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October 2023

Demographics

As of 6/30/2023			State Employees	Teachers	Municipal
Active Members	198,647		59,504	112,773	26,370
Vested		n/a	n/a	n/a	n/a
Non-vested		n/a	n/a	n/a	n/a
Inactive Deferred Vested	47,087		17,293	23,702	6,092
Retirees & Beneficiaries	174,609		69,774	84,177	20,658
Total	420,343		146,571	220,652	53,120

Retirees & Beneficiaries checks per month/year (as of 6/30/2022): \$376M (avg.)/\$4.5B/yr.

Total System Payroll (State & Muni) as of 6/30/2022: \$13.2 billion

State: \$11.8 billionMuni: \$1.4 billion

Ratio of Assets to Payroll (as of 6/30/2022): 5.0/1.0

Ratio of Active/Annuitant (as of 6/30/2022): 1.1/1.0

Ratio of Active/Non-Actives (includes retirees, beneficiaries & inactive deferred vested): 0.9/1.0

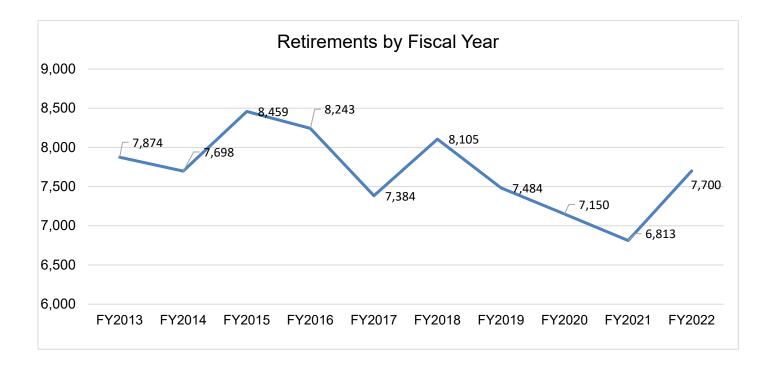
Average State Employee Salary (a/o June 30, 2022): \$66,245

Average MDOT Employee Salary (a/o June 30, 2022): \$65,332

Average State Teacher Salary (a/o October 2021): \$75,766

Retirees and Beneficiaries as of 6/30/2022 (Combined State and Municipal)							
System	Count	Total Benefit	Avg. Benefit	Avg. Age	Avg. Age at Retire	Avg. FAS	Avg. Cred. Svc
Employees' Pension	65,463	\$1,159,973,572	\$17,724	71.7	62.3	\$47,340	20.5
Employees' Retirement	18,382	\$508,075,117	\$27,636	73.6	56.6	\$43,215	24.9
Judges	463	\$42,928,915	\$92,724	77.9	65.6	\$180,024	13.9
LEOPS	2,393	\$92,085,278	\$38,484	62.5	53.1	\$64,768	22.1
State Police	2,597	\$145,716,052	\$56,112	65.6	47.8	\$58,969	23.4
Teachers' Pension	60,980	\$1,583,240,683	\$24,877	72.3	62.1	\$62,509	22.2
Teachers' Retirement	21,904	\$983,214,229	\$42,638	79.8	58.2	\$56,590	29.7
CORS	53	\$1,543,309	\$29,124	62.0	57.1	\$65,850	20.6
Totals	172,235	\$4,516,777,156	\$26,220	72.9	61.0	\$54,220	22.8

Demographics



Economic Impact

Local economic impact of Maryland pensions

More than \$3.59 billion in annual pension payments stay in Maryland. (as of June 30, 2023)



M = millions

	Number of	Total Pension
County/City	Retirees	Dollars
Allegany	3,524	\$89.0M
Anne Arundel	13,498	\$389.7M
Baltimore City	11,558	\$298.0M
Baltimore County	22,032	\$663.8M
Calvert	2,447	\$73.5M
Caroline	1,129	\$29.2M
Carroll	5,413	\$157.1M
Cecil	1,972	\$50.9M
Charles	2,355	\$65.8M
Dorchester	1,491	\$37.4M
Frederick	5,295	\$159.6M
Garrett	1,305	\$33.5M

	Number of	Total Pension
County/City	Retirees	Dollars
Harford	7,364	\$213.8M
Howard	6,797	\$222.9M
Kent	771	\$21.0M
Montgomery	9,562	\$334.2M
Prince George's	10,909	\$286.0M
Queen Anne's	2,034	\$60.3M
Saint Mary's	2,221	\$58.4M
Somerset	1,254	\$30.0M
Talbot	1,472	\$40.5M
Washington	4,716	\$123.4M
Wicomico	3,558	\$96.6M
Worcester	2,253	\$60.1M

Economic Impact

Where do Retirees and Beneficiaries reside? (a/o June 30, 2023)

Maryland	74.3%	Delaware	2.4%
Florida	4.7%	North Carolina	2.2%
Pennsylvania	3.7%	South Carolina	1.5%
Virginia	2.6%	West Virginia	1.4%

^{*}No other states have more than 1% of our payees

Governmental Units Participating in the Systems as of June 30, 2022

Allegany Community College Allegany County Board of Education Allegany County Government Allegany County Housing Authority Allegany County Library Allegany County Transit Authority Annapolis, City of Anne Arundel Community College Anne Arundel County Board of Education Anne Arundel County Community Action Agency, Baltimore Metropolitan Council Berlin, Town of Berwyn Heights, Town of Bladensburg, Town of Bowie, City of Brunswick, City of Calvert County Board of Education Cambridge, City of Cambridge Housing Authority Caroline County Board of Education Caroline County Sheriff **Deputies** Carroll County Board of Education Carroll County Public Library Carroll Soil Conservation District

Catoctin & Frederick County Soil Conservation District Cecil County Board of Education Cecil County Government Cecil County Library Centreville, Town of Chesapeake Bay Commission Chestertown, Town of Cheverly, Town of College of Southern Maryland College Park, City of Crisfield, City of Crisfield Housing Authority Cumberland, City of Cumberland, City of - Police Department Denton, Town of District Heights, City of Dorchester County Board of Education **Dorchester County Government** Dorchester County Roads Board **Dorchester County Sanitary** Commission Eastern Shore Regional Library Edmonston, Town of Elkton, Town of Emmitsburg, Town of Federalsburg, Town of Frederick County Board of Education Frostburg, City of Fruitland, City of Garrett County Board of Education

Garrett County/Western Maryland Health Planning Council **Garrett County Community** Action Committee Garrett County Roads Board Greenbelt, City of Greensboro, Town of Hagerstown, City of Hagerstown Community College Hampstead, Town of Harford County Board of Education Harford County Community College Harford County Government Harford County Library Harford County Liquor Board Howard Community College Howard County Board of Education **Howard County Community** Action Committee Hurlock, Town of Hyattsville, City of Kent County Board of Education Kent County Government Kent Soil and Water Conservation District Landover Hills, Town of LaPlata, Town of Manchester, Town of Maryland Health & Higher **Educational Facilities** Authority

Governmental Units Participating in the Systems as of June 30, 2022 (continued)

Middletown, Town of Montgomery College Morningside, Town of Mount Airy, Town of Mount Rainier, City of New Carrollton, City of North Beach, Town of Northeast Maryland Waste Disposal Authority Oakland, Town of Oxford, Town of Pocomoke, City of Preston, Town of Prince Georges Community College Prince Georges County Board of Education Prince Georges County Crossing Guards Prince Georges County Government Prince Georges County Memorial Library Princess Anne, Town of Queen Anne's County Board of Education

Queen Anne's County Government Queenstown, Town of Ridgely, Town of Rockhall, Town of Salisbury, City of Shore Up! Snow Hill, Town of Somerset County Board of Education Somerset County Government Somerset County Economic **Development Commission** Somerset County Sanitary District, Inc. Southern MD Tri-County Community Action Committee St. Mary's County Board of Education

St. Mary's County Government St. Mary's County Housing Authority St. Mary's County Metropolitan Commission St. Michaels, Town of

Takoma Park, City of Talbot County Board of Education **Talbot County Government** Taneytown, Town of Thurmont, City of Tri-County Council for Lower Eastern Shore Tri-County Council for Western Maryland University Park, Town of Upper Marlboro, Town of Walkersville, Town of Washington County Board of Education Washington County Liquor Board Washington County Library Westminster, City of Worcester County Board of Education Worcester County Government Worcester County Liquor Control Board Wor-Wic Community College

*Withdrawn Governmental Units

Sykesville, Town of

Hancock, Town of Western Maryland Health Planning Agency

*List reflects withdrawn governmental units with a withdrawal liability balance

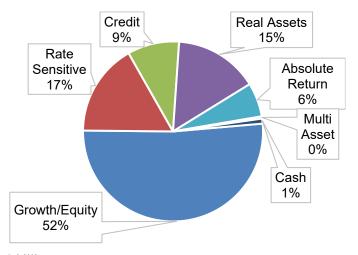
PGU's

Active PGU's as of 6/30/22	131
Withdrawn PGU's as of 6/30/22	21
Combined Count	152

Investments: \$63,268.9 million assets under management (as of September 30, 2023) \$65,204.0 million assets under management (as of June 30, 2023)

Indexed Assets - \$15,111.7 million (a/o September 30, 2023) – 23.9% of total assets *Terra Maria* - \$2,179.7 million (a/o September 30, 2023) – 3.4% of total assets *Total Private Assets* - \$28,696.7 million (a/o September 30, 2023) – 45.3% of total assets

	<u>Target</u>	Current (a/o September 30, 2023)				
Growth/Equity:	50% (+/-7)	51.5%	(includes 22.6% Private Equity)			
Rate Sensitive	21% (+/-5)	16.6%				
Credit	8% (+/-4)	9.3%				
Real Assets	15% (+/-4)	15.1%	(includes 10.8% Real Estate)			
Absolute Return	6% (+/-4)	6.1%				
Multi Asset	0%	0.4%				
Cash	0%	0.9%				



Assets at 6/30/2023: \$65.2 billion

New hi-water mark: \$70.6 billion (12/31/2021)
Old hi-water mark: \$40.9 billion (10/31/2007)
Low-water mark: \$24.7 billion (2/28/2009)

GROWTH/EQUITY includes U.S. Equity, International Developed Markets Equity, International Emerging Markets Equity, and Private Equity.

RATE SENSITIVE includes Long-Term Government Bonds, Securitized & Corporate Bonds, Inflation-Linked Bonds, and Cash.

CREDIT includes High Yield Bonds & Bank Loans and Emerging Markets Debt.

REAL ASSETS include Real Estate, Commodities, Natural Resources, and Infrastructure

ABSOLUTE RETURN includes those investments whose performance is expected to deliver absolute returns in any market conditions. The System's program may include strategies such as hedge fund of funds, multi-strategy, global tactical asset allocation, event driven, relative value, macro, insurance, and equity hedged.

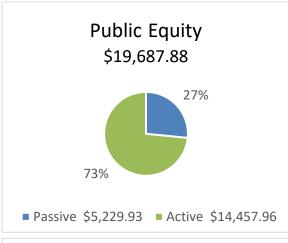
MULTI ASSET includes a combination of different strategies that do not fall within the description of only one asset class and are expected to have performance characteristics similar to the plan.

Terra Maria Program as of June 30, 2023

Public Markets						
Owne rs hip	Number of Mandates	% Total Mandates	# of Managers	% Total Managers	AUM (\$ millions)	% AUMs
African American	3	10.0%	3	10.7%	\$ 278.10	11.5%
African American/Veteran	1	3.3%	1	3.6%	\$ 50.94	2.1%
African American/Women	1	3.3%	1	3.6%	\$ 126.81	5.3%
Asian American	3	10.0%	2	7.1%	\$ 269.02	11.1%
Hispanic American	4	13.3%	4	14.3%	\$ 305.34	12.6%
Hispanic American/Women	1	3.3%	1	3.6%	\$ 62.91	2.6%
Majority Emerging	8	26.7%	8	28.6%	\$ 528.45	21.9%
Native American	1	3.3%	1	3.6%	\$ 48.14	2.0%
Women	8	26.7%	7	25.0%	\$ 744.26	30.8%
Total	30	100.0%	28	100.0%	2,413.97	100.0%

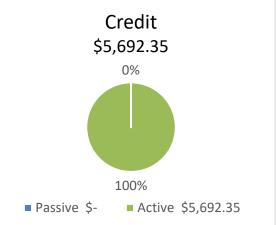
Private Equity								
Owners hip	Number of Funds	% of Total Funds	Coı	nmitme nts	% of Total Committed	Dr	awn Amount	Drawn as % of Committed
African American	15	29.4%	\$	1,130.00	25.6%	\$	1,204.64	106.6%
Asian American/Women	4	7.8%	\$	850.00	19.3%	\$	728.61	85.7%
Hispanic American	7	13.7%	\$	565.00	12.8%	\$	574.40	101.7%
Hispanic/Middle Eastern	5	9.8%	\$	270.00	6.1%	\$	302.84	112.2%
Majority	5	9.8%	\$	195.00	4.4%	\$	196.60	100.8%
Women	15	29.4%	\$	1,405.00	31.8%	\$	977.34	69.6%
Total	51	100.00%	\$	4,415.00	100.00%	\$	3,984.43	90.25%

Passive vs. Active by Asset Class As of June 30, 2023 (In millions)





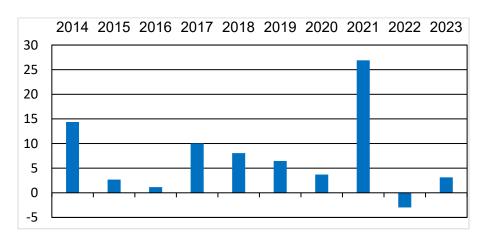






Fiscal Year Earnings

FY	Return	Policy
		Benchmark
2023	3.14%	2.20%
2022	-2.97%	-3.48%
2021	26.69%	24.43%
2020	3.57%	3.14%
2019	6.46%	7.11%
2018	8.06%	7.59%
2017	10.02%	9.90%
2016	1.16%	1.69%
2015	2.68%	0.88%
2014	14.37%	14.16%



	As of June 30, 2023	As of Sept. 30, 2023
Fiscal Year-to-Date	3.14%	-1.82%
Avg. return over past 1 year	3.14%	5.72%
Avg. return over past 3 years	8.23%	5.53%
Avg. return over past 5 years	6.93%	6.16%
Avg. return over past 10 years	7.04%	6.40%
Avg. return since 7/1/1986	7.91%	7.81%

Management Fees (FY 2022): \$569 million (88 bps)

SRA rankings

Wilshire Trust Universe Comparison Service (TUCS®)

(Total Gross Returns of Public Funds > \$25 Billion)

Q1	96 ^{th percentile} (cumulative periods ending June 30, 2023)
1 yr.	96 ^{th percentile}
2 yrs.	68 ^{th percentile}
3 yrs.	71 ^{st percentile}
4 yrs.	56 ^{th percentile}
5 yrs.	59 ^{th percentile.}
7 yrs.	75 th percentile
10 yrs.	78 th percentile

InvMetrics

(Public DB > \$1 Billion Net Peer Group)

Q2	96 ^{th percentile} (cumulative periods ending June 30, 2023)
lyr.	98th percentile
3yrs.	54 th percentile
5 yrs.	26 ^{th percentile}
10 yrs.	48 ^{th percentile}

Financial

Contribution Rates by fiscal year budget:

	FY2025	FY2024	FY 2023	FY2022	FY2021	FY 2020
Teachers	16.25	14.86	14.65	14.67	14.96	15.59
Employees	21.54	21.13	20.68	20.50	20.71	19.56
State Police	85.51	78.68	76.45	75.30	78.09	79.58
Judges	47.22	43.00	40.02	41.92	40.27	44.44
LEOPS	46.00	45.89	44.73	42.28	42.96	41.37
Composite	19.15	17.88	17.55	17.50	17.75	17.82

Summary of Valuation Results by System as of June 30, 2022 (State ONLY)

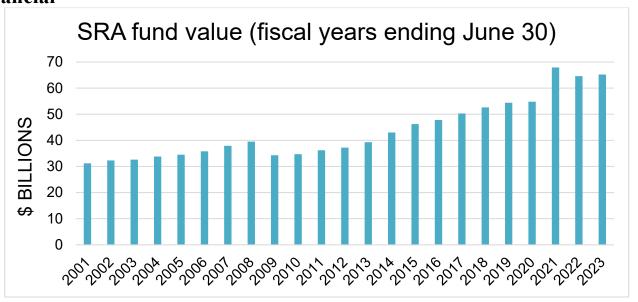
State Sponsored Plans	Teachers	Employees (State)	State Police	Judges	LEOPS (State)	Total State*
Employer Normal Cost Contribution	5.04%	4.36%	27.18%	32.37%	18.39%	4.47%
UAAL Contribution	9.82%	16.77%	51.50%	10.63%	27.50%	13.03%
Total Employer Contribution	14.86%	21.13%	78.68%	43.00%	45.89%	17.50%
Reinvested Savings Rate	0.62%	0.60%	0.81%	0.00%	0.87%	0.68%
Total Contribution w/ Reinvestment Savings	15.48%	21.73%	79.49%	43.00%	46.76%	18.18%

^{*} Contribution rates shown in the "Total" column are for informational purposes only and are not used for funding purposes.

Additions to fund (FY 2022): Expressed in Thousands

Employer Contributions	\$2,282,303
Employee Contributions	894,267
Investment Income	-1,942,133
Total	\$1,234,437

Financial

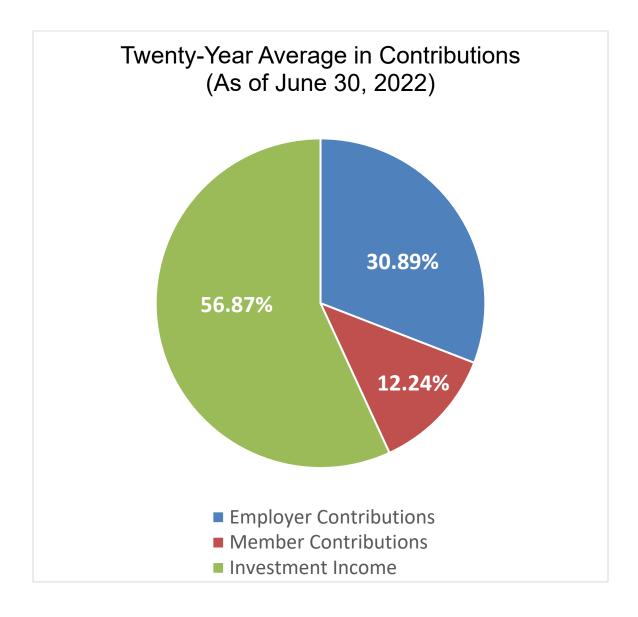


TEN-YEAR HISTORY OF CHANGES IN NET ASSETS

For the Years Ended June 30 (Expressed in thousands)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ADDITIONS										
Employer contributions	\$1,643,101 (Includes TCS Local Employer's Portion of \$136,645)	\$1,733,653 (Includes TCS Local Employer's Portion of \$173,201)	\$1,858,612 (Includes TCS Local Employer's Portion of \$221,578)	\$1,870,655 (Includes TCS Local Employer's Portion of \$254,755)	\$2,036,596	\$1,995,017	\$2,054,091	\$2,144,270	\$2,203,524	\$2,282,303
Member contributions	710,856	727,726	755,444	764,414	782,686	791,583	807,291	850,298	865,738	894,267
Net investment income	3,845,795	5,706,267	1,197,671	497,531	4,473,443	3,899,393	3,288,209	1,866,639	14,315,762	-1,942,133
Total additions	6,199,752	8,167,646	3,811,727	3,132,600	7,292,725	6,685,993	6,149,591	4,861,207	17,385,024	1,234,437
DEDUCTIONS										
Benefits payments	2,950,700	3,121,823	3,284,550	3,469,493	3,577,123	3,744,132	3,926,220	4,108,492	4,253,047	4,394,350
Refunds	38,281	42,922	48,245	58,362	63,441	68,600	67,400	68,752	64,774	91,535
Administrative expenses	26,280	26,130	29,080	28,659	30,904	33,211	39,784	41,346	48,740	42,061
Total deductions	3,015,261	3,190,875	3,361,875	3,556,514	3,671,468	3,845,943	4,033,404	4,218,590	4,366,561	4,527,946
CHANGES IN NET	\$3,184,491	\$4,976,771	\$449,852	-\$423,914	\$3,621,257	\$2,840,050	\$2,116,187	\$642,617	\$13,018,463	-\$3,293,509

Financial



Actuarial

Actuarial Assumptions: (for valuation as of June 30, 2022)

Rate of return: 6.80% (compounded annually) / U.S. avg.: 6.93% (a/o 12/31/22)

Inflation 2.25% Real Return 4.55%

Salary increases: 2.75% (compounded annually)

Mortality: Fully generational –Pub-2010/MP2018 projection scale

	Actuarial Funded	<u>Liabilities</u>	<u>Assets</u>	Δ
	Status			
FY 2022	77.19%	\$85,248,063,628	\$65,798,923,071	\$19,449,140,557
	Market Funded	<u>Liabilities</u>	Assets	Δ
	Status			
FY 2022	75.4%	\$85,248,063,628	\$64,310,990,914	\$20,937,072,714

National public plan median: 74.9% (FY 2021)

GASB 68/67

<u>FY 2022</u>	76.3%
FY 2021	81.8%
FY 2020	70.7%
FY 2019	72.3%
FY 2018	71.2%

Past years actuarial funded status

FY	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
State Only	67.7%	68.6%	69.5%	70.9%	71.6%	72.2%	72.9%	76.2%	76.6%	74.7%
State/Muni	68.7%	69.7%	70.5%	71.8%	72.5%	73.0%	73.6%	76.9%	77.2%	75.3%

Contribution Rates by fiscal year budget:

	FY 2025	FY 2024	FY 2023	FY2022	FY2021
Teachers	16.83	15.15	14.65	14.67	14.96
Employees	22.06	21.41	20.68	20.50	20.71
State Police	86.23	79.04	76.45	75.30	78.09
Judges	47.22	43.00	40.02	41.92	40.27
LEOPS	46.76	46.28	44.73	42.28	42.96
Composite	19.74	18.18	17.55	17.50	17.75

Administration

SRA Employees (as of July 1, 2023):

PINs 230 (Filled and Vacant) Contractual 27 * (includes summer interns)

Total 257

Frozen PINs (as of July 1, 2023):

PINs 0 Contractual 0

SRA Staff:

1.69% = 2 Political Appointment (at will positions) – Rachel Cohen, Michael Golden

2 Executive Service (at will positions) – Martin Noven, Kimberly O'Keeffe

0 Independent Appointment (at will position)

22.78% = 54 Management Service (at will positions)

13.92% = 33 Special Appointments (at will positions) – includes attorneys

2.95% = 7 Professional Services (merit positions) – all attorneys

61.60% = 146 Skilled Service (merit positions)

44.44% = 12 Contractual(s) (filled only) (12 filled / 27 total contractual pins)

NOTES:

- DBM Freeze waiver on pins until further notice.
- Numbers under SRA Staff breakdown are skewed due to:
 - 1) Some positions that are designated as Skilled Service are also designated as Special Appointment.
 - 2) Positions that are designed as Professional Service are all legal staff and are also designated as Special Appointment and 1 as Political Special Appointment.

Administration

SRA staffing by Division (as of July 1, 2023):

DIVISION / UNIT	Pinned Positions (Filled)	Pinned Positions (Vacant)	Contractual Positions (Filled)	Contractual Positions (Vacant)
Administration	2	1	0	0
Benefits Processing	33	2	2	1
BOO (Formerly PMO)	5	0	0	1
Data Control	27	2	2	2
Executive (Includes division heads	10	0	0	0
External Affairs	2	0	0	0
Finance	19	3	3	5
Internal Audit	3	0	0	0
Investment	40	6	1	2
IT	19	5	1	2
Legal OAG *	9	0	0	0
Member Services & Counseling	28	8	2	1
Special Projects	6	0	1	1
TOTALS	203	27	12	15

Note: * Legal – Office of Attorney General maintains pins and vacancy number.

Administration

FY18 Budget: \$34,816,039 FY19 Budget: \$32,445,930 FY20 Budget: \$30,903,434 FY21 Budget: \$28,688,892 FY22 Budget: \$27,051,771 FY23 Budget: \$28,665,300

FY24 Budget: \$32,126,755 (68% special funds; 32% reimbursable funds)

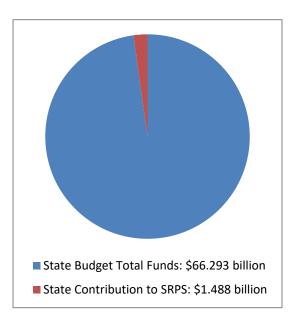
Investment Division's "non-budgeted" amount for FY24: \$22,011,261.

 ${\bf Projected\ employer\ contributions}$

as a percent of the general fund budget Fiscal Year State Employees Local Teachers Total* 2018 3.0 4.6 7.6 2019 2.9 7.5 4.6 2020 2.9 4.7 7.5 2021 2.9 4.8 7.7 2022 2.9 4.9 7.7 2023 2.1 2.8 4.9 2024 2.4 3.1 5.5

As a percentage of state budget (FY 2024)

General Funds: \$1.488 billion out of \$7.185 billion	5.47%
GF Contribution for State Employees: \$651.8 million	2.40%
GF Contribution for Local Teachers: \$836.3 million	3.08%
Total Funds: \$1.898 billion out of \$66.293 billion	2.86%
TF Contribution for State Employees: \$1.061 billion	1.60%
TF Contribution for Local Teachers: \$836.2 million	1.26%



Disability Retirees (as of 6/30/2022)

Accidental	3,774	
Ordinary	11,684	
Beneficiaries	1,960	
Total	17,418	10.1% of total payees

^{*} Totals may not add due to rounding.

Benefits

Key Benefit Changes

- 1947 ERS retirement age set at age 60
- 1960 Survivor benefit established for spouses of deceased retirees
- 1962 Military service credit established for members
- 1966 Vesting set at 20 years
- 1969 Guaranteed 1/60 benefit multiplier
- 1970 Vesting reduced to 15 years
- 1971 Automatic COLA established; average final compensation set at three years
- 1973 Benefit multiplier increased to 1/55 benefit; vesting is reduced to five years; death benefit set at 100% of current salary
- 1975 State Police retirement eligibility set at 25 years
- 1978 Disability retirement may be denied due to a pre-existing condition
- 1980 Employees' and Teachers' Retirement Systems are closed, and the Employees' and Teachers' Pension Systems are opened
- 1998 Major enhancements to the Employees' and Teachers' Pension Systems:
 - Benefit multiplier set at 1.4% for service earned on or after July 1, 1998;
 - 1.2% benefit multiplier for service earned on or before June 30, 1998;
 - Compounded 3% COLA is established; and
 - Mandatory 2% employee contribution
- 1999 State Police Retirement System enhancement:
 - Retirement eligibility is reduced to 22 years of service;
 - Benefit multiplier is increased to 2.55% for a maximum benefit equal to 71.4% over 28 years of service; and
 - Deferred Retirement Option Program is established
- 2000 Law Enforcement Officers' Pension System enhancement:
 - Benefit multiplier increased to 2.0% for a maximum benefit of 60% over 30 years of service;
 - Mandatory 4% employee contribution;
 - Compounded 3% COLA is established; and
 - Deferred Retirement Option Program is established
- **2006** Employees' and Teachers' Pension System enhancements:
 - 1.8% benefit multiplier replaces 1.4% benefit multiplier for service earned on or after July 1, 1998; and
 - 2% employee contribution is increased 1% every year beginning July 1, 2006, for three years until July 1, 2008, leveling at 5%
- 2011 Significant pension reform

Benefits

Benefits Options Selected by Retirees									
Option*	Basic	1	2	3	4	5	6	7	Total
Quantity	75,112	20,794	22,314	16,645	17,126	8,107	12,075	62	172,235
Percent	43.61	12.07	12.96	9.66	9.94	4.71	7.01	0.04	100%

Benefit Options

Basic Allowance: The standard benefit if no option is selected. Generally, at retiree's death, all

payments cease. However, the basic allowance for the State Police, Law Enforcement Offices (LEOPS), Judges and Legislators provides a continuing benefit for spouses or

children under 18.

Option 1: Guarantees return of the present value of the retirement benefit less the total

payments already paid to the member.

Option 2: Guarantees the same payment to the designated beneficiaries for their lifetime.

Option 3: Guarantees one half the member's payment to the designated beneficiaries for their

lifetime.

Option 4: Guarantees return of the member's accumulated contributions and interest less the

member's accumulated reserves already paid.

Option 5: Guarantees the same payment to the designated beneficiaries for their lifetime unless

the beneficiaries predecease the respective members. Allowance then increases to the

oasic.

Option 6: Guarantees one half the member's payment to the designated beneficiaries for their

lifetime unless the beneficiaries predecease the respective members. Allowance then

increases to the basic.

Option 7: Special option calculation performed by actuary

Other Post-Employment Benefits (OPEB)

	Net Position as percentage of total OPEB liability	Total Liability	Net OPEB Liability	Net Position (assets)
FY 2022	3.0%	\$12.8B	\$12.4B	\$385.4M

SOURCE: Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) Measured on June 30, 2022, by The Segal Group, Inc. under GASB 74 & 75

	Actuarial Funded Status	Unfunded Actuarial Accrued Liability	Actuarial Value of Assets
FY 2022	3.0%	\$12.8B	\$385.4M
FY 2021	3.0%	\$15.3B	\$453.9M
FY 2020	2.1%	\$16.4B	\$355.1M
FY 2019	2.4%	\$14.3B	\$350.7M
FY 2018	3.0%	\$10.6B	\$329.3M
FY 2017	2.7%	\$11.1B	\$306.7M
FY 2016	2.2%	\$12.5B	\$276.0M
FY 2015	2.9%	\$9.4B	\$275.3M
FY 2014	2.8%	\$8.7B	\$250.1M
FY 2013	2.7%	\$8.3B	\$222.6M

SOURCE: Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) Measured on June 30, 2022, by The Segal Group, Inc. under GASB 74 & 75

Maryland Post-Retirement Health Benefits Trust Investment Update Asset Class by Market Value and Allocation Period Ending June 30, 2023

Asset Class	Market Value (\$ millions)	Actual Allocation	Long-Term Policy Target
Total Growth Equity	\$259	59.0%	56.0%
Rate Sensitive	\$84	19.3%	21.0%
Credit	\$36	8.0%	8.0%
Real Assets	\$60	13.6%	15.0%
Total Fund	\$438	100.0%	100.0%

Total Plan Investment Performance For Periods Ended June 30, 2023

Fiscal YTD	6.97%
1 Year	6.97%
3 Years	5.10%
5 Years	4.60%
Since inception (7/1/2008)	5.65%

Glossary

Benefits* Terms

*Definitions apply to most members.

Accidental Disability: Total and permanent disability resulting from an on-the-job accident which occurs while carrying out one's job duties.

Actuary: An expert who analyzes risks and computes rates according to probabilities which are based on known experience.

Annuity: Income payable for the lifetime of the retired member in equal monthly payments.

Average Final Compensation (AFC): For members of the Reformed Contributory Pension Benefit, the AFC is the average of their five highest consecutive earning years. The AFC for all other members is the average of their three highest consecutive earning years.

Basic Allowance: Maximum benefit payable to a retiree based on member's total creditable service and average final compensation. Provides no beneficiary coverage.

Beneficiary: Individual(s) named by a member or retiree to receive benefits in the event of the member or retiree's death.

Claimed Credit: Additional retirement credit including service transferred from other pension systems and eligible military service. Member must apply for this credit, unlike earned credit which accrues automatically.

Contingent Beneficiary: Individual(s) named to receive benefits if there are no primary beneficiaries who survive the member/retiree.

Cost-of-Living Adjustment (COLA): Annual adjustments of State pension benefit to retirees based on changes to the Consumer Price Index.

Creditable Service: Service credit used for calculating the amount of a benefit.

Early Service Retirement: A reduced benefit payable as early as age 60 for members of the Reformed Contributory Pension benefit and age 55 for all other members. Member must have at least 15 years of eligibility service to qualify.

Earnable Compensation: Annual salary rate payable for working the normal time in the member's position.

Earned Credit: Retirement credit earned through payroll reporting.

Eligibility Service: Service credit used to determine when a member qualifies to receive a benefit.

Fiscal Year: The annual period beginning July 1 and ending June 30.

Leave of Absence: An employer-approved and SRPS-qualified absence from work without pay, granted for the following specific purposes: personal illness; maternity/paternity; adoption; career-related study; government sponsored or subsidized employment; and service in a professional or employee organization.

Medical Board: A panel of doctors, appointed by the SRPS Board of Trustees, who determine eligibility for disability retirement.

Membership: Membership begins your first day on the payroll. Membership ends four years after separation from employment, at retirement, at death or at withdrawal of em-ployee contributions with interest.

Military Duty: Period of eligible duty with any of the Armed Forces of the United States, National Guard or Reserves as verified by military discharge papers.

Municipality: A city, county or other local government or any other employer specifically named in retirement law.

Normal Service Retirement: Reformed Contributory Pension Benefit – Retirement with an unreduced monthly benefit at a combined age and eligibility service of at least 90 years (or age 65 after 10 years of eligibility service.) All other systems – Retirement with an unreduced monthly benefit at age 62 with at least five years of eligibility service (or at any age after 30 years of eligibility service.)

Ordinary Disability: Permanent disability caused by any physical or mental illness or medical condition other than an on-the-job accident. Member must have at least five years of eligibility credit to apply.

Participating Employer: Public employers offering State Retirement Agency of Maryland benefits to their personnel. Includes State agencies; public schools and libraries; State universities and colleges; community colleges; participating counties, cities and towns; and municipal corporations.

Primary Beneficiary: Individual(s) with first claim to a member's/retiree's benefits.

Retirement Coordinator: An employee, usually a personnel officer of a participating employer, who is trained to assist members with basic retirement matters such as the completion of SRPS forms.

SRA: State Retirement Agency. The State agency that administers the State Retirement and Pension System.

SRPS: State Retirement and Pension System

Vesting: Entitlement to retirement benefits at a later date. A member of the Reformed Contributory Pension Benefit is vested after 10 years of eligibility service. Members of all other systems are vested after five years of eligibility service.

Vested Allowance: Reformed Contributory Pension Benefit – A benefit payable at age 65 to a member who terminates employment with 10 or more years of eligibility service but who is not eligible for normal, early or disability retirement. May also be paid as early as age 60 if member has at least 15 years of eligibility service. All other systems – A benefit payable at age 62 to a member who terminates employment with five or more years of eligibility service but who is not eligible for normal, early or disability retirement. May also be paid as early as age 55 if member has at least 15 years of eligibility service.

Actuarial Terms

Assumptions (or actuarial assumptions): Tools to estimate the cost of the projected benefits to be paid by the System, including:

- Investment return: the rate of investment yield that the System will earn over the long-term future, currently set at 7.50% per annum in 2017 valuation.
- Mortality rates: the death rates of employees and pensioners; life expectancy is based on these rates, currently a version of the RP-2014 Table with fully generational projection.
- Retirement rates: The rate or probability of retirement at a given age, based on plan experience.
- Turnover rates: the rates at which employees of various ages and service levels are expected to leave employment for reasons other than death, disability, or retirement, based on plan experience.
- Salary scale: annual increases anticipated in individual employee pay that will be used to determine benefit entitlement at retirement; scale varies based on age and service.

Actuarial cost method: A means of allocating the cost of benefits to various time periods for funding or expense purposes.

- Many public Systems (including Maryland)
 use the traditional Individual Entry Age
 Normal Cost Method. Under this method, an
 annual contribution rate is determined that
 consists of the normal cost rate and the
 unfunded actuarial liability rate.
- **Normal cost**: The amount of contributions required to fund the benefit allocated to the current year of service, based on the traditional entry age actuarial cost method.
- The "Entry Age" method normal cost is derived as a level percentage of pay from entry age to the last assumed retirement age and applied to pay expected for the coming year. The sum of the individual normal costs is divided by total employee payroll to obtain the normal cost rate. The employer normal cost rate is net of an offset for expected employee contributions.

Actuarial accrued liability for active participants:

The equivalent of the accumulated normal costs allocated to the past: the years before the valuation date.

Actuarial accrued liability for pensioners: The single sum value of lifetime benefits to existing pensioners.

 The sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Unfunded actuarial accrued liability: The extent to which the actuarial accrued liability exceeds the assets of the System.

Government Accounting Standards Board (GASB) Statements 67/68: New accounting standards affecting plan (67) and employer (68) financial statements. Will put a measure of the unfunded liability on the face of the employers' basic financial statements.

Amortization of the unfunded actuarial accrued liability: Payments made over a period of years equal to the System's unfunded actuarial accrued liability.

• For the State systems, the remaining unfunded liability on June 30, 2017, is being amortized over a closed 25 years (21 remaining) as a level percentage of payroll.

Investment return: The rate of earnings of the System from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund.

• For actuarial purposes, the investment return often reflects a smoothing of gains and losses (above or below the assumed rate) to avoid significant swings in the cost rate from one year to the next. For Maryland's systems, each year's investment gain or loss compared to the assumed rate of return is amortized on a straight-line basis over 5 years, with the final actuarial value limited to not more than 120% and not less than 80% of the market value of assets.

Investment Terms

Active Management: Investment strategy that involves buying stocks or bonds with the objective of outperforming a market index such as the S&P 500. The success of this strategy depends on the skills of the manager and the research team. Active management is the opposite of passive management.

Alpha: Measures the ability of a manager to produce returns above the market return, after adjusting for risk.

Alternative Equity: Generally, refers to nonpublicly traded equities. As a rule, alternative equities are less liquid, riskier, and have the potential for higher return than publicly traded equities

Annualized Return: The yearly return of a portfolio, including dividends or interest payments, over a given time period, such as a three-year or five-year annualized return.

Asset Allocation: A method of allocating investment dollars among assets such as stocks, bonds, real estate, and cash. Widely accepted to be the most critical determinant of fund performance.

Asset Class: A broad class of investment securities. Examples are US stocks, fixed income securities (bonds), international stocks, commodities, and real estate.

Benchmark: A standard for comparing a portfolio's performance to the market from which the manager selects securities. The S&P 500 and the Barclays Capital Aggregate Bond Index are two commonly used benchmarks.

Beta: A gauge of the price volatility of a stock in relation to the overall market. A beta of less than one is a sign of lower volatility than the market; a beta of more than one is a sign of a volatility greater than the market.

Correlations: Statistical measure that shows if the price changes in two securities behave similarly or differently.

Debt: Within the investment world, commonly refers to bonds or other instruments that rely on repayment of loans for the payment of bond interest and bond principal.

Efficient Frontier: Highest return achievable at a specific level of risk.

Emerging Markets: Investments in emerging countries such as China and Argentina. Emerging countries are most commonly defined as countries listed in the MSCI Emerging Market Index.

Fixed Income: Bonds

Global: Includes both US and international securities.

High Yield Bonds: Bonds rated below investment grade. High yield bonds generally offer greater returns than investment grade bonds because they have a greater risk of default than investment grade bonds. For example, the yield on a small debt-ridden company's bonds should be much higher than the yield on US government bonds.

International: Securities issued outside the United States.

Leverage: The creation of an exposure greater than the initial dollar amount in an investment. Generally done through borrowing money. A simple example would be borrowing dollars so one could buy more shares of a security than the investor would have been able to acquire with the dollars currently on hand.

Liquidity: The ability to be able to quickly convert a security into cash.

Prudent Investor: Professional standard which entails a higher level of duty than just avoiding negligence. To manage assets in the best interest of the client (in this case, the System and its

beneficiaries) considering the risk and returns of asset classes and securities.

Rebalancing: Shifting between asset classes to maintain asset levels within acceptable ranges and near approved targets.

Risk Reward Analysis: Chart that shows the tradeoff between risk (measured by standard deviation) and return. The shape of the risk return line illustrates that there are certain points where far more risk is needed to generate small amount of additional return.

Short Position: A position established by borrowing a security and selling it, with the understanding that the security must later be brought back and returned to the lender. The short seller hopes to profit by purchasing the security at a lower price.

Standard Deviation: A statistical measure of the dispersion of values in a data set from their mean. A volatile stock would have a high standard deviation. The more the returns of an investment fluctuate, the greater the standard deviation. Commonly used measure of investment risk.

Structure: Commonly refers to allocation between sub-asset classes and between active and passive management.

Sub Asset Class: A division within an asset class. Examples are growth and value stocks, emerging and developed international stocks.

Tactical Asset Allocation: Short term portfolio adjustments to take advantage of short-term trends. Staff manages a tactical asset allocation program that allows them limited authority to shift between certain specified asset class and sub-asset classes.

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