



pennsylvania
State Employees' Retirement System

2015 Financial Highlights

Service and stewardship since 1923.

	<u>Page</u>
SERS Defined Benefit Plan	
• Changes in Fiduciary Net Position	3
• Contribution Highlights	4
• Annuity Payroll	5
• Annuitant Profile	6
• 2015 Retirement Payment by County	7
• 10 Year Funding and Payment Activity	8
• Contributions	9
• Projected Funding Levels & Contribution Rates	10
• Active Member Profile	11
• GASB 67	12
• GASB 68	13
SERS Deferred Compensation Program	
• Changes in Net Position Available for Benefits	14
• Fund Balances & Breakouts	15
• Fund Returns	16
• Contributions by Fund	17
• Contribution Levels	18
• Participant Account Balance Demographics	19
• 10 Year Growth of the Fund	20
• Participant History	21
• Roth Option	22
• Self-Directed Brokerage Account	23
Other Data	24

Changes in Fiduciary Net Position

(\$ millions)

	2015	2014	Change	
			\$	%
Net Position - Beginning	\$ 27,338	\$ 27,394		
Contributions	1,732	1,450	282	19%
Net Investment Income	88	1,462	(1,374)	-94%
Less:				
Benefit Payments and Refunds	3,081	2,946	135	5%
Administrative Expenses	22	22	-	0%
Net Decrease	(1,283)	(56)		
Net Position - End of Year	\$ 26,055	\$ 27,338		

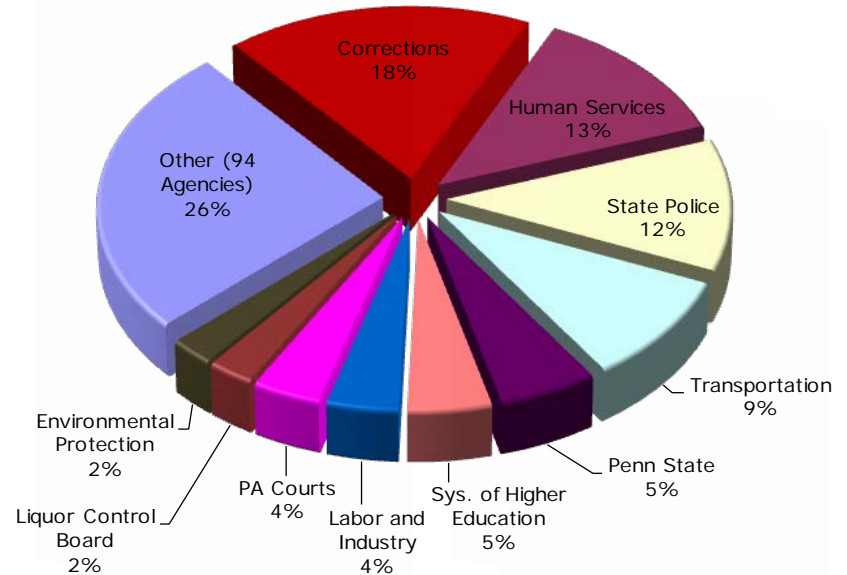
Contributions Highlights

For the Year Ended December 31, 2015

<u>Employer</u>	Employer Contributions (\$ millions)	Active Members
Corrections	\$ 247	15,362
Human Services	171	17,085
State Police	159	6,459
Transportation	127	12,434
Penn State	73	6,111
Sys. of Higher Education	62	4,929
Labor and Industry	53	4,751
PA Courts	51	1,940
Liquor Control Board	34	4,313
Environmental Protection	33	2,485
Other (94 Employers)	350	29,156
Total Employer	\$ 1,360	105,025

	Member Contributions (\$ millions)
All 104 Employers	\$ 372
Total Contributions	\$ 1,732

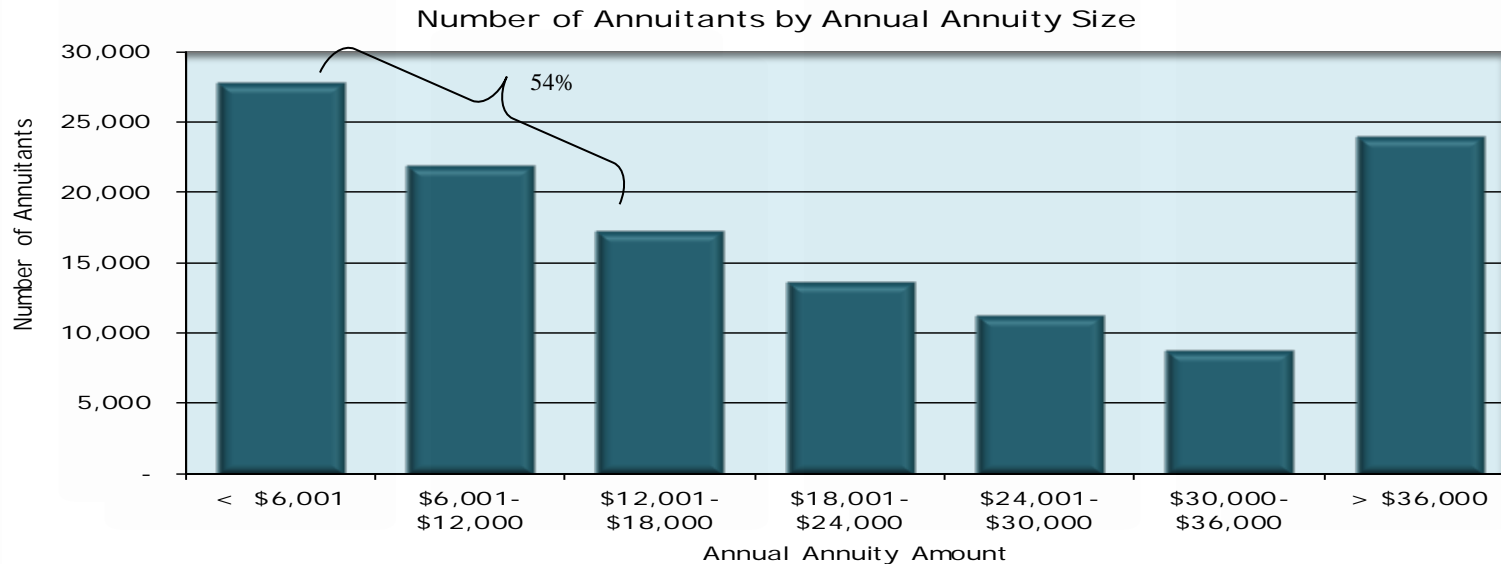
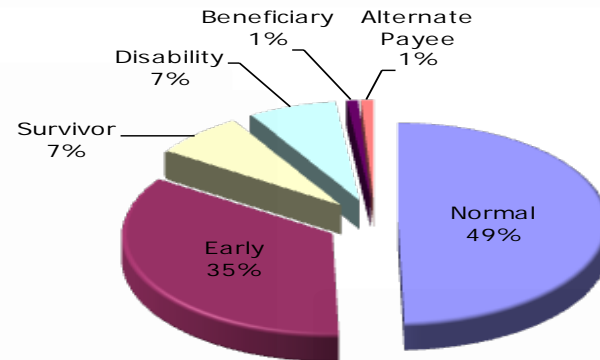
Top 10 Contributing Employers as a Percent of Total Contribution Dollars



Annuity Payroll

As of December 31, 2015

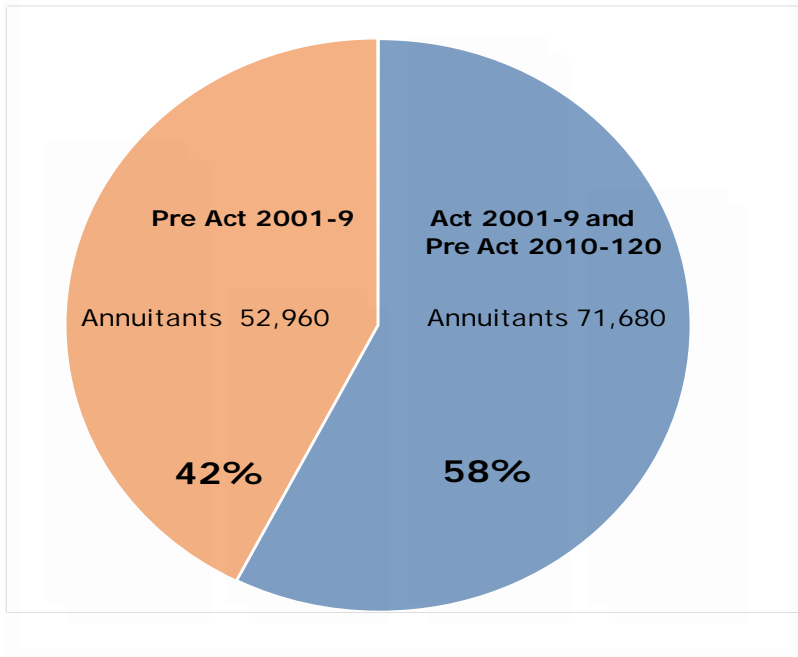
Retirement Member Types	Number of Annuitants	Average Annual Annuity
Normal	61,753	\$ 27,042
Early	43,274	16,934
Survivor	8,852	12,313
Disability	8,510	15,021
Beneficiary	1,089	11,827
Alternate Payee	1,211	9,933
Total	124,689	\$ 21,369



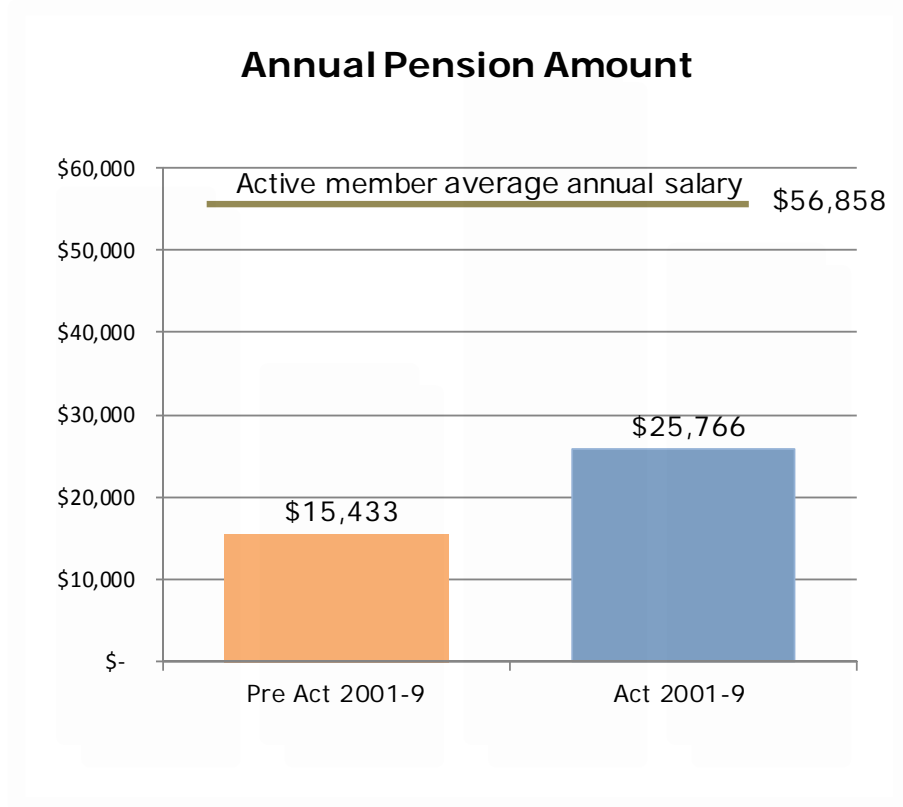
Annuitant Profile

Number of Annuitants by Major Legislative Provision and Average Annual Pension^{1/}

2015 Annuitants
124,640



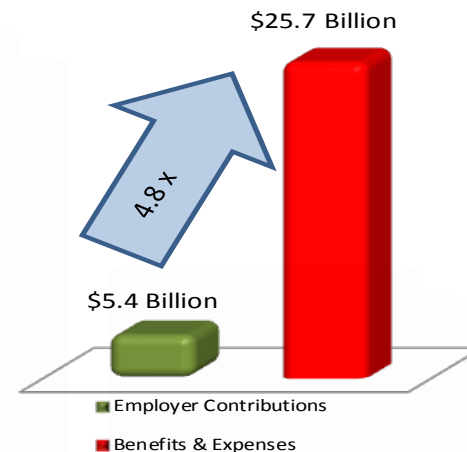
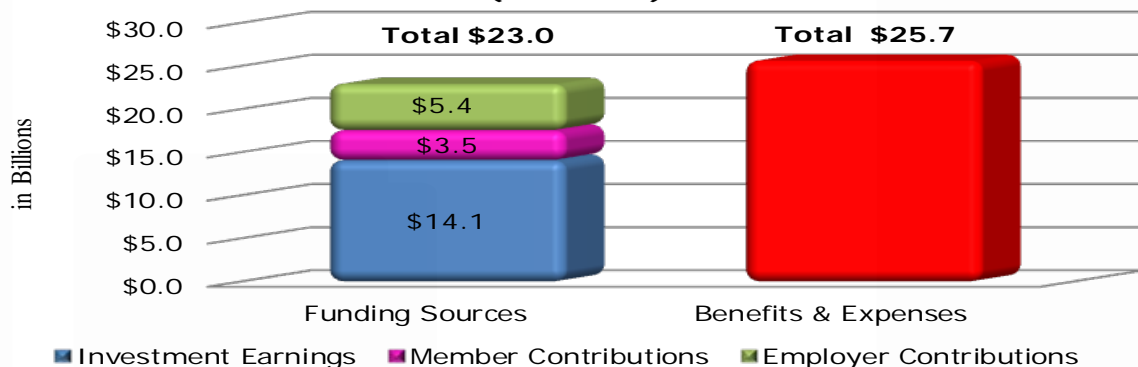
Annual Pension Amount



^{1/} Does not include post Act 2010-120

10 Year Funding and Payment Activity

Funding by Source vs. Benefits and Expenses Paid (\$ billions)



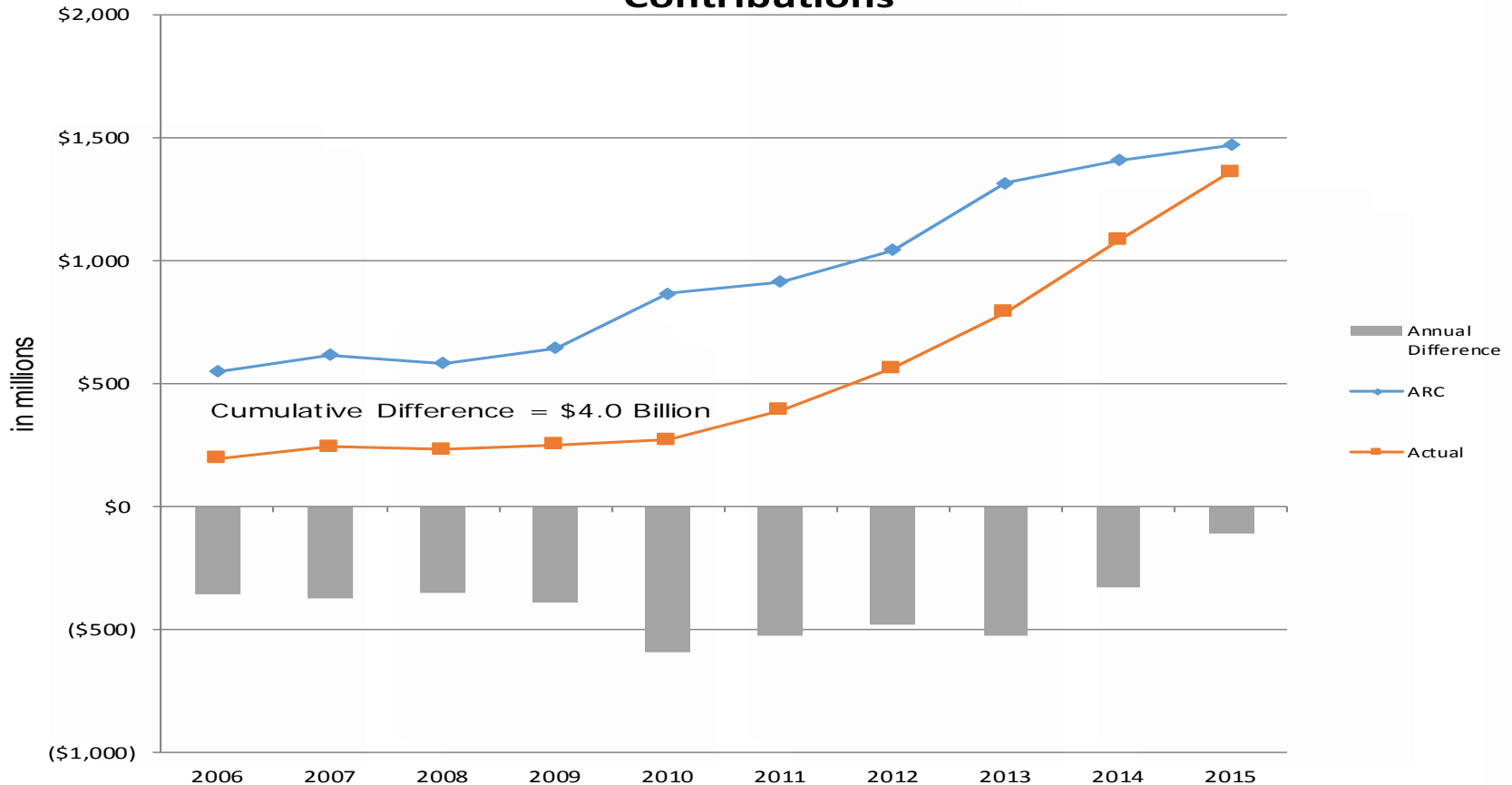
Statement of Change Activity By Year (\$ millions)

Calendar Year	Contributions			Investment Earnings	Benefits and Expenses	Fair Value
	Employer	Member	Total			
2015	\$1,360	\$372	\$1,732	\$88	\$(3,103)	\$26,055
2014	1,084	366	1,450	1,462	(2,968)	27,338
2013	795	352	1,147	3,724	(2,866)	27,394
2012	565	348	913	2,795	(2,696)	25,389
2011	392	351	743	480	(2,732)	24,377
2010	273	349	622	3,076	(2,474)	25,886
2009	253	349	602	3,561	(2,297)	24,662
2008	235	337	572	(11,061)	(2,231)	22,796
2007	244	334	578	5,246	(2,361)	35,516
2006	196	318	514	4,730	(1,943)	32,053
10 Yr. Total	\$5,397	\$3,476	\$8,873	\$14,101	\$(25,671)	

Annotations: 11.9% change in Fair Value (2015 vs 2014), 6.1% change in Fair Value (2015 vs 2006), 59.7% Increase in Investment Earnings (2015 vs 2006), 18.7% Decrease in Fair Value (2015 vs 2006).

Contributions

Annual Required Contributions (ARC)^{1/} vs. Actual Contributions



^{1/}ARC calculation is based on methods established by General Accounting Standards Board (GASB) 25, which was superseded by GASB 67 in 2014.

Projected Funding Levels & Contribution Rates

(\$ millions)

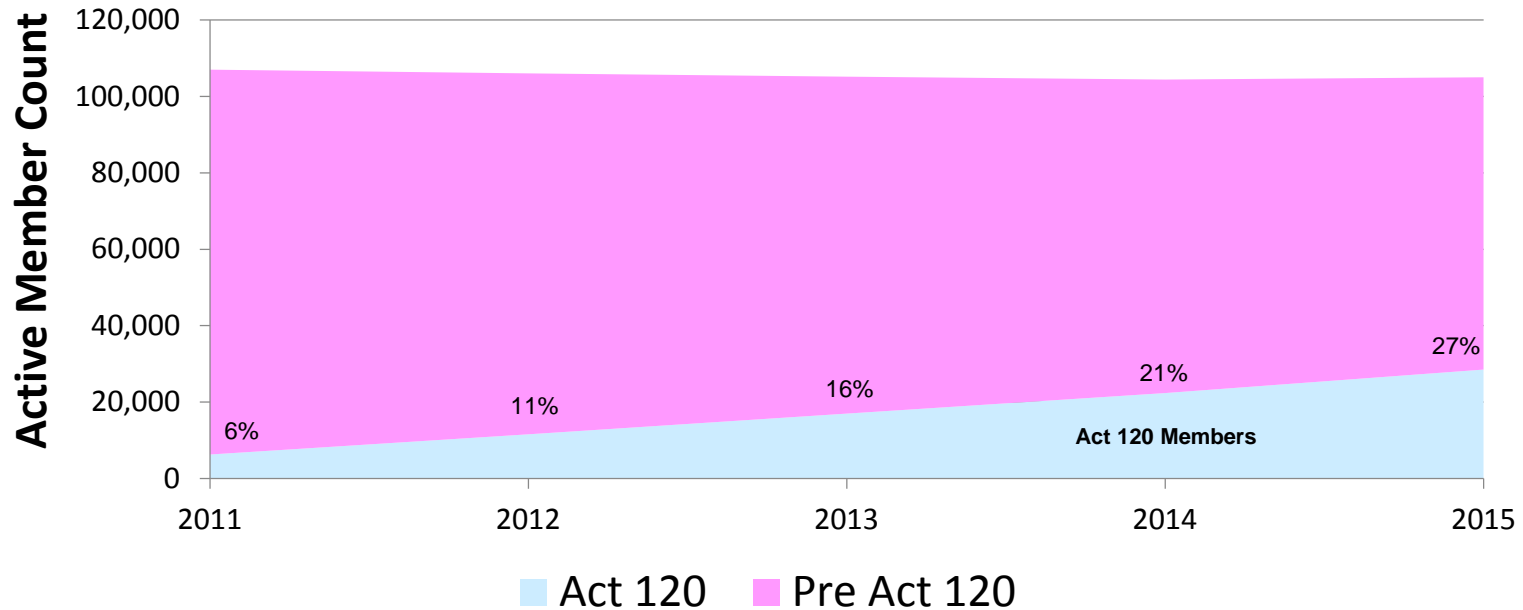
Valuation Year Ended Dec 31	Funded Ratio	Fiscal Year	Funding Payroll	Employer Normal Cost Rate	Unfunded Liability Rate	Preliminary Employer Contribution Rate	Final Employer Contribution Rate ^{2/}	Employer Contribution Dollars
2015	58.0 %	16/17	\$ 6,255	4.52 %	27.62 %	32.14 %	29.50 %	\$ 1,845
2016 ^{3/}	59.0	17/18	6,446	4.52	27.18	31.70	31.70	2,043
2017	60.1	18/19	6,643	4.52	26.69	31.21	31.21	2,073
2018	60.3	19/20	6,845	4.52	26.59	31.11	31.11	2,129
2019	60.7	20/21	7,054	4.52	26.37	30.89	30.89	2,179
2020	61.9	21/22	7,269	4.52	25.72	30.24	30.24	2,198
2021	63.1	22/23	7,491	4.52	25.07	29.59	29.59	2,217
2022	64.4	23/24	7,719	4.52	24.43	28.95	28.95	2,235
2023	65.6	24/25	7,955	4.52	23.79	28.31	28.31	2,252
2024	66.9	25/26	8,197	4.52	23.16	27.68	27.68	2,269
2025	68.2	26/27	8,447	4.52	22.55	27.07	27.07	2,287
2026	69.5	27/28	8,705	4.52	21.96	26.48	26.48	2,305

- ^{1/} Other than funded ratio, rates and values are for the fiscal year beginning July 1 following the funding valuation year and do not include the Benefits Completion Plan contribution. All information on this page is based on statutory funding requirements.
- ^{2/} Act 2010-120 amended the Retirement Code to place a collar on increases to employer contribution rate of 4.50% for fiscal year beginning July 1, 2013 and thereafter until collar becomes unnecessary.
- ^{3/} Act 2010-120 amended the Retirement Code to place a permanent floor at employer normal cost after collars expire.

Active Member Profile

- As of December 31, 2015, total active membership was 105,025.
- Act 2010-120 (Act 120) membership totaled 28,507, or 27% of total active membership.
- Of the total Act 120 members, 3,353 or 12% of Act 120 membership have selected the higher 2.5% benefit accrual, or class A-4 status.

Act 120 members as a % of total membership



GASB 67

- In 2014, SERS implemented the Governmental Accounting Standards Board (GASB) Statement No. 67
- GASB 67 significantly revised financial reporting for pension plans
- Standardized actuarial cost method to be used in calculating the total pension liability and net pension liability
- Standardized asset valuation methods and amortization periods
- Developed stricter guidelines for formulating the discount rate

As of December 31, 2015			
(\$ millions)			
GASB 67 - Accounting Method		Funding Method	
Total Pension Liability (TPL)	\$ 44,239	Actuarial Accrued Liability (AAL)	\$ 46,329
Fiduciary Net Position	\$ 26,055	Actuarial Value of Assets	\$ 26,877
Net Pension Liability (NPL)	<u>\$ 18,184</u>	Unfunded AAL	<u>\$ 19,452</u>
Fiduciary Net Position/TPL	58.9%	Funded Ratio	58.0%

GASB 68

- GASB issued Statement No. 68, which was effective for fiscal years ending on or after June 30, 2015
- GASB 68 revised the required pension reporting of employers who are members of the pension system
- Required employers to report their proportionate share of net pension liability, pension expense, and deferred outflows/inflows related to pensions in the employers' financial statements
- Required the development of a proportionate share or allocation percent, using a methodology consistent with the manner in which contributions are expected to be made to the plan

**Net Pension Liability and Expense
as of December 31, 2015**
(\$ millions)

<u>Agency</u>	<u>Net Pension Liability (NPL)</u>	<u>Pension Expense</u>	<u>Proportionate Share of NPL</u>
Corrections	\$3,320	\$451	18%
Human Services	2,387	318	13%
State Police	1,932	286	11%
Transportation	1,788	238	10%
Penn State	982	129	5%
Sys. of Higher Education	858	107	5%
Labor and Industry	720	91	4%
PA Courts	675	88	4%
Liquor Control Board	475	63	3%
Environmental Protection	443	57	2%
Remaining Employers	4,604	609	25%
Total Employer	\$18,184	\$2,437	100%

Changes in Net Position Available for Benefits

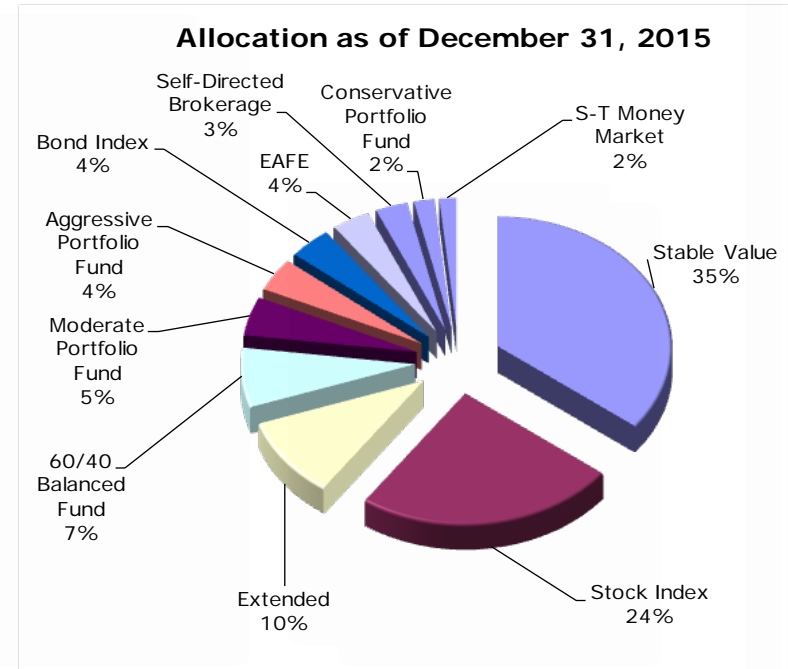
(\$ millions)

	2015	2014	Change	
			\$	%
Net Position - Beginning	\$ 2,960	\$ 2,764		
Contributions	135	129	6	5%
Net Investment Income	11	188	(177)	-94%
Less:				
Benefits, Refunds & Transfers	118	118	-	0%
Third Party and Admin. Expenses	4	3	1	33%
Net Increase	24	196		
Net Position - End of Year	<u>\$ 2,984</u>	<u>\$ 2,960</u>		

Fund Balances & Breakouts

Fund Balances (\$ millions)

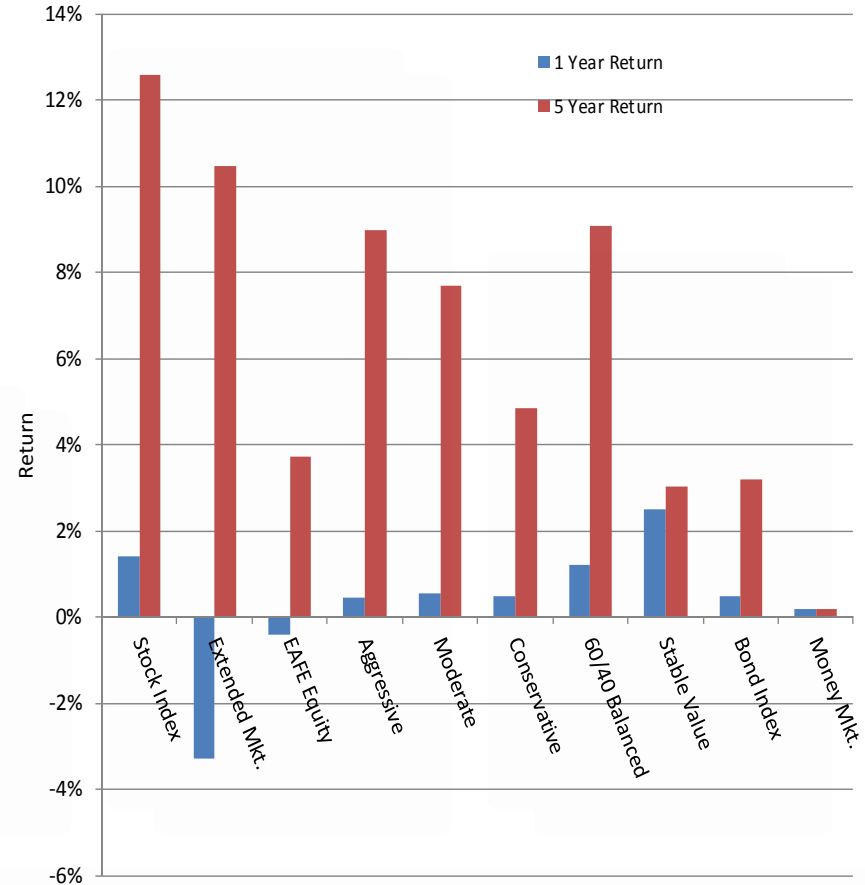
			Allocation %	
	2015	2014	2015	2014
Stable Value	\$1,049	\$1,021	35%	35%
Stock Index	717	713	24%	24%
Extended Market	294	310	10%	11%
60/40 Balanced	217	216	7%	7%
Moderate Portfolio	142	137	5%	5%
Aggressive Portfolio	121	118	4%	4%
Bond Index	118	111	4%	4%
EAFE Equity Index	105	105	4%	4%
Self-Directed Brokerage	89	88	3%	3%
Conservative Portfolio	57	54	2%	2%
S-T Money Market	47	44	2%	2%
Total	\$2,956	\$2,917	100%	100%



Fund Returns

As of December 31, 2015

FUND	1 Year Return	5 Year Average Return	Since Inception Average Return
<u>EQUITY</u>			
Stock Index	1.4%	12.6%	9.5%
<i>Large Cap</i>			
Extended Market	-3.3%	10.5%	8.4%
<i>Med/Small Cap</i>			
EAFE Equity Index	-0.4%	3.7%	4.1%
<i>International</i>			
<u>PROFILE SERIES</u>			
Aggressive	0.5%	9.0%	7.7%
Moderate	0.6%	7.7%	7.0%
Conservative	0.5%	4.9%	5.2%
<u>ASSET ALLOCATION</u>			
60/40 Balanced	1.2%	9.1%	6.8%
<u>FIXED INCOME</u>			
Stable Value	2.5%	3.0%	4.8%
Bond Index	0.5%	3.2%	5.8%
<i>Aggregate Bond</i>			
<u>CASH</u>			
Short Term Money Market	0.2%	0.2%	3.4%

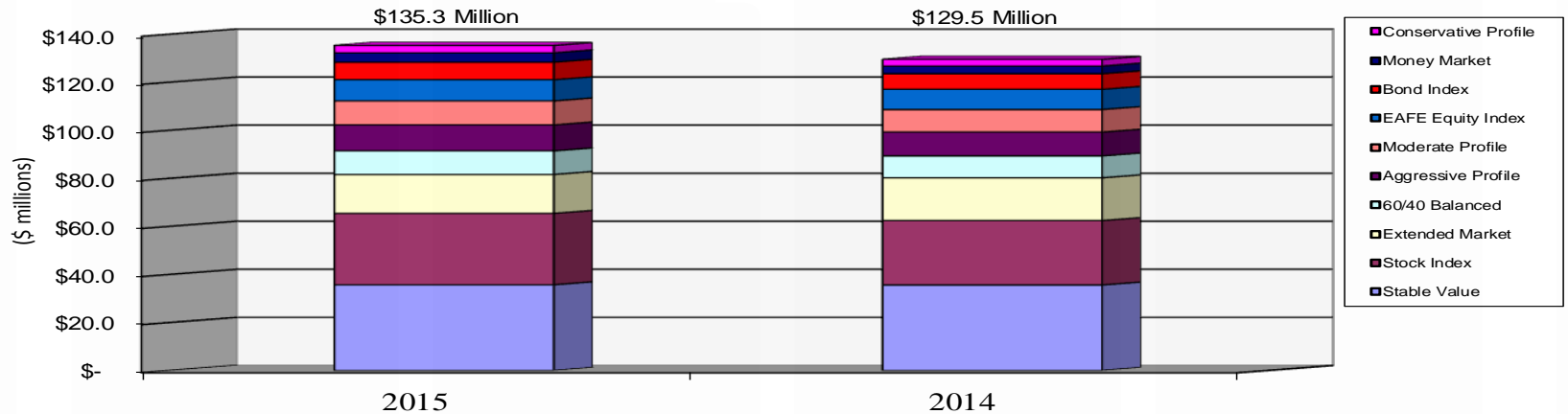


Contributions by Fund

for the years ended December 31, 2015 and 2014
(\$ millions)

<u>Fund</u>	<u>2015</u>	<u>2014</u>	<u>Increase/ (Decrease)</u>	<u>% Change</u>
Stable Value	\$ 35.7	\$ 35.6	\$ 0.1	0%
Stock Index	29.7	26.8	2.9	11%
Extended Market	16.2	17.8	(1.6)	-9%
Aggressive Profile	10.8	9.9	0.9	9%
Moderate Profile	10.0	9.4	0.6	6%
60/40 Balanced	9.8	9.1	0.7	8%
EAFE Equity Index	8.8	8.4	0.4	5%
Bond Index	7.3	6.5	0.8	12%
Short Term Money Market	3.9	3.2	0.7	22%
Conservative Profile	3.1	2.8	0.3	11%
Total Contributions	\$ 135.3	\$ 129.5	\$ 5.8	4%

Annual Contributions



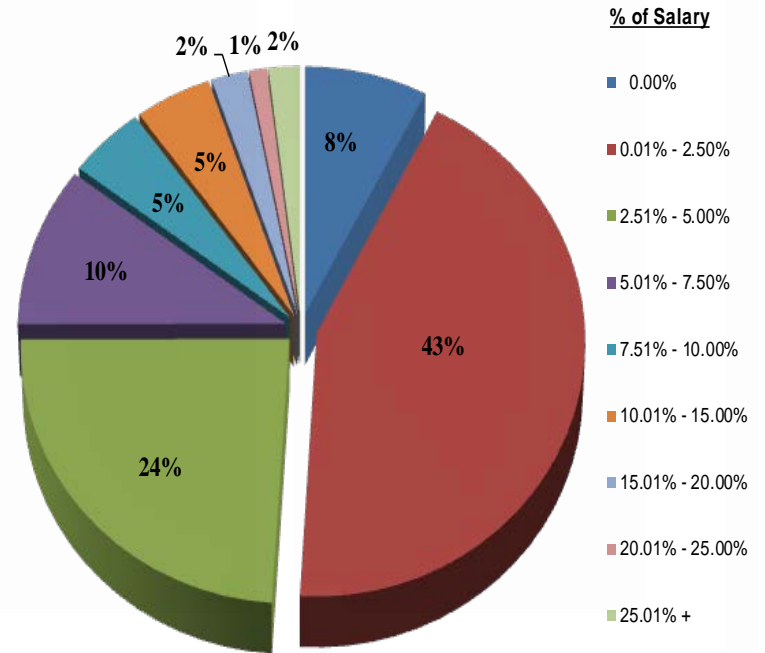
Contribution Levels

Contribution Levels

As of December 31, 2015

<u>% of Salary</u>	<u># of Participants</u>	<u>Percent</u>	<u>Average Annual Contribution</u>
0.00%	2,657	7.65%	\$ -
0.01% - 2.50%	15,067	43.35%	755
2.51% - 5.00%	8,326	23.96%	2,194
5.01% - 7.50%	3,553	10.22%	3,998
7.51% - 10.00%	1,649	4.74%	5,903
10.01% - 15.00%	1,651	4.75%	8,991
15.01% - 20.00%	783	2.25%	14,103
20.01% - 25.00%	384	1.10%	16,444
25.01% +	684	1.97%	20,477
Total Active Participants	34,754		

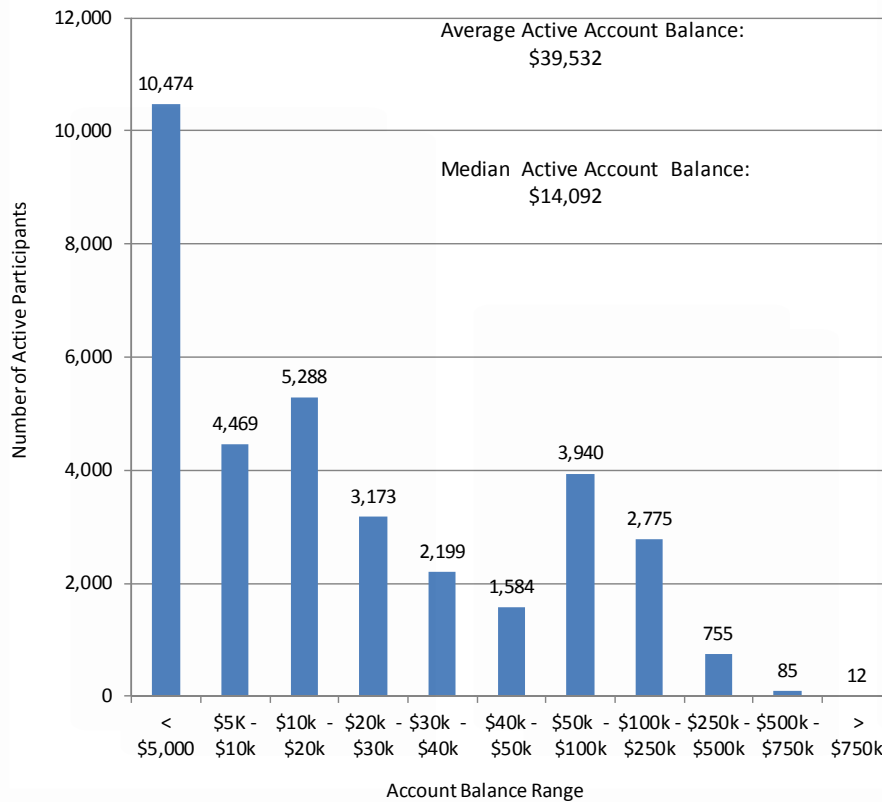
% of Participants by Contribution Levels



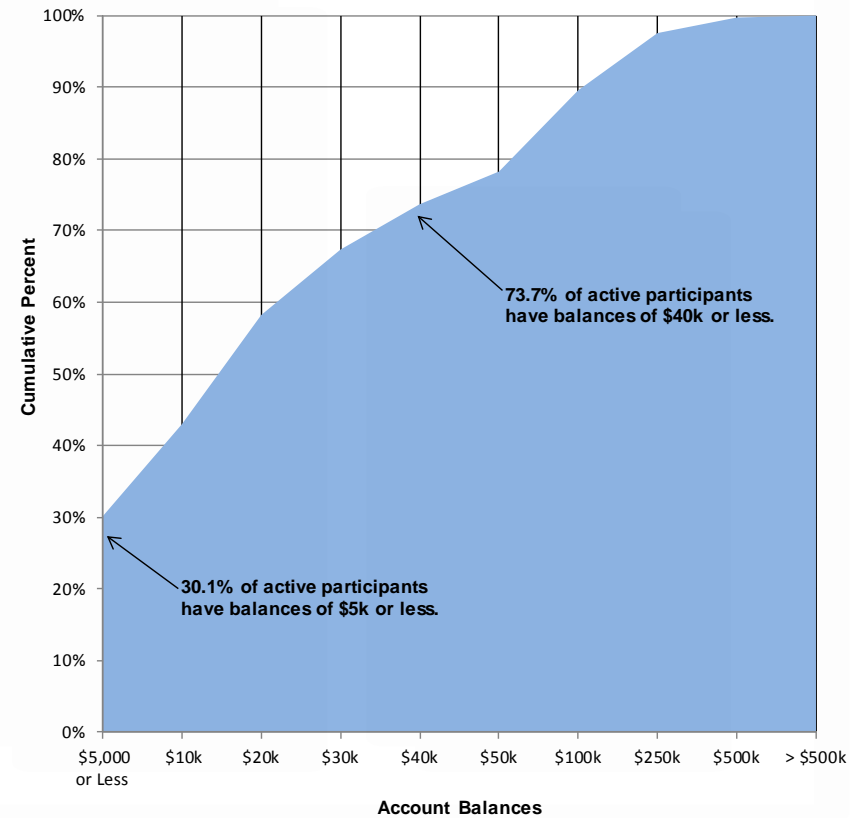
Participant Account Balance Demographics

as of December 31, 2015

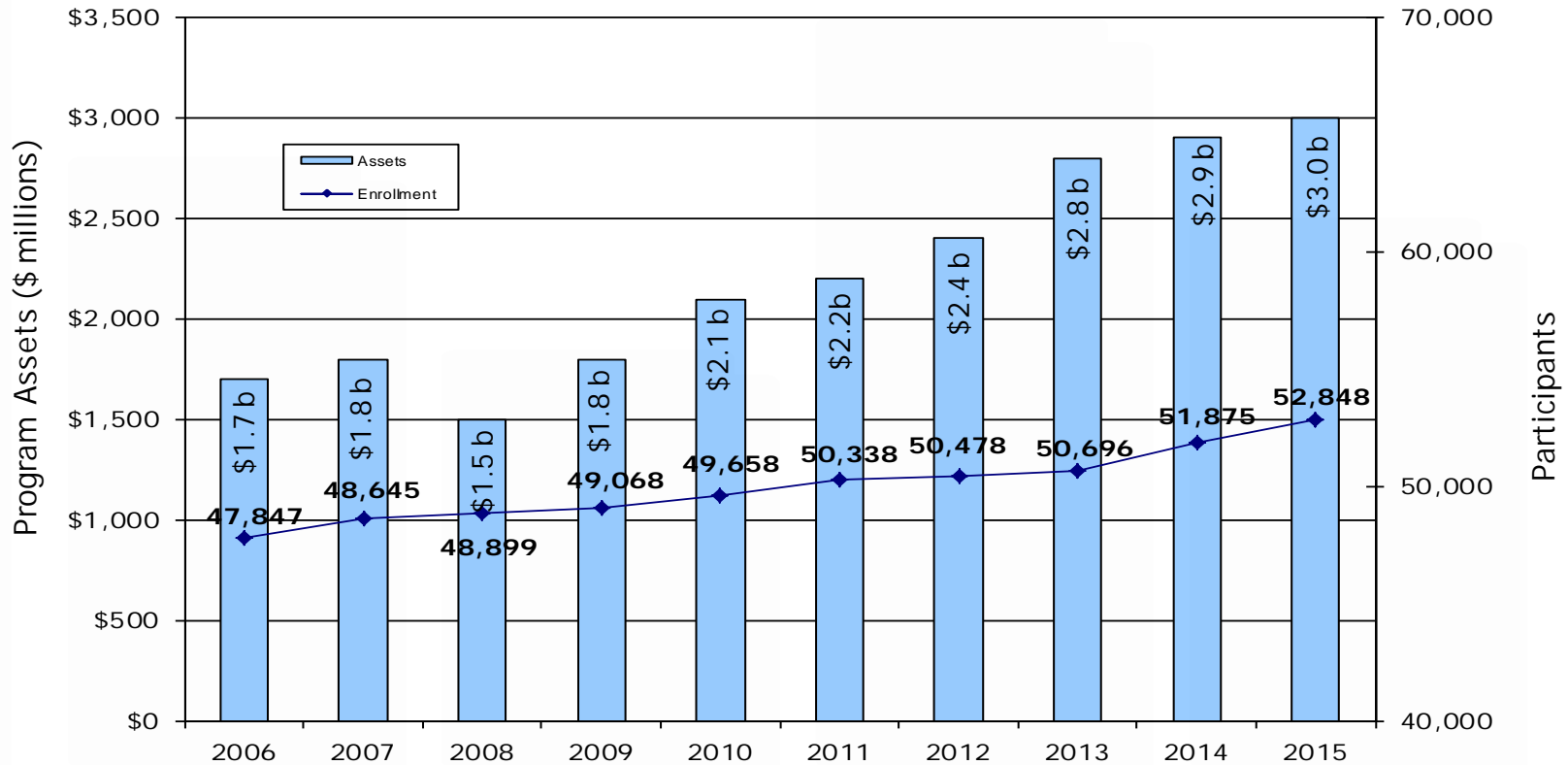
Number of Active Participants by Account Balance Ranges



Cumulative Active Participant Population by Balance Threshold

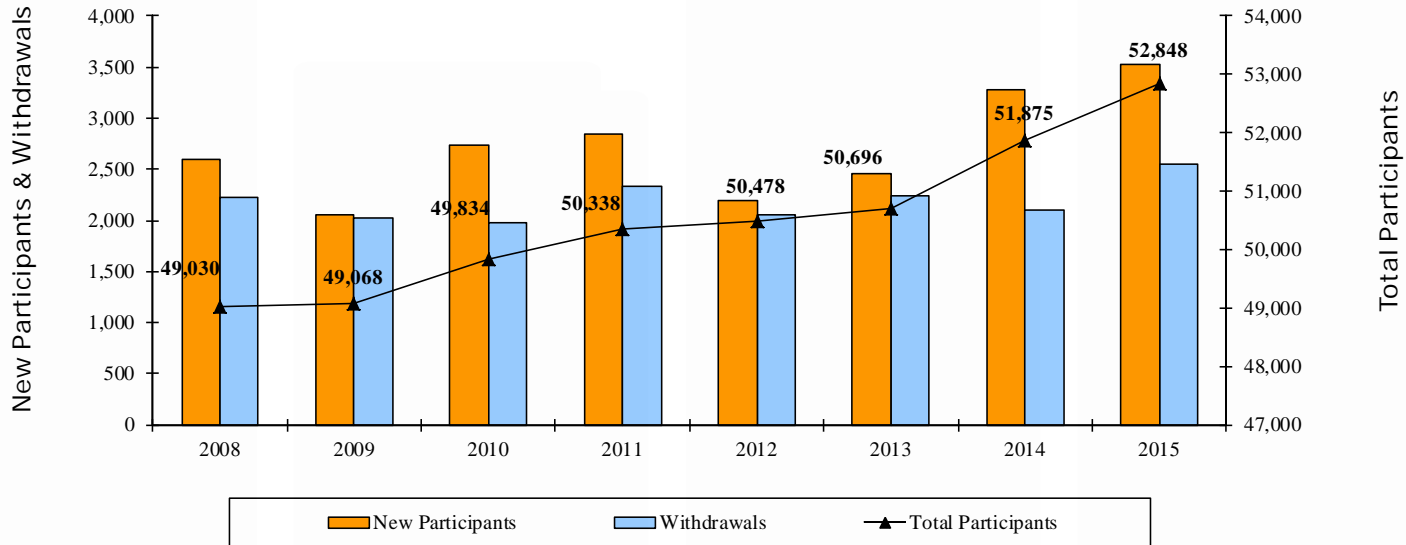


10 Year Growth of the Fund



Participant History

Year	New		Total
	Participants	Withdrawals	Participants
2008	2,593	2,219	49,030
2009	2,059	2,021	49,068
2010	2,743	1,977	49,834
2011	2,845	2,341	50,338
2012	2,196	2,056	50,478
2013	2,456	2,238	50,696
2014	3,273	2,094	51,875
2015	3,527	2,554	52,848



Roth Option^{1/}

In August 2012, the DCP began offering a Roth option. This option allowed participants to make post tax contributions to a Roth account. In 2014 the program was amended again to allow members to make in-plan conversions of assets to Roth Assets. Roth participant data as of:

December 31, 2015

- 3,850 Participants
- Average Participant age: 43
- Average Balance: \$4,292
- Total Roth Balance: \$16,525,946
- 15 Total Conversions to Roth

December 31, 2014

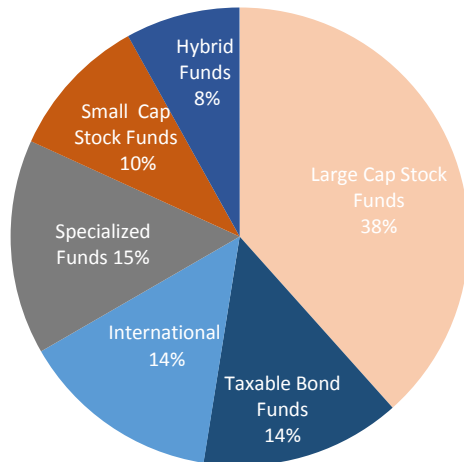
- 2,583 Participants
- Average Participant age: 44
- Average Balance: \$3,838
- Total Roth Balance: \$9,913,601
- 6 Total Conversions to Roth

^{1/}According to the 2015 National Association of Government Defined Contribution Administrators' Public Sector Defined Contribution Plan survey of 129 government defined contribution plans, 28% offer Roth accounts and 7% offer in-service Roth conversions.

Self-Directed Brokerage Account

In 2004 the DCP began offering the Self-Directed Brokerage Account (SDBA) through Charles Schwab. Participants have access to over 8,000 mutual funds through the SDBA. As of December 31, 2015, total asset value for the SDBA was \$89.1 million comprised of 1,177 different mutual funds. The average account balance was \$75,691.

Market Value Allocation



Numbers may not add due to rounding.

Source: Charles Schwab & Co., Inc.

Top 10 Mutual Fund (MF) Holdings	\$ MF Assets	% MF Assets
GLENMEDE LARGE CAP CORE	\$3,039,279	3.72
MORGAN STANLEY INST GBL OPPTY	\$2,859,214	3.50
RIDGEWORTH SEIX FLOAT	\$2,798,374	3.42
T ROWE PRICE BLUE CHIP	\$2,591,973	3.17
EVENTIDE GILEAD CL N	\$2,335,775	2.86
PIMCO STOCKPLUS INTL FD USD H	\$2,329,268	2.85
EMERALD GWTH FD CL A	\$2,299,930	2.81
PRIMECAP ODYSSEY GROWTH	\$2,251,253	2.75
PACIFIC FINANCIAL	\$2,219,346	2.71
PACIFIC FINANCIAL CORE	\$2,204,448	2.70

Other Data

As of December 31, 2015

Defined Benefit Plan		Deferred Compensation Program	
Avg. Active Member Credited Service	11.6	Total Active Members	34,754
Avg. Active Member Annual Salary	\$ 56,858	Total Non-Active Members	18,094
Avg. Age at Retirement	60	Total Member Count	52,848
Avg. Annual Pension for New Retirees	\$ 26,073	Avg. SERS DCP Member Account Balance	\$ 55,935
Avg. Ann. Pen. for Ret. Removed from Rolls	\$ 14,647	Avg. Surveyed DCP Account Balance ^{1/}	\$ 59,000
Ten Yr. Active Member Decrease (110,972 to 105,025)	-5.36%	Largest Account Balance	\$ 1,442,212
Ten Yr. Retired Member Increase (102,060 to 124,689)	22.17%	Avg. SERS DCP Member Ann. Contribution	\$ 2,871
Total Option 4 Withdrawal Payouts	\$ 346 Million	Avg. Surveyed DCP Ann. Contribution ^{1/}	\$ 5,701
Avg. Option 4 Payout	\$73,430	Avg. Number of Investment Options Held	2.73

^{1/}2015 National Association of Government Defined Contribution Administrators' Public Sector Defined Contribution Plan survey of 129 government defined contribution plans.