

Tulare County Employees' Retirement Association

GASB 67/68 Report as of June 30, 2021

Produced by Cheiron

October 2021

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October 27, 2021

Board of Retirement Tulare County Employees' Retirement Association 136 N. Akers St. Visalia, California 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, 2021,
- 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, FCA, MAAA, EA

Consulting Actuary

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

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Consulting Actuary

SECTION I – BOARD SUMMARY

The measurement date for the Tulare County Employees' Retirement Association (TCERA) is June 30, 2021. Measurements are based on the fair value of assets as of June 30, 2021 and the Total Pension Liability as of the valuation date, June 30, 2021. The table below provides a summary of the key collective results during this measurement period.

Table I-1 Summary of Collective Results										
		Measuren	nen	t Date						
		06/30/2021		06/30/2020						
Net Pension Liability	\$	271,543	\$	439,041						
Deferred Outflows		(123,493)		(186,958)						
Deferred Inflows		198,592		70,072						
Net Impact on Statement of Net Position	\$	346,642	\$	322,155						
Pension Expense/(Income)	\$	61,253	\$	107,422						
Pension Expense/(Income) (% of Payroll)		22.18%		37.87%						

Numbers may not add to totals due to rounding.

Amounts in Thousands

The Net Pension Liability (NPL) decreased by approximately \$167.5 million since the prior measurement date, primarily due to strong asset performance over the last year. 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.

As of the end of the reporting year, the participating employers in TCERA would report a Net Pension Liability of \$271,543,000, collective Deferred Inflows of \$198,592,000, and collective Deferred Outflows of \$123,493,000. Consequently, the net impact on the aggregate of participating employers' Statements of Net Position due to TCERA would be \$346,642,000 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, 2021, the collective annual pension expense is \$61,253,000 or 22.18% of covered payroll. This amount is not equal to the participating employers' contributions to TCERA (\$36,766,000), but instead represents the change in the net impact on participating employer's Statements of Net Position plus employer contributions (\$346,642,000 - \$322,155,000 + \$36,766,000). The collective pension expense is smaller than the collective expense for the prior year. Volatility in pension expense 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.

Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this report.

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, FCA, MAAA, EA Consulting Actuary

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



SECTION III - DETERMINATION OF DISCOUNT RATE

The discount rate used to measure the Total Pension Liability was 6.95%.

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, 2021 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 Board elected to phase-in the impact of the 2020 assumption changes on the employer contribution rate over the next three fiscal years, with two-thirds of the phase-in recognized as of June 30, 2021.

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.

The stochastic model was developed using R-scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the Plan. R-scan uses standard roll-forward techniques that implicitly assume a stable active population. Because R-scan does not automatically capture how changes in one variable affect all other variables, some scenarios may not be consistent.

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 2087, 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 7.15% to the extent the fiduciary net position is available to make the payments and at the municipal bond rate of 2.16% to the extent they are not available. The 7.15% expected return on assets is equal to the 7.00% investment return assumption used in the June 30, 2021 actuarial valuation, plus 0.15% for administrative expenses. The administrative expense adjustment results from the fact that the 7.00% 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 2.16% municipal bond rate is based on the Bond Buyer 20-year Bond GO Index as of June 24, 2021.

The single rate that is equivalent to a 7.15% discount rate until the projected fiduciary net position is no longer available to make benefit payments (in FYE 2087), and 2.16% thereafter, is 6.95%. The discount rate used to determine the Total Pension Liability as of June 30, 2021 is therefore 6.95%. 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, 2021, is measured as of a valuation date of June 30, 2021.

Between the June 30, 2020 and June 30, 2021 measurement dates, the discount rate was reduced from 6.96% to 6.95% due to the results of the crossover test. The details of this calculation are shown in Appendix D. The change in the discount rate was the only assumption change this year. Please see Appendix B of the June 30, 2021 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 impact of the assumption change increased the TPL measurement by approximately \$3 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 Coll		ble V-1 ve Net Pens	ion l	Liability								
			Incre	ase (Decrease)								
	Total Pension Plan Fiduciary Net Pension Liability Net Position Liability (a) (b) (a) - (b)											
Balances at 6/30/2020	\$	2,058,861	\$	1,619,820	\$	439,041						
Changes for the year:												
Service cost		54,859				54,859						
Interest		141,880				141,880						
Changes of benefits		0				0						
Differences between expected and actual												
experience		85,474				85,474						
Changes of assumptions		2,930				2,930						
Contributions - employer				36,766		(36,766)						
Contributions - member				23,536		(23,536)						
Net investment income				395,079		(395,079)						
Benefit payments		(96,276)		(96,276)		0						
Administrative expense		·		(2,740)		2,740						
Net changes		188,867		356,365		(167,498)						
Balances at 6/30/2021	\$	2,247,728	\$	1,976,185	\$	271,543						

Numbers may not add to totals due to rounding.

Amounts in Thousands

During the measurement year, the collective NPL decreased by approximately \$167.5 million. The service cost, interest cost, actuarial losses, and recognition of administrative expense increased the collective NPL by approximately \$285 million while contributions and investment income decreased the collective NPL by approximately \$455 million. Actuarial losses are due primarily to increased SRBR liability – exceptional investment returns and the unrecognized asset gains associated with them led to a significant increase in the likelihood of future SRBR transfers.

There were no changes in benefits during the year. As discussed in Section IV, there was an assumption change, which increased the TPL by approximately \$3 million.



SECTION V – GASB 67 REPORTING INFORMATION

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. Table V-2 shows the sensitivity of the collective NPL to the discount rate.

Table V-2 Sensitivity of Collective Net Pension Liability to Changes in Discount Rate												
		1% Decrease 5.95%		Discount Rate 6.95%		1% Increase 7.95%						
Total Pension Liability Plan Fiduciary Net Position Collective Net Pension Liability	\$ <u>\$</u>	2,574,476 1,976,185 598,291	\$ <u>\$</u>	2,247,728 1,976,185 271,543	\$	1,982,508 1,976,185 6,323						
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		76.8%		87.9%		99.7%						

Numbers may not add to totals due to rounding.

Amounts in Thousands

A 1% decrease in the discount rate increases the TPL by approximately 15% and increases the collective NPL by approximately 120%. A 1% increase in the discount rate decreases the TPL by approximately 12% and decreases the collective NPL by approximately 98%.

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 eight years since implementation.



SECTION V – GASB 67 REPORTING INFORMATION

		Sched	ule	of Changes i	n (Table Collective Net			v a	and Related Ra	ati	os				
		FYE 2021		FYE 2020		FYE 2019		FYE 2018	•	FYE 2017		FYE 2016		FYE 2015	F	YE 2014
Total Pension Liability																
Service cost (MOY)	\$	54,859	\$	49,424	\$	49,484	\$	46,838	\$	38,203	\$	38,307	\$	35,168	\$	39,672
Interest (includes interest on service																
cost)		141,880		140,390		133,895		126,586		118,664		115,716		97,473		94,277
Changes of benefit terms		0		0		0		0		0		0		0		0
Differences between expected and																
actual experience		85,474		(54,091)		(6,667)		10,342		11,936		(40,602)		7,591		0
Changes of assumptions		2,930		70,788		(37,996)		41,149		69,608		23,923		180,187		13,588
Benefit payments, including refunds																
of member contributions	_	(96,276)	_	(91,427)	_	(85,097)	_	(80,716)	_	(76,961)	_	(72,332)	_	(68,560)		(65,954)
Net change in total pension liability	\$	188,867	\$	115,084	\$	53,619	\$	144,199	\$	161,449	\$	65,011	\$	251,858	\$	81,583
Total pension liability - beginning		2,058,861		1,943,777		1,890,158		1,745,959		1,584,510		1,519,499		1,267,640		1,186,057
Total pension liability - ending	<u>s</u>	2,247,728	\$	2,058,861	\$	1,943,777	\$	1,890,158	\$		<u> </u>	1,584,510	\$		\$	1,267,640
Total pension massive, ending	Ф	2,247,720	Ф	2,030,001	Ф	1,943,777	Ф	1,090,130	Φ	1,743,939	Ф	1,304,310	Ф	1,319,499	Ф	1,207,040
Plan fiduciary net position																
Contributions - employer	\$	36,766	\$	35,310	\$	33,494	\$	286,263	\$	33,616	\$	31,297	\$	30,992	\$	25,953
Contributions - member		23,536		23,104		22,325		18,512		18,190		16,815		18,887		18,969
Net investment income		395,079		9,515		90,779		95,857		132,865		(20,309)		122,400		179,878
Benefit payments, including refunds																
of member contributions		(96,276)		(91,427)		(85,097)		(80,716)		(76,961)		(72,332)		(68,560)		(65,954)
Administrative expense	_	(2,740)		(2,853)		(2,806)	_	(2,666)		(2,612)	_	(2,616)	_	(2,408)		(1,639)
Net change in plan fiduciary net		25.2.5		(0.6.0.01)		20.40		24.5.4.0		40,5000	•	(1= 1.1=	•	101 212		4
position	\$	356,365	\$	(26,351)	\$	58,695	\$	317,250	\$	105,098	\$	(47,145)	\$	101,312	\$	157,207
Plan fiduciary net position -																
beginning		1,619,820	_	1,646,171		1,587,476		1,270,226		1,165,127		1,212,272		1,110,961		953,754
Plan fiduciary net position - ending	\$	1,976,185	\$	1,619,820	\$	1,646,171	\$	1,587,476	\$	1,270,226	\$	1,165,127	\$	1,212,272	\$	1,110,961
Net pension liability - ending	\$	271,543	\$	439,041	\$	297,606	\$	302,682	\$	475,734	\$	419,383	\$	307,226	\$	156,680
Plan fiduciary net position as a percentage of the total pension liability		87.92%		78.68%		84.69%		83.99%		72.75%		73.53%		79.78%		87.64%
Covered payroll*	\$	276,127	\$	283,640	\$	264,218	\$	256,049	\$	243,366	\$	238,559	\$	229,431	\$	234,438
Net pension liability as a percentage of covered payroll		98.34%		154.79%		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.

					Scl	hedule of (Coll	Table V lective Em		yer Conti	·ib	utions							
	F	YE 2021	I	YE 2020	I	FYE 2019	F	YE 2018*	1	FYE 2017		FYE 2016	FYE 2015	I	FYE 2014		FYE 2013	I	YE 2012
Actuarially Determined Contribution Contributions in Relation to the	\$	36,766	\$	35,310	\$	33,494	\$	36,263	\$	33,616	\$	31,297	\$ 30,992	\$	25,953	\$	29,847	\$	25,257
Actuarially Determined Contribution		36,766		35,310		33,494		36,263		33,616		31,297	30,992		25,953	_	29,847		25,257
Contribution Deficiency/(Excess)	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$ 0	\$	0	\$	0	\$	0
Covered Payroll	\$	276,127	\$	283,640	\$	264,218	\$	256,049	\$	243,366	\$	238,559	\$ 229,431	\$	234,438	\$	230,955	\$	222,635
Contributions as a Percentage of Covered Payroll		13.31%		12.45%		12.68%		14.16%		13.81%		13.12%	13.51%		11.07%		12.92%		11.34%

Numbers may not add to totals due to rounding.

* 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

The notes below summarize the key methods and assumptions used to determine the ADC for FYE 2021.

Notes to Schedule

Mortality

Valuation Date 6/30/2019

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:

Actuarial cost method Entry Age

Asset valuation method 10-year smoothed market, with a 30% corridor around the market value

Amortization method Level percentage of payroll with separate periods for the UAL as of June 30, 2015 (15 years remaining as of 6/30/19), 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, 2021 can be found in the June 30, 2019 actuarial valuation report



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 2021 disclosures can be based on either the June 30, 2020 or 2021 measurement dates. If an employer elects to base their 2021 disclosures on the June 30, 2020 measurement date, the GASB 68 schedules in this report with a measurement date of June 30, 2021 will be used for their 2022 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 beginning of the measurement period, this recognition period was five years. The impact of investment gains or losses is recognized over a period of five years.

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 and the total amount recognized thereafter.

Table VI-1 Schedule of Collective Deferred Inflows	and	Outflows of 1	Resour	·ces
	O	Deferred outflows of Resources	In	eferred flows of esources
Differences between expected and actual experience	\$	70,447	\$	35,123
Changes in assumptions		53,046		15,199
Net difference between projected and actual earnings on				
pension plan investments		0		148,270
Total	\$	123,493	\$	198,592
Amounts reported as deferred outflows and deferred inflows of expense as follows: Measurement year ended June 30		rces will be recog	nized in	pension
2022		(7,011)		
2023		(16,734)		
2024		(12,908)		
2025		(38,446)		
2026		0		
Thereafte	er \$	0		

Numbers may not add to totals due to rounding.



SECTION VI – GASB 68 COLLECTIVE AMOUNTS

The tables below provide details on the current balances of collective deferred inflows and outflows of resources along with the recognition of each base for each of the current and following five years, as well as the total for any years thereafter.

	Table VI-2(a) Recognition of Experience (Gains) and Losses																	
Experience Year	Recognition Period	I	Total Amount	R	eginning emaining Amount	R	Ending emaining Amount		2021		2022		Recogni 2023	tio	on Year 2024	2025	The	ereafter
2021	5.0	\$	85,474	\$	85,474	\$	68,379	\$	17,095	\$	17,095	\$	17,095	\$	17,095	\$ 17,094	\$	0
2020	5.0		(54,091)		(43,273)		(32,455)		(10,818)		(10,818)		(10,818)		(10,819)	0		0
2019	5.0		(6,667)		(4,001)		(2,668)		(1,333)		(1,333)		(1,335)		0	0		0
2018	5.0		10,342		4,136		2,068		2,068		2,068		0		0	0		0
2017	5.0		11,936		2,387		0		2,387		0		0		0	0		0
Deferred Ou	tflows				91,997		70,447		21,550		19,163		17,095		17,095	17,094		0
Deferred (In	flows)				(47,274)		(35,123)		(12,151)		(12,151)		(12,153)		(10,819)	0		0
Net Change	in Pension Exp	ense	e	\$	44,723	\$	35,324	\$	9,399	\$	7,012	\$	4,942	\$	6,276	\$ 17,094	\$	0

Numbers may not add to totals due to rounding.

Amounts in Thousands

	Table VI-2(b) Recognition of Assumption Changes																	
Change Year	Recognition Period	ı	Total Amount	Re	eginning emaining Amount	R	Ending emaining Amount		2021		2022		Recogni 2023	itio	n Year 2024	2025	The	ereafter
2021	5.0	\$	2,930	\$	2,930	\$	2,344	\$	586	\$	586	\$	586	\$	586	\$ 586	\$	0
2020	5.0		70,788		56,630		42,472		14,158		14,158		14,158		14,156	0		0
2019	5.0		(37,996)		(22,798)		(15,199)		(7,599)		(7,599)		(7,600)		0	0		0
2018	5.0		41,149		16,460		8,230		8,230		8,230		0		0	0		0
2017	5.0		69,608		13,922		0		13,922		0		0	_	0	0		0
Deferred Ou	tflows				89,942		53,046		36,896		22,974		14,744		14,742	586		0
Deferred (In:	flows)				(22,798)		(15,199)		(7,599)		(7,599)		(7,600)		0	0		0
Net Change	in Pension Exp	ens	e	\$	67,144	\$	37,847	\$	29,297	\$	15,375	\$	7,144	\$	14,742	\$ 586	\$	0

Numbers may not add to totals due to rounding.

Amounts in Thousands

	Table VI-2(c) Recognition of Investment (Gains) and Losses												
Experience Year	Recognition Period	Total Amount	Beginning Remaining Amount	Ending Remaining Amount	2021	2022	Recogni 2023	tion Year 2024	2025	Thereafter			
2021	5.0	\$ (280,622)	\$ (280,622)	\$ (224,498)	\$ (56,124)	\$ (56,124)	\$ (56,124)	\$ (56,124)	\$ (56,126)	\$ 0			
2020	5.0	110,998	88,798	66,598	22,200	22,200	22,200	22,198	0	0			
2019	5.0	25,528	15,316	10,210	5,106	5,106	5,104	0	0	0			
2018	5.0	(2,900)	(1,160)	(580)	(580)	(580)	0	0	0	0			
2017	5.0	(47,655)	(9,531)	0	(9,531)	0	0	0	0	0			
Net Change i	n Pension Exp	ense	\$ (187,199)	\$ (148,270)	\$ (38,929)	\$ (29,398)	\$ (28,820)	\$ (33,926)	\$ (56,126)	\$ 0			

Numbers may not add to totals due to rounding.



SECTION VI – GASB 68 COLLECTIVE AMOUNTS

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 below, we believe it helps to understand the level and volatility of the collective pension expense.

Tabl Calculation of Collec	e VI-3 ctive Pensi	ion Expense		
		Measurement	Year 1	Ending
		2021		2020
Change in Net Pension Liability	\$	(167,498)	\$	141,435
Change in Deferred Outflows		63,465		(95,544)
Change in Deferred Inflows		128,520		26,221
Employer Contributions		36,766		35,310
Pension Expense	\$	61,253	\$	107,422
Pension Expense as % of Payroll		22.18%		37.87%
Operating Expenses				
Service cost	\$	54,859	\$	49,424
Employee contributions		(23,536)		(23,104)
Administrative expenses		2,740		2,853
Total	\$	34,063	\$	29,173
Financing Expenses				
Interest cost	\$	141,880	\$	140,390
Expected return on assets		(114,457)		(120,513)
Total	\$	27,423	\$	19,877
Changes				
Benefit changes	\$	0	\$	0
Recognition of assumption changes		29,297		34,345
Recognition of liability gains and losses		9,399		(15,816)
Recognition of investment gains and losses		(38,929)		39,843
Total	\$	(233)	\$	58,372
Pension Expense	\$	61,253	\$	107,422

Numbers may not add to totals due to rounding.



SECTION VI – GASB 68 COLLECTIVE AMOUNTS

Operating expenses 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.

Financing expenses equal the interest on the Total Pension Liability less the expected return on assets.

The recognition of changes 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. The total collective pension expense decreased by about \$46.2 million. In the current year pension expense, the recognition of changes decreased by approximately \$58.6 million and was offset by increases in operating expenses of approximately \$4.9 million and increases in financing expenses of approximately \$7.5 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 AICPA 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, 2021 has been determined using this method.

	Determina		ole VII-1 loyers' Proportio	nate S	hare	
Employer		June 30 Employer ontribution), 2021 Proportionate Share		June 30 mployer ntribution	, 2020 Proportionate Share
County	\$	33,586	91.3507%	\$	32,146	91.0394%
Courts SPUD		2,965 34	8.0645% 0.0925%		2,965 25	8.3971% 0.0708%
TCAG		181	0.4923%		174	0.4928%
Total	\$	36,766	100.0000%	\$	35,310	100.0000%

Numbers may not add to totals due to rounding.



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

Table VII-2 Schedule of Employers' Proportionate Share of Collective Amounts at June 30, 2021												
Employer				Share of NPL @ 7.95%	Share of Deferred Outflows	Share of Deferred Inflows	Pension Expense					
County	91.3507%	546,543	248,056	5,776	112,812	181,415	55,955					
Courts	8.0645%	48,249	21,899	510	9,959	16,015	4,940					
SPUD	0.0925%	553	251	6	114	184	57					
TCAG	0.4923%	2,945	1,337	31	608	978	302					
Total	100.0000%	\$ 598,291	\$ 271,543	\$ 6,323	\$ 123,493	\$ 198,592	\$ 61,253					

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													
	Proportion	ate Shares	N o4				in Proport	ion				ontributions	
Employer	06/30/2020	06/30/2021		Pension iability	Deferre Outflov		Deferred Inflows	N	et Effect	Actual	Pr	oportionate Share	Difference
County	91.0394%	91.3507%	\$	1,367	\$	582 \$	\$ (218) \$	1,003	\$ 33,586	\$	33,586	\$ 0
Courts	8.3971%	8.0645%		(1,460)	(622)	233		(1,071)	2,965		2,965	0
SPUD	0.0708%	0.0925%		95		41	(15)	70	34		34	0
TCAG	0.4928%	0.4923%		(2)		(1)	0		(2)	181		181	0
Total	100.0000%	100.0000%	\$	0	\$	0 5	\$ 0	\$	0	\$ 36,766	\$	36,766	\$ 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												
Employer	06/	30/2020	Deferred Current Year Net Effect	Outflows Recognition	06/	/30/2021	06	/30/2020		Deferre Current Year Net Effect	d Inflows Recognition	06/30/2021
County Courts SPUD TCAG Total	\$ \$	6,941 62 629	\$ 1,003 0 70 0 \$ 1,073	3,421 46 326	·	1,902 3,520 87 303 5,811	\$ \$	(7,632) (1,189) (28) (432) (9,281)		0 (1,071) 0 (2) (1,073)	\$ (3,779) (611) (9) (144) \$ (4,543)	(1,650) (19) (289)

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.

	Reco	nciliatior	ı of Deferred		ole VII-5 ad Inflows Du	e to Contribu	ition Differei	ıces	
	_		Current	l Outflows		_	Current	ed Inflows	
Employer	06	/30/2020	Year Difference	Recognition	06/30/2021	06/30/2020	Year Difference	Recognition	06/30/2021
County	\$	10,984	\$ 0	\$ 5,492	\$ 5,492	\$ 0	\$ 0	\$ 0	\$ 0
Courts		0	0	0	0	(9,916) 0	(4,958)	(4,958)
SPUD		0	0	0	0	(102)) 0	(51)	(51)
TCAG		0	0	0	0	(966)) 0	(483)	(483)
Total	\$	10,984	\$ 0	\$ 5,492	\$ 5,492	\$ (10,984)) \$ 0	\$ (5,492)	\$ (5,492)

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, 2021												
Employer	Proportionate Shares	Ex	perience		ssumption Changes	I	nvestment Return		roportion Change		ontribution Difference	
County	91.3507%	\$	64,354	\$	48,458	\$	0	\$	1,902	\$	5,492	
Courts	8.0645%		5,681		4,278		0		3,520		0	
SPUD	0.0925%		65		49		0		87		0	
TCAG	0.4923%		347		261		0		303		0	
Total	100.0000%	\$	70,447	\$	53,046	\$	0	\$	5,811	\$	5,492	

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, 2021												
Employer	Proportionate Shares	Ex	perience		Assumption Changes	I	nvestment Return	P	roportion Change		ontribution Difference	
County	91.3507%	\$	32,085	\$	13,884	\$	135,446	\$	3,853	\$	0	
Courts	8.0645%		2,833		1,226		11,957		1,650		4,958	
SPUD	0.0925%		32		14		137		19		51	
TCAG	0.4923%		173		75		730		289		483	
Total	100.0000%	\$	35,123	\$	15,199	\$	148,270	\$	5,811	\$	5,492	

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.

Schedule	of Employers'	Recognition	Table VII-8 1 of Deferred		d Inflows at	June 30,	2021	
			Recognition	on for Measure	ment Year End	ling		
Employer		2022	2023	2024	2025	2026	Thereafter	
County	\$	(3,761) \$	(14,664) \$	(11,718) \$	(34,920) \$	0	\$	0
Courts		(2,860)	(1,837)	(1,132)	(3,315)	0		0
SPUD		(24)	(10)	3	(22)	0		0
TCAG		(365)	(224)	(61)	(190)	0		0
Total	\$	(7,011) \$	(16,734) \$	(12,908) \$	(38,446) \$	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, 2021																
	Col	llective					Employe	er		Cl	ıan	ge in Employ	er				nployer
Employer		ension xpense		ange in portion	Contribution Difference		Pensior Expens			et Pension Liability		Deferred Outflows		Deferred Inflows		Employer ontributions	ension xpense
County	\$	55,955	\$	(3,028)	\$ 5,	492	\$ 58,	418	\$	(151,644)	\$	62,633	\$	113,843	\$	33,586	\$ 58,418
Courts		4,940		2,811	(4,	958)	2,	792		(14,968)		9,161		5,634		2,965	2,792
SPUD		57		36		(51)		42		(60)		(6)		74		34	42
TCAG		302		181	(483)		0		(827)		639		7		181	0
Total	\$	61,253	\$	0	\$	0	\$ 61,	252	\$	(167,498)	\$	72,427	\$	119,558	\$	36,766	\$ 61,252

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, 2021												
Employer	Proportionate Shares	Proportionate Share of NPL	Covered Payroll	Share of NPL as a % of Payroll	Plan Fiduciary Net Position as % of TPL	Contractually Required Contribution	Actual Contributions		Contributions as a % of Payroll			
County	91.3507%	\$ 248,056	\$ 259,048	95.8%	87.9%	\$ 33,586	\$ 33,586	5 \$ 0	13.0%			
Courts	8.0645%	21,899	15,399	142.2%	87.9%	2,965	2,965	0	19.3%			
SPUD	0.0925%	251	165	152.0%	87.9%	34	34	0	20.6%			
TCAG	0.4923%	1,337	1,514	88.3%	87.9%	181	181	. 0	12.0%			
Total	100.0000%	\$ 271,543	\$ 276,127	98.3%	87.9%	\$ 36,766	\$ 36,760	5 \$ 0	13.3%			

Numbers may not add to totals due to rounding.



APPENDIX A – MEMBERSHIP INFORMATION

SUMMARY O	F ACTIV	/E GENERAL M	(EMB	ERSHIP	
	J	une 30, 2020	J	une 30, 2021	Change
General Tier 1					
Count		8		7	-12.5%
Average Age		67.6		68.0	0.6%
Average Service		36.5		36.8	0.9%
Annual Projected Payroll	\$	651,897	\$	476,784	-26.9%
Average Annual Pay	\$	81,487	\$	68,112	-16.4%
General Tier 2 & 3					
Count		1,880		1,776	-5.5%
Average Age		48.5		49.0	1.0%
Average Service		15.9		16.9	6.6%
Annual Projected Payroll	\$	123,014,040	\$	119,402,048	-2.9%
Average Annual Pay	\$	65,433	\$	67,231	2.7%
General Tier 4					
Count		1,848		1,855	0.4%
Average Age		36.5		37.4	2.4%
Average Service		3.4		4.0	19.7%
Annual Projected Payroll	\$	94,939,152	\$	101,344,393	6.7%
Average Annual Pay	\$	51,374	\$	54,633	6.3%
General Total					
Count		3,736		3,638	-2.6%
Average Age		42.6		43.1	1.2%
Average Service		9.7		10.4	6.7%
Annual Projected Payroll	\$	218,605,089	\$	221,223,225	1.2%
Average Annual Pay	\$	58,513	\$	60,809	3.9%



APPENDIX A – MEMBERSHIP INFORMATION

Sommit	or Acri	VE SAFETY MI			
	Jı	ıne 30, 2020	Jı	ıne 30, 2021	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		503		468	-7.0%
Average Age		44.0		44.7	1.7%
Average Service		15.7		16.6	5.8%
Annual Projected Payroll	\$	41,496,639	\$	39,977,926	-3.7%
Average Annual Pay	\$	82,498	\$	85,423	3.5%
Safety Tier 4					
Count		366		378	3.3%
Average Age		31.9		32.6	2.2%
Average Service		3.3		3.9	17.1%
Annual Projected Payroll	\$	24,170,274	\$	25,685,216	6.3%
Average Annual Pay	\$	66,039	\$	67,950	2.9%
Safety Total					
Count		869		846	-2.6%
Average Age		38.9		39.3	1.1%
Average Service		10.5		11.0	4.2%
Annual Projected Payroll	\$	65,666,913	\$	65,663,142	0.0%
Average Annual Pay	\$	75,566	\$	77,616	2.7%



APPENDIX A – MEMBERSHIP INFORMATION

SUMMARY	OF INA	ACTIVE MEMB	BERSI	HP*	
	Jı	ine 30, 2020	Jı	une 30, 2021	Change
General					
Count		1,852		1,935	4.5%
Average Age		43.7		43.9	0.5%
Total Contribution Balance	\$	43,402,585	\$	46,297,586	6.7%
Average Contribution Balance	\$	23,436	\$	23,926	2.1%
Safety					
Count		331		360	8.8%
Average Age		39.2		39.3	0.2%
Total Contribution Balance	\$	12,835,551	\$	14,311,843	11.5%
Average Contribution Balance	\$	38,778	\$	39,755	2.5%
Total					
Count		2,183		2,295	5.1%
Average Age		43.1		43.2	0.4%
Total Contribution Balance	\$	56,238,136	\$	60,609,429	7.8%
Average Contribution Balance	\$	25,762	\$	26,409	2.5%

^{*}Includes unclaimed accounts.



APPENDIX A – MEMBERSHIP INFORMATION

SUMMARY OF RETIRED MEMBERSHIP									
	Jı	ıne 30, 2020	Jı	une 30, 2021	Change				
General									
Count		2,815		2,865	1.8%				
Average Age		71.2		71.5	0.5%				
Total Annual Allowance	\$	62,618,882	\$	65,750,480	5.0%				
Average Annual Allowance	\$	22,245	\$	22,950	3.2%				
Safety									
Count		593		607	2.4%				
Average Age		64.9		65.0	0.1%				
Total Annual Allowance	\$	21,793,355	\$	22,872,888	5.0%				
Average Annual Allowance	\$	36,751	\$	37,682	2.5%				
Total									
Count		3,408		3,472	1.9%				
Average Age		70.1		70.4	0.4%				
Total Annual Allowance	\$	84,412,237	\$	88,623,368	5.0%				
Average Annual Allowance	\$	24,769	\$	25,525	3.1%				

Please refer to the June 30, 2021 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, 2021 is provided below. Please refer to the June 30, 2021 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, 2021 actuarial valuation report reflect the results of the Experience Study performed by Cheiron covering the period July 1, 2017 through June 30, 2020.

Key Actuarial Assumptions

Expected Return on

Assets

7.15% net of investment expenses as of June 30, 2021.

Municipal Bond

Yield

2.16% net of investment expenses as of June 30, 2021 (Bond Buyer 20-

year Bond GO Index, June 24, 2021).

Discount Rate 6.95%

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

increase at the rate of 2.75% 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 2.60% 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, 2021 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
2022	\$ 1,976,185	\$ 48,427	\$ 18,834	\$ 2,964	\$ 120,052	\$ 139,338	\$ 2,059,768	\$ 120,052	\$ 0
2023	2,059,768	46,553	19,061	3,090	118,320	145,313	2,149,286	118,320	0
2024	2,149,286	45,928	19,605	3,224	123,900	151,510	2,239,204	123,900	0
2025	2,239,204	44,143	20,760	3,359	129,756	157,707	2,328,698	129,756	0
2026	2,328,698	42,358	21,480	3,493	135,777	163,852	2,417,119	135,777	0
2027	2,417,119	40,574	21,447	3,626	141,798	169,894	2,503,611	141,798	0
2028	2,503,611	38,819	21,615	3,755	148,012	175,799	2,588,078	148,012	0
2029	2,588,078	37,105	22,161	3,882	154,322	181,572	2,670,711	154,322	0
2030	2,670,711	35,434	22,159	4,006	160,976	187,183	2,750,505	160,976	0
2031	2,750,505	33,816	22,240	4,126	167,360	192,606	2,827,682	167,360	0
2032	2,827,682	32,246	23,533	4,242	173,973	197,878	2,903,123	173,973	0
2033	2,903,123	30,703	25,349	4,355	180,444	203,050	2,977,428	180,444	0
2034	2,977,428	29,158	27,234	4,466	186,952	208,142	3,050,544	186,952	0
2035	3,050,544	27,625	2,427	4,576	193,415	212,214	3,094,818	193,415	0
2036	3,094,818	26,124	(1,384)	4,642	199,470	214,978	3,130,423	199,470	0
2037	3,130,423	24,631	16,258	4,696	205,942	217,861	3,178,535	205,942	0
2038	3,178,535	23,122	14,771	4,768	212,408	220,967	3,220,219	212,408	0
2039	3,220,219	21,605	14,768	4,830	218,857	223,665	3,256,568	218,857	0
2040	3,256,568	20,114	7,755	4,885	225,671	225,724	3,279,605	225,671	0
2041	3,279,605	18,653	9,342	4,919	231,944	227,154	3,297,891	231,944	0
2042	3,297,891	17,211	11,387	4,947	238,175	228,262	3,311,628	238,175	0
2043	3,311,628	15,778	12,944	4,967	244,486	229,027	3,319,924	244,486	0
2044	3,319,924	14,348	13,500	4,980	250,876	229,364	3,321,280	250,876	0
2045	3,321,280	12,944	14,886	4,982	256,786	229,253	3,316,594	256,786	0
2046	3,316,594	11,569	17,660	4,975	262,679	228,760	3,306,930	262,679	0

^{*} Fiduciary Net Position based on financial statements provided by TCERA dated October 12, 2021.



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
2047	3,306,930	10,233	20,150	4,960	268,381	227,910	3,291,882	268,381	0
2048	3,291,882	8,950	22,044	4,938	273,931	226,661	3,270,668	273,931	0
2049	3,270,668	7,717	24,965	4,906	279,091	225,023	3,244,376	279,091	0
2050	3,244,376	6,550	27,808	4,867	284,036	223,030	3,212,861	284,036	0
2051	3,212,861	5,461	28,592	4,819	288,474	220,612	3,174,232	288,474	0
2052	3,174,232	4,475	28,524	4,761	292,146	217,686	3,128,009	292,146	0
2053	3,128,009	3,607	28,404	4,692	295,123	214,244	3,074,449	295,123	0
2054	3,074,449	2,855	28,233	4,612	297,132	210,314	3,014,108	297,132	0
2055	3,014,108	2,218	28,010	4,521	298,225	205,934	2,947,526	298,225	0
2056	2,947,526	1,688	27,739	4,421	298,438	201,142	2,875,235	298,438	0
2057	2,875,235	1,258	27,418	4,313	297,869	195,970	2,797,699	297,869	0
2058	2,797,699	916	27,048	4,197	296,492	190,454	2,715,429	296,492	0
2059	2,715,429	651	26,631	4,073	294,208	184,632	2,629,061	294,208	0
2060	2,629,061	454	26,168	3,944	291,235	178,543	2,539,047	291,235	0
2061	2,539,047	310	25,663	3,809	287,621	172,216	2,445,806	287,621	0
2062	2,445,806	209	25,120	3,669	283,428	165,678	2,349,716	283,428	0
2063	2,349,716	137	24,539	3,525	278,705	158,956	2,251,119	278,705	0
2064	2,251,119	88	23,924	3,377	273,476	152,072	2,150,350	273,476	0
2065	2,150,350	56	23,280	3,226	267,773	145,049	2,047,737	267,773	0
2066	2,047,737	35	22,611	3,072	261,631	137,909	1,943,589	261,631	0
2067	1,943,589	21	21,919	2,915	255,067	130,674	1,838,219	255,067	0
2068	1,838,219	12	21,206	2,757	248,092	123,365	1,731,953	248,092	0
2069	1,731,953	7	20,476	2,598	240,716	116,006	1,625,129	240,716	0
2070	1,625,129	4	19,733	2,438	232,947	108,620	1,518,101	232,947	0
2071	1,518,101	2	18,979	2,277	224,800	101,233	1,411,238	224,800	0

^{*} Fiduciary Net Position based on financial statements provided by TCERA dated October 12, 2021.



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
2072	1,411,238	1	18,217	2,117	216,293	93,870	1,304,916	216,293	0
2073	1,304,916	0	17,447	1,957	207,446	86,557	1,199,516	207,446	0
2074	1,199,516	0	16,671	1,799	198,285	79,322	1,095,425	198,285	0
2075	1,095,425	0	15,892	1,643	188,845	72,189	993,018	188,845	0
2076	993,018	0	15,112	1,490	179,162	65,185	892,664	179,162	0
2077	892,664	0	14,331	1,339	169,281	58,335	794,709	169,281	0
2078	794,709	0	13,551	1,192	159,249	51,661	699,481	159,249	0
2079	699,481	0	12,776	1,049	149,117	45,186	607,276	149,117	0
2080	607,276	0	12,006	911	138,943	38,929	518,357	138,943	0
2081	518,357	0	11,244	778	128,786	32,906	432,943	128,786	0
2082	432,943	0	10,492	649	118,710	27,131	351,206	118,710	0
2083	351,206	0	9,753	527	108,780	21,614	273,266	108,780	0
2084	273,266	0	9,029	410	99,061	16,361	199,186	99,061	0
2085	199,186	0	8,324	299	89,614	11,375	128,972	89,614	0
2086	128,972	0	7,639	193	80,500	6,655	62,573	80,500	0
2087	62,573	0	6,977	94	71,772	2,194	(123)	62,573	9,200
2088	(123)	0	6,340	0	63,481	0	(57,141)	0	63,481
2089	(57,141)	0	5,732	0	55,669	0	(49,938)	0	55,669
2090	(49,938)	0	5,153	0	48,373	0	(43,220)	0	48,373
2091	(43,220)	0	4,605	0	41,621	0	(37,015)	0	41,621
2092	(37,015)	0	4,091	0	35,434	0	(31,343)	0	35,434
2093	(31,343)	0	3,611	0	29,827	0	(26,216)	0	29,827
2094	(26,216)	0	3,167	0	24,803	0	(21,636)	0	24,803
2095	(21,636)	0	2,757	0	20,357	0	(17,600)	0	20,357
2096	(17,600)	0	2,384	0	16,476	0	(14,093)	0	16,476

^{*} Fiduciary Net Position based on financial statements provided by TCERA dated October 12, 2021.



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
2097	(14,093)	0	2,045	0	13,138	0	(11,093)	0	13,138
2098	(11,093)	0	1,741	0	10,312	0	(8,571)	0	10,312
2099	(8,571)	0	1,470	0	7,959	0	(6,489)	0	7,959
2100	(6,489)	0	1,231	0	6,034	0	(4,804)	0	6,034
2101	(4,804)	0	1,021	0	4,490	0	(3,469)	0	4,490
2102	(3,469)	0	840	0	3,276	0	(2,435)	0	3,276
2103	(2,435)	0	685	0	2,341	0	(1,655)	0	2,341
2104	(1,655)	0	554	0	1,636	0	(1,083)	0	1,636
2105	(1,083)	0	443	0	1,118	0	(675)	0	1,118
2106	(675)	0	352	0	747	0	(395)	0	747
2107	(395)	0	277	0	486	0	(210)	0	486
2108	(210)	0	216	0	309	0	(93)	0	309
2109	(93)	0	167	0	191	0	(24)	0	191
2110	(24)	0	129	0	115	0	14	0	115
2111	14	0	98	0	68	2	46	0	68
2112	46	0	75	0	39	5	87	0	39
2113	87	0	57	0	22	7	130	0	22
2114	130	0	43	0	12	10	172	0	12
2115	172	0	33	0	6	13	212	0	6
2116	212	0	25	0	3	16	249	0	3
2117	249	0	20	0	2	18	285	0	2
2118	285	0	15	0	1	21	320	0	1
2119	320	0	12	0	0	23	354	0	0
2120	354	0	9	1	0	26	389	0	0
2121	389	0	7	1	0	28	423	0	0
							Discount Rate:	7.15%	2.16%
							Present Value: \$		
							tal Present Value:	9	\$ 2,707,566
						GAS	B Discount Rate:		6.95%

^{*} Fiduciary Net Position based on financial statements provided by TCERA dated October 12, 2021.



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