

Tulare County Employees' Retirement Association

GASB 67/68 Report as of June 30, 2019

Produced by Cheiron

November 2019

TABLE OF CONTENTS

<u>Section</u>	<u> 1</u>	<u>Page</u>
Letter of Tran	nsmittal	i
Section I	Board Summary	1
Section II	Certification	3
Section III	Determination of Discount Rate	4
Section IV	Determination of Total Pension Liability	5
Section V	GASB 67 Reporting Information	6
Section VI	GASB 68 Collective Amounts	10
Section VII	GASB 68 Reporting Information for Participating Employers	14
<u>Appendices</u>		
Appendix A	Membership Information	21
Appendix B	Actuarial Assumptions and Methods	25
Appendix C	Summary of Plan Provisions	27
Appendix D	Determination of Discount Rate	28
Appendix E	Glossary of Terms	32





November 13, 2019

Board of Retirement Tulare County Employees' Retirement Association 136 N. Akers St. Visalia, CA 93291

Dear Members of the Board:

The purpose of this report is to provide accounting and financial reporting information under GASB 67 for the Tulare County Employees' Retirement Association (TCERA) and under GASB 68 for participating employers. This information includes:

- Determination of the discount rate as of June 30, 2019,
- Disclosure of the TCERA's Total Pension Liability and Net Pension Liability as of the measurement date,
- Note disclosures and required supplementary information under GASB 67 for TCERA,
- Determination of collective amounts under GASB 68, and
- Schedules for the financial reporting of participating employers under GASB 68.

If you have any questions about the report or would like additional information, please let us know.

Sincerely, Cheiron

Graham A. Schmidt, ASA, EA, FCA, MAAA

Consulting Actuary

Steven M. Hastings, FSA, EA, FCA, MAAA Consulting Actuary

Stim M History

SECTION I – BOARD SUMMARY

The purpose of this report is to provide accounting and financial disclosure information under Governmental Accounting Standards Board Statements 67 and 68 (as amended by Statement 82) for the Tulare County Employees' Retirement Association and the participating employers. This information includes:

- Determination of the discount rate as of June 30, 2019,
- Disclosure of TCERA's Total Pension Liability and Net Pension Liability as of the measurement date,
- Note disclosures and required supplementary information under GASB 67 for TCERA,
- Determination of collective amounts under GASB 68, and
- Schedules for the financial reporting of participating employers under GASB 68.

Highlights

The measurement date for the Tulare County Employees' Retirement Association (TCERA) is June 30, 2019. Measurements are based on the fair value of assets as of June 30, 2019 and the Total Pension Liability as of the valuation date, June 30, 2019.

The table below provides a summary of the key collective results during this measurement period.

Table I-1 Summary of Collective Results												
Measurement Date												
6/30/2019 6/30/2018												
Net Pension Liability	\$	297,606	\$	302,682								
Deferred Outflows		(91,414)		(147,288)								
Deferred Inflows		43,851		16,241								
Net Impact on Statement of Net Position	\$	250,043	\$	171,635								
Pension Expense/(Income)	\$	111,904	\$	112,243								
Pension Expense/(Income) (% of Payroll)		42.35%		43.84%								

Numbers may not add to totals due to rounding.

Amounts in Thousands

The Net Pension Liability (NPL) decreased by approximately \$5.1 million since the prior measurement date, primarily due to an increase in the discount rate. Investment gains or losses are recognized over five years, and Actuarial Liability gains or losses and assumption changes are recognized over the average remaining service life, which is five years. Unrecognized amounts are reported as deferred inflows and deferred outflows.



SECTION I – BOARD SUMMARY

As of the end of the reporting year, the participating employers in TCERA would report a Net Pension Liability of \$297,606,000, collective Deferred Inflows of \$43,851,000, and collective Deferred Outflows of \$91,414,000. Consequently, the net impact on the aggregate of participating employers' Statements of Net Position due to TCERA would be \$250,043,000 at the end of the measurement year. In addition, any contributions between the measurement date and each individual employer's reporting date would be reported as deferred outflows to offset the cash outflow reported.

For the measurement year ending June 30, 2019, the collective annual pension expense is \$111,904,000 or 42.35% of covered payroll. This amount is not equal to the participating employers' contributions to TCERA (\$33,494,000), but instead represents the change in the net impact on participating employer's Statements of Net Position plus employer contributions (\$250,043,000 - \$171,633,000 + \$33,494,000). The collective pension expense is smaller than the collective expense for the prior year. Volatility in pension expense from year to year is to be expected. It will largely be driven by investment gains or losses, but other changes can also have a significant impact. A breakdown of the components of the net pension expense is shown in Section VI of the report.



SECTION II - CERTIFICATION

The purpose of this report is to provide accounting and financial reporting information under GASB 67 for the Tulare County Employees' Retirement Association (TCERA) and under GASB 68 for the employers that participate in TCERA. This report is for the use of TCERA, the participating employers, and their auditors in preparing financial reports in accordance with applicable law and accounting requirements. This report is not appropriate for other purposes, including the measurement of funding requirements for TCERA.

In preparing our report, we relied on information (some oral and some written) supplied by TCERA. 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 Actuarial Standard of Practice No. 23.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and, changes in plan provisions or applicable law.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. 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.

This report was prepared for TCERA for the purposes described herein and for the use by the plan auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

Graham A. Schmidt, ASA, EA, FCA, MAAA Consulting Actuary Steven M. Hastings, FSA, EA, FCA, MAAA Consulting Actuary



SECTION III – DETERMINATION OF DISCOUNT RATE

The discount rate used to measure the Total Pension Liability was 7.30%.

The projection of cash flows used to determine the discount rate assumed that plan member contributions will continue to be made at the required rates. Employer contributions were assumed to be made in accordance with the contribution policy in effect for the June 30, 2019 actuarial valuation. That policy includes contributions equal to the actuarially determined contribution, reflecting a payment equal to annual normal cost and an amount necessary to amortize the total June 30, 2015 Unfunded Actuarial Liability (UAL) as a level percentage of payroll over a closed 19-year period with payments as a level percentage of payroll, assuming payroll increases of 3.00% per year. Subsequent gains and losses are being amortized over new 19-year closed periods, also as a level percentage of payroll.

The UAL and contribution rates do not directly reflect any liability associated with past or future transfers to the Supplemental Retiree Benefit Reserve (SRBR), which the Board has elected not to pre-fund. However, the projection of benefit payments does include the value of the expected benefit payments to the members from the SRBR, based on both the current SRBR assets and the expected future transfers to the SRBR, as estimated using a stochastic model. Those benefit payments result in actuarial losses, which are funded through the plan's amortization policy.

Based on these assumptions, TCERA's fiduciary net position was projected to be available to make projected future benefit payments for current members until FYE 2085, when only a portion of the projected benefit payments can be made from the projected fiduciary net position. Projected benefit payments are discounted at the long-term expected return on assets of 7.40% to the extent the fiduciary net position is available to make the payments and at the municipal bond rate of 3.50% to the extent they are not available. The 7.40% expected return on assets is equal to the 7.25% investment return assumption used in the June 30, 2019 actuarial valuation, plus 0.15% for administrative expenses. The administrative expense adjustment results from the fact that the 7.25% valuation assumption is assumed to be net of both administrative and investment expenses, whereas GASB 67 and 68 require an expected return on assets that is net of investment expenses only. The 3.50% municipal bond rate is based on the Bond Buyer 20-year Bond GO Index as of June 27, 2019.

The single rate that is equivalent to a 7.40% discount rate until the projected fiduciary net position is no longer available to make benefit payments (in FYE 2084), and 3.50% thereafter, is 7.30%. The discount rate used to determine the Total Pension Liability as of June 30, 2019 is therefore 7.30%.

Appendix D shows the details of this calculation.



SECTION IV – DETERMINATION OF TOTAL PENSION LIABILITY

The Total Pension Liability (TPL) at the end of the measurement year, June 30, 2019, is measured as of a valuation date of June 30, 2019.

Between the June 30, 2018 and June 30, 2019 measurement dates, the discount rate was increased from 7.15% to 7.30% due to the results of the crossover test. The details of this calculation are shown in Appendix D. There were no other assumption changes as of the June 30, 2019 valuation date. Please see Appendix B of the June 30, 2019 actuarial valuation report for a more detailed description of assumptions.

The TPL measurement includes the accrued portion of expected benefit payments associated with the current SRBR assets, as well as the accrued portion of expected benefit payments associated with future anticipated SRBR transfers (as determined using a stochastic model).

The change in discount rate decreased the TPL measurement by approximately \$38 million as of the end of the measurement year.



SECTION V – GASB 67 REPORTING INFORMATION

Note Disclosures

The table below shows the changes in the Total Pension Liability, the Plan Fiduciary Net Position (i.e., fair value of System assets), and the Net Pension Liability during the measurement year.

Change in Colle		ble V-1 e Net Pensi	ion I	Liability							
	Increase (Decrease)										
		tal Pension Liability (a)		n Fiduciary et Position (b)	N	et Pension Liability (a) - (b)					
Balances at 6/30/2018	\$	1,890,158	\$	1,587,476	\$	302,682					
Changes for the year:											
Service cost		49,484				49,484					
Interest		133,895				133,895					
Changes of benefits		0				0					
Differences between expected and actual											
experience		(6,667)				(6,667)					
Changes of assumptions		(37,996)				(37,996)					
Contributions - employer				33,494		(33,494)					
Contributions - member				22,325		(22,325)					
Net investment income				90,779		(90,779)					
Benefit payments		(85,097)		(85,097)		0					
Administrative expense				(2,806)		2,806					
Net changes		53,619		58,695		(5,076)					
Balances at 6/30/2019	\$	1,943,777	\$	1,646,171	\$	297,606					

Numbers may not add to totals due to rounding.

Amounts in Thousands

During the measurement year, the collective NPL decreased by approximately \$5.1 million. The service cost, interest cost, and recognition of administrative expense increased the collective NPL by approximately \$186 million while actuarial gains, contributions, and investment income decreased the collective NPL by approximately \$153 million.

There were no changes in benefits during the year. As discussed in Section IV, there were assumption changes, which decreased the TPL by approximately \$38 million.

Changes in the discount rate affect the measurement of the TPL. Lower discount rates produce a higher TPL and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the NPL can be very significant for a relatively small change in the discount rate. The table on the next page shows the sensitivity of the collective NPL to the discount rate.



SECTION V – GASB 67 REPORTING INFORMATION

Table V-2 Sensitivity of Collective Net Pension Liability to Changes in Discount Rate													
1% Discount 1% Decrease Rate Increase 6.30% 7.30% 8.30%													
Total Pension Liability Plan Fiduciary Net Position	\$	2,221,405 1,646,171	\$	1,943,777 1,646,171	\$	1,717,969 1,646,171							
Collective Net Pension Liability Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	\$	575,234 74.1%	\$	297,606 84.7%	\$	71,798 95.8%							

Numbers may not add to totals due to rounding.

Amounts in Thousands

A one percent decrease in the discount rate increases the TPL by approximately 14% and increases the collective NPL by approximately 93%. A one percent increase in the discount rate decreases the TPL by approximately 12% and decreases the collective NPL by approximately 76%.

Required Supplementary Information

The schedules of Required Supplementary Information generally start with information as of the implementation of GASB 67, and eventually will build up to 10 years of information. The schedule on the following page shows the changes in collective NPL and related ratios required by GASB for the six years since implementation.



SECTION V – GASB 67 REPORTING INFORMATION

Table V-3 Schedule of Changes in Collective Net Pension Liability and Related Ratios												
		FYE 2019		FYE 2018		FYE 2017		FYE 2016		FYE 2015		FYE 2014
Total Pension Liability												
Service cost (MOY)	\$	49,484	\$	46,838	\$	38,203	\$	38,307	\$	35,168	\$	39,672
Interest (includes interest on service												
cost)		133,895		126,586		118,664		115,716		97,473		94,277
Changes of benefit terms		0		0		0		0		0		0
Differences between expected and												
actual experience		(6,667)		10,342		11,936		(40,602)		7,591		0
Changes of assumptions		(37,996)		41,149		69,608		23,923		180,187		13,588
Benefit payments, including refunds												
of member contributions		(85,097)		(80,716)		(76,961)		(72,332)		(68,560)		(65,954)
Net change in total pension liability	\$	53,619	\$	144,199	\$	161,449	\$	65,011	\$	251,858	\$	81,583
Total pension liability - beginning		1,890,158		1,745,959		1,584,510		1,519,499		1,267,640		1,186,057
Total pension liability - ending	\$	1,943,777	\$	1,890,158	\$	1,745,959	\$	1,584,510	\$	1,519,499	\$	1,267,640
	Ψ	1,743,777	Ψ	1,070,130	Ψ	1,743,737	Ψ	1,304,310	Ψ	1,317,477	Ψ	1,207,040
Plan fiduciary net position					_				_			
Contributions - employer	\$	33,494	\$	286,263	\$	33,616	\$	31,297	\$	30,992	\$	25,953
Contributions - member		22,325		18,512		18,190		16,815		18,887		18,969
Net investment income		90,779		95,857		132,865		(20,309)		122,400		179,878
Benefit payments, including refunds of member contributions		(85,097)		(80,716)		(76,961)		(72,332)		(68,560)		(65,954)
Administrative expense		(2,806)		` ' '		(2,612)		(2,616)		(2,408)		(1,639)
Net change in plan fiduciary net	_	(2,800)	_	(2,666)	_	(2,012)	_	(2,010)	_	(2,408)	_	(1,039)
position	\$	58,695	Ф	317,250	\$	105,098	Ф	(47,145)	Ф	101,312	Ф	157,207
Plan fiduciary net position -	Ψ	30,075	Ψ	317,230	Ψ	105,070	Ψ	(47,143)	Ψ	101,512	Ψ	137,207
beginning		1,587,476		1,270,226		1,165,127		1,212,272		1,110,961		953,754
Plan fiduciary net position - ending	\$	1,646,171	\$	1,587,476	\$	1,270,226	\$	1,165,127	\$	1,212,272	\$	1,110,961
Net pension liability - ending	\$	297,606	<u>*</u>	302,682	<u>*</u>	475,734	<u>*</u>	419,383	\$	307,226	\$	156,680
Plan fiduciary net position as a percentage of the total pension liability		84.69%		83.99%		72.75%		73.53%		79.78%		87.64%
Covered payroll	\$	264,218	\$	256,049	\$	243,366	\$	238,559	\$	229,431	\$	234,438
Net pension liability as a percentage of covered payroll		112.64%	•	118.21%	-	195.48%	•	175.80%		133.91%		66.83%

Numbers may not add to totals due to rounding.

^{*} Payroll for FYE 2014 was determined by the prior actuary. Subsequent payroll figures are based on amounts provided by the participating employers for the respective fiscal year.



SECTION V – GASB 67 REPORTING INFORMATION

Because an Actuarially Determined Contribution (ADC) has been calculated historically, the full 10 years of information in the following schedule is required. Information prior to FYE 2015 was determined by the prior actuary.

	Table V-4 Schedule of Collective Employer Contributions																		
FYE 2019 FYE 2018* FYE 2017 FYE 2016 FYE 2015 FYE 2014 FYE 2013 FYE 2012 FYE 2011 FYE 2010														YE 2010					
Actuarially Determined Contribution Contributions in Relation to the	\$	33,494	\$	36,263	\$	33,616	\$	31,297	\$	30,992	\$	25,953	\$	29,847	\$ 25,257	\$	23,434	\$	25,339
Actuarially Determined Contribution		33,494		36,263		33,616		31,297		30,992		25,953	_	29,847	 25,257	_	23,434		25,339
Contribution Deficiency/(Excess)	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$ 0	\$	0	\$	0
Covered Payroll	\$	264,218	\$	256,049	\$	243,366	\$	238,559	\$	229,431	\$	234,438	\$	230,955	\$ 222,635	\$	219,854	\$	217,811
Contributions as a Percentage of Covered Payroll		12.68%		14.16%		13.81%		13.12%		13.51%		11.07%		12.92%	11.34%		10.66%		11.63%

Numbers may not add to totals due to rounding.

Amounts in Thousands

The notes below summarize the key methods and assumptions used to determine the ADC for FYE 2019.

Notes to Schedule

Mortality

Valuation Date 6/30/2017

Timing Actuarially determined contribution rates are calculated based on the actuarial valuation one year prior to the beginning of the plan year

Key Methods and Assumptions Used to Determine Contribution Rates:

Asset valuation method 5-year smoothed market

Amortization method Level percentage of payroll with separate periods for the UAL as of June 30, 2015 (17 years remaining as of 6/30/17), and additional 19-year layers for

unexpected changes in UAL after 6/30/15

Discount rate 7.25% Amortization growth rate 3.00% Price inflation 3.00%

Salary increases 3.00% plus merit component based on employee classification and years of service

For General: RP-2014 Combined Healthy Sex Distinct Table, with Generational improvement using Projection Scale MP-2016, increased by 12.1% for males

and 8.0% for females to reflect Plan experience

For Safety: RP-2014 Combined Healthy Male Table with blue-collar adjustment, with Generational improvement using Projection Scale MP-2016, increased

by 4.5% for males to reflect Plan experience

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2019 can be found in the June 30, 2017 actuarial valuation report



^{*} For the FYE 2018, the contribution shown in this schedule does not include the additional \$250 million contribution made by the County at the end of the Fiscal Year

SECTION VI – GASB 68 COLLECTIVE AMOUNTS

Employers that participate in TCERA were required to implement GASB 68 for their first fiscal year that commenced after June 15, 2014. The amounts reported as of their fiscal year end (their reporting date) must be based on a measurement date up to 12 months prior to their reporting date. For employers with a reporting date of June 30, their 2019 disclosures can be based on either the June 30, 2018 or 2019 measurement dates. If an employer elects to base their 2019 disclosures on the June 30, 2018 measurement date, the GASB 68 schedules in this report with a measurement date of June 30, 2019 will be used for their 2020 reporting date.

Because TCERA is a cost-sharing multiple-employer pension plan, each employer participating in TCERA must reflect a portion of the collective Net Pension Liability, Pension Expense, and Deferred Outflows and Inflows in their financial statements. This section develops the collective amounts that are allocated to participating employers.

The impact of experience gains or losses and assumption changes on the TPL are recognized in expense over the average expected remaining service life of all active and inactive members of TCERA. As of the measurement date, this recognition period was five years.

During the year, there was an experience gain of approximately \$6.7 million. Approximately \$1.3 million of that gain was recognized as a decrease in collective pension expense in the current year and an identical amount will be recognized in each of the next four years, resulting in a collective deferred inflow of resources as of June 30, 2019 of approximately \$5.3 million. Unrecognized net experience gains and losses from prior periods were a net loss of approximately \$0.7 million, of which \$2.1 million was recognized as a decrease in the collective pension expense in the current year. The combination of gains and losses from this year and in prior periods results in a net collective deferred outflow of resources as of June 30, 2019 of approximately \$11.0 million and a net collective deferred inflow of approximately \$13.5 million.

During the year, there were changes in the assumptions that decreased the NPL by approximately \$38.0 million. Approximately \$7.6 million of that decrease is recognized as a decrease in collective pension expense in the current year and an identical amount will be recognized in each of the next four years. Unrecognized assumption changes from prior periods were approximately \$101.0 million in deferred outflows, of which \$42.8 million was recognized as an increase in the collective pension expense in the current year. The combination of changes from assumptions this year and in prior periods results in a collective deferred outflow of resources as of June 30, 2019 of approximately \$58.2 million and a net collective deferred inflow of approximately \$30.4.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of approximately \$25.5 million. Approximately \$5.1 million of that loss was recognized in the current year and an identical amount will be recognized in each of the next four years. Unrecognized net investment losses from prior periods were approximately \$29.3 million, and the net recognition of prior investment experience resulted in a \$27.5 million increase in collective pension expense in the current year. The combination of unrecognized investment losses this year and unrecognized net investment losses



SECTION VI – GASB 68 COLLECTIVE AMOUNTS

from prior periods results in a collective deferred outflow of resources as of June 30, 2019 of approximately \$22.3 million.

The table below summarizes the current balances of collective deferred outflows and deferred inflows of resources along with the net recognition over the next five years.

Table Schedule of Collective Deferred In	e VI-1 nflows and	Outflows of	Resour	ces	
	O	Deferred utflows of desources	Deferred Inflows of Resources		
Differences between expected and actual experience	\$	10,978	\$	13,454	
Changes in assumptions		58,168		30,397	
Net difference between projected and actual earnings pension plan investments	on	22,268		0	
Total	\$	91,414	\$	43,851	
Amounts reported as deferred outflows and deferred expense as follows:	inflows of resou	arces will be reco	ognized in	n pension	
Measurement vear ended	June 30:				
Measurement year ended	June 30: 2020	32.832			
Measurement year ended		32,832 12,670			
Measurement year ended	2020	12,670			
Measurement year ended	2020 2021	12,670 5,892			
Measurement year ended	2020 2021 2022	12,670			

Numbers may not add to totals due to rounding.

Amounts in Thousands

The collective annual pension expense recognized by the participating employers can be calculated two different ways. First, it is the change in the amounts reported on the participating employers' Statements of Net Position that relate to TCERA and are not attributable to employer contributions. That is, it is the change in collective NPL plus the changes in collective deferred outflows and inflows plus participating employer contributions.

Alternatively, annual pension expense can be calculated by its individual components. While GASB does not require or suggest the organization of the individual components shown in the table on the following page, we believe it helps to understand the level and volatility of the collective pension expense.



SECTION VI – GASB 68 COLLECTIVE AMOUNTS

Tabl Calculation of Collec	e VI-2 ctive Pens	ion Expense		
		Measurement 2019	Year 1	Ending 2018
Change in Net Pension Liability	\$	(5,076)	\$	(173,051)
Change in Deferred Outflows		55,875		7,152
Change in Deferred Inflows		27,611		(8,120)
Employer Contributions		33,494		286,263
Pension Expense	\$	111,904	\$	112,243
Pension Expense as % of Payroll		42.35%		43.84%
Operating Expenses				
Service cost	\$	49,484	\$	46,838
Employee contributions		(22,325)		(18,512)
Administrative expenses		2,806		2,666
Total	\$	29,965	\$	30,992
Financing Expenses				
Interest cost	\$	133,895	\$	126,586
Expected return on assets		(116,307)		(92,957)
Total	\$	17,588	\$	33,629
Changes				
Benefit changes	\$	0	\$	0
Recognition of assumption changes		35,227		42,825
Recognition of liability gains and losses		(3,480)		(2,147)
Recognition of investment gains and losses		32,604		6,943
Total	\$	64,351	\$	47,622
Pension Expense	\$	111,904	\$	112,243

Numbers may not add to totals due to rounding.

Amounts in Thousands

First, there are components referred to as operating expenses. These are items directly attributable to the operation of the plan during the measurement year. Service cost less employee contributions represents the increase in employer-provided benefits attributable to the year, and administrative expenses are the cost of operating TCERA for the year.

Second, there are the financing expenses: the interest on the Total Pension Liability less the expected return on assets.

The final category is changes. This category will drive most of the volatility in pension expense from year to year. It includes any changes in benefits made during the year and the recognized amounts due to assumption changes, gains or losses on the TPL, and investment gains or losses.



SECTION VI – GASB 68 COLLECTIVE AMOUNTS

The total collective pension expense decreased by about \$0.3 million. In the current year pension expense, the recognition of changes increased by approximately \$16.7 million and was offset by decreases in financing expenses of approximately \$16.0 million, compared to the prior year.



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

Proportionate Shares

GASB 68 requires that the proportionate share for each employer be determined based on the "employer's projected long-term contribution effort to the pension ... as compared to the total projected long-term contribution effort of all employers ..." Although not required as part of TCERA's GASB 67 reporting requirements, TCERA is following the advice of the AICPA¹ and making a determination of each employer's proportionate share, which will be reviewed by TCERA's auditor.

GASB 82, which is effective for reporting periods beginning after June 15, 2016, requires that employer-paid member contributions be classified as employee contributions for purposes of determining each employer's proportionate share. TCERA has indicated that their auditor has determined the amount of such contributions to be immaterial for the purposes of GASB 82.

Proportionate shares for each participating employer are generally determined based on the ratio of each participating employer's actual contributions to TCERA during the measurement year to the sum of the employer contributions. In Table VII-1, each employer's proportionate share as of June 30, 2019 has been determined using this method.

	Table VII-1 Determination of Employers' Proportionate Share												
June 30, 2019 June 30, 2018													
	mployer	Proportionate											
Employer	Cor	itribution	Share	Co	ntribution	Share*							
County	\$	30,578	91.2940%	\$	284,216	89.6928%							
Courts		2,730	8.1507%		1,848	9.3052%							
SPUD		23	0.0687%		19	0.0957%							
TCAG		163	0.4867%		180	0.9064%							
Total	\$	33,494	100.0000%	\$	286,263	100.0000%							

Numbers may not add to totals due to rounding.

Amounts in Thousands



14

^{*} For FYE 2018, the shares have been adjusted to account for an additional contribution of \$250 million made by the County

^{1 &}lt;a href="http://www.aicpa.org/interestareas/governmentalauditquality/resources/gasbmatters/dowloadabledocuments/aicpaslgep">http://www.aicpa.org/interestareas/governmentalauditquality/resources/gasbmatters/dowloadabledocuments/aicpaslgep cs er reporting whitepaper.pdf

SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

	Table VII-2 Schedule of Employers' Proportionate Share of Collective Amounts at June 30, 2019												
Employer	Proportionate Share	Share of NPL @ 6.30%	Share of NPL @ 7.30%	Share of NPL @ 8.30%	Share of Deferred Outflows	Share of Deferred Inflows	Pension Expense						
County	91.2940%	525,154	271,696	65,547	83,455	40,033	102,161						
Courts	8.1507%	46,886	24,257	5,852	7,451	3,574	9,121						
SPUD	0.0687%	395	204	49	63	30	77						
TCAG	0.4867%	2,799	1,448	349	445	213	545						
Total	100.0000%	\$ 575,234	\$ 297,606	\$ 71,798	\$ 91,414	\$ 43,851	\$ 111,904						

Numbers may not add to totals due to rounding.

Amounts in Thousands

The proportionate share allocated to each individual employer will change on each measurement date. The net effect of the change in proportion on the share of the collective NPL, collective deferred outflows, and collective deferred inflows allocated to each employer becomes a deferred outflow or inflow for that employer and is recognized over the average future working life of TCERA's active and inactive members (five years).

Similarly, the difference between each employer's actual contributions and the employer's proportionate share of collective employer contributions becomes a deferred outflow or inflow for that employer and is recognized over the average future working life of TCERA's active and inactive members (five years).



SECTION VII - GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below shows the change in proportion and the impact of that change in proportion on the proportionate share of the collective NPL, collective deferred outflows, and collective deferred inflows. It also shows any contribution differences.

	Table VII-3 Schedule of Employers' Changes in Proportion and Contribution Differences															
	<u>Proportions</u>	Not	Im Pension	_	of Chang ferred		Proportion	Contributions Proportionate								
Employer	6/30/2018	6/30/2019		ability		itflows		nflows	Ne	t Effect		Actual	11	Share	Differen	ice
County	89.6928%	91.2940%	\$	4,847	\$	2,358	\$	(260)	\$	2,748	\$	30,578	\$	30,578	\$	0
Courts	9.3052%	8.1507%		(3,495)		(1,700)		187		(1,982)		2,730		2,730		0
SPUD	0.0957%	0.0687%		(82)		(40)		4		(46)		23		23		0
TCAG	0.9064%	0.4867%		(1,270)		(618)		68		(720)		163		163		0
Total	100.0000%	100.0000%	\$	0	\$	0	\$	0	\$	0	\$	33,494	\$	33,494	\$	0

Numbers may not add to totals due to rounding.

Amounts in Thousands

The table below shows the reconciliation of deferred outflows and inflows due to proportion changes for each participating employer from the prior measurement date to the current measurement date.

	Table VII-4 Reconciliation of Deferred Outflows and Inflows Due to Proportion Change Deferred Outflows Deferred Outflows															
	Deferred Inflows															
Current									Current							
	Year Net							Year Net								
Employer	6/3	30/2018	E	ffect	Re	cognition	6	5/30/2019	6/.	30/2018	Effect	Recognition	6/30/2019			
County	\$	119	\$	2,748	\$	669	\$	2,199	\$	(15,111) 5	6 0	\$ (4,105)	\$ (11,006)			
Courts		13,685		0		3,728		9,958		(289)	(1,982)	(685)	(1,585)			
SPUD		126		0		35		91		(13)	(46)	(18)	(42)			
TCAG		1,482		0		520		963		0	(720)	(144)	(576)			
Total	\$	15,413	\$	2,748	\$	4,952	\$	13,209	\$	(15,413)	(2,748)	\$ (4,952)	\$ (13,209)			

Numbers may not add to totals due to rounding.



SECTION VII - GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below shows the reconciliation of deferred outflows and inflows due to differences between the proportionate share of contributions and actual contributions made by each employer. Because the proportionate shares are determined based on each employer's share of the contributions, there should be no differences between the actual and proportionate contributions.

	Table VII-5 Reconciliation of Deferred Outflows and Inflows Due to Contribution Differences											
			Current Year	l Outflows			Current Year	ed Inflows				
Employer	6	/30/2018	Difference	Recognition	6/30/2019	6/30/2018	Difference	Recognition	6/30/2019			
County	\$	21,968	\$ 0	\$ 5,492	\$ 16,475	\$ 0	\$ 0	\$ 0	\$ 0			
Courts		0	0	0	0	(19,832)	0	(4,958)	(14,874)			
SPUD		0	0	0	0	(204)	0	(51)	(153)			
TCAG		0	0	0	0	(1,932)	0	(483)	(1,449)			
Total	\$	21,968	\$ 0	\$ 5,492	\$ 16,475	\$ (21,967)	\$ 0	\$ (5,492)	\$ (16,475)			

Numbers may not add to totals due to rounding.



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below summarizes the deferred outflows allocated to each employer for experience, assumption changes, investment returns, proportion changes, and contribution differences.

Table VII-6 Schedule of Employers' Deferred Outflows at June 30, 2019												
Employer	Proportionate Shares	Ex	xperience		Assumption Changes	I	nvestment Return		roportion Change		ontribution Difference	
County	91.2940%	\$	10,022	\$	53,104	\$	20,329	\$	2,199	\$	16,475	
Courts	8.1507%		895		4,741		1,815		9,958		0	
SPUD	0.0687%		8		40		15		91		0	
TCAG	0.4867%		53		283		108		963		0	
Total	100.0000%	\$	10,978	\$	58,168	\$	22,268	\$	13,209	\$	16,475	

Numbers may not add to totals due to rounding.

Amounts in Thousands

The table below summarizes the deferred inflows allocated to each employer for experience, assumption changes, investment returns, proportion changes, and contribution differences.

Table VII-7 Schedule of Employers' Deferred Inflows at June 30, 2019												
Employer	Proportionate Shares	Ex	perience	A	Assumption Changes	I	rvestment Return		Proportion Change		ontribution Difference	
County	91.2940%	\$	12,283	\$	27,751	\$	0	\$	11,006	\$	0	
Courts	8.1507%		1,097		2,478		0		1,585		14,874	
SPUD	0.0687%		9		21		0		42		153	
TCAG	0.4867%		65		148		0		576		1,449	
Total	100.0000%	\$	13,454	\$	30,397	\$	0	\$	13,209	\$	16,475	

Numbers may not add to totals due to rounding.



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below shows the net amount of deferred outflows and inflows to be recognized by each participating employer in each of the next five years and the total thereafter.

Table VII-8 Schedule of Employers' Recognition of Deferred Outflows and Inflows at June 30, 2019												
			Recognition	n for Measur	ement Year End	ling						
Employer		2020	2021	2022	2023	2024	Thereafter					
County	\$	32,132 \$	13,957 \$	7,949 \$	(2,948) \$	0	\$ 0					
Courts		831	(1,024)	(1,724)	(709)	0	0					
SPUD		(10)	(21)	(29)	(12)	0	0					
TCAG		(121)	(243)	(305)	(163)	0	0					
Total	\$	32,832 \$	12,670 \$	5,892 \$	(3,831) \$	0	\$ 0					

Numbers may not add to totals due to rounding.



SECTION VII - GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below shows the calculation of the pension expense for each participating employer. The calculation is shown first as the sum of the proportionate share of the collective pension expense and the amounts recognized for proportion changes and contribution differences. The right side of the table shows the calculation as the sum of the changes in NPL and deferred amounts not attributable to contributions.

	Table VII-9 Schedule of Employers' Pension Expense for the Measurement Year Ending June 30, 2019															
	Co	ollective				E	Employer		Cl	ıan	ige in Employ	er			E	nployer
Employer		ension xpense		nge in ortion	Contribution Difference		Pension Expense		let Pension Liability		Deferred Outflows		Deferred Inflows	Employer ontributions		ension xpense
County	\$	102,161	\$	(3,436)			104,217	\$	213	\$	52,064	\$	21,362	\$ 30,578	\$	104,217
Courts SPUD		9,121 77		3,043 18	(4,958) (51)		7,206 43		(3,908) (85)		9,983 114		(1,598)	2,730 23		7,206 43
TCAG		545		376	(483)		437		(1,295)		1,410		160	163		437
Total	\$	111,904	\$	0	\$ 0	\$	111,903	\$	(5,076)	\$	63,570	\$	19,916	\$ 33,494	\$	111,903

Numbers may not add to totals due to rounding.

Amounts in Thousands

The table below summarizes the information needed for each employer's schedules of required supplementary information.

	Table VII-10 Schedule of Employers' RSI Information at June 30, 2019													
Employer	Proportionate Shares	Proportionate Share of NPL	Covered- Employee Payroll	Share of NPL as a % of Payroll	Plan Fiduciary Net Position as % of TPL	Contractually Required Contribution	Actual Contributions	Contribution Deficiency	Contributions as a % of Payroll					
County	91.2940%	\$ 271,696	\$ 248,151	109.5%	84.7%	\$ 30,578	\$ 30,578	3 \$ 0	12.3%					
Courts	8.1507%	24,257	14,548	166.7%	84.7%	2,730	2,730	0	18.8%					
SPUD	0.0687%	204	117	174.8%	84.7%	23	23	3 0	19.7%					
TCAG	0.4867%	1,448	1,403	103.3%	84.7%	163	163	3 0	11.6%					
Total	100.0000%	\$ 297,606	\$ 264,218	112.6%	84.7%	\$ 33,494	\$ 33,494	4 \$ 0	12.7%					

Numbers may not add to totals due to rounding.



APPENDIX A – MEMBERSHIP INFORMATION

SUMMARY O	SUMMARY OF ACTIVE GENERAL MEMBERSHIP											
	J	June 30, 2018 June 30, 2019										
General Tier 1												
Count		16		13	-18.8%							
Average Age		63.9		65.1	1.8%							
Average Service		34.2		34.8	1.8%							
Annual Projected Payroll	\$	1,085,586	\$	1,007,983	-7.1%							
Average Annual Pay	\$	67,849	\$	77,537	14.3%							
General Tier 2 & 3												
Count		2,146		2,009	-6.4%							
Average Age		47.3		47.9	1.3%							
Average Service		14.2		15.0	5.9%							
Annual Projected Payroll	\$	130,674,232	\$	126,303,821	-3.3%							
Average Annual Pay	\$	60,892	\$	62,869	3.2%							
General Tier 4												
Count		1,546		1,704	10.2%							
Average Age		35.5		35.9	1.2%							
Average Service		2.4		2.9	19.1%							
Annual Projected Payroll	\$	71,259,778	\$	82,281,048	15.5%							
Average Annual Pay	\$	46,093	\$	48,287	4.8%							
General Total												
Count		3,708		3,726	0.5%							
Average Age		42.5		42.5	0.1%							
Average Service		9.4		9.5	1.8%							
Annual Projected Payroll	\$	203,019,596	\$	209,592,852	3.2%							
Average Annual Pay	\$	54,752	\$	56,251	2.7%							



APPENDIX A – MEMBERSHIP INFORMATION

SUMMARY (OF ACTI	VE SAFETY MI	EMBE	CRSHIP	
	Jı	June 30, 2018 June 30, 2019			Change
Safety Tier 1					
Count		0		0	0.0%
Average Age		0		0	0.0%
Average Service		0		0	0.0%
Annual Projected Payroll	\$	0	\$	0	0.0%
Average Annual Pay	\$	0	\$	0	0.0%
Safety Tier 2 & 3					
Count		602		550	-8.6%
Average Age		42.6		43.3	1.4%
Average Service		14.2		15.1	6.1%
Annual Projected Payroll	\$	44,280,283	\$	42,313,399	-4.4%
Average Annual Pay	\$	73,555	\$	76,933	4.6%
Safety Tier 4					
Count		271		343	26.6%
Average Age		30.9		31.4	1.6%
Average Service		2.4		2.7	13.3%
Annual Projected Payroll	\$	15,413,938	\$	20,509,342	33.1%
Average Annual Pay	\$	56,878	\$	59,794	5.1%
Safety Total					
Count		873		893	2.3%
Average Age		39.0		38.7	-0.8%
Average Service		10.5		10.3	-2.0%
Annual Projected Payroll	\$	59,694,221	\$	62,822,741	5.2%
Average Annual Pay	\$	68,378	\$	70,350	2.9%



APPENDIX A – MEMBERSHIP INFORMATION

SUMMARY	OF IN	ACTIVE MEMB	ERSI	HIP*	
	Jı	me 30, 2018	Jı	ıne 30, 2019	Change
General					
Count		1,741		1,774	1.9%
Average Age		44.2		43.9	-0.7%
Total Contribution Balance	\$	40,050,143	\$	41,393,272	3.4%
Average Contribution Balance	\$	23,004	\$	23,333	1.4%
Safety					
Count		291		308	5.8%
Average Age		39.7		39.5	-0.4%
Total Contribution Balance	\$	9,707,077	\$	11,151,367	14.9%
Average Contribution Balance	\$	33,358	\$	36,206	8.5%
Total					
Count		2,032		2,082	2.5%
Average Age		43.6		43.3	-0.7%
Total Contribution Balance	\$	49,757,220	\$	52,544,639	5.6%
Average Contribution Balance	\$	24,487	\$	25,238	3.1%

^{*}Includes unclaimed accounts.



APPENDIX A – MEMBERSHIP INFORMATION

SUMMAR	RY OF RI	ETIRED MEME	BERSI	HIP	
	Ju	me 30, 2018	Ju	ıne 30, 2019	Change
General					
Count		2,658		2,749	3.4%
Average Age		70.7		70.9	0.3%
Total Annual Allowance	\$	55,107,749	\$	59,081,180	7.2%
Average Annual Allowance	\$	20,733	\$	21,492	3.7%
Safety					
Count		534		563	5.4%
Average Age		64.5		64.9	0.7%
Total Annual Allowance	\$	18,624,022	\$	19,889,881	6.8%
Average Annual Allowance	\$	34,876	\$	35,328	1.3%
Total					
Count		3,192		3,312	3.8%
Average Age		69.6		69.9	0.4%
Total Annual Allowance	\$	73,731,771	\$	78,971,061	7.1%
Average Annual Allowance	\$	23,099	\$	23,844	3.2%

Please refer to the June 30, 2019 actuarial valuation report for a more complete summary of the data.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

A summary of the actuarial assumptions and methods used to calculate the Total Pension Liability as of June 30, 2019 is provided below. Please refer to the June 30, 2019 actuarial valuation report for a complete description of all other assumptions. The economic and demographic assumptions were selected by the Board. With the exception of the discount rate, administrative expense assumption, and the municipal bond yield, the assumptions used in this report and the June 30, 2019 actuarial valuation report reflect the results of the Experience Study performed by Cheiron covering the period July 1, 2014 through June 30, 2017.

Key Actuarial Assumptions

Expected Return on

Assets

7.40% net of investment expenses as of June 30, 2019.

Municipal Bond

Yield

3.50% net of investment expenses as of June 30, 2019 (Bond Buyer 20-

year Bond GO Index, June 27, 2019).

Discount Rate 7.30%

Inflation The cost-of-living as measured by the Consumer Price Index (CPI) will

increase at the rate of 3.00% per year.

Post Retirement

COLA

Benefits are assumed to increase after retirement at the rate of the

Consumer Price Index (CPI) subject to the maximum of 2.70% per year

for Tier 1 and 2.00% per year for Tiers 2-4.

Administrative

Expenses

Administrative Expenses used in the cashflow projection are assumed

to average 0.15% of assets annually.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Contribution Allocation Procedure

The contribution allocation procedure primarily consists of an actuarial cost method, an asset smoothing method, and an amortization method as described below.

1. Actuarial Cost Method

The actuarial valuation is prepared using the Entry Age Actuarial Cost Method (CERL 31453.5). Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit (until maximum retirement age). For members who transferred between plans, entry age is based on original entry into the system. The normal cost for the Plan is based on the sum of the individual normal costs for each member (Individual Entry Age Method).

2. Asset Valuation Method

Beginning in fiscal year 2009, the assets are valued using a 10-year smoothed method based on the difference between the expected market value and the actual market value of the assets, net of expenses, as of June 30 and December 31 of each year. The expected market value at the end of each period is the beginning market value increased with the net increase in the cash flow of funds, all increased with interest at the expected investment return rate assumption.

A 30% asset corridor limit is applied.

3. Amortization Method

The Unfunded Actuarial Liability is the difference between the Actuarial Liability and the Actuarial Value of Assets. The UAL (or Surplus) is amortized as a percentage of the projected salaries of present and future members of TCERA. At its October 28, 2015 meeting, the Board adopted 19-year layered amortization of the UAL. Starting as of June 30, 2015, the UAL is amortized over a closed 19-year period as a level percentage of payroll, assuming payroll increases of 3.00% per year. Subsequent changes in the UAL due to experience gains and losses, assumption changes, or plan changes will be amortized over new closed 19-year periods.

4. Contributions

The employer (County or District) contributes to the retirement fund a percentage of the total compensation provided for all members based on an actuarial investigation, valuation, and recommendation of the actuary.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

The plan provisions are the same as those summarized in the June 30, 2019 actuarial valuation report.

Plan provisions include liabilities associated with the Supplemental Retiree Benefit Reserve (SRBR).

The county has adopted the financial provisions of Article 5.5 of the 1937 Act for Tiers 1-3. The Article requires that in certain cases, a portion of investment earnings be allocated to a Supplemental Retiree Benefit Reserve (SRBR). Earnings allocated to the SRBR are to be used for the benefit of members in Tiers 1-3. Members of Tier 4 are not eligible for supplemental benefits. (31618)



APPENDIX D – DETERMINATION OF DISCOUNT RATE

FYE	Projected Beginning Fiduciary Net Position*	Normal Cost Contribution - Employer and Employee	UAL Contribution	Projected Admin Expenses	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2020	\$ 1,646,171	\$ 45,216	\$ 13,263	\$ 2,469	\$ 105,963	\$ 120,001	\$ 1,716,218	\$ 105,963	\$ 0
2021	1,716,218	43,088	15,117	2,574	105,320	125,195	1,791,725	105,320	0
2022	1,791,725	41,350	17,578	2,688	110,403	130,619	1,868,181	110,403	0
2023	1,868,181	39,636	19,391	2,802	116,219	136,065	1,944,252	116,219	0
2024	1,944,252	37,905	21,490	2,916	121,652	141,506	2,020,586	121,652	0
2025	2,020,586	36,211	24,268	3,031	127,295	146,985	2,097,724	127,295	0
2026	2,097,724	34,506	26,556	3,147	133,275	152,493	2,174,857	133,275	0
2027	2,174,857	32,817	28,031	3,262	139,248	157,972	2,251,166	139,248	0
2028	2,251,166	31,172	29,663	3,377	145,195	163,398	2,326,827	145,195	0
2029	2,326,827	29,560	31,634	3,490	151,052	168,793	2,402,272	151,052	0
2030	2,402,272	27,978	32,996	3,603	157,432	174,132	2,476,343	157,432	0
2031	2,476,343	26,452	34,777	3,715	163,697	179,391	2,549,551	163,697	0
2032	2,549,551	24,956	36,620	3,824	170,149	184,582	2,621,736	170,149	0
2033	2,621,736	23,490	38,527	3,933	176,272	189,714	2,693,262	176,272	0
2034	2,693,262	22,054	40,497	4,040	182,235	194,805	2,764,343	182,235	0
2035	2,764,343	20,640	15,369	4,147	188,250	198,878	2,806,833	188,250	0
2036	2,806,833	19,278	11,541	4,210	193,876	201,627	2,841,192	193,876	0
2037	2,841,192	17,954	29,516	4,262	200,148	204,545	2,888,797	200,148	0
2038	2,888,797	16,640	28,032	4,333	206,281	207,741	2,930,596	206,281	0
2039	2,930,596	15,336	28,050	4,396	212,256	210,568	2,967,898	212,256	0
2040	2,967,898	14,067	27,155	4,452	219,303	212,991	2,998,357	219,303	0
2041	2,998,357	12,846	25,265	4,498	225,221	214,915	3,021,664	225,221	0
2042	3,021,664	11,667	24,575	4,532	231,164	216,355	3,038,565	231,164	0
2043	3,038,565	10,515	23,447	4,558	236,995	217,310	3,048,284	236,995	0
2044	3,048,284	9,382	21,197	4,572	242,502	217,706	3,049,493	242,502	0

^{*} Fiduciary Net Position based on financial statements provided by TCERA dated October 28, 2019.



APPENDIX D – DETERMINATION OF DISCOUNT RATE

FYE	Projected Beginning Fiduciary Net Position*	Normal Cost Contribution - Employer and Employee	UAL Contribution	Projected Admin Expenses	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2045	3,049,493	8,287	19,870	4,574	247,566	217,523	3,043,033	247,566	0
2046	3,043,033	7,246	20,035	4,565	252,552	216,832	3,030,029	252,552	0
2047	3,030,029	6,261	19,987	4,545	257,111	215,668	3,010,289	257,111	0
2048	3,010,289	5,332	19,413	4,515	261,536	213,992	2,982,976	261,536	0
2049	2,982,976	4,460	19,972	4,474	265,386	211,821	2,949,369	265,386	0
2050	2,949,369	3,666	19,864	4,424	268,689	209,183	2,908,969	268,689	0
2051	2,908,969	2,965	19,714	4,363	271,229	206,073	2,862,128	271,229	0
2052	2,862,128	2,363	19,521	4,293	273,067	202,514	2,809,164	273,067	0
2053	2,809,164	1,850	19,287	4,214	274,087	198,533	2,750,534	274,087	0
2054	2,750,534	1,422	19,014	4,126	274,279	194,165	2,686,730	274,279	0
2055	2,686,730	1,071	18,703	4,030	273,822	189,440	2,618,092	273,822	0
2056	2,618,092	789	18,358	3,927	272,452	184,391	2,545,251	272,452	0
2057	2,545,251	570	17,978	3,818	270,407	179,057	2,468,631	270,407	0
2058	2,468,631	402	17,563	3,703	267,817	173,465	2,388,541	267,817	0
2059	2,388,541	278	17,119	3,583	264,528	167,641	2,305,469	264,528	0
2060	2,305,469	189	16,646	3,458	260,735	161,616	2,219,728	260,735	0
2061	2,219,728	126	16,149	3,330	256,483	155,410	2,131,601	256,483	0
2062	2,131,601	83	15,632	3,197	251,817	149,042	2,041,343	251,817	0
2063	2,041,343	54	15,096	3,062	246,772	142,531	1,949,190	246,772	0
2064	1,949,190	34	14,546	2,924	241,362	135,893	1,855,376	241,362	0
2065	1,855,376	21	13,986	2,783	235,599	129,144	1,760,145	235,599	0
2066	1,760,145	13	13,419	2,640	229,493	122,303	1,663,746	229,493	0
2067	1,663,746	7	12,849	2,496	223,052	115,388	1,566,443	223,052	0
2068	1,566,443	4	12,276	2,350	216,278	108,418	1,468,513	216,278	0
2069	1,468,513	2	11,705	2,203	209,180	101,414	1,370,252	209,180	0

^{*} Fiduciary Net Position based on financial statements provided by TCERA dated October 28, 2019.



APPENDIX D – DETERMINATION OF DISCOUNT RATE

FYE	Projected Beginning Fiduciary Net Position*	Normal Cost Contribution - Employer and Employee	UAL Contribution	Projected Admin Expenses	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2070	1,370,252	1	11,139	2,055	201,766	94,397	1,271,968	201,766	0
2071	1,271,968	0	10,580	1,908	194,047	87,389	1,173,983	194,047	0
2072	1,173,983	(0)	10,030	1,761	186,043	80,414	1,076,623	186,043	0
2073	1,076,623	0	9,489	1,615	177,776	73,496	980,217	177,776	0
2074	980,217	0	8,959	1,470	169,272	66,657	885,090	169,272	0
2075	885,090	0	8,440	1,328	160,564	59,920	791,559	160,564	0
2076	791,559	0	7,933	1,187	151,687	53,308	699,926	151,687	0
2077	699,926	0	7,439	1,050	142,683	46,842	610,473	142,683	0
2078	610,473	0	6,957	916	133,598	40,540	523,455	133,598	0
2079	523,455	0	6,489	785	124,480	34,419	439,099	124,480	0
2080	439,099	0	6,036	659	115,380	28,496	357,591	115,380	0
2081	357,591	0	5,596	536	106,354	22,781	279,078	106,354	0
2082	279,078	0	5,172	419	97,458	17,283	203,656	97,458	0
2083	203,656	0	4,763	305	88,751	12,007	131,370	88,751	0
2084	131,370	0	4,370	197	80,289	6,955	62,209	80,289	0
2085	62,209	0	3,994	93	72,126	2,124	(3,893)	62,209	9,918
2086	(3,893)	0	3,635	0	64,311	0	(60,675)	0	64,311
2087	(60,675)	0	3,294	0	56,888	0	(53,594)	0	56,888
2088	(53,594)	0	2,971	0	49,897	0	(46,925)	0	49,897
2089	(46,925)	0	2,667	0	43,370	0	(40,703)	0	43,370
2090	(40,703)	0	2,382	0	37,332	0	(34,950)	0	37,332
2091	(34,950)	0	2,116	0	31,801	0	(29,685)	0	31,801
2092	(29,685)	0	1,869	0	26,788	0	(24,919)	0	26,788
2093	(24,919)	0	1,641	0	22,296	0	(20,655)	0	22,296
2094	(20,655)	0	1,432	0	18,321	0	(16,889)	0	18,321

^{*} Fiduciary Net Position based on financial statements provided by TCERA dated October 28, 2019.



APPENDIX D – DETERMINATION OF DISCOUNT RATE

FYE	Projected Beginning Fiduciary Net Position*	Normal Cost Contribution - Employer and Employee	UAL Contribution	Projected Admin Expenses	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2095	(16,889)	0	1,242	0	14,849	0	(13,607)	0	14,849
2096	(13,607)	0	1,070	0	11,861	0	(10,791)	0	11,861
2097	(10,791)	0	915	0	9,328	0	(8,413)	0	9,328
2098	(8,413)	0	778	0	7,216	0	(6,439)	0	7,216
2099	(6,439)	0	656	0	5,486	0	(4,830)	0	5,486
2100	(4,830)	0	549	0	4,095	0	(3,546)	0	4,095
2101	(3,546)	0	456	0	2,998	0	(2,542)	0	2,998
2102	(2,542)	0	376	0	2,151	0	(1,775)	0	2,151
2103	(1,775)	0	307	0	1,510	0	(1,203)	0	1,510
2104	(1,203)	0	249	0	1,037	0	(788)	0	1,037
2105	(788)	0	201	0	696	0	(495)	0	696
2106	(495)	0	161	0	456	0	(295)	0	456
2107	(295)	0	128	0	291	0	(163)	0	291
2108	(163)	0	101	0	181	0	(80)	0	181
2109	(80)	0	80	0	110	0	(30)	0	110
2110	(30)	0	64	0	65	0	(1)	0	65
2111	(1)	0	50	0	38	0	13	0	38
2112	13	0	39	0	21	2	33	0	21
2113	33	0	31	0	12	3	55	0	12
2114	55	0	24	0	6	5	77	0	6
2115	77	0	18	0	4	6	98	0	4
2116	98	0	14	0	2	8	118	0	2
2117	118	0	11	0	1	9	137	0	1
2118	137	0	9	0	1	10	155	0	1
2119	155	0	7	0	0	12	173	0	0
							Discount Rate:	7.40%	3.50%
						_	Present Value: \$	5 2,290,083	\$ 37,518
							al Present Value: B Discount Rate:		\$ 2,327,601 7.30%

^{*} Fiduciary Net Position based on financial statements provided by TCERA dated October 28, 2019.



APPENDIX E – GLOSSARY OF TERMS

1. Actuarially Determined Contribution

A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

2. Actuarial Valuation Date

The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

3. Deferred Inflow of Resources

An acquisition of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience gains on the Total Pension Liability, assumption changes reducing the Total Pension Liability, or investment gains that are recognized in future reporting periods.

4. Deferred Outflow of Resources

A consumption of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience losses on the Total Pension Liability, assumption changes increasing the Total Pension Liability, or investment losses that are recognized in future reporting periods.

5. Entry Age Actuarial Cost Method

The actuarial cost method required for GASB 67 and 68 calculations. Under this method, the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the service cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future service costs is called the Total Pension Liability.

6. Measurement Date

The date as of which the Total Pension Liability and Plan Fiduciary Net Position are measured. The Total Pension Liability may be projected from the actuarial valuation date to the measurement date. The measurement date must be the same as the reporting date for the plan.



APPENDIX E – GLOSSARY OF TERMS

7. Net Pension Liability

The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan. It is calculated as the Total Pension Liability less the Plan Fiduciary Net Position. The Net Pension Liability is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling TCERA's benefit obligations in the event of a plan termination or other similar action.

8. Plan Fiduciary Net Position

The fair or Market Value of Assets.

9. Reporting Date

The last day of the plan or employer's fiscal year.

10. Service Cost

The portion of the actuarial present value of projected benefit payments that is attributed to the current period of employee service in conformity with the requirements of GASB 67 and 68. The service cost is the normal cost calculated under the Entry Age Actuarial Cost Method.

11. Total Pension Liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB 67 and 68. The Total Pension Liability is the Actuarial Liability calculated under the Entry Age Actuarial Cost Method.





Classic Values, Innovative Advice