

City and County of San Francisco Employees' Retirement System

GASB 67/68 Report as of June 30, 2022

Produced by Cheiron

January 2023

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SECTION I – BOARD SUMMARY

The purpose of this report is to provide accounting and financial reporting information under the Governmental Accounting Standards Board Statements 67 and 68 (GASB 67 and 68) for the City and County of San Francisco Employees' Retirement System ("System") and for the participating employers, respectively. This information includes:

- Determination of the discount rate as of June 30, 2022,
- Projection of the Total Pension Liability from the valuation date to the measurement date,
- Note disclosures and required supplementary information under GASB 67 for the System,
- 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 City and County of San Francisco Employees' Retirement System ("System") is June 30, 2022. Measurements are based on the fair value of assets as of June 30, 2022 and the Total Pension Liability as of the valuation date, June 30, 2021 updated to June 30, 2022.

The beginning and end of year measurements are based on different economic and demographic assumptions as well as different Supplemental COLA assumptions. A detailed description of the Supplemental COLA assumptions can be found in Appendix B of this report.

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

Table I-1 Summary of Collective Results														
Measurement Date														
		6/30/2022		6/30/2021										
Net Pension Liability	\$	2,691,115	\$	(2,585,069)										
Deferred Outflows		(944,900)		(412,293)										
Deferred Inflows		544,343		6,078,116										
Net Impact on Statement of Net Position	\$	2,290,558	\$	3,080,754										
Pension Expense (\$ Amount)	\$	(21,733)	\$	(1,010,026)										
Pension Expense (% of Payroll)		-0.58%		-27.87%										



SECTION I – BOARD SUMMARY

As of the end of the measurement year, the System and its participating employers in aggregate report a Net Pension Liability of \$2,691,115,000, Deferred Inflows of \$544,343,000, and Deferred Outflows of \$944,900,000. Consequently, the net impact on the aggregate of participating employers' Statements of Net Position due to the System is \$2,290,558,000 at the end of the measurement year. Participating employers also report any contributions between the measurement date and their reporting date as deferred outflows of resources.

The Net Pension Liability (NPL) increased by about \$5.3 billion since the prior measurement date, primarily due to investment losses. The impact of the assumption changes on the Total Pension Liability (TPL) of \$786.1 million is due to the decrease in the discount rate from 7.40% to 7.20%, slightly offset by the decrease in the Supplemental COLA assumptions. There were liability experience losses that further increased the NPL. The investment losses are recognized over five years, and the liability experience losses 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.

For the measurement year ending June 30, 2022, the collective annual pension expense is **income** of \$21,733 or 0.58% of covered payroll. This amount is not related to participating employers' contributions to the System (\$768,463,000), but instead represents the change in the net impact on participating employers' Statements of Net Position plus employer contributions (\$2,290,558,000 - \$3,080,754,000 + \$768,463,000). The collective pension income of \$21,733,000 is a significant decrease from the collective income for the prior year of \$1,010,026,000. Volatility in pension expense or income 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 collective net pension expense is shown in Section VI of the report.

Proposition A passed on November 8, 2022 making members who did not work after November 6, 1996 (Pre96 Retirees) eligible for a Supplemental COLA, even if SFERS is not fully funded based on the Market Value of Assets. Since Proposition A passed after the measurement date, the impact has not been incorporated in this report.



SECTION II – CERTIFICATION

The purpose of this report is to provide accounting and financial reporting information under GASB 67 for the City and County of San Francisco Employees' Retirement System ("System") and under GASB 68 for the employers that participate in the System. This report is for the use of the System, 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 the System.

In preparing our report, we relied on information (some oral and some written) supplied by the System. 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.

Cheiron utilizes ProVal 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 a basic understanding of ProVal 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 GASB 67/68 valuation, including inputs to the crossover test. The probability of future supplemental COLAs was developed using R-scan, our proprietary stochastic projection tool for assessing probabilities of different outcomes. We have relied on Cheiron colleagues who developed the tool, and we have used the tool in accordance with its purpose. The stochastic projections of investment returns are based on an assumption that each future year's investment return is independent from all other years and is identically distributed according to a lognormal distribution. This assumption may result in an unrealistically wide range of compound investment returns over longer periods of time.

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

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



SECTION II – CERTIFICATION

This report was prepared for the System 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.

Within R. Hallack

William R. Hallmark, ASA, EA, FCA, MAAA **Consulting Actuary**

Anne D. Harper, FSA, EA, MAAA

Principal Consulting Actuary



SECTION III – DETERMINATION OF DISCOUNT RATE

The discount rate used to measure the Total Pension Liability is 7.20%.

The projection of cash flows used to determine the discount rate assumed that plan member contributions will continue to be made at the rates specified in the Charter of the City and County of San Francisco. Employer contributions are assumed to be made in accordance with the contribution policy in effect for the July 1, 2021 actuarial valuation. That policy requires contributions equal to the employer portion of the Entry Age Normal Cost for members as of the valuation date, a payment for the expected administrative expenses, and an amortization payment on the Unfunded Actuarial Liability.

The amortization payment is based on closed periods that vary in length depending on the source. Charter amendments prior to July 1, 2014 are amortized over 20 years. After July 1, 2014, any Charter changes to active member benefits are amortized over 15 years and changes to inactive member benefits, including Supplemental COLAs, are amortized over 5 years. In the July 1, 2016 valuation, the increase in the Unfunded Actuarial Liability attributable to the Supplemental COLAs granted effective July 1, 2013 was amortized over 17 years. For the July 1, 2021 valuation, all amortization periods for actuarial gains and losses and prior assumption changes were reduced to 5 years. The assumption change effective July 1, 2021 is amortized over 20 years. Future experience gains and losses and assumption or method changes on or after July1, 2021 are amortized over 20 years. If the plan becomes 100% funded based on the Actuarial Value of Assets, any new net surpluses are amortized over a rolling 20-year period. All amortization schedules are established as a level percentage of payroll so payments increase 3.25% each year.

The Unfunded Actuarial Liability is based on an Actuarial Value of Assets that smooths investment gains and losses over five years and a measurement of the Actuarial Liability that excludes the value of any future Supplemental COLAs.

While the contributions and measure of Actuarial Liability in the funding valuation do not anticipate any future Supplemental COLAs, the projected contributions for the determination of the discount rate include the anticipated future amortization payments on future Supplemental COLAs for current members when they are expected to be granted. For members who worked after November 6, 1996 and before Proposition C passed (Post 97 Retirees), a Supplemental COLA is granted if the actual investment earnings during the year exceed the expected investment earnings on the Actuarial Value of Assets. For members who did not work after November 6, 1996 (Pre 97 Retirees) or were hired after Proposition C passed, the Market Value of Assets must also exceed the Actuarial Liability for a Supplemental COLA to be granted. When a Supplemental COLA is granted, the amount depends on the amount of excess earnings and the basic COLA amount for each membership group. Most members receive a 1.50% Supplemental COLA when a full Supplemental COLA is granted.

Because the probability of a Supplemental COLA depends on the current funded level of the System for certain members, we developed an assumption as of June 30, 2022 for the probability and amount of Supplemental COLA for each future year. No Supplemental COLA was payable as of July 1, 2022 due to the unfavorable investment returns for FYE 2022.



SECTION III – DETERMINATION OF DISCOUNT RATE

The table below shows the net assumed Supplemental COLA for members with a 2.00% Basic COLA for sample years. Appendix B contains complete information on the assumption.

Assumed Supplemental COLA for Members with a 2.00% Basic COLA												
Before 96 or AfterJuly 1,96 – Prop CProp C												
2022	0.00%	0.00%										
2023	0.75%	0.70%										
2024	0.75%	0.60%										
2025	0.75%	0.60%										
2026+	0.75%	0.50%										

The projection of benefit payments to current members for determining the discount rate includes the payment of anticipated future Supplemental COLAs.

Based on these assumptions, the System's fiduciary net position was projected to be available to make all future benefit payments for current members. Projected benefit payments are discounted at the long-term expected return on assets of 7.20% to the extent the fiduciary net position is available to make the payments and at the municipal bond rate of 3.54% to the extent they are not available. The single equivalent rate used to determine the Total Pension Liability as of June 30, 2022 rounded to four decimals is 7.20%.

Appendix D shows the details of this calculation.



SECTION IV – PROJECTION OF TOTAL PENSION LIABILITY

The Total Pension Liability (TPL) at the end of the measurement year, June 30, 2022 is measured as of a valuation date of June 30, 2021 and projected to June 30, 2022. Because the TPL shown in the prior report was measured as of June 30, 2020 and projected to June 30, 2021, it will not match the amounts measured as of June 30, 2021 that are shown in this exhibit.

The table below shows the projection of the TPL at discount rates equal to the rate used for disclosure and plus and minus one percent from the rate used for disclosure.

Table IV-1 Projection of Collective Total Pension Liability From Valuation to Measurement Date														
Discount Rate		6.20%		7.20%		8.20%								
Valuation Collective Total Pension Liability, 6/30/2021														
Actives	\$	14,948,160	\$	12,628,431	\$	10,759,049								
Inactives		23,592,689		21,401,048		19,552,067								
Total	\$	38,540,849	\$	34,029,479	\$	30,311,116								
Service Cost	\$	997,768	\$	781,610	\$	619,137								
Benefit Payments	\$	1,737,750	\$	1,737,750	\$	1,737,750								
Interest	\$	2,366,938	\$	2,416,300	\$	2,440,552								
Collective Total Pension Liability, 6/30/2022	\$	40,167,805	\$	35,489,639	\$	31,633,055								



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 Co	ollective Net Pension Liability Increase (Decrease)												
	T	otal Pension Liability (a)		an Fiduciary let Position (b)	Net Pension Liability (a) - (b)								
Balances at 6/30/2021	\$	33,088,765	\$	35,673,834	\$	(2,585,069)							
Changes for the year:													
Service cost		781,610				781,610							
Interest		2,471,994				2,471,994							
Changes of benefits		0				0							
Differences between expected and actual													
experience		98,920				98,920							
Changes of assumptions		786,100				786,100							
Contributions - employer				768,463		(768,463)							
Contributions - member				423,471		(423,471)							
Net investment income				(2,308,320)		2,308,320							
Benefit payments		(1,737,750)		(1,737,750)		0							
Administrative expense				(21,174)		21,174							
Net changes		2,400,874		(2,875,310)		5,276,184							

Amounts in Thousands

During the measurement year, the collective NPL increased by approximately \$5.3 billion. The service cost and interest cost increased the collective NPL by approximately \$3.3 billion. Investment losses and administrative expenses, offset by contributions, also increased the collective NPL by approximately \$1.1 billion.

Assumption changes and liability experience further increased the TPL by approximately \$0.8 billion and \$0.1 billion respectively.



SECTION V – GASB 67 REPORTING INFORMATION

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

Table V-2 Sensitivity of Collective Net Pension Liability to Changes in Discount Rate													
		1% Decrease 6.20%		Discount Rate 7.20%		1% Increase 8.20%							
Total Pension Liability Plan Fiduciary Net Position Collective Net Pension Liability	\$ \$	40,167,805 32,798,524 7,369,281	\$ 	35,489,639 32,798,524 2,691,115	\$ \$	31,633,055 32,798,524 (1,165,469)							
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		81.7%		92.4%		103.7%							

Amounts in Thousands

A one percent decrease in the discount rate increases the TPL by approximately 13%. A one percent increase in the discount rate decreases the TPL by approximately 11%.



SECTION V – GASB 67 REPORTING INFORMATION

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 schedules below and on the next page show the changes in collective NPL and related ratios required by GASB for the nine years since implementation.

Schedule of Ch	ar			ble V-3 lective NP	PL	and Rela	te	d Ratios		
]	FYE 2022	2022 FYE 2021 FYE					FYE 2019		FYE 2018
Total Pension Liability										
Service cost (MOY)	\$	781,610	\$,	\$	· · ·	\$,	\$,
Interest		2,471,994		2,302,075		2,230,441		2,131,847		2,041,110
Changes of benefit terms		0		0		0		0		0
Differences between expected and actual experience		98,920		136,097		205,869		12,484		(42,382)
Changes of assumptions		786,100		(479,435)		(117,141)		351,902		170,699
Benefit payments	_	(1,737,750)	_	(1,619,761)	_	(1,548,077)		(1,456,682)	_	(1,364,587)
Net change in TPL	\$	2,400,874	\$	1,057,747	\$	1,475,729	\$	1,714,616	\$	1,436,958
TPL - beginning		33,088,765		32,031,018	_	30,555,289		28,840,673	_	27,403,715
TPL - ending	\$	35,489,639	\$	33,088,765	\$	32,031,018	\$	30,555,289	\$	28,840,673
Plan fiduciary net position										
Contributions - employer	\$	768,463	\$	836,559	\$	742,985	\$	645,056	\$	619,067
Contributions - member		423,471		409,398		400,649		380,980		364,696
Net investment income		(2,308,320)		9,447,669		966,282		1,970,312		2,549,674
Benefit payments		(1,737,750)		(1,619,761)		(1,548,077)		(1,456,682)		(1,364,587)
Administrative expense	_	(21,174)	_	(20,249)	_	(20,270)		(18,983)	_	(21,234)
Net change in plan fiduciary net position	\$	(2,875,310)	\$	9,053,616	\$	541,569	\$	1,520,683	\$	2,147,616
Plan fiduciary net position - beginning		35,673,834	_	26,620,218		26,078,649		24,557,966		22,410,350
Plan fiduciary net position - ending	\$	32,798,524	\$	35,673,834	\$	26,620,218	\$	26,078,649	\$	24,557,966
Net pension liability - ending	\$	2,691,115	\$	(2,585,069)	\$	5,410,800	\$	4,476,640	\$	4,282,707
Plan fiduciary net position as a percentage of the TPL		92.42%		107.81%		83.11%		85.35%		85.15%
Covered payroll	\$	3,742,459	\$	3,623,898	\$	3,566,991	\$	3,375,447	\$	3,221,544
Net pension liability as a percentage of covered payroll		71.91%		-71.33%		151.69%		132.62%		132.94%



SECTION V – GASB 67 REPORTING INFORMATION

Schedule of Changes	s in	Table V 1 Collecti	NPL and	11	Related R	at	ios
]	FYE 2017	FYE 2016]	FYE 2015		F YE 2014
<u>Total Pension Liability</u> Service cost (MOY)	\$	644,277	\$ 567,576	\$	523,644	\$	509,200
Interest Changes of benefit terms		1,924,206 0	1,669,996 1,293,714		1,621,582 0		1,542,266 0
Differences between expected and actual experience		57,911	(119,270)		(197,981)		0
Changes of assumptions Benefit payments		88,180 (1,278,140)	1,087,309 (1,256,146)		216,845 (1,131,030)		(73,315) (1,072,526)
Net change in TPL	\$	1,436,434	\$ 3,243,179	\$	1,033,060	\$	905,625
TPL - beginning		25,967,281	 22,724,102	_	21,691,042	_	20,785,417
TPL - ending	\$	27,403,715	\$ 25,967,281	\$	22,724,102	\$	21,691,042
Plan fiduciary net position							
Contributions - employer	\$,	\$ 526,805	\$,	\$	532,882
Contributions - member		316,844	322,764		301,682		289,020
Net investment income		2,683,467	150,190		763,429		3,175,431
Benefit payments		(1,278,140)	(1,256,146)		(1,131,030)		(1,072,526)
Administrative expense		(18,134)	 (17,179)		(19,262)		(15,745)
Net change in plan fiduciary net position	\$	2,255,847	\$ (273,566)	\$	507,462	\$	2,909,062
Plan fiduciary net position - beginning		20,154,503	 20,428,069		19,920,607		17,011,545
Plan fiduciary net position - ending	\$	22,410,350	\$ 20,154,503	\$	20,428,069	\$	19,920,607
Net pension liability - ending	\$	4,993,365	\$ 5,812,778	\$	2,296,033	\$	1,770,435
Plan fiduciary net position as a percentage of the TPL		81.78%	77.61%		89.90%		91.84%
Covered payroll	\$	3,041,818	\$ 2,836,498	\$	2,642,752	\$	2,507,162
Net pension liability as a percentage of covered payroll		164.16%	204.93%		86.88%		70.62%



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. The covered payroll shown in this exhibit is pensionable pay for all years reported.

Schedule of	Table V-4 Schedule of Collective Employer Contributions													
	FYE 2022	FYE 2021	FYE 2020	FYE 2019	FYE 2018									
Actuarially Determined Contribution	\$ 768,463	\$ 836,559	\$ 742,985	\$ 645,056	\$ 619,067									
Contributions in Relation to the Actuarially Determined Contribution	$\frac{768,463}{\$ 0}$	<u>836,559</u> \$ 0	$\frac{742,985}{\$ 0}$	$\frac{645,056}{\$}$	$\frac{619,067}{$ \$0									
Contribution Deficiency/(Excess)	<u> </u>	.	<u>.</u>		<u>+ </u>									
Covered Payroll	\$ 3,742,459	\$ 3,623,898	\$ 3,566,991	\$ 3,375,447	\$ 3,221,544									
Contributions as a Percentage of Covered Payroll	20.53%	23.08%	20.83%	19.11%	19.22%									
	FYE 2017	FYE 2016	FYE 2015	FYE 2014	FYE 2013									
Actuarially Determined Contribution	\$ 551,810	\$ 526,805	\$ 592,643	\$ 532,882	\$ 442,870									
Contributions in Relation to the Actuarially Determined Contribution	551,810	526,805	592,643	532,882	442,870									
Contribution Deficiency/(Excess)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0									
Covered Payroll	\$ 3,041,818	\$ 2,836,498	\$ 2,642,752	\$ 2,507,162	\$ 2,448,734									
Contributions as a Percentage of Covered Payroll	18.14%	18.57%	22.43%	21.25%	18.09%									



SECTION V – GASB 67 REPORTING INFORMATION

The notes below summarize the key methods and assumptions used to determine the ADC for FYE 2022.

Notes to Schedule	
Valuation Date	7/1/2020
Timing	Actuarially determined contribution rates are calculated in the actuarial valuation one year prior to the beginning of the plan year.
Key Methods and Assumpt	ions Used to Determine Contribution Rates:
Actuarial cost method	Entry Age
Asset valuation method	5-year smoothed market
Amortization method	Benefit changes made prior to July 1, 2014 are amortized over closed 20-year periods as a level percentage of payroll.
	The UAL as of July 1, 2013 not attributable to benefit changes was amortized over a closed 19-year period starting July 1, 2014.
	Assumption changes and experience gains and losses are amortized over a closed 20-year period as a level percentage of payroll.
	Increases in the UAL due to Supplemental COLAs are amortized over a closed 5-year period.
Discount rate	7.40%
Amortization growth rate	3.25%
Price inflation	2.50%
Salary increases	3.25% plus merit component based on employee classification and years of service
Mortality	For General healthy annuitants, the sex distinct 2010 Pub-G healthy annuitant mortality table, adjusted 0.977 for females and 1.031 for males. For Safety healthy annuitants, the sex distinct 2010 Pub-S healthy annuitant mortality table, adjusted 1.044 for females and 0.947 for males.
	For General active members, the sex distinct 2010 Pub-G employee mortality tables, adjusted 0.866 for females and 0.834 for males. For Safety active members, the sex distinct 2010 Pub-S employee mortality tables, adjusted 0.979 for females and 1.011 for males.
	Rates are projected generationally from the base year using a modified version of the MP-2019 projection scale.

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2022 can be found in the July 1, 2020 actuarial valuation report.



SECTION VI – GASB 68 COLLECTIVE INFORMATION

We understand that all of the employers elected to use the 2014 measurement date for their initial reporting under GASB 68 on their June 30, 2015 reporting date. As a result, the schedules in this report are to be used for employer reporting as of June 30, 2023 reporting dates and the schedules from our prior report are to be used for employer reporting as of June 30, 2022.

Because the System is a cost-sharing multiple-employer pension plan, each employer participating in the System 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 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.

Tab Schedule of Collective Deferred	le VI-1 Inflows a	and (Outflows of	Resour	ces
		01	Deferred 1tflows of esources	In	eferred flows of esources
Differences between expected and actual experience Changes in assumptions		\$	245,638 699,262	\$	0 334,518
Net difference between projected and actual earnings pension plan investments Total	s on	\$	0 944,900	\$	209,825 544,343
Amounts reported as deferred outflows and deferred expense as follows:	inflows of :	resour	rces will be reco	gnized in	pension
Measurement year ende	d June 30:				
· ·	2023		(151,111)		
	2024		(194,686)		
	2025		(407,354)		
	2026		1,153,708		
	2027 Thereafter	\$	0 0		

Amounts in Thousands

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 the System. As of the beginning of the measurement period, this recognition period was 5 years.



SECTION VI - GASB 68 COLLECTIVE INFORMATION

The tables below and on the next page provide details on the deferred outflows and inflows of resources, including remaining balances and the amounts recognized in the current and following four years.

	Table VI-2a Recognition of Experience (Gains) and Losses																
Experience Year	Recognition Period		Total Amount]	BOY Remaining Amount]	EOY Remaining Amount		2022		2023	Rep	oorting Yea 2024	ır	2025		2026
2022	5.0	\$	98,920	\$	98,920	\$	79,136	\$	19,784	\$	19,784	\$	19,784	\$	19,784	\$	19,784
2021	5.0		136,097		108,878		81,659		27,219		27,219		27,219		27,221		0
2020	5.0		205,869		123,521		82,347		41,174		41,174		41,173		0		0
2019	5.0		12,484		4,993		2,496		2,497		2,496		0		0		0
2018	5.0		(42,382)		(8,478)		0		(8,478)		0		0		0		0
Deferred Outflo	ows				336,312		245,638		90,674		90,673		88,176		47,005		19,784
Deferred (Inflo	ws)				(8,478)		0		(8,478)		0		0		0		0
Net Increase/(E	Decrease) in Pens	ion l	Expense	\$	327,834	\$	245,638	\$	82,196	\$	90,673	\$	88,176	\$	47,005	\$	19,784



SECTION VI - GASB 68 COLLECTIVE INFORMATION

					Recogni	tio	Table V on of Assu		an	ges						
Change Year	Recognition Period		Total Amount	F	BOY Remaining Amount		EOY Remaining Amount	2022		I 2023	Rep	orting Year 2024	2()25	202	26
2022	5.0	\$	786,100	\$	786,100	\$	628,880	\$ 157,220	\$	157,220	\$	157,220 \$		157,220 \$	15	7,220
2021	5.0		(479,435)		(383,548)		(287,661)	(95,887)		(95,887)		(95,887)		(95,887)		0
2020	5.0		(117,141)		(70,285)		(46,857)	(23,428)		(23,428)		(23,429)		0		0
2019	5.0		351,902		140,762		70,382	70,380		70,382		0		0		0
2018	5.0		170,699		34,139		0	34,139		0		0		0		0
Deferred Outfl	ows				961,001		699,262	 261,739		227,602		157,220		157,220	15	7,220
Deferred (Infle	ows)				(453,833)		(334,518)	(119,315)		(119,315)		(119,316)		(95,887)		0
Net Increase/(I	Decrease) in Pens	ion	Expense	\$	507,168	\$	364,744	\$ 142,424	\$	108,287	\$	37,904 \$		61,333 \$	15	7,220

]	Re	cognition	of	Table V Investme		an	d Losses					
Change Year	Recognition Period		Total Amount	ŀ	BOY Remaining Amount	1	EOY Remaining Amount	2022		2023	Re	porting Yea 2024	r	2025	2026
2022	5.0	\$	4,883,512	\$	4,883,512	\$	3,906,810	\$ 976,702	\$	976,702	\$	976,702	\$	976,702	\$ 976,704
2021	5.0		(7,461,978)		(5,969,582)		(4,477,186)	(1,492,396)		(1,492,396)		(1,492,396)		(1,492,394)	0
2020	5.0		974,636		584,782		389,855	194,927		194,927		194,928		0	0
2019	5.0		(146,520)		(58,608)		(29,304)	(29,304)		(29,304)		0		0	0
2018	5.0		(861,981)		(172,397)		0	 (172,397)		0		0		0	 0
Deferred Outfl	ows				5,468,294		4,296,665	1,171,629		1,171,629		1,171,630		976,702	976,704
Deferred (Inflo	ows)				(6,200,587)		(4,506,490)	 (1,694,097)		(1,521,700)		(1,492,396)		(1,492,394)	 0
Net Increase/(I	Decrease) in Pens	ion l	Expense	\$	(732,293)	\$	(209,825)	\$ (522,468)	\$	(350,071)	\$	(320,766)	\$	(515,692)	\$ 976,704

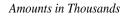


SECTION VI – GASB 68 COLLECTIVE INFORMATION

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

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

Table Calculation of Collec	ion Expense		
	Measurement 2022	Year	Ending 2021
Change in Net Pension Liability	\$ 5,276,184	\$	(7,995,869)
Change in Deferred Outflows	(532,607)		181,835
Change in Deferred Inflows	(5,533,773)		5,967,449
Employer Contributions	 768,463		836,559
Pension Expense	\$ (21,733)	\$	(1,010,026)
Pension Expense as % of Payroll	-0.58%		-27.87%
Operating Expenses			
Service cost	\$ 781,610	\$	718,771
Employee contributions	(423,471)		(409,398)
Administrative expenses	 21,174	_	20,249
Total	\$ 379,313	\$	329,622
Financing Expenses			
Interest cost	\$ 2,471,994	\$	2,302,075
Expected return on assets	 (2,575,192)		(1,985,691)
Total	\$ (103,198)	\$	316,384
Changes			
Benefit changes	\$ 0	\$	0
Recognition of assumption changes	142,424		2,841
Recognition of liability gains and losses	82,196		73,997
Recognition of investment gains and losses	 (522,468)		(1,732,870)
Total	\$ (297,848)	\$	(1,656,032)
Pension Expense	\$ (21,733)	\$	(1,010,026)





SECTION VI – GASB 68 COLLECTIVE INFORMATION

Operating expenses are items directly attributable to the operation of the plan during the measurement year. Service cost less employee contributions represents the increase in employer-provided benefits attributable to the year, and administrative expenses are the cost of operating the System for the year.

The financing expenses are the interest on the Total Pension Liability, including service cost, less the expected return on assets.

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

The total collective pension expense increased from the prior year by about \$1.0 billion. The recognition of changes increased by approximately \$1.4 billion while the financing expenses decreased by approximately \$0.4 billion.



SECTION VII – GASB 68 REPORTING INFORMATION FOR 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 ..." Proportionate shares for each participating employer in the System are determined based on the ratio of each participating employer's actual contribution to the System during the measurement year to the sum of the actual contributions for all participating employers. The table below shows the actual employer contributions and proportionate shares for each participating employer for the current and prior measurement years.

Determi	natio		ole VII-1 oyers' Proport	iona	te Share	
Employer		June 3 mployer 1tribution	0, 2022 Proportionate Share		June 3 Imployer ntribution	0, 2021 Proportionate Share
City and County Trial Courts Unified School District Community College District Total	\$ \$	729,022 7,192 21,564 10,685 768,463	94.8676% 0.9359% 2.8061% 1.3904% 100.0000%	\$ \$	791,736 8,033 25,105 11,684 836,559	94.6421% 0.9602% 3.0010% 1.3967% 100.0000%



SECTION VII – GASB 68 REPORTING INFORMATION FOR EMPLOYERS

The table below shows the proportionate share of the collective NPL (using three different discount rates), the collective deferred outflows, the collective deferred inflows, and the collective pension expense allocated to each participating employer as of June 30, 2022.

Schedu	le of Employe	rs' Proportio	Table VII-2 nate Share of		mounts at Ju	ne 30, 2022	
Employer	Proportionate Share	Share of NPL @ 6.20%	Share of NPL @ 7.20%	Share of NPL @ 8.20%	Share of Deferred Outflows	Share of Deferred Inflows	Pension Expense
City and County	94.8676%	6,991,061	2,552,997	(1,105,652)	896,404	516,405	(20,618)
Trial Courts	0.9359%	68,969	25,186	(10,908)	8,843	5,095	(203)
Unified School District	2.8061%	206,789	75,515	(32,704)	26,515	15,275	(610)
Community College District	1.3904%	102,462	37,417	(16,205)	13,138	7,568	(302)
Total	100.0000%	\$ 7,369,281	\$ 2,691,115	\$ (1,165,469)	\$ 944,900	\$ 544,343	\$ (21,733)

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 the System's active and inactive members (5 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 the System's active and inactive members (5 years). Because proportionate shares are determined based on each employer's actual contributions, there is no difference between the actual contributions and the proportionate share of collective contributions for each employer.



SECTION VII – GASB 68 REPORTING INFORMATION FOR 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.

S	Schedule of I	Employers'	Cha			VII-3 oporti	on	and Co	nt	ribution	Dif	ferences				
	Proportionate Shares Impact of Change in Proportion Contril Net Pension Deferred Proportion															
Employer	6/30/2021	6/30/2022		Pension ability		erred flows		Deferred Inflows	N	et Effect		Actual	Pro	oportionate Share	Differ	ence
City and County	94.6421%	94.8676%	\$	(5,829)	\$	930	\$	(13,706)	\$	6,947	\$	729,022	\$	729,022	\$	0
Trial Courts	0.9602%	0.9359%		628		(100)		1,477		(749)		7,192		7,192		0
Unified School District	3.0010%	2.8061%		5,038		(804)		11,846		(6,004)		21,564		21,564		0
Community College District	1.3967%	1.3904%		163		(26)		383		(194)		10,685		10,685		0
Total	100.0000%	100.0000%	\$	0	\$	0	\$	0	\$	0	\$	768,463	\$	768,463	\$	0



SECTION VII – GASB 68 REPORTING INFORMATION FOR 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.

Rec	onc	iliation	of]	Deferred	I O 1	Table utflows a			Du	e to Prop	or	tion Cha	ng	e		
				Deferred Current ear Net	l Ou	tflows						Deferre Current Year Net	d In	flows		
Employer	6/	30/2021		Effect	Re	cognition	6/	/30/2022	6	/30/2021		Effect	Re	cognition	6/.	30/2022
City and County Trial Courts	\$	18,037 0	\$	6,947 0	\$	6,866 0	\$	18,118 0	\$	0	\$	0 (749)	\$		\$	0
Unified School District		943		0		750		0 193		(7,051) (6,805)		(6,004)		(3,273) (2,931)		(4,527) (9,878)
Community College District Total	\$	369 19,349	\$	0 6,947	\$	369 7,985	\$	0 18,311	\$	(5,493) (19,349)	\$	(194) (6,947)	\$	(1,781) (7,985)	\$	(3,906) (18,311)



SECTION VII – GASB 68 REPORTING INFORMATION FOR EMPLOYERS

The table below shows the reconciliation of deferred outflows and inflows due to differences between actual contributions and the proportionate share of contributions for each participating employer from the prior measurement date to the current measurement date.

Recon	ciliati	on of]	Defe	erred O	utflo	Table ows and		1-5 flows Du	e to	Contril	outi	ion Diffe	erei	nces		
			Cı	Deferred arrent	l Out	flows					(Deferre Current	d Ir	nflows		
Employer	6/30/	2021		Year ference	Rec	ognition	6	/30/2022	6/3	30/2021	Di	Year fference	Re	ecognition	6/30	/2022
City and County Trial Courts	\$	0	\$	0	\$	0	\$	0 0	\$	0	\$	0 0	\$	0	\$	0
Unified School District Community College District		0		0		0		0		0		0 0		0		0
Total	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0



SECTION VII – GASB 68 REPORTING INFORMATION FOR EMPLOYERS

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

	Schedule of	Emplo			e VII-6 rred Outfloy	VS a	at June 30, 2	202	2	
Employer	Proportionate Shares	Expe	rience	ł	Assumption Changes		Investment Return		Proportion Change	ontribution Difference
City and County	94.8676%	\$	233,031	\$	663,373	\$	0	\$	18,118	\$ 0
Trial Courts	0.9359%		2,299		6,544		0		0	0
Unified School District	2.8061%		6,893		19,622		0		193	0
Community College District	1.3904%		3,415		9,723		0		0	0
Total	100.0000%	\$	245,638	\$	699,262	\$	0	\$	18,311	\$ 0

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.

	Schedule of	Ta Employers' D	e VII-7 e <mark>rred Inflows</mark>	at	June 30, 20	22		
Employer	Proportionate Shares	Experience	Assumption Changes		Investment Return		Proportion Change	ontribution Difference
City and County	94.8676%	\$ 0	\$ 317,349	\$	199,056	\$	0	\$ 0
Trial Courts	0.9359%	0	3,131		1,964		4,527	0
Unified School District	2.8061%	0	9,387		5,888		9,878	0
Community College District	1.3904%	0	4,651		2,917		3,906	0
Total	100.0000%	\$ 0	\$ 334,518	\$	209,825	\$	18,311	\$ 0



SECTION VII – GASB 68 REPORTING INFORMATION FOR EMPLOYERS

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

Schedule	of Em	ployers' Re	ecog			vII-8 red Outflows	and Inflows	at	June 30, 2	022	
				Reco	gnit	tion for Measure	ement Year En	ding			
Employer		2023		2024		2025	2026		2027	Thereafter	
City and County	\$	(136,819)	\$	(178,373)	\$	(382,574) \$	1,095,882	\$		C \$	0
Trial Courts		(3,430)		(3,450)		(4,546)	10,649			C	0
Unified School District		(6,978)		(8,394)		(14,247)	31,174			0	0
Community College District		(3,884)		(4,469)		(5,987)	16,003			C	0
Total	\$	(151,111)	\$	(194,686)	\$	(407,354) \$	1,153,708	\$		0\$	0



SECTION VII – GASB 68 REPORTING INFORMATION FOR 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.

Schedul	e o :	f Emplo	ye	rs' Pen	sio	n Expe		Table VII- e for the l		asureme	nt	Year E	ndin	g Jun	e 3(0, 2022		
Employer]	ollective Pension Expense		nange in oportion		ntribution ifference		Employer Pension Expense		Cha et Pension Liability		e in Emplo Deferred Dutflows	De	ferred flows		Employer Intributions		mployer Pension Expense
City and County Trial Courts Unified School District Community College District Total	\$ \$	(20,618) (203) (610) (302) (21,733)		6,866 (3,273) (2,181) (1,412) 0		0 0 0 0 0	\$ \$	(13,752) (3,476) (2,791) (1,714) (21,733)	\$ \$	4,999,561 50,007 153,093 73,523 5,276,184		(4,884) (13,392) (7,011)	(236,053) (55,791) 164,056) (78,911) 534,811)		729,022 7,192 21,564 10,685 768,463	\$ \$	(13,752) (3,476) (2,791) (1,714) (21,733)

Amounts in Thousands

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

	Table VII-10 Schedule of Employers' RSI Information at June 30, 2022													
Share of NPL as aPlanProportionateProportionateCovered% of % ofNet PositionRequiredActualContributionas a % ofEmployerSharesShare of NPLPayrollPayrollas % of TPLContributionContributionDeficiencyPayroll														
City and County	94.8676%	\$	2,552,997	\$	3,553,859	71.8%	92.4%	\$	729,022	\$	729,022	\$	0	20.5%
Trial Courts	0.9359%		25,186		35,536	70.9%	92.4%	\$	7,192		7,192		0	20.2%
Unified School District	2.8061%		75,515		102,738	73.5%	92.4%	\$	21,564		21,564		0	21.0%
Community College District	1.3904%		37,417		50,325	74.4%	92.4%	\$	10,685		10,685		0	21.2%
Total	100.0000%	\$	2,691,115	\$	3,742,459	71.9%	92.4%	\$	768,463	\$	768,463	\$	0	20.5%



Active Member Data - By Group										
		July 1, 2021	. -	July 1, 2020	% Change					
Total										
Count		33,644		34,521	-2.5%					
Average Current Age		47.2		46.7	0.5					
Average Service		11.0		10.6	0.4					
Annual Pensionable Earnings	\$	3,586,532,188	\$	3,583,266,358	0.1%					
Average Pensionable Earnings	\$	106,602	\$	103,800	2.7%					
Police										
Count		2,475		2,534	-2.3%					
Average Current Age		40.9		40.8	0.1					
Average Service		12.4		12.3	0.1					
Annual Pensionable Earnings	\$	332,503,625	\$	336,710,528	-1.2%					
Average Pensionable Earnings	\$	134,345	\$	132,877	1.1%					
Fire										
Count		1,599		1,660	-3.7%					
Average Current Age		43.9		43.9	0.0					
Average Service		13.3		13.4	-0.1					
Annual Pensionable Earnings	\$	228,221,528	\$	230,760,703	-1.1%					
Average Pensionable Earnings	\$	142,728	\$	139,012	2.7%					
Miscellaneous										
Count		29,570		30,327	-2.5%					
Average Current Age		47.9		47.4	0.5					
Average Service		10.7		10.4	0.3					
Annual Pensionable Earnings	\$	3,025,807,035	\$	3,015,795,127	0.3%					
Average Pensionable Earnings	\$	102,327	\$	99,443	2.9%					

APPENDIX A – MEMBERSHIP INFORMATION



Non Active Me	mbon	Doto Totol S	to		
Non-Active Me		Data - 10tai Sy July 1, 2021		em July 1, 2020	Change
Retired	و	July 1, 2021		July 1, 2020	Change
Count		24,147		23,519	2.7%
		· · · · · · · · · · · · · · · · · · ·		,	
Average Age		71.5		71.3	0.2
Average Annual Benefit*	\$	56,052	\$	53,537	4.7%
Disabled					
Count		2,507		2,523	-0.6%
Average Age		69.6		69.5	0.1
Average Annual Benefit*	\$	72,329	\$	68,942	4.9%
Beneficiaries					
Count		4,200		4,086	2.8%
Average Age		77.8		77.8	0.0
Average Annual Benefit*	\$	37,299	\$	35,911	3.9%
Payee Average					
Count		30,854		30,128	2.4%
Average Age		72.2		72.1	0.1
Average Annual Benefit*	\$	54,822	\$	52,436	4.5%
Inactives					
Count		11,126		10,549	5.5%
Average Age		47.6		47.3	0.3
Total Contribution Balance with Interest	\$	346,437,842	\$	315,944,777	9.7%
Average Contribution Balance with Interest	\$	31,138	\$	29,950	4.0%

APPENDIX A – MEMBERSHIP INFORMATION

* Benefits provided in June 30 valuation data, plus estimated Basic and Supplemental COLA effective July 1, 2021. If applicable, limited by Section 415(b) of the Internal Revenue Code.

Please refer to the July 1, 2021 actuarial valuation report for a more complete summary of the data.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

A summary of the actuarial assumptions and methods used to calculate the Total Pension Liability as of June 30, 2022 is provided below, including any assumptions that differ from those used in the July 1, 2021 actuarial valuation. Please refer to the July 1, 2021 actuarial valuation report for a complete description of all other assumptions and the rationale for those assumptions.

Key Actuarial Assumptions

Expected Return on Assets	7.20 percent net o	of investment expense	S	
Municipal Bond Yield	2.16 percent as of 3.54 percent as of Bond Buyer 20-E	,	24, 2021 and June 30), 2022
Discount Rate	7.20 percent			
Administrative Expenses	0.60 percent of pa	ayroll		
Basic COLA:	Old	Old Police &	Old Police &	Old Pol

Old	Old Police &	Old Police &	Old Police &
Miscellaneous	Fire,	Fire, Charters	Fire, Charters
and all New	Pre 7/1/75	A8.595 and	A8.559 and
Plans	Retirements	A8.596	A8.585
2.00%	1.90%	2.50%	3.60%



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

	Jı	ine 30, 2021		Ju	ine 30, 2022	
July 1,	Old Miscellaneous and all New Plans	Old Police & Fire, pre 7/1/75 Retirements	& Fire Charter A8.595 and A8.596	Old Miscellaneous and all New Plans	Old Police & Fire, pre 7/1/75 Retirements	& Fire Charter A8.595 and A8.596
2022	0.80%	0.80%	0.50%	0.00%	0.00%	0.00%
2023	0.70%	0.80%	0.50%	0.70%	0.80%	0.50%
2024	0.70%	0.70%	0.50%	0.60%	0.60%	0.40%
2025	0.70%	0.70%	0.40%	0.60%	0.60%	0.40%
2026	0.60%	0.70%	0.40%	0.50%	0.60%	0.30%
2027	0.60%	0.70%	0.40%	0.50%	0.50%	0.30%
2028	0.60%	0.60%	0.40%	0.50%	0.50%	0.30%
2029	0.60%	0.60%	0.40%	0.50%	0.50%	0.30%
2030	0.60%	0.60%	0.40%	0.50%	0.50%	0.30%
2031	0.60%	0.60%	0.40%	0.50%	0.50%	0.30%
2032	0.50%	0.60%	0.40%	0.50%	0.50%	0.30%
2033+	0.50%	0.60%	0.40%	0.50%	0.50%	0.30%

Supplemental COLA: Before 96 or After Prop C Group

Supplemental COLA: After 96 and Before Prop C:

June 30, 2021: Old Misc. and New Plans – 1.5% for July 1, 2021; 0.75% thereafter Old Safety Plans – For July 1, 2021, (3.5% less assumed Basic COLA), not less than zero; After $2021 - \frac{1}{2} \times (3.5\%)$ less assumed Basic COLA), not less than zero

June 30, 2022: Old Misc. and New Plans -0% for July 1, 2022; 0.75% thereafter Old Safety Plans -0% for July 1, 2022; After 2022 $-\frac{1}{2}$ x (3.5% less assumed Basic COLA), not less than zero

Changes Since Last GASB 67/68 Valuation

Expected Return on Assets was reduced from 7.40% to 7.20%.

Supplemental COLA assumptions were updated.



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 Entry Age Actuarial Cost Method was used for active employees, whereby the normal cost is computed as the level annual percentage of pay required to fund the retirement benefits between each member's date of hire and assumed retirement. The Actuarial Liability is the difference between the present value of future benefits and the present value of future normal costs. The normal cost and Actuarial Liability are calculated on an individual basis. The sum of the individual amounts is the normal cost and Actuarial Liability for the System.

2. Asset Valuation Method

For the purpose of determining contribution rates, an Actuarial Value of Assets is used that dampens the volatility in the Market Value of Assets, resulting in a smoother pattern of contribution rates.

The Actuarial Value of Assets is calculated by recognizing 20% of each of the past five years of actual investment earnings compared to the expected earnings on the Actuarial Value of Assets.

3. Amortization Method

The Unfunded Actuarial Liability is the difference between the Actuarial Liability and the Actuarial Value of Assets. Effective with the July 1, 2021 valuation, the remaining amortization periods for assumption changes prior to July 1, 2021 and all prior actuarial gains and losses (including the gain for 2021) are reduced to 5 years. The amortization is based on level percent of pay, assuming pay increases 3.25% a year.

Source	Method
Charter amendments	15-year closed for active members and 5-year closed for inactive members effective July 1, 201420-year closed for amortizations established prior to July 1, 2014
Actuarial gains and losses, assumption, and method changes	20-year closed Remaining portion of 2013 amortization is re-amortized over 19 years as of July 1, 2014 2015 assumption change amortization is phased in over 5 years
Supplemental COLAs	5-year closed Remaining portion of 2013 amortization is re-amortized over 19 years as of July 1, 2014
Surplus	When 100% funded (AVA basis), any net surplus is amortized over a rolling 20-year rolling period



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

4. Contributions

The normal cost for members as of the valuation date, increased with interest to the middle of the year, is divided by the total salary expected to be paid during the year (including new entrants) to determine the total normal cost rate. The employer's normal cost rate is the total normal cost rate less the employee contribution rate.

The total employer contribution rate is the sum of the employer normal cost rate, the administrative expense rate, and the UAL rate. The UAL payments are adjusted for interest from the valuation date to the date of expected payment in the following fiscal year. The UAL rate is determined by dividing the UAL payments by the total expected payroll for the fiscal year (including new entrants).



APPENDIX C – SUMMARY OF PLAN PROVISIONS

The plan provisions are the same as those summarized in the July 1, 2021 actuarial valuation report.



APPENDIX D – DETERMINATION OF DISCOUNT RATE

FYE	ProjectedNormal CostBeginningContribution -FiduciaryEmployer andNet PositionEmployee		ontribution - mployer and UAL Employee Contribution		Ad	Projected Projected Admin Benefit Expenses Payments		I	Projected Investment Earnings		Projected Ending Fiduciary et Position	ng Portion of ary Benefit		I	Unfunded'' Portion of Benefit Payments		
2023	\$ 32,798,524	\$ 707	,922	\$ 3	397,602	\$ 2	21,552	\$	1,852,938	\$	2,328,726	\$	34,358,285	\$	1,852,938	\$	0
2024	34,358,285	688	,854	2	242,056		21,018		1,952,590		2,431,047		35,746,633		1,952,590		0
2025	35,746,633	668	,785	1	180,457		20,471		2,054,175		2,524,240		37,045,468		2,054,175		0
2026	37,045,468	647	,529	1	127,755		19,900		2,159,472		2,611,119		38,252,500		2,159,472		0
2027	38,252,500	625	,264		88,948		19,304		2,267,433		2,691,742		39,371,718		2,267,433		0
2028	39,371,718	603	,229	1	126,785		18,708		2,375,279		2,768,767		40,476,512		2,375,279		0
2029	40,476,512	581	,160	1	147,118		18,109		2,482,127		2,844,171		41,548,725		2,482,127		0
2030	41,548,725	558	,927		7,702		17,501		2,589,496		2,911,553		42,419,910		2,589,496		0
2031	42,419,910	536	,509		44,479		16,884		2,696,738		2,970,693		43,257,969		2,696,738		0
2032	43,257,969	513	,866		99,558		16,257		2,804,262		3,028,076		44,078,951		2,804,262		0
2033	44,078,951	491	,247	1	158,271		15,631		2,911,426		3,084,373		44,885,785		2,911,426		0
2034	44,885,785	468	,603	2	220,413		15,004		3,017,230		3,139,824		45,682,390		3,017,230		0
2035	45,682,390	446	,322	2	255,374		14,383		3,121,076		3,193,664		46,442,291		3,121,076		0
2036	46,442,291	423	,820	2	265,068		13,752		3,222,727		3,244,045		47,138,745		3,222,727		0
2037	47,138,745	400	,980	2	272,338		13,107		3,324,443		3,289,758		47,764,272		3,324,443		0
2038	47,764,272	377	,253	2	279,025		12,432		3,426,760		3,330,291		48,311,649		3,426,760		0
2039	48,311,649	352	,345	2	285,367		11,719		3,529,025		3,365,146		48,773,763		3,529,025		0
2040	48,773,763	327	,105	2	291,424		10,988		3,629,076		3,393,925		49,146,154		3,629,076		0
2041	49,146,154	301	,613	2	297,248		10,240		3,727,393		3,416,295		49,423,677		3,727,393		0
2042	49,423,677	275	,873	3	302,703		9,476		3,822,331		3,431,943		49,602,388		3,822,331		0
2043	49,602,388	249	,682	2	204,773		8,693		3,915,994		3,436,852		49,569,010		3,915,994		0
2044	49,569,010	223	,221	3	318,850		7,896		4,007,440		3,434,067		49,529,811		4,007,440		0
2045	49,529,811	197	,078	4	426,400		7,101		4,093,913		3,430,834		49,483,109		4,093,913		0
2046	49,483,109	171	,497	2	440,944		6,312		4,176,040		3,423,957		49,337,155		4,176,040		0
2047	49,337,155	146	,922	2	447,783		5,538		4,251,814		3,409,940		49,084,448		4,251,814		0



APPENDIX D – DETERMINATION OF DISCOUNT RATE

FYE	Projected Beginning Fiduciary Net Position	Beginning Contribution - Fiduciary Employer and Net Position Employee		Projected Admin Expenses	Admin Benefit		Projected Ending Fiduciary Net Position	''Funded'' Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2048	\$ 49,084,448	\$ 123,719	\$ 453,369	\$ 4,788	\$ 4,319,900	\$ 3,388,535	\$ 48,725,382	\$ 4,319,900	\$ 0
2049	48,725,382	102,429	458,074	4,081	4,378,438	3,359,875	48,263,241	4,378,438	0
2050	48,263,241	83,507	461,715	3,432	4,425,197	3,324,288	47,704,123	4,425,197	0
2051	47,704,123	67,136	389,091	2,846	4,459,019	3,279,606	46,978,091	4,459,019	0
2052	46,978,091	53,522	374,218	2,336	4,478,682	3,225,588	46,150,400	4,478,682	0
2053	46,150,400	42,389	361,723	1,899	4,484,143	3,164,964	45,233,433	4,484,143	0
2054	45,233,433	33,253	347,730	1,525	4,477,119	3,098,407	44,234,179	4,477,119	0
2055	44,234,179	25,811	332,030	1,209	4,458,424	3,026,371	43,158,758	4,458,424	0
2056	43,158,758	19,802	319,216	944	4,428,492	2,949,433	42,017,772	4,428,492	0
2057	42,017,772	14,947	309,258	724	4,388,423	2,868,303	40,821,132	4,388,423	0
2058	40,821,132	11,103	298,966	546	4,338,603	2,783,563	39,575,615	4,338,603	0
2059	39,575,615	8,123	288,052	405	4,279,621	2,695,663	38,287,428	4,279,621	0
2060	38,287,428	5,836	276,511	294	4,212,358	2,605,010	36,962,133	4,212,358	0
2061	36,962,133	4,097	264,401	209	4,137,556	2,511,973	35,604,839	4,137,556	0
2062	35,604,839	2,836	251,864	146	4,055,633	2,416,906	34,220,664	4,055,633	0
2063	34,220,664	1,923	239,004	100	3,967,363	2,320,147	32,814,275	3,967,363	0
2064	32,814,275	1,274	240,508	67	3,873,311	2,222,528	31,405,206	3,873,311	0
2065	31,405,206	830	212,285	44	3,773,894	2,123,877	29,968,261	3,773,894	0
2066	29,968,261	531	183,224	29	3,669,558	2,023,383	28,505,812	3,669,558	0
2067	28,505,812	327	167,883	18	3,560,682	1,921,716	27,035,038	3,560,682	0
2068	27,035,038	202	154,821	11	3,447,472	1,819,699	25,562,276	3,447,472	0
2069	25,562,276	118	142,233	7	3,330,263	1,717,710	24,092,069	3,330,263	0
2070	24,092,069	63	129,970	4	3,209,280	1,616,063	22,628,881	3,209,280	0
2071	22,628,881	34	118,080	2	3,084,708	1,515,072	21,177,356	3,084,708	0
2072	21,177,356	14	117,259	1	2,956,833	1,415,441	19,753,237	2,956,833	0



APPENDIX D – DETERMINATION OF DISCOUNT RATE

FYE	Projected Beginning Fiduciary Net Position	Normal Cost Contribution - Employer and Employee	bution - oyer and UAL		Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2073	\$ 19,753,237	\$ 6	\$ 108,909	\$ 0	\$ 2,825,899	\$ 1,317,633	\$ 18,353,886	\$ 2,825,899	\$ 0
2074	18,353,886	3	99,807	0	2,692,228	1,221,688	16,983,155	2,692,228	0
2075	16,983,155	1	91,074	0	2,556,174	1,127,908	15,645,964	2,556,174	0
2076	15,645,964	0	82,851	0	2,418,124	1,036,637	14,347,329	2,418,124	0
2077	14,347,329	0	61,527	0	2,278,523	947,739	13,078,072	2,278,523	0
2078	13,078,072	0	39,712	0	2,137,880	860,978	11,840,882	2,137,880	0
2079	11,840,882	0	18,906	0	1,996,760	776,581	10,639,609	1,996,760	0
2080	10,639,609	0	8,828	0	1,855,793	695,142	9,487,786	1,855,793	0
2081	9,487,786	0	479	0	1,715,677	617,293	8,389,880	1,715,677	0
2082	8,389,880	0	15,290	0	1,577,156	544,084	7,372,098	1,577,156	0
2083	7,372,098	0	30,997	0	1,441,022	476,584	6,438,657	1,441,022	0
2084	6,438,657	0	45,882	0	1,308,105	415,004	5,591,438	1,308,105	0
2085	5,591,438	0	41,086	0	1,179,244	358,780	4,812,060	1,179,244	0
2086	4,812,060	0	39,510	0	1,055,262	307,367	4,103,676	1,055,262	0
2087	4,103,676	0	38,679	0	936,946	260,875	3,466,284	936,946	0
2088	3,466,284	0	36,439	0	825,010	219,199	2,896,911	825,010	0
2089	2,896,911	0	34,240	0	720,079	182,154	2,393,225	720,079	0
2090	2,393,225	0	32,460	0	622,667	149,564	1,952,582	622,667	0
2091	1,952,582	0	31,148	0	533,146	121,227	1,571,811	533,146	0
2092	1,571,811	0	30,278	0	451,745	96,904	1,247,248	451,745	0
2093	1,247,248	0	37,549	0	378,556	76,602	982,843	378,556	0
2094	982,843	0	38,094	0	313,529	60,080	767,487	313,529	0
2095	767,487	0	38,624	0	256,479	46,782	596,414	256,479	0
2096	596,414	0	39,463	0	207,091	36,390	465,177	207,091	0
2097	465,177	0	23,730	0	164,933	28,002	351,976	164,933	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
2098	\$ 351,976	\$ 0	\$ 12,585	\$ 0	\$ 129,478	\$ 20,818	\$ 255,901	\$ 129,478	\$ 0
2099	255,901	0	3,924	0	100,125	14,721	174,421	100,125	0
2100	174,421	0	5,486	0	76,221	9,827	113,513	76,221	0
2101	113,513	0	6,769	0	57,086	6,222	69,418	57,086	0
2102	69,418	0	7,713	0	42,044	3,657	38,744	42,044	0
2103	38,744	0	4,748	0	30,441	1,789	14,839	30,441	0
2104	14,839	0	1,637	0	21,664	295	(4,893)	14,839	6,825
2105	(4,893)	0	0	0	15,157	(934)	(20,984)	0	15,157
2106	(20,984)	0	0	0	10,431	(1,911)	(33,327)	0	10,431
2107	(33,327)	0	0	0	7,070	(2,671)	(43,068)	0	7,070
2108	(43,068)	0	0	0	4,730	(3,282)	(51,080)	0	4,730
2109	(51,080)	0	381	0	3,131	(3,784)	(57,614)	0	3,131
2110	(57,614)	0	867	0	2,059	(4,197)	(63,002)	0	2,059
2111	(63,002)	0	1,290	0	1,351	(4,542)	(67,606)	0	1,351
2112	(67,606)	0	1,635	0	890	(4,844)	(71,705)	0	890
2113	(71,705)	0	1,903	0	591	(5,118)	(75,511)	0	591
2114	(75,511)	0	1,010	0	397	(5,416)	(80,313)	0	397
2115	(80,313)	0	1,029	0	269	(5,756)	(85,310)	0	269
2116	(85,310)	0	1,130	0	185	(6,109)	(90,474)	0	185
2117	(90,474)	0	1,201	0	127	(6,477)	(95,876)	0	127
2118	(95,876)	0	3,631	0	87	(6,778)	(99,110)	0	87
2119	(99,110)	0	5,505	0	59	(6,943)	(100,608)	0	59
2120	(100,608)	0	6,919	0	39	(7,001)	(100,729)	0	39
2121	(100,729)	0	6,796	0	26	(7,013)	(100,972)	0	26
2122	(100,972)	0	6,602	0	16	(7,037)	(101,424)	0	16



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
2123 \$	\$ (101,424)	\$ 0	\$ 6,459	\$ 0	\$ 0)	\$ (7,074)	\$ (102,039) \$	5 0	\$	0
2124	(102,039)) 0	6,857	0	0)	(7,104)	(102,286)	0		0
2125	(102,286)) 0	7,310	0	0)	(7,106)	(102,082)	0		0
2126	(102,082)) 0	7,694	0	0)	(7,078)	(101,465)	0		0
2127	(101,465)) 0	7,761	0	0)	(7,031)	(100,735)	0		0
2128	(100,735)) 0	7,773	0	0)	(6,978)	(99,940)	0		0
2129	(99,940)) 0	7,755	0	0)	(6,921)	(99,106)	0		0
2130	(99,106)	0	7,668	0	0)	(6,864)	(98,302)	0		0
								Discount Rate:	7.20%		3.54%
								Present Value:	\$ 41,892,477	\$	2,873
							Tot	al Present Value:		\$	41,895,350
							GAS	B Discount Rate:			7.20%
									Amo	ounts	in Thousands

APPENDIX D – DETERMINATION OF DISCOUNT RATE

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.

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