Utah Retirement System

ACTUARIAL VALUATION January 1, 2005



GABRIEL, ROEDER, SMITH & COMPANY

Consultants & Actuaries

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

October 14, 2005

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, 2005

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, 2005 actuarial valuation will be used by the Board when certifying the employer contribution rates for the year beginning July 1, 2006 and ending June 30, 2007. 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.

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Under this policy, the objective of maintaining a relatively level contribution rate over time is achieved in normal conditions such as consistent market conditions.

In 2004, the Utah Legislature approved an act that allows the Board to set the employer contribution rate at the prior year's rate, if the rate otherwise would decrease and if the funded ratio is less than 110%. In such a case, the rate set by the Board would be higher than the actuarially determined contribution rate. The object of this legislation is to enhance the Board's ability to maintain more-level contribution rates while targeting a 100% - 110% funded level.

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%.

For all systems combined, the funded ratio decreased from 94.7% to 92.4%. Most of the individual funds have ratios over 90%, and only the 3% Substantial Substitute Fund, the Salt Lake City Noncontributory Public Safety Fund, and the Logan Noncontributory Public Safety Fund have funded ratios less than 80%. It should be pointed out that the funded ratio for all systems combined was 76.9% in 1990. Significant progress has been made over the last fifteen 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. If market value had been used in the calculation instead of actuarial value, the aggregate funded ratio for all funds combined would have been 96.5%, compared to 91.7% in the prior year.

Benefit provisions

The benefit provisions reflected in this valuation are those which were in effect on January 1, 2005, or which were adopted by the end of the 2005 legislative session and are effective on or before July 1, 2006.

No significant pieces of legislation impacting the benefit provisions of URS were enacted during the 2005 legislative session.

Assumptions and methods

The Board, in consultation with the actuary, sets the actuarial assumptions and methods used in the valuation. Current Board policy is to perform an experience study every three years. In connection with the appropriate valuation, the actuary conducts a thorough review of plan experience for the preceding five years, and then makes recommendations to the Board.

An experience analysis was carried out in connection with this valuation, and as a result, we are recommending a number of changes in the actuarial assumptions. Our recommendations include:

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- Changes to the post-retirement mortality assumptions for teachers and uniformed officers
- No changes to the salary increase rates for most groups, but the salary increase rate for judges is lowered from 4.75% to 4.00%
- Increases in the disability incidence rates for most groups
- No changes to the termination rates for most groups, but the termination rates for firefighters are modified, and now reflect service only, rather than both age and service
- Changes to retirement rates for most groups with rates increasing at earlier ages and decreasing at later ages

We have recommended that the assumed inflation rate remain at 3.00%, the assumed nominal investment return rate remain at 8.00%, and that the payroll growth assumption remain at 4.00%. We have not recommended any changes in the actuarial cost method (entry age normal) or in the method for determining the actuarial value of assets (five-year smoothing).

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. The actuarial calculations are intended to provide information for rational decision making.

It is our opinion that the recommended assumptions are internally consistent and are reasonably based on past and anticipated future experience of the System. The actuarial assumptions and methods used in this report comply with the parameters for disclosure that appear in GASB 25.

Data

Member data for retired, active and inactive members was supplied as of December 31, 2004 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, 2004.

Certification

We certify that the information presented herein is accurate and fairly portrays the actuarial position of URS as of January 1, 2005.

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.

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The undersigned are independent actuaries and consultants. Mr. Carter and Mr. Conradi are Enrolled Actuaries and Members of the American Academy of Actuaries and they both meet the Qualification Standards 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

Christian Comali

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

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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 do not include any Board adjustments under HB83
 - --- Rates shown on Exhibit 1(a), column 6 are calculated rates for the twelve-month period beginning July 1, 2006
 - Rates may need to be adjusted for the effect of 2006 legislation, if material
- Exhibit 1(b) shows both the actuarially calculated rates (Col. 4) and the rates recommended under the provisions of HB83 (2004)
 - HB83 permits the Board to set the contribution rate at the prior year's level if the actuarially calculated rate would be less and the funded ratio is less than 110%
 - This policy is separately applied to the contribution rate for the 3% substantial substitute that is included with the contribution rates for the State and School funds, the State Public Safety funds and the Judges
- Exhibit 4 reconciles the actuarially calculated rates determined by this valuation and the previous valuation
- There were no material changes to the benefit provisions
- Recommend adoption of new assumptions
 - Modified post-retirement mortality rates for teachers and uniformed officers
 - Increases in disability rates for most groups
 - Judges salary increase rate lowered from 4.75% to 4.00%
 - Firefighters termination rates modified to service-only basis
 - Changes to retirement rates for most groups, with rates increasing at earlier ages and decreasing at later ages
 - Impact is shown on Exhibit 4, column 6

- Amortization payments based on:
 - 20-year funding period
 - Contributions determined 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 earned 13.7% on a market-value basis, net of investment and administrative expenses
- Plan uses actuarial value to determine contribution rates and funded status
 - 5-year smoothing of net earnings above or below 8.00% assumption
 - Only 20% of 2004 gain reflected
 - Still reflecting 20% of losses from 2000, 2001, 2002, and gains from 2003
 - 5.3% return on actuarial value of assets
 - Since actuarial return less than 8.00%, an actuarial loss occurred, causing contribution rate increases
 - Impact on contribution rates shown on Exhibit 4(a), Col. (4)
- Actuarial value of assets (\$15.3 billion) is 95.7% of market assets (\$16.1 billion)
 - difference will be recognized over next four years
- The impact of the liability experience caused increases in the contribution rates for about half of the funds and decreases for about half of the funds.
- The impact of the assumption changes and the losses on the actuarial value of assets caused all of the calculated contribution rates to increase from the prior year to this year.
- Because of the offset for fire insurance premium tax receipts, the employer contribution rate for the two firefighter funds is reduced to 0.00%, as has been the case for several years
 - The remaining offset was used to reduce member contribution rates, but the net member rate this year is larger than last year's net member rate for both funds
 - No part of the fire insurance premium tax receipts was available to be transferred to the Public Safety Retirees' Cost-of-Living Increases Restricted Account
- 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 1.74%, after applying the offset for court fees.
- As for the past several years, no contribution is required for the Governors and Legislative Pension Plan.

Determination of Calculated 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 (0.16% 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. Legislation enacted in 2004 gave the Board the option of holding contribution rates at the higher of the previous year rate or the current year's calculated rate. The Board has this authority until such time that a Fund's assets are in excess of 110% of the liabilities of the Fund. 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 7.87% for Division A and 4.09% 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. Even with all of the remaining offset being used to offset member contribution rates, the members of both Divisions will see an increase in their contribution rates.

These calculated rates are used in determining the contribution rates that will become effective for the twelve-month period beginning July 1, 2006.

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, 2004, the retirement systems that are part of URS have a total market value of about \$16.1 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 2004 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, 62% 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 2004. 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 2004, the total investment return on market values was 13.7%, 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.

The development of the AVA is shown on Exhibits 13 and 14. The AVA is \$15.4 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 95.7% of the MVA.

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 2004, this return was 5.3%. Because this is less than the assumed 8% investment return, the plan experienced a loss on the actuarial value of assets. 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, 2004. 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 96,349 to 97,801, a 1.5% increase. Last year, total membership grew 0.1%, and over the last five years, membership growth has averaged 1.1% per year.

Total active member payroll grew 4.8% last year for all funds combined, compared with a 1.0% increase the prior year.

Benefit Provisions

Appendix 2 includes a summary of the benefit provisions for each of the retirement systems in URS. The valuation reflects any benefit changes enacted by the 2005 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, 2006.

However, there were no changes made since the previous valuation that had a measurable effect on the current 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%. We are recommending the Board adopt new actuarial assumptions in connection with the 2005 experience investigation.

A brief description of the 2005 experience investigation follows. Please see Appendix 1 for a complete description of these assumptions.

2005 Experience Investigation

As a result of our analysis of the five years of experience data, we are recommending new actuarial assumptions for the Board's approval. The recommended changes result in actuarially calculated contribution rates that are higher than they would have been if no change had been made, except for the Judges System. The contribution rate increases are mainly due to the modifications made to post-retirement mortality rates and the retirement rates.

Other changes included:

- Increases to the disability incidence rates for most groups
- A change in the termination rates for Firefighters to a service-only basis
- Decrease in the salary increase rate for Judges

The following is a description of the main findings and recommendations of our study:

- Recommend no change to 3.00% inflation assumption or the cost-of-living increase assumptions
 - Inflation is a component of investment return rate, salary increase rates, cost-of-living increases and payroll growth rate
 - Higher than actual inflation over the last five or ten years (2.49% and 2.43% respectively), but equal to inflation over the last twenty years.
 - During calendar year 2005, the bond market has been predicting inflation over the next 25+ years at somewhere between 2.5% and 2.9%
 - Since cost-of-living increases are based on price inflation, the assumed future cost-of-living increases—2.5% simple for public safety, 3% compound for judges, and 3% simple for all other groups—were left unchanged

Recommend no change in investment return assumption of 8.00%

- Most common rate for large funds
- Rate is net of all investment and administrative expenses
- Given the 3.00% inflation assumption, this implies that the assumed real return on assets is 5.00%
- Net of investment and administrative expenses, the average return for URS for the last five years is 4.8%, while it is 10.0% over the last ten years. However, these figures do not provide meaningful guidance to future returns.
- Whether a 5.0% real return is reasonable depends upon the capital market assumptions. We looked at three different sets of capital market assumptions, and when applied to the URS asset allocation targets two of the assumption sets produce real returns slightly below 5.00% and one well over 5.00%. Therefore the decision between leaving the investment return at 8.00% or decreasing it to 7.75% was a close one.

• Recommend no change in the payroll growth assumption of 4.00%

- No membership growth assumed
- The assumed payroll growth rate is not the same as the salary increase assumptions, because of the effect of higher-paid employees leaving and being replaced by lower-paid employees.
- In line with actual payroll growth for last ten years, when membership growth is factored out and actual inflation is factored in.
- Reflects inflation plus an allowance for some additional wage inflation due to productivity improvement

Recommend almost no changes to the salary increase rates

- Three components analyzed: inflation, promotional/longevity increases, and general productivity
- Used for projecting salary and benefits for individual members
- Teachers, public employees, local government employees, judges, police and firefighters analyzed separately

- A 10-year study period was used to dampen the effect of years that appear to be outliers.
- Current rates consist of a 3.00% inflation assumption, a 1.75% productivity component, and service-related rates that provide for larger increases for shorter-service members. The service-related rates differ by group.
- The actual average increase over the last ten years was about 5.9% on an all-members-combined basis. The expected increase was about 6.4%, and the difference almost entirely is due to the difference between actual and expected inflation.
- As already noted, the inflation component is being left unchanged. There was a reasonable match between the assumed productivity component (1.75%) and the average increases for members with at least 15 years of service.
- Generally, the match between the assumed and actual service-related increases was very good.
- We are recommending that the rates of salary increase be lowered for Judges from 4.75% to 4.0%. The productivity component for Judges was less than 0.5%, therefore we felt that a reduction from a 1.75% component to a 1.0% component for Judges was justified. If this trend continues, further reductions may be necessary in the future.

• Recommend modifying the post-retirement mortality rates

- Experience was analyzed separately for (i) disabled retirees, (ii) teachers, (iii) general employees, and (iv) police and firefighters.
- Actual-to-expected ratio for male uniformed officers was 102%, which does not provide enough margin for future mortality improvement. Therefore, we are recommending that a one year age setback be added.
- The actual-to-expected ratios for the teachers were reasonable in the aggregate, 108% for males and 114% for females. However, the fit was poor. Mortality rates were too high at key ages (60 74) and too low at higher ages (85+). Therefore we constructed a new mortality table to match the actual experience of the teachers. We then reduced these rates by 10% to provide room for future mortality improvement.
- Experience for disabled retirees and for state/local general employees showed a reasonable match with the respective assumptions, with some margin for future mortality improvement for the non-disabled retirees.

• Recommend no changes in mortality rates for active members

- Number of deaths among active members (587) is 92% of expected number
- This is a relatively unimportant assumption

• Recommend new disability rates

Even though rates were reset in the last experience study in 2002, it appears that study period covered a relative valley in the number of disabilities. We have seen a significant increase in the number of disabilities the last three years, and these rates are consistent with the rates of disability that we saw in previous studies prior to 2002. Therefore, we are recommending a significant increase in the rates of disability for almost all groups. The new rates produce an actual-to-expected ratio of 95% for all groups over a 10-year period.

• Recommend changes in retirement rates

- The average age for actual new retirees was one year less than the expected retirement age based on the old retirement rates.
- We are recommending changes in retirement rates for most groups. We are increasing rates for retirement at early ages and decreasing rates for older ages.

• Recommend no changes in termination rates except for Firefighters

- Termination rates cover all kinds of terminations from service, other than death, disability, and retirement.
- Termination rates apply to both vested and nonvested members, they apply whether a member takes a refund or a deferred benefit, and they are intended to cover terminations for both voluntary and involuntary causes.
- The ratios of actual-to-expected terminations averaged over 100% for all groups combined, and ranged between 98% (male state employees) and 120% (public safety).
- --- Recommend a change to service-only basis for Firefighters to better match actual pattern of terminations.

• Recommend no changes in percentage of employees electing refunds

Current probabilities of refunds adequately model actual experience

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 three of the funds have a funded ratio (ratio of actuarial assets to accrued liabilities) of at least 80%, and most are over 90%. The only funds with funded ratios below 80% are Salt Lake City and Logan 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 decreased for most funds since last year, primarily due to the asset losses and the changes in the actuarial assumptions.

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 must be computed using a funding period no greater than 30 years. 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 an 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 decreased from 12.60% to 12.08%, and the offset for the Judges System decreased from 19.19% to 18.04%. The decrease in the Firefighter System offset was caused by a decline in the premium tax receipts for a second consecutive year. The ratio of fire insurance premiums to payroll for 2004 was 10.94%, compared with 12.05% for 2003. Similarly, the decrease in the Judges System offset was caused by a second consecutive drop in the amount of court fees.

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.

The 2004 Legislature enacted legislation which created the Public Safety Retirees' Cost-of-Living Increases Restricted Account. As a result of this legislation a portion of future fire insurance premium tax receipts that would normally have been contributed to the Firefighter System may instead be redirected to this new account. The fire insurance premium tax receipts for calendar year 2004 were not sufficient to produce any surplus receipts for this Restricted Account.

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 actuarially determined contribution required to pay for this benefit is 0.80%, 0.03% less 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.

The Board has the authority, under HB83, to hold the contribution rate for the Substantial Substitute at 0.85% (last year's rate). This accounts for the five basis points difference between the contribution rates shown on Exhibit 1(b), cols. (4) and (5) for the state and school funds, the state public safety funds, and the gross rates for judges.

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 during the 1980s, 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.

Public Safety Retirees' Cost-of-Living Increases Restricted Account

The 2004 Legislature enacted legislation which created a new fund under the General Fund of the State of Utah. The legislation appropriated \$1.1 million from the Fire Academy Support Account. The legislation may also require a portion of the fire insurance premium tax receipts that currently go to the Firefighters System to be redirected to this new fund. As previously noted in the Firefighters Offset discussion section, no additional monies were redirected to this fund during calendar year 2004.

As of the valuation date there currently are not sufficient assets in the fund to increase the Public Safety COLA.

There are still many questions that must be answered about this legislation. The legislation did not describe how the increased COLA payments would be paid to the retirees. Will the benefits be paid directly from this new fund? Will assets be transferred from this fund to URS, thereby creating liabilities for URS? If so, how will and who will determine the amount of the assets to be transferred?

The effective date for the creation of the fund was July 1, 2004.

It should also be noted that while the assets are a part of the General Fund, they will not be managed by URS.

Comparison of Calculated Contribution Rates

	[2004 Valuation Results			2005 Valuation Results		
			006 Calculate			007 Calculate	
	Fund/Division	M ember	Employer	Total	M ember	Employ er	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
I.	Public Employees Contributory						
	A. Local Government	6.00%	7.00%	13.00%	6.00%	7.58%	13.58%
	B. State and School	6.00%	8.30%	14.30%	6.00%	9.68%	15.68%
И.	Public Employees Noncontributory						
	A. Local Government	0.00%	11.01%	11.01%	0.00%	11.59%	11.59%
	B. State and School	0.00%	12.79%	12.79%	0.00%	14.17%	14.17%
III.	Public Safety Contributory						
	A. State	12.29%	11.85%	24.14%	12.29%	15.41%	27.70%
	B. Other Division A	12.29%	7.95%	20.24%	12.29%	11.01%	23.30%
	C. Salt Lake City	13.74%	19.34%	33.08%	13.74%	22.99%	36.73%
	D. Provo	13.54%	12.02%	25.56%	13.54%	15.57%	29.11%
	E. Logan	11.13%	10.54%	21.67%	11.13%	14.61%	25.74%
	F. Other Division B	10.50%	12.47%	22.97%	10.50%	15.69%	26.19%
IV.	Public Safety Noncontributory						
	A. State	0.00%	23.00%	23.00%	0.00%	26.70%	26.70%
	B. Other Division A	0.00%	19.34%	19.34%	0.00%	22.38%	22.38%
	C. Salt Lake City	0.00%	31.97%	31.97%	0.00%	35.71%	35.71%
	D. Ogden	0.00%	23.96%	23.96%	0.00%	30.44%	30.44%
	E. Logan	0.00%	21.25%	21.25%	0.00%	25.48%	25.48%
	F. Bountiful	0.00%	18.08%	18.08%	0.00%	19.99%	19.99%
	G. Other Division B	0.00%	22.32%	22.32%	0.00%	25.49%	25.49%
V.	Firefighters						
	A. Division A						
	1. Gross Rate	15.05%	5.65%	20.70%	15.05%	7.87%	22.92%
	2. Less Estimated Offset	-6.44%	-5.65%	-12.09%	-4.21%	-7.87%	-12.08%
	3. Net Rate	8.61%	0.00%	8.61%	10.84%	0.00%	10.84%
	B. Division B						
	1. Gross Rate	16.71% ⁻	2.19%	18.90%	16.71%	4.09%	20.80%
	2. Less Estimated Offset	-8.88%	-2.19%	-11.07%	-7.99%	-4.09%	-12.08%
	3. Net Rate	7.83%	0.00%	7.83%	8.72%	0.00%	8.72%
VI.	Judges	7.0070	0.007.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•=	0.00.0	
	A. Gross Rate	0.00%	27.43%	27.43%	0.00%	27.78%	27.78%
	B. Less Estimated Offset	-0.00%	-19.19%	-19.19%	-0.00%	-18.04%	-18.04%
	C. Net Rate	0.00%	8.24%	8.24%	0.00%	9.74%	9.74%
		0.0070	U.57 70 .	G.24 10	1 0.00%	2.1770	21.710
VII	. Governors and Legislative	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Comparison of Calculated Rates and Adopted Rates

	2004 Valu	ation Results	2005 Va	luation Results
Fund/Division	Calculated	Rates Adopted	Calculated	Rates Recommeded Under HB 83
(1)	(2)	(3)	(4)	(5)
I. Public Employees Contributory				
A. Local Government	7.00%	7.08%	7.58%	7.58%
B. State and School	8.30%	8.89%	9.68%	9.73%
II. Public Employees Noncontributory		1		
A. Local Government	11.01%	11.09%	11.59%	11.59%
B. State and School	12.79%	13.38%	14.17%	14.22%
III. Public Safety Contributory				
A. State	11.85%	12.50%	15.41%	15.46%
B. Other Division A	7.95%	7.95%	11.01%	11.01%
C. Salt Lake City	19.34%	19.96%	22.99%	22.99%
D. Provo	12.02%	12.22%	15.57%	15.57%
E. Logan	10.54%	10.54%	14.61%	14.61%
F. Other Division B	12.47%	12.47%	15.69%	15.69%
V. Public Safety Noncontributory				
A. State	23.00%	23.46%	26.70%	26.75%
B. Other Division A	19.34%	19.34%	22.38%	22.38%
C. Salt Lake City	31.97%	32.52%	35.71%	35.71%
D. Ogden	23.96%	24.30%	30.44%	30.44%
E. Logan	21.25%	21.25%	25.48%	25.48%
F. Bountiful	18.08%	19.68%	19.99%	19.99%
G. Other Division B	22.32%	22.32%	25.49%	25.49%
V. Firefighters				
A. Division A	0.00%	0.00%	0.00%	0.00%
B. Division B	0.00%	0.00%	0.00%	0.00%
VI. Judges	8.24%	8.26%	9.74%	9.79%
VII. Governors and Legislative	0.00%	0.00%	0.00%	0.00%

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

Components of Calculated Contribution Rates

	Fund/Division		Net Normal Cost	Amortization of UAAL	3% Substantial Substitute	Gross Employer Rate (2 + 3 + 4)	Offset	Net Employer Rate (5 - 6)
	(1)		(2)	(3)	(4)	(5)	(6)	(7)
I.	Public Employees Cor	ntributory		•				
	A. Local Government	. 1 }	4.32%	3.26%	0.00%	7.58%	0.00%	7.58%
	B. State and School	12	4.12%	4.76%	0.80%	9.68%	0.00%	9.68%
II.	Public Employees No	ncontributo	ΓV					
	A. Local Government		10.62%	0.97%	0.00%	11.59%	0.00%	11.59%
	B. State and School	16	11.54%	1.83%	0.80%	14.17%	0.00%	14.17%
III.	Public Safety Contribu	itory		,				,
	A. State	22	9.13%	5.48%	0.80%	15.41%	0.00%	15.41%
	B. Other Division A	23	8.68%	2.33%	0.00%	11.01%	0.00%	11.01%
	C. Salt Lake City	24	7.36%	15.63%	0.00%	22.99%	0.00%	22.99%
	D. Provo	26	7.85%	7.72%	0.00%	15.57%	0.00%	15.57%
	E. Logan	27	9.67%	4.94%	0.00%	14.61%	0.00%	14.61%
	F. Other Division B	29	10.43%	5.26%	0.00%	15.69%	0.00%	15.69%
IV.	Public Safety Noncont	tributory						
	A. State	42	20.42%	5.48%	0.80%	26.70%	0.00%	26.70%
	B. Other Division A	43	20.05%	2.33%	0.00%	22.38%	0.00%	22.38%
	C. Salt Lake City	44	20.08%	15.63%	0.00%	35.71%	0.00%	35.71%
	D. Ogden	45	20.07%	10.37%	0.00%	30.44%	0.00%	30.44%
	E. Logan	41	20.54%	4.94%	0.00%	25.48%	0.00%	25.48%
	F. Bountiful	48	20.19%	-0.20%	0.00%	19.99%	0.00%	19.99%
	G. Other Division B	49	20.23%	5.26%	0.00%	25.49%	0.00%	25.49%
٧.	Firefighters							
	A. Division A	31	8.95%	-1.08%	0.00%	7.87%	7.87%	0.00%
	B. Division B	32	7.28%	-3.19%	0.00%	4.09%	4.09%	0.00%
VI.	Judges	37	24.98%	2.00%	0.80%	27.78%	18.04%	9.74%
VII	. Governors and Legisla	tive 14	N/A	N/A	N/A	N/A	N/A	N/A

Determination of Contribution Rate Offsets for Firefighters and Judges

A. Firefighter's Offset

1.	Calendar Year	2002	2003	2004
2.	Fire insurance premium receipts	\$ 9,454,000	\$ 9,059,000	\$ 8,659,000
3.	Combined payroll for both funds*	71,346,531	75,148,042	79,168,069
4.	Premiums as percentage of payroll	13.25%	12.05%	10.94%
5.	Offset: 3-year arithmetic average of percent of payroll			12.08%

B. Judge's Offset

1. Cale	ndar Year	2002	2003	2004
2. Cour	rt fees	\$ 2,381,000	\$ 1,939,000	\$ 1,808,000
3. Payr	oll*	11,095,476	11,163,025	11,819,728
4. Prem	niums as percentage of payroll	21.46%	17.37%	15.30%
5. Offs	et: 3-year arithmetic average of percent of payrol	i		18.04%

^{*} Reported payroll for members active at end of year

Schedule of Funding Progress

	Fund/Division (1)	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded	Funded Ratio (2 / 3)	Covered Payroll (6)	UAAL as a Percentage of Covered Payroll (4 / 6)
1.	Public Employees Contributory						
	A. Local Government	280,286	307,221	26,935	91.2%	57,373	46.9%
	B. State and School	653,688	706,615	52,927	92.5%	77,437	68.3%
	C. Subtotal	933,974	1,013,836	79,862	92.1%	134,810	59.2%
П.	Public Employees Noncontributo	ry					
	A. Local Government	2,027,791	2,123,427	95,636	95.5%	679,766	14.1%
	B. State and School	10.065,617	10,695,574	629,957	94.1%	2,378,721	26.5%
	C. Subtotal	12,093,408	12,819,001	725,593	94.3%	3,058,487	23.7%
Ш.	Public Safety Contributory						
	A. State	60,189	60,889	700	98.9%	891	78.6%
	B. Other Division A	163,333	169,096	5,763	96.6%	17,142	33.6%
	C. Salt Lake City	40,641	40,894	253	99.4%	113	223.9%
	D. Provo	25,302	30,072	4,770	84.1%	4.281	111.4%
	E. Logan	13,835	15,375	1,541	90.0%	2,168	71.1%
	F. Other Division B	36,004	41,960	5,956	85.8%	7,851	75.9%
	G. Subtotal	339,304	358,286	18,983	94.7%	32,446	58.5%
IV.	Public Safety Noncontributory						
	A. State	494,152	569,206	75,054	86.8%	94,996	79.0%
	B. Other Division A	462,173	500,165	37,992	92.4%	112,963	33.6%
	C. Salt Lake City	101,494	146,846	45,353	69.1%	20,131	225.3%
	D. Ogden	40,288	47,666	7,378	84.5%	4,923	149.9%
	E. Logan	676	859	183	78.6%	256	71.5%
	F. Bountiful	12,384	12,337	(47)	100.4%	1,621	-2.9%
	G. Other Division B	74,434	91,420	16,986	81.4%	22,351	76.0%
	H. Subtotal	1,185,601	1,368,499	182,899	86.6%	257,241	71.1%
٧.	Firefighters					-	
	A. Division A	65,259	62,802	(2,457)	103.9%	15,666	-15.7%
	B. Division B	545,429	516,089	(29,340)	105.7%	63,502	-46.2%
	C. Subtotal	610,688	578,891	(31,797)	105.5%	79,168	-40.2%
VI.	Judges	100,814	104,210	3,396	96.7%	11,820	28.7%
VII.	. Governors and Legislative	10,650	8,727	(1,923)	122.0%	521	-369.1%
VII	1.3% Substantial Substitute	119,029	416,443	297,414	28.6%	N/A	N/A
IX.	Grand Total	15,393,468	16,667,893	1,274,427	92.4%	3,574,493	35.7%

Note: Amounts shown are in \$ thousands

Columns may not add to total due to rounding

Comparison of Funded Ratios

	Fu	Funded Ratios as of January 1					
Fund/Division	2005	2004	2003				
(1)	(2)	(3)	(4)				
Public Employees Contributory							
A. Local Government	91.2%	91.3%	90.7%				
B. State and School	92.5%	93.7%	92.6%				
C. Subtotal	92.1%	93.0%	92.1%				
Public Employees Noncontributory							
A. Local Government	95.5%	96.6%	95.8%				
B. State and School	94.1%	96.7% ·	94.3%				
C. Subtotal	. 94.3%	96.7%	94.6%				
. Public Safety Contributory							
A. State	98.9%	99.3%	99.2%				
B. Other Division A	96.6%	99.2%	99.6%				
C. Salt Lake City	99.4%	99.5%	99.5%				
D. Provo	84.1%	87.6%	86.5%				
E. Logan	90.0%	94.8%	95.7%				
F. Other Division B	85.8%	89.9%	89.6%				
G. Subtotal	94.7%	97.2%	97.3%				
Public Safety Noncontributory							
A. State	86.8%	92.3%	90.5%				
B. Other Division A	92.4%	98.2%	99.1%				
C. Salt Lake City	69.1%	72.0%	69.8%				
D. Ogden	84.5%	90.9%	90.4%				
E. Logan	78.6%	92.4%	96.4%				
F. Bountiful	100.4%	101.5%	98.1%				
G. Other Division B	81.4%	87.5%	86.6%				
H. Subtotal	86.6%	91.9%	91.1%				
Firefighters							
A. Division A	103.9%	108.0%	107.9%				
B. Division B	105.7%	107.2%	106.0%				
C. Subtotal	105.5%	107.3%	106.2%				
. Judges	96.7%	99.5%	100.4%				
I. Governors and Legislative	122.0%	123.8%	123.1%				
II. 3% Substantial Substitute	28.6%	26.6%	23.6%				
. Grand Total	92.4%	94.7%	92.8%				

Analysis of Changes in Calculated Contribution Rates

		Calculated			*				Calculated
		Rate From		(Changes in Calcu	lated Rate Due To			Rate
		Jan. 1, 2004	Payroll	Investment		Actuarial		Act. vs Exp.	Jan. 1, 2005
	Fund/Division	Valuation	Growth	Return	Liabilities	Assumptions	Legislation	Contributions	Valuation
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I.	Public Employees Contributory								
	A. Local Government	7.00%	0.00%	0.51%	0.00%	0.06%	0.00%	0.01%	7.58%
	B. State and School	8.30%	-0.01%	0.76%	-0.13%	0.72%	0.00%	0.04%	9.68%
II.	Public Employees Noncontributory								
	A. Local Government	11.01%	0.00%	0.51%	0.00%	0.06%	0.00%	0.01%	11.59%
	B. State and School	. 12.79%	-0.01%	0.76%	-0.13%	0.72%	0.00%	0.04%	14.17%
III.	Public Safety Contributory								
	A. State	11.85%	-0.06%	0.95%	0.61%	2.01%	0.00%	0.05%	15.41%
	B. Other Division A	7.95%	-0.01%	0.75%	0.16%	2.08%	0.00%	0.08%	11.01%
	C. Salt Lake City	19.34%	0.28%	1.26%	-0.52%	2.54%	0.00%	0.09%	22.99%
	D. Provo	12.02%	0.33%	1.03%	-0.22%	2.36%	0.00%	0.05%	15.57%
	E. Logan	10.54%	0.07%	0.85%	0.22%	2.73%	0.00%	0.20%	14.61%
	F. Other Division B	12.47%	-0.35%	0.51%	0.96%	2.16%	0.00%	-0.06%	15.69%
IV.	Public Safety Noncontributory								
	A. State	23.00%	-0.06%	0.95%	0.52%	2.24%	0.00%	0.05%	26.70%
	B. Other Division A	19.34%	-0.01%	0.75%	0.12%	2.10%	0.00%	0.08%	22.38%
	C. Salt Lake City	31.97%	0.28%	1.26%	-0.57%	2.68%	0.00%	0.09%	35.71%
	D. Ogden	23.96%	0.69%	1.56%	1.50%	2.54%	0.00%	0.19%	30.44%
	E. Logan	21.25%	0.07%	0.85%	0.32%	2.79%	0.00%	0.20%	25.48%
	F. Bountiful	18.08%	-0.14%	1.31%	-1.92%	2.66%	0.00%	0.00%	19.99%
	G. Other Division B	22.32%	-0.35%	0.51%	0.90%	2.17%	0.00%	-0.06%	25.49%
V.	Firefighters								٠
	A. Division A	5.65%	0.10%	0.61%	0.15%	1.29%	0.00%	0.07%	7.87%
	B. Division B	2.19%	0.02%	1.56%	-0.07%	0.37%	0.00%	0.02%	4.09%
VI.	Judges	27.43%	-0.02%	1.10%	0.41%	-1.55%	0.00%	0.41%	27.78%
VII.	Governors and Legislative	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VIII.	3% Substantial Substitute	0.83%	-0.01%	0.01%	-0.03%	0.00%	0.00%	0.00%	0.80%

Notes: Rates shown as of Jan. 1, 2004 do not include any adjustments for 2004 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
For paired funds, rates include asset rebalancing at each point of the analysis

Analysis of Financial Experience

	•		Changes in Unfunded Actuarial Accrued Liability Due To						
						Liability Asset (Gain)\Loss (Gain)\Loss	Change in Actuarial Assumptions	Change in Benefit Provisions	Asset Transfers
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I.	Public Employees Contributory A. Local Government B. State and School C. Subtotal	25,162 43,459 68,621	(17) 175 158	2,342 647 2,989	8,020 23,465 31,485	(673) (1,819) (2,492)	0 0	(7,900) (13,000) (20,900)	26,935 52,927 79,862
11.	Public Employees Noncontributory A. Local Government B. State and School C. Subtotal	68,392 331,653 400,045	1,925 (3,151) (1,226)	4,128 3,710 7,838	47,391 255,801 303,192	(34,099) 28,944 (5,155)	0 0	7,900 13,000 20,900	95,636 629,957 725,593
ш.	Public Safety Contributory A. State B. Other Division A C. Salt Lake City D. Provo E. Logan F. Other Division B G. Subtotal	406 1,247 208 3,463 711 3,663 9,698	16 314 2 59 77 114 582	(44) 254 (18) (53) 44 670	2,637 5,348 1,853 667 350 724	772 3,110 499 634 460 1,119	0 0 0 0 0 0	(3,087) (4,510) (2,290) 0 (102) (335) (10,324)	700 5,763 253 4,770 1,541 5,956
IV.	Public Safety Noncontributory A. State B. Other Division A C. Salt Lake City D. Ogden E. Logan F. Bountiful G. Other Division B H. Subtotal	38,857 8,014 37,780 4,031 61 (169) 9,596	160 1,529 451 180 3 2 (246) 2,079	9,964 1,886 (511) 1,084 (6) (496) 3,867	11,163 10,107 2,087 1,245 18 304 1,227	11,824 11,947 3,255 838 6 313 2,207	0 0 0 0 0 0	3,087 4,510 2,290 0 102 0 335	75,054 37,992 45,353 7,378 183 (47) 16,986
V.	Firefighters A. Division A B. Division B C. Subtotal	(4,490) (35,634) (40,124)	198 210 408	(82) (2,279) (2,361)	1,546 14,572 16,118	372 (6,209) (5,837)	0 	0 0	(2,457) (29,340) (31,797)
VI.	Judges	490	595	(284)	2,536	59	0	0	3,396
VII.	Governors and Legislative	(2,094)	(22)	(203)	400	(4)	0	o	(1,923)
VIII.		293,741	1,230	. (523)	1,675	1,291	0	0	297,414
IX.	Grand Total	828,547	3,804	24,097	393,136	24,845	0	0	1,274,426

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

Actuarial Present Value of Future Benefits by Fund and Status

Fund/Division	Retirees and Beneficiaries	Inactive M embers	Active M embers	Total
(1)	(2)	(3)	(4)	. (5)
. Public Employees Contributory				
A. Local Government	102,100	27,738	219,914	349,752
B. State and School	305,805	52,432	394,694	752,931
C. Subtotal	407,905	80,170	614,608	1,102,683
I. Public Employees Noncontributory				
A. Local Government	707,477	122,280	1,904,645	2,734,402
B. State and School	4,344,453	398,332	8,255,599	12,998,384
C. Subtotal	5,051,930	520,612	10,160,244	15,732,786
II. Public Safety Contributory				
A. State	54,258	1,896	5,523	61,677
B. Other Division A	104,417	7,287	88,430	200,134
C. Salt Lake City	40,256	39	739	41,034
D. Provo	13,691	1,686	22,709	38,087
E. Logan	6,369	413	12,234	19,016
F. Other Division B	14,506	1,723	39,489	55,718
G. Subtotal	233,497	13,044	169,124	415,666
V. Public Safety Noncontributory				
A. State	261,305	14,782	460,724	736,811
B. Other Division A	193,405	14,709	517,621	725,735
C. Salt Lake City	71,222	2,281	108,065	181,568
D. Ogden	32,303	809	24,121	57,233
E. Logan	749	1	834	1,584
F. Bountiful	4,175	71	10,218	14,464
G. Other Division B	30,501	3,481	101,762	135,743
H. Subtotal	593,660	36,134	1,223,345	1,853,138
V. Firefighters				
A. Division A	22,521	848	84,377	107,740
B. Division B	284,406	2,576	390,652	677,634
C. Subtotal	306,927	3,424	475,029	785,380
VI. Judges	48,904	1,632	75,595	126,13
VII. Governors and Legislative	4,989	1,733	2,502	9,224
VIII. Grand Total	6,647,812	656,749	12,720,447	20,025,00

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	Retired Members	Disabled Members	Beneficiaries	Total
(1)	(2)	(3)	(4)	(5)
I. Public Employees Contributory				
A. Local Government	82,853	3,422	15,825	102,100
B. State and School	249,190	7,341	49,273	305,805
C. Subtotal	332,043	10,763	65,098	407,905
II. Public Employees Noncontributor	ry ·			
A. Local Government	650,272	15,584	41,621	707,477
B. State and School	4,054,623	56,394	233,436	4,344,453
C. Subtotal	4,704,895	71,978	275,057	5,051,930
III. Public Safety Contributory				
A. State	42,285	1,081	10,893	54,258
B. Other Division A	89,989	1,346	13,081	104,417
C. Salt Lake City .	33,599	680	5,976	40,256
D. Provo	12,639	0	1,052	13,691
E. Logan	6,143	99	. 127	6,369
F. Other Division B	13,211*	660	634	14,506
G. Subtotal	197,866	3,866	31,763	233,497
V. Public Safety Noncontributory				
A. State	249,932	3,340	8,033	261,305
B. Other Division A	185,388	2,026	5,991	193,405
C. Salt Lake City	68,535	1,371	1,316	71,222
D. Ogden	29,957	78	2,267	32,303
E. Logan	749	0	0	749
F. Bountiful	4,132	0	43	4,175
G. Other Division B	29,489	352	659	30,501
H. Subtotal	568,182	7,167	18,309	593,660
/. Firefighters				
A. Division A	18,667	2,302	1,551	22,521
B. Division B	251,088	11,425	21,893	284,406
C. Subtotal	269,755	13,727	23,444	306,927
/I. Judges	42,393	0	6,510	48,904
VII. Governors and Legislative	4,290	0	699	4,989
VIII. Grand Total	6,119,424	107,501	420,880	6,647,812

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	Disabled	Other Vested	Nonvested	Total
(1)	(2)	(3)	(4)	(5)
Public Employees Contributory				
A. Local Government	3,081	23,527	1,130	27,738
B. State and School	7,033	45,372	27	52,432
C. Subtotal	10,114	68,899	1,157	80,170
I. Public Employees Noncontributory				
A. Local Government	15,834	105,506	940	122,280
B. State and School	70,154	323,595	4,583	398,332
C. Subtotal	85,988	429,101	5,523	520,612
II. Public Safety Contributory				
A. State	241	1,641	14	1,896
B. Other Division A	253	6,708	326	7,287
C. Salt Lake City	0	39	1	39
D. Provo	0	1,614	72	1,686
E. Logan	0	405	8	413
F. Other Division B	175 ·	1,444	104	1,723
G. Subtotal	669	11,851	525	13,044
V. Public Safety Noncontributory				
A. State	2,846	11,929	7	14,782
B. Other Division A	2,958	11,744	7	14,709
C. Salt Lake City	1,062	1,219	0	2,281
D. Ogden	351	458	0	809
E. Logan	0	1	0	1
F. Bountiful	0	71	0	71
G. Other Division B	1,219	2,258	4	/ 3,481
H. Subtotal	8,436	27,680	18	36,134
. Firefighters				
A. Division A	0	747	101	848
B. Division B	0	2,396	180	2,576
C. Subtotal	0	3,143	281	3,424
I. Judges	0	1,632	0	1,632
II. Governors and Legislative	0	1,727	6	1,733
/III. Grand Total	105,207	544,033	7,510	656,749

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

	·		Deferred				
	Fund/Division	Retirement	Termination	Disability	Refunds	Death	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
I.	Public Employees Contributory						
	A. Local Government	193,822	15,321	4,179	2,214	4,378	219,914
	B. State and School	363,210	18,663	6,103	54	6,663	394,694
	C. Subtotal	557,032	33,984	10,282	2,268	11,041	614,608
II.	Public Employees Noncontributory						
	A. Local Government	1,662,547	153,527	51,536	1	37,034	1,904,645
	B. State and School	7,537,960	427,309	165,407	2	124,921	8,255,599
	C. Subtotal	9,200,507	580,836	216,943	3	161,955	########
III.	Public Safety Contributory						
	A. State	5,430	15	31	4	43	5,523
	B. Other Division A	84,336	943	1,237	1,054	860	88,430
	C. Salt Lake City	725	3	. 3	1	6	739
	D. Provo	21,518	255	325	311	300	22,709
	E. Logan	11,767	116	119	112	120	12,234
	F. Other Division B	37,623	447	511	421	487	39,489
	G. Subtotal	161,399	1,779	2,226	1,903	1,816	169,124
IV.	Public Safety Noncontributory						
	A. State	438,132	8,880	8,281	0 ີ	5,431	460,724
	B. Other Division A	489,672	11,847	9,963	0	6,139	517,621
	C. Salt Lake City	103,728	1,683	1,376	0	1,278	108,065
	D. Ogden	22,962	454	380	0	325	24,121
	E. Logan	757	30	28	0	18	834
	F. Bountiful	9,929	97	92	0	100	10,218
	G. Other Division B	96,318	2,079	1,838	0	1,526	101,762
	H. Subtotal	1,161,498	25,070	21,958	0	14,817	1,223,345
٧.	Firefighters						
	A. Division A	78,646	489	3,338	666	1,238	84,377
	B. Division B	370,919	1,356	9,300	2,229	6,848	390,652
	C. Subtotal	449,565	1,845	12,638	2,895	8,086	475,029
VI.	Judges	73,510	0	0	0	2,085	75,595
VII.	Governors and Legislative	1,636	819	0	0	47	2,502
VII	. Grand Total	11,605,147	644,333	264,047	7,069	199,847	12,720,447

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

		0		Subtotal		Total
	Fund/Division	Basic Benefit	COLA	(2) + (3)	ROPP	(4) + (5)
	(1)	(2)	(3)	(4)	(5)	(6)
I.	Public Employees Contributory					
	A. Local Government	65,775	35,708	101,483	618	102,100
	B. State and School	181,023	121,014	302,037	3,768	305,805
	C. Subtotal	246,798	156,722	403,520	4,386	407,905
II.	Public Employees Noncontributory		•			
	A. Local Government	502,935	204,542	707,477	0	707,477
	B. State and School	3,053,415	1,291,038	4,344,453	0 .	4,344,453
	C. Subtotal	3,556,350	1,495,580	5,051,930	0	5,051,930
III.	Public Safety Contributory					
	A. State	32,720	20,050	52,770	1,488	54,258
	B. Other Division A	70,083	33,314	103,397	1,019	104,417
	C. Salt Lake City	24,227	15,584	39,811	445	40,256
	D. Provo	9,366	4,265	13,631	61	13,691
	E. Logan	4,515	1,846	6,361	8	6,369
	F. Other Division B	10,668	3,836	14,504	2	14,506
	G. Subtotal	151,579	78,895	230,474	3,023	233,497
IV.	Public Safety Noncontributory					
	A. State	192,907	68,398	261,305	0	261,305
	B. Other Division A	145,296	48,109	193,405	0	193,405
	C. Salt Lake City	51,817	19,405	71,222	0	71,222
	D. Ogden	23,112	9,092	32,204	99	32,303
	E. Logan	. 576	173	749	0	749
	F. Bountiful	2,890	1,277	4,167	8	4,175
	G. Other Division B	23,196	7,305	30,501	0	30,501
	H. Subtotal	439,794	153,759	593,553	107	593,660
٧.	Firefighters					
	A. Division A	15,528	6,817	22,345	176	22,521
	B. Division B	187,472	93,971	281,443	2,964	284,406
	C. Subtotal	203,000	100,788	303,788	3,140	306,927
VI.	Judges	31,699	17,205	48,904	0	48,904
VII.	Governors and Legislative	3,323	1,666	4,989	0	4,989
VIII	. Grand Total	4,632,543	2,004,615	6,637,158	10,656	6,647,812

Notes: Amounts shown are in \$ thousands

· Normal Cost

	Fund/Division	Retirement	Deferred Termination	Disability	Refunds	Group Tinsurance	Other Death	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I.	Public Employees Contributory A. Local Government B. State and School	7.13% 6.85%	1.24% 1.02%	0.39% 0.35%	1.34% 1.71%	0.16% 0.16%	0.22% 0.19%	10.32% 10.12%
II.	Public Employees Noncontributory A. Local Government B. State and School	8.29% 9.56%	1.65% 1.39%	0.47% 0.41%	0.00% 0.00%	0.16% 0.16%	0.21% 0.18%	10.62% 11.54%
III.	Public Safety Contributory A. State B. Other Division A C. Salt Lake City D. Provo E. Logan F. Other Division B	18.21% 18.19% 18.23% 18.35% 18.12% 18.20%	0.58% 0.49% 0.44% 0.48% 0.45% 0.48%	1.16% 0.73% 0.60% 0.75% 0.56% 0.69%	1.02% 1.24% 1.43% 1.32% 1.26% 1.10%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.45% 0.32% 0.40% 0.49% 0.41% 0.46%	21.42% 20.97% 21.10% 21.39% 20.80% 20.93%
IV.	Public Safety Noncontributory A. State B. Other Division A C. Salt Lake City D. Ogden E. Logan F. Bountiful G. Other Division B	18.39% 18.22% 18.22% 18.18% 18.57% 18.30% 18.26%	0.84% 0.80% 0.76% 0.77% 0.79% 0.82% 0.78%	0.84% 0.71% 0.66% 0.67% 0.72% 0.74% 0.71%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	0.35% 0.32% 0.44% 0.45% 0.46% 0.33% 0.48%	20.42% 20.05% 20.08% 20.07% 20.54% 20.19% 20.23%
V.	Firefighters A. Division A B. Division B	20.94% 21.03%	0.26% 0.22%	1.61% 1.35%	0.75% 0.81%	0.00% 0.00%	0.44% 0.58%	24.00% 23.99%
VI.	Judges .	23.78%	0.00%	0.00%	0.00%	0.00%	1.20%	24.98%
VII.	Governors and Legislative	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Net Employer Normal Cost

	Fund/Division	Total Normal Cost	M ember Rate	Net Employer Normal Cost (2) - (3)
	(1)	(2)	(3)	(4)
I.	Public Employ ees Contributory		•	
	A. Local Government	10.32%	6.00%	4.32%
	B. State and School	10.12%	6.00%	4.12%
II.	Public Employees Noncontributory			-
	A. Local Government	10.62%	0.00%	10.62%
•	B. State and School	11.54%	0.00%	11.54%
III.	Public Safety Contributory			
	A. State	21.42%	12.29%	9.13%
	B. Other Division A	20.97%	12.29%	8.68%
	C. Salt Lake City	21.10%	13.74%	7.36%
	D. Provo	21.39%	13.54%	7.85%
	E. Logan	20.80%	11.13%	9.67%
	F. Other Division B	20.93%	10.50%	10.43%
IV.	Public Safety Noncontributory			
	A. State	20.42%	0.00%	20.42%
	B. Other Division A	20.05%	0.00%	20.05%
	C. Salt Lake City	20.08%	0.00%	20.08%
	D. Ogden	20.07%	0.00%	20.07%
	E. Logan	20.54%	0.00%	20.54%
	F. Bountiful	20.19%	0.00%	20.19%
	G. Other Division B	20.23%	0.00%	20.23%
٧.	Firefighters			
	A. Division A	24.00%	15.05%	8.95%
	B. Division B	23.99%	16.71%	7.28%
VI.	Judges	24.98%	0.00%	24.98%
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

		Actuarial				Actuarial Accrued
		Present Value of	Actuarial Prese	ent Value of Futur	e Normal Costs	Liability
	Fund/Division	Future Benefits	M embers	Employers	Total	(2) - (5)
	(1)	(2)	(3)	(4)	(5)	(6)
I.	Public Employees Contributory					
	A. Local Government	349,752	25,116	17,414	42,530	307,221
	B. State and School	752,931	27,901	18,415	46,316	706,615
	C. Subtotal	1,102,683	53,017	35,829	88,846	1,013,836
11.	Public Employees Noncontributo	rv				
	A. Local Government	2,734,402	0	610,974	610,974	2,123,427
	B. State and School	12,998,384	0	2,302,810	2,302,810	10,695,574
	C. Subtotal	15,732,786	0	2,913,784	2,913,784	12,819,001
III.	Public Safety Contributory					
	A. State	61,677	452	337	789	60,889
	B. Other Division A	200,134	18,190	12,847	31,037	169,096
	C. Salt Lake City	41,034	91	49	140	40,894
	D. Provo	38,087	5,073	2,941	8,014	30,072
	E. Logan	19,016	1,948	1,693	3,641	15,375
	F. Other Division B	55,718	6,902	6,856	13,758	41,960
	G. Subtotal	415,666	32,656	24,723	57,379	358,286
IV.	Public Safety Noncontributory					
	A. State	736,811	0	167,604	167,604	569,206
	B. Other Division A	725,735	0	225,570	225,570	5.00,165
	C. Salt Lake City	181,568	0	34,722	34,722	146,846
	D. Ogden	57,233	0	9,566	9,566	47,666
	E. Logan	1,584	0	725	725	859
	F. Bountiful	14,464	0	2,128	2,128	12,337
	G. Other Division B	135,743	0	44,324	44,324	91,420
	H. Subtotal	1,853,138	0	484,639	484,639	1,368,499
V.	Firefighters					
	A. Division A	107,746	28,183	16,760	44,943	62,802
	B. Division B	677,634	112,523	49,022	161,545	516,089
	C. Subtotal	785,380	140,706	65,782	206,488	578,891
VI.	Judges	126,131	0	21,921	21,921	104,210
VII.	Governors and Legislative	9,224	0	498	498	8,727
VIII	. Grand Total	20,025,008	226,379	3,547,176	3,773,555	16,251,450

Notes: Amounts shown are in \$ thousands

Columns may not add to total due to rounding

Actuarial Accrued Liability Details of Member and Employer Financing

		Inac	ctive Members	5	Ac	tive M embers	
	Fund/Division	Accumulated Member Contributions	Employer Financed	Total	Accumulated Member Contributions	Employer Financed	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
I.	Public Employees Contributory	\- /	ζ-,	()	ζ-7	(-)	(.,
1.	A. Local Government	23,889	3,849	27,738	79,238	98,146	177,384
	B. State and School	44,394	8,038	52,432	148,634	199,743	348,377
	C. Subtotal	68,283	11,887	80,170	227,872	297,889	525,761
		•	11,007	00,170	227,072	277,007	323,701
II.	Public Employees Noncontributor	-					
	A. Local Government	35,876	86,404	122,280	134,998	1,158,672	1,293,670
	B. State and School	100,285	298,047	398,332	579,767	5,373,022	5,952,789
	C. Subtotal	136,161	384,451	520,612	714,765	6,531,694	7,246,459
III.	Public Safety Contributory						
	A. State	1,089	807	1,896	1,937	2,797	4,734
	B. Other Division A	5,191	2,096	7,287	23,689	33,704	57,393
	C. Salt Lake City	39	0	39	263	336	599
	D. Provo	978	708	1,686	6,945	7,750	14,695
	E. Logan	167	246	413	3,238	5,355	8,593
	F. Other Division B	1,347	376	1,723	8,789	16,942	25,731
	G. Subtotal	8,811	4,233	13,044	44,861	66,884	111,745
ł٧.	Public Safety Noncontributory						
	A. State	1,853	12,929	14,782	10,593	282,526	293,119
	B. Other Division A	3,199	11,510	14,709	13,301	278,750	292,051
	C. Salt Lake City	197	2,084	2,281	3,442	69,901	73,343
	D. Ogden	348	461	809	1,386	13,169	14,555
	E. Logan	0	1	1	0	. 109	109
	F. Bountiful	3	68	71	552	7,539	8,091
	G. Other Division B	1,280	2,201	3,481	4,433	53,005	57,438
	H. Subtotal	6,880	29,254	36,134	33,707	704,999	738,706
V.	Firefighters						
	A. Division A	538	310	848	10,216	29,217	39,433
	B. Division B	1,959	617	2,576	69,041	160,065	229,106
	C. Subtotal	2,497	927	3,424	79,257	189,282	268,539
VI.	Judges	648	984	1,632	7,410	46,264	53,674
VII.	Governors and Legislative	147	1,586	1,733	22	1,983	2,005
VIII	. Grand Total	223,427	433,322	656,749	1,107,894	7,838,995	8,946,889

Notes: Amounts shown are in \$ thousands

Number of Members

				Inactive Membe	rs	Members Receiving Benefits			
	Fund/Division	Active	Disabled	Vested	Nonvested	Regular Retirees	Disabled Retirees	Beneficiaries	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I.	Public Employees Contributory								
	A. Local Government	1,444	24	727	572	1,216	30	328	4,341
	B. State and School	1,874	59	890	13	3,985	107	884	7,812
	C. Subtotal	3,318	83	1,617	585	5,201	137	1,212	12,153
II.	Public Employees Noncontributory								
	A. Local Government	18,061	177	6,932	521	3,597	111	309	29,708
	B. State and School	67,441	671	20,733	1,464	18,071	463	1,231	110,074
	C. Subtotal .	85,502	848	27,665	1,985	21,668	574	1,540	139,782
III.	Public Safety Contributory								
	A. State	21	1	39	19	215	7	129	431
	B. Other Division A	408	1	262	78	404	7	133	1,293
	C. Salt Lake City	2	0	5	1	145	5	59	217
	D. Provo	92	0	23	11	40	0	10	176
	E. Logan	50	0	6	1	20	1	2	80
	F. Other Division B -	167	1	54	20	53	4	7	306
	G. Subtotal	740	3	389	130	877	24	340	2,503
IV.	Public Safety Noncontributory								
	A. State	2,436	18	822	2	727	18	45	4,068
	B. Other Division A	2,911	21	952	1	553	10	28	4,476
	C. Salt Lake City	403	4	76	0	166	4	14	667
	D. Ogden .	121	1	32	0	105	1	24	284
	E. Logan	9	0	1	0	i	0	0	11
	F. Bountiful '	33	0	8	0	17	0	2	60
	G. Other Division B	515	5	148	2	89	<u> </u>	3	763
	H. Subtotal	6,428	49	2,039	5	1,658	34	116	10,329
٧.	Firefighters						_		
	A. Division A	354	0	68	26	62	10	10	530
	B. Division B	1,254	0	83	60	646	49	171	2,263
	C. Subtotal	1,608	0	151	86	708	59	181	2,793
VI.	Judges	108	0	6	0	54	0	30	198
VII.	Governors and Legislative	97	0	97	6	166	0	55	421
VIII	. Grand Total	97,801	983	31,964	2,797	30,332	828	3,474	168,179

Active Membership Statistics

	Fund/Division	Number	Total Compensation \$ Thousands	Average Compensation (\$'s)	Accumulated Member Contributions With Interest \$ Thousands	Average Age	A verage Service
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
I.	Public Employees Contributory A. Local Government B. State and School C. Subtotal	1,444 1,874 3,318	57,373 77,437 134,810	39,732 41,322 40,630	79,238 148,634 227,872	47.5 53.0 50.6	14.6 22.7 19.2
II.	Public Employees Noncontributory A. Local Government B. State and School C. Subtotal	18,061 67,441 85,502	679,766 2,378,721 3,058,487	37,637 35,271 35,771	134,998 579,767 714,765	43.9 44.7 44.5	8.9 10.4 10.1
III.	Public Safety Contributory A. State B. Other Division A C. Salt Lake City D. Provo E. Logan F. Other Division B G. Subtotal	21 408 2 92 50 167	891 17,142 113 4,281 2,168 7,851	42,430 42,014 56,400 46,531 43,361 47,014	1,937 23,689 263 6,945 3,238 8,789	52.5 40.1 44.0 39.3 39.5 38.9	18.1 10.4 18.0 10.7 13.1 10.3
IV.	Public Safety Noncontributory A. State B. Other Division A C. Salt Lake City D. Ogden E. Logan F. Bountiful G. Other Division B H. Subtotal	2,436 2,911 403 121 9 33 515 6,428	94,996 112,963 20,131 4,923 256 1,621 22,351	38,997 38,806 49,952 40,689 28,483 49,124 43,400	10,593 13,301 3,442 1,386 0 552 4,433	40.8 37.1 39.4 36.6 30.3 45.7 37.2	9.7 8.0 11.6 8.8 1.4 16.2 7.5
V.	Firefighters A. Division A B. Division B C. Subtotal	354 1,254 1,608	15,666 63,502 79,168	44,254 50,640 49,234	10,216 69,041 79,257	38.7 40.0 39.7	7.8 11.8 10.9
VI.	Judges	108	11,820	109,442	7,410	55.7	11.1
VII.	и	97 97,801	521 3,574,493	5,374 36,549	22 1,107,894	52.8 44.3	6.9 10.3

Retired Member Statistics (Including Disabled Retirees and Beneficiaries)

Fund/Division	Number	Annual Total Benefits (\$ Thousands)	A verage M onthly Benefit (\$'s)
(1)	(2)	(3)	(4)
I. Public Employees Contributory			
A. Local Government	1,574	11,974	634
B. State and School C. Subtotal	4,976	41,656	698
C. Subtotal	6,550	53,630	682
I. Public Employees Noncontributory		•	
A. Local Government	4,017	60,260	1,250
B. State and School	19,765	366,553	1,545
C. Subtotal	23,782	426,813	1,496
II. Public Safety Contributory		•	
II. Public Safety Contributory A. State	. 351	· 5,553	1,318
B. Other Division A	544	9,038	1,318
C. Salt Lake City	209	3,928	1,566
D. Provo	50	1,148	1,913
E. Logan	23	492	1,784
F. Other Division B	64	1,043	1,358
G: Subtotal	1,241	21,202	1,424
V. Public Safety Noncontributory			ŧ
A. State	790	19,793	2,088
B. Other Division A	591	14,347	2,023
C. Salt Lake City	184	5,291	2,396
D. Ogden	130	2,559	1,640
E. Logan	1	50	4,204
F. Bountiful	19	346	1,519
G. Other Division B	93	2,122	1,901
H. Subtotal	1,808	44,508	2,051
V. Firefighters			
A. Division A	82	1,699	1,727
B. Division B	866	22,543	2,169
C. Subtotal	948	24,242	2,131
/I. Judges	. 84	4,431	4,396
/II. Governors and Legislative	221	577	218
/III. Grand Total	34,634	575,403	1,384

Market Value of Assets (All Retirement Systems Combined)

Item	December 31, 2004	December 31, 2003	
(1)	(2)	(3)	
1. Cash	163	197	
2. Accrued income receivable from:			
a. Member contributions	589	778	
b. Employer contributions	26,121	22,755	
c. Fire insurance premium tax / court fees	2,479	30	
d. Investments	<u>341,168</u>	407,285	
e. Total	370,357	430,848	
3. Investments			
a. Short-term securities - domestic	985,416	1,415,410	
b. Short-term securities - international	69,095	166,741	
c. Bonds - domestic	2,873,734	2,271,381	
d. Bonds - international	880,628	790,632	
e. Equities - domestic	6,520,755	5,423,516	
f. Equities - international	3,374,875	2,646,582	
g. Alternative investments	552,534	654,294	
h. Real estate	1,673,204	1,187,701	
i. Mortgage loans	<u>6,659</u>	6,662	
j. Total	16,936,900	14,562,919	
4. Other	2,315,031	1,510,613	
5. Total assets	19,622,451	16,504,577	
6. Liabilities	•		
a. Securities lending liability	(2,310,958)	(1,505,524)	
b. Other accounting liabilities	(1,217,114)	(693,736)	
c. Reserves	(10,285)	(56,185)	
d. Total	(3,538,357)	(2,255,445)	
7. Net assets	16,084,094	14,249,132	

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

Reconciliation of Market Value of Assets (MVA)

	Fund/Divis io n	MVA as of Dec. 31, 2003	Contributions	Benefits and Refunds	Earnings, Net of Expenses	Trans fers	MVA as of Dec. 31, 2004
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
I	Public Employees Contributory A. Local Government B. State and School C. Subtotal	257,761 632,047 889,808	7,749 10,838 18,587	(13,003) (46,936) (59,939)	34,424 82,299 116,722	(2,973) (12,814) (15,787)	283,960 665,433 949,393
IL	Public Employees Noncontributory A. Local Government B. State and School C. Subtotal	1,857,696 9,317,583 11,175,279	72,639 289,434 362,073	(60,813) (366,944) (427,757)	255,288 1,269,780 1,525,068	4,644 22,276 26,920	2,129,453 10,532,128 12,661,581
Щ	Public Safety Contributory A. State B. Other Division A C. Salt Lake City D. Provo E. Logan F. Other Division B G. Subtotal	58,182 153,199 38,782 23,748 13,250 31,844 319,005	217 3,270 37 1,139 433 1,700	(6,189) (9,911) (4,143) (1,366) (488) (1019) (23,116)	7,455 20,324 5,003 3,215 1,736 4,431 42,65	(656) (1683) (107) (305) (558) 403 (2,905)	59,011 165,199 39,571 26,431 14,372 37,360 341,944
IV.	Public Safety Noncontributory A. State B. Other Division A C. Salt Lake City D. Ogden E. Logan F. Bountiful G. Other Division B H. Subtotal	451,982 422,480 94,574 38,676 140 11,452 65,858	21,133 20,675 6,389 1,168 40 310 4,848 54,563	(19,461) (14,306) (5,301) (2,566) (51) (384) (2,103)	62,241 58,309 13,015 5,161 90 1,564 9,261	4,600 1,385 121 (444) 573 11 661	520,494 488,543 108,798 41,994 793 12,953 78,524
V.	Firefighters A. Divis ion A B. Divis ion B C. Subtotal	59,202 510,958 570,160	2,988 11,962 14,950	(1,817) (23,552) (25,369)	8,127 69,130 77,257	(173) 1,153 980	68,328 569,651 637,979
VI	Judges	94,467	2,539	(4,518)	12,790	203	105,483
VIL	Governors and Legislative	10,390	0	(717)	1,376	17	11,066
VIII	3% Substantial Substitute	104,861	21,413	(168)	14,779	(16,337)	124,549
IX.	Grand Total	14,249,132	480,921	(585,756)	1,939,798	(3)	16,084,094

Notes:

Amounts shown are in \$ thousands

Investment Return Rates for Prior Year

	Basis of Assets		
	Market Value	Actuarial Value	
	(1)	(2)	
1. Beginning of year assets	14,249,132	14,718,182	
2. Contributions to fund during year	480,920	480,920	
3. Benefit payments during year (including refunds of contributions)	(585,756)	(585,756)	
4. Transfers to and (from) URS	0	0	
5. Investment income, net of investment and administrative expenses	1,939,798	780,121	
6. End of year assets	16,084,094	15,393,467	
7. Investment return rate	13.7%	5.3%	

Note: Amounts shown are in \$ thousands

Summary of Investment Return Rates

Year	Return on Market Value	Return on Actuarial Value
(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%
2003	25.6%	8.0%
2004	13.7%	5.3%

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

1. Market value of assets

16,084,094

2. Adjustments to smooth asset values based on excess/shortfall of expected investment income for:

Year	Total <u>Excess/(Shortfall)</u>	Weight Subtracted	Weighted <u>Amount</u>
a. 2004	804,061	80%	643,253
b. 2003	2,007,188	60%	1,204,316
c. 2002	(2,009,531)	40%	(803,811)
d. 2001	(1,765,658)	20%	(353,131)
e. 2000	(814,093)	0%	0
f. Total			690,627

3.	Preliminary actuarial	value of assets	(1-2f)	15	5,393,467
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4. Corridor Limits

a. 80% of market value	12,867,275
b. 120% of market value	19,300,913
c. Actuarial value (Item 3, not more than 4b, not less than 4a)*	15,393,467
Ratio of actuarial value to market value	95.7%

Note: Amounts shown are in \$ thousands

Transfer Adjustments to Asset Values

	Market Valu	e of Assets (MVA) at Jan	uary 1 2005	Actuarial Val	nuary 1 2005	
	MVA Before	Trans fer	MVA After	AVA Before	Trans fer	AVA After
Fund/Divis io n	Trans fer	Amount	Trans fer	<u>Trans fer</u>	Amount	<u>Trans fer</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Public Employees Contributory	202.040	8,264	292,224	272,386	7,900	280,286
A. Local Government	283,960 665,433	8,204 13,585	679,018	640,688	13,000	653,688
B. State and School C. Subtotal	949,393	21849	971,242	913,074	20,900	933,974
	242,523	2 4047	J7 4242	70,074	20,700	,,,,,,,
Public Employees Noncontributory ; A. Local Government	2,129,453	(8,264)	2,121,189	2,035,691	(7,900)	2.027,791
A. Local Government ! B. State and School !	10,532,128	(13,585)	10,518,543	10.078.617	(13,000)	10,065,617
C. Subtotal	12,661,581	(21,849)	12,639,732	12,114,308	(20,900)	12,093,408
Public Safety Contributory	_,,,,_,,	\- /- -/	•		• • •	
A. State	59,011	3,231	62,242	57,102	3,087	60,189
B. Other Division A	165,199	4,721	169,920	158,823	4,510	163,333
C. Salt Lake City	39,571	2,401	41,972	38,351	2,290	40,641
D. Provo	26,431	0	26,431	25,302	0	25,302
E. Logan	14,372	104	14,476	13,733	102	13,835
F. Other Division B	37,360	352	37,712	35,669	335	36,004
G. Subtotal	341944	10,809	352,753	328,980	10,324	339,304
Public Safety Noncontributory						
A. State	520,494	(3,231)	517,263	497,239	(3,087)	494,152
B. Other Division A	488,543	(4,721)	483,822	466,683	(4,510)	462,173
C. Salt Lake City	108,798	(2,401)	106,397	103,784	(2,290)	101,494
D. Ogden	41994	0	41,994	40,288	0	40,288
E. Logan	793	(104)	689	777	(102)	676
F. Bountiful	12,953	0	12,953	12,384	0	12,384
G. Other Division B	78,524	(352)	78,172	74,769	(335)	74,434
H. Subtotal	1,252,099	(10,809)	1,241,290	1,195,924	(10,324)	1,185,601
Firefighters		•				
A. Division A	68,328	0	68,328	65,259	0	65,259
B. Division B	569,651	0	569,651	545,429	0	545,429
C. Subtotal	637,979	. 0	637,979	610,688	0	610,688
Judges	105,483	. 0	105,483	100,814	0	100,814
Governors and Legislative	11,066	0	11,066	10,650	0	10,650
3% Substantial Substitute	124,549	0	124,549	119,029	0	119,029
Grand Total	16,084,094	0	16,084,094	15,393,467	0	15,393,468

Notes: Amounts shown are in \$ thousands

Contribution Rate for 3% Substantial Substitute

1.	Actuarial accrued liability, all funds combined									
	a. Retirees	198,288								
	b. Inactives	12,634								
	c. Actives	205,521								
	d. Total	416,443								
2.	Actuarial value of assets	119,029								
3.	Unfunded actuarial accrued liability	297,414								
4.	Covered compensation of state funds that will pay for benefit	2,642,868								
5.	Recommended rate (20-year funding period and 4.00% PGR)	0.80%								

Notes: Amounts shown are in \$ thousands

Liabilities for 3% Substantial Substitute

	Fund/Division	Retirees and Beneficiaries	Inactive M embers	Active Members	Total	
	(1)	(2)	(3)	(4)	(5)	
I. 1	Public Employees Contributory					
	A. Local Government	3,040	702	5,468	9,210	
1	B. State and School	9,150	1,564	11,838	22,551	
(C. Subtotal	12,190	2,266	17,306	31,761	
II. I	Public Employees Noncontributory					
1	A. Local Government	20,608	2,137	26,212	48,956	
1	B. State and School	129,875	7,120	136,488	273,483	
(C. Subtotal	150,483	9,257	162,700	322,439	
III. 1	Public Safety Contributory					
	A. State	1,622	54	166	1,842	
	B. Other Division A	3,142	167	1,575	4,884	
(C. Salt Lake City	1,235	0	22	1,258	
1	D. Provo	419	40	350	809	
1	E. Logan	195	11	205	412	
I	F. Other Division B	442	34	522	998	
(G. Subtotal	7,055	306	2,840	10,203	
IV. J	Public Safety Noncontributory					
1	A. State	7,828	297	6,132	14,257	
1	B. Other Division A	5,750	244	5,103	11,097	
(C. Salt Lake City	2,163	44	1,660	3,867	
1	D. Ogden	983	18	307	1,309	
1	E. Logan	23	0	0	23	
1	F. Bountiful	128	1	219	348	
(G. Other Division B	919	81	1,073	2,073	
]	H. Subtotal	17,794	685	14,494	32,974	
V.]	Firefighters					
	A. Division A	652	14	847	1,513	
	B. Division B	8,546	34	5,870	14,451	
	C. Subtotal	9,198	48	6,717	15,964	
VI.	Judges	1,426	32	1,435	2,894	
VII.	Governors and Legislative	140	41	29	209	
VIII. (Grand Total	198,286	12,635	205,521	416,444	

Notes:

Amounts shown are in \$ thousands

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

Plan							Retirement Benefits in	Average	Market	
Year		1			Covered		Force Annual	Retiree	Value	Actuarial Value
Beginning		Participa	int Counts		Payroll		Amount	Monthly	of Assets	of Assets
January 1st	Active '	Inactive	Retired	Total	(\$ Thousands)	Average Pay	(\$ Thousands)	Benefit	(\$ Thousands)	(\$ Thousands)
(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
2004	3,444 ⁾	2,293	6,916	12,653	134,144	38,950	53,815	648	873,520	913,948
2005	3,318	2,285	6,550	12,153	134,810	40,630	53,630	682	971,242	933,974

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

Plan Year Beginning		Participa	ant Counts		Covered Payroll		Retirement Benefits in Force Annual Amount	Average Retiree Monthly	Market Value of Assets	Actuarial Value of Assets
January 1st	Active	Inactive	Retired	Total	(\$ Thousands)	Average Pay	(\$ Thousands)	Benefit	(\$ Thousands)	(\$ Thousands)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
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
2004	84,039	28,673	22,202	134,914	2,915,008	34,686	388,305	1,457	11,191,566	11,551,092
2005	85,502	30,498	23,782	139,782	3,058,487	35,771	426,813	1,496	12,639,732	12,093,408

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

Plan Year		Dominion	at Counts		Covered		Retirement Benefits in Force Annual	Average Retiree	Market Value	Actuarial Value
Beginning	<u> </u>	Participa			Payroll		Amount	Monthly	of Assets	of Assets
January 1st	Active	Inactive	Retired	Total	(\$ Thousands)	Average Pay	(\$ Thousands)	Benefit	(\$ Thousands)	(\$ Thousands)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
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
2004	759	519	1,249	2,527	31,688	41,749	20,759	1,385	316,514	331,432
2005	740	522	1,241	2,503	32,446	43,846	21,202	1,424	352,753	339,304

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

							Retirement			
Plan							Benefits in	Average	Market	Actuarial
Year					Covered		Force Annual	Retiree	Value	Value
Beginning		Participa	nt Counts		Payroll		Amount	Monthly	of Assets	of Assets
January 1st	Active	Inactive	Retired	Total	(\$ Thousands)	Average Pay	(\$ Thousands)	Benefit	(\$ Thousands)	(\$ Thousands)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
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
2004	6,324	1,915	1,617	9,856	243,745	38,543	38,614	1,990	1,087,654	1,117,457
2005	6,428	2,093	1,808	10,329	257,241	40,019	44,508	2,051	1,241,290	1,185,601

Historical Summary of Statistical Data Firefighters Retirement System

Plan Year					Covered		Retirement Benefits in Force Annual	Average Retiree	Market Value	Actuarial Value
Beginning		Participa	nt Counts		Payroll		Amount	Monthly	of Assets	of Assets
January 1st	Active	Inactive	Retired	Total	(\$ Thousands)	Average Pay	(\$ Thousands)	Benefit	(\$ Thousands)	(\$ Thousands)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
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
2004	1,577	222	920 √	2,719	75,148	47,653	22,859	2,071	570,160	589,502
2005	1,608	237	948	2,793	79,168	49,234	24,242	2,131	637,979	610,688

Historical Summary of Statistical Data Judges Retirement System

Plan Year					_ Covered		Retirement Benefits in Force Annual Amount	Average Retiree Monthly	Market Value of Assets	Actuarial Value of Assets
Beginning			nt Counts		Payroll			-		
January 1st	Active	Inactive	Retired	Total	(\$ Thousands)	Average Pay	(\$ Thousands)	Benefit	(\$ Thousands)	(\$ Thousands)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
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
2004	106	5	83 ⁷	194	11,163	105,311	4,306	4,324	94,467	97,412
2005	108	6	84	198	11,820	109,442	4,431	4,396	105,483	100,814

Historical Summary of Statistical Data Legislative and Governors Retirement System

Plan Year				•	Covered	,	Retirement Benefits in Force Annual	Average Retiree	Market Value	Actuarial Value
Beginning		Participa	nt Counts		Payroll		Amount	Monthly	of Assets	of Assets
January 1st	Active	Inactive	Retired	Total	(\$ Thousands)	Average Pay	(\$ Thousands)	Benefit	(\$ Thousands)	(\$ Thousands)
(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
2004	100	110	223	433	610	6,097	573	214	10,390	10,906
2005	97	103	221	421	521	5,374	577	218	11,066	10,650

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. For the Public Safety and Firefighters Systems, 25% of deaths are assumed to be service related. Rates at selected ages are shown:

		Active Male Members	
	Local Government		Public Safety and
Age	and Public Employees	Public Educators	Firefighters ¹
20	.000585	.000150	.000520
25	.000455	.000150	.000520
30	.000520	.000225	.000520
35	.000780	.000225	.000520
40	.000975	.000450	.000715
45	.001235	.000750	.001235
50	.001820	.001500	.002080
55	.003055	.002700	.003250
60	.004940	.004275	.004420
65	.007540	.005400	.005590
70	.010790	.006000	.006695

	Active Fem	ale Members
·	Local Government	
Age	and Public Employees	Public Educators
20	.000325	.000420
25	.000325	.000180
30	.000325	.000060
35	.000390	.000180
40	.000520	.000360
45	.000780	.000720
50	.001235	.001080
55	.001820	.001500
60	.002600	.002040
65	.003575	.002820
70	.004745	.003900

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. For the Public Safety and Firefighters Systems, 25% of disabilities are assumed to be service related. Rates at selected ages are shown:

		A	ctive Male Memb	ers	
Age	Local Government	Public Employees	Public Educators	Public Safety ¹	Firefighters ¹
20	.000220	.000240	.000120	.000400	.000450
25	.000330	.000360	.000180	.000600	.000675
30	.000660	.000720	.000360	.001200	.001350
35	.000990	.001080	.000540	.001800	.002025
40	.001320	.001440	.000720	.002400	.002700
45	.002200	.002400	.001200	.004000	.004500
50	.002860	.003120	.001560	.005200	.005850
55	.004510	.004920	.002460	.008200	.009225
60	.006160	.006720	.003360	.011200	.012600

		Active Female Members	
Age	Local Government	Public Employees	Public Educators
20	.000220	.000240	.000120
25	.000330	.000360	.000180
30	.000660	.000720	.000360
35	.000990	.001080	.000540
40	.001320	.001440	.000720
45	.002200	.002400	.001200
50	.002860	.003120	.001560
55	.004510	.004920	.002460
60	.006160	.006720	.003360

Males and female 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	0.1219	0.0688	0.1096			
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 I	Female Membe	ers - Local Go	vernment				
	Years of Service								
Age	0	1	2	3	4	5+			
20	0.2924	0.2525	0.2220	0.2004	0.1903	0.1881			
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 Membe	rs - Public Em	ployees				
	Years of Service								
Age	0	1	2	3	4	5+			
20	0.4502	0.3451	0.2749	0.2342	0.2043	0.1639			
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 Memb	ers - Public Er	nployees				
	Years of Service								
Age	0	1	2	3	4	5+			
20	0.3305	0.3401	0.3253	0.2909	0.2521	0.2804			
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	0.0930	0.0390	0.0889			
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 Memb	ers - Public E	ducators					
		Years of Service								
Age	0	1	2	. 3	4	5+				
20 ,	0.2727	0.2674	0.2532	0.2392	0.1783	0.1920				
25	0.2257	0.1962	0.1877	0.1791	0.1449	0.1304				
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	0.0668	0.0631	0.0869				
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				

Years of Service	Active Male and Female Members - Firefighters					
0	0.070					
1	0.060					
2	0.050					
3	0.040					
4	0.030					
5	0.020					
6	0.020					
7	0.020					
8	0.020					
9	0.020					
10	0.015					
11	0.015					
12	0.015					
13	0.015					
14	0.015					
15+	0.000					

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%					
ļ									
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%					

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+		
45	0.000	0.000	0.000	0.000	0.000	0.025	0.160		
46	0.000	0.000	0.000	0.000	0.000	0.025	0.160		
47	0.000	0.000	0.000	0.000	0.000	0.025	0.160		
48	0.000	0.000	0.000	0.000	0.000	0.025	0.160		
49	0.000	0.000	0.000	0.000	0.000	0.025	0.160		
50	0.000	0.000	0.000	0.000	0.000	0.025	0.220		
51	0.000	0.000	0.000	0.000	0.000	0.025	0.220		
52	0.000	0.000	0.000	0.000	0.000	0.025	0.220		
53	0.000	0.000	0.000	0.000	0.000	0.025	0.220		
54	0.000	0.000	0.000	0.000	0.000	0.025	0.220		
55	0.000	0.000	0.000	0.000	0.000	0.050	0.220		
56	0.000	0.000	0.000	0.000	0.000	0.050	0.220		
57	0.000	0.000	0.000	0.000	0.000	0.050	0.220		
58	0.000	0.000	0.000	0.000	0.000	0.050	0.220		
59	0.000	0.000	0.000	0.000	0.000	0.050	0.220		
60	0.000	0.000	0.000	0.000	0.100	0.100	0.250		
61	0.000	0.000	0.000	0.000	0.100	0.100	0.150		
62	0.000	0.000	0.300	0.300	0.250	0.150	0.500		
63	0.000	0.000	0.200	0.150	0.150	0.250	0.300		
64	0.000	0.000	0.200	0.150	0.150	0.250	Q.300		
65	0.000	0.200	0.350	0.450	0.450	0.500	0.500		
66	0.000	0.200	0.200	0.200	0.200	0.200	0.300		
67	0.000	0.200	0.200	0.200	0.200	0.200	0.300		
68	0.000	0.200	0.200	0.200	0.200	0.200	0.300		
69	0.000	0.200	0.200	0.200	0.200	0.200	0.300		
70	0.000	1.000	1.000	1.000	1.000	1.000	1.000		

6. Retirement rates (continued):

Public Employees – Males									
	Years of Service								
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+		
45	0.000	0.000	0.000	0.000	0.000	0.020	0.140		
46	0.000	0.000	0.000	0.000	0.000	0.020	0.140		
47	0.000	0.000	0.000	0.000	0.000	0.020	0.140		
48	0.000	0.000	0.000	0.000	0.000	0.020	0.140		
49	0.000	0.000	0.000	0.000	0.000	0.020	0.140		
50	0.000	0.000	0.000	0.000	0.000	0.030	0.160		
51	0.000	0.000	0.000	0.000	0.000	0.030	0.160		
52	0.000	0.000	0.000	0.000	0.000	0.030	0.160		
53	0.000	0.000	0.000	0.000	0.000	0.030	0.160		
54	0.000	0.000	0.000	0.000	0.000	0.030	0.160		
55	0.000	0.000	0.000	0.000	0.000	0.030	0.180		
56	0.000	0.000	0.000	0.000	0.000	0.030	0.180		
57	0.000	0.000	0.000	0.000	0.000	0.030	0.180		
58	0.000	0.000	0.000	0.000	0.000	0.030	0.180		
59	0.000	0.000	0.000	0.000	0.000	0.030	0.180		
60	0.000	0.000	0.000	0.000	0.050	0.100	0.230		
61	0.000	0.000	0.000	0.000	0.050	0.100	0.230		
62	0.000	0.000	0.150	0.200	0.200	0.250	0.400		
63	0.000	0.000	0.100	0.150	0.150	0.200	0.350		
64	0.000	0.000	0.050	0.100	0.100	0.150	0.300		
65	0.000	0.400	0.400	0.400	0.400	0.500	0.500		
66	0.000	0.200	0.200	0.200	0.200	0.200	0.350		
67	0.000	0.200	0.200	0.200	0.200	0.200	0.200		
68	0.000	0.200	0.200	0.200	0.200	0.200	0.200		
69	0.000	0.200	0.200	0.200	0.200	0.200	0.200		
70	0.000	1.000	1.000	1.000	1.000	1.000	1.000		

6. Retirement rates (continued):

	Public Educators – Males									
	Years of Service									
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+			
45	0.000	0.000	0.000	0.000	0.000	0.010	0.250			
46	0.000	0.000	0.000	0.000	0.000	0.010	0.250			
47	0.000	0.000	0.000	0.000	0.000	0.010	0.250			
48	0.000	0.000	0.000	0.000	0.000	0.010	0.250			
49	0.000	0.000	0.000	0.000	0.000	0.010	0.250			
50	0.000	0.000	0.000	0.000	0.000	0.010	0.250			
51	0.000	0.000	0.000	0.000	0.000	0.010	0.250			
52.	0.000	0.000	0.000	0.000	0.000	0.010	0.250			
53	0.000	0.000	0.000	0.000	0.000	0.010	0.250			
54	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	0.020	0.250			
56	0.000	0.000	0.000	0.000	0.000	0.020	0.250			
57	0.000	0.000	0.000	0.000	0.000	0.020	0.250			
58	0.000	0.000	0.000	0.000	0.000	0.020	0.250			
59	0.000	0.000	0.000	0.000	0.000	0.020	0.250			
60	0.000	0.000	0.000	0.000	0.050	0.050	0.350			
61	0.000	0.000	0.000	0.000	0.100	0.100	0.350			
62	0.000	0.000	0.150	0.150	0.250	0.250	0.650			
63	0.000	0.000	0.100	0.100	0.150	0.150	0.350			
64	0.000	0.000	0.050	0.050	0.150	0.150	0.350			
65	´0.000	0.250	0.250	0.300	0.400	0.500	0.700			
66	0.000	0.200	0.200	0.250	0.250	0.250	0.300			
67	0.000	0.200	0.200	0.250	0.250	0.250	0.300			
68	0.000	0.200	0.200	0.250	0.250	0.250	0.300			
69	0.000	0.200	0.200	0.250	0.250	0.250	0.300			
70	0.000	1.000	1.000	1.000	1.000	1.000	1.000			

6. Retirement rates (continued):

Local Government – Females									
	Years of Service								
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+		
45	0.000	0.000	0.000	0.000	0.000	0.040	0.300		
46	0.000	0.000	0.000	0.000	0.000	0.040	0.300		
47	0.000	0.000	0.000	0.000	0.000	0.040	0.300		
48	0.000	0.000	0.000	0.000	0.000	0.040	0.300		
49	0.000	0.000	0.000	0.000	0.000	0.040	0.300		
50	0.000	0.000	0.000	0.000	0.000	0.040	0.300		
51	0.000	0.000	0.000	0.000	0.000	0.040	0.300		
52	0.000	0.000	0.000	0.000	0.000	0.040	0.300		
53	0.000	0.000	0.000	0.000	0.000	0.040	0.300		
54	0.000	0.000	0.000	0.000	0.000	0.040	0.300		
55	0.000	0.000	0.000	0.000	0.000	0.040	0.350		
56	0.000	0.000	0.000	0.000	0.000	0.040	0.350		
57	0.000	0.000	0:000	0.000	0.000	0.040	0.350		
58 .	0.000	0.000	0.000	0.000	0.000	0.040	0.350		
59	0.000	0.000	0.000	0.000	0.000	0.040	0.350		
60	0.000	0.000	0.000	0.000	0.130	0.130	0.400		
61	0.000	0.000	0.000	0.000	0.130	0.130	0.250		
62	0.000	0.000	0.200	0.250	0.250	0.250	0.450		
63	0.000	0.000	0.150	0.200	0.200	0.200	0.300		
64	0.000	0.000	0.200	0.250	0.250	0.250	0.300		
65	0.000	0.350	0.350	0.350	0.350	0.400	0.500		
66	0.000	0.200	0.200	0.200	0.200	0.200	0.300		
67	0.000	0.200	0.200	0.200	0.200	0.200	0.300		
68	0.000	0.200	0.200	0.200	0.200	0.200	0.300		
69	0.000	0.200	0.200	0.200	0.200	0.200	0.300		
70	0.000	1.000	1.000	1.000	1.000	1.000	1.000		

	Public Employees – Females						
	Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
45	0.000	0.000	0.000	0.000	0.000	0.020	0.200
46	0.000	0.000	0.000	0.000	0.000	0.020	0.200
47	0.000	0.000	0.000	0.000	0.000	0.020	0.200
48	0.000	0.000	0.000	0.000	0.000	0.020	0.200
49	0.000	0.000	0.000	0.000	0.000	0.020	0.200
50	0.000	0.000	0.000	0.000	0.000	0.030	0.200
51	0.000	0.000	0.000	0.000	0.000	0.030	0.200
52	0.000	0.000	0.000	0.000	0.000	0.030	0.200
53 ·	0.000	0.000	0.000	0.000	0.000	0.030	0.200
54	0.000	0.000	0.000	0.000	0.000	0.030	0.200
55	0.000	0.000	0.000	0.000	0.000	0.040	0.200
56	0.000	0.000	0.000	0.000	0.000	0.040	0.200
57	0.000	0.000	0.000	0.000	0.000	0.040	0.200
58	0.000	0.000	0.000	0.000	0.000	0.040	0.200
59	0.000	0.000	0.000	0.000	0.000	0.040	0.200
60 .	0.000	0.000	0.000	0.000	0.150	0.150	0.400
61	0.000	0.000	0.000	0.000	0.100	0.150	0.300
62	0.000	0.000	0.200	0.200	0.300	0.300	0.600
63	0.000	0.000	0.150	0.150	0.250	0.250	0.400
64	0.000	0.000	0.200	0.200	0.200	0.150	0.300
65	0.000	0.450	0.450	0.450	0.450	0.450	0.450
66	0.000	0.250	0.250	0.250	0.250	0.250	0.250
67	0.000	0.250	0.250	0.250	0.250	0.250	0.250
68	0.000	0.250	0.250	0.250	0.250	0.250	0.250
69	0.000	0.250	0.250	0.250	0.250	0.250	0.250
70	0.000	1.000	1.000	- 1.000	1.000	1.000	1.000

	Public Educators – Females						
	Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
45	0.000	0.000	0.000	0.000	0.000	0.010	0.160
46	0.000	0.000	0.000	0.000	0.000	0.010	0.160
47	0.000	0.000	0.000	0.000	0.000	0.010	0.160
48	0.000	0.000	0.000	0.000	0.000	0.010	0.160
49	0.000	0.000	0.000	0.000	0.000	0.010	0.160
50	0.000	0.000	0.000	0.000	0.000	0.010	0.200
51	0.000	0.000	0.000	0.000	0.000	0.010	0.200
52	0.000	0.000	0.000	0.000	0.000	0.010	0.200
53	0.000	0.000	0.000	0.000	0.000	0.010	0.200
54	0.000	0.000	0.000	0.000	0.000	0.010	0.200
55	0.000	0.000	0.000	0.000	0.000	0.030	0.300
56	0.000	0.000	0.000	0.000	0.000	0.030	0.300
57	0.000	0.000	0.000	0.000	0.000	0.030	0.300
58	0.000	0.000	0.000	0.000	0.000	0.030	0.300
59	0.000	0.000	0.000	0.000	0.000	0.030	0.300
60	0.000	0.000	0.000	0.000	0.150	0.150	0.500
61	0.000	0.000	0.000	0.000	0.150	0.150	0.500
62	0.000	0.000	0.200	0.200	0.200	0.250	0.700
63	0.000	0.000	0.150	0.150	0.150	0.150	0.500
64	0.000	0.000	0.150	0.150	0.150	0.150	0.500
65	0.000	0.450	0.450	0.450	0.450	0.500	0.600
66	0.000	0.300	0.300	0.350	0.350	0.350	0.350
67	0.000	0.300	0.300	0.350	0.350	0.350	0.350
68	0.000	0.300	0.300	0.350	0.350	0.350	0.350
69	0.000	0.300	0.300	0.350	0.350	0.350	0.350
70	0.000	1.000	1.000	1.000	1.000	1.000	1.000

	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	0.15	0.15	0.30
46	0.00	0.00	0.00	0.00	0.15	0.15	0.30
47	0.00	0.00	0.00	0.00	0.15	0.15	0.30
48	0.00	0.00	0.00	0.00	0.15	0.15	0.30
49	0.00	0.00	0.00	0.00	0.15	0.15	0.30
50	0.00	0.00	0.00	0.00	0.16	0.16	0.33
51	0.00	0.00	0.00	0.00	0.16	0.16	0.33
52	0.00	0.00	0.00	0.00	0.16	0.16	0.33
53	0.00	0.00 _	0.00	0.00	0.16	0.16	0.33
54	0.00	0.00	0.00	0.00	0.16	0.16	0.33
55	0.00	0.00	0.00	0.00	0.18	0.20	0.35
56	0.00	0.00	0.00	0.00	0.18	0.20	0.35
57 ,	0.00	0.00	0.00	0.00	0.18	0.20	0.35
58	0.00	0.00	0.00	0.00	0.18	0.20	0.35
59	0.00	0.00	0.00	0.00	0.18	0.20	0.35
60	0.00	0.00	0.12	0.12	0.30	0.30	0.38
61	0.00	0.00	0.12	0.12	0.30	0.30	0.38
62	0.00	0.00	0.12	0.12	0.30	0.30	0.38
63	0.00	0.00	0.12	0.12	0.30	0.30	0.38
64	0.00	0.00	0.12	0.12	0.30	0.30	0.38
65	0.00	1.00	1.00	1.00	1.00	1.00	1.00

	Firefighters - 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	0.10	0.10	0.14
46	0.00	0.00	0.00	0.00	0.10	0.10	0.14
47	0.00	0.00	0.00	0.00	0.10	0.10	0.14
48	0.00	0.00	0.00	0.00	0.10	0.10	0.14
49	0.00	0.00	0.00	0.00	0.10	0.10	0.14
50	0.00	0.00	0.00	0.00	0.12	0.12	0.16
51	0.00	0.00	0.00	0.00	0.12	0.12	0.16
52	0.00	0.00	0.00	0.00	0.12	0.12	0.16
53	0.00	0.00	0.00	0.00	0.12	0.12	0.16
54	0.00	0.00	0.00	0.00	0.12	0.12	0.16
55	0.00	0.00	0.00	0.00	0.14	0.14	0.18
56	0.00	0.00	0.00	0.00	0.14	0.14	0.18
57	0.00	0.00	0.00	0.00	0.14	0.14	0.18
58	0.00	0.00	0.00	0.00	0.14	0.14	0.18
59	0.00	0.00	0.00	0.00	0.14	0.14	0.18
60	0.00	0.00	0.12	0.16	0.24	0.24	0.24
61	0.00	0.00	0.12	0.16	0.24	0.24	0.24
62	0.00	0.00	0.12	0.16	0.24	0.24	0.24
63	0.00	0.00	0.12	0.16	0.24	0.24	0.24
64	0.00	0.00	0.12	0.16	0.24	0.24	0.24
65	0.00	1.00	1.00	1.00	1.00	1.00	1.00

	Judges - 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	0.00	0.05	0.30
46	0.00	0.00	0.00	0.00	0.00	0.05	0.30
47	0.00	0.00	0.00	0.00	0.00	0.05	0.30
48	0.00	0.00	0.00	0.00	0.00	0.05	0.30
49	0.00	0.00	0.00	0.00	0.00	0.05	0.30
50	0.00	0.00	0.00	0.00	0.00	0.05	0.30
51	0.00	0.00	0.00	0.00	0.00	0.05	0.30
52	0.00	0.00	0.00	0.00	0.00	0.05	0.30
53	0.00	0.00	0.00	0.00	0.00	0.05	0.30
54	0.00	0.00	0.00	0.00	0.00	0.05	0.30
55	0.00	0.00	0.00	0.00	0.00	0.05	0.30
56	0.00	0.00	0.00	0.00	0.00	0.05	0.30
57	0.00	0.00	0.00	0.00	0.00	0.05	0.30
58	0.00	0.00	0.00	0.00	0.00	0.05	0.30
59	0.00	0.00	0.00	0.00	0.00	0.05	0.30
60	0.00	0.00	0.00	0.00	0.00	0.05	0.30
61	0.00	0.00	0.00	0.00	0.00	0.05	0.30
62	0.00	0.00	0.15	0.15	0.15	0.15	0.30
63	0.00	0.00	0.15	0.15	0.15	0.15	0.30
64	0.00	0.00	0.15	0.15	0.15	0.15	0.30
65	0.00	0.00	0.15	0.15	0.15	0.15	0.30
66	0.00	0.00	0.15	0.15	0.15	0.15	0.30
67	0.00	0.00	0.15	0.15	0.15	0.15	0.30
68	0.00	0.00	0.15	0.15	0.15	0.15	0.30
69	0.00	0.00	0.15	0.15	0.15	0.15	0.30
70	0.00	1.00	1.00	1.00	1.00	1.00	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.

Activ	Active Male and Female Members - Local Government				
Years of	Annual Promotional/Longevity	Total Annual Rate of Increase Including 3.00% Inflation Component and 1.75%			
Service	Rates of Increase	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					
Annual		Total Annual Rate of Increase Including			
Years of	Promotional/Longevity	3.00% Inflation Component and 1.75%			
Service	Rates of Increase	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				
,	Annual	Total Annual Rate of Increase Including		
Years of '	Promotional/Longevity	3.00% Inflation Component and 1.75%		
Service	Rates of Increase	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				
	Annual	Total Annual Rate of Increase Including 3.00% Inflation			
Years of	Promotional/Longevity	Component and 1.75%			
Service	Rates of Increase	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				
		Total Annual Rate of		
	Annual	Increase Including 3.00% Inflation		
Years of	Promotional/Longevity	Component and 1.75%		
Service	Rates of Increase	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		

Salaries for Judges are assumed to increase 4.00% each year.

8. Retiree mortality rates (nondisabled retirees):

Retired Male Members					
Age	Local Government, Public Employees and All Beneficiaries (UP94 Males, Setback 2 years)	Public Educators (Based on Plan Experience, Effective January 1, 2005)	Public Safety and Firefighters (UP94 Males, Setback 1 Years)		
20	.000495	.000491	.000521		
25	.000633	.000640	.000671		
30	.000811	.000776	.000838		
35	.000912	:000823	.000915		
40	.001010	.001038	.001075		
45	.001454	.001527	.001568		
50	.002260	.002496	.002501		
55	.003854	.004282	.004278		
60	.006774	.004028	.007623		
65	.012335	.005139	.013914		
70	.021354	.013480	.023364		
75	.033549	.022424	.036614		
80	.053991	.044386	.060066		
85	.088721	.088040	.096358		
90	.136537	.154143	.149949		
95	.213325	.233777	.231936		

	Retired Female Members					
Age	Local Government, Public Employees and All Beneficiaries (UP94 Females, Setback 0 Years)	Public Educators (Based on Plan Experience, Effective January 1, 2005)	Public Safety and Firefighters (UP94 Females, Setback 0 Years)			
20	.000305	.000274	.000305			
25	.000313	.000282	.000313			
30	.000377	.000339	.000377			
35	.000514	.000463	.000514			
· 40	.000763	.000687	.000763			
45	.001046	.000941	.001046			
50	.001536	.001382	.001536			
55	.002466	.003391	.002466			
60	.004773	.004245	.004773			
65	.009286	.003924	.009286			
70	.014763	.008067	.014763			
75	.024393	.012800	.024393			
80	.042361	.028558	.042361			
. 85	.072836	.066564	.072836			
90	.125016	.124727	.125016			
95	.200229	.190840	.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 4.00% per year.

16. Governors and Legislative Pension Plan:

A 10% withdrawal rate is assumed regardless of age or service. No disability rates are used. No salary increase rate is used because the benefits do not reflect pay. Members are 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 are 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. <u>Eligibility</u>: 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. <u>Monthly Benefit (Noncontributory</u>): 2.00% of Final Average Monthly Salary times years of service.
 - d. Payment Form: Life annuity.

10. Service Retirement (Reduced):

- a. <u>Eligibility</u>: 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. <u>Eligibility</u>: 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. <u>Death while Disabled</u>: 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. <u>Eligibility</u>: 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. <u>Amount</u>: The refund benefit is the accumulated value of the member's contributions plus interest credited by the fund. The amount of interest credited each year is set annually by the Board of Trustees.

13. Deferred Termination Benefit:

- a. <u>Eligibility</u>: Member must be vested (4 years of service) and must elect to leave his/her contributions on deposit.
- b. <u>Monthly Benefit</u>: 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. <u>Death Benefit</u>: 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. <u>In General</u>: 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 60% of final average salary (annual) is paid.
- 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-asyou 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 26 - Provo	13.54%
Fund 27 - Logan	11.13%
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. <u>Eligibility</u>: 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. <u>Payment Form</u>: 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. <u>Eligibility</u>: 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. <u>Death while Disabled</u>: 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. <u>Eligibility</u>: 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, beginning July 1, 1996. Interest is not credited on the member contribution account for members of the Noncontributory System. The amount of interest credited each year is set annually by the Board of Trustees.

12. Deferred Termination Benefit:

a. <u>Eligibility</u>: 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.
- c. Payment Form: Same as for service retirement.
- d. <u>Death Benefit</u>: 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. <u>Lump-sum (Division A members)</u>: \$1,000.
 - b. Annuity (Division A members): 30% of member's FAMS.*
 - c. <u>Lump-sum (Division B members)</u>: \$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. <u>Lump-sum (Division A members)</u>: 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. <u>Lump-sum (Division B members)</u>: 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-asyou 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. <u>Eligibility</u>: 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. <u>Payment Form</u>: 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. <u>Eligibility</u>: 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. <u>Payment Form</u>: Same as for Service Retirement once member is age 55.
- d. <u>Death while Disabled</u>: Upon the death of a disabled firefighter, the spouse shall receive 75% of the benefit currently being paid.

11. Vesting and Refunds:

- a. <u>Eligibility</u>: 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. <u>Amount</u>: 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. <u>Eligibility</u>: 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. <u>Death Benefit</u>: 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. <u>Lump-sum (Division A members)</u>: \$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. <u>Lump-sum (Division B members)</u>: \$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. <u>Death of an Active Member (Off Duty)</u>: 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. <u>Lump-sum (Division A members)</u>: 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. <u>Lump-sum (Division B members)</u>: 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-asyou 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.

10. Service Retirement (Reduced):

- a. <u>Eligibility</u>: 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. <u>Eligibility</u>: 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. <u>Eligibility</u>: Member must be vested (6 years of service) and must elect to leave his/her contributions on deposit.
- b. <u>Monthly Benefit</u>: 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.

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. <u>Eligibility</u>: 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. <u>Payment Form</u>: Married members receive an automatic, unreduced Joint and 65% Survivor annuity. Unmarried members receive a life annuity.

- 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-asyou 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. <u>Legislators</u>: 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, 2005, the benefit base is therefore \$25.00.
 - 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, 2005, the benefit base is therefore \$1,130.00.
 - c. <u>Supplemental Benefit</u>: 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. <u>Monthly Benefit</u>: Legislators receive the benefit base (see above) per year of service, while former governors receive the benefit base (see above) for each term served (maximum of two terms).

- c. <u>Payment Form</u>: For married members, a Joint and 50% Survivor annuity. For unmarried members, a life annuity.
- 10. Service Retirement (Reduced):
 - a. <u>Eligibility</u>: 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. <u>Reduction</u>: The reduction factor applied in the other System to which the member belongs.
 - c. <u>Payment Form</u>: 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. <u>Eligibility</u>: Same as for reduced or unreduced service retirement. The member must not have withdrawn his/her contributions under another System.
 - b. <u>Monthly Benefit</u>: 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. <u>Eligibility</u>: 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-asyou 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.