

# **Tulare County Employees' Retirement Association**

**GASB 67/68 Report** as of June 30, 2015

**Produced by Cheiron** 

November 2015

### TABLE OF CONTENTS

<u>Section</u>		<u>Page</u>
Letter of Tran	nsmittal	i
Section I	Board Summary	1
Section II	Certification	3
Section III	Determination of Discount Rate	4
Section IV	Determination of Total Pension Liability	5
Section V	GASB 67 Reporting Information	6
Section VI	GASB 68 Collective Information	10
Section VII	GASB 68 Reporting Information for Participating Employers	14
<u>Appendices</u>		
Appendix A	Membership Information	23
Appendix B	Actuarial Assumptions and Methods	27
Appendix C	Summary of Plan Provisions	29
Appendix D	Determination of Discount Rate	30
Appendix E	Glossary of Terms	34





November 30, 2015

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, 2015,
- 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

David Holland, FSA, EA, FCA, MAAA Consulting Actuary Graham A. Schmidt, ASA, EA, FCA, MAAA Consulting Actuary

### SECTION I – BOARD SUMMARY

The purpose of this report is to provide accounting and financial disclosure information under Government Accounting Standards Board Statements 67 and 68 for the Tulare County Employees' Retirement Association and the participating employers. This information includes:

- Determination of the discount rate as of June 30, 2015,
- 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, 2015. Measurements are based on the fair value of assets as of June 30, 2015 and the Total Pension Liability as of the valuation date, June 30, 2015.

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

Table I-1 Summary of Collective Results												
Measurement Date												
6/30/2015 6/30/2014												
Net Pension Liability	\$	307,226,380	\$	156,679,790								
Deferred Outflows		(70,477,639)		(11,464,785)								
Deferred Inflows		1,819,236		82,217,542								
Net Impact on Statement of Net Position	\$	238,567,977	\$	227,432,547								
Pension Expense (\$ Amount) Pension Expense (% of Payroll)	\$	42,127,498 18.36%	\$	21,082,256 8.99%								

The Net Pension Liability (NPL) increased by approximately \$151 million since the prior measurement date, primarily due to assumption changes and the interest on the liability exceeding the investment income. There were also actuarial losses that increased the NPL. The investment losses are recognized over five years, and the actuarial liability gains and assumption changes are recognized over the average remaining service life, which is also 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 \$307,226,380, collective Deferred Inflows of \$1,819,236, and collective Deferred Outflows of \$70,477,639. Consequently, the net impact on the aggregate of participating employers' Statements of Net Position due to TCERA would be \$238,567,977 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, 2015, the collective annual pension expense is \$42,127,498 or 18.36% of covered-employee payroll. This amount is not equal to the participating employers' contributions to TCERA (\$30,992,069), but instead represents the change in the net impact on participating employer's Statements of Net Position plus employer contributions (\$238,567,977 - \$227,432,547 + \$30,992,069). The collective pension expense is larger 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 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.

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

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.

David Holland, FSA, EA, FCA, MAAA Consulting Actuary Graham A. Schmidt, ASA, EA, FCA, MAAA Consulting Actuary

Grahen Lehne,



### SECTION III - DETERMINATION OF DISCOUNT RATE

The discount rate used to measure the Total Pension Liability was 7.70%.

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, 2015 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 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 will be amortized over new 19-year closed periods, also as a level percentage of payroll. In the prior valuation, the total UAL was amortized over a 15-year rolling period.

The UAL and contribution rates do not 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.

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 2079 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 7.80% to the extent the fiduciary net position is available to make the payments and at the municipal bond rate of 3.80% to the extent they are not available. The single equivalent rate used to determine the Total Pension Liability as of June 30, 2015 is 7.70%.

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, 2015, is measured as of a valuation date of June 30, 2015. The TPL at the beginning of the measurement year, June 20, 2014, was determined by the prior Actuary – Buck Consultants – using a valuation date of June 30, 2013 and projected to June 30, 2014.

There were several assumptions that changed between the June 30, 2014 and June 30, 2015 measurement dates. The discount rate was reduced from 7.79% to 7.70%, and the mortality improvement scale used to anticipate future improvements in mortality was changed from the MP-2014 scale to the MP-2015 scale.

Finally, the TPL as computed by the prior Actuary at the beginning of the measurement year (June 30, 2014) did not include any expected benefit payments from the Supplemental Retiree Benefit Reserve. The June 30, 2015 TPL measurement does include 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, mortality improvement assumptions, and inclusion of the SRBR benefit payments – increased the TPL measurement by approximately \$180 million as of the end of the measurement year.



### SECTION V – GASB 67 REPORTING INFORMATION

### **Note Disclosures**

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

Change in Colle		ble V-1 e Net Pensior	ı Lia	bility								
	Increase (Decrease)											
	Т	otal Pension Liability (a)		lan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)							
Balances at 6/30/2014	\$	1,267,640,448	\$	1,110,960,658	\$	156,679,790						
Changes for the year:												
Service cost		35,167,785				35,167,785						
Interest		97,472,957				97,472,957						
Changes of benefits		0				0						
Differences between expected and actual experience		7,590,593				7,590,593						
Changes of assumptions		180,186,807		111,357,446		68,829,361						
Contributions - employer				30,992,069		(30,992,069)						
Contributions - member				18,887,422		(18,887,422)						
Net investment income				11,043,009		(11,043,009)						
Benefit payments		(68,559,888)		(68,559,888)		0						
Administrative expense				(2,408,394)		2,408,394						
Net changes		251,858,254		101,311,664		150,546,590						
Balances at 6/30/2015	\$	1,519,498,702	\$	1,212,272,322	\$	307,226,380						

During the measurement year, the collective NPL increased by approximately \$151 million. The service cost, interest cost, actuarial losses, and recognition of administrative expense increased the collective NPL by approximately \$143 million while contributions and investment income decreased the collective NPL by approximately \$61 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 \$180 million. As part of these assumption changes, the assets associated with the current SRBR reserve and other non-valuation assets are being included in the Plan Fiduciary Net Position as of the end of the measurement year. The inclusion of these assets offset the impact on the NPL by approximately \$111 million. The net impact on the NPL from these assumption changes was to increase the NPL by approximately \$69 million.

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



### SECTION V – GASB 67 REPORTING INFORMATION

Table V-2 Sensitivity of Collective Net Pension Liability to Changes in Discount Rate													
		1% Decrease 6.70%		Discount Rate 7.70%		1% Increase 8.70%							
Total Pension Liability Plan Fiduciary Net Position	\$	1,734,331,546 1,212,272,322	\$	1,519,498,702 1,212,272,322	\$	1,344,695,355 1,212,272,322							
Collective Net Pension Liability  Plan Fiduciary Net Position as a  Percentage of the Total Pension Liability	<u>\$</u>	522,059,224 69.9%	<u>\$</u>	307,226,380 79.8%	\$	132,423,033							

A one percent decrease in the discount rate increases the TPL by approximately 14% and increases the collective NPL by approximately 70%. A one percent increase in the discount rate decreases the TPL by approximately 12% and decreases the collective NPL by approximately 57%.

### **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 ten years of information. The schedule on the following page shows the changes in collective NPL and related ratios required by GASB for the two years since implementation.



### SECTION V – GASB 67 REPORTING INFORMATION

Table V-3 Schedule of Changes in Collective Net Pensio	n Li	ability and Re	late	d Ratios
		FYE 2015		FYE 2014
Total Pension Liability				
Service cost (MOY)	\$	35,167,785	\$	39,672,236
Interest (includes interest on service cost)		97,472,957		94,276,973
Changes of benefit terms		0		0
Differences between expected and actual experience		7,590,593		0
Changes of assumptions		180,186,807		13,587,893
Benefit payments, including refunds of member contributions		(68,559,888)		(65,954,107)
Net change in total pension liability	\$	251,858,254	\$	81,582,995
Total pension liability - beginning		1,267,640,448		1,186,057,453
Total pension liability - ending	\$	1,519,498,702	\$	1,267,640,448
Plan fiduciary net position				
Contributions - employer	\$	30,992,069	\$	25,953,288
Contributions - member		18,887,422		18,968,800
Change of Assumptions / Other Income		111,357,446		2,993,705
Net investment income		11,043,009		176,883,870
Benefit payments, including refunds of member contributions		(68,559,888)		(65,954,107)
Administrative expense		(2,408,394)		(1,638,772)
Net change in plan fiduciary net position	\$	101,311,664	\$	157,206,784
Plan fiduciary net position - beginning		1,110,960,658		953,753,874
Plan fiduciary net position - ending	\$	1,212,272,322	\$	1,110,960,658
Net pension liability - ending	\$	307,226,380	\$	156,679,790
Plan fiduciary net position as a percentage of the total pension liability		79.78%		87.64%
Covered employee payroll*	\$	229,430,663	\$	234,438,456
Net pension liability as a percentage of covered employee payroll		133.91%		66.83%

<sup>\*</sup> Payroll for FYE 2015 is based on amounts provided by the participating employers for the fiscal year. Previous payroll figures were determined by the prior actuary.

If an Actuarially Determined Contribution is calculated, the following schedule (Table V-4) is required. An Actuarially Determined Contribution is a contribution amount determined in accordance with Actuarial Standards of Practice. The full 10 years of information should be shown in this schedule, if it is available. While we cannot confirm whether contribution amounts calculated by the prior actuary were determined in accordance with Actuarial Standards of Practice, we have provided the full 10-year schedule below.



### SECTION V – GASB 67 REPORTING INFORMATION

	Table V-4 Schedule of Collective Employer Contributions														
	FYE 2015	FYE 2014	FYE 2013	FYE 2012	FYE 2011	FYE 2010	FYE 2009	FYE 2008	FYE 2007	<b>FYE 2006</b>					
Actuarially Determined Contribution	\$ 30,992,069	\$ 25,953,288	\$ 29,847,226	\$ 25,257,124	\$ 23,434,240	\$ 25,339,346	\$ 22,430,788	\$ 22,691,963	\$ 17,975,005	\$ 12,442,923					
Contributions in Relation to the Actuarially Determined Contribution	30,992,069	25,953,288	29,847,226	25,257,124	23,434,240	25,339,346	22,430,788	22,691,963	17,975,005	12,442,923					
Contribution Deficiency/(Excess)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0					
Covered-Employee Payroll*	\$ 229,430,663	\$ 234,438,456	\$ 230,954,756	\$ 222,634,628	\$ 219,853,614	\$ 217,811,354	\$ 227,305,938	\$ 226,836,234	\$ 204,802,798	\$ 186,948,702					
Contributions as a Percentage of Covered- Employee Payroll	13.51%	11.07%	12.92%	11.34%	10.66%	11.63%	9.87%	10.00%	8.78%	6.66%					

<sup>\*</sup> Payroll for FYE 2015 is based on amounts provided by the participating employers for the fiscal year. Previous payroll figures were determined by the prior actuary.

The notes below summarize the key methods and assumptions used to determine the ADC for FYE 2015.

#### Notes to Schedule

Valuation Date

6/30/2013

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

Amortization method

The unfunded actuarial liability is amortized over a rolling 15-year periods as a level percentage of payroll

Discount rate 7.90% Amortization growth rate

4.00%

Price inflation

4.00%

Salary increases

4.00% plus merit component based on employee classification and years of service

Mortality

RP-2000 Combined Mortality (sex-distinct and no collar adjustment for General members, male blue-collar for Safety members)

with generational projections using Scale AA

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2015 can be found in the Buck Consultants June 30, 2013 actuarial valuation report



### SECTION VI – GASB 68 COLLECTIVE AMOUNTS

Employers that participate in TCERA are 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 2015 disclosures can be based on either the June 30, 2014 or 2015 measurement dates. We understand that some or all of the employers have elected to implement GASB 68 last year based on the 2014 measurement date. As a result, the GASB 68 schedules in this report with a measurement date of June 30, 2015 will be used for the employers' 2016 reporting date.

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

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

During the year, there was an experience loss of approximately \$7.6 million. Approximately \$1.5 million of that loss was 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, resulting in a collective deferred outflow of resources as of June 30, 2015 of approximately \$6.1 million.

During the year, there were changes in the assumptions that increased the NPL by approximately \$68.8 million. Approximately \$13.8 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 assumption changes from prior periods were approximately \$11.5 million, of which \$2.1 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, 2015 of approximately \$64.4 million.

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 \$74.8 million. Approximately \$15 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 investment gains from prior periods were approximately \$82.2 million of which \$20.6 million was recognized as a reduction in collective pension expense in the current year. The combination of unrecognized investment losses this year and unrecognized net investment gains from prior periods results in a collective deferred inflow of resources as of June 30, 2015 of approximately \$1.8 million.

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



### **SECTION VI – GASB 68 COLLECTIVE AMOUNTS**

Table VI- Schedule of Collective Deferred Inflo		and Outflow	s of F	Resources
	C	Deferred Outflows of Resources	]	Deferred Inflows of Resources
Differences between expected and actual experience	\$	6,072,474	\$	0
Changes in assumptions		64,405,165		0
Net difference between projected and actual				
earnings on pension plan investments		0		1,819,236
Total	\$	70,477,639	\$	1,819,236
Amounts reported as deferred outflows and deferre in pension expense as follows:  Measurement year ended June 30		ows of resources	will be	recognized
2016		11,813,694		
2017		11,813,694		
2018		11,813,692		
2019		32,368,079		
2020		849,243		
Thereafte	r \$	0		

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

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



### **SECTION VI – GASB 68 COLLECTIVE AMOUNTS**

Table VI Calculation of Collective		ens	e
	Measuremen 2015	nt Ye	ear Ending 2014
Change in Net Pension Liability	\$ 150,546,590	\$	(75,623,789)
Change in Deferred Outflows	(59,012,855)		(11,464,785)
Change in Deferred Inflows	(80,398,306)		82,217,542
Employer Contributions	30,992,069		25,953,288
Pension Expense	\$ 42,127,498	\$	21,082,256
Pension Expense as % of Payroll	18.36%		8.99%
Operating Expenses			
Service cost	\$ 35,167,785	\$	39,672,236
Employee contributions	(18,887,422)		(18,968,800)
Other Income			(2,993,705)
Administrative expenses	2,408,394		1,638,772
Total	\$ 18,688,757	\$	19,348,503
Financing Expenses			
Interest cost	\$ 97,472,957	\$	94,276,973
Expected return on assets	(85,847,910)		(74,111,943)
Total	\$ 11,625,047	\$	20,165,030
Changes			
Benefit changes	\$ 0	\$	0
Recognition of assumption changes	15,888,980		2,123,108
Recognition of liability gains and losses	1,518,119		0
Recognition of investment gains and losses	(5,593,405)		(20,554,385)
Total	\$ 11,813,694	\$	(18,431,277)
Pension Expense	\$ 42,127,498	\$	21,082,256

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

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



### **SECTION VI – GASB 68 COLLECTIVE AMOUNTS**

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 increased by about \$21 million. The recognition of changes increased by approximately \$30 million, which is more than the total increase in pension expense.



### SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

### **Proportionate Shares**

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

Proportionate shares for each participating employer are 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 amortization share as of June 30, 2015 and June 30, 2014 is determined using this method.

We are aware of recent additional guidance published by the AICPA with respect to the inclusion of employer-paid member contributions in the development of the proportionate shares and the collective pension expense. We are awaiting further written guidance from the GASB before making any changes to the current methods for computing the collective pension expense.

	Table VII-1  Determination of Employers' Proportionate Share												
June 30, 2015 June 30, 2014													
	Employer Proportionate Employer Proportionate												
Employer	Co	ontribution	Share	C	ontribution	Share							
County	\$	29,506,401	95.20629617%	\$	24,641,270	94.94469448%							
Courts		1,348,686	4.35171334%		1,294,171	4.98653966%							
SPUD		18,629	0.06010893%		17,847	0.06876585%							
TCAG		118,353	0.38188157%		N/A	N/A*							
Total	\$	30,992,069	100.00000000%	\$	25,953,288	100.00000000%							

<sup>\*</sup> Information to determine proportionate share not available.



14

<sup>1</sup> http://www.aicpa.org/interestareas/governmentalauditquality/resources/gasbmatters/dowloadabledocuments/aicpaslgep\_cs\_er\_reporting\_whitepaper.pdf

### SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below shows the proportionate share of the collective NPL (under three discount rates), the collective deferred outflows, the collective deferred inflows, and the collective pension expense allocated to each participating employer as of June 30, 2015.

	Table VII-2 Schedule of Employers' Proportionate Share of Collective Amounts at June 30, 2015													
Employer	Proportionate Share	Proportionate Share of NPL Share of NPL Share of N Share @ 6.70% @ 7.70% @ 8.70%			Share of Deferred Outflows	Share of Deferred Inflows	Pension Expense							
County	95.2063%	\$ 497,033,251	\$ 292,498,857	\$ 126,075,065	\$ 67,099,150	\$ 1,732,027	\$ 40,108,030							
Courts	4.3517%	22,718,521	13,369,611	5,762,671	3,066,985	79,168	1,833,268							
SPUD	0.0601%	313,804	184,670	79,598	42,363	1,094	25,322							
TCAG	0.3819%	1,993,648	1,173,241	505,699	269,141	6,947	160,877							
Total	100.0000%	\$ 522,059,224	\$ 307,226,380	\$ 132,423,033	\$ 70,477,639	\$ 1,819,236	\$ 42,127,498							

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															
	Proportionate Shares Impact of Change in Proportion Contributions															
Employer	6/30/2014	6/30/2015		t Pension iability		eferred Outflows		eferred Inflows	N	et Effect		Actual	Pı	roportionate Share	Diff	erence
County	94.9447%	95.2063%	\$	409,877	\$	29,992	\$	(215,082)	\$	594,967	\$	29,506,401	\$	29,506,401	\$	0
Courts	4.9865%	4.3517%		(994,645)		(72,781)		521,939		(1,443,802)		1,348,686		1,348,686		0
SPUD	0.0688%	0.0601%		(13,564)		(992)		7,118		(19,689)		18,629		18,629		0
TCAG	0.0000%	0.3819%		598,331		43,782		(313,974)		868,523		118,353		118,353		0
Total	100.0000%	100.0000%	\$	0	\$	0	\$	0	\$	0	\$	30,992,069	\$	30,992,069	\$	0



### SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

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

	Table VII-4 Reconciliation of Deferred Outflows and Inflows Due to Proportion Change																
	Deferred Outflows							Deferred Inflows									
	Current Year						Current Year										
Employer	6	5/30/2014	Net Effect I		Recognition			6/30/2015		6/30/2014	Ne	et Effect	Recognit	on	6/30/2015		
County	\$	0	\$	594,967	\$	118,993	\$	475,974	\$	(1,992,917)	\$	0	\$ (369	,059)	\$ (1,623,858)		
Courts		1,966,927		0		364,246		1,602,681		0		(1,443,802)	(288	,760)	(1,155,042)		
SPUD		25,990		0		4,813		21,177		0		(19,689)	(3	,938)	(15,751)		
TCAG		0		868,523		173,705		694,818		0		0		0	0		
Total	\$	1,992,917	\$	1,463,490	\$	661,757	\$	2,794,650	\$	(1,992,917)	\$	(1,463,490)	\$ (661	,757)	\$ (2,794,650)		



### SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

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

	Table VII-5 Reconciliation of Deferred Outflows and Inflows Due to Contribution Differences																
	_	Deferred Outflows								Deferred Inflows							
Employer	e e	5/30/2014	Current Yea Difference		ognition	6/3	30/2015	6/30	)/2014		ent Year ference		ecognition	6/30/2015			
County	\$	0	\$ 0	\$	0	\$	0	\$	0	\$	0	\$	0	\$ 0			
Courts		0	0		0		0		0		0		0	0			
SPUD		0	0		0		0		0		0		0	0			
TCAG		0	0		0		0		0		0		0	0			
Total	\$	0	\$ 0	\$	0	\$	0	\$	0	\$	0	\$	0	\$ 0			



### 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, 2015														
Employer	Proportionate Shares Experience			Assumption Changes			nvestment Return	Proportion Change			Contribution Difference				
County	95.2063%	\$	5,781,378	\$	61,317,772	\$	0	\$	475,974	\$	0				
Courts	4.3517%		264,257		2,802,728		0		1,602,681		0				
SPUD	0.0601%		3,650		38,713		0		21,177		0				
TCAG	0.3819%		23,190		245,951		0		694,818		0				
Total	100.0000%	\$	6,072,474	\$	64,405,165	\$	0	\$	2,794,650	\$	0				

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, 2015													
Employer	Proportionate Shares	Experience	e	Assumption Changes	I	nvestment Return		roportion Change	Contrib Differ					
County	95.2063%	\$	0	\$ 0	\$	1,732,027	\$	1,623,858	\$	0				
Courts	4.3517%		0	0		79,168		1,155,042		0				
SPUD	0.0601%		0	0		1,094		15,751		0				
TCAG	0.3819%		0	0		6,947		0		0				
Total	100.0000%	\$	0	\$ 0	\$	1,819,236	\$	2,794,650	\$	0				



### 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.

Schedu	ıle of Employe	ers' Recogn	nitio	Table V			ınd	Inflows at	Jur	ne 30, 201	5	
				Recogn	nitio	n for Measu	ren	ient Year En	din	g		
Employer		2016		2017		2018		2019		2020	Thereafter	
County	\$	10,997,315	\$	10,997,315	\$	10,997,313	\$	30,566,386	\$	660,911	\$	0
Courts		589,584		589,584		589,584		1,484,050		182,654		0
SPUD		7,976		7,976		7,976		20,332		2,436		0
TCAG		218,819		218,819		218,819		297,311		3,243		0
Total	\$	11,813,694	\$	11,813,694	\$	11,813,692	\$	32,368,080	\$	849,243	\$	0



### 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, 2015												
	Collective		Employer	Change in Employer	Employer								
Employer	Pension Expense	Change in Contribution Proportion Difference	Pension Expense	Net Pension Deferred Deferr Liability Outflows Inflow									
County	\$ 40,108,030	0 \$ (250,066) \$ 0	\$ 39,857,964	\$ 143,739,709 \$ 56,689,920 \$ 76,69	8,226 \$ 29,506,401 \$ 39,857,96								
Courts	1,833,26	8 75,486 0	1,908,754	5,556,711 2,131,043 2,86	5,601 1,348,686 1,908,754								
SPUD	25,32	2 875 0	26,197	76,928 29,666 3	9,693 18,629 26,19								
TCAG	160,87	7 173,705 0	334,582	1,173,241 963,959 (	6,947) 118,353 334,582								
Total	\$ 42,127,498	8 \$ 0 \$ 0	\$ 42,127,498	\$ 150,546,590 \$ 59,814,589 \$ 79,59	5,572 \$ 30,992,069 \$ 42,127,498								



### SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

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, 2015														
Employer	Proportionate Shares		roportionate nare of NPL		Covered- Employee Payroll	Share of NPL as a % of Payroll	Plan Fiduciary Net Position as % of TPL		ontractually Required Contribution	C	Actual ontributions		ontribution Deficiency	Contributions as a % of Payroll	
County	95.2063%	\$	292,498,857	\$	216,687,530	135.0%	79.8%	\$	29,506,401	\$	29,506,401	\$	0	13.6%	
Courts	4.3517%		13,369,611		11,575,949	115.5%	79.8%		1,348,686		1,348,686		0	11.7%	
SPUD	0.0601%		184,670		148,045	124.7%	79.8%		18,629		18,629		0	12.6%	
TCAG	0.3819%		1,173,241		1,019,139	115.1%	79.8%		118,353		118,353		0	11.6%	
Total	100.0000%	\$	307,226,380	\$	229,430,663	133.9%	79.8%	\$	30,992,069	\$	30,992,069	\$	0	13.5%	



### **APPENDIX A – MEMBERSHIP INFORMATION**

SUMMARY OF ACTIVE GENERAL MEMBERSHIP												
	J	une 30, 2014	J	une 30, 2015	Change							
General Tier 1												
Count		43		36	-16.3%							
Average Age		60.6		61.8	2.0%							
Average Service		34.4		36.2	5.3%							
Annual Projected Payroll	S	2,666,062	S	2,462,988	-7.6%							
Average Annual Pay	S	62,001	\$	68,416	10.3%							
General Tier 2 & 3												
Count		2,941		2,689	-8.6%							
Average Age		45.0		45.6	1.4%							
Average Service		10.8		11.8	8.7%							
Annual Projected Payroll	\$	155,567,754	S	147,588,454	-5.1%							
Average Annual Pay	\$	52,896	\$	54,886	3.8%							
General Tier 4												
Count		530		781	47.4%							
Average Age		34.3		34.3	0.1%							
Average Service		0.7		1.3	76.1%							
Annual Projected Payroll	\$	18,916,607	\$	30,927,134	63.5%							
Average Annual Pay	\$	35,692	\$	39,599	10.9%							
General Total												
Count		3,514		3,506	-0.2%							
Average Age		43.5		43.3	-0.7%							
Average Service		9.6		9.7	1.0%							
Annual Projected Payroll	\$	177,150,423	\$	180,978,576	2.2%							
Average Annual Pay	\$	50,413	S	51,620	2.4%							



### **APPENDIX A – MEMBERSHIP INFORMATION**

SUMMARY OF ACTIVE SAFETY MEMBERSHIP												
	Jı	me 30, 2014	Jı	ine 30, 2015	Change							
Safety Tier 1					_							
Count		3		2	-33.3%							
Average Age		61.1		61.8	1.3%							
Average Service		36.1		36.5	1.3%							
Annual Projected Payroll	\$	283,935	\$	228,548	-19.5%							
Average Annual Pay	\$	94,645	\$	114,274	20.7%							
Safety Tier 2 & 3												
Count		816		764	-6.4%							
Average Age		39.7		40.5	2.1%							
Average Service		10.9		11.7	6.9%							
Annual Projected Payroll	\$	53,359,466	\$	51,187,710	-4.1%							
Average Annual Pay	\$	65,392	\$	67,000	2.5%							
Safety Tier 4												
Count		81		133	64.2%							
Average Age		30.8		30.2	-2.0%							
Average Service		0.8		1.3	67.1%							
Annual Projected Payroll	\$	3,775,177	\$	6,659,933	76.4%							
Average Annual Pay	\$	46,607	\$	50,075	7.4%							
Safety Total												
Count		900		899	-0.1%							
Average Age		39.0		39.1	0.2%							
Average Service		10.1		10.2	1.0%							
Annual Projected Payroll	\$	57,418,578	\$	58,076,191	1.1%							
Average Annual Pay	\$	63,798	\$	64,601	1.3%							



### **APPENDIX A – MEMBERSHIP INFORMATION**

SUMMA	SUMMARY OF INACTIVE MEMBERSHIP*												
	Ju	ıne 30, 2014	Ju	me 30, 2015	Change								
General													
Count		1,641		1,535	-6.5%								
Average Age		45.3		44.9	-0.7%								
Total Contribution Balance	\$	34,649,019	\$	36,089,104	4.2%								
Average Contribution Balance	\$	21,115	\$	23,511	11.3%								
Safety													
Count		232		232	0.0%								
Average Age		40.0		40.2	0.5%								
Total Contribution Balance	\$	6,192,550	\$	6,685,902	8.0%								
Average Contribution Balance	\$	26,692	\$	28,819	8.0%								
Total													
Count		1,873		1,767	-5.7%								
Average Age		44.6		44.3	-0.7%								
Total Contribution Balance	\$	40,841,569	\$	42,775,005	4.7%								
Average Contribution Balance	\$	21,805	\$	24,208	11.0%								

<sup>\*</sup>Includes unclaimed accounts.



### **APPENDIX A – MEMBERSHIP INFORMATION**

SUMMARY OF RETIRED MEMBERSHIP													
	Ju	me 30, 2014	Jı	me 30, 2015	Change								
General					_								
Count		2,279		2,381	4.5%								
Average Age		70.1		70.2	0.1%								
Total Annual Allowance	\$	43,087,370	\$	45,238,106	5.0%								
Average Annual Allowance	\$	18,906	\$	19,000	0.5%								
Safety													
Count		412		440	6.8%								
Average Age		63.6		63.9	0.5%								
Total Annual Allowance	\$	13,689,481	\$	14,722,461	7.5%								
Average Annual Allowance	\$	33,227	\$	33,460	0.7%								
Total													
Count		2,691		2,821	4.8%								
Average Age		69.1		69.3	0.2%								
Total Annual Allowance	\$	56,776,851	\$	59,960,567	5.6%								
Average Annual Allowance	\$	21,099	\$	21,255	0.7%								

Please refer to the June 30, 2015 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, 2015 is provided below. Please refer to the June 30, 2015 actuarial valuation report for a complete description of all other assumptions. The economic and demographic assumptions were selected by the Board. The assumptions used in this report and the June 30, 2015 actuarial valuation report reflect the results of the Experience Study performed by the prior actuary, Buck, covering the period July 1, 2011 through June 30, 2014.

### **Key Actuarial Assumptions**

**Expected Return on** 7.80 percent net of investment expenses as of June 30, 2015.

Assets

Yield

**COLA** 

Municipal Bond 3.80 percent net of investment expenses as of June 30, 2015 (Bond

Buyer 20-year Bond GO Index, June 26, 2015).

**Discount Rate** 7.70 percent.

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

increase at the rate of 3.00% per year.

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

Consumer Price Index (CPI) subject to the maximum of 3% per year for

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

**Administrative** Administrative Expenses used in the cashflow projection are assumed

**Expenses** 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 ten-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. The UAL as of June 30, 2015 will be amortized over a closed 19-year period as a level percentage of payroll, assuming payroll increases of 3.00% per year, and 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, 2015 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 a certain 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		Projected Admin Expenses	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2016*	\$ 1,212,272	\$ 33,933	\$ 15,931	\$ 1,818	\$ 84,487	\$ 93,163	\$ 1,268,994	\$ 84,487	\$ 0
2017	1,268,994	32,909	18,662	1,903	84,338	97,655	1,331,979	84,338	0
2018	1,331,979	31,583	21,349	1,998	88,624	102,452	1,396,741	88,624	0
2019	1,396,741	30,245	24,110	2,095	93,418	107,371	1,462,954	93,418	0
2020	1,462,954	28,868	24,904	2,194	98,403	112,318	1,528,447	98,403	0
2021	1,528,447	27,505	25,567	2,293	103,682	117,194	1,592,738	103,682	0
2022	1,592,738	26,125	27,193	2,389	108,958	122,013	1,656,722	108,958	0
2023	1,656,722	24,729	28,181	2,485	114,832	126,760	1,719,074	114,832	0
2024	1,719,074	23,351	29,423	2,579	120,797	131,386	1,779,859	120,797	0
2025	1,779,859	22,016	31,573	2,670	126,761	135,927	1,839,945	126,761	0
2026	1,839,945	20,705	33,043	2,760	132,655	140,390	1,898,668	132,655	0
2027	1,898,668	19,422	34,570	2,848	138,331	144,760	1,956,240	138,331	0
2028	1,956,240	18,151	36,154	2,934	143,952	149,044	2,012,702	143,952	0
2029	2,012,702	16,859	37,797	3,019	149,659	153,240	2,067,920	149,659	0
2030	2,067,920	15,598	39,500	3,102	155,825	157,324	2,121,415	155,825	0
2031	2,121,415	14,411	41,263	3,182	161,738	161,290	2,173,460	161,738	0
2032	2,173,460	13,273	43,087	3,260	167,536	165,151	2,224,174	167,536	0
2033	2,224,174	12,195	44,972	3,336	172,874	168,930	2,274,061	172,874	0
2034	2,274,061	11,153	46,918	3,411	178,090	172,653	2,323,284	178,090	0
2035	2,323,284	10,151	20,990	3,485	183,171	175,265	2,343,034	183,171	0
2036	2,343,034	9,209	18,268	3,515	187,693	176,491	2,355,795	187,693	0
2037	2,355,795	8,327	15,685	3,534	192,478	177,170	2,360,964	192,478	0
2038	2,360,964	7,498	13,032	3,541	197,138	177,261	2,358,077	197,138	0
2039	2,358,077	6,719	13,888	3,537	201,243	176,882	2,350,786	201,243	0
2040	2,350,786	5,993	15,036	3,526	205,919	176,151	2,338,522	205,919	0

<sup>\*</sup> Fiduciary Net Position based on Chief Investment Officer's Report as of October 9, 2015.



### 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
2041	2,338,522	5,312	14,557	3,508	209,211	175,025	2,320,697	209,211	0
2042	2,320,697	4,673	15,257	3,481	212,176	173,524	2,298,494	212,176	0
2043	2,298,494	4,077	15,572	3,448	214,725	171,685	2,271,656	214,725	0
2044	2,271,656	3,525	14,357	3,407	216,717	169,450	2,238,864	216,717	0
2045	2,238,864	3,021	14,398	3,358	218,171	166,820	2,201,573	218,171	0
2046	2,201,573	2,561	14,401	3,302	219,141	163,859	2,159,951	219,141	0
2047	2,159,951	2,149	14,367	3,240	219,525	160,584	2,114,286	219,525	0
2048	2,114,286	1,784	14,294	3,171	219,432	157,011	2,064,772	219,432	0
2049	2,064,772	1,460	14,184	3,097	218,739	153,162	2,011,742	218,739	0
2050	2,011,742	1,177	14,036	3,018	217,528	149,058	1,955,468	217,528	0
2051	1,955,468	937	13,850	2,933	215,779	144,723	1,896,265	215,779	0
2052	1,896,265	734	13,629	2,844	213,540	140,178	1,834,421	213,540	0
2053	1,834,421	563	13,375	2,752	210,794	135,446	1,770,259	210,794	0
2054	1,770,259	424	13,091	2,655	207,641	130,550	1,704,027	207,641	0
2055	1,704,027	314	12,778	2,556	204,027	125,510	1,636,046	204,027	0
2056	1,636,046	228	12,442	2,454	200,058	120,347	1,566,550	200,058	0
2057	1,566,550	164	12,083	2,350	195,738	115,079	1,495,787	195,738	0
2058	1,495,787	115	11,704	2,244	191,123	109,724	1,423,964	191,123	0
2059	1,423,964	80	11,310	2,136	186,238	104,296	1,351,277	186,238	0
2060	1,351,277	54	10,903	2,027	181,106	98,811	1,277,911	181,106	0
2061	1,277,911	36	10,486	1,917	175,749	93,281	1,204,047	175,749	0
2062	1,204,047	23	10,062	1,806	170,179	87,720	1,129,867	170,179	0
2063	1,129,867	14	9,635	1,695	164,417	82,142	1,055,545	164,417	0
2064	1,055,545	8	9,206	1,583	158,471	76,560	981,265	158,471	0
2065	981,265	4	8,779	1,472	152,354	70,988	907,211	152,354	0



### 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
2066	907,211	2	8,355	1,361	146,078	65,440	833,570	146,078	0
2067	833,570	0	7,937	1,250	139,656	59,930	760,531	139,656	0
2068	760,531	0	7,525	1,141	133,101	54,472	688,287	133,101	0
2069	688,287	0	7,122	1,032	126,430	49,081	617,028	126,430	0
2070	617,028	0	6,729	926	119,658	43,771	546,945	119,658	0
2071	546,945	0	6,346	820	112,808	38,556	478,220	112,808	0
2072	478,220	0	5,975	717	105,903	33,450	411,024	105,903	0
2073	411,024	0	5,616	617	98,974	28,464	345,513	98,974	0
2074	345,513	0	5,268	518	92,049	23,609	281,823	92,049	0
2075	281,823	0	4,932	423	85,165	18,896	220,063	85,165	0
2076	220,063	0	4,609	330	78,357	14,330	160,315	78,357	0
2077	160,315	0	4,298	240	71,665	9,917	102,624	71,665	0
2078	102,624	0	3,998	154	65,127	5,660	47,001	65,127	0
2079	47,001	0	3,710	71	58,784	1,556	(6,587)	47,001	11,783
2080	(6,587)	0	3,435	0	52,676	0	(49,241)	0	52,676
2081	(49,241)	0	3,170	0	46,840	0	(43,669)	0	46,840
2082	(43,669)	0	2,918	0	41,311	0	(38,393)	0	41,311
2083	(38,393)	0	2,677	0	36,120	0	(33,443)	0	36,120
2084	(33,443)	0	2,448	0	31,294	0	(28,846)	0	31,294
2085	(28,846)	0	2,230	0	26,850	0	(24,620)	0	26,850
2086	(24,620)	0	2,025	0	22,801	0	(20,777)	0	22,801
2087	(20,777)	0	1,830	0	19,152	0	(17,321)	0	19,152
2088	(17,321)	0	1,648	0	15,899	0	(14,251)	0	15,899
2089	(14,251)	0	1,478	0	13,036	0	(11,559)	0	13,036
2090	(11,559)	0	1,319	0	10,547	0	(9,229)	0	10,547



### 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
2091	(9,229)	0	1,171	0	8,413	0	(7,242)	0	8,413
2092	(7,242)		1,035	0	6,610	0	(5,574)	0	6,610
2093	(5,574)	0	911	0	5,110	0	(4,199)	0	5,110
2094	(4,199)	0	797	0	3,883	0	(3,086)	0	3,883
2095	(3,086)	0	694	0	2,898	0	(2,204)	0	2,898
2096	(2,204)	0	601	0	2,122	0	(1,521)	0	2,122
2097	(1,521)	0	518	0	1,524	0	(1,006)	0	1,524
2098	(1,006)	0	444	0	1,072	0	(628)	0	1,072
2099	(628)	0	378	0	739	0	(361)	0	739
2100	(361)	0	325	0	500	0	(174)	0	500
2101	(174)	0	280	0	332	0	(52)	0	332
2102	(52)	0	239	0	218	1	22	0	218
2103	22	0	202	0	141	4	86	0	141
2104	86	0	169	0	92	10	174	0	92
2105	174	0	141	0	60	17	271	0	60
2106	271	0	118	0	40	24	373	0	40
2107	373	0	98	1	28	32	474	0	28
2108	474	0	81	1	20	39	573	0	20
2109	573	0	67	1	14	47	672	0	14
2110	672	0	56	1	11	54	770	0	11
2111	770	0	46	1	8	61	868	0	8
2112	868	0	38	1	6	69	968	0	6
2113	968	0	32	1	4	76	1,070	0	4
2114	1,070	0	26	2	3	84	1,175	0	3
2115	1,175	0	21	2	2	92	1,285	0	2
							Discount Rate: Present Value: tal Present Value:		3.80% \$ 28,122 \$ 1,803,787
						GAS	SB Discount Rate:		7.70%



### 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.

