



**THE REPORT OF THE
ANNUAL ACTUARIAL VALUATION
OF THE
OHIO STATE HIGHWAY PATROL RETIREMENT SYSTEM**

December 31, 2005

GRS

Gabriel Roeder Smith & Company



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July 14, 2006

The Retirement Board
Ohio State Highway Patrol Retirement System
Columbus, Ohio

Ladies and Gentlemen:

The results of the regular annual **actuarial valuation as of December 31, 2005** of the Ohio State Highway Patrol Retirement System, as established by Chapter 5505 of the Revised Code, are presented in this report.

Your Executive Director furnished the member statistical data required for the valuation, together with pertinent data on financial operations. Data was reviewed for reasonableness, but was not audited by the actuary. The actuarial assumptions used in making the valuation are shown in Section F of this report.

Your attention is directed particularly to the summary of results and comments on pages 2 through 6.

The actuarial calculations were performed in accordance with accepted actuarial procedures. The calculations were based upon provisions of the Retirement System described in Section A and upon actuarial assumptions that are internally consistent and reasonably based upon the actual experience of the System.

The cooperation of the Executive Director in furnishing materials requested for this valuation, and the complete and excellent condition of the records, is acknowledged with appreciation.

Respectfully submitted,

Brian B. Murphy, F.S.A.

Mita D. Drazilov, A.S.A.

BBM:dks:lr

DECEMBER 31, 2005
SUMMARY

Valuations performed as of odd-numbered years (2003, 2005, 2007...) form the basis for employer contribution rates, which are effective over two-year periods. Valuations performed as of even-numbered years are intended to provide interim measures of the funding status of the Retirement System, and to provide the Board an opportunity to reallocate the total employer contribution rate between the pension and retiree health programs, if necessary.

The employer contribution rate for the two-year period beginning July 1, 2005 was determined in accordance with the December 31, 2003 valuation. The employer contribution rate for the two-year period beginning July 1, 2007 is to be determined in accordance with this December 31, 2005 valuation.

The **total employer contribution rate** for the two-year period beginning July 1, 2005 is 25.50%, as established by the Board based upon the results of the December 31, 2003 actuarial valuation. Based upon preliminary December 31, 2005 actuarial valuation results, the Board at its May, 2006 meeting voted to maintain the employer contribution rate at 25.50% for the two-year period beginning July 1, 2007. In addition, the allocation of contribution rates between the pension and retiree health programs was left unchanged. The breakdown between employer, employee, pension and health is shown below. This breakdown produces an amortization period of 35 years for pensions.

	Employer Contribution Rates Expressed As % of Active Payroll		
	Retirement, Survivor & Disability Allowances	Post Retirement Health Care	Total
Employer	22.00%	3.50%	25.50%
Employee	10.00%	0.00 %	10.00%
Total	32.00%	3.50%	35.50%

DECEMBER 31, 2005

SUMMARY

The rate of market value investment return for the calendar year was below the actuarial assumed investment return rate of 8.0%. (The market value rate of return for calendar year 2005 was approximately 6.4%. Rates of return reported by the actuary may differ from other reported figures due to restated audited asset figures, approximate formulas and treatment of System expenses.) The funding value rate of return also was below the assumed investment return rate, primarily due to the recognition of the remaining portion of unrecognized losses from calendar year 2002. (The funding value rate of return for calendar year 2005 was approximately 6.2%.) While the funding value rate of return was below the assumed rate for calendar year 2005, the market value of assets currently exceeds the funding value of assets by approximately \$24 million. (This is primarily due to the unrecognized portion of investment gains from calendar years 2003 and 2004.) Based upon the funding value of assets, the System has a funded ratio of 76.5%. Based upon the market value of assets, the System has a funded ratio of 79.1%.

Unfavorable experience in the retiree health program during the calendar year had a negative effect on the solvency period of the retiree health fund. Under all scenarios (valuation, intermediate, pessimistic), the solvency period has worsened since the last actuarial valuation. Significantly higher contributions continue to be needed if the program is to continue in its present form.

Non-investment net cash flow is declining (please see page D-3) and has been negative since 1998. This means that the Retirement System has reached the point wherein a portion of investment return is needed to pay benefits. Eventually, about 3.8% of assets are expected to be needed to pay benefits each year. This is a normal and expected condition.

The actuarial assumptions resulting from the January 1, 2000 through December 31, 2004 experience study adopted by the Board have been incorporated for actuarial valuation purposes. The revised actuarial assumptions had a downward effect on the computed amortization period.

Per discussions with Staff, the **Deferred Retirement Option Program (DROP)** effective June 17, 2006 has not been included for actuarial valuation purposes. It will be incorporated in the December 31, 2006 actuarial valuation. (The DROP was designed to be cost neutral with respect to the pension program. If individuals extend their working careers due to the DROP, there may be some potential savings for the retiree health program.)

SUMMARY & RECOMMENDATIONS - DECEMBER 31, 2005
(CONTINUED)

This valuation indicates that a total employer contribution rate of 25.50% with an employee rate of 10.00% produces an amortization period for the pension program of 35 years, based upon the current allocation between pensions and retiree health for the 1-year period beginning July 1, 2007 and based upon the Funding Value of Assets. If amortization years were reported based upon Market Value of Assets, the amortization period would be 28 years instead of the 35 years that is shown. This means that the amortization period will drop below 30 years fairly rapidly provided that experience is in line with assumptions. In order to achieve a 30-year amortization period as of the December 31, 2005 valuation, the employer contribution rate to the pension program would need to increase to 22.90% from the current 22.00%. Similarly, an additional \$13.5 million of recognized assets would have produced 30 years in this valuation.

Comment on Post Retirement Health Care:

With regard to the retiree health plan, higher contributions are required to extend the solvency of the fund. Historically, contributions have been higher than the 3.5% level. The benefit payout rate currently exceeds 8% of payroll, more than double the contribution income. This situation cannot continue indefinitely. Changes to the retiree health plan and/or increases in contribution rates will need to be a part of the future. The Board may wish considering reviewing the investment return assumption used for solvency projections. Please see pages B-7 and B-11 for details.

Recommendation: The following reserve transfers are recommended as of December 31, 2005:

Transfer To (From)	Total Amount
Pension Reserve Fund:	\$80,820,591
Survivor Benefit Fund:	4,238,715
Total	\$85,059,306

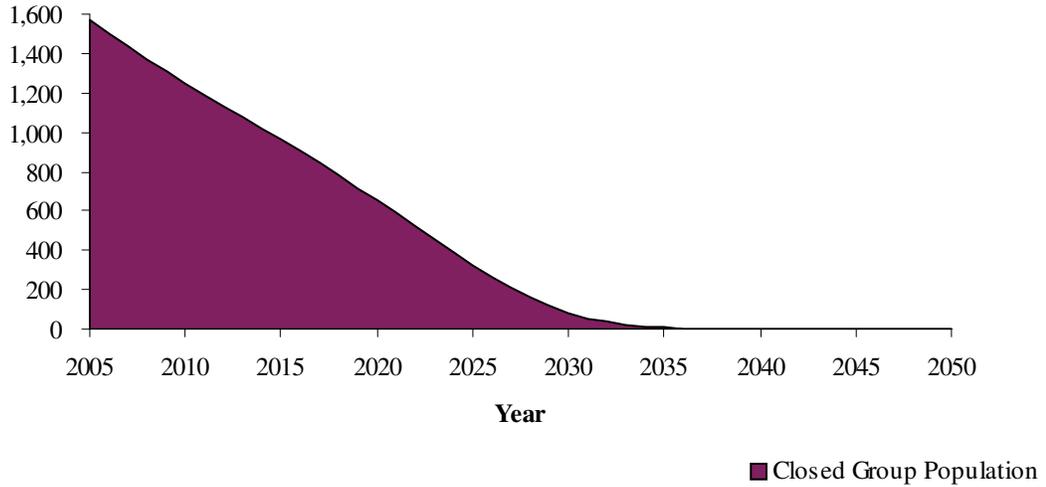
The reserve funds from which the transfers are made are determined as follows: First, the accumulated contributions of members who retired or died with survivor benefits payable prior to January 1, 2006 should be transferred from the Employees' Savings Fund if this has not already been done. The remainder of the transfer should then be taken from the Income Fund or the Employer's Accumulation Fund, as the Board deems appropriate. The purpose of these transfers is to ensure that all pension benefits that have come into pay status since January 1, 1966 are fully funded by the appropriate reserve funds. Benefits effective prior to January 1, 1966 represent a closed group and are paid from the Employer Accumulation fund.

SUMMARY & RECOMMENDATIONS - DECEMBER 31, 2005
(CONTINUED)

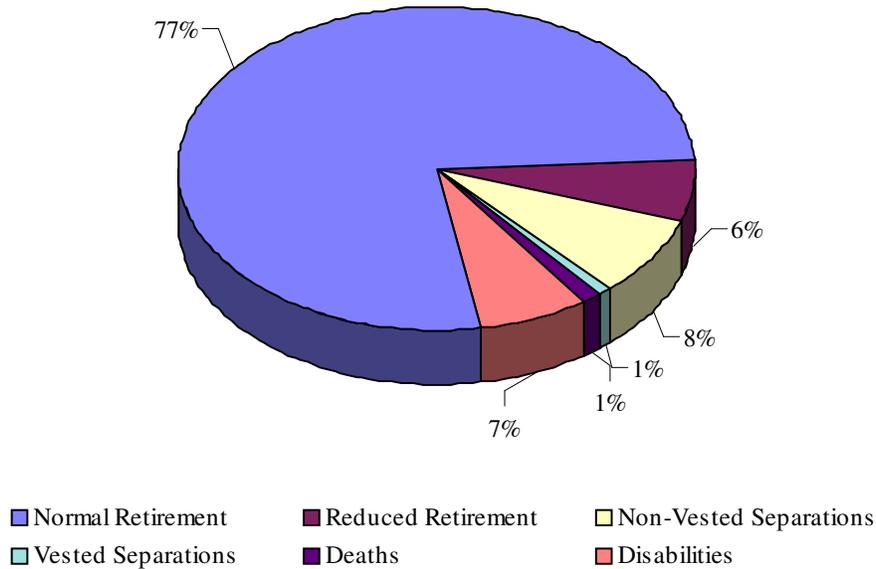
Conclusion: Based upon the results of the December 31, 2005 regular annual actuarial valuation, it is our opinion that with regard to pension benefits, the Ohio State Highway Patrol Retirement System is in sound condition in accordance with actuarial principles of level-cost financing. A small contribution increase or the passage of time will bring the amortization period to the 30 year target. With regard to the Retiree Health Plan, solvency to 2020 is a relatively favorable result, but most people near retirement will live longer than that and will need a retiree health plan longer than that. A combination of contribution increases and continued cost containment measures will be important for the retiree health plan to accomplish its objectives.

EXPECTED DEVELOPMENT OF PRESENT POPULATION DECEMBER 31, 2005

Closed Group Population Projection



**Expected Terminations from Active Employment for
Current Active Members**



The charts show the expected future development of the present population in simplified terms. The retirement system presently covers 1,573 active members. Eventually, 8% of the population is expected to terminate covered employment prior to retirement and forfeit eligibility for an employer provided benefit. 84% of the present population is expected to receive monthly retirement benefits either by retiring directly from active service, or by separating from service without withdrawing contributions. 8% of the present population is expected to become eligible for death-in-service or disability benefits. Within 14 years, over half of the covered membership is expected to consist of new hires.

SECTION A



Retirement, Survivor, and Disability Allowances

**RETIREMENT, SURVIVOR, AND DISABILITY ALLOWANCES
BENEFITS AND CONDITIONS VALUED
DECEMBER 31, 2005**

Age & Service Pension: A member may retire at age 52 to age 60, provided he has 20 or more years of service, or at age 48 with 25 or more years of contributing service. The member's pension equals the sum of 2-1/2% of final average salary (average of salaries during highest 3 years) times years of service not in excess of 20, 2-1/4% of final average salary times years of service in excess of 20 but not in excess of 25 and 2% of final average salary times years of service in excess of 25. The maximum pension payable is 79.25% of the member's final average salary. A member must retire upon attainment of age 60 or completion of 20 years of service, whichever occurs later.

Reduced Retirement: A member who has acquired at least 20 but less than 25 years of service and is between the ages of 48 and 52 is eligible to receive a Pension computed in the same manner as an Age & Service pension but reduced as follows:

Age	Percent of Age & Service Pension
48	75%
49	80
50	86
51	93
52	100

Deferred Pension: A member who has acquired 20 years of service and retires is eligible to receive a pension computed in the same manner as an Age & Service Pension at the attainment of age 52. A reduced benefit is payable if the retirant elects to receive a benefit after age 48 and prior to age 52. The reduction is waived for members with 25 or more years of service. A member, who has acquired 15 years of service and who voluntarily resigns or is discharged, is eligible to receive a pension equal to 1-1/2% of final average salary multiplied by total service. The pension shall begin the first month after attainment of age 55, provided the member does not withdraw his accumulated contributions from the employees' savings fund.

(Continued on Next Page)

RETIREMENT, SURVIVOR, AND DISABILITY ALLOWANCES
BENEFITS AND CONDITIONS VALUED
DECEMBER 31, 2005
(CONTINUED)

Disability Pension:

- A. **On-Duty:** A member who is permanently disabled with a duty-related injury is eligible to receive a pension that is the largest of (i) 61.25% of average final salary, or (ii) the Age & Service Pension.

- B. **Off-Duty:** A member who is permanently disabled with a non-duty related injury or illness is eligible to receive a pension that is the larger of (i) 50% of average annual salary, or (ii) the Age & Service Pension.

Survivor's Benefits: The spouse of a deceased retirant (other than a deferred retirant) is eligible to receive a pension of \$900 a month, or 50% of the computed monthly pension the retirant was receiving, whichever is greater. The surviving spouse of an active member or of a deferred retirant who *was not* yet eligible for an immediate pension benefit is eligible to receive a pension of \$900 per month. The surviving spouse of an active member or of a deferred retirant who *was* eligible for an immediate pension benefit is eligible to receive \$900 per month or 50% of the immediate benefit for which the retiree was eligible, whichever is greater. The benefit terminates upon death. Each surviving child of a deceased member or retirant is eligible for a pension of \$150 a month until attainment of age 18, marriage, or death. The benefit may be continued to age 23 if the child is a full-time student. Each surviving child regardless of age, who was totally dependent upon the deceased member or retirant at his death because of physical or mental disability is eligible to receive a pension of \$150 per month until his death or recovery from the disability. If there is no spouse or surviving children, each dependent parent is eligible to receive a pension of \$154 a month. Additionally, a \$5,000 lump sum benefit is payable upon the death of the retirant.

(Concluded on Next Page)

RETIREMENT, SURVIVOR, AND DISABILITY ALLOWANCES
BENEFITS AND CONDITIONS VALUED
DECEMBER 31, 2005
(CONCLUDED)

Minimum Benefit: All members who retired with an Age & Service Pension or Disability Benefit are eligible to receive a minimum benefit of \$1,050 per month.

Members' Contributions to the Fund: Members contribute 10.0% of salary to the employees' savings fund. A member who leaves the employ of the State Highway Patrol before a benefit is payable may withdraw the accumulated contributions, without interest, in lieu of any other system provided benefit.

State Contributions: The state contributes the remaining amount necessary to finance the Retirement System on an actuarial basis. By statute, the state's contribution rate can be neither less than the member contribution rate, nor more than three times the member rate.

Post-Retirement Increases: The basic benefit for all retirants is increased by 3 percent each year after age 53. The retirant must have also been receiving monthly benefits for at least twelve months. Benefit recipients receiving survivor benefits are eligible for the increase after receiving benefits for twelve months. Benefit recipients receiving disability benefits are eligible for the increase after receiving benefits for sixty months or age 53 whichever occurs first.

PLUS: A qualified member may elect a partial lump sum benefit of not less than 6 times the monthly amount payable to the member as a single lifetime pension and not more than 60 times that amount.

SAMPLE BENEFIT COMPUTATION FOR MEMBERS

Assumed data in connection with this sample retirement is shown below:

	Data	Description
A.	\$40,000	Final Average Compensation
B.	27	Years of Credited Service
C.	50	Age of Retirant
D.	50%	Percentage to continue to spouse after retirant's death (this is automatic)

Sample Computation Steps

E. Benefit Formula:	$0.0250 \times 20 \times \$40,000 =$	\$20,000
	$0.0225 \times 5 \times \$40,000 =$	\$4,500
	$0.0200 \times 2 \times \$40,000 =$	\$1,600
		\$26,100

Benefit payable to:

F. Retirant while spouse is alive (E)	\$26,100
G. Spouse after retirant's death (D x E)	\$13,050
H. Retirant after spouse's death (E)	\$26,100

Projected Benefits to Member

Year Ended December 31	Amount Payable
2006	\$ 26,100
2007	26,100
2008	26,100
2009	26,883
2010	27,666
2011	28,449
2012	29,232
2013	30,015
2014	30,798

Benefits for years 2015 and later increase by \$783 over the previous year's amount.

**RETIREMENT SURVIVOR & DISABILITY ALLOWANCES
COMPUTED EMPLOYER CONTRIBUTIONS TO SUPPORT BENEFITS**

Contributions for	Contributions Expressed as Percents of Payroll	
Valuation Date - December 31	2005	2004
Results for the Period Beginning July 1	2007	2006
Normal Cost:		
Age & Service Benefits	16.28%	17.00%
Disability Benefits	2.89%	2.95%
Survivor Benefits	0.18%	0.27%
Separation Benefits	0.89%	0.86%
Purchase of Military Service	0.75%	0.60%
Total Normal Cost	20.99%	21.68%
Less Member Contributions	10.00%	10.00%
 Employer Normal Cost	 10.99%	 11.68%
 Unfunded Actuarial Accrued Liabilities	 11.01%	 10.32%
Amortization Period	35 years	34 years
 EMPLOYER CONTRIBUTION RATE IN EFFECT	 22.00%	 22.00%

The amortization period is the period of years over which the employer contribution rate and the employee contribution rate will finance the unfunded liabilities.

RETIREMENT, SURVIVOR, & DISABILITY ALLOWANCES
METHOD OF FINANCING FUTURE BENEFITS FOR
PRESENT ACTIVE MEMBERS
DECEMBER 31, 2005

Normal cost and the allocation of present values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

- (i) The annual normal costs for each individual active member, payable from the date of employment to the date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement;

- (ii) each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Actuarial Accrued Liabilities, \$773,856,164, less pension assets of \$591,922,200 resulted in unfunded actuarial accrued liabilities of \$181,933,964, which were amortized as a level percent of payroll over a period of 35 years. The characteristics of this method are illustrated on the following page. Actuarial accrued liabilities represent the portion of present values not covered by future normal cost contributions.

**RETIREMENT, SURVIVOR, AND DISABILITY ALLOWANCES
FINANCING UNFUNDED ACTUARIAL ACCRUED LIABILITIES
WHICH WERE CALCULATED USING AN INFLATION ASSUMPTION
OF 4.00% AND AN INVESTMENT RETURN ASSUMPTION OF
8.00% COMPOUNDED ANNUALLY**

**Level % of Payroll Amortization:
Closed Amortization Completed in 35 Years
(\$ Thousands)**

Year	Active Employee Payroll	Unfunded Actuarial Accrued Liability	Annual Contributions		UAAL as % of Payroll
			Dollars	% of Payroll	
1	\$ 86,744	\$ 181,934	\$ 9,551	11.01%	209.7%
2	90,214	186,564	9,933	11.01%	206.8%
3	93,823	191,167	10,330	11.01%	203.8%
4	97,576	195,725	10,743	11.01%	200.6%
5	101,479	200,218	11,173	11.01%	197.3%
6	105,538	204,624	11,620	11.01%	193.9%
7	109,760	208,918	12,085	11.01%	190.3%
8	114,150	213,073	12,568	11.01%	186.7%
9	118,716	217,058	13,071	11.01%	182.8%
10	123,465	220,839	13,593	11.01%	178.9%
11	128,404	224,379	14,137	11.01%	174.7%
12	133,540	227,637	14,703	11.01%	170.5%
13	138,882	230,568	15,291	11.01%	166.0%
14	144,437	233,123	15,903	11.01%	161.4%
15	150,214	235,246	16,539	11.01%	156.6%
16	156,223	236,878	17,200	11.01%	151.6%
17	162,472	237,953	17,888	11.01%	146.5%
18	168,971	238,399	18,604	11.01%	141.1%
19	175,730	238,137	19,348	11.01%	135.5%
20	182,759	237,081	20,122	11.01%	129.7%
21	190,069	235,136	20,927	11.01%	123.7%
22	197,672	232,199	21,764	11.01%	117.5%
23	205,579	228,157	22,634	11.01%	111.0%
24	213,802	222,887	23,540	11.01%	104.2%
25	222,354	216,255	24,481	11.01%	97.3%
26	231,248	208,114	25,460	11.01%	90.0%
27	240,498	198,304	26,479	11.01%	82.5%
28	250,118	186,651	27,538	11.01%	74.6%
29	260,123	172,965	28,640	11.01%	66.5%
30	270,528	157,039	29,785	11.01%	58.0%
31	281,349	138,649	30,977	11.01%	49.3%
32	292,603	117,549	32,216	11.01%	40.2%
33	304,307	93,473	33,504	11.01%	30.7%
34	316,479	66,132	34,844	11.01%	20.9%
35	329,138	35,211	36,238	11.01%	10.7%

RETIREMENT, SURVIVOR, AND DISABILITY ALLOWANCES
ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS
PRESENT RETIRED LIVES AND VESTED DEFERRED CASES
DECEMBER 31, 2005

Benefits Payable	Number	Monthly Amount	Actuarial Value
From Employer Accumulation Fund:			
Regular Retirements Effective Before 1/1/66	1	\$ 1,653	\$ 42,687
Disability Retirements Effective Before 1/1/66	0	0	0
Total Benefits Payable from Employer Accumulation Fund	1	1,653	42,687
From Pension Reserve Fund:			
Regular Retirements Effective After 1/1/66	950	2,695,419	399,367,764
Disability Retirements Effective After 1/1/66	89	202,900	31,531,910
Total Benefits Payable from Pension Reserve Fund	1,039	2,898,319	430,899,674
From Survivor Benefit Fund:			
Surviving Spouses, Dependent Children & Dependent Parents	261	277,759	28,473,240
Total Benefits Payable from Survivor Benefit Fund	261	277,759	28,473,240
Total Retirement Benefits Payable	1,301	3,177,731	459,415,601
Total Vested Deferred Benefits Payable	11	28,315	4,060,717
Grand Total	1,312	\$3,206,046	\$463,476,318

RETIREMENT, SURVIVOR, AND DISABILITY ALLOWANCES
DEVELOPMENT OF ACTUARIAL ACCRUED LIABILITIES
DECEMBER 31, 2005

Actuarial Present Value, December 31, of	(1) Total Actuarial Present Value	(2) Portion Covered By Future Normal Cost Contributions	(3) Actuarial Accrued Liabilities (1) - (2)
Age & service allowances based on service rendered before and likely to be rendered after valuation date	\$ 438,654,807	\$ 137,352,952	\$ 301,301,855
Disability allowances likely to be paid to present active members who become totally and permanently disabled	31,305,834	23,443,352	7,862,482
Survivor benefits likely to be paid to spouses and children of present active members who die before retiring	2,085,472	1,379,198	706,274
Separation benefits (refunds of contributions and deferred allowances likely to be paid on behalf of present active members)	7,515,937	7,006,702	509,235
Retirement benefits likely to be paid to current retirants and beneficiaries and to present inactive members	463,476,318	0	463,476,318
Total	\$ 943,038,368	\$ 169,182,204	\$ 773,856,164
Member portion	157,984,297	80,228,836	77,755,461
Employer portion	\$ 785,054,071	\$ 88,953,368	\$ 696,100,703

RETIREMENT, SURVIVOR, AND DISABILITY ALLOWANCES
SUMMARY STATEMENT OF SYSTEM RESOURCES AND OBLIGATIONS
DECEMBER 31, 2005

PRESENT RESOURCES AND EXPECTED FUTURE RESOURCES

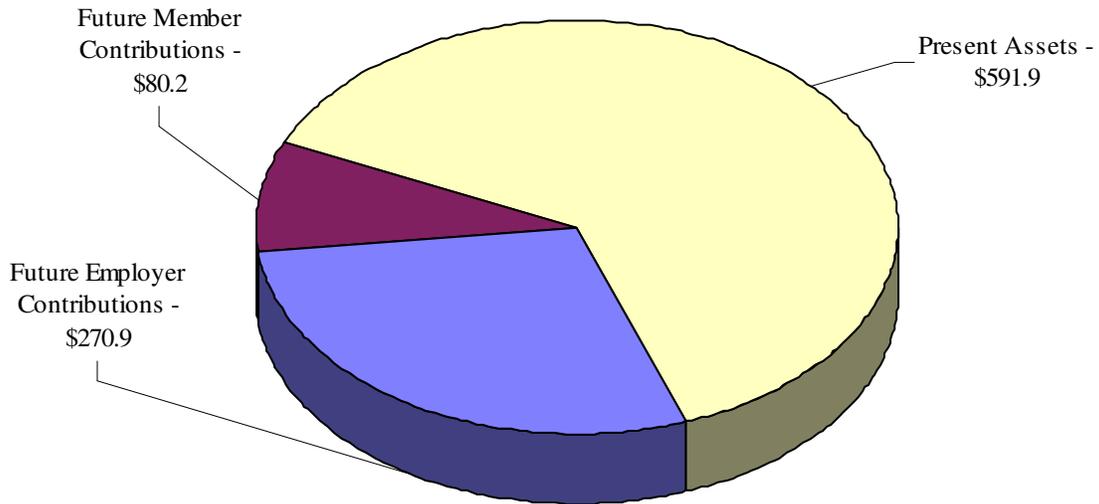
A. Present valuation assets			
1. Net assets from system financial statements	\$	711,718,909	
2. Market Value Adjustment		(23,907,430)	
3. Health Assets		95,889,279	
4. Valuation Assets: 1 + 2 - 3		95,889,279	\$ 591,922,200
B. Actuarial present value of expected future Employer contributions			
1. For normal costs		88,953,368	
2. For unfunded actuarial accrued liability		181,933,964	
3. Total		270,887,332	
C. Actuarial present value of expected future member contributions			
			80,228,836
D. Total Present and Expected Future Resources			\$ 943,038,368

ACTUARIAL PRESENT VALUE OF EXPECTED FUTURE BENEFIT PAYMENTS

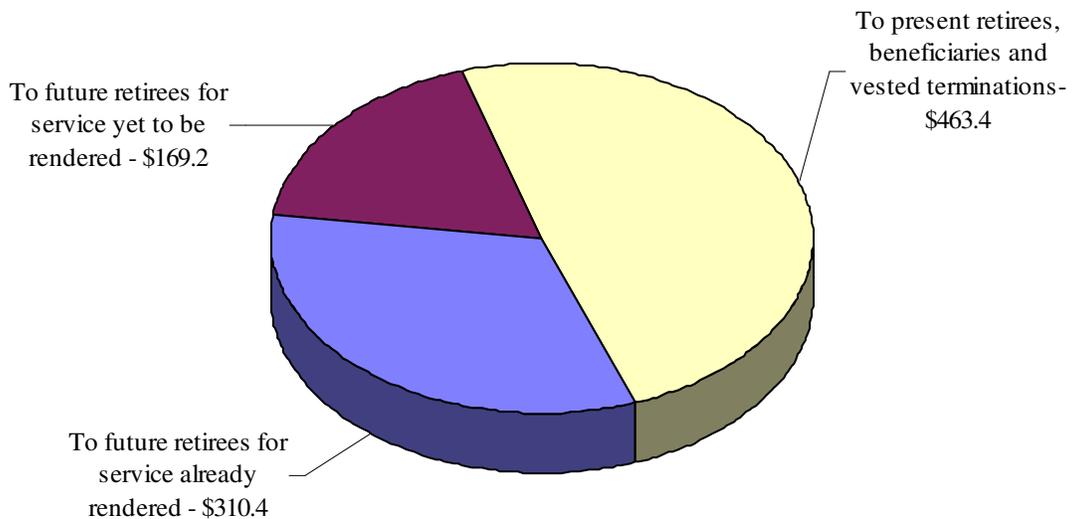
To retirants and beneficiaries	\$	459,415,601
To terminated members		4,060,717
To present active members		
1. Allocated to service rendered prior to valuation date (actuarial accrued liability)		310,379,846
2. Allocated to service likely to be rendered after valuation date		169,182,204
3. Total		479,562,050
Total Actuarial Present Value of Expected Future Benefit Payments	\$	943,038,368

**RETIREMENT, SURVIVOR, AND DISABILITY ALLOWANCES
FINANCING \$943.0 MILLION OF BENEFIT PROMISES
DECEMBER 31, 2005**

Sources of Funds



Uses of Funds



**RETIREMENT, SURVIVOR, AND DISABILITY ALLOWANCES
COMPARATIVE STATEMENT**

Valuation Date December 31	No.	Annual Payroll	Actuarial Accrued Liabilities			Unfunded/ Payroll	% Funded	Funding Years
			Total	Funded	Unfunded			
1991	1,326	\$ 48,488,406	\$ 289,223,978	\$ 222,109,351	\$ 67,114,627	1.4	76.8%	23
1992	1,371	50,235,996	309,272,482	258,609,387	50,663,095	1.0	83.6%	18
1993 *	1,467	55,781,585	351,456,425	297,050,305	54,406,120	1.0	84.5%	22
1994	1,465	58,116,787	378,058,385	330,787,044	47,271,341	0.8	87.5%	16
1994 #	1,465	58,116,787	374,006,767	330,787,044	43,219,723	0.7	88.4%	12
1995	1,455	59,825,356	402,450,332	370,425,462	32,024,870	0.5	92.0%	8
1996	1,375	59,239,349	454,514,187	411,316,254	43,197,933	0.7	90.5%	16
1997	1,445	62,233,299	487,392,406	460,667,112	26,725,294	0.4	94.5%	9
1997 *	1,445	62,233,299	496,917,335	460,667,112	36,250,223	0.6	92.7%	17
1998	1,446	65,153,864	532,956,745	509,859,924	23,096,821	0.4	95.7%	10
1999	1,445	66,017,381	564,672,560	546,510,779	18,161,781	0.3	96.8%	7
1999 *	1,445	66,017,381	577,010,085	546,510,779	30,499,306	0.5	94.7%	20
2000	1,489	69,028,285	607,411,320	569,858,387	37,552,933	0.5	93.8%	26
2000 #	1,489	69,028,285	594,222,603	570,039,631	24,182,972	0.4	95.9%	8
2001	1,520	76,344,002	636,715,458	551,279,438	85,436,020	1.1	86.6%	31
2002 #	1,548	78,997,065	668,605,932	492,430,826	176,175,106	2.2	79.6%	32
2003	1,542	81,737,962	702,799,017	545,981,513	156,817,504	1.9	77.7%	32
2004	1,562	81,757,707	737,867,378	569,858,387	168,008,991	2.1	77.2%	37
2004 *	1,562	81,757,707	734,464,371	569,858,387	164,605,984	2.0	77.6%	34
2005	1,573	83,408,155	766,741,437	591,922,200	174,819,237	2.1	77.2%	37
2005 #	1,573	83,408,155	773,856,164	591,922,200	181,933,964	2.2	76.5%	35

* Plan amended.

Revised actuarial assumptions or methods.

While no one or two numeric indices can fully describe the financial condition of a retirement plan, *the ratio of unfunded actuarial accrued liabilities to active member payroll* (“Unfunded/Payroll” above) *is significant*. Unfunded actuarial accrued liabilities represent a kind of debt, while active member payroll represents the Plan’s capacity to collect contributions to pay toward debt --- thus *the ratio is a relative index of condition*. *The lower the ratio, the greater the financial strength*. And vice-versa.

CHANGES IN AVERAGE PAY

Year	Number of Members	Total Payroll	Average Pay	% Change from Prior Year in		
				Average Pay	N.A.E.+	CPI
1991	1,326	\$48,488,406	\$36,567	4.1%	3.7%	3.0%
1992	1,371	50,235,996	36,642	0.2%	5.2%	3.0%
1993	1,467	55,781,585	38,024	3.8%	0.9%	2.7%
1994	1,465	58,116,787	39,670	4.3%	2.7%	2.7%
1995	1,455	59,825,356	41,117	3.6%	4.0%	2.6%
1996	1,375	59,239,349	43,083	4.8%	4.9%	3.3%
1997	1,445	62,233,299	43,068	(0.0)%	5.8%	1.7%
1998	1,446	65,153,864	45,058	4.6%	5.2%	3.4%
1999	1,445	66,017,381	45,687	1.4%	5.6%	2.7%
2000	1,489	69,028,285	46,359	1.5%	5.5%	3.4%
2001	1,520	76,344,002	50,226	8.3%	2.4%	1.6%
2002	1,548	78,997,065	51,032	1.6%	1.0%	2.4%
2003	1,542	81,737,962	53,008	3.9%	2.4%	1.9%
2004	1,562	81,757,707	52,342	(1.3)%	4.6%	3.3%
2005	1,573	83,408,155	53,025	1.3%	2.7% *	3.4%
10 Year Average				2.6%	4.0%	2.7%

+ National Average Earnings published by the Social Security Administration.

* Estimated National Average Earnings published by the Social Security Administration.

Over long periods of time, the change in average pay is an approximate measure of the impact of inflation and “Across the Board” pay increases on member pays. In years when the number of members decreases, the change in average pay may tend to be greater than actual pay increases experienced by members. In years when the number of members increases the change in average pay may tend to be less than actual pay increases experienced by members.

RETIREMENT, SURVIVOR, AND DISABILITY BENEFITS IN PAY STATUS COMPARATIVE STATEMENT

Valuation Date December 31	Number of People	Monthly Pensions	Active Payroll	Average Amount	% of Active Member Pays
1970(6/30) #	193	\$ 54,607	\$ 10,223,188	\$ 283	6.4%
1974 #*	288	96,045	16,942,378	333	6.8%
1977 *	346	148,133	18,995,363	428	9.4%
1979 #	402	191,356	21,558,774	476	10.7%
1981 *	445	250,287	23,539,234	562	12.8%
1983	488	299,519	30,234,935	614	11.9%
1984	504	319,789	32,020,914	634	12.0%
1985 #	530	359,208	32,500,428	678	13.3%
1986	544	382,419	34,757,277	702	13.2%
1987 *#	558	427,132	39,938,921	765	12.8%
1988	575	466,519	40,674,634	811	13.8%
1989	599	544,631	43,053,057	909	15.2%
1990 *#	654	660,112	45,679,355	1,009	17.3%
1991	675	732,576	48,488,406	1,085	18.1%
1992	706	819,869	50,235,996	1,161	19.6%
1993 *	723	927,168	55,781,585	1,282	19.9%
1994 #	764	1,057,577	58,116,787	1,384	21.8%
1995 *#	826	1,184,405	59,825,356	1,434	23.8%
1996	911	1,402,909	59,239,349	1,540	28.4%
1997 *	984	1,645,613	62,233,299	1,672	31.7%
1998	1,060	1,914,091	65,153,864	1,806	35.3%
1999 *	1,123	2,123,471	66,017,381	1,891	38.6%
2000 #	1,174	2,300,464	69,028,285	1,960	40.0%
2001	1,207	2,460,308	76,344,002	2,038	38.7%
2002	1,231	2,603,108	78,997,065	2,115	39.5%
2003	1,253	2,770,149	81,737,962	2,211	40.7%
2004	1,282	3,023,341	81,757,707	2,358	44.4%
2005 #	1,301	3,177,731	83,408,155	2,443	45.7%

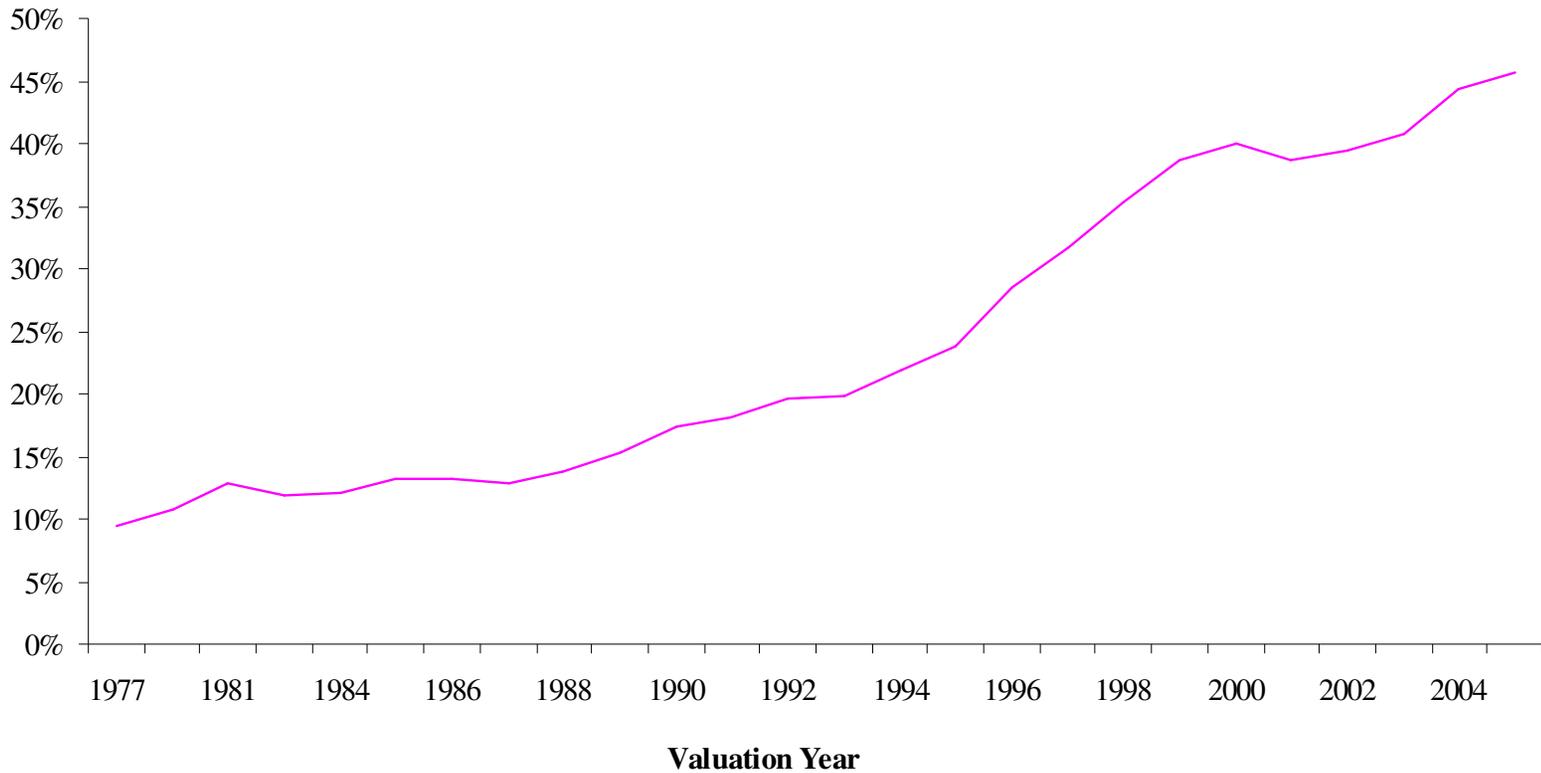
* Plan amended.

Revised actuarial assumptions or methods.

Pensions expressed as a % of payroll exceed contribution income by a considerable margin. This is a normal and expected condition in a funded plan such as HPRS, but it does have implications for cash flow and investment planning.

**RETIREMENT, SURVIVOR, AND DISABILITY ALLOWANCES BEING PAID
EXPRESSED AS A % OF ACTIVE MEMBER PAYROLL
DECEMBER 31, 2005**

% of Active Payroll



The employer contribution rate for the year ended June 30, 2008 is scheduled to be 22.00%.

SHORT-TERM SOLVENCY TEST

The HPRS financing objective is to pay for the benefits through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the system are level in concept and soundly executed, the system will *pay all promised benefits when due – the ultimate test of financial soundness.*

Short-term solvency test is one means of checking a system's progress under its funding program. In a short-term solvency test, the plan's present assets (cash and investments) are compared with: 1) Active member contributions on deposit; 2) The liabilities for future benefits to present retired lives; 3) The liabilities for service already rendered by active members. In a system that has been following the discipline of level percent financing, the liabilities for active member contributions on deposit (1) and the liabilities for future benefits to present retired lives (2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (3) will be partially covered by the remainder of present assets. Generally, if the system has been using level cost financing, the funded portion of column 3 will increase over time.

Accrued Liabilities and Assets Allocated to Retirement, Survivor and Disability Allowances

Valuation Year	(1) Active Member Contributions	(2) Retirants, Beneficiaries & Vested Deferrals	(3) Active Members (Employer Financed Portion)	Valuation Assets	Portion of Accrued Liabilities Covered By Reported Assets		
					(1)	(2)	(3)
1992	\$40,347,533	\$120,178,654	\$148,746,295	\$258,609,387	100%	100%	66%
1993 *	44,494,424	137,111,461	169,850,540	297,050,305	100%	100%	68%
1994 #	47,947,979	156,363,745	169,695,043	330,787,044	100%	100%	75%
1995	50,547,938	176,541,660	175,360,734	370,425,462	100%	100%	82%
1995 *	50,547,938	187,922,028	189,287,398	370,425,462	100%	100%	70%
1995 *#	50,547,938	189,010,261	184,793,495	370,425,462	100%	100%	71%
1996	52,297,873	218,164,080	184,052,234	411,316,254	100%	100%	77%
1997	53,264,614	256,268,302	177,859,490	460,667,112	100%	100%	85%
1997 *	53,264,614	260,095,357	183,557,364	460,667,112	100%	100%	80%
1998	53,797,385	291,066,407	188,092,953	509,859,924	100%	100%	88%
1999	55,558,145	325,395,987	183,718,428	546,510,779	100%	100%	90%
1999 *	55,558,145	333,340,728	188,111,212	546,510,779	100%	100%	84%
2000	84,716,082	360,125,257	187,830,356	591,922,200	100%	100%	78%
2000 #	59,455,707	358,422,165	176,344,731	570,039,631	100%	100%	86%
2001	63,969,216	374,228,361	198,517,881	551,279,438	100%	100%	57%
2002	68,794,904	391,098,788	208,712,240	492,430,826	100%	100%	16%
2002 #	68,794,904	391,098,788	203,176,113	527,604,456	100%	100%	33%
2003	73,358,075	412,818,959	216,621,983	545,981,513	100%	100%	28%
2004	77,100,466	445,084,791	215,682,121	569,858,387	100%	100%	22%
2004 *	77,100,466	445,084,791	212,279,114	569,858,387	100%	100%	22%
2005	77,779,569	462,913,927	226,047,941	591,922,200	100%	100%	23%
2005 #	77,779,569	463,476,318	232,600,277	591,922,200	100%	100%	22%

* Plan amendment.

Assumption or method change.

SUMMARY OF UNFUNDED ACCRUED LIABILITIES

Each time a new benefit is added which applies to service already rendered, an “unfunded accrued liability” is created. Also, if actual financial experiences are less favorable than assumed financial experiences, the difference is added to unfunded accrued liabilities.

In an inflationary economy, the value of the dollar is decreasing. This environment results in employee pays increasing in dollar amounts resulting in unfunded accrued liabilities increasing in dollar amounts, all at a time when the actual substance of these items may be decreasing. Looking at just dollar amounts of unfunded accrued liabilities can be misleading. Unfunded accrued liabilities divided by active employee payroll provides an index, which aids understanding. The smaller ratio of unfunded liabilities to active member payroll, the stronger the system. Observation of this relative index over a period of years will give an indication of whether the system is becoming financially stronger or weaker.

Summary of Assets and Actuarial Accrued Liabilities for Retirement, Survivor, and Disability Allowances

Valuation Year	Actuarial Accrued Liability (AAL)	Valuation Assets	Unfunded Actuarial Accrued Liability (UAAL)	Ratio of Assets to AAL	Active Member Payroll	UAAL as a % of Active Member Payroll
1992	\$309,272,482	\$258,609,387	\$50,663,095	83.6%	50,235,996	100.9%
1993 *	351,456,425	297,050,535	54,405,890	84.5%	55,781,585	97.5%
1994 #	374,006,767	330,787,044	43,219,723	88.4%	58,116,787	74.4%
1995	402,450,332	370,425,462	32,024,870	92.0%	59,825,356	53.5%
1995 *	427,757,364	370,425,462	57,331,902	86.6%	59,825,356	95.8%
1995 *#	424,351,694	370,425,462	53,926,232	87.3%	59,825,356	90.1%
1996	454,514,187	411,316,254	43,197,933	90.5%	59,239,349	72.9%
1997	487,392,406	460,667,112	26,725,294	94.5%	62,233,299	42.9%
1997 *	496,917,335	460,667,112	36,250,223	92.7%	62,233,299	58.2%
1998	532,956,745	509,859,924	23,096,821	95.7%	65,153,864	35.4%
1999	564,672,560	546,510,779	18,161,781	96.8%	66,017,381	27.5%
1999 *	577,010,085	546,510,779	30,499,306	94.7%	66,017,381	46.2%
2000	607,411,320	570,039,631	37,371,689	93.8%	69,028,285	54.1%
2000 #	594,222,603	570,039,631	24,182,972	95.9%	69,028,285	35.0%
2001	636,715,458	551,279,438	85,436,020	86.6%	76,344,002	111.9%
2002	668,605,932	492,430,826	176,175,106	73.7%	83,408,155	211.2%
2002 #	663,069,805	527,604,456	135,465,349	79.6%	78,997,065	171.5%
2003	702,799,017	545,981,513	156,817,504	77.7%	81,737,962	191.9%
2004	737,867,378	569,858,387	168,008,991	77.2%	81,757,707	205.5%
2004 *	734,464,371	569,858,387	164,605,984	77.6%	81,757,707	201.3%
2005	766,741,437	591,922,200	174,819,237	77.2%	83,408,155	209.6%
2005 #	773,856,164	591,922,200	181,933,964	76.5%	83,408,155	218.1%

* Plan amendment.

Assumption or method change.

The figures on this page do not include liabilities and assets related to post-retirement Health Care and Medicare reimbursement.

GASB STATEMENT NO. 25
SCHEDULE OF EMPLOYER CONTRIBUTIONS

Year Ended December 31	Actual Contribution	Percent of Required Contributed
1999	\$13,569,730	100%
2000	13,210,189	100%
2001	13,901,313	100%
2002	14,923,893	100%
2003	16,361,339	100%
2004	17,205,610	100%
2005	18,467,789	100%

The Board adopted all contribution rates as recommended by the Actuary.

The amounts reported in this schedule do not include contributions for post-employment Health Care benefits.

GASB STATEMENT NO. 25
ANNUAL REQUIRED CONTRIBUTION

For purposes of Governmental Accounting Standards Board (GASB) Statement No. 25, the System's Annual Required Contribution for the plan year ending December 31, 2006 will be ½ of the employer contribution for the period from July 1, 2005 to June 30, 2006 (22.00% of payroll, based upon an amortization period of 32 years) plus ½ of the employer contribution for the period from July 1, 2006 to June 30, 2007 (22.70% of payroll, based upon an amortization period of 30 years). The System's Annual Required Contribution for the plan year ending December 31, 2007 will be ½ of the employer contribution for the period from July 1, 2006 to June 30, 2007 (22.70% of payroll, based upon an amortization period of 30 years) plus ½ of the employer contribution for the period from July 1, 2007 to June 30, 2008 (22.90% of payroll, based upon an amortization period of 30 years).

It is important to note that if the employer makes contributions at the currently scheduled rates, the employer contribution for calendar years 2006 and 2007 are likely to fall short of the Annual Required Contribution which would, in this case, result in a Net Pension Obligation.

GASB STATEMENT NO. 25
NOTES TO TREND DATA

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date	December 31, 2005
Actuarial Cost Method	Entry Age
Amortization Method	Level Percent Open
Remaining Amortization Period	30 years for retirement allowances in determining the Annual Required Contribution
Asset Valuation Method	4 year smoothed market 20 % Corridor
Actuarial Assumptions:	
Investment Rate of Return	8.0%
Projected Salary Increases	4.3% - 14.0%
* Includes Wage Inflation at	4.0%

OTHER REQUESTED CAFR INFORMATION

As of December 31, 2005, the actuarial present value of credited projected benefits for current employees is shown below:

	Actuarial Present Value of Credited Projected Benefits
Current Employees	
Accumulated employee contributions including allocated investment income	\$ 77,779,569
Employer - financed vested	106,107,041
Employer - financed non-vested	86,851,754

As of December 31, 2005, there were 285 vested active members and 1,288 non-vested active members.

SECTION B



Post-Retirement Health Care and Medicare Reimbursement

**POST-RETIREMENT HEALTH CARE AND MEDICARE REIMBURSEMENT
PROVISIONS EVALUATED AND/OR CONSIDERED**

Benefits Provided

Since July 1, 1974, the Retirement System has made Health Care available for every benefit recipient and eligible dependents under a hospitalization and health care policy administered by Aetna Life & Casualty Company and Medical Mutual of Ohio. This Plan is secondary to Medicare or any other Health Care coverage. Each year the Board establishes participant premium rates, any necessary co-payments for the retiree, spouse, or dependent children, and any other changes in plan design for the following calendar year. The premium for 2005 applicable to spouses under age 65 is \$80 per month. The dependent child premium is \$25 per family.

Basic Plan coverage provides for payment of 100% of all reasonable and customary hospital expenses. All hospital admissions must be pre-certified 14 days prior to an elective admission. Emergency confinements require notification within 48 hours following admission. If a covered person is in a network area, he or she must use a preferred provider for the maximum benefit.

All other medical expenses are covered at the rate of 80% of reasonable and customary charges.

Designated surgical procedures require a second opinion. Also designated outpatient procedures must be pre-certified. For in-network activity, the annual out-of-pocket maximum is \$750 per individual or \$1,500 per family (out of network amounts are \$5,000 and \$10,000, respectively). Each covered person under the age of 65 must meet a \$100 annual deductible. Each covered person over 65 must meet a \$25 annual deductible. The maximum lifetime benefit is \$2,000,000 per person. If the covered person is in a network area and uses non-network providers, the annual deductible for the individual is \$1,000.

A mail-order prescription drug plan is also available. Each prescription submitted via mail order requires a co-payment of \$5.00 for generic, \$10.00 for brand and \$30.00 for non formulary for up to a 90-day supply. Drugs purchased retail/over-the-counter have a co-payment of \$5.00 for generic, \$10.00 for brand and \$30.00 for non formulary for up to a 34 day supply.

Administration: The medical program is administered by the AETNA and Medical Mutual of Ohio for hospital-medical-surgical coverage and by Medco for mail order prescription drug coverage.

Stop Loss Coverage: The program is fully self-insured and stop loss coverage is maintained.

Medicare Premiums: The Medicare Part B (no cap) basic premium amount is reimbursed to eligible benefit recipients upon proof of coverage.

Dental/Vision: System pays premiums for all benefit recipients. The premium for dependents is deducted from the pension benefit.

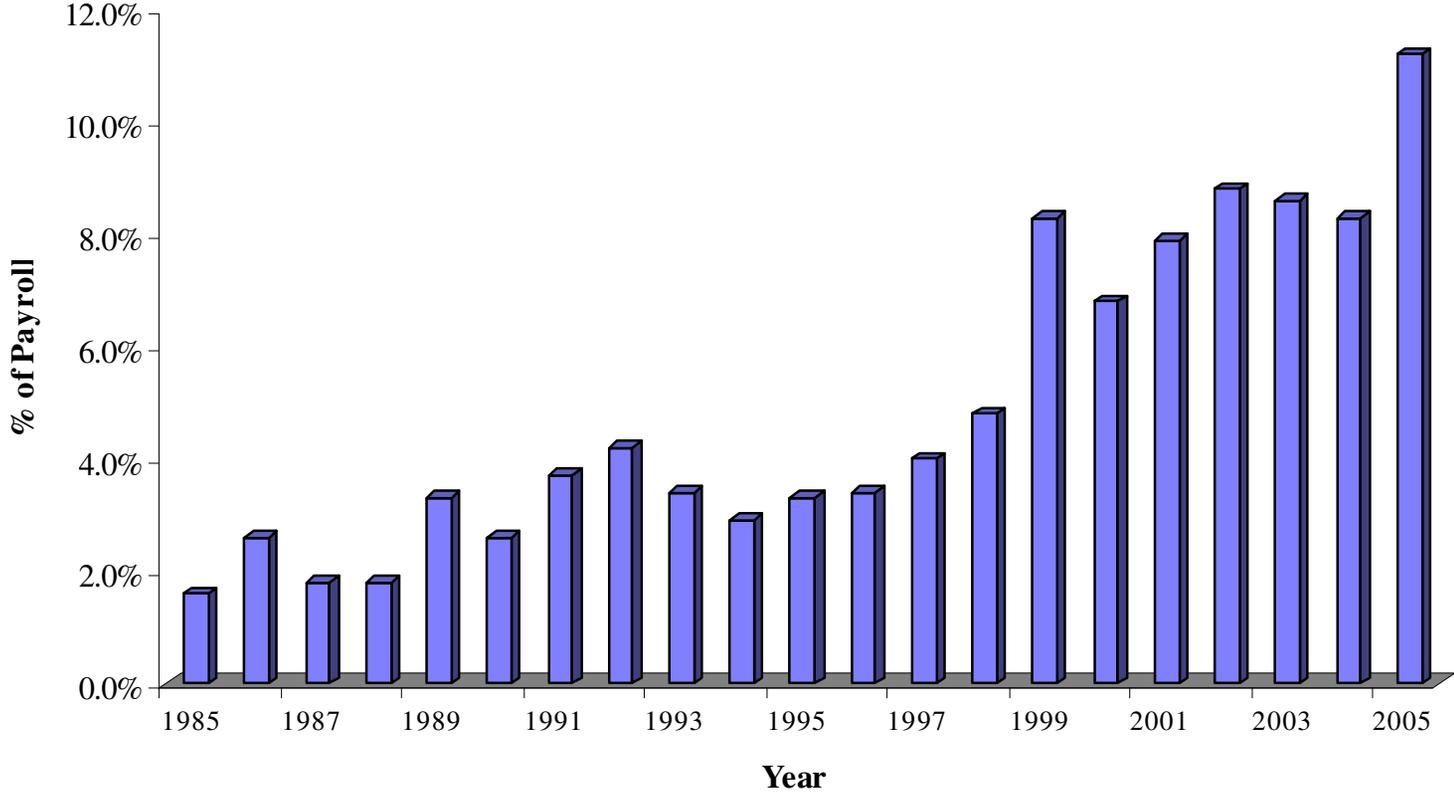
POST-RETIREMENT HEALTH CARE AND MEDICARE REIMBURSEMENT

Year	Covered Lives	Amounts Paid to Vendors (Including Medicare Part B)						Member Premiums and Other Adjustments	Net Paid by OHPRS	Per Covered Life	Payroll	% of Payroll
		Medical	Drugs	Medicare Part B	Dental	Vision	Total					
1985	697	\$ 427,361	\$ 60,015	\$ 28,272			\$ 515,648		\$ 515,648	\$ 740	\$ 32,500,428	1.6%
1986	715	787,245	80,911	30,457			898,613		898,613	1,257	34,757,277	2.6%
1987	731	559,832	115,544	38,037			713,413		713,413	976	39,938,912	1.8%
1988	761	522,747	145,847	57,461			726,055		726,056	954	40,674,634	1.8%
1989	810	1,043,650	186,795	77,869			1,308,314	\$ 97,864	1,406,178	1,736	43,053,057	3.3%
1990	925	1,009,153	213,716	77,363			1,300,232	(94,251)	1,205,981	1,304	45,679,355	2.6%
1991	976	1,267,327	251,004	86,740			1,605,071	180,583	1,785,654	1,830	48,488,406	3.7%
1992	1,045	1,643,276	298,493	97,117			2,038,886	76,046	2,114,932	2,024	50,235,996	4.2%
1993	1,081	1,553,628	299,410	118,109			1,971,147	(90,525)	1,880,622	1,740	55,781,585	3.4%
1994	1,133	1,239,008	320,360	141,384			1,700,752	3,314	1,704,066	1,504	58,116,787	2.9%
1995	1,225	1,512,523	364,096	149,440			2,026,059	(66,834)	1,959,225	1,599	59,825,356	3.3%
1996	1,379	1,353,932	491,525	155,769			2,001,226	21,382	2,022,608	1,467	59,239,349	3.4%
1997	1,499	1,623,640	849,321	166,743			2,639,704	(140,526)	2,499,178	1,667	62,233,299	4.0%
1998	1,602	2,147,334	1,122,248	171,223			3,440,805	(311,917)	3,128,888	1,953	65,153,864	4.8%
1999	1,772	3,315,914	1,364,990	197,606			4,878,510	619,894	5,498,404	3,103	66,017,381	8.3%
2000	1,848	3,190,885	1,684,300	203,157			5,078,342	(358,082)	4,720,260	2,554	69,028,285	6.8%
2001	1,900	3,730,167	1,960,825	231,046			5,922,038	138,317	6,060,355	3,190	76,344,002	7.9%
2002	1,943	4,147,534	2,431,297	260,772	\$194,893	\$80,909	7,115,405	(200,021)	6,915,384	3,559	78,997,065	8.8%
2003	1,912	4,256,046	2,681,414	290,506	209,429	82,097	7,519,492	(507,642)	7,011,850	3,667	81,737,962	8.6%
2004	1,928	4,074,972	2,710,367	347,585	230,994	84,136	7,448,054	(641,707)	6,806,347	3,530	81,757,707	8.3%
2005	1,958	6,015,277	2,980,755	422,045	364,139	124,658	9,906,874 [¶]	(552,570)	9,354,304	4,777	83,408,155	11.2%

Separate information for dental and vision was not available for years prior to 2002.

POST-RETIREMENT HEALTH CARE AND MEDICARE REIMBURSEMENT

Historical Trend of Employer Paid Amounts



**ASSUMPTIONS FOR HEALTH CARE COVERAGES
DECEMBER 31, 2005**

Development of Health Care Rates: Based on the 2005 retired life data, the HPRS portion of the total health care rates was developed as follows:

	Age/Gender Weighted HPRS Monthly Rates			
	This Year			Prior Year
	Gross Rate	Member Paid	Net Rate	Net Rate
A. One person without Medicare	\$392.68	\$0.00	\$392.68	\$342.59
B. One person with Medicare*	208.86	0.00	208.86	226.18
C. Two persons without Medicare	785.36	80.00	705.36	605.18
D. Two persons with Medicare*	417.73	0.00	417.73	452.36
E. Child	169.18	25.00	144.18	161.55
F. Medicare Part B Reimbursement	88.50	0.00	88.50	78.20

The above rates are estimates that are suitable for the purpose of this valuation. Use of the above rates for any other purpose would require review. Pre-Medicare rates are lower than would be expected when compared with other retired groups. This may be attributable to a higher than average amount of coordination of benefit claims for younger HPRS retirees. Many younger retirees likely have other employment. Please see page B-5 for age specific rates used for valuation purposes. Employment related primary coverage for recipients and dependents have been reflected in the age based specific premium rates.

* Does not include Medicare Part B monthly premium of \$88.50.

Ohio HPRS First Year Projection of Health Care Claims Cost Based on 5-Year Averages

Year	Claims				Enrollees	Population Adjusted	Medical CPI	Price Adjusted	Weight	Secondary Provision	
	Gross	Member and Adjustments	Net	Recognized						Adjustment	Recognized
2001	\$ 5,922,038	\$ (138,317)	\$ 6,060,355	1,900	\$ 6,245,355	272.8	\$ 7,399,189	0.00	0.97	\$ -	
2002	7,115,405	200,021	6,915,384	1,943	6,968,771	285.6	7,886,228	0.10	0.97	764,964	
2003	7,519,492	507,642	7,011,850	1,912	7,180,545	297.1	7,811,350	0.20	0.96	1,499,779	
2004	7,448,054	641,707	6,806,347	1,928	6,912,255	310.1	7,204,259	0.30	1.00	2,161,278	
2005	9,906,874	552,570	9,354,304	1,958	9,354,304	323.2	9,354,304	0.40	1.00	3,741,722	
(Base for coming year) Recognized:										\$ 8,167,744	
Growth Factors:											
Population										1.008	
Price										1.069	
First Year Projection:										\$ 8,801,168	

**ASSUMPTIONS FOR HEALTH CARE COVERAGES
AGE SPECIFIC HPRS MONTHLY GROSS RATES**

Age	Gross Rate		Age	Gross Rate		Age	Gross Rate	
	Male	Female		Male	Female		Male	Female
16	\$ 103.95	\$ 162.18	51	\$ 284.75	\$ 314.82	86	\$ 256.68	\$ 225.18
17	104.99	163.80	52	303.87	328.77	87	257.84	225.61
18	106.04	165.44	53	323.55	343.58	88	257.84	225.61
19	107.10	167.09	54	343.96	359.05	89	257.84	225.61
20	108.17	168.76	55	365.06	375.15	90	257.84	225.61
21	109.26	170.45	56	386.81	391.86	91	257.84	225.61
22	110.35	172.15	57	409.15	409.15	92	257.84	225.61
23	111.45	173.87	58	430.52	424.41	93	257.84	225.61
24	112.57	175.61	59	452.21	440.00	94	257.84	225.61
25	113.69	177.37	60	474.15	455.85	95	257.84	225.61
26	114.83	179.14	61	496.28	471.93	96	257.84	225.61
27	115.98	180.93	62	518.54	488.20	97	257.84	225.61
28	117.14	182.74	63	540.58	504.88	98	257.84	225.61
29	118.31	184.57	64	562.59	521.66	99	257.84	225.61
30	119.49	186.42	65	178.92	164.76	100	257.84	225.61
31	120.69	188.28	66	184.69	169.08	101	257.84	225.61
32	121.89	190.16	67	190.34	173.34	102	257.84	225.61
33	123.11	192.07	68	195.85	177.52	103	257.84	225.61
34	124.34	193.99	69	201.20	181.60	104	257.84	225.61
35	125.59	195.93	70	206.38	185.57	105	257.84	225.61
36	126.84	197.89	71	211.36	189.43	106	257.84	225.61
37	128.11	199.86	72	216.14	193.14	107	257.84	225.61
38	129.39	201.86	73	220.70	196.70	108	257.84	225.61
39	130.69	203.88	74	225.03	200.11	109	257.84	225.61
40	131.99	205.92	75	229.11	203.33	110	257.84	225.61
41	141.38	212.58	76	232.95	206.38	111	257.84	225.61
42	151.66	219.83	77	236.53	209.23	112	257.84	225.61
43	162.84	227.71	78	239.84	211.88	113	257.84	225.61
44	174.93	236.23	79	242.89	214.32	114	257.84	225.61
45	187.93	245.41	80	245.66	216.54	115	257.84	225.61
46	201.85	255.26	81	248.16	218.54	116	257.84	225.61
47	216.67	265.80	82	250.38	220.32	117	257.84	225.61
48	232.38	277.03	83	252.34	221.87	118	257.84	225.61
49	248.98	288.94	84	254.04	223.20	119	257.84	225.61
50	266.45	301.54	85	255.48	224.30	120	257.84	225.61

ASSUMPTIONS FOR HEALTH CARE COVERAGES
DECEMBER 31, 2005
(CONCLUDED)

Eligibility for Medicare Coverage: All benefit recipients were assumed to be eligible for Medicare on attainment of age 65.

Health Care Inflation: If the price for any product or service were to increase faster than wages for an indefinite period, eventually that product or service would be priced out of the market and either the product or service would not be offered or substituted with an affordable product or service. For this reason, health care inflation was assumed to equal wage inflation in the long term. The assumed point in time when health care inflation reduces to wage growth inflation is uncertain. Our assumptions are based on an approximate 10-year horizon. Short-term assumptions are described on page B-8.

Retiree health valuations require an assumption about how the health costs that the System is absorbing will change over the years. This assumption includes more than just “health inflation”. It includes the impact of:

- The introduction of new procedures and medications and how they are priced.
- The utilization of services and products by covered retirees and their dependents and how that utilization changes over the years.

Retiree health valuations use a health cost trend assumption that changes over the years. The near term rates reflect the fact that currently employers are seeing sharp increases in the cost of health goods and services. If this trend is projected to continue for years to come, it implies that years from now virtually all our expenditures will be for health care. The seemingly more reasonable alternative is that in the not too distant future inflation in medical expenses will decrease to a level at or near wage inflation. It is on this basis that we project premium rates will continue to exceed wage inflation for the next 8 - 10 years, but by less each year until leveling off at an ultimate rate, assumed to be 4.0% in this valuation.

The trend assumption is established by reviewing the System’s historical trends and evaluating their relationship with national trends. Comparative trends obtained from a variety of resources including trend surveys from major insurers and benefit consulting groups. This information is added to information we have collected from analysis done in conjunction with many retiree health valuations we have completed for other clients.

This analysis is done separately for the prescription drug program and the remainder of the medical benefits since the trends and forces driving the trends are quite different in these two segments. Review of the System’s recent experience indicates trends typical of our comparative trends for both prescription drug and medical, that is in the high teens for prescription drugs and low teens for medical. Trends are predicted to moderate in the near term but are still high in the 10% to 14% area. The trends used in this valuation are found on page B-8.

**POST-RETIREMENT HEALTH PREMIUM
AND MEDICARE REIMBURSEMENT
SELECTION OF ASSUMPTIONS
DECEMBER 31, 2005**

In order to prepare actuarial studies of the coverages, it is necessary to make assumptions regarding future events such as:

1. When people will retire and how long people will live after retirement.
2. Whether or not people will quit employment prior to eligibility for a benefit.
3. Whether or not people will die in service or become disabled.
4. Rates of Investment Return and pay increases.
5. The proportion of retirees electing coverage for a spouse after retirement.
6. Rates of increase in health care premium.
7. Effect of managed care program on future claims.

Regarding items 1 through 4, the assumptions from the regular December 31, 2005 valuations were used. It was assumed that eligible retirees would elect coverage under this program. It was further assumed that 90% of males and 50% of females who retire would elect coverage for a spouse at retirement, and that coverage would be available to surviving spouses of deceased retirees and active members.

For purposes of the solvency projections, an investment return assumption of 8.0% was chosen by default to be the same rate used in the Pension Plan valuations. It is uncertain how much longer retiree health fund assets can be invested in the same manner as pension assets given the current solvency period of the retiree health fund. For purposes of GASB Statements No. 43 and No. 45 reporting, an investment return assumption of 6.5% was used. The rates of pay growth used in the Retirement System valuations are 4.00% per year. Stability can only be achieved if the rate of increase in Health Care premiums is brought in line with the rate of growth of employee pays. Consequently, it was assumed that average Health Care cost increases would eventually stabilize at 4.00% per year. Higher or lower rates of increase could, however be possible for an extended period before that happens

**POST-RETIREMENT HEALTH PREMIUM
AND MEDICARE REIMBURSEMENT
SELECTION OF ASSUMPTIONS
DECEMBER 31, 2005**

Three alternate assumptions for near term health care cost increases were considered and are shown below. A brief description of each of the alternate assumptions follows:

Alternate A (Optimistic): The Alternate A assumption assumes that benefits will be periodically adjusted so that the employer share of per capita costs would increase no faster than 4.00% per year. This may lead to some curtailment of benefits as the population ages.

Alternate B (Intermediate): In the middle of the range of probable conditions is the view that short-term Health Care trends will rise somewhat over the next few years before declining to the level of overall GDP growth. This is the assumption set upon which Governmental Accounting Standards Board (GASB) statements 43 and 45 information is based.

Alternate C (Pessimistic): This scenario envisions poorer experience than the other two.

No trend was applied to the \$80 monthly spouse premium.

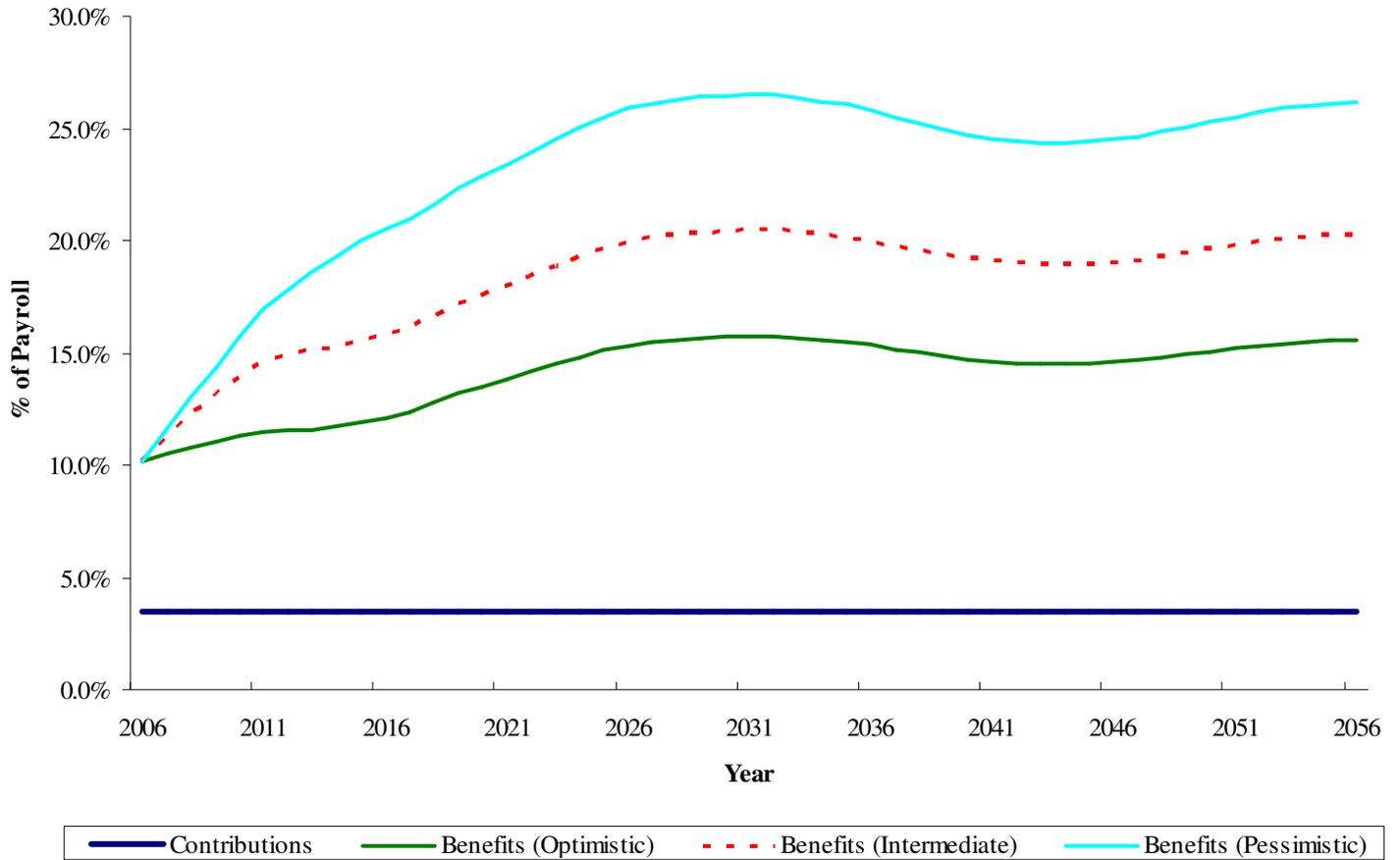
Year	Health Trend Above Wage Inflation Assumption of 4.0%		
	Alt. A Optimistic	Alt. B Intermediate	Alt. C Pessimistic
2006			
2007	0.00%	7.00%	10.00%
2008	0.00%	6.00%	9.00%
2009	0.00%	5.00%	8.00%
2010	0.00%	4.00%	7.00%
2011	0.00%	3.00%	6.00%
2012	0.00%	2.00%	5.00%
2013	0.00%	1.00%	4.00%
2014	0.00%	0.00%	3.00%
2015	0.00%	0.00%	2.00%
2016	0.00%	0.00%	1.00%
2017	0.00%	0.00%	0.00%
2018	0.00%	0.00%	0.00%
2019	0.00%	0.00%	0.00%
2020 & Later	0.00%	0.00%	0.00%

**POST-RETIREMENT HEALTH CARE AND MEDICARE REIMBURSEMENT
PROJECTED BENEFITS
DECEMBER 31, 2005**

Year Ended 12/31	Projected Benefits as % of Payroll		
	Alt. A Optimistic	Alt. B Intermediate	Alt. C Pessimistic
2006	10.2%	10.2%	10.2%
2007	10.5%	11.2%	11.6%
2008	10.8%	12.2%	13.0%
2009	11.0%	13.1%	14.4%
2010	11.3%	13.9%	15.7%
2011	11.5%	14.6%	16.9%
2012	11.5%	15.0%	17.8%
2013	11.6%	15.1%	18.6%
2014	11.7%	15.3%	19.3%
2015	11.9%	15.6%	20.0%
2020	13.5%	17.6%	22.8%
2025	15.1%	19.6%	25.5%
2030	15.7%	20.4%	26.5%
2035	15.5%	20.2%	26.1%
2040	14.7%	19.2%	24.7%
2045	14.5%	19.0%	24.4%
2050	15.1%	19.6%	25.3%
2055	15.5%	20.3%	26.1%
2060	15.5%	20.2%	26.1%
2065	15.2%	19.8%	25.5%
2075	15.0%	19.5%	25.1%
2085	15.4%	20.1%	25.9%
2095	15.2%	19.8%	25.5%
2104	15.2%	19.8%	25.4%

CONTRIBUTIONS VS. BENEFIT PAYOUTS

Contributions vs. Benefit Payouts



**POST-RETIREMENT HEALTH CARE AND MEDICARE REIMBURSEMENT
GASB 43/45 REPORTING
ALTERNATIVE B: INTERMEDIATE HEALTH TREND**

Determination of the Annual Required Contribution for the Period July 1, 2007 to June 30, 2008	Contributions Expressed as Percents of Payroll
Normal Cost	10.14%
UAL Payment (30 year amortization)	10.15%
Total (Annual Required Contribution)	20.29%
Current Employer Contribution Rate Allocation	3.50%

Accrued Health and Medicare Reimbursement Liabilities, \$281,094,482 were more than applicable assets of \$95,889,279.

The calculations above show the employer's annual required contribution (ARC) for the year ended June 30, 2008. The System's ARC for the year ended December 31, 2006 will be 18.23%, from the December 31, 2004 valuation. The System's ARC for the year ended December 21, 2007 will be ½ of 18.23% and ½ of the 20.29% shown above.

**GASB STATEMENTS 43/45
NOTES TO TREND DATA**

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date	December 31, 2005
Actuarial Cost Method	Entry Age
Amortization Method	Level Percent Open
Remaining Amortization Period	30 years for retiree health benefits in determining the Annual Required Contribution
Asset Valuation Method	4 year smoothed market 20 % Corridor
Actuarial Assumptions:	
Investment Rate of Return	6.5%
Projected Salary Increases	4.3% - 14.0%
* Includes Wage Inflation at	4.0%
Health Trend	Intermediate Trend (See Page B-8)

**POST-RETIREMENT HEALTH AND MEDICARE REIMBURSEMENT
RESULTS WITH ALTERNATE HEALTH INFLATION ASSUMPTIONS
DECEMBER 31, 2005**

Optimistic, Intermediate and Pessimistic assumption sets were described on page B-8. For each assumption set, two questions are asked.

Question 1. How long will the Health Care fund remain solvent if the present employer contribution rate allocation, “Funding Level 1”, is not changed?

Question 2. What is the lowest employer contribution rate, “Funding Level 2”, that would maintain the solvency of the fund indefinitely?

The answers to these questions are summarized below. In reviewing the answers, it is important to keep in mind that the alternates are intended to be helpful in understanding the range of potential outcomes. They are not predictions.

Assumption Set	Funding Level 1 Recommended Employer Rate		Funding Level 2 (Lowest Employer Rate to Maintain Solvency of Fund Indefinitely)		
	%	Fund Solvent Until	%	Fund Solvent Until	Prior Valuation %
A (Optimistic)	3.50%	2025	9.10%	Indefinitely	8.20%
B (Intermediate)	3.50%	2020	12.90%	Indefinitely	11.30%
C (Pessimistic)	3.50%	2017	17.30%	Indefinitely	13.70%

The above results show that

- Under the optimistic assumptions, the employer rate will need to be raised prior to 2025 in order to maintain the solvency of the fund. The ultimate rate needed to support the plan would be 9.10% of payroll.
- Under the intermediate assumptions, the employer rate will need to be raised prior to 2020 in order to maintain the solvency of the fund. The ultimate rate needed to support the plan would be 12.90% of payroll if the increase were made today.
- Under the pessimistic assumptions, the employer rate will need to be raised prior to 2017 in order to maintain the solvency of the fund. The ultimate rate needed to support the plan would be 17.30% of payroll if the increase were made today.

The following pages show projected fund activity based upon Alternate Assumptions A, B and C, and Funding Levels 1 and 2.

POST-RETIREMENT HEALTH CARE & MEDICARE REIMBURSEMENT
CASH FLOW PROJECTION
OPTIMISTIC ASSUMPTIONS: A
FUNDING LEVEL 1

Fiscal Year	Fund Balance BOY	Contributions	Benefits	Net	Investment Return %	Investment Return \$	Fund Balance EOY		% of Payroll	
							Nominal \$	Real \$	Contrib.	Benefits
2006	\$95,889	\$3,019	\$8,796	\$(5,777)	8.00%	\$7,443	\$97,555	\$97,555	3.50%	10.20%
2007	97,555	3,110	9,368	(6,258)	8.00%	7,557	98,854	95,052	3.50%	10.54%
2008	98,854	3,214	9,918	(6,704)	8.00%	7,644	99,794	92,265	3.50%	10.80%
2009	99,794	3,327	10,497	(7,170)	8.00%	7,700	100,324	89,188	3.50%	11.04%
2010	100,324	3,450	11,113	(7,663)	8.00%	7,723	100,384	85,809	3.50%	11.27%
2011	100,384	3,580	11,756	(8,176)	8.00%	7,708	99,916	82,124	3.50%	11.49%
2012	99,916	3,714	12,256	(8,542)	8.00%	7,656	99,030	78,265	3.50%	11.55%
2013	99,030	3,853	12,749	(8,896)	8.00%	7,571	97,705	74,248	3.50%	11.58%
2014	97,705	3,999	13,395	(9,396)	8.00%	7,445	95,754	69,967	3.50%	11.72%
2015	95,754	4,151	14,138	(9,987)	8.00%	7,266	93,033	65,364	3.50%	11.92%
2016	93,033	4,309	14,919	(10,610)	8.00%	7,024	89,447	60,427	3.50%	12.12%
2017	89,447	4,470	15,815	(11,345)	8.00%	6,708	84,810	55,091	3.50%	12.38%
2018	84,810	4,635	16,873	(12,238)	8.00%	6,302	78,874	49,264	3.50%	12.74%
2019	78,874	4,806	18,109	(13,303)	8.00%	5,785	71,356	42,855	3.50%	13.19%
2020	71,356	4,991	19,252	(14,261)	8.00%	5,145	62,240	35,942	3.50%	13.50%
2021	62,240	5,189	20,480	(15,291)	8.00%	4,375	51,324	28,498	3.50%	13.81%
2022	51,324	5,397	21,850	(16,453)	8.00%	3,456	38,327	20,463	3.50%	14.17%
2023	38,327	5,612	23,292	(17,680)	8.00%	2,368	23,015	11,815	3.50%	14.53%
2024	23,015	5,843	24,720	(18,877)	8.00%	1,096	5,234	2,584	3.50%	14.81%
2025	5,234	6,091	26,262	(20,171)	8.00%	(378)	(15,315)	(7,269)	3.50%	15.09%

Funding Level 1 is the present contribution rate for post-retirement Health Care and Medicare reimbursement. The fund remains solvent until 2025 in this projection.

**POST-RETIREMENT HEALTH CARE & MEDICARE REIMBURSEMENT
CASH FLOW PROJECTION
OPTIMISTIC ASSUMPTIONS: A
FUNDING LEVEL 2**

Fiscal Year	Fund Balance BOY	Contributions	Benefits	Net	Investment Return %	Investment Return \$	Fund Balance EOY		% of Payroll	
							Nominal \$	Real \$	Contrib.	Benefits
2006	\$95,889	\$7,849	\$8,796	\$(947)	8.00%	\$7,634	\$102,576	\$102,576	9.10%	10.20%
2007	102,576	8,087	9,368	(1,281)	8.00%	8,155	109,450	105,240	9.10%	10.54%
2008	109,450	8,356	9,918	(1,562)	8.00%	8,694	116,582	107,787	9.10%	10.80%
2009	116,582	8,651	10,497	(1,846)	8.00%	9,254	123,990	110,227	9.10%	11.04%
2010	123,990	8,970	11,113	(2,143)	8.00%	9,835	131,682	112,562	9.10%	11.27%
2011	131,682	9,307	11,756	(2,449)	8.00%	10,438	139,671	114,799	9.10%	11.49%
2012	139,671	9,657	12,256	(2,599)	8.00%	11,071	148,143	117,080	9.10%	11.55%
2013	148,143	10,017	12,749	(2,732)	8.00%	11,744	157,155	119,425	9.10%	11.58%
2014	157,155	10,397	13,395	(2,998)	8.00%	12,454	166,611	121,741	9.10%	11.72%
2015	166,611	10,793	14,138	(3,345)	8.00%	13,197	176,463	123,981	9.10%	11.92%
2020	218,878	12,975	19,252	(6,277)	8.00%	17,262	229,863	132,740	9.10%	13.50%
2025	274,423	15,837	26,262	(10,425)	8.00%	21,542	285,540	135,529	9.10%	15.09%
2030	330,380	19,730	34,066	(14,336)	8.00%	25,864	341,908	133,386	9.10%	15.71%
2035	390,628	24,444	41,670	(17,226)	8.00%	30,570	403,972	129,534	9.10%	15.51%
2040	466,166	29,840	48,213	(18,373)	8.00%	36,568	484,361	127,654	9.10%	14.70%
2045	566,934	36,252	57,920	(21,668)	8.00%	44,499	589,765	127,755	9.10%	14.54%
2050	686,774	43,954	72,715	(28,761)	8.00%	53,806	711,819	126,737	9.10%	15.05%
2055	813,252	53,394	91,178	(37,784)	8.00%	63,568	839,036	122,785	9.10%	15.54%
2065	1,093,472	79,384	132,362	(52,978)	8.00%	85,386	1,125,880	111,308	9.10%	15.17%
2075	1,458,956	117,351	192,823	(75,472)	8.00%	113,736	1,497,220	99,997	9.10%	14.95%
2085	1,764,656	173,533	294,139	(120,606)	8.00%	136,410	1,780,460	80,334	9.10%	15.42%
2095	1,707,410	257,314	428,586	(171,272)	8.00%	129,830	1,665,968	50,781	9.10%	15.16%
2105	687,856	380,432	634,695	(254,263)	8.00%	44,988	478,581	9,855	9.10%	15.18%

Funding Level 2 is the lowest funding level that will keep the fund solvent indefinitely, i.e., throughout the entire 100-year projection period assuming all assumptions are realized.

**POST-RETIREMENT HEALTH CARE & MEDICARE REIMBURSEMENT
CASH FLOW PROJECTION
INTERMEDIATE ASSUMPTIONS: B
FUNDING LEVEL 1**

Fiscal Year	Fund Balance BOY	Contributions	Benefits	Net	Investment Return %	Investment Return \$	Fund Balance EOY		% of Payroll	
							Nominal \$	Real \$	Contrib.	Benefits
2006	\$95,889	\$3,027	\$8,800	\$(5,773)	8.00%	\$7,443	\$97,559	\$97,559	3.50%	10.18%
2007	97,559	3,128	10,050	(6,922)	8.00%	7,531	98,168	94,392	3.50%	11.25%
2008	98,168	3,233	11,290	(8,057)	8.00%	7,535	97,646	90,279	3.50%	12.22%
2009	97,646	3,349	12,549	(9,200)	8.00%	7,448	95,894	85,249	3.50%	13.12%
2010	95,894	3,473	13,812	(10,339)	8.00%	7,263	92,818	79,341	3.50%	13.92%
2011	92,818	3,604	15,040	(11,436)	8.00%	6,974	88,356	72,622	3.50%	14.61%
2012	88,356	3,740	15,978	(12,238)	8.00%	6,585	82,703	65,361	3.50%	14.95%
2013	82,703	3,880	16,769	(12,889)	8.00%	6,107	75,921	57,694	3.50%	15.13%
2014	75,921	4,027	17,617	(13,590)	8.00%	5,537	67,868	49,590	3.50%	15.31%
2015	67,868	4,181	18,584	(14,403)	8.00%	4,861	58,326	40,979	3.50%	15.56%
2016	58,326	4,340	19,600	(15,260)	8.00%	4,064	47,130	31,839	3.50%	15.81%
2017	47,130	4,503	20,767	(16,264)	8.00%	3,128	33,994	22,082	3.50%	16.14%
2018	33,994	4,669	22,149	(17,480)	8.00%	2,029	18,543	11,582	3.50%	16.60%
2019	18,543	4,842	23,764	(18,922)	8.00%	736	357	214	3.50%	17.18%
2020	357	5,028	25,256	(20,228)	8.00%	(770)	(20,641)	(11,920)	3.50%	17.58%

Funding Level 1 is the present contribution rate for post-retirement Health Care and Medicare reimbursement. The fund remains solvent until 2020 in this projection.

**POST-RETIREMENT HEALTH CARE & MEDICARE REIMBURSEMENT
CASH FLOW PROJECTION
INTERMEDIATE ASSUMPTIONS: B
FUNDING LEVEL 2**

Fiscal Year	Fund Balance BOY	Contributions	Benefits	Net	Investment Return %	Investment Return \$	Fund Balance EOY		% of Payroll	
							Nominal \$	Real \$	Contrib.	Benefits
2006	\$95,889	\$11,156	\$8,800	\$2,356	8.00%	\$7,764	\$106,009	\$106,009	12.90%	10.18%
2007	106,009	11,527	10,050	1,477	8.00%	8,539	116,025	111,563	12.90%	11.25%
2008	116,025	11,918	11,290	628	8.00%	9,307	125,960	116,457	12.90%	12.22%
2009	125,960	12,343	12,549	(206)	8.00%	10,069	135,823	120,746	12.90%	13.12%
2010	135,823	12,800	13,812	(1,012)	8.00%	10,826	145,637	124,491	12.90%	13.92%
2011	145,637	13,284	15,040	(1,756)	8.00%	11,582	155,463	127,779	12.90%	14.61%
2012	155,463	13,785	15,978	(2,193)	8.00%	12,350	165,620	130,892	12.90%	14.95%
2013	165,620	14,300	16,769	(2,469)	8.00%	13,152	176,303	133,976	12.90%	15.13%
2014	176,303	14,844	17,617	(2,773)	8.00%	13,995	187,525	137,023	12.90%	15.31%
2015	187,525	15,411	18,584	(3,173)	8.00%	14,877	199,229	139,976	12.90%	15.56%
2020	249,578	18,531	25,256	(6,725)	8.00%	19,701	262,554	151,618	12.90%	17.58%
2025	314,820	22,620	34,413	(11,793)	8.00%	24,720	327,747	155,563	12.90%	19.63%
2030	379,564	28,175	44,605	(16,430)	8.00%	29,716	392,850	153,259	12.90%	20.42%
2035	448,885	34,886	54,648	(19,762)	8.00%	35,130	464,253	148,863	12.90%	20.21%
2040	536,581	42,592	63,334	(20,742)	8.00%	42,107	557,946	147,048	12.90%	19.18%
2045	655,485	51,753	76,155	(24,402)	8.00%	51,475	682,558	147,856	12.90%	18.98%
2050	797,745	62,754	95,530	(32,776)	8.00%	62,525	827,494	147,332	12.90%	19.64%
2055	947,997	76,232	119,697	(43,465)	8.00%	74,123	978,655	143,217	12.90%	20.26%
2065	1,283,924	113,315	174,114	(60,799)	8.00%	100,313	1,323,438	130,839	12.90%	19.82%
2075	1,741,509	167,531	253,661	(86,130)	8.00%	135,920	1,791,299	119,638	12.90%	19.53%
2085	2,172,512	247,734	386,548	(138,814)	8.00%	168,320	2,202,018	99,354	12.90%	20.13%
2095	2,272,121	367,319	563,746	(196,427)	8.00%	174,013	2,249,707	68,574	12.90%	19.80%
2105	1,470,775	543,107	834,543	(291,436)	8.00%	106,154	1,285,493	26,471	12.90%	19.82%

Funding Level 2 is the lowest funding level that will keep the fund solvent indefinitely, i.e., throughout the entire 100-year projection period assuming all assumptions are realized.

**POST-RETIREMENT HEALTH CARE & MEDICARE REIMBURSEMENT
CASH FLOW PROJECTION
PESSIMISTIC ASSUMPTIONS: C
FUNDING LEVEL 1**

Fiscal Year	Fund Balance BOY	Contributions	Benefits	Net	Investment Return %	Investment Return \$	Fund Balance EOY		% of Payroll	
							Nominal \$	Real \$	Contrib.	Benefits
2006	\$95,889	\$3,019	\$8,803	\$(5,784)	8.00%	\$7,443	\$97,548	\$97,548	3.50%	10.21%
2007	97,548	3,110	10,343	(7,233)	8.00%	7,518	97,833	94,070	3.50%	11.64%
2008	97,833	3,214	11,954	(8,740)	8.00%	7,482	96,575	89,289	3.50%	13.02%
2009	96,575	3,327	13,667	(10,340)	8.00%	7,318	93,553	83,168	3.50%	14.38%
2010	93,553	3,450	15,473	(12,023)	8.00%	7,009	88,539	75,684	3.50%	15.70%
2011	88,539	3,580	17,331	(13,751)	8.00%	6,540	81,328	66,846	3.50%	16.95%
2012	81,328	3,714	18,942	(15,228)	8.00%	5,905	72,005	56,907	3.50%	17.85%
2013	72,005	3,853	20,455	(16,602)	8.00%	5,105	60,508	45,981	3.50%	18.58%
2014	60,508	3,999	22,099	(18,100)	8.00%	4,126	46,534	34,002	3.50%	19.34%
2015	46,534	4,151	23,755	(19,604)	8.00%	2,949	29,879	20,993	3.50%	20.03%
2016	29,879	4,309	25,284	(20,975)	8.00%	1,562	10,466	7,070	3.50%	20.54%
2017	10,466	4,470	26,803	(22,333)	8.00%	(45)	(11,912)	(7,738)	3.50%	20.98%

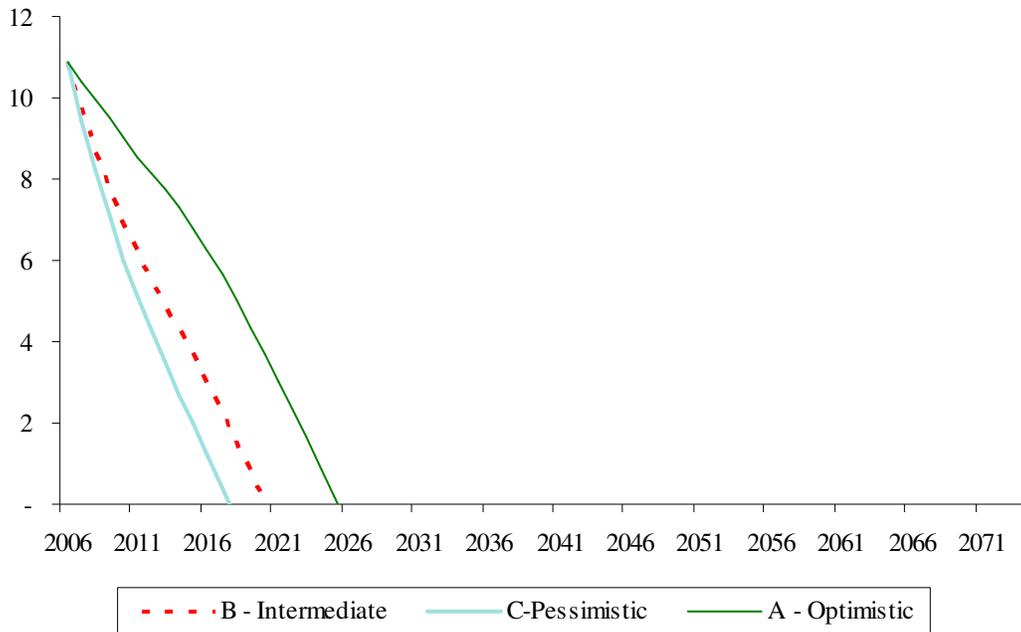
Funding Level 1 is the present contribution rate for post-retirement Health Care and Medicare reimbursement. The fund remains solvent until 2017 in this projection.

**POST-RETIREMENT HEALTH CARE & MEDICARE REIMBURSEMENT
CASH FLOW PROJECTION
PESSIMISTIC ASSUMPTIONS: C
FUNDING LEVEL 2**

Fiscal Year	Fund Balance BOY	Contributions	Benefits	Net	Investment Return %	Investment Return \$	Fund Balance EOY		% of Payroll	
							Nominal \$	Real \$	Contrib.	Benefits
2006	\$ 95,889	\$ 14,922	\$ 8,803	\$ 6,119	8.00%	\$ 7,913	\$ 109,921	\$ 109,921	17.30%	10.21%
2007	109,921	15,374	10,343	5,031	8.00%	8,992	123,944	119,177	17.30%	11.64%
2008	123,944	15,886	11,954	3,932	8.00%	10,071	137,947	127,540	17.30%	13.02%
2009	137,947	16,446	13,667	2,779	8.00%	11,145	151,871	135,013	17.30%	14.38%
2010	151,871	17,052	15,473	1,579	8.00%	12,212	165,662	141,609	17.30%	15.70%
2011	165,662	17,693	17,331	362	8.00%	13,267	179,291	147,364	17.30%	16.95%
2012	179,291	18,359	18,942	(583)	8.00%	14,320	193,028	152,553	17.30%	17.85%
2013	193,028	19,043	20,455	(1,412)	8.00%	15,386	207,002	157,305	17.30%	18.58%
2014	207,002	19,765	22,099	(2,334)	8.00%	16,468	221,136	161,582	17.30%	19.34%
2015	221,136	20,519	23,755	(3,236)	8.00%	17,563	235,463	165,433	17.30%	20.03%
2020	295,885	24,667	32,570	(7,903)	8.00%	23,359	311,341	179,792	17.30%	22.84%
2025	372,968	30,107	44,339	(14,232)	8.00%	29,275	388,011	184,166	17.30%	25.48%
2030	447,628	37,508	57,371	(19,863)	8.00%	35,026	462,791	180,545	17.30%	26.46%
2035	526,713	46,470	70,050	(23,580)	8.00%	41,206	544,339	174,543	17.30%	26.08%
2040	628,306	56,728	80,952	(24,224)	8.00%	49,308	653,390	172,202	17.30%	24.69%
2045	768,604	68,919	97,228	(28,309)	8.00%	60,370	800,665	173,441	17.30%	24.41%
2050	936,677	83,561	122,094	(38,533)	8.00%	73,413	971,557	172,982	17.30%	25.28%
2055	1,111,368	101,507	153,131	(51,624)	8.00%	86,871	1,146,615	167,797	17.30%	26.10%
2065	1,496,358	150,917	222,259	(71,342)	8.00%	116,892	1,541,908	152,437	17.30%	25.48%
2075	2,027,039	223,095	323,797	(100,702)	8.00%	158,187	2,084,524	139,222	17.30%	25.11%
2085	2,508,716	329,902	493,958	(164,056)	8.00%	194,219	2,538,879	114,553	17.30%	25.90%
2095	2,565,380	489,180	719,665	(230,485)	8.00%	196,129	2,531,024	77,149	17.30%	25.45%
2105	1,510,408	723,240	1,065,823	(342,583)	8.00%	107,305	1,275,130	26,258	17.30%	25.49%

Funding Level 2 is the lowest funding level that will keep the fund solvent indefinitely, i.e., throughout the entire 100-year projection period assuming all assumptions are realized.

**POST-RETIREMENT HEALTH CARE & MEDICARE REIMBURSEMENT
 PROJECTED FUNDING RATIOS BASED ON
 3.50% EMPLOYER CONTRIBUTION RATE
 DECEMBER 31, 2005**



The *funding ratio* is the ratio of the fund balance at the beginning of the year to the projected benefit payout during the year. It is one measure of the Plan’s ability to pay benefits. A funding ratio on the order of about 15 to 25 is expected in a plan that is funding health care payouts as a level percentage of payroll. Given the experience of the last several years, very few, if any plans, are likely to be able to report such a funded ratio.

APPROXIMATE IRC SECTION 401(H) COMPUTATION
(\$ IN THOUSANDS)

Year	(1) Covered Pay	(2) EANC %	(3) Pension PUCNC %	(4) PUCNC \$	(5) Health Contribution	(6) (4) + (5)	(7) Sum of (5)	(8) Sum of (6)	(9) IRC Ratio (7) / (8)
1985	\$32,550	22.16%	23.05%	\$ 7,502.8	\$1,114.8	\$8,617.6	\$ 1,114.8	\$ 8,617.6	12.9%
1986	34,735	22.16%	23.05%	8,006.4	1,229.0	9,235.4	2,343.8	17,853.0	13.1%
1987	39,894	21.59%	22.45%	8,956.2	1,351.4	10,307.6	3,695.2	28,160.6	13.1%
1988	40,725	21.59%	22.45%	9,142.8	1,478.2	10,621.0	5,173.4	38,781.6	13.3%
1989	43,048	22.75%	23.66%	10,185.2	1,752.8	11,938.0	6,926.2	50,719.6	13.7%
1990	45,640	22.75%	23.66%	10,798.4	1,835.5	12,633.9	8,761.7	63,353.5	13.8%
1991	48,586	22.15%	23.04%	11,194.2	2,165.1	13,359.3	10,926.8	76,712.8	14.2%
1992	50,255	22.15%	23.04%	11,578.8	2,542.7	14,121.5	13,469.5	90,834.3	14.8%
1993	54,715	22.36%	23.25%	12,721.2	2,563.5	15,284.7	16,033.0	106,119.0	15.1%
1994	58,341	22.36%	23.25%	13,564.3	3,053.4	16,617.7	19,086.4	122,736.7	15.6%
1995	56,833	23.79%	24.74%	14,060.5	3,122.0	17,182.5	22,208.4	139,919.2	15.9%
1996	60,909	23.79%	24.74%	15,068.9	2,860.8	17,929.7	25,069.2	157,848.9	15.9%
1997	61,714	24.47%	25.45%	15,706.2	2,548.8	18,255.0	27,618.0	176,103.9	15.7%
1998	65,848	24.45%	25.55%	16,824.2	2,719.5	19,543.7	30,337.5	195,647.6	15.5%
1999	69,030	24.96%	26.08%	18,003.0	3,278.9	21,281.9	33,616.4	216,929.5	15.5%
2000	68,505	24.96%	26.08%	17,866.1	3,254.0	21,120.1	36,870.4	238,049.6	15.5%
2001	74,140	23.10%	23.63%	17,519.3	3,521.7	21,041.0	40,392.1	259,090.6	15.6%
2002	79,594	23.14%	23.71%	18,871.7	3,780.7	22,652.4	44,172.8	281,743.0	15.7%
2003	80,641	21.88%	22.72%	18,321.6	3,395.7	21,717.3	47,568.5	303,460.3	15.7%
2004	81,931	21.91%	22.83%	18,704.8	2,867.6	21,572.4	50,436.1	325,032.7	15.5%
2005	85,828	21.68%	22.59%	19,388.5	3,006.4	22,394.9	53,442.5	347,427.6	15.4%

The approximate computations above indicate compliance with IRC Section 401(h) because the ratio in column 9 is below 25%. The ratio in column 9 would appear lower if the computations were extended farther into the past.

SECTION C



Gain/Loss Analysis

GAIN/(LOSS) ANALYSIS

Purpose of Gain/Loss Analysis. Regular actuarial valuations provide information about the composite change in unfunded actuarial accrued liabilities -- whether or not the liabilities are increasing or decreasing, and by how much.

However, valuations do not show the portion of the change attributable to each risk area within the Retirement System: the rate of investment income on plan assets; the rates of withdrawal of active members who leave covered employment; the rates of mortality; the rates of disability; the rates of salary increases; the assumed ages at actual retirement. In an actuarial valuation, assumptions are made as to what these rates will be for the next year and for decades in the future.

The objective of a gain and loss analysis is to determine the portion of the change in unfunded actuarial accrued liabilities attributable to each risk area.

The fact that actual experience differs from assumed experience is to be expected. The future cannot be predicted with precision. Changes in the valuation assumption for a risk area should be made when the differences between assumed and actual experience have been observed to be sizable and persistent. One year's gain and loss analysis may or may not be indicative of *long-term trends, which are the basis of financial assumptions.*

**DEVELOPMENT OF TOTAL GAIN/(LOSS)
JANUARY 1, 2005 TO DECEMBER 31, 2005**

Unfunded Accrued Liabilities (UAL), January 1	\$164,605,984
Normal Cost	18,293,646
Contributions	27,826,895
Interest	12,787,149
Expected UAL Before Any Changes	167,859,884
Effect of Changes in Benefits	7,114,727
Expected UAL After All Changes	174,974,611
Actual UAL	181,933,964
Gain/(Loss) for Year From Financial Experience	\$(6,959,353)

This page measures the actual gain or loss for the year after adjusting for the effect of benefit and assumption changes.

**ANALYSIS OF FINANCIAL EXPERIENCE
FOR THE YEAR ENDED DECEMBER 31, 2005 AND 2004**

*Gains and Losses in Pension Accrued Liabilities Resulting from
Differences Between Assumed Experience and Actual Experience*

TYPE OF ACTIVITY	Gain or (Loss) for Year Ended 12/31	
	2005	2004
Age & Service Retirements. If members retire at older ages or with lower final average pay than assumed, there is a gain. If younger ages or higher average pays, a loss.	\$ 573,112	\$ 143,945
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	511,784	530,593
Death-in-Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(75,140)	(63,567)
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	218,425	72,037
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	10,088,099	10,509,323
Contribution Income. If more contributions are received than expected, there is a gain. If less, there is a loss.	0	0
Investment Income. If there is greater investment return on pension assets than assumed, there is a gain. If less return, a loss.	(12,724,444)	(9,723,198)
Other. Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, valuation methods, etc.	(5,551,189)	(7,585,111)
Gain (or Loss) During Year From Financial Experience	\$ (6,959,353)	\$ (6,115,978)
Non-Recurring Items (Effect of Benefit/Assumption Changes)	7,114,727	3,403,007
Composite Gain (or Loss) During Year	\$ 155,374	\$ (2,712,971)

INVESTMENT GAIN LOSS
DEVELOPMENT OF PORTION ATTRIBUTABLE TO RETIREMENT,
SURVIVOR AND DISABILITY ALLOWANCES
JANUARY 1, 2005 TO DECEMBER 31, 2005

Assets, Beginning of Year	\$569,858,387
Net Cash Flow	(10,385,013)
Assumed Investment Return	45,173,270
Expected Assets End of Year	\$604,646,644
Actual Assets End of Year	591,922,200
Gain/(Loss) for Year	\$(12,724,444)

The total investment gain (loss) was \$(11,831,804). This amount includes health assets.

ACTIVE MEMBER POPULATION RECONCILIATION
JANUARY 1, 2005 TO DECEMBER 31, 2005

	Actual	Expected
Active Members Beginning of Year	1,562	
Plus New Hires	70	
Minus Retirements	23	33.2
Minus Deaths	0	1.0
Minus Disabilities	8	6.7
Minus Other Terminations*	34	19.8
Returned to Active Status	6	
Plus or Minus Data Correction	0	
Active Members End of Year	1,573	

** Includes 4 members who took a leave of absence and 2 members who transferred out of the System.*

SECTION D



Financial Information

**CURRENT ASSET INFORMATION
FURNISHED FOR THE VALUATION
DECEMBER 31, 2005**

Balance Sheet

<u>Current Assets (Market Value)</u>		<u>Fund Balance</u>	
Cash & short-term investments	\$ 8,573,118	Employees' Savings Fund	\$ 77,755,461
Fixed Income	147,662,399	Employer Accumulation Fund	130,503,701
Stocks	517,350,544	Pension Reserve Fund	350,079,083
Real Estate	37,247,312	Survivors Benefit Fund	24,234,525
Other short-term	31,174	Health Care Fund	99,222,266
Accruals & Receivables	<u>854,362</u>	Income Fund	<u>29,923,873</u>
Total Current Assets	<u><u>\$ 711,718,909</u></u>	Total Fund Balance	<u><u>\$ 711,718,909</u></u>

Revenues and Expenditures

	<u>2005</u>	<u>2004</u>
Balance - January 1	\$684,569,250	\$623,986,737
Revenues*		
Employee contributions	9,119,343	8,575,705
Employer contributions (net)	21,713,937	19,944,601
Investment income (net)	46,888,921	74,959,242
Miscellaneous	<u>(2,774,214)</u>	<u>0</u>
Total	74,947,987	103,479,548
Expenditures		
Benefit payments	37,641,268	35,107,531
Health insurance	8,932,259	6,948,650
Refund of member contributions	495,640	155,989
Administrative expenses	654,161	604,865
Death benefit	<u>75,000</u>	<u>80,000</u>
Total	47,798,328	42,897,035
Net Addition to Assets	<u>27,149,659</u>	<u>60,582,513</u>
Balance - December 31	<u><u>\$711,718,909</u></u>	<u><u>\$684,569,250</u></u>

* Revenues include transfers to and from systems.

**CAFR ASSET INFORMATION FURNISHED FOR THE VALUATION
DECEMBER 31, 2005**

ADDITIONS BY SOURCE

Pension Benefits						Other Postemployment Benefits		
Year	Contributions		Net Investment Income	Transfers from Other Systems	Total	Employer Contributions	Net Investment Income	Total
	Member*	Employer						
1996	\$6,223,468	\$12,176,108	\$54,183,754	\$494,651	\$ 73,077,981	\$2,530,817	\$ 9,444,391	\$ 11,975,208
1997	6,146,774	12,236,515	66,159,004	330,119	84,872,412	2,543,372	11,536,686	14,080,058
1998	6,573,762	13,101,039	13,029,413	503,509	33,207,723	2,687,150	1,396,472	4,083,622
1999	6,708,497	13,569,730	33,612,434	444,135	54,334,796	2,783,534	6,878,890	9,662,424
2000	6,954,301	13,210,189	(14,120,288)	925,998	6,970,200	3,346,581	(3,114,980)	231,601
2001	7,042,044	13,901,313	(17,920,157)	999,380	4,022,580	3,521,665	(2,900,183)	621,482
2002	7,563,173	14,923,893	(42,921,956)	999,176	(19,435,714)	3,780,715	(6,673,383)	(2,892,668)
2003	8,136,974	16,361,339	105,112,725	763,419	130,374,457	3,395,749	18,885,722	22,281,471
2004	8,192,944	17,205,609	62,907,281	856,496	89,162,330	2,867,602	12,051,961	14,919,563
2005	8,582,130	18,467,789	35,511,228	1,180,951	63,742,098	3,006,385	8,603,479	11,609,864

* Does not include service purchases.

DEDUCTIONS BY TYPE

Pension Benefits						Other Postemployment Benefits		
Year	Benefits#	Refunds	Transfers to Other Systems	Administrative	Total	Health Care	Administrative	Total
1997	18,683,246	231,705	98,810	704,542	19,718,303	2,499,178	122,856	2,622,034
1998	21,539,636	164,054	281,606	648,144	22,633,440	3,128,888	114,378	3,243,266
1999	24,324,038	529,654	196,414	449,167	25,499,273	5,498,402	78,854	5,577,256
2000	27,042,946	363,067	904,972	549,168	28,860,153	4,720,260	95,423	4,815,683
2001	29,457,281	306,452	448,381	524,922	30,737,036	6,179,096	90,422	6,269,518
2002	31,325,089	266,137	1,054,264	462,200	33,107,690	7,025,043	78,635	7,103,678
2003	33,074,853	386,931	789,387	559,052	34,810,223	7,181,129	93,769	7,274,898
2004	35,187,531	155,989	602,345	518,834	36,464,699	6,948,650	86,031	7,034,681
2005	37,716,268	495,640	403,975	561,817	39,177,700	8,932,259	92,344	9,024,603

Includes death benefits.

**DEVELOPMENT OF FUNDING VALUE OF RETIREMENT SYSTEM ASSETS
DECEMBER 31, 2005**

	2003	2004	2005	2006	2007	2008
A. Funding Value From Prior Year	\$ 616,099,116	\$ 636,515,677	\$ 663,524,635			
B. Market Value End of Year	623,986,737	684,569,250	711,718,909			
C. Market Value Beginning of Year	513,415,930	623,986,737	684,569,250			
D. Non-Investment Net Cash Flow	(12,774,819)	(13,771,864)	(16,310,887)			
E. Investment Return:						
E1. Market Total: B - C - D	123,345,626	74,354,377	43,460,546			
E2. For Immediate Recognition (8.0%)	48,776,937	50,370,380	52,429,535			
E3. Amount for Phased-In Recognition E1-E2	74,568,689	23,983,997	(8,968,989)			
F. Phased-In Recognition of Investment Return:						
F1. Current Year: 25% x E3	18,642,172	5,995,999	(2,242,247)			
F2. First Prior Year	(34,227,729)	18,642,172	5,995,999	\$ (2,242,247)		
F3. Second Prior Year	0	(34,227,729)	18,642,172	5,995,999	\$ (2,242,247)	
F4. Third Prior Year	0	0	(34,227,728)	18,642,173	5,996,000	\$ (2,242,248)
F5. Total Recognized Phase-ins	\$ (15,585,557)	\$ (9,589,558)	\$ (11,831,804)	\$ 22,395,925	\$ 3,753,753	\$ (2,242,248)
G. Funding Value End of Year:						
G1. Preliminary Funding Value End of Year: A + D + E2 + F5	\$ 636,515,677	\$ 663,524,635	\$ 687,811,479			
G2. Corridor Percent	20%	20%	20%			
G3. Upper Corridor Limit: (100% + G2) x B	\$ 748,784,084	\$ 821,483,100	\$ 854,062,691			
G4. Lower Corridor Limit: (100% - G2) x B	\$ 499,189,390	\$ 547,655,400	\$ 569,375,127			
G5. Funding Value End of Year	\$ 636,515,677	\$ 663,524,635	\$ 687,811,479			
H. Difference between Market Value and Funding Value	\$ (12,528,940)	\$ 21,044,615	\$ 23,907,430			
I. Funding Value Rate of Return	5.4 %	6.5 %	6.2 %			
J. Market Value Rate of Return	24.3 %	12.0 %	6.4 %			
K. Ratio of Funding Value to Market Value	102%	97%	97%			

The asset valuation method recognizes assumed investment income (line E2) fully each year. Differences between actual and expected investment income (line E3) are phased in over a closed 4-year period. When investment markets are performing well, Funding Value will tend to lag market value. When investment markets are performing poorly, Funding Value will tend to exceed market value. From a Funding standpoint, the asset valuation method is *neutral*.

SEPARATION OF ASSETS BETWEEN PENSIONS AND HEALTH
DECEMBER 31, 2005

	Pension	Health	Total
A. Market Value Beginning of Year	\$587,932,245	\$96,637,005	\$684,569,250
B. Member Contributions	9,119,343	0	9,119,343
C. Employer Contributions	18,707,552	3,006,385	21,713,937
D. Benefits Paid	37,641,268	8,932,259	46,573,527
E. Refunds of Member Contributions	495,640	0	495,640
F. Death Benefits	75,000	0	75,000
G. Net External Cash Flow (B + C - D - E - F)	(10,385,013)	(5,925,874)	(16,310,887)
H. Other Changes in Market Value	34,949,411	8,511,135	43,460,546
I. Market Value End of Year (A + G + H)	612,496,643	99,222,266	711,718,909
J. Funding Value Adjustment	(20,574,443)	(3,332,987)	(23,907,430)
K. Funding Value End of Year (I + J)	\$591,922,200	\$95,889,279	\$687,811,479

Line J is allocated in proportion to Line I.

SECTION E



Summary of Member Data

ACTIVE MEMBERS AS OF DECEMBER 31, 2005
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Up	No.	Payroll
20-24	63							63	\$ 2,239,124
25-29	148	97						245	10,484,602
30-34	89	189	82					360	17,528,615
35-39	57	72	191	56	2			378	20,369,555
40	1	4	16	22	4			47	2,729,005
41		7	16	34				57	3,372,431
42		2	11	22	9			44	2,549,189
43	1	1	11	21	16	1		51	2,989,161
44			8	22	15	3		48	3,019,028
45			2	9	24	4		39	2,457,950
46			4	8	33	7		52	3,277,637
47			2	7	23	20		52	3,355,845
48				4	13	22		39	2,572,870
49				5	9	12	1	27	1,698,070
50					5	11		16	962,231
51				1	3	9		13	852,314
52				1	3	12	2	18	1,385,461
53				2	2	8	2	14	841,139
54						3	1	4	270,774
55							2	2	171,187
56					2		2	4	281,967
Totals	359	372	343	214	163	112	10	1,573	\$ 83,408,155

While not used in valuations, the following group averages are computed and shown for their general interest.

Age: 36.5 years.

Service: 11.9 years.

Annual Pay: \$53,025

**ACTIVE MEMBERS
BY AGES OF ENTRY INTO SERVICE
DECEMBER 31, 2005**

Entry Age Nearest Birthday	Number	Cumulative Number	Percent	Cumulative Percent
Less than 18	1	1	0.06%	0.06%
18	6	7	0.39%	0.45%
19	42	49	2.67%	3.12%
20	56	105	3.56%	6.68%
21	165	270	10.48%	17.16%
22	229	499	14.56%	31.72%
23	195	694	12.40%	44.12%
24	196	890	12.46%	56.58%
25	142	1,032	9.03%	65.61%
26	142	1,174	9.02%	74.63%
27	98	1,272	6.23%	80.86%
28	74	1,346	4.71%	85.57%
29	41	1,387	2.61%	88.18%
30	62	1,449	3.94%	92.12%
31	28	1,477	1.78%	93.90%
32	32	1,509	2.03%	95.93%
33	33	1,542	2.10%	98.03%
34	19	1,561	1.21%	99.24%
35	10	1,571	0.63%	99.87%
36	0	1,571	0.00%	99.87%
37	0	1,571	0.00%	99.87%
38	1	1,572	0.07%	99.94%
39	1	1,573	0.06%	100.00%
40 & Up	0	1,573	0.00%	100.00%
Total	1,573			

**AGE AND SERVICE PENSIONS BEING PAID DECEMBER 31, 2005
BY ATTAINED AGES**

Attained Ages	Number	Monthly Pensions	Number Married	Average Age of Spouse
48	11	\$37,280	7	44
49	13	42,319	11	48
50	28	92,534	23	47
51	17	51,355	15	50
52	12	34,737	11	51
53	25	86,643	23	51
54	42	126,334	37	51
55	44	136,184	42	52
56	40	131,527	36	53
57	54	164,566	49	55
58	74	227,586	66	56
59	46	148,821	44	58
60	41	131,257	37	57
61	55	169,563	52	58
62	39	112,370	37	59
63	53	153,716	48	59
64	39	112,457	37	60
65	29	87,853	28	61
66	28	85,816	27	63
67	27	67,139	26	64
68	28	76,806	26	65
69	20	49,160	19	66
70	15	39,445	14	68
71	15	34,507	13	67
72	9	19,238	9	68
73	15	33,821	14	68
74	13	28,159	13	72
75	16	38,480	16	71
76	15	27,987	13	74
77	15	26,168	13	74
78	14	24,418	13	75
79	8	12,858	7	75
80	9	14,893	7	76
81	9	15,925	7	79
82	5	8,024	2	78
83	5	8,154	3	79
84	6	9,991	5	81
85 & Over	17	28,981	12	82
Totals	951	\$ 2,697,072	862	

**DISABILITY PENSIONS BEING PAID DECEMBER 31, 2005
BY ATTAINED AGE**

Attained Ages	Number	Monthly Pensions	Number Married	Average Age of Spouse
34	2	\$4,758	1	30
35	1	2,481	1	30
37	2	4,660	2	34
38	3	6,799	2	33
39	3	5,902	1	39
40	1	1,821	1	49
41	4	9,605	3	40
42	4	8,921	4	39
43	1	2,664	1	38
44	2	5,585	2	45
45	5	11,742	5	44
46	4	10,654	3	41
47	5	11,571	3	47
48	8	21,212	5	49
49	4	10,327	4	43
50	2	5,622	2	52
52	3	7,342	3	50
53	3	6,706	2	50
54	3	7,877	3	48
55	1	1,592	1	50
56	3	7,652	2	54
57	6	11,481	5	54
58	1	2,199	1	58
59	3	6,789	2	53
61	2	4,841	1	63
62	2	3,600	2	61
63	1	2,226		
64	2	2,838	2	55
68	1	2,776	1	65
70	1	1,419	1	66
75	1	1,505	1	70
76	2	3,050	1	72
78	1	1,530	1	76
79	1	1,540	1	79
83	1	1,613	1	83
Totals	89	\$202,900	71	

DEPENDENTS BEING PAID AS OF DECEMBER 31, 2005
TABULATED BY ATTAINED AGE

Attained Ages	Number	Monthly Pensions
12 & Under	16	\$2,761
17	1	195
18	1	171
19	4	736
21	1	195
22	2	357
28	1	1,008
32	1	1,032
33	1	1,101
35	1	1,032
37	1	1,153
39	1	1,101
40	1	1,076
41	1	1,076
43	2	2,293
46	2	390
48	2	2,341
50	2	2,381
51	2	2,248
53	1	1,219
54	4	4,628
55	2	2,575
56	1	1,380
57	3	3,920
58	5	5,805
59	5	6,646
60	3	3,608
61	4	4,715
62	3	3,754
63	7	8,920
64	1	1,147
65	4	4,360
66	4	4,575
67	3	4,418
68	4	5,448
69	4	4,695
70	5	5,058
71	6	6,476
72	2	2,348
73	11	12,898
74	3	3,587
75	20	22,601
70-79	82	92,370
80-89	30	36,591
90 & Over	1	1,370
Totals	261	\$277,759

ACTIVE MEMBER VALUATION DATA, 1996 TO 2005

Actuarial Valuation as of December 31	Number of Active Members	Annual Payroll	Average Annual Salary	% Increase in Average Pay
1996	1,375	\$59,239,349	\$43,083	4.8 %
1997	1,445	62,233,299	43,068	(0.0)
1998	1,446	65,153,864	45,058	4.6
1999	1,445	66,017,381	45,687	1.4
2000	1,489	69,028,285	46,359	1.5
2001	1,520	76,344,002	50,226	8.3
2002	1,548	78,997,065	51,032	1.6
2003	1,542	81,737,962	53,008	3.9
2004	1,562	81,757,707	52,342	(1.3)
2005	1,573	83,408,155	53,025	1.3

RETIRANTS AND BENEFICIARIES VALUATION DATA, 1996 TO 2005

Actuarial Valuation as of December 31	Added to Rolls		Removed from Rolls		Number of People	Monthly Amounts Pensions	Average Amount
	No.	Monthly Benefits	No.	Monthly Benefits			
1996	113		28		911	\$1,402,909	\$1,540
1997	96		23		984	1,645,613	1,672
1998	96		20		1,060	1,914,091	1,806
1999	82		19		1,123	2,123,471	1,891
2000	78		27		1,174	2,300,464	1,960
2001	53	\$181,427	20	\$21,583	1,207	2,460,308	2,038
2002	55	184,301	31	41,501	1,231	2,603,108	2,115
2003	48	196,385	26	29,344	1,253	2,770,149	2,211
2004	58	287,345	29	34,153	1,282	3,023,341	2,358
2005	45	194,666	26	40,276	1,301	3,177,731	2,443

Of the 1,301 retirants and beneficiaries as of December 31, 2005, 951 are service retirees, 89 are disability retirees and 261 are survivor beneficiaries. The average monthly benefits are \$2,836 for service retirees, \$2,280 for disability retirees and \$1,064 for survivor beneficiaries.

**NUMBER OF RETIRED LIVES COVERED BY AETNA & OTHER CARRIERS
COMPARATIVE SCHEDULE**

	Census Date									
	12/05	12/04	12/03	12/02	12/01	12/00	12/99	12/98	12/97	12/96
Recipients:										
w/o Medicare A	806	808	791	773	771	761	724	656	589	534
Medicare A	437	411	394	386	368	346	339	337	333	322
Spouses:										
w/o Medicare A	375	373	403	483	471	447	429	373	354	324
w Medicare A	187	176	165	158	155	151	146	139	130	117
Dependent Children	127	130	129	111	105	110	107	75	70	59
Orphans	26	30	30	32	30	33	27	22	23	23
Total	1,958	1,928	1,912	1,943	1,900	1,848	1,772	1,602	1,499	1,379

A summary of recipients and dependents covered by AETNA and Medical Mutual of Ohio follows:

	AETNA		Medical Mutual		Total
	Network	Non-Network	Network	Non-Network	
2001	899	493	468	40	1,900
2002	880	491	516	56	1,943
2003	815	486	546	65	1,912
2004	783	494	568	83	1,928
2005	767	505	588	98	1,958

DEFERRED PENSIONS AS OF DECEMBER 31, 2005
TABULATED BY ATTAINED AGE

Attained Ages	Number	Monthly Pensions
43	1	\$3,354
45	1	2,417
46	2	6,639
47	3	7,190
50	2	2,803
51	2	5,912
Totals	11	\$28,315

A *deferred retirant* is a member who has left active service with at least 15 (and in most cases 20) years of service credit, and has not withdrawn his accumulated contributions. Such members are entitled to a pension upon attaining eligibility age.

SECTION F



Assumptions Used in the Valuation

APPENDIX

SUMMARY OF VALUATION METHOD AND ASSUMPTIONS DECEMBER 31, 2005

The actuarial assumptions used in the valuation are shown in this Appendix of the report. The assumptions were established for the December 31, 2005 actuarial valuation, following a 5-year experience study covering the period January 1, 2000 through December 31, 2004. They were adopted by the Board after obtaining the advice of the Actuary and other professionals.

Economic Assumptions

The investment return rate used in making the valuations was 8.0% per year, compounded annually (net after administrative expenses). The real rate of return is defined to be the portion of total investment return, which is more than the wage inflation rate. Considering other financial assumptions, the 8.0% investment return rate translates to an assumed real rate of return over wage growth of 4.0%. In order to assume a 4.0% real return over wage growth, it would be necessary to realize about a 5.0% real return over price inflation, after accounting for expenses and the difference between wage increases and price increases. Based on our experience with other public employee retirement systems, both nationally and statewide, and published results of national surveys, the assumed investment return rate remains reasonable. The current assumed rate probably would be close to the average for retirement systems with asset allocations similar to HPRS. The economic assumptions were last reviewed as part of the 5-year experience study for the period January 1, 2000 through December 31, 2004. It is scheduled to be reviewed again following the December 31, 2009 actuarial valuation.

Pay increase assumptions for individual active members are shown for sample ages on page F-4. Part of the assumed increase at each age is for merit and/or seniority, and the other 4.0% recognizes changes in wage levels due to broad economic effects, including inflation and real wage growth. No specific price inflation assumption is required to perform the actuarial valuation.

The active member payroll is assumed to increase 4.0% annually, which is the portion of the individual pay increase assumptions attributable to broad economic effects.

The number of active members is assumed to continue at the present number.

Non-Economic Assumptions

The mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were 105% of the RP-2000 Combined Healthy Male and Female Tables. This assumption was last reviewed and updated as part of the 5-year experience study for the period January 1, 2000 through December 31, 2004. As shown in that study, the current assumption allows some margin for future mortality improvement. It is scheduled to be reviewed again following the December 31, 2009 actuarial valuation. Related values are shown on page F-3.

The probabilities of age and service retirement are shown on page F-4.

The probabilities of withdrawal from service, disability and death-in-service are shown for sample ages on page F-4. For disability retirement, impaired longevity was recognized by basing benefit values on the RP-2000 Combined Healthy Male and Female Tables set-forward 10 years. Fifty percent of disability retirements are assumed to be non-duty related and fifty percent are assumed to be duty related.

The entry age normal actuarial cost method of valuation was used in determining liabilities and normal cost.

Differences in the past between assumed experience and actual experience (“actuarial gains and losses”) become part of actuarial accrued liabilities.

Unfunded actuarial accrued liabilities are amortized to produce payments (principal & interest), which are level percent of payroll contributions.

Employer contributions were assumed to be *paid in equal installments* throughout the employer fiscal year.

Present assets (cash & investments) were used with a market value adjustment that spreads differences between actual and assumed return over a closed four-year period. Funding value is not permitted to deviate from market value by more than 20%. Details of the method may be found in the body of the report on page D-3. Assets may be used in the valuation prior to the final audit.

The data about persons now covered and about present assets were furnished by the System’s administrative staff. Although examined for general reasonableness, the data was not audited by the Actuary.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (M.A.A.A.) who has experience performing public plan valuations.

SINGLE LIFE RETIREMENT VALUES
(8.00% INTEREST)

Sample Attained Ages	Present Value of \$1 Monthly for Life		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	\$135.03	\$138.31	30.37	33.14
55	127.41	131.75	25.76	28.47
60	117.65	123.20	21.35	23.95
65	105.90	112.81	17.24	19.72
70	92.57	100.81	13.54	15.86
75	77.83	87.41	10.27	12.40
80	62.54	72.92	7.50	9.38

The present values shown above are for illustrative purposes only and do not include the value of future post-retirement increases.

SEPARATIONS FROM ACTIVE EMPLOYMENT & SALARY SCALE

Sample Ages	Percent of Active Members Separating Within Next Year				Salary Increase Assumptions for an Individual Member			
	Disability	Death		Other	Service	Merit & Seniority	Base (Economic)	Increase Next Year
		Men	Women					
20	0.08%	0.02%	0.01%	2.57%	1-2	10.00%	4.00%	14.00%
25	0.08%	0.02%	0.01%	2.24%	3-5	3.00%	4.00%	7.00%
30	0.23%	0.02%	0.01%	1.91%	6-10	1.00%	4.00%	5.00%
35	0.42%	0.04%	0.02%	1.56%	11 & Up	0.30%	4.00%	4.30%
40	0.70%	0.05%	0.04%	0.84%				
45	0.85%	0.08%	0.06%	0.41%				
50	1.13%	0.11%	0.08%	0.15%				
55	1.32%	0.18%	0.14%	0.00%				

In the first year of employment, 8% of active members are assumed to terminate employment.

Probabilities of Age & Service Retirement		
Retirement Ages	Percents of Eligible Members Retiring Within Next Year with an Unreduced Benefit	Percents of Eligible Members Retiring Within Next Year with a Reduced Benefit
48	40%	7%
49	35%	7%
50	25%	7%
51	30%	7%
52	30%	
53	30%	
54	40%	
55	25%	
56	25%	
57	25%	
58	30%	
59	35%	
60 & Over	100%	

In addition, it was assumed that 100% of eligible members age 55 and older would retire upon attaining 34 years of service. A member was assumed eligible for unreduced retirement at age 48 or greater with 25 or more years of service or age 52 or greater with 20 or more years of service. A member was assumed eligible for reduced retirement at age 48 or greater with 20 or more years of service.

**ADDITIONS TO AND REMOVALS FROM ACTIVE MEMBERSHIP
ACTUAL AND EXPECTED NUMBERS**

Year Ended December 31	Number Added During Year		Retirement		Disability Retirement		Died-in Service		Other Terminations		Active Members
	A	E	A	E	A	E	A	E	A	E	
1996	5	87.3	64	64.1	6	3.5	3	1.8	12	17.9	1,375
1997	161	81.9	73	60.7	3	3.4	1	1.7	14	16.1	1,445
1998	109	72.7	74	49.1	7	3.5	0	1.6	27	18.5	1,446
1999	86	61.8	53	37.5	14	3.5	2	1.6	18	19.2	1,445
2000	120	55.7	42	31.2	8	3.5	1	1.5	25	19.5	1,489
2001	113	51.4	28	24.8	10	6.0	1	0.9	43	19.7	1,520
2002	92	53.8	35	26.7	3	6.2	0	0.9	26	20.0	1,548
2003	64	61.0	32	33.5	6	6.3	0	1.0	32	20.2	1,542
2004	90	63.6	39	36.5	4	6.5	1	1.0	26	19.6	1,562
2005	76	60.7	23	33.2	8	6.7	0	1.0	34	19.8	1,573
Total	916	649.9	463	397.3	69	49.1	9	13.0	257	190.5	

A: Actual

E: Expected

The following pages summarize the removals from active membership by age group and years of accrued service.

**AGE AND SERVICE RETIREMENTS
DURING CALENDAR YEAR 2005**

Age Group	Years of Accrued Service				Total
	15-19	20-24	25-29	30 Plus	
Under 20					
20-24					
25-29					
30-34					
35-39					
40-44					
45					
46					
47			1	1	2
48			5	3	8
49			1	1	2
50			1	3	4
51			1	1	2
52			1		1
53					
54			1	1	2
55				2	2
56					
57					
58					
59					
60 & Over					
Totals			11	12	23

**DISABILITY RETIREMENTS
DURING CALENDAR YEAR 2005**

Age Group	Years of Accrued Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Under 20								
20-24								
25-29								
30-34								
35-39		1	2	1				4
40-44								
45-49					1	1	1	3
50 & Over					1			1
Totals		1	2	1	2	1	1	8

**DEATH-IN-SERVICE TERMINATIONS
DURING CALENDAR YEAR 2005**

Age Group	Years of Accrued Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Under 20								
20-24								
25-29								
30-34								
35-39								
40-44								
45-49								
50 & Over								
Totals								0

**WITHDREW AND ELIGIBLE FOR DEFERRED BENEFIT TERMINATIONS
DURING CALENDAR YEAR 2005**

Age Group	Years of Accrued Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Under 20								
20-24								
25-29								
30-34								
35-39								
40-44					1	1		2
45-49						2		2
50 & Over						1		1
Totals					1	4		5

**WITHDREW AND PENDING CONTRIBUTIONS TERMINATION
DURING CALENDAR YEAR 2005**

Age Group	Years of Accrued Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Under 20								
20-24								
25-29								
30-34								
35-39								
40-44								
45-49								
50 & Over								
Totals								0

**WITHDREW AND REFUNDED TERMINATIONS*
DURING CALENDAR YEAR 2005**

Age Group	Years of Accrued Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Under 20								
20-24	3							3
25-29	2	3						5
30-34	8	2	1					11
35-39	2	1		1				4
40-44								
45-49								
50 & Over								
Totals	15	6	1	1				23

* In addition to the 23 terminations above, there were also 4 members who took a leave of absence and 2 members who transferred out of the System.

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Administrative Expenses:	Assumed investment return is net of administrative and investment expenses.
Marriage Assumption:	100% of participants are assumed to be married for purposes of death-in-service benefits.
Pay Increase Timing:	Beginning of year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Other:	Disability and turnover decrements do not operate during retirement eligibility. For death-in-service, two children are assumed to receive benefits for a 10-year period.
Miscellaneous Loading Factors:	A load of 0.75% of payroll is used of measure the effect of military service purchases.

SECTION G



Financial Principles and Operational Techniques

FINANCIAL PRINCIPLES AND OPERATIONAL TECHNIQUES OF THE RETIREMENT SYSTEM

Promises Made, and To Be Paid For. As each year is completed, the Retirement System in effect hands an “IOU” to each member then acquiring a year of service credit -- the “IOU” says: “The Ohio State Highway Patrol Retirement System owes you one year’s worth of retirement benefits, payments in cash commencing when you qualify for retirement.”

The principal related financial question is: When shall the money required to cover the “IOU” be contributed? This year, when the benefit of the member’s service is received? Or, some future year when the “IOU” becomes a cash demand?

The objective of level percent-of-payroll financing is that this year’s taxpayers contribute the money to cover the IOUs being handed out this year. By following this objective, *the employer contribution rate will remain approximately level from year to year* --- and will not have to be increased for future generations of taxpayers.

(There are systems which have a design for deferring contributions to future taxpayers, lured by a lower contribution rate now and putting aside the consequence that the contribution rate must then relentlessly grow much greater over decades of time.)

An inevitable by-product of the level-cost design is the accumulation of reserve assets, for decades, and the income produced when the assets are invested. *Invested assets are a by-product and not the objective.* Investment income becomes the 3rd contributor for benefits to employees, and is interlocked with the contribution amounts required from employees and employer.

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FINANCIAL PRINCIPLES AND OPERATIONAL TECHNIQUES OF THE RETIREMENT SYSTEM (CONCLUDED)

Translated to actuarial terminology, this level-cost objective means that the contribution rates must total at least the following:

Normal Cost (the value assigned to service being rendered this year)

. . . plus . . .

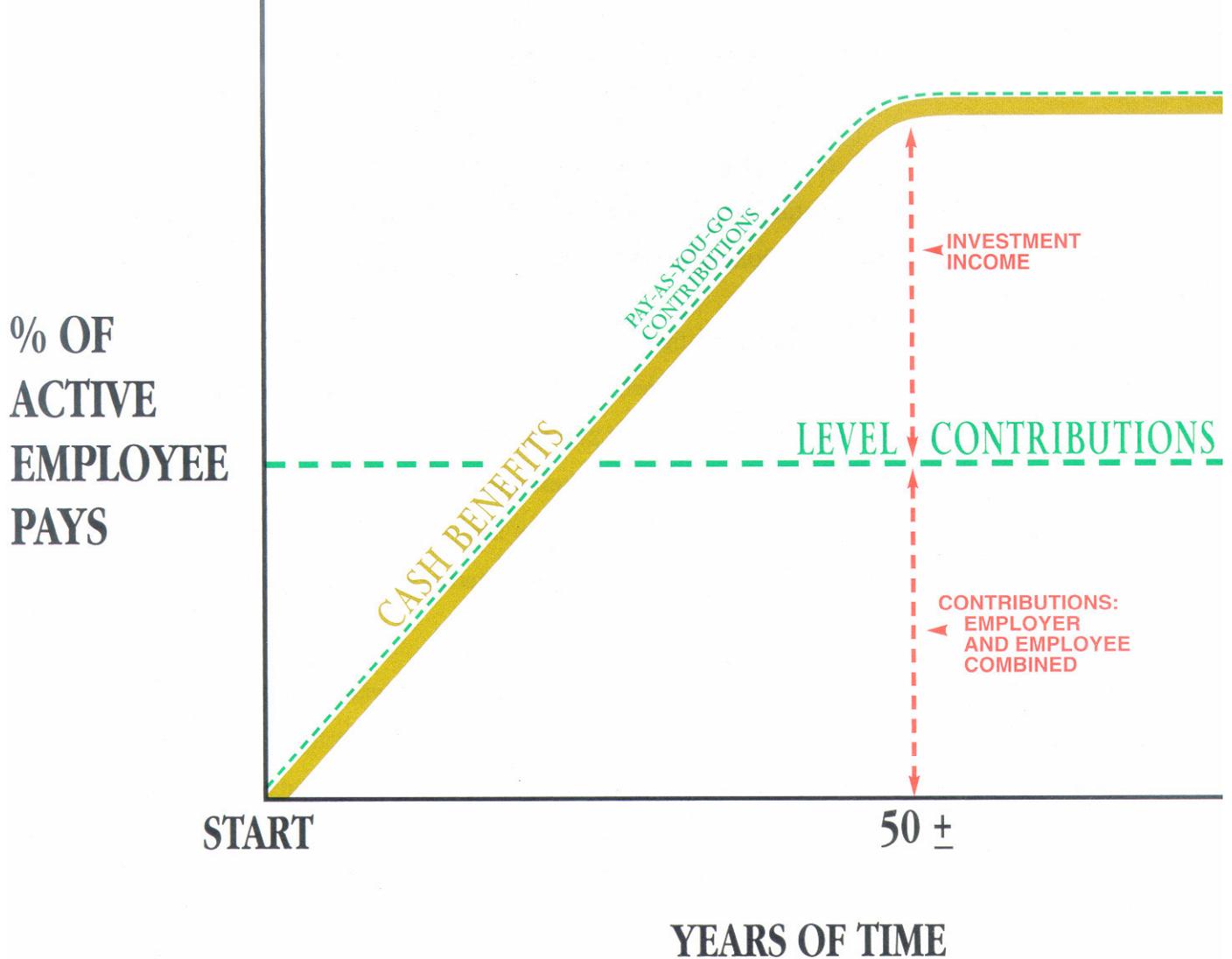
Interest on Unfunded Actuarial Accrued Liabilities (the difference between liabilities for service already rendered and the accrued assets of the Retirement System).

Computing Contributions To Support System Benefits From a given schedule of benefits and from the employee data and asset data furnished by the system, the actuary determines the contribution rates to support the benefits, by means of *an actuarial valuation*.

An actuarial valuation has a number of ingredients such as: the rate of investment return which plan assets will earn; the rates of withdrawal of active members who leave covered employment; the rates of mortality; the rates of disability; the rates of pay increases and the assumed age or ages at actual retirement.

In an actuarial valuation the actuary must assume what the above rates will be, for the next year and for decades in the future. Only the subsequent actual experience of the plan can indicate the degree of accuracy of the assumptions.

Reconciling Differences Between Assumed Experience and Actual Experience Once actual experience has occurred and has been observed, it will not coincide exactly with assumed experience, regardless of the skill of the actuary and the many calculations made. Most retirement systems cope with such differences by having annual actuarial valuations. Each actuarial valuation is a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The result is *continuing adjustments to the financial position*.



CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

Economic Risk Areas

- Rates of investment return
- Rates of pay increase
- Changes in active member group size

Non-Economic Risk Areas

- Ages at actual retirement
- Rates of mortality
- Rates of withdrawal of active members (turnover)
- Rates of disability

THE ACTUARIAL VALUATION PROCESS

The *actuarial valuation* is the mathematical process by which the contribution rate is determined, and the flow of activity constituting the valuation may be summarized as follows:

- A. ***Covered people data*** furnished by plan administrator, including:
 - Retired lives now receiving benefits
 - Former employees with vested benefits not yet payable
 - Active employees

- B. + ***Asset data*** (cash & investments), furnished by the plan administrator

- C. + ***Benefit provisions*** which specify eligibility and amounts of pensions

- D. + ***Assumptions concerning future experience in various risk areas***, which are established by the Retirement Board after consulting with the actuary

- E. + ***The funding method*** for employer contributions (the long-term, planned pattern for employer contributions)

- F. + ***Mathematically combining the assumptions, the funding method, and the data***

- G. = Determination of:
 - Plan Financial Position and/or
 - New Employer Contribution Rate

MEANING OF “UNFUNDED ACTUARIAL ACCRUED LIABILITIES”

“Actuarial accrued liabilities” are the portion of the present value of plan promises to pay benefits in the future that are not covered by future normal cost contributions. A liability has been established (“accrued”) because the service has been rendered but the resulting monthly cash benefit may not be payable until years in the future. Actuarial accrued liabilities are the result of complex mathematical calculations, which are made by the plan’s actuary.

If “actuarial accrued liabilities” exceed the plan’s accrued assets (cash & investments), the difference is *“unfunded actuarial accrued liabilities.”* This is the usual condition. If the plan’s assets equaled the plan’s “actuarial accrued liabilities,” then the plan would be termed “fully funded.” This is an unusual condition.

Each time a plan adds a new benefit, which applies to service already rendered, an “actuarial accrued liability” is created, which is also an “unfunded actuarial accrued liability” because the plan can’t print instant cash to cover the value of the new benefit promises. Payment for such unfunded actuarial accrued liabilities is spread over a period of years, commonly in the 20-50 year range.

Unfunded actuarial accrued liabilities can occur in another way: if actual plan experience is less favorable than assumed plan experience, the difference is added to unfunded actuarial accrued liabilities. In plans where benefits are directly related to an employee’s pay near time of retirement, unfunded actuarial accrued liabilities rose dramatically during the 1970’s. Unexpected rates of pay increase created additional actuarial accrued liabilities, which could not be matched by reasonable investment results. More recent experience has generally been more favorable with some reductions in unfunded actuarial accrued liabilities.

The existence of unfunded actuarial accrued liabilities is not bad, but the changes from year to year in the amount of unfunded actuarial accrued liabilities are important, --- “bad” or “good” or somewhere in between.

Even though unfunded actuarial accrued liabilities don’t constitute a bill payable immediately, it is important that policy-makers prevent the amount from becoming unreasonably high and *it is vital for plans to have a sound method for making payments toward them* so that they are controlled.

July 14, 2006

Mr. Richard Curtis
Director
Ohio State Highway Patrol Retirement System
6161 Busch Boulevard, Suite 119
Columbus, Ohio 43229

Dear Richard:

Enclosed are 20 bound copies of the December 31, 2005 actuarial valuation of the Ohio State Highway Patrol Retirement System.

An additional 10 unbound, 3-hole punched copies are enclosed for your convenience.

Sincerely,

Brian B. Murphy

BBM:dks:lr
Enclosures

cc: Kennedy, Cottrell & Associates LLC (+1 report copy).

Updated 4/12/2006

Kennedy, Cottrell & Associates LLC
ATTN: Mr. Bill Kennedy
383 North Front St.
1st Floor
Columbus, Ohio 43215