

Utah Retirement System

ACTUARIAL VALUATION

January 1, 2003



GABRIEL, ROEDER, SMITH & COMPANY

Consultants & Actuaries

5605 N. MacArthur Blvd. • Suite 870 • Irving, Texas 75038-2631 • 469-524-0000 • fax 469-524-0003

August 14, 2003

Utah State Retirement Board
540 East 200 South
Salt Lake City, UT 84102

Dear Members of the Board:

Subject: Actuarial Valuation as of January 1, 2003

This report describes the current actuarial condition of the Utah Retirement Systems (URS), determines the calculated employer contribution rates, and analyzes changes in these contribution rates. Valuations are prepared annually, as of January 1, the first day of the URS plan year.

Under URS statutes, the Board of Trustees must certify employer contribution rates annually. These rates are determined actuarially, based on the Board's funding policy. Contribution rates determined by a given actuarial valuation become effective eighteen months after the valuation date. I.e., the rates determined by this January 1, 2003 actuarial valuation will be used by the Board when certifying the employer contribution rates for the year beginning July 1, 2004 and ending June 30, 2005. If new legislation is enacted between the valuation date and the date the contribution rates become effective, the Board may adjust the calculated rates before certifying them, in order to reflect this new legislation. Such adjustments are based on information supplied by the actuary.

Financing objectives and funding policy

In setting contribution rates, the Board's principal objectives have been:

- To set rates so that the unfunded actuarial accrued liability (UAAL) will be amortized over a 20-year period from the current valuation date
- To set rates so that they remain relatively level over time.

To accomplish this, the Board's funding policy requires that the employer contribution rate be at least equal to the sum of the employer normal cost rate (which pays the current year's cost) and an amortization rate which results in the amortization of the UAAL over twenty years in installments which increase at the assumed rate of growth in payroll for URS. The current assumed rate of growth in payroll for URS is 4.00%.

The Board uses an open 20-year amortization period. In other words, a 20-year amortization period is used in each valuation, rather than having the period decrease to 19, 18, etc.

Under this policy, the objectives of maintaining relatively level contribution rates over time are achieved in normal conditions such as consistent market conditions.

Progress toward realization of financing objectives

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches 100%. Because of the investment losses recognized in the actuarial value of assets, the funded ratio for all but one of the funds in URS decreased since the last valuation. The exception was the fund for the 3% substantial substitute.

For all systems combined, the funded ratio decreased from 102.7% to 92.8%. Most of the individual funds have ratios over 90%, and only the 3% Substantial Substitute Fund and the Salt Lake City Noncontributory Public Safety Fund have funded ratios less than 85%. While the funded ratio for all systems combined has decreased each of the last two years, it must be pointed out that the funded ratio for all systems combined was 76.9% in 1990. Significant progress has been made over the last thirteen years, even though a number of benefit increases have been granted during that time, and even though the 3% substantial substitute was added as a URS liability. However, it must also be noted that if market value had been used in the calculation instead of actuarial value, the aggregate funded ratio for all funds combined would have been 77.3%.

Benefit provisions

The benefit provisions reflected in this valuation are those which were in effect on January 1, 2003, or which were adopted by the end of the 2003 legislative session and are effective on or before July 1, 2003.

None of the new legislation adopted since the preceding valuation had a measurable impact on our results.

Assumptions and methods

The Board, in consultation with the actuary, sets the actuarial assumptions and methods used in the valuation. ~~In connection with the valuations in even-numbered years, the actuary conducts a thorough review of plan experience for the preceding five years, and then makes recommendations to the Board.~~

~~The current actuarial assumptions and methods are the same as used for the prior valuation. These assumptions and methods were adopted effective January 1, 2002.~~

It is our opinion that the recommended assumptions are internally consistent and are reasonably based on past and anticipated future experience of the System.

Data

Member data for retired, active and inactive members was supplied as of December 31, 2002 by the URS staff. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data. The staff also supplied asset information as of December 31, 2002.

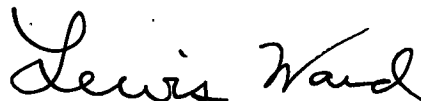
Certification

We certify that the information presented herein is accurate and fairly portrays the actuarial position of URS as of January 1, 2003.

All of our work conforms with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of Utah state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries and consultants. Mr. Carter and Mr. Conradi are Enrolled Actuaries and Members of the American Academy of Actuaries, and all three are experienced in performing valuations for large public retirement systems.

Sincerely,

Gabriel, Roeder, Smith & Company



Lewis Ward
Consultant



J. Christian Conradi, ASA, EA, MAAA
Senior Consultant



W. Michael Carter, FSA, EA, MAAA
Senior Consultant

	Page
Section I — Executive Summary	
Summary	1
Section II — Discussion	
Calculation of Contribution Rates	3
Financial Data and Experience	5
Member Data	7
Benefit Provisions	8
Actuarial Methods and Assumptions	9
GASB 25 and Funding Progress	10
Firefighters and Judges Offsets	11
3% Substantial Substitute	12
Restoration of Purchasing Power (ROPP)	13
Section III — Supporting Exhibits	
Exhibit 1(a) — Comparison of Contribution Rates	14
Exhibit 1(b) — Comparison of Calculated Rates and Adopted Rates	15
Exhibit 2(a) — Components of Calculated Contribution Rates	16
Exhibit 2(b) — Determination of Contribution Rate Offsets for Firefighters and Judges	17
Exhibit 3(a) — Schedule of Funding Progress	18
Exhibit 3(b) — Comparison of Funded Ratios	19
Exhibit 4 — Analysis of Changes in Calculated Contribution Rates	20
Exhibit 5(a) — Actuarial Present Value of Future Benefits by Fund and Status	21
Exhibit 5(b) — Actuarial Present Value of Future Benefits Details for Retirees and Beneficiaries, by Status	22
Exhibit 5(c) — Actuarial Present Value of Future Benefits Details for Inactive Members, by Status	23
Exhibit 5(d) — Actuarial Present Value of Future Benefits Details for Active Members, by Benefit	24
Exhibit 5(e) — Actuarial Present Value of Future Benefits Details for Members Receiving Benefits, by Benefit	25
Exhibit 6(a) — Normal Cost	26

Section III — Supporting Exhibits (Continued)

Exhibit 6(b)	—	Net Employer Normal Cost.....	27
Exhibit 7(a)	—	Determination of Actuarial Accrued Liability	28
Exhibit 7(b)	—	Actuarial Accrued Liability Details of Member and Employer Financing	29
Exhibit 8	—	Number of Members	30
Exhibit 9	—	Active Membership Statistics	31
Exhibit 10	—	Retired Member Statistics.....	32
Exhibit 11(a)	—	Market Value of Assets (All Retirement Systems Combined)	33
Exhibit 11(b)	—	Reconciliation of Market Value of Assets (MVA)	34
Exhibit 12(a)	—	Investment Return Rates for Prior Year.....	35
Exhibit 12(b)	—	Summary of Investment Return Rates	36
Exhibit 13	—	Calculation of Actuarial Value of Assets (All Retirement Systems Combined)	37
Exhibit 14	—	Transfer Adjustments to Asset Values.....	38
Exhibit 15(a)	—	Contribution Rate for 3% Substantial Substitute.....	39
Exhibit 15(b)	—	Liabilities for 3% Substantial Substitute.....	40
Exhibit 16(a)	—	Historical Summary of Statistical Data - Public Employees Retirement System (Contributory).....	41
Exhibit 16(b)	—	Historical Summary of Statistical Data - Public Employees Retirement System (Noncontributory).....	42
Exhibit 16(c)	—	Historical Summary of Statistical Data - Public Safety Retirement System (Contributory).....	43
Exhibit 16(d)	—	Historical Summary of Statistical Data - Public Safety Retirement System (Noncontributory).....	44
Exhibit 16(e)	—	Historical Summary of Statistical Data - Firefighters Retirement System.....	45
Exhibit 16(f)	—	Historical Summary of Statistical Data - Judges Retirement System	46
Exhibit 16(g)	—	Historical Summary of Statistical Data - Legislative and Governors Retirement System.....	47

Appendix 1 — Statement of Actuarial Assumptions and Methods

Appendix 2 — Summary of Principal Plan Provisions

Public Employees Retirement Systems (Contributory and Noncontributory)

Public Safety Retirement Systems (Contributory and Noncontributory)

Firefighters Retirement System

Judges Retirement System

Governors and Legislative Pension Plan

Executive Summary and Contribution Requirements

- Exhibit 1(a) shows the new, calculated contribution rates
 - Rates include funding for 3% substantial substitute
 - Rates do not include 1.50% 401(k) contribution
 - Offsets for Firefighters System and Judges System are shown
- Rates shown on Exhibit 1(a), column 6 are calculated rates for the twelve-month period beginning July 1, 2004, based on current board policy
 - Rates may need to be adjusted for the effect of 2004 legislation, if material
- Exhibit 4 reconciles the calculated FY 2004 and FY 2005 rates
- There were no material changes to benefit provisions
- Amortization payments based on:
 - 20-year funding period
 - Contributions increase as level percentage of pay
 - Total payroll increases 4.00% per year
 - No future growth in the number of active members is taken into account
- Plan experienced an asset loss which decreased funded ratios for almost all funds and was the primary reason for the increase in contribution rates
 - Impact on contribution rates shown on Exhibit 4, column 4
 - Although investments are commingled, the impact of the gain on each fund's contribution rate depends on ratio of the amount of assets to compensation
 - Because the actuarial asset method smoothes gains and losses over five years, only 20% of the 2002 investment loss is reflected in these results.
 - The remainder of the actuarial investment losses for 2000, 2001 and 2002 will be recognized in future years and will tend to increase future contribution rates significantly. Additional information on the impact of the deferred asset losses is being provided to the Board separately.
- The impact of the asset loss caused all contribution rates to increase, except for the Firefighters and the Governors and Legislative Plan, which still have no contributions required.

- The rate shown for the Judges System is for the noncontributory system. The employer contribution rate for the contributory system is 8.00 percentage points less. This produces a net rate of 0.00%, after applying the offset for court fees.
- As for the past several years, no contribution is required for the Governors and Legislative Pension Plan.

Calculation of Contribution Rates

The URS retirement systems, except for the Governors' and Legislators' Retirement Plan, are funded by employer contributions which are determined as a percent of pay, and in some cases by member contributions. The Firefighters System and the Judges System receive additional funding from outside sources. As shown in Exhibit 2(a), the employer contribution rate can have as many as four components:

- The normal cost percentage (NC%)
- The amortization percentage (UAAL%)
- The contribution required to fund the 3% substantial substitute benefit (3%SS)
- The offset for fire insurance premium taxes and court fees which reduce the employer contribution rates in the Firefighters System and the Judges System, respectively.

The NC% is the theoretical amount which would be required to pay the members' benefits, based on the current plan provisions, if this amount had been contributed from each member's entry date and if the fund's experience exactly followed the actuarial assumptions. This is the amount it should cost to provide the benefits for an average new member. The NC% for each fund is shown in Exhibit 6(a).

Some of the funds require active member contributions, and for these, only the excess of the NC% over the member contribution rate is included in the employer contribution rate, as shown in Exhibit 6(b) and in column 2 of Exhibit 2(a). The NC% for the Public Employees' Systems also includes a small component (0.14% of pay) that is used to pay the cost of a group insurance benefit that is administered by the Public Employees Health Plan, not by URS.

The actuarial accrued liability (AAL) is the difference between (i) the actuarial present value of all future benefits for all current members of the fund, including active, inactive and retired members, and (ii) the actuarial present value of future normal costs. Thus the AAL represents the liability associated with past years. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and the actuarial value of assets (AVA). It is the shortfall/excess between the liability associated with prior years (the AAL) and the assets actually accumulated (the AVA). This shortfall/excess can arise from several sources, including actuarial gains and losses which are caused by differences between actual experience and the plan's assumptions, changes to the plan's actuarial assumptions, and amendments to the benefit provisions.

The UAAL% is the amount required to fund this difference. It is the amount, expressed as a level percentage of payroll, necessary to amortize the UAAL. The Board has specified that this amortization should be over a period of 20 years. Column 3 of Exhibit 2(a) shows the UAAL% for each fund.

The 3% Substantial Substitute component of the employer contribution rate is only required for funds whose members are employees of the state (or who are paid by state funding). This piece is the amount necessary to fund the 3% Substantial Substitute. It is shown in column 4 of Exhibit 2(a), and is described more fully later.

The last piece of the contribution rate is the offset. The Firefighters System receives a portion of the fire insurance premium taxes collected by the state, and the Judges System receives a portion of court fees collected by the judiciary. The calculation of the offsets is shown in Exhibit 2(b), and the impact of the offset on the employer contribution rates is shown in column 6 of Exhibit 2(a).

Exhibit 1(a) shows that the gross employer rate for the Firefighter's System before any reduction for the offset is 5.72% for Division A and 2.83% for Division B. The offset is first used to reduce the employer contribution rate and then any remaining offset may be used to reduce the member contribution rates. We have assumed that the Board will continue its policy of holding the employee rate for Division B firefighters at the prior year's rate rather than applying all of the remaining offset. This unused offset will help to reduce the unfunded liability and future contribution rates.

These calculated rates are used in determining the contribution rates that will become effective for the twelve-month period beginning July 1, 2004.

The Governors' and Legislators' Retirement Plan, unlike the other systems, is funded by direct legislative appropriations. However, the actuarial value of assets exceeds the actuarial present value of future benefits for this fund, and therefore no contribution is required this year.

Financial Data and Experience

As of December 31, 2002, the retirement systems that are part of URS have a total market value of about \$11.5 billion. This excludes assets of the 401(k) and 457 plans which are also administered by URS. Assets of the various funds and systems are commingled for investment purposes. Financial information was gathered from the 2002 URS Comprehensive Annual Financial Report, with additional information provided by the URS staff.

This report includes a number of exhibits related to plan assets. Exhibit 11(a) shows how the total market value is distributed among the various classes of investments. Currently, 61% of invested assets are held in equities and alternative investments, compared with 60% last year and compared with a 65% investment policy target.

Exhibit 11(b) shows a reconciliation of the market values between the beginning and end of 2001. The contributions shown in column 3 of Exhibit 11(b) include employer and member contributions, as well as court fees and fire insurance premium tax receipts. The 3% substantial substitute fund is shown as a separate item.

During 2002, the total investment return on market values was -8.0%, as shown on Exhibit 12(a).

In determining the contribution rates and funded status of the funds, an actuarial value of assets (AVA) is used, rather than the market value of assets. The method used to compute the AVA takes the difference between actual earnings and expected earnings (based on the assumed 8% investment return rate) each year, and recognizes the difference over five years, at 20% per year. This is intended to reduce the volatility of the contribution rates from year to year. This "smoothed" asset value is then subjected to the further constraint that the actuarial value of assets cannot be less than 80% nor more than 120% of the market value of assets. As of December 31, 2002 this market value constraint was impacting almost all of the funds.

The development of the AVA is shown on Exhibits 13 and 14. The AVA is \$13.8 billion for all systems combined. This work was performed by the URS staff, but has been reviewed and approved by GRS. In the aggregate, the AVA is 120% of the MVA. This results from the operation of the 80%-120% corridor described above.

Some funds in the Contributory Public Employees System and the Contributory Public Safety System are paired with funds in the Public Employees and Public Safety noncontributory systems. For example, Fund 23, Other Division A, in the Public Safety Contributory System is paired with Fund 43, Other Division A, in the Public Safety Noncontributory System. In these cases, URS has established a policy of maintaining either the same difference between contribution rates for pairs of funds, or it maintains equal amortization percentages. To accomplish this, an amount of assets is transferred each year between fund pairs, as necessary. Exhibit 14, column 6 shows the change that

must occur to the AVA in order to accomplish this. Exhibit 14, column 3 shows how much must be transferred between systems to accomplish this in terms of market value.

In addition to the market return, Exhibit 12(a) also shows the return on the actuarial value for URS. For 2002, this return was -1.5%. Because this is less than the assumed 8% investment return, the plan funded status decreased for almost all funds, and the calculated contribution rates for all of the funds increased. Exhibit 12(b) shows a summary of market and actuarial return rates in recent years.

Member Data

Member data was supplied by URS staff on a CD as of December 31, 2002. While we did not audit this data, we did perform various tests to ensure that it was internally consistent, consistent with the prior year's data, and was reasonable overall.

Exhibit 8 shows the number of members by category (active, inactive, retired, etc.) and by fund. Exhibit 9 shows active member statistics by fund, and Exhibit 10 shows retiree statistics by fund. Exhibits 16(a)-16(g) show summaries of certain historical data, including membership statistics, for each system.

For all funds combined, the number of active members increased from 96,012 to 96,295, a 0.3% increase. Last year, total membership grew 2.1%, and over the last five years, membership growth has averaged 1.7% per year.

Total active member payroll grew 3.2% last year for all funds combined, compared with a 7.0% increase last year.

Benefit Provisions

Appendix 2 includes a summary of the benefit provisions for each of the retirement systems in URS. The valuation reflects benefit changes enacted by the 2003 legislature. Although not effective on the valuation date, they will be effective on or before the contribution rates actually go into effect at July 1, 2004.

However, there were no changes made since the previous valuation that had a measurable effect on the valuations.

This valuation reflects all benefits promised to URS members, either by the statutes, or in the case of the special supplement for the Governors' and Legislators' Retirement Plan and the ROPP payments (discussed later), by the Board. There are no ancillary benefits that might be deemed a URS liability if continued beyond the availability of funding by the current funding source.

Actuarial Methods and Assumptions

Appendix 1 includes a summary of the actuarial assumptions and methods used in this valuation. Costs are determined using the Entry Age actuarial cost method. The assumed investment return rate is 8.00%. The Board adopted new actuarial assumptions last year in connection with the 2002 experience investigation. Please see Appendix 1 for a complete description of these assumptions.

GASB 25 and Funding Progress

Governmental Accounting Standards Board Statement No. 25 (GASB 25) contains certain accounting requirements for URS. In particular, it requires the inclusion of two special schedules in the URS annual report:

1. Schedule of Funding Progress
2. Schedule of Employer Contributions

Information needed to prepare the Schedule of Funding Progress is included in Exhibit 3(a). This shows that all but two of the funds have a funded ratio (ratio of actuarial assets to accrued liabilities) of at least 85%, and most are over 90%. The only funds with funded ratios below 85% are Salt Lake City in the Public Safety Noncontributory Retirement System and the 3% Substantial Substitute fund. The latter has only been a liability of URS since 1994. See Exhibit 3(a), column 5. However, funded ratios have declined for almost all funds since last year, primarily due to the investment losses.

GASB 25 also requires that plans calculate an Annual Required Contribution (ARC), and, if actual contributions received are less than the ARC, this must be disclosed. For this disclosure, URS treats the Board-established employer contribution rate as the ARC, as long as this produces a funding period of less than 30 years.

Under GASB 25, the ARC must be calculated in accordance with certain parameters. In particular, it must include a payment to amortize the UAAL. This amortization payment eventually will have to be computed using a funding period no greater than 30 years, but a 40-year maximum amortization period may be used during a ten-year transition period. Further, the amortization payment included in the ARC may be computed as a level amount, or it may be computed as an amount which increases with payroll. However, if payments are computed on a level-percent-of-payroll approach, the payroll growth assumption may not anticipate future membership growth.

Since the recommended employer contribution rate is computed as a level percentage of payroll using a 20-year amortization period, the recommended rate meets the definition of a n acceptable ARC.

Firefighters and Judges Offsets

A portion of the fire insurance premium taxes collected by the State of Utah is contributed to the Firefighters System, and a portion of the court fees collected by the state judiciary is contributed to the Judges System. To account for this prospectively, the recommended contribution rates for the funds in these systems are reduced.

In order to dampen year-to-year fluctuations in the offsets, we are using a rolling three-year average in computing the offsets. First, we calculate a percentage of pay offset for each year, equal to receipts divided by payroll. (For the Firefighters, all calculations are done on a combined basis for Divisions A and B.) Then the offset percentages for the just completed year and the two prior years are averaged. This average is then used as the current year's offset. The calculation of the offsets is shown on Exhibit 2(b).

The offset for the Firefighter System increased significantly, from 10.35% to 12.16%, and the offset for the Judges System also increased from 18.06% to 19.69%. The increase in the Firefighter System was caused by the fact that the fire insurance premiums have increased dramatically over the last several years. The ratio of fire insurance premiums to payroll for 2002 was 13.25%, well above prior levels.

It should be noted that the employer contribution rates for both divisions of the Firefighter's System are less than the offset for the fire insurance premium. Based on Board policy, we first applied the offset to reduce the employer contribution rates to zero, and then we used the remaining offset to reduce the member contribution rates.

You will note that the entire offset was not used to offset the Division B firefighter's member rate. The Board decided in 2002 to not reduce the member rate below the 2001 member rate. Any excess offset is used to reduce the unfunded liability of the system and thereby reduce future contribution rates.

3% Substantial Substitute

Due to the removal of the state income tax exemption for benefits paid by URS, legislation was passed to provide a 3% retirement benefit increase for URS retirees who were members of URS prior to January 1, 1989. All future retirees who were members of the URS prior to January 1, 1989 will be eligible for this benefit as well, as will beneficiaries of eligible members.

The 3% increase applies to all benefits paid to eligible members, including benefits earned after January 1, 1989 and including future cost-of-living increases. However, the 3% increase does not apply to (i) refunds of employee contributions (with interest if applicable) or (ii) the group insurance benefits for members of the Public Employees Systems.

Due to legislation passed in 1994, this benefit is now pre-funded. The obligation for payment of this benefit belongs to the state, however, not to the employer. Therefore the contribution needed to fund the benefit is determined as an addition to the employer contribution rates required for the State and School Funds in the Public Employees Contributory and Noncontributory Systems, the State of Utah funds in the Public Safety Contributory and Noncontributory Systems, and the Judges System.

The contribution required to pay for this benefit is 0.85%, 0.02% more than last year. Details of the calculation are shown in Exhibit 15(a), while Exhibit 15(b) shows a distribution of the liabilities associated with this benefit.

Restoration of Purchasing Power (ROPP)

URS provides a special benefit to a closed group of retired members. This benefit was granted by the Board of Trustees, not by the legislature, and hence it does not appear in the statutes governing URS. The Board provided this benefit, called the Restoration of Purchasing Power benefit or ROPP benefit, to retired members several years ago, in order to counteract some of the impact of inflation.

The ROPP benefit is a fixed amount that does not increase and is not adjusted for changes in the cost of living. It is provided only to the closed group of members who were retired at the time of the Board's action. Therefore, since the group is closed and since the benefit amount cannot increase, this liability decreases from year to year as the retiree group receiving the ROPP grows older and decreases in size due to mortality.

Exhibit 5(e) shows the liabilities for the ROPP benefits in column 5.

Comparison of Contribution Rates

Fund/Division (1)	2002 Valuation Results			2003 Valuation Results 2004-2005 Calculated Rates		
	Member	Employer	Total	Member	Employer	Total
	(2)	(3)	(4)	(5)	(6)	(7)
I. Public Employees Contributory						
A. Local Government	6.00%	4.54%	10.54%	6.00%	7.08%	13.08%
B. State and School	6.00%	5.82%	11.82%	6.00%	8.89%	14.89%
II. Public Employees Noncontributory						
A. Local Government	0.00%	8.55%	8.55%	0.00%	11.09%	11.09%
B. State and School	0.00%	10.31%	10.31%	0.00%	13.38%	13.38%
III. Public Safety Contributory						
A. State	12.29%	8.41%	20.70%	12.29%	12.50%	24.79%
B. Other Division A	12.29%	3.77%	16.06%	12.29%	7.70%	19.99%
C. Salt Lake City	13.74%	15.14%	28.88%	13.74%	19.96%	33.70%
D. Provo	13.54%	8.77%	22.31%	13.54%	12.22%	25.76%
E. Logan	11.13%	4.47%	15.60%	11.13%	10.03%	21.16%
F. Other Division B	10.50%	9.43%	19.93%	10.50%	12.35%	22.85%
IV. Public Safety Noncontributory						
A. State	0.00%	19.77%	19.77%	0.00%	23.46%	23.46%
B. Other Division A	0.00%	15.49%	15.49%	0.00%	19.08%	19.08%
C. Salt Lake City	0.00%	27.25%	27.25%	0.00%	32.52%	32.52%
D. Ogden	0.00%	18.30%	18.30%	0.00%	24.30%	24.30%
E. Logan	N/A	N/A	N/A	0.00%	20.77%	20.77%
F. Bountiful	0.00%	15.25%	15.25%	0.00%	19.68%	19.68%
G. Other Division B	0.00%	19.01%	19.01%	0.00%	22.17%	22.17%
V. Firefighters						
A. Division A						
1. Gross Rate	15.05%	2.63%	17.68%	15.05%	5.72%	20.77%
2. Less Estimated Offset	<u>-6.84%</u>	<u>-2.63%</u>	<u>-9.47%</u>	<u>-6.44%</u>	<u>-5.72%</u>	<u>-12.16%</u>
3. Net Rate	8.21%	0.00%	8.21%	8.61%	0.00%	8.61%
B. Division B						
1. Gross Rate	16.71%	0.00%	16.71%	16.71%	2.83%	19.54%
2. Less Estimated Offset	<u>-8.88%</u>	<u>0.00%</u>	<u>-8.88%</u>	<u>-8.88%</u>	<u>-2.83%</u>	<u>-11.71%</u>
3. Net Rate	7.83%	0.00%	7.83%	7.83%	0.00%	7.83%
VI. Judges						
A. Gross Rate	0.00%	21.61%	21.61%	0.00%	26.79%	26.79%
B. Less Estimated Offset	<u>-0.00%</u>	<u>-18.06%</u>	<u>-18.06%</u>	<u>-0.00%</u>	<u>-19.69%</u>	<u>-19.69%</u>
C. Net Rate	0.00%	3.55%	3.55%	0.00%	7.10%	7.10%
VII. Governors and Legislative	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Comparison of Calculated Rates and Adopted Rates

Fund/Division (1)	2002 Valuation Results		2003 Valuation
	Calculated	Rates Set by Board	Calculated
	(2)	(3)	(4)
I. Public Employees Contributory			
A. Local Government	4.54%	5.61%	7.08%
B. State and School	5.82%	7.21%	8.89%
II. Public Employees Noncontributory			
A. Local Government	8.55%	9.62%	11.09%
B. State and School	10.31%	11.70%	13.38%
III. Public Safety Contributory			
A. State	8.41%	10.02%	12.50%
B. Other Division A	3.77%	4.52%	7.70%
C. Salt Lake City	15.14%	17.61%	19.96%
D. Provo	8.77%	10.85%	12.22%
E. Logan	4.47%	5.97%	10.03%
F. Other Division B	9.43%	9.47%	12.35%
IV. Public Safety Noncontributory			
A. State	19.77%	21.15%	23.46%
B. Other Division A	15.49%	16.24%	19.08%
C. Salt Lake City	27.25%	30.05%	32.52%
D. Ogden	18.30%	20.85%	24.30%
E. Logan	N/A	N/A	20.77%
F. Bountiful	15.25%	18.63%	19.68%
G. Other Division B	19.01%	19.42%	22.17%
V. Firefighters			
A. Division A	0.00%	0.00%	0.00%
B. Division B	0.00%	0.00%	0.00%
VI. Judges	3.55%	7.08%	7.10%
VII. Governors and Legislative	0.00%	0.00%	0.00%

Note: Rates shown for Firefighters and Judges are net of offsets.

Components of Calculated Contribution Rates

Fund/Division (1)	Net Normal Cost (2)	Amortization of UAAL (3)	3% Substantial Substitute (4)	Gross Employer Rate (2 + 3 + 4) (5)	Offset (6)	Net Employer Rate (5 - 6) (7)
I. Public Employees Contributory						
A. Local Government	3.88%	3.20%	0.00%	7.08%	0.00%	7.08%
B. State and School	3.61%	4.43%	0.85%	8.89%	0.00%	8.89%
II. Public Employees Noncontributory						
A. Local Government	10.24%	0.85%	0.00%	11.09%	0.00%	11.09%
B. State and School	10.88%	1.65% 1.29%	0.85% .66%	13.38%	0.00%	13.38% 12.83
III. Public Safety Contributory						
A. State	8.20%	3.45%	0.85%	12.50%	0.00%	12.50%
B. Other Division A	7.45%	0.25%	0.00%	7.70%	0.00%	7.70%
C. Salt Lake City	6.12%	13.84%	0.00%	19.96%	0.00%	19.96%
D. Provo	6.54%	5.68%	0.00%	12.22%	0.00%	12.22%
E. Logan	8.30%	1.73%	0.00%	10.03%	0.00%	10.03%
F. Other Division B	9.06%	3.29%	0.00%	12.35%	0.00%	12.35%
IV. Public Safety Noncontributory						
A. State	19.16%	3.45%	0.85%	23.46%	0.00%	23.46%
B. Other Division A	18.83%	0.25%	0.00%	19.08%	0.00%	19.08%
C. Salt Lake City	18.68%	13.84%	0.00%	32.52%	0.00%	32.52%
D. Ogden	18.62%	5.68%	0.00%	24.30%	0.00%	24.30%
E. Logan	19.04%	1.73%	0.00%	20.77%	0.00%	20.77%
F. Bountiful	18.78%	0.90%	0.00%	19.68%	0.00%	19.68%
G. Other Division B	18.88%	3.29%	0.00%	22.17%	0.00%	22.17%
V. Firefighters						
A. Division A	7.75%	-2.03%	0.00%	5.72%	5.72%	0.00%
B. Division B	6.23%	-3.40%	0.00%	2.83%	2.83%	0.00%
VI. Judges	26.15%	-0.21%	0.85%	26.79%	19.69%	7.10%
VII. Governors and Legislative	N/A	N/A	N/A	N/A	N/A	N/A

30-yr cost

Determination of Contribution Rate Offsets for Firefighters and Judges

A. Firefighter's Offset

1. Calendar Year	<u>2000</u>	<u>2001</u>	<u>2002</u>
2. Fire insurance premium receipts	6,615,000	8,354,000	9,454,000
3. Combined payroll for both funds*	61,593,417	66,870,915	71,346,531
4. Premiums as percentage of payroll	10.74%	12.49%	13.25%
5. Offset: 3-year arithmetic average of percent of payroll			12.16%

B. Judge's Offset

1. Calendar Year	<u>2000</u>	<u>2001</u>	<u>2002</u>
2. Court fees	1,946,000	2,046,000	2,381,000
3. Payroll*	10,317,660	10,910,099	11,095,476
4. Premiums as percentage of payroll	18.86%	18.75%	21.46%
5. Offset: 3-year arithmetic average of percent of payroll			19.69%

* Reported payroll for members active at end of year

Schedule of Funding Progress

Fund/Division (1)	Actuarial Value of Assets (2)	Actuarial Accrued Liability (AAL) (3)	Unfunded AAL (UAAL) (3 - 2) (4)	Funded Ratio (2 / 3) (5)	Covered Payroll (6)	UAAL as a Percentage of Covered Payroll (4 / 6) (7)
I. Public Employees Contributory						
A. Local Government	254,370	280,435	26,064	90.7%	56,657	46.0%
B. State and School	644,920	696,483	51,563	92.6%	81,086	63.6%
C. Subtotal	899,290	976,918	77,627	92.1%	137,743	56.4%
II. Public Employees Noncontributory						
A. Local Government	1,766,403	1,842,886	76,483	95.8%	625,688	12.2%
B. State and School	8,989,662	9,529,916	540,254	94.3%	2,263,165	23.9%
C. Subtotal	10,756,065	11,372,802	616,737	94.6%	2,888,853	21.3%
III. Public Safety Contributory						
A. State	61,868	62,396	528	99.2%	1,066	49.5%
B. Other Division A	153,935	154,537	602	99.6%	16,477	3.7%
C. Salt Lake City	41,380	41,580	200	99.5%	101	198.0%
D. Provo	22,875	26,434	3,559	86.5%	4,346	81.9%
E. Logan	12,389	12,950	561	95.7%	2,244	25.0%
F. Other Division B	29,828	33,277	3,449	89.6%	7,267	47.5%
G. Subtotal	322,275	331,174	8,899	97.3%	31,501	28.2%
IV. Public Safety Noncontributory						
A. State	429,631	474,548	44,917	90.5%	90,218	49.8%
B. Other Division A	399,977	403,604	3,627	99.1%	101,913	3.6%
C. Salt Lake City	88,310	126,504	38,194	69.8%	19,152	199.4%
D. Ogden	38,568	42,649	4,081	90.4%	4,984	81.9%
E. Logan	709	735	26	96.4%	106	24.5%
F. Bountiful	10,958	11,170	212	98.1%	1,637	13.0%
G. Other Division B	59,007	68,107	9,100	86.6%	19,182	47.4%
H. Subtotal	1,027,160	1,127,317	100,157	91.1%	237,192	42.2%
V. Firefighters						
A. Division A	55,202	51,170	(4,032)	107.9%	13,690	-29.5%
B. Division B	498,387	469,994	(28,393)	106.0%	57,657	-49.2%
C. Subtotal	553,589	521,164	(32,425)	106.2%	71,347	-45.4%
VI. Judges	90,904	90,573	(331)	100.4%	11,095	-3.0%
VII. Governors and Legislative	10,719	8,706	(2,013)	123.1%	592	-340.0%
VIII. 3% Substantial Substitute	92,521	391,551	299,030	23.6%	N/A	N/A
IX. Grand Total	13,752,523	14,820,205	1,067,681	92.8%	3,378,323	31.6%

Note: Amounts shown are in \$ thousands
Columns may not add to total due to rounding

Comparison of Funded Ratios

Fund/Division (1)	Funded Ratios as of January 1		
	2003 (2)	2002 (3)	2001 (4)
I. Public Employees Contributory			
A. Local Government	90.7%	97.8%	98.8%
B. State and School	92.6%	97.7%	98.8%
C. Subtotal	92.1%	97.7%	98.8%
II. Public Employees Noncontributory			
A. Local Government	95.8%	107.3%	109.6%
B. State and School	94.3%	105.3%	107.0%
C. Subtotal	94.6%	105.6%	107.4%
III. Public Safety Contributory			
A. State	99.2%	99.9%	100.4%
B. Other Division A	99.6%	104.3%	107.7%
C. Salt Lake City	99.5%	99.7%	99.8%
D. Provo	86.5%	93.6%	93.4%
E. Logan	95.7%	107.7%	111.1%
F. Other Division B	89.6%	95.3%	107.8%
G. Subtotal	97.3%	101.3%	104.1%
IV. Public Safety Noncontributory			
A. State	90.5%	98.5%	104.6%
B. Other Division A	99.1%	110.6%	121.0%
C. Salt Lake City	69.8%	79.7%	79.8%
D. Ogden	90.4%	100.4%	101.4%
E. Logan	96.4%	N/A	N/A
F. Bountiful	98.1%	106.3%	103.3%
G. Other Division B	86.6%	94.4%	110.6%
H. Subtotal	91.1%	100.6%	107.5%
V. Firefighters			
A. Division A	107.9%	117.9%	127.6%
B. Division B	106.0%	115.6%	116.9%
C. Subtotal	106.2%	115.9%	117.8%
VI. Judges	100.4%	107.7%	117.8%
VII. Governors and Legislative	123.1%	143.1%	146.3%
VIII. 3% Substantial Substitute	23.6%	22.2%	19.1%
IX. Grand Total	92.8%	102.7%	104.7%

Analysis of Changes in Calculated Contribution Rates

Fund/Division (1)	Rate From Jan. 1, 2002 Valuation (2)	Changes Due To								Calculated Rate (11)
		Payroll Growth (3)	Investment Return (4)	Liabilities (5)	Actuarial Assumptions (6)	Legislation (7)	Asset Transfers (8)	3% Substantial Substitute (9)	Act. vs Exp. Contributions (10)	
I. Public Employees Contributory										
A. Local Government	4.54%	0.01%	3.12%	0.15%	0.00%	0.00%	-0.74%	0.00%	0.00%	7.08%
B. State and School	5.82%	0.09%	5.86%	-0.07%	0.00%	0.00%	-2.91%	0.02%	0.08%	8.89%
II. Public Employees Noncontributory										
A. Local Government	8.55%	0.04%	1.85%	0.60%	0.00%	0.00%	0.07%	0.00%	-0.02%	11.09%
B. State and School	10.31%	-0.03%	2.68%	0.24%	0.00%	0.00%	0.10%	0.02%	0.06%	13.38%
III. Public Safety Contributory										
A. State	8.41%	-0.27%	44.73%	-2.82%	0.00%	0.00%	-37.74%	0.02%	0.17%	12.50%
B. Other Division A	3.77%	0.00%	6.59%	0.60%	0.00%	0.00%	-3.35%	0.00%	0.09%	7.70%
C. Salt Lake City	15.14%	-0.20%	321.17%	-2.96%	0.00%	0.00%	-312.94%	0.00%	-0.25%	19.96%
D. Provo	8.77%	0.05%	3.62%	-0.18%	0.00%	0.00%	0.00%	0.00%	-0.04%	12.22%
E. Logan	4.47%	-0.05%	3.97%	-0.23%	0.00%	0.00%	1.77%	0.00%	0.10%	10.03%
F. Other Division B	9.43%	0.05%	2.52%	0.69%	0.00%	0.00%	-0.59%	0.00%	0.25%	12.35%
IV. Public Safety Noncontributory										
A. State	19.77%	0.00%	3.13%	-0.05%	0.00%	0.00%	0.44%	0.02%	0.15%	23.46%
B. Other Division A	15.49%	0.02%	2.55%	0.36%	0.00%	0.00%	0.54%	0.00%	0.12%	19.08%
C. Salt Lake City	27.25%	0.02%	3.09%	0.64%	0.00%	0.00%	1.64%	0.00%	-0.12%	32.52%
D. Ogden	18.30%	0.00%	5.54%	0.54%	0.00%	0.00%	0.00%	0.00%	-0.08%	24.30%
E. Logan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20.77%
F. Bountiful	15.25%	0.13%	4.46%	0.04%	0.00%	0.00%	0.00%	0.00%	-0.20%	19.68%
G. Other Division B	19.01%	-0.06%	1.84%	1.01%	0.00%	0.00%	0.23%	0.00%	0.14%	22.17%
V. Firefighters										
A. Division A	2.63%	0.32%	2.46%	0.57%	0.00%	0.00%	0.00%	0.00%	-0.26%	5.72%
B. Division B	-2.60%	0.16%	5.88%	-0.08%	0.00%	0.00%	0.00%	0.00%	-0.53%	2.83%
VI. Judges	21.61%	-0.13%	5.49%	0.02%	0.00%	0.00%	0.00%	0.02%	-0.22%	26.79%
VII. Governors and Legislative	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: Rates shown as of Jan. 1, 2002 do not include adjustments for 2002 legislation
Rates shown include contribution for 3% Substantial Substitute, if applicable
Rates shown do not include the offsets for court fees or for fire insurance premium taxes

**Actuarial Present Value of Future Benefits
by Fund and Status**

Fund/Division (1)	Retirees and Beneficiaries (2)	Inactive Members (3)	Active Members (4)	Total (5)
I. Public Employees Contributory				
A. Local Government	91,955	25,621	206,675	324,251
B. State and School	324,597	49,545	375,921	750,063
C. Subtotal	416,552	75,166	582,596	1,074,314
II. Public Employees Noncontributory				
A. Local Government	577,800	99,476	1,748,923	2,426,200
B. State and School	3,593,262	328,173	7,811,604	11,733,038
C. Subtotal	4,171,062	427,649	9,560,527	14,159,238
III. Public Safety Contributory				
A. State	55,769	1,747	6,109	63,626
B. Other Division A	97,579	6,089	82,086	185,755
C. Salt Lake City	41,109	36	599	41,744
D. Provo	11,574	1,377	22,243	35,194
E. Logan	5,300	72	11,800	17,173
F. Other Division B	10,928	1,249	35,238	47,414
G. Subtotal	222,259	10,570	158,075	390,906
IV. Public Safety Noncontributory				
A. State	195,694	11,770	432,314	639,779
B. Other Division A	146,652	11,041	454,797	612,491
C. Salt Lake City	56,940	3,050	100,980	160,969
D. Ogden	25,504	716	25,674	51,893
E. Logan	721	-	306	1,027
F. Bountiful	3,738	4	9,833	13,574
G. Other Division B	18,228	2,989	85,328	106,545
H. Subtotal	447,477	29,570	1,109,232	1,586,278
V. Firefighters				
A. Division A	18,748	781	76,254	95,783
B. Division B	252,094	2,082	370,118	624,294
C. Subtotal	270,842	2,863	446,372	720,077
VI. Judges	40,800	1,133	72,917	114,851
VII. Governors and Legislative	5,212	1,627	2,356	9,194
VIII. Grand Total	5,574,204	548,578	11,932,075	18,054,858

Notes: Amounts shown are in \$ thousands
Columns may not add to total due to rounding

**Actuarial Present Value of Future Benefits
Details for Retirees and Beneficiaries, by Status**

Fund/Division (1)	Retired Members (2)	Disabled Members (3)	Beneficiaries (4)	Total (5)
I. Public Employees Contributory				
A. Local Government	71,988	3,347	16,620	91,955
B. State and School	265,665	9,164	49,767	324,597
C. Subtotal	<u>337,653</u>	<u>12,511</u>	<u>66,387</u>	<u>416,552</u>
II. Public Employees Noncontributory				
A. Local Government	534,251	10,725	32,824	577,800
B. State and School	3,370,841	44,721	177,700	3,593,262
C. Subtotal	<u>3,905,092</u>	<u>55,446</u>	<u>210,524</u>	<u>4,171,062</u>
III. Public Safety Contributory				
A. State	43,066	1,719	10,984	55,769
B. Other Division A	83,874	1,418	12,287	97,579
C. Salt Lake City	34,303	1,090	5,716	41,109
D. Provo	10,217	0	1,357	11,574
E. Logan	5,048	98	155	5,300
F. Other Division B	9,650	655	623	10,928
G. Subtotal	<u>186,158</u>	<u>4,980</u>	<u>31,122</u>	<u>222,259</u>
IV. Public Safety Noncontributory				
A. State	187,885	1,642	6,167	195,694
B. Other Division A	142,182	946	3,524	146,652
C. Salt Lake City	54,933	972	1,035	56,940
D. Ogden	23,664	208	1,631	25,504
E. Logan	721	0	0	721
F. Bountiful	3,692	0	46	3,738
G. Other Division B	17,425	345	458	18,228
H. Subtotal	<u>430,502</u>	<u>4,113</u>	<u>12,861</u>	<u>447,477</u>
V. Firefighters				
A. Division A	15,277	2,260	1,211	18,748
B. Division B	219,721	13,164	19,209	252,094
C. Subtotal	<u>234,998</u>	<u>15,424</u>	<u>20,420</u>	<u>270,842</u>
VI. Judges	34,939	0	5,861	40,800
VII. Governors and Legislative	4,510	0	702	5,212
VIII. Grand Total	5,133,852	92,474	347,877	5,574,204

Notes: Amounts shown are in \$ thousands
Columns may not add to total due to rounding

**Actuarial Present Value of Future Benefits
Details for Inactive Members, by Status**

Fund/Division (1)	Disabled (2)	Other Vested (3)	Nonvested (4)	Total (5)
I. Public Employees Contributory				
A. Local Government	3,398	21,179	1,044	25,621
B. State and School	6,936	42,578	30	49,545
C. Subtotal	10,334	63,757	1,074	75,166
II. Public Employees Noncontributory				
A. Local Government	13,214	85,289	973	99,476
B. State and School	57,584	265,894	4,695	328,173
C. Subtotal	70,798	351,183	5,668	427,649
III. Public Safety Contributory				
A. State	222	1,512	13	1,747
B. Other Division A	0	5,739	350	6,089
C. Salt Lake City	0	36	1	36
D. Provo	0	1,330	47	1,377
E. Logan	0	64	8	72
F. Other Division B	147	1,031	71	1,249
G. Subtotal	369	9,712	490	10,570
IV. Public Safety Noncontributory				
A. State	2,356	9,410	4	11,770
B. Other Division A	1,464	9,572	5	11,041
C. Salt Lake City	1,777	1,273	0	3,050
D. Ogden	315	401	0	716
E. Logan	0	0	0	0
F. Bountiful	0	4	0	4
G. Other Division B	655	2,331	2	2,989
H. Subtotal	6,567	22,991	11	29,570
V. Firefighters				
A. Division A	0	673	108	781
B. Division B	0	1,881	200	2,082
C. Subtotal	0	2,554	308	2,863
VI. Judges	0	1,133	0	1,133
VII. Governors and Legislative	0	1,618	9	1,627
VIII. Grand Total	88,068	452,948	7,560	548,578

Notes: Amounts shown are in \$ thousands
Columns may not add to total due to rounding

**Actuarial Present Value of Future Benefits
Details for Active Members, by Benefit**

Fund/Division (1)	Retirement (2)	Deferred Termination (3)	Disability (4)	Refunds (5)	Death (6)	Total (7)
I. Public Employees Contributory						
A. Local Government	178,937	18,071	3,313	2,638	3,715	206,675
B. State and School	338,868	24,268	5,914	1,004	5,866	375,921
C. Subtotal	<u>517,805</u>	<u>42,339</u>	<u>9,227</u>	<u>3,642</u>	<u>9,581</u>	<u>582,596</u>
II. Public Employees Noncontributory						
A. Local Government	1,526,490	154,712	35,446	42	32,234	1,748,923
B. State and School	7,113,086	452,448	132,873	3	113,193	7,811,604
C. Subtotal	<u>8,639,576</u>	<u>607,160</u>	<u>168,319</u>	<u>45</u>	<u>145,427</u>	<u>9,560,527</u>
III. Public Safety Contributory						
A. State	5,936	57	42	15	59	6,109
B. Other Division A	78,126	1,254	685	1,164	859	82,086
C. Salt Lake City	577	8	3	4	6	599
D. Provo	20,978	376	190	375	324	22,243
E. Logan	11,260	173	72	157	137	11,800
F. Other Division B	33,355	586	289	511	498	35,238
G. Subtotal	<u>150,232</u>	<u>2,454</u>	<u>1,281</u>	<u>2,226</u>	<u>1,883</u>	<u>158,075</u>
IV. Public Safety Noncontributory						
A. State	412,448	10,005	4,372	0	5,489	432,314
B. Other Division A	432,239	12,013	4,745	0	5,799	454,797
C. Salt Lake City	97,177	1,836	693	0	1,275	100,980
D. Ogden	24,713	446	179	0	335	25,674
E. Logan	281	12	6	0	7	306
F. Bountiful	9,575	110	45	0	103	9,833
G. Other Division B	81,161	1,981	821	0	1,365	85,328
H. Subtotal	<u>1,057,594</u>	<u>26,403</u>	<u>10,861</u>	<u>0</u>	<u>14,373</u>	<u>1,109,232</u>
V. Firefighters						
A. Division A	72,812	388	1,409	481	1,164	76,254
B. Division B	356,758	1,425	4,203	1,747	5,985	370,118
C. Subtotal	<u>429,570</u>	<u>1,813</u>	<u>5,612</u>	<u>2,228</u>	<u>7,149</u>	<u>446,372</u>
VI. Judges	70,778	0	0	0	2,139	72,917
VII. Governors and Legislative	1,439	872	0	0	45	2,356
VIII. Grand Total	10,866,994	681,041	195,300	8,141	180,597	11,932,075

Notes: Amounts shown are in \$ thousands
Columns may not add to total due to rounding

**Actuarial Present Value of Future Benefits
Details for Members Receiving Benefits, by Benefit**

Fund/Division (1)	Basic Benefit (2)	COLA (3)	Subtotal (2) + (3) (4)	ROPP (5)	Total (4) + (5) (6)
I. Public Employees Contributory					
A. Local Government	56,364	34,617	90,981	974	91,955
B. State and School	184,945	133,574	318,519	6,078	324,597
C. Subtotal	<u>241,309</u>	<u>168,191</u>	<u>409,500</u>	<u>7,052</u>	<u>416,552</u>
II. Public Employees Noncontributory					
A. Local Government	409,070	168,730	577,800	0	577,800
B. State and School	2,511,016	1,082,246	3,593,262	0	3,593,262
C. Subtotal	<u>2,920,086</u>	<u>1,250,976</u>	<u>4,171,062</u>	<u>0</u>	<u>4,171,062</u>
III. Public Safety Contributory					
A. State	34,113	19,905	54,018	1,751	55,769
B. Other Division A	66,197	30,237	96,434	1,145	97,579
C. Salt Lake City	25,378	15,241	40,619	490	41,109
D. Provo	7,833	3,670	11,503	71	11,574
E. Logan	3,784	1,504	5,288	12	5,300
F. Other Division B	8,093	2,832	10,925	3	10,928
G. Subtotal	<u>145,398</u>	<u>73,389</u>	<u>218,787</u>	<u>3,472</u>	<u>222,259</u>
IV. Public Safety Noncontributory					
A. State	145,171	50,523	195,694	0	195,694
B. Other Division A	111,756	34,896	146,652	0	146,652
C. Salt Lake City	41,917	15,023	56,940	0	56,940
D. Ogden	18,173	7,216	25,389	115	25,504
E. Logan	581	140	721	0	721
F. Bountiful	2,591	1,139	3,730	8	3,738
G. Other Division B	13,977	4,251	18,228	0	18,228
H. Subtotal	<u>334,166</u>	<u>113,188</u>	<u>447,354</u>	<u>123</u>	<u>447,477</u>
V. Firefighters					
A. Division A	12,908	5,603	18,511	237	18,748
B. Division B	165,751	82,739	248,490	3,604	252,094
C. Subtotal	<u>178,659</u>	<u>88,342</u>	<u>267,001</u>	<u>3,841</u>	<u>270,842</u>
VI. Judges	26,019	14,781	40,800	0	40,800
VII. Governors and Legislative	3,475	1,737	5,212	0	5,212
VIII. Grand Total	3,849,112	1,710,604	5,559,716	14,488	5,574,204

Notes: Amounts shown are in \$ thousands
Columns may not add to total due to rounding

Normal Cost

Fund/Division (1)	Retirement (2)	Deferred Termination (3)	Disability (4)	Refunds (5)	Group Insurance (6)	Other Death (7)	Total (8)
I. Public Employees Contributory							
A. Local Government	6.83%	1.24%	0.29%	1.33%	0.14%	0.19%	9.88%
B. State and School	6.56%	0.97%	0.30%	1.62%	0.14%	0.16%	9.61%
II. Public Employees Noncontributory							
A. Local Government	8.09%	1.62%	0.34%	0.00%	0.14%	0.19%	10.24%
B. State and School	9.04%	1.34%	0.33%	0.00%	0.14%	0.17%	10.88%
III. Public Safety Contributory							
A. State	17.85%	0.63%	0.57%	1.01%	0.00%	0.43%	20.49%
B. Other Division A	17.31%	0.52%	0.37%	1.22%	0.00%	0.32%	19.74%
C. Salt Lake City	17.30%	0.46%	0.29%	1.43%	0.00%	0.38%	19.86%
D. Provo	17.41%	0.50%	0.37%	1.33%	0.00%	0.47%	20.08%
E. Logan	17.03%	0.46%	0.29%	1.24%	0.00%	0.41%	19.43%
F. Other Division B	17.17%	0.50%	0.34%	1.11%	0.00%	0.44%	19.56%
IV. Public Safety Noncontributory							
A. State	17.49%	0.90%	0.42%	0.00%	0.00%	0.35%	19.16%
B. Other Division A	17.32%	0.84%	0.35%	0.00%	0.00%	0.32%	18.83%
C. Salt Lake City	17.16%	0.79%	0.31%	0.00%	0.00%	0.42%	18.68%
D. Ogden	17.09%	0.79%	0.31%	0.00%	0.00%	0.43%	18.62%
E. Logan	17.40%	0.82%	0.36%	0.00%	0.00%	0.46%	19.04%
F. Bountiful	17.30%	0.84%	0.33%	0.00%	0.00%	0.31%	18.78%
G. Other Division B	17.25%	0.81%	0.35%	0.00%	0.00%	0.47%	18.88%
V. Firefighters							
A. Division A	21.03%	0.19%	0.68%	0.46%	0.00%	0.44%	22.80%
B. Division B	21.07%	0.20%	0.60%	0.50%	0.00%	0.57%	22.94%
VI. Judges	24.95%	0.00%	0.00%	0.00%	0.00%	1.20%	26.15%
VII. Governors and Legislative	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: Columns may not add to total due to rounding

Net Employer Normal Cost

Fund/Division (1)	Total Normal Cost (2)	Member Rate (3)	Net Employer Normal Cost (2) - (3) (4)
I. Public Employees Contributory			
A. Local Government	9.88%	6.00%	3.88%
B. State and School	9.61%	6.00%	3.61%
II. Public Employees Noncontributory			
A. Local Government	10.24%	0.00%	10.24%
B. State and School	10.88%	0.00%	10.88%
III. Public Safety Contributory			
A. State	20.49%	12.29%	8.20%
B. Other Division A	19.74%	12.29%	7.45%
C. Salt Lake City	19.86%	13.74%	6.12%
D. Provo	20.08%	13.54%	6.54%
E. Logan	19.43%	11.13%	8.30%
F. Other Division B	19.56%	10.50%	9.06%
IV. Public Safety Noncontributory			
A. State	19.16%	0.00%	19.16%
B. Other Division A	18.83%	0.00%	18.83%
C. Salt Lake City	18.68%	0.00%	18.68%
D. Ogden	18.62%	0.00%	18.62%
E. Logan	19.04%	0.00%	19.04%
F. Bountiful	18.78%	0.00%	18.78%
G. Other Division B	18.88%	0.00%	18.88%
V. Firefighters			
A. Division A	22.80%	15.05%	7.75%
B. Division B	22.94%	16.71%	6.23%
VI. Judges	26.15%	0.00%	26.15%
VII. Governors and Legislative	N/A	N/A	N/A

Note: The total normal cost column includes the cost of the group insurance benefit

Determination of Actuarial Accrued Liability

Fund/Division (1)	Actuarial Present Value of Future Benefits (2)	Actuarial Present Value of Future Normal Costs			Actuarial Accrued Liability (2) - (5) (6)
		Members (3)	Employers (4)	Total (5)	
I. Public Employees Contributory					
A. Local Government	324,251	26,992	16,824	43,816	280,435
B. State and School	750,063	33,948	19,633	53,581	696,483
C. Subtotal	<u>1,074,314</u>	<u>60,940</u>	<u>36,457</u>	<u>97,397</u>	<u>976,918</u>
II. Public Employees Noncontributory					
A. Local Government	2,426,200	0	583,314	583,314	1,842,886
B. State and School	11,733,038	0	2,203,122	2,203,122	9,529,916
C. Subtotal	<u>14,159,238</u>	<u>0</u>	<u>2,786,436</u>	<u>2,786,436</u>	<u>11,372,802</u>
III. Public Safety Contributory					
A. State	63,626	738	492	1,230	62,396
B. Other Division A	185,755	19,436	11,782	31,218	154,537
C. Salt Lake City	41,744	114	50	164	41,580
D. Provo	35,194	5,907	2,853	8,760	26,434
E. Logan	17,173	2,419	1,804	4,223	12,950
F. Other Division B	47,414	7,589	6,548	14,137	33,277
G. Subtotal	<u>390,906</u>	<u>36,203</u>	<u>23,529</u>	<u>59,732</u>	<u>331,174</u>
IV. Public Safety Noncontributory					
A. State	639,779	0	165,231	165,231	474,548
B. Other Division A	612,491	0	208,886	208,886	403,604
C. Salt Lake City	160,969	0	34,466	34,466	126,504
D. Ogden	51,893	0	9,244	9,244	42,649
E. Logan	1,027	0	292	292	735
F. Bountiful	13,574	0	2,404	2,404	11,170
G. Other Division B	106,545	0	38,438	38,438	68,107
H. Subtotal	<u>1,586,278</u>	<u>0</u>	<u>458,961</u>	<u>458,961</u>	<u>1,127,317</u>
V. Firefighters					
A. Division A	95,783	29,448	15,165	44,613	51,170
B. Division B	624,294	112,395	41,905	154,300	469,994
C. Subtotal	<u>720,077</u>	<u>141,843</u>	<u>57,070</u>	<u>198,913</u>	<u>521,164</u>
VI. Judges	114,851	0	24,278	24,278	90,573
VII. Governors and Legislative	9,194	0	488	488	8,706
VIII. Grand Total	18,054,858	238,986	3,387,219	3,626,205	14,428,654

Notes: Amounts shown are in \$ thousands
Columns may not add to total due to rounding

**Actuarial Accrued Liability
Details of Member and Employer Financing**

Fund/Division (1)	Inactive Members			Active Members		
	Accumulated Member Contributions (2)	Employer Financed (3)	Total (4)	Accumulated Member Contributions (5)	Employer Financed (6)	Total (7)
I. Public Employees Contributory						
A. Local Government	22,270	3,351	25,621	76,274	86,584	162,858
B. State and School	42,603	6,942	49,545	144,113	178,228	322,341
C. Subtotal	64,873	10,293	75,166	220,387	264,812	485,199
II. Public Employees Noncontributory						
A. Local Government	37,026	62,450	99,476	149,225	1,016,384	1,165,609
B. State and School	104,290	223,883	328,173	665,083	4,943,399	5,608,482
C. Subtotal	141,316	286,333	427,649	814,308	5,959,783	6,774,091
III. Public Safety Contributory						
A. State	993	754	1,747	2,056	2,823	4,879
B. Other Division A	4,645	1,444	6,089	21,534	29,335	50,869
C. Salt Lake City	36	0	36	213	221	434
D. Provo	852	525	1,377	6,395	7,088	13,483
E. Logan	72	0	72	2,943	4,634	7,577
F. Other Division B	948	301	1,249	7,693	13,407	21,100
G. Subtotal	7,546	3,024	10,570	40,834	57,508	98,342
IV. Public Safety Noncontributory						
A. State	1,341	10,429	11,770	10,061	257,022	267,083
B. Other Division A	2,635	8,406	11,041	11,917	233,994	245,911
C. Salt Lake City	278	2,772	3,050	2,984	63,530	66,514
D. Ogden	294	422	716	1,765	14,665	16,430
E. Logan	0	0	0	0	14	14
F. Bountiful	2	2	4	382	7,047	7,429
G. Other Division B	858	2,131	2,989	3,582	43,308	46,890
H. Subtotal	5,408	24,162	29,570	30,691	619,580	650,271
V. Firefighters						
A. Division A	447	334	781	8,721	22,920	31,641
B. Division B	1,620	462	2,082	67,465	148,353	215,818
C. Subtotal	2,067	796	2,863	76,186	171,273	247,459
VI. Judges	557	576	1,133	8,082	40,557	48,639
VII. Governors and Legislative	174	1,453	1,627	13	1,855	1,868
VIII. Grand Total	221,941	326,637	548,578	1,190,501	7,115,368	8,305,869

Notes: Amounts shown are in \$ thousands
Columns may not add to total due to rounding

Number of Members

Fund/Division (1)	Active (2)	Inactive Members			Members Receiving Benefits			Total (9)
		Disabled (3)	Vested (4)	Nonvested (5)	Regular Retirees (6)	Disabled Retirees (7)	Beneficiaries (8)	
I. Public Employees Contributory								
A. Local Government	1,515	31	683	535	1,294	68	365	4,491
B. State and School	2,093	65	932	23	4,532	201	915	8,761
C. Subtotal	3,608	96	1,615	558	5,826	269	1,280	13,252
II. Public Employees Noncontributory								
A. Local Government	17,652	155	5,812	557	3,136	81	244	27,637
B. State and School	66,273	598	17,958	1,584	15,814	381	967	103,575
C. Subtotal	83,925	753	23,770	2,141	18,950	462	1,211	131,212
III. Public Safety Contributory								
A. State	27	1	41	20	224	16	131	460
B. Other Division A	435	0	256	82	395	11	132	1,311
C. Salt Lake City	2	0	5	1	143	15	56	222
D. Provo	97	0	21	7	36	0	13	174
E. Logan	57	0	5	1	17	1	3	84
F. Other Division B	171	1	43	18	46	4	7	290
G. Subtotal	789	2	371	129	861	47	342	2,541
IV. Public Safety Noncontributory								
A. State	2,376	18	706	2	582	9	37	3,730
B. Other Division A	2,809	13	763	2	449	5	16	4,057
C. Salt Lake City	402	7	58	0	141	3	11	622
D. Ogden	125	1	27	0	93	2	26	274
E. Logan	4	0	0	0	1	0	0	5
F. Bountiful	33	0	7	0	17	0	2	59
G. Other Division B	479	3	124	2	65	1	2	676
H. Subtotal	6,228	42	1,685	6	1,348	20	94	9,423
V. Firefighters								
A. Division A	337	0	56	27	54	11	12	497
B. Division B	1,208	0	66	48	590	59	158	2,129
C. Subtotal	1,545	0	122	75	644	70	170	2,626
VI. Judges	106	0	4	0	49	0	28	187
VII. Governors and Legislative	94	0	95	10	177	0	54	430
VIII. Grand Total	96,295	893	27,662	2,919	27,855	868	3,179	159,671

Active Membership Statistics

Fund/Division (1)	Number (2)	Total Compensation \$ Thousands (3)	Average Compensation (\$'s) (4)	Accumulated Member Contributions With Interest \$ Thousands (5)	Average Age (6)	Average Service (7)
I. Public Employees Contributory						
A. Local Government	1,515	56,657	37,398	76,274	46.5	14.0
B. State and School	2,093	81,086	38,741	144,113	51.2	20.5
C. Subtotal	3,608	137,743	38,177	220,387	49.2	17.8
II. Public Employees Noncontributory						
A. Local Government	17,652	625,688	35,446	149,225	42.8	8.4
B. State and School	66,273	2,263,165	34,149	665,083	43.8	9.9
C. Subtotal	83,925	2,888,853	34,422	814,308	43.6	9.6
III. Public Safety Contributory						
A. State	27	1,066	39,475	2,056	51.0	16.6
B. Other Division A	435	16,477	37,878	21,534	39.2	10.4
C. Salt Lake City	2	101	50,268	213	41.5	15.5
D. Provo	97	4,346	44,809	6,395	38.0	10.4
E. Logan	57	2,244	39,372	2,943	37.3	11.8
F. Other Division B	171	7,267	42,499	7,693	37.1	10.6
G. Subtotal	789	31,501	39,925	40,834	38.9	10.8
IV. Public Safety Noncontributory						
A. State	2,376	90,218	37,970	10,061	40.4	10.5
B. Other Division A	2,809	101,913	36,281	11,917	36.3	8.1
C. Salt Lake City	402	19,152	47,641	2,984	38.5	12.1
D. Ogden	125	4,984	39,871	1,765	37.0	10.8
E. Logan	4	106	26,397	0	28.5	1.0
F. Bountiful	33	1,637	49,603	382	43.4	15.8
G. Other Division B	479	19,182	40,046	3,582	36.4	8.9
H. Subtotal	6,228	237,192	38,085	30,691	38.1	9.4
V. Firefighters						
A. Division A	337	13,690	40,622	8,721	36.9	7.7
B. Division B	1,208	57,657	47,729	67,465	39.3	11.7
C. Subtotal	1,545	71,347	46,179	76,186	38.8	10.8
VI. Judges	106	11,095	104,674	8,082	54.5	15.0
VII. Governors and Legislative	94	592	6,297	13	51.4	10.5
VIII. Grand Total	96,295	3,378,323	35,083	1,190,501	43.4	9.9

3420,235
41,912

**Retired Member Statistics
(Including Disabled Retirees and Beneficiaries)**

Fund/Division (1)	Number (2)	Annual Total Benefits (\$ Thousands) (3)	Average Monthly Benefit (\$'s) (4)
I. Public Employees Contributory			
A. Local Government	1,727	11,370	549
B. State and School	5,648	43,395	640
C. Subtotal	7,375	54,765	619
II. Public Employees Noncontributory			
A. Local Government	3,461	48,815	1,175
B. State and School	17,162	302,875	1,471
C. Subtotal	20,623	351,690	1,421
III. Public Safety Contributory			
A. State	371	5,569	1,251
B. Other Division A	538	8,363	1,295
C. Salt Lake City	214	4,039	1,573
D. Provo	49	1,014	1,724
E. Logan	21	427	1,695
F. Other Division B	57	810	1,184
G. Subtotal	1,250	20,222	1,348
IV. Public Safety Noncontributory			
A. State	628	14,763	1,959
B. Other Division A	470	10,801	1,915
C. Salt Lake City	155	4,212	2,264
D. Ogden	121	2,055	1,415
E. Logan	1	49	4,046
F. Bountiful	19	312	1,368
G. Other Division B	68	1,252	1,534
H. Subtotal	1,462	33,444	1,906
V. Firefighters			
A. Division A	77	1,498	1,622
B. Division B	807	20,748	2,142
C. Subtotal	884	22,246	2,097
VI. Judges	77	3,728	4,035
VII. Governors and Legislative	231	585	211
VIII. Grand Total	31,902	486,680	1,271

**Market Value of Assets
(All Retirement Systems Combined)**

Item (1)	December 31, 2002 (2)	December 31, 2001 (3)
1. Cash	262	22
2. Accrued income receivable from:		
a. Member contributions	775	850
b. Employer contributions	19,825	23,630
c. Fire insurance premium tax / court fees	21	23
d. Investments	<u>128,035</u>	<u>154,861</u>
e. Total	148,656	179,364
3. Investments		
a. Short-term securities – domestic	672,742	536,442
b. Short-term securities - international	90,665	66,608
c. Bonds - domestic	2,029,363	2,702,122
d. Bonds - international	668,833	760,975
e. Equities - domestic	4,404,921	5,270,899
f. Equities - international	1,989,119	1,797,266
g. Alternative investments	761,987	677,600
h. Real estate	1,123,842	1,076,469
i. Mortgage loans	<u>3,985</u>	<u>3,363</u>
j. Total	11,745,457	12,891,744
4. Other	1,372,321	1,575,472
5. Total assets	13,266,696	14,646,602
6. Liabilities		
a. Securities lending liability	(1,367,194)	(1,569,960)
b. Other accounting liabilities	(394,298)	(446,640)
c. Reserves	<u>(44,749)</u>	<u>(48,542)</u>
d. Total	(1,806,241)	(2,065,142)
7. Net assets	11,460,455	12,581,460

Note: Assets exclude 401(k) and 457 plans
Amounts shown are in \$ thousands

Reconciliation of Market Value of Assets (MVA)

Fund/Division (1)	MVA as of Dec. 31, 2001 (2)	Contributions (3)	Benefits and Refunds (4)	Earnings, Net of Expenses (5)	Transfers (6)	MVA as of Dec. 31, 2002 (7)
I. Public Employees Contributory						
A. Local Government	236,633	6,142	(13,400)	(18,458)	(4,010)	206,907
B. State and School	607,349	9,516	(49,813)	(46,417)	(11,410)	509,225
C. Subtotal	843,982	15,658	(63,213)	(64,875)	(15,420)	716,132
II. Public Employees Noncontributory						
A. Local Government	1,596,113	54,756	(49,305)	(128,840)	4,347	1,477,071
B. State and School	8,236,328	225,007	(302,402)	(660,894)	21,555	7,519,594
C. Subtotal	9,832,441	279,763	(351,707)	(789,734)	25,902	8,996,664
III. Public Safety Contributory						
A. State	59,307	217	(6,172)	(4,373)	(2,233)	46,745
B. Other Division A	141,818	2,523	(9,326)	(11,006)	(2,367)	121,641
C. Salt Lake City	39,197	32	(4,112)	(2,901)	(1,499)	30,718
D. Provo	21,053	1,044	(1,234)	(1,690)	(110)	19,063
E. Logan	11,954	332	(405)	(957)	(122)	10,803
F. Other Division B	26,409	1,290	(999)	(2,107)	(252)	24,340
G. Subtotal	299,738	5,438	(22,248)	(23,034)	(6,583)	253,310
IV. Public Safety Noncontributory						
A. State	389,172	16,447	(14,574)	(31,602)	3,394	362,837
B. Other Division A	362,554	14,437	(10,423)	(29,472)	2,855	339,951
C. Salt Lake City	81,373	5,699	(4,187)	(6,705)	1,178	77,357
D. Ogden	36,164	976	(2,111)	(2,872)	(17)	32,140
E. Logan	0	2	(19)	(3)	153	132
F. Bountiful	9,961	291	(329)	(800)	10	9,132
G. Other Division B	50,941	3,232	(1,226)	(4,227)	967	49,689
H. Subtotal	930,165	41,084	(32,869)	(75,681)	8,540	871,239
V. Firefighters						
A. Division A	48,563	2,820	(1,480)	(3,927)	25	46,001
B. Division B	460,002	12,434	(21,230)	(36,594)	710	415,322
C. Subtotal	508,565	15,254	(22,710)	(40,521)	735	461,324
VI. Judges	82,760	2,858	(3,804)	(6,621)	560	75,753
VII. Governors and Legislative	10,448	0	(708)	(812)	3	8,932
VIII. 3% Substantial Substitute	73,361	23,989	(238)	(6,275)	(13,736)	77,101
IX. Grand Total	12,581,460	384,044	(497,497)	(1,007,553)	1	11,460,455

Notes: Amounts shown are in \$ thousands
Columns may not add to total due to rounding

Investment Return Rates for Prior Year

	Basis of Assets	
	Market Value (1)	Actuarial Value (2)
1. Beginning of year assets	12,581,460	14,081,833
2. Contributions to fund during year	384,044	384,044
3. Benefit payments during year (including refunds of contributions)	(497,497)	(497,497)
4. Transfers to and (from) URS	0	0
5. Investment income, net of investment and administrative expenses	(1,007,552)	(215,857)
6. End of year assets	11,460,455	13,752,523
7. Investment return rate	-8.0%	-1.5%

Note: Amounts shown are in \$ thousands

Summary of Investment Return Rates

<u>Year</u>	<u>Return on Market Value</u>	<u>Return on Actuarial Value</u>
(1)	(2)	(3)
1991	21.5%	11.4%
1992	4.3%	10.5%
1993	15.7%	13.8%
1994	0.0%	8.8%
1995	21.4%	11.6%
1996	14.7%	11.7%
1997	15.8%	13.7%
1998	9.4%	12.6%
1999	16.3%	14.7%
2000	1.8%	11.2%
2001	-5.3%	6.8%
2002	-8.0%	-1.5%

**Calculation of Actuarial Value of Assets
(All Retirement Systems Combined)**

1. Market value of assets				11,460,455
2. Adjustments to smooth asset values based on excess/shortfall of expected investment income for:				
	<u>Year</u>	<u>Total Excess/(Shortfall)</u>	<u>Weight Subtracted</u>	<u>Weighted Amount</u>
a.	2002	(2,009,531)	80%	(1,607,625)
b.	2001	(1,765,658)	60%	(1,059,395)
c.	2000	(814,093)	40%	(325,637)
d.	1999	932,957	20%	186,591
e.	1998	137,130	0%	<u>0</u>
f.	Total			(2,806,066)
3. Preliminary actuarial value of assets (1-2f)				14,266,521
4. Corridor Limits				
a.	80% of market value			9,168,364
b.	120% of market value			13,752,546
c.	Actuarial value (Item 3, not more than 4b, not less than 4a)*			13,752,546
5. Ratio of actuarial value to market value				120.0%

Note: Amounts shown are in \$ thousands

*Actuarial value of funds are calculated individually. Because the Public Safety Noncontributory division of Logan is not impacted by the corridor, the sum of the individual Funds' actuarial value (\$13,752,524) does not equal the value shown above.

Transfer Adjustments to Asset Values

Fund/Division (1)	Market Value of Assets (MVA) at January 1, 2003			Actuarial Value of Assets (AVA) at January 1, 2003		
	MVA Before Transfer (2)	Transfer Amount (3)	MVA After Transfer (4)	AVA Before Transfer (5)	Transfer Amount (6)	AVA After Transfer (7)
I. Public Employees Contributory						
A. Local Government	206,907	5,068	211,975	248,288	6,082	254,370
B. State and School	509,225	28,208	537,433	611,070	33,850	644,920
C. Subtotal	716,132	33,276	749,408	859,358	39,932	899,290
II. Public Employees Noncontributory						
A. Local Government	1,477,071	(5,068)	1,472,003	1,772,485	(6,082)	1,766,403
B. State and School	7,519,594	(28,208)	7,491,386	9,023,512	(33,850)	8,989,662
C. Subtotal	8,996,664	(33,276)	8,963,388	10,795,997	(39,932)	10,756,065
III. Public Safety Contributory						
A. State	46,745	4,812	51,557	56,094	5,774	61,868
B. Other Division A	121,641	6,637	128,278	145,970	7,965	153,935
C. Salt Lake City	30,718	3,765	34,483	36,862	4,518	41,380
D. Provo	19,063	0	19,063	22,875	0	22,875
E. Logan	10,803	0	10,803	12,964	(575)	12,389
F. Other Division B	24,340	517	24,857	29,208	620	29,828
G. Subtotal	253,310	15,731	269,041	303,973	18,302	322,275
IV. Public Safety Noncontributory						
A. State	362,837	(4,812)	358,025	435,405	(5,774)	429,631
B. Other Division A	339,951	(6,637)	333,314	407,942	(7,965)	399,977
C. Salt Lake City	77,357	(3,765)	73,592	92,828	(4,518)	88,310
D. Ogden	32,140	0	32,140	38,568	0	38,568
E. Logan	132	0	132	134	575	709
F. Bountiful	9,132	0	9,132	10,958	0	10,958
G. Other Division B	49,689	(517)	49,172	59,627	(620)	59,007
H. Subtotal	871,239	(15,731)	855,508	1,045,462	(18,302)	1,027,160
V. Firefighters						
A. Division A	46,001	0	46,001	55,202	0	55,202
B. Division B	415,322	0	415,322	498,387	0	498,387
C. Subtotal	461,324	0	461,324	553,589	0	553,589
VI. Judges	75,753	0	75,753	90,904	0	90,904
VII. Governors and Legislative	8,932	0	8,932	10,719	0	10,719
VIII. 3% Substantial Substitute	77,101	0	77,101	92,521	0	92,521
IX. Grand Total	11,460,455	0	11,460,455	13,752,523	0	13,752,523

Notes: Amounts shown are in \$ thousands
Columns may not add to total due to rounding

Contribution Rate for 3% Substantial Substitute

1. Actuarial accrued liability, all funds combined	
a. Retirees	167,065
b. Inactives	11,687
c. Actives	<u>212,799</u>
d. Total	391,551
2. Actuarial value of assets	92,521
3. Unfunded actuarial accrued liability	299,030
4. Covered compensation of state funds that will pay for benefit	2,522,883
5. Recommended rate (20-year funding period and 4.00% PGR)	0.85%

Notes: Amounts shown are in \$ thousands

Columns may not add to total due to rounding

Liabilities for 3% Substantial Substitute

Fund/Division (1)	Retirees and Beneficiaries (2)	Inactive Members (3)	Active Members (4)	Total (5)
I. Public Employees Contributory				
A. Local Government	2,744	662	5,289	8,695
B. State and School	9,634	1,480	11,266	22,381
C. Subtotal	<u>12,378</u>	<u>2,142</u>	<u>16,555</u>	<u>31,076</u>
II. Public Employees Noncontributory				
A. Local Government	17,024	1,981	26,744	45,749
B. State and School	107,975	6,602	143,341	257,918
C. Subtotal	<u>124,999</u>	<u>8,583</u>	<u>170,085</u>	<u>303,667</u>
III. Public Safety Contributory				
A. State	1,658	50	182	1,889
B. Other Division A	2,934	137	1,451	4,522
C. Salt Lake City	1,258	0	18	1,276
D. Provo	353	31	334	718
E. Logan	162	2	193	357
F. Other Division B	330	26	494	850
G. Subtotal	<u>6,695</u>	<u>246</u>	<u>2,672</u>	<u>9,612</u>
IV. Public Safety Noncontributory				
A. State	5,911	239	6,378	12,527
B. Other Division A	4,408	222	5,090	9,721
C. Salt Lake City	1,729	63	1,620	3,412
D. Ogden	773	16	456	1,245
E. Logan	22	0	0	22
F. Bountiful	115	0	206	321
G. Other Division B	546	65	1,093	1,704
H. Subtotal	<u>13,504</u>	<u>605</u>	<u>14,843</u>	<u>28,952</u>
V. Firefighters				
A. Division A	549	13	858	1,419
B. Division B	7,582	30	6,333	13,945
C. Subtotal	<u>8,131</u>	<u>43</u>	<u>7,191</u>	<u>15,364</u>
VI. Judges	1,208	28	1,428	2,664
VII. Governors and Legislative	150	40	27	217
VIII. Grand Total	167,065	11,687	212,801	391,552

Notes: Amounts shown are in \$ thousands
Columns may not add to total due to rounding

**Historical Summary of Statistical Data
Public Employees Retirement System
(Contributory)**

Plan Year Beginning January 1st	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active	Inactive	Retired	Total						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1990	20,773	8,984	13,029	42,786	428,720	20,638	55,504	355	Not Available	954,900
1991	15,784	892	12,331	29,007	340,524	21,574	56,673	383	803,332	796,016
1992	12,430	1,629	12,275	26,334	287,907	23,162	57,306	389	867,300	785,115
1993	11,405	1,497	11,858	24,760	283,299	24,840	57,608	405	833,053	800,806
1994	10,826	1,733	11,444	24,003	280,655	25,924	57,861	421	929,993	880,979
1995	10,421	1,805	11,115	23,341	284,657	27,316	58,345	437	922,155	935,845
1996	6,954	2,028	10,645	19,627	195,717	28,145	58,238	456	919,007	852,034
1997	4,673	1,906	10,176	16,755	135,083	28,907	57,770	473	859,304	772,977
1998	4,396	1,975	9,724	16,095	134,341	30,560	57,496	493	916,532	809,388
1999	4,144	2,089	9,208	15,441	133,440	32,201	56,599	512	927,169	840,215
2000	3,967	2,134	8,717	14,818	133,615	33,682	55,716	533	974,834	878,190
2001	3,827	2,149	8,264	14,240	134,816	35,228	56,264	567	936,798	924,573
2002	3,703	2,262	7,822	13,787	137,721	37,192	55,569	592	827,741	927,523
2003	3,608	2,269	7,375	13,252	137,743	38,177	54,765	619	749,408	899,290

**Historical Summary of Statistical Data
Public Employees Retirement System
(Noncontributory)**

Plan Year Beginning January 1st	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay (7)	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit (9)	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active (2)	Inactive (3)	Retired (4)	Total (5)						
1990	43,981	9,783	4,421	58,185	940,325	21,380	56,500	1,064	Not Available	2,100,892
1991	50,245	15,373	5,206	70,824	1,061,835	21,133	68,032	1,089	2,618,017	2,594,245
1992	58,836	8,042	6,114	72,992	1,329,925	22,604	76,871	1,048	3,345,871	3,041,640
1993	59,739	7,911	7,023	74,673	1,425,612	23,864	89,557	1,063	3,609,761	3,480,582
1994	63,448	9,507	8,025	80,980	1,536,528	24,217	104,731	1,088	4,258,021	4,039,120
1995	67,698	10,131	9,143	86,972	1,688,967	24,949	121,850	1,111	4,312,948	4,372,190
1996	69,922	12,413	10,458	92,793	1,862,940	26,643	142,838	1,138	5,497,373	5,128,203
1997	73,478	13,965	11,841	99,284	2,048,876	27,884	166,432	1,171	6,547,598	5,954,796
1998	76,728	15,383	13,242	105,353	2,231,957	29,089	192,723	1,213	7,711,808	6,896,740
1999	77,360	17,494	14,645	109,499	2,343,986	30,300	220,230	1,253	8,560,909	7,894,249
2000	80,639	18,630	16,163	115,432	2,486,200	30,831	248,366	1,281	10,112,606	9,186,463
2001	81,850	20,357	17,728	119,935	2,611,413	31,905	280,910	1,320	10,367,596	10,294,444
2002	83,690	27,385	19,145	130,220	2,801,564	33,475	314,821	1,370	9,848,682	11,021,828
2003	83,925	26,664	20,623	131,212	2,888,853	34,422	351,690	1,421	8,963,388	10,756,065

**Historical Summary of Statistical Data
Public Safety Retirement System
(Contributory)**

Plan Year Beginning January 1st	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay (7)	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit (9)	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active (2)	Inactive (3)	Retired (4)	Total (5)						
1990	2,612	713	1,194	4,519	65,978	25,260	13,139	917	Not Available	330,407
1991	1,641	520	1,190	3,351	42,496	25,896	13,530	948	240,788	241,347
1992	1,644	709	1,237	3,590	44,469	27,049	14,290	963	289,472	263,237
1993	1,591	705	1,251	3,547	44,934	28,244	14,860	990	295,915	285,043
1994	1,601	714	1,273	3,588	46,728	29,187	15,373	1,006	326,536	311,148
1995	1,280	568	1,294	3,142	38,571	30,134	16,087	1,036	284,198	289,572
1996	971	525	1,321	2,817	30,304	31,209	17,323	1,093	310,209	291,478
1997	952	543	1,322	2,817	31,940	33,550	17,735	1,118	335,065	304,699
1998	1,006	531	1,340	2,877	34,262	34,058	18,487	1,150	364,531	324,488
1999	855	498	1,344	2,697	29,704	34,742	19,147	1,187	347,477	316,739
2000	804	486	1,333	2,623	28,957	36,016	19,351	1,210	363,654	327,635
2001	794	479	1,243	2,516	30,021	37,810	18,611	1,248	331,370	326,949
2002	795	503	1,257	2,555	30,783	38,721	19,480	1,291	293,617	328,959
2003	789	502	1,250	2,541	31,501	39,925	20,222	1,348	269,041	322,275

**Historical Summary of Statistical Data
Public Safety Retirement System
(Noncontributory)**

Plan Year Beginning January 1st	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay (7)	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit (9)	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active (2)	Inactive (3)	Retired (4)	Total (5)						
1990	1,512	32	15	1,559	37,798	24,999	229	917	Not Available	330,407
1991	2,697	154	65	2,916	68,205	25,290	997	1,278	136,287	132,275
1992	3,006	174	120	3,300	76,914	25,587	1,939	1,346	179,950	162,737
1993	3,198	185	175	3,558	85,678	26,791	2,935	1,398	200,668	193,301
1994	3,289	198	238	3,725	89,839	27,315	4,272	1,496	251,536	236,786
1995	3,899	360	304	4,563	111,292	28,544	5,684	1,558	297,278	300,101
1996	4,455	555	395	5,405	130,552	29,305	7,596	1,603	409,217	379,132
1997	4,720	614	492	5,826	149,086	31,586	9,870	1,672	496,197	450,407
1998	5,033	664	592	6,289	161,826	32,153	12,068	1,699	606,326	542,680
1999	5,427	752	747	6,926	180,904	33,334	15,603	1,741	726,304	672,062
2000	5,735	865	882	7,482	196,271	34,223	18,504	1,748	898,266	818,697
2001	5,974	832	1,118	7,924	212,442	35,561	23,428	1,746	964,708	960,047
2002	6,120	1,464	1,326	8,910	225,760	36,889	28,907	1,817	936,286	1,047,507
2003	6,228	1,733	1,462	9,423	237,192	38,085	33,444	1,906	855,508	1,027,160

**Historical Summary of Statistical Data
Firefighters Retirement System**

Plan Year Beginning January 1st	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay (7)	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit (9)	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active (2)	Inactive (3)	Retired (4)	Total (5)						
1990	993	76	544	1,613	28,661	28,863	6,626	1,015	Not Available	149,672
1991	1,024	66	553	1,643	30,649	29,932	7,134	1,075	163,428	161,945
1992	1,047	82	575	1,704	33,232	31,740	7,672	1,112	202,726	183,352
1993	1,072	89	587	1,748	36,500	34,049	8,209	1,165	211,975	203,985
1994	1,079	100	595	1,774	37,191	34,468	8,678	1,215	247,715	234,501
1995	1,123	103	618	1,844	39,669	35,324	9,811	1,323	249,712	253,304
1996	1,165	116	644	1,925	42,599	36,566	10,397	1,415	315,063	293,816
1997	1,229	123	675	2,027	47,550	38,690	12,049	1,488	362,555	329,475
1998	1,285	130	707	2,122	50,886	39,600	13,747	1,620	421,184	376,178
1999	1,352	156	736	2,244	54,402	40,238	14,940	1,692	460,190	423,405
2000	1,380	160	772	2,312	57,664	41,786	16,112	1,739	532,783	483,373
2001	1,433	173	823	2,429	61,593	42,982	18,163	1,839	540,822	536,503
2002	1,504	179	866	2,549	66,871	44,462	20,008	1,925	508,565	569,151
2003	1,545	197	884	2,626	71,347	46,179	22,246	2,097	461,324	553,589

**Historical Summary of Statistical Data
Judges Retirement System**

Plan Year Beginning January 1st	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay (7)	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit (9)	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active (2)	Inactive (3)	Retired (4)	Total (5)						
1990	90	0	50	140	5,283	58,700	826	1,015	Not Available	19,127
1991	87	0	46	133	5,867	67,438	827	1,499	22,432	22,242
1992	89	0	53	142	6,267	70,416	1,087	1,710	28,765	26,167
1993	80	1	62	143	6,434	80,424	1,597	2,147	31,388	30,254
1994	85	1	68	154	6,897	81,142	1,930	2,365	37,398	35,479
1995	87	0	70	157	7,263	83,488	2,193	2,610	38,220	38,726
1996	98	3	70	171	8,480	86,534	2,309	2,749	47,531	44,304
1997	100	1	69	170	9,202	92,019	2,396	2,894	55,757	50,721
1998	102	1	72	175	9,298	91,158	2,778	3,215	66,299	59,373
1999	103	2	73	178	9,667	93,850	2,970	3,391	73,650	67,998
2000	106	2	73	181	10,150	95,750	3,078	3,514	85,921	78,130
2001	104	4	75	183	10,318	99,208	3,299	3,666	87,731	87,139
2002	106	4	78	188	10,910	102,925	3,608	3,855	82,760	92,649
2003	106	4	77	187	11,095	104,674	3,728	4,035	75,753	90,904

**Historical Summary of Statistical Data
Legislative and Governors Retirement System**

Plan Year Beginning	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay (7)	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit (9)	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active (2)	Inactive (3)	Retired (4)	Total (5)						
January 1st (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1990	76	133	162	371	288	3,789	329	169	Not Available	6,007
1991	57	118	150	325	238	4,172	295	164	6,427	6,355
1992	87	127	173	387	254	2,925	369	178	7,584	6,790
1993	84	120	180	384	246	2,925	396	183	7,443	7,122
1994	93	126	188	407	427	4,593	385	171	8,089	7,683
1995	89	112	196	397	412	4,628	422	180	7,684	7,804
1996	96	111	201	408	439	4,569	445	184	8,788	8,185
1997	75	115	200	390	367	4,892	457	190	9,561	8,636
1998	90	108	208	406	488	5,419	476	191	10,531	9,318
1999	91	99	211	401	495	5,440	504	199	10,976	9,988
2000	94	101	221	416	511	5,437	531	200	12,159	10,946
2001	86	96	218	400	478	5,557	536	205	11,724	11,569
2002	94	107	228	429	601	6,391	562	206	10,448	11,710
2003	94	105	231	430	592	6,297	585	211	8,932	10,719

STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

1. *Investment return rate:*

8.00% per annum, compounded annually, composed of a 3.00% inflation rate and a 5.00% real rate of return, net of administrative and investment expenses.

2. *Active member mortality rates:*

Active member mortality rates are a function of the member's sex, occupation, and age. These rates were developed based on plan experience. Rates at selected ages are shown:

Age	Active Male Members		
	Local Government and Public Employees	Public Educators	Public Safety and Firefighters ¹
20	.000597	.000187	.000525
25	.000443	.000171	.000499
30	.000536	.000188	.000495
35	.000783	.000242	.000520
40	.001002	.000449	.000721
45	.001229	.000767	.001234
50	.001798	.001481	.002101
55	.003036	.002688	.003228
60	.004958	.004256	.004440
65	.007540	.005426	.005606
70	.010807	.006020	.006713

Age	Active Female Members	
	Local Government and Public Employees	Public Educators
20	.000344	.000404
25	.000313	.000164
30	.000331	.000073
35	.000402	.000158
40	.000547	.000379
45	.000802	.000694
50	.001212	.001072
55	.001812	.001478
60	.002614	.002047
65	.003603	.002845
70	.004766	.003903

¹ Males and female combined.

3. *Disability rates:*

Disability rates are a function of the member's sex, occupation, and age. These rates were developed based on plan experience. Rates are applied at all ages. Rates at selected ages are shown:

Active Male Members					
Age	Local Government	Public Employees	Public Educators	Public Safety ¹	Firefighters ¹
20	.000150	.000200	.000070	.000200	.000200
25	.000225	.000300	.000105	.000300	.000300
30	.000450	.000600	.000210	.000600	.000600
35	.000675	.000900	.000315	.000900	.000900
40	.000900	.001200	.000420	.001200	.001200
45	.001500	.002000	.000700	.002000	.002000
50	.001950	.002600	.000910	.002600	.002600
55	.003075	.004100	.001435	.004100	.004100
60	.004200	.005600	.001960	.005600	.005600

Active Female Members			
Age	Local Government	Public Employees	Public Educators
20	.000170	.000200	.000100
25	.000255	.000300	.000150
30	.000510	.000600	.000300
35	.000765	.000900	.000450
40	.001020	.001200	.000600
45	.001700	.002000	.001000
50	.002210	.002600	.001300
55	.003485	.004100	.002050
60	.004760	.005600	.002800

¹ Males and females combined.

4. *Termination rates (for causes other than death, disability or retirement):*

Termination rates are a function of the member's sex, occupation, age and service. These rates were developed based on plan experience. Termination rates are not applied after a member becomes eligible for a reduced or unreduced retirement benefit. Rates at selected ages are shown:

Active Male Members - Local Government						
Years of Service						
Age	0	1	2	3	4	5+
20	0.2262	0.2154	0.1750	0.1174	0.0630	0.0919
25	0.1884	0.1795	0.1470	0.1016	0.0562	0.0815
30	0.1588	0.1514	0.1250	0.0873	0.0498	0.0605
35	0.1373	0.1308	0.1092	0.0793	0.0494	0.0463
40	0.1235	0.1177	0.1004	0.0778	0.0550	0.0381
45	0.1184	0.1128	0.0993	0.0834	0.0675	0.0334
50	0.1228	0.1169	0.1069	0.0972	0.0877	0.0311
55	0.1383	0.1317	0.1243	0.1206	0.1168	0.0336
60	0.1452	0.1383	0.1306	0.1266	0.1227	0.0352
65	0.1525	0.1452	0.1371	0.1329	0.1288	0.0370
70	0.1670	0.1590	0.1500	0.1455	0.1410	0.0405

Active Female Members - Local Government						
Years of Service						
Age	0	1	2	3	4	5+
20	0.2924	0.2525	0.2220	0.1935	0.1770	0.1524
25	0.2766	0.2262	0.1899	0.1672	0.1586	0.1316
30	0.2572	0.2006	0.1613	0.1386	0.1317	0.0895
35	0.2352	0.1764	0.1365	0.1147	0.1094	0.0618
40	0.2125	0.1547	0.1164	0.0963	0.0925	0.0473
45	0.1922	0.1381	0.1027	0.0844	0.0814	0.0422
50	0.1799	0.1293	0.0966	0.0795	0.0768	0.0421
55	0.1825	0.1319	0.0986	0.0816	0.0795	0.0432
60	0.2066	0.1488	0.1093	0.0905	0.0898	0.0443
65	0.2558	0.1816	0.1286	0.1060	0.1080	0.0453
70	0.3311	0.2309	0.1564	0.1278	0.1338	0.0461

4. Termination rates (continued):

Active Male Members - Public Employees						
Years of Service						
Age	0	1	2	3	4	5+
20	0.4502	0.3451	0.2749	0.2250	0.1814	0.1354
25	0.3536	0.2884	0.2342	0.1906	0.1520	0.1185
30	0.2903	0.2412	0.1949	0.1531	0.1154	0.0832
35	0.2525	0.2017	0.1573	0.1210	0.0937	0.0578
40	0.2279	0.1673	0.1224	0.0944	0.0832	0.0410
45	0.2067	0.1376	0.0934	0.0743	0.0791	0.0304
50	0.1841	0.1154	0.0752	0.0630	0.0776	0.0243
55	0.1590	0.1038	0.0724	0.0637	0.0772	0.0242
60	0.1322	0.1060	0.0888	0.0794	0.0778	0.0324
65	0.1388	0.1112	0.0933	0.0833	0.0817	0.0340
70	0.1440	0.1154	0.0968	0.0865	0.0848	0.0354

Active Female Members - Public Employees						
Years of Service						
Age	0	1	2	3	4	5+
20	0.3305	0.3401	0.3253	0.2773	0.2281	0.2212
25	0.3044	0.2875	0.2594	0.2262	0.1946	0.1870
30	0.2740	0.2367	0.2012	0.1706	0.1464	0.1187
35	0.2411	0.1909	0.1527	0.1265	0.1087	0.0756
40	0.2088	0.1552	0.1186	0.0963	0.0836	0.0526
45	0.1808	0.1324	0.1004	0.0815	0.0719	0.0405
50	0.1610	0.1218	0.0956	0.0799	0.0733	0.0343
55	0.1524	0.1218	0.1008	0.0890	0.0870	0.0334
60	0.1579	0.1316	0.1136	0.1065	0.1121	0.0375
65	0.1788	0.1514	0.1332	0.1313	0.1492	0.0465
70	0.2153	0.1815	0.1595	0.1634	0.1975	0.0602

4. Termination rates (continued):

Active Male Members - Public Educators						
Years of Service						
Age	0	1	2	3	4	5+
20	0.1649	0.1585	0.1471	0.0918	0.0448	0.0726
25	0.1498	0.1361	0.1220	0.0871	0.0523	0.0629
30	0.1268	0.1175	0.1025	0.0823	0.0622	0.0430
35	0.1195	0.1027	0.0885	0.0785	0.0685	0.0290
40	0.1130	0.0926	0.0795	0.0756	0.0719	0.0208
45	0.1152	0.0895	0.0744	0.0733	0.0721	0.0162
50	0.1343	0.0958	0.0726	0.0711	0.0696	0.0125
55	0.1764	0.1131	0.0728	0.0685	0.0643	0.0093
60	0.1853	0.1188	0.0765	0.0720	0.0675	0.0098
65	0.1946	0.1248	0.0802	0.0756	0.0709	0.0103
70	0.2131	0.1366	0.0880	0.0828	0.0776	0.0113

Active Female Members - Public Educators						
Years of Service						
Age	0	1	2	3	4	5+
20	0.2727	0.2674	0.2532	0.2263	0.1646	0.1532
25	0.2257	0.1962	0.1877	0.1791	0.1449	0.1604
30	0.1587	0.1442	0.1368	0.1292	0.1140	0.0838
35	0.1228	0.1093	0.0970	0.0895	0.0856	0.0521
40	0.1187	0.0885	0.0693	0.0616	0.0622	0.0347
45	0.1135	0.0786	0.0570	0.0468	0.0467	0.0274
50	0.1024	0.0765	0.0590	0.0470	0.0406	0.0245
55	0.0834	0.0804	0.0740	0.0617	0.0447	0.0243
60	0.0877	0.0845	0.0777	0.0648	0.0470	0.0255
65	0.0920	0.0886	0.0816	0.0679	0.0492	0.0268
70	0.0964	0.0929	0.0856	0.0713	0.0517	0.0281

4. Termination rates (continued):

Active Male and Female Members - Public Safety						
Years of Service						
Age	0	1	2	3	4	5+
20	0.1135	0.0944	0.0694	0.0644	0.0587	0.0710
25	0.0956	0.0771	0.0562	0.0554	0.0524	0.0616
30	0.0912	0.0683	0.0469	0.0452	0.0427	0.0417
35	0.1002	0.0681	0.0410	0.0363	0.0343	0.0274
40	0.1218	0.0757	0.0384	0.0287	0.0271	0.0182
45	0.1542	0.0896	0.0383	0.0227	0.0215	0.0135
50	0.1961	0.1084	0.0404	0.0190	0.0179	0.0115
55	0.2457	0.1308	0.0442	0.0179	0.0169	0.0114
60	0.3022	0.1561	0.0495	0.0198	0.0186	0.0125
65	0.3324	0.1840	0.0565	0.0249	0.0235	0.0145
70	0.3657	0.2146	0.0650	0.0331	0.0313	0.0174

Active Male and Female Members - Firefighters						
Years of Service						
Age	0	1	2	3	4	5+
20	0.1877	0.0838	0.0316	0.0252	0.0202	0.0158
25	0.1243	0.0520	0.0163	0.0155	0.0146	0.0150
30	0.0998	0.0442	0.0168	0.0160	0.0151	0.0140
35	0.0752	0.0364	0.0173	0.0165	0.0156	0.0130
40	0.0521	0.0340	0.0242	0.0230	0.0218	0.0070
45	0.0722	0.0570	0.0468	0.0445	0.0420	0.0049
50	0.1101	0.0914	0.0770	0.0731	0.0691	0.0027
55	0.1684	0.1392	0.1161	0.1103	0.1043	0.0009
60	0.2471	0.2003	0.1643	0.1561	0.1475	0.0013
65	0.3463	0.2748	0.2213	0.2103	0.1987	0.0018
70	0.4660	0.3625	0.2874	0.2730	0.2580	0.0023

5. *Refund rates:*

The percent of vested members electing to receive a refund of contributions on termination of employment. This rate is only applied to members of the contributory systems; vested members in the noncontributory systems are assumed to defer their benefits until retirement, even if they have a contribution account from service prior to the establishment of the noncontributory system. The rate is a function of the member's sex, occupation and service. These rates are based on plan experience.

Males				
Service	Local Government	Public Employees	Public Educators	Public Safety & Firefighters ¹
0-3	100%	100%	100%	100%
4	75%	86%	75%	76%
5	73%	83%	73%	74%
6	70%	80%	70%	71%
7	67%	78%	66%	69%
8	65%	77%	61%	67%
9	62%	75%	57%	65%
10	61%	73%	54%	57%
11	59%	70%	50%	50%
12	58%	68%	47%	42%
13	55%	66%	42%	40%
14	52%	65%	38%	37%
15	49%	63%	33%	35%
16	48%	61%	28%	33%
17	46%	60%	22%	31%
18	45%	58%	17%	29%
19	23%	29%	09%	15%
20 or more	00%	00%	00%	00%

↙

¹ Male and female members combined.

5. Refund rates (continued):

Females			
Service	Local Government	Public Employees	Public Educators
0-3	100%	100%	100%
4	77%	80%	65%
5	75%	79%	64%
6	72%	77%	62%
7	69%	74%	61%
8	67%	71%	59%
9	64%	68%	58%
10	61%	64%	53%
11	57%	60%	48%
12	54%	56%	43%
13	49%	55%	39%
14	45%	53%	36%
15	40%	52%	32%
16	35%	49%	27%
17	30%	46%	21%
18	25%	43%	16%
19	13%	22%	08%
20 or more	00%	00%	00%

6. *Retirement rates:*

Retirement rates are a function of the member's age, service, sex and occupation. Rates are based on plan experience. Rates are applied only at ages at which the member is eligible for a reduced or unreduced retirement benefit. Members are assumed to retire no later than age 70 (age 65 for the public safety and firefighter systems). Sample rates are shown below. Retirement rates shown for local government, public employees and public educators below age 60 for 25-29 years of service apply only to noncontributory members.

Local Government - Males							
	Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
50	0.000	0.000	0.000	0.000	0.000	0.005	0.250
55	0.000	0.000	0.000	0.000	0.000	0.010	0.300
60	0.000	0.000	0.000	0.000	0.050	0.050	0.500
62	0.000	0.000	0.300	0.300	0.300	0.300	0.650
65	0.000	0.500	0.800	0.800	0.800	0.800	0.800

Public Employees – Males							
	Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
50	0.000	0.000	0.000	0.000	0.000	0.005	0.150
55	0.000	0.000	0.000	0.000	0.000	0.005	0.200
60	0.000	0.000	0.000	0.000	0.200	0.200	0.500
62	0.000	0.000	0.300	0.300	0.300	0.300	0.600
65	0.000	0.450	0.600	0.600	0.500	0.600	0.700

Public Educators – Males							
	Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
50	0.000	0.000	0.000	0.000	0.000	0.005	0.250
55	0.000	0.000	0.000	0.000	0.000	0.005	0.300
60	0.000	0.000	0.000	0.000	0.100	0.100	0.600
62	0.000	0.000	0.250	0.250	0.250	0.250	0.700
65	0.000	0.400	0.700	0.700	0.700	0.700	0.750

6. Retirement rates (continued):

Local Government – Females							
	Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
50	0.000	0.000	0.000	0.000	0.000	0.030	0.350
55	0.000	0.000	0.000	0.000	0.000	0.030	0.400
60	0.000	0.000	0.000	0.000	0.150	0.150	0.500
62	0.000	0.000	0.300	0.300	0.300	0.300	0.600
65	0.000	0.400	0.600	0.600	0.600	0.700	0.700

Public Employees – Females							
	Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
50	0.000	0.000	0.000	0.000	0.000	0.010	0.250
55	0.000	0.000	0.000	0.000	0.000	0.010	0.300
60	0.000	0.000	0.000	0.000	0.200	0.200	0.600
62	0.000	0.000	0.350	0.350	0.350	0.350	0.600
65	0.000	0.500	0.500	0.500	0.750	0.750	0.750

Public Educators – Females							
	Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
50	0.000	0.000	0.000	0.000	0.000	0.005	0.250
55	0.000	0.000	0.000	0.000	0.000	0.005	0.350
60	0.000	0.000	0.000	0.000	0.250	0.250	0.500
62	0.000	0.000	0.300	0.300	0.300	0.300	0.700
65	0.000	0.400	0.700	0.700	0.750	0.750	0.750

Public Safety - Males and Females							
	Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
45	0.00	0.00	0.00	0.00	0.14	0.14	0.14
50	0.00	0.00	0.00	0.00	0.14	0.14	0.14
55	0.00	0.00	0.00	0.00	0.20	0.20	0.33
60	0.00	0.00	0.15	0.27	0.33	0.40	0.50
62	0.00	0.00	0.15	0.27	0.33	0.40	0.50

6. Retirement rates (continued):

Firefighters - Males and Females							
Age	Years of Service						
	0-3	4-9	10-14	15-19	20-24	25-29	30+
45	0.00	0.00	0.00	0.00	0.06	0.06	0.06
50	0.00	0.00	0.00	0.00	0.06	0.13	0.35
55	0.00	0.00	0.00	0.00	0.15	0.15	0.75
60	0.00	0.00	0.15	0.15	0.15	0.50	0.75
62	0.00	0.00	0.15	0.15	0.15	0.50	0.75

Judges - Males and Females			
Age	All Service	Age	All Service
60	0.05	65	0.50
62	0.10	70	1.00

7. Salary increase rates:

Salaries for individual members are assumed to increase each year, as a function of the member's occupation and service. Rates are composed of a 3.00% inflation rate, a 1.75% general increase rate that applies to all, and a variable promotional/longevity component that is a function of the member's service.

Active Male and Female Members - Local Government		
Years of Service	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.00% Inflation Component and 1.75% General Increase Rate
0	7.00%	11.75%
1	4.50	9.25
2	3.50	8.25
3	2.50	7.25
4	2.25	7.00
5	2.00	6.75
6	2.00	6.75
7	1.75	6.50
8	1.75	6.50
9	1.50	6.25
10	1.25	6.00
11	1.00	5.75
12	0.75	5.50
13	0.50	5.25
14	0.50	5.25
15 or more	0.00	4.75

7. Salary increase rates (continued):

Active Male and Female Members - Public Employees		
Years of Service	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.00% Inflation Component and 1.75% General Increase Rate
0	6.00%	10.75%
1	4.50	9.25
2	3.50	8.25
3	3.00	7.75
4	2.50	7.25
5	2.25	7.00
6	1.75	6.50
7	1.50	6.25
8	1.50	6.25
9	1.25	6.00
10	1.25	6.00
11	1.00	5.75
12	0.75	5.50
13	0.75	5.50
14	0.50	5.25
15 or more	0.00	4.75

Active Male and Female Members Public Educators		
Years of Service	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.00% Inflation Component and 1.75% General Increase Rate
0	10.25%	15.00%
1	6.00	10.75
2	4.50	9.25
3	4.25	9.00
4	4.00	8.75
5	3.75	8.50
6	3.25	8.00
7	3.00	7.75
8	2.75	7.50
9	2.50	7.25
10	2.00	6.75
11	1.75	6.50
12	1.25	6.00
13	0.75	5.50
14	0.25	5.00
15 or more	0.00	4.75

7. *Salary increase rates (continued):*

Active Male and Female Members Public Safety		
Years of Service	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.00% Inflation Component and 1.75% General Increase Rate
0	6.00%	10.75%
1	3.00	7.75
2	2.75	7.50
3	2.50	7.25
4	2.25	7.00
5	2.00	6.75
6	2.00	6.75
7	1.75	6.50
8	1.75	6.50
9	1.50	6.25
10	1.50	6.25
11	1.25	6.00
12	1.00	5.75
13	0.75	5.50
14	0.50	5.25
15 or more	0.00	4.75

Active Male and Female Members Firefighters		
Years of Service	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.00% Inflation Component and 1.75% General Increase Rate
0	7.00%	11.75%
1	5.75	10.50
2	5.00	9.75
3	4.50	9.25
4	4.00	8.75
5	3.75	8.50
6	3.50	8.25
7	3.50	8.25
8	3.25	8.00
9	3.25	8.00
10	3.00	7.75
11	3.00	7.75
12	2.00	6.75
13	1.00	5.75
14	0.50	5.25
15 or more	0.00	4.75

8. *Retiree mortality rates (nondisabled retirees):*

Retired Male Members			
Age	Local Government, Public Employees and All Beneficiaries (UP94 Males, Setback 2 years)	Public Educators (UP94 Males, Setback 4 years)	Public Safety and Firefighters (UP94 Males, Setback 0 Years)
20	.000495	.000421	.000545
25	.000633	.000570	.000711
30	.000811	.000749	.000862
35	.000912	.000883	.000915
40	.001010	.000927	.001153
45	.001454	.001243	.001697
50	.002260	.001852	.002773
55	.003854	.003088	.004758
60	.006774	.005322	.008576
65	.012335	.009663	.015629
70	.021354	.017462	.025516
75	.033549	.027905	.040012
80	.053991	.043933	.066696
85	.088721	.073780	.104559
90	.136537	.113755	.164442
95	.213325	.179849	.251189

Retired Female Members			
Age	Local Government, Public Employees and All Beneficiaries (UP94 Females, Setback 0 Years)	Public Educators (UP94 Females, Setback 2 Years)	Public Safety and Firefighters (UP94 Females, Setback 0 Years)
20	.000305	.000293	.000305
25	.000313	.000313	.000313
30	.000377	.000338	.000377
35	.000514	.000454	.000514
40	.000763	.000643	.000763
45	.001046	.000943	.001046
50	.001536	.001297	.001536
55	.002466	.002051	.002466
60	.004773	.003612	.004773
65	.009286	.007179	.009286
70	.014763	.012648	.014763
75	.024393	.019724	.024393
80	.042361	.034115	.042361
85	.072836	.058986	.072836
90	.125016	.100882	.125016
95	.200229	.167668	.200229

9. *Disabled annuitant mortality rates:*

Disabled Retired Male and Female Members		
Age	Males	Females
20	.00812	.00652
25	.01073	.00856
30	.01346	.01124
35	.01595	.01372
40	.01890	.01665
45	.02241	.01971
50	.02617	.02338
55	.03082	.02733
60	.03548	.03165
65	.04110	.03659
70	.04775	.04187
75	.06828	.05112
80	.10975	.07611
85	.16042	.11927
90	.22472	.17155
95	.31620	.23810
100	.46667	.33809

10. *Actuarial cost method:*

The Entry Age Normal actuarial cost method is used. This method is designed to produce a relatively level funding pattern when expressed as a percent of pay.

First, the actuarial present value of all future expected benefits is determined for each member, including retired members, beneficiaries, inactive members and active members. This takes into account both the probability that a benefit will be paid at a given age and the time value of money. The sum of these amounts--the Present Value of Future Benefits (PVFB)--is then determined.

Next, the Entry Age Normal actuarial cost method is used to allocate the PVFB between the current year (the normal cost), prior years (the Actuarial Accrued Liability), and future years (future normal costs). The current and future normal costs are determined as a level percentage of pay.

A portion of the normal cost may be paid by employee contributions in which case the balance becomes the normal cost portion of the employer contribution rate.

The difference between the Actuarial Accrued Liability (the portion of the total actuarial present value of future benefits allocated to prior years) and the Actuarial Value of Assets is called the Unfunded Actuarial Accrued Liability (UAAL). This is funded over 20 years from the valuation date (open period). The funding period is set by the Board of Trustees.

The cost of the Group Insurance benefit in the Public Employees Systems (contributory and noncontributory) is determined using the one-year term cost approach, and is therefore excluded in the above calculation. The term cost (the expected value of benefits to be paid during the year) is added to the employer normal cost rate determined above.

The total employer cost rate is the sum of (i) the normal cost rate, including the term cost for the Group Insurance benefit and net of employee contributions, and (ii) the level percent-of-pay amortization of the UAAL. For the Judges' System and the Firefighters' System, certain specified revenues (court fees and a tax on insurance premiums, respectively) are used as an offset to the employer contribution rate each year, as described elsewhere in this report.

All contribution rates are based upon monthly payments of contributions.

11. *Actuarial value of assets:*

The actuarial value of assets is equal to the market value, adjusted for a five-year phase in of actual investment return in excess of (or less than) expected investment return. The actual return is calculated net of investment and administrative expenses, and the expected investment return is equal to the assumed investment return rate multiplied by the prior year's market value of assets, adjusted for contributions, benefits paid, and refunds. The actuarial value of assets is further adjusted, if necessary, so that it is not less than 80% of market value and not more than 120% of market value.

12. *Payroll growth rate:*

In determining the level percent of payroll amortization rate, payroll is assumed to grow annually at 4.00%. No allowance is made for future growth in the number of members.

13. *Marital status:*

All nonretired members are assumed to be married with no children. Female members are assumed to be three years younger than their spouses, while male members are assumed to be three years older than their spouses.

14. *Administrative and investment expenses:*

No special assumption was made regarding administrative and investment expenses. Therefore, the assumed 8% return is net of any such expenses.

15. *Judges System:*

For the Judges System, no disability or withdrawal rates were used. Salaries were assumed to increase at 4.75% per year.

16. *Governors and Legislative Pension Plan:*

A 10% withdrawal rate was assumed regardless of age or service. No disability rates were used. No salary increase rate was used because the benefits do not reflect pay. Members were assumed to retire at the earlier of (i) age 65 with four years of service, or (ii) age 62 with 10 years of service. Normal cost and actuarial accrued liability were based on Level Dollar Entry Age Cost Method (not Level Percent of Pay).

17. *Cost-of-living increases:*

Since a 3.00% inflation rate is assumed (see investment return rate above), retirement benefits for all systems except Public Safety are assumed to increase at 3.00% even though the maximum allowable rate is 4%. Retirement benefits for the Public Safety System are assumed to increase at the maximum allowable rate of 2.50%.

**Summary of Benefit Provisions for
Public Employee Retirement Systems
(Contributory and Noncontributory)**

1. *Effective Date:* Contributory System - July 1, 1961.
Noncontributory System - July 1, 1986.
2. *Plan Year:* Twelve-month period ending December 31st.
3. *Administration:* The Systems are administered by a Board of Trustees (which also administers the other Utah Retirement Systems). The Board of Trustees is responsible for both administration of the Systems and investment of the fund assets.
4. *Type of Plan:* These are qualified governmental defined benefit retirement plans. Under GASB 25, they are considered to be cost-sharing multiple-employer plans.
5. *Eligibility:* These Systems cover eligible employees of the State of Utah, most local government employees, and most public education employees. Generally all employees are covered, except for those covered by another System--public safety employees, firefighters, judges, legislators, and higher education employees covered under TIAA-CREF. Eligible employees become participants immediately when hired, and are required to participate. The employer-selected plan determines whether new employees participate in the Contributory or Noncontributory System. Employees who were members of the Contributory System at the time their employer selected the Noncontributory System had an option to remain in the Contributory System.
6. *Employee Contributions:* Members of the Contributory System contribute 6.00% of salary per year. Employers may "pick-up" employee contributions under Section 414(h) of the Internal Revenue Code. No contributions are made by members of the Noncontributory System.
7. *Employer Contributions:* The current contribution rates differ between the Contributory and Noncontributory Systems, and also differ depending on whether the member is employed by a local government (Level B) or the State of Utah or a public school (Level A). Rates are set by the Board of Trustees, based upon the actuarial valuation report for the preceding year. The Funds participating in these systems are:

Fund 11 - Local Government Contributory
Fund 12 - State and School Contributory
Fund 15 - Local Government Noncontributory
Fund 16 - State and School Noncontributory

8. *Final Average Monthly Salary (FAMS)*: The monthly average of the member's highest salaries preceding retirement. For the Contributory System a five-year average is used, while a three-year average is used for the Noncontributory System.
9. *Service Retirement (Unreduced)*:
 - a. Eligibility: A member may retire with an unreduced benefit at age 65 with four years of service or after 30 years of service if earlier.
 - b. Monthly Benefit (Contributory): 2.00% times Final Average Monthly Salary (FAMS) times years of service earned since July 1, 1975, plus 1.25% of FAMS times service earned prior to July 1, 1975.
 - c. Monthly Benefit (Noncontributory): 2.00% of Final Average Monthly Salary times years of service.
 - d. Payment Form: Life annuity.
10. *Service Retirement (Reduced)*:
 - a. Eligibility: A member may retire with a reduced benefit upon attaining age 62 with 10 years of service or age 60 with 20 years of service. A member of the Noncontributory System may retire at any age after earning 25 years of service.
 - b. Reduction: 3% per year that retirement is earlier than age 65. For Noncontributory System members retiring prior to age 60, actuarial reduction is applied to the 85% factor at age 60.
 - c. Payment Form: Life annuity.
11. *Disability Retirement*:
 - a. Eligibility: Member must be eligible for retirement under the Disability Act and must not be eligible for a 30-year service retirement at time of disability.
 - b. Monthly Benefits Payable Prior to Retirement: A separate fund established under the Disability Act provides benefits from the time of disability until the age specified in 49-21-403. Benefits from this separate fund are not covered by these Systems.
 - c. Monthly Benefits Payable after Retirement: An unreduced service retirement benefit is payable. The member receives service credit for time while disabled (both for computing the benefit amount and for determining whether the member is eligible for an unreduced service retirement benefit). Final Average Monthly Salary is increased by the same factors used for automatic cost-of-living benefit increases. I.e., the FAMS is adjusted by a cost-of-living increase up to 4.0% per year (simple interest).
 - d. Payment Form: Life annuity.

- e. Death while Disabled: A disabled member is treated as an active member for purposes of determining a death benefit for the period prior to retirement.

12. *Vesting and Refunds:*

- a. Eligibility: All members who are not vested are eligible for a refund when they terminate service. Members are vested after four years of service. Vested members may also elect to receive a refund in lieu of the deferred termination benefit described below. (Noncontributory System members hired after July 1, 1986, are ineligible for a refund.)
- b. Amount: The refund benefit is the accumulated value of the member's contributions plus interest credited by the fund. Interest is credited at 8.0% per year.

13. *Deferred Termination Benefit:*

- a. Eligibility: Member must be vested (4 years of service) and must elect to leave his/her contributions on deposit.
- b. Monthly Benefit: Same as the unreduced or reduced service retirement benefit, based on service and FAMS at termination, and commencing once the member is eligible.
- c. Payment Form: Life annuity.
- d. Death Benefit: The beneficiary of an inactive member who dies is entitled to receive a refund benefit. (Inactive members with over 10 years of service as of July 1, 1987, are also entitled to receive the group insurance benefit applicable to active members.)

14. *Death while an Active Member:*

- a. In General: A refund of the member's accumulated contributions (with interest) is paid to the beneficiary of a deceased member. In addition, a group insurance amount equal to 75% of final average salary (annual) is paid.
- b. Spousal Annuity: If the deceased member was married at the time of death and was either (i) eligible for reduced or unreduced service retirement, or (ii) had 25 years of service (15 years of service in the noncontributory system), the spouse may elect an annuity benefit in lieu of the refund benefit. The annuity is equal to the reduced or unreduced service retirement benefit payable as though Plan 3 (a Joint and 100% Survivor annuity) were elected. If the member had 25 years of service or more, no reduction factor is applied in determining the service retirement benefit. If a member of the noncontributory system is not eligible for a retirement benefit and has less than 25 years of service, then the death benefit is equal to 1/3 of Plan 3 benefit if the member has at least 15 and less than 20 years of service, and 2/3 of the Plan 3 benefit if the member has at least 20 and less than 25 years of service. In addition, a group insurance amount equal to ⁷⁵~~60~~% of final average salary (annual) is paid to the designated beneficiary.

15. *Optional Forms of Benefit:* The Systems permit members to elect from six forms of benefit at retirement. In each case the benefit amount is adjusted to be actuarially equivalent to the "Plan 1" form. The six optional forms are:
- Plan 1 - A life annuity with no benefits due following the member's death.
- Plan 2 - Modified Cash Refund Annuity. A reduced annuity payable for the member's lifetime, plus a death benefit equal to the excess of the member's accumulated contributions (determined at retirement) over the sum of the member's annuity payments from retirement. (The annuity payments are that part of the original benefit derived from the member's own accumulated contributions.)
- Plan 3 - Joint and 100% Survivor Annuity. An annuity payable as long as either the member or his/her spouse is living.
- Plan 4 - Joint and 50% Survivor Annuity. An annuity payable during the member's lifetime, and after the member's death if the member's spouse is still living, an annuity to the spouse of 50% of the original benefit.
- Plan 5 - Joint and 100% Pop-up Annuity. Same as Plan 3, except that the benefit amount reverts to the Plan 1 (life annuity) amount if the member's spouse predeceases the member.
- Plan 6 - Joint and 50% Pop-up Annuity. Same as Plan 4, except that the benefit amount reverts to the Plan 1 (life annuity) amount if the member's spouse predeceases the member.
16. *Postretirement Death Benefit:* None, except as elected by the member. See Optional Forms of Benefit above.
17. *Postretirement Benefit Increases:* Benefits are increased annually to take into account changes in the cost of living, with a maximum annual increase of 4% of the original benefit (i.e., a maximum 4% simple interest increase). In years in which the cost of living increases more than 4%, the excess increase is accumulated and used in later years in which the cost-of-living increase is less than 4%. This calculation is made separately for each individual. In addition, a closed group of retirees also receives a second special increase amount paid as a level annuity under whichever form of payment was elected. This is the Restoration of Purchasing Power (ROPP) payment.
18. *3% Substantial Substitute:* All members whose service began before January 1, 1989, receive an additional annual payment equal to 3% of their benefit. These payments are made to offset the taxability of the retirement benefits under the State income tax provisions. Prior to July 1, 1995, this benefit was funded by annual appropriations made by the State on a pay-as-

you go basis. Beginning July 1, 1995, this benefit is funded on an actuarial basis by increasing the employer contribution rate for those Funds which are funded by the State.

**Summary of Benefit Provisions for
Public Safety Retirement Systems
(Contributory and Noncontributory)**

1. *Effective Date:* Contributory System - July 1, 1969.
Noncontributory System - July 1, 1989.
2. *Plan Year:* Twelve-month period ending December 31st.
3. *Administration:* The Systems are administered by a Board of Trustees (which also administers the other Utah Retirement Systems). The Board of Trustees is responsible for both administration of the Systems and investment of the fund assets.
4. *Type of Plan:* These are qualified governmental defined benefit retirement plans. Under GASB 25, they are considered to be a combination of agent and cost-sharing multiple-employer plans.
5. *Eligibility:* These Systems cover eligible public safety employees of the State of Utah and some local governments. Eligible employees become participants immediately when hired, and are required to participate. The employer-selected plan determines whether new employees participate in the Contributory or Noncontributory System. Employees who were members of the Contributory System at the time their employer selected the Noncontributory System had an option to remain in the Contributory System.
6. *Employee Contributions:* Members of the Contributory System contribute a percentage of salary, as shown below. Employers may "pick-up" employee contributions under Section 414(h) of the Internal Revenue Code. No contributions are made by members of the Noncontributory System. Rates in the Contributory System vary by employer as follows:

Fund 22 - State of Utah	12.29%
Fund 23 - Other Division A	12.29%
Fund 24 - Salt Lake City	13.74%
Fund 25 - Ogden	13.18%
Fund 26 - Provo	13.54%
Fund 27 - Logan	11.13%
Fund 28 - Bountiful	11.94%
Fund 29 - Other Division B	10.50%

7. *Employer Contributions:* The current contribution rates differ between the Contributory and Noncontributory Systems, and also differ depending on which fund (employer or group of employers) the member belongs to. Rates are set by the Board of Trustees, based upon the actuarial valuation report for the preceding year. The Funds included in these Systems are:

Contributory System

Fund 22 - State of Utah (Div A)
Fund 23 - Other Division A
Fund 24 - Salt Lake City (Div B)
Fund 26 - Provo (Div B)
Fund 27 - Logan (Div B)
Fund 29 - Other Division B

Noncontributory System

Fund 42 - State of Utah (Div A)
Fund 43 - Other Division A
Fund 44 - Salt Lake City (Div B)
Fund 45 - Ogden (Div B)
Fund 48 - Bountiful (Div A)
Fund 49 - Other Division B

The division designation (A or B) distinguishes between those employers covered by Social Security (A) and those not covered (B). Some plan provisions differ depending on the member's division.

8. *Final Average Monthly Salary (FAMS):* The monthly average of the member's highest three salaries preceding retirement.
9. *Service Retirement:*
- a. Eligibility: A member may retire with an unreduced benefit at age 65 with four years of service or at age 60 with 10 years of service or at any age with 20 years of service.
 - b. Monthly Benefit: 2.50% of Final Average Monthly Salary (FAMS) times years of service up to 20 years, plus 2.00% of FAMS times years of service in excess of 20. Benefits are limited to 70% of FAMS.
 - c. Payment Form: For married members benefits are paid as an automatic unreduced Joint and 65% Survivor Annuity. A life annuity is payable to unmarried members (although children's benefits may also be due following the member's death).

10. *Disability Retirement:*

- a. **Eligibility:** Member must be eligible for retirement under the Disability Act (or a substantially equivalent program) and must not be eligible for a 20-year service retirement at time of disability. Note that not all political subdivisions cover their members under a disability program.
- b. **Monthly Benefits Payable Prior to Retirement:** A separate fund established under the Disability Act (or an equivalent program) provides benefits from the time of disability until the age specified in 49-21-403. Benefits from this separate fund are not covered by these Systems.
- c. **Monthly Benefits Payable after Retirement:** An unreduced service retirement benefit is payable. The member receives service credit for time while disabled (both for computing the benefit amount and for determining whether the member is eligible for an unreduced service retirement benefit). Final Average Monthly Salary is increased by the same factors used for automatic cost-of-living benefit increases. I.e., the FAMS is adjusted by a cost-of-living increase up to 2.5% per year (simple interest).
- d. **Payment Form:** Same as for Service Retirement.
- e. **Death while Disabled:** A disabled member is treated as an active member for purposes of determining a death benefit for the period prior to retirement.

11. *Vesting and Refunds:*

- a. **Eligibility:** All members who are not vested are eligible for a refund when they terminate service. Members are vested after four years of service. Vested members may also elect to receive a refund in lieu of the deferred termination benefit described below. (Noncontributory System members hired after July 1, 1989, are ineligible for a refund.)
- b. **Amount:** The refund benefit is the accumulated value of the member's contributions credited by the fund. For members in the Contributory system, interest is credited on the member's contribution account at 8.0% per year, beginning July 1, 1996. Interest is not credited on the member contribution account for members of the Noncontributory System.

12. *Deferred Termination Benefit:*

- a. **Eligibility:** Member must be vested (4 years of service) and must elect to leave his/her contributions on deposit.

- b. Monthly Benefit: Same as the service retirement benefit, based on service and FAMS at retirement, and commencing once the member is eligible. The FAMS at retirement is computed as though the member remained in service at his last rate of pay until retirement.
 - c. Payment Form: Same as for service retirement.
 - d. Death Benefit: The beneficiary of an inactive member who dies is entitled to receive a refund benefit (or \$500 if larger). The spouse of an inactive member with 20 years of service receives a monthly annuity equal to 50% of the service retirement benefit that would have been paid had the member died immediately prior to retirement. (An actuarial reduction factor is applied if the member was under age 50 at death.)
13. *Death while an Active Member (On Duty)*: If death occurs in the line of duty, the lump-sum and annuity benefits described below will be paid to the spouse. (The benefits are not applicable to unmarried members, although children's benefits may be due.)
- a. Lump-sum (Division A members): \$1,000.
 - b. Annuity (Division A members): 30% of member's FAMS.*
 - c. Lump-sum (Division B members): \$1,500.
 - d. Annuity (Division B members): 37.5% of member's FAMS.
14. *Death of an Active Member (Off Duty)*: If death occurs from a cause not related to the member's duties, the lump-sum and annuity benefits described below will be paid to the spouse. (The benefits are not applicable to unmarried members, although children's benefits may be due.)
- a. Lump-sum (Division A members): If the member has less than 10 years of service, the benefit is \$1,000 or a refund benefit, whichever is larger. If the member has 10 or more years of service, the benefit is \$500.
 - b. Annuity (Division A members): If the member has less than 10 years of service, no annuity is due. For members with 10 or more years of service, the benefit is 2% of FAMS per year of service, to a maximum of 30% of FAMS.*
 - c. Lump-sum (Division B members): If the member does not have two years of service, the benefit is the sum of 50% of the member's salary plus a refund benefit. If the member has two or more years of service, the benefit is \$1,500.
 - d. Annuity (Division B members): If the member has fewer than two years of service, no annuity is due. If the member has two or more years of service, the annuity is 37.5% of the member's FAMS.

*(Not less than the benefit payable to the surviving spouse if the member had retired the day before the member's date of death.)

15. *Optional Forms of Benefit:* None.
16. *Postretirement Death Benefit:* None, except for survivor benefit applicable to married members.
17. *Postretirement Benefit Increases:* Benefits are increased annually to take into account changes in the cost of living, with a maximum annual increase of 2.5% of the original benefit (i.e., a maximum 2.5% simple interest increase). In years in which the cost of living increases more than 2.5%, the excess increase is accumulated and used in later years in which the cost-of-living increase is less than 2.5%. This calculation is made separately for each individual. In addition, a closed group of retirees also receives a second special increase amount paid as a level annuity under whichever form of payment is applicable. This is the Restoration of Purchasing Power (ROPP) payment.
18. *3% Substantial Substitute:* All members whose service began before January 1, 1989, receive an additional annual payment equal to 3% of their benefit. These payments are made to offset the taxability of the retirement benefits under the State income tax provisions. Prior to July 1, 1995, this benefit was funded by annual appropriations made by the State on a pay-as-you go basis. Beginning July 1, 1995, this benefit is funded on an actuarial basis by increasing the employer contribution rate for those Funds which are funded by the State.

Summary of Benefit Provisions for Firefighters Retirement System

1. *Effective Date:* July 1, 1971.
2. *Plan Year:* Twelve-month period ending December 31st.
3. *Administration:* The System is administered by a Board of Trustees (which also administers the other Utah Retirement Systems). The Board of Trustees is responsible for both administration of the System and investment of the fund assets.
4. *Type of Plan:* This is a qualified governmental defined benefit retirement plan. Under GASB 25, it is considered to be a cost-sharing multiple-employer plan.
5. *Eligibility:* This System covers eligible firefighters employed by participating local governments in Utah. Eligible employees become participants immediately when hired, and are required to participate. Employers are designated as either Division A (employers with Social Security coverage) or Division B (employers without Social Security coverage). Benefit provisions and contribution rates differ for members of different divisions.
6. *Employee Contributions:* Members contribute a percentage of salary, as shown below. Employers may "pick-up" employee contributions under Section 414(h) of the Internal Revenue Code.

Fund 31 - Division A 15.05%

Fund 32 - Division B 16.71%

Contribution rates shown may be reduced by expected income from a tax on fire insurance premiums.

7. The current employer contribution rates depend on the Fund. Division A covers employers covered by Social Security and Division B covers other employers. The contribution rates are set by the Board of Trustees, based on the actuarial valuation for the preceding year. Contribution rates are reduced by expected income from a tax on fire insurance premiums. The Funds in this System are:

Fund 31 - Division A

Fund 32 - Division B

8. *Final Average Monthly Salary (FAMS):* The monthly average of the member's highest three salaries preceding retirement.

9. *Service Retirement:*

- a. Eligibility: A member may retire with an unreduced benefit at age 65 with four years of service or at age 60 with 10 years of service or at any age with 20 years of service.
- b. Monthly Benefit: 2.50% of Final Average Monthly Salary (FAMS) times years of service up to 20 years, plus 2.00% of FAMS times years of service in excess of 20. Benefits are limited to 70% of FAMS. There is a minimum benefit of \$500 per month.
- c. Payment Form: For married members benefits are paid as an automatic unreduced Joint and 75% Survivor Annuity. A life annuity is payable to unmarried members (although children's benefits may also be due following the member's death).

10. *Disability Retirement:*

- a. Eligibility: Member must have five or more years of service or the disability must be related to the member's duties. In addition, the member must not be eligible for a 20-year service retirement at time of disability.
- b. Monthly Benefits: 50% of FAMS.
- c. Payment Form: Same as for Service Retirement once member is age 55.
- d. Death while Disabled: A disabled member is treated as an active member for purposes of determining a death benefit for the period prior to retirement (age 55).

11. *Vesting and Refunds:*

- a. Eligibility: All members who are not vested are eligible for a refund when they terminate service. Members are vested after four years of service. Vested members may also elect to receive a refund in lieu of the deferred termination benefit described below.
- b. Amount: The refund benefit is the accumulated value of the member's contributions credited by the fund. Interest is not credited on member contributions.

12. *Deferred Termination Benefit:*

- a. Eligibility: Member must be vested (4 years of service) and must elect to leave his/her contributions on deposit.
- b. Monthly Benefit: Same as the service retirement benefit, based on service and FAMS at termination, and commencing once the member is eligible.
- c. Payment Form: Same as for service retirement.

- d. Death Benefit: The beneficiary of an unmarried inactive member who dies with 20 or more years of service prior to retirement is entitled to receive a refund benefit (or \$500 if larger). The spouse of an inactive member with 20 years of service receives a monthly annuity equal to 50% of the service retirement benefit that would have been paid had the member died immediately prior to retirement. (An actuarial reduction factor is applied if the member was under age 50 at death.) If the inactive member had less than 20 years of service, no death benefit is due.
13. Death while an Active Member (On Duty): If death occurs in the line of duty, the lump-sum and annuity benefits described below will be paid to the spouse. (The benefits are not applicable to unmarried members, although children's benefits may be due.)
- a. Lump-sum (Division A members): \$1,500.
- b. Annuity (Division A members): 30% of member's FAMS. For members with more than 20 years of service, the annuity is 75% of the retirement benefit earned by the member as of his/her date of death.
- c. Lump-sum (Division B members): \$1,500.
- d. Annuity (Division B members): 37.5% of member's FAMS. For members with more than 20 years of service, the annuity is 75% of the retirement benefit earned by the member as of his/her date of death.
14. Death of an Active Member (Off Duty): If death occurs from a cause not related to the member's duties, the lump-sum and annuity benefits described below will be paid to the spouse. (The benefits are not applicable to unmarried members, although children's benefits may be due.)
- a. Lump-sum (Division A members): If the member has less than 10 years of service, the benefit is \$1,000 or a refund benefit, whichever is larger. If the member has 10 or more years of service, the benefit is \$500.
- b. Annuity (Division A members): If the member has less than 10 years of service, no annuity is due. For members with 10 or more years of service, the benefit is 2% of FAMS per year of service, to a maximum of 30% of FAMS.
- c. Lump-sum (Division B members): If the member does not have five years of service, the benefit is the sum of 50% of the member's salary plus a refund benefit. If the member has five or more years of service, the benefit is \$1,500.

- d. Annuity (Division B members): If the member has fewer than five years of service, no annuity is due. If the member has five or more years of service, the annuity is 37.5% of the member's FAMS. For members with more than 20 years of service, the annuity is 75% of the retirement benefit earned by the member as of his/her date of death.
15. *Optional Forms of Benefit*: None.
16. *Postretirement Death Benefit*: None, except for survivor benefit applicable to married members.
17. *Postretirement Benefit Increases*: Benefits are increased annually to take into account changes in the cost of living, with a maximum annual increase of 4% of the original benefit (i.e., a maximum 4% simple interest increase). In years in which the cost of living increases more than 4%, the excess increase is accumulated and used in later years in which the cost-of-living increase is less than 4%. This calculation is made separately for each individual. In addition, a closed group of retirees also receives a second special increase amount paid as a level annuity under whichever form of payment is applicable. This is the Restoration of Purchasing Power (ROPP) payment.
18. *3% Substantial Substitute*: All members whose service began before January 1, 1989, receive an additional annual payment equal to 3% of their benefit. These payments are made to offset the taxability of the retirement benefits under the State income tax provisions. Prior to July 1, 1995, this benefit was funded by annual appropriations made by the State on a pay-as-you go basis. Beginning July 1, 1995, this benefit is funded on an actuarial basis by increasing the employer contribution rate for those Funds which are funded by the State.

Summary of Benefit Provisions for Judges Retirement System

1. *Effective Date:* July 1, 1963.
2. *Plan Year:* Twelve-month period ending December 31st.
3. *Administration:* The System is administered by a Board of Trustees (which also administers the other Utah Retirement Systems). The Board of Trustees is responsible for both administration of the System and investment of the fund assets.
4. *Type of Plan:* This is a qualified governmental defined benefit retirement plan. Under GASB 25, it is considered to be a single-employer plan.
5. *Eligibility:* This System covers judges of the State of Utah, including Supreme Court justices and appellate, district, circuit and juvenile court judges.
6. *Employee Contributions:* Members of the Contributory System contribute 8.00% of salary per year. The state may "pick-up" a portion (although not all) of the employee contributions under Section 414(h) of the Internal Revenue Code. No contributions are made by members of the Noncontributory System.
7. *Employer Contributions:* Fund 37 (Judges) has a contribution rate which is set by the Board of Trustees, based on the actuarial valuation for the preceding year. The rate is reduced by estimated court fees which are earmarked for this fund.
8. *Final Average Monthly Salary (FAMS):* The monthly average of the member's highest two salaries preceding retirement.
9. *Service Retirement (Unreduced):*
 - a. Eligibility: A member may retire with an unreduced benefit at age 70 with six years of service or after age 62 with 10 years of service or after 25 years of service.
 - b. Monthly Benefit: 5.00% times Final Average Monthly Salary (FAMS) times years of service up to 10, plus 2.25% of FAMS times years of service in excess of 10 but less than 20, plus 1.00% times FAMS times years of service in excess of 20. There is a maximum benefit of 75% of FAMS, and a minimum benefit equal to 110% of the formula benefit (but not greater than \$1,000 per month).
 - c. Payment Form: Married members receive an automatic, unreduced Joint and 65% Survivor annuity. Unmarried members receive a life annuity.

10. *Service Retirement (Reduced):*
 - a. Eligibility: A member may retire with a reduced benefit upon attaining age 55 with 20 years of service.
 - b. Reduction: An actuarial reduction from age 65.
 - c. Payment Form: Same as for unreduced service retirement.
11. *Disability Retirement*: This System has no provisions applying to disability retirement.
12. *Vesting and Refunds*:
 - a. Eligibility: All members who are not vested are eligible for a refund when they terminate service. Members are vested after six years of service. Vested members may also elect to receive a refund in lieu of the deferred termination benefit described below.
 - b. Amount: The refund benefit is the accumulated value of the member's contributions plus interest credited by the fund. Interest is credited at 8.0% per year.
13. *Deferred Termination Benefit*:
 - a. Eligibility: Member must be vested (6 years of service) and must elect to leave his/her contributions on deposit.
 - b. Monthly Benefit: Same as the unreduced or reduced service retirement benefit, based on service and FAMS at termination, and commencing once the member is eligible.
 - c. Payment Form: Same as for unreduced service retirement.
 - d. Death Benefit: Same as for an active member.
14. *Death while an Active Member*: A refund of the member's accumulated contributions (with interest) is paid to the beneficiary of a deceased member. In addition, 65% the member's FAMS (annualized) is paid to the spouse if the member was married. Alternatively, the spouse may waive these benefits and elect instead an annuity. The annuity is equal to 65% of the benefit determined using the unreduced service retirement formula, and based on current service and FAMS at the time of death.
15. *Optional Forms of Benefit*: The System permits married members to elect a reduced Joint and 75% Survivor annuity in lieu of the automatic Joint and 65% Survivor annuity. No other optional payment forms are available.
16. *Postretirement Death Benefit*: None, except for the Joint and Survivor annuities available to married members.

17. *Postretirement Benefit Increases:* Benefits are increased annually to take into account changes in the cost of living, with a maximum annual increase of 4% of the current benefit (i.e., a maximum 4% compound interest increase). In years in which the cost of living increases more than 4%, the excess increase is accumulated and used in later years in which the cost-of-living increase is less than 4%. This calculation is made separately for each individual. In addition, judges retired prior to July 1, 1983 received an increase of \$120 per month (\$60 for beneficiaries).
18. *3% Substantial Substitute:* All members whose service began before January 1, 1989, receive an additional annual payment equal to 3% of their benefit. These payments are made to offset the taxability of the retirement benefits under the State income tax provisions. Prior to July 1, 1995, this benefit was funded by annual appropriations made by the State on a pay-as-you go basis. Beginning July 1, 1995, this benefit is funded on an actuarial basis by increasing the employer contribution rate for those Funds which are funded by the State.

Summary of Benefit Provisions for the Governors and Legislative Pension Plan

1. *Effective Date:* July 1, 1967.
2. *Plan Year:* Twelve-month period ending December 31st.
3. *Administration:* The System is administered by a Board of Trustees (which also administers the other Utah Retirement Systems). The Board of Trustees is responsible for both administration of the System and investment of the fund assets.
4. *Type of Plan:* This is a qualified governmental defined benefit retirement plan. Under GASB 25, it is considered to be a single-employer plan.
5. *Eligibility:* This System covers state legislators with four or more years of service, and governors of the state.
6. *Employee Contributions:* None.
7. *Employer Contributions:* The state annually appropriates an actuarially determined contribution.
8. *Benefit base:* The benefit base is used to determine the benefits payable at retirement.
 - a. Legislators: The base was \$10.00 per month per year of service as of July 1, 1967. The base is increased 2% each six months after that date. As of January 1, 2003, the benefit base is therefore \$24.20.
 - b. Governors: The base was \$500.00 per month per term as of July 1, 1973. The base is increased 2% each six months after that date. As of January 1, 2003, the benefit base is therefore \$1,090.00.
 - c. Supplemental Benefit: An additional benefit of \$3.50 per month per year of service. This benefit is not indexed nor are COLAs granted on it. This benefit only applies to members of the System on March 1, 2000 and is effective March 1, 2000.
9. *Service Retirement (Unreduced):*
 - a. Eligibility: Age 65.
 - b. Monthly Benefit: Legislators receive the benefit base (currently \$23.80 per month) per year of service, while former governors receive the benefit base (currently \$1,070.00) for each term served (maximum of two terms).

- c. Payment Form: For married members, a Joint and 50% Survivor annuity. For unmarried members, a life annuity.
10. *Service Retirement (Reduced)*:
 - a. Eligibility: A member may retire with a reduced benefit upon attaining age 62 with 10 years of service, if the member also participates in another System.
 - b. Reduction: The reduction factor applied in the other System to which the member belongs.
 - c. Payment Form: Same as for unreduced service retirement.
11. *Disability Retirement*: This System has no provisions applying to disability retirement.
12. *Vesting and Refunds*: A vested member who made contributions in another System and withdraws them forfeits all benefits under this System.
13. *Deferred Termination Benefit*:
 - a. Eligibility: Same as for reduced or unreduced service retirement. The member must not have withdrawn his/her contributions under another System.
 - b. Monthly Benefit: Same as the unreduced or reduced service retirement benefit, based on service at termination, and commencing once the member is eligible.
 - c. Payment Form: Same as for unreduced service retirement.
 - d. Death Benefit: Same as for an active member.
14. *Death while an Active Member*:
 - a. Eligibility: Four years of service as a legislator or governor.
 - b. Monthly Benefit: 50% of the unreduced service retirement benefit that the member would have been entitled to upon reaching age 65 based on the current benefit base. Benefit is paid to surviving spouse only.
15. *Optional Forms of Benefit*: None.
16. *Postretirement Death Benefit*: None, except for the Joint and Survivor annuity available to married members.
17. *Postretirement Benefit Increases*: Benefits are increased annually to take into account changes in the cost of living, with a maximum annual increase of 4% of the original benefit (i.e., a maximum 4% simple interest increase). In years in which the cost of living increases more than 4%, the excess increase is accumulated and used in later years in which the cost-of-living increase is less than 4%. This calculation is made separately for each individual. Note that the supplemental \$3.50 per month per year of service benefit is not eligible for these increases.

18. *3% Substantial Substitute:* All members whose service began before January 1, 1989, receive an additional annual payment equal to 3% of their benefit. These payments are made to offset the taxability of the retirement benefits under the State income tax provisions. Prior to July 1, 1995, this benefit was funded by annual appropriations made by the State on a pay-as-you go basis. Beginning July 1, 1995, this benefit is funded on an actuarial basis by increasing the employer contribution rate for those Funds which are funded by the State.