



State of New Jersey
DEPARTMENT OF THE TREASURY
DIVISION OF PENSIONS AND BENEFITS
(609) 292-7524 TDD (609) 292-7718
www.state.nj.us/treasury/pensions

JON S. CORZINE
Governor

September 26, 2006

MAILING ADDRESS:
PO Box 295
TRENTON NJ 08625-0295

LOCATION:
50 WEST STATE STREET
TRENTON NEW JERSEY

BRADLEY I. ABELOW
State Treasurer

FREDERICK J. BEAVER
Director


Ms. Pamela H. Espenshade
Mr. James F. Vari
Office of Legislative Services
State House Annex
P O Box 068
Trenton, New Jersey 08625-0068

Dear Ms. Espenshade & Mr. Vari:

Per the request of Senator Nicholas Scutari and Assemblywoman Nellie Pou, enclosed are the Division's written responses to questions that were raised before the Joint Legislative Committee on Public Employee Benefits Reform hearing on August 31, 2006.

Should you have any questions, I can be reached at (609) 292-3678.

Sincerely,



Frederick J. Beaver
Director

Enclosures



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Nicholas P. Scutari, Co-Chair
Nellie Pou, Co-Chair
Joint Legislative Committee on
Public Employee Benefits Reform
Office of Legislative Services
State House Annex
PO Box 068
Trenton, New Jersey 08625-0068

Dear Senator Scutari & Assemblywoman Pou:

This is in reply to your September 11, 2006 letter requesting a written response to the following questions raised by members of the Joint Committee on Public Employee Benefits Reform at the public hearing on August 31, 2006.

Assemblyman O'Toole:

- What is the cost to the State to provide life and disability insurance for Alternate Benefit Program (ABP) participants?

Response: For Fiscal Year 2006, the State contributed \$13,044,443 to cover incurred life insurance claim charges. In addition, the State paid \$4,422,712 toward the cost of long-term disability coverage. Total State appropriations in FY 2006 for life and long-term disability insurance costs totaled \$17,467,155.

- What is the administrative cost, in the aggregate, to ABP participants?

Response: Each of the six investment providers offers between 10 and 14 different investment options, each with a different administrative, fund and mortality expenses. The lowest total expense charge by any investment provider on any investment is 0.39% (CREF Money Market) and the highest is 2.55% (ING American Century Small Cap Value Portfolio).

Using the lowest and highest total expense charge for each investment provider and the total assets under management with each provider as of December 31, 2005, we have

calculated the range within which the total expense charge would be for each provider. Adding the lowest charge for each of the 6 providers we calculate a minimum of \$28,392,600 for investment provider administration, fund management and mortality expenses. The maximum provider charge is estimated at \$50,250,000. Adding to this the \$281,500 in administration costs from the Division of Pensions and Benefits for fiscal year 2006 we calculate total aggregate administrative expense for all ABP members to be between \$28,674,000 and \$50,561,500 for FY2006.

- Of the roughly 17,000 ABP participants, how many of these individuals qualify in a State-administered pension plan such as PFRS?

Response: There are currently 216 ABP members with membership in other retirement systems; 3 ABP members are also legislators, 17 ABP members are also in TPAF, 193 ABP members are also in PERS and 3 ABP members are also in PFRS.

Assemblyman Giblin:

- What is the average balance of an ABP account for both the active and retiree participants?

Response: Investment providers do not routinely provide the Division with statistical information segregated between active and retiree accounts. However, information for the entire population, both active and retiree, as of December 31, 2005, shows the average account balance to be approximately \$167,500.

- What are the terms and interest rate for an ABP participant to take a loan against his account?

Response: Of the six current investment providers, all offer a loan feature in their product. Most offer a fixed rate with the current interest rate ranging from 5.5% to 8% with the average being approximately 6%. Some offer rates which are variable with the rate calculation being tied to a common financial index such as the prime interest rate or a corporate bond yield.

Repayment terms follow the rules established by the Internal Revenue Service; maximum loan of \$50,000 repaid over a 5 year period. All but one provider assess no loan origination or servicing fees. The one provider assessing such a fee charges a \$50 origination fee and an annual servicing fee of \$50 (\$12.50 assessed quarterly).

- Please compare, for the past 10 years, the amount of State contributions into the PERS versus the amount of State contributions into the ABP over the same time period.

Response: See attachment A.

Senator Scutari:

- Please compare pension alternatives by projecting the earnings of a hypothetical State employee enrolled in a defined contribution plan (using various employer contribution levels) with the current defined benefit plan. The first set of examples should consist of workers who leave the State pension system 10 to 20 years into their working lives. The second set of examples should feature two career government employees, one assumed to retire after 30 years of service and the other after 40 years, and project their actual DB and potential DC benefits upon retirement from State service.

Response: Attached are four worksheets (Attachments B through E) which provide calculations of the estimated pension benefits under the current defined benefit plan and a hypothetical defined contribution plan for a PERS-State employee for each of the four pension service scenarios requested (i.e. retirement at age 60 with 1) ten years, 2) twenty years, 3) thirty years, and 4) forty years of pension service credit). The employer contribution rate arrived at for the hypothetical DC plan is the rate required to provide an equivalent benefit when compared to the current PERS DB plan.

- Is it practical to introduce a defined contribution plan to pension systems other than PERS and TPAF (JRS, PFRS, etc.) given the early age of retirement for police and firefighters and the relatively short amount of time in the JRS for most members? If so, how might such a DC plan differ for these employees compared to PERS and TPAF members?

Response: Attached are two worksheets (Attachments F through G) which provide calculations of the estimated pension benefits under the current defined benefit plan and a hypothetical defined contribution for a PFRS member retiring after 25 years of service and a JRS member who retires at age 70 with ten years of judicial service credit. As in the previous PERS-State employee examples, the employer contribution rate arrived at for the hypothetical DC plan is the rate required to provide an equivalent benefit when compared to the current PFRS and JRS DB plans. In general, plans which require lesser years of service to qualify for a pension (e.g. JRS) may require a higher annual employer contribution under a DC plan to provide an equivalent benefit when compared to the current DB plan. For longer service careers, the compounding of

Letter to Senator Scutari & Assemblywoman Pou
September 26, 2006
Page 4

interest on employee account balances in a DC plan would require a lower level of annual employer contributions to provide an equivalent DB plan benefit.

Please let me know if there is any additional information you require at this time.

Sincerely,

A handwritten signature in black ink, appearing to read "Frederick J. Beaver". The signature is fluid and cursive, with the first name being the most prominent.

Frederick J. Beaver
Director

Enclosure

Summary of PERS & ABP State Pension Contributions

Fiscal Year	PERS *	ABP
1997	-	83,922,671
1998	-	86,636,373
1999	-	91,879,580
2000	-	94,569,543
2001	-	101,534,152
2002	-	111,508,300
2003	-	115,529,449
2004	-	122,747,607
2005	-	132,181,185
2006	24,500,000	144,933,424

* From FY 1997 to FY 2003, surplus valuation assets were used to fund required State pension contributions. From FY 2004 to FY 2006, the State recognized 20%, 30% and 40% of required contributions, respectively, under the phase-in initiative. The phased-in contribution amounts were fully funded by Benefit Enhancement Fund (BEF) reserves in FY 2004 and FY 2005. In FY 2006, BEF reserves partially funded the phased-in contributions. Total BEF reserves used to cover required contributions were \$28,666,192 in FY 2004, \$62,609,988 in FY 2005, and \$107,316,025 in FY 2006.

Actuarially determined contribution amounts for PERS before reductions for the use of surplus assets, BEF reserves and the phase-in initiative were as follows:

Fiscal Year	Full Contribution
1997	61,977,020
1998	77,957,375
1999	85,666,774
2000	101,850,214
2001	114,503,208
2002	123,463,990
2003	130,548,836
2004	143,330,962
2005	208,699,959
2006	286,673,713

Comparison of Benefits for State Employees: Current PERS Defined Benefit Plan Verses a Defined Contribution Plan

Scenario 1: PERS Termination After 10 Years of Service

Starting Salary	\$	23,520
Hire Age		50
Retirement Age		60
Employee Contribution Rate		5.00%
Employer Defined Contribution Rate		11.50300%
Salary Increase Assumption		5.45%
Retired COLA		1.80%
Interest Rate Assumption		8.25%
Annual Retirement Benefit at Age 60	\$	6,544
Life Expectancy		20.02 years

Plan Comparisons	Current DB Plan	DC Plan	Difference
Present Value of Pension at Termination	\$ 70,610	\$ 70,610	\$ (0)
Employee Contributions	\$ 15,106	\$ 15,106	\$ -
Required Employer Contributions	\$ 32,656	\$ 34,753	\$ 2,097
		11.50300%	

Service Credit	Age	Salary	Employee Contribution	Interest on Employee Contributions	Employee Contribution Account Balance	Employer DC Contributions	Interest on Employer Contributions	Employer Contribution Balance	Total DC Account Value	Employer DB Contributions	Employer DB Contributions Rate	Years
1	51	\$ 23,520	\$ 1,176	\$ 1,176	\$ 1,176	\$ 2,706	\$ 2,706	\$ 2,706	\$ 3,882	\$ 2,228	9.47%	10
2	52	\$ 24,802	\$ 1,240	\$ 1,240	\$ 2,513	\$ 2,853	\$ 2,853	\$ 5,782	\$ 8,295	\$ 2,411	9.72%	9
3	53	\$ 26,154	\$ 1,308	\$ 1,308	\$ 4,028	\$ 3,008	\$ 3,008	\$ 9,267	\$ 13,295	\$ 2,610	9.98%	8
4	54	\$ 27,579	\$ 1,379	\$ 1,379	\$ 5,739	\$ 3,172	\$ 3,172	\$ 13,204	\$ 18,943	\$ 2,826	10.25%	7
5	55	\$ 29,082	\$ 1,454	\$ 1,454	\$ 7,667	\$ 3,345	\$ 3,345	\$ 17,639	\$ 25,306	\$ 3,059	10.52%	6
6	56	\$ 30,667	\$ 1,533	\$ 1,533	\$ 9,833	\$ 3,528	\$ 3,528	\$ 22,621	\$ 32,454	\$ 3,311	10.80%	5
7	57	\$ 32,338	\$ 1,617	\$ 1,617	\$ 12,261	\$ 3,720	\$ 3,720	\$ 28,208	\$ 40,469	\$ 3,584	11.08%	4
8	58	\$ 34,101	\$ 1,705	\$ 1,705	\$ 14,978	\$ 3,923	\$ 3,923	\$ 34,457	\$ 49,435	\$ 3,880	11.38%	3
9	59	\$ 35,958	\$ 1,798	\$ 1,798	\$ 18,011	\$ 4,136	\$ 4,136	\$ 41,436	\$ 59,448	\$ 4,200	11.68%	2
10	60	\$ 37,919	\$ 1,896	\$ 1,896	\$ 21,393	\$ 4,362	\$ 4,362	\$ 49,217	\$ 70,610	\$ 4,547	11.99%	1
		\$ 15,106	\$ 6,287	\$ 6,287	\$ 34,753	\$ 34,753	\$ 14,464	\$ 32,656				

Annual DB Pension Benefits	Age	Regular Allowance	COLA	Total	PV of Annual Pension	Years	COLA Year
61	61	\$ 6,544	\$ -	\$ 6,544	\$ 6,045	1	
62	62	\$ 6,544	\$ -	\$ 6,544	\$ 5,585	2	
63	63	\$ 6,544	\$ 118	\$ 6,662	\$ 5,252	3	1
64	64	\$ 6,544	\$ 238	\$ 6,782	\$ 4,939	4	2
65	65	\$ 6,544	\$ 360	\$ 6,904	\$ 4,645	5	3
66	66	\$ 6,544	\$ 484	\$ 7,028	\$ 4,368	6	4
67	67	\$ 6,544	\$ 611	\$ 7,155	\$ 4,108	7	5
68	68	\$ 6,544	\$ 739	\$ 7,284	\$ 3,863	8	6
69	69	\$ 6,544	\$ 870	\$ 7,415	\$ 3,633	9	7
70	70	\$ 6,544	\$ 1,004	\$ 7,548	\$ 3,416	10	8
71	71	\$ 6,544	\$ 1,140	\$ 7,684	\$ 3,213	11	9
72	72	\$ 6,544	\$ 1,278	\$ 7,822	\$ 3,021	12	10
73	73	\$ 6,544	\$ 1,419	\$ 7,963	\$ 2,841	13	11
74	74	\$ 6,544	\$ 1,562	\$ 8,106	\$ 2,672	14	12
75	75	\$ 6,544	\$ 1,708	\$ 8,252	\$ 2,513	15	13
76	76	\$ 6,544	\$ 1,857	\$ 8,401	\$ 2,363	16	14
77	77	\$ 6,544	\$ 2,008	\$ 8,552	\$ 2,222	17	15
78	78	\$ 6,544	\$ 2,162	\$ 8,706	\$ 2,090	18	16
79	79	\$ 6,544	\$ 2,319	\$ 8,863	\$ 1,965	19	17
80	80	\$ 6,544	\$ 2,478	\$ 9,022	\$ 1,848	20	18
80.02	80.02	\$ 131	\$ 53	\$ 184	\$ 7	20.2	19
Total Pension Benefit Paid		\$ 153,421	\$ 153,421	\$ 153,421	\$ 70,610		

Comparison of Benefits for State Employees: Current PERS Defined Benefit Plan Versus a Defined Contribution Plan

Scenario 2: PERS Termination After 20 Years of Service

Standing Salary	\$	23,520
Hire Age		40
Retirement Age		60
Employee Contribution Rate		5.00%
Employer Defined Contribution Rate		5.45%
Salary Increase Assumption		1.80%
Retired COLA		8.25%
Interest Rate Assumption		22.251
Annual Retirement Benefit at Age 60		20.02 years
Life Expectancy		

Plan Comparisons

	Current DB Plan	DC Plan	Difference
Present Value of Pension at Termination	\$ 240,083	\$ 240,082	(\$)
Employee Contributions	\$ 40,787	\$ 40,787	\$
Required Employer Contributions	\$ 75,393	\$ 76,295	\$ 902

9.52635%

Service Credit	Age	Salary	Employee Contribution	Interest on Employee Contributions	Employee Contribution Account Balance	Employer DC Contributions	Interest on Employer DC Contributions	Employer DC Contribution Account Balance	Employer Contribution Account Balance	Total DC Account Value	Employer DB Contributions	Employer DB Contributions Rate
1	41	\$ 23,520	\$ 1,176	\$ -	\$ 1,176	\$ -	\$ 2,200	\$ 2,200	\$ 2,200	\$ 3,376	\$ 1,602	6.81%
2	42	\$ 24,802	\$ 1,240	\$ 97	\$ 2,513	\$ 161	\$ 2,320	\$ 4,701	\$ 4,701	\$ 7,214	\$ 1,735	6.98%
3	43	\$ 26,154	\$ 1,308	\$ 207	\$ 3,028	\$ 388	\$ 2,446	\$ 7,535	\$ 7,535	\$ 11,563	\$ 1,878	7.18%
4	44	\$ 27,579	\$ 1,379	\$ 332	\$ 3,739	\$ 622	\$ 2,579	\$ 10,736	\$ 10,736	\$ 16,475	\$ 2,033	7.37%
5	45	\$ 29,067	\$ 1,454	\$ 473	\$ 4,667	\$ 886	\$ 2,720	\$ 14,342	\$ 14,342	\$ 22,009	\$ 2,200	7.57%
6	46	\$ 30,667	\$ 1,533	\$ 633	\$ 5,833	\$ 1,183	\$ 2,868	\$ 18,393	\$ 18,393	\$ 28,226	\$ 2,382	7.77%
7	47	\$ 32,338	\$ 1,617	\$ 811	\$ 7,261	\$ 1,517	\$ 3,025	\$ 22,935	\$ 22,935	\$ 35,196	\$ 2,578	7.97%
8	48	\$ 34,101	\$ 1,705	\$ 1,012	\$ 8,978	\$ 1,892	\$ 3,189	\$ 28,017	\$ 28,017	\$ 42,994	\$ 2,791	8.18%
9	49	\$ 35,959	\$ 1,798	\$ 1,238	\$ 10,911	\$ 2,311	\$ 3,353	\$ 33,691	\$ 33,691	\$ 51,702	\$ 3,021	8.40%
10	50	\$ 37,919	\$ 1,896	\$ 1,486	\$ 13,093	\$ 2,780	\$ 3,547	\$ 40,017	\$ 40,017	\$ 61,410	\$ 3,271	8.63%
11	51	\$ 39,986	\$ 1,998	\$ 1,765	\$ 15,517	\$ 3,301	\$ 3,740	\$ 47,058	\$ 47,058	\$ 72,216	\$ 3,540	8.85%
12	52	\$ 42,165	\$ 2,108	\$ 2,075	\$ 18,341	\$ 3,982	\$ 3,944	\$ 54,884	\$ 54,884	\$ 84,225	\$ 3,833	9.09%
13	53	\$ 44,463	\$ 2,234	\$ 2,421	\$ 21,885	\$ 4,159	\$ 4,228	\$ 63,571	\$ 63,571	\$ 97,555	\$ 4,149	9.33%
14	54	\$ 46,888	\$ 2,344	\$ 2,804	\$ 26,133	\$ 4,385	\$ 4,385	\$ 73,201	\$ 73,201	\$ 112,333	\$ 4,491	9.58%
15	55	\$ 49,441	\$ 2,472	\$ 3,228	\$ 31,333	\$ 4,624	\$ 4,624	\$ 83,864	\$ 83,864	\$ 128,687	\$ 4,861	9.83%
16	56	\$ 52,136	\$ 2,607	\$ 3,689	\$ 37,109	\$ 4,876	\$ 4,876	\$ 95,659	\$ 95,659	\$ 146,797	\$ 5,263	10.09%
17	57	\$ 54,977	\$ 2,749	\$ 4,219	\$ 43,139	\$ 5,142	\$ 5,142	\$ 108,692	\$ 108,692	\$ 166,799	\$ 5,697	10.36%
18	58	\$ 57,973	\$ 2,899	\$ 4,794	\$ 49,484	\$ 5,422	\$ 5,422	\$ 123,082	\$ 123,082	\$ 188,861	\$ 6,167	10.64%
19	59	\$ 61,133	\$ 3,057	\$ 5,428	\$ 56,718	\$ 5,718	\$ 5,718	\$ 138,954	\$ 138,954	\$ 213,238	\$ 6,675	10.92%
20	60	\$ 64,465	\$ 3,223	\$ 6,128	\$ 63,636	\$ 6,029	\$ 6,029	\$ 156,447	\$ 156,447	\$ 240,082	\$ 7,226	11.21%
				\$ 42,849		\$ 80,151					\$ 75,393	

Annual DB Pension Benefits

Age	Regular Allowance	COLA	Total	PV of Annual Pension	Years	COIA Year
61	\$ 22,251	\$ -	\$ 22,251	\$ 20,555	1	
62	\$ 22,251	\$ -	\$ 22,251	\$ 18,989	2	
63	\$ 22,251	\$ 401	\$ 22,652	\$ 17,857	3	1
64	\$ 22,251	\$ 808	\$ 23,059	\$ 16,793	4	2
65	\$ 22,251	\$ 1,223	\$ 23,474	\$ 15,793	5	3
66	\$ 22,251	\$ 1,646	\$ 23,897	\$ 14,852	6	4
67	\$ 22,251	\$ 2,076	\$ 24,327	\$ 13,967	7	5
68	\$ 22,251	\$ 2,514	\$ 24,765	\$ 13,135	8	6
69	\$ 22,251	\$ 2,960	\$ 25,211	\$ 12,352	9	7
70	\$ 22,251	\$ 3,413	\$ 25,665	\$ 11,616	10	8
71	\$ 22,251	\$ 3,875	\$ 26,126	\$ 10,924	11	9
72	\$ 22,251	\$ 4,346	\$ 26,597	\$ 10,273	12	10
73	\$ 22,251	\$ 4,824	\$ 27,075	\$ 9,661	13	11
74	\$ 22,251	\$ 5,312	\$ 27,563	\$ 9,085	14	12
75	\$ 22,251	\$ 5,808	\$ 28,059	\$ 8,544	15	13
76	\$ 22,251	\$ 6,313	\$ 28,564	\$ 8,035	16	14
77	\$ 22,251	\$ 6,827	\$ 29,078	\$ 7,556	17	15
78	\$ 22,251	\$ 7,351	\$ 29,602	\$ 7,106	18	16
79	\$ 22,251	\$ 7,883	\$ 30,134	\$ 6,682	19	17
80	\$ 22,251	\$ 8,426	\$ 30,677	\$ 6,284	20	18
80.02	\$ 445	\$ 180	\$ 625	\$ 25	20.2	19
Total Pension Benefits Paid			\$ 521,652	\$ 240,083		

Comparison of Benefits for State Employees: Current PERS Defined Benefit Plan Verses a Defined Contribution Plan

Scenario 3: PERS Termination After 30 Years of Service

Starting Salary	\$	23,520
Rate Age		30
Retirement Age		60
Employer Contribution Rate		5.00%
Employee Defined Contribution Rate		3.45%
Salary Growth Assumption		3.00%
Retired COLA		8.00%
Interest Rate Assumption		5.67%
Annual Retirement Benefit at Age 60	\$	20.02 years
Life Expectancy		

	Current DB Plan	DC Plan	Difference
Present Value of Pension at Termination	\$ 612,235	\$ 612,235	\$ (0)
Employee Contributions	\$ 84,447	\$ 84,447	\$ -
Required Employer Contributions	\$ 134,027	\$ 125,185	\$ (8,833)
			7.41853%

Service Credit	Age	Salary	Employee Contribution	Interest on Employee Contributions	Employer Contribution Account Balance	Employer DC Contributions	Interest on Employer DC Contributions	Employer DC Account Balance	Employer Contribution Account Balance	Total DC Account Value	Employer DB Contributions	Employer DB Contributions Rate
1	31	\$ 1,176	\$ 1,176	\$ -	\$ 1,176	\$ 1,174	\$ -	\$ 1,174	\$ 1,174	\$ 2,919	\$ 1,130	4.804%
2	32	\$ 1,240	\$ 1,240	\$ 97	\$ 2,513	\$ 1,838	\$ 1,838	\$ 1,838	\$ 3,726	\$ 6,239	\$ 1,223	4.932%
3	33	\$ 1,308	\$ 1,308	\$ 207	\$ 4,028	\$ 2,699	\$ 2,699	\$ 2,699	\$ 5,972	\$ 10,000	\$ 1,324	5.063%
4	34	\$ 1,379	\$ 1,379	\$ 332	\$ 5,739	\$ 3,739	\$ 3,739	\$ 3,739	\$ 8,509	\$ 14,248	\$ 1,433	5.197%
5	35	\$ 1,454	\$ 1,454	\$ 473	\$ 7,667	\$ 5,044	\$ 5,044	\$ 5,044	\$ 11,397	\$ 19,033	\$ 1,552	5.335%
6	36	\$ 1,533	\$ 1,533	\$ 633	\$ 9,833	\$ 6,633	\$ 6,633	\$ 6,633	\$ 14,577	\$ 24,410	\$ 1,680	5.477%
7	37	\$ 1,617	\$ 1,617	\$ 811	\$ 12,261	\$ 8,538	\$ 8,538	\$ 8,538	\$ 18,177	\$ 30,438	\$ 1,818	5.622%
8	38	\$ 1,705	\$ 1,705	\$ 1,012	\$ 14,978	\$ 10,785	\$ 10,785	\$ 10,785	\$ 22,205	\$ 37,182	\$ 1,968	5.772%
9	39	\$ 1,798	\$ 1,798	\$ 1,236	\$ 18,011	\$ 13,389	\$ 13,389	\$ 13,389	\$ 26,702	\$ 44,713	\$ 2,131	5.925%
10	40	\$ 1,896	\$ 1,896	\$ 1,485	\$ 21,389	\$ 16,317	\$ 16,317	\$ 16,317	\$ 31,716	\$ 53,109	\$ 2,305	6.082%
11	41	\$ 1,998	\$ 1,998	\$ 1,759	\$ 25,157	\$ 19,684	\$ 19,684	\$ 19,684	\$ 37,296	\$ 62,453	\$ 2,497	6.244%
12	42	\$ 2,105	\$ 2,105	\$ 2,073	\$ 29,341	\$ 23,509	\$ 23,509	\$ 23,509	\$ 43,499	\$ 72,840	\$ 2,703	6.410%
13	43	\$ 2,223	\$ 2,223	\$ 2,421	\$ 33,985	\$ 27,841	\$ 27,841	\$ 27,841	\$ 50,363	\$ 84,368	\$ 2,926	6.580%
14	44	\$ 2,352	\$ 2,352	\$ 2,823	\$ 39,139	\$ 32,841	\$ 32,841	\$ 32,841	\$ 58,015	\$ 97,148	\$ 3,167	6.764%
15	45	\$ 2,493	\$ 2,493	\$ 3,288	\$ 44,933	\$ 38,389	\$ 38,389	\$ 38,389	\$ 66,466	\$ 111,302	\$ 3,428	6.954%
16	46	\$ 2,646	\$ 2,646	\$ 3,819	\$ 51,339	\$ 44,538	\$ 44,538	\$ 44,538	\$ 75,615	\$ 126,353	\$ 3,711	7.158%
17	47	\$ 2,811	\$ 2,811	\$ 4,419	\$ 58,407	\$ 51,386	\$ 51,386	\$ 51,386	\$ 85,445	\$ 142,251	\$ 4,017	7.370%
18	48	\$ 2,988	\$ 2,988	\$ 5,094	\$ 66,209	\$ 59,048	\$ 59,048	\$ 59,048	\$ 96,416	\$ 159,042	\$ 4,347	7.597%
19	49	\$ 3,057	\$ 3,057	\$ 5,833	\$ 74,284	\$ 67,479	\$ 67,479	\$ 67,479	\$ 108,682	\$ 176,736	\$ 4,706	7.836%
20	50	\$ 3,223	\$ 3,223	\$ 6,639	\$ 83,638	\$ 77,239	\$ 77,239	\$ 77,239	\$ 122,394	\$ 195,332	\$ 5,096	8.086%
21	51	\$ 3,389	\$ 3,389	\$ 7,506	\$ 94,335	\$ 88,335	\$ 88,335	\$ 88,335	\$ 137,982	\$ 214,853	\$ 5,516	8.346%
22	52	\$ 3,564	\$ 3,564	\$ 8,441	\$ 106,435	\$ 100,288	\$ 100,288	\$ 100,288	\$ 154,942	\$ 235,372	\$ 5,971	8.614%
23	53	\$ 3,749	\$ 3,749	\$ 9,443	\$ 119,999	\$ 113,733	\$ 113,733	\$ 113,733	\$ 173,542	\$ 257,924	\$ 6,464	8.888%
24	54	\$ 3,943	\$ 3,943	\$ 10,514	\$ 135,084	\$ 128,431	\$ 128,431	\$ 128,431	\$ 194,650	\$ 282,521	\$ 6,997	9.167%
25	55	\$ 4,146	\$ 4,146	\$ 11,654	\$ 151,759	\$ 144,677	\$ 144,677	\$ 144,677	\$ 217,155	\$ 309,261	\$ 7,574	9.450%
26	56	\$ 4,358	\$ 4,358	\$ 12,864	\$ 169,993	\$ 162,993	\$ 162,993	\$ 162,993	\$ 241,641	\$ 404,634	\$ 8,199	9.738%
27	57	\$ 4,579	\$ 4,579	\$ 14,144	\$ 189,847	\$ 181,113	\$ 181,113	\$ 181,113	\$ 268,505	\$ 498,945	\$ 8,876	10.020%
28	58	\$ 4,808	\$ 4,808	\$ 15,497	\$ 209,383	\$ 200,983	\$ 200,983	\$ 200,983	\$ 297,952	\$ 598,008	\$ 9,608	10.304%
29	59	\$ 5,045	\$ 5,045	\$ 16,934	\$ 227,760	\$ 222,760	\$ 222,760	\$ 222,760	\$ 330,248	\$ 698,008	\$ 10,400	10.692%
30	60	\$ 5,480	\$ 5,480	\$ 18,378	\$ 246,618	\$ 246,618	\$ 246,618	\$ 246,618	\$ 365,617	\$ 812,235	\$ 11,258	11.073%
Annual DB Pension Benefits	Age	Regular Allowance	COLA	Total	PV of Annual Pension	Years	COLA Year					
61	61	\$ 56,742	\$ -	\$ 56,742	\$ 52,418	1						
62	62	\$ 56,742	\$ 1,021	\$ 57,763	\$ 48,423	2	1					
63	63	\$ 56,742	\$ 2,061	\$ 58,803	\$ 44,538	3	2					
64	64	\$ 56,742	\$ 3,120	\$ 59,862	\$ 40,723	4	3					
65	65	\$ 56,742	\$ 4,197	\$ 60,940	\$ 37,073	5	4					
66	66	\$ 56,742	\$ 5,294	\$ 62,036	\$ 33,617	6	5					
67	67	\$ 56,742	\$ 6,411	\$ 63,153	\$ 30,349	7	6					
68	68	\$ 56,742	\$ 7,547	\$ 64,290	\$ 27,252	8	7					
69	69	\$ 56,742	\$ 8,705	\$ 65,447	\$ 24,319	9	8					
70	70	\$ 56,742	\$ 9,883	\$ 66,625	\$ 21,542	10	9					
71	71	\$ 56,742	\$ 11,082	\$ 67,824	\$ 18,911	11	10					
72	72	\$ 56,742	\$ 12,303	\$ 69,045	\$ 16,414	12	11					
73	73	\$ 56,742	\$ 13,546	\$ 70,288	\$ 14,049	13	12					
74	74	\$ 56,742	\$ 14,811	\$ 71,553	\$ 11,814	14	13					
75	75	\$ 56,742	\$ 16,099	\$ 72,841	\$ 9,707	15	14					
76	76	\$ 56,742	\$ 17,410	\$ 74,152	\$ 7,725	16	15					
77	77	\$ 56,742	\$ 18,745	\$ 75,487	\$ 5,864	17	16					
78	78	\$ 56,742	\$ 20,103	\$ 76,846	\$ 4,129	18	17					
79	79	\$ 56,742	\$ 21,487	\$ 78,229	\$ 2,519	19	18					
80	80	\$ 1,135	\$ -	\$ 1,135	\$ 64	20	20.2					
Total Pension Benefits Paid				\$ 1,330,264	\$ 612,235						\$ 134,027	

Comparison of Benefits for State Employees: Current PERIS Defined Benefit Plan Verses a Defined Contribution Plan

Scenario 4: PERIS Termination After 40 Years of Service

Starting Salary	\$	23,520
Hire Age		20
Retirement Age		60
Employee Contribution Rate		5.00%
Employer Defined Contribution Rate		5.45%
Salary Increase Assumption		1.85%
Retired COLA		8.25%
Interest Rate Assumption		120.621
Annual Retirement Benefit at Age 60	\$	20.02
Life Expectancy		years

Plan Comparisons	Current DB Plan	DC Plan	Difference
Present Value of Pension at Termination	\$	1,387,786	\$ (0)
Employee Contributions	\$	158,672	\$
Required Employer Contributions	\$	214,190	\$ (34,088)
			3.6732%

Service Credit	Age	Salary	Employee Contribution	Employer Contribution	Employee DC Contributions	Interest on Employee DC Contributions	Employee DC Contributions	Employee DB Contribution Account Balance	Employee DB Contribution Account Balance	Total DC Account Value	Employee DB Contributions	Employee DB Contribution Rate
1	21	\$ 23,520	\$ 1,176	\$ 97	\$ 1,176	\$ 1,335	\$ 1,335	\$ -	\$ 1,335	\$ 2,511	\$ 774	3.281%
2	22	\$ 24,602	\$ 1,240	\$ 207	\$ 2,513	\$ 1,408	\$ 1,408	\$ 235	\$ 2,653	\$ 5,396	\$ 838	3.378%
3	23	\$ 25,754	\$ 1,308	\$ 332	\$ 4,028	\$ 1,484	\$ 295	\$ 377	\$ 4,572	\$ 8,600	\$ 907	3.469%
4	24	\$ 27,079	\$ 1,379	\$ 472	\$ 5,739	\$ 1,565	\$ 432	\$ 537	\$ 6,115	\$ 12,294	\$ 952	3.560%
5	25	\$ 28,484	\$ 1,454	\$ 627	\$ 7,767	\$ 1,653	\$ 576	\$ 717	\$ 8,702	\$ 16,389	\$ 1,063	3.650%
6	26	\$ 30,967	\$ 1,534	\$ 797	\$ 10,053	\$ 1,748	\$ 726	\$ 921	\$ 11,511	\$ 21,000	\$ 1,185	3.739%
7	27	\$ 33,539	\$ 1,617	\$ 984	\$ 12,265	\$ 1,835	\$ 791	\$ 1,148	\$ 13,917	\$ 26,378	\$ 1,245	3.824%
8	28	\$ 36,201	\$ 1,705	\$ 1,187	\$ 14,978	\$ 1,935	\$ 859	\$ 1,385	\$ 17,000	\$ 31,978	\$ 1,348	3.905%
9	29	\$ 38,965	\$ 1,798	\$ 1,405	\$ 18,011	\$ 2,041	\$ 1,033	\$ 1,650	\$ 20,444	\$ 38,455	\$ 1,458	4.059%
10	30	\$ 41,831	\$ 1,896	\$ 1,636	\$ 21,393	\$ 2,152	\$ 1,363	\$ 1,950	\$ 24,262	\$ 45,675	\$ 1,580	4.166%
11	31	\$ 44,800	\$ 1,999	\$ 1,879	\$ 25,157	\$ 2,269	\$ 1,733	\$ 2,285	\$ 28,555	\$ 53,712	\$ 1,710	4.277%
12	32	\$ 47,874	\$ 2,108	\$ 2,134	\$ 29,341	\$ 2,393	\$ 2,056	\$ 2,656	\$ 33,304	\$ 62,645	\$ 1,851	4.390%
13	33	\$ 51,054	\$ 2,223	\$ 2,404	\$ 33,985	\$ 2,523	\$ 2,748	\$ 3,064	\$ 38,575	\$ 72,559	\$ 2,004	4.507%
14	34	\$ 54,341	\$ 2,344	\$ 2,684	\$ 39,133	\$ 2,661	\$ 3,182	\$ 3,506	\$ 44,418	\$ 83,551	\$ 2,169	4.627%
15	35	\$ 57,736	\$ 2,472	\$ 3,077	\$ 44,813	\$ 2,806	\$ 3,664	\$ 4,000	\$ 50,889	\$ 95,722	\$ 2,348	4.759%
16	36	\$ 61,240	\$ 2,607	\$ 3,580	\$ 51,133	\$ 2,956	\$ 4,174	\$ 4,596	\$ 58,056	\$ 109,184	\$ 2,542	4.895%
17	37	\$ 64,854	\$ 2,749	\$ 4,194	\$ 58,107	\$ 3,120	\$ 4,789	\$ 5,282	\$ 66,995	\$ 123,464	\$ 2,752	5.035%
18	38	\$ 68,588	\$ 2,897	\$ 4,914	\$ 65,789	\$ 3,299	\$ 5,441	\$ 6,061	\$ 77,465	\$ 138,687	\$ 2,976	5.178%
19	39	\$ 72,452	\$ 3,051	\$ 5,736	\$ 74,284	\$ 3,485	\$ 6,162	\$ 7,024	\$ 89,522	\$ 154,861	\$ 3,224	5.325%
20	40	\$ 76,456	\$ 3,223	\$ 6,660	\$ 83,534	\$ 3,659	\$ 6,959	\$ 8,162	\$ 103,321	\$ 172,090	\$ 3,495	5.475%
21	41	\$ 80,600	\$ 3,393	\$ 7,690	\$ 93,535	\$ 3,859	\$ 7,832	\$ 9,485	\$ 118,486	\$ 190,566	\$ 3,778	5.625%
22	42	\$ 84,894	\$ 3,554	\$ 8,824	\$ 105,268	\$ 4,068	\$ 8,796	\$ 11,059	\$ 135,633	\$ 209,596	\$ 4,050	5.775%
23	43	\$ 89,338	\$ 3,718	\$ 10,064	\$ 117,733	\$ 4,290	\$ 9,859	\$ 12,908	\$ 154,861	\$ 230,136	\$ 4,328	5.925%
24	44	\$ 93,932	\$ 3,885	\$ 11,414	\$ 130,947	\$ 4,524	\$ 11,059	\$ 14,964	\$ 176,280	\$ 252,110	\$ 4,600	6.075%
25	45	\$ 98,676	\$ 4,056	\$ 12,874	\$ 144,921	\$ 4,771	\$ 12,398	\$ 17,264	\$ 199,576	\$ 275,544	\$ 4,868	6.225%
26	46	\$ 103,570	\$ 4,231	\$ 14,444	\$ 159,665	\$ 5,030	\$ 13,887	\$ 19,824	\$ 222,260	\$ 300,578	\$ 5,132	6.375%
27	47	\$ 108,614	\$ 4,410	\$ 16,124	\$ 175,189	\$ 5,301	\$ 15,533	\$ 22,644	\$ 246,618	\$ 327,112	\$ 5,392	6.525%
28	48	\$ 113,808	\$ 4,594	\$ 17,914	\$ 191,503	\$ 5,584	\$ 17,353	\$ 25,724	\$ 272,742	\$ 355,146	\$ 5,648	6.675%
29	49	\$ 119,152	\$ 4,782	\$ 19,814	\$ 208,617	\$ 5,879	\$ 19,274	\$ 29,064	\$ 300,578	\$ 384,680	\$ 5,892	6.825%
30	50	\$ 124,646	\$ 4,974	\$ 21,824	\$ 226,541	\$ 6,186	\$ 21,304	\$ 32,664	\$ 327,112	\$ 415,214	\$ 6,124	6.975%
31	51	\$ 130,290	\$ 5,170	\$ 23,944	\$ 245,285	\$ 6,505	\$ 23,454	\$ 36,524	\$ 355,146	\$ 446,748	\$ 6,348	7.125%
32	52	\$ 136,084	\$ 5,370	\$ 26,174	\$ 264,859	\$ 6,836	\$ 25,724	\$ 40,644	\$ 384,680	\$ 479,282	\$ 6,558	7.275%
33	53	\$ 142,028	\$ 5,574	\$ 28,514	\$ 285,273	\$ 7,179	\$ 28,124	\$ 45,004	\$ 415,214	\$ 512,816	\$ 6,752	7.425%
34	54	\$ 148,122	\$ 5,782	\$ 30,964	\$ 306,537	\$ 7,534	\$ 30,664	\$ 49,694	\$ 446,748	\$ 547,350	\$ 6,932	7.575%
35	55	\$ 154,366	\$ 5,994	\$ 33,524	\$ 328,661	\$ 7,901	\$ 33,354	\$ 54,714	\$ 479,282	\$ 582,884	\$ 7,098	7.725%
36	56	\$ 160,760	\$ 6,210	\$ 36,194	\$ 351,655	\$ 8,280	\$ 36,194	\$ 59,974	\$ 512,816	\$ 619,418	\$ 7,250	7.875%
37	57	\$ 167,304	\$ 6,430	\$ 38,974	\$ 375,629	\$ 8,671	\$ 39,184	\$ 65,484	\$ 547,350	\$ 656,952	\$ 7,388	8.025%
38	58	\$ 173,998	\$ 6,654	\$ 41,864	\$ 400,583	\$ 9,074	\$ 42,314	\$ 71,244	\$ 582,884	\$ 695,486	\$ 7,512	8.175%
39	59	\$ 180,842	\$ 6,882	\$ 44,864	\$ 426,527	\$ 9,489	\$ 45,694	\$ 77,264	\$ 619,418	\$ 734,920	\$ 7,622	8.325%
40	60	\$ 187,836	\$ 7,114	\$ 47,974	\$ 453,461	\$ 9,916	\$ 49,324	\$ 83,544	\$ 656,952	\$ 775,254	\$ 7,712	8.475%
Annual DB Pension Benefit		\$ 481,327	\$ 188,672	\$	\$ 180,102	\$	\$ 180,102	\$	\$ 55,423	\$ 1,387,786	\$	

Age	Regular Annuity	COLA	Total	PR of Annual Pension	Years
61	\$ 128,621	\$ -	\$ 128,621	118,818.61	1
62	\$ 128,621	\$ -	\$ 128,621	109,793.15	2
63	\$ 128,621	\$ -	\$ 128,621	100,222.99	3
64	\$ 128,621	\$ 2,315	\$ 130,936	97,072.52	4
65	\$ 128,621	\$ 7,071	\$ 135,692	91,288.53	5
66	\$ 128,621	\$ 9,514	\$ 138,135	85,848.16	6
67	\$ 128,621	\$ 12,000	\$ 140,621	80,733.90	7
68	\$ 128,621	\$ 14,531	\$ 143,152	75,923.43	8
69	\$ 128,621	\$ 17,108	\$ 145,729	71,399.59	9
70	\$ 128,621	\$ 19,731	\$ 148,352	67,142.29	10
71	\$ 128,621	\$ 22,401	\$ 150,923	63,142.97	11
72	\$ 128,621	\$ 25,120	\$ 153,741	59,392.07	12
73	\$ 128,621	\$ 27,887	\$ 156,508	55,843.63	13
74	\$ 128,621	\$ 30,705	\$ 159,326	52,416.41	14
75	\$ 128,621	\$ 33,572	\$ 162,194	49,387.26	15
76	\$ 128,621	\$ 36,492	\$ 165,113	46,444.55	16
77	\$ 128,621	\$ 39,464	\$ 168,085	43,677.19	17
78	\$ 128,621	\$ 42,489	\$ 171,114	41,074.71	18
79	\$ 128,621	\$ 45,569	\$ 174,183	38,627.31	19
80	\$ 128,621	\$ 48,705	\$ 177,328	36,322.73	20
80.02	\$ 4,572	\$ 1,038	\$ 5,610	145.59	20.2
Total Pension Benefit Paid	\$	\$	\$ 3,015,382	\$ 1,387,786	

Comparison of Benefits for State Employees: Current JRS Defined Benefit Plan Verses a Defined Contribution Plan

Scenario 6: JRS Termination After 10 Years of Service

Starting Salary	\$	141,000
Hire Age		60
Retirement Age		70
Employee Defined Contribution Rate		3.00%
Salary Increase Assumption		5.45%
Retired COLA		1.80%
Interest Rate Assumption		8.25%
Annual Retirement Benefit at Age 80	\$	170,490
Life Expectancy		13.32 years

Plan Comparisons	Current DB Plan	DC Plan	Difference
Present Value of Pension at Termination	\$ 1,454,528	\$ 1,454,528	\$ 0
Employee Contributions	\$ 54,335	\$ 54,335	\$ -
Required Employer Contributions	\$ 914,033	\$ 972,734	\$ 58,701
		\$3,70718%	

Service Credit	Age	Salary	Employee Contribution	Interest on Employee Contributions	Employee Contribution Account Balance	Employer DC Contributions	Interest on Employer DC Contributions	Employer DC Contribution Account Balance	Total DC Account Value	Employer DB Contributions	Employer DB Contributions Rate
1	61	\$ 141,000	\$ 4,230	\$ -	\$ 4,230	\$ -	\$ -	\$ 75,727	\$ 79,957	\$ 62,350	44.220%
2	62	\$ 148,685	\$ 4,461	\$ 349	\$ 9,040	\$ 6,247	\$ 6,247	\$ 161,829	\$ 170,868	\$ 67,494	45.364%
3	63	\$ 156,788	\$ 4,704	\$ 745	\$ 14,489	\$ 13,351	\$ 13,351	\$ 259,386	\$ 273,875	\$ 73,062	46.589%
4	64	\$ 165,333	\$ 4,950	\$ 1,195	\$ 20,644	\$ 21,389	\$ 21,389	\$ 368,581	\$ 390,225	\$ 78,090	47.837%
5	65	\$ 174,343	\$ 5,230	\$ 1,703	\$ 27,578	\$ 30,490	\$ 30,490	\$ 493,706	\$ 521,284	\$ 85,615	49.107%
6	66	\$ 183,845	\$ 5,515	\$ 2,275	\$ 35,368	\$ 40,731	\$ 40,731	\$ 633,175	\$ 668,543	\$ 92,678	50.411%
7	67	\$ 193,865	\$ 5,816	\$ 2,918	\$ 44,102	\$ 52,237	\$ 52,237	\$ 789,531	\$ 833,633	\$ 100,324	51.749%
8	68	\$ 204,430	\$ 6,133	\$ 3,638	\$ 53,873	\$ 65,136	\$ 65,136	\$ 964,461	\$ 1,018,335	\$ 108,601	53.124%
9	69	\$ 215,572	\$ 6,467	\$ 4,445	\$ 64,785	\$ 79,568	\$ 79,568	\$ 1,159,807	\$ 1,224,592	\$ 117,560	54.534%
10	70	\$ 227,320	\$ 6,820	\$ 5,345	\$ 76,949	\$ 95,684	\$ 95,684	\$ 1,377,578	\$ 1,454,528	\$ 127,259	55.962%
Annual DB Pension Benefits	Age	Regular Allowance	COLA	Total	PV of Annual Pension	Years	COLA Year				
	71	\$ 170,480	\$ -	\$ 170,480	\$ 157,487	1					
	72	\$ 170,480	\$ 3,069	\$ 170,480	\$ 145,494	2					
	73	\$ 170,490	\$ 6,193	\$ 173,559	\$ 136,824	3					
	74	\$ 170,490	\$ 9,373	\$ 176,663	\$ 128,672	4					
	75	\$ 170,480	\$ 12,611	\$ 179,863	\$ 121,005	5					
	76	\$ 170,480	\$ 15,907	\$ 183,101	\$ 113,795	6					
	77	\$ 170,480	\$ 19,262	\$ 186,387	\$ 107,015	7					
	78	\$ 170,480	\$ 22,677	\$ 189,752	\$ 100,638	8					
	79	\$ 170,490	\$ 26,154	\$ 193,168	\$ 94,642	9					
	80	\$ 170,490	\$ 29,694	\$ 196,645	\$ 89,003	10					
	81	\$ 170,490	\$ 33,297	\$ 200,184	\$ 83,689	11					
	82	\$ 170,480	\$ 36,965	\$ 203,787	\$ 78,712	12					
	83	\$ 170,490	\$ 40,699	\$ 207,456	\$ 74,022	13					
	83.32	\$ 54,557	\$ 13,024	\$ 67,551	\$ 23,509	13.32					
Total Pension Benefit Paid				\$ 2,498,156	\$ 1,454,528					\$ 914,033	