PERSI

Public Employee Retirement System of Idaho

ACTUARIAL VALUATION
July 1, 2010

By

Robert L. Schmidt

Fellow, Society of Actuaries
Member, American Academy of Actuaries

Mark C. Olleman

Fellow, Society of Actuaries
Member, American Academy of Actuaries

Geoff Bridges

Fellow, Society of Actuaries
Member, American Academy of Actuaries

950 W. Bannock Street
Suite 510
Boise, ID 83702
USA

Tel +1 208 342 3485
Fax +1 208 342 5667

milliman.com

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

Dear Members of the Board:

In accordance with your request, we have performed an actuarial valuation of the Public Employee Retirement System of Idaho for determining the System's financial status as of July 1, 2010. 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, 2010. It also discusses the impact of the discretionary portion of the 1.1481% March 1, 2011, 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. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. 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 Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations 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.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

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.

Milliman's work is prepared solely for the internal business use of the System. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

(a) The System may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.

(b) The System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

We would like to express our appreciation to Don Drum, 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, Mark C. Olleman and Geoff Bridges, 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

Geoff Bridges, FSA, EA, MAAA
Consulting Actuary

Mark C. Olleman, FSA, EA, MAAA
Consulting Actuary

RLS/MCO/GB/mca

Public Employee Retirement System of Idaho

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Section 1: Summary of the Findings

Our actuarial valuation of the System as of July 1, 2010, shows that the current scheduled contribution rates will meet the normal costs of the System as they accrue. The current scheduled rates are sufficient to amortize the Unfunded Actuarial Accrued Liability (UAAL) in 25 or fewer years. Therefore, the 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 2009 and the 2010 valuations.

Including Effect of :	Funding Ratio	
	2009	2010
COLA commencing		
March 1, 2009	74.1%	
March 1, 2010	73.3%	78.9%
March 1, 2011		78.9%

The funding ratio reflects the current value of the assets. For the 2009 valuation, the table shows the effect of the retroactive 2.48% COLA at March 1, 2010. The Board's decision to schedule contribution rate increases in 2011, 2012, and 2013 increased the funded ratio to 73.5% at July 1, 2009.

The scheduled contribution rate increases are reflected in the 2010 funding ratios. For the 2010 valuation, the table shows the funded ratio with and without the potential discretionary COLA effective on March 1, 2011.

The 2010 actuarial valuation indicates that an actuarial experience gain of $604.0 million occurred during the fiscal year that just ended. This gain is based on the expected UAAL (Funding Reserve) as of July 1, 2010, of $3,159.8 million versus the actual UAAL of $2,555.8 million. The gain was primarily due to investment gains, as reflected in the 12.01% 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 attributable to both expected and unexpected experience, as well as changes in assumptions, benefits and methods.

Change in Assumptions, Benefits or Contribution Rates

At its July 27, 2010, meeting, the Board adopted new mortality and economic assumptions as described in the July 27, 2010, Board meeting materials.

The assumption changes are:

- The setback for Male Teacher mortality was changed from two years to three years.
- The setback for Female Teacher mortality was changed from two years to three years.
- The set forward for Female Fire & Police mortality was changed from zero years to one year.
- The setback for Disabled Male mortality was changed from two years to one year.
- The set forward for Disabled Female mortality was changed from one year to two years.
- The annual investment expense assumption was changed from 0.35% to 0.40% of assets.
- The annual administrative expense assumption was changed from 0.15% to 0.10% of assets.
- The Wage Growth Assumption was changed from 4.50% to 4.00%.
- The inflation assumption changed from 3.75% to 3.50%.

In 2009, the Board adopted a Retroactive COLA of 2.48% effective March 1, 2010.

There have been no other changes in actuarial assumptions or plan benefits since the July 1, 2009, valuation.

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. If the increase is less than 1%, or negative, the COLA is automatic. A negative COLA cannot decrease benefits by more than 6% in one year, and each retiree's benefit cannot be less than the amount of the retirement allowance at the member's commencement date.

The CPI grew at a rate of 1.1481% 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 0.1481% potential discretionary increase is $8.5 million as of July 1, 2010.

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Table 1: Gains and Losses for the Year Ended July 1, 2010

	Actuarial Accrued Liability[1] (in millions)	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability (in millions)	Funded Ratio	Amort. Period (years)
July 1, 2009, Valuation	$11,672.6	$8,646.0	$3,026.6	74.1%	Over 100
Effect of March 1, 2010 Retro 2.48% COLA	124.3		124.3		
July 1, 2009, Valuation with COLA	$11,796.9	$8,646.0	$3,150.9	73.3%	Over 100
Effect of Scheduled Contribution Rate Increase	(38.9)		(38.9)		
July 1, 2009, Valuation with Contribution Rate Increases	$11,758.0	$8,646.0	$3,112.0	73.5%	25.0
Experience Study Changes	(82.7)		(82.7)		
July 1, 2009, Valuation with Changes	$11,675.3	$8,646.0	$3,029.3	74.1%	22.6
Expected Change Between Valuation Dates	671.4	540.9	130.5		
Expected at July 1, 2010	$12,346.7	$9,186.9	$3,159.8	74.4%	21.5
Effect of Actuarial Experience Gains and Losses:					
• Investments [Gain]	-	392.9	(392.9)		
• Salaries [Gain]	(260.3)	-	(260.3)		
• Membership Growth [Loss]	11.8	-	11.8		
• Return to Employment [Loss]	9.5	-	9.5		
• Retired Member Experience [Gain]	(0.7)	-	(0.7)		
• Active and Inactive Member Experience [Loss]	28.6	-	28.6		
Total Experience Gains and Losses	(211.1)	392.9	(604.0)		
July 1, 2010, Valuation without Discretionary COLA	$12,135.6	$9,579.8	$2,555.8	78.9%	17.5
Effect of Potential Discretionary Portion of March 1, 2011, 1.1481% COLA	8.5	-	8.5		
Results at July 1, 2010, with COLA	$12,144.1	$9,579.8	$2,564.3	78.9%	17.5

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

Table 2: Analysis of Actuarial Gains and Losses (All Dollar Amounts in Millions)
Gain (Loss) for Period

	2007-2008	2008-2009	2009-2010
Investment Income			
Investment income was greater (less) than expected	(1,274.6)	(2,442.9)	392.9
Pay Increases			
Pay increases were less (greater) than expected	(15.0)	102.4	260.3
Membership Growth			
(Additional) liability for new members	(19.1)	(21.4)	(11.8)
Return to Employment			
Less (more) reserves were required for terminated members returning to work	(2.4)	(17.0)	(9.5)
Death After Retirement			
Retirees died younger (lived longer) than expected	0.6	0.3	0.7
Cost of Living Adjustment (COLA)			
Different Automatic COLA than expected	NA	124.3	NA
Other			
Miscellaneous gains (and losses) resulting from other causes[1]	(46.5)	(32.3)	(28.6)
Total Gain (Loss) During the Period From Actuarial Experience	(1,357.0)	(2,286.6)	604.0
Contribution Income			
Actual contributions were greater (less) than the normal cost and interest on the Unfunded Actuarial Accrued Liability	97.7	9.6	(130.5)
Non-Recurring Items			
Changes in actuarial assumptions caused a gain (loss)[2]	(17.6)	(1.3)	82.7
Changes in actuarial methods caused a gain (loss)	None	None	None
Changes in plan provisions caused a gain (loss)[3]	None	(2.0)	38.9
Composite Gain (Loss) During the Period	(1,276.9)	(2,280.3)	595.1

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

(1) Reflects losses on active and inactive member experience.
(2) For 2007-2008, this reflects changes made to the demographic assumptions as described in the July 30, 2008 Active Member Experience Study. For 2008-2009, this reflects changes to value zero salary vested employees using current vested member PVB/EECI ratio. For 2009-2010, this reflects changes made to the mortality and economic assumptions as described in the July 27, 2010, Board meeting materials.
(3) For 2008-2009, this reflects the addition of a lump sum disability benefit for safety members. For 2009-2010, this reflects scheduled rate increases.

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.

Due to the 17.63% investment return in the year ending June 30, 2004, 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.

Due to the 10.34% investment return in the year ending June 30, 2005, in the fall of 2005, the Board delayed the contribution rate increases again, to July 1, 2007, and July 1, 2008.

Due to the 11.79% investment return in the year ending June 30, 2006, in the fall of 2006, the Board delayed the contribution rate increases again, to July 1, 2008, and July 1, 2009.

Due to continued improvements in the funded status, including exceeding a 100% funded ratio by July 1, 2007, in the fall of 2007, the Board cancelled the contribution rate increases.

In December 2009, due to a significant drop in funded status because of investment losses in the year ending June 30, 2009, the Board approved three contribution rate increases: 1.5% at July 1, 2011, 1.5% at July 1, 2012, and 2.28% at July 1, 2013.

The current scheduled contribution rates are sufficient to amortize the UAAL in 17.5 years. This meets the 25-year amortization period limit required under Section 59-1322, Idaho Code.

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. Therefore, no assets are available for gain-sharing as of July 1, 2010.

Section 2: Scope of the Report

This report presents the actuarial valuation of the Public Employee Retirement System of Idaho as of July 1, 2010. 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.

This report includes several appendices:

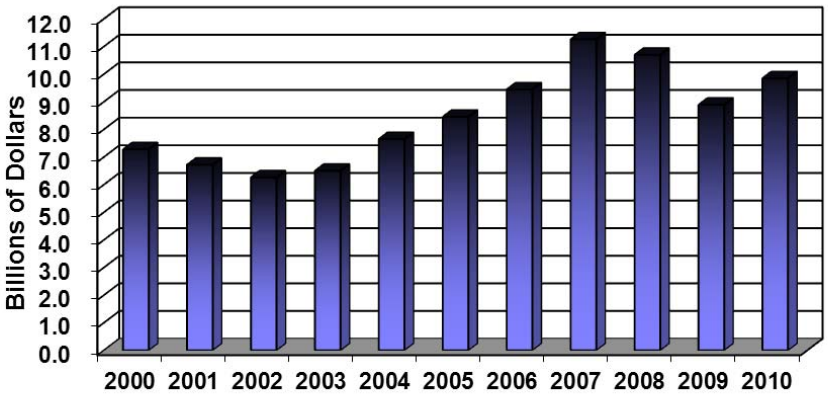
- Appendix A A summary of the actuarial procedures and assumptions.
- Appendix B A summary of the current benefit structure based on governing law on July 1, 2010.
- Appendix C Schedules of valuation data classified by various categories; a brief summary of the System's recent experience; and comparative statistics since June 30, 1968.
- Appendix D A glossary of actuarial terms used in this report.

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, 2010. 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



For all years shown in this table, the actuarial value of assets has been equal to the Market Value of Assets on the valuation date.

At July 1, 2010, the actuarial value of assets was $9.847 billion. Table 3 presents a summary of the System's assets, and Table 4 presents an analysis of the investments.

The actuarial value of total assets has increased 35% over the value in 2000. 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, 2010, of $9,847,006,894 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 11.93% for the year ending June 30, 2010, which is compared with the actuarial assumption, net of all expenses, of 7.25% for the fiscal year ended June 30, 2010.

Public Employee Retirement System of Idaho

Table 3: Summary of Assets

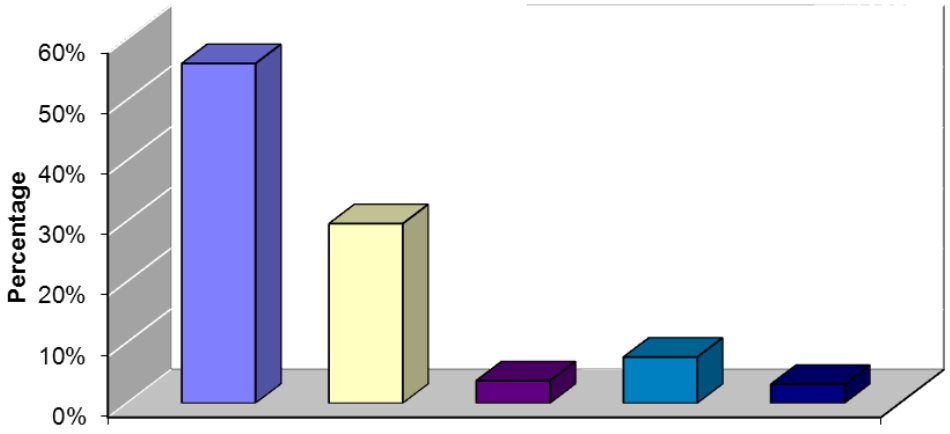
	July 1, 2010	July 1, 2009
Assets		
Cash	$ 2,384,279	$ 2,878,187
Investments at Fair Value	9,969,096,519	8,983,739,876
Investments Sold	1,154,073,891	956,187,923
Contributions	4,044,057	5,016,857
Interest and Dividends	40,735,544	36,365,046
Assets Used in Plan Operations, Net	2,286,830	2,450,321
Retiree Payroll in Process	42,838,074	39,753,087
Other Prepaids	-	-
Total Assets	$ 11,215,459,194	$ 10,026,391,297
Liabilities		
Accrued Liabilities	$ 8,891,721	$ 8,526,941
Benefits and Refunds Payable	974,654	0
Due to Other Funds	1,638,427	1,625,810
Investments Purchased	1,356,947,498	1,127,886,499
Total Liabilities	$ 1,368,452,300	$ 1,138,039,250
Net Assets	$ 9,847,006,894	$ 8,888,352,047
Allocation of Net Assets		
Total Assets Held for PERSI Pension Benefits	$ 9,579,844,273	$ 8,646,013,274
Firefighters' Retirement Fund Assets	247,114,658	225,339,701
Idaho Falls Police Retirement Fund Assets	17,761,133	14,548,751
Assets Used in Plan Operations	2,286,830	2,450,321
Total Assets Held by PERSI	$ 9,847,006,894	$ 8,888,352,047

Public Employee Retirement System of Idaho

Table 4: Analysis of Investments
July 1, 2010

	Valuation Basis [1]	Percentage
Fixed Income Investments		
Domestic	$ 2,402,932,292	24.1%
International	48,755,220	0.5%
Idaho Commercial Mortgages	493,885,456	5.0%
Total Fixed Income	2,945,572,968	29.6%
Short Term Investments	366,055,984	3.7%
Real Estate	304,814,272	3.1%
Equity Securities		
Domestic	3,451,208,849	34.6%
International	2,137,803,987	21.4%
Total Equities	5,589,012,836	56.0%
Private Equity	763,640,459	7.6%
Total Investments	$ 9,969,096,519	100.0%

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



Total Equities	Fixed Income	Short-Term Investments	Private Equity	Real Estate
56.0%	29.6%	3.7%	7.6%	3.1%

Public Employee Retirement System of Idaho

Table 5: Reconciliation of Assets

	Inception to June 30, 2009	July 1, 2009 to June 30, 2010	Inception to June 30, 2010
Investment Return:			
Income from Stock	$ 1,612,597,306	$ 136,478,303	$ 1,749,075,609
Interest	2,412,839,419	104,871,939	2,517,711,358
Capital Gains (realized and unrealized)	3,810,011,679	855,020,829	4,665,032,508
Other Investment Income	172,943,457	7,781,353	180,724,810
Total Investment Return	$ 8,008,391,861	$ 1,104,152,424	$ 9,112,544,285
Employer Contributions	$ 4,804,656,184	$ 298,474,750	$ 5,103,130,934
Member Contributions	2,824,127,840	178,140,565	3,002,268,405
Miscellaneous	11,062,873	12,261	11,075,134
Transfers In	16,901	-	16,901
Total Revenue	$15,648,255,659	$ 1,580,780,000	$17,229,035,659
Administrative Expense	$ 110,794,549	$ 6,471,359	$ 117,265,908
Investment Expense	489,776,288	43,486,911	533,263,199
Benefit Payments and Refunds	6,102,750,661	572,166,883	6,674,917,544
Transfers Out	56,582,114	-	56,582,114
Total Expenditures	$ 6,759,903,612	$ 622,125,153	$ 7,382,028,765
Net Assets, Beginning of Period	$ -	$ 8,888,352,047	$ -
Total Revenue	15,648,255,659	1,580,780,000	17,229,035,659
	$15,648,255,659	$ 10,469,132,047	$17,229,035,659
Less Total Expenditures	6,759,903,612	622,125,153	7,382,028,765
Net Assets, End of Period	$ 8,888,352,047	$ 9,847,006,894	$ 9,847,006,894

Public Employee Retirement System of Idaho

Table 6: Analysis of Investment Yield

	July 1, 2009 to June 30, 2010	
	Actuarial Basis	**Market Basis**
Investment Return	$ 1,104,152,424	$ 1,104,152,424
Less Investment Expenses	43,486,911	43,486,911
Net Return	$ 1,060,665,513	$ 1,060,665,513
Mean Assets for Period	$ 8,834,978,139	$ 8,834,978,139
Annual Yield	12.01%	12.01%

Analysis of Investment Yield - Net of All Expenses

	Summary of Annual Yields for Year Ending June 30, 2010		
Expense Basis	**Actuarial Assumption**	**Actuarial Basis**	**Market Basis**
Gross – Before Expenses	7.75%	12.53%	12.43%
Net of Investment Expenses	7.35%	12.01%	12.01%
Net of All Expenses	7.25%	11.93%	11.93%

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, 2010 are:*

2 years	-3.20%	20 years	7.72%
3 years	-3.67%	25 years	8.38%
5 years	3.62%	30 years	8.94%
10 years	3.34%	35 years	8.57%
15 years	7.28%	40 years	8.15%

5. *Plan assets differ for each expense basis, so differences between bases are not comparable.*

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, 2010. 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 2010 Investigation of Experience Report and the July 27, 2010, Board meeting materials. New assumptions were adopted by the Board effective July 1, 2010.

All liabilities reflect the benefits in effect on July 1, 2010. No further increases are considered in determining the liabilities shown.

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, 2010

Contributing Members	Fire & Police	General Employees		Teachers		Grand Total
		Male	Female	Male	Female	
Service Retirement and Unreduced Early Retirement	$ 1,148.4	$ 1,352.7	$ 1,412.9	$ 759.6	$ 1,644.4	$ 6,318.0
Reduced Early Retirement	231.0	450.5	561.7	340.2	719.1	2,302.5
Vested Retirement	69.9	94.4	143.6	39.9	93.2	441.0
Disability Retirement	54.3	102.6	87.5	31.2	73.4	349.0
Death	26.6	60.2	52.4	18.4	35.2	192.8
Refunds of Member Contributions[(1)]	32.3	43.6	50.0	10.7	17.3	153.9
Total	$ 1,562.5	$ 2,104.0	$ 2,308.1	$ 1,200.0	$ 2,582.6	$ 9,757.2
Former Contributing Members & Survivors[(2)]						
Service Retirement	$ 525.6	$ 1,140.0	$ 937.7	$ 996.9	$ 1,233.1	$ 4,833.3
Disability Retirement	18.0	50.0	59.7	14.2	49.2	191.1
Survivors' Benefits	21.5	12.0	103.3	11.1	47.7	195.6
All Other Benefits	46.6	157.5	235.4	53.1	107.4	600.0
Total	$ 611.7	$ 1,359.5	$ 1,336.1	$ 1,075.3	$ 1,437.4	$ 5,820.0
Grand Total	$ 2,174.2	$ 3,463.5	$ 3,644.2	$ 2,275.3	$ 4,020.0	$ 15,577.2

(1) Including all benefits provided by voluntary contributions.

(2) Prior to COLA of 1.1481%. Total inactive value with COLA is $5,828.5 million. Grand total with COLA is $15,585.7 million.

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 difference 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 difference 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, 2010, the plan changes effective July 1, 2010, and the July 1, 2010, total contribution rate of 16.89%. The normal cost rate remains 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.

Amortization of UAAL or Funding Reserve (continued)

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.

ORP Contributions

Under Idaho Code 33-107A each institution participating in the optional retirement program (ORP) is required to pay an amount equal to 1.49% of salaries of their ORP participants to PERSI. This amount is to be paid until July 1, 2025. 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. Table 8 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.

Funding Adequacy (continued)

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, July 1, 2005, and July 1, 2006, due to asset gains. During the year ending July 1, 2007, the asset gain resulted in a Funding Reserve. During the year ending July 1, 2008, the asset loss resulted in the re-emergence of a UAAL. The UAAL grew further during the year ending July 1, 2009, due to asset losses. The UAAL decreased during the year ending July 1, 2010, due to asset gains. The dollar amount of the UAAL is $2,555.8 prior to the adoption of the potential March 1, 2011, COLA benefits.

Discretionary COLA Increases

The costs of providing future postretirement increases of 1% per year are included in the "pre-adjustments" amounts shown in Table 8. These increases are automatic as long as the increase in the CPI-U is at least 1%. 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 1.1481% during the year.

The March 1, 2011, potential discretionary postretirement benefit increases of 0.1481% would increase the actuarial present value of all future benefits by $8.5 million as of July 1, 2010. Thus, the July 1, 2010, 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, 2010, is less than 113%, 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.

The Board has set the current total contribution rate to 16.89%. Increases in the total contribution rate are scheduled for July 1, 2011, to 18.39%, for July 1, 2012, to 19.89%, and for July 1, 2013, to 22.17%. 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, as of July 1, 2010, the scheduled contribution rates will permit the Board to achieve these goals, since the UAAL amortization period is less than or equal to 25 years, as required by statute.

Funding Policy (continued)

The schedule of member and employer contribution rates by class is shown in the table below.

	Fire and Police	General and Teachers	Combined Mix
July 1, 2010 Rates			
Employer	10.73%	10.39%	10.44%
Member	7.69%	6.23%	6.45%
Total	18.42%	16.62%	16.89%
July 1, 2011 Rates			
Employer	11.66%	11.32%	11.36%
Member	8.36%	6.79%	7.03%
Total	20.02%	18.11%	18.39%
July 1, 2012 Rates			
Employer	12.58%	12.24%	12.29%
Member	9.03%	7.34%	7.60%
Total	21.61%	19.58%	19.89%
July 1, 2013 Rates			
Employer	13.99%	13.65%	13.70%
Member	10.04%	8.19%	8.47%
Total	24.03%	21.84%	22.17%

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.

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

	Valuation Date:	July 1, 2010		July 1, 2009	
	Funding Basis:	Pre-Adjustments	Post-Adjustments[1]	Pre-Adjustments	Post-Adjustments[3]
A.	Actuarial Present Value of all Future Benefits for Contributing Members, Former Contributing Members, and Their Survivors (Table 7)	$ 15,577.2	$ 15,585.7	$ 15,536.8	$ 15,550.6
B.	Actuarial Present Value of Total Future Normal Costs for Present Members	3,389.3	3,389.3	3,680.3	3,733.0
C.	Actuarial Accrued Liability [A - B]	$12,187.9	$12,196.4	$11,856.5	$11,817.6
D.	Present Value of Future ORP Contributions	52.3	52.3	59.6	59.6
E.	Actuarial Accrued Liability Funded by PERSI Contributions [C-D]	12,135.6	12,144.1	11,796.9	11,758.0
F.	Actuarial Value of Assets Available for Benefits	9,579.8[2]	9,579.8[2]	8,646.0	8,646.0
G.	UAAL (Funding Reserve) [E - F]	$ 2,555.8	$ 2,564.3	$ 3,150.9	$ 3,112.0
H.	Amortization Period on Valuation Date Based on Contribution Rate Established as of Benefit Date	17.5 years	17.5 years	Over 100 years	25.0 years
I.	Funded Ratio [F/E]	78.9%	78.9%	73.3%	73.5%

(1) Recognizes the cost of the potential discretionary portion of the March 1, 2011, postretirement COLA increases: 0.1481% ($8.5 million).

(2) The total available assets are $9,847.0 million (Table 3), but are reduced by $267.2 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.

(3) Recognizes the impact of the March 1, 2010, COLA and the scheduled contribution rate increases adopted during the 2009-2010 year.

Public Employee Retirement System of Idaho

Table 9: Normal Cost Rates on Current Contribution Basis

July 1, 2010 (1)

	Fire & Police	General Employees		Teachers		Total Rate
		Male	Female	Male	Female	
Service Retirement and Unreduced Early Retirement	10.55%	5.73%	5.58%	6.47%	7.02%	6.88%
Reduced Early Retirement	3.05	3.10	3.35	4.83	4.59	3.76
Vested Retirement	1.41	1.24	1.59	1.07	1.18	1.31
Disability Retirement	0.80	0.81	0.63	0.54	0.61	0.68
Death	0.28	0.32	0.26	0.21	0.19	0.25
Refunds of Member Contributions	1.23	1.27	1.33	0.65	0.61	1.02
Total	17.32%	12.47%	12.74%	13.77%	14.20%	13.90%
Less Member Contributions	7.69	6.23	6.23	6.23	6.23	6.46
Employer Normal Cost Rate	9.63%	6.24%	6.51%	7.54%	7.97%	7.44%

Analysis of Member Contributions

Member Contributions	7.69%	6.23%	6.23%	6.23%	6.23%	6.46%
Less Expected Refunds	1.23	1.27	1.33	0.65	0.61	1.02
	6.46%	4.96%	4.90%	5.58%	5.62%	5.44%

(1) Normal Cost Rates are from the July 1, 2010, valuation. According to PERSI policy, the rates are not updated unless there is a change in assumptions or benefits. The mortality and economic assumptions were changed effective July 1, 2010.

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

Valuation Date	July 1, 2009	July 1, 2010		
Funding Basis:	Post-Adjustments [1]	Pre-Adjustments [2]	Post-Adjustments [3]	Minimum Contribution Rate [4]
A. Employer Contribution Rate	10.44%	10.44%	10.44%	12.17%
B. Member Contribution Rate	6.45	6.45	6.45	7.52
C. Total Contribution Rate [A + B]	16.89%	16.89%	16.89%	19.69%
D. Total Normal Cost Rate	14.62	13.90	13.90	14.07
E. Amount Available to Amortize Liability [C - D]	2.27%	2.99%	2.99%	5.62%
F. Dollar Amount of UAAL in Millions (if negative, Funding Reserve) [5]	$3,112.0	$2,555.8	$2,564.3	$2,569.4
G. Amortization Period Measured from Valuation Date	25.0 years	17.5 years	17.5 years	25.0 years

(1) Includes the impact of the March 1, 2010 COLA and the contribution rate increases adopted during the 2009-2010 year.

(2) Does not include the cost of the discretionary portion of the March 1, 2011, postretirement COLA increases: 0.1481% ($8.5 million). This column reflects the contribution rate increases scheduled for July 1, 2011 – July 1, 2013, totaling 5.28%.

(3) Includes the cost of the discretionary portion of the March 1, 2011, postretirement COLA increases: 0.1481% ($8.5 million). This column reflects the contribution rate increases scheduled for July 1, 2011 – July 1, 2013, totaling 5.28%.

(4) Per the Board's policy, the Funding Reserve (if applicable) 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 1.49% of salaries of university members in the Optional Retirement Plan (ORP) until 2025 and 3.83% of salaries of junior college members in the ORP until 2011. The present value of these expected contributions is $52.3 million.

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. At July 1, 2010, the valuation reflects updated mortality and economic assumptions adopted by the Board. No other significant assumption or plan changes occurred.

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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 Accrued Liabilities (UAAL)[2]	Funded Ratio[3]	Covered Payroll[4]	UAAL as a Percentage of Covered Payroll
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
July 1, 2006	9,177.1	9,699.0	60.2	461.7	95.2	2,343.5	19.7
July 1, 2007	10,945.8	10,431.9	59.5	(573.4)	105.5	2,421.0	(23.7)
July 1, 2008	10,402.0	11,211.8	60.9	748.9	93.3	2,578.9	29.0
July 1, 2009	8,646.0	11,732.2	59.6	3,026.6	74.1	2,683.5	112.8
July 1, 2010	9,579.8	12,187.9	52.3	2,555.8	78.9	2,684.4	95.2

(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.

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, 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
July 1, 2006	9,177.1	2,142.5	4,088.9	3,467.6	100.0	100.0	84.9
July 1, 2007	10,945.8	2,335.6	4,582.9	3,513.4	100.0	100.0	100.0
July 1, 2008	10,402.0	2,642.0	5,022.9	3,546.9	100.0	100.0	77.2
July 1, 2009	8,646.0	2,867.7	5,396.2	3,468.3	100.0	100.0	11.0
July 1, 2010	9,579.8	2,813.7	5,820.0	3,554.2	100.0	100.0	26.6

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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
6/30/05	$ 2,208.7	$ 230.4	$ 5.8	$ 236.2	$ 236.7	100%
6/30/06	2,343.5	244.4	6.4	250.8	238.1	105
6/30/07	2,421.0	252.8	6.7	259.5	235.4	110
6/30/08	2,578.9	269.2	4.1	273.3	251.4	109
6/30/09	2,683.5	280.2	4.4	284.6	232.0	123
6/30/10	2,684.4	280.2	4.7	284.9	260.3[(4)]	109

(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 1.49% of salaries of university members in the ORP until 2025 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 9.523% for the PERSI fiscal year ending June 30, 2010, is based on three months at 8.09% as computed in the 2007 valuation and nine months at 10.00% as computed in the 2008 valuation.

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

Fiscal Year Ending	Actual PERSI Employer Contribution %[1]	Annual Required Contribution (ARC) %[2]	Percentage of ARC Contributed
6/30/05	10.43%	10.453%	100%
6/30/06	10.43	9.885	105
6/30/07	10.44	9.448	110
6/30/08	10.44	9.588	109
6/30/09	10.44	8.483	123
6/30/10	10.44	9.523[3]	109

(1) 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.

(2) 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 assumed applicable for employers commencing October 1 of the calendar year following the valuation date. For Optional Retirement Plan (ORP) employers, the ARC is equal to 1.49% of salaries of university members in the ORP until 2025 and 3.83% of salaries of junior college members in the ORP until 2011.

(3) See Table C-5 for further disclosures. The ARC of 9.523% for the PERSI fiscal year ending June 30, 2010 is based on three months at 8.09% as computed in the 2007 valuation and nine months at 10.00% as computed in the 2008 valuation.

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. Beginning in 2007, contributions were less than benefits and the System began drawing on the fund that has been built. The cash flow is projected to be negative in each of 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 projected cash flows include PERSI contributions, benefits, and expenses. They are based on the actuarial assumptions as stated in Appendix A. Expenses are based on the expenses for the year ended June 30, 2010, increased annually with the actuarial inflation assumption of 3.50%. 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
- 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, 2010, based on the year of retirement. The jump in retirements in 1996 is believed to be an issue with imperfect retirement date data in PERSI's records. The retirement date issue does not affect the funding or accounting calculations of this valuation.

Table 15: Cash Flow History and Projections (All dollar amounts in millions)

Year	Historical Cash Flows: Contributions	Benefits & Administrative Expenses	Net Cash Flow
2001	$242[1]	$336[2]	$ (94)
2002	330	282	48
2003	338	306	32
2004	344	334	10
2005	382	363	19
2006	405	405	0
2007	419	442	(23)
2008	444	485	(41)
2009	465	524	(59)
2010	463	560	(97)

Year	Projected Cash Flows (PERSI Funds Only): Contributions [3]	Benefits & Administrative Expenses [4]	Net Cash Flow [5]
2011	$472	$600	$ (128)
2012	534	637	(103)
2013	601	678	(77)
2014	696	722	(26)
2015	724	768	(44)
2016	753	817	(64)
2017	783	868	(85)
2018	814	921	(107)
2019	847	976	(129)
2020	881	1,031	(150)

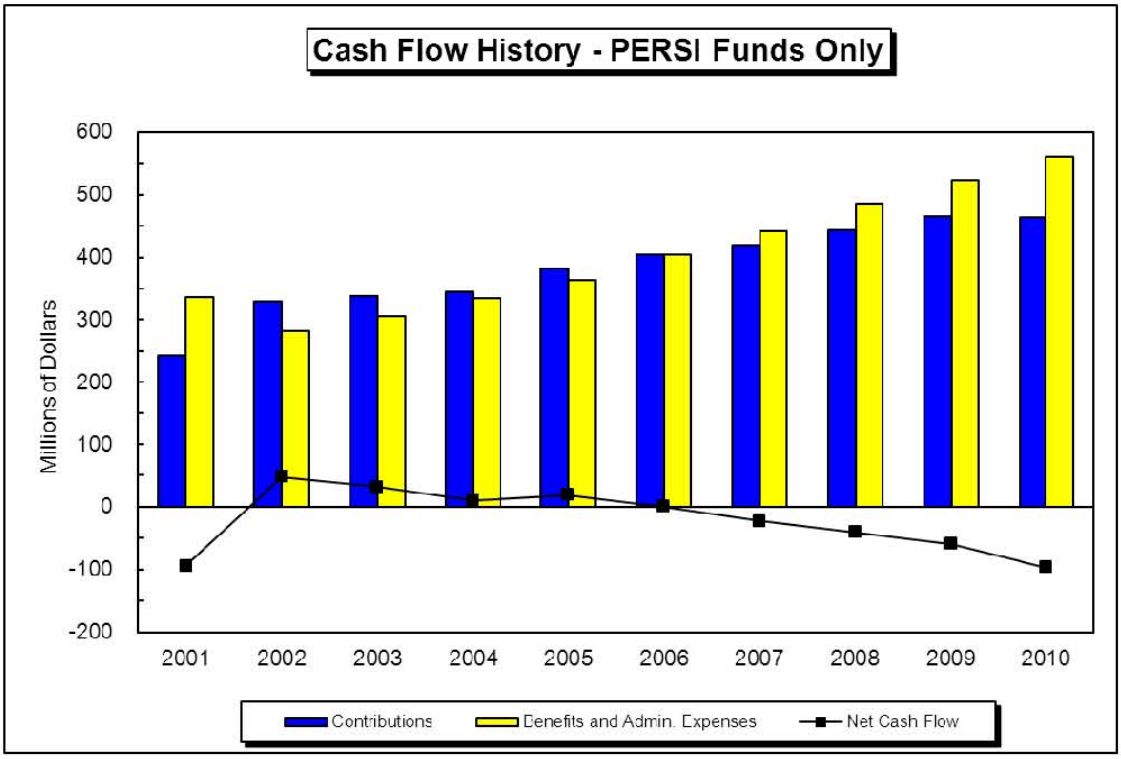
(1) Contributions for 2001 do not reflect $78 million in employer Gain Sharing credits.

(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 rate schedule.

(4) Projected expenses are based on expenses for FYE 2010 and the annual inflation assumption of 3.50%.

(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.



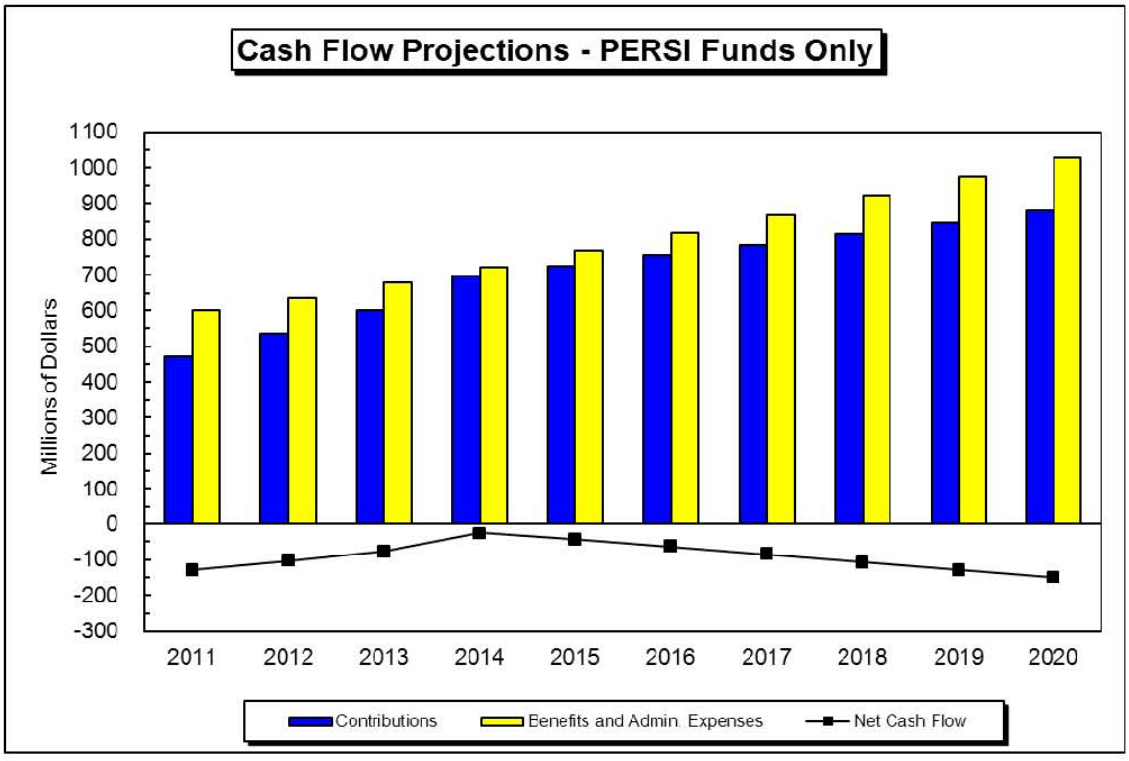
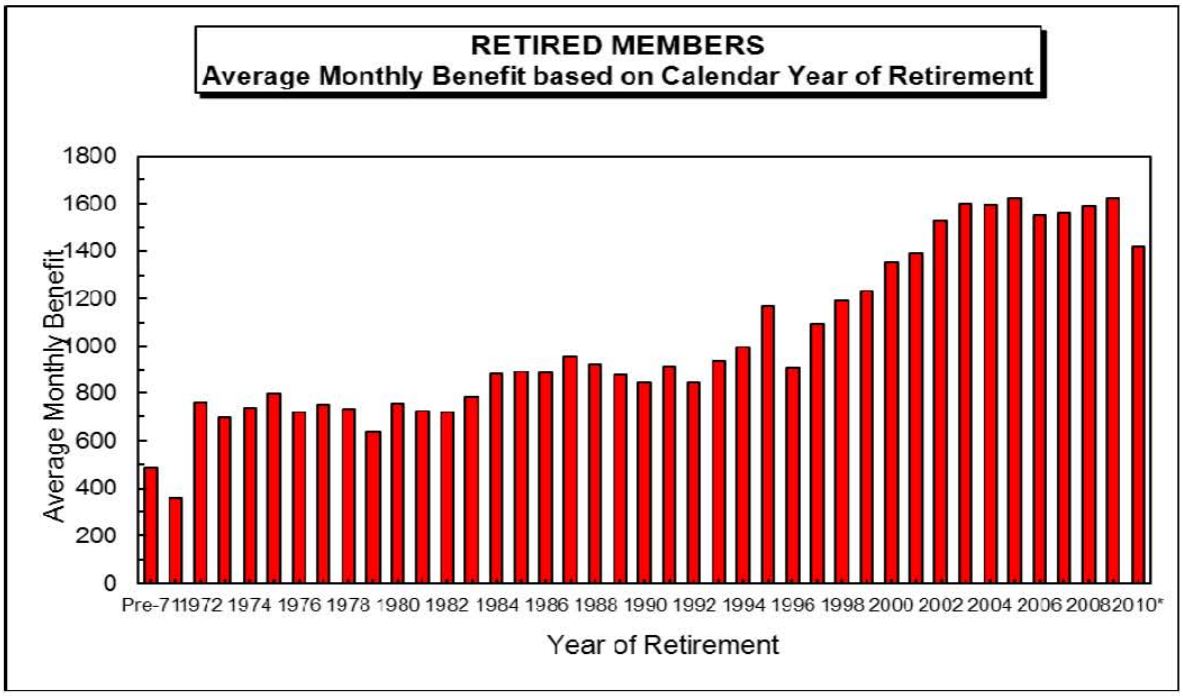
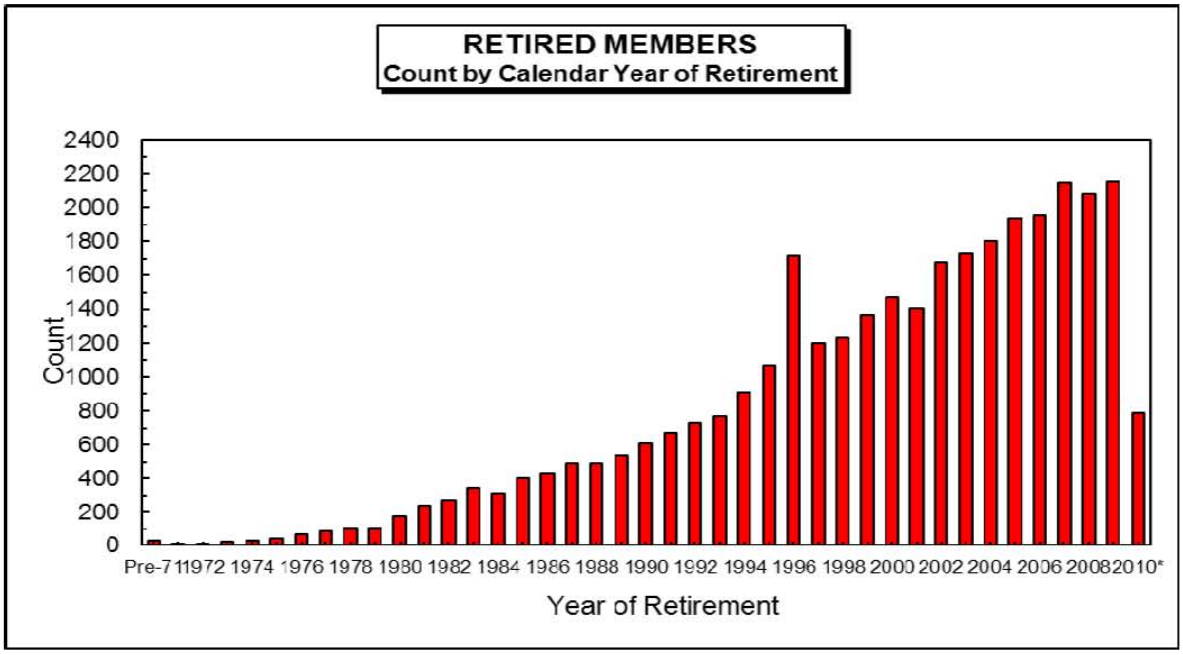


Table 16: Distribution of Retired Members by Calendar Year of Retirement





2010 reflects only a partial year of retirements.

Appendix A: Actuarial Procedures and Assumptions

The actuarial procedures and assumptions used in this valuation are described in this section. The demographic and economic assumptions were changed July 1, 2010, as a result of our 2010 Investigation of Experience Study.

The mortality assumptions are based on the RP-2000 Mortality Table with generational mortality adjustments, as described in this section.

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. In effect, this means that UAAL amortization payments are assumed to grow at the same rate as the General Wage increase assumption (currently 4.00%).

The normal cost rates used in this valuation were calculated based on all current active members as of July 1, 2010, 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. These rates are scheduled to increase on July 1, 2011, July 1, 2012, and July 1, 2013, as indicated in Section 5.
ORP Contributions	Until July 1, 2025, 1.49% 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 0.10% increase for the death benefit for fire and police members). After the 72% is applied, the safety member rates are increased by 0.04% for the member-paid lump sum duty disability benefit. As of July 1, 2010, the general member rate is 6.23% and the fire and police rate is 7.69%. These rates are scheduled to increase on July 1, 2011, July 1, 2012, and July 1, 2013, as indicated in Section 5.
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 0.40% for investment expenses and 0.10% for general administrative expenses. These rates were adopted July 1, 2010.
Postretirement Benefit Increases	A nondiscretionary postretirement increase of 1% per year is assumed for the primary valuation.
Cash Refund Benefits	Members receiving retirement benefits will not receive less than each member's accumulated member contributions at retirement. For the active members, this is approximated in the valuation using a three year certain period for annuity retirement benefits.

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 2010.

Future Salaries

The rates of annual salary increase assumed for the purpose of the valuation are illustrated in Tables A-5 and A-6. The current assumptions for promotions and longevity were adopted July 1, 2008. In addition to increases in salary due to promotions and longevity, this scale includes an assumed 4.00% per annum rate of increase in the general wage level of the membership, adopted July 1, 2010.

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 were revised July 1, 2008.

Disablement

The rates of disablement used in the valuation are illustrated in Table A-10. These rates were revised July 1, 2008.

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, 2010.

Teachers

Males	RP-2000 Combined Table for Healthy Individuals for males, set back three years.
Females	RP-2000 Combined Table for Healthy Individuals for females, set back three years.

Fire and Police

Males	RP-2000 Combined Table for Healthy Individuals for males with no offset.
Females	RP-2000 Combined Table for Healthy Individuals for females, set forward one year.

For deaths of active Fire and Police members, 10% are assumed to be duty related. This rate was adopted July 1, 2008.

General Employees and All Beneficiaries

Males	RP-2000 Combined Table for Healthy Individuals for males with no offset.
Females	RP-2000 Combined Table for Healthy Individuals for females, set back one year.

All mortality tables are adjusted with generational mortality adjustments using projection scale AA as shown in Table A-11B.

The projection scale is applied from the year 2000 to the year in which the mortality assumption is being applied.

Mortality – Disabled Members

For disabled members, the mortality rates used in the valuation are the rates from the RP-2000 table for disabled individuals for respective sexes, with a one-year setback for males and a two-year set forward for females. These rates are illustrative in Table A-11A. These rates were adopted July 1, 2010.

All mortality tables are adjusted with generational mortality adjustments using projection scale AA as shown in Table A-11B.

The projection scale is applied from the year 2000 to the year in which the mortality assumption is being applied.

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, 2008.

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, 2008.

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.

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.

Fire and Police Duty Death and Disability

For the Fire and Police active members, 10% of deaths and 25% of disabilities are assumed to be duty related.

Joint and Survivor Pop-Up Loading Factors

PERSI provides that for members retiring on or after October 1, 1992, if a member with a joint and survivor form of payment dies, the member's PERSI benefit is increased to eliminate the reduction to the member's benefit for the joint and survivor option.

For retired members who have both a level income option and a joint & survivor form of payment, we value their benefit by valuing the joint and survivor benefit without the pop-up feature and apply a load to account for the pop-up feature. For retired members, our current assumption is a 1% load for male members and 1.50% load for female members. These percentages are applied to the Present Value of Benefits (PVB) for these members.

For active members, we also make an adjustment to the liabilities other than for death and disability to account for the joint and survivor pop-up feature. Our current assumption is a 0.65% load factor for males and 0.35% factor for females. These assumptions were adopted July 1, 2008.

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 the later of the member's current age or age 59 (age 53 for fire and police members). This assumption was adopted July 1, 2008.

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

Present Value of Benefits for Active Members with no Salary

There are active members who are reported in the valuation data as active, but with no salary. Discussions with PERSI staff indicated that these members are generally terminated, but that their record has not yet been completely updated. For the valuation, we treat these members as either vested inactive or non-vested inactive members. For the vested members, we do not have sufficient benefit information to determine a liability directly. We assume that these members have a liability determined from the ratio of Present Value of Benefits to accumulated member contributions for vested inactive members. Currently that ratio is 1.6. This assumption was adopted July 1, 2009.

Public Employee Retirement System of Idaho

Table A-1: Summary of Valuation Assumptions
July 1, 2010

I.	Economic Assumptions	
	A. General wage increases	4.00%
	B. Investment earnings (including 0.50% for expenses)	7.75
	C. Growth in membership	0.00
	D. Postretirement benefit increases	1.00
	E. Inflation	3.50
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

Base mortality rates are shown in Table A-11A.

Basis – RP-2000 Combined Mortality Table for respective sexes, as adjusted:

Class of Members	Adjustment
Teachers - men	–3 years
Teachers - women	–3 years
Fire and police - men	0 years
Fire and police - women	+1 year
General employees and all beneficiaries - men	0 years
- women	–1 year

All mortality tables are adjusted with generational mortality adjustments using projection scale AA table as shown in Table A-11B.

E. Mortality among disabled members — Table A-11

Base mortality rates are shown in Table A-11A.
RP-2000 table for disabled individuals for respective sexes, as adjusted:

Men	−1 year
Women	+2 years

All mortality tables are adjusted with generational mortality adjustments using projection scale AA table as shown in Table A-11B.

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

Public Employee Retirement System of Idaho

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, 39.1%, or 416, are expected to eventually terminate membership due to a service retirement. Likewise, 48.1%, or 511, are expected to leave employment prior to retirement, death or disability.

Age	Number Active	Service Retirement	Early Retirement	Death & Disability	Other Terminations
15-19	-	0.0%	0.0%	0.0%	0.0%
20-24	179	30.1	1.7	2.5	65.7
25-29	795	34.0	4.8	3.1	58.1
30-34	1,063	39.1	8.9	3.9	48.1
35-39	1,144	45.4	14.0	4.6	36.0
40-44	1,100	50.2	20.0	5.2	24.6
45-49	890	56.0	27.6	5.4	11.0
50-54	733	65.7	26.8	4.5	3.0
55-59	500	80.9	12.5	3.3	3.3
60-64	225	94.3	0.0	2.7	3.0
65-69	45	93.4	0.0	2.6	4.0
70-74	3	100.0	0.0	0.0	0.0
75-80	1	100.0	0.0	0.0	0.0
Totals	6,678	51.7%	15.3%	4.3%	28.7%

Public Employee Retirement System of Idaho

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

Age	Number Active	Service Retirement	Early Retirement	Death & Disability	Other Terminations
			MALE		
15-19	13	16.2%	0.0%	2.0%	81.8%
20-24	311	20.1	0.5	2.7	76.7
25-29	956	23.1	1.9	3.4	71.6
30-34	1,371	27.2	4.3	4.5	64.0
35-39	1,493	30.8	8.9	5.6	54.7
40-44	1,787	31.7	15.7	6.6	46.0
45-49	2,212	35.2	23.8	7.7	33.3
50-54	2,788	42.4	32.8	8.4	16.4
55-59	2,926	49.2	37.7	7.8	5.3
60-64	2,102	63.5	25.4	6.1	5.0
65-69	675	85.5	0.0	7.6	6.9
70-74	215	87.7	0.0	6.8	5.5
75-80	84	100.0	0.0	0.0	0.0
Totals	16,933	42.9%	21.1%	6.7%	29.3%
			FEMALE		
15-19	6	12.5%	0.0%	1.0%	86.5%
20-24	486	15.6	0.5	1.5	82.4
25-29	1,349	19.4	1.7	2.1	76.8
30-34	1,923	23.6	3.9	3.0	69.5
35-39	2,224	25.9	8.4	3.8	61.9
40-44	2,926	27.3	15.5	4.8	52.4
45-49	3,864	31.3	24.3	5.8	38.6
50-54	4,497	37.9	36.2	6.6	19.3
55-59	4,398	47.1	41.4	6.3	5.2
60-64	2,716	62.6	27.8	5.3	4.3
65-69	687	89.2	0.0	6.4	4.4
70-74	144	90.1	0.0	5.8	4.1
75-80	30	100.0	0.0	0.0	0.0
Totals	25,250	38.1%	23.3%	5.2%	33.4%

Table A-4: Analysis of Current Active Membership by Expected Cause of Termination - Teachers

Age	Number Active	Service Retirement	Early Retirement	Death & Disability	Other Terminations
			MALE		
15-19	-	0.0%	0.0%	0.0%	0.0%
20-24	11	33.1	5.3	3.0	58.6
25-29	344	33.6	10.8	3.5	52.1
30-34	622	36.4	17.6	4.2	41.8
35-39	694	40.0	24.1	4.8	31.1
40-44	724	38.4	32.7	5.1	23.8
45-49	655	40.2	39.9	5.1	14.8
50-54	713	42.1	46.8	4.7	6.4
55-59	758	54.7	40.0	3.7	1.6
60-64	490	73.4	22.5	3.0	1.1
65-69	101	95.3	0.0	2.7	2.0
70-74	19	100.0	0.0	0.0	0.0
75-80	3	100.0	0.0	0.0	0.0
Totals	5,134	45.9%	30.4%	4.3%	19.4%
			FEMALE		
15-19	-	0.0%	0.0%	0.0%	0.0%
20-24	164	32.8	3.2	2.8	61.2
25-29	1,156	38.6	6.3	3.4	51.7
30-34	1,329	43.5	11.4	4.0	41.1
35-39	1,586	43.3	19.4	4.5	32.8
40-44	1,652	41.8	27.7	4.9	25.6
45-49	1,640	41.2	36.5	5.0	17.3
50-54	1,963	42.3	45.4	4.7	7.6
55-59	2,070	49.4	45.8	3.8	1.0
60-64	1,258	64.9	31.3	3.0	0.8
65-69	191	97.2	0.0	2.4	0.4
70-74	14	100.0	0.0	0.0	0.0
75-80	2	100.0	0.0	0.0	0.0
Totals	13,025	46.0%	29.4%	4.2%	20.4%

Public Employee Retirement System of Idaho

Table A-5: Future Salaries

Years of Service	Annual Increase in Salary Due to Promotions and Longevity				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
1	6.00%	6.00%	6.00%	5.00%	5.00%
2	5.50	4.00	4.56	4.50	4.75
3	4.80	3.30	3.84	4.00	4.50
4	4.30	2.70	3.36	3.50	4.25
5	3.80	2.40	2.88	3.25	3.95
6	3.40	2.20	2.60	3.00	3.65
7	3.00	2.00	2.35	2.80	3.35
8	2.70	1.80	2.15	2.60	3.00
9	2.50	1.60	2.00	2.40	2.70
10	2.20	1.50	1.85	2.20	2.40
11	2.00	1.30	1.65	2.00	2.00
12	1.80	1.20	1.50	1.80	1.70
13	1.60	1.10	1.30	1.60	1.45
14	1.50	1.00	1.10	1.40	1.15
15	1.45	0.90	0.98	1.20	0.90
16	1.35	0.85	0.90	1.00	0.75
17	1.30	0.80	0.85	0.80	0.60
18	1.20	0.75	0.75	0.60	0.55
19	1.10	0.70	0.70	0.50	0.50
20	1.00	0.65	0.65	0.50	0.50
21	0.90	0.60	0.65	0.50	0.50
22 or more	0.85	0.60	0.65	0.50	0.50

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	10.24%	10.24%	10.24%	9.20%	9.20%
2	9.72	8.16	8.74	8.68	8.94
3	8.99	7.43	7.99	8.16	8.68
4	8.47	6.81	7.49	7.64	8.42
5	7.95	6.50	7.00	7.38	8.11
6	7.54	6.29	6.70	7.12	7.80
7	7.12	6.08	6.44	6.91	7.48
8	6.81	5.87	6.24	6.70	7.12
9	6.60	5.66	6.08	6.50	6.81
10	6.29	5.56	5.92	6.29	6.50
11	6.08	5.35	5.72	6.08	6.08
12	5.87	5.25	5.56	5.87	5.77
13	5.66	5.14	5.35	5.66	5.51
14	5.56	5.04	5.14	5.46	5.20
15	5.51	4.94	5.02	5.25	4.94
16	5.40	4.88	4.94	5.04	4.78
17	5.35	4.83	4.88	4.83	4.62
18	5.25	4.78	4.78	4.62	4.57
19	5.14	4.73	4.73	4.52	4.52
20	5.04	4.68	4.68	4.52	4.52
21	4.94	4.62	4.68	4.52	4.52
22 or more	4.88	4.62	4.68	4.52	4.52

(1) The total expected increase in salary is the increase due to promotions and longevity, shown in Table A-5, adjusted for an assumed 4.00% 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

	Retirement Rates in First Year Eligible for Unreduced Benefits				
	Fire and	General Employees		Teachers	
Age	Police	Men	Women	Men	Women
55[1]	24%	25%	30%	21%	10%
56	24	25	30	21	20
57	24	25	30	21	30
58	24	25	30	21	30
59	24	30	30	21	30
60	24	30	30	21	30
61	24	30	30	23	30
62	60	45	67	75	50
63	60	35	58	30	50
64	50	55	40	50	50
65	50	65	60	50	65
66	50	25	25	20	40
67	50	25	25	20	40
68	50	25	25	20	40
69	50	25	25	20	40
70	[2]	25	25	[2]	[2]
71		25	25		
72		25	25		
73		25	25		
74		25	25		
75		[2]	[2]		

(1) 17% 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.

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%	20%	5%	10%
56	20	10	20	10	10
57	20	10	20	15	15
58	20	15	20	19	15
59	20	15	20	20	15
60	25	18	20	20	20
61	25	18	25	20	25
62	40	55	40	45	42
63	25	30	30	27	37
64	25	30	30	27	30
65	45	75	65	65	65
66	45	30	30	30	35
67	45	25	25	30	35
68	45	25	20	30	35
69	45	25	20	30	35
70	[2]	25	20	[2]	[2]
71		25	20		
72		25	20		
73		25	20		
74		25	20		
75		[2]	[2]		

(1) 12% rate assumed for fire and police members eligible from age 50 to 52. 20% rate assumed from age 53 to 54.

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

Public Employee Retirement System of Idaho

Table A-9: Early Retirement

	Retirement Rates Among Persons Eligible for Reduced Early Retirement Benefits				
	Fire and	General Employees		Teachers	
Age	Police	Men	Women	Men	Women
50	6.0%				
51	6.0				
52	6.0				
53	6.0				
54	7.0	(1)	(1)	(1)	(1)
55	7.0	3.1%	3.5%	10.0%	6.0%
56	8.0	3.3	3.5	10.0	7.0
57	8.0	3.5	3.5	11.0	7.0
58	9.0	3.7	3.7	12.0	8.0
59	9.0	5.2	5.2	12.0	9.0
60		8.0	8.0	13.0	15.0
61		7.2	7.2	14.0	15.0
62		24.0	24.0	23.0	28.0
63		15.0	15.0	20.0	18.0
64		13.0	13.0	15.0	18.0

(1) Not eligible for retirement.

Public Employee Retirement System of Idaho

Table A-10: Disablement

	Annual Rates				
	Fire and	General Employees		Teachers	
Age	Police	Men	Women	Men	Women
20	0.01%	0.01%	0.01%	0.02%	0.05%
25	0.01	0.01	0.01	0.02	0.05
30	0.02	0.03	0.02	0.02	0.04
35	0.03	0.06	0.04	0.02	0.04
40	0.05	0.08	0.07	0.04	0.05
45	0.13	0.12	0.11	0.07	0.07
50	0.40	0.23	0.20	0.12	0.15
55	0.37	0.47	0.29	0.32	0.27
60	0.10	0.60	0.46	0.34	0.38
65	0.00	0.63	0.58	0.31	0.45

Public Employee Retirement System of Idaho

Table A-11A: Mortality (Base Rates for Year 2000)

	Annual Rates							
	Beneficiaries, Contributing Members, and Members Retired for Service						Disabled Members	
	Fire and Police [1]		General Employees		Teachers			
Age	Men	Women	Men	Women	Men	Women	Men	Women
20	0.035%	0.019%	0.035%	0.019%	0.030%	0.018%	2.283%	0.748%
25	0.038	0.021	0.038	0.020	0.037	0.019	2.283	0.748
30	0.044	0.031	0.044	0.025	0.038	0.022	2.283	0.748
35	0.077	0.051	0.077	0.044	0.056	0.035	2.283	0.748
40	0.108	0.077	0.108	0.065	0.090	0.055	2.283	0.748
45	0.151	0.122	0.151	0.103	0.122	0.085	2.283	0.900
50	0.214	0.185	0.214	0.155	0.174	0.133	2.808	1.355
55	0.363	0.309	0.363	0.243	0.267	0.202	3.475	1.883
60	0.677	0.583	0.677	0.445	0.470	0.348	4.151	2.437
65	1.282	1.101	1.282	0.866	0.880	0.668	4.950	3.182
70	2.246	1.875	2.246	1.497	1.621	1.224	6.144	4.379
75	3.856	3.145	3.856	2.579	2.766	2.088	8.064	6.137
80	6.651	5.210	6.651	4.239	4.803	3.470	10.903	8.583
85	11.725	9.027	11.725	7.202	8.386	5.792	14.468	12.147
90	20.193	15.587	20.193	12.670	14.597	10.121	18.488	17.382

(1) For Fire and Police, 10% of deaths while an active member are assumed to be duty related.

Public Employee Retirement System of Idaho

Table A-11B: Mortality Projection Scales Apply from 2000 to Year of Decrement

	Annual Rates							
	Beneficiaries, Contributing Members, and Members Retired for Service						Disabled Members	
	Fire and Police		General Employees		Teachers			
Age	Men	Women	Men	Women	Men	Women	Men	Women
20	1.9%	1.7%	1.9%	1.5%	1.9%	1.4%	1.9%	1.7%
25	1.0	1.2	1.0	1.5	1.7	1.7	1.3	1.2
30	0.5	0.8	0.5	1.2	0.5	1.2	0.5	0.8
35	0.5	1.2	0.5	1.0	0.5	0.8	0.5	1.3
40	0.8	1.5	0.8	1.5	0.5	1.3	0.7	1.5
45	1.3	1.7	1.3	1.5	1.0	1.5	1.2	1.8
50	1.8	1.6	1.8	1.8	1.5	1.8	1.7	1.4
55	1.9	0.6	1.9	1.0	2.0	1.4	2.0	0.5
60	1.6	0.5	1.6	0.5	1.7	0.5	1.6	0.5
65	1.4	0.5	1.4	0.5	1.5	0.5	1.4	0.5
70	1.5	0.6	1.5	0.5	1.3	0.5	1.4	0.6
75	1.4	0.8	1.4	0.7	1.5	0.6	1.5	0.7
80	1.0	0.7	1.0	0.7	1.3	0.7	1.1	0.7
85	0.7	0.5	0.7	0.7	0.8	0.7	0.7	0.4
90	0.4	0.3	0.4	0.3	0.6	0.4	0.5	0.3

These rates are applied to reduce the assumed mortality rate for each year from the base year (2000) to the year in which a probability of death is being determined for a participant.

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	16.0%	21.0%	22.0%	12.0%	14.0%
2	13.0	18.5	20.0	11.0	13.0
3	11.0	14.0	16.0	10.0	11.0
4	9.0	12.0	13.5	8.0	9.0
5	8.0	11.5	12.5	6.5	7.0
6	7.3	10.2	11.3	5.7	6.2
7	6.7	8.8	10.2	4.8	5.3
8	6.0	7.5	9.0	4.0	4.5
9	5.6	6.9	8.2	3.7	4.1
10	5.2	6.3	7.4	3.4	3.6
11	4.8	5.7	6.6	3.1	3.2
12	4.4	5.1	5.8	2.8	2.7
13	4.0	4.5	5.0	2.5	2.3
14	3.6	4.2	4.7	2.3	2.1
15	3.2	3.9	4.4	2.1	2.0
16	2.8	3.6	4.1	1.9	1.8
17	2.4	3.3	3.8	1.7	1.7
18	2.0	3.0	3.5	1.5	1.5
19	1.9	2.8	3.3	1.4	1.4
20	1.8	2.6	3.1	1.4	1.4
21	1.7	2.4	2.9	1.3	1.3
22	1.6	2.2	2.7	1.3	1.3
23	1.5	2.0	2.5	1.2	1.2
24	1.5	1.9	2.5	1.2	1.2
25	1.5	1.8	2.5	1.2	1.2
26	1.5	1.7	2.5	1.2	1.2
27	1.5	1.6	2.5	1.2	1.2
28	1.5	1.5	2.5	1.2	1.2
29	1.5	1.5	2.5	1.2	1.2
30	1.5	1.5	2.5	1.2	1.2
31 or more	1.5	1.5	2.5	1.2	1.2

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

	Probabilities of Immediate Refund				
	Fire and	General Employees		Teachers	
Age	Police	Men	Women	Men	Women
25	52%	44%	40%	25%	27%
30	50	37	34	25	22
35	47	35	30	25	19
40	36	35	30	25	18
45	30	32	27	25	16
50	0	24	19	19	10
55	0	0	0	0	0

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, 2010. 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, 2010, 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, 2010, is 6.23% (7.69%) of salary. Increases in the contribution rates are scheduled for July 1, 2011, July 1, 2012, and July 1, 2013, as described in Section 5.

When the scheduled rate increases take effect, 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. After the 72% is applied, the resulting rate is increased by 0.04% for the lump sum duty disability benefit. Member contributions have been "picked up" on a pre-tax basis by the employer since June 30, 1983 (Sections 59-1331 and 59-1332).

Employer Contribution Rate

The employer contribution rate is set by the Retirement Board (Section 59-1322). Future scheduled rate increases at July 1, 2011, July 1, 2012, and July 1, 2013, are reflected in this valuation as described in Section 5.

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).

Service Retirement Allowance (continued)

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).

Safety Member Lump Sum Duty Disability Benefit

Fire and Police members who are disabled in the line of duty are eligible for a $100,000 lump sum benefit, in addition to the annuity benefits discussed above (Section 59-1352A).

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

C. 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).

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

Postretirement benefit increases are based on changes in the Consumer Price Index. The measurement period for changes in the CPI-U is August to August. The COLA changes are implemented effective on the March 1 following the measurement period.

If the CPI-U increases by at least 1%, the COLA is at least 1%. If the CPI-U increases by more than 1%, an additional postretirement increase of up to 5% each year (but not more than the increase in the CPI-U) 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.

If the CPI-U increases by less than 1% or decreases, the COLA is automatic, based on the change in the CPI. If a negative COLA is applicable, the negative COLA cannot decrease benefits by more than 6%. Additionally, a negative COLA cannot decrease a member's benefit below the amount of the benefit at the initial benefit date.

If a COLA is implemented that is less than the increase in the CPI-U, members' benefits will not retain their full inflation-adjusted purchasing power. In such cases the Board may implement a Restoration of Purchasing Power (ROPP) COLA at a later date to bring those members closer to 100% of inflation-adjusted purchasing power. As with a discretionary COLA, a ROPP is subject to approval of the Legislature and requires that the System's assets are no less in value than its actuarial liabilities, including those created by the additional increase. (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.

Appendix C: Valuation Data and Comparative Schedules

This valuation is based on the membership of the System as of June 30, 2010. We relied on data supplied by the System. If there are material defects in the data, it is possible they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

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*

   *St*ate 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, 2009, and July 1, 2010.

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 1.49% for the year ending June 30, 2010, was $231,667,000. The total salaries paid to ORP members who are contributing 3.83% for the year ending June 30, 2010, was $32,201,000. 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
July 1, 2010						
Fire and Police	6,678	$350,479	$52,483	2,324	$51,988	$22,370
General Employees:						
Male	16,933	650,483	38,415	9,195	129,087	14,039
Female	25,250	729,279	28,882	12,823	123,543	9,635
Teachers:						
Male	5,134	279,451	54,431	3,510	98,331	28,014
Female	13,025	612,769	47,046	5,773	123,071	21,318
Total	67,020	$2,622,461	$39,130	33,625	$526,020	$15,644
July 1, 2009						
Fire and Police	6,751	$348,221	$51,581	2,240	$49,435	$22,069
General Employees:						
Male	17,098	659,275	38,559	8,887	122,631	13,799
Female	25,716	742,350	28,867	12,268	114,474	9,331
Teachers:						
Male	5,198	283,208	54,484	3,381	93,378	27,618
Female	13,050	611,611	46,867	5,421	112,028	20,666
Total	67,813	$2,644,665	$38,999	32,197	$491,946	$15,279

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

	Vested Inactive Members Not Currently Receiving Benefits					
	Number	Annual Benefits in Thousands [2]	Average Annual Benefits	Non-vested Inactive Members	Other Inactive Members [3]	Total Inactive Members
2010	10,158	$55,987	$5,512	13,932	29	24,119
2009	10,019	54,419	5,432	13,019	48	23,086

(2) At assumed retirement date. New assumptions for the assumed retirement age were adopted for the July 1, 2008, valuation.

(3) These members were active with at least 5 years of service as of the valuation date, but PERSI reported their salary as zero. They were treated as vested inactive members, and their liability was estimated as 1.6 times the accumulated employee contributions.

Note: In 2010, 178 vested annuitants of the Firefighters' Retirement Fund were not eligible for a PERSI benefit. In 2009, 182 were not eligible.

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	Non-vested	Total	Average Current Age	Average Current Service		Number	Average Current Age	Average Retirement Age	Average Service
July 1, 2010										
Fire and Police	4,333	2,345	6,678	40.9	9.8	463	2,324	66.3	56.2	19.3
General Employees:										
Male	10,357	6,576	16,933	48.4	10.0	3,062	9,195	72.8	62.5	17.6
Female	15,232	10,018	25,250	47.8	9.5	4,596	12,823	73.2	62.0	15.1
Teachers:										
Male	3,770	1,364	5,134	45.8	13.4	578	3,510	70.1	60.7	26.2
Female	9,258	3,767	13,025	45.6	12.6	1,488	5,773	70.4	60.5	23.2
Total	42,950	24,070	67,020	46.7	10.6	10,187	33,625	71.8	61.3	18.6
July 1, 2009										
Fire and Police	4,135	2,616	6,751	40.5	9.4	430	2,240	66.0	56.2	19.1
General Employees:										
Male	10,256	6,842	17,098	48.3	9.8	2,997	8,887	72.7	62.5	17.4
Female	14,972	10,744	25,716	47.4	9.2	4,502	12,268	73.3	62.1	14.4
Teachers:										
Male	3,753	1,445	5,198	45.8	13.5	616	3,381	70.0	60.7	26.1
Female	9,089	3,961	13,050	45.5	12.4	1,522	5,421	70.5	60.5	23.1
Total	42,205	25,608	67,813	46.5	10.4	10,067	32,197	71.8	61.4	18.3

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					
	0-29	30-39	40-49	50-59	60+	Total
July 1, 2010						
Fire and Police	974	2,207	1,990	1,233	274	6,678
General Employees:						
Male	1,280	2,864	3,999	5,714	3,076	16,933
Female	1,841	4,147	6,790	8,895	3,577	25,250
Teachers:						
Male	355	1,316	1,379	1,471	613	5,134
Female	1,320	2,915	3,292	4,033	1,465	13,025
Total	5,770	13,449	17,450	21,346	9,005	67,020
Percentage of Total	8.61%	20.07%	26.04%	31.85%	13.43%	100.00%
July 1, 2009						
Fire and Police	1,097	2,282	1,907	1,221	244	6,751
General Employees:						
Male	1,378	2,840	4,048	5,819	3,013	17,098
Female	2,061	4,248	7,062	8,908	3,437	25,716
Teachers:						
Male	377	1,336	1,349	1,533	603	5,198
Female	1,404	2,904	3,222	4,188	1,332	13,050
Total	6,317	13,610	17,588	21,669	8,629	67,813
Percentage of Total	9.32%	20.07%	25.94%	31.95%	12.72%	100.00%

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.

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
2006	64,762	2,294	35,427	46.2	10.4	28,438	381,677	13,421	72.0
2007	65,800	2,397	36,436	46.2	10.3	29,619	422,196	14,254	71.8
2008	66,765	2,541	38,052	46.2	10.3	30,912	459,077	14,851	71.8
2009	67,813	2,645	38,999	46.5	10.4	32,197	491,946	15,279	71.8
2010	67,020	2,622	39,130	46.7	10.6	33,625	526,020	15,644	71.3

(1) Not calculated.
(2) Excludes survivors and disabled members.

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Table C-5: Contribution Rates

Valuation Date (July 1)	Calculated Statutory Minimum Employer Rates 25/30-Year Funding [8] Current Normal Cost Rate [1]	Amortization Payment Rate	Total Rate [2]	GASB Determined ARC [9]	Actual Rates Employer [2]	Employee [1] Fire & Police	Other	Prior to Subsequent Year COLA Adjustment 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
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

Table C-5
(Continued)

Valuation Date (July 1)	Calculated Statutory Minimum Employer Rates: 25/30-Year Funding [8] Current Normal Cost Rate [1]	Amortization Payment Rate	Total Rate [2]	GASB Determined ARC [9]	Actual Rates: Employer [2]	Employee [1] Fire & Police	Other	Prior to Subsequent Year COLA Adjustment: Amortization Period (Years)	Unfunded Actuarial Accrued Liability [5] (in Millions)
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	508.6
2006	8.53	1.13	9.66	9.66	10.43	7.65	6.23	10	461.7
2007	9.33	(1.24)	9.33	8.09	10.44	7.65	6.23	N/A	(573.4)
2008	8.37	1.63	10.00	10.00	10.44	7.65	6.23	16	748.9
2009	8.17	6.16	14.33	12.99	10.44	7.69	6.23	Over 100	3,026.6
2010	6.55	5.62	12.17	12.17	13.70 [11]	10.04 [11]	8.19 [11]	18	2,555.8

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.

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

Valuation Date (July 1)	Total Investments Held on Valuation Date: Market Basis	Total Investments Held on Valuation Date: Valuation Basis	Yield Net of Investment Expenses During Previous Year: Market Basis	Yield Net of Investment Expenses During Previous Year: 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
2006	9,800.2	9,800.2	11.79	11.79
2007	11,505.1	11,505.1	19.54	19.54
2008	11,010.0	11,010.0	(4.60)	(4.60)
2009	8,983.7	8,983.7	(16.35)	(16.35)
2010	9,969.1	9,969.1	12.01	12.01

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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
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

Table C-7
(continued)

Valuation Date[1]	Minimum Benefit [2]	Postretirement Increase [1]		Regular Interest [3]
		Maximum	Granted	
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
2006	21.71	3.6	3.6	13.875
2007	22.54	3.8	3.8	10.965
2008	22.99	2.0	2.0	14.602
2009	23.22	5.4	1.0	9.257
2010	26.66	-1.48	1.0[5]	1.000

(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.
(5) The March 1, 2010, COLA was -1.48% with a Restoration of Purchasing Power (ROPP) adjustment of 2.48% for a net COLA of 1%.

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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.

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.

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, 2008, and July 1, 2009. 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.
2006	The mortality assumptions were changed to generational mortality as described in the 2006 Investigation of Experience report (dated May 15, 2006). Future scheduled rate increases are not included in the ARC or in the valuation results except where noted.
2007	Final Average Earnings (FAE) used to calculate benefits was changed to the greater of current FAE (provided by the PERSI) and estimated FAE. Future scheduled rate increases are not included in the ARC or in the valuation results. The contribution rate for university members of the optional retirement plan (ORP) was changed to 1.49% of members' salaries through July 1, 2025. In the previous valuation, the rate was 3.03% to be paid through July 1, 2015.
2008	Demographic actuarial assumptions were revised based on the 2009 Investigation of Experience Study.
2009	The contribution rate for Fire & Police Members was changed from 7.65% to 7.69%. $100,000 disability benefit for Fire and Police duty disabilities added.
2010	Mortality and economic actuarial assumptions were revised based on the 2010 Investigation of Experience Study. Contribution rate increases were added at July 1, 2011, July 1, 2012, and July 1, 2013.

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Table C-9: Changes in Status

	Active Contributing Members	Non-Contributing Members	Annuitants
July 1, 2009 Valuation	67,813	23,086	32,197
Termination with Refund	(1,473)	(1,360)	-
Termination without Refund	(3,216)	3,216	-
Service Retirement	(1,647)	(510)	2,157
Disability Retirement	(71)	(28)	99
Death with Beneficiary [(1)]	(8)	(32)	40
Death without Beneficiary	(16)	(8)	(2,004)
New Entrants	4,643	613	1,092
Rehires	995	(858)	(13)
Other	-	-	57
Total Change	(793)	1,033	1,428
July 1, 2010 Valuation	67,020	24,119	33,625

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

Table C-10: Reconciliation of Data Records

	Active	Vested Inactive	Non-vested Inactive	Annuitants
Original Records Received	67,184	10,162	14,070	33,809
Duplicated Member Ids	(1)	-	-	-
Annuitants of Firefighters' Retirement Fund not Eligible for a PERSI Benefit	-	-	-	(130)
Idaho Falls Police Annuitants Not Eligible for a PERSI Benefit	-	-	-	(3)
Other Annuitant Records with Zero PERSI Benefit	-	(4)	(238)	(48)
Non-vested Inactive Records with Zero Accumulated Employee Contributions	-	-	134	(3)
Active Records with Zero Salary that were Treated as Inactive for the Valuation	(163)	29	(34)	-
Records Used for Valuation	67,020	10,187	13,932	33,625

The table above describes record changes affecting the number of members who were included in the valuation. Milliman made minor data adjustments to correct records with an invalid date of birth, date of hire, gender, or class. There were fewer than 100 records with invalid fields.

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.
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).