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Public Employee Retirement System of Idaho

ACTUARIAL VALUATION
July 1, 2001

By

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and

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Milliman USA

November 2, 2001

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

Dear Members of the Board:

As requested, we have made an actuarial valuation of the Public Employee Retirement System of Idaho. The major findings of the valuation are contained in this report. This report reflects the benefit provisions and contribution rates in effect as of July 1, 2001. It also discusses the impact of the proposed discretionary March 1, 2002 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.

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

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

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

Public Employee Retirement System of Idaho
November 2, 2001
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significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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

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

I, Robert L. Schmidt, am a Consulting Actuary for Milliman USA. I am a member of the American Academy of Actuaries and a Fellow 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, F.S.A., M.A.A.A.
Consulting Actuary

I, Karen I. Steffen, am a Consulting Actuary for Milliman USA. I am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

Karen I. Steffen, F.S.A., M.A.A.A.
Consulting Actuary

KIS/RLS/nlo

Public Employee Retirement System of Idaho

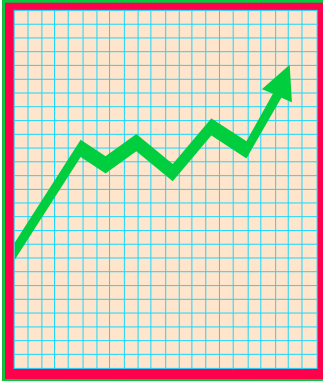
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Public Employee Retirement System of Idaho

Section 1: Summary of the Findings



Our actuarial valuation of the System as of July 1, 2001 shows that the current schedule of contribution rates will meet the normal costs of the System as they accrue and will amortize the unfunded actuarial accrued liability (UAAL) in 10.2 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 2000 and the 2001 valuation.

Including Effect of :	Funding Ratio	
	2000	2001
COLA Commencing		
March 1, 2000	116.5%	
March 1, 2001	115.6	97.2%
March 1, 2002		96.6%
2001 Gain Sharing:	113.0	

The funding ratio reflects the current value of the assets. For each valuation, the table shows the effect of both the discretionary COLA implemented during the year of the valuation and the COLA effective on the March 1 following the valuation. For the 2000 valuation, the table also shows the expected impact of the Gain Sharing allocations made during the calendar year following the valuation. The 2002 discretionary COLA has not yet been adopted by the Board.

The 2001 actuarial valuation indicates that a substantial actuarial loss, \$1,057.6 million, occurred during the fiscal year just ended. This loss is based on the expected Funding Excess of \$871.3 million versus the actual UAAL as of July 1, 2001 of \$186.3 million. The loss was primarily due to investment losses, as reflected in the -6.40% investment yield for the past year. The System has a UAAL once again. The effect of the loss and change from a Funding Reserve to a positive UAAL can be distributed as shown in Table 0.

Change in Assumptions or Benefits

There were no changes in actuarial assumptions since the July 1, 2001 valuation. Neither were there any significant changes in benefits during the year.

Demographic Experience

In comparing the actual experience of the System during the past twelve months with the expected experience under the actuarial assumptions, a net actuarial loss occurred as shown in Table 0. In addition to the three major elements of actuarial experience gains and losses (investments, salaries, and membership growth), we also analyzed the termination of the active members by cause, as follows:

	Termination by Cause	
	Actual	Expected
Termination of Employment	5,101	4,137
Retirement	1,209	1,337
Disability	61	72
Death	83	114

Part, but not all, of the actuarial loss from retired and active member experience (\$46.1 million) is attributable to these differences in decrement by cause.

Discretionary COLAS

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

The CPI grew at a rate of 2.7% 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 6 and 8. The increase in actuarial liabilities due to the additional 1.7% proposed discretionary increase is \$41.9 million. This would maintain the full 100% Restoration of Purchasing Power COLA adopted by the Board in 1998.

Should the Board grant the discretionary increases, they will automatically become effective March 1, 2002 unless the Legislature modifies the Board's action. The Legislature has not modified any of the Board's recommended increases since acquiring the power to do so in 1986.

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Table 0: Gains and Losses for the Year Ended July 1, 2001

	Actuarial Accrued Liability (in millions)	Assets	Unfunded Actuarial Accrued Liability⁽¹⁾ (in millions)	Funded Ratio
Expected from July 1, 2000 Valuation	\$6,034.6	\$7,032.9	\$(998.3)	116.5%
Effect of March 1, 2001 3.4% CPI COLA	51.7	-	51.7	
Effect of 2001 Gain Sharing Allocation	<u>-</u>	<u>(155.4)</u>	<u>155.4</u>	
Expected at March 1, 2001	\$6,086.3	\$6,877.5	\$(791.2)	113.0%
Effect of Changes in Actuarial Assumptions:				
No Assumption Changes	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	
Expected at March 1, 2001 with new Assumptions	\$6,086.3	\$6,877.5	\$(791.2)	113.0%
Expected Change due to Contributions over Normal Cost and Interest on Funding Reserve				
	<u>502.1</u>	<u>582.2</u>	<u>(80.1)</u>	
Expected at July 1, 2001	\$6,588.4	\$7,459.7	\$(871.3)	113.2%
Effect of Actuarial Experience Gains and Losses:				
Investments (Loss)	-	(966.9)	966.9	
Salaries (Loss)	8.3	-	8.3	
Membership Growth (Loss)	15.7	-	15.7	
Shift in Average Entry Age (Loss)	20.6	-	20.6	
Retired Member Experience (Loss)	24.8	-	24.8	
Active Member Experience (Loss)	<u>21.3</u>	<u>-</u>	<u>21.3</u>	
Expected at July 1, 2001 with Gains and Losses ⁽²⁾	\$6,679.1	\$6,492.8	\$186.3	97.2%
Effect of Proposed March 1, 2002 2.7% CPI COLA	<u>41.9</u>	<u>-</u>	<u>41.9</u>	
Results at July 1, 2001 ⁽³⁾	\$6,721.0	\$6,492.8	\$228.2	96.6%

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

(2) The expected amortization period of the UAAL prior to the March 1, 2002 postretirement COLA is 10.2 years.

(3) The expected amortization period of the UAAL after the proposed March 1, 2002 postretirement COLA is 12.9 years.

Contribution Rates

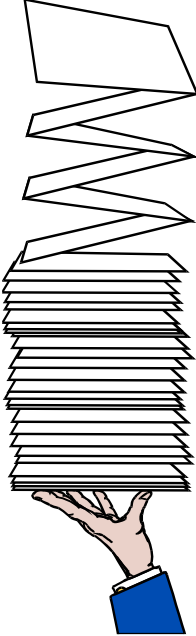
This year's experience resulted in an amortization period of 10.2 years. This is well within legal requirements and well within the funding policy established by the Board. As a result of our findings, as summarized above, the current contribution rate of 15.78% is more than adequate to maintain the funding of the retirement system benefits. The Board adopted a permanent 2.00% reduction in the rate at the April 2000 Board meeting, establishing the prior temporary rate of 15.78% as the contribution rate until subsequently changed by the Board.

Gain Sharing

Beginning in 2000, under Section 59-1309, Idaho Code, the Board may allocate all or a portion of "extraordinary gains" to active and retired members and employers as Gain Sharing. Extraordinary gains are defined as the excess, if any, at the close of the fiscal year of the Assets over Actuarial Liabilities plus an amount necessary to absorb a one standard deviation market event without increasing contribution rates, as determined by the Board. Under the Board's current investment policy, assets in excess of a 113% funded ratio are considered extraordinary gains. Therefore, no assets are available for gain-sharing as of July 1, 2001.

Public Employee Retirement System of Idaho

Section 2: Scope of the Report



This report presents the actuarial valuation of the Public Employee Retirement System of Idaho as of July 1, 2001. 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. The assets and investment income are analyzed in Tables 1, 2 and 3. Table 4 presents a brief summary of the investment experience of the fund through July 1, 2001. 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.

We are also preparing and will submit to the staff of the System a supplemental report of this valuation, giving additional details regarding the distribution of the membership data used in the valuation and the valuation assumptions.

This report includes several appendices:

- Appendix A A summary of the actuarial procedures, and assumptions used to estimate liabilities and contributions.
- Appendix B A summary of the current benefit structure, as determined by the provisions of governing law on July 1, 2001.
- Appendix C Schedules of valuation data classified by various categories of contributing members and former contributing members and their beneficiaries; a brief summary of the System's recent experience; and comparative statistics on the System's membership, contribution rates, and investments since June 30, 1968.
- Appendix D A glossary of actuarial terms used in this report.

Public Employee Retirement System of Idaho

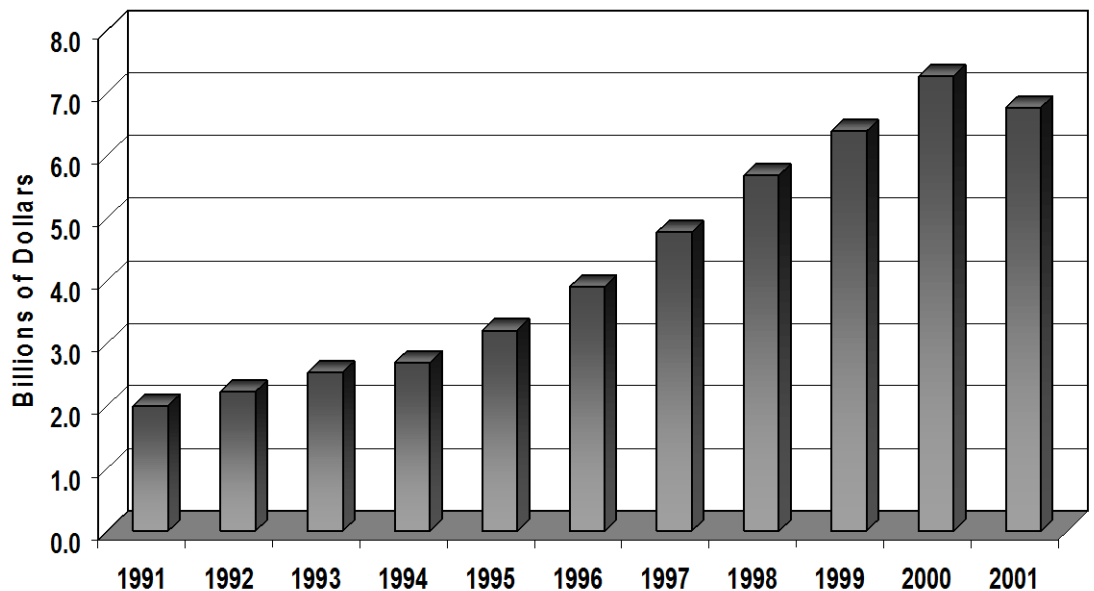
Section 3: Assets



In many respects, an actuarial valuation can be thought of as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is July 1, 2001. On that date, the assets available for the payment of benefits are appraised. These assets are compared with the actuarial liabilities, which are generally well in excess of the assets. The actuarial process thus leads to a method of determining what contributions by members and their employers are needed to strike a balance.

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

Total Actuarial Assets



At July 1, 2001, the actuarial value of assets was \$6.771 billion. Table 1 presents a summary of the System's assets, and Table 2 presents an analysis of the investments.

Although the System's assets have grown considerably in the recent past, they declined 7% in the past year. The growth for the last five years, however, remains well above average.

The increase in the actuarial value of total assets was 238% since 1991. The chart on the previous page illustrates this growth.

Tables 1 through 4 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, 2001 of \$6,770,534,519 shown in Table 3, include assets used in plan operations, assets held in 401(k) and 414(k) accounts, 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 1.

The yield rates shown at the top of Table 4 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 4 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 -6.48% for the year ending June 30, 2001, which is comparable with the actuarial assumption, net of all expenses, of 7.50%.

**Public Employee Retirement
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Table 1: Summary of Assets

	<u>July 1, 2001</u>	<u>July 1, 2000</u>
Securities on Valuation Basis (see Table 2)	\$ 6,732,368,545	\$ 7,285,335,812
Cash	19,040,333	2,644,520
Investments Sold Receivable	654,773,569	1,543,155,850
Accrued Contributions Receivable	19,186,217	12,877,953
Investment Income Receivable	33,435,045	36,838,008
Other Receivables	0	427
Prepaid Expenditures	3,767,201	18,031,306
Assets Used in Plan Operations	8,805,493	8,332,412
Investments Purchased Payable	(693,818,912)	(1,626,740,085)
Due (To)/From Other Funds	(1,129,875)	(1,089,150)
Benefits & Refunds Payable	(482,855)	(580,203)
Accrued Expenses		
Administration	(395,335)	(251,104)
Investment	<u>(5,014,907)</u>	<u>(4,907,588)</u>
Net Assets	\$ 6,770,534,519	\$ 7,273,648,158

Allocation of net assets:

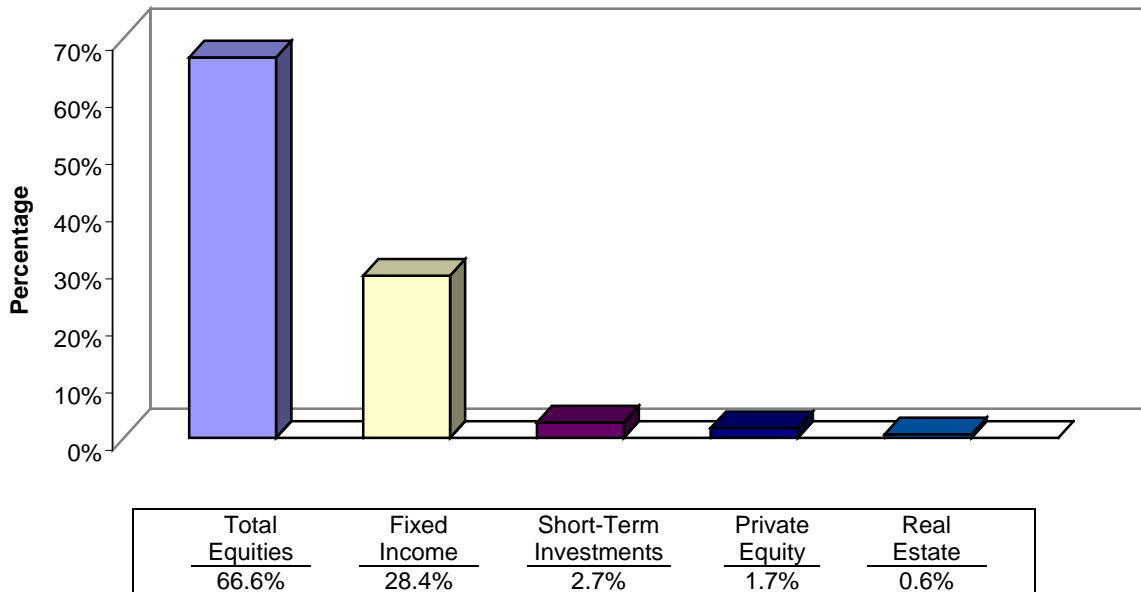
Total Assets Held by PERSI	\$ 6,492,793,485
Firefighters' Retirement Fund Assets	200,400,398
Idaho Falls Police Retirement Fund Assets	13,293,052
401(k) and 414(k) Accounts	55,242,091
Assets Used in Plan Operations	<u>8,805,493</u>
Total Net Assets Held in Trust for Pension Benefits	\$ 6,770,534,519

**Public Employee Retirement
System of Idaho**

Table 2: Analysis of Investments
July 1, 2001

	<u>Valuation Basis*</u>	<u>Percentage</u>
Fixed income investments		
Domestic	\$1,600,364,919	23.8%
International	27,134,503	0.4%
Idaho commercial mortgages	<u>280,902,383</u>	<u>4.2%</u>
Total fixed income	\$1,908,401,805	28.4%
Short-term investments	183,265,386	2.7%
Real estate	38,804,599	0.6%
Equity securities		
Domestic	2,968,605,056	44.1%
International	<u>1,516,153,329</u>	<u>22.5%</u>
Total equities	4,484,758,385	66.6%
Private equity	<u>117,138,370</u>	<u>1.7%</u>
Total investments	\$6,732,368,545	100.0%

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



Public Employee Retirement System of Idaho

Table 3: Reconciliation of Assets

	<u>Inception to June 30, 2000</u>	<u>July 1, 2000 to June 30, 2001</u>	<u>Inception to June 30, 2001</u>
Investment return:			
Income from stock	\$ 607,501,637	\$ 63,317,212	\$ 670,818,849
Interest	1,257,223,602	163,998,291	1,421,221,893
Capital gains (realized and unrealized)	3,937,018,269	(665,292,467)	3,271,725,802
Other investment income	<u>121,678,700</u>	<u>(39,526)</u>	<u>121,639,174</u>
Total investment return	\$ 5,923,422,208	\$ (438,016,490)	\$ 5,485,405,718
Employer contributions	2,652,248,436	131,997,290	2,784,245,726
Member contributions	1,505,090,088	121,622,014	1,626,712,102
Miscellaneous	9,522,933	386,742	9,909,675
Transfers in	<u> </u>	<u>56,582,880</u>	<u>56,582,880</u>
Total revenue	\$10,090,283,665	\$ (127,427,564)	\$ 9,962,856,101
Administrative expense	\$ 51,170,419	\$ 5,834,192	\$ 57,004,611
Investment expense	171,317,882	25,710,110	197,027,992
Benefit payments and refunds	2,594,147,206	287,281,983	2,881,429,189
Transfers out	<u> </u>	<u>56,859,790</u>	<u>56,859,790</u>
Total expenditures	\$ 2,816,635,507	\$ 375,686,075	\$ 3,192,321,582
Net assets, beginning of period	\$ 0	\$ 7,273,648,158	\$ 0
Total revenue	<u>10,090,283,665</u>	<u>(127,427,564)</u>	<u>9,962,856,101</u>
	\$10,090,283,665	\$ 7,146,220,594	\$ 9,962,856,101
Less total expenditures	<u>2,816,635,507</u>	<u>375,686,075</u>	<u>3,192,321,582</u>
Net assets, end of period	\$ 7,273,648,158	\$ 6,770,534,519	\$ 6,770,534,519

**Public Employee Retirement
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Table 4: Analysis of Investment Yield

	July 1, 2000 to June 30, 2001	
	Actuarial Basis	Market Basis
Investment return	\$ (438,016,490)	\$ (438,016,490)
Less investment expenses	<u>25,710,110</u>	<u>25,710,110</u>
Net return	\$ (463,726,600)	\$ (463,726,600)
Mean assets for period	\$ 7,244,373,759	\$ 7,244,373,759
Annual yield	(6.40%)	(6.40%)

Analysis of Investment Yield - Net of All Expenses

Expense Basis	Summary of Annual Yields for Year Ending June 30, 2001		
	Actuarial Assumption	Actuarial Basis	Market Basis
Gross - before expenses	8.00%	(6.06%)	(6.06%)
Net of investment expenses	7.65%	(6.40%)	(6.40%)
Net of all expenses	7.50%	(6.48%)	(6.48%)

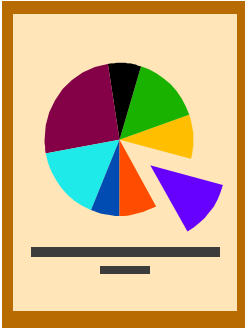
Notes:

1. *Investment return: See Tables 1, 2 and 3 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, 2001 are:*

2 years	2.81%	10 years	10.90%
3 years	5.53	15 years	9.84
5 years	10.41	20 years	11.05
		25 years	10.15
		30 years	8.56
5. *Plan assets differ for each expense basis, so differences between bases are not comparable.*

Public Employee Retirement System of Idaho

Section 4: Actuarial Liabilities



In the previous section, an actuarial valuation was compared with an inventory process, and an analysis was given of the inventory of assets of the System as of the valuation date, July 1, 2001. In this section, the discussion will focus on the commitments of the System, which are referred to as its actuarial liabilities.

Table 5 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 5 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 2000 Investigation of Experience Report. New assumptions were adopted by the Board effective July 1, 2000.

All liabilities reflect the benefits effective through July 1, 2001. No further increases are considered in determining the liabilities shown, except for Tables 6 and 8, which indicate the liabilities for the proposed March 1, 2002 discretionary COLA benefits.

**Public Employee Retirement
System of Idaho**

**Table 5: Actuarial Present Value of Future Benefits for Contributing Members and Former Contributing Members and Their Survivors
(All amounts in millions)**

July 1, 2001

Contributing Members	Fire & Police	General Employees		Teachers		Grand Total
		Male	Female	Male	Female	
Service retirement and unreduced early retirement	\$ 686.9	\$ 934.4	\$ 891.2	\$ 713.7	\$1,071.7	\$4,297.9
Reduced early retirement	144.0	437.7	572.4	280.6	624.4	2,059.1
Vested retirement	37.4	87.7	142.8	42.3	105.8	416.0
Disability retirement	16.8	68.6	41.0	29.1	41.1	196.6
Death	27.2	65.8	31.9	33.7	34.0	192.6
Refunds of member contributions*	23.8	39.5	54.5	8.5	13.9	140.2
Total	\$ 936.1	\$1,633.7	\$1,733.8	\$1,107.9	\$1,890.9	\$7,302.4
Former Contributing Members & Survivors						
Service retirement	\$ 186.9	\$ 560.1	\$ 387.4	\$ 376.9	\$ 390.3	\$1,901.6
Disability retirement	3.3	17.2	15.4	8.8	16.6	61.3
Survivors' benefits	11.2	11.8	83.0	9.8	39.6	155.4
All other benefits	19.9	100.6	120.9	52.2	75.7	369.3
Total	\$ 221.3	\$ 689.7	\$ 606.7	\$ 447.7	\$ 522.2	\$2,487.6
Grand Total	\$1,157.4	\$2,323.4	\$2,340.5	\$1,555.6	\$2,413.1	\$9,790.0

* Including all benefits provided by voluntary contributions.

Public Employee Retirement System of Idaho

Section 5: Employer Contributions



The previous two sections were devoted to a discussion of the assets and actuarial liabilities of the System. Comparison of Tables 1 and 5 indicates that current assets fall short of meeting the actuarial accrued liabilities. This is expected in all but a fully closed down fund, where no further contributions of any sort are anticipated.

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

The method used to determine the incidence of the contributions in various years is called the actuarial cost method. For this valuation, the entry age actuarial cost method has been used. Under this method — or essentially any actuarial cost method — the contributions required to meet the difference between current assets and current actuarial accrued 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 were 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 7. The normal cost rates reflect the new actuarial assumptions adopted by the Board effective July 1, 2000, and the expected long term total contribution rate of 15.78% as adopted by the Board on April 25, 2000. These rates will remain the same until a change is made to either 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 6 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.

ORP Contributions

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

Line F in Table 6 indicates the actuarial value of assets. The excess of the actuarial accrued liability for PERSI in Line E over the actuarial assets is the UAAL for PERSI as shown on Line G.

Funding Adequacy

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

From July 1, 1998 to July 1, 2000 there was no UAAL, and the actuarial value of the assets exceeded the value of the actuarial accrued liability to be funded by PERSI, resulting in a Funding Reserve. However, asset losses for the year ending July 1, 2001 resulted in the re-emergence of a UAAL. The dollar amount of the UAAL is \$186.3 million prior to the adoption of the proposed March 1, 2002 COLA benefits. Based on the current contribution rate of 15.78% and a normal cost rate of 14.74%, the remaining 1.04% of pay will amortize the UAAL amount of \$186.3 million over 10.2 years. This is well within the statutory maximum of 25 years.

Discretionary COLA Increases

The costs of providing future automatic postretirement increases of 1% per year are included in the “post-adjustments” amounts shown in Table 6. 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 2.7% during the year.

Since prior discretionary increases provided a full 100% restoration of purchasing power to retired members, the proposed full CPI 2.7% increase will maintain full purchasing power for all current retirees as of March 1, 2002. The purchasing power of retired members benefits in the future will depend on future discretionary increases.

The March 1, 2002 proposed discretionary postretirement benefit increases would increase the actuarial present value of all future benefits by \$41.9 million. Thus, the July 1, 2001 Post Adjustment amounts shown on lines A, C and E in Table 6 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 6. 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, 2001 is less than 100%, no assets are available for consideration for Gain Sharing.

Table 8 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, 1993, the employer contribution rate for fire and police members is set at 0.24% higher than for general members, reflecting the 1993 changes in disability provisions for fire and police members.

Funding Policy

The Board has set the total contribution rate at 15.78%. Under this contribution rate, which is in excess of the required normal cost rate, the size of the UAAL will be expected to decrease. A continuation of a total rate in excess of the normal cost rate is expected to meet the criteria of the Board's Funding Policy. The revised Funding Policy was adopted September 29, 1998 and establishes guidelines for the Board in setting contribution rates. Several of the funding goals under this Policy include establishing a range of safety, while maintaining a stable contribution rate and a well funded status. We believe the current 15.78% contribution rate will permit the Board to achieve these goals. The determination of the member and employer contribution rates by class is shown below.

Funding Basis as Percentage of Current Salary Based on Member Class

	Fire/Police	General/ Teachers	Total*
A. Employer contribution rate	10.01%	9.77%	9.80%
B. Member contribution rate	7.21	5.86	5.98
C. Total contribution rate [A + B]	17.22%	15.63%	15.78%

**Based on the current membership, the total contribution rate, weighted by future salaries, is 15.83%.*

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.

GASB ARC

Table 8 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 8, 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 decreases the actuarial present value of the projected future refunds of contributions upon termination of employment, which produces a change in the total normal cost rate.

Public Employee Retirement System of Idaho

**Table 6: Unfunded Actuarial Accrued Liability on Current Contribution Basis
(All amounts in millions)**

	Valuation Date: July 1, 2001		Valuation Date: July 1, 2000	
	Funding Basis: <u>Pre-Adjustments</u>	Funding Basis: <u>Post-Adjustments⁽¹⁾</u>	Funding Basis: <u>Pre-Adjustments</u>	Funding Basis: <u>Post-Adjustments⁽²⁾</u>
A. Actuarial present value of all future benefits for contributing members, former contributing members, and their survivors (Table 5)	\$ 9,790.0	\$ 9,831.9	\$ 8,963.7	\$ 9,015.4
B. Actuarial present value of total future normal costs for present members	<u>3,038.7</u>	<u>3,038.7</u>	<u>2,858.6</u>	<u>2,858.6</u>
C. Actuarial accrued liability [A - B]	\$ 6,751.3	\$ 6,793.2	\$ 6,105.1	\$ 6,156.8
D. ORP Contributions	<u>72.2</u>	<u>72.2</u>	<u>70.5</u>	<u>70.5</u>
E. Actuarial accrued liability funded by PERSI Contributions [C-D]	6,679.1	6,721.0	6,034.6	6,086.3
F. Actuarial value of assets available for benefits	<u>6,492.8⁽³⁾</u>	<u>6,492.8</u>	<u>7,032.9</u>	<u>6,877.5</u>
G. UAAL (Funding Reserve) [E - F]	\$ 186.3	\$ 228.2	\$ (998.3)	\$ (791.2)
H. Amortization period on valuation date, based on contribution rate established as of benefit date	10.2 Years	12.9 Years	N/A ⁽⁴⁾	N/A ⁽⁴⁾
I. Funded Ratio [F/E]	97.2%	96.6%	116.5%	113.0%

(1) Includes the cost of the proposed March 1, 2002 postretirement COLA increases: 2.7% (\$41.9 million).

(2) Recognizes the cost of the approved March 1, 2001 postretirement COLA increases: 3.4% (\$51.7 million) in line A and the 2001 Gain-Sharing allocation (\$155.4 million) in line F.

(3) The total available assets are \$6,715.3 million (Table 1), but are reduced by \$222.5 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 1.

(4) The Funding Reserve was not being amortized as of July 1, 2000.

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Table 7: Normal Cost Rates on Current Contribution Basis

	July 1, 2001					Total Rate
	Fire & Police	General Employees		Teachers		
		Male	Female	Male	Female	
Service retirement and unreduced early retirement	11.22%	5.27%	5.39%	6.66%	6.48%	6.59%
Reduced early retirement	3.24	4.73	5.59	4.97	6.72	5.26
Vested retirement	0.90	0.90	1.34	1.04	1.26	1.12
Disability retirement	0.41	0.66	0.38	0.53	0.45	0.49
Death	0.51	0.53	0.26	0.44	0.28	0.38
Refunds of member contributions	1.09	1.05	1.14	0.62	0.53	0.90
Total	17.37%	13.14%	14.10%	14.26%	15.72%	14.74%
Less member contributions	7.21	5.86	5.86	5.86	5.86	5.98
Employer normal cost rate	10.16%	7.28%	8.24%	8.40%	9.86%	8.76%

Analysis of Member Contributions

Member contributions	7.21%	5.86%	5.86%	5.86%	5.86%	5.98%
Less expected refunds	1.09	1.05	1.14	0.62	0.53	0.90
	6.12%	4.81%	4.72%	5.24%	5.33%	5.08%

Public Employee Retirement System of Idaho

Table 8: Recommended Contribution Rates as a Percentage of Total Salary

	Valuation Date:	July 1, 2001			
	Funding Basis:	Post-Adjustments ⁽¹⁾	Pre-Adjustments ⁽²⁾	Post-Adjustments ⁽²⁾⁽³⁾	ARC ⁽⁴⁾
A. Employer contribution rate		9.80%	9.80%	9.80%	9.44%
B. Member contribution rate		5.98	5.98	5.98	5.76
C. Total contribution rate [A + B]		15.78%	15.78%	15.78%	15.20%
D. Total normal cost rate		14.74	14.74	14.74	14.70
E. Amount available to amortize liability [C - D]		1.04%	1.04%	1.04%	0.50%
F. Dollar Amount of UAAL in millions (if negative, Funding Reserve) ⁽⁵⁾		(\$791.2)	\$186.3	\$228.2	\$191.5
G. Amortization period measured from July 1, 2001		N/A	10.2 years	12.9 years	25.0 years

(1) Includes the cost of the March 1, 2001 postretirement COLA increase: 3.4% (\$51.7 million).

(2) These rates are scheduled to continue for payrolls submitted after September 30, 2001 and ending September 30, 2002. The total aggregate contribution rate is assumed to remain at 15.78%.

(3) Includes cost of the proposed March 1, 2002 postretirement COLA increase of 2.7% of \$41.9 million for the July 1, 2001 Post Adjustments.

(4) Annual Required Contribution, if UAAL is amortized as required by GASB. Per the Board's policy, the UAAL is amortized over a 25-year period for GASB disclosure purposes. Minimum contribution rate permitted by statute would not permit the total rate to be less than normal cost rate. The ARC is applicable for payrolls after September 30, 2001 and ending September 30, 2002.

(5) Reflects only the amount funded by PERSI contributions. Excludes the present rate of 3.03% of salaries of university members in the Optional Retirement Plan (ORP) until 2015 and 3.83% of salaries of junior college members in the ORP until 2011. The present value of these expected contributions is \$72.2 million.

Public Employee Retirement System of Idaho

Section 6: Accounting Information



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

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

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

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

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

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

The comparability of the data from year to year can be affected by changes in actuarial assumptions, benefit provisions, accounting policies, etc. Between July 1, 2000 and July 1, 2001, a Cost-of-Living Adjustment was granted to inactive members and beneficiaries. In addition, a \$155.4 million gain sharing allocation was effective January 1, 2001. No other significant changes occurred.

Public Employee Retirement System of Idaho

Table 9: 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, 1992	\$2,134.8	\$2,841.1	\$29.0	\$ 677.3	75.9%	\$1,286.8	52.6%
July 1, 1993	2,434.7	3,206.3	31.6	740.0	76.7	1,309.0	56.5
July 1, 1994	2,591.4	3,666.1	34.1	1,040.6	71.3	1,402.0	74.2
July 1, 1995	3,087.3	4,077.8	38.4	952.1	76.4	1,525.0	62.4
July 1, 1996	3,761.2	4,461.5	60.8	639.5	85.5	1,497.4	42.7
July 1, 1997	4,609.8	4,801.9	63.2	128.9	97.3	1,575.5	8.2
July 1, 1998	5,488.2	5,060.0	65.7	(493.9)	109.9	1,627.7	(30.3)
July 1, 1999	6,171.9	5,536.8	68.9	(704.0)	112.9	1,733.5	(40.6)
July 1, 2000	7,032.9	6,105.1	70.5	(998.3)	116.5	1,827.2	(54.6)
July 1, 2001	6,492.8	6,751.3	72.2	186.3	97.2	1,975.3	9.4

(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.

(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. For years prior to 1996, Covered Payroll is estimated.

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Table 10: 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, 1992	\$2,134.8	\$ 644.0	\$ 984.4	\$1,212.7	100.0%	100.0%	41.8%
July 1, 1993	2,434.7	703.5	1,076.7	1,426.1	100.0	100.0	45.9
July 1, 1994	2,591.4	768.5	1,227.2	1,670.4	100.0	100.0	35.7
July 1, 1995	3,087.3	850.0	1,341.3	1,886.5	100.0	100.0	47.5
July 1, 1996	3,761.2	941.2	1,471.7	2,048.6	100.0	100.0	65.8
July 1, 1997	4,609.8	1,019.5	1,617.0	2,165.4	100.0	100.0	91.1
July 1, 1998	5,488.2	1,089.7	1,766.1	2,204.2	100.0	100.0	100.0
July 1, 1999	6,171.9	1,158.1	1,978.1	2,400.6	100.0	100.0	100.0
July 1, 2000	7,032.9	1,329.7	2,173.8	2,601.6	100.0	100.0	100.0
July 1, 2001	6,492.8	1,502.0	2,487.6	2,761.7	100.0	100.0	90.6

Public Employee Retirement System of Idaho

Table 11: Schedule of Contributions from the Employer and Other Contributing Entities
(All dollar amounts in millions)

Fiscal Year Ending	Covered Employee Payroll ⁽¹⁾	Actual Employer Contributions Dollar Amount	Actual Employer Contribution % ⁽²⁾	Annual Required Contribution (ARC) % ⁽²⁾⁽³⁾	Percentage of ARC Contributed
6/30/92	\$1,286.8	\$114.4	8.89%	8.89%	100%
6/30/93	1,309.0	124.8	9.535	9.535	100
6/30/94	1,402.0	146.2	10.425	10.425	100
6/30/95	1,525.0	173.6	11.385	11.385	100
6/30/96	1,497.4	176.5	11.63	11.63	100
6/30/97	1,575.5	185.9	11.64	11.64	100
6/30/98	1,627.7	172.3	10.413	10.413	100
6/30/99	1,733.5	173.2	9.80	9.80	100
6/30/00	1,827.2	182.9	9.80	8.315	118
6/30/01	1,975.3	120.2 ⁽⁵⁾	9.80	7.490 ⁽⁴⁾	131

(1) Computed as the dollar amount of the actual employer contribution made as a percentage of payroll divided by the contribution rate, expressed as a percentage of payroll. Amounts before 1996 were calculated including additional receipts due to merger of retirement systems. After 1995, additional receipts due to merger of retirement systems is excluded.

(2) The actual and required employer contributions are expressed as a percentage of payroll.

(3) Employer contributions are made as a percentage of actual payroll in accordance with statute and the Board's Funding Policy. Thus, the required 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. 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.

(4) See Table C-5 for further disclosures. The ARC in this table is based on three months of the ARC rate applicable to the employer's prior fiscal year plus nine months of the ARC rate applicable to the employer's current fiscal year. For example, the 7.490% for the plan year ending June 30, 2001 is based on three months at 7.82% as computed in the 1998 valuation and 9 months at 7.38% as computed in the 1999 valuation.

(5) Actual cash contributions of \$120,220,992 do not include \$77,690,500 of gain sharing credits.

Public Employee Retirement System of Idaho

Section 7: Supplemental Information

Cash-Flow Projections

Table 12 summarizes the historical cash flows for all Idaho PERS funds for the last ten years and the projected cash flows for PERSI only for the next 10 years. Contributions include both employer and member contributions. The table shows that whereas net cash flow increased until the late 1990s, it has now leveled off and is expected to decrease at some point in the next 10 years. This is a typical pattern in the maturing of a retirement system. At some point, it is expected that contributions will be less than benefits and the System will begin drawing on the fund that has been built. The projection shows that benefits are expected to exceed contributions beginning in 2010.

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

The historical cash flows for 1996 through 2001 and the projected cash flows include PERSI contributions, benefits and expenses only. They are based on the actuarial assumptions as stated in Appendix A. The total contribution rate is assumed to stay at 15.78% for the entire ten-year projection. Expenses are based on the expenses for the year ended June 30, 2001, increased annually with the actuarial inflation assumption of 4.00%. Any reductions in future contribution rates will decrease net cash flow. The projected cash flows do not include:

- Projected contributions for ORP members
- Projected benefits payable to the spouses of disabled members
- Projected benefits to currently inactive members
- Future discretionary COLA payments, including the proposed March 1, 2002 COLA.
- Future discretionary Gain Sharing allocations.

Distribution of Retired Members

Table 13 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, 2001, based on the year of retirement. Although the PERSI was not established until 1965, the older Teachers Retirement System was merged into PERSI in 1967, which accounts for years of retirement prior to 1965.

**Public Employee Retirement
System of Idaho**

**Table 12: Cash Flow History and Projections
(All dollar amounts in millions)**

Year	Historical Cash Flows ⁽¹⁾		
	Contributions	Benefits & Administrative Expenses	Net Cash Flow
1992	180	118	62
1993	199	129	70
1994	231	143	88
1995	273	160	113
1996	286	166	120
1997	297	180	117
1998	278	198	80
1999	279	212	67
2000	295	237	58
2001	242 ⁽²⁾	336 ⁽³⁾	(94)

Year	Projected Cash Flows (PERSI Funds Only)		
	Contributions ⁽⁴⁾	Benefits & Administrative Expenses ⁽⁵⁾	Net Cash Flow ⁽⁶⁾
2002	328	270	58
2003	345	286	59
2004	363	305	58
2005	382	328	54
2006	403	358	45
2007	424	390	34
2008	446	426	20
2009	469	468	1
2010	494	514	(20)
2011	520	563	(43)

(1) Prior to 1996, includes total PERS funds, since historical data is not available for PERSI benefits only prior to 1996. After 1995, includes PERSI funds only.

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

(3) Benefits and administrative expenses for 2001 reflect Gain Sharing payments of \$59 million for active members and \$19 million for retired members.

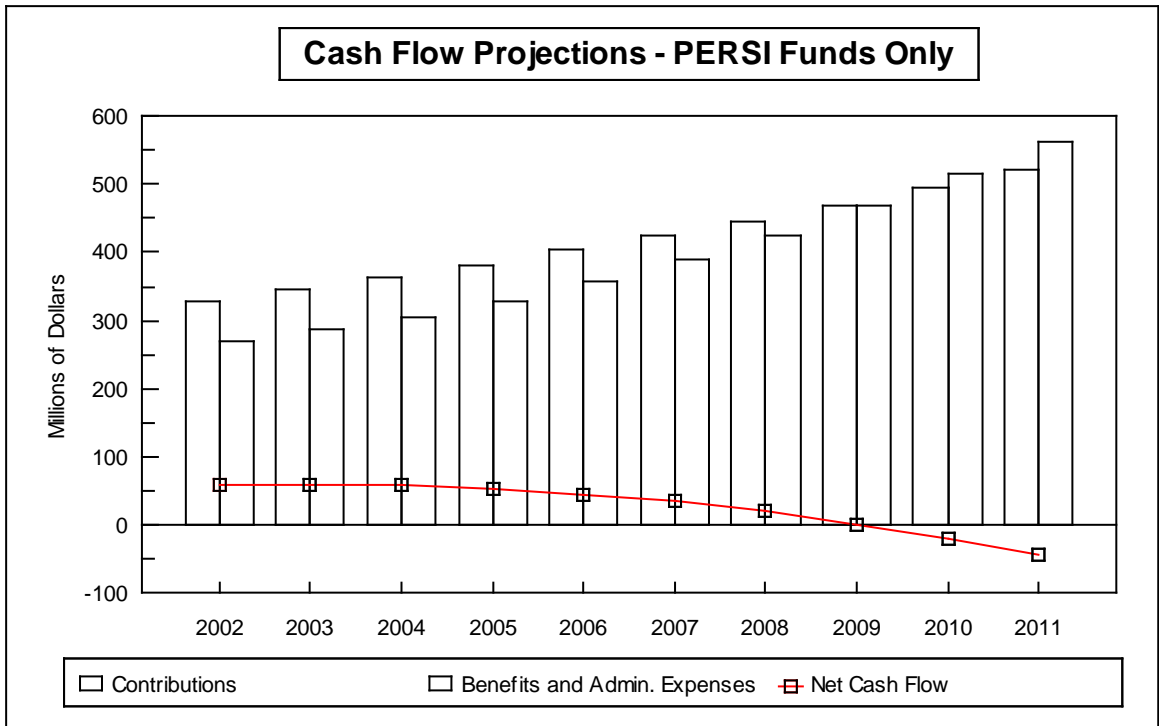
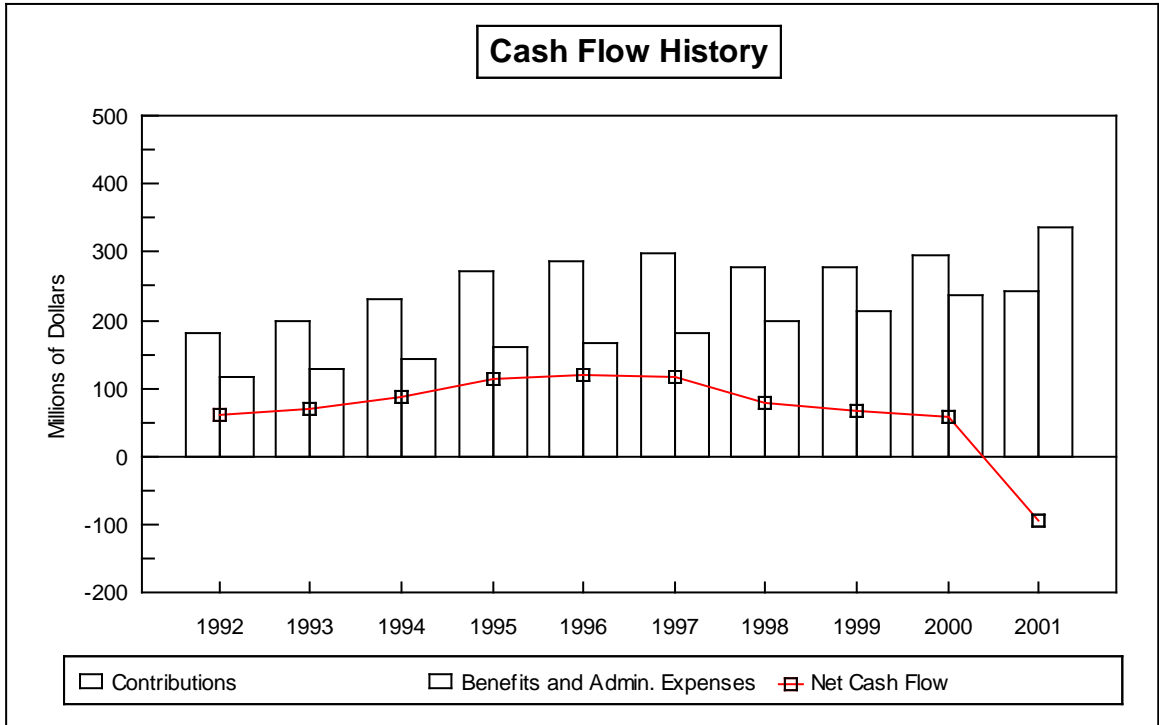
(4) All projected contributions are based on a total contribution rate of 15.78%.

(5) Projected expenses are based on expenses for FYE 2001 and the annual inflation assumption of 4.00%.

(6) 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.

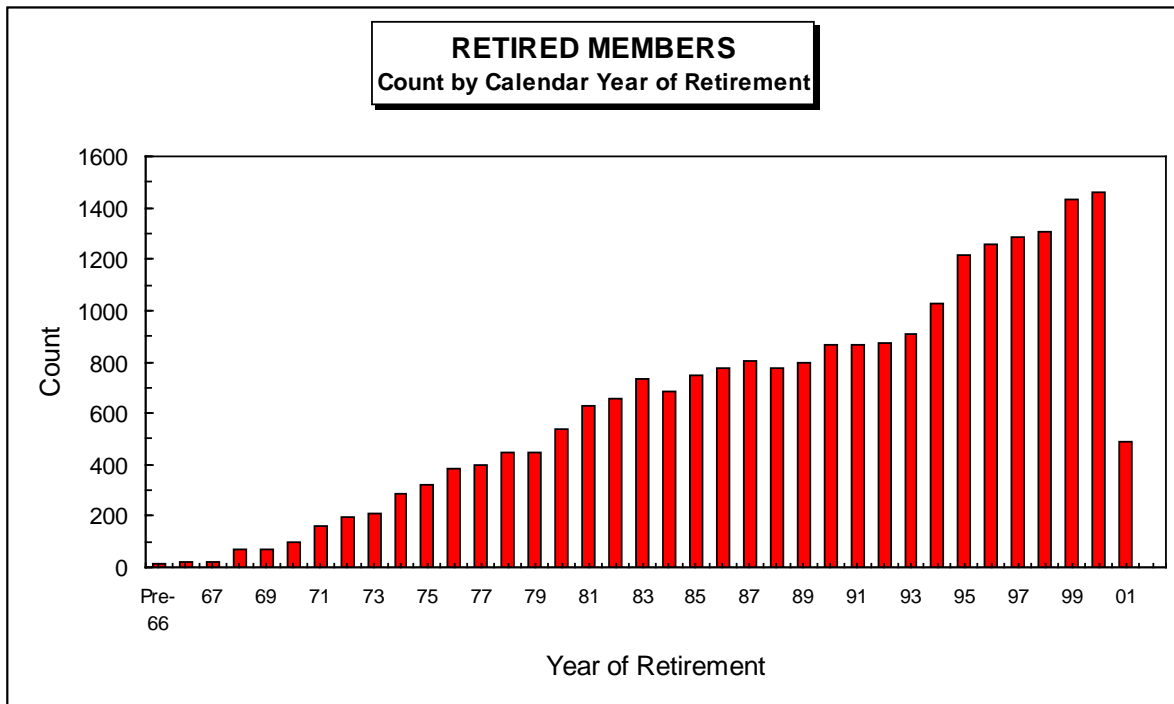
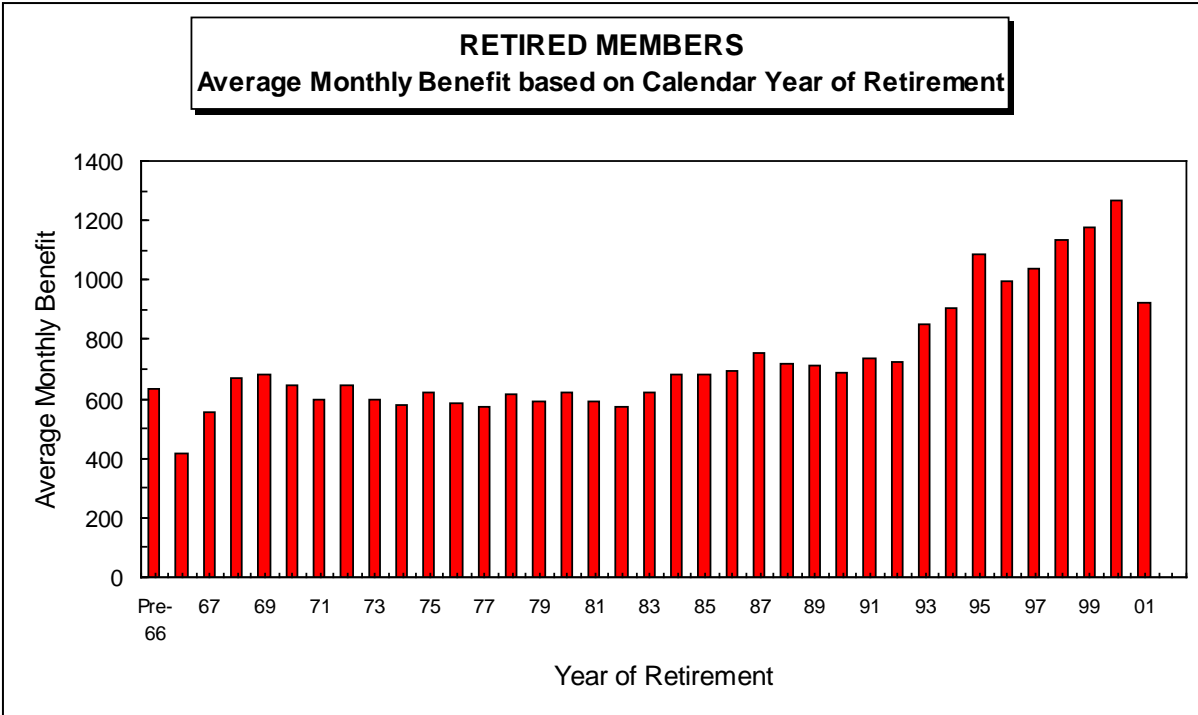
Public Employee Retirement System of Idaho

Cash Flow History and Projections



Public Employee Retirement System of Idaho

Table 13: Distribution of Retired Members by Calendar Year of Retirement



Public Employee Retirement System of Idaho

Appendix A: Actuarial Procedures and Assumptions



The actuarial procedures and assumptions used in this valuation are described in this section. Retirement rates and disablement rates were changed July 1, 2000 as a result of our 2000 Investigation of Experience Study. The annual increase in salary due to promotions and longevity assumptions, and certain mortality assumptions were changed July 1, 1998 as a result of our 1998 Investigation of Experience Study.

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

Table A-1 summarizes the assumptions. The mortality rates are taken from the sources listed. The other rates were developed from the experience of the System and are illustrated in Tables A-5 through A-10, 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.

Table A-5 presents the expected annual percentage increase in salaries. Table A-10 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.

Prior to the July 1, 2000 valuation the methodology for calculating normal cost rates was based on a representative group of new entrants. Effective July 1, 2000, the method was changed. The normal cost rates used in this valuation were calculated based on all current active members as of July 1, 2000, 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 7. 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.

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 October 1, 2001 at 10.01% for fire and police members and 9.77% for general members.
ORP Contributions	Until July 1, 2015, 3.03% of the university ORP members' salaries will be used to finance the actuarial accrued liability. Until July 1, 2011, 3.83% of the junior college ORP members' salaries will be used to finance the actuarial accrued liability.
Member Contributions	The member contribution rate is set by law to be 60% of the employer contribution rate for all members except fire and police members, whose member contribution rate is set at 72% of the employer rate. Effective November 1, 1997, the general member rate is 5.86% and the fire and police rate is 7.21%.
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 8.00%, compounded annually. Investment earnings of 0.50% are assumed sufficient to cover the expenses of the System, allocated 0.35% for investment expenses and 0.15% for general administrative expenses. These rates were adopted July 1, 1992.
Postretirement Benefit Increases	A nondiscretionary postretirement increase of 1% per year is assumed for the primary valuation. The report also shows the estimated cost of a proposed discretionary increase effective March 1, 2002.
Interest on Employee Contributions	The credited interest rate on employee contributions is assumed to be 7.5%. The actual credited interest rate will depend on the returns earned by the System's assets. This assumption was adopted July 1, 2000, the first valuation after the Board adopted a policy to credit interest during each calendar year equal to the greater of PERSI's actual rate of return, net of expenses for the prior fiscal year (ending June 30) or a rate based on US Treasury Bills.
Gain Sharing	The report shows the cost of Gain Sharing, if any, to be distributed in Tables 0, 6, and 8. Gain Sharing is reflected as a reduction in assets. No Gain Sharing is available for 2002.

Future Salaries

The rates of annual salary increase assumed for the purpose of the valuation are illustrated in Table A-5. In addition to increases in salary due to promotions and longevity, this scale includes an assumed 5.25% per annum rate of increase in the general wage level of the membership. These rates were adopted July 1, 1998.

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-6-c.

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-6-a. After the first year of eligibility, members are assumed to retire at the rates shown in Table A-6-b.

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 assumption regarding termination of employment, early retirement, and unreduced service retirement are treated as a single set of decrements in regards 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-6-c. 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-6-a. Thereafter, the probabilities of retirement for this member are indicated in Table A-6-b. Thus, in no year during the member's projected employment would more than one of the decrements shown in Table A-9 or Tables A-6-[a, b, c] be applied.

Tables A-6-[a, b, c] probabilities were revised July 1, 2000.

Disablement

The rates of disablement used in the valuation are illustrated in Table A-7. These rates were revised July 1, 2000.

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-8. These rates were adopted July 1, 1998.

Teachers

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

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

Fire and Police

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

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

General Employees and all Beneficiaries

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

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

Mortality – Disabled Members

For disabled members, the mortality rates used in the valuation are the rates from the 1983 Railroad Retirement Board Totally Disabled Annuitants Mortality Table, with no adjustment for males and with a ten-year age setback for females. These rates are illustrated in Table A-8. These rates were adopted July 1, 1992.

Other Employment Terminations

Table A-9 shows, for representative ages, 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, 1996.

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.

**Other Employment
Terminations
(continued)**

Table A-10 gives the assumed probabilities that vested members will withdraw their contributions immediately upon termination. These rates were adopted July 1, 1996.

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

**Probability of
Marriage**

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

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**Table A-1: Summary of Valuation Assumptions
July 1, 2001**

I.	Economic assumptions	
A.	General wage increases	5.25%
B.	Investment earnings (including 0.50% for expenses)	8.00
C.	Growth in membership	0.00
D.	Postretirement benefit increases	1.00
E.	Implied inflation assumption	4.00
II.	Demographic assumptions	
A.	Salary increases due to service	Table A-5
B.	Retirement	Table A-6
C.	Disablement	Table A-7
D.	Mortality among contributing members, service retired members, and beneficiaries	Table A-8
	Basis – 1994 Group Annuity Mortality Table for respective sexes, as adjusted:	
	<u>Class of Members</u>	<u>Adjustment</u>
	Teachers - men	-2 years
	Teachers - women	-1 year
	Fire and police - men	0 years
	Fire and police - women	+2 years
	General employees and all beneficiaries - men	0 years
	- women	-1 year
E.	Mortality among disabled members	Table A-8
	Basis - 1983 Railroad Board Disabled Annuitants Mortality Table, as adjusted:	
	Men	No adjustment
	Women	-10 years
F.	Other terminations of employment	Table A-9
G.	Refund of contributions on vested termination	Table A-10

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

Tables A-2 through A-4 summarize, quinquennially, all causes of termination by type of termination and member's current age. For example, of the 1,022 fire and police members currently age 30-34, 42.6%, or 435, are expected to eventually terminate membership due to a service retirement. Likewise, 42.5%, or 434, are expected to leave employment prior to retirement, death or disability.

<u>Age</u>	<u>Number Active</u>	<u>Service Retirement</u>	<u>Early Retirement</u>	<u>Death & Disability</u>	<u>Other Terminations</u>
15-19	2	18.0%	0.0%	1.0%	81.0%
20-24	159	26.1%	1.7%	2.5%	69.7%
25-29	680	34.9%	5.3%	3.6%	56.2%
30-34	1,022	42.6%	10.3%	4.6%	42.5%
35-39	893	48.1%	16.1%	5.2%	30.6%
40-44	798	52.0%	21.9%	5.6%	20.5%
45-49	769	57.7%	26.9%	5.5%	9.9%
50-54	691	66.7%	25.7%	5.1%	2.5%
55-59	332	78.8%	13.5%	4.5%	3.2%
60-64	94	92.8%	0.0%	3.5%	3.7%
65-69	12	91.8%	0.0%	4.3%	3.9%
70-74	3	100.0%	0.0%	0.0%	0.0%
75+	-	0.0%	0.0%	0.0%	0.0%
Totals	5,455	51.9%	16.3%	4.8%	27.0%

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

<u>Age</u>	<u>Number Active</u>	<u>Service Retirement</u>	<u>Early Retirement</u>	<u>Death & Disability</u>	<u>Other Terminations</u>
MALE					
15-19	13	5.0%	0.0%	1.2%	93.8%
20-24	393	10.5%	0.5%	2.4%	86.6%
25-29	874	17.2%	2.2%	4.0%	76.6%
30-34	1,311	24.5%	5.7%	5.7%	64.1%
35-39	1,641	26.4%	14.5%	7.1%	52.0%
40-44	2,306	29.4%	23.7%	8.4%	38.5%
45-49	2,775	33.0%	33.0%	9.3%	24.7%
50-54	2,865	37.2%	41.6%	9.4%	11.8%
55-59	2,123	42.8%	44.5%	7.7%	5.0%
60-64	1,172	58.0%	32.3%	5.5%	4.2%
65-69	354	87.4%	0.0%	6.3%	6.3%
70-74	102	86.1%	0.0%	6.3%	7.6%
75+	<u>84</u>	100.0%	0.0%	0.0%	0.0%
Totals	16,013	35.5%	26.9%	7.6%	30.0%
FEMALE					
15-19	38	3.2%	0.0%	0.4%	96.4%
20-24	748	6.5%	0.3%	0.8%	92.4%
25-29	1,439	13.0%	1.6%	1.5%	83.9%
30-34	1,965	20.1%	5.0%	2.4%	72.5%
35-39	2,827	21.8%	13.8%	3.3%	61.1%
40-44	3,975	22.5%	24.9%	4.1%	48.5%
45-49	4,536	26.9%	35.2%	4.7%	33.2%
50-54	4,096	31.6%	47.5%	4.9%	16.0%
55-59	2,796	37.2%	53.5%	4.4%	4.9%
60-64	1,348	55.7%	36.9%	3.4%	4.0%
65-69	307	92.4%	0.0%	3.3%	4.3%
70-74	69	93.2%	0.0%	3.3%	3.5%
75+	<u>35</u>	100.0%	0.0%	0.0%	0.0%
Totals	24,179	28.3%	29.1%	3.8%	38.8%

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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%	0.0%
20-24	29	20.2%	2.0%	3.2%	74.6%
25-29	322	30.0%	6.1%	5.0%	58.9%
30-34	540	36.6%	11.6%	6.4%	45.4%
35-39	560	38.0%	20.6%	7.1%	34.3%
40-44	615	40.5%	28.3%	7.6%	23.6%
45-49	739	42.6%	34.4%	7.6%	15.4%
50-54	1,122	49.5%	37.0%	6.9%	6.6%
55-59	889	58.1%	35.6%	5.3%	1.0%
60-64	377	68.2%	26.5%	3.8%	1.5%
65-69	47	96.7%	0.0%	2.6%	0.7%
70-74	4	100.0%	0.0%	0.0%	0.0%
75+	3	100.0%	0.0%	0.0%	0.0%
Totals	5,247	46.8%	27.8%	6.4%	19.0%
FEMALE					
15-19	1	8.0%	0.0%	0.0%	92.0%
20-24	138	16.8%	1.4%	1.8%	80.0%
25-29	906	26.8%	3.9%	2.9%	66.4%
30-34	1,055	37.0%	9.3%	4.2%	49.5%
35-39	1,102	38.6%	19.6%	4.9%	36.9%
40-44	1,441	36.0%	32.1%	5.3%	26.6%
45-49	2,030	36.7%	40.3%	5.1%	17.9%
50-54	2,550	39.5%	47.8%	4.5%	8.2%
55-59	1,464	40.7%	55.0%	3.3%	1.0%
60-64	465	53.0%	44.4%	2.2%	0.4%
65-69	67	96.8%	0.0%	1.7%	1.5%
70-74	12	100.0%	0.0%	0.0%	0.0%
75+	-	0.0%	0.0%	0.0%	0.0%
Totals	11,231	38.0%	34.4%	4.3%	23.3%

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Table A-5a: 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	4.8%	4.8%	4.8%	6.7%	5.8%
2	4.8	4.8	4.8	6.7	5.8
3	4.1	4.1	4.1	4.3	4.8
4	3.6	3.4	3.6	4.1	4.6
5	3.1	2.6	3.1	3.8	4.3
6	2.9	2.4	2.9	3.6	4.1
7	2.7	2.2	2.7	3.4	3.8
8	2.5	1.9	2.5	3.1	3.4
9	2.3	1.7	2.3	2.9	3.1
10	2.1	1.5	2.1	2.6	2.9
11	1.9	1.4	1.9	2.4	2.6
12	1.7	1.3	1.7	2.2	2.4
13	1.4	1.2	1.4	1.7	2.2
14	1.2	1.2	1.2	1.4	1.9
15	1.0	1.1	1.0	1.2	1.7
16	0.7	1.0	0.7	1.0	1.4
17	0.7	0.7	0.7	0.7	1.2
18	0.7	0.7	0.7	0.7	1.0
19	0.7	0.7	0.7	0.7	0.7
20	0.7	0.7	0.7	0.7	0.7

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Table A-5b: Future Salaries

Years of Service	Total Annual Increase in Salary*				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
1	10.3%	10.3%	10.3%	12.3%	11.3%
2	10.3	10.3	10.3	12.3	11.3
3	9.6	9.6	9.6	9.8	10.3
4	9.0	8.8	9.0	9.6	10.1
5	8.5	8.0	8.5	9.3	9.8
6	8.3	7.8	8.3	9.0	9.6
7	8.1	7.5	8.1	8.8	9.3
8	7.9	7.3	7.9	8.5	8.8
9	7.7	7.1	7.7	8.3	8.5
10	7.5	6.9	7.5	8.0	8.3
11	7.3	6.8	7.3	7.8	8.0
12	7.0	6.7	7.0	7.5	7.8
13	6.8	6.6	6.8	7.0	7.5
14	6.5	6.5	6.5	6.8	7.3
15	6.3	6.4	6.3	6.5	7.0
16	6.0	6.3	6.0	6.3	6.8
17	6.0	6.0	6.0	6.0	6.5
18	6.0	6.0	6.0	6.0	6.3
19	6.0	6.0	6.0	6.0	6.0
20	6.0	6.0	6.0	6.0	6.0

* The total expected increase in salary is the increase due to promotions and longevity, shown in Table A-5a, adjusted for an assumed 5.25% per annum increase in the general wage level of the membership. The total result is compounded rather than additive.

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Table A-6-a: Immediate Retirement

Age	Retirement Rates in First Year Eligible for Unreduced Benefits				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
55**	30.0%	20.0%	20.0%	20.0%	20.0%
56	30.0	20.0	20.0	20.0	20.0
57	30.0	20.0	20.0	20.0	20.0
58	30.0	20.0	20.0	20.0	20.0
59	30.0	20.0	20.0	20.0	20.0
60	30.0	25.0	25.0	20.0	30.0
61	30.0	35.0	35.0	20.0	30.0
62	50.0	80.0	80.0	50.0	50.0
63	50.0	50.0	55.0	50.0	60.0
64	50.0	50.0	55.0	60.0	70.0
65	50.0	85.0	60.0	70.0	75.0
66	50.0	55.0	55.0	40.0	40.0
67	50.0	40.0	40.0	40.0	40.0
68	50.0	40.0	40.0	40.0	40.0
69	50.0	40.0	40.0	40.0	40.0
70	*	40.0	40.0	*	*
71		40.0	40.0		
72		40.0	40.0		
73		40.0	40.0		
74		40.0	40.0		
75		*	*		

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

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

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Table A-6-b: 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*	15.0%	10.0%	10.0%	10.0%	10.0%
56	15.0	10.0	10.0	10.0	10.0
57	15.0	10.0	10.0	10.0	10.0
58	15.0	10.0	10.0	10.0	10.0
59	20.0	15.0	15.0	15.0	10.0
60	25.0	15.0	15.0	15.0	10.0
61	30.0	15.0	20.0	20.0	20.0
62	35.0	55.0	55.0	30.0	20.0
63	35.0	40.0	30.0	30.0	20.0
64	35.0	40.0	30.0	30.0	20.0
65	40.0	80.0	55.0	65.0	70.0
66	30.0	40.0	40.0	35.0	50.0
67	30.0	30.0	30.0	35.0	40.0
68	30.0	30.0	30.0	35.0	40.0
69	23.0	30.0	30.0	35.0	40.0
70	**	30.0	30.0	**	**
71		30.0	30.0		
72		30.0	30.0		
73		30.0	30.0		
74		30.0	30.0		
75		**	**		

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

** For all ages older than the age indicated, retirement is assumed to occur immediately

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Table A-6-c: Early Retirement

Age	Retirement Rates Among Persons Eligible for Reduced Early Retirement Benefits				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
50	5.0%				
51	5.0				
52	5.0				
53	5.0				
54	5.0	*	*	*	*
55	10.0	4.0%	3.5%	4.0%	3.5%
56	7.0	4.0	4.0	5.5	4.5
57	7.0	4.0	4.5	6.5	5.0
58	7.0	5.0	5.5	8.0	6.5
59	7.0	5.5	6.0	10.0	9.5
60		7.8	9.5	13.0	15.0
61		12.0	12.0	18.0	25.0
62		36.0	35.0	25.0	36.0
63		20.0	20.0	25.0	25.0
64		15.0	15.0	25.0	20.0

* Not eligible for retirement.

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Table A-7: Disablement

Age	Annual Rates				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
20	0.01%	0.01%	0.01%	0.01%	0.02%
25	0.01	0.05	0.01	0.01	0.02
30	0.01	0.06	0.01	0.05	0.02
35	0.01	0.10	0.01	0.05	0.02
40	0.02	0.10	0.05	0.05	0.03
45	0.06	0.10	0.05	0.05	0.08
50	0.16	0.11	0.10	0.10	0.16
55	0.24	0.50	0.20	0.35	0.20
60	0.00	0.50	0.30	0.35	0.20
65	0.00	0.00	0.00	0.00	0.00

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Table A-8: Mortality

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

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Table A-9: Other Terminations of Employment

Attained Age	Annual Rates for Members in Indicated Year of Service					
	1st	2nd	3rd	4th	5th	6th and Subsequent
Fire and Police						
20	23.0%	16.0%	14.2%	12.5%	9.6%	6.7%
25	22.4	14.6	12.4	11.9	8.9	6.0
30	21.4	12.2	9.9	9.7	7.1	4.4
35	20.4	10.7	8.6	7.4	5.9	3.1
40	19.4	9.9	7.8	6.6	5.1	2.4
45	18.4	9.4	6.9	6.6	5.0	2.4
50	17.4	9.4	7.1	6.8	5.9	5.0*
55	18.2	9.8	8.0	7.6	7.4	10.0*
General Employees – Men						
20	61.2	37.0	20.6	17.4	15.6	10.0
25	51.3	29.0	17.9	15.9	14.2	7.0
30	39.0	22.0	16.2	14.6	12.7	6.0
35	33.2	18.2	14.0	12.9	11.4	5.0
40	30.3	15.8	11.8	10.9	10.0	4.0
45	28.0	14.4	10.2	9.4	8.5	3.0
50	26.3	13.7	9.0	7.6	6.8	3.0
55	24.9	13.3	8.2	6.3	6.0	4.0*
60	24.9	13.3	8.2	6.3	6.0	7.8*
General Employees - Women						
20	60.0	40.0	28.9	24.0	20.2	13.0
25	50.0	35.3	25.1	20.8	17.3	11.0
30	38.2	26.1	19.5	15.8	13.2	8.0
35	30.0	20.9	15.9	12.2	10.8	6.0
40	27.1	18.3	13.8	10.7	9.4	4.9
45	26.0	15.7	11.8	9.9	8.1	4.5
50	24.2	14.1	10.5	9.1	6.6	4.5
55	25.1	13.2	9.7	8.9	6.8	3.5*
60	25.1	13.2	9.7	8.9	6.8	9.5*

*Early retirement is assumed to occur.

**Public Employee Retirement
System of Idaho**

Attained Age	Annual Rates for Members in Indicated Year of Service					
	1st	2nd	3rd	4th	5th	6th and Subsequent
Teachers - Men						
20	26.4%	25.5%	19.0%	11.2%	10.6%	8.0%
25	22.6	23.7	16.6	9.9	9.7	8.0
30	18.8	17.9	12.3	8.3	7.7	5.0
35	17.4	15.2	9.6	6.7	6.1	3.2
40	18.5	13.4	7.5	5.3	4.9	2.4
45	19.9	11.8	6.0	4.5	4.2	2.0
50	22.4	16.4	9.4	5.4	4.9	2.0
55	24.6	20.7	12.5	6.5	5.7	4.0*
60	24.6	20.7	12.5	6.5	5.7	13.0*
Teachers - Women						
20	30.6%	26.0%	25.0%	21.5%	20.5%	11.0%
25	25.4	21.3	19.8	17.0	15.4	11.0
30	20.9	17.0	13.8	11.5	9.5	6.0
35	19.3	12.6	10.6	8.7	7.0	3.5
40	16.9	9.1	8.2	6.5	5.3	2.5
45	13.9	8.2	7.3	5.2	4.4	2.0
50	12.8	8.3	7.5	5.4	4.3	2.3
55	15.3	9.7	8.2	6.4	4.7	3.5*
60	15.3	9.7	8.2	6.4	4.7	15.0*

* Early retirement is assumed to occur.

**Public Employee Retirement
System of Idaho**

**Table A-10: Immediate Refund of Contributions Upon Termination of
Employment While Vested**

Age	Probabilities of Immediate Refund				
	Fire and Police	General Employees		Teachers	
		Men	Women	Men	Women
25	77%	70%	64%	77%	41%
30	72	64	57	57	32
35	67	54	52	39	27
40	62	47	47	32	22
45	51	42	39	27	17
50	0	34	32	19	12
55	0	0	0	0	10

Public Employee Retirement System of Idaho

Appendix B: Provisions of Governing Law



All actuarial calculations are based on our understanding of the statutes governing the Public Employee Retirement System of Idaho, as contained in Sections 59-1301 through 59-1399, inclusive, of the Idaho Code, with amendments effective through July 1, 2001. 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, 2001 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 October 1, 2001 is 5.86% (7.21%) of salary. This rate will remain in effect until the employer contribution rate is changed from the current 9.77% (10.01%), at which time the member contribution rate will be fixed at 60% (72%) of the employer contribution rate. 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)

Service Retirement Allowance

Eligibility

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

Amount of Allowance

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

Minimum Benefit

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

**Service Retirement
Allowance
(continued)**

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).

**Disability
Retirement
Allowance
(continued)**

Normal Form

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

Death Benefits

After Retirement

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

Before Retirement

- A. An automatic joint and survivor option applied to the actuarial equivalent of the member's accrued service retirement allowance is paid to the surviving spouse of a member with five years of service who dies while:
- i. contributing;
 - ii. not contributing, but eligible for benefits; or
 - iii. retired for disability

or

- B. If the member has no spouse, a lump sum payment is made equal to twice the accumulated contributions with interest (Section 59-1361).

Withdrawal Benefits

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

**Postretirement
Increases**

A 1% annual postretirement increase is effective March of each year. An additional postretirement increase of up to 5% each year may be authorized by the Board, subject to the approval of the Legislature, if it finds that the System's assets are no less in value than its actuarial liabilities, including those created by the additional increase.

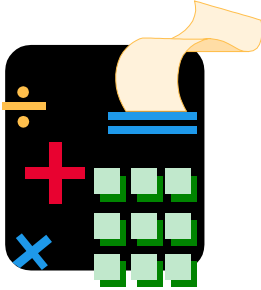
Increases are based on a cost-of-living factor reflecting the changes in the Consumer Price Index, subject to a maximum total increase of 6% in any year (Section 59-1355).

Gain Sharing

Beginning in 2000, under Section 59-1309, Idaho Code, the Board may allocate all or a portion of “extraordinary gains” to active and retired members and employers as Gain Sharing. Extraordinary gains are defined as the excess, if any, at the close of the fiscal year of the Assets over Actuarial Accrued Liabilities plus an amount necessary to absorb a one standard deviation market event without increasing contribution rates, as determined by the Board. Under the Board’s current investment policy, assets in excess of a 113% funded ratio are considered extraordinary gains. The Board has the authority to rescind the Gain Sharing up to the date of distribution.

Public Employee Retirement System of Idaho

Appendix C: Valuation Data and Comparative Schedules



This valuation is based on the membership of the System as of June 30, 2001.

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

1. *Fire and Police*

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

2. *Teachers*

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

3. *General Employees*

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

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

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

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

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

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

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

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

The total salaries paid to ORP members who are contributing 3.03% for the year ending June 30, 2000 was \$128,338,274. The total salaries paid to ORP members who are contributing 3.83% for the year ending June 30, 2000 was \$11,469,320. 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*	Annual Salaries in Thousands	Average Annual Salaries	Number	Annual Benefits in Thousands	Average Annual Benefits
<u>July 1, 2001</u>						
Fire and Police	5,455	\$210,908	\$38,663	1,417	\$19,670	\$13,882
General Employees:						
Male	16,013	496,981	31,036	7,186	69,456	9,665
Female	24,179	550,662	22,774	9,296	60,469	6,505
Teachers:						
Male	5,247	241,367	46,001	2,068	41,393	20,016
Female	11,231	424,471	37,795	3,286	44,281	13,476
Total	62,125	\$1,924,389	\$30,976	23,253	\$235,269	10,118
<u>July 1, 2000</u>						
Fire and Police	5,091	\$192,366	\$37,786	1,412	\$16,978	\$12,024
General Employees:						
Male	15,699	471,825	30,054	6,717	61,911	9,217
Female	23,384	512,628	21,922	8,112	47,614	5,870
Teachers:						
Male	5,225	229,283	43,882	2,169	37,141	17,124
Female	10,989	392,120	35,683	4,046	45,905	11,346
Total	60,388	\$1,798,222	\$29,778	22,456	\$209,549	\$9,332

* Not included in these figures are the following:

	Inactive Members Not Currently Receiving Benefits			Vested Annuitants of the Firefighters' Retirement Fund Not Eligible for a PERS Benefit
	Vested	Others	Total	
2001	6,585	12,138	18,723	194
2000	6,305	12,192	18,497	192

Public Employee Retirement System of Idaho

Table C-2: Summary of Age and Service Statistics

	Active Members			Average Current Age	Average Current Service	Inactive Members Not Currently Receiving Benefits	Members Receiving Service or Early Retirement Benefits		
	Vested	Nonvested	Total				Number	Average Current Age	Average Current Service
<u>July 1, 2001</u>									
Fire and Police	3,271	2,184	5,455	40.2	9.1	213	1,417	65.8	18.4
General Employees:									
Male	9,494	6,519	16,013	46.4	9.3	2,094	7,186	73.3	18.1
Female	12,851	11,328	24,179	45.0	7.9	2,615	9,296	74.4	13.5
Teachers:									
Male	4,013	1,234	5,247	46.5	14.9	535	2,068	70.1	27.9
Female	8,062	3,169	11,231	45.2	12.2	1,128	3,286	72.7	23.9
Total	37,691	24,434	62,125	45.1	9.7	6,585	23,253	72.9	18.0
<u>July 1, 2000</u>									
Fire and Police	3,186	1,905	5,091	40.6	9.5	229	1,412	66.9	11.9
General Employees:									
Male	9,466	6,233	15,699	46.2	9.4	2,022	6,717	72.9	17.1
Female	12,602	10,782	23,384	44.7	7.8	2,467	8,112	73.1	16.3
Teachers:									
Male	4,057	1,168	5,225	46.6	15.1	514	2,169	72.4	24.7
Female	8,001	2,988	10,989	45.1	12.1	1,073	4,046	75.8	21.6
Total	37,312	23,076	60,388	45.0	9.8	6,305	22,456	73.1	18.0

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.

Public Employee Retirement System of Idaho

Table C-3: Age Distribution of Active Members

	Age Groups					Total
	0-29	30-39	40-49	50-59	60+	
<u>July 1, 2001</u>						
Fire and Police	841	1,915	1,567	1,023	109	5,455
General Employees:						
Male	1,280	2,952	5,081	4,988	1,712	16,013
Female	2,225	4,792	8,511	6,892	1,759	24,179
Teachers:						
Male	351	1,100	1,354	2,011	431	5,247
Female	1,045	2,157	3,471	4,014	544	11,231
Totals	5,742	12,916	19,984	18,928	4,555	62,125
<u>July 1, 2000</u>						
Fire and Police	761	1,710	1,512	993	115	5,091
General Employees:						
Male	1,260	2,907	5,138	4,711	1,683	15,699
Female	2,257	4,863	8,267	6,309	1,688	23,384
Teachers:						
Male	367	1,036	1,415	1,968	439	5,225
Female	1,026	2,086	3,648	3,710	519	10,989
Totals	5,671	12,602	19,980	17,691	4,444	60,388

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**
1968	16,014	\$ 95	\$ 5,906	*	*	2,498	\$ 3,207	\$ 1,284	*
1969	19,796	124	6,247	*	*	2,977	4,351	1,462	*
1970	21,048	140	6,672	*	*	3,565	5,261	1,476	*
1971	23,505	160	6,805	*	*	4,298	6,442	1,499	*
1972	29,648	203	6,832	*	*	4,862	7,255	1,492	*
1973	30,174	219	7,255	*	*	5,659	8,494	1,501	*
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

* Not calculated

** 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**
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

* *Not calculated*

** *Excludes survivors and disabled members.*

Public Employee Retirement System of Idaho

Table C-5: Contribution Rates

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

Table C-5
(continued)

Valuation Date (July 1)	Calculated Statutory Minimum Employer Rates 25/30-Year Funding ⁽⁸⁾			GASB Determined ARC ⁽⁹⁾	Actual Rates Employee ⁽¹⁾			Prior to Subsequent Year COLA Adjustment	
	Current Normal Cost Rate ⁽¹⁾	Amortization Payment Rate	Total Rate ⁽²⁾		Employer ⁽²⁾	Fire & Police	Other	Amortization Period (Years)	Unfunded Actuarial Accrued Liability ⁽⁵⁾ (in Millions)
1988	5.85%	3.21%	9.01%	NA	8.89%	6.40%	5.34%	32	\$ 699.1
1989	5.86	2.53	8.54	NA	8.89	6.40	5.34	24	589.1
1990	6.07	2.34	8.41	NA	8.89	6.40	5.34	22	578.7
1991	6.07	2.34	8.41	NA	8.89	6.40	5.34	22	622.7
1992	6.77	2.44	9.21	NA	9.75	7.02	5.84	21	677.3
1993	7.13	2.94	10.07	NA	10.65	7.82	6.38	18	740.0
1994	7.47	3.91	11.38	NA	11.63	8.53	6.97	22	1,040.6
1995	7.68	3.23	10.91	NA	11.63	8.53	6.97	18	952.1
1996	8.37	2.25	10.62	10.413	11.64	8.53	6.97	13	639.5
1997	8.98	0.45	9.43	9.80	11.64 ⁽¹⁰⁾	8.53	6.97	2	128.9
1998	9.22	(1.40)	9.22	7.82	11.03 ⁽¹⁰⁾	8.10	6.60	N/A	(493.9)
1999	9.44	(2.06)	9.44	7.38	11.03 ⁽¹⁰⁾	8.10	6.60	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

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. Can't 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.

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Table C-6: Investments

(Dollar Amounts in Millions)

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

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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

(1) Valuations as of July 1. Postretirement increase effective previous January 1 for years prior to 1987, previous March 1 for 1987 and after.

(2) Minimum monthly benefit per year of service; benefit levels for fire and police members are 20% greater than amount shown.

(3) Average rate credited on member contributions during year prior to valuation date, actual rates may vary during the year.

(4) 5.3% for 1976 retirees.

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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.
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.

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Appendix D: Glossary

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

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