



2022

# Annual Investment Managers Fees and Expenses Report

As of December 31, 2022

Commonwealth of Pennsylvania  
State Employees' Retirement System



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# SERS' Investment Managers Fees and Expenses Summary

2022							
	A	B	C	D	E	F	G
			A+B = C				D-E-F = G
Asset Class	Managers Fees	Managers Operating Expenses	Total Managers Fees and Operating Expenses	Gross Distributions	Return of Capital SERS	Carried Interest Paid to GP's	Net Profit Paid to SERS
Private Equity	\$58,042,542	\$21,403,732	\$79,446,274	\$1,144,043,176	\$617,593,224	\$65,332,188	\$461,117,765
Real Estate	24,665,860	6,035,616	30,701,476	301,090,266	114,411,973	12,905,981	173,772,312
U.S. Equity	2,744,910	0	2,744,910	N/A	N/A	N/A	N/A
International Developed Markets Equity	5,509,817	666,892	6,176,710	N/A	N/A	N/A	N/A
Emerging Markets Equity	6,346,786	527,995	6,874,780	N/A	N/A	N/A	N/A
Fixed Income	9,116,750	121,618	9,238,369	N/A	N/A	N/A	N/A
Inflation Protection (TIPS)	1,115,646	0	1,115,646	N/A	N/A	N/A	N/A
Legacy Private Credit	6,434,389	4,962,195	11,396,583	87,929,602	40,071,798	5,101,703	42,756,101
Legacy Hedge Funds	2,012	0	2,012	N/A	N/A	N/A	N/A
<b>Total</b>	<b>\$113,978,712</b>	<b>\$33,718,048</b>	<b>\$147,696,760</b>	<b>\$1,533,063,044</b>	<b>\$772,076,994</b>	<b>\$83,339,871</b>	<b>\$677,646,178</b>

Managers fees, performance fees, and managers operating expenses provided by SERS' Office of Financial Management. Gross Distributions, Return of Capital SERS, Carried Interest Paid to GP's, and Net Profit Paid to SERS provided by StepStone.

Numbers may not add due to rounding.

## Definitions:

**Carried Interest** – The general partner's share of the profits generated through a private market fund.

**Managers Fees** – The annual fees charged by the fund/firm to cover the basic costs of running and administering a fund.

**Managers Operating Expenses** – These expenses include, but are not limited to, operating and other recurring expenses such as legal expenses, office expenses, audit fees, accounting fees, custodial fees, and third-party vendor fees.

**Performance Fees** – Performance fees are fees paid to a manager for exceeding certain performance thresholds. The calculation methodology is described in detail in each fund or separate account's legal documents (e.g., partnership agreement or side letter). Performance fees may be paid on a "rolling" basis for open-end funds or separate accounts, and are commonly paid by closed-end funds as investments are realized.

# SERS' Investment Managers Fees and Expenses by Fund/Account

Fund/Account Name	Managers Fees <sup>1/</sup>	Managers Operating Expenses <sup>2/</sup>	Carried Interest Paid to GP's <sup>3/</sup>	Total
ABRY Advanced Securities Fund	\$—			
ABRY Partners V	—			
ABRY Partners VI	892			
ABRY Partners VII	74,375			
ABRY Partners VIII	44,323			
ABRY Senior Equity II	—			
Activum SG Fund VI	593,469			
Activum SG Fund VI Pennsylvania Side-Car	185,789			
ADV Opportunities Fund I	315,084	56,793	—	371,877
Advent International GPE VI-A	49,235	8,357	—	57,592
Advent International GPE VII-B	157,154	16,003	—	173,157
Advent International GPE VIII-B	541,169	40,716	518,767	1,100,652
Advent Latin American Private Equity Fund IV	—	25,689	—	25,689
Advent Latin American Private Equity Fund V	80,952	14,776	—	95,728
Advent Latin American Private Equity Fund VI	314,521	26,522	957,927	1,298,970
AG Asia Realty Fund	—			
Altaris Health Partners V	—			
Apollo Hybrid Value Fund	1,033,395	290,302	4,246,098	5,569,795
Apollo Investment Fund IV	—			
Apollo Investment Fund IX	656,966			
Apollo Investment Fund V	—			
Apollo Investment Fund VI	—			
Ares PA Opportunities Fund - Direct Lending	480,523			
Ares PA Opportunities Fund - Distressed Debt	1,111,298	323,431	1,671,434	3,106,163
Ares PA Opportunities Fund - Diversified Credit	400,510			
Ares PA Opportunities Fund - Special Situations	980,000			
ASF IX B	832,192			
ASF VII B	521,365	192,065	—	713,430
ASF VII PA Co-Invest	64,121	104,408	—	168,529
ASF VIII B	1,000,000	271,680	—	1,271,680
ASF VIII PA Co-Invest	36,845			
Asia Alternatives Capital Partners	—	11,171	108,840	120,011
Asia Alternatives Capital Partners II	5,449	30,375	869,372	905,196
Asia Alternatives Capital Partners III	123,045	73,145	—	196,190
Asia Alternatives Capital Partners V	284,729	70,798	—	355,528
Asia Alternatives Korea Buyout Investors (Hahn & Co)	—	19,424	—	19,424
Audax Direct Lending Solutions Fund-A	1,311,860	496,163	751,149	2,559,172
Audax Private Equity Fund	—			
Audax Private Equity Fund II	—			
Audax Private Equity Fund III	—			
Audax Private Equity Fund V	—			
Audax Private Equity Fund VI	—			
Avenue Special Situations Fund VI	—			
AXA Secondary Fund III	—	1,693	—	1,693

Data in this publication is unaudited.

# SERS' Investment Managers Fees and Expenses by Fund/Account

Fund/Account Name	Managers Fees <sup>1/</sup>	Managers Operating Expenses <sup>2/</sup>	Carried Interest Paid to GP's <sup>3/</sup>	Total
AXA Secondary Fund III-2	\$—	\$3,562	\$—	\$3,562
AXA Secondary Fund IV	—	(8,446)	76,101	67,655
AXA Secondary Fund V B	(142)	(74,992)	84,461	9,327
Berkshire Fund VI	—			
Berkshire Fund VII	—			
Berwind Investment Partnership IX	2,164			
Berwind Investment Partnership VI	1,083			
BlackRock MSCI Emerging Markets Index	97,219	109,946	N/A	207,165
BlackRock MSCI World ex U.S. Index	335,803	412,961	N/A	748,764
BlackRock U.S. High Yield Bond Index	59,164	5,022	N/A	64,186
Blackstone Capital IV	—	6,358	38,039	44,397
Blackstone Capital Partners V	—	8,260	—	8,260
Blackstone Capital Partners VII	384,868	37,542	711,688	1,134,098
Blackstone Capital Partners VIII	1,049,942			
Blackstone Communications Partners I	—	1,319	—	1,319
Blackstone Keystone <sup>4/</sup>	5,229,589	—	N/A	5,229,589
Blackstone Property Partners	3,738,112	171,862	—	3,909,974
Blackstone Real Estate Partners IV	—	36,828	326,330	363,158
Blackstone Real Estate Partners V	—	16,797	352,771	369,568
Blackstone Real Estate Partners VI	—	18,970	116,180	135,150
Blackstone Real Estate Partners VII	192,576	9,885	4,043,635	4,246,096
Blue Moon Senior Housing II	624,999			
Blue Moon Senior Housing II Sidecar	179,554			
Brandywine Global	(37)	—	N/A	(37)
Brightwood Capital Fund IV	—	951,628	—	951,628
Brown Brothers Harriman	386,656	—	N/A	386,656
Capvis Equity IV	537,982	24,098	—	562,080
Carlyle Energy Mezzanine Opportunities Fund	—	63,529		
Centerbridge Capital Partners I	(14,499)	11,047	—	(3,452)
Centerbridge Capital Partners III	245,729	61,394	1,787,078	2,094,201
CenterSquare Real Estate Securities	1,172,850	—	N/A	1,172,850
C-III Recovery Fund III	1,383,823			
Clearlake Capital Partners IV	107,460			
Clearlake Capital Partners V	240,670			
Clearlake Capital Partners VI	91,903			
Clearlake Capital Partners VII	476,938			
Clearlake Opportunities Partners II	55,670	1,124,243	—	1,179,913
Clearlake Opportunities Partners III	71,570			
Colony Investors VIII	—			
CVC Capital Partners VII	874,454	91,753	—	966,207
CVC Capital Partners VIII (A)	788,197			
Dover Street VII	—	5,360	105,184	110,544
Emerald Asset Management	1,959,127	—	N/A	1,959,127
Entrust Keystone	2,012	—	N/A	2,012
Eureka Growth Capital III	76,470	17,769	1,190,708	1,284,946
Eureka II	—	18,032	—	18,032

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# SERS' Investment Managers Fees and Expenses by Fund/Account

Fund/Account Name	Managers Fees <sup>1/</sup>	Managers Operating Expenses <sup>2/</sup>	Carried Interest Paid to GP's <sup>3/</sup>	Total
Fidelity Institutional Asset Management	\$1,737,503	\$—	N/A	\$1,737,503
Francisco Partners II	—			
Francisco Partners III	27,488			
Francisco Partners IV	178,897			
FSN Capital IV	71,266			
FSN Capital V	1,006,618			
Glendon Opportunities Fund II	2,796,920			
GlobeFlex Capital	808,968	—	N/A	808,968
Great Hill Equity Partners IV	—			
GTCR Fund XI	192,115			
GTCR Fund XII	383,531			
GTCR VIII	—			
H.I.G. Bayside Debt & LBO Fund II	(46,670)			
H.I.G. Bayside Loan Opp. Fund III	(36,249)			
H.I.G. Bayside Loan Opp. Fund IV	34,498			
H.I.G. Brazil and Latin America Partners	1,002,928			
H.I.G. Europe Capital Partners II	390,821			
H.I.G. Growth Buyouts & Equity Fund II	102,117			
Hahn & Company II	837,894			
Hahn & Company III	1,125,000			
Hahn & Company III - Supplemental Fund	195,172			
HarbourVest IPEP III	—	1,223	—	1,223
HarbourVest PA Co-Investment Fund	673,235			
HarbourVest Partners VI	—	4,011	—	4,011
HarbourVest Partners VII	—	5,406	668	6,073
HarbourVest Partners VIII	150,000	20,474	170,801	341,275
Harris Associates	987,984	—	N/A	987,984
Hawkeye Scout Fund I	—	18,182	44,897	63,079
Hawkeye Scout Fund II	229,634	23,870	—	253,504
Heitman America Real Estate Trust	902,490			
Heitman I.M.A. <sup>5/</sup>	(453,229)		N/A	
Hellman & Friedman Capital Partners IX	983,237			
Hellman & Friedman Capital Partners VI	—	12,165	(220,900)	(208,735)
Hellman & Friedman Capital Partners VIII	274,422	13,632	106,359	394,413
Hellman & Friedman Capital Partners X	1,124,996			
Henderson Park Enhanced Income Fund	2,329,705			
HIPEP V-Asia Pacific & Rest of World	—	3,917	—	3,917
Horizon Impact Fund	170,625	62,853	443,389	676,867
Horizon Impact Fund B	503,350	58,640	—	561,990
hotelAVE I.M.A.	391,538		N/A	
HPS Mezzanine Partners 2019	1,395,836			
ICG Europe Fund VII	791,480	453,317	—	1,244,797
ICG Europe Mid-Market Fund	518,339			
ICG North American Private Debt Fund II	80,001	122,070	104,456	306,527
Incline Equity Partners III	—	8,612	—	8,612
Insight Partners XII	828,170			

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# SERS' Investment Managers Fees and Expenses by Fund/Account

Fund/Account Name	Managers Fees <sup>1/</sup>	Managers Operating Expenses <sup>2/</sup>	Carried Interest Paid to GP's <sup>3/</sup>	Total
Insight Venture Partners IX	\$745,616	\$84,706	\$2,725,587	\$3,555,909
Insight Venture Partners VII	—	103	—	103
Insight Venture Partners VIII	287,137	12,967	151,566	451,670
Insight Venture Partners X	1,491,874	55,211	2,566,716	4,113,800
Insight Venture Partners XI	1,135,763			
JMI Equity Fund VI	—			
JMI Equity Fund VII	—			
JMI Equity Fund VIII	328,052			
Kelso VIII	—	89,626	—	89,626
Keystone Legacy Fund	1,467,802	1,897,971	36,045	3,401,818
KPS Special Situations Fund IV	—	11,021	75,700	86,721
KPS Special Situations Fund V	—			
KPS Special Situations Mid-Cap Fund	993	63,425	167,247	231,665
LaSalle I.M.A.	1,309,133		N/A	
LaSalle Takeover I.M.A.	3,129,204		N/A	
LBC Credit Partners III	61,898			
Leading Edge Investment Advisors	1,776,049	—	N/A	1,776,049
LEM Multifamily Fund VI	750,000			
Lexington Capital Partners III	—			
Lexington Capital Partners V	—			
Lexington Capital Partners VI	—			
Lightspeed India Partners I	346,875			
Lightspeed Venture Partners VIII	151,630			
LLR Equity Partners II	—			
LLR Equity Partners III	—			
LLR Equity Partners IV	227,200			
LLR Equity Partners V	1,071,032			
LLR Equity Partners VI	869,818			
Lubert Adler Fund VII	150,997	57,527	—	208,524
Macquarie Emerging Markets	1,852,086	55,555	N/A	1,907,641
Madison Dearborn Capital Partners V	—	2,859	523,970	526,829
Madison Dearborn Capital Partners VI	—	16,233	302,753	318,986
Martin Currie Investment Management	1,812,464	362,493	N/A	2,174,957
Mellon HY Beta Fund	152,441	19,221	N/A	171,662
Mellon Investments Corporation Bond Index	356,618	70,717	N/A	427,335
Mellon Investments Corporation Intermediate Credit Bond Index	100,442	—	N/A	100,442
Mellon Investments Corporation Intermediate Treasury Bond Index	30,605	—	N/A	30,605
Mellon Investments Corporation Long Duration Bond Index	62,688	—	N/A	62,688
Mellon Investments Corporation Long Term Credit Bond Index	30,560	—	N/A	30,560
Mellon Investments Corporation Russell 1000	552,583	—	N/A	552,583
Mellon Investments Corporation Russell 2000 Core	137,336	—	N/A	137,336
Mellon Investments Corporation Russell 2000 Value	95,863	—	N/A	95,863
Mellon Investments Corporation Securitized Index	34,779	26,659	N/A	61,438
Meritech Capital Partners IV	10,339			
Meritech Capital Partners V	345,000			
Mesirow Financial Real Estate Value Fund III	319,567	—	—	319,567

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# SERS' Investment Managers Fees and Expenses by Fund/Account

Fund/Account Name	Managers Fees <sup>1/</sup>	Managers Operating Expenses <sup>2/</sup>	Carried Interest Paid to GP's <sup>3/</sup>	Total
Neuberger Berman PA Co-Investment Fund	\$291,125			
New Century Advisors	277,502	—	N/A	277,502
New Enterprise Associates 12	—	—	413,173	413,173
Newbridge Asia IV	—			
NewSpring Growth Capital II	—			
NGP Keystone	—			
NGP XII	1,034,488			
NISA Investment Advisors	451,487	—	N/A	451,487
Oak Street Real Estate Capital Fund IV	448,194	788,988	—	1,237,182
Oak Street Real Estate Capital Fund V	331,070			
Oak Street Real Estate Capital Net Lease Property Fund	3,239,084	1,315,755	—	4,554,839
Oaktree Opportunities Fund IX	373,391			
Oaktree Power Opportunities Fund III	—			
OCM Opportunities Fund VII	—			
OCM Opportunities Fund VII b	—			
OCM Opportunities Fund VIII	—			
OCM Opportunities Fund VIII b	43,271			
Penn Asia Investors	—	173,348	—	173,348
Permira Credit Solutions IV Master (Feeder) SCSp	921,529			
Permira European Fund II	—			
Permira European Fund III	—			
Permira IV	—			
Permira Susquehanna Opportunities - Buyout	51,809			
Permira Susquehanna Opportunities - Credit	77,714			
Permira VI	431,806			
Permira VII	677,143			
PIMCO Core <sup>6/</sup>	1,081,881	—	N/A	1,081,881
PIMCO U.S. Treasuries	89,210	—	N/A	89,210
Platinum Equity Capital Partners III	—	—	720,262	720,262
Primavera Capital Fund II	799,316	—	—	799,316
Primavera Capital Fund III	1,201,212	—	—	1,201,212
Providence Equity Partners V	—			
Providence Equity Partners VI	—			
Providence Strategic Growth Europe	850,296			
Providence Strategic Growth II	291,257	140,424	280,093	711,774
Providence Strategic Growth III	559,909	842,446	1,769,666	3,172,021
Providence Strategic Growth IV	617,720			
Prudential Senior Housing Fund V	424,700			
Prudential Senior Housing Fund VI	832,853			
PSG Europe II	775,046			
PSG V	965,461			
Ridgmont Equity Partners II	190,439	88,851	247,130	526,420
Rockpoint Finance Fund I	—			
Rockpoint Real Estate Fund II	—			
Rockpoint Real Estate Fund III	—			
Rockpoint Real Estate Fund V	460,836			

Data in this publication is unaudited.



# SERS' Investment Managers Fees and Expenses by Fund/Account

Fund/Account Name	Managers Fees <sup>1/</sup>	Managers Operating Expenses <sup>2/</sup>	Carried Interest Paid to GP's <sup>3/</sup>	Total
RRJ Capital Master Fund III	\$287,356			
Rubicon First Ascent	450,000			
Rubicon First Ascent Sidecar	26,995			
SEI Structured Credit Fund	150,654	—	N/A	150,654
Sentinel Capital Partners V	(81,897)			
Sentinel Capital Partners VII	—			
Silver Lake Partners V	547,090	66,957	394,865	1,008,912
Sixth Street Opportunities Partners IV (A)	545,625	273,530	122,310	941,465
Sixth Street Opportunities Partners V	565,068			
Sixth Street TAO 4.0 (B)	865,119	226,859	857,517	1,949,495
Sixth Street TAO Contingent (D)	1,064,837	312,923	456,527	1,834,287
SRE Opportunity Fund III	693,908			
SRE Opportunity Fund III Select	77,852			
Starwood Fund VI	—			
Starwood Fund VII	—			
Starwood Fund VIII	—			
Sterling Group Partners IV	84,433	24,178	277,636	386,247
Stone Harbor EMD	558	—	N/A	558
Stone Harbor HY	416	—	N/A	416
T. Rowe Price Stock Distribution Account	271,522	—	N/A	271,522
Taplin, Canida & Habacht (TCH)	(321)	—	N/A	(321)
TCV X	1,500,000	36,457	—	1,536,457
TDR Capital IV	1,425,313	—	385,153	1,810,466
Thoma Bravo Discover Fund III	53,760			
Thoma Bravo Discover Fund IV	500,000			
Thoma Bravo Fund XIII	—			
Thoma Bravo Fund XIV	—			
Thoma Bravo Fund XV	—			
TPG Asia V	—	7,669	83,420	91,089
TPG Partners IV	—			
TPG Partners V	—	7,612	—	7,612
TPG Partners VI	—	21,459	29,200	50,659
TSG8	1,772,944	338,838	—	2,111,782
TSG9	500,000			
UBS Trumbull Property Fund	222,381	12,366	—	234,747
ValStone Opportunity Fund V	235,546	57,136	—	292,682
Veritas Capital Partners VIII	1,318,493			
Vista Equity Partners Fund VI	1,716,397			
Vista Equity Partners Fund VII	1,128,207			
Walter Scott & Partners Limited	2,742,574	—	N/A	2,742,574
Weathergage Venture Capital	92,732	16,389	240,953	350,074
Weathergage Venture Capital II	136,551	41,866	130,931	309,348
Westbrook Fund V	—	2,452	—	2,452
Westbrook Fund VI	—	3,184	—	3,184
Westbrook Fund VII	44,593	—	—	44,593
Westbrook Fund VIII	44,391	—	—	44,391

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# SERS' Investment Managers Fees and Expenses by Fund/Account

<b>Fund/Account Name</b>	<b>Managers Fees<sup>1/</sup></b>	<b>Managers Operating Expenses<sup>2/</sup></b>	<b>Carried Interest Paid to GP's<sup>3/</sup></b>	<b>Total</b>
Wind Point Partners IX-A	\$79,771			
Wind Point Partners VIII	246,398			
Xponance	1,443,456	253,931	N/A	1,697,387
<b>Total</b>	<b>\$113,978,712</b>	<b>\$33,718,048</b>	<b>\$83,339,871</b>	<b>\$231,036,631</b>

N/A - Not Subject to Carried Interest.

Managers fees, performance fees, and managers operating expenses provided by SERS' Office of Financial Management. Carried Interest details provided by StepStone.

Numbers may not add due to rounding.

<sup>1/</sup> Manager fees may include accrual (estimate) true-ups.

<sup>2/</sup> Includes normal operating expenses associated with running the partnership or portfolio. These include legal expenses, office expenses, audit fees, accounting fees, custodial fees, and third-party vendor fees.

<sup>3/</sup> Negative amounts represent carried interest that was credited back to SERS.

<sup>4/</sup> The Blackstone Keystone Manager Fee includes [REDACTED] for their 2022 Performance Fee.

<sup>5/</sup> The Heitman I.M.A. Manager Fee includes [REDACTED] for their 2022 Performance Fee.

<sup>6/</sup> The PIMCO Core Manager Fee includes [REDACTED] which was accrued for their 2022 Performance fee.

## SERS' Private Equity Fees and Expenses by Manager

Manager Name	Managers Fees <sup>1/</sup>	Managers Operating Expenses <sup>2/</sup>	Carried Interest Paid to GP's <sup>3/</sup>	Total
ABRY	\$119,591			
ADV	315,084	56,793	—	371,877
Advent	1,143,031	132,063	1,476,694	2,751,787
Altaris	—			
Apollo	656,966			
Ares <sup>4/</sup>	2,174,138			
Ardian	2,454,381			
Asia Alternatives	413,223	378,261	978,212	1,769,696
Audax	—			
Avenue	—			
Berkshire	—			
Blackstone	1,434,810			
Capvis	537,982	24,098	—	562,080
Carlyle	—	63,529		
Centerbridge	231,230	72,441	1,787,078	2,090,749
Clearlake <sup>4/</sup>	910,255			
CVC	1,662,651			
HarbourVest	1,497,210			
Eureka	76,470	35,801	1,190,708	1,302,978
Francisco Partners	206,385			
FSN Capital	1,077,884			
Glendon <sup>4/</sup>	2,168,923			
Great Hill	—			
GTCR	575,646			
H.I.G.	1,447,446			
Hahn & Company	2,158,066			
Hellman & Friedman	2,382,655			
HPS <sup>4/</sup>	1,051,897			
ICG <sup>4/</sup>	868,564			
Incline	—	8,612	—	8,612
Insight Venture Partners	4,488,560			
JMI	328,052			
Kelso	—	89,626	—	89,626
Keystone	1,467,802	1,897,971	36,045	3,401,818
KPS	993			
LBC	61,898			
Lexington	—			
Lightspeed	498,505			
LLR	2,168,050			
Madison Dearborn	—	19,092	826,723	845,815
Meritech	355,339			

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# SERS' Private Equity Fees and Expenses by Manager

Manager Name	Managers Fees <sup>1/</sup>	Managers Operating Expenses <sup>2/</sup>	Carried Interest Paid to GP's <sup>3/</sup>	Total
Neuberger Berman	\$291,125			
New Enterprise	—	—	413,173	413,173
TPG	—			
NewSpring	—			
NGP	1,034,488			
Oaktree	416,662			
Permira	1,160,758			
Platinum	—	—	720,262	720,262
Primavera	2,000,528	—	—	2,000,528
Providence	—			
PSG	4,059,689			
Ridgmont	190,439	88,851	247,130	526,420
RRJ	287,356			
Sentinel	(81,897)			
Silver Lake	547,090	66,957	394,865	1,008,912
Sixth Street <sup>4/</sup>	2,376,099			
Sterling	84,433	24,178	277,636	386,247
T.Rowe Price	271,522	—	—	271,522
TCV	1,500,000	36,457	—	1,536,457
TDR	1,425,313	—	385,153	1,810,466
Thoma Bravo	553,760			
TSG	2,272,944			
Veritas	1,318,493			
Vista Equity	2,844,604			
Weathergag	229,283	58,255	371,884	659,422
Wind Point	326,169			
<b>Total Private Equity</b>	<b>\$58,042,542</b>	<b>\$21,403,732</b>	<b>\$65,332,188</b>	<b>\$144,778,462</b>

N/A - Not Subject to Carried Interest.

Managers fees, performance fees, and managers operating expenses provided by SERS' Office of Financial Management. Carried Interest details provided by StepStone.

Numbers may not add due to rounding.

<sup>1/</sup> Manager fees may include accrual (estimate) true-ups.

<sup>2/</sup> Includes normal operating expenses associated with running the partnership or portfolio. These include legal expenses, office expenses, audit fees, accounting fees, custodial fees, and third-party vendor fees.

<sup>3/</sup> Negative amounts represent carried interest that was credited back to SERS.

<sup>4/</sup> Represents fees and expenses of the managers' funds for the period of time that the funds of the manager were categorized Private Equity.

## SERS' Real Estate Fees and Expenses by Manager

Manager Name	Managers Fees <sup>1/</sup>	Managers Operating Expenses <sup>2/</sup>	Carried Interest Paid to GP's	Total
Activum	\$779,258			
Angelo Gordon	—			
Apollo	—			
Berwind	3,247			
Blackstone	3,930,688	254,342	4,838,916	9,023,946
Blue Moon	804,553			
CenterSquare	1,172,850	—	N/A	1,172,850
C-III	1,383,823			
Colony	—			
Hawkeye	229,634	42,052	44,897	316,583
Heitman <sup>3/</sup>	449,261			
Henderson Park	2,329,705			
hotelAVE	391,538		N/A	
LaSalle	4,438,337		N/A	
LEM	750,000			
Lubert Adler	150,997	57,527	—	208,524
Mesirow	319,567	—	—	319,567
Oak Street	4,018,348			
PGIM	1,257,553			
Rockpoint	460,836			
Rubicon	476,995			
Singerman	771,760			
Starwood	—			
UBS	222,381	12,366	—	234,747
Valstone	235,546	57,136	—	292,682
Westbrook	88,984	5,636	—	94,620
<b>Total Real Estate</b>	<b>\$24,665,860</b>	<b>\$6,035,616</b>	<b>\$12,905,981</b>	<b>\$43,607,457</b>

N/A - Not Subject to Carried Interest.

Managers fees, performance fees, and managers operating expenses provided by SERS' Office of Financial Management. Carried Interest details provided by StepStone.

Numbers may not add due to rounding.

<sup>1/</sup> Manager fees may include accrual (estimate) true-ups.

<sup>2/</sup> Includes normal operating expenses associated with running the partnership or portfolio. These include legal expenses, office expenses, audit fees, accounting fees, custodial fees, and third-party vendor fees.

<sup>3/</sup> The Heitman I.M.A. Manager Fee includes ██████████ for their 2022 Performance Fee.

## SERS' U.S. Equity Fees and Expenses by Manager

<b>Manager Name</b>	<b>Managers Fees<sup>1/</sup></b>	<b>Managers Operating Expenses<sup>2/</sup></b>	<b>Total</b>
Emerald	\$1,959,127	\$—	\$1,959,127
Mellon Investments Corporation	785,783	—	785,783
<b>Total U.S. Equity</b>	<b>\$2,744,910</b>	<b>\$—</b>	<b>\$2,744,910</b>

## SERS' International Developed Markets Equity Fees and Expenses by Manager

<b>Manager Name</b>	<b>Managers Fees<sup>1/</sup></b>	<b>Managers Operating Expenses<sup>2/</sup></b>	<b>Total</b>
BlackRock	\$335,803	\$412,961	\$748,764
Harris	987,984	—	987,984
Walter Scott	2,742,574	—	2,742,574
Xponance	1,443,456	253,931	1,697,387
<b>Total International Developed Markets Equity</b>	<b>\$5,509,817</b>	<b>\$666,892</b>	<b>\$6,176,710</b>

## SERS' Emerging Markets Equity Fees and Expenses by Manager

<b>Manager Name</b>	<b>Managers Fees<sup>1/</sup></b>	<b>Managers Operating Expenses<sup>2/</sup></b>	<b>Total</b>
BlackRock	\$97,219	\$109,946	\$207,165
GlobeFlex	808,968	—	808,968
Leading Edge	1,776,049	—	1,776,049
Macquarie	1,852,086	55,555	1,907,641
Martin Currie	1,812,464	362,493	2,174,957
<b>Total Emerging Markets</b>	<b>\$6,346,786</b>	<b>\$527,995</b>	<b>\$6,874,780</b>

Managers fees, performance fees, and managers operating expenses provided by SERS' Office of Financial Management.

Numbers may not add due to rounding.

<sup>1/</sup> Manager fees may include accrual (estimate) true-ups.

<sup>2/</sup> Includes normal operating expenses associated with running the partnership or portfolio. These include legal expenses, office expenses, audit fees, accounting fees, custodial fees, and third-party vendor fees.

## SERS' Fixed Income Fees and Expenses by Manager

Manager Name	Managers Fees <sup>1/</sup>	Managers Operating Expenses <sup>2/</sup>	Total
BlackRock	\$59,164	\$5,022	\$64,186
Blackstone Keystone <sup>3/</sup>	5,229,589	—	5,229,589
BMO	(321)	—	(321)
Brandywine	(37)	—	(37)
Fidelity	1,737,503	—	1,737,503
Mellon Investments Corporation	768,133	116,597	884,730
PIMCO <sup>4/</sup>	1,171,092	—	1,171,092
SEI	150,654	—	150,654
Stone Harbor	973	—	973
<b>Total Fixed Income</b>	<b>\$9,116,750</b>	<b>\$121,618</b>	<b>\$9,238,369</b>

## SERS' Inflation Protection (TIPS) Fees and Expenses by Manager

Manager Name	Managers Fees <sup>1/</sup>	Managers Operating Expenses <sup>2/</sup>	Total
Brown Brothers	\$386,656	\$—	\$386,656
New Century	277,502	—	277,502
NISA	451,487	—	451,487
<b>Total Inflation Protection (TIPS)</b>	<b>\$1,115,646</b>	<b>\$—</b>	<b>\$1,115,646</b>

Managers fees, performance fees, and managers operating expenses provided by SERS' Office of Financial Management. Numbers may not add due to rounding.

<sup>1/</sup> Manager fees may include accrual (estimate) true-ups.

<sup>2/</sup> Includes normal operating expenses associated with running the partnership or portfolio. These include legal expenses, office expenses, audit fees, accounting fees, custodial fees, and third-party vendor fees.

<sup>3/</sup> The Blackstone Keystone Manager Fee includes ██████████ for their 2022 Performance Fee.

<sup>4/</sup> The PIMCO Core Manager Fee includes ██████████ which was accrued for their 2022 Performance fee.

## SERS' Legacy Private Credit Fees and Expenses by Manager

Manager Name	Managers Fees <sup>1/</sup>	Managers Operating Expenses <sup>2/</sup>	Carried Interest Paid to GP's	Total
Apollo	\$1,033,395	\$290,302	\$4,246,098	\$5,569,795
Ares <sup>3/</sup>	798,193			
Audax	1,311,860	496,163	751,149	2,559,172
Brightwood	—	951,628	—	951,628
Clearlake <sup>4/</sup>	133,956			
Glendon <sup>4/</sup>	627,997			
HPS <sup>4/</sup>	343,939			
ICG <sup>3/</sup>	521,256			
Permira	999,243			
Sixth Street <sup>4/</sup>	664,550			
<b>Total Legacy Private Credit</b>	<b>\$6,434,389</b>	<b>\$4,962,195</b>	<b>\$5,101,703</b>	<b>\$16,498,286</b>

## SERS' Legacy Hedge Funds Equity Fees and Expenses by Manager

Manager Name	Managers Fees <sup>1/</sup>	Managers Operating Expenses <sup>2/</sup>	Total
Entrust	\$2,012	\$—	\$2,012
<b>Total Legacy Hedge Funds</b>	<b>\$2,012</b>	<b>\$—</b>	<b>\$2,012</b>

Managers fees, performance fees, and managers operating expenses provided by SERS' Office of Financial Management. Carried Interest details provided by StepStone.

Numbers may not add due to rounding.

<sup>1/</sup> Manager fees may include accrual (estimate) true-ups.

<sup>2/</sup> Includes normal operating expenses associated with running the partnership or portfolio. These include legal expenses, office expenses, audit fees, accounting fees, custodial fees, and third-party vendor fees.

<sup>3/</sup> Represents fees and expenses of the managers' funds for the period of time that this manager had funds categorized in Private Credit prior to being moved to Legacy Private Credit and/or Private Equity.

<sup>4/</sup> Represents fees and expenses of the managers' funds for the period of time that this manager had funds categorized in Private Credit and are now considered Private Equity.