

UTAH RETIREMENT SYSTEMS  
*ACTUARIAL VALUATION REPORT*  
*AS OF JANUARY 1, 2008*

October 14, 2008

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, 2008**

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, although, as discussed below, under certain circumstances the Board may choose not to reduce the current rate if it is greater than the actuarially calculated rate. 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, 2008 actuarial valuation will be used by the Board when certifying the employer contribution rates for the year beginning July 1, 2009 and ending June 30, 2010. If new legislation is enacted between the valuation date and the date the contribution rates become effective, the Board may adjust the calculated rates before certifying them, in order to reflect this new legislation. Such adjustments are based on information supplied by the actuary.

**FINANCING OBJECTIVES AND FUNDING POLICY**

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

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

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

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

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

In 2004, the Utah Legislature added Section 49-11-301(5) to the Utah Code. This section 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 purpose of this legislation is to enhance the Board's ability to maintain more-level contribution rates while targeting a 100% - 110% funded level. The Board has followed this policy since 2004, so the recommended contribution rate may be greater than the actuarially determined rate.

#### **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 at least 100%.

For all systems combined, the funded ratio decreased from 95.8% to 95.1%. This decline was due to the change in the actuarial assumptions. In absence of the assumption changes, the funded ratio would have increased to 98.4%. 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 eighteen 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 98.3%, compared to 105.0% in the prior year and 77.3% just five years ago.

#### **BENEFIT PROVISIONS**

The benefit provisions reflected in this valuation are those which were in effect on January 1, 2008, or which were adopted by the end of the 2008 legislative session and are effective on or before July 1, 2008, except as discussed in the following paragraphs.

SB19 was passed during the 2008 legislative session. This law opened a window through December 2009 to allow employers of the Public Safety Retirement Systems to adopt a 4% maximum COLA in lieu of the current 2.5% maximum COLA. (Adoption of the 4% maximum COLA is mandatory for the State of Utah). For those employers making the election during calendar year 2008, including the State of Utah, the 4% maximum COLA will be effective

January 1, 2009. For those employers making the election in calendar year 2009, the 4% maximum COLA will be effective January 1, 2010. Since the elections are not known at the time of the valuation and because the benefits do not go into effect until January 1, 2009, this legislation was not reflected in the valuation. Supplemental information has been provided to URS so that URS can adjust the contribution rates for employers electing the 4% COLA.

HB202 was also passed by the legislature in 2008. This bill allows certain Utah State employees to elect out of the defined benefit plan. The impact of this bill will be reflected in the next valuation, when the opt-out elections are known.

HB21 was enacted by the 2007 legislature. This bill created a window allowing members and employers of the Public Safety Contributory Retirement System to transfer to the Public Safety Noncontributory Retirement System. All transfers made by the valuation date were reflected in this valuation.

#### **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 recommended, and the Board adopted a number of changes in the actuarial assumptions. Our recommendations included:

- Decrease the investment return assumption from 8.00% to 7.75%
- No change in the COLA assumptions for annuitants
- Modifying the post-retirement mortality assumptions for all groups except female teachers (the modifications decrease the rates of mortality and increase life expectancies)
- Modify the disabled mortality assumptions
- Modify all of the active member mortality rates to reduce the expected number of deaths
- Modifications to the salary increase rates for most groups, except for judges which was left unchanged (modifications reduced rates of salary increases for long service employees)
- No changes in the disability incidence rates
- No changes to the termination rates for groups in the Public Employee Retirement System. Increase the rates of termination for Public Safety employees and modify the rates of termination for firefighters
- No changes to retirement rates for any groups other than Judges

We have recommended that the assumed inflation rate remain at 3.00% 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.

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, 2007 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, 2007.

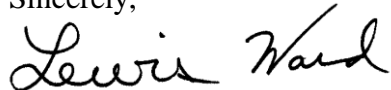
#### **CERTIFICATION**

We certify that the information presented herein is accurate and fairly portrays the actuarial position of URS as of January 1, 2008.

All of our work conforms with generally accepted actuarial principles and practices and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of Utah state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board.

The undersigned are independent actuaries and consultants. Mr. Conradi is an Enrolled Actuary and a Member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries. Both are experienced in performing valuations for large public retirement systems.

Sincerely,



Lewis Ward

Consultant



J. Christian Conradi, ASA, EA, MAAA

Senior Consultant

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**SECTION I**  
EXECUTIVE SUMMARY

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## EXECUTIVE SUMMARY AND CONTRIBUTION REQUIREMENTS

- Exhibit 1(a) shows the new recommended contribution rates, and compares these to the rates certified for FY 2009 based on the last valuation
  - Rates include funding for the 3% substantial substitute benefit, where applicable
  - Rates do not include the 1.50% 401(k) contribution
  - Rates shown for both for the Public Employees Contributory and Noncontributory Retirement Systems for both years exclude the contribution for the group insurance death benefit. Funding for this benefit is the responsibility of PEHP.
  - Offsets for Firefighters System and Judges System are shown
  - Rates shown on this table are the recommended contribution rates, not the actuarially determined rates. Under Utah Code §49-11-301(5), the Board may keep the contribution rate at the prior year's level, in order to reach and maintain a 110% funded ratio.
  - Rates shown on Exhibit 1(a), column 6 are for the twelve-month period beginning July 1, 2009 (FY 2010)
  - Rates may need to be adjusted for the effect of 2009 legislation, if material, and for the effect of the 4.0% COLA for the State of Utah and other employers that elect this benefit.
- Exhibit 1(b) shows the development of the recommended rates under §49-11-301(5). The recommended rates are the larger of the actuarially calculated rates from the current valuation (Col. 2) and the rates certified for FY 2009 (Col. 3)
  - §49-11-301(5) 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%
  - The policy is applied to the gross rates for the Firefighter funds and the Judges, i.e., before application of the offsets for the fire insurance premium tax receipts and the court fees
  - Only one fund has a funded ratio greater than 110%: the Governors and Legislative Pension Plan, for which no contributions are required.
  - 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 2(a) shows the components of the actuarially determined contribution rate, and Exhibit 4(a) reconciles the actuarially calculated rates determined by this valuation and the previous valuation
  - For all funds, except the 3% substantial substitute fund, the actuarial calculated contribution rate increased
  - Actuarial losses due to the changes in the actuarial assumptions was the primary cause of the contribution increases

- There were also actuarial losses due to larger than expected salary increases
- There were no changes to the benefit provisions that had an impact on the liabilities of this valuation
  - The Public Safety 4% Maximum COLA bill will be reflected in subsequent valuations
- Recommend adoption of new assumptions
  - Decrease the investment return assumption from 8.00% to 7.75%
  - Modify the post-retirement mortality assumptions for all groups except female teachers (the modifications decrease the rates of mortality and increase the life expectancies)
  - Modify the disabled mortality assumptions
  - Modify all of the active member mortality rates to reduce the expected number of deaths
  - Modify the salary increase rates for most groups, except for judges which was left unchanged (modifications reduced rates of salary increases for long service employees)
  - Increase the rates of termination for Public Safety employees and modify the rates of termination for firefighters
  - Modify the retirement rates for Judges
  - Impact is shown on Exhibits 4(a) & 4(b), column 6
- Amortization payments are based on:
  - 20-year funding period
  - Contributions determined as level percentage of pay
  - Total payroll increases of 4.00% per year
  - No future growth in the number of active members is taken into account
- Plan earned 6.6% 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 2007 loss reflected
  - Still reflecting 20% of gains from 2003, 2004, 2005 and 2006
  - 13.0% return on actuarial value of assets
  - Impact on contribution rates shown on Exhibit 4(a) col. (4), and Exhibit 4(b) col. (5).
- Actuarial value of assets (\$20.3 billion) is 96.7% of market assets (\$21.0 billion)
  - difference will be recognized over next four years

- In total, the systems experienced a liability loss from liability experience (salary increases, retirement, mortality, etc.)
  - Impact on contribution rates shown on Exhibit 4(a) col. (5), and Exhibit 4(b) col. (4)
- 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
  - All or a portion of any remaining offset is used to reduce member contribution rate
  - Because of an increase in the gross employer rates, more of the offset for the fire insurance premium tax receipts was used to offset the employer rates which resulted in an increase in the net member rate for Division A of 0.35%
  - See Exhibits 2(b) and 2(c) for details about the offsets applied to contribution rates for Firefighters
- No part of the fire insurance premium tax receipts is available to be transferred to the Public Safety Retirees' Cost-of-Living Increases Restricted Account
  - A separate letter will be sent detailing this calculation
- The rate shown for the Judges System is for the noncontributory system. The employer contribution rate for the contributory system is 2.00 percentage points less.
- As for the past several years, no contribution is required for the Governors and Legislative Pension Plan, since the value of assets exceeds the actuarial present value of all future benefits for current members

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## **SECTION II**

### **DISCUSSION**

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## DETERMINATION OF CALCULATED CONTRIBUTION RATES

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

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

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

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

Section 49-11-301(5) was added to the Utah Code in 2004. This law gives the Board the option of setting contribution rates at the higher of the previous year's rate or at the current year's actuarially calculated rate. The Board does not have to decrease the contribution rate from the prior year as long as it is funding towards or maintaining a funded ratio of 110%. Except for one fund, discussed below, none of the funds currently exceeds the 110% funded level. The Board has followed the policy of holding the rates constant, but not less than the actuarially calculated rate, as permitted by §49-11-301(5).

Under the policy, the actuarial rates and last year's certified rates are compared, and the larger is set as the new certified rate. This is done separately for the contribution for the 3% Substantial Substitute fund, and then the rate for the 3% Substantial Substitute is added to the regular contribution rate, as shown on Exhibit 1(b). Then the offset for the fire insurance premium tax and the court fees are applied, as shown in Exhibit 2(c).

Note that the offset for the fire insurance premium tax is applied to reduce the employer contribution rates to zero, and then any remaining offset is used to reduce the member contribution rates, but not less than the prior year's net member rate. As you can see on Exhibit 1(a), the member rates for Division A of the Firefighter funds will be higher by 0.35% this year, because of a reduction in the amount of offset recognized.

The one fund that is at least 110% funded is the Governors' and Legislators' Retirement Plan. Section 49-11-301(5) has no effect on the Governors' and Legislators' Retirement Plan, because no contributions are required for this fund.

The contribution rates set in this valuation will become effective for the twelve-month period beginning July 1, 2009 (FY 2010).

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, 2007, the retirement systems that are part of URS have a total market value of \$21.0 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 2007 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, 54% of invested assets are held in equities and alternative investments, compared with 55% last year and 57% the year before.

Exhibit 11(b) shows a reconciliation of the market values between the beginning and end of 2007. 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 2007, the total investment return on market values was 6.6%, as shown on Exhibit 12(a). This return is net of all investment and administrative expenses.

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 8.00% 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% or more than 120% of the market value of assets.

The development of the AVA is shown on Exhibits 13 and 14. The AVA is \$20.3 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 96.7% 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 2007, this return was 13.0%. Because this is greater than the 2007 assumed 8.00% investment return, the plan experienced a gain on the actuarial value of assets. Exhibit 12(b) shows a summary of market and actuarial return rates in recent years.

Exhibits 4a and 4b show the reconciliation of the contribution rates and the unfunded actuarial accrued liabilities from the last valuation to this one, showing the effect of asset and liability gains and losses, changes in assumptions, changes in plan provisions, etc.

## MEMBER DATA

Member data was supplied by URS staff on electronic files as of December 31, 2007. 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 100,246 to 103,705, a 3.5% increase. Last year, total active membership grew 1.5%, and over the last five years, membership growth has averaged 1.5% per year.

Total active member payroll grew 8.6% last year for all funds combined, compared with a 5.0% increase the prior year.

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## 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 2008 legislature, except as noted below. Although not effective on the valuation date, they will be effective on or before the contribution rates actually go into effect at July 1, 2008.

SB19 was passed during the 2008 legislative session. This law opened a window through December 2009 to allow employers of the Public Safety Retirement Systems to adopt a 4% maximum COLA in lieu of the current 2.5% maximum COLA. (Adoption of the 4.0% maximum COLA is mandatory for the State of Utah.) For those employers making the election during calendar year 2008, including the State of Utah, the 4% maximum COLA will be effective January 1, 2009. For those employers making the election in calendar year 2009, the 4% maximum COLA will be effective January 1, 2010. Since the elections are not known at the time of the valuation and because the benefits do not go into effect until January 1, 2009, this legislation was not reflected in the valuation. Supplemental information has been provided to URS so that URS can adjust the contribution rates for employers electing the 4.0% maximum COLA.

HB202 was also passed by the legislature in 2008. This bill allows certain Utah State employees to elect out of the defined benefit plan. The impact of this bill will be reflected in the next valuation, when the opt-out elections are known.

HB21 was enacted by the 2007 legislature. This bill created a window allowing members and employees of the Public Safety Contributory Retirement System to transfer to the Public Safety Noncontributory Retirement System. All transfers made by the valuation date were reflected in this valuation. As a result of transfers, all employees of Salt Lake City covered under the Public Safety Retirement System are now members of the Noncontributory fund and therefore the liabilities and assets for the Contributory and Noncontributory funds have been combined and shown in the Noncontributory System sections of the tables.

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.

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## 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 7.75%. The Board adopted new actuarial assumptions in connection with the 2008 experience investigation, as recommended by the actuary.

A brief description of the 2008 experience investigation follows. For a more thorough discussion of the analysis of the experience and the assumption recommendations, please see our report dated August 19, 2008. Please see Appendix 1 for a complete description of these assumptions.

### *2008 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. The contribution rate increases are mainly due to the modifications made to the investment return assumption and the post-retirement mortality rates.

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*
- *Recommend decrease in investment return assumption from 8.00% to 7.75%*
- *Recommend no change in the payroll growth assumption of 4.00%*
- *Recommend changes to the salary increase rates*
- *Recommend modifying the post-retirement mortality rates for healthy and disabled lives*
- *Recommend modifying the mortality rates for active members*
- *Recommend no changes in disability rates*
- *Recommend changes in retirement rates for Judges, no changes for other groups*
- *Recommend changes in termination rates for Firefighters and Public Safety employees*
- *Recommend no changes in percentage of employees electing refunds*
- *Recommend no changes to any liability or asset valuation methods*

## 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. For all systems combined, the funded ratio fell slightly from last year, mainly because the effect of the assumption changes outweighed the gains on the actuarial value of assets.

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.

The calculated employer contribution rate is computed as a level percentage of payroll using a 20-year amortization period. Since the recommended employer rate is the greater of the prior year's certified rate or this year's calculated rate, 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 increased from 11.12% to 12.34%, and the offset for the Judges System decreased from 14.32% to 13.83%. The increase in the Firefighter System offset is primarily due to a 45% increase in the Fire Insurance Premium Tax receipts during 2007. The decrease in the Judges' offset was primarily due to the removal of the 2004 year from the three year average (the 2004 year was 15.30% of pay).

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. However, current Board policy is to not decrease the member contribution rates even if there is sufficient offset available to do so. See Table 2(c) for the effect of the offsets on the employer and member 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 fire insurance premium tax receipts that would normally have been contributed to the Firefighter System may instead be redirected to this new account. No funds were transferred to this account in 2008.

As a result of the creation of the Public Safety 4% maximum COLA window, funds from Public Safety Retirees' Cost-of-Living Increases Restricted Account will be transferred to the Public Safety funds which elect the 4% maximum COLA. The initial transfer will not occur until after the window closes in 2009.

### 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 refunds of employee contributions or to the Restoration of Purchasing Power (ROPP) benefits; see the next section.

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 0.70%, 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 Section 11-49-301(5), to hold the contribution rate for the Substantial Substitute at 0.85% (last year's rate).

### **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.



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## **PUBLIC SAFETY RETIREES' COST-OF-LIVING INCREASES RESTRICTED ACCOUNT**

The 2004 Legislature enacted legislation which created a new fund—the Public Safety Retirees' Cost-of-Living Increases Restricted Account—under the General Fund of the State of Utah, effective July 1, 2004.

The legislation appropriated \$1.1 million from the Fire Academy Support Account. The legislation also requires that a portion of the fire insurance premium tax receipts that currently go to the Firefighters System be redirected to this new fund. However, only money above a threshold determined actuarially goes to the Public Safety Retirees' Cost-of-Living Increases Restricted Account. Information about how much of the fire insurance premium tax receipts should go to the Firefighters Retirement System and how much should go to the Public Safety Retirees' Cost-of-Living Increases Restricted Account is provided to URS by the actuary in a separate communication.

The 2008 legislature opened a window to allow employers of the Public Safety Systems to elect a 4.0% maximum COLA. Employers that elect the 4.0% maximum COLA will be entitled to a share of the funds held in the Public Safety Retirees' Cost-of-Living Increases Restricted Account. The initial allocation of these funds will not occur until after the window closes at the end of 2009. In future years, any funds that would have been transferred into this account will be allocated to the employers that elected the 4.0% COLA.

It should also be noted that the assets of the Public Safety Retirees' Cost-of-Living Increases Restricted Account are a part of the General Fund, and they are not managed by URS. Effective as of July 1, 2008, these funds will be transferred to URS.

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**SECTION III**

SUPPORTING EXHIBITS

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**Comparison of Prior Year Certified and  
Current Year Recommended Contribution Rates**

Fund/Division (1)	Prior Year Valuation Certified Rates for FY 2009			Current Year Valuation Recommended Rates for FY 2010			Increase/ (Decrease) in Total (8)
	Member (2)	Employer (3)	Total (4)	Member (5)	Employer (6)	Total (7)	
I. Public Employees Contributory							
A. Local Government	6.00%	7.45%	13.45%	6.00%	7.49%	13.49%	0.04%
B. State and School	6.00%	9.57%	15.57%	6.00%	9.57%	15.57%	0.00%
II. Public Employees Noncontributory							
A. Local Government	0.00%	11.46%	11.46%	0.00%	11.50%	11.50%	0.04%
B. State and School	0.00%	14.06%	14.06%	0.00%	14.06%	14.06%	0.00%
III. Public Safety Contributory							
A. State	12.29%	15.46%	27.75%	12.29%	15.92%	28.21%	0.46%
B. Other Division A	12.29%	11.22%	23.51%	12.29%	12.47%	24.76%	1.25%
C. Provo	13.54%	16.30%	29.84%	13.54%	17.37%	30.91%	1.07%
D. Logan	11.13%	14.61%	25.74%	11.13%	17.81%	28.94%	3.20%
E. Other Division B	10.50%	15.69%	26.19%	10.50%	16.67%	27.17%	0.98%
IV. Public Safety Noncontributory							
A. State	0.00%	26.75%	26.75%	0.00%	27.07%	27.07%	0.32%
B. Other Division A	0.00%	22.61%	22.61%	0.00%	23.34%	23.34%	0.73%
C. Salt Lake City	0.00%	35.71%	35.71%	0.00%	35.71%	35.71%	0.00%
D. Ogden	0.00%	31.47%	31.47%	0.00%	33.11%	33.11%	1.64%
E. Logan	0.00%	25.48%	25.48%	0.00%	27.74%	27.74%	2.26%
F. Bountiful	0.00%	22.47%	22.47%	0.00%	23.07%	23.07%	0.60%
G. Other Division B	0.00%	25.49%	25.49%	0.00%	26.21%	26.21%	0.72%
V. Firefighters							
A. Division A							
1. Gross Rate	15.05%	9.21%	24.26%	15.05%	10.78%	25.83%	1.57%
2. Less Estimated Offset	<u>-1.91%</u>	<u>-9.21%</u>	<u>-11.12%</u>	<u>-1.56%</u>	<u>-10.78%</u>	<u>-12.34%</u>	<u>-1.22%</u>
3. Net Rate	13.14%	0.00%	13.14%	13.49%	0.00%	13.49%	0.35%
B. Division B							
1. Gross Rate	16.71%	4.09%	20.80%	16.71%	4.61%	21.32%	0.52%
2. Less Estimated Offset	<u>-7.03%</u>	<u>-4.09%</u>	<u>-11.12%</u>	<u>-7.03%</u>	<u>-4.61%</u>	<u>-11.64%</u>	<u>-0.52%</u>
3. Net Rate	9.68%	0.00%	9.68%	9.68%	0.00%	9.68%	0.00%
VI. Judges							
A. Gross Rate	0.00%	27.83%	27.83%	0.00%	30.92%	30.92%	3.09%
B. Less Estimated Offset	<u>-0.00%</u>	<u>-14.32%</u>	<u>-14.32%</u>	<u>-0.00%</u>	<u>-13.83%</u>	<u>-13.83%</u>	<u>0.49%</u>
C. Net Rate	0.00%	13.51%	13.51%	0.00%	17.09%	17.09%	3.58%
VII. Governors and Legislative	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Note: Rates reflect 3% Substantial Substitute where applicable

0.16% Group Insurance contribution rate has been excluded from both the current and prior year results

Recommended rates reflect application of U.C. Sec. 49-11-301(5)

Development of Recommended Contribution Rates

Fund/Division	Actuarially Calculated Rates for Current Year*	Certified Rates from Prior Year*	Larger of Columns (2,3)*	Recommended Rates Including 3% Substantial Substitute
(1)	(2)	(3)	(4)	(5)
I. Public Employees Contributory				
A. Local Government	7.49%	7.45%	7.49%	7.49%
B. State and School	8.37%	8.72%	8.72%	9.57%
II. Public Employees Noncontributory				
A. Local Government	11.50%	11.46%	11.50%	11.50%
B. State and School	12.86%	13.21%	13.21%	14.06%
III. Public Safety Contributory				
A. State	15.07%	14.61%	15.07%	15.92%
B. Other Division A	12.47%	11.22%	12.47%	12.47%
C. Provo	17.37%	16.30%	17.37%	17.37%
D. Logan	17.81%	14.61%	17.81%	17.81%
E. Other Division B	16.67%	15.69%	16.67%	16.67%
IV. Public Safety Noncontributory				
A. State	26.22%	25.90%	26.22%	27.07%
B. Other Division A	23.34%	22.61%	23.34%	23.34%
C. Salt Lake City	34.38%	35.71%	35.71%	35.71%
D. Ogden	33.11%	31.47%	33.11%	33.11%
E. Logan	27.74%	25.48%	27.74%	27.74%
F. Bountiful	23.07%	22.47%	23.07%	23.07%
G. Other Division B	26.21%	25.49%	26.21%	26.21%
V. Firefighters				
A. Division A	10.78%	9.21%	10.78%	10.78%
B. Division B	4.61%	4.09%	4.61%	4.61%
VI. Judges	30.07%	26.98%	30.07%	30.92%
VII. Governors and Legislative	0.00%	0.00%	0.00%	0.00%
VIII. 3% Substantial Substitute	0.70%	0.85%	0.85%	N/A

\* Rates exclude 3% Substantial Substitute

Note: Rates shown for Firefighters and Judges exclude offsets for fire insurance premium tax and court fees  
Rates exclude the Group Insurance contribution rate  
Rates in Column (4) reflect application of U.C. Sec. 49-11-301(5).

**Components of Actuarially Calculated Contribution Rates**

Fund/Division (1)	Net Normal Cost (2)	Amortization of UAAL (3)	3% Substantial Substitute (4)	Gross Employer Rate (2 + 3 + 4) (5)	Offset (6)	Net Employer Rate (5 - 6) (7)
I. Public Employees Contributory						
A. Local Government	4.70%	2.79%	0.00%	7.49%	0.00%	7.49%
B. State and School	3.95%	4.42%	0.70%	9.07%	0.00%	9.07%
II. Public Employees Noncontributory						
A. Local Government	11.06%	0.44%	0.00%	11.50%	0.00%	11.50%
B. State and School	11.71%	1.15%	0.70%	13.56%	0.00%	13.56%
III. Public Safety Contributory						
A. State	10.61%	4.46%	0.70%	15.77%	0.00%	15.77%
B. Other Division A	10.42%	2.05%	0.00%	12.47%	0.00%	12.47%
C. Provo	9.25%	8.12%	0.00%	17.37%	0.00%	17.37%
D. Logan	10.74%	7.07%	0.00%	17.81%	0.00%	17.81%
E. Other Division B	11.89%	4.78%	0.00%	16.67%	0.00%	16.67%
IV. Public Safety Noncontributory						
A. State	21.76%	4.46%	0.70%	26.92%	0.00%	26.92%
B. Other Division A	21.29%	2.05%	0.00%	23.34%	0.00%	23.34%
C. Salt Lake City	21.44%	12.94%	0.00%	34.38%	0.00%	34.38%
D. Ogden	21.43%	11.68%	0.00%	33.11%	0.00%	33.11%
E. Logan	20.67%	7.07%	0.00%	27.74%	0.00%	27.74%
F. Bountiful	21.55%	1.52%	0.00%	23.07%	0.00%	23.07%
G. Other Division B	21.43%	4.78%	0.00%	26.21%	0.00%	26.21%
V. Firefighters						
A. Division A	11.33%	-0.55%	0.00%	10.78%	10.78%	0.00%
B. Division B	9.58%	-4.97%	0.00%	4.61%	4.61%	0.00%
VI. Judges	27.24%	2.83%	0.70%	30.77%	13.83%	16.94%
VII. Governors and Legislative	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	<u>2005</u>	<u>2006</u>	<u>2007</u>
2. Fire insurance premium receipts	\$ 9,601,000	\$ 9,518,000	\$ 13,797,000
3. Combined payroll for both funds*	83,495,618	87,088,690	94,488,204
4. Premiums as percentage of payroll	11.50%	10.93%	14.60%
5. Offset: 3-year arithmetic average of percent of payroll			12.34%

B. Judge's Offset

1. Calendar Year	<u>2005</u>	<u>2006</u>	<u>2007</u>
2. Court fees	\$ 1,605,000	\$ 1,723,000	\$ 1,850,000
3. Payroll*	11,721,124	12,335,692	13,386,997
4. Premiums as percentage of payroll	13.69%	13.97%	13.82%
5. Offset: 3-year arithmetic average of percent of payroll			13.83%

\* Reported payroll for members active at end of year

**Effect of Offsets on Recommended Employer Rates  
 and Member Rates**

Fund/Division (1)	Gross Recommended Employer Rates (2)	Offset Percentage (3)	Net Employer Rate Not Less Than Zero (4)	Unused Offset* (3) - (2) (5)
I. Firefighters				
Division A	10.78%	12.34%	0.00%	1.56%
Division B	4.61%	12.34%	0.00%	7.73%
II. Judges				
	30.92%	13.83%	17.09%	0.00%

Fund/Division (1)	Gross Member Rate (2)	Available Offset* (3)	Net (2) - (3) (4)	Net Member Rate from Prior Year (5)	Greater of (4 , 5) (6)
I. Firefighters					
Division A	15.05%	1.56%	13.49%	13.14%	13.49%
Division B	16.71%	7.73%	8.98%	9.68%	9.68%

\* Available to offset member contribution rates

Schedule of Funding Progress

Fund/Division (1)	Actuarial Value of Assets (2)	Actuarial Accrued Liability (AAL) (3)	Unfunded AAL (U AAL) (3 - 2) (4)	Funded Ratio (2 / 3) (5)	Covered Payroll (6)	UAAL as a Percentage of Covered Payroll (4 / 6) (7)
I. Public Employees Contributory						
A. Local Government	356,014	381,287	25,273	93.4%	61,603	41.0%
B. State and School	746,093	788,964	42,871	94.6%	66,427	64.5%
C. Subtotal	1,102,107	1,170,251	68,144	94.2%	128,030	53.2%
II. Public Employees Noncontributory						
A. Local Government	2,780,176	2,833,053	52,877	98.1%	817,627	6.5%
B. State and School	13,246,453	13,714,803	468,350	96.6%	2,765,898	16.9%
C. Subtotal	16,026,629	16,547,856	521,227	96.9%	3,583,525	14.5%
III. Public Safety Contributory						
A. State	60,642	61,043	401	99.3%	615	65.2%
B. Other Division A	166,292	170,234	3,942	97.7%	13,008	30.3%
C. Provo	32,601	38,373	5,772	85.0%	4,826	119.6%
D. Logan	11,908	12,443	536	95.7%	515	104.1%
E. Other Division B	46,860	51,602	4,742	90.8%	6,736	70.4%
F. Subtotal	318,303	333,695	15,393	95.4%	25,700	59.9%
IV. Public Safety Noncontributory						
A. State	669,460	739,342	69,882	90.5%	106,614	65.5%
B. Other Division A	675,560	718,638	43,078	94.0%	142,209	30.3%
C. Salt Lake City	184,578	234,139	49,561	78.8%	26,033	190.4%
D. Ogden	48,429	57,590	9,161	84.1%	5,321	172.2%
E. Logan	7,040	9,224	2,183	76.3%	2,148	101.6%
F. Bountiful	16,406	16,801	395	97.7%	1,761	22.4%
G. Other Division B	118,836	138,397	19,561	85.9%	27,800	70.4%
H. Subtotal	1,720,309	1,914,131	193,821	89.9%	311,886	62.1%
V. Firefighters						
A. Division A	96,207	94,414	(1,793)	101.9%	22,195	-8.1%
B. Division B	691,456	638,415	(53,041)	108.3%	72,293	-73.4%
C. Subtotal	787,663	732,829	(54,834)	107.5%	94,488	-58.0%
VI. Judges	129,847	135,379	5,532	95.9%	13,387	41.3%
VII. Governors and Legislative	11,736	9,862	(1,874)	119.0%	538	-348.3%
VIII. 3% Substantial Substitute	172,448	477,329	304,881	36.1%	N/A	N/A
IX. Grand Total	20,269,042	21,321,332	1,052,290	95.1%	4,157,554	25.3%

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



### Comparison of Funded Ratios

Fund/Division (1)	Funded Ratios as of January 1		
	2008 (2)	2007 (3)	2006 (4)
I. Public Employees Contributory			
A. Local Government	93.4%	94.2%	91.4%
B. State and School	94.6%	94.6%	93.2%
C. Subtotal	94.2%	94.5%	92.6%
II. Public Employees Noncontributory			
A. Local Government	98.1%	100.0%	95.6%
B. State and School	96.6%	97.1%	95.1%
C. Subtotal	96.9%	97.6%	95.2%
III. Public Safety Contributory			
A. State	99.3%	99.4%	99.1%
B. Other Division A	97.7%	98.0%	96.3%
C. Provo	85.0%	87.3%	83.0%
D. Logan	95.7%	95.2%	92.6%
E. Other Division B	90.8%	90.4%	88.2%
F. Subtotal	95.4%	96.2%	94.7%
IV. Public Safety Noncontributory			
A. State	90.5%	91.7%	89.4%
B. Other Division A	94.0%	95.6%	92.0%
C. Salt Lake City	78.8%	75.5%	69.2%
D. Ogden	84.1%	85.2%	84.0%
E. Logan	76.3%	77.2%	72.3%
F. Bountiful	97.7%	100.6%	95.9%
G. Other Division B	85.9%	85.7%	83.0%
H. Subtotal	89.9%	90.9%	87.6%
V. Firefighters			
A. Division A	101.9%	102.2%	99.0%
B. Division B	108.3%	110.6%	105.7%
C. Subtotal	107.5%	109.5%	104.9%
VI. Judges	95.9%	99.8%	99.5%
VII. Governors and Legislative	119.0%	119.2%	118.0%
VIII. 3% Substantial Substitute	36.1%	34.4%	31.5%
IX. Grand Total	95.1%	95.8%	93.2%

Analysis of Changes in Calculated Contribution Rates

Fund/Division (1)	Calculated Rate From Jan. 1, 2007 Valuation (2)	Changes in Calculated Rate Due To						Calculated Rate Jan. 1, 2008 Valuation (9)
		Payroll Growth (3)	Investment Return (4)	Liabilities (5)	Actuarial Assumptions (6)	Legislation (7)	Act. vs Exp. Contributions (8)	
I. Public Employees Contributory								
A. Local Government	6.48%	-0.03%	-1.07%	0.77%	1.47%	0.00%	-0.13%	7.49%
B. State and School	8.57%	-0.13%	-1.56%	0.95%	1.32%	0.00%	-0.10%	9.07%
II. Public Employees Noncontributory								
A. Local Government	10.49%	-0.03%	-1.07%	0.77%	1.47%	0.00%	-0.13%	11.50%
B. State and School	13.06%	-0.13%	-1.56%	0.95%	1.32%	0.00%	-0.10%	13.56%
III. Public Safety Contributory								
A. State	13.69%	-0.18%	-2.12%	0.56%	3.93%	0.00%	-0.13%	15.77%
B. Other Division A	10.19%	-0.49%	-1.64%	1.24%	3.28%	0.00%	-0.11%	12.47%
C. Provo	14.65%	-0.40%	-2.14%	1.71%	3.72%	0.00%	-0.17%	17.37%
D. Logan	12.78%	-29.24%	-2.28%	33.08%	3.64%	0.00%	-0.17%	17.81%
E. Other Division B	15.00%	-0.30%	-1.29%	0.32%	2.99%	0.00%	-0.05%	16.67%
IV. Public Safety Noncontributory								
A. State	24.91%	-0.18%	-2.12%	0.66%	3.76%	0.00%	-0.13%	26.92%
B. Other Division A	21.53%	-0.49%	-1.64%	0.91%	3.14%	0.00%	-0.11%	23.34%
C. Salt Lake City	32.21%	-0.55%	-2.24%	1.39%	3.91%	0.00%	-0.34%	34.38%
D. Ogden	30.89%	-0.31%	-3.14%	1.11%	4.49%	0.00%	0.07%	33.11%
E. Logan	23.55%	-29.24%	-2.28%	32.36%	3.53%	0.00%	-0.18%	27.74%
F. Bountiful	19.81%	-0.10%	-2.90%	2.11%	4.31%	0.00%	-0.16%	23.07%
G. Other Division B	24.74%	-0.30%	-1.29%	0.16%	2.95%	0.00%	-0.05%	26.21%
V. Firefighters								
A. Division A	8.34%	0.03%	-1.17%	0.17%	3.72%	0.00%	-0.31%	10.78%
B. Division B	1.20%	0.14%	-3.09%	1.63%	5.17%	0.00%	-0.44%	4.61%
VI. Judges	25.33%	-0.16%	-3.15%	3.28%	5.45%	0.00%	0.00%	30.77%
VII. Governors and Legislative	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VIII. 3% Substantial Substitute	0.73%	-0.04%	-0.01%	0.01%	0.02%	0.00%	-0.01%	0.70%

Notes: Rates shown as of Jan. 1, 2007 do not include any adjustments for 2007 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  
The large numbers in columns 3 & 5 for Logan Public Safety are an anomaly caused by the transfer of members from the contributory plan to the noncontributory plan

Analysis of Financial Experience

Fund/Division (1)	Changes in Unfunded Actuarial Accrued Liability Due To							Jan. 1, 2008 UAAL (9)
	Jan. 1, 2007 UAAL (2)	Amortization Payments (3)	Liability (Gain)/Loss (4)	Asset (Gain)/Loss (5)	Change in Actuarial Assumptions (6)	Change in Benefit Provisions (7)	Asset Transfers (8)	
I. Public Employees Contributory								
A. Local Government	19,553	(1,636)	13,192	(16,140)	13,769	0	(3,465)	25,273
B. State and School	38,962	9,969	11,891	(38,094)	27,092	0	(6,950)	42,871
C. Subtotal	58,515	8,333	25,083	(54,234)	40,861	0	(10,415)	68,144
II. Public Employees Noncontributory								
A. Local Government	168	(18,849)	83,764	(119,467)	103,796	0	3,465	52,877
B. State and School	349,025	(67,113)	366,645	(594,781)	407,624	0	6,950	468,350
C. Subtotal	349,193	(85,962)	450,409	(714,248)	511,420	0	10,415	521,227
III. Public Safety Contributory								
A. State	350	(24)	1,171	(3,526)	3,035	0	(605)	401
B. Other Division A	3,582	(123)	(13,859)	(9,418)	7,538	0	16,221	3,942
C. Provo	4,300	(126)	1,316	(1,494)	1,776	0	0	5,772
D. Logan	814	80	(2,814)	(821)	570	0	2,706	536
E. Other Division B	4,958	64	(4,562)	(2,139)	2,377	0	4,043	4,742
F. Subtotal	14,004	(129)	(18,748)	(17,398)	15,296	0	22,365	15,393
IV. Public Safety Noncontributory								
A. State	53,999	(3,002)	11,604	(29,154)	35,831	0	605	69,882
B. Other Division A	26,149	(3,038)	27,373	(27,275)	36,090	0	(16,221)	43,078
C. Salt Lake City	41,721	(1,181)	6,313	(8,418)	11,125	0	0	49,561
D. Ogden	7,658	62	1,156	(2,411)	2,695	0	0	9,161
E. Logan	260	(151)	4,395	(38)	423	0	(2,706)	2,183
F. Bountiful	(88)	(55)	506	(736)	768	0	0	395
G. Other Division B	16,080	(373)	5,414	(4,289)	6,772	0	(4,043)	19,561
H. Subtotal	145,779	(7,738)	56,761	(72,321)	93,704	0	(22,365)	193,821
V. Firefighters								
A. Division A	(1,809)	(1,040)	506	(3,796)	4,347	0	0	(1,793)
B. Division B	(59,477)	(5,194)	14,920	(32,342)	29,053	0	0	(53,041)
C. Subtotal	(61,286)	(6,234)	15,426	(36,138)	33,400	0	0	(54,834)
VI. Judges	248	(188)	5,363	(6,011)	6,120	0	0	5,532
VII. Governors and Legislative	(1,771)	(27)	145	(647)	426	0	0	(1,874)
VIII. 3% Substantial Substitute	287,940	(2,842)	10,880	(6,110)	15,012	0	0	304,881
IX. Grand Total	792,622	(94,787)	545,319	(907,107)	716,239	0	0	1,052,290

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 (1)	Retirees and Beneficiaries (2)	Inactive Members (3)	Active Members (4)	Total (5)
I. Public Employees Contributory				
A. Local Government	144,186	33,001	249,526	426,713
B. State and School	362,068	65,655	393,093	820,816
C. Subtotal	506,254	98,656	642,619	1,247,529
II. Public Employees Noncontributory				
A. Local Government	1,044,377	176,105	2,369,019	3,589,501
B. State and School	6,151,668	544,139	9,702,853	16,398,660
C. Subtotal	7,196,045	720,244	12,071,872	19,988,161
III. Public Safety Contributory				
A. State	55,657	1,477	4,345	61,480
B. Other Division A	124,304	7,397	65,594	197,295
C. Provo	20,661	1,251	26,505	48,417
D. Logan	10,421	172	2,843	13,436
E. Other Division B	26,910	2,963	35,408	65,281
F. Subtotal	237,953	13,260	134,695	385,909
IV. Public Safety Noncontributory				
A. State	374,527	18,534	545,676	938,737
B. Other Division A	293,284	21,415	702,288	1,016,988
C. Salt Lake City	139,597	2,122	140,586	282,305
D. Ogden	41,920	898	26,319	69,137
E. Logan	1,407	68	11,563	13,038
F. Bountiful	9,444	101	10,302	19,847
G. Other Division B	52,393	5,295	137,844	195,532
H. Subtotal	912,572	48,433	1,574,578	2,535,584
V. Firefighters				
A. Division A	37,733	1,516	131,293	170,542
B. Division B	380,608	3,483	475,608	859,699
C. Subtotal	418,341	4,999	606,901	1,030,241
VI. Judges	67,388	2,220	90,953	160,560
VII. Governors and Legislative	5,361	2,842	2,188	10,391
VIII. Grand Total	9,343,914	890,654	15,123,806	25,358,375

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

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

Fund/Division (1)	Retired Members (2)	Disabled Members (3)	Beneficiaries (4)	Total (5)
I. Public Employees Contributory				
A. Local Government	120,320	5,387	18,479	144,186
B. State and School	300,844	11,485	49,739	362,068
C. Subtotal	<u>421,164</u>	<u>16,872</u>	<u>68,218</u>	<u>506,254</u>
II. Public Employees Noncontributory				
A. Local Government	963,198	23,916	57,263	1,044,377
B. State and School	5,770,244	84,140	297,283	6,151,668
C. Subtotal	<u>6,733,442</u>	<u>108,056</u>	<u>354,546</u>	<u>7,196,045</u>
III. Public Safety Contributory				
A. State	39,184	2,352	14,121	55,657
B. Other Division A	107,379	1,527	15,399	124,304
C. Provo	19,324	0	1,337	20,661
D. Logan	10,204	107	111	10,421
E. Other Division B	25,018	893	998	26,910
F. Subtotal	<u>201,109</u>	<u>4,879</u>	<u>31,966</u>	<u>237,953</u>
IV. Public Safety Noncontributory				
A. State	356,189	5,108	13,231	374,527
B. Other Division A	276,392	4,096	12,796	293,284
C. Salt Lake City	125,672	3,219	10,705	139,597
D. Ogden	37,311	485	4,123	41,920
E. Logan	1,407	0	0	1,407
F. Bountiful	9,024	0	420	9,444
G. Other Division B	48,721	2,031	1,641	52,393
H. Subtotal	<u>854,716</u>	<u>14,939</u>	<u>42,916</u>	<u>912,572</u>
V. Firefighters				
A. Division A	29,896	4,753	3,084	37,733
B. Division B	329,380	18,442	32,786	380,608
C. Subtotal	<u>359,276</u>	<u>23,195</u>	<u>35,870</u>	<u>418,341</u>
VI. Judges	59,099	0	8,289	67,388
VII. Governors and Legislative	4,479	0	883	5,361
VIII. Grand Total	8,633,285	167,941	542,688	9,343,914

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

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

Fund/Division (1)	Disabled (2)	Other Vested (3)	Nonvested (4)	Total (5)
I. Public Employees Contributory				
A. Local Government	1,717	29,605	1,679	33,001
B. State and School	7,697	57,881	77	65,655
C. Subtotal	9,414	87,486	1,756	98,656
II. Public Employees Noncontributory				
A. Local Government	22,339	152,700	1,066	176,105
B. State and School	84,188	454,881	5,070	544,139
C. Subtotal	106,527	607,581	6,136	720,244
III. Public Safety Contributory				
A. State	0	1,468	9	1,477
B. Other Division A	132	6,606	659	7,397
C. Provo	116	1,070	65	1,251
D. Logan	0	161	10	172
E. Other Division B	472	2,371	120	2,963
F. Subtotal	720	11,676	863	13,260
IV. Public Safety Noncontributory				
A. State	3,369	15,152	13	18,534
B. Other Division A	3,292	18,113	11	21,415
C. Salt Lake City	291	1,767	63	2,122
D. Ogden	0	898	0	898
E. Logan	0	68	0	68
F. Bountiful	0	101	0	101
G. Other Division B	923	4,337	35	5,295
H. Subtotal	7,875	40,436	122	48,433
V. Firefighters				
A. Division A	0	1,334	182	1,516
B. Division B	0	3,220	264	3,483
C. Subtotal	0	4,554	446	4,999
VI. Judges	0	2,220	0	2,220
VII. Governors and Legislative	0	2,832	9	2,842
VIII. Grand Total	124,536	756,785	9,332	890,654

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

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

Fund/Division (1)	Retirement (2)	Deferred Termination (3)	Disability (4)	Refunds (5)	Death (6)	Total (7)
I. Public Employees Contributory						
A. Local Government	224,086	14,358	4,447	2,671	3,964	249,526
B. State and School	370,968	12,036	4,464	282	5,343	393,093
C. Subtotal	595,054	26,394	8,911	2,953	9,307	642,619
II. Public Employees Noncontributory						
A. Local Government	2,065,459	192,874	69,365	144	41,177	2,369,019
B. State and School	8,846,952	506,502	209,059	33	140,307	9,702,853
C. Subtotal	10,912,411	699,376	278,424	177	181,484	12,071,872
III. Public Safety Contributory						
A. State	4,324	0	0	0	21	4,345
B. Other Division A	61,170	901	1,383	1,496	645	65,594
C. Provo	24,975	356	427	455	291	26,505
D. Logan	2,706	42	38	32	25	2,843
E. Other Division B	33,371	515	589	543	390	35,408
F. Subtotal	126,546	1,814	2,437	2,526	1,372	134,695
IV. Public Safety Noncontributory						
A. State	518,444	11,859	10,130	3	5,240	545,676
B. Other Division A	662,774	18,370	14,280	1	6,862	702,288
C. Salt Lake City	134,463	2,586	2,059	0	1,479	140,586
D. Ogden	24,756	684	551	0	328	26,319
E. Logan	11,156	177	131	0	99	11,563
F. Bountiful	9,903	163	142	0	93	10,302
G. Other Division B	130,491	3,132	2,569	0	1,651	137,844
H. Subtotal	1,491,987	36,971	29,862	4	15,752	1,574,578
V. Firefighters						
A. Division A	123,234	270	5,484	629	1,677	131,293
B. Division B	453,397	569	12,800	1,559	7,283	475,608
C. Subtotal	576,631	839	18,284	2,188	8,960	606,901
VI. Judges	89,140	0	0	0	1,812	90,953
VII. Governors and Legislative	1,392	773	0	0	23	2,188
VIII. Grand Total	13,793,161	766,167	337,918	7,848	218,710	15,123,806

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

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

Fund/Division (1)	Basic Benefit (2)	COLA (3)	Subtotal (2) + (3) (4)	ROPP (5)	Total (4) + (5) (6)
I. Public Employees Contributory					
A. Local Government	97,034	46,777	143,811	375	144,186
B. State and School	229,595	130,304	359,899	2,168	362,068
C. Subtotal	326,629	177,081	503,710	2,543	506,254
II. Public Employees Noncontributory					
A. Local Government	734,523	309,854	1,044,377	0	1,044,377
B. State and School	4,265,253	1,886,415	6,151,668	0	6,151,668
C. Subtotal	4,999,776	2,196,269	7,196,045	0	7,196,045
III. Public Safety Contributory					
A. State	32,431	21,357	53,788	1,869	55,657
B. Other Division A	82,426	40,840	123,266	1,039	124,304
C. Provo	14,300	6,301	20,601	60	20,661
D. Logan	7,418	2,998	10,416	5	10,421
E. Other Division B	19,567	7,340	26,907	3	26,910
F. Subtotal	156,142	78,836	234,978	2,976	237,953
IV. Public Safety Noncontributory					
A. State	270,233	104,291	374,524	4	374,527
B. Other Division A	214,934	78,350	293,284	0	293,284
C. Salt Lake City	94,124	45,015	139,139	458	139,597
D. Ogden	29,311	12,512	41,823	96	41,920
E. Logan	1,073	334	1,407	0	1,407
F. Bountiful	6,812	2,615	9,427	17	9,444
G. Other Division B	38,961	13,432	52,393	0	52,393
H. Subtotal	655,448	256,549	911,997	575	912,572
V. Firefighters					
A. Division A	25,772	11,774	37,546	187	37,733
B. Division B	248,434	129,093	377,527	3,081	380,608
C. Subtotal	274,206	140,867	415,073	3,268	418,341
VI. Judges	42,840	24,548	67,388	0	67,388
VII. Governors and Legislative	3,578	1,783	5,361	0	5,361
VIII. Grand Total	6,458,619	2,875,933	9,334,552	9,362	9,343,914

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



Normal Cost

Fund/Division (1)	Retirement (2)	Deferred Termination (3)	Disability (4)	Refunds (5)	Death (6)	Total (7)
I. Public Employees Contributory						
A. Local Government	7.38%	1.34%	0.45%	1.33%	0.20%	10.70%
B. State and School	6.56%	1.07%	0.36%	1.80%	0.16%	9.95%
II. Public Employees Noncontributory						
A. Local Government	8.52%	1.80%	0.54%	0.00%	0.20%	11.06%
B. State and School	9.58%	1.49%	0.46%	0.00%	0.18%	11.71%
III. Public Safety Contributory						
A. State	19.41%	0.70%	1.22%	1.19%	0.38%	22.90%
B. Other Division A	19.41%	0.62%	0.98%	1.38%	0.32%	22.71%
C. Provo	19.36%	0.61%	0.85%	1.55%	0.42%	22.79%
D. Logan	18.87%	0.54%	0.62%	1.52%	0.32%	21.87%
E. Other Division B	19.33%	0.59%	0.81%	1.26%	0.40%	22.39%
IV. Public Safety Noncontributory						
A. State	19.45%	1.04%	0.96%	0.00%	0.31%	21.76%
B. Other Division A	19.19%	1.00%	0.82%	0.00%	0.28%	21.29%
C. Salt Lake City	19.26%	0.97%	0.81%	0.00%	0.40%	21.44%
D. Ogden	19.20%	0.98%	0.84%	0.00%	0.41%	21.43%
E. Logan	18.76%	0.94%	0.64%	0.00%	0.33%	20.67%
F. Bountiful	19.39%	1.00%	0.87%	0.00%	0.29%	21.55%
G. Other Division B	19.22%	0.97%	0.83%	0.00%	0.41%	21.43%
V. Firefighters						
A. Division A	23.63%	0.12%	1.75%	0.47%	0.41%	26.38%
B. Division B	23.68%	0.10%	1.47%	0.50%	0.54%	26.29%
VI. Judges	26.24%	0.00%	0.00%	0.00%	1.00%	27.24%
VII. Governors and Legislative	N/A	N/A	N/A	N/A	N/A	N/A

Note: Columns may not add to total due to rounding

**Net Employer Normal Cost**

Fund/Division (1)	Total Normal Cost (2)	Member Rate (3)	Net Employer Normal Cost (2) - (3) (4)
I. Public Employees Contributory			
A. Local Government	10.70%	6.00%	4.70%
B. State and School	9.95%	6.00%	3.95%
II. Public Employees Noncontributory			
A. Local Government	11.06%	0.00%	11.06%
B. State and School	11.71%	0.00%	11.71%
III. Public Safety Contributory			
A. State	22.90%	12.29%	10.61%
B. Other Division A	22.71%	12.29%	10.42%
C. Provo	22.79%	13.54%	9.25%
D. Logan	21.87%	11.13%	10.74%
E. Other Division B	22.39%	10.50%	11.89%
IV. Public Safety Noncontributory			
A. State	21.76%	0.00%	21.76%
B. Other Division A	21.29%	0.00%	21.29%
C. Salt Lake City	21.44%	0.00%	21.44%
D. Ogden	21.43%	0.00%	21.43%
E. Logan	20.67%	0.00%	20.67%
F. Bountiful	21.55%	0.00%	21.55%
G. Other Division B	21.43%	0.00%	21.43%
V. Firefighters			
A. Division A	26.38%	15.05%	11.33%
B. Division B	26.29%	16.71%	9.58%
VI. Judges	27.24%	0.00%	27.24%
VII. Governors and Legislative	N/A	N/A	N/A

**Determination of Actuarial Accrued Liability**

Fund/Division (1)	Actuarial Present Value of Future Benefits (2)	Actuarial Present Value of Future Normal Costs			Actuarial Accrued Liability (2) - (5) (6)
		Members (3)	Employers (4)	Total (5)	
I. Public Employees Contributory					
A. Local Government	426,713	25,473	19,953	45,426	381,287
B. State and School	820,816	19,207	12,645	31,852	788,964
C. Subtotal	<u>1,247,529</u>	<u>44,680</u>	<u>32,598</u>	<u>77,278</u>	<u>1,170,251</u>
II. Public Employees Noncontributory					
A. Local Government	3,589,501	0	756,448	756,448	2,833,053
B. State and School	16,398,660	0	2,683,857	2,683,857	13,714,803
C. Subtotal	<u>19,988,161</u>	<u>0</u>	<u>3,440,305</u>	<u>3,440,305</u>	<u>16,547,856</u>
III. Public Safety Contributory					
A. State	61,480	234	203	437	61,043
B. Other Division A	197,295	14,645	12,417	27,062	170,234
C. Provo	48,417	5,967	4,077	10,044	38,373
D. Logan	13,436	505	488	993	12,443
E. Other Division B	65,281	6,415	7,263	13,678	51,602
F. Subtotal	<u>385,909</u>	<u>27,766</u>	<u>24,448</u>	<u>52,214</u>	<u>333,695</u>
IV. Public Safety Noncontributory					
A. State	938,737	0	199,395	199,395	739,342
B. Other Division A	1,016,988	0	298,350	298,350	718,638
C. Salt Lake City	282,305	0	48,166	48,166	234,139
D. Ogden	69,137	0	11,548	11,548	57,590
E. Logan	13,038	0	3,814	3,814	9,224
F. Bountiful	19,847	0	3,046	3,046	16,801
G. Other Division B	195,532	0	57,135	57,135	138,397
H. Subtotal	<u>2,535,584</u>	<u>0</u>	<u>621,454</u>	<u>621,454</u>	<u>1,914,131</u>
V. Firefighters					
A. Division A	170,542	43,431	32,696	76,127	94,414
B. Division B	859,699	140,649	80,635	221,284	638,415
C. Subtotal	<u>1,030,241</u>	<u>184,080</u>	<u>113,331</u>	<u>297,411</u>	<u>732,829</u>
VI. Judges	160,560	0	25,182	25,182	135,379
VII. Governors and Legislative	10,391	0	529	529	9,862
VIII. Grand Total	25,358,375	256,526	4,257,847	4,514,373	20,844,003

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

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

Fund/Division (1)	Inactive Members			Active Members		
	Accumulated			Accumulated		
	Member Contributions (2)	Employer Financed (3)	Total (4)	Member Contributions (5)	Employer Financed (6)	Total (7)
I. Public Employees Contributory						
A. Local Government	28,455	4,546	33,001	88,412	115,688	204,100
B. State and School	55,045	10,610	65,655	151,400	209,842	361,242
C. Subtotal	83,500	15,156	98,656	239,812	325,530	565,342
II. Public Employees Noncontributory						
A. Local Government	35,873	140,232	176,105	120,079	1,492,491	1,612,570
B. State and School	100,235	443,904	544,139	471,677	6,547,319	7,018,996
C. Subtotal	136,108	584,136	720,244	591,756	8,039,810	8,631,566
III. Public Safety Contributory						
A. State	864	613	1,477	1,688	2,221	3,909
B. Other Division A	6,471	926	7,397	19,756	18,776	38,532
C. Provo	1,032	219	1,251	7,740	8,721	16,461
D. Logan	172	0	172	714	1,136	1,850
E. Other Division B	2,113	850	2,963	8,311	13,418	21,729
F. Subtotal	10,652	2,608	13,260	38,209	44,272	82,481
IV. Public Safety Noncontributory						
A. State	1,680	16,854	18,534	7,145	339,136	346,281
B. Other Division A	3,201	18,214	21,415	16,198	387,740	403,938
C. Salt Lake City	294	1,828	2,122	3,202	89,218	92,420
D. Ogden	251	647	898	822	13,950	14,772
E. Logan	65	3	68	2,458	5,291	7,749
F. Bountiful	0	101	101	343	6,913	7,256
G. Other Division B	1,253	4,042	5,295	4,960	75,749	80,709
H. Subtotal	6,744	41,689	48,433	35,128	917,997	953,125
V. Firefighters						
A. Division A	1,209	307	1,516	13,578	41,588	55,166
B. Division B	2,607	876	3,483	68,711	185,613	254,324
C. Subtotal	3,816	1,183	4,999	82,289	227,201	309,490
VI. Judges	616	1,604	2,220	6,725	59,046	65,771
VII. Governors and Legislative	144	2,698	2,842	2	1,657	1,659
VIII. Grand Total	241,580	649,074	890,654	993,921	9,615,513	10,609,434

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

Number of Members

Fund/Division (1)	Active (2)	Inactive Members			Members Receiving Benefits			Total (9)
		Disabled (3)	Vested (4)	Nonvested (5)	Regular Retirees (6)	Disabled Retirees (7)	Beneficiaries (8)	
I. Public Employees Contributory								
A. Local Government	1,392	12	822	697	1,067	59	296	4,345
B. State and School	1,429	46	831	17	3,304	156	836	6,619
C. Subtotal	2,821	58	1,653	714	4,371	215	1,132	10,964
II. Public Employees Noncontributory								
A. Local Government	19,581	205	8,819	463	4,476	150	428	34,122
B. State and School	71,761	681	25,266	1,279	22,886	586	1,799	124,258
C. Subtotal	91,342	886	34,085	1,742	27,362	736	2,227	158,380
III. Public Safety Contributory								
A. State	13	0	25	14	187	17	140	396
B. Other Division A	285	1	256	82	415	10	150	1,199
C. Provo	93	1	21	13	50	0	11	189
D. Logan	11	0	5	1	28	1	1	47
E. Other Division B	137	2	62	22	75	5	11	314
F. Subtotal	539	4	369	132	755	33	313	2,145
IV. Public Safety Noncontributory								
A. State	2,496	18	1,015	3	944	25	85	4,586
B. Other Division A	3,254	16	1,208	2	732	19	67	5,298
C. Salt Lake City	476	1	98	2	326	18	82	1,003
D. Ogden	120	0	48	0	115	2	32	317
E. Logan	48	0	4	0	2	0	0	54
F. Bountiful	36	0	7	0	25	0	4	72
G. Other Division B	585	4	204	3	120	5	9	930
H. Subtotal	7,015	39	2,584	10	2,264	69	279	12,260
V. Firefighters								
A. Division A	455	0	96	38	77	17	17	700
B. Division B	1,331	0	107	97	721	67	199	2,522
C. Subtotal	1,786	0	203	135	798	84	216	3,222
VI. Judges	110	0	6	0	65	0	31	212
VII. Governors and Legislative	92	0	112	6	156	0	64	430
VIII. Grand Total	103,705	987	39,012	2,739	35,771	1,137	4,262	187,613

Active Membership Statistics

Fund/Division (1)	Number (2)	Total Compensation \$ Thousands (3)	Average Compensation (\$'s) (4)	Accumulated Member Contributions With Interest \$ Thousands (5)	Average Age (6)	Average Service (7)
I. Public Employees Contributory						
A. Local Government	1,392	61,603	44,255	88,412	48.2	14.4
B. State and School	1,429	66,427	46,485	151,400	54.7	25.2
C. Subtotal	2,821	128,030	45,385	239,812	51.5	19.9
II. Public Employees Noncontributory						
A. Local Government	19,581	817,627	41,756	120,079	44.2	8.9
B. State and School	71,761	2,765,898	38,542	471,677	44.9	10.2
C. Subtotal	91,342	3,583,525	39,232	591,756	44.7	9.9
III. Public Safety Contributory						
A. State	13	615	47,280	1,688	55.1	20.8
B. Other Division A	285	13,008	45,643	19,756	40.4	8.7
C. Provo	93	4,826	51,894	7,740	38.2	9.8
D. Logan	11	515	46,793	714	37.9	11.6
E. Other Division B	137	6,736	49,170	8,311	37.8	9.5
F. Subtotal	539	25,700	47,681	38,209	39.6	9.4
IV. Public Safety Noncontributory						
A. State	2,496	106,614	42,662	7,145	40.7	9.7
B. Other Division A	3,254	142,209	43,689	16,198	37.4	8.4
C. Salt Lake City	476	26,033	54,692	3,202	39.4	10.4
D. Ogden	120	5,321	44,343	822	36.5	8.1
E. Logan	48	2,148	43,838	2,458	36.5	9.7
F. Bountiful	36	1,761	48,926	343	41.3	11.5
G. Other Division B	585	27,800	47,440	4,960	37.6	8.1
H. Subtotal	7,015	311,886	44,460	35,128	38.7	9.0
V. Firefighters						
A. Division A	455	22,195	48,781	13,578	38.5	7.3
B. Division B	1,331	72,293	54,315	68,711	39.5	11.0
C. Subtotal	1,786	94,488	52,905	82,289	39.2	10.1
VI. Judges	110	13,387	121,700	6,725	56.2	11.2
VII. Governors and Legislative	92	538	5,850	2	52.3	5.8
VIII. Grand Total	103,705	4,157,554	40,090	993,921	44.4	10.1

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

Fund/Division (1)	Number (2)	Annual Total Benefits (\$ Thousands) (3)	Average Monthly Benefit (\$'s) (4)
I. Public Employees Contributory			
A. Local Government	1,422	14,481	849
B. State and School	4,296	43,115	836
C. Subtotal	5,718	57,596	839
II. Public Employees Noncontributory			
A. Local Government	5,054	86,690	1,429
B. State and School	25,271	509,647	1,681
C. Subtotal	30,325	596,337	1,639
III. Public Safety Contributory			
A. State	344	5,722	1,386
B. Other Division A	575	10,451	1,515
C. Provo	61	1,629	2,226
D. Logan	30	781	2,170
E. Other Division B	91	1,869	1,711
F. Subtotal	1,101	20,452	1,548
IV. Public Safety Noncontributory			
A. State	1,054	27,915	2,207
B. Other Division A	818	21,250	2,165
C. Salt Lake City	426	11,212	2,193
D. Ogden	149	3,216	1,799
E. Logan	2	95	3,946
F. Bountiful	29	709	2,038
G. Other Division B	134	3,600	2,239
H. Subtotal	2,612	67,997	2,169
V. Firefighters			
A. Division A	111	2,715	2,039
B. Division B	987	29,229	2,468
C. Subtotal	1,098	31,944	2,424
VI. Judges	96	5,931	5,149
VII. Governors and Legislative	220	596	226
VIII. Grand Total	41,170	780,853	1,581

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

Item (1)	December 31, 2007 (2)	December 31, 2006 (3)
1. Cash	1,213	2,448
2. Receivables:		
a. Member contributions	1,165	1,021
b. Employer contributions	36,451	33,353
c. Fire insurance premium tax & court fees	3,151	124
d. Investments	<u>410,110</u>	<u>267,411</u>
e. Total	450,877	301,909
3. Investments		
a. Short-term securities – domestic	1,506,772	2,057,390
b. Short-term securities - international	6,116	105,123
c. Bonds - domestic	4,787,027	3,618,385
d. Bonds - international	573,227	939,478
e. Equities - domestic	5,974,362	6,413,229
f. Equities - international	3,011,184	3,390,880
g. Alternative investments	3,341,953	2,200,222
h. Real estate	3,771,930	3,329,763
i. Mortgage loans	<u>6,845</u>	<u>6,848</u>
j. Total	22,979,416	21,861,318
4. Other	1,817,640	2,193,733
5. Total assets	25,249,146	24,359,408
6. Liabilities		
a. Securities lending liability	(1,816,825)	(2,191,701)
b. Other accounting liabilities	(2,466,126)	(2,324,185)
c. Reserves	<u>(15,539)</u>	<u>(13,893)</u>
d. Total	(4,298,490)	(4,529,779)
7. Net assets	20,950,656	19,829,629

Note: Assets exclude 401(k) and 457 plans

Amounts shown are in \$ thousands

Amounts shown are from the December 31, 2007 Comprehensive Annual Financial Report and may differ from other numbers contained in this report due to rounding.



**Reconciliation of Market Value of Assets (MVA)**

Fund/Division (1)	MVA as of Dec. 31, 2006 (2)	Contributions (3)	Benefits and Refunds (4)	Earnings, Net of Expenses (5)	Transfers (6)	MVA as of Dec. 31, 2007 (7)
I. Public Employees Contributory						
A. Local Government	352,789	9,261	(16,442)	22,682	(3,626)	364,665
B. State and School	<u>762,625</u>	<u>11,647</u>	<u>(47,552)</u>	<u>48,369</u>	<u>(8,438)</u>	<u>766,651</u>
C. Subtotal	1,115,414	20,908	(63,994)	71,051	(12,064)	1,131,315
II. Public Employees Noncontributory						
A. Local Government	2,683,786	98,177	(90,547)	176,472	6,805	2,874,693
B. State and School	<u>12,971,399</u>	<u>382,989</u>	<u>(522,322)</u>	<u>845,712</u>	<u>22,865</u>	<u>13,700,644</u>
C. Subtotal	15,655,185	481,166	(612,868)	1,022,185	29,670	16,575,337
III. Public Safety Contributory						
A. State	65,930	184	(6,211)	4,051	(1,423)	62,531
B. Other Division A	192,513	4,144	(11,393)	12,280	(8,225)	189,319
C. Provo	32,319	1,425	(1,886)	2,091	(245)	33,704
D. Logan	17,664	382	(852)	1,126	(3,101)	15,219
E. Other Division B	<u>50,412</u>	<u>1,970</u>	<u>(1,992)</u>	<u>3,325</u>	<u>(1,115)</u>	<u>52,600</u>
F. Subtotal	358,839	8,105	(22,334)	22,873	(14,109)	353,373
IV. Public Safety Noncontributory						
A. State	648,970	27,751	(28,850)	42,535	1,837	692,245
B. Other Division A	621,166	31,299	(22,230)	41,115	8,808	680,157
C. Salt Lake City	181,094	9,306	(11,596)	11,754	234	190,793
D. Ogden	48,562	1,568	(3,213)	3,132	126	50,175
E. Logan	913	291	(65)	86	3,151	4,375
F. Bountiful	16,255	373	(693)	1,054	(23)	16,966
G. Other Division B	<u>105,693</u>	<u>6,815</u>	<u>(3,608)</u>	<u>7,015</u>	<u>2,299</u>	<u>118,213</u>
H. Subtotal	1,622,653	77,404	(70,256)	106,691	16,432	1,752,924
V. Firefighters						
A. Division A	90,462	5,846	(2,833)	5,970	(329)	99,116
B. Division B	<u>683,313</u>	<u>17,143</u>	<u>(31,347)</u>	<u>44,411</u>	<u>2,038</u>	<u>715,558</u>
C. Subtotal	773,774	22,989	(34,180)	50,382	1,709	814,674
VI. Judges	128,300	3,223	(6,334)	8,336	841	134,366
VII. Governors and Legislative	12,163	0	(759)	774	17	12,195
VIII. 3% Substantial Substitute	163,298	24,882	(99)	10,884	(22,497)	176,467
IX. Grand Total	19,829,625	638,677	(810,825)	1,293,176	0	20,950,653

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

**Investment Return Rates for Prior Year**

	Basis of Assets	
	Market Value (1)	Actuarial Value (2)
1. Beginning of year assets	19,829,625	18,093,490
2. Contributions to fund during year	638,677	638,677
3. Benefit payments during year (including refunds of contributions)	(810,825)	(810,825)
4. Transfers to and (from) URS	0	0
5. Investment income, net of investment and administrative expenses	1,293,176	2,347,701
6. End of year assets	20,950,653	20,269,043
7. Investment return rate	6.6%	13.0%

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%
2005	9.2%	7.4%
2006	14.4%	11.1%
2007	6.6%	13.0%
Average return		
Last 5 years:	13.7%	8.9%
Last 10 years:	7.9%	8.8%
Last 15 years:	9.7%	9.8%

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

1. Market value of assets 20,950,653

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

<u>Year</u>	<u>Total Excess/(Shortfall)</u>	<u>Weight Subtracted</u>	<u>Weighted Amount</u>
a. 2007	(286,308)	80%	(229,046)
b. 2006	1,116,942	60%	670,165
c. 2005	199,197	40%	79,679
d. 2004	804,061	20%	160,813
e. 2003	2,007,188	0%	<u>0</u>
f. Total			681,610

3. Preliminary actuarial value of assets (1-2f) 20,269,043

4. Corridor Limits

a. 80% of market value 16,670,522

b. 120% of market value 25,140,783

c. Actuarial value (Item 3, not more than 4b, not less than 4a) 20,269,043

5. Ratio of actuarial value to market value 96.7%

Note: Amounts shown are in \$ thousands

Transfer Adjustments to Asset Values

Fund/Division (1)	Market Value of Assets (MVA) at January 1, 2008			Actuarial Value of Assets (AVA) at January 1, 2008		
	MVA Before Transfer (2)	Transfer Amount (3)	MVA After Transfer (4)	AVA Before Transfer (5)	Transfer Amount (6)	AVA After Transfer (7)
I. Public Employees Contributory						
A. Local Government	364,665	3,578	368,243	352,549	3,465	356,014
B. State and School	<u>766,651</u>	<u>7,185</u>	<u>773,836</u>	<u>739,143</u>	<u>6,950</u>	<u>746,093</u>
C. Subtotal	1,131,315	10,763	1,142,078	1,091,692	10,415	1,102,107
II. Public Employees Noncontributory						
A. Local Government	2,874,693	(3,578)	2,871,115	2,783,641	(3,465)	2,780,176
B. State and School	<u>13,700,644</u>	<u>(7,185)</u>	<u>13,693,459</u>	<u>13,253,403</u>	<u>(6,950)</u>	<u>13,246,453</u>
C. Subtotal	16,575,337	(10,763)	16,564,574	16,037,044	(10,415)	16,026,629
III. Public Safety Contributory						
A. State	62,531	625	63,156	60,037	605	60,642
B. Other Division A	189,319	(16,826)	172,493	182,513	(16,221)	166,292
C. Provo	33,704	0	33,704	32,601	0	32,601
D. Logan	15,219	(2,818)	12,401	14,614	(2,706)	11,908
E. Other Division B	<u>52,600</u>	<u>(4,178)</u>	<u>48,422</u>	<u>50,903</u>	<u>(4,043)</u>	<u>46,860</u>
F. Subtotal	353,373	(23,197)	330,176	340,668	(22,365)	318,303
IV. Public Safety Noncontributory						
A. State	692,245	(625)	691,620	670,065	(605)	669,460
B. Other Division A	680,157	16,826	696,983	659,339	16,221	675,560
C. Salt Lake City	190,793	0	190,793	184,578	0	184,578
D. Ogden	50,175	0	50,175	48,429	0	48,429
E. Logan	4,375	2,818	7,193	4,334	2,706	7,040
F. Bountiful	16,966	0	16,966	16,406	0	16,406
G. Other Division B	<u>118,213</u>	<u>4,178</u>	<u>122,391</u>	<u>114,793</u>	<u>4,043</u>	<u>118,836</u>
H. Subtotal	1,752,924	23,197	1,776,121	1,697,944	22,365	1,720,309
V. Firefighters						
A. Division A	99,116	0	99,116	96,207	0	96,207
B. Division B	<u>715,558</u>	<u>0</u>	<u>715,558</u>	<u>691,456</u>	<u>0</u>	<u>691,456</u>
C. Subtotal	814,674	0	814,674	787,663	0	787,663
VI. Judges	134,366	0	134,366	129,847	0	129,847
VII. Governors and Legislative	12,195	0	12,195	11,736	0	11,736
VIII. 3% Substantial Substitute	176,467	0	176,467	172,448	0	172,448
IX. Grand Total	20,950,653	0	20,950,653	20,269,042	0	20,269,042

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

**Actuarially Determined Contribution Rate for 3% Substantial Substitute**

1. Actuarial accrued liability, all funds combined	
a. Retirees	270,165
b. Inactives	13,895
c. Actives	<u>193,269</u>
d. Total	477,329
2. Actuarial value of assets	172,448
3. Unfunded actuarial accrued liability	304,881
4. Covered compensation of state funds that will pay for benefit	3,036,381
5. Calculated rate (20-year funding period and 4.00% PGR)	0.70%

Notes: Amounts shown are in \$ thousands

Columns may not add to total due to rounding

**Liabilities for 3% Substantial Substitute**

Fund/Division (1)	Retirees and Beneficiaries (2)	Inactive Members (3)	Active Members (4)	Total (5)
I. Public Employees Contributory				
A. Local Government	4,224	772	5,802	10,798
B. State and School	10,756	1,952	11,746	24,455
C. Subtotal	14,980	2,724	17,548	35,253
II. Public Employees Noncontributory				
A. Local Government	29,219	2,485	26,026	57,730
B. State and School	178,374	7,755	130,538	316,666
C. Subtotal	207,593	10,240	156,564	374,396
III. Public Safety Contributory				
A. State	1,605	43	130	1,778
B. Other Division A	3,604	121	704	4,429
C. Provo	618	16	250	884
D. Logan	312	1	7	320
E. Other Division B	805	38	254	1,097
F. Subtotal	6,944	219	1,345	8,508
IV. Public Safety Noncontributory				
A. State	10,939	241	4,263	15,443
B. Other Division A	8,483	210	3,905	12,599
C. Salt Lake City	4,109	17	1,239	5,365
D. Ogden	1,230	16	173	1,418
E. Logan	42	0	139	181
F. Bountiful	283	3	127	412
G. Other Division B	1,517	97	894	2,507
H. Subtotal	26,603	584	10,740	37,925
V. Firefighters				
A. Division A	996	13	814	1,823
B. Division B	11,013	42	4,711	15,767
C. Subtotal	12,009	55	5,525	17,590
VI. Judges	1,902	21	1,530	3,454
VII. Governors and Legislative	135	52	17	204
VIII. Grand Total	270,166	13,895	193,269	477,330

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

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

Plan Year Beginning January 1st	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay (7)	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit (9)	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active (2)	Inactive (3)	Retired (4)	Total (5)						
1990	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
2006	3,140	2,321	5,963	11,424	131,437	41,859	51,646	722	1,014,414	951,540
2007	2,964	2,372	5,687	11,023	127,588	43,046	53,059	777	1,105,890	1,004,452
2008	2,821	2,425	5,718	10,964	128,030	45,385	57,596	839	1,142,078	1,102,107



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

Plan Year Beginning January 1st	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay (7)	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit (9)	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active (2)	Inactive (3)	Retired (4)	Total (5)						
1990	43,981	9,783	4,421	58,185	940,325	21,380	56,500	1,064	Not Available	2,100,892
1991	50,245	15,373	5,206	70,824	1,061,835	21,133	68,032	1,089	2,618,017	2,594,245
1992	58,836	8,042	6,114	72,992	1,329,925	22,604	76,871	1,048	3,345,871	3,041,640
1993	59,739	7,911	7,023	74,673	1,425,612	23,864	89,557	1,063	3,609,761	3,480,582
1994	63,448	9,507	8,025	80,980	1,536,528	24,217	104,731	1,088	4,258,021	4,039,120
1995	67,698	10,131	9,143	86,972	1,688,967	24,949	121,850	1,111	4,312,948	4,372,190
1996	69,922	12,413	10,458	92,793	1,862,940	26,643	142,838	1,138	5,497,373	5,128,203
1997	73,478	13,965	11,841	99,284	2,048,876	27,884	166,432	1,171	6,547,598	5,954,796
1998	76,728	15,383	13,242	105,353	2,231,957	29,089	192,723	1,213	7,711,808	6,896,740
1999	77,360	17,494	14,645	109,499	2,343,986	30,300	220,230	1,253	8,560,909	7,894,249
2000	80,639	18,630	16,163	115,432	2,486,200	30,831	248,366	1,281	10,112,606	9,186,463
2001	81,850	20,357	17,728	119,935	2,611,413	31,905	280,910	1,320	10,367,596	10,294,444
2002	83,690	27,385	19,145	130,220	2,801,564	33,475	314,821	1,370	9,848,682	11,021,828
2003	83,925	26,664	20,623	131,212	2,888,853	34,422	351,690	1,421	8,963,388	10,756,065
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
2006	86,502	33,035	25,446	144,983	3,121,800	36,089	466,287	1,527	13,756,039	12,935,862
2007	87,960	34,820	27,866	150,646	3,284,295	37,339	532,188	1,592	15,664,709	14,295,945
2008	91,342	36,713	30,325	158,380	3,583,525	39,232	596,337	1,639	16,564,574	16,026,629

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

Plan Year Beginning January 1st	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay (7)	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit (9)	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active (2)	Inactive (3)	Retired (4)	Total (5)						
1990	2,612	713	1,194	4,519	65,978	25,260	13,139	917	Not Available	330,407
1991	1,641	520	1,190	3,351	42,496	25,896	13,530	948	240,788	241,347
1992	1,644	709	1,237	3,590	44,469	27,049	14,290	963	289,472	263,237
1993	1,591	705	1,251	3,547	44,934	28,244	14,860	990	295,915	285,043
1994	1,601	714	1,273	3,588	46,728	29,187	15,373	1,006	326,536	311,148
1995	1,280	568	1,294	3,142	38,571	30,134	16,087	1,036	284,198	289,572
1996	971	525	1,321	2,817	30,304	31,209	17,323	1,093	310,209	291,478
1997	952	543	1,322	2,817	31,940	33,550	17,735	1,118	335,065	304,699
1998	1,006	531	1,340	2,877	34,262	34,058	18,487	1,150	364,531	324,488
1999	855	498	1,344	2,697	29,704	34,742	19,147	1,187	347,477	316,739
2000	804	486	1,333	2,623	28,957	36,016	19,351	1,210	363,654	327,635
2001	794	479	1,243	2,516	30,021	37,810	18,611	1,248	331,370	326,949
2002	795	503	1,257	2,555	30,783	38,721	19,480	1,291	293,617	328,959
2003	789	502	1,250	2,541	31,501	39,925	20,222	1,348	269,041	322,275
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
2006	698	526	1,256	2,480	31,443	45,047	22,127	1,468	368,717	345,699
2007	693	534	1,252	2,479	32,291	46,596	23,020	1,532	398,502	361,788
2008	539	505	1,101	2,145	25,700	47,681	20,452	1,548	330,176	318,303

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

Plan Year Beginning January 1st	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay (7)	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit (9)	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active (2)	Inactive (3)	Retired (4)	Total (5)						
1990	1,512	32	15	1,559	37,798	24,999	229	917	Not Available	330,407
1991	2,697	154	65	2,916	68,205	25,290	997	1,278	136,287	132,275
1992	3,006	174	120	3,300	76,914	25,587	1,939	1,346	179,950	162,737
1993	3,198	185	175	3,558	85,678	26,791	2,935	1,398	200,668	193,301
1994	3,289	198	238	3,725	89,839	27,315	4,272	1,496	251,536	236,786
1995	3,899	360	304	4,563	111,292	28,544	5,684	1,558	297,278	300,101
1996	4,455	555	395	5,405	130,552	29,305	7,596	1,603	409,217	379,132
1997	4,720	614	492	5,826	149,086	31,586	9,870	1,672	496,197	450,407
1998	5,033	664	592	6,289	161,826	32,153	12,068	1,699	606,326	542,680
1999	5,427	752	747	6,926	180,904	33,334	15,603	1,741	726,304	672,062
2000	5,735	865	882	7,482	196,271	34,223	18,504	1,748	898,266	818,697
2001	5,974	832	1,118	7,924	212,442	35,561	23,428	1,746	964,708	960,047
2002	6,120	1,464	1,326	8,910	225,760	36,889	28,907	1,817	936,286	1,047,507
2003	6,228	1,733	1,462	9,423	237,192	38,085	33,444	1,906	855,508	1,027,160
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
2006	6,556	2,283	2,038	10,877	263,905	40,254	51,112	2,090	1,367,735	1,287,322
2007	6,740	2,481	2,205	11,426	282,955	41,981	57,294	2,165	1,582,989	1,447,411
2008	7,015	2,633	2,612	12,260	311,886	44,460	67,997	2,169	1,776,121	1,720,309

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

Plan Year Beginning January 1st	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay (7)	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit (9)	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active	Inactive	Retired	Total						
(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
2006	1,647	294	979	2,920	83,495	50,695	26,064	2,219	686,062	644,496
2007	1,690	315	1,021	3,026	87,089	51,532	28,312	2,311	773,774	705,051
2008	1,786	338	1,098	3,222	94,488	52,905	31,944	2,424	814,674	787,663

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

Plan Year Beginning January 1st	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay (7)	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit (9)	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active (2)	Inactive (3)	Retired (4)	Total (5)						
1990	90	0	50	140	5,283	58,700	826	1,015	Not Available	19,127
1991	87	0	46	133	5,867	67,438	827	1,499	22,432	22,242
1992	89	0	53	142	6,267	70,416	1,087	1,710	28,765	26,167
1993	80	1	62	143	6,434	80,424	1,597	2,147	31,388	30,254
1994	85	1	68	154	6,897	81,142	1,930	2,365	37,398	35,479
1995	87	0	70	157	7,263	83,488	2,193	2,610	38,220	38,726
1996	98	3	70	171	8,480	86,534	2,309	2,749	47,531	44,304
1997	100	1	69	170	9,202	92,019	2,396	2,894	55,757	50,721
1998	102	1	72	175	9,298	91,158	2,778	3,215	66,299	59,373
1999	103	2	73	178	9,667	93,850	2,970	3,391	73,650	67,998
2000	106	2	73	181	10,150	95,750	3,078	3,514	85,921	78,130
2001	104	4	75	183	10,318	99,208	3,299	3,666	87,731	87,139
2002	106	4	78	188	10,910	102,925	3,608	3,855	82,760	92,649
2003	106	4	77	187	11,095	104,674	3,728	4,035	75,753	90,904
2004	106	5	83	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
2006	109	5	85	199	11,721	107,533	4,711	4,618	113,353	106,374
2007	110	5	87	202	12,336	112,143	5,145	4,928	128,300	116,879
2008	110	6	96	212	13,387	121,700	5,931	5,149	134,366	129,847

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

Plan Year Beginning January 1st	Participant Counts				Covered Payroll (\$ Thousands)	Average Pay (7)	Retirement Benefits in Force Annual Amount (\$ Thousands)	Average Retiree Monthly Benefit (9)	Market Value of Assets (\$ Thousands)	Actuarial Value of Assets (\$ Thousands)
	Active (2)	Inactive (3)	Retired (4)	Total (5)						
1990	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
2006	88	113	224	425	788	8,955	608	226	11,319	10,587
2007	89	110	216	415	797	8,955	604	233	12,163	10,983
2008	92	118	220	430	538	5,850	596	226	12,195	11,736

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## **APPENDIX I**

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**STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS**

1. *Investment return rate:*

7.75% per annum, compounded annually, composed of a 3.00% inflation rate and a 4.75% 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:

Age	Active Male Members		
	Local Government and Public Employees	Public Educators	Public Safety and Firefighters <sup>1</sup>
20	.000495	.000130	.000440
25	.000385	.000130	.000440
30	.000440	.000195	.000440
35	.000660	.000195	.000440
40	.000825	.000390	.000605
45	.001045	.000650	.001045
50	.001540	.001300	.001760
55	.002585	.002340	.002750
60	.004180	.003705	.003740
65	.006380	.004680	.004730
70	.009130	.005200	.005665

Age	Active Female Members	
	Local Government and Public Employees	Public Educators
20	.000275	.000490
25	.000275	.000210
30	.000275	.000070
35	.000330	.000210
40	.000440	.000420
45	.000660	.000840
50	.001045	.001260
55	.001540	.001750
60	.002200	.002380
65	.003025	.003290
70	.004015	.004550

<sup>1</sup> 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:

Active Male Members					
Age	Local Government	Public Employees	Public Educators	Public Safety <sup>1</sup>	Firefighters <sup>1</sup>
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

<sup>1</sup> 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 Female Members - Local Government						
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 Members - Public Employees						
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 Members - Public Employees						
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 Members - Public Educators						
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	0.1277	0.1062	0.0781	0.0752	0.0710	0.0977
25	0.1076	0.0868	0.0633	0.0624	0.0590	0.0693
30	0.1026	0.0769	0.0527	0.0509	0.0481	0.0469
35	0.1128	0.0766	0.0461	0.0409	0.0386	0.0308
40	0.1370	0.0851	0.0432	0.0323	0.0305	0.0205
45	0.1735	0.1008	0.0431	0.0256	0.0242	0.0152
50	0.2206	0.1220	0.0455	0.0213	0.0202	0.0130
55	0.2764	0.1472	0.0497	0.0202	0.0190	0.0129
60	0.3399	0.1756	0.0557	0.0222	0.0210	0.0140
65	0.3740	0.2070	0.0635	0.0280	0.0265	0.0163
70	0.4114	0.2415	0.0732	0.0373	0.0352	0.0196

Years of Service	Active Male and Female Members - Firefighters
0	0.090
1	0.025
2	0.025
3	0.025
4	0.025
5	0.015
6	0.015
7	0.015
8	0.015
9	0.015
10	0.015
11	0.015
12	0.000
13	0.000
14	0.000
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 <sup>1</sup>
0-3	100%	100%	100%	100%
4	75%	86%	75%	76%
5	73%	83%	73%	74%
6	70%	80%	70%	71%
7	67%	78%	66%	69%
8	65%	77%	61%	67%
9	62%	75%	57%	65%
10	61%	73%	54%	57%
11	59%	70%	50%	50%
12	58%	68%	47%	42%
13	55%	66%	42%	40%
14	52%	65%	38%	37%
15	49%	63%	33%	35%
16	48%	61%	28%	33%
17	46%	60%	22%	31%
18	45%	58%	17%	29%
19	23%	29%	09%	15%
20 or more	00%	00%	00%	00%

<sup>1</sup> 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	0.300
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							
Age	Years of Service						
	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

6. Retirement rates (continued):

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

6. Retirement rates (continued):

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

6. Retirement rates (continued):

Public Safety - Males and Females							
Age	Years of Service						
	0-3	4-9	10-14	15-19	20-24	25-29	30+
45	0.00	0.00	0.00	0.00	0.15	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

6. Retirement rates (continued):

Firefighters - Males and Females							
Age	Years of Service						
	0-3	4-9	10-14	15-19	20-24	25-29	30+
45	0.00	0.00	0.00	0.00	0.10	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

6. Retirement rates (continued):

Judges - Males and Females							
Age	Years of Service						
	0-3	4-9	10-14	15-19	20-24	25-29	30+
45	0.00	0.00	0.00	0.00	0.00	0.12	0.25
46	0.00	0.00	0.00	0.00	0.00	0.12	0.25
47	0.00	0.00	0.00	0.00	0.00	0.12	0.25
48	0.00	0.00	0.00	0.00	0.00	0.12	0.25
49	0.00	0.00	0.00	0.00	0.00	0.12	0.25
50	0.00	0.00	0.00	0.00	0.00	0.12	0.25
51	0.00	0.00	0.00	0.00	0.00	0.12	0.25
52	0.00	0.00	0.00	0.00	0.00	0.12	0.25
53	0.00	0.00	0.00	0.00	0.00	0.12	0.25
54	0.00	0.00	0.00	0.00	0.00	0.12	0.25
55	0.00	0.00	0.00	0.00	0.00	0.12	0.25
56	0.00	0.00	0.00	0.00	0.00	0.12	0.25
57	0.00	0.00	0.00	0.00	0.00	0.12	0.25
58	0.00	0.00	0.00	0.00	0.00	0.12	0.25
59	0.00	0.00	0.00	0.00	0.00	0.12	0.25
60	0.00	0.00	0.00	0.00	0.00	0.12	0.25
61	0.00	0.00	0.00	0.00	0.00	0.12	0.25
62	0.00	0.00	0.15	0.15	0.15	0.15	0.25
63	0.00	0.00	0.15	0.15	0.15	0.15	0.25
64	0.00	0.00	0.15	0.15	0.15	0.15	0.25
65	0.00	0.00	0.15	0.15	0.15	0.15	0.25
66	0.00	0.00	0.15	0.15	0.15	0.15	0.25
67	0.00	0.00	0.15	0.15	0.15	0.15	0.25
68	0.00	0.00	0.15	0.15	0.15	0.15	0.25
69	0.00	0.00	0.15	0.15	0.15	0.15	0.25
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 1.00% general increase rate that applies to all, and a variable promotional/longevity component that is a function of the member’s service.

Active Male and Female Members - Local Government		
Years of Service	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.00% Inflation Component and 1.00% General Increase Rate
0	6.75%	10.75%
1	5.00	9.00
2	4.25	8.25
3	3.50	7.50
4	3.00	7.00
5	2.75	6.75
6	2.50	6.50
7	2.25	6.25
8	2.00	6.00
9	1.75	5.75
10	1.50	5.50
11	1.50	5.50
12	1.25	5.25
13	1.25	5.25
14	1.00	5.00
15	1.00	5.00
16	0.75	4.75
17	0.75	4.75
18	0.75	4.75
19	0.75	4.75
20	0.50	4.50
21	0.50	4.50
22	0.25	4.25
23	0.25	4.25
24	0.25	4.25
25 or more	0.00	4.00

7. Salary increase rates (continued):

Active Male and Female Members - Public Employees		
Years of Service	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.00% Inflation Component and 1.00% General Increase Rate
0	5.50%	9.50%
1	4.75	8.75
2	3.50	7.50
3	3.00	7.00
4	2.50	6.50
5	2.25	6.25
6	2.00	6.00
7	1.75	5.75
8	1.50	5.50
9	1.50	5.50
10	1.25	5.25
11	1.00	5.00
12	1.00	5.00
13	1.00	5.00
14	0.75	4.75
15	0.75	4.75
16	0.75	4.75
17	0.50	4.50
18	0.50	4.50
19	0.50	4.50
20	0.25	4.25
21	0.25	4.25
22	0.25	4.25
23	0.25	4.25
24	0.25	4.25
25 or more	0.00	4.00

7. Salary increase rates (continued):

Active Male and Female Members Public Educators		
Years of Service	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.00% Inflation Component and 1.00% General Increase Rate
0	8.00%	12.00%
1	6.25	10.25
2	5.00	9.00
3	4.75	8.75
4	4.50	8.50
5	4.00	8.00
6	3.75	7.75
7	3.50	7.50
8	3.25	7.25
9	3.00	7.00
10	2.50	6.50
11	2.00	6.00
12	1.75	5.75
13	1.25	5.25
14	1.00	5.00
15	0.75	4.75
16	0.75	4.75
17	0.75	4.75
18	0.75	4.75
19	0.50	4.50
20	0.50	4.50
21	0.50	4.50
22	0.50	4.50
23	0.50	4.50
24	0.25	4.25
25 or more	0.00	4.00

7. *Salary increase rates (continued):*

Active Male and Female Members Public Safety		
Years of Service	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.00% Inflation Component and 1.00% General Increase Rate
0	5.75%	9.75%
1	4.00	8.00
2	3.75	7.75
3	3.25	7.25
4	3.00	7.00
5	2.75	6.75
6	2.75	6.75
7	2.75	6.75
8	2.50	6.50
9	2.50	6.50
10	2.25	6.25
11	2.00	6.00
12	1.75	5.75
13	1.50	5.50
14	1.25	5.25
15	1.25	5.25
16	1.00	5.00
17	1.00	5.00
18	1.00	5.00
19	1.00	5.00
20	1.00	5.00
21	0.75	4.75
22	0.50	4.50
23	0.50	4.50
24	0.25	4.25
25 or more	0.00	4.00

7. *Salary increase rates (continued):*

Active Male and Female Members Firefighters		
Years of Service	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.00% Inflation Component and 1.00% General Increase Rate
0	6.25%	10.25%
1	5.75	9.75
2	5.50	9.50
3	5.25	9.25
4	5.00	9.00
5	4.75	8.75
6	4.50	8.50
7	4.25	8.25
8	4.00	8.00
9	3.50	7.50
10	3.00	7.00
11	2.50	6.50
12	2.25	6.25
13	2.00	6.00
14	1.75	5.75
15	1.75	5.75
16	1.50	5.50
17	1.50	5.50
18	1.25	5.25
19	1.00	5.00
20	0.75	4.75
21	0.75	4.75
22	0.50	4.50
23	0.00	4.00
24	0.00	4.00
25 or more	0.00	4.00

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

Retired Male Members			
Age	Local Government and Public Employees (80% of RP-2000 Males, combined)	Public Educators (Based on Plan Experience, Effective January 1, 2008)	Public Safety and Firefighters (80% of RP-2000 Males, combined)
20	.000276	.000436	.000276
25	.000301	.000569	.000301
30	.000355	.000690	.000355
35	.000618	.000732	.000618
40	.000863	.000922	.000863
45	.001206	.001358	.001206
50	.001710	.002218	.001710
55	.002899	.003806	.002899
60	.005398	.003581	.005398
65	.010190	.004568	.010190
70	.017765	.011982	.017765
75	.030267	.019933	.030267
80	.051494	.039454	.051494
85	.088606	.078258	.088606
90	.146726	.137016	.146726
95	.213993	.207802	.213993

Retired Female Members			
Age	Local Government and Public Employees (85% of RP-2000 Females, Combined)	Public Educators (Based on Plan Experience, Effective January 1, 2008)	Public Safety and Firefighters (85% of RP-2000 Females, combined)
20	.000162	.000274	.000162
25	.000176	.000282	.000176
30	.000224	.000339	.000224
35	.000404	.000463	.000404
40	.000600	.000687	.000600
45	.000955	.000941	.000955
50	.001425	.001382	.001425
55	.002309	.003391	.002309
60	.004297	.004245	.004297
65	.008250	.003924	.008250
70	.014231	.008067	.014231
75	.023890	.012800	.023890
80	.038997	.028558	.038997
85	.065829	.066564	.065829
90	.111930	.124727	.111930
95	.165333	.190840	.165333

9. *Disabled annuitant mortality rates:*

Disabled Retired Male and Female Members		
Age	Males	Females
20	.005542	.005542
25	.008296	.008296
30	.010472	.010472
35	.012724	.012724
40	.015079	.015079
45	.017867	.017867
50	.020808	.020808
55	.024429	.024429
60	.028441	.028441
65	.032563	.032563
70	.037842	.037842
75	.049113	.049113
80	.078574	.078574
85	.117699	.117699
90	.166583	.166583
95	.233894	.233894
100	.336796	.336796

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 total employer cost rate is the sum of (i) the normal cost rate, net of employee contributions if applicable, 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 fire 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 explicit assumption is made regarding administrative or investment expenses. The assumed 7.75% return is net of any such expenses.

15. *Judges System:*

For the Judges System, no disability or withdrawal rates were used. Salaries are 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. *Interest Credited on Member Contribution Account Balances:*

In projecting member contribution account balances, we assume that the rate credited is 7.75% each year. (The actual rate is set by the Board of Trustees annually, based on investment performance.) Interest is not credited to account balances for members of the Firefighters Retirement System.

18. *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%. However, for current retirees who have received cumulative COLAs less than the total of annual CPI increases since retirement, we assume higher COLAs, subject to the annual maximum, as long as the member has “banked” CPI increases left.

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## **APPENDIX 2**

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**SUMMARY OF BENEFIT PROVISIONS FOR  
PUBLIC EMPLOYEE RETIREMENT SYSTEMS  
(CONTRIBUTORY AND NONCONTRIBUTORY)**

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

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

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

- e. Death while Disabled: A disabled member is treated as an active member for purposes of determining a death benefit for the period prior to retirement.
12. *Vesting and Refunds*:
- a. Eligibility: All members who are not vested are eligible for a refund when they terminate service. Members are vested after four years of service. Vested members may also elect to receive a refund in lieu of the deferred termination benefit described below. (Noncontributory System members hired after July 1, 1986, are ineligible for a refund.)
- b. Amount: The refund benefit is the accumulated value of the member's contributions plus interest credited by the fund. The amount of interest credited each year is set annually by the Board of Trustees.
13. *Deferred Termination Benefit*:
- a. Eligibility: Member must be vested (4 years of service) and must elect to leave his/her contributions on deposit.
- b. Monthly Benefit: Same as the unreduced or reduced service retirement benefit, based on service and FAMS at termination, and commencing once the member is eligible.
- c. Payment Form: Life annuity.
- d. Death Benefit: The beneficiary of an inactive member who dies is entitled to receive a refund benefit.
14. *Death while an Active Member*:
- a. In General: A refund of the member's accumulated contributions (with interest) is paid to the beneficiary of a deceased member.
- 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.
15. *Optional Forms of Benefit*: The Systems permit members to elect from six forms of benefit at retirement. In each case the benefit amount is adjusted to be actuarially equivalent to the "Plan 1" form. The six optional forms are:

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

**SUMMARY OF BENEFIT PROVISIONS FOR  
PUBLIC SAFETY RETIREMENT SYSTEMS  
(CONTRIBUTORY AND NONCONTRIBUTORY)**

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

Fund 22 - State of Utah	12.29%
Fund 23 - Other Division A	12.29%
Fund 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 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 47 - Logan (Div B)  
Fund 48 - Bountiful (Div A)  
Fund 49 - Other Division B

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

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



10. *Disability Retirement:*

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

11. *Vesting and Refunds:*

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

12. *Deferred Termination Benefit:*

- a. Eligibility: Member must be vested (4 years of service) and must elect to leave his/her contributions on deposit.
- b. Monthly Benefit: Same as the service retirement benefit, based on service and FAMS at retirement, and commencing once the member is eligible.
- c. Payment Form: Same as for service retirement.
- d. Death Benefit: The beneficiary of an inactive member who dies is entitled to receive a refund benefit (or \$500 if larger). The spouse of an inactive member with 20 years of

service receives a monthly annuity equal to 50% of the service retirement benefit that would have been paid had the member died immediately prior to retirement. (An actuarial reduction factor is applied if the member was under age 50 at death.)

13. *Death while an Active Member (On Duty)*: If death occurs in the line of duty, the lump-sum and annuity benefits described below will be paid to the spouse. (The benefits are not applicable to unmarried members, although children's benefits may be due.)
  - a. Lump-sum (Division A members): \$1,000.
  - b. Annuity (Division A members): 30% of member's FAMS.\*
  - c. Lump-sum (Division B members): \$1,500.
  - d. Annuity (Division B members): 37.5% of member's FAMS.
  
14. *Death of an Active Member (Off Duty)*: If death occurs from a cause not related to the member's duties, the lump-sum and annuity benefits described below will be paid to the spouse. (The benefits are not applicable to unmarried members, although children's benefits may be due.)
  - a. Lump-sum (Division A members): If the member has less than 10 years of service, the benefit is \$1,000 or a refund benefit, whichever is larger. If the member has 10 or more years of service, the benefit is \$500.
  - b. Annuity (Division A members): If the member has less than 10 years of service, no annuity is due. For members with 10 or more years of service, the benefit is 2% of FAMS per year of service, to a maximum of 30% of FAMS.\*
  - c. Lump-sum (Division B members): If the member does not have two years of service, the benefit is the sum of 50% of the member's salary plus a refund benefit. If the member has two or more years of service, the benefit is \$1,500.
  - d. Annuity (Division B members): If the member has fewer than two years of service, no annuity is due. If the member has two or more years of service, the annuity is 37.5% of the member's FAMS.

\*(For members of the Noncontributory System, not less than the benefit payable to the surviving spouse if the member had retired the day before the member's date of death.)
  
15. *Optional Forms of Benefit*: None.
  
16. *Postretirement Death Benefit*: None, except for survivor benefit applicable to married members.
  
17. *Postretirement Benefit Increases*: Benefits are increased annually to take into account changes in the cost of living, with a maximum annual increase of 2.5% of the original benefit

(i.e., a maximum 2.5% simple interest increase). In years in which the cost of living increases more than 2.5%, the excess increase is accumulated and used in later years in which the cost-of-living increase is less than 2.5%. This calculation is made separately for each individual. In addition, a closed group of retirees also receives a second special increase amount paid as a level annuity under whichever form of payment is applicable. This is the Restoration of Purchasing Power (ROPP) payment.

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

### Summary of Benefit Provisions for Firefighters Retirement System

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

Fund 31 - Division A 15.05%  
Fund 32 - Division B 16.71%

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

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

Fund 31 - Division A  
Fund 32 - Division B

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

9. *Service Retirement:*

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

10. *Disability Retirement:*

- a. Eligibility: Member must have five or more years of service or the disability must be related to the member's duties. In addition, the member must not be eligible for a 20-year service retirement at time of disability.
- b. Monthly Benefits: 50% of FAMS.
- c. Payment Form: Benefits are payable as long as the member is disabled. Upon reaching 20 years of service, including time while disabled, or at age 65 if earlier, benefits are converted to a retirement benefit. There are special rules governing when benefits must be converted for members who become disabled after age 60.
- d. Death while Disabled: Upon the death of a disabled firefighter, the spouse shall receive 75% of the benefit currently being paid.

11. *Vesting and Refunds:*

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

12. *Deferred Termination Benefit:*

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

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

15. *Optional Forms of Benefit:* None.
16. *Postretirement Death Benefit:* None, except for survivor benefit applicable to married members.
17. *Postretirement Benefit Increases:* Benefits are increased annually to take into account changes in the cost of living, with a maximum annual increase of 4% of the original benefit (i.e., a maximum 4% simple interest increase). In years in which the cost of living increases more than 4%, the excess increase is accumulated and used in later years in which the cost-of-living increase is less than 4%. This calculation is made separately for each individual. In addition, a closed group of retirees also receives a second special increase amount paid as a level annuity under whichever form of payment is applicable. This is the Restoration of Purchasing Power (ROPP) payment.
18. *3% Substantial Substitute:* All members whose service began before January 1, 1989, receive an additional annual payment equal to 3% of their benefit. These payments are made to offset the taxability of the retirement benefits under the State income tax provisions. Prior to July 1, 1995, this benefit was funded by annual appropriations made by the State on a pay-as-you go basis. Beginning July 1, 1995, this benefit is funded on an actuarial basis by increasing the employer contribution rate for those Funds which are funded by the State.

## SUMMARY OF BENEFIT PROVISIONS FOR JUDGES RETIREMENT SYSTEM

1. *Effective Date:* July 1, 1963.
2. *Plan Year:* Twelve-month period ending December 31st.
3. *Administration:* The System is administered by a Board of Trustees (which also administers the other Utah Retirement Systems). The Board of Trustees is responsible for both administration of the System and investment of the fund assets.
4. *Type of Plan:* This is a qualified governmental defined benefit retirement plan. Under GASB 25, it is considered to be a single-employer plan.
5. *Eligibility:* This System covers judges of the State of Utah, including Supreme Court justices and appellate, district, circuit and juvenile court judges.
6. *Employee Contributions:* Members of the Contributory System contribute 2.00% of salary per year. No contributions are made by members of the Noncontributory System.
7. *Employer Contributions:* Fund 37 (Judges) has a contribution rate which is set by the Board of Trustees, based on the actuarial valuation for the preceding year. The rate is reduced by estimated court fees which are earmarked for this fund.
8. *Final Average Monthly Salary (FAMS):* The monthly average of the member's highest two salaries preceding retirement.
9. *Service Retirement (Unreduced):*
  - a. Eligibility: A member may retire with an unreduced benefit at age 70 with six years of service or after age 62 with 10 years of service or after 25 years of service.
  - b. Monthly Benefit: 5.00% times Final Average Monthly Salary (FAMS) times years of service up to 10, plus 2.25% of FAMS times years of service in excess of 10 but less than 20, plus 1.00% times FAMS times years of service in excess of 20. There is a maximum benefit of 75% of FAMS, and a minimum benefit equal to 110% of the formula benefit (but not greater than \$1,000 per month).
  - c. Payment Form: Married members receive an automatic, unreduced Joint and 65% Survivor annuity. Unmarried members receive a life annuity.



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

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

**SUMMARY OF BENEFIT PROVISIONS FOR THE  
GOVERNORS AND LEGISLATIVE PENSION PLAN**

1. *Effective Date:* July 1, 1967.
2. *Plan Year:* Twelve-month period ending December 31st.
3. *Administration:* The System is administered by a Board of Trustees (which also administers the other Utah Retirement Systems). The Board of Trustees is responsible for both administration of the System and investment of the fund assets.
4. *Type of Plan:* This is a qualified governmental defined benefit retirement plan. Under GASB 25, it is considered to be a single-employer plan.
5. *Eligibility:* This System covers state legislators with four or more years of service, and governors of the state.
6. *Employee Contributions:* None.
7. *Employer Contributions:* The state annually appropriates an actuarially determined contribution.
8. *Benefit base:* The benefit base is used to determine the benefits payable at retirement.
  - a. Legislators: The base was \$10.00 per month per year of service as of July 1, 1967. The base is increased 2% each six months after that date. As of January 1, 2008, the benefit base is therefore \$26.20.
  - b. Governors: The base was \$500.00 per month per term as of July 1, 1973. The base is increased 2% each six months after that date. As of January 1, 2008, the benefit base is therefore \$1,190.00.
  - c. Supplemental Benefit: An additional benefit of \$3.50 per month per year of service. This benefit is not indexed nor are COLAs granted on it. This benefit only applies to members of the System on March 1, 2000 and is effective March 1, 2000.
9. *Service Retirement (Unreduced):*
  - a. Eligibility: Age 65.
  - b. Monthly Benefit: Legislators receive the benefit base (see above) per year of service, while former governors receive the benefit base (see above) for each term served (maximum of two terms).

- c. Payment Form: For married members, a Joint and 50% Survivor annuity. For unmarried members, a life annuity.
10. *Service Retirement (Reduced)*:
  - a. Eligibility: A member may retire with a reduced benefit upon attaining age 62 with 10 years of service.
  - b. Reduction: 3% per year that retirement is prior to 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 vested member who made contributions in another System and withdraws them forfeits all benefits under this System.
13. *Deferred Termination Benefit*:
  - a. Eligibility: Same as for reduced or unreduced service retirement. The member must not have withdrawn his/her contributions under another System.
  - b. Monthly Benefit: Same as the unreduced or reduced service retirement benefit, based on service at termination, and commencing once the member is eligible.
  - c. Payment Form: Same as for unreduced service retirement.
  - d. Death Benefit: Same as for an active member.
14. *Death while an Active Member*:
  - a. Eligibility: Four years of service as a legislator or governor.
  - b. Monthly Benefit: 50% of the unreduced service retirement benefit that the member would have been entitled to upon reaching age 65 based on the current benefit base. Benefit is paid to surviving spouse only.
15. *Optional Forms of Benefit*: None.
16. *Postretirement Death Benefit*: None, except for the Joint and Survivor annuity available to married members.
17. *Postretirement Benefit Increases*: Benefits are increased annually to take into account changes in the cost of living, with a maximum annual increase of 4% of the original benefit (i.e., a maximum 4% simple interest increase). In years in which the cost of living increases more than 4%, the excess increase is accumulated and used in later years in which the cost-of-living increase is less than 4%. This calculation is made separately for each individual. Note that the supplemental \$3.50 per month per year of service benefit is not eligible for these increases.

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