

PERS



Since July 1, 2000, the funded ratio on a market value basis has decreased by 66.6%. This decrease is primarily due to investment losses experienced over the period, Local employer contributions less than the GASB Annual Required Contribution, the increase in benefits due to Chapter 133, P.L. 2001 and Chapter 353, P.L. 2001, and the strengthening of actuarial assumptions.

As of June 30, 2014, the market value of assets is greater than the actuarial liability attributable to retirees. However, if the assets contained in the Annuity Savings Fund (ASF) of \$7,690,589,973 are excluded, the ratio of the remaining market value of assets to the actuarial accrued liability for retirees is 80.9%.

As of June 30, 2014, the ratio of market value of assets to the prior year's benefit payment is 11.8. This is an approximate indication of the number of years that the assets can cover benefit payments, excluding future State and member contributions, and investment income. This ratio increased by 6.3% from the previous year's ratio of 11.1. If ASF assets are excluded, since they represent accumulated contributions from active and inactive members, the ratio is 7.3.

C. Schedule of Assets and Liabilities

The following presents ten-year schedules of the assets, liabilities, and funded ratio. The assets and funded ratios are provided on a market value (including receivables) basis and actuarial value of assets (including receivables) basis.

State

Actuarial Valuation Date	Market Value of Assets ¹ (a)	Actuarial Value of Assets ¹ (b)	Actuarial Accrued Liability (c)	Funded Ratio	
				Market Value (a)/(c)	Actuarial Value (b)/(c)
6/30/2014	\$ 8,778,291,546	\$ 9,128,235,998	\$ 20,842,690,918	42.12%	43.80%
6/30/2013	8,639,556,532	9,614,698,050	19,993,957,432	43.21	48.09
6/30/2012	8,389,963,954	9,774,698,097	19,383,584,639	43.28	50.43
6/30/2011	9,089,849,561	10,062,648,618	18,290,829,021	49.70	55.01
6/30/2010	8,293,130,301	10,253,254,901	17,429,178,021	47.58	58.83
6/30/2009	7,973,790,423	10,713,340,747	18,947,194,579	42.08	56.54
6/30/2008	10,153,307,285	11,252,321,606	17,072,702,680	59.47	65.91
6/30/2007	10,817,111,560	11,228,946,178	16,028,875,601	67.49	70.05
6/30/2006	9,996,185,459	11,148,690,865	15,062,100,185	66.37	74.02
6/30/2005	9,325,929,009	10,880,693,470	13,682,163,564	68.16	79.52

Local Employers

Actuarial Valuation Date	Market Value of Assets ¹ (a)	Actuarial Value of Assets ¹ (b)	Actuarial Accrued Liability (c)	Funded Ratio	
				Market Value (a)/(c)	Actuarial Value (b)/(c)
6/30/2014	\$20,250,197,472	\$20,766,663,796	\$28,255,077,220	71.67%	73.50%
6/30/2013	18,120,795,876	19,978,598,632	27,005,782,517	67.10	73.98
6/30/2012	16,785,718,484	19,376,646,934	26,009,038,341	64.54	74.50
6/30/2011	16,636,380,039	18,997,383,783	24,679,095,575	67.41	76.98
6/30/2010	14,745,211,693	18,481,952,370	23,918,658,044	61.65	77.27
6/30/2009	13,395,099,723	18,165,835,669	25,523,208,576	52.48	71.17
6/30/2008	16,115,665,581	18,251,200,411	23,173,183,973	69.54	78.76
6/30/2007	16,797,527,398	17,704,248,133	21,764,214,593	77.18	81.35
6/30/2006	14,875,197,890	16,928,660,300	20,273,979,840	73.37	83.50
6/30/2005	14,034,865,536	16,604,724,929	18,341,857,304	76.52	90.53

¹ The information in the above tables has been taken directly from the final valuation reports for each plan year and does not reflect subsequent changes in the actual employer contribution amounts from the reported receivable contribution after the valuation reports were issued.

TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

SECTION III - LIABILITIES AND CONTRIBUTION

(continued)

L. Historical Summary of Assets and Liabilities

Valuation Date	Market Value of Assets	Actuarial Value of Assets	Actuarial Accrued Liability	Funded Ratio	
				Market Value	Actuarial Value
2014	\$ 27,643,078,116	\$ 29,044,777,902	\$ 53,749,976,641	51.43%	54.04%
2013	26,859,612,370	30,469,857,304	52,366,655,055	51.29%	58.19%
2012	26,037,983,392	31,079,212,983	51,194,110,587	50.86%	60.71%
2011	27,654,006,602	32,156,229,300	50,222,688,750	55.06%	64.03%
2010	25,763,644,836	33,136,475,630	48,417,932,345	53.21%	68.44%
2009	24,973,886,910	34,708,001,341	53,418,328,576	46.75%	64.97%
2008	32,358,227,689	36,541,083,946	50,658,278,274	63.88%	72.13%
2007	35,070,757,170	36,594,817,062	48,127,453,410	72.87%	76.04%
2006	31,495,000,296	35,422,799,539	45,439,278,166	69.31%	77.96%
2005	29,610,249,605	34,688,666,393	42,926,758,983	68.98%	80.81%

M. Historical Summary of State Appropriation for Pension

Fiscal Year Ending June 30	Full Statutory Contribution	Actual State Appropriation	Contribution Deficiency (Excess)	Percentage of Contribution Made
2015 *	\$ 2,306,611,715	\$ 379,897,191	\$ 1,926,714,524	16.47%
2014	2,158,287,358	392,035,985	1,766,251,373	18.16%
2013	2,148,185,001	613,766,799	1,534,418,202	28.57%
2012	2,009,810,329	287,115,915	1,722,694,414	14.29%
2011	1,826,722,370	0	1,826,722,370	0.00%
2010	1,526,168,830	0	1,526,168,830	0.00%
2009	1,348,105,853	64,376,207	1,283,729,646	4.78%
2008	1,286,147,106	663,791,615	622,355,491	51.61%
2007	1,156,140,571	663,415,668	492,724,903	57.38%
2006	915,892,281	67,275,588	848,616,693	7.35%
2005	646,448,226	0	646,448,226	0.00%

* Reflects budgeted contribution of \$379,897,191 to be paid June 30, 2015

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D. Schedule of Assets and Liabilities

State

Actuarial Valuation Date	Market Value of Assets ¹ (a)	Actuarial Value of Assets ¹ (b)	Actuarial Accrued Liability (c)	Funded Ratio	
				Market Value (a)/(c)	Actuarial Value (b)/(c)
6/30/2014	\$ 1,950,490,493	\$ 2,062,185,965	\$4,365,609,664	44.7%	47.2%
6/30/2013	\$ 1,896,198,371	\$ 2,127,491,585	\$4,188,523,037	45.3%	50.8%
6/30/2012	\$ 1,829,418,795	\$ 2,137,727,566	\$4,026,954,882	45.4%	53.1%
6/30/2011	\$ 1,944,214,316	\$ 2,173,255,647	\$3,926,525,679	49.5%	55.3%
6/30/2010	\$ 1,771,575,807	\$ 2,190,654,958	\$3,672,361,258	48.2%	59.7%
6/30/2009	\$ 1,742,699,083	\$ 2,268,272,056	\$3,993,259,480	43.6%	56.8%
6/30/2008	\$ 2,131,625,019	\$ 2,343,170,793	\$3,749,118,910	56.9%	62.5%
6/30/2007	\$ 2,312,336,064	\$ 2,368,209,888	\$3,426,631,813	67.5%	69.1%
6/30/2006	\$ 2,031,343,980	\$ 2,230,157,166	\$3,082,176,677	65.9%	72.4%
6/30/2005	\$ 1,851,110,756	\$ 2,109,283,199	\$2,815,620,221	65.7%	74.9%

Local Employers

Actuarial Valuation Date	Market Value of Assets ¹ (a)	Actuarial Value of Assets ¹ (b)	Actuarial Accrued Liability (c)	Funded Ratio	
				Market Value (a)/(c)	Actuarial Value (b)/(c)
6/30/2014	\$23,143,934,984	\$23,066,498,788	\$30,239,286,907	76.5%	76.3%
6/30/2013	\$20,734,802,380	\$22,170,221,173	\$28,811,698,272	72.0%	76.9%
6/30/2012	\$19,296,197,115	\$21,549,327,079	\$27,705,168,437	69.6%	77.8%
6/30/2011	\$19,405,816,249	\$21,051,681,692	\$26,978,632,188	71.9%	78.0%
6/30/2010	\$17,108,014,883	\$20,367,865,987	\$25,601,998,126	66.8%	79.6%
6/30/2009	\$16,283,683,457	\$20,669,565,701	\$28,448,841,765	57.2%	72.7%
6/30/2008	\$18,907,241,962	\$20,404,804,535	\$26,871,106,532	70.4%	75.9%
6/30/2007	\$19,484,653,383	\$19,575,249,807	\$24,562,195,443	79.3%	79.7%
6/30/2006	\$17,112,928,480	\$18,353,459,373	\$22,907,522,660	74.7%	80.1%
6/30/2005	\$15,751,540,173	\$17,450,715,064	\$21,388,972,326	73.6%	81.6%

¹ The information in the above tables has been taken directly from the final valuation reports for each plan year and does not reflect subsequent changes in the actual employer contribution amounts from the reported receivable contribution after the valuation reports were issued.

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C. Funded Ratios

The following table presents the System's funded ratios based on the actuarial value of assets (including receivables) and market value basis (including receivables).

	June 30, 2014	June 30, 2013	Change
Actuarial Value of Assets¹	66.9%	69.4%	(2.5)%
Market Value of Assets	66.4%	63.8%	2.6%

¹Statutory funded ratio.

The System's statutory funded ratio is 69.4% and 66.9% as of June 30, 2013 and June 30, 2014, respectively. For purposes of Chapter 78, P.L. 2011, the "target funded ratio" is 77.142% and 77.856% for June 30, 2013 and June 30, 2014, respectively. Therefore, the System's statutory funded ratio fell below the "target funded ratio" for June 30, 2013 and the "target funded ratio" for June 30, 2014.

There is a difference on a market value basis since the actuarial value smoothes the investment gains and losses over time. Since July 1, 2000, the funded ratio on a market value basis has decreased by 66.4%. This decrease is primarily due to investment losses experienced over the period, State contributions less than the statutorily determined amounts, and the strengthening of actuarial assumptions.

As of June 30, 2014, the market value of assets is less than the actuarial liability attributable to retirees. Furthermore, if the assets contained in the Annuity Savings Fund (ASF) of \$180,510,879 are excluded, the funded ratio of the remaining market value of assets to the actuarial accrued liability for retirees is 82.2%.

As of June 30, 2014, the ratio of market value of assets to the prior year's benefit payment is 10.0. This is a simplistic measure of the number of years that the assets can cover benefit payments, excluding: future increases in those payments, State and member contributions, and investment income. This ratio decreased by 2% from the previous year's ratio of 10.2. If ASF assets are excluded, since they represent accumulated contributions from active and inactive members, the ratio is 9.1.

D. Schedule of Assets and Liabilities

Actuarial Valuation Date	Market Value of Assets ² (a)	Actuarial Value of Assets ² (b)	Actuarial Accrued Liability (c)	Funded Ratio	
				Market Value (a)/(c)	Actuarial Value (b)/(c)
6/30/2014	\$ 1,967,141,815	\$ 1,981,376,495	2,963,182,120	66.4%	66.9%
6/30/2013	1,832,851,456	1,990,797,312	2,870,590,700	63.8	69.4
6/30/2012	1,755,429,511	1,995,388,133	2,767,768,813	63.4	72.1
6/30/2011	1,820,438,444	2,015,624,130	2,581,950,846	70.5	78.1
6/30/2010	1,656,194,924	2,019,350,048	2,497,094,137	66.3	80.9
6/30/2009	1,564,180,409	2,067,242,877	2,825,455,568	55.4	73.2
6/30/2008	1,976,540,990	2,136,006,509	2,609,164,869	75.8	81.9
6/30/2007	2,105,399,764	2,101,672,160	2,485,649,230	84.7	84.6
6/30/2006	1,872,079,777	2,000,274,259	2,319,656,532	80.7	86.2
6/30/2005	1,756,862,382	1,935,384,732	2,075,266,080	84.7	93.3

2. The information in the above table has been taken directly from the final valuation reports for each plan year and does not reflect subsequent changes in actual employer contribution amounts from the reported receivable contribution after the valuation reports were issued.

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C. Funded Ratios

The following table presents the System's funded ratio based on the actuarial value of assets (including receivables) and market value basis (including receivables).

	June 30, 2014	June 30, 2013	Change
Actuarial Value of Assets¹	40.8%	44.6%	(3.8)%
Market Value of Assets	38.7%	39.4%	(0.7)%

¹Statutory funded ratio.

The System's statutory funded ratio is 44.6% and 40.8% as of June 30, 2013 and June 30, 2014, respectively. For purposes of Chapter 78, P.L. 2011, the "target funded ratio" is 77.142% and 77.857% for June 30, 2013 and June 30, 2014, respectively. Therefore, the System's statutory funded ratio did not reach the "target funded ratio" for June 30, 2013 and remained below the "target funded ratio" for June 30, 2014.

There is a difference on a market value basis since the actuarial value smoothes the investment gains and losses over time. Since July 1, 2000, the funded ratio on a market value basis has decreased by 80.3%. This decrease is primarily due to investment losses experienced over the period, State contributions less than the statutorily determined amounts, and the strengthening of actuarial assumptions.

As of June 30, 2014, the market value of assets is less than the actuarial liability attributable to retirees. Furthermore, if the assets contained in the Annuity Savings Fund (ASF) of \$50,759,400 are excluded, the funded ratio of the remaining market value of assets to the actuarial accrued liability for retirees is 43.6%.

As of June 30, 2014, the ratio of market value of assets to the prior year's benefit payment is 5.0. This is a simplistic measure of the number of years that the assets can cover benefit payments, excluding future increases in those payments, State and member contributions, and investment income. This ratio decreased by 3.8% from the previous year's ratio of 5.2. If ASF assets are excluded, since they represent accumulated contributions from active and inactive members, the ratio is 4.0.

D. Schedule of Assets and Liabilities

The following presents a ten-year schedule of the System's assets, liabilities and funded ratio. The System's assets and funded ratio are provided on a market value (including receivables) basis and actuarial value of assets (including receivables) basis.

Actuarial Valuation Date	Market Value of Assets ² (a)	Actuarial Value of Assets ² (b)	Actuarial Accrued Liability (c)	Funded Ratio	
				Market Value (a)/(c)	Actuarial Value (b)/(c)
6/30/2014	\$ 244,567,822	\$ 258,101,497	\$ 632,679,937	38.7%	40.8%
6/30/2013	\$ 244,280,889	\$ 276,966,331	\$ 620,376,292	39.4%	44.6%
6/30/2012	\$ 243,679,037	\$ 290,191,842	\$ 605,180,634	40.3%	48.0%
6/30/2011	\$ 270,183,306	\$ 310,724,782	\$ 585,700,787	46.1%	53.1%
6/30/2010	\$ 261,523,992	\$ 329,030,387	\$ 554,540,403	47.2%	59.3%
6/30/2009	\$ 261,751,336	\$ 355,522,646	\$ 594,043,375	44.1%	59.8%
6/30/2008	\$ 352,989,790	\$ 383,958,713	\$ 553,284,647	63.8%	69.4%
6/30/2007	\$ 384,497,896	\$ 391,321,939	\$ 524,970,330	73.2%	74.5%
6/30/2006	\$ 351,647,844	\$ 382,849,386	\$ 493,778,007	71.2%	77.5%
6/30/2005	\$ 335,570,876	\$ 377,463,366	\$ 466,145,912	72.0%	81.0%

2. The information in the above table has been taken directly from the final valuation reports for each plan year and does not reflect subsequent changes in actual employer contribution amounts from the reported receivable contribution after the valuation reports were issued.

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C. Schedule of Assets and Liabilities

The following presents a ten-year schedule of the System's assets, liabilities and funded ratio. The System's assets and funded ratio are provided on a market value (including receivables) basis and actuarial value of assets (including receivables) basis.

Actuarial Valuation Date	Market Value of Assets ¹ (a)	Actuarial Value of Assets ¹ (b)	Actuarial Accrued Liability (c)	Funded Ratio	
				Market Value (a)/(c)	Actuarial Value (b)/(c)
6/30/2014	\$ 3,303,631	\$ 4,366,457	\$ 4,848,499	68.14%	90.06%
6/30/2013	\$ 5,217,857	\$ 6,445,847	\$ 6,102,292	85.51%	105.63%
6/30/2012	\$ 5,755,743	\$ 7,179,322	\$ 8,026,421	71.71%	89.45%
6/30/2011	\$ 6,665,469	\$ 8,300,684	\$ 9,179,981	72.61%	90.42%
6/30/2010	\$ 8,760,735	\$ 10,632,228	\$ 11,824,904	74.09%	89.91%
6/30/2009	\$ 11,749,083	\$ 13,879,949	\$ 14,024,132	83.78%	98.97%
6/30/2008	\$ 14,438,781	\$ 16,962,382	\$ 17,319,488	83.37%	97.94%
6/30/2007	\$ 16,618,771	\$ 19,858,423	\$ 21,090,186	78.80%	94.16%
6/30/2006	\$ 19,998,008	\$ 24,237,730	\$ 24,749,667	80.80%	97.93%
6/30/2005	\$ 23,026,925	\$ 28,282,667	\$ 30,031,591	76.68%	94.18%

D. Schedule of Employer Pension Contributions

The following table presents a ten-year schedule that provides information about the System's actuarially determined contribution and the percentage of the actuarially determined contribution recognized by the System as contributed.

Fiscal Year Ending June 30	Actuarially Determined Contribution ¹ (a)	Actual Pension Contribution (b)	Contribution Deficiency (a) - (b)	Percentage of Contribution Made	
				Annual (b)/(a)	Five-Year Average
2015	\$ 0	\$ 0	\$ 0	100.00%	42.86%
2014	\$ 864,041	\$ 0	\$ 864,041	0.00%	22.86%
2013	\$ 896,883	\$ 897,000	\$ (117)	100.01%	42.86%
2012	\$ 1,216,530	\$ 174,000	\$ 1,042,530	14.30%	42.89%
2011	\$ 147,067	\$ 0	\$ 147,067	0.00%	60.03%
2010	\$ 364,248	\$ 0	\$ 364,248	0.00%	80.03%
2009	\$ 1,256,398	\$ 1,256,000	\$ 398	99.97%	
2008	\$ 522,176	\$ 523,000	\$ (824)	100.16%	
2007	\$ 1,783,902	\$ 1,784,000	\$ (98)	100.01%	
2006	\$ 6,396,222	\$ 6,397,000	\$ (778)	100.01%	

1. The information in the above tables has been taken directly from the final valuation reports for each plan year and does not reflect subsequent changes in actual employer contribution amounts from the reported receivable contribution after the valuation reports were issued.

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Section IV – Comments Concerning the Valuation

A. Components of Actuarial Experience

The variation in liabilities and contributions reflects the Fund's actual experience during the year. The Fund experienced a net actuarial loss during the year that ended June 30, 2014.

The actuarial loss was primarily due to the investment return on actual Fund assets, which was less than expected. For valuation purposes, a 5.00% per annum rate of return on investments was assumed. The actual return on the Fund's actuarial value of assets was approximately 0.09% for the period July 1, 2013 through June 30, 2014. In addition, there was a liability loss.

The following outlines the effect of the primary actuarial experience components:

• Investment Loss (Gain)	\$ 381,569
• Other Loss (Gain), including mortality, changes in employee data	<u>130,668</u>
• Total Actuarial Loss (Gain)	\$ 512,237

B. Schedule of Assets and Liabilities

The following presents a ten-year schedule of the System's assets, liabilities and funded ratio. The System's assets and funded ratio are provided on a market value (including receivables) basis and actuarial value of assets (including receivables) basis.

Actuarial Valuation Date	Market Value of Assets (a)	Actuarial Value of Assets (b)	Actuarial Accrued Liability (c)	Funded Ratio	
				Market Value (a)/(c)	Actuarial Value (b)/(c)
6/30/2014	\$ 7,383,201	\$ 7,383,201	\$ 4,301,307	171.7%	171.7%
6/30/2013	\$ 8,171,920	\$ 8,171,920	\$ 4,748,938	172.1%	172.1%
6/30/2012	\$ 9,044,236	\$ 9,044,236	\$ 5,395,505	167.6%	167.6%
6/30/2011	\$ 9,997,650	\$ 9,997,650	\$ 5,096,792	196.2%	196.2%
6/30/2010	\$ 11,018,367	\$ 11,018,367	\$ 5,635,024	195.5%	195.5%
6/30/2009	\$ 11,986,919	\$ 11,986,919	\$ 6,136,441	195.3%	195.3%
6/30/2008	\$ 12,890,441	\$ 12,890,441	\$ 6,789,017	189.9%	189.9%
6/30/2007	\$ 13,499,361	\$ 13,499,361	\$ 7,378,386	183.0%	183.0%
6/30/2006	\$ 14,014,718	\$ 14,014,718	\$ 8,236,295	170.2%	170.2%
6/30/2005	\$ 14,783,465	\$ 14,783,465	\$ 9,077,157	162.9%	162.9%