2020 and the Total Pension Liability used to calculate the Net Pension Liability was determined by an actuarial valuation as of January 1, 2020. Standard actuarial update procedures were used to project/discount from valuation to measurement dates.

Actuarial assumptions. The total pension liability was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Actuarial cost method	Entry Age Normal Cost, Level Percent of Pay
Recognition of deferred inflows and outflows of resources	Closed period equal to the average of the expected remaining service lives of all employees provided with ARBA
Salary increases	3.25 percent
Inflation rate	3.25 percent

Pre-retirement mortality rates were based on the Headcount-Weighted RP-2014 (RPH-2014) Employee Mortality Tables multiplied by 80%, projected generationally with the two-dimensional MP-2016 projection scale. Post-retirement mortality rates were based on the Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, projected generationally with the two-dimensional MP-2016 projection scale.

Actuarial assumptions used in the January 1, 2020 valuation were based on a review of plan experience during the period January 1, 2018 to December 31, 2019.

Discount rate. GASB 68 requires a discount rate that reflects the following:

- The long-term expected rate of return on pension plan investments – to the extent that the Pension plan's fiduciary net position (if any) is projected to be sufficient to make projected benefit payments and assets are expected to be invested using a strategy to achieve that return;
- A yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher – to the extent that the conditions in (a) are not met.

To determine a resulting single (blended) rate, the amount of the plan's projected fiduciary net position (if any) and the amount of projected benefit payments is compared in each period of projected benefit payments. The discount rate used to measure the Authority's Total Pension liability is based on these requirements and the following information:

Reporting Date	Measurement Date	Long-Term Expected Return of Plan Investments (if any)	Fidelity GO AA 20 Years Municipal Index	Discount Rate
June 30, 2019	June 30, 2019	7.25%	3.13%	7.25%
June 30, 2020	June 30, 2020	7.25%	2.45%	7.25%



**Orange County Transportation Authority
Defined Benefit Pension Plan**

GASB 68 Disclosure Information

The components of the net Pension liability were as follows:

Total Pension liability	18,782,901
Plan fiduciary net position	17,382,329
Net Pension liability	\$1,400,572
Measurement date	June 30, 2020
Reporting date	June 30, 2020
Covered payroll	\$103,464,076
Net Pension liability (asset) as a percentage of covered payroll	1.35%
Plan fiduciary net position as a percentage of the total Pension liability	92.54%

Schedule of Changes in Net Pension Liability (July 1, 2019 to June 30, 2020)

Total Pension Liability	
Service Cost	322,982
Interest	1,200,970
Changes of benefit terms	0
Difference between expected and actual experience	(1,232,761)
Changes of assumptions	0
Benefit payments ¹	(1,349,720)
Net change in total Pension liability	(1,058,529)
Total Pension liability – July 1, 2019 (a)	\$19,841,430
Total Pension liability – June 30, 2020 (b)	\$18,782,901
Plan fiduciary net position	
Contributions – employer	622,196
Net investment income	942,603
Benefit payments	(1,349,720)
Trustee fees	(23,688)
Administrative expense	0
Net change in plan fiduciary net position	191,391
Plan fiduciary net position – July 1, 2019 (c)	\$17,190,938
Plan fiduciary net position – June 30, 2020 (d)	\$17,382,329
Net Pension liability – July 1, 2019 (c) – (a)	\$2,650,492
Net Pension liability – June 30, 2020 (d) – (b)	\$1,400,572

**Orange County Transportation Authority
Defined Benefit Pension Plan**

GASB 68 Disclosure Information

Sensitivity of the net Pension liability to changes in the discount rate. The following presents the net Pension liability, as well as what the net Pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.25 percent) or 1-percentage-point higher (8.25 percent) than the current discount rate:

	1% Decrease (6.25%)	Discount Rate (7.25%)	1% Increase (8.25%)
Net Pension liability (asset)	3,342,399	1,400,572	194,284

Statement of Changes in Fiduciary Net Position

Additions	
Employer contributions ¹	622,196
Investment income:	
Net increase in fair value of investments	942,603
Total additions	1,564,799
Deductions	
Trustee fees	23,688
Administrative expense	0
Benefit payments ¹	1,349,720
Total deductions	1,373,408
Net increase in net position	191,391
Net position restricted for postemployment benefits other than pensions	
Beginning of year – July 1, 2019	\$17,190,938
End of year – June 30, 2020	\$17,382,329

¹ Includes \$0 of pay-as-you-go contributions made from sources outside of trust.

**Orange County Transportation Authority
Defined Benefit Pension Plan**

GASB 68 Disclosure Information

Investments

Investment policy. The Authority's policy regarding the allocation of the plan's invested assets is established and may be amended by Authority management. The primary objective is to maximize total Plan return, subject to the risk and quality constraints set forth in the investment guidelines. The Authority's assets are invested through BlackRock. The asset allocation ranges as of June 30, 2020, are listed below:

Asset Class	Assumed Asset Allocation	Real Rate of Return
Broad U.S. Equity	50%	4.4%
Global ex-U.S. Equity	15%	5.5%
U.S. Fixed	35%	1.5%

Rate of return. For the year ended on the measurement date, the annual money-weighted rate of return on investments, net of investment expense, was 5.44 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts invested.

Annual money-weighted rate of return, net of investment expense	5.44%
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**Orange County Transportation Authority
Defined Benefit Pension Plan**

GASB 68 Disclosure Information

Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pension

At June 30, 2020, the Authority's deferred outflows of resources and deferred inflows of resources to Pension from the following sources are:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience ^{2,3}	0	1,914,734
Changes in assumptions or other inputs ^{2,3}	1,758,641	951,148
Differences between projected and actual return investments ^{2,3}	244,779	148,749
Total	\$2,003,420	\$3,014,631

² Measured at June 30, 2020.

³ See Schedule of Deferred Outflows and Inflows of Resources for additional information.

Amounts reported as deferred outflows and deferred inflows of resources will be recognized in Pension expense as follows:

Fiscal Year ending June 30:	Deferred Outflows of Resources	Deferred Inflows of Resources
2021	423,011	(753,884)
2022	423,010	(640,054)
2023	421,203	(640,056)
2024	398,244	(628,421)
2025	337,952	(176,109)
2026	0	(176,107)
2027	0	0
2028	0	0
2029	0	0
2030	0	0

**Orange County Transportation Authority
Defined Benefit Pension Plan**

GASB 68 Disclosure Information

Schedule of Deferred Outflows of Resources

Year	Type	Category	Initial Base	Amortization Period	Annual Recognition	Current Balance
2015	Deferred Outflow	Difference between expected and actual experience	0	0.0	0	0
2015	Deferred Outflow	Changes in assumptions	206,631	9.0	22,959	68,877
2015	Deferred Outflow	Net difference between projected and actual earnings on plan investments	473,010	5.0	94,602	0
2016	Deferred Outflow	Difference between expected and actual experience	0	0.0	0	0
2016	Deferred Outflow	Changes in assumptions	0	0.0	0	0
2016	Deferred Outflow	Net difference between projected and actual earnings on plan investments	753,257	5.0	150,651	0
2017	Deferred Outflow	Difference between expected and actual experience	0	0.0	0	0
2017	Deferred Outflow	Changes in assumptions	0	0.0	0	0
2017	Deferred Outflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2018	Deferred Outflow	Difference between expected and actual experience	0	0.0	0	0
2018	Deferred Outflow	Changes in assumptions	0	0.0	0	0
2018	Deferred Outflow	Net difference between projected and actual earnings on plan investments	9,039	5.0	1,808	3,615
2019	Deferred Outflow	Difference between expected and actual experience	0	0.0	0	0
2019	Deferred Outflow	Changes in assumptions	2,365,670	7.0	337,953	1,689,764
2019	Deferred Outflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2020	Deferred Outflow	Difference between expected and actual experience	0	7.0	0	0
2020	Deferred Outflow	Changes in assumptions	0	7.0	0	0
2020	Deferred Outflow	Net difference between projected and actual earnings on plan investments	301,455	5.0	60,291	241,164
					Total	2,003,420

**Orange County Transportation Authority
Defined Benefit Pension Plan**

GASB 68 Disclosure Information

Schedule of Deferred Inflows of Resources

Year	Type	Category	Initial Base	Amortization Period	Annual Recognition	Current Balance
2015	Deferred Inflow	Difference between expected and actual experience	0	0.0	0	0
2015	Deferred Inflow	Changes in assumptions	0	0.0	0	0
2015	Deferred Inflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2016	Deferred Inflow	Difference between expected and actual experience	99,112	9.0	11,012	44,052
2016	Deferred Inflow	Changes in assumptions	2,140,078	9.0	237,786	951,148
2016	Deferred Inflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2017	Deferred Inflow	Difference between expected and actual experience	0	0.0	0	0
2017	Deferred Inflow	Changes in assumptions	0	0.0	0	0
2017	Deferred Inflow	Net difference between projected and actual earnings on plan investments	569,142	5.0	113,828	113,830
2018	Deferred Inflow	Difference between expected and actual experience	1,220,147	7.0	174,307	697,226
2018	Deferred Inflow	Changes in assumptions	0	0.0	0	0
2018	Deferred Inflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2019	Deferred Inflow	Difference between expected and actual experience	175,206	6.0	29,201	116,804
2019	Deferred Inflow	Changes in assumptions	0	0.0	0	0
2019	Deferred Inflow	Net difference between projected and actual earnings on plan investments	58,197	5.0	11,639	34,919
2020	Deferred Inflow	Difference between expected and actual experience	1,232,761	7.0	176,109	1,056,652
2020	Deferred Inflow	Changes in assumptions	0	7.0	0	0
2020	Deferred Inflow	Net difference between projected and actual earnings on plan investments	0	5.0	0	0
Total						3,014,631



**Orange County Transportation Authority
Defined Benefit Pension Plan**

GASB 68 Disclosure Information

Net Pension Expense

The Authority's Net Pension expense was \$123,364.

Net Pension Liability - beginning (a)	\$2,650,492
Net Pension Liability – ending (b)	\$1,400,572
Change in Net Pension Liability [(b)-(a)]	(1,249,920)
Change in Deferred Outflows	272,209
Change in Deferred Inflows	478,879
Employer Contributions	622,196
Net Pension Expense – July 1, 2019 to June 30, 2020	\$123,364

Service Cost	322,982
Interest Cost	1,200,970
Expected Return on Assets	(1,220,370)
Changes of benefit terms	0
Recognition of Deferred Outflows and Inflows	
Differences between expected and actual experience	(390,629)
Changes of assumptions	123,126
Differences between projected and actual investments	87,285
Total	(180,218)
Net Pension Expense – July 1, 2019 to June 30, 2020	\$123,364

Actuarially Determined Contribution

The actuarially determined contributions from the most recent actuarial valuation are:

Actuarially Determined Contribution for year ending June 30, 2020	\$569,903
Actuarially Determined Contribution for year ending June 30, 2021	573,792

Valuation Date	January 1, 2020
Discount Rate (Expected Long-term Return on Assets)	7.25%
Salary Increases	3.25%

**Orange County Transportation Authority
Defined Benefit Pension Plan**

GASB 68 Disclosure Information

Actuarial Certification

The results set forth in this supplement are based on our actuarial valuation of the defined benefit pension plans of the Orange County Transportation Authority as of January 1, 2020.

The valuation was performed in accordance with generally accepted actuarial principles and practices. We relied on census data for active employees and retirees provided to us by the Authority. We also made use of claims, premium, expense, and enrollment data, and copies of relevant sections of healthcare documents provided to us by the Authority, and (when applicable) trust statements prepared by the trustee and provided to us by the Authority.

The assumptions used in performing the valuation, as summarized in this report, and the results based thereupon, represent our best estimate of the actuarial costs of the program under GASB 68, and the existing and proposed Actuarial Standards of Practice for measuring post-retirement healthcare benefits.

The undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Certified by:



Carlos Diaz, ASA, EA, MAAA
Actuary



Molly McGee, ASA, EA, MAAA
Actuary

Changsu Lee
Manager, General Accounting & Financial Reporting
Orange County Transportation Authority
550 South Main Street
Orange, CA 92863



August 20, 2020

Mr. Changsu Lee
Manager, General
Orange County Transportation Authority
Accounting & Financial Reporting
550 South Main Street
Orange, CA 92863

Re: Orange County Transportation Authority ("Authority") GASB 75 Valuation

Dear Mr. Lee:

This report sets forth the results of our GASB 75 actuarial valuation of the Authority's retiree health insurance program as of January 1, 2020.

In June 2004, the Governmental Accounting Standards Board (GASB) issued its accrual accounting standards for retiree healthcare benefits, GASB 43 and GASB 45. GASB 43/45 require public employers such as the Authority to perform periodic actuarial valuations to measure and disclose their retiree healthcare liabilities for the financial statements of both the employer and the trust, if any, set aside to pre-fund these liabilities. In June 2015, GASB released new accounting standards for postretirement benefit programs, GASB 74 and GASB 75, which replace GASB 43 and GASB 45, respectively.

The Authority selected DFA, LLC (DFA) to perform an actuarial valuation of the retiree health insurance program as of January 1, 2020. This report may be compared with the valuation performed by Jefferson Solutions, Inc. as of January 1, 2018, to see how the liabilities have changed since the last valuation.

Basis for Actuarial Valuation

To perform the valuation, we relied on the following information provided by the Authority:

- Census data for active employees and retirees
- Claims, premium, expense, and enrollment data
- Copies of relevant sections of healthcare documents, and
- (If applicable) trust statements prepared by the trustee

We also made certain assumptions regarding rates of employee turnover, retirement, and mortality, as well as economic assumptions regarding healthcare inflation and interest rates. Our assumptions are based on a standard set of assumptions used for similar valuations, modified as appropriate for the Authority.

A complete description of the actuarial assumptions used in the valuation is set forth in the Actuarial Assumptions section.

Orange County Transportation Authority
August 20, 2020
Page 2

Certification

The actuarial certification, including a caveat regarding limitations of scope, if any, is contained in the Actuarial Certification section.

We have enjoyed working with the Authority on this project and are available to answer any questions you may have concerning any information contained herein.

Disclosure of Risk

Considering recent events, it is important to call attention to the external risk factors associated with actuarial projections. An event like the COVID-19 pandemic has the potential to affect future measurements that would deviate from current long-term expectations. The following is a list of specific factors that impact OPEB liabilities:

- Census – retirement, turnover, and mortality experience different than expected.
- Medical coverage – premiums, participation, and level of coverage different than expected.
- Municipal bond rates – changes in applicable rates (rates are currently declining and may result in increased liabilities). Under GASB 75, the municipal rate may affect the discount rate. The quantitative effect of changes in the discount rate can be seen in the sensitivity results.
- Investment performance – (for funded plans) investment performance different than the long-term expected return. Investment performance may also affect the discount rate.

The current environment's impact on these factors will continue to unfold. We are available to discuss both short-term and long-term impact upon request.

Sincerely,
DFA, LLC



Carlos Diaz, ASA, EA, MAAA
Actuary



Molly McGee, ASA, EA, MAAA
Actuary

Financial Results

In this section, we present financial results based on a long-term expected return on general assets of 4.00%. This rate is based on our best estimate of expected long-term plan experience for unfunded plans such as the Authority's. Results for purposes of GASB 75 reporting are presented in the next section.

We have determined that the present value of all benefits expected to be paid by the Authority for its current and future retirees is \$3,508,677 as of January 1, 2020. If the Authority were to place this amount in a fund earning interest at the rate of 4.00% per year, and all other actuarial assumptions were exactly met, the fund would have exactly enough to pay all expected benefits.

When we apportion the \$3,508,677 into past service and future service components under the Entry Age, Level Percent of Pay Cost Method, the Total OPEB Liability is \$2,109,170 as of January 1, 2020. This represents the present value of all benefits accrued through the valuation date if each employee's liability is expensed from hire date until retirement date as a level percentage of pay. The \$2,109,170 is comprised of liabilities of \$1,542,653 for active employees and \$566,517 for retirees.



The Authority has not adopted an irrevocable trust for the pre-funding of retiree healthcare benefits. As of January 1, 2020, the trust balance or Plan Fiduciary's Net Position (GASB 75) is \$0.

The Net OPEB Liability, equal to the Total OPEB Liability over the Plan Fiduciary's Net Position, is \$2,109,170.

This valuation includes benefits for 29 retirees and 1,144 active employees who may become eligible to retire and receive benefits in the future. It excludes employees hired after the valuation date.

Implicit Subsidy and ASOP 6

Although the Authority does not directly contribute towards the cost of premiums for retirees, it incurs a financial obligation associated with value of an implicit subsidy.

When claims experience of both active employees and retirees are pooled in determining healthcare premiums, a retiree may pay an amount based on a blended pool of members that, on average, is younger and healthier. In a pooled environment, retiree claims are covered by premiums charged to retiree plus an added cost included in active premiums. Blended premium charged represents an "explicit" cost, while the added cost represents an "implicit" cost.

Actuarial Standard of Practice No. 6 (ASOP 6), revised in May 2014, provides guidance in measuring OPEB obligations and determining periodic costs or actuarially determined contributions. The standard specifies that in (almost all instances), the actuary must include the value of this implicit subsidy in the GASB 75 liabilities.

Financial Results (continued)

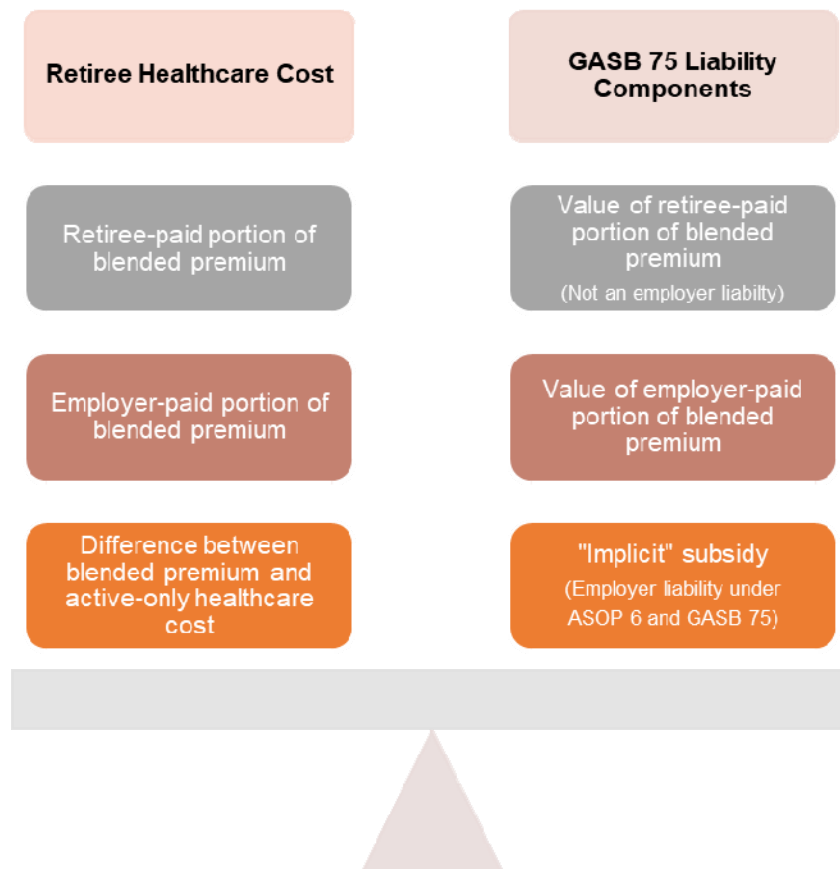
GASB 75, Paragraph B49 states:

Generally, the inclusion of inactive employees in the same pool as active employees for purposes of determining health insurance rates for the pool increases the blended premium rate charged for each active employee in the pool. This increase is a result of the relationship between healthcare claims costs and age.

However, if active and inactive employees are segregated into separate pools and premiums are calculated for each pool, the blended premium rate for active employees generally would be lower than the blended premium rate for inactive employees.

Therefore, if an employer provides inactive employees with the opportunity to participate in the same health insurance pool as active employees, the premiums paid for coverage of active employees are higher than what the premiums would be if the active employees were rated separately. The total amount by which the premiums are higher for active employees when they are pooled with inactive employees than when the active employees are separately rated, is sometimes referred to as an implicit rate subsidy in relation to the benefits for the inactive employees.

The (GASB) Board believes the difference in premiums if there is an implicit rate subsidy might be significant and that the blended premium does not reflect (a) the actual cost of providing the current benefit to the active employees (by overstating the costs incurred during the period) and (b) the cost of the OPEB (the future benefit payments) provided to active employees as part of the current period employment exchange (by not attributing any costs to the current period). Therefore, this Statement requires that claims costs, or age-adjusted premiums approximating claims costs be used to project benefit payments.



Financial Results (continued)

The table below provides the projected annual implicit subsidy payments on a closed group basis.

Year Beginning	Implicit Subsidy
2020	\$185,489
2021	194,845
2022	192,704
2023	212,537
2024	229,769
2025	228,533
2026	231,776
2027	246,178
2028	228,880
2029	246,348
2030	239,097
2031	244,171
2032	251,165
2033	244,738
2034	204,667
2035	199,693
2036	195,512
2037	177,279
2038	165,681
2039	155,581
2040	140,171
2041	146,172
2042	144,602
2043	145,775
2044	123,002
2045	105,283
2046	87,812
2047	78,835
2048	70,610
2049	65,355
2050	56,015
2055	39,256
2060	5,772
2065	0

Financial Results (continued)

Differences from Prior Valuation

This is the first complete valuation report prepared by DFA for the Authority. The previous valuation report was prepared by Jefferson Solutions, Inc. as of January 1, 2018. Results of their valuation were used to prepare financial report as of June 30, 2018 and June 30, 2019. The Total OPEB Liability as June 30, 2019 was \$2,926,841 (determined using a discount rate of 3.50%), compared to \$2,109,170 as of January 1, 2020 (using a discount rate of 4.00% in this section—results for purposes of GASB 75 reporting are presented in the following section).

Several factors have caused the Total OPEB Liability to change since 2018:

- An increase as employees accrue more service and get closer to receiving benefits.
- A decrease from a release of benefits.
- Changes in the plan census from new employees and differences between actual and expected retirement, terminations, and deaths.
- Changes in healthcare costs from differences between actual and expected healthcare trend.
- Changes in actuarial assumptions and methodology for the current valuation.
- Repeal of ACA Cadillac Tax.

Based on information provided by the Authority, the main factors resulting in a net decrease in liability (between January 1, 2018 and January 1, 2020) include changes in healthcare costs lower than expected, change in method used to develop expected claim costs, and the difference in discount rate used to compare the liabilities.

GASB 75 Results

For financial reporting purposes, GASB 75 requires a discount rate that reflects the following:

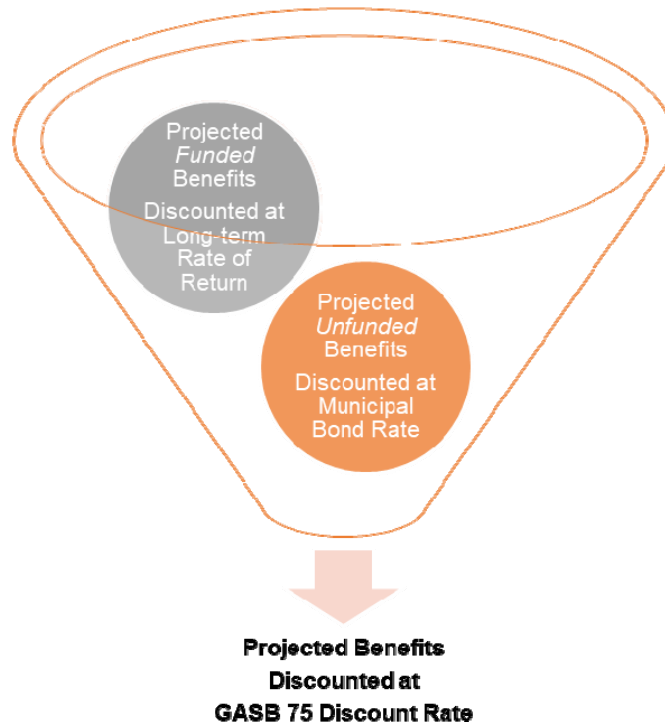
- The long-term expected rate of return on OPEB plan investments – to the extent that the OPEB plan's fiduciary net position is projected to be enough to make projected benefit payments and assets are expected to be invested using a strategy to achieve that return.
- A yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher – to the extent that the conditions in (a) are not met.

The amount of the plan's projected fiduciary net position and the amount of projected benefit payments should be compared in each period of projected benefit payments.

Based on these requirements and the following information, we have determined a discount rate of 2.75% for GASB 75 reporting purposes:

Long-Term Expected Return on Assets	4.00%
Fidelity General Obligations AA - 20 Years Index at December 31, 2019	2.75% ^a
GASB 75 Discount Rate	2.75% ^a

^a For the Authority's 2020 financial statements, DFA will provide separate schedules based on the municipal rate (and resulting GASB 75 rate) at June 30, 2020.



GASB 75 Results (continued)

Orange County Transportation Authority Net OPEB Liabilities and Expense Under GASB 75 Accrual Accounting Standard

	January 1, 2020 ¹		
	Long-Term Return	Municipal Bond Index	GASB 75 Rate
Discount Rate	4.00%	2.75%	2.75%
Present Value of Future Benefits			
Active	\$2,942,160	\$3,458,055	\$3,458,055
Retired	566,517	583,747	583,747
Total	\$3,508,677	\$4,041,802	\$4,041,802
Total OPEB Liability (Actuarial Liability)			
Active	\$1,542,653	\$1,659,510	\$1,659,510
Retired	566,517	583,747	583,747
Total	\$2,109,170	\$2,243,257	\$2,243,257
Plan Fiduciary Net Position (Plan Assets)	\$0	\$0	\$0
Net OPEB Liability (Unfunded Actuarial Liability)	\$2,109,170	\$2,243,257	\$2,243,257
Sensitivity Analysis			
1% Decrease in Discount Rate	3.00%	1.75%	1.75%
Net OPEB Liability	\$2,216,016	\$2,353,793	\$2,353,793
1% Increase in Discount Rate	5.00%	3.75%	3.75%
Net OPEB Liability	\$2,006,378	\$2,135,533	\$2,135,533
1% Decrease in Trend Rate	5.00% decreasing to 4.00%	5.00% decreasing to 4.00%	5.00% decreasing To 4.00%
Net OPEB Liability	\$1,950,244	\$2,065,369	\$2,065,369
1% Increase in Trend Rate	7.00% decreasing to 6.00%	7.00% decreasing to 6.00%	7.00% decreasing to 6.00%
Net OPEB Liability	\$2,288,294	\$2,444,701	\$2,444,701

¹ For the Authority's financial statements, DFA will provide separate schedules with supplemental GASB 75 information.

GASB 75 Results (continued)

Net OPEB Expense

We have determined the following components of the Authority's Net OPEB Expense for the measurement year ending June 30, 2021: Service Cost, Interest Cost, Expected Return on Assets, and Deferred Outflows and Inflows (determined as of the valuation date).

- Service Cost represents the present value of benefits accruing in the current year.
- Interest Cost represents the interest on the Total OPEB Obligation and interest on the Service Cost.
- Expected Return on Assets is the expected return based on a 4.00% investment rate of return.
- Deferred Outflows and Inflows of Resources (determined as of the valuation date) are changes in the Net OPEB Liability resulting from differences between projected and actual plan experience, from differences between projected and actual OPEB plan investments, and from changes in assumptions.

The Net OPEB Expense will reflect additional Deferred Outflows and Inflows that will be determined based on the Net OPEB Obligation as of June 30, 2021.

We summarize results in the table on the next page. For comparative purposes, we provide service cost and interest cost at three discount rates (the expected return on assets, the municipal bond index, and the GASB 75 rate, discussed above). We determine Deferred Outflows and Inflows solely on the applicable GASB 75 rate. All amounts are net of expected future retiree contributions, if any.

DFA will be available to assist the Authority and its auditors in preparing the footnotes and required supplemental information for compliance with GASB 75 (and GASB 74, if applicable). In the meantime, we are available to answer any questions the Authority may have concerning the report.

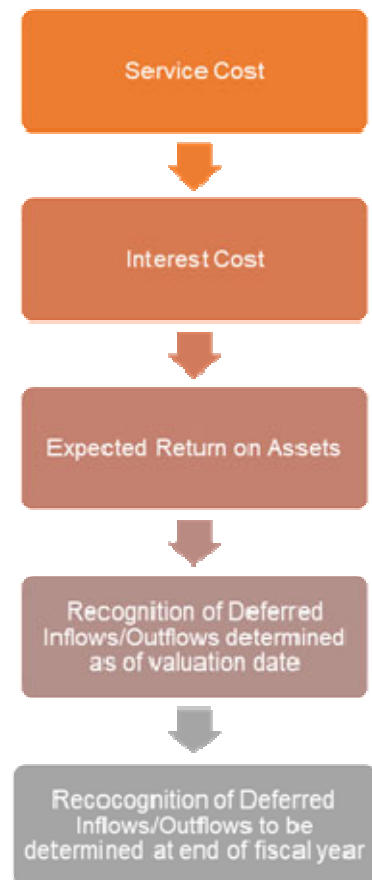
Actuarially Determined Contribution and Pay-As-You-Go with Implied Subsidy

We have calculated an actuarially determined contribution representing the Service Cost and a 30-year amortization (as a level percent of pay) of the Net OPEB Liability. We include the results in the table on the next page. We provide results at three discount rates (the expected long-term expected return on assets, the municipal bond index, and the GASB 75 rate).

An actuarially determined contribution is a potential payment to the plan determined using a contribution allocation procedure. It is not a required contribution, but a measurement commonly used to prefund OPEB benefits. We provide the amounts for illustrative purposes.

The actuarially determined contribution may be compared to the pay-as-you-go payment. The table shows the pay-as-you-go payment along with the projected implied subsidy payment.

The Funding Schedules section provides additional prefunding alternatives.



GASB 75 Results (continued)

Orange County Transportation Authority Net OPEB Liabilities and Expense Under GASB 75 Accrual Accounting Standard

	Projected to July 1, 2020		
	Long-Term Return	Municipal Bond Index	GASB 75 Rate
Discount Rate	4.00%	2.75% ^b	2.75% ^b
Components of Net OPEB Expense for 2020-21			
Service Cost (beginning of year)	\$152,686	\$178,038	\$178,038
Interest Cost	87,697	64,705	64,705
Expected Return on Assets	0	0	0
Total ²	\$240,383	\$242,743	\$242,743
Actuarially Determined Contribution (2020-21)			
Service Cost (end of year)	\$158,793	\$182,934	\$182,934
Amortization of Net OPEB Liability ³	82,000	72,378	72,378
Total ⁴	\$240,793	255,312	\$255,312
Pay-As-You-Go Payment with Implied Subsidy (2020-21)	\$190,167	\$190,167	\$190,167

^b For the Authority's 2021 financial statements, DFA will provide separate schedules based on the municipal rate (and resulting GASB 75 rate) at June 30, 2020 and June 30, 2021.

² Additional components are shown on the following pages. Deferred Outflows/Inflows of Resources will also include changes determined based on the Total OPEB Obligation and Plan Fiduciary Net Position as June 30, 2021.

³ 30-year amortization (as a level percent of pay).

⁴ Estimated Actuarially Determined Contribution for subsequent year:

	Long-Term Return	Municipal Bond Index	GASB 75 Rate
Actuarially Determined Contribution (2021-21)	\$248,619	\$263,610	\$263,610

GASB 75 Results (continued)

Schedule of Changes in Net OPEB Liability (July 1, 2019 to June 30, 2020)

1. Total OPEB Liability	
a. Total OPEB Liability at July 1, 2019 ⁵	\$2,926,841
b. Service Cost ⁶	152,529
c. Interest Cost	104,560
d. Benefit Payments ⁷	(185,489)
e. Changes in plan provisions ⁸	0
f. Difference between expected and actual experience ⁸	(868,910)
g. Changes in assumptions and other inputs ⁸	138,380
h. Estimated Total OPEB Liability at June 30, 2020 ^c	\$2,267,912
2. Plan Fiduciary Net Position	
a. Plan Fiduciary Net Position at July 1, 2019 ⁵	\$0
b. Contributions ⁷	185,489
c. Expected Investment Income	0
d. Benefit Payments ⁷	(185,489)
e. Difference between actual and expected return on assets ⁸	0
f. Estimated Plan Fiduciary Net Position at June 30, 2020 ^c	\$0
3. Net OPEB Liability: (1h) - (2f)	\$2,267,912
4. Discount Rate	
a. July 1, 2019	3.50%
b. January 1, 2020 ^c	2.75%

⁵ From June 30, 2020 disclosure report, based on the January 1, 2018 actuarial valuation.

⁶ Discounted from January 1, 2020 valuation.

⁷ Includes credit toward implicit subsidy.

⁸ Deferred (Outflow)/Inflow of Resources established as of June 30, 2020.

^c For the Authority's 2020 financial statements, DFA will provide separate schedules based on the municipal rate (and resulting GASB 75 rate) at June 30, 2020.

GASB 75 Results (continued)

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

Type	Initial Amount	Date Established	Period (Years)	Annual Recognition⁹
Difference between expected/actual experience	651,267	06/30/2018	6.3	103,555
Difference between expected/actual return on assets		06/30/2018	5.0	0
Changes in assumptions or other inputs	39,984	06/30/2018	6.3	6,356
Difference between expected/actual experience	11,723	06/30/2019	5.8	2,039
Difference between expected/actual return on assets		06/30/2019	5.0	0
Changes in assumptions or other inputs	(3,569)	06/30/2019	5.8	(621)
Difference between expected/actual experience	(868,910)	06/30/2020	5.7	(152,440)
Difference between expected/actual return on assets	0	06/30/2020	5.0	0
Changes in assumptions or other inputs	138,380	06/30/2020	5.7	24,277

⁹ Charge/(Credit) included in Net OPEB Expense.

Plan Provisions

OCTA sponsors and administers a single-employer defined-benefit postemployment healthcare plan (Plan) to provide medical insurance benefits to eligible retired employees.

Effective July 1, 2018, Coach Operators became eligible to participate in the (OPEB) plan sponsored and administered by OCTA. Previously, only Unrepresented Administrative (Admin) Employees and Transportation Communications International Union (TCU) Employees were eligible to continue participating in the group healthcare insurance program after retirement until age 65 for retirees who retire directly from OCTA.

Unrepresented Administrative Employees and TCU Employees in Orange County Employee Retirement (OCERS) Plan A and B must be at a minimum of age 50 with at least ten years of OCTA service and OCERS Plan U members must be at a minimum of age 52 with at least five years of OCTA service to meet eligibility requirements.

Coach Operators in OCERS Plan A and B must be at a minimum of age 55 with at least ten years of OCTA service and OCERS Plan U members must be at a minimum of age 55 with at least five years of OCTA service for eligibility.

The retiree pays the full premium for retiree, spouse, and dependents. OCTA does not provide any cash subsidy towards retiree medical benefits.

The tables below show monthly premiums for 2020 coverage:

	Administrative and TCU Retirees				
	Kaiser	Anthem HMO	Anthem PPO	Anthem CDHP	Kaiser Senior Advantage
Employee Only	\$661.00	\$710.00	\$898.00	\$660.00	\$258.00
Two-Party	\$1,388.00	\$1,491.00	\$1,883.00	\$1,387.00	
Family	\$1,981.00	\$2,129.00	\$2,692.00	\$1,979.00	

	Coach Operators			
	Kaiser	Anthem HMO	Anthem PPO	Kaiser Senior Advantage
Employee Only	\$655.00	\$710.00	\$898.00	\$266.00
Two-Party	\$1,293.00	\$1,491.00	\$1,883.00	
Family	\$1,823.00	\$2,129.00	\$2,692.00	

Valuation Data

Retiree Census - Age distribution of retirees included in the valuation

Age	Total
Under 55	0
55-59	5
60-64	24
65-69	0
70-74	0
75-79	0
80-84	0
85+	0
All Ages	29
Average Age	61.9

Active Census - Age/service distribution of active employees included in the valuation

Age	Years of Service								Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
<25	9	0	0	0	0	0	0	0	9
25-29	66	6	0	0	0	0	0	0	72
30-34	50	21	3	0	0	0	0	0	74
35-39	38	18	30	8	0	0	0	0	94
40-44	38	22	33	37	5	0	0	0	135
45-49	50	21	29	39	20	4	0	0	163
50-54	54	25	28	51	21	9	8	0	196
55-59	27	17	29	62	26	17	15	4	197
60-64	17	12	22	36	23	16	12	10	148
65+	2	6	6	19	8	5	4	6	56
All Ages	351	148	180	252	103	51	39	20	1,144

Average Age: 49.2
Average Service: 12.2

Actuarial Assumptions

The liabilities set forth in this report are based on the actuarial assumptions described in this section.

Valuation Date: January 1, 2020

Actuarial Cost Method: Entry Age, Level Percent of Pay

Discount Rate:

Long-term Expected Return	4.00%
Municipal Bond Index	2.75% (December 31, 2019)
GASB 75	2.75% (December 31, 2019)

Salary Increases: 3.25%

Withdrawal: OCERS termination rates for General OCTA employees from December 31, 2018 actuarial valuation.

Pre-retirement Mortality: Headcount-Weighted RP-2014 (RPH-2014) Employee Mortality Tables multiplied by 80%, projected generationally with the two-dimensional MP-2016 projection scale.

Postretirement Mortality: Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, projected generationally with the two-dimensional MP-2016 projection scale.

Retirement Rates: OCERS retirement rates for General Non-Enhanced employees from December 31, 2018 actuarial valuation.

Medical Claim Cost: Annual Per Retiree or Spouse

Age	Medical
50	\$7,920
55	9,996
60	12,432
64	14,928
65	3,228
70	3,096
75	3,312

Percent Electing Coverage:

Administrative	30%
TCU	10%
Coach Operators	30%

Spouse Coverage: Future retirees: 35%
Current retirees: Actual dependent data used.
Female spouses are assumed to be three years younger than male spouses.

Actuarial Assumptions (continued)

Medical Trend:

Sample Rates:

Year	Pre-Medicare	Medicare
2020	6.00%	4.00%
2021	5.90%	4.00%
2022	5.80%	4.00%
2023	5.70%	4.00%
2024	5.60%	4.00%
2025	5.50%	4.00%
2026	5.40%	4.00%
2027	5.30%	4.00%
2028	5.20%	4.00%
2029	5.10%	4.00%
2030+	5.00%	4.00%

Actuarial Certification

The results set forth in this report are based on our actuarial valuation of the health and welfare benefit plans of the Orange County Transportation Authority ("Authority") as of January 1, 2020.

The valuation was performed in accordance with generally accepted actuarial principles and practices. We relied on census data for active employees and retirees provided to us by the Authority. We also made use of claims, premium, expense, and enrollment data, and copies of relevant sections of healthcare documents provided to us by the Authority, and (when applicable) trust statements prepared by the trustee and provided to us by the Authority.

The assumptions used in performing the valuation, as summarized in this report, and the results based thereupon, represent our best estimate of the actuarial costs of the program under GASB 74 and GASB 75, and the existing and proposed Actuarial Standards of Practice for measuring post-retirement healthcare benefits.

Throughout the report, we have used unrounded numbers, because rounding and the reconciliation of the rounded results would add an additional, and in our opinion unnecessary, layer of complexity to the valuation process. By our publishing of unrounded results, no implication is made as to the degree of precision inherent in those results. Clients and their auditors should use their own judgment as to the desirability of rounding when transferring the results of this valuation report to the clients' financial statements.

Each undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Certified by:



Carlos Diaz, ASA, EA, MAAA
Actuary



Molly McGee, ASA, EA, MAAA
Actuary

Exhibit I

**Orange County Transportation Authority
GASB 75 Valuation Results By Fund**

	<u>Fund 01</u>	<u>Fund 30</u>	<u>Fund 34</u>	<u>Total</u>
<u>January 1, 2020</u>				
<i>Authority-paid Present Value of Benefits</i>				
Actives	\$ 1,152,830	\$ 2,299,160	\$ 6,065	\$ 3,458,055
Retirees	<u>215,679</u>	<u>368,068</u>	<u>-</u>	<u>583,747</u>
Total Authority-Paid PVFB:	\$ 1,368,509	\$ 2,667,228	\$ 6,065	\$ 4,041,802
<i>Authority-paid Total OPEB Liability</i>				
Actives	\$ 482,177	\$ 1,172,399	\$ 4,934	\$ 1,659,510
Retirees	<u>215,679</u>	<u>368,068</u>	<u>-</u>	<u>583,747</u>
Total Authority-Paid TOL:	\$ 697,856	\$ 1,540,467	\$ 4,934	\$ 2,243,257
<i>Plan Fiduciary Net Position ¹</i>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<i>Authority-paid Net OPEB Liability</i>	\$ 697,856	\$ 1,540,467	\$ 4,934	\$ 2,243,257
<u>Projected to July 1, 2020</u>				
<i>Components of Net OPEB Expense</i>				
Service Cost (beginning of year)	\$ 58,117	\$ 119,827	\$ 94	\$ 178,038
Interest Cost	20,385	44,181	140	64,705
Expected Return on Assets	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total ²	\$ 78,502	\$ 164,008	\$ 234	\$ 242,743

1. Assets, if any, allocated in proportion to AL for illustration purposes only; GASB 75 does not provide authority for this calculation.
2. Does not include Deferred Inflows/Outflows components that may apply at fiscal year-end.



GASB Statement No. 75

Supplemental Schedules for Orange County Transportation Authority

<i>Reporting Period:</i>	<i>July 1, 2020 to June 30, 2021</i>
<i>Measurement Period:</i>	<i>July 1, 2020 to June 30, 2021</i>
<i>Valuation Date:</i>	<i>January 1, 2020</i>

July 27, 2021

**Orange County Transportation Authority
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Note to Auditors

DFA, LLC (DFA) has prepared the following supplemental schedules to accompany the Authority's actuarial valuation as of January 1, 2020 to (1) facilitate preparation of GASB 75 reporting and (2) to provide information that (if applicable) was not determinable as of the valuation date. We have prepared this supplement based on the results of our actuarial valuation and (if applicable) subsequent projections. We are available to discuss and reconcile any differences between your records and our calculations.

Our actuarial valuation report is intended to comply with GASB 75's valuation requirements (at least one every two years); the following schedules are intended to provide the reporting information specific to the applicable reporting period (July 1, 2020 to June 30, 2021), with updates to the measurement date (June 30, 2021).

Notes to the Financial Statements for the Year Ended June 30, 2021

Plan Description

Plan administration. OCTA sponsors and administers a single-employer defined-benefit postemployment healthcare plan (Plan) to provide medical insurance benefits to eligible retired employees. Benefit provisions are established and may be amended by the Board of Directors of OCTA.

Benefits provided. Effective July 1, 2018, Coach Operators became eligible to participate in the (OPEB) plan sponsored and administered by OCTA. Previously, only Unrepresented Administrative (Admin) Employees and Transportation Communications International Union (TCU) Employees were eligible to continue participating in the group healthcare insurance program after retirement until age 65 for retirees who retire directly from OCTA.

Unrepresented Administrative Employees and TCU Employees in Orange County Employee Retirement (OCERS) Plan A and B must be at a minimum of age 50 with at least 10 years of OCTA service and OCERS Plan U members must be at a minimum of age 52 with at least five years of OCTA service to meet eligibility requirements.

Coach Operators in OCERS Plan A and B must be at a minimum of age 55 with at least 10 years of OCTA service and OCERS Plan U members must be at a minimum of age 55 with at least five years of OCTA service for eligibility.

The retiree pays the full premium for retiree, spouse, and dependents. OCTA does not provide any cash subsidy towards retiree medical benefits.

Plan membership. On January 1, 2020, the most recent valuation date, membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefit payments	29
Active plan members	1,144

Contributions. Because of the nature of the implied subsidy, OCTA allows retirees to participate in the same medical plan as active employees at the same premium rates. Because the rate is a "blended rate", payments for the active employees include an implied subsidy of what would normally be a higher rate for retirees if the retirees were in a stand-alone health plan. OCTA funds the benefits on a pay-as-you-go basis. No assets are accumulated in a trust that meets the criteria in Paragraph 4 of GASB Statement No. 75.



**Orange County Transportation Authority
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Total OPEB Liability

The Authority's Total OPEB Liability was measured as of June 30, 2021 and was determined by an actuarial valuation as of January 1, 2020. Standard actuarial update procedures were used to project/discount from valuation to measurement dates.

Actuarial assumptions. The total OPEB liability was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Actuarial cost method	Entry Age, Level Percent of Pay
Valuation of fiduciary net position	No assets held in an irrevocable trust as of the measurement date.
Recognition of deferred inflows and outflows of resources	Closed period equal to the average of the expected remaining service lives of all employees provided with OPEB
Salary increases	3.25 percent
Inflation rate	3.25 percent
Healthcare cost trend rate	5.90 percent for 2021; 5.80 percent for 2022; 5.70 percent for 2023; and decreasing 0.10 percent per year to an ultimate rate of 5.00 percent for 2029 and later years
Preretirement Mortality	Headcount-Weighted RP-2014 (RPH-2014) Employee Mortality Tables multiplied by 80%, projected generationally with the two-dimensional MP-2016 projection.
Postretirement Mortality	Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, projected generationally with the two-dimensional MP-2016 projection.

Actuarial assumptions used in the January 1, 2020 valuation were based on a review of plan experience during the period January 1, 2018 to December 31, 2019.

Discount rate. For OPEB Plans That Are Not Administered through Trusts That Meet the Criteria in Paragraph 4, GASB 75 requires a discount rate that is a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. The discount rate used to measure the Authority's Total OPEB liability is based on the following information:

Reporting Date	Measurement Date	Long-Term Expected Return of Plan Investments (if any)	Fidelity GO AA 20 Years Municipal Index	Discount Rate
June 30, 2020	June 30, 2020	4.00%	2.45%	2.45%
June 30, 2021	June 30, 2021	4.00%	1.92%	1.92%

**Orange County Transportation Authority
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

The Total OPEB liability was as follows:

Total OPEB liability	\$2,414,561
Measurement date	June 30, 2021
Reporting date	June 30, 2021
Covered employee payroll	\$82,937,348
Total OPEB liability as a percentage of covered payroll	2.91%

Schedule of Changes in Total OPEB Liability (June 30, 2020 to June 30, 2021)

Total OPEB Liability	
Service Cost	184,714
Interest	58,588
Changes of benefit terms	0
Difference between expected and actual experience	0
Changes in assumptions or other inputs	60,300
Benefit payments ¹	(190,167)
Net change in total OPEB liability	113,435
Total OPEB liability – June 30, 2020 (a)	\$2,301,126
Total OPEB liability – June 30, 2021 (b)	\$2,414,561

¹ Includes an implicit subsidy amounts of \$190,167.

Sensitivity of the Total OPEB liability to changes in the discount rate. The following presents the Total OPEB liability, as well as what the Total OPEB liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage-point higher than the current discount rate:

	1% Decrease (0.92%)	Discount Rate (1.92%)	1% Increase (2.92%)
Total OPEB liability	2,529,594	2,414,561	2,301,408

Sensitivity of the Total OPEB liability to changes in the healthcare cost trend rates. The following presents the Total OPEB liability, as well as what the Total OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates:

	1% Decrease (4.90% initial, 4.00% ultimate, 3.00% at Medicare ages)	Trend Rate (5.90% initial, 5.00% ultimate, 4.00% Medicare at ages)	1% Increase (6.90% initial, 6.00% ultimate, 5.00% at Medicare ages)
Total OPEB liability	2,185,236	2,414,561	2,676,949



**Orange County Transportation Authority
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

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

On June 30, 2021, the Authority's deferred outflows of resources and deferred inflows of resources to OPEB from the following sources are:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience ^{2,3}	242,653	564,030
Changes in assumptions or other inputs ^{2,3}	175,303	1,706
Total	\$417,956	\$565,736

² Measured on June 30, 2021.

³ See Schedule of Deferred Outflows and Inflows of Resources for additional information.

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

Fiscal Year ending June 30:	Deferred Outflows of Resources	Deferred Inflows of Resources
2022	152,998	(153,061)
2023	152,998	(153,061)
2024	74,361	(152,904)
2025	32,019	(106,710)
2026	5,580	0
2027	0	0
2028	0	0
2029	0	0
2030	0	0

**Orange County Transportation Authority
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Schedule of Deferred Outflows of Resources

Year	Type	Category	Initial Base	Amortization Period	Annual Recognition	Current Balance
2017	Deferred Outflow	Difference between expected and actual experience	0	0.0	0	0
2017	Deferred Outflow	Changes in assumptions or other inputs	0	0.0	0	0
2018	Deferred Outflow	Difference between expected and actual experience	651,267	6.3	103,555	237,047
2018	Deferred Outflow	Changes in assumptions or other inputs	39,984	6.3	6,356	14,560
2019	Deferred Outflow	Difference between expected and actual experience	11,723	5.8	2,039	5,606
2019	Deferred Outflow	Changes in assumptions or other inputs	0	0.0	0	0
2020	Deferred Outflow	Difference between expected and actual experience	0	0.0	0	0
2020	Deferred Outflow	Changes in assumptions or other inputs	171,595	5.7	30,104	111,387
2021	Deferred Outflow	Difference between expected and actual experience	0	5.5	0	0
2021	Deferred Outflow	Changes in assumptions or other inputs	60,300	5.5	10,944	49,356
Total						417,956

Schedule of Deferred Inflows of Resources

Year	Type	Category	Initial Base	Amortization Period	Annual Recognition	Current Balance
2017	Deferred Inflow	Difference between expected and actual experience	0	0.0	0	0
2017	Deferred Inflow	Changes in assumptions or other inputs	0	0.0	0	0
2018	Deferred Inflow	Difference between expected and actual experience	0	0.0	0	0
2018	Deferred Inflow	Changes in assumptions or other inputs	0	0.0	0	0
2019	Deferred Inflow	Difference between expected and actual experience	0	0.0	0	0
2019	Deferred Inflow	Changes in assumptions or other inputs	3,569	5.8	621	1,706
2020	Deferred Inflow	Difference between expected and actual experience	868,910	5.7	152,440	564,030
2020	Deferred Inflow	Changes in assumptions or other inputs	0	0.0	0	0
2021	Deferred Inflow	Difference between expected and actual experience	0	5.5	0	0
2021	Deferred Inflow	Changes in assumptions or other inputs	0	5.5	0	0
Total						565,736



**Orange County Transportation Authority
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

OPEB Expense

The Authority's OPEB expense was \$243,239.

Total OPEB Liability – beginning (a)	\$2,301,126
Total OPEB Liability – ending (b)	\$2,414,561
Change in Total OPEB Liability [(b)-(a)]	113,435
Change in Deferred Outflows	92,698
Change in Deferred Inflows	(153,061)
Employer Contributions	190,167
Adjustment	0
OPEB Expense – June 30, 2020 to June 30, 2021	\$243,239

Service Cost	184,714
Interest Cost	58,588
Changes of benefit terms	0
Recognition of Deferred Outflows and Inflows	
Differences between expected and actual experience	(46,846)
Changes of assumptions	46,783
Total	(63)
Adjustment	0
OPEB Expense – June 30, 2020 to June 30, 2021	\$243,239



**Orange County Transportation Authority
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Journal Entries⁴

OPEB Expense Journal Entries - June 30, 2021 Reporting Date

		Debit	Credit
Differences between Expected and Actual Experience	Deferred Outflows	\$0	\$(105,594)
	Deferred Inflows	152,440	0
Change in Assumptions and Other Inputs	Deferred Outflows	12,896	0
	Deferred Inflows	621	0
Total OPEB Liability		0	(303,602)
OPEB Expense/Credit		243,239	0
<i>Total</i>		<i>\$409,196</i>	<i>\$(409,196)</i>

Employer Contribution Journal Entries - June 30, 2021 Reporting Date

		Debit	Credit
Contributions paid July 1, 2020 to June 30, 2021	Total OPEB Liability	\$190,167	\$0
	Other Healthcare (Implicit Subsidy)	0	\$(190,167)
	Contributions Expense	0	0
<i>Total</i>		<i>\$190,167</i>	<i>\$(190,167)</i>

⁴ Provided for reference. Actual entries may differ. DFA is available to discuss any differences.

**Orange County Transportation Authority
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Actuarial Certification

The results set forth in this supplement are based on our actuarial valuation of the health and welfare benefit plans of the Orange County Transportation Authority as of July 1, 2020.

The valuation was performed in accordance with generally accepted actuarial principles and practices. We relied on census data for active employees and retirees provided to us by the Authority. We also made use of claims, premium, expense, and enrollment data, and copies of relevant sections of healthcare documents provided to us by the Authority, and (when applicable) trust statements prepared by the trustee and provided to us by the Authority.

The assumptions used in performing the valuation, as summarized in this report, and the results based thereupon, represent our best estimate of the actuarial costs of the program under GASB 74 and GASB 75, and the existing and proposed Actuarial Standards of Practice for measuring post-retirement healthcare benefits.

Each undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Certified by:

A handwritten signature in blue ink, appearing to read 'Carlos Diaz', with a stylized flourish at the end.

Carlos Diaz, ASA, EA, MAAA
Actuary

Changsu Lee
Manager, General
Orange County Transportation Authority
Accounting & Financial Reporting
550 South Main Street
Orange, CA 92863



GASB Statement No. 75

Supplemental Schedules for Orange County Transportation Authority

<i>Reporting Period:</i>	<i>July 1, 2019 to June 30, 2020</i>
<i>Measurement Period:</i>	<i>July 1, 2019 to June 30, 2020</i>
<i>Valuation Date:</i>	<i>January 1, 2020</i>

August 20, 2020

**Orange County Transportation Authority
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Note to Auditors

DFA, LLC (DFA) has prepared the following supplemental schedules to accompany the Authority's actuarial valuation as of January 1, 2020 to (1) facilitate preparation of GASB 75 reporting and (2) provide information that (if applicable) was not determinable as of the valuation date. We have prepared this supplement based on the results of our actuarial valuation and (if applicable) subsequent projections. We are available to discuss any differences between our calculations and your records.

Our actuarial valuation report is intended to comply with GASB 75's valuation requirements (at least one every two years); the following schedules are intended to provide the reporting information specific to the applicable reporting period (July 1, 2019 to June 30, 2020), with updates to the measurement date (June 30, 2020).

Notes to the Financial Statements for the Year Ended June 30, 2020

Plan Description

Plan administration. OCTA sponsors and administers a single-employer defined-benefit postemployment healthcare plan (Plan) to provide medical insurance benefits to eligible retired employees. Benefit provisions are established and may be amended by the Board of Directors of OCTA. Effective July 1, 2018, Coach Operators became eligible to participate in the (OPEB) plan sponsored and administered by OCTA. Previously, only Unrepresented Administrative (Admin) Employees and Transportation Communications International Union (TCU) Employees were eligible to continue participating in the group healthcare insurance program after retirement until age 65 for retirees who retire directly from OCTA.

Benefits provided. Unrepresented Administrative Employees and TCU Employees in Orange County Employee Retirement (OCERS) Plan A and B must be at a minimum of age 50 with at least 10 years of OCTA service and OCERS Plan U members must be at a minimum of age 52 with at least five years of OCTA service to meet eligibility requirements.

Coach Operators in OCERS Plan A and B must be at a minimum of age 55 with at least 10 years of OCTA service and OCERS Plan U members must be at a minimum of age 55 with at least five years of OCTA service for eligibility.

The retiree pays the full premium for retiree, spouse, and dependents. OCTA does not provide any cash subsidy towards retiree medical benefits.

Plan membership. At June 30, 2020, membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefit payments	29
Active plan members	1,144

Contributions. Because of the nature of the implied subsidy, OCTA allows retirees to participate in the same medical plan as active employees at the same premium rates. Because the rate is a "blended rate", payments for the active employees include an implied subsidy of what would normally be a higher rate for retirees if the retirees were in a stand-alone health plan. OCTA funds the benefits on a pay-as-you-go basis. No assets are accumulated in a trust that meets the criteria in Paragraph 4 of GASB Statement No. 75.



**Orange County Transportation Authority
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Net OPEB Liability

The Authority's Net OPEB Liability was measured as of June 30, 2020 and the Total OPEB Liability used to calculate the Net OPEB Liability was determined by an actuarial valuation as of January 1, 2020. Standard actuarial update procedures were used to project/discount from valuation to measurement dates.

Actuarial assumptions. The total OPEB liability was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Actuarial cost method	Entry Age, Level Percent of Pay
Recognition of deferred inflows and outflows of resources	Closed period equal to the average of the expected remaining service lives of all employees provided with OPEB
Salary increases	3.25 percent
Inflation rate	3.25 percent
Healthcare cost trend rate	6.00 percent for 2020; 5.90 percent for 2021; 5.80 percent for 2022; and decreasing 0.10 percent per year to an ultimate rate of 5.00 percent for 2029 and later years

Pre-retirement mortality rates were based on the Headcount-Weighted RP-2014 (RPH-2014) Employee Mortality Tables multiplied by 80%, projected generationally with the two-dimensional MP-2016 projection scale. Post-retirement mortality rates were based on the Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, projected generationally with the two-dimensional MP-2016 projection scale.

Actuarial assumptions used in the January 1, 2020 valuation were based on a review of plan experience during the period January 1, 2018 to December 31, 2019.

Discount rate. GASB 75 requires a discount rate that reflects the following:

- The long-term expected rate of return on OPEB plan investments – to the extent that the OPEB plan's fiduciary net position (if any) is projected to be enough to make projected benefit payments and assets are expected to be invested using a strategy to achieve that return;
- A yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher – to the extent that the conditions in (a) are not met.

To determine a resulting single (blended) rate, the amount of the plan's projected fiduciary net position (if any) and the amount of projected benefit payments is compared in each period of projected benefit payments. The discount rate used to measure the Authority's Total OPEB liability is based on these requirements and the following information:

Reporting Date	Measurement Date	Long-Term Expected Return of Plan Investments (if any)	Municipal Index	Municipal Rate	Discount Rate
June 30, 2019	June 30, 2019	4.00%	Bond Buyer 20 Bond GO Index	3.50%	3.50%
June 30, 2020	June 30, 2020	4.00%	Fidelity GO AA 20 Years Municipal Index	2.45%	2.45%



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The components of the net OPEB liability were as follows:

Total OPEB liability	2,301,126
Plan fiduciary net position	0
Net OPEB liability	\$2,301,126
Measurement date	June 30, 2020
Reporting date	June 30, 2020
Covered payroll	\$82,049,781
Net OPEB liability (asset) as a percentage of covered payroll	2.80%
Plan fiduciary net position as a percentage of the total OPEB liability	0.00%

Schedule of Changes in Net OPEB Liability (June 30, 2019 to June 30, 2020)

Total OPEB Liability	
Service Cost	152,529
Interest	104,560
Changes of benefit terms	0
Difference between expected and actual experience	(868,910)
Changes of assumptions	171,595
Benefit payments ¹	(185,489)
Net change in total OPEB liability	(625,715)
Total OPEB liability – June 30, 2019 (a)	\$2,926,841
Total OPEB liability – June 30, 2020 (b)	\$2,301,126
Plan fiduciary net position	
Contributions – employer ¹	185,489
Net investment income	0
Benefit payments ¹	(185,489)
Trustee fees	0
Administrative expense	0
Net change in plan fiduciary net position	0
Plan fiduciary net position – June 30, 2019 (c)	\$0
Plan fiduciary net position – June 30, 2020 (d)	\$0
Net OPEB liability – June 30, 2019 (c) – (a)	\$2,926,841
Net OPEB liability – June 30, 2020 (d) – (b)	\$2,301,126

¹ Amount includes any implicit subsidy associated with benefits paid (see Page 5).

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Sensitivity of the net OPEB liability to changes in the discount rate. The following presents the net OPEB liability, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage-point higher than the current discount rate:

	1% Decrease (1.45%)	Discount Rate (2.45%)	1% Increase (3.45%)
Net OPEB liability (asset)	2,413,277	2,301,126	2,191,488

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates. The following presents the net OPEB liability, as well as what the net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates:

	1% Decrease (5.00% initial to 4.00% ultimate)	Trend Rate (6.00% initial to 5.00% ultimate)	1% Increase (7.00% initial to 6.00% ultimate)
Net OPEB liability (asset)	2,106,542	2,301,126	2,522,287

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Statement of Changes in Fiduciary Net Position

Additions	
Employer contributions ²	185,489
Investment income:	
Net increase in fair value of investments	0
Total additions	185,489
Deductions	
Trustee fees	0
Administrative expense	0
Benefit payments ²	185,489
Total deductions	185,489
Net increase in net position	0
Net position restricted for postemployment benefits other than pensions	
Beginning of year – June 30, 2019	\$0
End of year – June 30, 2020	\$0

² Includes an implicit subsidy amount of \$185,489.

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

At June 30, 2020, the Authority's deferred outflows of resources and deferred inflows of resources to OPEB from the following sources are:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience ^{3,4}	348,247	716,470
Changes in assumptions or other inputs ^{3,4}	162,407	2,327
Differences between projected and actual return investments ^{3,4}	0	0
Total	\$510,654	\$718,797

³ Measured at June 30, 2020.

⁴ See Schedule of Deferred Outflows and Inflows of Resources for additional information.

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

Fiscal Year ending June 30:	Deferred Outflows of Resources	Deferred Inflows of Resources
2021	142,054	(153,061)
2022	142,054	(153,061)
2023	142,054	(153,061)
2024	63,417	(152,904)
2025	21,075	(106,710)
2026	0	0
2027	0	0
2028	0	0
2029	0	0
2030	0	0

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Schedule of Deferred Outflows of Resources

Year	Type	Category	Initial Base	Amortization Period	Annual Recognition	Current Balance
2017	Deferred Outflow	Difference between expected and actual experience	0	0.0	0	0
2017	Deferred Outflow	Changes in assumptions	0	0.0	0	0
2017	Deferred Outflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2018	Deferred Outflow	Difference between expected and actual experience	651,267	6.3	103,555	340,602
2018	Deferred Outflow	Changes in assumptions	39,984	6.3	6,356	20,916
2018	Deferred Outflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2019	Deferred Outflow	Difference between expected and actual experience	11,723	5.8	2,039	7,645
2019	Deferred Outflow	Changes in assumptions	0	0.0	0	0
2019	Deferred Outflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2020	Deferred Outflow	Difference between expected and actual experience	0	5.7	0	0
2020	Deferred Outflow	Changes in assumptions	171,595 ⁵	5.7	30,104	141,491
2020	Deferred Outflow	Net difference between projected and actual earnings on plan investments	0	5.0	0	0
Total						510,654

⁵ Change in assumptions:

From Page 12 of January 1, 2020 actuarial valuation	\$138,380
Change in discount rate from 2.75% to 2.45% as of June 30, 2020	33,215
Total	\$171,595



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Schedule of Deferred Inflows of Resources

Year	Type	Category	Initial Base	Amortization Period	Annual Recognition	Current Balance
2017	Deferred Inflow	Difference between expected and actual experience	0	0.0	0	0
2017	Deferred Inflow	Changes in assumptions	0	0.0	0	0
2017	Deferred Inflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2018	Deferred Inflow	Difference between expected and actual experience	0	0.0	0	0
2018	Deferred Inflow	Changes in assumptions	0	0.0	0	0
2018	Deferred Inflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2019	Deferred Inflow	Difference between expected and actual experience	0	0.0	0	0
2019	Deferred Inflow	Changes in assumptions	3,569	5.8	621	2,327
2019	Deferred Inflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2020	Deferred Inflow	Difference between expected and actual experience	868,910	5.7	152,440	716,470
2020	Deferred Inflow	Changes in assumptions	0	5.7	0	0
2020	Deferred Inflow	Net difference between projected and actual earnings on plan investments	0	5.0	0	0
Total						718,797



**Orange County Transportation Authority
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Net OPEB Expense

The Authority's Net OPEB expense was \$246,082.

Net OPEB Liability – beginning (a)	\$2,926,841
Net OPEB Liability – ending (b)	\$2,301,126
Change in Net OPEB Liability [(b)-(a)]	(625,715)
Change in Deferred Outflows	(29,541)
Change in Deferred Inflows	715,849
Employer Contributions	185,489
Net OPEB Expense – June 30, 2019 to June 30, 2020	\$246,082

Service Cost	152,529
Interest Cost	104,560
Expected Return on Assets	0
Changes of benefit terms	0
Recognition of Deferred Outflows and Inflows	
Differences between expected and actual experience	(46,846)
Changes of assumptions	35,839
Differences between projected and actual investments	0
Total	(11,007)
Net OPEB Expense – June 30, 2019 to June 30, 2020	\$246,082

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Actuarial Certification

The results set forth in this supplement are based on our actuarial valuation of the health and welfare benefit plans of the Orange County Transportation Authority as of January 1, 2020.

The valuation was performed in accordance with generally accepted actuarial principles and practices. We relied on census data for active employees and retirees provided to us by the Authority. We also made use of claims, premium, expense, and enrollment data, and copies of relevant sections of healthcare documents provided to us by the Authority, and (when applicable) trust statements prepared by the trustee and provided to us by the Authority.

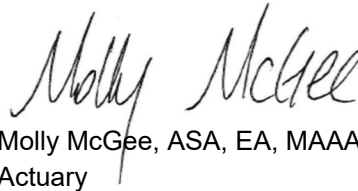
The assumptions used in performing the valuation, as summarized in this report, and the results based thereupon, represent our best estimate of the actuarial costs of the program under GASB 74 and GASB 75, and the existing and proposed Actuarial Standards of Practice for measuring post-retirement healthcare benefits.

Each undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Certified by:



Carlos Diaz, ASA, EA, MAAA
Actuary



Molly McGee, ASA, EA, MAAA
Actuary

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