



Florida Retirement System Pension Plan

GASB 67 Disclosure as of June 30, 2022 Measurement Date
Fiscal Year: July 1, 2021 to June 30, 2022

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GASB 67 Disclosure for Fiscal Year Ending June 30, 2022

Florida Retirement System Pension Plan

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Certification

Actuarial computations presented in this report under Statement No. 67 of the Governmental Accounting Standards Board are for purposes of assisting the Florida Department of Management Services in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year July 1, 2021 to June 30, 2022. The reporting date for determining plan assets and obligations is June 30, 2022. The calculations enclosed in this report have been made on a basis consistent with our understanding of the plan provisions. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

In preparing this report, we relied, without audit, on information as of June 30, 2021 and June 30, 2022 furnished by the Florida Department of Management Services. This information includes, but is not limited to, statutory provisions, member census data, and financial information. Please note that this report is based on the June 30, 2022 assets for the program as reported to us by the Florida State Board of Administration. Please see Milliman's funding valuation report to be published in December 2022 for more information on the plan's participant group as of July 1, 2022 as well as a summary of the plan provisions and a summary of the actuarial methods and assumptions used for funding purposes.

We performed a limited review of the census and financial information used directly in our analysis and have found them to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

This valuation report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of such future measurements.

Certification

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No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their specific needs.

The consultants who worked on this assignment are retirement actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

The valuation results were developed using models intended for valuations that use standard actuarial techniques.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the *Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* published by the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



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Overview of GASB 67 and GASB 68

In 2012, the Governmental Accounting Standards Board (GASB) released GASB Statements No. 67 and 68 for public pension plans and participating employers.

GASB 67 applies to financial reporting for public pension plans. Under GASB 67, enhancements to the financial statement disclosures are required, along with certain required supplementary information.

GASB 68 governs the specifics of accounting for public pension plan obligations for participating employers. GASB 68 requires a liability for pension obligations, known as the Net Pension Liability, to be recognized on the balance sheets of participating employers. Changes in the Net Pension Liability will be immediately recognized as Pension Expense on the income statement or reported as deferred inflows/outflows of resources depending on the nature of the change.

Relationship Between Valuation Date and Measurement Date

Relationship Between Valuation Date and Measurement Date

The Valuation Date is July 1, 2022. This is the date as of which the actuarial valuation is performed. The Measurement Date is June 30, 2022.

Schedule of Employer Contributions

Fiscal Year Ending June 30	Actuarially Determined Contribution ¹	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll ²	Contribution as a % of Covered Payroll
2013	\$2,091,343,000	\$1,388,656,000	\$702,687,000	\$24,553,693,000	5.66%
2014	2,190,424,344	2,190,424,344	0	24,723,565,000	8.86%
2015	2,438,084,925	2,438,084,925	0	32,726,034,000	7.45%
2016	2,438,659,458	2,438,659,458	0	33,214,217,000	7.34%
2017	2,603,246,196	2,603,246,196	0	33,775,800,000	7.71%
2018	2,849,919,659	2,849,919,659	0	34,675,000,000	8.22%
2019	3,100,721,573	3,100,721,573	0	35,571,200,000	8.72%
2020	3,322,556,872	3,322,556,872	0	36,898,200,000	9.00%
2021	3,809,567,951	3,809,567,951	0	37,590,100,000	10.13%
2022	4,267,181,943	4,267,181,943	0	38,679,800,000	11.03%

¹ For fiscal years prior to 2013-14 the Annual Required Contribution (ARC) under GASB Statement No. 27 is shown.

² For the fiscal years ending 2014 and before, covered payroll shown includes Pension Plan actives and members in DROP, but excludes the payroll for Investment Plan members and other payroll on which only statutory UAL rates are charged. For the fiscal years ending 2015 and later, covered payroll shown includes the payroll for Investment Plan members and other payroll on which only statutory UAL rates are charged.

Actuarial Methods and Assumptions Used for Funding Policy

The following actuarial methods and assumptions were used in the July 1, 2022 funding valuation. Please see the actuarial valuation report for funding purposes to be published in December 2022 for further details.

Valuation Timing	Actuarially determined contribution rates for a given plan year are calculated in the valuation conducted as of the beginning of the preceding plan year (e.g., rates for the 2023-2024 plan year are calculated in the 7/1/2022 actuarial valuation).
Actuarial Cost Method	Individual Entry Age
Amortization Method	
Level percent or level dollar	Level percent
Closed, open, or layered periods	Closed, layered
Amortization period	Effective July 1, 2021: New bases are amortized over 20 years Bases established prior to July 1, 2021: amortized over maximum of 20 years.
2019 actuarial cost method change	Amortized over 30 years as level percentage of Tier I pay
Payroll growth rate	3.25%
Asset Valuation Method	
Smoothing period	5 years
Recognition method	Asymptotic
Corridor	80% - 120% of fair market value
Inflation	2.40%
Salary Increases	Varies by membership class and length of service; details in funding actuarial valuation report
Investment Rate of Return	6.70%
Cost of Living Adjustments	3% for pre-July 2011 benefit service; 0% thereafter
Retirement Age	Varies by tier, membership class, age, and sex; details in funding actuarial valuation report
Turnover	Varies by membership class, length of service, age, and sex; details in funding actuarial valuation report
Mortality	PUB-2010 base table varies by member category and sex, projected generationally with Scale MP-2018, details in funding actuarial valuation report

Statement of Fiduciary Net Position

	June 30, 2021	June 30, 2022
Assets		
Cash and cash equivalents	\$84,367,836	\$102,143,556
State treasury investment pool	93,812,353	101,320,716
Total cash and cash equivalents	178,180,189	203,464,272
Investments:		
Certificates of deposit	-	403,384,117
U.S. government and federally guaranteed obligations	17,884,329,444	11,684,982,876
Federal agencies	9,467,239,867	7,741,991,278
Commercial paper	2,828,161,080	5,305,755,453
Repurchase agreements	1,000,000,000	1,200,000,000
International bonds and notes	3,152,080,595	3,072,594,424
Bonds and Notes	9,359,596,421	9,550,417,674
Real estate contracts	10,663,262,034	16,722,305,412
Mutual Funds	9,997,728,623	0
Short-term investment funds	55,850,780	28,558,000
Domestic equity / domestic equity commingled	62,378,794,366	50,373,389,671
Alternative investments	39,472,450,201	40,680,622,223
International equity	39,304,608,979	35,024,199,924
Other Investments	79,306,046	41,727,558
Total investments	205,643,408,436	181,829,928,610
Receivables:		
Contributions receivable	331,686,754	363,428,869
Pending investment sales	1,078,132,814	859,606,579
Forward contracts receivable	-	0
Other receivables	843,187,184	680,624,852
Total receivables	2,253,006,752	1,903,660,300
Security lending collateral	1,983,381,457	943,509,221
Prepaid items; furniture & equipment net accumulated depreciation	6,381,961	9,564,340
Right-of-Use Lease	0	17,115,904
Total assets	210,064,358,795	184,907,242,647
Deferred outflows: other postemployment benefits	2,203,572	4,560,587
Liabilities		
Accrued DROP liability ¹	308,788,420	295,813,603
Obligations under security lending agreements	2,015,231,768	960,929,560
Pending investment purchases	4,907,134,074	2,970,691,029
Pending spot for trades payable	344,928,162	146,378,391
Lease Liability	0	16,284,596
Other liabilities and payables	381,863,361	267,813,568
Total liabilities	7,957,945,785	4,657,910,747
Deferred inflows: other postemployment benefits	6,330,112	6,380,602
Deferred inflows: pension amounts	20,103,924	21,107,078
Fiduciary Net Position		
Held in trust for pension benefits	\$202,082,182,546	\$180,226,404,807

¹ Per our understanding, the accrued DROP liability represents lump sum DROP exit payments made early in the subsequent plan year for members exiting the DROP on or shortly before the asset measurement date.

Statement of Changes in Fiduciary Net Position

	June 30, 2021	June 30, 2022
Additions		
Member contributions	\$756,530,214	\$769,227,774
Employer contributions	3,809,567,951	4,267,181,943
Total contributions	4,566,098,165	5,036,409,717
Transfers from the Investment Plan	140,431,389	111,923,645
Investment income (loss):		
Interest	708,365,026	767,130,564
Dividends	1,803,963,644	1,982,410,068
Net increase in fair value of investments	41,787,108,569	(21,104,646,474)
Securities lending income	25,317,850	24,032,150
Net real estate operating income	472,325,418	608,771,652
Other investment income	3,848,818,147	4,235,517,111
Less investment expenses:		
Direct investment expense	691,343,311	752,370,818
Securities lending expense	3,079,564	4,221,334
Net investment income	47,951,475,779	(14,243,377,081)
Other income	3,190,831	3,198,024
Total additions	52,661,196,164	(9,091,845,695)
Deductions		
Benefit payments ¹	11,435,252,714	11,944,986,866
Transfers to the Investment Plan	668,695,708	768,106,850
Refunds of member contributions	21,589,878	28,343,757
Administrative expenses	21,740,598	22,494,571
Total deductions	12,147,278,898	12,763,932,044
Net increase (decrease)	\$40,513,917,266	(\$21,855,777,739)
Net position restricted for pensions		
Beginning of year	\$161,568,265,280	\$202,082,182,546
End of year	\$202,082,182,546	\$180,226,404,807

¹ Includes transfers to other funds and general revenue-funded benefit payments net of general revenue contributions.

Money-Weighted Rate of Return

Fiscal Year Ending June 30	Net Money-Weighted Rate of Return
2014	17.57%
2015	3.77%
2016	0.57%
2017	13.59%
2018	9.28%
2019	5.98%
2020	3.35%
2021	30.41%
2022	-7.20%

Calculation of Money-Weighted Rate of Return

The money-weighted rate of return considers the changing amounts estimated as invested during a period and weights the amount of pension plan investments by the proportion of time they are available to earn a return during that period. Cash flows are estimated on a monthly basis and are assumed to occur at the beginning of each month. Cash inflows are netted with cash outflows, resulting in a net cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

	Net External Cash Flows	Periods Invested	Period Weight	Net External Cash Flows with Interest
Beginning value - July 1, 2021	\$202,082,182,546	12	1.00	\$187,541,808,045
Monthly net external cash flows:				
July	(634,633,224)	12	1.00	(588,969,600)
August	(634,633,224)	11	0.92	(592,498,524)
September	(634,633,224)	10	0.83	(596,493,844)
October	(634,633,224)	9	0.75	(600,067,851)
November	(634,633,224)	8	0.67	(603,663,273)
December	(634,633,224)	7	0.58	(607,733,879)
January	(634,633,224)	6	0.50	(611,375,233)
February	(634,633,224)	5	0.42	(615,038,405)
March	(634,633,224)	4	0.33	(619,185,715)
April	(634,633,224)	3	0.25	(622,895,685)
May	(634,633,224)	2	0.17	(626,627,884)
June	(634,633,224)	1	0.08	(630,853,345)
Ending value - June 30, 2022				180,226,404,807
Money-weighted plan rate of return				-7.20% ¹

¹The money-weighted plan rate of this return is an estimate using estimated level monthly net external cash flows. It can differ from the more precise return calculated by the Florida State Board of Administration.

Long-Term Expected Rate of Return

The long-term expected rate of return assumption of 6.7% used in GASB discount rate calculations consists of two building block components: 1) a long-term average annual inflation assumption of 2.4% as most recently adopted in October 2022 by the FRS Actuarial Assumption Conference; 2) an inferred real (in excess of inflation) return of 4.2%, which is consistent with the 4.38% real return from the capital market outlook model developed by Aon for 2022. Geometrically combining those building blocks using the formula $(1 + .024) \times (1 + .0420) - 1$ generates an expected nominal return of 6.7%. In our opinion, both building block components and the overall 6.7% return assumption are reasonable and appropriate per Actuarial Standards of Practice.

For reference, the table below contains a summary of return assumptions for various asset classes based on the long-term target asset allocation. The six specific asset classes displayed are per system request and are summarized results of a more detailed market outlook model with additional asset classes. Each asset class assumption is based on a consistent set of underlying real return assumptions from Milliman's model combined with the FRS Actuarial Assumption Conference's 2.4% inflation assumption. The Milliman assumptions are not based on historical returns, but instead are based on a forward-looking capital market economic model.

Asset Class	Policy Allocation*	Annual Arithmetic Return	Compound Annual (Geometric) Return	Annual Standard Deviation
Cash Equivalents	1.0%	2.6%	2.6%	1.1%
Fixed income	19.8%	4.4%	4.4%	3.2%
Global equity	54.0%	8.8%	7.3%	17.8%
Real estate	10.3%	7.4%	6.3%	15.7%
Private equity	11.1%	12.0%	8.9%	26.3%
Strategic investments	3.8%	6.2%	5.9%	7.8%
Assumed inflation - mean			2.4%	1.3%

*Summarized current target allocation policy, as provided to us by Aon Hewitt Investment Consulting via email on August 4, 2022.

Depletion Date Projection

In order to determine if the plan's fiduciary net position is projected to be sufficient to make projected benefit payments, we have prepared a depletion date projection using the following techniques and assumptions:

- Current active members contribute the required employee contribution amounts.
- The employer contributes the actuarially determined contribution amounts based on the 6.70% investment rate of return assumption selected by the 2022 FRS Actuarial Assumption Conference.
- Benefit payments are projected based on the actuarial assumptions and the current plan provisions.
- Members are assumed to receive pay increases, terminate, retire, become disabled, die, and so forth according to the actuarial assumptions used for the July 1, 2022 valuation.
- Terminating and retiring members are replaced in a manner such that new entrant payroll is allocated to each plan as follows:
 - Special Risk members: 75% elect or default into the Pension Plan, 25% into the Investment Plan.
 - Non-Special Risk members: 25% elect into the Pension Plan, 75% elect or default into the Investment Plan.
- All cash flows are assumed to occur on average halfway through the year.
- In the depletion date test's projections, the actual return achieved each year on invested assets is 6.70%.
- The funding policy used to determine actuarially determined contributions does not change.
- The actuarial assumptions do not change.
- Once the system is projected to reach a surplus position (smoothed actuarial value of assets greater than actuarial liability) the UAL Rate contribution is set to 0.00% for purposes of this exhibit, rather than modeling a contribution rate offset credit. Please note that this is projected to occur inside the 20-year period for amortizing unfunded liability that is current Conference policy.

Projection of Payroll Measures

Fiscal Year Ending June 30	Current Member Non-DROP PP Payroll	Future Member Non-DROP PP Payroll	Total Member Non-DROP PP Payroll	Payroll for Statutory UAL Rate Contributions	DROP PP Payroll
2023	\$24,556,084,492	\$216,122,508	\$24,772,207,000	\$39,692,320,000	\$2,321,005,000
2024	24,105,057,931	617,492,879	24,722,550,811	40,982,320,400	2,396,437,663
2025	23,505,875,539	1,216,256,263	24,722,131,803	42,314,245,813	2,474,321,887
2026	22,934,938,922	1,818,214,858	24,753,153,780	43,689,458,802	2,554,737,348
2027	22,379,246,408	2,429,619,378	24,808,865,785	45,109,366,213	2,637,766,312
2028	21,815,695,519	3,057,588,230	24,873,283,749	46,575,420,615	2,723,493,717
2029	21,245,011,074	3,702,693,557	24,947,704,631	48,089,121,785	2,812,007,263
2030	20,661,672,499	4,369,361,045	25,031,033,543	49,652,018,243	2,903,397,499
2031	20,063,123,375	5,057,183,218	25,120,306,592	51,265,708,836	2,997,757,917
2032	19,428,847,619	5,779,659,421	25,208,507,040	52,931,844,373	3,095,185,050
2033	18,761,711,093	6,537,582,588	25,299,293,681	54,652,129,315	3,195,778,564
2034	18,080,704,981	7,318,643,832	25,399,348,813	56,428,323,518	3,299,641,367
2035	17,386,722,522	8,124,164,136	25,510,886,658	58,262,244,032	3,406,879,711
2036	16,692,755,842	8,945,348,627	25,638,104,469	60,155,766,963	3,517,603,302
2037	15,982,337,877	9,787,487,713	25,769,825,590	62,110,829,389	3,631,925,409
2038	15,263,510,840	10,645,170,048	25,908,680,888	64,129,431,345	3,749,962,985
2039	14,574,989,856	11,501,817,367	26,076,807,223	66,213,637,863	3,871,836,782
2040	13,918,587,034	12,361,833,362	26,280,420,396	68,365,581,094	3,997,671,478
2041	13,297,066,187	13,224,512,022	26,521,578,209	70,587,462,479	4,127,595,801
2042	12,689,757,651	14,100,073,156	26,789,830,807	72,881,555,010	4,261,742,664
2043	12,127,580,822	14,983,429,738	27,111,010,560	75,250,205,548	4,400,249,301
2044	11,592,853,717	15,888,253,305	27,481,107,023	77,695,837,228	4,543,257,403
2045	11,072,165,229	16,825,669,845	27,897,835,074	80,220,951,938	4,690,913,269
2046	10,513,400,412	17,811,947,486	28,325,347,898	82,828,132,876	4,843,367,950
2047	9,889,413,136	18,857,427,051	28,746,840,187	85,520,047,195	5,000,777,408
2048	9,207,452,908	19,959,392,189	29,166,845,097	88,299,448,728	5,163,302,674
2049	8,462,568,880	21,122,665,730	29,585,234,610	91,169,180,812	5,331,110,011
2050	7,657,581,743	22,344,768,168	30,002,349,911	93,996,235,883	5,368,427,781
2051	6,816,273,596	23,620,735,280	30,437,008,876	96,914,218,641	5,406,006,776
2052	5,973,472,858	24,929,207,369	30,902,680,227	99,926,077,574	5,443,848,823

Projection of Payroll Measures

Fiscal Year Ending June 30	Current Member Non-DROP PP Payroll	Future Member Non-DROP PP Payroll	Total Member Non-DROP PP Payroll	Payroll for Statutory UAL Rate Contributions	DROP PP Payroll
2053	\$5,190,705,222	\$26,251,686,324	\$31,442,391,546	\$103,034,856,950	\$5,481,955,765
2054	4,473,403,371	27,569,529,215	32,042,932,585	106,243,699,929	5,520,329,455
2055	3,846,334,106	28,869,548,564	32,715,882,671	109,555,851,776	5,558,971,761
2056	3,249,091,812	30,180,260,087	33,429,351,899	112,974,663,178	5,597,884,564
2057	2,720,043,368	31,491,926,057	34,211,969,425	116,503,593,675	5,637,069,756
2058	2,280,750,845	32,799,142,484	35,079,893,330	120,146,215,191	5,676,529,244
2059	1,901,080,152	34,113,214,739	36,014,294,890	123,906,215,689	5,716,264,949
2060	1,571,875,701	35,440,060,074	37,011,935,775	127,787,402,943	5,756,278,803
2061	1,286,747,137	36,781,870,323	38,068,617,460	131,793,708,429	5,796,572,755
2062	1,041,982,546	38,140,764,710	39,182,747,256	135,929,191,348	5,837,148,764
2063	837,091,769	39,516,042,167	40,353,133,936	140,198,042,773	5,878,008,805
2064	663,231,360	40,914,299,747	41,577,531,107	144,604,589,939	5,919,154,867
2065	518,601,419	42,337,339,269	42,855,940,688	149,153,300,662	5,960,588,951
2066	402,075,905	43,787,090,934	44,189,166,838	153,848,787,916	6,002,313,074
2067	307,834,508	45,267,758,690	45,575,593,198	158,695,814,540	6,044,329,265
2068	231,678,517	46,784,017,058	47,015,695,575	163,699,298,116	6,086,639,570
2069	172,087,317	48,338,202,731	48,510,290,048	168,864,315,996	6,129,246,047
2070	125,887,581	49,934,031,527	50,059,919,108	174,196,110,491	6,172,150,769
2071	90,715,460	51,574,682,426	51,665,397,886	179,700,094,238	6,215,355,825
2072	64,594,179	53,263,415,126	53,328,009,304	185,381,855,727	6,258,863,316
2073	45,721,780	55,003,066,417	55,048,788,197	191,247,165,023	6,302,675,359
2074	31,951,210	56,796,605,630	56,828,556,840	197,301,979,665	6,346,794,086
2075	22,281,286	58,646,385,732	58,668,667,018	203,552,450,755	6,391,221,645
2076	15,204,230	60,555,113,149	60,570,317,379	210,004,929,252	6,435,960,196
2077	10,125,870	62,525,095,462	62,535,221,332	216,665,972,468	6,481,011,918
2078	6,543,929	64,558,523,441	64,565,067,370	223,542,350,769	6,526,379,001
2079	4,036,011	66,657,623,151	66,661,659,163	230,641,054,505	6,572,063,654
2080	2,357,073	68,824,626,441	68,826,983,513	238,136,888,776	6,785,655,723
2081	1,255,121	71,061,837,341	71,063,092,462	245,876,337,662	7,006,189,534
2082	666,865	73,371,566,178	73,372,233,043	253,867,318,636	7,233,890,694

Projection of Payroll Measures

Fiscal Year Ending June 30	Current Member Non-DROP PP Payroll	Future Member Non-DROP PP Payroll	Total Member Non-DROP PP Payroll	Payroll for Statutory UAL Rate Contributions	DROP PP Payroll
2083	\$333,444	\$75,756,265,773	\$75,756,599,217	\$262,118,006,491	\$7,468,992,141
2084	122,299	78,218,421,736	78,218,544,036	270,636,841,702	7,711,734,386
2085	19,779	80,760,557,539	80,760,577,319	279,432,539,057	7,962,365,754
2086	5,546	83,385,280,841	83,385,286,387	288,514,096,577	8,221,142,641
2087	1,523	86,095,303,933	86,095,305,456	297,890,804,716	8,488,329,776
2088	146	88,893,401,808	88,893,401,953	307,572,255,869	8,764,200,494
2089	0	91,782,437,419	91,782,437,419	317,568,354,185	9,049,037,010
2090	0	94,765,366,635	94,765,366,635	327,889,325,696	9,343,130,713
2091	0	97,845,241,051	97,845,241,051	338,545,728,781	9,646,782,461
2092	0	101,025,211,385	101,025,211,385	349,548,464,966	9,960,302,891
2093	0	104,308,530,755	104,308,530,755	360,908,790,077	10,284,012,735
2094	0	107,698,558,004	107,698,558,004	372,638,325,755	10,618,243,149
2095	0	111,198,761,139	111,198,761,139	384,749,071,342	10,963,336,051
2096	0	114,812,720,876	114,812,720,876	397,253,416,161	11,319,644,473
2097	0	118,544,134,305	118,544,134,305	410,164,152,186	11,687,532,918
2098	0	122,396,818,670	122,396,818,670	423,494,487,132	12,067,377,738

Projection of Crossover Test-Eligible Contributions

Fiscal Year Ending June 30	Current Non-DROP Member		UAL Contributions		DROP	Net NC	Total Test-Eligible Contributions
	Member Contributions	Employer Normal Cost Contributions	Blended Statutory UAL Rate	Statutory UAL Rate Contributions	Payroll Normal Cost Contributions	Contributions from Future Employees ¹	
2023	\$736,682,535	\$2,008,687,711	5.81%	\$2,306,123,792	\$180,342,089	\$0	\$5,231,836,127
2024	723,151,738	1,983,936,596	6.44%	2,639,261,434	196,028,601	0	5,542,378,368
2025	705,176,266	1,944,064,563	6.52%	2,758,888,827	203,334,197	0	5,611,463,854
2026	688,048,168	1,904,204,179	6.57%	2,870,397,443	210,590,488	0	5,673,240,278
2027	671,377,392	1,863,686,245	6.61%	2,981,729,107	217,904,513	0	5,734,697,257
2028	654,470,866	1,821,596,043	6.66%	3,101,923,013	225,311,661	0	5,803,301,582
2029	637,350,332	1,778,104,924	6.70%	3,221,971,160	232,871,090	0	5,870,297,506
2030	619,850,175	1,732,414,259	6.75%	3,351,511,231	240,601,933	0	5,944,377,598
2031	601,893,701	1,684,871,738	6.91%	3,542,460,481	248,487,385	0	6,077,713,304
2032	582,865,429	1,632,834,569	6.87%	3,636,417,708	256,566,466	0	6,108,684,172
2033	562,851,333	1,576,177,241	6.92%	3,781,927,349	264,784,903	0	6,185,740,825
2034	542,421,149	1,517,793,704	6.97%	3,933,054,149	273,118,345	0	6,266,387,347
2035	521,601,676	1,457,466,369	7.01%	4,084,183,307	281,667,058	0	6,344,918,409
2036	500,782,675	1,397,373,352	7.83%	4,710,196,553	290,415,913	0	6,898,768,494
2037	479,470,136	1,336,599,339	7.87%	4,888,122,273	299,462,320	0	7,003,654,068
2038	457,905,325	1,276,501,453	7.91%	5,072,638,019	308,838,483	0	7,115,883,281
2039	437,249,696	1,220,524,414	7.95%	5,263,984,210	318,616,569	0	7,240,374,889
2040	417,557,611	1,167,765,427	7.98%	5,455,573,371	328,850,179	0	7,369,746,588
2041	398,911,986	1,118,559,892	4.09%	2,887,027,215	339,484,220	0	4,743,983,313
2042	380,692,730	1,071,020,912	4.13%	3,010,008,222	350,550,175	0	4,812,272,039
2043	363,827,425	1,026,484,929	0.55%	413,876,131	362,046,112	0	2,166,234,596
2044	347,785,612	982,858,052	0.00%	0	373,944,770	0	1,704,588,434
2045	332,164,957	938,406,369	0.00%	0	386,260,612	0	1,656,831,939
2046	315,402,012	890,668,875	0.00%	0	398,995,002	0	1,605,065,890
2047	296,682,394	838,264,821	0.00%	0	412,329,324	0	1,547,276,540
2048	276,223,587	781,687,986	0.00%	0	426,391,131	0	1,484,302,704
2049	253,877,066	720,169,995	0.00%	0	441,184,684	0	1,415,231,745
2050	229,727,452	654,231,551	0.00%	0	445,436,003	0	1,329,395,006
2051	204,488,208	584,571,336	0.00%	0	449,945,151	0	1,239,004,695
2052	179,204,186	514,748,233	0.00%	0	454,579,329	0	1,148,531,747

¹ Net normal cost contributions exist if the interest rate assumption adopted by the Actuarial Assumption Conference for funding purposes differs from the GASB discount rate. For this year's valuation, the funding interest rate assumption and the GASB discount rate both equal 6.70%.

Projection of Crossover Test-Eligible Contributions

Fiscal Year Ending June 30	Current Non-DROP Member		UAL Contributions		DROP	Net NC	Total Test-Eligible Contributions
	Member Contributions	Employer Normal Cost Contributions	Blended Statutory UAL Rate	Statutory UAL Rate Contributions	Payroll Normal Cost Contributions	Contributions from Future Employees ¹	
2053	\$155,721,157	\$447,512,858	0.00%	\$0	\$459,302,069	\$0	\$1,062,536,084
2054	134,202,101	386,156,564	0.00%	0	463,849,272	0	984,207,937
2055	115,390,023	332,879,071	0.00%	0	468,352,292	0	916,621,386
2056	97,472,754	283,429,610	0.00%	0	472,761,504	0	853,663,868
2057	81,601,301	239,227,657	0.00%	0	477,233,256	0	798,062,214
2058	68,422,525	201,137,920	0.00%	0	481,584,095	0	751,144,541
2059	57,032,405	167,642,010	0.00%	0	485,719,757	0	710,394,171
2060	47,156,271	137,921,939	0.00%	0	489,753,122	0	674,831,332
2061	38,602,414	111,815,078	0.00%	0	493,695,570	0	644,113,062
2062	31,259,476	89,166,066	0.00%	0	497,577,033	0	618,002,575
2063	25,112,753	70,288,686	0.00%	0	501,412,233	0	596,813,672
2064	19,896,941	54,309,566	0.00%	0	505,218,999	0	579,425,506
2065	15,558,043	41,151,108	0.00%	0	509,006,139	0	565,715,289
2066	12,062,277	30,720,117	0.00%	0	512,781,207	0	555,563,601
2067	9,235,035	22,573,618	0.00%	0	516,547,623	0	548,356,276
2068	6,950,356	16,179,957	0.00%	0	520,317,543	0	543,447,856
2069	5,162,620	11,409,029	0.00%	0	524,090,406	0	540,662,055
2070	3,776,627	7,905,515	0.00%	0	527,869,855	0	539,551,998
2071	2,721,464	5,412,812	0.00%	0	531,657,581	0	539,791,856
2072	1,937,825	3,664,535	0.00%	0	535,455,552	0	541,057,912
2073	1,371,653	2,479,892	0.00%	0	539,263,404	0	543,114,950
2074	958,536	1,666,986	0.00%	0	543,083,574	0	545,709,096
2075	668,439	1,143,509	0.00%	0	546,919,369	0	548,731,316
2076	456,127	780,041	0.00%	0	550,773,025	0	552,009,192
2077	303,776	519,475	0.00%	0	554,628,436	0	555,451,687
2078	196,318	335,714	0.00%	0	558,510,835	0	559,042,867
2079	121,080	207,047	0.00%	0	562,420,411	0	562,748,539
2080	70,712	120,918	0.00%	0	580,699,074	0	580,890,704
2081	37,654	64,388	0.00%	0	599,571,794	0	599,673,836
2082	20,006	34,210	0.00%	0	619,057,878	0	619,112,094

¹ Net normal cost contributions exist if the interest rate assumption adopted by the Actuarial Assumption Conference for funding purposes differs from the GASB discount rate. For this year's valuation, the funding interest rate assumption and the GASB discount rate both equal 6.70%.

Projection of Crossover Test-Eligible Contributions

Fiscal Year Ending June 30	Current Non-DROP Member		UAL Contributions		DROP Payroll Normal Cost	Net NC Contributions from Future Employees ¹	Total Test-Eligible Contributions
	Member Contributions	Employer Normal Cost Contributions	Blended Statutory UAL Rate	Statutory UAL Rate Contributions			
2083	\$10,003	\$17,106	0.00%	\$0	\$639,177,259	\$0	\$639,204,368
2084	3,669	6,274	0.00%	0	659,950,520	0	659,960,462
2085	593	1,015	0.00%	0	681,398,911	0	681,400,519
2086	166	285	0.00%	0	703,544,376	0	703,544,827
2087	46	78	0.00%	0	726,409,568	0	726,409,692
2088	4	7	0.00%	0	750,017,879	0	750,017,891
2089	0	0	0.00%	0	774,393,460	0	774,393,460
2090	0	0	0.00%	0	799,561,248	0	799,561,248
2091	0	0	0.00%	0	825,546,988	0	825,546,988
2092	0	0	0.00%	0	852,377,265	0	852,377,265
2093	0	0	0.00%	0	880,079,527	0	880,079,527
2094	0	0	0.00%	0	908,682,111	0	908,682,111
2095	0	0	0.00%	0	938,214,280	0	938,214,280
2096	0	0	0.00%	0	968,706,244	0	968,706,244
2097	0	0	0.00%	0	1,000,189,197	0	1,000,189,197
2098	0	0	0.00%	0	1,032,695,346	0	1,032,695,346

¹ Net normal cost contributions exist if the interest rate assumption adopted by the Actuarial Assumption Conference for funding purposes differs from the GASB discount rate. For this year's valuation, the funding interest rate assumption and the GASB discount rate both equal 6.70%.

Projection of Fiduciary Net Position

Fiscal Year Ending June 30	Projected Beginning Fiduciary Net Position	Projected Test-Eligible Contributions	Projected Payments for Current PP Members	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2023	\$180,226,404,807	\$5,231,836,127	\$12,203,575,171	\$22,494,571	\$11,845,402,071	\$185,077,573,263
2024	185,077,573,263	5,542,378,368	12,704,127,162	22,944,462	12,164,168,222	190,057,048,228
2025	190,057,048,228	5,611,463,854	13,233,996,084	23,403,352	12,482,607,041	194,893,719,688
2026	194,893,719,688	5,673,240,278	13,919,566,673	23,871,419	12,786,105,694	199,409,627,568
2027	199,409,627,568	5,734,697,257	14,528,667,480	24,348,847	13,070,622,868	203,661,931,366
2028	203,661,931,366	5,803,301,582	14,451,960,796	24,835,824	13,360,316,226	208,348,752,554
2029	208,348,752,554	5,870,297,506	14,841,670,791	25,332,540	13,663,697,583	213,015,744,312
2030	213,015,744,312	5,944,377,598	15,309,766,247	25,839,191	13,963,400,498	217,587,916,969
2031	217,587,916,969	6,077,713,304	15,823,630,745	26,355,975	14,257,195,009	222,072,838,562
2032	222,072,838,562	6,108,684,172	16,308,973,296	26,883,095	14,542,710,064	226,388,376,406
2033	226,388,376,406	6,185,740,825	16,808,598,327	27,420,757	14,817,924,547	230,556,022,695
2034	230,556,022,695	6,266,387,347	17,293,090,635	27,969,172	15,083,847,335	234,585,197,570
2035	234,585,197,570	6,344,918,409	17,789,041,568	28,528,555	15,340,045,178	238,452,591,034
2036	238,452,591,034	6,898,768,494	18,263,405,959	29,099,126	15,601,780,144	242,660,634,587
2037	242,660,634,587	7,003,654,068	18,692,282,937	29,681,109	15,873,041,303	246,815,365,912
2038	246,815,365,912	7,115,883,281	19,077,418,921	30,274,731	16,142,414,135	250,965,969,676
2039	250,965,969,676	7,240,374,889	19,396,516,656	30,880,226	16,414,090,968	255,193,038,652
2040	255,193,038,652	7,369,746,588	19,713,655,536	31,497,830	16,691,116,361	259,508,748,235
2041	259,508,748,235	4,743,983,313	19,956,064,077	32,127,787	16,885,742,793	261,150,282,477
2042	261,150,282,477	4,812,272,039	20,094,238,514	32,770,342	16,993,422,369	262,828,968,029
2043	262,828,968,029	2,166,234,596	20,162,557,200	33,425,749	17,016,437,481	261,815,657,157
2044	261,815,657,157	1,704,588,434	20,192,441,548	34,094,264	16,932,346,321	260,226,056,099
2045	260,226,056,099	1,656,831,939	20,199,802,703	34,776,149	16,824,026,542	258,472,335,727
2046	258,472,335,727	1,605,065,890	20,115,175,683	35,471,672	16,707,610,273	256,634,364,534
2047	256,634,364,534	1,547,276,540	20,040,069,817	36,181,106	16,585,036,902	254,690,427,053
2048	254,690,427,053	1,484,302,704	19,984,263,444	36,904,728	16,454,556,874	252,608,118,459
2049	252,608,118,459	1,415,231,745	20,028,566,778	37,642,823	16,311,305,730	250,268,446,334
2050	250,268,446,334	1,329,395,006	20,098,913,897	38,395,679	16,149,400,359	247,609,932,123
2051	247,609,932,123	1,239,004,695	20,151,323,270	39,163,593	15,966,573,669	244,625,023,625
2052	244,625,023,625	1,148,531,747	20,195,593,850	39,946,864	15,762,144,068	241,300,158,726

Projection of Fiduciary Net Position

Fiscal Year Ending June 30	Projected Beginning Fiduciary Net Position	Projected Test-Eligible Contributions	Projected Payments for Current PP Members	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2053	\$241,300,158,726	\$1,062,536,084	\$20,233,733,754	\$40,745,802	\$15,535,286,993	\$237,623,502,247
2054	237,623,502,247	984,207,937	20,189,926,684	41,560,718	15,287,813,301	233,664,036,083
2055	233,664,036,083	916,621,386	20,091,130,020	42,391,932	15,023,557,657	229,470,693,175
2056	229,470,693,175	853,663,868	19,789,037,447	43,239,771	14,750,484,837	225,242,564,662
2057	225,242,564,662	798,062,214	19,440,569,733	44,104,566	14,476,852,191	221,032,804,768
2058	221,032,804,768	751,144,541	18,928,271,013	44,986,658	14,210,135,804	217,020,827,442
2059	217,020,827,442	710,394,171	18,460,127,160	45,886,391	13,955,418,896	213,180,626,959
2060	213,180,626,959	674,831,332	17,888,035,246	46,804,118	13,715,807,810	209,636,426,736
2061	209,636,426,736	644,113,062	17,234,640,452	47,740,201	13,498,867,896	206,497,027,042
2062	206,497,027,042	618,002,575	16,591,844,434	48,695,005	13,308,852,173	203,783,342,351
2063	203,783,342,351	596,813,672	15,926,681,686	49,668,905	13,148,258,693	201,552,064,125
2064	201,552,064,125	579,425,506	15,247,947,878	50,662,283	13,020,558,968	199,853,438,438
2065	199,853,438,438	565,715,289	14,553,259,072	51,675,529	12,929,194,004	198,743,413,131
2066	198,743,413,131	555,563,601	13,850,399,797	52,709,039	12,877,651,818	198,273,519,714
2067	198,273,519,714	548,356,276	13,144,669,683	53,763,220	12,869,190,119	198,492,633,206
2068	198,492,633,206	543,447,856	12,437,005,309	54,838,485	12,907,031,395	199,451,268,664
2069	199,451,268,664	540,662,055	11,732,119,564	55,935,254	12,994,399,023	201,198,274,923
2070	201,198,274,923	539,551,998	11,034,555,370	57,053,959	13,134,401,426	203,780,619,018
2071	203,780,619,018	539,791,856	10,346,671,952	58,195,038	13,330,096,905	207,245,640,788
2072	207,245,640,788	541,057,912	9,670,856,577	59,358,939	13,584,567,882	211,641,051,066
2073	211,641,051,066	543,114,950	9,010,157,068	60,546,118	13,900,902,786	217,014,365,615
2074	217,014,365,615	545,709,096	8,366,529,397	61,757,040	14,282,212,342	223,414,000,616
2075	223,414,000,616	548,731,316	7,742,378,997	62,992,181	14,731,657,565	230,889,018,320
2076	230,889,018,320	552,009,192	7,139,163,889	64,252,025	15,252,471,893	239,490,083,491
2077	239,490,083,491	555,451,687	6,558,183,272	65,537,065	15,848,004,045	249,269,818,886
2078	249,269,818,886	559,042,867	6,000,619,413	66,847,807	16,521,740,259	260,283,134,792
2079	260,283,134,792	562,748,539	5,467,422,675	68,184,763	17,277,327,075	272,587,602,968
2080	272,587,602,968	580,890,704	4,959,514,840	69,548,458	18,119,063,430	286,258,493,805
2081	286,258,493,805	599,673,836	4,477,596,448	70,939,427	19,051,514,697	301,361,146,462
2082	301,361,146,462	619,112,094	4,022,484,294	72,358,216	20,079,032,145	317,964,448,191

Projection of Fiduciary Net Position

Fiscal Year Ending June 30	Projected Beginning Fiduciary Net Position	Projected Test-Eligible Contributions	Projected Payments for Current PP Members	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2083	\$317,964,448,191	\$639,204,368	\$3,594,767,458	\$73,805,380	\$21,206,211,770	\$336,141,291,491
2084	336,141,291,491	659,960,462	3,194,784,036	75,281,488	22,437,926,550	355,969,112,981
2085	355,969,112,981	681,400,519	2,822,705,522	76,787,117	23,779,359,751	377,530,380,611
2086	377,530,380,611	703,544,827	2,478,565,072	78,322,860	25,236,036,300	400,913,073,806
2087	400,913,073,806	726,409,692	2,162,144,833	79,889,317	26,813,858,536	426,211,307,884
2088	426,211,307,884	750,017,891	1,873,043,298	81,487,103	28,519,146,169	453,525,941,543
2089	453,525,941,543	774,393,460	1,610,673,937	83,116,845	30,358,676,854	482,965,221,075
2090	482,965,221,075	799,561,248	1,374,267,333	84,779,182	32,339,729,269	514,645,465,077
2091	514,645,465,077	825,546,988	1,162,877,655	86,474,766	34,470,128,780	548,691,788,424
2092	548,691,788,424	852,377,265	975,392,600	88,204,261	36,758,295,618	585,238,864,446
2093	585,238,864,446	880,079,527	810,540,833	89,968,346	39,213,295,699	624,431,730,493
2094	624,431,730,493	908,682,111	666,913,406	91,767,713	41,844,893,895	666,426,625,379
2095	666,426,625,379	938,214,280	542,990,013	93,603,068	44,663,609,275	711,391,855,854
2096	711,391,855,854	968,706,244	437,169,015	95,475,129	47,680,772,173	759,508,690,126
2097	759,508,690,126	1,000,189,197	347,803,977	97,384,632	50,908,582,846	810,972,273,561
2098	810,972,273,561	1,032,695,346	273,231,347	99,332,324	54,360,171,923	865,992,577,159

Net Pension Liability

Net Pension Liability	June 30, 2021	June 30, 2022
Total pension liability	\$209,636,046,000	\$217,434,441,000
Fiduciary net position	202,082,182,546	180,226,404,807
Net pension liability	7,553,863,454	37,208,036,193
Fiduciary net position as a % of total pension liability	96.40%	82.89%
Covered payroll	37,590,100,000	38,679,800,000
Net pension liability as a % of covered payroll	20.10%	96.20%

The total pension liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial assumptions below. The total pension liability is calculated using the Individual Entry Age Normal cost allocation method.

Discount Rate

Discount rate	6.80%	6.70%
Long-term expected rate of return, net of investment expense	6.80%	6.70%
Municipal bond rate	N/A	N/A

The plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees if future experience follows assumptions and the Actuarially Determined Contribution (ADC) is contributed in full each year. Therefore, the discount rate for calculating the total pension liability is equal to the long-term expected rate of return. The 6.7% rate of return assumption used in the June 30, 2022 calculations in Milliman's professional opinion is reasonable and appropriate per Actuarial Standard of Practice Number 27 (ASOP 27).

Other Key Actuarial Assumptions

The actuarial assumptions that determined the total pension liability as of June 30, 2022 were based on the results of an actuarial experience study for the July 1, 2013 - June 30, 2018 experience observation period.

Valuation date	July 1, 2021	July 1, 2022
Measurement date	June 30, 2021	June 30, 2022
Inflation	2.40%	2.40%
Salary increases including inflation	3.25%	3.25%
Mortality	PUB-2010 base table varies by member category and sex, projected generationally with Scale MP-2018*	PUB-2010 base table varies by member category and sex, projected generationally with Scale MP-2018*
Actuarial cost method	Individual Entry Age	Individual Entry Age

* See July 1, 2022 Actuarial Valuation Report for funding purposes for details

Changes in Net Pension Liability

Changes in Net Pension Liability	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances as of June 30, 2021	\$209,636,046,000	\$202,082,182,546	\$7,553,863,454
Changes for the year:			
Service cost	2,635,672,488		2,635,672,488
Interest on total pension liability	14,012,135,121		14,012,135,121
Effect of plan changes ¹	99,285,000		99,285,000
Effect of economic/demographic gains or losses	1,243,179,219		1,243,179,219
Effect of assumptions changes or inputs	2,437,637,000		2,437,637,000
Benefit payments ²	(12,629,513,828)	(12,629,513,828)	0
Employer contributions		4,267,181,943	(4,267,181,943)
Member contributions		769,227,774	(769,227,774)
Net investment income		(14,240,179,057)	14,240,179,057
Administrative expenses		(22,494,571)	22,494,571
Balances as of June 30, 2022	217,434,441,000	180,226,404,807	37,208,036,193

¹ Amount shown reflects the effect of HB5007. Total pension liability at June 30, 2022 also reflects the provisions of HB689 and SB838, effective in 2022. Those two bills did not increase the total pension liability.

² Benefit payments shown above include outbound transfers to the Investment Plan and returns of contributions, net of \$111,923,645 inbound transfers from the Investment Plan, plus general revenue-funded benefit payments net of general revenue contributions.

Sensitivity Analysis

The following presents the net pension liability of the Pension Plan, calculated using the discount rate of 6.70%, as well as what the Pension Plan's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (5.70%) or one percentage point higher (7.70%) than the current rate.

	1% Decrease 5.70%	Current Discount Rate 6.70%	1% Increase 7.70%
Total pension liability	\$244,575,145,000	\$217,434,441,000	\$194,741,583,000
Fiduciary net position	<u>180,226,404,807</u>	<u>180,226,404,807</u>	<u>180,226,404,807</u>
Net pension liability	64,348,740,193	37,208,036,193	14,515,178,193

Schedule of Changes in Net Pension Liability and Related Ratios ¹

(in 1,000s)

	Fiscal Year Ending June 30				
	2022	2021	2020	2019	2018
Total Pension Liability					
Service cost	\$2,635,672	\$2,648,469	\$2,647,456	\$2,523,070	\$2,423,987
Interest on total pension liability	14,012,135	13,713,166	13,458,929	13,194,902	12,847,930
Effect of plan changes	99,285	0	0	11,404	0
Effect of economic/demographic gains or (losses)	1,243,179	349,779	448,646	247,482	554,811
Effect of assumption changes or inputs	2,437,637	0	1,738,139	1,585,626	2,235,654
Benefit payments	(12,629,514)	(11,985,107)	(11,395,766)	(10,867,549)	(10,377,575)
Net change in total pension liability	7,798,395	4,726,307	6,897,405	6,694,935	7,684,807
Total pension liability, beginning	209,636,046	204,909,739	198,012,334	191,317,399	183,632,592
Total pension liability, ending (a)	<u>217,434,441</u>	<u>209,636,046</u>	<u>204,909,739</u>	<u>198,012,334</u>	<u>191,317,399</u>
Fiduciary Net Position					
Employer contributions	\$4,267,182	\$3,809,568	\$3,322,557	\$3,100,722	\$2,849,920
Member contributions	769,228	756,530	748,455	752,814	746,370
Investment income net of investment expenses	(14,240,179)	47,954,667	5,339,908	9,410,440	13,955,233
Benefit payments	(12,629,514)	(11,985,107)	(11,395,766)	(10,867,549)	(10,377,575)
Administrative expenses	(22,495)	(21,741)	(21,556)	(19,580)	(20,178)
Net change in plan fiduciary net position	(21,855,778)	40,513,917	(2,006,402)	2,376,846	7,153,770
Fiduciary net position, beginning	202,082,183	161,568,265	163,574,667 ³	161,196,881	154,043,110 ²
Fiduciary net position, ending (b)	<u>180,226,405</u>	<u>202,082,183</u>	<u>161,568,265</u>	<u>163,573,726 ³</u>	<u>161,196,881</u>
Net pension liability, ending = (a) - (b)	\$37,208,036	\$7,553,863	\$43,341,474	\$34,438,608 ³	\$30,120,518
Fiduciary net position as a % of total pension liability	82.89%	96.40%	78.85%	82.61%	84.26%
Covered payroll ⁴	\$38,679,800	\$37,590,100	\$36,898,200	\$35,571,200	\$34,675,000
Net pension liability as a % of covered payroll	96.20%	20.10%	117.46%	96.82%	86.87%

¹ This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not reported in accordance with the current GASB standards, they should not be reported. Amounts shown in exhibit are rounded to the nearest thousand. As such, sums may differ from amounts displayed due to rounding.

² There was a restatement of the fiduciary net position at June 30, 2017. The 2017 ending FNP is before restatement; the 2018 beginning FNP is after restatement.

³ There was a restatement of the fiduciary net position at June 30, 2019. The 2019 ending FNP is before restatement; the 2020 beginning FNP is after restatement.

⁴ For the fiscal years ending 2015 and later, covered payroll shown includes the payroll for Investment Plan members and other payroll on which only statutory UAL rates are charged.

Florida Retirement System Pension Plan

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Schedule of Changes in Net Pension Liability and Related Ratios ¹

(in 1,000s)

	Fiscal Year Ending June 30				
	2017	2016	2015	2014	2013
Total Pension Liability					
Service cost	\$2,073,754	\$2,132,906	\$2,114,047	\$2,256,738	N/A
Interest on total pension liability	12,484,167	12,109,114	11,721,563	11,489,921	N/A
Effect of plan changes	92,185	32,310	0	0	N/A
Effect of economic/demographic gains or (losses)	1,412,462	980,192	1,620,863	(448,818)	N/A
Effect of assumption changes or inputs	10,398,344	1,030,667	0	1,256,045	N/A
Benefit payments	(9,859,319)	(10,624,925)	(10,201,501)	(8,714,251)	N/A
Net change in total pension liability	16,601,593	5,660,264	5,254,972	5,839,635	N/A
Total pension liability, beginning	167,030,999	161,370,735	156,115,763	150,276,128	N/A
Total pension liability, ending (a)	<u>183,632,592</u>	<u>167,030,999</u>	<u>161,370,735</u>	<u>156,115,763</u>	<u>N/A</u>
Fiduciary Net Position					
Employer contributions	\$2,603,246	\$2,438,659	\$2,438,085	\$2,190,424	N/A
Member contributions	744,839	710,717	698,304	682,507	N/A
Investment income net of investment expenses	18,801,917	820,582	5,523,287	22,812,286	N/A
Benefit payments	(9,859,319)	(10,624,925)	(10,201,501)	(8,714,251)	N/A
Administrative expenses	(18,340)	(18,507)	(18,074)	(18,352)	N/A
Net change in plan fiduciary net position	12,272,342	(6,673,473)	(1,559,898)	16,952,615	N/A
Fiduciary net position, beginning	141,780,921	148,454,394	150,014,292	133,061,677	N/A
Fiduciary net position, ending (b)	<u>154,053,263</u> ²	<u>141,780,921</u>	<u>148,454,394</u>	<u>150,014,292</u>	<u>N/A</u>
Net pension liability, ending = (a) - (b)	\$29,579,329 ²	\$25,250,078	\$12,916,341	\$6,101,471	N/A
Fiduciary net position as a % of total pension liability	83.89%	84.88%	92.00%	96.09%	N/A
Covered payroll ³	\$33,775,800	\$33,214,217	\$32,726,034	\$24,723,565	N/A
Net pension liability as a % of covered payroll	87.58% ²	76.02%	39.47%	24.68%	N/A

¹ This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not reported in accordance with the current GASB standards, they should not be reported. Amounts shown in exhibit are rounded to the nearest thousand. As such, sums may differ from amounts displayed due to rounding.

² There was a restatement of the fiduciary net position at June 30, 2017. The 2017 ending FNP is before restatement; the 2018 beginning FNP is after restatement.

³ For the fiscal year ending 2014, covered payroll shown includes Pension Plan actives and members in DROP, but excludes the payroll for Investment Plan members and other payroll on which only statutory UAL rates are charged. For the fiscal years ending 2015 and later, covered payroll shown includes the payroll for Investment Plan members and other payroll on which only statutory UAL rates are charged.

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Glossary

Actuarially Determined Contribution	A target contribution to a defined benefit pension plan for the reporting period, determined based on the funding policy and the most recent actuarial measurement available when the contribution for the reporting period was adopted.
Deferred Inflows/Outflows of Resources	Portion of changes in net pension liability that is not immediately recognized in pension expense. These changes include differences between expected and actual experience, changes in assumptions, and differences between expected and actual earnings on plan investments.
Discount Rate	Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of: <ol style="list-style-type: none">1) The actuarial present value of benefit payments projected to be made in future periods where the plan assets are projected to be sufficient to meet benefit payments, calculated using the Long-Term Expected Rate of Return.2) The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.
Fiduciary Net Position	Equal to market value of assets.
Long-Term Expected Rate of Return	Long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits, net of investment expenses.
Money-Weighted Rate of Return	The internal rate of return on pension plan investments, net of investment expenses.
Municipal Bond Rate	Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.
Net Pension Liability	Total pension liability minus the plan's fiduciary net position.
Projected Benefit Payments	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and expected future service.
Service Cost	The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year by the cost allocation method.
Total Pension Liability	The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the individual entry age cost allocation method based on the requirements of GASB 67 and 68.