ASRS LTD Plan Valuation

ANNUAL ACTUARIAL VALUATION
LONG TERM DISABILITY PROGRAM
AS OF JUNE 30, 2025

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December 6, 2025

Board of Trustees
Arizona State Retirement System
3300 North Central Avenue, 14th Floor
Phoenix, Arizona 85012

Re: Actuarial Valuation for the Long Term Disability Program as of June 30, 2025

Members of the Board:

We certify that the information contained in this report is accurate and fairly presents the actuarial position of the Arizona State Retirement System (ASRS) Long Term Disability Program (LTD Program) as of June 30, 2025. This report was prepared at the request of the Board and is intended for use by ASRS staff and those designated or approved by the Board. This report may be provided to parties other than ASRS only in its entirety and only with the permission of the Board.

Actuarial Valuation

The primary purposes of the actuarial valuation report are to determine the employer and member contribution rates, describe the current financial condition of the LTD Program, analyze changes in the condition of the LTD Program, and provide various summaries of the data.

Plan Provisions

The plan provisions of the LTD Program are summarized in Appendix I. There have been no changes in plan provisions since the last valuation.

Actuarial Assumptions and Methods

The assumptions and methods applied in this actuarial valuation were adopted by the Board of Trustees on August 28, 2025 based on the Actuarial Experience Study covering a five-year period from July 1, 2019 to June 30, 2024. We believe the assumptions are internally consistent and are reasonable, based on the actual experience of ASRS. Furthermore, the combined effect of the assumptions used in this valuation is expected to have no significant bias.

The results of the actuarial valuation are dependent upon the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. A review of the impact of a different set of assumptions on the funded status of the LTD Program is outside the scope of this actuarial valuation.

The current actuarial assumptions and methods are outlined in Appendix II of this report.

Funding Adequacy

The financial objectives of the LTD Program are to: (1) maintain reasonably stable contribution rates, and (2) achieve an ultimate funded status of 100%. In order to achieve these objectives, the Board has adopted a layered, closed 15-year amortization period with level percent of pay payments.

The actuarial valuation includes a calculation of the contribution rates payable by members and participating employers. These rates, when applied to payroll, yield contribution amounts sufficient to fund the normal cost plus the amortization of the unfunded actuarial accrued liability. Contribution rates are set annually, based on the valuation of the preceding year. The total contribution rate calculated in this report (0.22% of payroll) will apply in the fiscal year beginning July 1, 2026. The total contribution rate calculated as part of the prior valuation (0.28% of payroll) applied in the fiscal year that began July 1, 2025. Employers and employees share equally in the total contribution rate determined as part of the valuation. Accordingly, the Actuarially Determined Contribution under the funding policy can be considered a "Reasonable Actuarially Determined Contribution" as required by the Actuarial Standards of Practice.

The unfunded actuarial accrued liability (UAAL) of the LTD Program decreased from $3.2 million as of June 30, 2024 to a surplus of $4.5 million as of June 30, 2025. Additionally, the funded ratio—actuarial value of assets divided by the actuarial accrued liability—increased from 98.5% to 102.1% as of June 30, 2025. The funded status is one of many metrics used to show trends and develop future expectations about the health of an advanced funded program. The funded status measure itself is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations or assessing the need for or the amount of future contributions since it does not reflect normal cost contributions, the timing of amortization payments, or future experience other than expected.

System Assets

The total market value of assets for the LTD Program increased from $208.8 million to $228.1 million as of June 30, 2025. Table 3 reconciles the changes in the fund during the year.

Table 4 shows the development of the actuarial value of assets. The actuarial value of assets is equal to the market value of assets less a ten-year phase-in of the difference between the expected investment return and actual income on the market value of assets. The market value is currently 3.3% greater than the actuarial value.

Data

The valuation was based upon information as of June 30, 2025, furnished by ASRS staff, concerning program benefits, financial transactions, plan provisions, active members, and benefit recipients. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by ASRS staff.

The tables in Appendix III show key census statistics for the various groups included in the valuation. The active member data used for the LTD Program valuation is the same as the active member data used in the June 30, 2025 actuarial valuation of the ASRS Plan. Please refer to Appendix IV of the actuarial valuation report for the ASRS Plan for more information on the active member data.

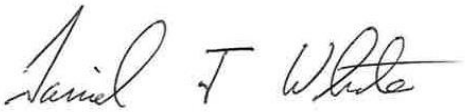
Certification

All of our work conforms with generally accepted actuarial principles and practices, and to the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of, where applicable, the Internal Revenue Code and ERISA.

The signing actuaries are independent of the plan sponsor. Daniel White is an Enrolled Actuary and a Fellow of the Society of Actuaries. Paul Wood and Cassie Rapoport are Associates of the Society of Actuaries. All three are Members of the Amerian Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries. Finally, each of the undersigned are experienced in performing valuations for large public retirement systems.

Respectfully submitted,
Gabriel, Roeder, Smith & Company

Paul T. Wood, ASA, FCA, MAAA
Senior Consultant and Actuary



Daniel J. White, FSA, EA, MAAA
Senior Consultant and Actuary

Cassie Rapoport, ASA, MAAA
Consultant and Actuary

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SECTION A

EXECUTIVE SUMMARY

Executive Summary

Item	2025	2024
Membership		
• Number of		
- Active members	219,102	220,738
- Long term disabled (LTD)	2,143	2,217
• Valuation Payroll for subsequent fiscal year	$ 14,490,106,007	$ 14,063,793,476
Contribution rates	FYE 2027	FYE 2026
• Members	0.11%	0.14%
• Employers	0.11%	0.14%
Assets		
• Market value (MVA)	$ 228,078,256	$ 208,792,902
• Actuarial value (AVA)	$ 220,828,918	$ 205,833,107
• Return on market value	9.5%	8.6%
• Return on actuarial value	7.5%	7.2%
Actuarial Information on AVA (smoothed)		
• Actuarial accrued liability	$ 216,334,928	$ 208,986,523
• Unfunded actuarial accrued liability (UAAL)	$ (4,493,990)	$ 3,153,416
• Funded ratio	102.1%	98.5%
Actuarial Information on MVA		
• Unfunded actuarial accrued liability (UAAL)	$ (11,743,328)	$ 193,621
• Funded ratio	105.4%	99.9%

SECTION B

TABLES

Table 1

Development of Employer Cost

I. Actuarial accrued liabilities (AAL)	June 30, 2025	June 30, 2024
A. Liabilities due to members' benefits		
1. Active members	$ 59,655,851	$ 58,417,342
2. Reserve for Open Claims	156,679,077	150,569,181
3. Total actuarial accrued liabilities	**$ 216,334,928**	**$ 208,986,523**
II. Actuarial value of assets	**$ 220,828,918**	**$ 205,833,107**
III. Unfunded actuarial accrued liability (Item I. – Item II.)	**$ (4,493,990)**	**$ 3,153,416**
IV. Amortization of unfunded actuarial accrued liability		
A. Unfunded AAL amortization at beginning of fiscal year 2027	$ 5,090,177	$ 5,140,523
B. Interest to middle of year on A	175,143	176,875
C. Expected alternate contributions	(143,175)	(222,887)
D. Total unfunded actuarial accrued liability amortization (A+B+C)	**$ 5,122,145**	**$ 5,094,511**
V. Normal cost for the year		
A. Normal cost at beginning of fiscal year 2027	$ 25,335,261	$ 34,615,056
B. Interest to middle of year on A	871,737	1,191,036
C. Annual Assumed Administrative Fee	174,000	174,000
D. Total normal cost for the year (A+B+C)	**$ 26,380,998**	**$ 35,980,092**
VI. Total contribution for the year (Item IV. + Item V.)	**$ 31,503,143**	**$ 41,074,603**
VII. Total covered payroll (projected to 2026/2027 plan year)	**$ 14,903,074,028**	**$ 14,443,515,900**
VIII. Total contribution for fiscal year 2027 as a percentage of covered payroll		
A. Member portion	0.11%	0.14%
B. Employer portion	0.11%	0.14%
C. Total	**0.22%**	**0.28%**
IX. Funded Status		
A. Funded Status on Actuarial Value of Assets	102.1%	98.5%
B. Market Value of Assets	$ 228,078,256	$ 208,792,902
C. Funded Status on Market Value of Assets	105.4%	99.9%

Table 2

UAAL Amortization Bases

Initially established in 2013, an Amortization Base, or "payment schedule," is established each time the Unfunded Actuarial Accrued Liability (UAAL) changes different than expected. As a result, a structured set of amounts are established with each actuarial valuation that are expected to eliminate the UAAL over a period consistent with the Board's funding policy. As of June 30, 2025, the surplus of assets over liabilities is $4.5 million and the following Amortization Bases have been established to eliminate the UAAL. Further, this table indicates that the expected surplus as of June 30, 2026 is $10.3 million. Amortization payments are assumed to increase by 2.85% per year until the base is extinguished.

Date Established	Purpose	Initial Amount	Remaining Balance as of June 30, 2025	2025/2026 Amortization Payment	Remaining Balance as of June 30, 2026	Years Remaining as of June 30, 2026	2026/2027 Amortization Payment
June 30, 2013	Fresh Start Base	$ 47,578,756	$ 15,382,574	5,339,217	$ 10,746,392	2	$ 5,479,456
June 30, 2014	Experience (Gain)/Loss	3,541,561	1,474,878	391,705	1,158,995	3	401,711
June 30, 2015	Experience (Gain)/Loss	19,808,785	9,966,527	2,160,081	8,352,897	4	2,213,715
June 30, 2016	Experience (Gain)/Loss	31,136,071	20,383,211	3,754,825	17,792,373	5	3,845,417
June 30, 2017	Experience (Gain)/Loss	19,459,869	14,378,761	2,315,278	12,907,927	6	2,369,536
June 30, 2017	Assumption Changes	(65,705,482)	(48,549,325)	(7,817,446)	(43,583,111)	6	(8,000,647)
June 30, 2018	Experience (Gain)/Loss	19,075,961	15,369,891	2,208,062	14,083,157	7	2,258,303
June 30, 2019	Experience (Gain)/Loss	2,212,550	1,913,912	249,172	1,781,272	8	254,675
June 30, 2020	Experience (Gain)/Loss	7,476,052	6,858,547	819,186	6,462,116	9	836,734
June 30, 2021	Assumption Changes	(19,256,619)	(18,551,824)	(2,053,117)	(17,653,616)	10	(2,095,761)
June 30, 2021	Experience (Gain)/Loss	(15,613,714)	(15,042,249)	(1,664,715)	(14,313,961)	10	(1,699,292)
June 30, 2022	Experience (Gain)/Loss	(214,518)	(215,416)	(22,270)	(206,666)	11	(22,719)
June 30, 2023	Experience (Gain)/Loss	(1,060,967)	(1,102,961)	(107,249)	(1,065,412)	12	(109,341)
June 30, 2024	Experience (Gain)/Loss	(4,391,054)	(4,698,428)	(432,206)	(4,564,858)	13	(440,367)
June 30, 2025	Experience (Gain)/Loss	8,923,654	8,923,654	0	9,548,310	14	870,879
June 30, 2025	Assumption Changes	(10,985,742)	(10,985,742)	0	(11,754,744)	14	(1,072,122)
	Total		$ (4,493,990)	$ 5,140,523	$ (10,308,929)		$ 5,090,177

Table 3

Reconciliation of Plan Net Assets

		June 30, 2025
1.	Market value of assets at beginning of year	$ 208,792,902
2.	Revenue for the year	
	a. Contributions for the year	
	i. Employer	$ 21,254,961
	ii. Member	21,027,308
	iii. Member reimbursement of member contributions	10,396
	iv. Total	$ 42,292,665
	b. Investment income for the year (net of investment expenses)	$ 19,619,775
	c. Total revenue	$ 61,912,440
3.	Disbursements for the year	
	a. Retirement and disability benefits	$ 40,760,725
	b. Death benefits	0
	c. Refunds	0
	d. Transfers from other plans	0
	e. Transfers to PSPRS	0
	f. Other	260,060
	g. Administrative expenses	1,606,301
	h. Total disbursements	$ 42,627,086
4.	Change in net assets (Item 2c - Item 3h)	$ 19,285,354
5.	Market value of assets at end of year (Item 1 + Item 4)	$ 228,078,256
6.	Actual net investment income (Item 2b, no adjustment for admin expenses)	$ 19,619,775
7.	Estimated dollar weighted market yield	9.49%

Table 4

Development of Actuarial Value of Assets

		Year Ending June 30, 2025
1.	Market value of assets at beginning of year	$ 208,792,902
2.	Net new investments	
	a. Contributions	$ 42,292,665
	b. Benefits paid	(42,627,086)
	c. Subtotal	(334,421)
3.	Market value of assets at end of year	$ 228,078,256
4.	Net earnings (3-1-2)	$ 19,619,775
5.	Assumed investment return rate	7.00%
6.	Expected return	$ 14,484,966
7.	Excess return (4-6)	$ 5,134,809

8. Development of amounts to be recognized as of June 30, 2025:

Fiscal Year End	Remaining Deferrals of Excess (Shortfall) of Investment Income	Offsetting of Gains/(Losses)	Net Deferrals Remaining	Years Remaining	Recognized for this valuation	Remaining after this valuation
	(1)	(2)	(3) = (1) + (2)	(4)	(5) = (3) / (4)	(6) = (3) - (5)
2016	$ 0	0	$ 0	1	$ 0	$ 0
2017	0	0	0	2	0	0
2018	0	0	0	3	0	0
2019	0	0	0	4	0	0
2020	0	0	0	5	0	0
2021	0	0	0	6	0	0
2022	0	0	0	7	0	0
2023	210,210	0	210,210	8	26,276	183,934
2024	2,749,585	0	2,749,585	9	305,509	2,444,076
2025	5,134,809	0	5,134,809	10	513,481	4,621,328
	$ 8,094,604	$ 0	$ 8,094,604		$ 845,266	$ 7,249,338

9.	Actuarial value of assets as of June 30, 2025 (Item 3 - Item 8)	$ 220,828,918
10.	Market value of assets	$ 228,078,256
11.	Actuarial value of assets	$ 220,828,918

Table 5

Total Experience Gain or Loss

Item		June 30, 2025
(1)		(2)
A. Calculation of total actuarial gain or loss		
1. Unfunded actuarial accrued liability (UAAL), previous year		$ 3,153,416
2. Normal cost for the year (includes Admin expenses)		34,987,897
3. Expected contributions for the year		(40,600,825)
4. Interest at 7%		
a. On UAAL		$ 220,739
b. On normal cost		1,203,865
c. On contributions		(1,396,994)
d. Total		$ 27,610
5. Assumption change (Gains)/Losses		(10,985,742)
6. Legislative changes		0
7. Expected UAAL (Sum of Items 1 through 7)		(13,417,644)
8. Actual UAAL		(4,493,990)
9. Total (gain)/loss for the year (Item 9 - Item 8)		$ 8,923,654
B. Source of gains and losses	% of AAL	
10. Asset (Gain)/Loss for the year	0.50%	$ (1,052,452)
11. Pay Increases (Less)/Greater than Expected	0.39%	804,838
12. Non-Disabled Demographic (Gains)/Losses	0.25%	531,568
13. Post-Disabled Demographic (Gains)/Losses	0.70%	(1,462,900)
14. Active Disability & IBNR (Gains)/Losses	4.35%	9,087,988
15. Contribution Policy (Gains)/Losses	0.84%	(1,750,054)
16. Other (Gains)/Losses	1.32%	2,764,666
17. Total (Sum of Items 10 through 16)	4.27%	$ 8,923,654

Table 6

Schedule of Funding Progress

(Dollar Amounts in Thousands)

Year End June 30,	Actuarial Accrued Liabilities	Actuarial Value of Net Assets	Assets as a % of Accrued Liabilities	Unfunded Actuarial Accrued Liabilities (UAAL)	Covered Employee Payroll	UAAL as a % of Covered Employee Payroll
2016	$ 318,840	$ 223,464	70.1%	$ 95,376	$ 9,263,859	1.0%
2017	247,356	198,883	80.4%	48,473	9,598,270	0.5%
2018	243,149	184,272	75.8%	58,877	9,921,215	0.6%
2019	237,711	177,827	74.8%	59,884	10,340,300	0.6%
2020	237,657	173,675	73.1%	63,982	10,858,976	0.6%
2021	206,510	180,909	87.6%	25,601	11,281,162	0.2%
2022	210,247	192,368	91.5%	17,878	11,758,791	0.2%
2023	207,152	194,716	94.0%	12,436	12,931,554	0.1%
2024	208,987	205,833	98.5%	3,153	14,063,793	0.0%
2025	216,335	220,829	102.1%	(4,494)	14,490,106	0.0%

Table 7

Schedule of LTD Participants Added and Removed From Rolls

Year End June 30,	Added To Rolls			Removed From Rolls			Rolls - End of Year		
	Number	Annual Allowance	Average Annual Allowance	Number	Annual Allowance	Average Annual Allowance	Number	Annual Allowance	Average Annual Allowance
2016	538	$11,688,516	$ 21,726	743	$13,500,123	$ 18,170	3,797	$61,296,501	$ 16,143
2017	461	11,239,256	24,380	724	12,619,897	17,431	3,534	59,915,860	16,954
2018	471	11,101,908	23,571	647	13,706,082	21,184	3,358	57,311,686	17,067
2019	449	10,869,605	24,208	618	13,714,530	22,192	3,189	54,466,761	17,080
2020	410	10,377,103	25,310	559	12,169,812	21,771	3,040	52,674,052	17,327
2021	338	8,758,877	25,914	626	13,427,148	21,449	2,752	48,005,781	17,444
2022	392	11,719,809	29,897	527	10,643,191	20,196	2,617	49,082,399	18,755
2023	340	10,202,050	30,006	580	13,278,176	22,893	2,377	46,006,273	19,355
2024	331	10,367,729	31,322	491	12,383,979	25,222	2,217	43,990,023	19,842
2025	385	12,825,057	33,312	459	10,698,500	23,308	2,143	46,116,580	21,520

Table 8

Solvency Test

(Dollar Amounts in Thousands)

Year End June 30,	Aggregate Accrued Liabilities for: Active Member Contributions (1)	Retirees and Beneficiaries (2)	Active Members (Employer Financed Portion) (3)	Net Assets Available for Benefits	Portion of Accrued Liabilities Covered by Net Assets Available for Benefits (1)	(2)	(3)
2016	$ 0	$ 189,940	$ 128,900	$ 223,464	100%	100%	26%
2017	0	194,328	53,028	198,883	100%	100%	9%
2018	0	187,100	56,049	184,272	100%	98%	0%
2019	0	179,195	58,516	177,827	100%	99%	0%
2020	0	175,149	62,508	173,675	100%	99%	0%
2021	0	162,468	44,042	180,909	100%	100%	42%
2022	0	164,477	45,770	192,368	100%	100%	61%
2023	0	154,811	52,342	194,716	100%	100%	76%
2024	0	150,569	58,417	205,833	100%	100%	95%
2025	0	156,679	59,656	220,829	100%	100%	108%

APPENDIX I

SUMMARY OF PLAN PROVISIONS

Summary of Plan Provisions

The Arizona State Retirement System (ASRS) Long Term Disability Program (LTD Program) began on July 1, 1995. The program covers ASRS LTD Program participants who become disabled on or after July 1, 1995. ASRS members who were receiving LTD benefits prior to July 1, 1995, were transferred to the program on October 1, 1995. Contributions began July 1, 1995, and are now paid 50% by employers and 50% by active members. The major provisions of the LTD Program are summarized below.

Participation

To be eligible, members must be actively at work and engaged to work at least 20 weeks in a fiscal year and at least 20 hours each week.

Member and Employer Contributions

The contribution rate for the fiscal year beginning on July 1st is based on the results of the most recent actuarial valuation as of the last day of the preceding plan year. The member's contribution rate is equal to the required employer contribution rate. The contribution rate for fiscal year 2026 is 0.14% for each member and each employer, based on the 2024 actuarial valuation. The contribution rate for fiscal year 2027 will be 0.11% based on this valuation.

Monthly Compensation

The member's Monthly Compensation as of the date of disability is determined based the contributions remitted to ASRS.

Qualifications for Benefit

Monthly benefits are not payable until a member has been totally disabled for a period of six consecutive months.

Monthly benefits are not payable to a member whose disability is due to the following:

1. an intentionally self-inflected injury;
2. war, whether declared or not;
3. an injury incurred while engaged in a felonious criminal act or enterprise;
4. for employees hired on or after July 1, 1988, any injury, sickness, or pregnancy for which you received medical treatment within three months prior to the effective date coverage began under the LTD Income Plan. Except for any employee who becomes an active contributing member on or after July 1, 2008 and receives medical treatment within six months prior to the date coverage begins under the LTD Income Plan. This exclusion does not apply to a disability commencing after a person has been an active contributing member of a participating employer for twelve continuous months.

Monthly benefits are not payable to a member who is receiving retirement benefits from ASRS.

Totally Disabled

A member is considered totally disabled if:

1. during the first thirty months of a period of disability, the member is unable to perform all duties of the occupation held by the member when the member became totally disabled; and
2. for a member who has received monthly benefits for 24 or more total months, that a member is unable to perform any work for compensation or gain for which the member is reasonably qualified by education, training, or experience.

Benefit Amount

Benefits payable from the plan equal two-thirds of a member's monthly compensation at the time of disability. Benefits are offset by:

1. 85% of Social Security disability benefits that the member or the members dependents are eligible to receive;
2. 85% of Social Security retirement benefits that the member is eligible to receive;
3. all of any workers compensation benefits;
4. all of any payments for a veterans disability if both of the following apply:
    a. the veterans disability payment is for the same condition or a condition related to the condition currently causing the members total disability;
    b. the veterans disability is due to service in the armed forces of the United States;
5. all of any other benefits by reason of employment that are financed partly or wholly by an employer including payments for sick leave; and
6. 50% of any salary, wages, commissions, or similar pay that the member receives or is entitled to receive from any gainful employment in which the member engages.

Benefit Period

Monthly benefits cease to be payable to a member at the earliest of the following:

1. the date the member ceases to be totally disabled;
2. the date the member ceases to be under the direct care of a doctor or refuses to undergo any medical examination requested by the company selected by the Board to administer the LTD Program;
3. the date the member withdraws employee contributions with interest from the ASRS Plan and ceases to be a member; and
4. the later of following:
    a. the members normal retirement date;
    b. the month following 60 months of payments if disability occurs before age 65;
    c. the month following attainment of age 70 if disability occurs at age 65 or after but before age 69;
    d. the month following twelve-months of payments if disability occurs at or after age 69.

Administrative Expenses

Administrative expenses associated with the operation of the LTD Program are payable by the LTD Program. The current fee schedule is as follows:

Account Management Fee:	$174,000 per year
New Claims Fee:	$521 per claim
Claims Management Fee:	$36 per claim per month

APPENDIX II

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Summary of Actuarial Assumptions and Methods

The assumptions and methods applied in this actuarial valuation were adopted by the Board of Trustees on August 28, 2025 based on the Actuarial Experience Study covering a five-year period from July 1, 2019 to June 30, 2024. We believe the assumptions are internally consistent and are reasonable, based on the actual experience of ASRS.

I. Valuation Date

The valuation date is June 30 of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. Actuarial Cost Method

The actuarial valuation uses the Entry Age Normal actuarial cost method. Under this method, the total contribution rate is the sum of (i) the normal cost rate, and (ii) a rate that will amortize the unfunded actuarial liability.

1. The valuation is prepared on the projected benefit basis. The present value of each participant's expected benefit payable at retirement or termination is determined, based on age, service, sex, compensation, and the interest rate assumed to be earned in the future (7.00%). The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service benefit. Future salary increases are also anticipated. The present value of the expected benefits payable on account of the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Plan on account of the present group of participants and beneficiaries.

2. The contributions required to support the benefits of the LTD Program are determined following a level funding approach, and consist of a normal cost contribution and an unfunded accrued liability contribution, plus a component to cover administrative expenses.

3. The normal contribution is determined using the Entry Age Normal method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his anticipated covered service, would be required in addition to the contributions of the participant to meet the cost of all benefits payable on their behalf.

4. The unfunded accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability. Amortization bases are established each year and amortized based on the funding policy. The current year amortization base is determined by taking the current unfunded liability less the outstanding amounts of prior year bases.

III. Actuarial Value of Assets

The actuarial value of assets is based on the market value of assets with a ten-year phase-in of actual investment return in excess of (less than) expected investment income. Offsetting unrecognized gains and losses are immediately recognized, with the shortest remaining bases recognized first and the net remaining bases continue to be recognized on their original timeframe. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of investment-related expenses. In no event will this amount exceed 130% of market value or be less than 70% of market value.

IV. Actuarial Assumptions

Investment Return: 7.00% per year, net of investment-related expenses (composed of an assumed 2.40% inflation rate and a 4.60% real rate of return)

Decrement Timing: All decrements are assumed to occur at the middle of the valuation year.

Disability Retirement Decrements:
Sample rates for eligible members:

Annual Rates per 100 Members	
Age	Unisex
20	0.0123
25	0.0180
30	0.0260
35	0.0408
40	0.0607
45	0.0855
50	0.1594
55	0.2250
60	0.3203

Termination of Claims in Payment due to Death or Recovery

The 2012 Group Long Term Disability Valuation Table (2012 GLDT) as proposed by the Society of Actuaries' Group Disability Experience Committee for use by the National Association of Insurance Commissioners. Specifically, rates applicable to plans with a six-month elimination period, "Own Occupation" definition of disability, initial maximum guaranteed benefit of $2,000 for active members and actual initial maximum guaranteed benefit for current LTD recipients, "No Diagnosis" cause of disability, 15% margin for recovery, 27% margin for deaths.

Offsets for Disabled Members

Members will have a minimum offset of 30% within three years of initial receipt of LTD benefits. Offsets due to overpayments will apply until the overpayments are expected to be fully recovered based on the data received from the plan administrator.

Offsets for Active Members

The valuation assumes that LTD Program benefits, after all applicable offsets, are 60% of the benefits before the offsets.

Incurred But Not Reported (IBNR)

The liability for new LTD recipients was loaded by 20% to reflect IBNR.

Census Data and Assets

- The valuation was based on members of ASRS as of June 30, 2025 and does not take into account future members.
- All census data was supplied by ASRS and was subject to reasonable consistency checks.
- Asset data was supplied by ASRS.

Administrative Expenses

Administrative expenses, based on the amounts outlined in the Plan Provisions, are incorporated into the normal cost and actuarial accrued liability as follows:

- The account management fee is explicitly included with the normal cost,
- The new claims fee is included in the active member liability, and
- The claims management fee is included in both the active member liability and the reserve for open claims.

Other Actuarial Valuation Procedures

- No provision was made in this actuarial valuation for the limitations of Internal Revenue Code Section 415.
- Internal Revenue Code Section 401(a)17 limits were applied to individual salaries.
- Valuation payroll (earnings applied to the current valuation year) is the expected payroll for the fiscal year following the valuation date.
- Adjustment for Contribution Timing – Contribution rates are increased by ½ of a year's interest to reflect the fact that contributions are made throughout the fiscal year and are further adjusted to reflect the one year lag.

Actuarial Model (ASOP 56 Disclosure)

This report was prepared using ProVal's valuation model, a software product of Winklevoss Technologies. We are relying on the ProVal model. We performed tests of the ProVal model with this assignment and made a reasonable attempt to understand the developer's intended purpose of, general operation of, major sensitivities and dependencies within, and key strengths and limitations of the ProVal model. In our professional judgment, the ProVal valuation model has the capability to provide results that are consistent with the purposes of the valuation.

For all other assumptions, see the Arizona State Retirement System Annual Actuarial Valuation – Funding report as of June 30, 2025.

APPENDIX III

DETAILED SUMMARIES OF MEMBERSHIP DATA

Table A
Reconciliation of Lives

LTD Members as of June 30, 2024	2,217
Recovered	(151)
Retired	(274)
Death	(34)
New LTD	385
LTD Members as of June 30, 2025	2,143

Table B
Summary of Open LTD Claims

Offset Description	June 30, 2025	June 30, 2024
Number	2,143	2,217
Average age	54.6	54.9
Average monthly benefit before Offset Assumption	$ 1,793	$ 1,654
Total monthly benefit before Offset Assumption	$ 3,843,000	$ 3,666,000
Average Offset Assumption	$ 232	$ 183
Total Offset Assumption	$ 498,000	$ 405,000
Average monthly benefit	$ 1,561	$ 1,471
Total monthly benefit	$ 3,345,000	$ 3,261,000

Table C
LTD Open Claims Statistics

Year Ended June 30	Number of Open Claims	Number of Active Members	Disabled Ratio	Open Claims Reserve Liability ($'s millions)	Active Payroll ($'s millions)	Liability to Payroll Ratio
2016	3,797	204,162	1.86%	$ 189.9	$ 9,263.9	2.05%
2017	3,534	206,055	1.72%	194.3	9,598.3	2.02%
2018	3,358	207,119	1.62%	187.1	9,921.2	1.89%
2019	3,189	208,244	1.53%	179.2	10,340.3	1.73%
2020	3,040	210,135	1.45%	175.1	10,859.0	1.61%
2021	2,752	207,913	1.32%	162.5	11,281.2	1.44%
2022	2,617	208,393	1.26%	164.5	11,758.8	1.40%
2023	2,377	215,299	1.10%	154.8	12,931.6	1.20%
2024	2,217	220,738	1.00%	150.6	14,063.8	1.07%
2025	2,143	219,102	0.98%	156.7	14,490.1	1.08%

Table D
Summary of Offsets

Description		Total Amount of Monthly Offset	Number of Offsets
Social Security Disability	$	1,581,991	1,221
Social Security Dependent		82,559	147
Social Security Retirement		62,071	45
Short Term Disability		0	0
Salary Continuance		2,314	4
Veteran's Benefits		28,577	16
Overpayment		69,208	171
All Other		124,458	115
Total Offset Before Assumption	**$**	**1,951,178**	**1,719**
Total Assumed Offsets		**498,000**	
Total Offsets	**$**	**2,449,178**	

Table E
Summary of Counts and Payments by Duration and Age

The following tables illustrate the counts and net monthly payment by duration and age as of June 30, 2025.

Age at Disability	Duration (in Years) 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11
Below 30	4	6	0	3	4	2	3	2	6	5	4
	$13,048	$11,240	$0	$2,756	$5,157	$4,933	$3,184	$5,540	$5,584	$5,799	$3,785
30-39	19	27	17	22	12	14	15	22	14	24	16
	$59,907	$71,385	$44,756	$35,127	$23,018	$20,359	$17,943	$31,730	$17,653	$35,520	$21,270
40-49	40	66	45	53	29	49	40	44	46	28	43
	$120,896	$194,962	$114,122	$105,207	$55,493	$81,985	$59,016	$62,188	$67,481	$24,322	$76,814
50-59	73	124	112	104	105	69	39	26	22	10	3
	$273,765	$288,401	$224,102	$182,500	$174,170	$82,226	$52,518	$29,813	$25,331	$14,640	$5,749
Over 59	47	71	72	48	47	28	0	0	0	0	0
	$118,616	$154,565	$150,067	$81,090	$58,780	$40,327	$0	$0	$0	$0	$0
Total	**183**	**294**	**246**	**230**	**197**	**162**	**97**	**94**	**88**	**67**	**66**
	$586,232	**$720,554**	**$533,047**	**$406,681**	**$316,618**	**$229,831**	**$132,660**	**$129,270**	**$116,049**	**$80,282**	**$107,618**

Age at Disability	Duration (in Years) 11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	Over 20	Total
Below 30	4	4	3	2	5	6	6	5	5	24	**103**
	$5,161	$4,522	$4,795	$2,888	$2,875	$9,488	$7,680	$4,843	$3,115	$21,033	**$127,428**
30-39	25	27	19	17	26	16	13	10	17	24	**396**
	$28,015	$36,352	$19,986	$15,975	$34,226	$18,139	$14,556	$12,981	$17,720	$24,998	**$601,618**
40-49	35	38	25	23	21	12	4	2	0	0	**643**
	$49,511	$46,391	$24,850	$30,653	$19,060	$16,537	$5,511	$1,999	$0	$0	**$1,157,000**
50-59	1	0	0	0	0	0	0	0	0	0	**688**
	$342	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,353,557**
Over 59	0	0	0	0	0	0	0	0	0	0	**313**
	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$603,446**
Total	**65**	**69**	**47**	**42**	**52**	**34**	**23**	**17**	**22**	**48**	**2,143**
	$83,029	**$87,265**	**$49,631**	**$49,516**	**$56,162**	**$44,164**	**$27,748**	**$19,823**	**$20,835**	**$46,032**	**$3,843,048**

APPENDIX IV

RISKS ASSOCIATED WITH MEASURING THE ACCRUED LIABILITY AND ACTUARIALLY DETERMINED CONTRIBUTION

RISKS ASSOCIATED WITH MEASURING THE ACCRUED LIABILITY AND ACTUARIALLY DETERMINED CONTRIBUTION

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report 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 due to changing conditions; 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. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. Investment risk – actual investment returns may differ from the expected returns;
2. Asset/Liability mismatch – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. Contribution risk – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
6. Other demographic risks – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The computed contribution rate shown on page 4 may be considered as a minimum contribution rate that complies with the Board's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

PLAN MATURITY MEASURES

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

As of June 30,	2025	2024	2023	2022	2021
Ratio of net cash flows to market value of assets	0%	-1%	-5%	-1%	-3%
Duration of the actuarial accrued liability	3.6	3.0	3.0	2.9	3.1

RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

DURATION OF ACTUARIAL ACCRUED LIABILITY

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

ADDITIONAL RISK ASSESSMENT

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

Low-Default-Risk Obligation Measure

Introduction

In December 2021, the Actuarial Standards Board (ASB) adopted a revision to Actuarial Standard of Practice (ASOP) No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions. The revised ASOP No. 4 requires the calculation and disclosure of a liability referred to by the ASOP as the "Low-Default-Risk Obligation Measure" (LDROM). The rationale that the ASB cited for the calculation and disclosure of the LDROM was included in the Transmittal Memorandum of ASOP No. 4 and is presented below (emphasis added):

> "The ASB believes that the calculation and disclosure of this measure provides **appropriate, useful information for the intended user regarding the funded status of a pension plan.** The calculation and disclosure of this additional measure is **not intended to suggest that this is the "right" liability measure** for a pension plan. However, the ASB does believe that **this additional disclosure provides a more complete assessment of a plan's funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date."**

Comparing the Accrued Liabilities and the LDROM

One of the fundamental financial objectives of the Arizona State Retirement System (ASRS) is to finance each member's retirement benefits over the period from the member's date of hire until the member's projected date of retirement (entry age actuarial cost method) as a level percentage of payroll. To fulfill this objective, the discount rate that is used to value the accrued liabilities of ASRS is set equal to the **expected return** on the System's diversified portfolio of assets (referred to sometimes as the investment return assumption). For ASRS, the investment return assumption is 7.00%.

The LDROM is meant to approximately represent the lump sum cost to a plan to purchase low-default-risk fixed income securities whose resulting cash flows essentially replicate in timing and amount the benefits earned (or the costs accrued) as of the measurement date. The LDROM is very dependent upon market interest rates at the time of the LDROM measurement. The lower the market interest rates, the higher the LDROM, and vice versa. The LDROM results presented in this report are based on the entry age actuarial cost method and discount rates based upon the intermediate rate from the FTSE Pension Discount Curve and Liability Index published by the Society of Actuaries. This rate is 5.46% as of June 30, 2025. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligation.

The difference between the two measures (Valuation and LDROM) is one illustration of the savings the sponsor anticipates by assuming an acceptable level of investment risk with a diversified portfolio.

Valuation Accrued Liabilities	LDROM
$216,334,928	$228,474,906

APPENDIX V

GLOSSARY

Glossary

Actuarial Accrued Liability (AAL): That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of Future Plan Benefits which is not provided for by future Normal Costs. It is equal to the Actuarial Present Value of Future Plan Benefits minus the actuarial present value of future Normal Costs.

Actuarial Assumptions: Assumptions as to future experience under the Fund. These include assumptions about the occurrence of future events affecting costs or liabilities, such as:

- mortality, withdrawal, disablement, and retirement;
- future increases in salary;
- future rates of investment earnings and future investment and administrative expenses;
- characteristics of members not specified in the data, such as marital status;
- characteristics of future members;
- future elections made by members; and
- other relevant items.

Actuarial Cost Method or ***Funding Method:*** A procedure for allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability. These items are used to determine the ARC.

Actuarial Gain or ***Actuarial Loss:*** A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. Through the actuarial assumptions, rates of decrements, rates of salary increases, and rates of fund earnings have been forecasted. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., the Fund's assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results that produce actuarial liabilities which are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.

Actuarially Equivalent: Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.

Actuarial Present Value (APV): The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:

a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.),
b. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
c. discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Actuarial Present Value of Future Plan Benefits: The Actuarial Present Value of those benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members either entitled to a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would be provide sufficient assets to pay all projected benefits and expenses when due.

Actuarial Valuation: The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB.

Actuarial Value of Assets or ***Valuation Assets:*** The value of the Fund's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly actuaries use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ARC.

Actuarially Determined: Values which have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.

Amortization Method: A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.

Amortization Payment: That portion of the pension plan contribution or ARC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
Actuarially Determined Contribution (ADC) or ***Annual Required Contribution (ARC):*** A calculated contribution for a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically, the calculated contribution has a normal cost payment and an amortization payment.

Closed Amortization Period: A specific number of years that is counted down by one each year and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Funding Period and Open Amortization Period.

Decrements: Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or termination.

Defined Benefit Plan: An employer-sponsored retirement benefit that provides workers, upon attainment of designated age and service thresholds, with a monthly benefit based on the employee's salary and

length of service. The value of a benefit from a defined benefit plan is generally not affected by the return on the assets that are invested to fund the benefit.

Defined Contribution Plan: A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, and the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.

Employer Normal Cost: The portion of the Normal Cost to be paid by the employers. This is equal to the Normal Cost less expected member contributions.

Experience Study: A periodic review and analysis of the actual experience of the Fund which may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.

Funded Ratio: The ratio of the actuarial value of assets (AVA) to the actuarial accrued liability (AAL). Plans sometimes calculate a market funded ratio, using the market value of assets (MVA), rather than the AVA.

Funding Period or ***Amortization Period:*** The term "Funding Period" is used it two ways. In the first sense, it is the period used in calculating the Amortization Payment as a component of the ARC. This funding period is chosen by the Board of Trustees. In the second sense, it is a calculated item: the number of years in the future that will theoretically be required to amortize (i.e., pay off or eliminate) the Unfunded Actuarial Accrued Liability, based on the statutory employer contribution rate, and assuming no future actuarial gains or losses.

GASB: The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.

Normal Cost: That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits which are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated. Under the entry age normal cost method, the Normal Cost is intended to be the level cost (when expressed as a percentage of pay) needed to fund the benefits of a member from hire until ultimate termination, death, disability or retirement.

Open Amortization Period: An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.

Unfunded Actuarial Accrued Liability: The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus.

Valuation Date or ***Actuarial Valuation Date:*** The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date.