

SRPS

By the Numbers

Demographics	1
Reform Scorecard	3
Economic Impact.....	4
Investments.....	7
Finance	11
Actuarial	14
Administration.....	15
Benefits	18
Other Post-Employment Benefits	20
Glossary	21

April 2023

Demographics

As of 6/30/2022		State Employees	Teachers	Municipal
Active Members	194,210	57,817	110,980	25,413
Vested		29,056	60,229	11,699
Non-vested		28,761	50,751	13,714
Inactive Deferred Vested	47,503	17,607	23,733	6,163
Retirees & Beneficiaries	172,235	70,463	81,515	20,257
Total	413,948	146,909	215,206	51,833

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 billion
- Muni: \$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

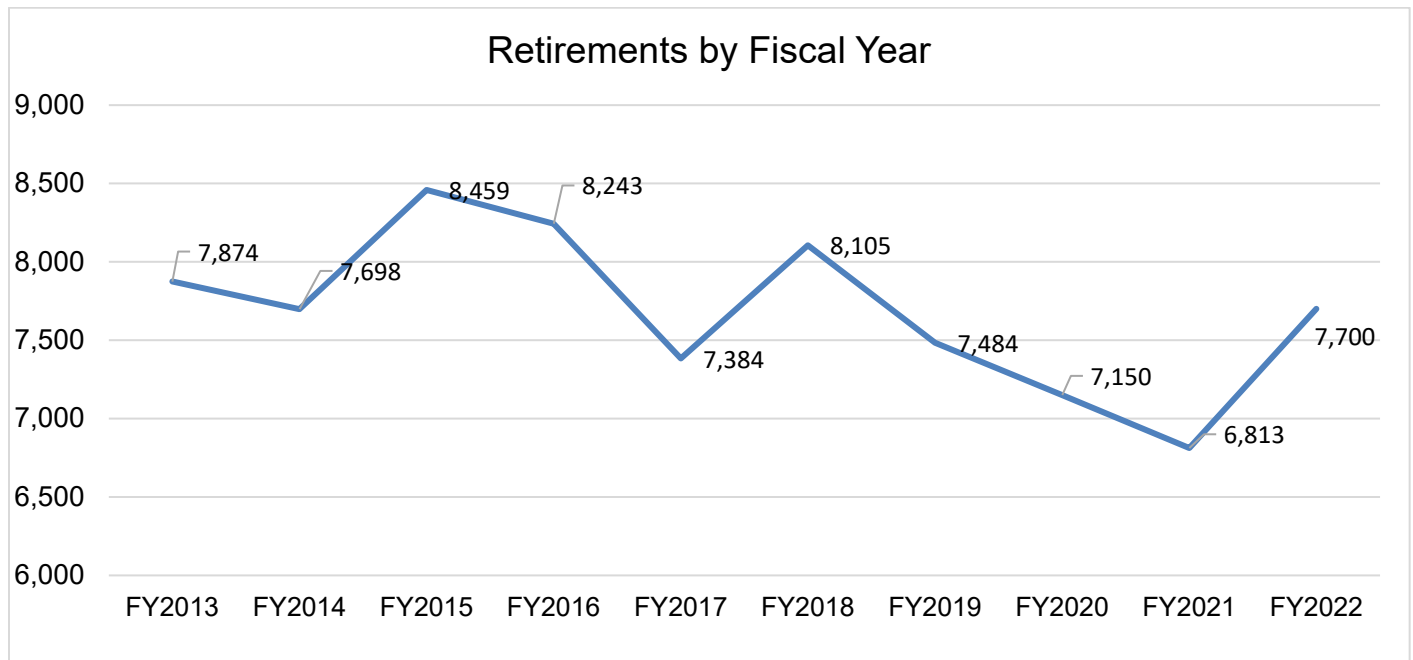
Average State Employee Salary (a/o June 30, 2022): \$66,245

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



Benefit Reform Scorecard

Reforms enacted by the Maryland General Assembly in 2011 and in subsequent years continue to show positive results for the System and, in fact, continue to exceed earlier projections (see chart below). The System is on track to be 80% funded by 2026; 85% funded by 2030; and 100% funded by 2039.

Projected June 30, 2022 Results Based on June 30, 2010 Valuation

	Before Reforms	After Reforms	Actual Results 2022 Valuation
FY 2024 Contribution Rates No Reinvestment (% of Pay)			
ECS (State)	24.70%	20.29%	21.13%
TCS	22.47%	18.46%	14.86%
All State Plans	24.37%	20.15%	17.88%
June 30, 2022 Funded Ratio No Reinvestment			
All State Plans	72.6%	72.4%	72.4%
June 30, 2022 Funded Ratio Reinvestment			
All State Plans	72.6%	77.3%	76.6%

The 2010 valuation was the basis for the original estimates and projections related to potential effects of the 2011 reforms. Certain changes since implementation of reforms affect the comparability of the figures:

- 1) Systems are now receiving Actuarially Determined Contributions based on 25 year closed amortization of unfunded actuarial accrued liability (UAAL) ending in FY 2039. Elimination of the corridor funding method resulted in a large contribution increase for the Employees' Combined System (ECS). The change was very small for the Teachers' Combined System (TCS).
- 2) The General Assembly lowered reinvested savings to \$75 million from the original \$300 million in two steps beginning in FY 2014.
- 3) Both demographic and economic assumptions have changed since 2010 acting to increase contributions and decrease funded ratios.
- 4) There was an overall favorable experience since 2010 (except ECS) which decreased actuarial contribution rates and increased funded ratios.

Economic Impact

Local economic impact of Maryland pensions

More than **\$3.40 billion** in annual pension payments stay in Maryland. (as of June 30, 2022)



M = millions

County/City	Number of Retirees	Total Pension Dollars	County/City	Number of Retirees	Total Pension Dollars
Allegany	3,499	\$84.1M	Harford	7,226	\$200.8M
Anne Arundel	13,401	\$368.7M	Howard	6,703	\$210.0M
Baltimore City	11,624	\$285.9M	Kent	750	\$19.4M
Baltimore County	21,981	\$632.4M	Montgomery	9,447	\$317.0M
Calvert	2,406	\$69.0M	Prince George's	10,772	\$269.9M
Caroline	1,106	\$27.0M	Queen Anne's	2,002	\$56.4M
Carroll	5,361	\$148.2M	Saint Mary's	2,193	\$54.5M
Cecil	1,957	\$48.2M	Somerset	1,247	\$28.1M
Charles	2,307	\$61.2M	Talbot	1,444	\$37.6M
Dorchester	1,489	\$35.9M	Washington	4,695	\$116.9M
Frederick	5,221	\$150.4M	Wicomico	3,510	\$90.8M
Garrett	1,277	\$31.2M	Worcester	2,225	\$56.6M

Economic Impact

Where do Retirees and Beneficiaries reside? (a/o June 30, 2022)

Maryland	74.6%	Delaware	2.4%
Florida	4.7%	North Carolina	2.2%
Pennsylvania	3.6%	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

Allegheny Community College	Catoctin & Frederick County Soil Conservation District	Garrett County/Western Maryland Health Planning Council
Allegheny County Board of Education	Cecil County Board of Education	Garrett County Community Action Committee
Allegheny County Government	Cecil County Government	Garrett County Roads Board
Allegheny County Housing Authority	Cecil County Library	Greenbelt, City of
Allegheny County Library	Centreville, Town of	Greensboro, Town of
Allegheny County Transit Authority	Chesapeake Bay Commission	Hagerstown, City of
Annapolis, City of	Chestertown, Town of	Hagerstown Community College
Anne Arundel Community College	Cheverly, Town of	Hampstead, Town of
Anne Arundel County Board of Education	College of Southern Maryland	Harford County Board of Education
Anne Arundel County Community Action Agency, Inc.	College Park, City of	Harford County Community College
Baltimore Metropolitan Council	Crisfield, City of	Harford County Government
Berlin, Town of	Crisfield Housing Authority	Harford County Library
Berwyn Heights, Town of	Cumberland, City of	Harford County Liquor Board
Bladensburg, Town of	Cumberland, City of - Police Department	Howard Community College
Bowie, City of	Denton, Town of	Howard County Board of Education
Brunswick, City of	District Heights, City of	Howard County Community Action Committee
Calvert County Board of Education	Dorchester County Board of Education	Hurlock, Town of
Cambridge, City of	Dorchester County Government	Hyattsville, City of
Cambridge Housing Authority	Dorchester County Roads Board	Kent County Board of Education
Caroline County Board of Education	Dorchester County Sanitary Commission	Kent County Government
Caroline County Sheriff Deputies	Eastern Shore Regional Library	Kent Soil and Water Conservation District
Carroll County Board of Education	Edmonston, Town of	Landover Hills, Town of
Carroll County Public Library	Elkton, Town of	LaPlata, Town of
Carroll Soil Conservation District	Emmitsburg, Town of	Manchester, Town of
	Federalsburg, Town of	Maryland Health & Higher Educational Facilities Authority
	Frederick County Board of Education	
	Frostburg, City of	
	Fruitland, City of	
	Garrett County Board of Education	

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

Middletown, Town of	Queen Anne’s County	Takoma Park, City of
Montgomery College	Government	Talbot County Board of
Morningside, Town of	Queenstown, Town of	Education
Mount Airy, Town of	Ridgely, Town of	Talbot County Government
Mount Rainier, City of	Rockhall, Town of	Taneytown, Town of
New Carrollton, City of	Salisbury, City of	Thurmont, City of
North Beach, Town of	Shore Up!	Tri-County Council for Lower
Northeast Maryland Waste	Snow Hill, Town of Somerset	Eastern Shore
Disposal Authority	County Board of Education	Tri-County Council for Western
Oakland, Town of	Somerset County Government	Maryland
Oxford, Town of	Somerset County Economic	University Park, Town of
Pocomoke, City of	Development Commission	Upper Marlboro, Town of
Preston, Town of	Somerset County Sanitary	Walkersville, Town of
Prince Georges Community	District, Inc.	Washington County Board of
College	Southern MD Tri-County	Education
Prince Georges County Board of	Community Action	Washington County Liquor
Education	Committee	Board
Prince Georges County Crossing	St. Mary’s County Board of	Washington County Library
Guards	Education	Westminster, City of
Prince Georges County	St. Mary’s County Government	Worcester County Board of
Government	St. Mary’s County Housing	Education
Prince Georges County	Authority	Worcester County Government
Memorial Library	St. Mary’s County Metropolitan	Worcester County Liquor
Princess Anne, Town of	Commission	Control Board
Queen Anne’s County Board of	St. Michaels, Town of	Wor-Wic Community College
Education	Sykesville, Town of	

*Withdrawn Governmental Units

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

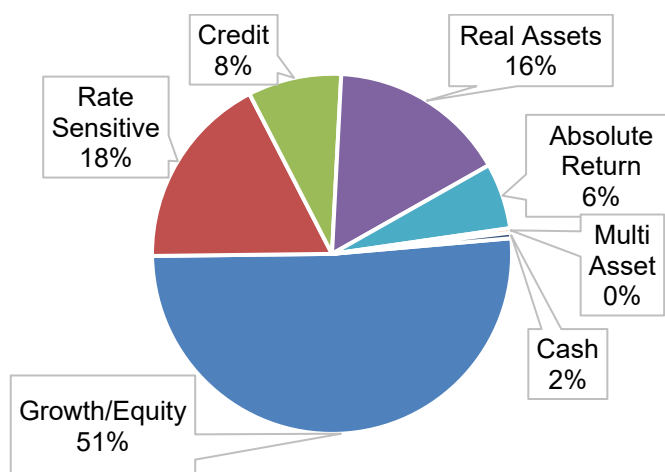
Investments: \$64,364.6 million assets under management (as of March 31, 2023)
 \$64,634.1 million assets under management (as of June 30, 2022)

Indexed Assets - \$16,035.5 million (a/o March 31, 2023) – 24.9% of total assets.,

Terra Maria - \$2,222.1 million (a/o March 31, 2023) – 3.5% of total assets.

Total Private Assets - \$27,840.2 million (a/o March 31, 2023) – 43.3% of total assets.

	Target	Current (a/o March 31, 2023)
Growth/Equity:	50% (+/-7)	51.2% (includes 21.3% Private Equity)
Rate Sensitive	21% (+/-5)	17.6%
Credit	8% (+/-4)	8.4%
Real Assets	15% (+/-4)	16.0% (includes 11.0% Real Estate)
Absolute Return	6% (+/-4)	5.9%
Multi Asset	0%	0.4%
Cash	0%	0.5%



Assets at 6/30/2022: \$64.6 billion

New hi-water mark: \$70.6 billion (December 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.

Investments

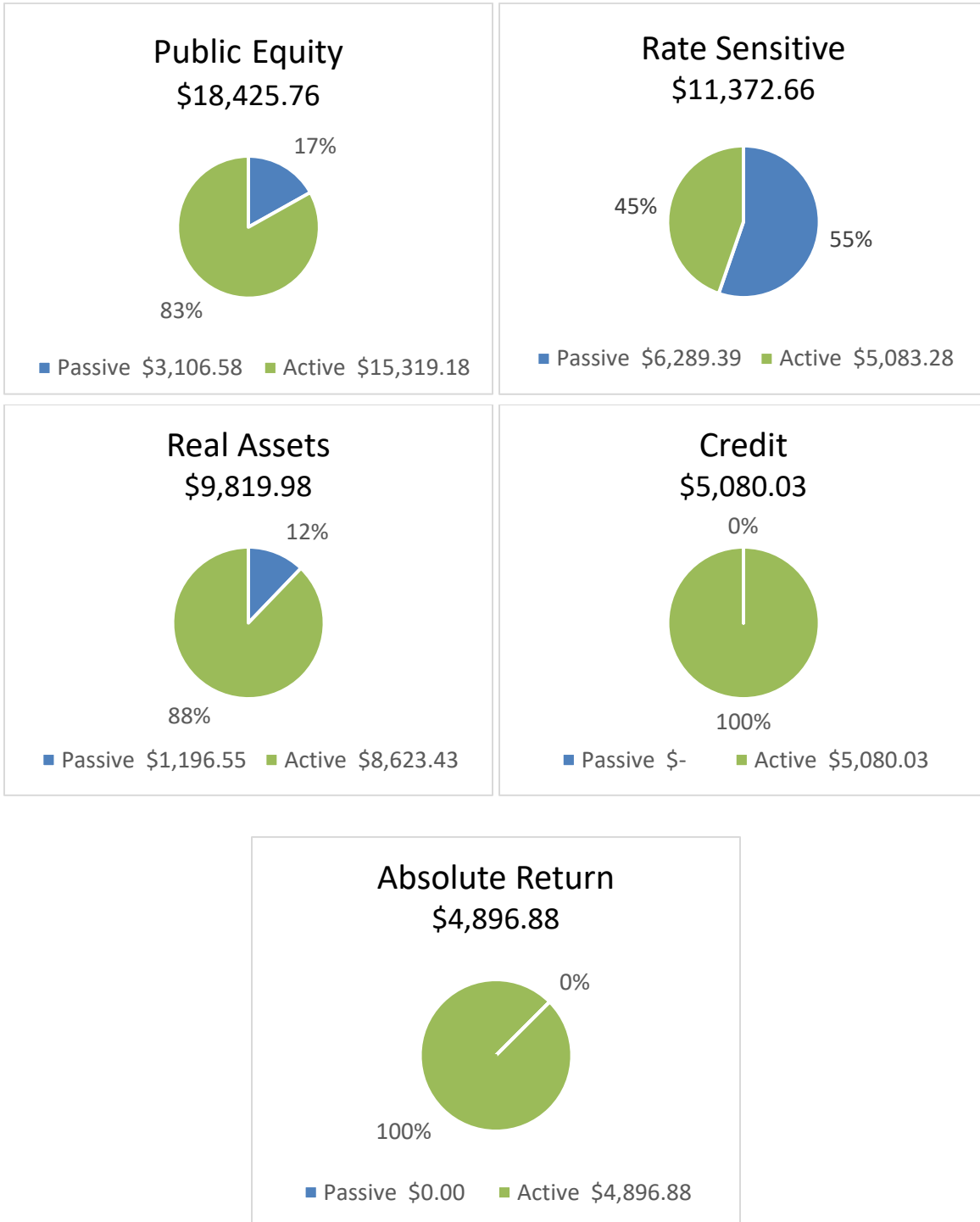
Terra Maria Program as of June 30, 2022

Public Markets						
Ownership	# of Mandates	% Total Mandates	# of Managers	% Total Managers	AUM (\$ millions)	% AUMs
African American	3	10.7%	3	11.5%	\$ 191.44	8.7%
Asian American	3	10.7%	2	7.7%	\$ 280.92	12.8%
Asian American/Woman	1	3.6%	1	3.8%	\$ 76.28	3.5%
Hispanic/Asian American	1	3.6%	1	3.8%	\$ 68.96	3.2%
Hispanic American	4	14.3%	4	15.4%	\$ 276.14	12.6%
Majority Emerging	7	25.0%	7	26.9%	\$ 410.05	18.7%
Native American	1	3.6%	1	3.8%	\$ 44.17	2.0%
Woman	7	25.0%	6	23.1%	\$ 713.27	32.6%
Woman/African American	1	3.6%	1	3.8%	\$ 126.66	5.8%
Total	28	100.0%	26	100.0%	2,187.89	100.0%

Private Equity						
Ownership	Count	% of Commitments	Commitments	% of Total Committed	Drawn Amount	% of Committed
African American	14	28.6%	\$ 1,115.00	26.1%	\$ 1,097.29	98.4%
Asian American/Woman	4	8.2%	\$ 850.00	19.9%	\$ 673.65	79.3%
Hispanic American	6	12.2%	\$ 440.00	10.3%	\$ 482.35	109.6%
Hispanic/Asian/Middle Eastern	5	10.2%	\$ 270.00	6.3%	\$ 269.39	99.8%
Majority	5	10.2%	\$ 195.00	4.6%	\$ 193.43	99.2%
Woman	15	30.6%	\$ 1,405.00	32.9%	\$ 899.80	64.0%
Total	49	100.0%	\$ 4,275.00	100.0%	\$ 3,615.91	84.58%

Investments

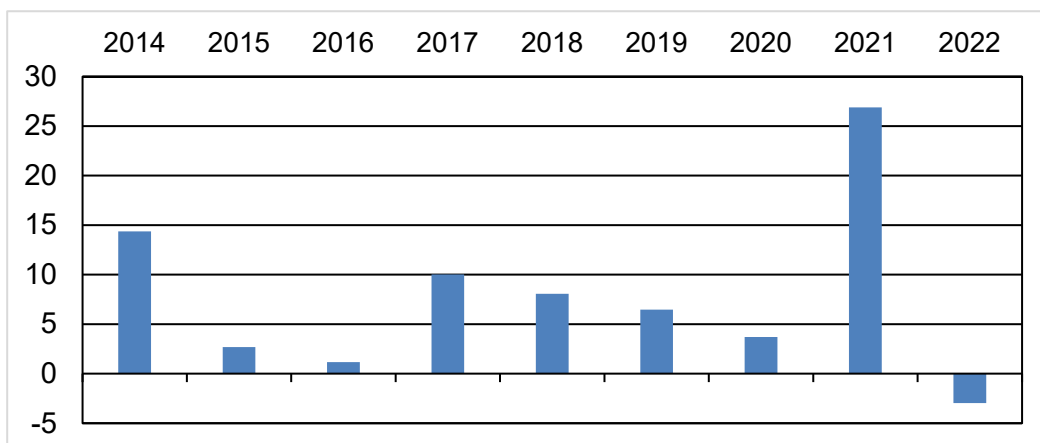
Passive vs. Active by Asset Class
As of June 30, 2022
(In millions)



Investments

Fiscal Year Earnings

FY	Return	Policy Benchmark
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%
2013	10.6%	8.48%



	As of June 30, 2022	As of March 31, 2023
Fiscal Year-to-Date	-2.97%	1.62%
Avg. return over past 1 year	-2.97%	-4.09%
Avg. return over past 3 years	8.38%	10.28%
Avg. return over past 5 years	7.93%	6.72%
Avg. return over past 10 years	7.79%	6.81%
Avg. return since 7/1/1986	8.05%	7.93%

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

SRA rankings

Wilshire Trust Universe Comparison Service (TUCS®)

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

Q4	89 th percentile (Cumulative periods ending December 31, 2022)
1 yr.	41 th percentile
2 yrs.	50 st percentile
3 yrs.	41 rd percentile
4 yrs.	60 th percentile
5 yrs.	60 th percentile.
7 yrs.	60 th percentile
10 yrs.	84 th percentile

InvMetrics

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

Q4	99 th percentile (cumulative periods ending December 31, 2022)
1yr.	28 th percentile
3yrs.	13 th percentile
5 yrs.	17 th percentile
10 yrs.	53 th percentile

Financial

Contribution Rates by fiscal year budget:

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

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

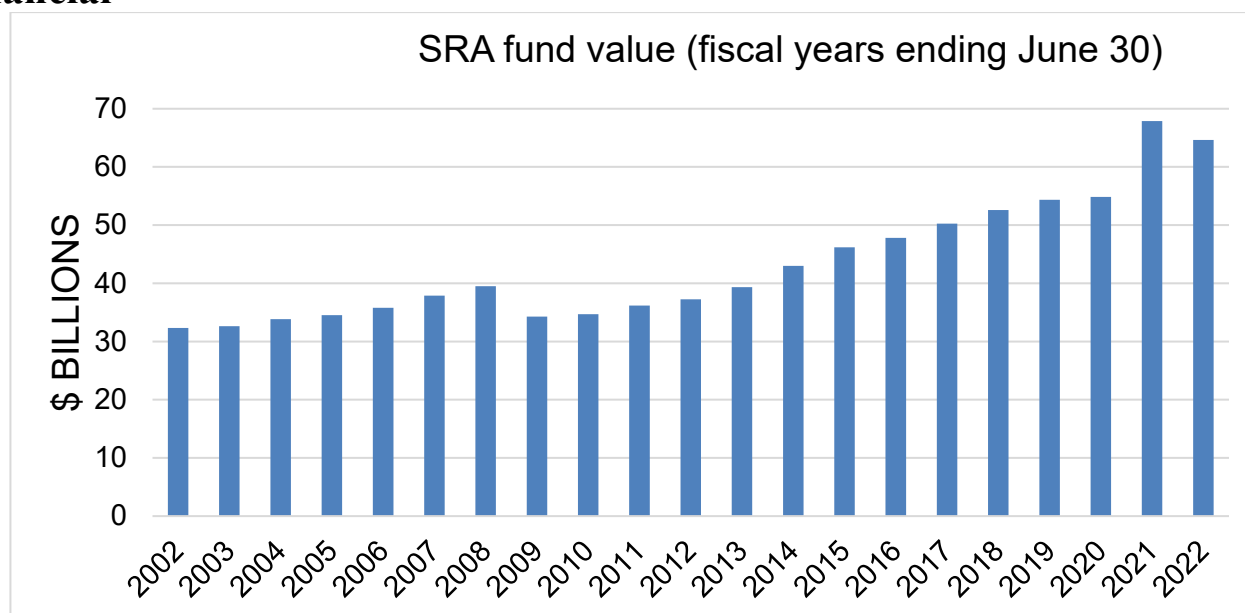
State Sponsored Plans	Teachers	Employees (State)	State Police	Judges	LEOPS (State)	Total State*
Employer Normal Cost Contribution	5.04%	4.36%	27.18%	32.37%	18.39%	4.47%
UAAL Contribution	9.82%	16.77%	51.50%	10.63%	27.50%	13.03%
Total Employer Contribution	14.86%	21.13%	78.68%	43.00%	45.89%	17.50%
Reinvested 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	<u>-1,942,133</u>
Total	\$1,234,437

Financial



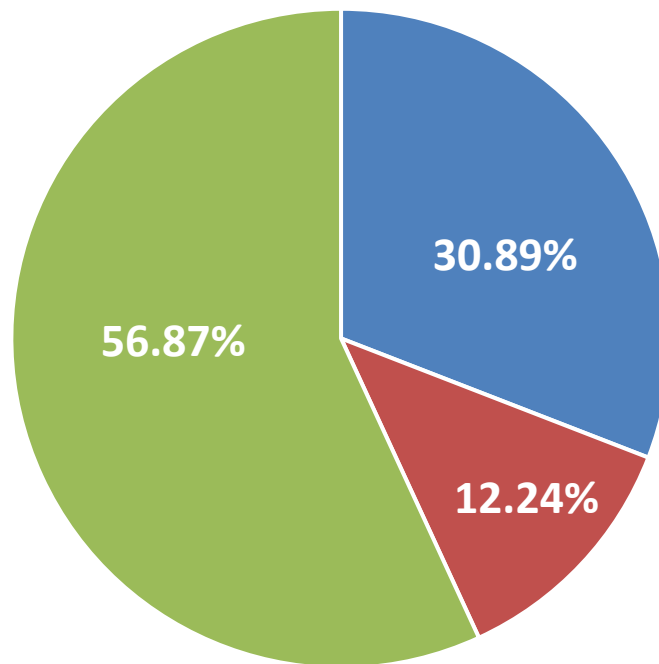
TEN-YEAR HISTORY OF CHANGES IN NET ASSETS

For the Years Ended June 30
(Expressed in thousands)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ADDITIONS										
Employer contributions (Includes TCS Local Employer's Portion of \$136,645)	\$1,643,101	\$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

Twenty-Year Average in Contributions
(As of June 30, 2022)



- Employer Contributions
- Member Contributions
- Investment Income

Actuarial

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

Rate of return:	6.80% (compounded annually) / U.S. avg.: 6.99% (a/o 3/2022)
Inflation	2.25%
Real Return	4.55%
Salary increases:	2.75% (compounded annually)
Mortality:	Fully generational –Pub-2010/MP2018 projection scale

	<u>Actuarial Funded Status</u>	<u>Liabilities</u>	<u>Assets</u>	Δ
FY 2022	77.19%	\$85,248,063,628	\$65,798,923,071	\$19,449,140,557
	<u>Market Funded Status</u>	<u>Liabilities</u>	<u>Assets</u>	Δ
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%
<u>FY 2021</u>	81.8%
<u>FY 2020</u>	70.7%
<u>FY 2019</u>	72.3%
<u>FY 2018</u>	71.2%

Past years actuarial funded status

FY	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
State Only	64.6%	67.7%	68.6%	69.5%	70.9%	71.6%	72.2%	72.9%	76.2%	76.6%
State/Muni	65.5%	68.7%	69.7%	70.5%	71.8%	72.5%	73.0%	73.6%	76.9%	77.2%

Contribution Rates by fiscal year budget:

	FY 2024	FY 2023	FY2022	FY2021	FY 2020
Teachers	15.14	14.65	14.67	14.96	15.59
Employees	21.15	20.68	20.50	20.71	19.56
State Police	78.69	76.45	75.30	78.09	79.58
Judges	43.00	40.02	41.92	40.27	44.44
LEOPS	45.92	44.73	42.28	42.96	41.37
Composite	18.07	17.55	17.50	17.75	17.82

Administration

SRA Employees (as of July 1, 2022):

PINs	220	(Filled and Vacant)
Contractual	20 *	(includes summer interns)
Total	240	

Frozen PINs (as of July 1, 2022):

PINs	1	
Contractual	6 *	(includes summer interns)
	7	

SRA Staff:

- 2.27% = 2 Political Appointment (at will positions) – Rachel Cohen, Michael Golden
- 2 Executive Service (at will positions) – Martin Noven, Kenneth Reott
- 1 Independent Appointment (at will position) – Andrew Palmer
- 22.73% = 50 Management Service (at will positions)
- 15.00% = 33 Special Appointments (at will positions) – includes attorneys
- 3.18% = 7 Professional Services (merit positions) – all attorneys
- 60.91% = 134 Skilled Service (merit positions)
- 3.33% = 8 Contractual(s) (filled only)

NOTES:

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 designated 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, 2022):

Division	Pinned Positions	Vacant PINs	Contractual	Vacant Contractual PINs
Administration	3	0	0	0
Benefits Processing	28	4	0	1
BOO (Formerly PMO)	5	0	0	1
Data Control	24	4	0	1 (Includes 3 intern position)
Executive (Includes division heads)	10	0	0	0
External Affairs	2	0	0	0
Finance	20	5	2	6 (Includes 3 intern positions)
Internal Audit	2	1	0	1 (Intern)
Investment	39	6	3	0 (Intern positions)
IT	20	4	1	1
Legal OAG	9	0*	0	0
Member Services & Counseling	28	3	1	1 (Intern)
Special Projects	4	1	1	0
TOTALS	194	26	8	12

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 (68% special funds; 32% reimbursable funds)

Investment Division’s “non-budgeted” amount for FY23: \$18,586,822.

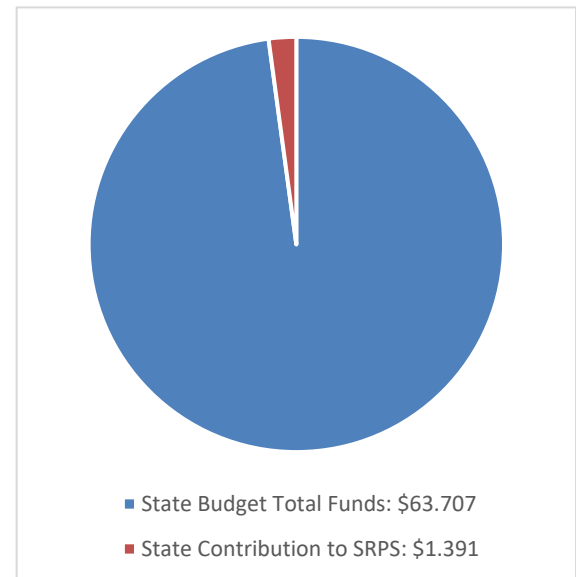
Projected employer contributions as a percent of the general fund budget

Fiscal Year	State Employees	Local Teachers	Total*
2018	3.0	4.6	7.6
2019	2.9	4.6	7.5
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

* Totals may not add due to rounding.

As a percentage of state budget (FY 2023)

General Funds: \$1.391 billion out of \$20.024 billion	4.87%
GF Contribution for State Employees: \$577.6 million	2.06%
GF Contribution for Local Teachers: \$787.9 million	4.81%
Total Funds: \$1.771 billion out of \$63.707 billion	2.78%
TF Contribution for State Employees: \$933.2 million	1.46%
TF Contribution for Local Teachers: \$787.9 million	1.24%



Disability Retirees (as of 6/30/2022)

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

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 basic.
- 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 December 31, 2022**

Asset Class	Market Value (\$ millions)	Actual Allocation	Long-Term Policy Target
Total Growth Equity	\$232.1	57.1%	56.0%
Rate Sensitive	\$81.7	20.1%	21.0%
Credit	\$33.7	8.3%	8.0%
Real Assets	\$58.8	14.5%	15.0%
Total Fund	\$406.3	100.0%	100.0%

**Total Plan Investment Performance
For Periods Ended December 31, 2022**

Fiscal YTD	-0.78%
1 Year	-18.06%
3 Years	0.73%
5 Years	2.86%
Since inception (7/1/2008)	5.34%

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 employee 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.

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 non-publicly 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.

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.

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 trade-off 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.