CHEIRON *Classic Values, Innovative Advice*

Santa Clara Valley Transportation Authority Amalgamated Transit Union, Local 265 Vision/Dental Fund

Actuarial Analysis as of January 1, 2018

Produced by Cheiron
July 2018

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Via Electronic Mail

July 31, 2018

Maria Chávez
Santa Clara Valley Transportation Authority
Employee Services Department
3331 North First Street, Building A
San Jose, CA 95134-1906

Re: Santa Clara VTA Amalgamated Transit Union, Local 265 Vision/Dental Fund

Dear Ms. Chávez:

Cheiron has been retained by the Santa Clara Valley Transportation Authority (VTA) Board of Pensions (BOP) to review the status of the Amalgamated Transit Union, Local 265 Vision/Dental Fund. The Fund is established to pay vision and dental costs for qualified retirees represented by the Amalgamated Transit Union (ATU), Local 265. Currently, the actual vision benefits to be paid from the Fund have not yet been determined and only dental benefits are paid from the Fund.

The purpose of this report is to present the actuarial review and analysis of ATU Local 265 Vision/Dental Fund as of January 1, 2018. This report presents an estimate of the sustainable benefit levels based on current assets and expected contributions.

Appendix A describes the member data, assumptions, and methods used in calculating the figures throughout the report. In preparing our report, we relied, on information supplied by VTA. This information includes, but is not limited to the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with the Actuarial Standard of Practice No. 23.

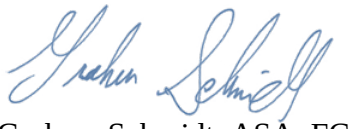
The results of this report are based on future experience conforming to the actuarial assumptions used. The results will change to the extent that future experience differs from the assumptions. This analysis report does not reflect future changes in benefits, penalties, taxes, or administrative costs that may be required as a result of the Patient Protection and Affordable Care Act of 2010, related legislation, or regulations.

The results of this valuation report reflect only the financial condition of the Fund as of the valuation date. We recommend reviewing forecasts of the plan's financial condition under alternative scenarios. Such forecasts, however, are beyond the scope of this assignment.

This report was prepared for the BOP for the purposes described herein. This analysis report is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

We hereby certify that, to the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

Sincerely,
Cheiron



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Associate Actuary

SECTION I – SUMMARY OF RESULTS

The Santa Clara BOP has engaged Cheiron to provide a review of VTA's Amalgamated Transit Union, Local 265 Vision/Dental Fund. The primary purpose of performing this actuarial analysis is to:

- Compute the present value of future benefit payments associated with the Fund.
- Estimate the breakeven premiums that may be provided to the current participants based on the current assets and expected contributions.
- Show the sensitivity of the results to changes in the investment return assumptions.

We have determined costs, liabilities, and trends for the substantive Plan using actuarial assumptions and methods that we consider reasonable.

Analysis Results

The tables below present the key results of the 2018 valuation.

Table I-1
Summary of Results under Different Scenarios using a 7.00% Discount Rate

Results as of January 1, 2018	Current Dental Premium	$50 Maximum Benefit Level	Alternative Plan 1	Alternative Plan 2
Present Value of Future Benefits	$4,671,000	$9,309,000	$13,450,000	$14,603,000
Current Assets	11,887,914	11,887,914	11,887,914	11,887,914
Present Value of Future Contributions (PVFC)	2,978,000	2,978,000	2,978,000	2,978,000
Total Assets (current assets plus PVFC)	14,865,914	14,865,914	14,865,914	14,865,914
Shortfall / (Surplus)	($10,194,914)	($5,556,914)	($1,415,914)	($262,914)

Table I-1 shows the present value of future benefits and the associated shortfall or surplus under four benefit scenarios: 1) the current dental premium ($25.09 per month), 2) a benefit level of $50, 3) the first proposed alternative plan ($72.24 per month) and 4) the second proposed alternative plan ($78.43 per month). Under all of these scenarios, the current premium rates covered by the Fund were assumed to remain at current levels in all future years.

SECTION I – SUMMARY OF RESULTS

Table I-2
Summary of Results under Different Scenarios using a 7.00% Discount Rate - with Trend

Results as of January 1, 2018	Current Dental Premium	Alternative Plan 1	Alternative Plan 2
Present Value of Future Benefits	$9,294,000	$26,761,000	$29,054,000
Current Assets	11,887,914	11,887,914	11,887,914
Present Value of Future Contributions (PVFC)	2,978,000	2,978,000	2,978,000
Total Assets (current assets plus PVFC)	14,865,914	14,865,914	14,865,914
Shortfall / (Surplus)	($5,571,914)	$11,895,086	$14,188,086

Table I-2 shows the present value of future benefits and the associated shortfall or surplus under the same three benefit scenarios outlined in Table I-1. However, in each of these scenarios, the current premium rates covered by the Fund are assumed to increase by 5% each year. Although premiums for the current plan have not increased in recent years, it is likely that premium rates for the proposed plans will increase in the future. As shown in the table above, if the premiums do increase as assumed over time, the Fund will not be able to support either of the proposed alternatives.

SECTION I – SUMMARY OF RESULTS

The charts below show the Fund balance projection for the next 50 years under the current plan benefits ($25.09 per month) as well as the two alternative plans proposed by the Board: Alternative Plan 1 ($72.24 per month) and Alternative Plan 2 ($78.43 per month). The projections are based on a closed group projection (i.e. assuming no new future entrants to the Fund) and an assumption that the Fund investments will earn 7% annually and the closed group of ATU members will continue to contribute $0.10 per hour worked. Based on these assumptions, the projections show that the current level of benefits can be maintained without additional sources of financing. For each of the alternative plans, we also developed the impact of expected future premium increases. In each case, the Fund is not expected to be sufficient to provide benefits without additional contributions. Changes in the assumptions, especially the return on Fund investments or future premium increase rates, will lead to different results. In addition, including the impact of future new hires – on both the benefits and contributions – may affect the results.

Chart I-1
Projected Vision/Dental Benefit, Contribution and Assets for Current Premium with No Future Increases

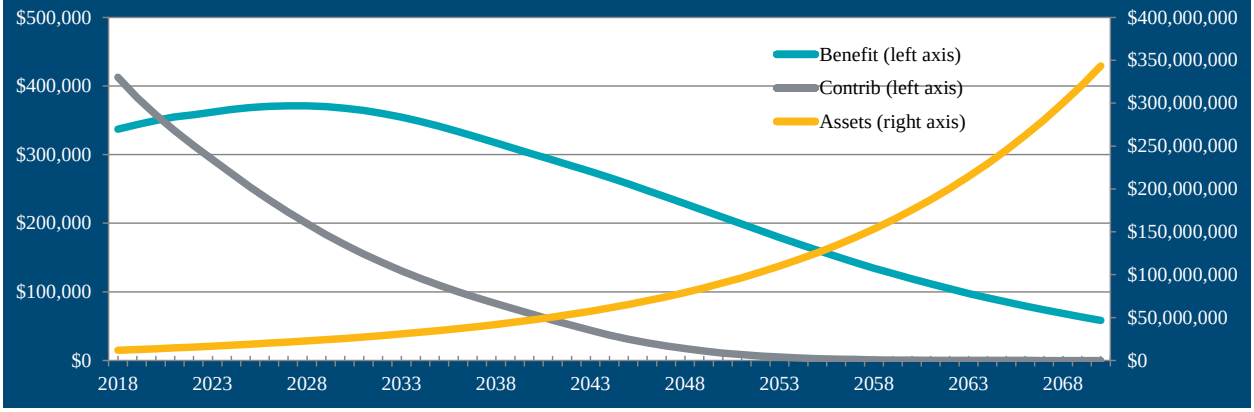
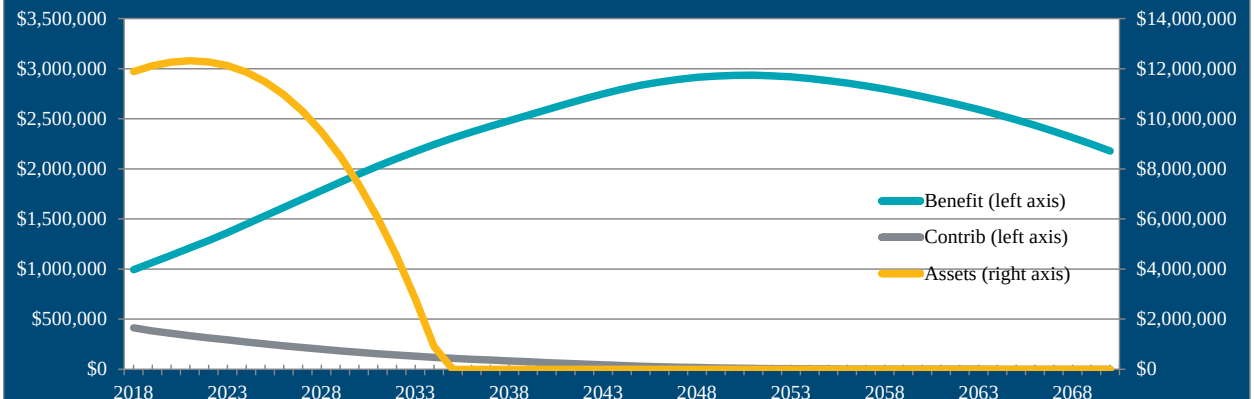
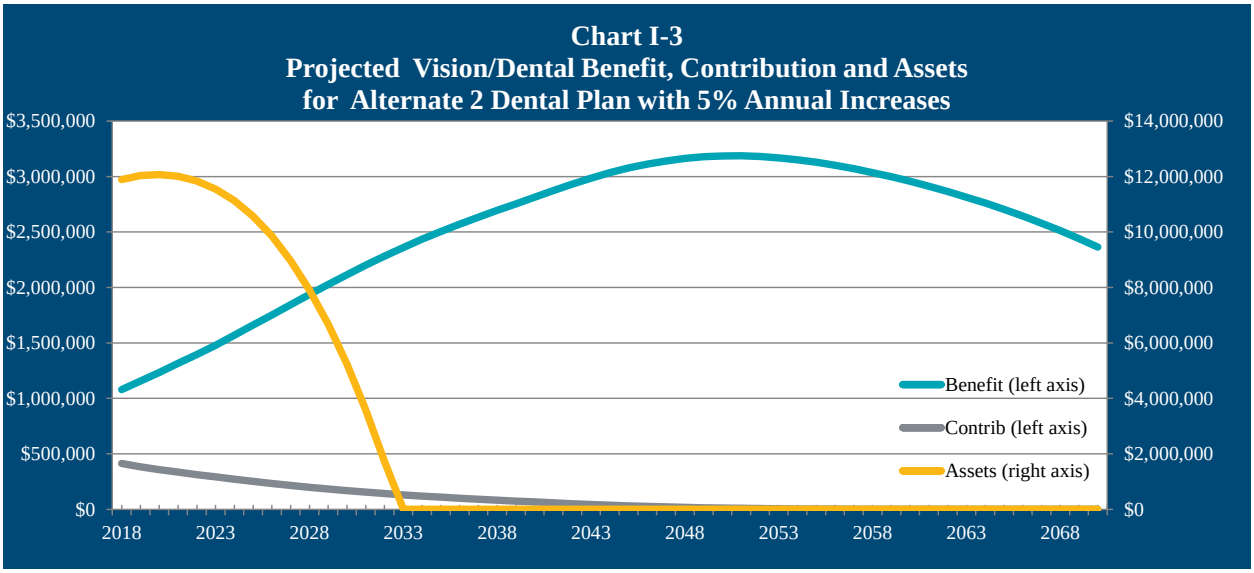


Chart I-2
Projected Vision/Dental Benefit, Contribution and Assets for Alternate 1 Dental Plan with 5% Annual Increases



SECTION I – SUMMARY OF RESULTS



SECTION I – SUMMARY OF RESULTS

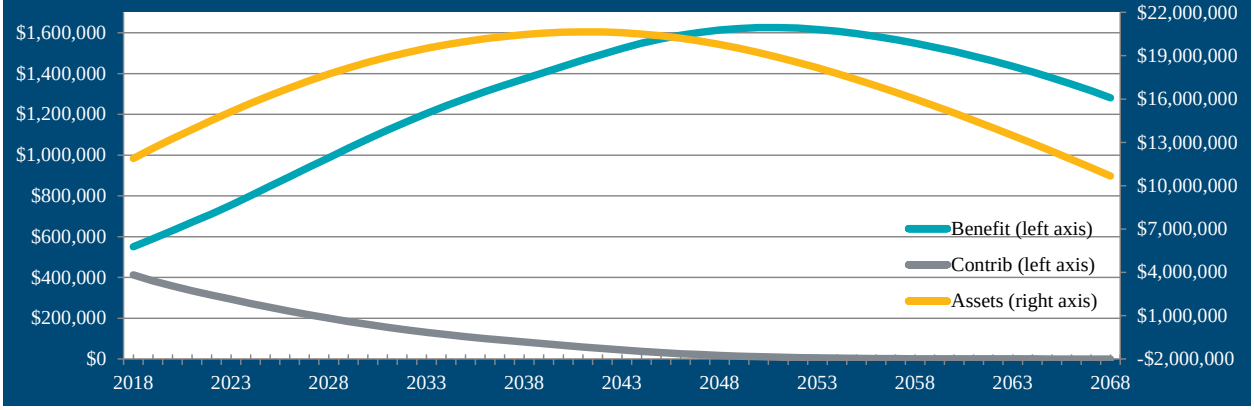
The table below shows current premium, the premiums for the two alternative plans, and the breakeven premium. The breakeven premium is computed at a level such that the present value of benefits is equal to the current assets plus the present value of future contributions for the current closed group of active and retired members. In other words, the Fund balance will be expected to be drawn down to zero, once the last eligible current active member has received their final benefit payment from the Fund. The breakeven premium in the table below was determined with an assumed 5% growth in the premium rate each year.

Table I-3
Monthly Dental Premium

Current Premium	$25.09
Alternative Plan 1	72.24
Alternative Plan 2	78.43
Breakeven Premium	41.00

The following chart shows the Fund balance projection with the breakeven premium listed above and the same assumptions and contribution rate described earlier. The higher premium will lead to a higher present value of future benefits, with an eventual zero balance of assets.

Chart I-4
Projected Vision/Dental Benefit, Contribution and Assets for Breakeven Premium with Trend



SECTION I – SUMMARY OF RESULTS

Tables I-3, I-4, and I-5 show the impact of different investment return assumptions to provide some measure of sensitivity. The benefits studied at each discount rate are the current dental premium ($25.09 per month), Alternative Plan 1 ($72.24), and Alternative Plan 2 ($78.43) respectively. No future expected increases in premiums are valued for the current plan, but as above, 5% increases in premium rates are assumed each year for each of the alternative plans.

Table I-4
Summary of Benefits and Cashflow Under Various Discount Rates
Current Premium without Expected Premium Increases

Discount Rate (per annum)	7.00%	6.00%	5.00%
Present Value of Future Benefits	$4,671,000	$5,216,000	$5,885,000
Current Assets	11,887,914	11,887,914	11,887,914
Present Value of Future Contributions (PVFC)	2,978,000	3,167,000	3,380,000
Total Assets (current assets plus PVFC)	14,865,914	15,054,914	15,267,914
Shortfall / (Surplus)	($10,194,914)	($9,838,914)	($9,382,914)
Breakeven Premium (without trend)	$79.61	$72.23	$64.95

Table I-5
Summary of Benefits and Cashflow Under Various Discount Rates
Alternative Plan 1 with Expected Premium Increases

Discount Rate (per annum)	7.00%	6.00%	5.00%
Present Value of Future Benefits	$26,761,000	$31,841,000	$38,633,000
Current Assets	11,887,914	11,887,914	11,887,914
Present Value of Future Contributions (PVFC)	2,978,000	3,167,000	3,380,000
Total Assets (current assets plus PVFC)	14,865,914	15,054,914	15,267,914
Shortfall / (Surplus)	$11,895,086	$16,786,086	$23,365,086

SECTION I – SUMMARY OF RESULTS

Table I-6
Summary of Benefits and Cashflow Under Various Discount Rates
Alternative Plan 2 with Expected Premium Increases

Discount Rate (per annum)	7.00%	6.00%	5.00%
Present Value of Future Benefits	$29,054,000	$34,570,000	$41,943,000
Current Assets	11,887,914	11,887,914	11,887,914
Present Value of Future Contributions (PVFC)	2,978,000	3,167,000	3,380,000
Total Assets (current assets plus PVFC)	14,865,914	15,054,914	15,267,914
Shortfall / (Surplus)	$14,188,086	$19,515,086	$26,675,086

As discussed above, neither of the proposed alternative dental plans is sustainable with the current contribution rate if the Fund anticipates paying for future increases in the premium rate. However, the fund could sustain either premium rate if future premium increases are not covered by the Fund. This would mean that the Fund would only pay for a set coverage amount, regardless of whether or not the premiums increased each year. The Fund's adequacy can be seen by examining the breakeven premiums outlined in Table I-4 and the surplus of assets in Table I-1 for the alternative plans when considered without expected future premium increases. The next section outlines projected benefits and membership.

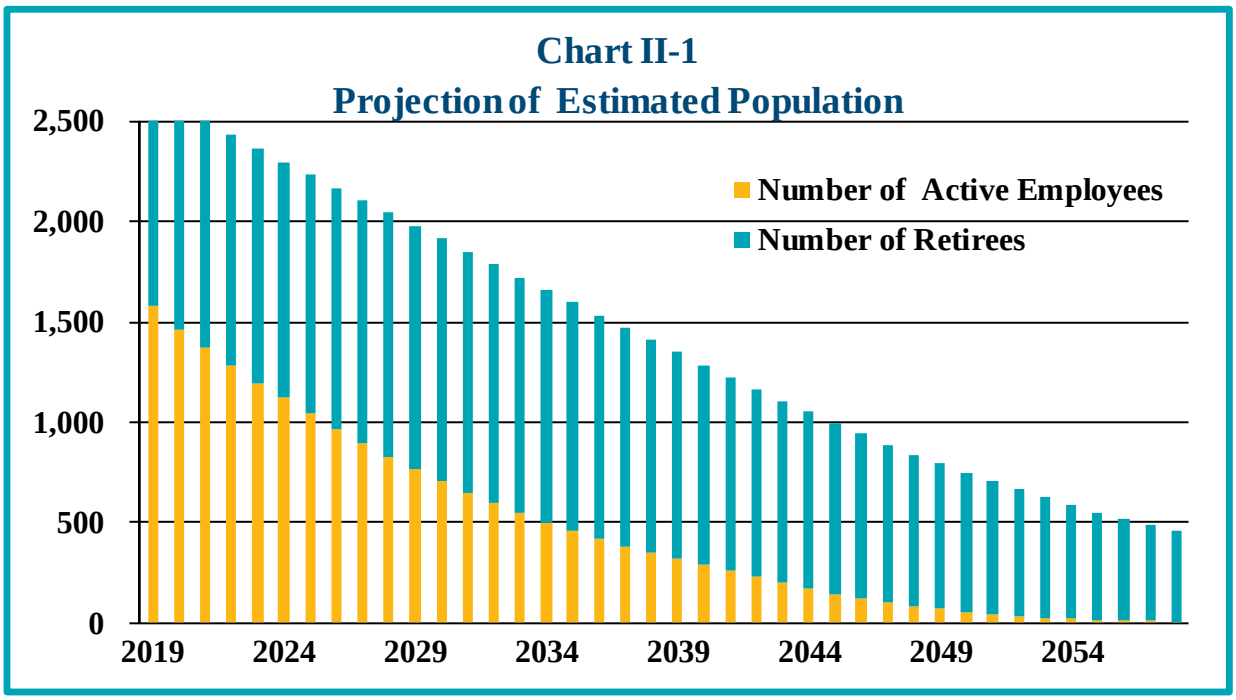
SECTION II – PROJECTIONS

Table II-1 and the chart that follows shows the projection of the estimated population and contributions based on the closed group projection (i.e., assuming no new future entrants to the Fund).

Table II-1
Projection of Estimated Active and Retiree Population

Fiscal Year Ending	Number of Active Employees	Expected Contributions	Number of Retirees
2019	1,577	412,755	1,085
2020	1,464	383,284	1,116
2021	1,369	358,196	1,138
2022	1,280	335,054	1,155
2023	1,196	313,055	1,170
2024	1,119	292,886	1,180
2025	1,041	272,523	1,193
2026	965	252,691	1,204
2027	894	233,873	1,211
2028	826	216,255	1,215
2029	762	199,528	1,215
2030	701	183,586	1,212
2031	645	168,845	1,205
2032	593	155,169	1,194
2033	544	142,404	1,179
2034	499	130,598	1,161
2035	457	119,613	1,140
2036	418	109,397	1,116
2037	382	100,087	1,089
2038	349	91,353	1,060
2039	316	82,818	1,030
2040	286	74,814	1,000
2041	256	66,881	969
2042	225	58,833	939
2043	196	51,214	910
2044	168	44,018	881
2045	142	37,169	851
2046	119	31,162	821
2047	99	25,933	789
2048	82	21,350	757
2049	66	17,269	725
2050	53	13,788	693
2051	42	10,865	661
2052	32	8,451	629
2053	25	6,507	598
2054	19	4,934	567
2055	14	3,724	536
2056	11	2,753	507
2057	8	1,992	478
2058	5	1,429	451

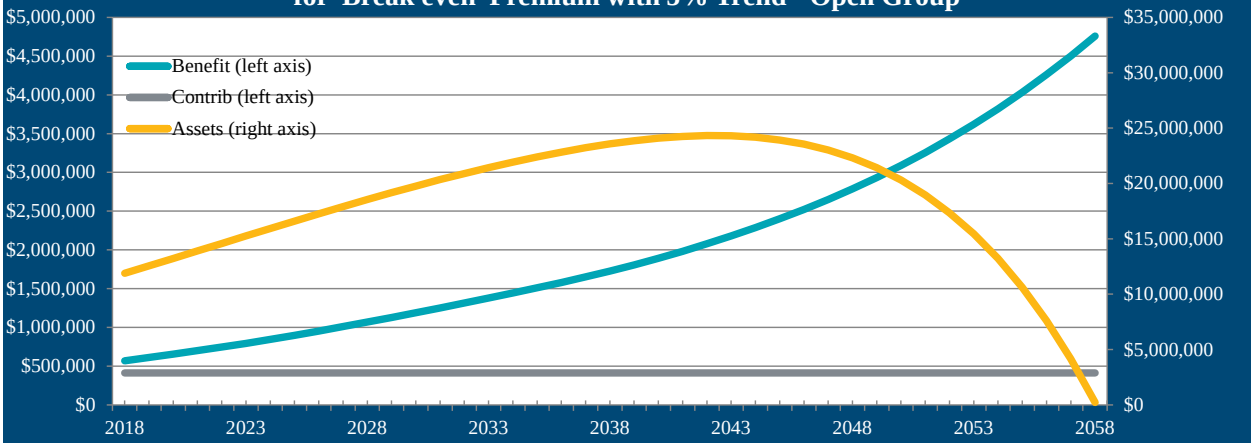
SECTION II – PROJECTIONS



SECTION II – PROJECTIONS

The chart below shows the Fund balance projection for the next 40 years for a premium of $41.25 per month. The projection is based on an open group projection (i.e. assuming a stable active population with new entrants with similar characteristics replacing those who terminate employment or retire). Additionally, it is assumed that the Fund investments will earn 7% annually, premium rates will increase at a rate of 5% annually, and all active ATU members will continue to contribute $0.10 per hour worked. Based on these assumptions, the projection shows that the Fund assets decrease to $0 at the end of the projected period. Under any scenario with expected premium increases, a stable active population, and a constant contribution rate, the premium increases will eventually overwhelm the contributions. Because the value of money erodes over time, the same contributions will be worth less over a long period of time. Therefore, we have modeled the breakeven premium as that premium at which the Fund runs out of assets at the end of the projection period.

Chart II-2
Projected Vision/Dental Benefit, Contribution and Assets for Break even Premium with 5% Trend - Open Group



The table below shows the breakeven premium calculated at three different increase rates. Each scenario assumes the Fund earns 7% annually.

Table II-2
Monthly Breakeven Premiums at Different Expected Increase Rates

Expected Annual Increase Rate	Breakeven Premium
3%	$56.25
5%	41.25
7%	29.25

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

Member Data as of January 1, 2018:

Comparison of Participant Data	June 30, 2016	January 1, 2018	% Change
Active Employees			
Counts	1,534	1,577	2.80%
Average Age	46.9	46.0	-1.92%
Average Service	11.9	11.1	-6.74%
Inactive Participants			
Qualified Service Retirees	824	897	8.86%
Average Age	69.2	69.6	0.55%
Disabled Participants	186	188	1.08%
Average Age	66.9	67.8	1.38%

ATU Eligible Active Employees	Service							
Age	Under 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 and Up	Total
Under 25	35	1	0	0	0	0	0	36
25 - 29	87	16	3	0	0	0	0	106
30 - 34	123	46	24	0	0	0	0	193
35 - 39	99	52	35	18	0	0	0	204
40 - 44	65	37	15	33	9	0	0	159
45 - 49	50	35	32	55	17	6	1	196
50 - 54	50	30	26	61	34	25	13	239
55 - 59	37	19	24	65	27	18	31	221
60 - 64	16	12	12	41	27	12	35	155
65 and Up	2	6	12	26	9	2	11	68
Total	564	254	183	299	123	63	91	1,577

Eligible Retirees Service and Disability Retirees			
Age	Male	Female	Total
Under 50	3	0	3
50 - 54	3	2	5
55 - 59	44	16	60
60 - 64	161	52	213
65 - 69	238	86	324
70 - 74	181	58	239
75 - 79	109	38	147
80 - 84	51	12	63
85 - 89	15	6	21
90 and Up	8	2	10
Total	813	272	1,085

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

Actuarial Assumptions:

The assumptions outlined in this report that changed following the 2017 experience study are rates of retirement, termination, disability, and mortality. For a full review of these changes, see Cheiron's Actuarial Experience Study for January 1, 2012 through December 31, 2016 report dated October 2017.

Economic Assumptions:

1. Expected Return on Trust Assets:	7.00% per year
2. Per Hour Contribution Growth Rate:	0.00% per year
3. Per Person Cost Trends:	0% for the current plan (benefits are assumed to be capped at the current premium levels) 5% annual increase for each of the alternative plans as well as the breakeven premium level
4. Annual Contribution:	Based on most recent annual contribution ($413,000 for the calendar year ended 12/31/2017) adjusted for expected changes in active headcount in future years

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

Demographic Assumptions:

1. Retirement Rates:

Retirement rates among eligible ATU members are assumed to occur in accordance with the rates shown in the following table:

Age	Less Than 25 Years of Service	25 or More Years of Service
52	8.0%	16.0%
53	8.0%	16.0%
54	8.0%	16.0%
55	8.0%	16.0%
56	5.0%	16.0%
57	5.0%	16.0%
58	5.0%	16.0%
59	5.0%	16.0%
60	5.0%	16.0%
61	15.0%	16.0%
62	15.0%	27.0%
63	15.0%	27.0%
64	20.0%	27.0%
65	25.0%	27.0%
66	25.0%	27.0%
67	25.0%	38.0%
68	25.0%	38.0%
69	25.0%	38.0%
70+	100.0%	100.0%

Employees hired after January 1, 2016 are eligible to retire at age 52 with five years of service.

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

2. Termination/Refund Rates:

No terminations are assumed for participants who are eligible for retirement. Rates of termination from causes other than death, disability, and service retirement for ATU members are as follows:

Years of Service	Male Rate	Female Rate
0	8%	13%
1	5%	8%
2	4%	6%
3	3%	5%
4-7	3%	4%
8-19	2%	4%
20+	2%	2%

3. Rate of Mortality*:*

Active and Retired Employee:

Rates of mortality for active and retired Members and their spouses, beneficiaries, and survivors are given by the Retired Pensioners (RP) 2014 Adjusted to 2006 Healthy Employee and Annuitant Blue Collar mortality tables with generational improvements using Scale MP-2017.

Disabled Employee:

Rates of mortality for all disabled Members are given by the RP-2014 Adjusted to 2006 Disabled Annuitant mortality tables with generational improvements using Scale MP-2017.

4. Disability Rates:

Disability rates are as follows:

Male Rate	Female Rate
0.80%	2.25%

Disability rates are not applied until a member has at least 10 years of eligibility service.

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

5. **Percent of Retirees Electing Coverage:** 92% of eligible future retirees are assumed to elect dental coverage.

Changes since the last analysis:

The assumptions outlined in this report, which changed following the 2017 Experience Study, are rates of retirement, termination, disability, and mortality. For a full review of these changes, see Cheiron's Actuarial Experience Study for January 1, 2012 through December 31, 2016 report dated October 2017.

Methodology:

The claims costs are based on the fully insured premiums charged to the Authority for the retiree population in 2018. The monthly premium of $25.09 for each retiree is used to develop the expected cost of dental benefits. It is a flat amount across gender and sex.

This report does not reflect future changes in benefits, penalties, taxes, or administrative costs that may be required as a result of the Patient Protection and Affordable Care Act of 2010 or any related legislation and regulations.

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Summary of Key Substantive Plan Provisions:

Eligibility:

To be eligible to receive a contribution towards vision and dental coverage, an individual must be a service retiree or disability retiree. Retired ATU Clerical members are not eligible to receive a payment from the Fund.

In order for the member to qualify for a benefit, the member must have retired directly from the ATU; therefore, terminated vested members and members who have transferred within VTA to a position not covered by the ATU are not eligible for future retiree benefits. Spouses are not eligible to receive benefits from the Fund.

Contributions:

ATU represented employees contribute $0.10 per hour worked by each active ATU member.

Fund Adequacy:

Contributions are fixed. In the event that the Fund balance becomes inadequate to support the benefit level, benefits will be curtailed or terminated. Neither VTA nor the ATU has any liability to the Fund.

Benefits:

Note that the Delta Dental program for ATU retirees became effective September 1, 2014. The monthly premium is $25.09 per retiree and the total premium is being deducted from the Dental/Vision Fund. At this time, there is no retiree contribution. In addition, ATU has decided that only ATU retirees who retire directly from VTA and ATU (not including spouses or surviving spouses, employees moving from ATU to Admin, Term Vested, deferred retirements, etc.) are eligible for retiree dental benefits. The last column on the retiree file lists those that are enrolled in the benefit.

Changes since the last Valuation:

There have been no changes to the Plan provisions since the prior actuarial review.

APPENDIX C – GLOSSARY OF TERMS

1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, and retirement; changes in compensation; rates of investment earnings, and asset appreciation or depreciation; procedures used to determine the actuarial value of assets; and, other relevant items.

2. Actuarial Present Value (Present Value)

The value as of a given date of a future amount or series of payments. The actuarial present value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made. As a simple example: assume you owe $100 to a friend one year from now. Also, assume there is a 1% probability of your friend dying over the next year, in which case you will not be obligated to pay him. If the assumed investment return is 10%, the actuarial present value is:

		Probability	$\frac{1}{(1+\text{Discount Rate})}$		
Amount		of Payment			
$100	x	(1 - .01)	1/(1+.1)	=	$90

3. Mortality Table

A set of percentages which estimate the probability of death at a particular point in time. Typically, the rates are annual and based on age and sex.

4. Discount Rate

The assumed interest rate used for converting projecting dollar related values to a present value as of the valuation date.

5. Dental Trend

The assumed increase in dollar related values in the future due to the increase in the cost of health care.

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