



PERSI

Public Employee Retirement System of Idaho

ACTUARIAL VALUATION
July 1, 2005

By

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October 18, 2005

Retirement Board
Public Employee Retirement System
State of Idaho
State House
Boise, ID 83720

Dear Members of the Board:

As requested, we have performed an actuarial valuation of the Public Employee Retirement System of Idaho. The major findings of the valuation are contained in this report. This report reflects the benefit provisions and contribution rates in effect as of July 1, 2005. It also discusses the impact of the potential discretionary March 1, 2006 COLA.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. In our examination of such data, we have found them to be reasonably consistent and comparable with data used for other purposes. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

We further certify that all costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations) and which, in combination, offer our best estimate of anticipated experience affecting the System. Nevertheless, the emerging costs will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions. The Retirement Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix A.



Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Actuarial computations under GASB Statements No. 25 and 27 are for purposes of fulfilling financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals, and of GASB Statements No. 25 and 27. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Any distribution of this report must be in its entirety including this cover letter, unless prior written consent from Milliman is obtained. Milliman's work product was prepared exclusively for the System for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning the System's operations, and uses the System's data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs. Any distribution of this report must be produced in its entirety including this cover letter unless prior written consent is obtained from Milliman.

We would like to express our appreciation to Alan Winkle, Executive Director of the System, and to members of his staff, who gave substantial assistance in supplying the data on which this report is based.

We respectfully submit the following report, and we look forward to discussing it with you.

We, Robert L. Schmidt and Karen I. Steffen, are Consulting Actuaries for Milliman. We are members of the American Academy of Actuaries, are Fellows of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

Robert L. Schmidt, FSA, EA, MAAA
Consulting Actuary

Karen I. Steffen, FSA, EA, MAAA
Consulting Actuary

RLS/KIS/pap/nlo

**Public Employee Retirement
System of Idaho**

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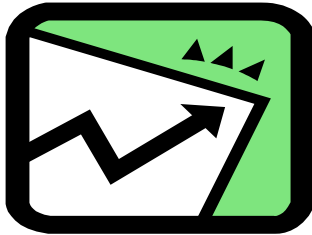
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**Public Employee Retirement
System of Idaho**

Section 1: Summary of the Findings



Our actuarial valuation of the System as of July 1, 2005 shows that the current schedule of contribution rates will meet the normal costs of the System as they accrue and will amortize the unfunded actuarial accrued liability (UAAL) in 6.2 years. This amortization period is less than the 25-year maximum permitted under Section 59-1322, Idaho Code.

One measure of the adequacy of the contribution rates is the funding ratio, which compares the value of the actuarial assets to the actuarial accrued liability. The following compares the 2004 and the 2005 valuations.

Including Effect of :	Funding Ratio	
	2004	2005
COLA commencing		
March 1, 2004	91.7%	
March 1, 2005	90.9% ⁽¹⁾	94.2%
March 1, 2006		93.2%

(1) Includes ROPP.

The funding ratio reflects the current value of the assets. For the 2004 valuation, the table shows the effect of the most recent discretionary COLA at March 1, 2005 including the Restoration of Purchasing Power Benefit (ROPP). For the 2005 valuation, the table shows the funded ratio with and without the potential COLA effective on March 1, 2006.

The 2005 actuarial valuation indicates that an actuarial gain of \$226.5 million occurred during the fiscal year just ended. This gain is based on the expected UAAL as of July 1, 2005 of \$733.1 million versus the actual UAAL of \$508.6 million. The gain was primarily due to investment gains, as reflected in the 10.34% investment yield for the past year. The effect of the gain can be distributed as shown in Table 1.

Table 2 illustrates the gains and losses incurred in the last three fiscal years.

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**Summary of the Findings
(continued)**

Change in Assumptions or Benefits

In fall of 2004, the Board delayed the contribution rate increases that had been scheduled for July 1, 2005 and July 1, 2006 to July 1, 2006 and July 1, 2007. In fall of 2005, the Board delayed the contribution rate increases again, to July 1, 2007 and July 1, 2008. The Board also granted a discretionary COLA and Restoration of Purchasing Power Benefit that took effect as of March 1, 2005. There have been no other changes in actuarial assumptions or plan benefits since the July 1, 2004 valuation.

Effect of Eliminating Future Contribution Rate Increases

If the contribution rate increases scheduled for July 1, 2005 and July 1, 2006 were cancelled, it would increase the time needed to amortize the Unfunded Actuarial Accrued Liability (UAAL). As of July 1, 2005 the amortization period would be 9.0 years prior to a discretionary COLA, and 10.9 years if the Board approved the full discretionary COLA effective March 1, 2006.

Discretionary COLAs

The System automatically provides a 1% increase in retirement benefits each year if the Consumer Price Index has increased by at least that amount. The Board is empowered to go beyond 1% and match the full increase in the CPI, up to a total of 6%, subject to rejection or amendment by the Legislature.

The CPI grew at a rate of 3.6% during the last year. The effect of the potential benefit increase beyond 1% is not reflected in the balance of this report, except as shown in Tables 8 and 10. The increase in actuarial liabilities due to the additional 2.6% potential discretionary increase is \$92.8 million.

Demographic Experience

In comparing the actual experience of the System during the past twelve months with the expected experience under the actuarial assumptions, a net actuarial gain occurred as shown in Table 1. In addition to the three major elements of actuarial experience gains and losses (investments, salaries, and membership growth), we also analyzed the termination of the active members by cause, as follows:

	Termination by Cause		Ratio
	Actual	Expected	A/E
Termination of Employment			
Non Vested	3,647	2,932	1.24
Vested	1,576	1,224	1.29
Retirement	1,399	1,576	0.89
Disability	108	91	1.19
Death	30	132	0.23

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**Summary of the Findings
(continued)**

**Public Employee Retirement
System of Idaho**

Table 1: Gains and Losses for the Year Ended July 1, 2005

	Actuarial Accrued Liability ⁽¹⁾ (in millions)	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability (in millions)	Funded Ratio	Amort. Period (years)
July 1, 2004 Valuation	\$8,091.3	\$7,420.2	\$671.1	91.7%	7.8
Effect of March 1, 2005 2.7% COLA	53.8		53.8		
July 1, 2004 Valuation with COLA	\$8,145.1	\$7,420.2	\$724.9	91.1%	8.5
Effect of March 1, 2005 0.8% ROPP	21.4		21.4		
Expected as of July 1, 2004 with ROPP	\$8,166.5	\$7,420.2	\$746.3	90.9%	8.7
Expected Change Between Valuation Dates ⁽²⁾	536.3	549.5	(13.2)		
Expected at July 1, 2005	\$8,702.8	\$7,969.7	\$733.1	91.6%	8.2
Effect of Contribution Rate Change Delay (Increases moved to July 1, 2007 and 2008)	2.0	-	2.0		
Effect of Actuarial Experience Gains and Losses:					
▪ Investments [Gain]	-	239.1	(239.1)		
▪ Salaries [Gain]	(88.5)	-	(88.5)		
▪ Membership Growth [Loss]	12.4	-	12.4		
▪ Return to Employment [Loss]	3.9	-	3.9		
▪ Social Security Option Data Corrections [Loss]	28.7	-	28.7		
▪ Retired Member Experience [Gain]	(4.3)	-	(4.3)		
▪ Active and Inactive Member Experience [Loss]	59.7	-	59.7		
▪ Actuarial Methodology Adjustments [Loss]	0.7	-	0.7		
Total Experience Gains and Losses	12.6	239.1	(226.5)		
July 1, 2005 Valuation Results	\$8,717.4	\$8,208.8	\$508.6	94.2%	6.2
Effect of Potential March 1, 2006 3.6% COLA	92.8	-	92.8		
Results at July 1, 2005 with COLA	\$8,810.2	\$8,208.8	\$601.4	93.2%	7.3

(1) Amounts are net of expected future ORP Contributions.

(2) Includes impact of delay in contribution rate increases to July 1, 2006 and July 1, 2007.

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**Summary of the Findings
(continued)**

**Table 2: Analysis of Actuarial Gains and Losses
(All Dollar Amounts in Millions)**

	<u>Gain (Loss) for Period</u>		
	<u>2002-2003</u>	<u>2003-2004</u>	<u>2004-2005</u>
Investment Income			
Investment income was greater (less) than expected	(274.5)	650.8	239.1
Pay Increases			
Pay increases were less (greater) than expected	169.0	133.9	88.5
Membership Growth			
(Additional) liability for new members	(10.1)	(12.5)	(12.4)
Return to Employment			
Less (more) reserves were required for terminated members returning to work	(5.3)	(7.0)	(3.9)
Death After Retirement			
Retirees died younger (lived longer) than expected	11.4	6.9	4.3
Other			
Miscellaneous gains (and losses) resulting from other causes ⁽¹⁾	<u>(37.7)</u>	<u>16.6</u>	<u>(88.4)</u>
Total Gain (Loss) During the Period From Actuarial Experience	(147.2)	788.7	227.2
Contribution Income			
Actual contributions were greater (less) than the normal cost and interest on the Unfunded Actuarial Accrued Liability	(32.5)	(58.2)	13.2
Non-Recurring Items			
Changes in actuarial assumptions caused a gain (loss)	None	(165.3)	None
Changes in actuarial methods caused a gain (loss)	27.3	4.1	(0.7)
Changes in plan provisions caused a gain (loss) ⁽²⁾	<u>13.5</u>	<u>8.5</u>	<u>(2.0)</u>
Composite Gain (Loss) During the Period	(138.9)	577.8	237.7

Note: Effects related to losses are shown in parentheses. Numerical results are expressed as a decrease (increase) in the actuarial accrued liability.

- (1) For 2003-2004, this includes a \$16.6 million gain on active and inactive member experience. For 2004-2005, this includes a \$28.7 million loss due to data corrections on Social Security Option Benefits, and \$59.7 million loss for active and inactive member experience.
- (2) For 2003-2004, this includes an \$8.5 million gain due to the scheduled contribution rate increases on July 1, 2006. For 2004-2005, this includes a \$2.0 million loss due to the delay in the scheduled contribution rate increases.

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Contribution Rates

In November 2002, the Board approved three 1% contribution rate increases to take effect on July 1, 2004, July 1, 2005 and July 1, 2006. The total rate increase of 1% each year is split between the employer and employee contributions.

In November 2004, the Board delayed the scheduled rate increases for July 1, 2005 and July 1, 2006 to July 1, 2006 and July 1, 2007.

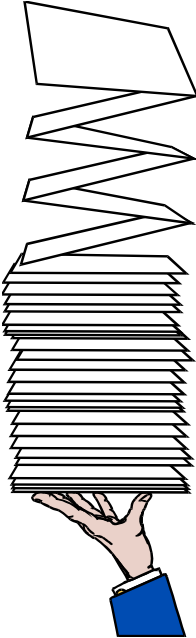
In the fall of 2005, the Board delayed the contribution rate increases again, to July 1, 2007 and July 1, 2008.

Gain Sharing

Beginning in 2000, under Section 59-1309, Idaho Code, the Board may allocate all or a portion of “extraordinary gains” to active and retired members and employers as Gain Sharing. Extraordinary gains are defined as the excess, if any, at the close of the fiscal year of the Assets over Actuarial Liabilities plus an amount necessary to absorb a one standard deviation market event without increasing contribution rates, as determined by the Board. Under the Board’s current investment policy, assets in excess of a 113% funded ratio are considered extraordinary gains. Therefore, no assets are available for gain-sharing as of July 1, 2005.

Public Employee Retirement System of Idaho

Section 2: Scope of the Report



This report presents the actuarial valuation of the Public Employee Retirement System of Idaho as of July 1, 2005. This valuation was requested by the System's Board.

Your particular attention is called for in reading our cover letter, where we refer to the guidelines employed in the preparation of this report. We also comment on the sources and reliability of both the data and the actuarial assumptions upon which our findings depend. Those comments are the basis for our certification that this report is complete and accurate to the best of our knowledge and belief.

A summary of the findings resulting from this valuation is presented in the previous section. Section 3 describes the assets and investment experience of the System. Sections 4 and 5 describe how the obligations of the System are to be met under the actuarial cost method in use. Section 6 discloses the information required under Statement No. 25 of the Governmental Accounting Standards Board (GASB). Section 7 shows the estimated cash flow of future retirement benefit payments, based on the actuarial assumptions and a distribution of retired members by year of retirement.

In addition to this report, we annually provide the PERSI staff a supplemental report with more detail on the membership data and the actual assumptions.

This report includes several appendices:

- Appendix A A summary of the actuarial procedures, and assumptions.
- Appendix B A summary of the current benefit structure based on governing law on July 1, 2005.
- Appendix C Schedules of valuation data classified by various categories; a brief summary of the System's recent experience; and comparative statistics since June 30, 1968.
- Appendix D A glossary of actuarial terms used in this report.

Public Employee Retirement System of Idaho

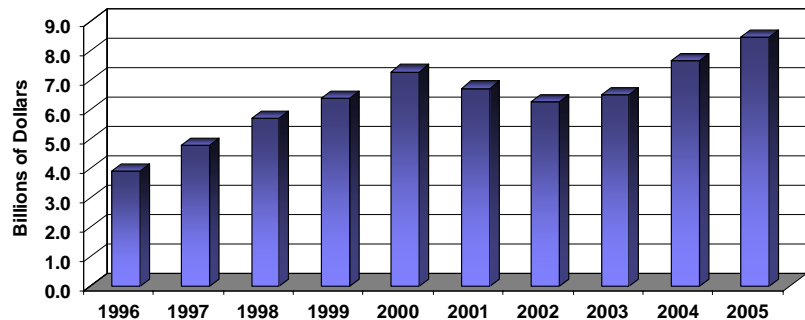
Section 3: Assets



In many respects, an actuarial valuation can be thought of as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is July 1, 2005. On that date, the assets available for the payment of benefits are appraised. These assets are compared with the actuarial liabilities, which are generally well in excess of the assets. The actuarial process thus leads to a method of determining what contributions by members and their employers are needed to strike a balance.

This section of the report deals with the asset determination. In the next section, the actuarial liabilities will be discussed. Section 5 deals with the process for determining required contributions based on the relationship between the assets and actuarial liabilities.

Total Actuarial Assets



At July 1, 2005, the actuarial value of assets was \$8.454 billion. Table 3 presents a summary of the System's assets, and Table 4 presents an analysis of the investments.

The increase in the actuarial value of total assets has been over 217% since 1996. The chart on the previous page illustrates this growth.

Tables 3 through 6 are derived from data furnished to us by the Retirement System. We have accepted these tables for use in this report without audit, but we have reviewed them for reasonableness and consistency with previous reports.

The net assets at June 30, 2005 of \$8,453,798,770 shown in Tables 3 and 5 include assets used in plan operations and assets held for the Firefighters' Retirement Fund and the Idaho Falls Policemen's Retirement Fund. The allocation of the fund is shown at the bottom of Table 3.

The yield rates shown at the top of Table 6 on both a market and an actuarial valuation basis are net of investment expenses, but not net of administrative expenses. The summary at the bottom of Table 6 shows the annual yields before expenses, net of investment expenses, and net of both investment and administrative expenses. Each yield should be compared with the appropriate actuarial assumption shown in the left column. The yield on the actuarial valuation basis, net of all expenses, is 10.24% for the year ending June 30, 2005, which is comparable with the actuarial assumption, net of all expenses, of 7.25% for the fiscal year ended June 30, 2005.

**Public Employee Retirement
System of Idaho**

Table 3: Summary of Assets

	<u>July 1, 2005</u>	<u>July 1, 2004</u>
Assets		
Cash	\$ 3,631,830	\$ 3,319,118
Investments at Fair Value	8,707,502,568	7,702,033,786
Investments Sold	819,110,168	712,838,249
Contributions	5,016,365	5,013,335
Interest and Dividends	35,832,354	32,972,138
Assets Used in Plan Operations, Net	3,516,630	4,550,368
Retiree Payroll in Process	27,754,259	24,930,718
Other Prepaids	<u>-</u>	<u>-</u>
Total Assets	\$ 9,602,364,174	\$ 8,485,657,712
Liabilities		
Accrued Liabilities	\$ 7,469,231	\$ 5,706,575
Benefits and Refunds Payable	63,069	492,672
Due to Other Funds	1,293,652	1,280,632
Investments Purchased	<u>1,139,739,452</u>	<u>829,687,740</u>
Total Liabilities	\$ 1,148,565,404	\$ 837,167,619
Net Assets	\$ 8,453,798,770	\$ 7,648,490,093
Allocation of Net Assets		
Total Assets Held for PERSI Pension Benefits	\$ 8,208,805,768	
Firefighters' Retirement Fund Assets	227,222,470	
Idaho Falls Police Retirement Fund Assets	14,253,902	
Assets Used in Plan Operations	<u>3,516,630</u>	
Total Assets Held by PERSI	\$ 8,453,798,770	

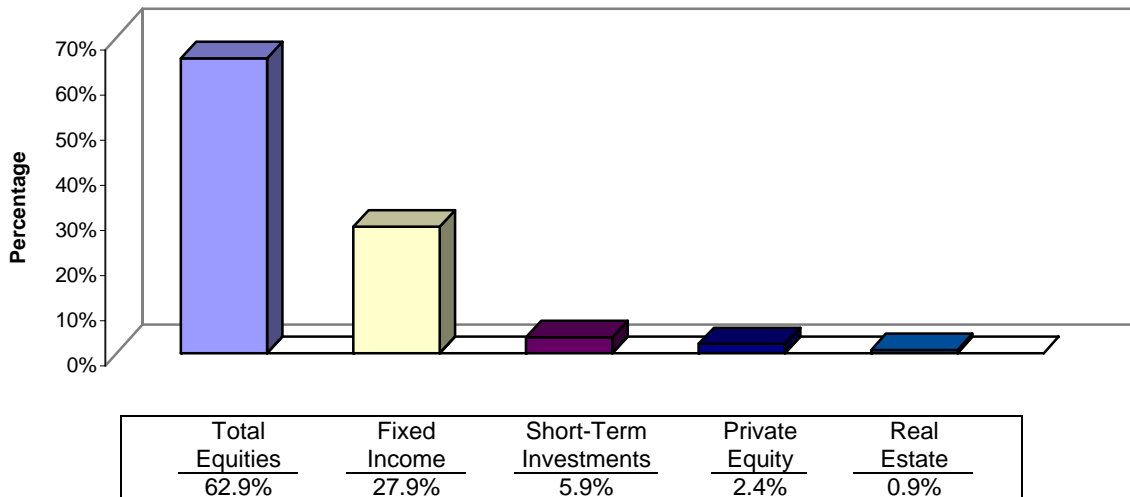
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**Public Employee Retirement
System of Idaho**

**Table 4: Analysis of Investments
July 1, 2005**

	<u>Valuation Basis ⁽¹⁾</u>	<u>Percentage</u>
Fixed Income Investments		
Domestic	\$ 2,109,342,804	24.2%
International	56,856,833	0.7%
Idaho Commercial Mortgages	<u>259,948,499</u>	<u>3.0%</u>
Total Fixed Income	2,426,148,136	27.9%
Short Term Investments	512,080,017	5.9%
Real Estate	79,337,278	0.9%
Equity Securities		
Domestic	3,643,594,295	41.8%
International	<u>1,834,994,073</u>	<u>21.1%</u>
Total Equities	5,478,588,368	62.9%
Private Equity	211,348,769	<u>2.4%</u>
Total Investments	\$ 8,707,502,568	100.0%

(1) The actuarial valuation basis for all types of assets was set equal to the market value effective June 30, 1994.



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**Public Employee Retirement
System of Idaho**

Table 5: Reconciliation of Assets

	<u>Inception to June 30, 2004</u>	<u>July 1, 2004 to June 30, 2005</u>	<u>Inception to June 30, 2005</u>
Investment Return:			
Income from Stock	\$ 916,824,574	\$ 118,897,995	\$ 1,035,722,569
Interest	1,752,366,390	106,957,188	1,859,323,578
Capital Gains (realized and unrealized)	3,625,809,046	595,040,150	4,220,849,196
Other Investment Income	<u>132,254,839</u>	<u>3,743,687</u>	<u>135,998,526</u>
Total Investment Return	\$ 6,427,254,849	\$ 824,639,020	\$ 7,251,893,869
Employer Contributions	\$ 3,437,950,521	\$ 247,842,553	\$ 3,685,793,074
Member Contributions	2,013,597,192	145,727,272	2,159,324,464
Miscellaneous	10,248,141	149,317	10,397,458
Transfers In	<u>16,901</u>	<u>-</u>	<u>16,901</u>
Total Revenue	\$ 11,889,067,604	\$ 1,218,358,162	\$13,107,425,766
Administrative Expense	\$ 77,552,202	\$ 7,115,594	\$ 84,667,796
Investment Expense	277,155,286	33,402,798	310,558,084
Benefit Payments and Refunds	3,829,287,909	372,531,093	4,201,819,002
Transfers Out	<u>56,582,114</u>	<u>-</u>	<u>56,582,114</u>
Total Expenditures	\$ 4,240,577,511	\$ 413,049,485	\$ 4,653,626,996
Net Assets, Beginning of Period	\$ -	\$ 7,648,490,093	\$ -
Total Revenue	<u>11,889,067,604</u>	<u>1,218,358,162</u>	<u>13,107,425,766</u>
	\$ 11,889,067,604	\$ 8,866,848,255	\$13,107,425,766
Less Total Expenditures	<u>4,240,577,511</u>	<u>413,049,485</u>	<u>4,653,626,996</u>
Net Assets, End of Period	\$ 7,648,490,093	\$ 8,453,798,770	\$ 8,453,798,770

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**Public Employee Retirement
System of Idaho**

Table 6: Analysis of Investment Yield

	July 1, 2004 to June 30, 2005	
	Actuarial Basis	Market Basis
Investment Return	\$ 824,639,020	\$ 824,639,020
Less Investment Expenses	<u>33,402,798</u>	<u>33,402,798</u>
Net Return	\$ 791,236,222	\$ 791,236,222
Mean Assets for Period	\$ 7,651,492,822	\$ 7,651,492,822
Annual Yield	10.34%	10.34%

Analysis of Investment Yield - Net of All Expenses

	Summary of Annual Yields for Year Ending June 30, 2005		
Expense Basis	Actuarial Assumption	Actuarial Basis	Market Basis
Gross – Before Expenses	7.75%	10.80%	10.80%
Net of Investment Expenses	7.40%	10.34%	10.34%
Net of All Expenses	7.25%	10.24%	10.24%

Notes:

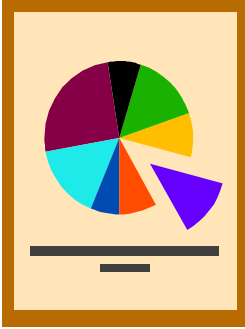
1. *Investment return: See Tables 3, 4, and 5 for data used in this table.*
2. *Mean assets for period = 1/2 (beginning net assets + ending net assets - net return). Net assets exclude assets used in plan operations.*
3. *Total yield = (Total investment return less investment expenses)/mean assets.*
4. *Market basis time-weighted yields net of investment expenses for various periods ended June 30, 2005 are:*

2 years	13.93%	20 years	9.61%
3 years	10.28%	25 years	10.03%
5 years	3.07%	30 years	9.42%
10 years	9.16%	35 years	8.81%
15 years	9.13%	40 years	7.40%
5. *Plan assets differ for each expense basis, so differences between bases are not comparable.*

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Public Employee Retirement System of Idaho

Section 4: Actuarial Liabilities



In the previous section, an actuarial valuation was compared with an inventory process, and an analysis was given of the inventory of assets of the System as of the valuation date, July 1, 2005. In this section, the discussion will focus on the commitments of the System, which are referred to as its actuarial liabilities.

Table 7 contains an analysis of the actuarial present value of all future benefits for contributing members and for former contributing members and their survivors. The analysis is given by type of benefit, by gender, and by class of membership.

The actuarial liabilities summarized in Table 7 include the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member, this value includes measures of both benefits already earned and future benefits to be earned. For all members, active and retired, the value extends over benefits earnable and payable for the rest of their lives and, if an optional benefit is chosen, for the lives of the surviving beneficiaries.

The actuarial assumptions are based on the results of the 2004 Investigation of Experience Report. New assumptions were adopted by the Board effective July 1, 2004.

All liabilities reflect the benefits in effect on July 1, 2005. No further increases are considered in determining the liabilities shown, except for Tables 8 and 10, which indicate the liabilities for the potential March 1, 2006 discretionary COLA benefits.

**Public Employee Retirement
System of Idaho**

**Table 7: Actuarial Present Value of Future Benefits for Contributing Members and Former Contributing Members and Their Survivors
(All amounts in millions)**

July 1, 2005

Contributing Members	Fire & Police	General Employees		Teachers		Grand Total
		Male	Female	Male	Female	
Service Retirement and Unreduced Early Retirement	\$ 774.9	\$1,046.3	\$1,134.0	\$ 746.4	\$1,418.9	\$5,120.5
Reduced Early Retirement	161.9	405.5	525.0	293.8	676.5	2,062.7
Vested Retirement	42.1	75.3	117.1	37.9	87.3	359.7
Disability Retirement	32.9	70.3	49.0	29.7	56.1	238.0
Death	29.4	73.0	37.1	34.3	39.7	213.5
Refunds of Member Contributions ⁽¹⁾	<u>30.1</u>	<u>40.9</u>	<u>49.3</u>	<u>9.8</u>	<u>15.0</u>	<u>145.1</u>
Total	\$1,071.3	\$1,711.3	\$1,911.5	\$1,151.9	\$2,293.5	\$8,139.5
 Former Contributing Members & Survivors						
Service Retirement	\$ 324.7	\$ 783.2	\$ 592.8	\$ 621.9	\$ 630.9	\$2,953.5
Disability Retirement	9.8	31.8	34.8	12.0	31.4	119.8
Survivors' Benefits	13.6	8.9	83.2	8.6	39.4	153.7
All Other Benefits	<u>27.5</u>	<u>96.3</u>	<u>135.3</u>	<u>46.6</u>	<u>74.0</u>	<u>379.7</u>
Total	\$ 375.6	\$ 920.2	\$ 846.1	\$ 689.1	\$ 775.7	\$3,606.7
Grand Total	\$1,446.9	\$2,631.5	\$2,757.6	\$1,841.0	\$3,069.2	\$11,746.2

(1) Including all benefits provided by voluntary contributions.

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Public Employee Retirement System of Idaho

Section 5: Employer Contributions



The previous two sections were devoted to a discussion of the assets and actuarial liabilities of the System. Comparison of Tables 3 and 7 indicates that current assets fall short of meeting the actuarial liabilities. This is expected in all but a fully closed down fund, where no further contributions of any sort are anticipated.

In an active system, there will always be a difference between the actuarial assets and liabilities. This deficiency has to be made up out of future contributions and investment returns. An actuarial valuation method sets out a schedule of future contributions that will deal with this deficiency in an orderly fashion.

The method used to determine the incidence of the contributions in various years is called the actuarial cost method. For this valuation, the entry age actuarial cost method has been used. Under this method — or essentially any actuarial cost method — the contributions required to meet the difference between current assets and current actuarial liabilities are allocated each year between two elements:

- A normal cost amount, which ideally is relatively stable as a percentage of salary over the years; and
- Whatever amount is left over, which is used to amortize what is called the unfunded actuarial accrued liability.

The two items described above — the normal cost and unfunded actuarial accrued liability — are the keys to understanding the actuarial cost method.

Normal Cost

The normal cost is the theoretical contribution rate that will meet the ongoing costs of a group of average new employees. Suppose that a group of new employees was covered under a separate fund from which all benefits and to which all contributions and associated investment returns were paid. Under the entry age actuarial cost method, the normal cost contribution rate is that level percentage of pay that would be exactly right to maintain this fund on a stable basis. If experience were to follow the actuarial assumptions precisely, the fund would be completely liquidated when the last payment to the last survivor of the group has been made.

**Normal Cost
(continued)**

We have determined the normal cost rates for the System separately by class of employee and by type of benefit. These rates are summarized in Table 9. The normal cost rates in Table 9 reflect the actuarial assumptions adopted by the Board effective July 1, 2004, and the July 1, 2005 total contribution rate of 16.84%. They do not include the impact of scheduled increases as of July 1, 2007 and July 1, 2008. In Line D of Table 10, we have adjusted the normal cost rates from Table 9 to reflect anticipated future contribution rate increases as described in the footnotes. Once the July 1, 2008 rate increase is reflected in the normal cost rates, these rates will remain the same until a change is made to the contribution rates, the benefit formula, or the actuarial assumptions.

**Unfunded
Actuarial Accrued
Liability**

The term "fully funded" is often applied to a system in which contributions for everyone at the normal cost rate are sufficient to pay for the benefits of existing employees as well as for those of new employees. More often than not, systems are not fully funded, either because of past benefit improvements that have not been completely paid for or because of actuarial deficiencies that have occurred because experience has not been as favorable as anticipated. Under these circumstances, an unfunded actuarial accrued liability (UAAL) exists.

**Amortization of
UAAL or Funding
Reserve**

However, even if a system does not have a positive UAAL, a portion or all of the normal cost contribution payments will need to be continued in order to have sufficient funds to pay future benefits. The use of the term "fully funded" may imply no further contributions are required at all. Therefore, a better term is a "well-funded" plan. This occurs when the value of the assets exceeds the actuarial accrued liability and the difference is referred to in the PERSI funding policy as the Funding Reserve.

Table 8 shows how the UAAL or Funding Reserve was derived for the System. Line A shows the total actuarial liability for all future benefits. The portion of the future liability expected to be paid from future normal cost contributions, both employer and employee, is shown on Line B. The difference between lines A and B is the System's actuarial accrued liability as of the actuarial valuation date.

The UAAL at any date after establishment of a system is affected by any actuarial gains or losses arising when the actual experience of the system varies from the experience anticipated by the actuarial assumptions used in the valuations. To the extent actual experience, as it develops, differs from that expected according to the assumptions used, so also will the emerging costs differ from the estimated costs disclosed in this report.

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ORP Contributions

Under Idaho Code 33-107A each institution participating in the optional retirement program (ORP) is required to pay an amount equal to 3.03% of salaries of their ORP participants to PERSI. This amount is to be paid until July 1, 2015. Likewise, under Idaho Code 33-107B each community college and post-secondary vocational education institution is required to pay an amount equal to 3.83% of salaries of their ORP participants to PERSI. This amount is to be paid until July 1, 2011. These payments from the ORP employers are in lieu of amortization payments and withdrawal contributions otherwise required under PERSI. Line D shows the present value of these future ORP contributions. The difference between the future ORP contributions and the computed actuarial accrued liability is the portion of the actuarial accrued liability that is expected to be funded by PERSI assets and contributions.

Line F in Table 8 indicates the actuarial value of assets. The excess of the actuarial accrued liability for PERSI in Line E over the actuarial assets is the UAAL for PERSI as shown on Line G.

Funding Adequacy

A key consideration in determining the adequacy of the funding of the System is how the UAAL is being serviced. If the UAAL amount is positive, that is the actuarial accrued liability to be funded is greater than the assets, then the UAAL is amortized. Idaho law calls for the UAAL to be liquidated in no more than 25 years. Table C-5 (Appendix C) illustrates, for historical comparison purposes only, the contribution rates on a 30-year amortization basis through 1992 and the contribution rates on the 25-year amortization basis beginning in 1993.

From July 1, 1998 to July 1, 2000, there was no UAAL, and the actuarial value of the assets exceeded the value of the actuarial accrued liability to be funded by PERSI, resulting in a Funding Reserve. However, asset losses for the year ending July 1, 2001 resulted in the re-emergence of a UAAL. The UAAL also grew during the years ending July 1, 2002 and July 1, 2003, due to further asset losses. The UAAL decreased during the years ending July 1, 2004 and July 1, 2005 due to asset gains. The dollar amount of the UAAL is \$508.6 million prior to the adoption of the potential March 1, 2006 COLA benefits. Based on the contribution rate (including scheduled increases) of 18.82% and a normal cost rate of 14.03%, we estimate that the remaining 4.79% of pay will amortize the UAAL amount of \$508.6 million over 6.2 years.

**Discretionary COLA
Increases**

The costs of providing future automatic postretirement increases of 1% per year are included in the “pre-adjustments” amounts shown in Table 8. The Board may, subject to modification or rejection by the Legislature, grant discretionary increases of an additional 5% per year, provided that the total percentage increase does not exceed the percentage change in the Consumer Price Index (CPI) and that the increase can be supported by the assets of the System. The CPI grew at a rate of 3.6% during the year.

The Board did not adopt a discretionary COLA effective March 1, 2003. In 2004, the Board granted a restoration of purchasing power benefit and full discretionary COLA, so members currently have 100% reflection of prior discretionary COLA's. The purchasing power of retired members' benefits in the future will depend on future discretionary increases.

The March 1, 2006 potential discretionary postretirement benefit increases would increase the actuarial present value of all future benefits by \$92.8 million. Thus, the July 1, 2005 Post-adjustment amounts shown on lines A, C, E, and G in Table 8 have been increased by that amount.

Gain Sharing

The cost of providing the Gain Sharing allocation, if any, is also included in the “post-adjustments” amounts shown in Table 8. Beginning in 2000, under Section 59-1309, Idaho Code, the Board may allocate all or a portion of “extraordinary gains” to active and retired members and employers as Gain Sharing. Extraordinary gains are defined as the excess, if any, at the close of the fiscal year of the Assets over Actuarial Accrued Liabilities plus an amount necessary to absorb a one standard deviation market event without increasing contribution rates, as determined by the Board. Under the Board's current investment policy, assets in excess of a 113% funded ratio are considered extraordinary gains. Since the funding ratio as of July 1, 2005 is less than 100%, no assets are available for consideration for Gain Sharing.

Funding Policy

Table 10 shows the effect on the valuation of the statutory requirement that member contribution rates must always be a fixed percentage of the employer contribution rate (72% for fire and police and 60% for other employees). Effective July 1, 2003, the employer contribution rate for fire and police members is set at 0.34% higher than for general members, reflecting 0.24% for the 1993 changes in disability provisions for fire and police members and 0.10% for the 2003 addition of a \$100,000 death benefit for fire and police members who die in the line of duty.

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Employer Contributions (continued)

Funding Policy (continued)

The Board has set the total contribution rate to gradually increase to 18.82% effective July 1, 2008. Under this contribution rate, which is in excess of the required normal cost rate, the size of the UAAL will be expected to decrease. A continuation of a total rate in excess of the normal cost rate is expected to meet the criteria of the Board's Funding Policy. The revised Funding Policy was adopted September 29, 1998 and establishes guidelines for the Board in setting contribution rates. Several of the funding goals under this Policy include establishing a range of safety, while maintaining a stable contribution rate and a well funded status. As shown in Table 10, the 18.82% contribution rate (scheduled to take effect on July 1, 2008) will permit the Board to achieve these goals, since the UAAL amortization period is less than 25 years, as required by statute.

The schedule of expected member and employer contribution rates by class is shown below.

	<u>Fire and Police</u>	<u>General and Teachers</u>	<u>Combined 2004 Mix</u>
July 1, 2005 Rates:			
Employer	10.73%	10.39%	10.43%
Member	7.65%	6.23%	6.41%
Total	18.38%	16.62%	16.84%
July 1, 2007 Rates:			
Employer	11.34%	11.00%	11.04%
Member	8.09%	6.60%	6.79%
Total	19.43%	17.60%	17.83%
July 1, 2008 Rates:			
Employer	11.95%	11.61%	11.66%
Member	8.53%	6.97%	7.16%
Total	20.48%	18.58%	18.82%

Note the expected total rates vary due to shifting of the members between fire and police and general and teachers groups.

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GASB ARC

Table 10 also shows the ARC as determined in accordance with the GASB Statement 25 requirements (see Section 6). Under these guidelines, a positive UAAL must be amortized over a period of no more than 30 years for the fiscal years commencing after June 15, 2006. Under the Board's policy, a maximum 25-year period is used for GASB disclosure purposes. With any change in the total contribution rate, the member contribution rates will change as well due to the 60% (72%) fixed percentage requirements mentioned above. As shown on Line D of Table 10, this requirement causes the normal cost rate and the dollar amount of the UAAL to depend on the assumed contribution rate or chosen funding period. The change in the member rate increases the actuarial present value of the projected future refunds of contributions upon termination of employment, which produces a change in the total normal cost rate.

Public Employee Retirement System of Idaho

**Table 8: Unfunded Actuarial Accrued Liability on Current Contribution Basis
(All amounts in millions)**

	Valuation Date: July 1, 2005		Valuation Date: July 1, 2004	
	Funding Basis: <u>Pre-Adjustments⁽¹⁾</u>	<u>Post-Adjustments⁽²⁾</u>	<u>Pre-Adjustments</u>	<u>Post-Adjustments</u>
A. Actuarial Present Value of all Future Benefits for Contributing Members, Former Contributing Members, and Their Survivors (Table 7)	\$ 11,746.2	\$ 11,839.0	\$11,044.2	\$ 11,098.0
B. Actuarial Present Value of Total Future Normal Costs for Present Members	<u>2,967.5</u>	<u>2,967.5</u>	<u>2,889.4</u>	<u>2,889.4</u>
C. Actuarial Accrued Liability [A - B]	\$ 8,778.7	\$ 8,871.5	\$ 8,154.8	\$8,208.6
D. Present Value of Future ORP Contributions	<u>61.3</u>	<u>61.3</u>	<u>63.5</u>	<u>63.5</u>
E. Actuarial Accrued Liability Funded by PERSI Contributions [C-D]	8,717.4	8,810.2	8,091.3	8,145.1
F. Actuarial Value of Assets Available for Benefits	<u>8,208.8⁽³⁾</u>	<u>8,208.8</u>	<u>7,420.2</u>	<u>7,420.2</u>
G. UAAL (Funding Reserve) [E - F]	\$ 508.6	\$ 601.4	\$ 671.1	\$ 724.9
H. Amortization Period on Valuation Date Based on Contribution Rate Established as of Benefit Date	6.2 Years	7.3 Years	7.8 Years	8.5 Years
I. Funded Ratio [F/E]	94.2%	93.2%	91.7%	91.1%

(1) Includes the scheduled 1% increases in the combined employee / employer contribution rates at July 1, 2007 and July 1, 2008.

(2) Recognizes the cost of the potential March 1, 2006 postretirement COLA increases: 3.6% (\$92.8 million) in line A.

(3) The total available assets are \$8,453.8 million (Table 3), but are reduced by \$245.0 million for assets used in plan operations and funds earmarked to provide excess benefits to former members of the Firefighters' Retirement Fund and the Idaho Falls Police Retirement Fund. See Table 3.

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Public Employee Retirement System of Idaho

Table 9: Normal Cost Rates on Current Contribution Basis ⁽¹⁾

July 1, 2005

	Fire & Police	General Employees		Teachers		Total Rate
		Male	Female	Male	Female	
Service Retirement and Unreduced Early Retirement	9.98%	5.23%	5.69%	6.66%	7.43%	6.75%
Reduced Early Retirement	2.97	3.28	3.83	4.47	4.99	3.97
Vested Retirement	1.06	1.02	1.41	1.01	1.17	1.16
Disability Retirement	0.75	0.68	0.44	0.56	0.60	0.59
Death	0.46	0.49	0.24	0.43	0.27	0.36
Refunds of Member Contributions	1.42	1.30	1.35	0.68	0.60	1.07
Total	16.64%	12.00%	12.96%	13.81%	15.06%	13.90%
Less Member Contributions	7.65	6.23	6.23	6.23	6.23	6.42
Employer Normal Cost Rate	8.99%	5.77%	6.73%	7.58%	8.83%	7.48%

Analysis of Member Contributions

Member Contributions	7.65%	6.23%	6.23%	6.23%	6.23%	6.42%
Less Expected Refunds	1.42	1.30	1.35	0.68	0.60	1.07
	6.23%	4.93%	4.88%	5.55%	5.63%	5.35%

(1) The Normal Cost Rates shown above are based on member contribution rates as of July 1, 2004. It does not include the impact of scheduled increases as of July 1, 2007 and July 1, 2008.

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Public Employee Retirement System of Idaho

Table 10: Recommended Contribution Rates as a Percentage of Total Salary

Funding Basis:	Valuation Date:	July 1, 2005		
	July 1, 2004	Pre-Adjustments ⁽²⁾	Post-Adjustments ^{(2) (3)}	Minimum Contribution Rate ⁽⁴⁾
A. Employer Contribution Rate	11.66%	11.66%	11.66%	9.37%
B. Member Contribution Rate	7.16	7.16	7.16	5.76
C. Total Contribution Rate [A + B]	18.82%	18.82%	18.82%	15.13%
D. Total Normal Cost Rate	14.03	14.03	14.03	13.79
E. Amount Available to Amortize Liability [C - D]	4.79%	4.79%	4.79%	1.34%
F. Dollar Amount of UAAL in Millions (if negative, Funding Reserve) ⁽⁵⁾	\$724.9	\$508.6	\$601.4	\$539.4
G. Amortization Period Measured from Valuation Date	8.5 years	6.2 years	7.3 years	25.0 years

(1) Reflects the scheduled 1% combined employer / employee contribution rate increases at July 1, 2005 and July 1, 2006.

(2) Includes the scheduled 1% combined employer / employee contribution rate increases at July 1, 2007 and July 1, 2008.

(3) Recognizes the cost of the potential March 1, 2006 postretirement COLA increases: 3.6% (\$92.8 million).

(4) Per the Board's policy, the UAAL is amortized over a 25-year period for GASB disclosure purposes. The minimum contribution rate permitted by statute would not permit the total rate to be less than the normal cost rate.

(5) Reflects only the amount funded by PERSI contributions. Excludes the present rate of 3.03% of salaries of university members in the Optional Retirement Plan (ORP) until 2015 and 3.83% of salaries of junior college members in the ORP until 2011. The present value of these expected contributions is \$61.3 million.

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Public Employee Retirement System of Idaho

Section 6: Accounting Information



For fiscal years beginning after June 15, 1996, GASB reporting standards are required for defined benefit pension plan reporting and disclosures (Statement No. 25). The System adopted the new reporting standards beginning in 1996.

The reporting requirements for Statement No. 25 include certain supplementary information that must be added to the financial statements. These include:

- (1) A Schedule of Funding Progress
- (2) A Schedule of Employer Contributions

The Schedule of Funding Progress compares actuarial assets and liabilities of the System, based on the actuarial funding method used. The required Schedule of Employer Contributions compares the employer contributions required based on the actuarial valuation (the actuarial required contribution, or ARC) with the employer contributions actually made. The ARC must be calculated based on certain parameters required for disclosure purposes.

We believe the actuarial methods and assumptions used in this valuation to determine the employer's contribution for funding purposes satisfy the GASB reporting requirements.

For fiscal years beginning after June 15, 1997, GASB Statement No. 27 is required for pension accounting by state and local governmental employers. The System is a cost sharing multiple employer defined benefit plan. The only disclosures required by Statement No. 27 by employers is a description of the pension plan and the funding policy adopted to fund the plan benefits, including the required contribution rates.

The comparability of the data from year to year can be affected by changes in actuarial assumptions, benefit provisions, accounting policies, etc. Between July 1, 2004 and July 1, 2005, the contribution rate increases scheduled for July 1, 2005 and July 1, 2006 were delayed to July 1, 2006 and July 1, 2007. In fall 2005 the contribution rate increases scheduled were delayed again to July 1, 2007 and July 1, 2008. The Board adopted discretionary benefit increases effective March 1, 2005. No other significant changes occurred.

Public Employee Retirement System of Idaho

Table 11: Schedule of Funding Progress
(All dollar amounts in millions)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities (AAL)⁽¹⁾	Present Value of Future ORP Contributions	Unfunded Actuarial Liabilities (UAAL)⁽²⁾	Funded Ratio⁽³⁾	Covered Payroll⁽⁴⁾	UAAL as a Percentage of Covered Payroll
July 1, 1996	\$ 3,761.2	\$ 4,461.5	\$ 60.8	\$ 639.5	85.5%	\$ 1,497.4	42.7%
July 1, 1997	4,609.8	4,801.9	63.2	128.9	97.3	1,575.5	8.2
July 1, 1998	5,488.2	5,060.0	65.7	(493.9)	109.9	1,627.7	(30.3)
July 1, 1999	6,171.9	5,536.8	68.9	(704.0)	112.9	1,733.5	(40.6)
July 1, 2000	7,032.9	6,105.1	70.5	(998.3)	116.5	1,827.2	(54.6)
July 1, 2001	6,492.8	6,751.3	72.2	186.3	97.2	1,975.3	9.4
July 1, 2002	6,062.1	7,209.5	71.7	1,075.7	84.9	2,047.1	52.5
July 1, 2003	6,297.8	7,578.8	66.4	1,214.6	83.8	2,057.7	59.0
July 1, 2004	7,420.2	8,154.8	63.5	671.1	91.7	2,115.4	31.7
July 1, 2005	8,208.8	8,778.7	61.3	508.6	94.2	2,208.7	23.0

(1) Actuarial present value of benefits less actuarial present value of future normal costs based on entry age actuarial cost method.

(2) Actuarial accrued liabilities less actuarial value of assets and present value of future ORP contributions. Amounts reported in this table do not include the value of any discretionary COLA or Gain Sharing allocations granted after the valuation date. If negative, amount is referred to as a funding reserve.

(3) Funded Ratio is the ratio of the actuarial value of assets over the actuarial accrued liabilities less the present value of future ORP contributions.

(4) Covered Payroll includes compensation paid to all active employees on which contributions are calculated. Covered Payroll differs from the Active Member Valuation Payroll shown in Table C-1, which is an annualized compensation of only those members who were active on the actuarial valuation date.

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Public Employee Retirement System of Idaho

Table 12: Solvency Test
(All dollar amounts in millions)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities for			Portion of Actuarial Accrued Liabilities Covered by Assets		
		Active Member Contributions (A)	Retirees and Beneficiaries (B)	Active Members (Employer Financed Portion) (C)	(A)	(B)	(C)
July 1, 1996	\$ 3,761.2	\$ 941.2	\$ 1,471.7	\$ 2,048.6	100.0%	100.0%	65.8%
July 1, 1997	4,609.8	1,019.5	1,617.0	2,165.4	100.0	100.0	91.1
July 1, 1998	5,488.2	1,089.7	1,766.1	2,204.2	100.0	100.0	100.0
July 1, 1999	6,171.9	1,158.1	1,978.1	2,400.6	100.0	100.0	100.0
July 1, 2000	7,032.9	1,329.7	2,173.8	2,601.6	100.0	100.0	100.0
July 1, 2001	6,492.8	1,502.0	2,487.6	2,761.7	100.0	100.0	90.6
July 1, 2002	6,062.1	1,622.4	2,665.3	2,921.8	100.0	100.0	60.7
July 1, 2003	6,297.8	1,677.8	2,882.9	3,018.1	100.0	100.0	57.6
July 1, 2004	7,420.2	1,717.7	3,198.1	3,239.0	100.0	100.0	77.3
July 1, 2005	8,208.8	1,875.1	3,606.7	3,296.9	100.0	100.0	82.7

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Public Employee Retirement System of Idaho

Table 13: Schedule of Contributions from the Employer and Other Contributing Entities (All dollar amounts in millions)

Fiscal Year Ending	Covered Employee Payroll ⁽¹⁾	Actual PERSI Employer Contributions in Dollars ⁽²⁾	Actual ORP Contributions in Dollars	Total Actual Employer Contributions	Annual Required Contribution (ARC) ⁽³⁾	Percentage of ARC Dollars Contributed
6/30/00	\$ 1,827.2	\$ 179.1	\$ 3.8	\$ 182.9	\$ 155.7	117%
6/30/01	1,975.3	193.6	4.3	197.9 ⁽⁵⁾	152.2	130
6/30/02	2,047.1	200.6	4.9	205.5	155.1	132
6/30/03	2,057.7	201.7	5.0	206.7	188.3	110
6/30/04	2,115.4	207.3	5.3	212.6	218.8	97
6/30/05	2,208.7	230.4	5.8	236.2	236.7	100

Table 14: Schedule of Contributions from the Employer Expressed as a Percentage of Payroll

Fiscal Year Ending	Actual PERSI Employer Contribution % ⁽²⁾	Annual Required Contribution (ARC) % ⁽³⁾	Percentage of ARC Contributed
6/30/00	9.80%	8.315%	117%
6/30/01	9.80	7.490	130
6/30/02	9.80	7.335	132
6/30/03	9.80	8.910	110
6/30/04	9.80	10.093	97
6/30/05	10.43	10.453 ⁽⁴⁾	100

(1) Computed as the dollar amount of the actual PERSI employer contribution made as a percentage of payroll divided by the Actual PERSI contribution rate, expressed as a percentage of payroll.

(2) The actual PERSI employer contributions are expressed as a percentage of payroll. Employer contributions are made as a percentage of actual payroll in accordance with statute and the Board's Funding Policy. Thus, the actual employer contributions set by both statute and the Board's Funding Policy may differ from the computed ARC employer contribution rate for GASB disclosure purposes. Dollar amounts shown exclude additional receipts due to merger of retirement systems.

(3) For PERSI employers, the Annual Required Contribution (ARC) is equal to the normal cost rate plus a 25-year amortization of any Unfunded Actuarial Accrued Liability or minus a 25-year amortization of any Funding Reserve amount. The ARC determined as of the valuation date is applicable for employer fiscal years commencing October 1, of the calendar year following the valuation date. For Optional Retirement Plan (ORP) employers, the ARC is equal to 3.03% of salaries of university members in the ORP until 2015 and 3.83% of salaries of junior college members in the ORP until 2011.

(4) See Table C-5 for further disclosures. The ARC of 10.453% for the PERSI fiscal year ending June 30, 2005 is based on three months at 10.31% as computed in the 2002 valuation and 9 months at 10.50% as computed in the 2003 valuation.

(5) Includes \$77,690,500 of gain sharing credits. Actual cash contributions were \$120,220,992.

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Public Employee Retirement System of Idaho

Section 7: Supplemental Information

Cash-Flow Projections

Table 15 summarizes the historical cash flows for PERSI and the projected cash flows for the next 10 years. Contributions include both employer and member contributions. The table shows that net cash flow has been decreasing in recent years. This is a typical pattern in the maturing of a retirement system. At some point, contributions will be less than benefits and the System will begin drawing on the fund that has been built. The projection shows that benefits are expected to exceed contributions beginning in next year. When the scheduled contribution rate increases take effect it will partially offset the trend but the cash flow is projected to strongly negative in the next ten years.

The historical cash flows include contributions made for Optional Retirement Program (ORP) members as well as contributions, expenses and excess benefits paid by the Firefighters Retirement Fund and the Idaho Falls Police Retirement Fund prior to 1996.

The historical and projected cash flows include PERSI contributions, benefits and expenses. They are based on the actuarial assumptions as stated in Appendix A. The contribution rate is assumed to increase to 18.82% by July 1, 2008 and remain at that level for the remainder of the ten-year projection. Expenses are based on the expenses for the year ended June 30, 2005, increased annually with the actuarial inflation assumption of 3.75%. Any increases in future contribution rates will increase net cash flow. The projected cash flows do not include:

- Projected contributions for ORP members
- Projected benefits payable to the spouses of disabled members
- Projected benefits to currently inactive members
- Future discretionary COLA payments, including the potential March 1, 2006 COLA
- Future discretionary Gain Sharing allocations

Distribution of Retired Members

Table 16 shows two charts. The top chart illustrates the average monthly benefit payment for each group of retired members, based on the year of retirement. The bottom chart illustrates the number of members receiving a monthly benefit as of July 1, 2005, based on the year of retirement. Although the PERSI was not established until 1965, the older Teachers Retirement System was merged into PERSI in 1967, which accounts for years of retirement prior to 1965.

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**Public Employee Retirement
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**Table 15: Cash Flow History and Projections
(All dollar amounts in millions)**

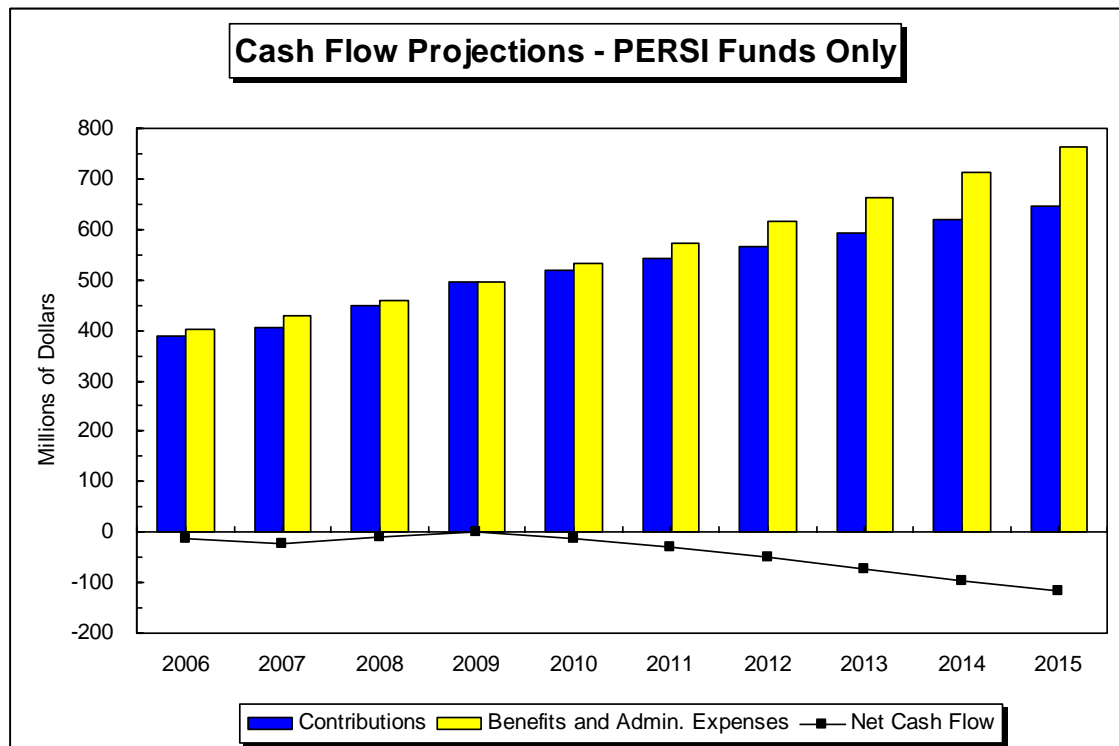
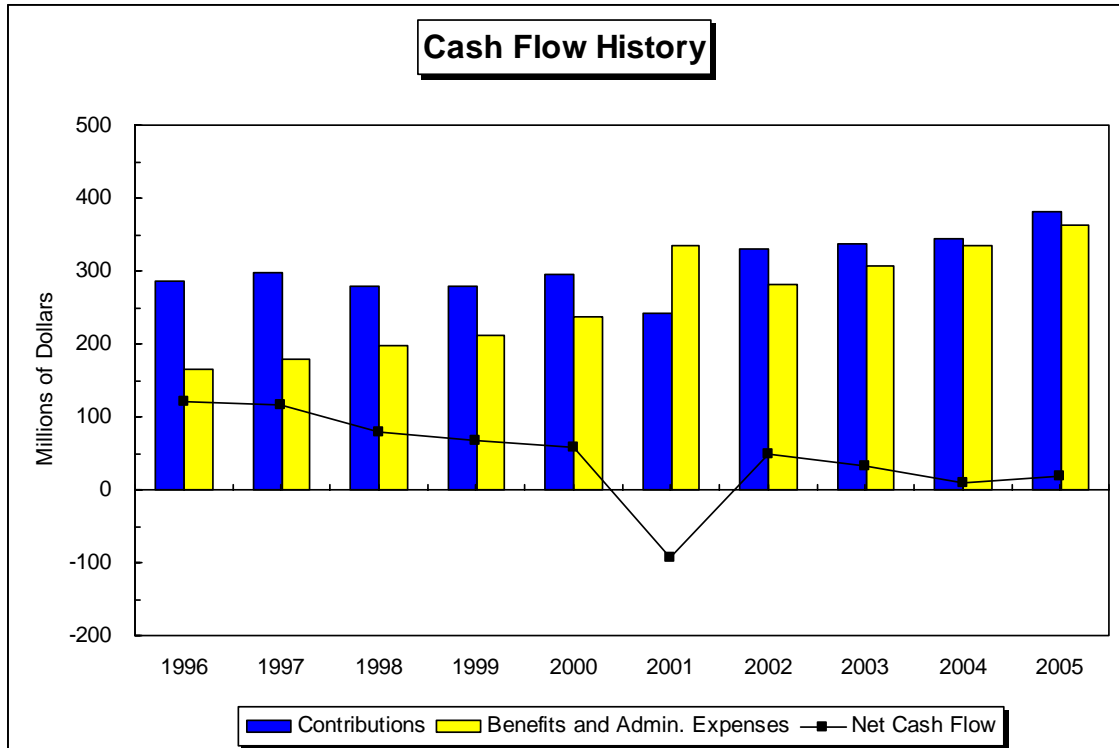
Year	Historical Cash Flows		
	Contributions	Benefits & Administrative Expenses	Net Cash Flow
1996	286	166	120
1997	297	180	117
1998	278	198	80
1999	279	212	67
2000	295	237	58
2001	245 ⁽¹⁾	336 ⁽²⁾	(94)
2002	330	282	48
2003	338	306	32
2004	344	334	10
2005	382	363	19

Year	Projected Cash Flows (PERSI Funds Only)		
	Contributions ⁽³⁾	Benefits & Administrative Expenses ⁽⁴⁾	Net Cash Flow ⁽⁵⁾
2006	389	402	(13)
2007	406	429	(23)
2008	449	460	(11)
2009	496	494	2
2010	518	531	(13)
2011	541	572	(31)
2012	566	616	(50)
2013	591	663	(72)
2014	618	713	(95)
2015	646	764	(119)

- (1) Contributions for 2001 do not reflect \$78 million in employer Gain Sharing credits.
- (2) Benefits and administrative expenses for 2001 reflect Gain Sharing payments of \$59 million for active members and \$19 million for retired members.
- (3) Projected contributions are based on the current contribution schedule, increasing to 18.82% July 1, 2008.
- (4) Projected expenses are based on expenses for FYE 2005 and the annual inflation assumption of 3.75%.
- (5) A negative cash flow means a portion of the fund's investment income will need to be used to cover expected benefit payments. This could impact the fund's future asset allocations and asset liquidity needs.

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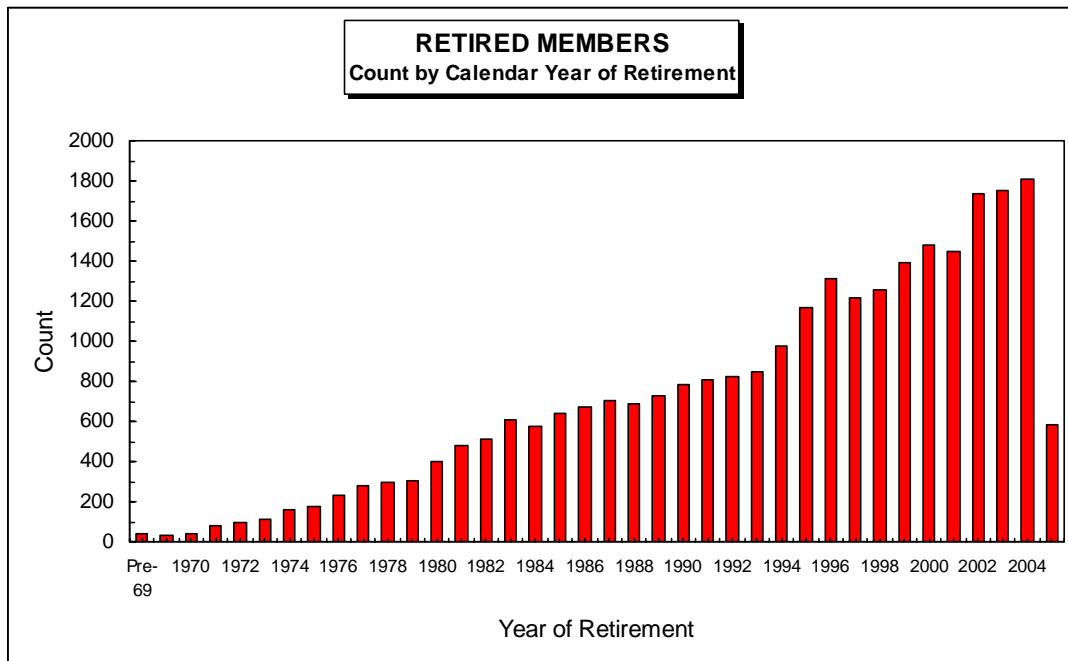
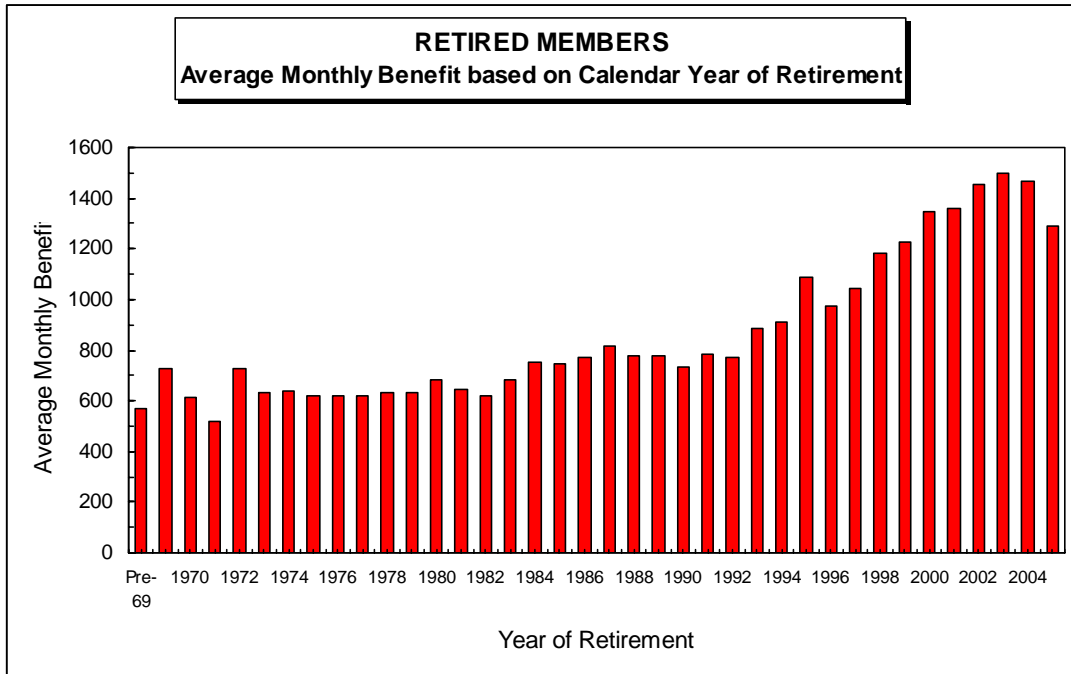
Public Employee Retirement System of Idaho



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Public Employee Retirement System of Idaho

Table 16: Distribution of Retired Members by Calendar Year of Retirement



2005 reflects only a partial year of retirements.

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Public Employee Retirement System of Idaho

Appendix A: Actuarial Procedures and Assumptions



The actuarial procedures and assumptions used in this valuation are described in this section. The assumptions for the investment return, general wage growth, inflation, merit wage increases, rates of retirement, rates of disability, and rates of termination for other reasons were changed July 1, 2004 as a result of our 2004 Investigation of Experience Study.

The actuarial assumptions used in the valuations are intended to estimate the future experience of the members of the System and of the System itself in areas that affect the projected benefit flow and anticipated investment earnings. Any variations in future experience from that expected from these assumptions will result in corresponding changes in the estimated costs of the System's benefits.

Table A-1 summarizes the assumptions. The mortality rates are taken from the sources listed. The other rates were developed from the experience of the System and are illustrated in Tables A-7 through A-13, as noted.

Tables A-2 through A-4 show how current active members are expected to leave active status. Subgroups by age and employment class are analyzed according to the expected termination cause, based on the actuarial assumptions used in this valuation.

Tables A-5 and A-6 present the expected annual percentage increase in salaries. Table A-13 presents the probability of refund of contributions upon termination. The other tables in this section give central rates of decrement expressed as percentages. The central rates of decrement are referred to in actuarial notation by the general symbol "m.." The underlying theory is described more fully in Jordan, *Life Contingencies*, Society of Actuaries (Second Edition, 1967), page 273.

**Actuarial Cost
Method**

The actuarial valuation is prepared using the entry age actuarial cost method. Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit. The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future normal costs is called the unfunded actuarial accrued liability (UAAL). The UAAL, if positive, is amortized as a level percentage of the projected salaries of present and future members of the System (and ORP) during various amortization periods.

The normal cost rates used in this valuation were calculated based on all current active members as of July 1, 2004, for each sex and type of employee in that valuation. The actuarial present values of projected benefits and of projected salaries for all active members were calculated. The ratio of the two is the aggregate normal cost rate. Under current Board policy, the normal cost rate will not change unless there is a change in benefits or assumptions. Separate normal cost rates for each sex and type of employee are shown in Table 9. The separate rates are for illustrative purposes and are not used otherwise in the actuarial valuation.

Records and Data

The data used in this valuation consist of financial information and the age, service, and income records for contributing and former contributing members and their survivors. All of the data were supplied by the System and are accepted for valuation purposes without audit but were reviewed for reasonableness.

**Growth in
Membership**

For benefit determination purposes, no growth in the membership of the System is assumed. For funding purposes, the total payroll of covered members is assumed to grow due to the combined effects of future wage increases of current active members and the replacement of the current active members by new employees. No growth in the total number of active members is assumed.

Employer Contributions	The employer contribution rate has been set by the Retirement Board effective July 1, 2004 at 10.73% for fire and police members and 10.39% for general members. This valuation includes the impact of scheduled contribution rate increases approved by the Board, effective July 1, 2007 and July 1, 2008. See Section 5 discussion of funding policy.
ORP Contributions	Until July 1, 2015, 3.03% of the university ORP members' salaries will be used to finance the actuarial accrued liability. Until July 1, 2011, 3.83% of the junior college ORP members' salaries will be used to finance the actuarial accrued liability.
Member Contributions	The member contribution rate is set by law to be 60% of the employer contribution rate for all members except fire and police members, whose member contribution rate is set at 72% of the employer rate (prior to the 0.1% increase for the death benefit for fire and police members). As of July 1, 2004, the general member rate is 6.23% and the fire and police rate is 7.65%. This valuation includes the impact of scheduled rate increases effective July 1, 2007 and July 1, 2008. See Section 5 discussion of funding policy.
Valuation of Assets	All assets are valued at market as of the valuation date. The market-value valuation basis for all assets was effective July 1, 1994.
Investment Earnings and Expenses	The future investment earnings of the assets of the System are assumed to accrue at an annual rate of 7.75%, compounded annually. Investment earnings of 0.50% are assumed sufficient to cover the expenses of the System, allocated 0.35% for investment expenses and 0.15% for general administrative expenses. These rates were adopted July 1, 2004.
Postretirement Benefit Increases	A nondiscretionary postretirement increase of 1% per year is assumed for the primary valuation. The report also shows the estimated cost of a potential discretionary increase effective March 1, 2006.

**Interest on
Employee
Contributions**

The credited interest rate on employee contributions is assumed to be 7.25%, the current investment return assumption. The actual credited interest rate will depend on the returns earned by the System's assets. Prior to July 1, 2000, the Board adopted a policy to credit interest during each calendar year equal to the greater of: 1) PERSI's actual rate of return, net of expenses for the prior fiscal year (ending June 30), or 2) a rate based on US Treasury Bills.

Gain Sharing

The report shows the cost of Gain Sharing, if any, to be distributed in Tables 1, 8, and 10. Gain Sharing is reflected as a reduction in assets. No Gain Sharing is available for 2006.

Future Salaries

The rates of annual salary increase assumed for the purpose of the valuation are illustrated in Tables A-5 and A-6. In addition to increases in salary due to promotions and longevity, this scale includes an assumed 4.50% per annum rate of increase in the general wage level of the membership, adopted July 1, 2004.

Retirement

After members attain age 55 (50 for fire and police) and have five years of service, they may retire early with a reduced benefit. These early retirement rates are shown in Table A-9.

During the year after first satisfying the age and service requirements for unreduced benefits, whether for service or early retirement, members are assumed to retire at the rates shown in Table A-7. After the first year of eligibility, members are assumed to retire at the rates shown in Table A-8.

All general members who attain or who have attained age 75 in active service and all other members who have attained age 70 in active service are assumed to retire immediately.

The assumptions regarding termination of employment, early retirement, and unreduced service retirement are treated as a single set of decrements with regard to a particular member. For example, a teacher member hired at age 30 could be expected to possibly withdraw from the System due to death, disability, or other termination of employment until age 55. After age 55, the member could still withdraw due to death or disability. From age 55-60, the member could also withdraw with an early retirement and a reduced benefit as shown in Table A-9. At age 60 (Rule of 90), the member is first eligible to retire with an unreduced benefit. The probability of retiring at age 60 is shown in Table A-7. Thereafter, the probabilities of retirement for this member are indicated in Table A-8.

**Retirement
(continued)**

Thus, in no year during the member's projected employment would more than one of the decrements shown in Tables A-12, A-7, A-8, or A-9 be applied.

Tables A-7, A-8, and A-9 probabilities were revised July 1, 2004.

Disablement

The rates of disablement used in the valuation are illustrated in Table A-10. These rates were revised July 1, 2004.

**Mortality – Other
Than Disabled
Members**

Several different sets of mortality rates are used in the valuation for contributing members, members retired for service, and beneficiaries. These rates are illustrated in Table A-11. These rates were adopted July 1, 1998.

Teachers

Males 1994 Group Annuity Mortality Table for males, set back two years.

Females 1994 Group Annuity Mortality Table for females, set back one year.

Fire and Police

Males 1994 Group Annuity Mortality Table for males with no offset.

Females 1994 Group Annuity Mortality Table for females, set forward two years.

For deaths of active Fire and Police members, 20% are assumed to be duty related.

General Employees and All Beneficiaries

Males 1994 Group Annuity Mortality Table for males with no offset.

Females 1994 Group Annuity Mortality Table for females, set back one year.

**Mortality – Disabled
Members**

For disabled members, the mortality rates used in the valuation are the rates from the 1983 Railroad Retirement Board Totally Disabled Annuitants Mortality Table, with no adjustment for males and with a ten-year age setback for females. These rates are illustrated in Table A-11. These rates were adopted July 1, 1992.

**Other Employment
Terminations**

Table A-12 shows the rates assumed in this valuation for future withdrawal from active service for reasons other than death, disability, or retirement with an unreduced benefit. These rates were revised July 1, 2004.

Terminating employees may withdraw their contributions immediately upon termination of employment and forfeit the right to further benefits, or they may leave their contributions with the System. Former contributing members whose contributions are on deposit may later elect to receive a refund, may return to work, or may remain inactive until becoming eligible to receive a retirement benefit.

All terminating members who are not eligible for vested benefits are assumed to withdraw their contributions immediately.

Table A-13 gives the assumed probabilities that vested members will withdraw their contributions immediately upon termination. These rates were adopted July 1, 2004.

Note: Effective July 1, 1985, certain police officers were reclassified and included in the general employee group. For this class of members, the actuarial assumptions are the same as those shown for fire and police, except for the disablement rates, which are assumed to follow the general member rates.

**Probability of
Marriage**

If death occurs in active or disability retirement status, 75% of all members were assumed to have eligible surviving spouses. The spouse is assumed to be three years younger than the male members and three years older than the female members.

**Probability of
Option Election**

For active members who may retire in the future, if they elect a joint and survivor annuity option, the present value of their benefit is slightly higher than if they elect a non-joint and survivor option, due to the "pop-up" feature. We assumed that approximately 40% of males and 13% of females will elect a joint and survivor option, based on actual retiree experience.

Inactive Members

For vested inactive members not currently receiving benefits, the present value of benefits is determined based on the estimated benefit payable for retirement at earliest eligibility.

For nonvested inactive members not currently receiving benefits, the present value of benefits is equal to the accumulated member contributions.

**Public Employee Retirement
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**Table A-1: Summary of Valuation Assumptions
July 1, 2005**

I.	Economic Assumptions	
	A. General wage increases	4.50%
	B. Investment earnings (including 0.50% for expenses)	7.75
	C. Growth in membership	0.00
	D. Postretirement benefit increases	1.00
	E. Implied inflation assumption	3.75
II.	Demographic Assumptions	
	A. Salary increases	Table A-5, A-6
	B. Retirement	Table A-7, A-8, A-9
	C. Disablement	Table A-10
	D. Mortality among contributing members, service retired members, and beneficiaries	Table A-11

Basis – 1994 Group Annuity Mortality Table
for respective sexes, as adjusted:

<u>Class of Members</u>	<u>Adjustment</u>
Teachers - men	-2 years
Teachers - women	-1 year
Fire and police - men	0 years
Fire and police - women	+2 years
General employees and all beneficiaries - men	0 years
- women	-1 year

E.	Mortality among disabled members	Table A-11
----	----------------------------------	------------

Basis - 1983 Railroad Board Disabled Annuitants
Mortality Table, as adjusted:

Men	No adjustment
Women	-10 years

F.	Other terminations of employment	Table A-12
G.	Refund of contributions on vested termination	Table A-13

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**Public Employee Retirement
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Table A-2: Analysis of Current Active Membership by Expected Cause of Termination – Fire and Police

Tables A-2 through A-4 summarize, quinquennially, all causes of termination by type of termination and member's current age. For example, of the fire and police members currently age 30-34, 37.9%, or 383, are expected to eventually terminate membership due to a service retirement. Likewise, 48.3%, or 488, are expected to leave employment prior to retirement, death or disability.

<u>Age</u>	<u>Number Active</u>	<u>Service Retirement</u>	<u>Early Retirement</u>	<u>Death & Disability</u>	<u>Other Terminations</u>
15-19	3	24.4%	0.0%	2.3%	73.3%
20-24	192	27.5%	1.8%	3.0%	67.7%
25-29	694	32.0%	4.9%	3.8%	59.3%
30-34	1,010	37.9%	9.1%	4.7%	48.3%
35-39	1,045	43.6%	13.9%	5.4%	37.1%
40-44	870	48.3%	20.6%	6.0%	25.1%
45-49	777	55.0%	27.6%	5.8%	11.6%
50-54	685	65.3%	26.2%	5.0%	3.5%
55-59	442	79.9%	12.9%	4.0%	3.2%
60-64	136	92.7%	0.0%	3.2%	4.1%
65-69	28	93.0%	0.0%	3.2%	3.8%
70-74	3	100.0%	0.0%	0.0%	0.0%
75-80	1	100.0%	0.0%	0.0%	0.0%
Totals	5,886	49.6%	15.4%	4.9%	30.1%

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**Public Employee Retirement
System of Idaho**

Table A-3: Analysis of Current Active Membership by Expected Cause of Termination - General Members

<u>Age</u>	<u>Number Active</u>	<u>Service Retirement</u>	<u>Early Retirement</u>	<u>Death & Disability</u>	<u>Other Terminations</u>
MALE					
15-19	14	15.1%	0.0%	2.8%	82.1%
20-24	335	18.7%	0.7%	3.7%	76.9%
25-29	952	22.6%	2.3%	4.7%	70.4%
30-34	1,244	26.9%	5.1%	5.8%	62.2%
35-39	1,452	29.6%	10.3%	6.8%	53.3%
40-44	1,889	30.4%	18.2%	7.8%	43.6%
45-49	2,532	34.5%	26.1%	8.7%	30.7%
50-54	3,011	38.7%	36.1%	9.2%	16.0%
55-59	2,752	45.2%	40.6%	7.8%	6.4%
60-64	1,497	59.3%	27.9%	5.8%	7.0%
65-69	458	84.8%	0.0%	6.4%	8.8%
70-74	141	84.6%	0.0%	6.7%	8.7%
75-80	70	100.0%	0.0%	0.0%	0.0%
Totals	16,347	39.0%	23.6%	7.4%	30.0%
FEMALE					
15-19	30	13.1%	0.0%	1.2%	85.7%
20-24	655	16.3%	0.5%	1.5%	81.7%
25-29	1,474	20.0%	1.8%	2.0%	76.2%
30-34	1,758	23.7%	4.3%	2.7%	69.3%
35-39	2,378	25.8%	9.4%	3.3%	61.5%
40-44	3,425	26.4%	17.8%	4.0%	51.8%
45-49	4,379	29.4%	27.7%	4.6%	38.3%
50-54	4,620	36.7%	39.3%	5.1%	18.9%
55-59	3,651	43.0%	46.1%	4.6%	6.3%
60-64	1,826	59.6%	32.1%	3.4%	4.9%
65-69	452	91.3%	0.0%	3.4%	5.3%
70-74	97	93.6%	0.0%	3.6%	2.8%
75-80	23	100.0%	0.0%	0.0%	0.0%
Totals	24,768	34.3%	25.2%	4.0%	36.5%

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**Public Employee Retirement
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Table A-4: Analysis of Current Active Membership by Expected Cause of Termination - Teachers

<u>Age</u>	<u>Number Active</u>	<u>Service Retirement</u>	<u>Early Retirement</u>	<u>Death & Disability</u>	<u>Other Terminations</u>
MALE					
15-19	-	0.0%	0.0%	0.0%	0.0%
20-24	16	29.5%	4.6%	4.6%	61.3%
25-29	322	33.0%	8.2%	5.4%	53.4%
30-34	579	37.9%	13.9%	6.3%	41.9%
35-39	645	38.4%	21.3%	6.8%	33.5%
40-44	620	38.7%	29.5%	7.1%	24.7%
45-49	703	40.4%	36.3%	7.2%	16.1%
50-54	843	47.5%	39.7%	6.5%	6.3%
55-59	981	57.5%	36.4%	5.0%	1.1%
60-64	416	73.1%	22.2%	3.8%	0.9%
65-69	86	96.1%	0.0%	2.7%	1.2%
70-74	10	100.0%	0.0%	0.0%	0.0%
75-80	-	0.0%	0.0%	0.0%	0.0%
Totals	5,221	47.2%	28.1%	6.0%	18.7%
FEMALE					
15-19	-	0.0%	0.0%	0.0%	0.0%
20-24	168	30.5%	2.9%	3.4%	63.2%
25-29	1,044	36.2%	5.6%	4.1%	54.1%
30-34	1,195	42.4%	10.5%	4.8%	42.3%
35-39	1,245	43.3%	17.5%	5.2%	34.0%
40-44	1,362	40.8%	27.4%	5.3%	26.5%
45-49	1,763	39.5%	37.3%	5.2%	18.0%
50-54	2,339	42.5%	45.7%	4.6%	7.2%
55-59	2,160	47.2%	48.1%	3.5%	1.2%
60-64	780	61.5%	35.5%	2.4%	0.6%
65-69	100	97.6%	0.0%	1.6%	0.8%
70-74	11	100.0%	0.0%	0.0%	0.0%
75-80	2	100.0%	0.0%	0.0%	0.0%
Totals	12,169	43.8%	31.4%	4.4%	20.4%

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**Public Employee Retirement
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Table A-5: Future Salaries

Years of Service	<u>Annual Increase in Salary Due to Promotions and Longevity</u>				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
1	4.8%	5.5%	5.5%	6.7%	5.8%
2	4.8	4.0	4.6	5.5	5.8
3	4.1	3.1	3.8	4.3	4.8
4	3.6	2.5	3.4	4.1	4.6
5	3.1	2.2	2.9	3.8	4.3
6	2.9	1.9	2.6	3.6	4.1
7	2.7	1.7	2.3	3.4	3.8
8	2.5	1.5	2.1	3.1	3.4
9	2.3	1.3	1.9	2.9	3.1
10	2.1	1.2	1.7	2.6	2.9
11	1.9	1.1	1.5	2.4	2.6
12	1.7	0.9	1.3	2.2	2.4
13	1.4	0.8	1.1	1.9	2.2
14	1.2	0.7	0.9	1.7	1.9
15	1.0	0.7	0.8	1.4	1.7
16	0.7	0.7	0.7	1.2	1.4
17	0.7	0.6	0.6	1.0	1.2
18	0.7	0.6	0.5	0.7	1.0
19	0.7	0.5	0.5	0.7	0.7
20	0.7	0.5	0.5	0.7	0.7
21 or more	0.7	0.5	0.5	0.7	0.7

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**Public Employee Retirement
System of Idaho**

Table A-6: Future Salaries

Years of Service	Total Annual Increase in Salary ⁽¹⁾				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
1	9.5%	10.2%	10.2%	11.5%	10.5%
2	9.5%	8.7%	9.3%	10.2%	10.5%
3	8.8%	7.7%	8.5%	9.0%	9.5%
4	8.3%	7.1%	8.0%	8.8%	9.3%
5	7.8%	6.8%	7.5%	8.5%	9.0%
6	7.5%	6.5%	7.2%	8.3%	8.8%
7	7.3%	6.3%	6.9%	8.0%	8.5%
8	7.1%	6.1%	6.7%	7.8%	8.0%
9	6.9%	5.9%	6.5%	7.5%	7.8%
10	6.7%	5.7%	6.3%	7.3%	7.5%
11	6.5%	5.6%	6.1%	7.0%	7.3%
12	6.3%	5.5%	5.9%	6.8%	7.0%
13	6.0%	5.3%	5.6%	6.5%	6.8%
14	5.8%	5.3%	5.4%	6.3%	6.5%
15	5.5%	5.2%	5.3%	6.0%	6.3%
16	5.3%	5.2%	5.2%	5.8%	6.0%
17	5.3%	5.1%	5.1%	5.5%	5.8%
18	5.3%	5.1%	5.1%	5.3%	5.5%
19	5.3%	5.0%	5.0%	5.3%	5.3%
20	5.3%	5.0%	5.0%	5.3%	5.3%
21 or more	5.3%	5.0%	5.0%	5.3%	5.3%

(1) The total expected increase in salary is the increase due to promotions and longevity, shown in Table A-5, adjusted for an assumed 4.50% per annum increase in the general wage level of the membership. The total result is compounded rather than additive.

**Public Employee Retirement
System of Idaho**

Table A-7: Immediate Retirement

Age	Retirement Rates in First Year Eligible for Unreduced Benefits				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
55 ⁽¹⁾	30%	30%	30%	23%	22%
56	30%	30%	30%	23%	22%
57	30%	30%	30%	23%	22%
58	30%	30%	30%	23%	22%
59	30%	30%	30%	23%	30%
60	30%	30%	30%	23%	40%
61	30%	35%	35%	23%	40%
62	50%	75%	67%	50%	55%
63	50%	50%	58%	40%	65%
64	50%	50%	45%	40%	50%
65	50%	80%	65%	76%	75%
66	50%	35%	30%	40%	40%
67	50%	30%	30%	40%	40%
68	50%	30%	30%	40%	40%
69	50%	30%	30%	40%	40%
70	(2)	30%	30%	(2)	(2)
71		30%	30%		
72		30%	30%		
73		30%	30%		
74		30%	30%		
75		(2)	(2)		

(1) 20% rate assumed for fire and police members eligible from age 50 to 54.

(2) For all ages older than the age indicated, retirement is assumed to occur immediately.

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**Public Employee Retirement
System of Idaho**

Table A-8: Service Retirement

Age	Retirement Rates Among Persons Who Have Been Eligible for Unreduced Benefits for At Least One Year				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
55 ⁽¹⁾	20%	10%	15%	10%	10%
56	20%	10%	15%	10%	10%
57	20%	10%	15%	10%	10%
58	20%	10%	15%	10%	10%
59	20%	15%	15%	15%	10%
60	25%	15%	20%	15%	20%
61	30%	15%	25%	20%	20%
62	50%	55%	50%	45%	35%
63	35%	30%	30%	20%	20%
64	35%	30%	30%	20%	20%
65	45%	75%	65%	65%	70%
66	45%	35%	40%	35%	50%
67	45%	30%	30%	35%	35%
68	45%	30%	25%	35%	35%
69	45%	30%	25%	35%	35%
70	(2)	30%	25%	(2)	(2)
71		30%	25%		
72		30%	25%		
73		30%	25%		
74		30%	25%		
75		(2)	(2)		

(1) Age 55 rate assumed for fire and police members eligible from age 50 to 54.

(2) For all ages older than the age indicated, retirement is assumed to occur immediately.

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**Public Employee Retirement
System of Idaho**

Table A-9: Early Retirement

Age	Retirement Rates Among Persons Eligible for Reduced Early Retirement Benefits				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
50	6%				
51	6%				
52	6%				
53	6%				
54	7%	(1)	(1)	(1)	(1)
55	7%	3%	3%	7%	6%
56	8%	3%	3%	8%	6%
57	8%	5%	3%	9%	6%
58	9%	5%	5%	11%	8%
59	9%	5%	6%	12%	9%
60		7%	9%	13%	15%
61		9%	9%	14%	20%
62		33%	30%	25%	30%
63		15%	15%	20%	20%
64		15%	15%	20%	20%

(1) Not eligible for retirement.

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**Public Employee Retirement
System of Idaho**

Table A-10: Disablement

Age	Annual Rates				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
20	0.01%	0.01%	0.01%	0.01%	0.03%
25	0.01%	0.05%	0.01%	0.01%	0.03%
30	0.02%	0.06%	0.01%	0.05%	0.04%
35	0.03%	0.10%	0.02%	0.05%	0.05%
40	0.06%	0.10%	0.05%	0.05%	0.07%
45	0.18%	0.10%	0.07%	0.05%	0.08%
50	0.28%	0.11%	0.13%	0.10%	0.16%
55	0.30%	0.50%	0.23%	0.35%	0.24%
60	0.00%	0.50%	0.32%	0.35%	0.26%
65	0.00%	0.00%	0.00%	0.00%	0.00%

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**Public Employee Retirement
System of Idaho**

Table A-11: Mortality

Age	Annual Rates							
	Beneficiaries, Contributing Members, and Members Retired for Service						Disabled Members	
	Fire and Police ⁽¹⁾		General Employees		Teachers		Men	Women
	Men	Women	Men	Women	Men	Women		
20	.051%	.029%	.051%	.028%	.046%	.028%	1.066%	1.066%
25	.066	.030	.066	.029	.059	.029	1.066	1.066
30	.080	.040	.080	.033	.075	.033	1.066	1.066
35	.085	.055	.085	.045	.085	.045	1.147	1.066
40	.107	.083	.107	.065	.094	.065	1.359	1.066
45	.158	.111	.158	.092	.135	.092	2.020	1.147
50	.258	.174	.258	.131	.210	.131	3.215	1.359
55	.444	.292	.444	.209	.359	.209	3.854	2.020
60	.801	.585	.801	.387	.632	.387	4.338	3.215
65	1.464	1.082	1.464	.765	1.154	.765	5.255	3.854
70	2.402	1.664	2.402	1.279	2.006	1.279	6.983	4.338
75	3.792	2.877	3.792	2.059	3.170	2.059	8.637	5.255
80	6.401	5.039	6.401	3.600	5.150	3.600	11.381	6.983
85	10.221	8.771	10.221	6.290	8.606	6.290	15.495	8.637
90	16.559	15.282	16.559	11.037	13.559	11.037	20.772	11.381

(1) For Fire and Police, 20% of deaths while an active member are assumed to be duty related.

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**Public Employee Retirement
System of Idaho**

Table A-12: Other Terminations of Employment

Years of Service	Annual Rates				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
1	17.5%	26.0%	26.0%	14.0%	16.8%
2	13.0%	18.5%	20.0%	12.0%	14.0%
3	11.0%	13.0%	15.0%	10.0%	12.0%
4	9.5%	12.0%	12.0%	8.0%	9.0%
5	8.0%	10.0%	11.0%	6.0%	7.0%
6	7.0%	8.8%	10.0%	5.3%	6.0%
7	6.0%	7.2%	9.0%	4.7%	5.0%
8	5.0%	6.5%	8.0%	4.0%	4.0%
9	4.8%	6.0%	7.4%	3.6%	3.6%
10	4.6%	5.5%	6.8%	3.3%	3.3%
11	4.4%	5.0%	6.2%	2.9%	2.9%
12	4.2%	4.5%	5.6%	2.6%	2.6%
13	4.0%	4.0%	5.0%	2.2%	2.2%
14	3.6%	3.8%	4.8%	2.1%	2.1%
15	3.2%	3.6%	4.6%	2.0%	2.0%
16	2.8%	3.4%	4.4%	1.8%	1.8%
17	2.4%	3.2%	4.2%	1.7%	1.7%
18	2.0%	3.0%	4.0%	1.6%	1.6%
19	2.0%	2.8%	3.7%	1.6%	1.6%
20	2.0%	2.6%	3.4%	1.6%	1.6%
21	2.0%	2.4%	3.1%	1.6%	1.6%
22	2.0%	2.2%	2.8%	1.6%	1.6%
23	2.0%	2.0%	2.5%	1.6%	1.6%
24	2.0%	2.0%	2.4%	1.6%	1.6%
25	2.0%	2.0%	2.3%	1.6%	1.6%
26	2.0%	2.0%	2.2%	1.6%	1.6%
27	2.0%	2.0%	2.1%	1.6%	1.6%
28	2.0%	2.0%	2.0%	1.6%	1.6%
29	2.0%	2.0%	2.0%	1.6%	1.6%
30	2.0%	2.0%	2.0%	1.6%	1.6%
31 or more	2.0%	2.0%	2.0%	1.6%	1.6%

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**Public Employee Retirement
System of Idaho**

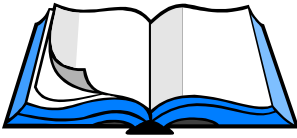
**Table A-13: Immediate Refund of Contributions Upon Termination of Employment
While Vested**

Age	Probabilities of Immediate Refund				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
25	71%	70%	58%	77%	41%
30	62	58	44	57	26
35	57	47	40	39	20
40	52	42	40	32	20
45	47	37	34	27	17
50	0	32	27	19	12
55	0	0	0	0	10

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Public Employee Retirement System of Idaho

Appendix B: Provisions of Governing Law



All actuarial calculations are based on our understanding of the statutes governing the Public Employee Retirement System of Idaho, as contained in Sections 59-1301 through 59-1399, inclusive, of the Idaho Code, with amendments effective through July 1, 2005. The benefit and contribution provisions of this law are summarized briefly below, along with corresponding references to the Idaho Code. This summary does not attempt to cover all the detailed provisions of the law. Only those benefits in effect through July 1, 2005 are considered in this valuation. The items in parentheses are the provisions applicable to firefighters and police officers.

Effective Date

The effective date of the Retirement System was July 1, 1965.

Member Contribution Rate

The member contribution rate effective July 1, 2005 is 6.23% (7.65%) of salary.

On November 26, 2002, the Board approved a gradual increase to the combined employer and employee contribution rate. This change will increase the member contribution rate to 6.97% (8.53%) by July 1, 2008. This rate will remain in effect then until the employer contribution rate is again changed, at which time the member contribution rate will be fixed at 60% (72%) of the employer contribution rate. For firefighters and police officers, the 72% adjustment is applied after reducing the employer rate by 0.10% for the 2003 addition of a \$100,000 death benefit for fire and police members who die in the line of duty. Member contributions have been “picked up” on a pre-tax basis by the employer since June 30, 1983 (Sections 59-1331 and 59-1332).

The employer contribution rate is set by the Retirement Board (Section 59-1322).

Employer Contribution Rate

The current contribution rates are set by Board rule and include scheduled increases through July 1, 2008 as described in Section 5.

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**Service Retirement
Allowance**

Eligibility

Age 65 (60) with five years of service, including six months of membership service (Section 59-1341).

Amount of Allowance

For each year of credited service, the annual service retirement allowance is 2.0% (2.3%) of the highest 42-month average salary (Section 59-1342).

Minimum Benefit

\$60 (\$72) annual allowance for each year of service. The dollar amounts increase after 1974 according to the rate of cost of living increases in retirement allowances (Section 59-1342).

Maximum Benefit

In no case may a member's regular retirement benefit exceed the highest three-year average salary of the member (Section 59-1342).

Normal Form

Straight life retirement allowance plus any death benefit (Section 59-1351).

Optional Form

Actuarial equivalent of the normal form under the options available, according to the mortality and interest basis adopted by the Board (Section 59-1351).

**Early Retirement
Allowance**

Eligibility

Age 55 (50) with five years of service, including six months of membership service (contributing members only) (Section 59-1345).

Amount of Allowance

Full accrued service retirement allowance if age plus service equals 90 (80); otherwise, the accrued service retirement allowance, reduced by 3% for each of the first five years by which the early retirement date precedes the date the member would be eligible to receive the full accrued benefit, and by 5.75% for each additional year (Section 59-1346).

Vested Retirement Allowance

Eligibility

Former contributing members with five years of membership service are entitled to receive benefits after attaining age 55 (50) (Section 59-1345).

Amount of Allowance

Same as early retirement allowance (Section 59-1345).

Disability Retirement Allowance

Eligibility

Five years of membership service. For a police officer or a firefighter hired after July 1, 1993, who is disabled from an occupational cause, there is no service requirement (Section 59-1352).

Amount of Allowance

Projected service retirement allowance based on accrued service plus service projected to age 65 (60) (latter limited to excess of 30 years over accrued service) less any amount payable under workers' compensation law (Section 59-1353).

Normal Form

Temporary annuity to age 65 (60) plus any death benefit. Service retirement allowance becomes payable at age 65 (60) (Section 59-1354).

Death Benefits

After Retirement

Under the normal form of the retirement allowance, the excess, if any, of the member's accumulated contributions with interest at retirement over all payments received. Otherwise, payable according to the option elected (Section 59-1361).

Before Retirement

- A. An automatic joint and survivor option applied to the actuarial equivalent of the member's accrued service retirement allowance is paid to the surviving spouse of a member with at least five years of service who dies while:
- i. contributing;
 - ii. not contributing, but eligible for benefits; or
 - iii. retired for disability
- or
- B. If a member with at least five years of service has no spouse, a lump sum payment is made equal to twice the accumulated contributions with interest (Section 59-1361).

or

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**Death Benefits
(continued)**

C. If a member has less than five years of service, a lump sum payment is made equal to the accumulated contributions with interest (Section 59-1361).

Fire and police members are entitled to an additional \$100,000 payment if death occurs in the line of duty. (Section 59-1361 A)

Withdrawal Benefits

Accumulated contributions with interest (Section 59-1358). The interest rate is determined by the Board (Section 59-1301(26)).

**Postretirement
Increases**

A 1% annual postretirement increase is effective March of each year. An additional postretirement increase of up to 5% each year may be authorized by the Board, subject to the approval of the Legislature, if it finds that the System's assets are no less in value than its actuarial liabilities, including those created by the additional increase. Increases are based on a cost-of-living factor reflecting the changes in the Consumer Price Index, subject to a maximum total increase of 6% in any year (Section 59-1355).

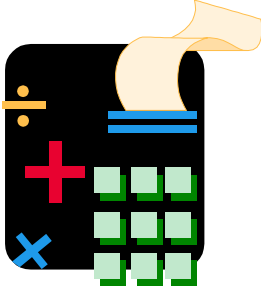
Gain Sharing

Beginning in 2000, under Section 59-1309, Idaho Code, the Board may allocate all or a portion of "extraordinary gains" to active and retired members and employers as Gain Sharing.

Extraordinary gains are defined as the excess, if any, at the close of the fiscal year of the Assets over Actuarial Accrued Liabilities plus an amount necessary to absorb a one standard deviation market event without increasing contribution rates, as determined by the Board. Under the Board's current investment policy, assets in excess of a 113% funded ratio are considered extraordinary gains. The Board has the authority to rescind the Gain Sharing up to the date of distribution.

Public Employee Retirement System of Idaho

Appendix C: Valuation Data and Comparative Schedules



This valuation is based on the membership of the System as of June 30, 2005.

The membership of the System includes employees of the State of Idaho and participating political subdivisions. The membership is divided into three categories:

1. *Fire and Police*

State police officers, most local police officers and sheriffs, local firefighters, penitentiary employees, employees of the Youth Services Center, and employees of the adjutant general and military department.

2. *Teachers*

Faculty members of local school districts and institutions of higher learning who are not members of an Optional Retirement Program.

3. *General Employees*

Other state employees and general employees of the political subdivisions, local school districts, and colleges and universities.

The data for all contributing members, former contributing members, and their survivors are summarized in Table C-1. Table C-2 summarizes their age and service statistics. Table C-3 summarizes the active members by age groups.

Detailed statistics regarding the distributions of members receiving service or disability retirement benefits, beneficiaries of deceased members, and active members in each category of membership have been reported separately to the System.

Tables C-4 through C-7 summarize the experience of the System since June 30, 1968. Earlier data are not comparable, since the Idaho Teachers' Retirement System merged with the Public Employee Retirement System of Idaho just prior to that date.

Table C-4 shows a summary of the active members and the annuitants covered as of the various valuation dates.

Table C-5 summarizes the contribution rates, the amortization period, and the UAAL determined at each annual actuarial valuation.

Table C-6 presents a brief history of the financial experience of the System's investments.

Any review of these comparative schedules should be made in the light of Tables C-7 and C-8, which show the significant changes affecting the actuarial valuations in recent years.

Table C-9 summarizes changes in status for active and inactive numbers and annuitants between July 1, 2004 and July 1, 2005.

Table C-10 reconciles the member records received from PERSI with the records used in the valuation.

The total salaries paid to ORP members who are contributing 3.03% for the year ending June 30, 2005 was \$168,348,000. The total salaries paid to ORP members who are contributing 3.83% for the year ending June 30, 2005 was \$16,964,000. These salaries are used to finance the UAAL.

Public Employee Retirement System of Idaho

Table C-1: Summary of Membership Data

	Active Members			Annuitants		
	Number ⁽¹⁾	Annual Salaries in Thousands	Average Annual Salaries	Number	Annual Benefits in Thousands	Average Annual Benefits
<u>July 1, 2005</u>						
Fire and Police	5,886	\$255,817	\$43,462	1,840	\$33,458	\$18,183
General Employees:						
Male	16,347	551,183	33,178	7,949	92,819	11,677
Female	24,768	610,914	24,665	10,644	82,868	7,785
Teachers:						
Male	5,221	261,765	50,137	2,716	65,574	24,144
Female	12,169	517,706	42,543	4,097	68,358	16,685
Total	64,391	\$2,197,385	\$34,126	27,246	\$343,077	\$12,592
<u>July 1, 2004</u>						
Fire and Police	5,777	\$245,869	\$42,560	1,723	\$29,309	\$17,010
General Employees:						
Male	16,241	535,815	32,991	7,734	85,192	11,015
Female	24,249	588,910	24,286	10,215	74,933	7,336
Teachers:						
Male	5,156	254,704	49,400	2,529	58,088	22,969
Female	11,962	498,742	41,694	3,842	59,888	15,588
Total	63,385	\$2,124,040	\$33,510	26,043	\$307,410	\$11,804

(1) Not included in these figures are the following:

	Vested Inactive Members Not Currently Receiving Benefits			Nonvested Inactive Members	Total Inactive Members
	Number	Annual Benefits in Thousands ⁽²⁾	Average Annual Benefits		
2005	8,460	\$32,953	\$3,895	12,014	20,474
2004	8,118	\$30,570	\$3,766	10,719	18,837

(2) At earliest retirement date.

Note: In 2005, 191 vested annuitants of the Firefighters' Retirement Fund were not eligible for a PERSI benefit. In 2004, 194 were not eligible.

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Public Employee Retirement System of Idaho

Table C-2: Summary of Age and Service Statistics

	Active Members					Inactive Members Not Currently Receiving Benefits	Members Receiving Service or Early Retirement Benefits			
	Vested	Nonvested	Total	Average Current Age	Average Current Service		Number	Average Current Age	Average Retirement Age	Average Service
<u>July 1, 2005</u>										
Fire and Police	3,697	2,189	5,886	40.5	9.4	365	1,840	65.6	56.1	18.3
General Employees:										
Male	9,828	6,519	16,347	47.6	9.7	2,594	7,949	73.0	62.7	17.0
Female	14,308	10,460	24,768	46.4	8.7	3,590	10,644	73.8	63.0	13.6
Teachers:										
Male	3,991	1,230	5,221	46.5	14.6	576	2,716	69.6	60.8	25.9
Female	8,972	3,197	12,169	45.8	12.9	1,335	4,097	71.5	60.9	22.4
Total	40,796	23,595	64,391	46.0	10.2	8,460	27,246	72.3	61.9	17.5
<u>July 1, 2004</u>										
Fire and Police	3,627	2,150	5,777	40.6	9.4	326	1,723	65.6	56.1	18.1
General Employees:										
Male	9,652	6,589	16,241	47.2	9.7	2,476	7,734	72.9	62.5	16.9
Female	13,897	10,352	24,249	46.2	8.6	3,506	10,215	74.0	61.1	13.4
Teachers:										
Male	4,012	1,144	5,156	46.6	14.7	562	2,529	69.7	60.9	25.8
Female	8,811	3,151	11,962	45.7	12.8	1,248	3,842	71.8	61.0	22.3
Total	39,999	23,386	63,385	45.9	10.2	8,118	26,043	72.4	61.2	17.3

Note: The averages shown in this table are for general information purposes. The valuation results depend upon the personnel data underlying the averages, rather than upon the averages themselves.

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Public Employee Retirement System of Idaho

Table C-3: Age Distribution of Active Members

	Age Groups					Total
	0-29	30-39	40-49	50-59	60+	
<u>July 1, 2005</u>						
Fire and Police	889	2,055	1,647	1,127	168	5,886
General Employees:						
Male	1,301	2,696	4,421	5,763	2,166	16,347
Female	2,159	4,136	7,804	8,271	2,398	24,768
Teachers:						
Male	338	1,224	1,323	1,824	512	5,221
Female	1,212	2,440	3,125	4,499	893	12,169
Total	5,899	12,551	18,320	21,484	6,137	64,391
Percentage of Total	9.16%	19.49%	28.45%	33.36%	9.54%	100.00%
<u>July 1, 2004</u>						
Fire and Police	850	1,998	1,647	1,124	158	5,777
General Employees:						
Male	1,358	2,732	4,595	5,557	1,999	16,241
Female	2,059	4,130	7,918	7,854	2,288	24,249
Teachers:						
Male	322	1,173	1,272	1,885	504	5,156
Female	1,151	2,371	3,169	4,460	811	11,962
Total	5,740	12,404	18,601	20,880	5,760	63,385
Percentage of Total	9.06%	19.57%	29.35%	32.94%	9.08%	100.00%

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Public Employee Retirement System of Idaho

Table C-4: Membership Data

Valuation Date (July 1)	Active Members					Annuitants			
	Number	Annual Salaries in Millions	Average Annual Salary	Average Age	Average Years of Service	Number	Annual Benefits in Thousands	Average Annual Benefit	Average Age ⁽²⁾
1968	16,014	\$ 95	\$ 5,906	(1)	(1)	2,498	\$ 3,207	\$ 1,284	(1)
1969	19,796	124	6,247	(1)	(1)	2,977	4,351	1,462	(1)
1970	21,048	140	6,672	(1)	(1)	3,565	5,261	1,476	(1)
1971	23,505	160	6,805	(1)	(1)	4,298	6,442	1,499	(1)
1972	29,648	203	6,832	(1)	(1)	4,862	7,255	1,492	(1)
1973	30,174	219	7,255	(1)	(1)	5,659	8,494	1,501	(1)
1974	30,603	243	7,953	41.6	6.3	6,301	12,993	2,062	69.7
1975	32,545	286	8,771	41.2	6.2	7,058	15,098	2,139	69.7
1976	35,658	342	9,596	40.3	6.7	7,745	16,981	2,193	69.3
1977	37,559	381	10,135	40.1	6.7	8,573	20,172	2,353	69.5
1978	38,122	418	10,967	40.8	6.7	9,235	23,176	2,510	70.8
1979	38,848	459	11,826	40.9	6.8	9,982	26,593	2,664	71.0
1980	39,510	497	12,580	41.1	7.0	10,606	29,876	2,817	71.2
1981	40,722	550	13,518	41.2	7.0	11,279	34,073	3,021	71.3
1982	40,537	596	14,700	41.4	7.3	12,035	39,103	3,249	72.3
1983	40,495	630	15,557	41.6	7.6	12,766	44,597	3,493	71.5
1984	41,779	678	16,234	41.8	7.7	13,336	48,784	3,658	71.8
1985	42,626	739	17,336	42.0	7.9	13,955	54,583	3,911	71.9
1986	43,030	768	17,855	42.2	8.1	14,615	59,182	4,049	72.1
1987	43,843	797	18,187	42.4	8.2	15,281	64,558	4,225	72.3

(1) Not calculated.

(2) Excludes survivors and disabled members.

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**Table C-4
(continued)**

Valuation Date (July 1)	Active Members					Annuitants			
	Number	Annual Salaries in Millions	Average Annual Salary	Average Age	Average Years of Service	Number	Annual Benefits in Thousands	Average Annual Benefit	Average Age ⁽²⁾
1988	45,262	859	18,969	42.6	8.3	15,801	69,416	4,393	72.5
1989	46,106	911	19,763	42.9	8.4	16,344	74,809	4,572	72.7
1990	48,251	961	19,919	43.0	8.4	16,880	82,262	4,873	72.9
1991	49,854	1,039	20,842	43.1	8.4	17,464	92,040	5,270	73.2
1992	51,557	1,134	21,994	43.3	8.6	17,847	100,854	5,651	73.3
1993	52,532	1,191	22,663	43.7	8.9	18,283	111,545	6,101	73.5
1994	53,763	1,254	23,322	43.9	9.0	18,683	124,254	6,651	73.4
1995	55,811	1,388	24,866	43.9	9.0	19,272	136,327	7,074	73.6
1996	56,802	1,452	25,558	44.1	9.2	19,903	148,740	7,473	73.5
1997	57,237	1,511	26,403	44.3	9.5	20,499	160,908	7,850	73.2
1998	57,528	1,562	27,156	44.6	9.7	21,134	173,519	8,210	73.2
1999	59,248	1,673	28,243	44.8	9.8	21,756	193,441	8,891	73.1
2000	60,388	1,798	29,778	45.0	9.8	22,456	209,549	9,332	73.1
2001	62,125	1,924	30,976	45.1	9.7	23,253	235,269	10,118	72.7
2002	62,376	2,036	32,641	45.4	10.0	24,018	255,374	10,633	72.7
2003	62,385	2,064	33,079	45.7	10.2	24,991	279,219	11,173	72.5
2004	63,385	2,124	33,510	45.9	10.2	26,043	307,410	11,804	72.3
2005	64,391	2,197	34,126	46.0	10.2	27,246	343,077	12,592	72.1

(1) *Not calculated.*

(2) *Excludes survivors and disabled members.*

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Public Employee Retirement System of Idaho

Table C-5: Contribution Rates

Valuation Date (July 1)	Calculated Statutory Minimum Employer Rates 25/30-Year Funding ⁽⁸⁾			GASB Determined ARC ⁽⁹⁾	Actual Rates Employee ⁽¹⁾			Prior to Subsequent Year COLA Adjustment	
	Current Normal Cost Rate ⁽¹⁾	Amortization Payment Rate	Total Rate ⁽²⁾		Employer ⁽²⁾	Fire & Police	Other	Amortization Period (Years)	Unfunded Actuarial Accrued Liability ⁽⁵⁾ (in Millions)
1968	2.01	4.68	6.69	NA	7.25	(3)	(4)	under 30(6)	\$ 72.2
1969	2.53	5.17	7.70	NA	7.25	(3)	(4)	under 50(6)	106.4
1970	2.51	4.71	7.22	NA	7.25	(3)	(4)	under 30(6)	110.1
1971	3.26	4.96	7.33	NA	6.80	(3)	(4)	41	132.1
1972	3.40	3.65	7.05	NA	6.80	(3)	(4)	36	123.0
1973	3.31	3.43	6.74	NA	6.78	(3)	(4)	30	125.0
1974	2.45	4.09	6.54	NA	6.80	5.40	4.50	28	216.3
1975	2.43	4.14	6.57	NA	6.80	5.40	4.50	28	256.5
1976	3.38	3.58	6.96	NA	6.81	5.40	4.50	28	306.8
1977	5.76	4.11	9.87	NA	7.11	5.40	4.50	-- (7)	392.2
1978	4.92	4.04	8.96	NA	7.11	5.40	4.50	28	423.1
1979	4.93	4.02	8.95	NA	8.36	5.40	4.50	27	462.9
1980	5.20	4.43	9.63	NA	9.50	5.60	4.67	31	553.1
1981	5.20	4.21	9.41	NA	9.50	5.80	4.84	29	582.8
1982	5.07	4.39	9.46	NA	9.05	6.05	5.05	32	653.5
1983	5.11	4.22	9.33	NA	8.75	6.30	5.26	34	664.6
1984	5.09	4.30	9.39	NA	8.82	6.35	5.30	35	729.4
1985	6.02	3.29	9.31	NA	8.89	6.40	5.34	35	614.8
1986	5.97	2.84	8.84	NA	8.89	6.40	5.34	29	555.7
1987	5.97	2.60	8.67	NA	8.89	6.40	5.34	26	526.7

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**Table C-5
(continued)**

Valuation Date (July 1)	Calculated Statutory Minimum Employer Rates 25/30-Year Funding ⁽⁸⁾			GASB Determined ARC ⁽⁹⁾	Actual Rates Employee ⁽¹⁾			Prior to Subsequent Year COLA Adjustment	
	Current Normal Cost Rate ⁽¹⁾	Amortization Payment Rate	Total Rate ⁽²⁾		Employer ⁽²⁾	Fire & Police	Other	Amortization Period (Years)	Unfunded Actuarial Accrued Liability ⁽⁵⁾ (in Millions)
1988	5.85	3.21	9.01	NA	8.89	6.40	5.34	32	\$ 699.1
1989	5.86	2.53	8.54	NA	8.89	6.40	5.34	24	589.1
1990	6.07	2.34	8.41	NA	8.89	6.40	5.34	22	578.7
1991	6.07	2.34	8.41	NA	8.89	6.40	5.34	22	622.7
1992	6.77	2.44	9.21	NA	9.75	7.02	5.84	21	677.3
1993	7.13	2.94	10.07	NA	10.65	7.82	6.38	18	740.0
1994	7.47	3.91	11.38	NA	11.63	8.53	6.97	22	1,040.6
1995	7.68	3.23	10.91	NA	11.63	8.53	6.97	18	952.1
1996	8.37	2.25	10.62	10.413	11.64	8.53	6.97	13	639.5
1997	8.98	0.45	9.43	9.80	11.64 ⁽¹⁰⁾	8.53 ⁽¹⁰⁾	6.97 ⁽¹⁰⁾	2	128.9
1998	9.22	(1.40)	9.22	7.82	11.03 ⁽¹⁰⁾	8.10 ⁽¹⁰⁾	6.60 ⁽¹⁰⁾	N/A	(493.9)
1999	9.44	(2.06)	9.44	7.38	11.03 ⁽¹⁰⁾	8.10 ⁽¹⁰⁾	6.60 ⁽¹⁰⁾	N/A	(704.0)
2000	10.04	(2.72)	10.04	7.32	9.80	7.21	5.86	N/A	(998.3)
2001	8.94	0.50	9.44	9.44	9.80	7.21	5.86	10	186.3
2002	7.37	2.94	10.31	10.31	9.80	7.21	5.86	39	1,075.7
2003	7.27	3.23	10.50	10.50	11.04 ⁽¹¹⁾	8.09 ⁽¹¹⁾	6.60 ⁽¹¹⁾	19	1,214.6
2004	7.88	1.80	9.68	9.68	11.66 ⁽¹¹⁾	8.53 ⁽¹¹⁾	6.97 ⁽¹¹⁾	8	671.1
2005	8.03	1.34	9.37	9.37	11.66 ⁽¹¹⁾	8.53 ⁽¹¹⁾	6.97 ⁽¹¹⁾	6	506.6

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Notes on Table C-5

- (1) Normal cost rates and employee rates prior to 1986 are based on actual employer rates. They would vary from the rates shown if employer rates were changed.
- (2) Excludes additional administrative contributions required before 1980. Aggregate weighted employer rate since 1993. Cannot be less than the normal cost rate.
- (3) 3.6% of annual salary up to \$4,800, plus 7.2% of excess.
- (4) 3.0% of annual salary up to \$4,800, plus 6.0% of excess.
- (5) Calculated as of the valuation date, prior to any COLA adjustment or Gain Sharing allocation. Beginning in 1991, amounts funded by ORP contributions are not included in the UAAL.
- (6) For actuarial valuations prior to 1971, an explicit amortization period was not calculated. The current employer contribution rate was compared to a contribution rate based on either a 30 or 50 year amortization period.
- (7) Based on the results of the 1977 experience study, the valuation results indicated that the employer contribution rate in effect at the time of the valuation would be insufficient to amortize the UAAL over a reasonable period. Subsequent increases in the employer contribution rate in 1979 and 1980 resulted in a reasonable amortization period.
- (8) Amortization rates in 1992 and before represent 30-year funding. Amortization rates in 1993 and after represent 25-year funding.
- (9) GASB required an ARC to be computed for all plan years after June 15, 1996. As long as a positive UAAL exists and is being amortized over a reasonable period of time, generally less than 30 years, the ARC is equal to the actual contribution rate set by the Board. If a Funding Reserve exists, GASB requires the amortization of the reserve and a calculated ARC less than the normal cost rate. The actual PERSI rate cannot be less than the normal cost rate under the statutory requirements. The ARC calculated as of the valuation date is applicable to the employer fiscal year commencing October 1 of the calendar year following the valuation date. The ARC includes the discretionary COLA increases if approved by the Board prior to the completion of the valuation report.
- (10) Permanent rate is shown; temporary rate of 9.80% was effective November 1, 1997, until Board adopted permanent 9.80% rate April 2000.
- (11) The highest scheduled contribution rate that is reflected in the valuation is shown.

**Public Employee Retirement
System of Idaho**

Table C-6: Investments
(Dollar Amounts in Millions)

Valuation Date (July 1)	Total Investments Held on Valuation Date		Yield Net of Investment Expenses During Previous Year	
	Market Basis	Valuation Basis	Market Basis	Valuation Basis
1968	\$ 30.6	\$ 30.6	6.38%	6.38%
1973	102.4	111.0	(7.39)	4.85
1978	211.2	213.0	1.61	2.80
1983	658.5	628.6	40.36	16.33
1986	1,095.7	1,115.2	23.23	17.24
1987	1,206.5	1,299.4	10.52	12.01
1988	1,294.4	1,265.7	(0.60)	(5.60)
1989	1,533.0	1,560.0	13.13	17.61
1990	1,742.8	1,776.4	10.31	10.55
1991	1,907.1	1,976.8	6.06	7.93
1992	2,164.2	2,197.2	10.27	8.11
1993	2,531.7	2,525.0	12.60	10.66
1994	2,674.7	2,674.7	2.50	2.76
1995	3,237.9	3,237.9	14.34	14.34
1996	3,853.8	3,853.8	17.83	17.83
1997	4,728.5	4,728.5	19.11	19.11
1998	5,741.0	5,741.0	17.19	17.19
1999	6,450.9	6,450.9	11.18	11.18
2000	7,285.3	7,285.3	12.93	12.93
2001	6,732.4	6,732.4	(6.40)	(6.40)
2002	6,256.3	6,256.3	(7.36)	(7.36)
2003	6,544.8	6,544.8	3.32	3.32
2004	7,702.0	7,702.0	17.63	17.63
2005	8,707.5	8,707.5	10.34	10.34

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**Public Employee Retirement
System of Idaho**

Table C-7: Changes Affecting Actuarial Valuations - Statistics

Valuation Date ⁽¹⁾	Minimum Benefit ⁽²⁾	Postretirement Increase ⁽¹⁾		Regular Interest ⁽³⁾
		Maximum	Granted	
1967	N/A	N/A	N/A	4.00%
1968	N/A	N/A	N/A	4.25
1969	N/A	3.0%	3.0%	4.375
1970	N/A	3.0	3.0	4.75
1971	N/A	3.0	3.0	5.00
1972	N/A	3.0	3.0	5.00
1973	N/A	3.0	3.0	5.50
1974	\$5.00	3.0	3.0	6.00
1975	5.15	3.0	3.0	6.00
1976	5.30	3.0	3.0	6.00
1977	5.62	5.3	6.0 ⁽⁴⁾	6.50
1978	5.96	6.0	6.0	6.50
1979	6.32	6.0	6.0	6.50
1980	6.70	6.0	6.0	6.50
1981	7.10	6.0	6.0	7.00
1982	7.53	6.0	6.0	7.50
1983	7.92	5.1	5.1	8.00
1984	8.14	2.9	2.9	8.50
1985	8.48	4.2	4.2	9.00
1986	8.57	3.2	1.0	9.00
1987	8.70	1.5	1.5	7.50
1988	8.78	4.5	1.0	6.50
1989	8.87	4.2	1.0	6.50
1990	9.29	4.7	4.7	7.00
1991	9.81	5.6	5.6	7.37

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**Table C-7
(continued)**

Valuation Date ⁽¹⁾	Minimum Benefit ⁽²⁾	Postretirement Increase ⁽¹⁾		Regular Interest ⁽³⁾
		Maximum	Granted	
1992	10.59	3.8	3.8	5.75
1993	12.48	3.1	3.1	4.25
1994	14.43	2.8	2.8	4.00
1995	14.85	2.9	2.9	4.75
1996	15.23	2.6	2.6	5.75
1997	15.67	2.9	2.9	5.13
1998	16.02	2.2	2.2	5.38
1999	18.06	1.6	1.6	5.00
2000	18.47	2.3	2.3	7.93
2001	19.10	3.4	3.4	11.985
2002	19.62	2.7	2.7	8.84
2003	19.81	1.8	1.0	3.36
2004	20.25	2.2	2.2	2.56
2005	20.96	2.7	2.7	10.365

- (1) Valuations as of July 1. Postretirement increase effective previous January 1 for years prior to 1987, previous March 1 for 1987 and after.
- (2) Minimum monthly benefit per year of service; benefit levels for fire and police members are 20% greater than amount shown.
- (3) Average rate credited on member contributions during year prior to valuation date, actual rates may vary during the year.
- (4) 5.3% for 1976 retirees.

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**Public Employee Retirement
System of Idaho**

Table C-8: Changes Affecting Actuarial Valuations - Descriptions

Valuation Date	Change
1968	Actuarial assumptions were revised to reflect actual experience for the study period from inception to June 30, 1967.
1969	Discretionary cost-of-living increases and death benefit provisions were adopted.
1971	Vesting, early retirement, and death benefits were improved.
1974	Major changes in actuarial assumptions and a new retirement benefit formula were adopted.
1976	Actuarial assumptions for investment earnings, future salaries, and service retirement were changed. Changes in the compulsory retirement provisions, death benefit eligibility, and the maximum discretionary cost-of-living increases, including funding for an automatic 1% annual increase in postretirement benefits.
1977	Major changes in actuarial assumptions as a result of a study of the System's actual experience. These revisions were tentative, made on the basis of limited experience data.
1978	The termination of employment and the retired mortality assumptions were revised based on an update of the study of the System's actual experience.
1979	Reflects the maximum 40-year funding period enacted in 1979 legislation.
1980	Actuarial assumptions for investment earnings, salary growth, and disabled members' mortality assumptions were changed. Reduction factors for early retirement were modified and employee contribution rates were increased. The bond valuation method was revised, generating a one-time investment gain.
1982	Actuarial assumptions were revised to reflect the results of the System's experience over the three-year period ending June 30, 1981. The early retirement "Rule of 90(80)" and graded increase in both employee and employer contribution rates were implemented.
1983	The asset valuation method for mortgages was changed.
1985	Actuarial assumptions were revised based on the experience study for the period July 1, 1981 through June 30, 1984.

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**Table C-8
(continued)**

Valuation Date	Change
1988	Actuarial assumptions were revised based on the experience study for the period July 1, 1984 through June 30, 1987.
1992	Actuarial assumptions were revised based on the 1992 Investigation of Experience Study. Benefits and contributions were increased effective October 1, 1992. The benefit percentage factor was increased, the averaging period used in determining average monthly salary was decreased, and the early retirement reduction factors were decreased.
1993	Disability eligibility provisions for fire and police members were changed and contribution rates were increased to reflect this change. Benefits and contributions were increased effective October 1, 1993. The benefit percentage factor was increased, the averaging period used in determining average monthly salary was decreased, and the early retirement reduction factors were decreased.
1994	Actuarial assumptions were revised based on the 1994 Investigation of Experience Study. Benefits and contributions were increased effective October 1, 1994. The benefit percentage factor was increased, the averaging period used in determining average monthly salary was decreased, and the early retirement reduction factors were decreased.
1996	Actuarial assumptions were revised based on the 1996 Investigation of Experience Study.
1998	Mortality and Salary increase assumptions were revised based on the 1998 Investigation of Experience Study. The benefits for all annuitants were restored to 100% of purchasing power at the original retirement date.
2000	The permanent total contribution rate was reduced effective November 1, 2000. Benefits were increased and disability eligibility service requirements were reduced effective July 1, 2000. The interest crediting rate on employee contributions was changed to the actual return of the System. Retirement and disablement assumptions were revised based on the 2000 Investigation of Experience Study.
2001	A Gain Sharing allocation of \$155.4 million was granted by the Board.
2002	Salary increase and termination of employment assumptions were revised based on the 2002 Investigation of Experience Study.

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**Table C-8
(continued)**

Valuation Date	Change
2003	Scheduled contribution rate increases at July 1, 2004 and July 1, 2005 reflected. \$100,000 death benefit for Fire and Police duty deaths added along with 0.1% increase in Fire and Police Employer Contribution rate.
2004	Scheduled contribution rate increases at July 1, 2006 reflected. Assumption changes based on 2004 Investigation of Experience Study.
2005	Contribution rate increases scheduled for July 1, 2005 and July 1, 2006 were delayed to July 1, 2007 and July 1, 2008. In addition to a full 2.7% COLA, retirees received a 0.8% Restoration of Purchasing Power Benefit on March 1, 2005 to restore the portion of the March 1, 2003 COLA that was not originally granted.

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**Public Employee Retirement
System of Idaho**

Table C-9: Changes in Status

	Active Contributing Members	Non-Contributing Members	Annuitants
July 1, 2004 Valuation	63,385	18,837	26,043
Termination with Refund	(1,747)	(1,544)	-
Termination without Refund	(3,475)	3,475	-
Service Retirement	(1,400)	(384)	1,784
Disability Retirement	(72)	(36)	108
Death with Beneficiary ⁽¹⁾	(8)	(5)	13
Death without Beneficiary	(22)	(12)	(745)
New Entrants	6,452	782	26
Rehires	1,278	(1,085)	(11)
Other	-	-	28
Total Change	<u>1,006</u>	<u>1,191</u>	<u>1,203</u>
July 1, 2005 Valuation	64,391	20,028	27,246

(1) Only deaths of active members and vested inactive members are shown.

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Table C-10: Reconciliation of Data Records

	Active	Vested Inactive	Nonvested Inactive	Annuitants
Original Records Received	64,395	8,473	12,014	27,450
Duplicated Member Ids	(4)	(13)	-	(2)
Annuitants of Firefighters' Retirement Fund not Eligible for a PERSI Benefit	-	-	-	(191)
Idaho Falls Police Annuitants Not Eligible for a PERSI Benefit	-	-	-	(6)
Other Annuitant Records with Zero PERSI Benefit	-	-	-	(5)
Nonvested Inactive Records with Zero Accumulated Employee Contributions	-	-	(446)	-
Records Used for Valuation	64,391	8,460	11,568	27,246

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Appendix D: Glossary

The following definitions are largely excerpts from a list adopted in 1981 by the major actuarial organizations in the United States. In some cases, the definitions have been modified for specific applicability to the Public Employee Retirement System of Idaho. Defined terms are capitalized throughout this Appendix.

Actuarial Assumptions	Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement, and retirement; changes in compensation; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; and other relevant items.
Actuarial Cost Method	A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.
Actuarial Gain (Loss)	A measure of the difference between actual experience and that expected based on a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.
Actuarial Present Value	The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions.
Actuarial Valuation	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.
Actuarial Value of Assets	The value of cash, investments and other property belonging to a pension plan, as used by the actuary for the purpose of an Actuarial Valuation.
Actuarially Equivalent	Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.
Amortization Payment	That portion of the pension plan contribution that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

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Entry Age Actuarial Cost Method	A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.
Funding Reserve	The excess of the Actuarial Value of Assets over the Actuarial Accrued Liability. Standard actuarial terminology defines this as the "Funding Excess." PERSI uses the term Funding Reserve.
Normal Cost	That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.
Actuarial Accrued Liability	That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Normal Costs.
Unfunded Actuarial Accrued Liability	The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.
Accrued Benefit	The amount of an individual's benefit (whether or not vested) as of a specific date, determined in accordance with the terms of a pension plan and based on compensation and service to that date.
Projected Benefits	Those pension plan benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits.
Restoration of Purchasing Power Benefit	The Board has discretion to provide a Cost of Living Adjustment (COLA) that is less than amount needed to maintain the purchasing power of the retirees' benefits. The Board may then choose to increase the retirees' benefits at a later date to fully or partially restore the benefit level that the retirees would have had if the Board had given them a full discretionary COLA in all previous years. Such an increase is a Restoration of Purchasing Power Benefit (ROPP).

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