

Tulare County Employees' Retirement Association

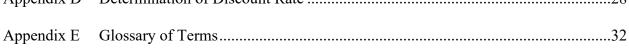
GASB 67/68 Report as of June 30, 2020

Produced by Cheiron

October 2020

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October 26, 2020

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, 2020,
- 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

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

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, 2020,
- 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, 2020. Measurements are based on the fair value of assets as of June 30, 2020 and the Total Pension Liability as of the valuation date, June 30, 2020.

Ta Summary of (ble I-1 Collec			
		Measurem	ient	Date
		6/30/2020		6/30/2019
Net Pension Liability	\$	439,041	\$	297,606
Deferred Outflows		(186,958)		(91,414)
Deferred Inflows		70,072		43,851
Net Impact on Statement of Net Position	\$	322,155	\$	250,043
Pension Expense/(Income)	\$	107,422	\$	111,904
Pension Expense/(Income) (% of Payroll)		37.87%		42.35%

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

Numbers may not add to totals due to rounding.

Amounts in Thousands

The Net Pension Liability (NPL) increased by approximately \$141.4 million since the prior measurement date, primarily due to the changes in assumptions resulting from the recent Experience Study. 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 \$439,041,000, collective Deferred Inflows of \$70,072,000, and collective Deferred Outflows of \$186,958,000. Consequently, the net impact on the aggregate of participating employers' Statements of Net Position due to TCERA would be \$322,155,000 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, 2020, the collective annual pension expense is 107,422,000 or 37.87% of covered payroll. This amount is not equal to the participating employers' contributions to TCERA (35,310,000), but instead represents the change in the net impact on participating employer's Statements of Net Position plus employer contributions (322,155,000 - 250,043,000 + 35,310,000). 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.

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, 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 6.96%.

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, 2020 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.

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 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 2.21% 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, 2020 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 2.21% municipal bond rate is based on the Bond Buyer 20-year Bond GO Index as of June 25, 2020.

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 2.21% thereafter, is 6.96%. The discount rate used to determine the Total Pension Liability as of June 30, 2020 is therefore 6.96%.

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, 2020, is measured as of a valuation date of June 30, 2020.

Between the June 30, 2019 and June 30, 2020 measurement dates, the discount rate was reduced from 7.30% to 6.96% due to the results of the crossover test and a decrease in the assumed investment rate of return from 7.40% to 7.15%. The details of this calculation are shown in Appendix D. The following assumptions were changed as a result of the recent Experience Study: inflation, COLA increases, percent married, merit-based pay increases, termination rates, retirement rates, rates of deferred vested termination, reciprocal transfer rates, adjustments to base mortality tables for healthy General males, mortality improvement scale for all members, and sick leave conversion load. Please see Appendix B of the June 30, 2020 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 total impact of the assumption changes – the change in discount rate, and changes resulting from the recent Experience Study – increased the TPL measurement by approximately \$71 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.

	Ilective Net Pension Liability Increase (Decrease)												
		tal Pension Liability (a)	Pla	n Fiduciary et Position (b)	Net Pension Liability (a) - (b)								
Balances at 6/30/2019	\$	1,943,777	\$	1,646,171	\$	297,606							
Changes for the year:													
Service cost		49,424				49,424							
Interest		140,390				140,390							
Changes of benefits		0				0							
Differences between expected and actual													
experience		(54,091)				(54,091)							
Changes of assumptions		70,788				70,788							
Contributions - employer				35,310		(35,310)							
Contributions - member				23,104		(23,104)							
Net investment income				9,515		(9,515)							
Benefit payments		(91,427)		(91,427)		0							
Administrative expense				(2,853)		2,853							
Net changes		115,084		(26,351)		141,435							
Balances at 6/30/2020	\$	2,058,861	\$	1,619,820	\$	439,041							

Numbers may not add to totals due to rounding.

Amounts in Thousands

During the measurement year, the collective NPL increased by approximately \$141.4 million. The service cost, interest cost, and recognition of administrative expense increased the collective NPL by approximately \$193 million while actuarial gains, contributions, and investment income decreased the collective NPL by approximately \$122 million.

There were no changes in benefits during the year. As discussed in Section IV, there were assumption changes, which increased the TPL by approximately \$71 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.



Sensitivity of Collective Net Per		ole V-2 Liability to	o Cl	nanges in Dis	coi	ınt Rate
	-	1% Decrease 5.96%		Discount Rate 6.96%		1% Increase 7.96%
Total Pension Liability Plan Fiduciary Net Position	\$	2,358,092 1,619,820	\$	2,058,861 1,619,820	\$	1,815,769 1,619,820
Collective Net Pension Liability Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	<u>\$</u>	<u>738,272</u> 68.7%	<u>\$</u>	439,041	<u>\$</u>	<u>195,949</u> 89.2%

SECTION V – GASB 67 REPORTING INFORMATION

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 15% and increases the collective NPL by approximately 68%. A one percent increase in the discount rate decreases the TPL by approximately 12% and decreases the collective NPL by approximately 55%.

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 seven years since implementation.



SECTION V – GASB 67 REPORTING INFORMATION

						Table V-3	-							
		Schedule of (FYE 2020	Jh a	anges in Colle FYE 2019	ctr	ve Net Pensioi FYE 2018	n L	Jability and F	kel a	FYE 2016		FYE 2015		FYE 2014
Total Pension Liability		F I E 2020		FIE 2017		11E 2010		FIE 2017		F I L 2010		F I E 2013		F I E 2014
Service cost (MOY)	\$	49,424	\$	49,484	\$	46,838	\$	38,203	\$	38,307	\$	35,168	\$	39,672
Interest (includes interest on service		,		ŕ		ŕ		ŕ		ŕ				
cost)		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
Differences between expected and														
actual experience		(54,091)		(6,667)		10,342		11,936		(40,602)		7,591		0
Changes of assumptions		70,788		(37,996)		41,149		69,608		23,923		180,187		13,588
Benefit payments, including refunds of member contributions														
of member contributions		(91,427)		(85,097)		(80,716)		(76,961)		(72,332)		(68,560)		(65,954)
Net change in total pension liability	\$	115,084	\$	53,619	\$	144,199	\$	161,449	\$	65,011	\$	251,858	\$	81,583
Total pension liability - beginning		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	\$	2,058,861	\$	1,943,777	\$	1,890,158	\$	1,745,959	\$	1,584,510	\$	1,519,499	\$	1,267,640
	\$	2,038,801	Ð	1,943,777	ð	1,070,130	Ф	1,743,939		1,384,310	Ф	1,319,499	Ð	1,207,040
Plan fiduciary net position														
Contributions - employer	\$	35,310	\$	33,494	\$	286,263	\$	33,616	\$	31,297	\$	30,992	\$	25,953
Contributions - member		23,104		22,325		18,512		18,190		16,815		18,887		18,969
Net investment income		9,515		90,779		95,857		132,865		(20,309)		122,400		179,878
Benefit payments, including refunds of member contributions		(01 427)		(95.007)		(90.71()		(7(0(1)))		(72,222)		((0, 5(0)))		((5.054)
Administrative expense		(91,427) (2,853)		(85,097) (2,806)		(80,716) (2,666)		(76,961) (2,612)		(72,332) (2,616)		(68,560) (2,408)		(65,954) (1,639)
Net change in plan fiduciary net		(2,855)		(2,800)		(2,000)		(2,012)		(2,010)		(2,408)		(1,039)
position	\$	(26,351)	s	58,695	s	317,250	s	105,098	s	(47,145)	\$	101,312	\$	157,207
Plan fiduciary net position -	Ψ	(20,001)	Φ	50,075	Ψ	517,250	Ψ	105,090	Ψ	(47,143)	Ψ	101,512	Φ	137,207
beginning		1,646,171		1,587,476		1,270,226		1,165,127		1,212,272		1,110,961		953,754
8 8		1,040,171		1,307,470		1,270,220	-	1,103,127		1,212,272	-	1,110,901		955,754
Plan fiduciary net position - ending	\$	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	\$	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		78.68%		84.69%		83.99%		72.75%		73.53%		79.78%		87.64%
Covered payroll*	\$	283,640	\$	264,218	\$	256,049	\$	243,366	\$	238,559	\$	229,431	\$	234,438
Net pension liability as a percentage of covered payroll	•	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.

					Sch	edule of (Coll	Table V lective En	oyer Conti	·ib	utions						
	F	YE 2020	l	FYE 2019	F	YE 2018*	F	YE 2017	FYE 2016		FYE 2015	FYE 2014	l	FYE 2013	FYE 2012	I	FYE 2011
Actuarially Determined Contribution Contributions in Relation to the	\$	35,310	\$	33,494	\$	36,263	\$	33,616	\$ 31,297	\$	30,992	\$ 25,953	\$	29,847	\$ 25,257	\$	23,434
Actuarially Determined Contribution		35,310		33,494		36,263		33,616	 31,297		30,992	 25,953		29,847	 25,257		23,434
Contribution Deficiency/(Excess)	\$	0	\$	0	\$	0	\$	0	\$ 0	\$	0	\$ 0	\$	0	\$ 0	\$	0
Covered Payroll	\$	283,640	\$	264,218	\$	256,049	\$	243,366	\$ 238,559	\$	229,431	\$ 234,438	\$	230,955	\$ 222,635	\$	219,854
Contributions as a Percentage of Covered Payroll		12.45%		12.68%		14.16%		13.81%	13.12%		13.51%	11.07%		12.92%	11.34%		10.66%

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 2020.

Notes to Schedule

Valuation Date Timing	6/30/2018 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 (16 years remaining as of 6/30/18), 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
Mortality	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, 2020 can be found in the June 30, 2018 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 2020 disclosures can be based on either the June 30, 2019 or 2020 measurement dates. If an employer elects to base their 2020 disclosures on the June 30, 2019 measurement date, the GASB 68 schedules in this report with a measurement date of June 30, 2020 will be used for their 2021 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.

During the year, there was an experience gain of approximately \$54.1 million. Approximately \$10.8 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, 2020 of approximately \$43.3 million. Unrecognized experience gains from prior periods were approximately \$13.5 million, of which \$9.5 million was recognized as a decrease in the collective pension expense in the current year. Unrecognized experience losses from prior periods were approximately \$11.0 million, of which \$4.5 million was recognized as an increase 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, 2020 of approximately \$6.5 million and a net collective deferred inflow of approximately \$47.3 million.

During the year, there were changes in the assumptions that increased the NPL by approximately \$70.8 million. Approximately \$14.2 million of that increase is recognized as an increase in collective pension expense in the current year and an identical amount will be recognized in each of the next four years. Unrecognized gains due to assumption changes from prior periods were approximately \$30.4 million in deferred inflows, of which \$7.6 million was recognized as an reduction in the collective pension expense in the current year. Unrecognized losses due to assumption changes from prior periods were approximately \$58.2 million in deferred outflows, of which \$27.8 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, 2020 of approximately \$87.0 million and a net collective deferred inflow of approximately \$22.8.

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 \$111.0 million. Approximately \$22.2 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



SECTION VI – GASB 68 COLLECTIVE AMOUNTS

from prior periods were approximately \$22.3 million, and the net recognition of prior investment experience resulted in a \$17.6 million increase in collective pension expense in the current year. The combination of unrecognized investment losses this year and unrecognized net investment losses from prior periods results in a collective deferred outflow of resources as of June 30, 2020 of approximately \$93.4 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.

	Deferred Outflows of Resources	In	eferred flows of esources
Differences between expected and actual experience \$ Changes in assumptions	6,523 87,012	\$	47,274 22,798
Net difference between projected and actual earnings on pension plan investments Total	93,423 186,958	\$	0 70,072
Amounts reported as deferred outflows and deferred inflows of reso expense as follows:	ources will be reco	ognized in j	pension
Measurement year ended June 30:			
2021	38,210		
2022	31,432		
2023	21,709		
2024	25,535		
2025	0		
Thereafter \$	0		

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.



SECTION VI – GASB 68 COLLECTIVE AMOUNTS

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 Colle	le VI-2 ctive Pens	sion Expense		
		Measurement 2020	t Year I	Ending 2019
		2020		2019
Change in Net Pension Liability	\$	141,435	\$	(5,076)
Change in Deferred Outflows		(95,544)		55,875
Change in Deferred Inflows		26,221		27,611
Employer Contributions		35,310		33,494
Pension Expense	\$	107,422	\$	111,904
Pension Expense as % of Payroll		37.87%		42.35%
Operating Expenses				
Service cost	\$	49,424	\$	49,484
Employee contributions		(23,104)		(22,325)
Administrative expenses		2,853		2,806
Total	\$	29,173	\$	29,965
Financing Expenses				
Interest cost	\$	140,390	\$	133,895
Expected return on assets		(120,513)		(116,307)
Total	\$	19,877	\$	17,588
Changes				
Benefit changes	\$	0	\$	0
Recognition of assumption changes		34,345		35,227
Recognition of liability gains and losses		(15,816)		(3,480)
Recognition of investment gains and losses		39,843		32,604
Total	\$	58,372	\$	64,351
Pension Expense	\$	107,422	\$	111,904

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.



SECTION VI – GASB 68 COLLECTIVE AMOUNTS

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. The total collective pension expense decreased by about \$4.5 million. In the current year pension expense, the recognition of changes decreased by approximately \$6.0 million and was offset by increases in financing expenses of approximately \$2.3 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, 2020 has been determined using this method.

	Determinati		ble VII-1 loyers' Proportio	nate S	hare	
		June 30			June 30	
Employer		nployer tribution	Proportionate Share		mployer itribution	Proportionate Share
County	\$	32,146	91.0394%	\$	30,578	91.2940%
Courts		2,965	8.3971%		2,730	8.1507%
SPUD		25	0.0708%		23	0.0687%
TCAG		174	0.4928%		163	0.4867%
Total	\$	35,310	100.0000%	\$	33,494	100.0000%

Numbers may not add to totals due to rounding.



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

	Schedule of Employers	s' Proportiona	Table VII-2 ate Share of C	ollective Amo	unts at June 3	0, 2020	
Employer	Proportionate Share	Share of NPL @ 5.96%	Share of NPL @ 6.96%	Share of NPL @ 7.96%	Share of Deferred Outflows	Share of Deferred Inflows	Pension Expense
County	91.0394%	672,118	399,700	178,391	170,205	63,793	97,796
Courts	8.3971%	61,993	36,867	16,454	15,699	5,884	9,020
SPUD	0.0708%	523	311	139	132	50	76
TCAG	0.4928%	3,638	2,163	966	921	345	529
Total	100.0000%	\$ 738,272	\$ 439,041	\$ 195,949	\$ 186,958	\$ 70,072	\$ 107,422

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.

	Schedu	ile of Emplo	yers' (Changes	Table VII-3 in Proport		n and Con	trił	oution Dif	fere	ences			
	<u>Proportion</u>	ate Shares	Net	Im Pension	pact of Chan Deferred	0	in Proportio Deferred	<u>on</u>				 ntributions oportionate		
Employer	6/30/2019	6/30/2020		ability	Outflows		Inflows	N	et Effect		Actual	 Share	Differ	ence
County	91.2940%	91.0394%	\$	(758)	\$ (233)	\$	112	\$	(637)	\$	32,146	\$ 32,146	\$	0
Courts	8.1507%	8.3971%		733	225		(108)		616		2,965	2,965		0
SPUD	0.0687%	0.0708%		6	2		(1)		5		25	25		0
TCAG	0.4867%	0.4928%		18	6		(3)		15		174	174		0
Total	100.0000%	100.0000%	\$	0	\$0	\$	0	\$	0	\$	35,310	\$ 35,310	\$	0

Numbers may not add to totals due to rounding.

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.

	Reco	nciliatio	n of [Deferre	d Ou	Table V Itflows an		-4 Inflows Du	e to	Proportio	on (Change			
				Deferred	Out	flows						Deferre	d Inflows		
Employer	6/3	30/2019		ent Year t Effect		cognition	(6/30/2020	6	/30/2019		rrent Year let Effect	Recognition	6/.	30/2020
County Courts	\$	2,199 9,958	\$	0 616	\$	550 3,633	\$	1,649 6,941	\$	(11,006) (1,585)	\$	(637) 0	\$ (4,011) (396)		(7,632 (1,189
SPUD TCAG		91 963		5 15		34 349		62 629		(42) (576)		0 0	(14) (144)		(28 (432
Total	\$	13,209	\$	637	\$	4,565	\$	9,281	\$	(13,209)	\$	(637)	\$ (4,565)	\$	(9,281

Numbers may not add to totals due to rounding.



Amounts in Thousands

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	nciliation	n of Deferred	Tab I Outflows ar	ole VII-5 1d Inflows Du	ie to Contr	ibution Diff	ferenc	es	
			Deferred	l Outflows			De	eferred	Inflows	
Employer	6/3	30/2019	Current Year Difference	Recognition	6/30/2020	6/30/20	Current 19 Differe		Recognition	6/30/2020
County	\$	16,475	\$ 0	\$ 5,492	\$ 10,984	\$	0 \$	0	\$ 0	\$ 0
Courts		0	0	0	0	(14	874)	0	(4,958)	(9,916)
SPUD		0	0	0	0	(153)	0	(51)	(102)
TCAG		0	0	0	0	(1,	449)	0	(483)	(966)
Total	\$	16,475	\$ O	\$ 5,492	\$ 10,984	\$ (16	475) \$	0	\$ (5,492)	\$ (10,984)

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, 2020									
Employer	Proportionate Shares	Exp	erience		ssumption Changes	I	nvestment Return	coportion Change	tribution fference
County	91.0394%	\$	5,938	\$	79,215	\$	85,052	\$ 1,649	\$ 10,984
Courts	8.3971%		548		7,306		7,845	6,941	0
SPUD	0.0708%		5		62		66	62	0
TCAG	0.4928%		32		429		460	629	0
Total	100.0000%	\$	6,523	\$	87,012	\$	93,423	\$ 9,281	\$ 10,984

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, 2020										
Employer	Proportionate Shares	E	xperience		Assumption Changes	I	nvestment Return	Р	roportion Change	ontribution Difference
County	91.0394%	\$	43,038	\$	20,755	\$	0	\$	7,632	\$ 0
Courts	8.3971%		3,970		1,914		0		1,189	9,916
SPUD	0.0708%		33		16		0		28	102
TCAG	0.4928%		233		112		0		432	966
Total	100.0000%	\$	47,274	\$	22,798	\$	0	\$	9,281	\$ 10,984

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	n of Deferr	ed	Outflows	an	d Inflows	at	June 30, 2	2020	
			Recogn	itio	n for Meas	ure	ment Year l	End	ing		
Employer		2021	2022		2023		2024		2025	Thereafter	
County	\$	37,049 \$	31,058	\$	20,186	\$	23,119	\$	0	\$	
Courts		1,275	559		1,550		2,267		0		
SPUD		(1)	(9)		7		19		0		
TCAG		(113)	(175)		(34)		129		0		
Total	\$	38,210 \$	31,432	\$	21,709	\$	25,535	\$	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.

		Schedu	le of Employ	yers' Pension I	Table V Expense for t		ent Year Endin	g June 30, 202	0	
	С	ollective			Employer		Change in Emplo	-		Employer
		Pension	Change in	Contribution	Pension	Net Pension		Deferred	Employer	Pension
Employer	L	Expense	Proportion	Difference	Expense	Liability	Outflows	Inflows	Contributions	Expense
County	\$	97,796	\$ (3,461)	\$ 5,492	\$ 99,827	\$ 128,00	4 \$ (80,709) \$ 20,386	\$ 32,146	\$ 99,827
Courts		9,020	3,236	(4,958)	7,299	12,61	0 (5,231) (3,044)	2,965	7,299
SPUD		76	20	(51)	45	10	6 (41) (45)	25	45
TCAG		529	205	(483)	251	71	5 (143) (495)	174	251
Total	\$	107,422	\$ 0	\$ 0	\$ 107,422	\$ 141,43	5 \$ (86,124) \$ 16,801	\$ 35,310	\$ 107,422

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.

		Sche	dule of Em	Table VII Dovers' RSI Inf	-10 ormation at Jun	ne 30, 2020				
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	Contribution Deficiency	Contributions as a % of Payroll
County	91.0394%	\$ 399,700	\$ 265,7	0 150.4%	78.7%	\$ 32,140	5 \$	32,146	\$ 0	12.1%
Courts	8.3971%	36,867	16,1	1 227.7%	78.7%	2,965	5	2,965	0	18.3%
SPUD	0.0708%	311	12	3 252.3%	78.7%	25	5	25	0	20.3%
TCAG	0.4928%	2,163	1,5	6 139.0%	78.7%	174	ł	174	0	11.2%
Total	100.0000%	\$ 439,041	\$ 283,64	0 154.8%	78.7%	\$ 35,310) \$	35,310	\$0	12.4%

Numbers may not add to totals due to rounding.



APPENDIX A – MEMBERSHIP INFORMATION

SUMMARY OF ACTIVE GENERAL MEMBERSHIP								
	J	une 30, 2019	J	une 30, 2020	Change			
General Tier 1								
Count		13		8	-38.5%			
Average Age		65.1		67.6	3.9%			
Average Service		34.8		36.5	4.7%			
Annual Projected Payroll	\$	1,007,983	\$	651,897	-35.3%			
Average Annual Pay	\$	77,537	\$	81,487	5.1%			
General Tier 2 & 3								
Count		2,009		1,880	-6.4%			
Average Age		47.9		48.5	1.2%			
Average Service		15.0		15.9	5.8%			
Annual Projected Payroll	\$	126,303,821	\$	123,014,040	-2.6%			
Average Annual Pay	\$	62,869	\$	65,433	4.1%			
General Tier 4								
Count		1,704		1,848	8.5%			
Average Age		35.9		36.5	1.8%			
Average Service		2.9		3.4	16.7%			
Annual Projected Payroll	\$	82,281,048	\$	94,939,152	15.4%			
Average Annual Pay	\$	48,287	\$	51,374	6.4%			
General Total								
Count		3,726		3,736	0.3%			
Average Age		42.5		42.6	0.4%			
Average Service		9.5		9.7	2.1%			
Annual Projected Payroll	\$	209,592,852	\$	218,605,089	4.3%			
Average Annual Pay	\$	56,251	\$	58,513	4.0%			





APPENDIX A – MEMBERSHIP INFORMATION

SUMMARY	OF ACTI	VE SAFETY MI	EMBE	CRSHIP	
	Jı	ıne 30, 2019	Jı	ıne 30, 2020	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		550		503	-8.5%
Average Age		43.3		44.0	1.6%
Average Service		15.1		15.7	4.5%
Annual Projected Payroll	\$	42,313,399	\$	41,496,639	-1.9%
Average Annual Pay	\$	76,933	\$	82,498	7.2%
Safety Tier 4					
Count		343		366	6.7%
Average Age		31.4		31.9	1.7%
Average Service		2.7		3.3	22.3%
Annual Projected Payroll	\$	20,509,342	\$	24,170,274	17.9%
Average Annual Pay	\$	59,794	\$	66,039	10.4%
Safety Total					
Count		893		869	-2.7%
Average Age		38.7		38.9	0.5%
Average Service		10.3		10.5	1.8%
Annual Projected Payroll	\$	62,822,741	\$	65,666,913	4.5%
Average Annual Pay	\$	70,350	\$	75,566	7.4%



APPENDIX A – MEMBERSHIP INFORMATION

SUMMARY	OF INA	ACTIVE MEMI	BERSI	HIP*	
	Jı	ıne 30, 2019	Jı	ıne 30, 2020	Change
General					
Count		1,774		1,852	4.4%
Average Age		43.9		43.7	-0.4%
Total Contribution Balance	\$	41,393,272	\$	43,402,585	4.9%
Average Contribution Balance	\$	23,333	\$	23,436	0.4%
Safety					
Count		308		331	7.5%
Average Age		39.5		39.2	-0.7%
Total Contribution Balance	\$	11,151,367	\$	12,835,551	15.1%
Average Contribution Balance	\$	36,206	\$	38,778	7.1%
Total					
Count		2,082		2,183	4.9%
Average Age		43.3		43.1	-0.5%
Total Contribution Balance	\$	52,544,639	\$	56,238,136	7.0%
Average Contribution Balance	\$	25,238	\$	25,762	2.1%

*Includes unclaimed accounts.



APPENDIX A – MEMBERSHIP INFORMATION

SUMMAR	Y OF RI	ETIRED MEMB	BERSI	HP	
	Jı	ıne 30, 2019	Jı	ıne 30, 2020	Change
General					
Count		2,749		2,815	2.4%
Average Age		70.9		71.2	0.4%
Total Annual Allowance	\$	59,081,180	\$	62,618,882	6.0%
Average Annual Allowance	\$	21,492	\$	22,245	3.5%
Safety					
Count		563		593	5.3%
Average Age		64.9		64.9	-0.1%
Total Annual Allowance	\$	19,889,881	\$	21,793,355	9.6%
Average Annual Allowance	\$	35,328	\$	36,751	4.0%
Total					
Count		3,312		3,408	2.9%
Average Age		69.9		70.1	0.3%
Total Annual Allowance	\$	78,971,061	\$	84,412,237	6.9%
Average Annual Allowance	\$	23,844	\$	24,769	3.9%

Please refer to the June 30, 2020 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, 2020 is provided below. Please refer to the June 30, 2020 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, 2020 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, 2020.
Municipal Bond Yield	2.21% net of investment expenses as of June 30, 2020 (Bond Buyer 20- year Bond GO Index, June 25, 2020).
Discount Rate	6.96%
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, 2020 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
2021	\$ 1,619,820	\$ 45,633	\$ 18,370	\$ 2,430	\$ 108,479	\$ 114,169	\$ 1,687,084	\$ 108,479	\$ 0
2022	1,687,084	45,116	22,342	2,531	107,386	119,135	1,763,760	107,386	0
2023	1,763,760	44,688	25,553	2,646	112,844	124,519	1,843,031	112,844	0
2024	1,843,031	44,178	28,910	2,765	118,164	130,096	1,925,286	118,164	0
2025	1,925,286	42,401	32,805	2,888	123,856	135,847	2,009,595	123,856	0
2026	2,009,595	40,625	36,193	3,014	129,829	141,718	2,095,288	129,829	0
2027	2,095,288	38,875	38,756	3,143	135,698	147,663	2,181,741	135,698	0
2028	2,181,741	37,177	41,445	3,273	141,525	153,670	2,269,235	141,525	0
2029	2,269,235	35,518	44,434	3,404	147,498	159,758	2,358,042	147,498	0
2030	2,358,042	33,904	46,798	3,537	153,777	165,908	2,447,338	153,777	0
2031	2,447,338	32,350	49,178	3,671	159,835	172,105	2,537,466	159,835	0
2032	2,537,466	30,829	51,130	3,806	166,144	178,337	2,627,812	166,144	0
2033	2,627,812	29,324	53,145	3,942	172,394	184,591	2,718,535	172,394	0
2034	2,718,535	27,818	55,224	4,078	178,609	190,874	2,809,765	178,609	0
2035	2,809,765	26,317	30,606	4,215	184,801	196,257	2,873,930	184,801	0
2036	2,873,930	24,846	26,982	4,311	190,620	200,458	2,931,285	190,620	0
2037	2,931,285	23,379	44,808	4,397	196,889	204,911	3,003,097	196,889	0
2038	3,003,097	21,901	43,505	4,505	203,139	209,724	3,070,584	203,139	0
2039	3,070,584	20,415	43,684	4,606	209,432	214,279	3,134,924	209,432	0
2040	3,134,924	18,957	36,882	4,702	216,044	218,353	3,188,370	216,044	0
2041	3,188,370	17,534	32,471	4,783	222,135	221,753	3,233,211	222,135	0
2042	3,233,211	16,133	29,469	4,850	228,188	224,589	3,270,364	228,188	0
2043	3,270,364	14,740	26,282	4,906	234,344	226,867	3,299,004	234,344	0
2044	3,299,004	13,347	22,227	4,949	240,524	228,504	3,317,609	240,524	0
2045	3,317,609	11,981	19,135	4,976	246,276	229,475	3,326,948	246,276	0

* Fiduciary Net Position based on financial statements provided by TCERA dated October 16, 2020.



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
2046	3,326,948	10,655	17,566	4,990	251,909	229,843	3,328,113	251,909	0
2047	3,328,113	9,372	15,855	4,992	257,430	229,627	3,320,544	257,430	0
2048	3,320,544	8,138	13,695	4,981	262,819	228,777	3,303,354	262,819	0
2049	3,303,354	6,957	12,714	4,955	267,719	227,301	3,277,652	267,719	0
2050	3,277,652	5,848	11,783	4,916	272,411	225,228	3,243,184	272,411	0
2051	3,243,184	4,827	11,689	4,865	276,470	222,584	3,200,949	276,470	0
2052	3,200,949	3,923	11,570	4,801	279,706	219,417	3,151,351	279,706	0
2053	3,151,351	3,137	11,426	4,727	282,198	215,753	3,094,742	282,198	0
2054	3,094,742	2,465	11,260	4,642	283,779	211,623	3,031,669	283,779	0
2055	3,031,669	1,900	11,072	4,548	284,607	207,061	2,962,547	284,607	0
2056	2,962,547	1,433	10,863	4,444	284,542	202,101	2,887,958	284,542	0
2057	2,887,958	1,059	10,634	4,332	283,691	196,781	2,808,410	283,691	0
2058	2,808,410	766	10,386	4,213	282,132	191,133	2,724,350	282,132	0
2059	2,724,350	542	10,120	4,087	279,740	185,194	2,636,379	279,740	0
2060	2,636,379	375	9,838	3,955	276,729	178,999	2,544,907	276,729	0
2061	2,544,907	255	9,542	3,817	273,132	172,575	2,450,329	273,132	0
2062	2,450,329	170	9,235	3,675	269,005	165,949	2,353,002	269,005	0
2063	2,353,002	111	8,917	3,530	264,387	159,144	2,253,258	264,387	0
2064	2,253,258	71	8,591	3,380	259,316	152,183	2,151,408	259,316	0
2065	2,151,408	45	8,259	3,227	253,811	145,087	2,047,761	253,811	0
2066	2,047,761	27	7,924	3,072	247,897	137,877	1,942,621	247,897	0
2067	1,942,621	16	7,587	2,914	241,587	130,575	1,836,299	241,587	0
2068	1,836,299	9	7,249	2,754	234,888	123,201	1,729,116	234,888	0
2069	1,729,116	5	6,913	2,594	227,809	115,780	1,621,412	227,809	0
2070	1,621,412	3	6,580	2,432	220,360	108,335	1,513,537	220,360	0

* Fiduciary Net Position based on financial statements provided by TCERA dated October 16, 2020.



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
2071	1,513,537	1	6,250	2,270	212,551	100,890	1,405,857	212,551	0
2072	1,405,857	0	5,926	2,109	204,399	93,472	1,298,747	204,399	0
2073	1,298,747	0	5,607	1,948	195,923	86,106	1,192,589	195,923	0
2074	1,192,589	0	5,294	1,789	187,147	78,818	1,087,766	187,147	0
2075	1,087,766	0	4,988	1,632	178,104	71,636	984,654	178,104	0
2076	984,654	0	4,689	1,477	168,829	64,584	883,621	168,829	0
2077	883,621	0	4,397	1,325	159,364	57,688	785,016	159,364	0
2078	785,016	0	4,112	1,178	149,756	50,970	689,165	149,756	0
2079	689,165	0	3,835	1,034	140,053	44,453	596,368	140,053	0
2080	596,368	0	3,567	895	130,310	38,156	506,886	130,310	0
2081	506,886	0	3,307	760	120,586	32,095	420,942	120,586	0
2082	420,942	0	3,055	631	110,943	26,285	338,708	110,943	0
2083	338,708	0	2,813	508	101,446	20,735	260,301	101,446	0
2084	260,301	0	2,580	390	92,159	15,451	185,782	92,159	0
2085	185,782	0	2,357	279	83,143	10,435	115,153	83,143	0
2086	115,153	0	2,144	173	74,458	5,687	48,353	74,458	0
2087	48,353	0	1,942	73	66,157	1,199	(14,736)	48,353	17,804
2088	(14,736)	0	1,750	0	58,291	0	(56,540)	0	58,291
2089	(56,540)	0	1,570	0	50,900	0	(49,330)	0	50,900
2090	(49,330)	0	1,401	0	44,020	0	(42,619)	0	44,020
2091	(42,619)	0	1,243	0	37,679	0	(36,436)	0	37,679
2092	(36,436)	0	1,097	0	31,895	0	(30,798)	0	31,895
2093	(30,798)	0	962	0	26,681	0	(25,718)	0	26,681
2094	(25,718)	0	839	0	22,036	0	(21,197)	0	22,036
2095	(21,197)	0	727	0	17,954	0	(17,227)	0	17,954

* Fiduciary Net Position based on financial statements provided by TCERA dated October 16, 2020.



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
2096	(17,227)	0	625	0	14,417	0	(13,792)	0	14,417
2097	(13,792)	0	534	0	11,400	0	(10,866)	0	11,400
2098	(10,866)	0	453	0	8,868	0	(8,415)	0	8,868
2099	(8,415)	0	382	0	6,780	0	(6,398)	0	6,780
2100	(6,398)	0	319	0	5,090	0	(4,771)	0	5,090
2101	(4,771)	0	265	0	3,749	0	(3,483)	0	3,749
2102	(3,483)	0	219	0	2,706	0	(2,487)	0	2,706
2103	(2,487)	0	179	0	1,912	0	(1,733)	0	1,912
2104	(1,733)	0	146	0	1,322	0	(1,176)	0	1,322
2105	(1,176)	0	118	0	893	0	(775)	0	893
2106	(775)	0	94	0	589	0	(495)	0	589
2107	(495)	0	75	0	379	0	(304)	0	379
2108	(304)	0	60	0	238	0	(178)	0	238
2109	(178)	0	48	0	146	0	(98)	0	146
2110	(98)	0	38	0	87	0	(49)	0	87
2111	(49)	0	30	0	51	0	(21)	0	51
2112	(21)	0	24	0	29	0	(4)	0	29
2113	(4)	0	20	0	16	0	4	0	16
2114	4	0	16	0	9	1	11	0	9
2115	11	0	13	0	5	1	20	0	5
2116	20	0	10	0	3	2	30	0	3
2117	30	0	8	0	1	2	39	0	1
2118	39	0	7	0	1	3	48	0	1
2119	48	0	5	0	0	4	56	0	0
2120	56	0	5	0	0	4	65	0	0
							Discount Rate:	7.15%	2.21%
							Present Value: \$	2,433,287	\$ 77,330
						Tot	al Present Value:		\$ 2,510,617
						GAS	B Discount Rate:		6.96%

* Fiduciary Net Position based on financial statements provided by TCERA dated October 16, 2020.



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