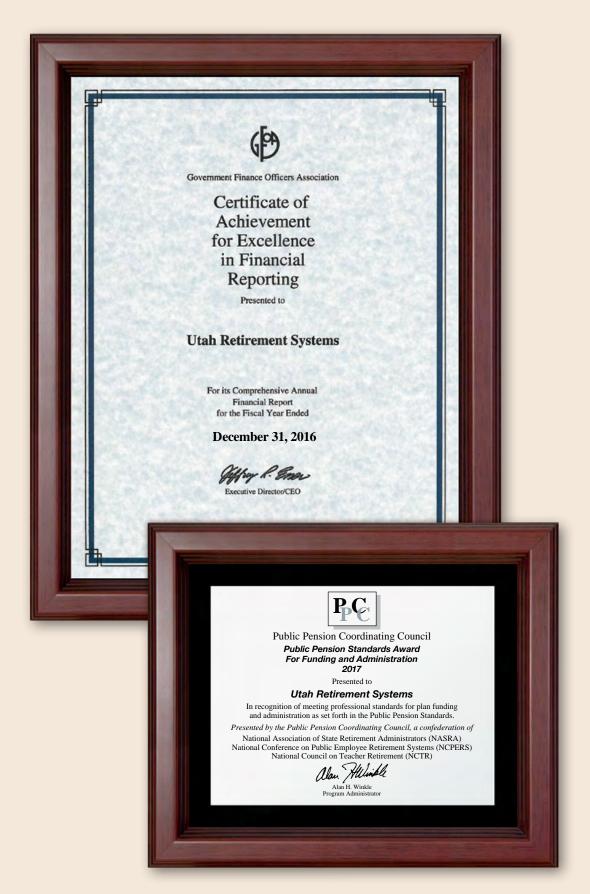
A Component Unit of the State of Utah

2017 Comprehensive Annual Financial Report

for the Year Ended December 31, 2017





A Component Unit of the State of Utah



2017 Comprehensive Annual Financial Report

for the Year Ended December 31, 2017

Noncontributory Retirement System • Contributory Retirement System • Public Safety Retirement System
Firefighters Retirement System • Judges Retirement System • Utah Governors and Legislators Retirement Plan
Tier 2 Public Sofety and Firefighters Contributory Retirement System

Tier 2 Public Safety and Firefighter Contributory Retirement System 401(k) and 457 Plans • Roth and Traditional IRAs





Prepared by: Finance Department • Utah Retirement Systems
560 East 200 South • Salt Lake City, Utah 84102-2044 • www.urs.org
Daniel D. Andersen, Executive Director • Robert K. Kellersberger, Finance Director

UTAH RETIREMENT SYSTEMS 2017 ANNUAL REPORT

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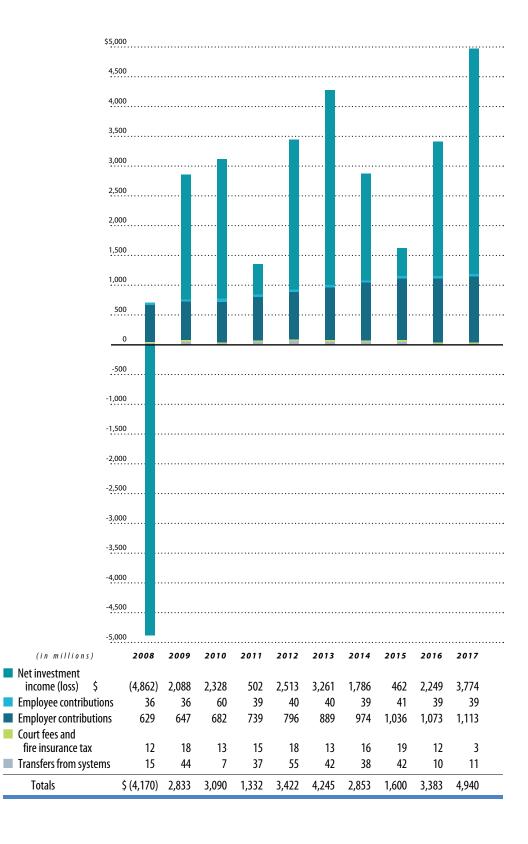
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(in millions)



Comprehensive Annual Financial Report

2017

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Systems' Highlights

LETTER OF TRANSMITTAL

UTAH STATE RETIREMENT BOARD

UTAH RETIREMENT SYSTEMS

560 East 200 South Salt Lake City, Utah 84102-2044 801-366-7700 800-365-8772 801-366-7734 FAX

DANIEL D. ANDERSEN EXECUTIVE DIRECTOR

April 26, 2018

Utah State Retirement Board 560 East 200 South Salt Lake City, UT 84102-2044

Dear Board Members:

We are pleased to present the 2017 Comprehensive Annual Financial Report of the Utah Retirement Systems (Systems), including the 401(k), 457, and Roth and Traditional IRAs (Plans). Together, the Systems and Plans constitute a component unit of the State of Utah, administered by the Utah State Retirement Board (Board) for calendar year 2017.

The financial reporting entity of the Systems and Plans include the Public Employees Noncontributory and Contributory Retirement Systems, for both government and public education employees, the Public Safety, Firefighters, and Judges Retirement Systems, the Utah Governors and Legislators Retirement Plan, the Tier 2 Public Employees Contributory, and Tier 2 Public Safety and Firefighter Contributory Retirement Systems, and the 401(k), 457, and Roth and traditional IRA Savings Plans.

Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with the management of the Systems and Plans. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of operations of the fiduciary funds.

For financial reporting purposes, the Systems and Plans adhere to accounting principles generally accepted in the United States of America. The Systems and Plans apply all applicable pronouncements of the Governmental Accounting Standards Board (GASB). Investments of the Systems and Plans are presented at fair value.

The Utah Retirement Systems and 401(k), 457, Roth and traditional IRAs were established by legislation and authorized as indicated in the notes to the basic financial statements on page 58. The Summaries of Plan Provisions are presented on pages 178 through 193. The number of active and retired members and beneficiaries for each system is presented in the Systems' Highlights on pages 14 through 30. The purpose of the Systems and Plans is to provide benefits for all eligible State, local government, and most public education employees whose employers have elected to participate. Services provided by the staff are performed to meet that objective.

Management's Discussion and Analysis

The Management's Discussion and Analysis (MD&A) beginning on page 36 provides an overview and analysis of the Systems and Plans Basic Financial Statements. This letter of transmittal is intended to complement the MD&A and should be read in conjunction with it.

Financial Information

Management is responsible for maintaining a system of adequate internal accounting controls designed to provide reasonable assurance transactions are executed in accordance with management's general or specific authorization, and are recorded as necessary to maintain accountability for assets and to permit preparation of financial statements in accordance with generally accepted accounting principles. The concept of reasonable assurance recognizes the cost of a control should not exceed the benefits likely to be derived. This system includes written policies and procedures and an internal audit department that reports to the Board. Discussion and analysis of net position and related additions and deductions are presented in the MD&A beginning on page 36.

Actuarial

The actuarial assumptions and contribution rates were based on the recommendations of our actuary. See the Actuarial Section of this report and the notes to the basic financial statements for explanations of these rates. Rate changes resulted from actuarial assumption modifications, economic conditions, actuarial experience gains and losses, and benefit enhancements in the Systems.

The Utah Retirement Systems are maintained on an actuarially sound basis as certified in this report by our actuary, thus protecting participants' future benefits. We anticipate investment earnings on a long-term basis will continue to meet or exceed the actuarially assumed earning rate. We expect all systems to continue towards fully funded positions in accordance with actuarial assumptions.

An actuarial valuation of the Systems is performed annually. An assumption experience study is performed at least every third year. The actuarial firm Gabriel, Roeder, Smith & Company completed the actuarial reviews and valuations and served as technical advisor to the Systems. Actuarial certification and supporting statistics are included in the Actuarial and Statistical Sections of this report.

In conjunction with the 2017 annual experience study, the actuary recommended some changes to the assumptions that were adopted by the Board. Some of the changes were to decrease the earnings assumptions from 7.2% to 6.95%, decrease the inflation assumption from 2.6% to 2.5%, and decrease the payroll growth assumption and wage inflation each by 0.10%.

Investments

The economic condition of the Systems is based primarily upon investment earnings. For 2017, the Systems experienced a 13.57% rate of return. The Systems' investments were evaluated at year end by Callan Associates Inc., Investment Measurement Service. A comparative analysis of rates of return is presented on page 144 of this report.

The investment portfolio mix at fair value as of the end of 2017 was 14% debt securities, 38% equities, 11% private equity, 15% real assets, 8% short-term, and 14% absolute return. See MD&A and Investment Section for more detailed analysis and information. The Systems' investment outlook is long term, allowing the portfolio to take advantage of the favorable risk-return characteristics of equities by placing more emphasis on this category.

The Board utilizes internal and external portfolio managers employing both passive (indexed) and active strategies. The portfolio is broadly diversified among equities, debt securities, real assets, absolute return, and private equity with additional diversification achieved through domestic and international investing.

The investment policy is to minimize credit and market risks while maintaining a competitive yield on its portfolio. Accordingly, deposits are either insured by federal depository insurance or collateralized. All collateral on deposits is held in the counterparties' joint custody accounts at the Federal Reserve Bank. On occasion, deposits may be significantly greater than collateral due to investment purchase "fails," receipt of interest earnings on the 15th of each month, and proceeds from investment sales and maturities. Of approximately \$37.8 billion in both the Defined Benefit and Defined Contribution investments at fair value as of December 31, 2017, none of the investments were in the category of highest custodial credit risk as defined by GASB.

Funding

In setting contribution rates, the Board's principal objectives are to set rates so the unfunded actuarial accrued liability (UAAL) will be amortized over a reasonable period of time from the most recent valuation date and set rates so they remain relatively level over time. The Board's funding policy requires 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 that results in the amortization of the UAAL. 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 determining the contribution rates, the actuary uses an actuarial value of assets that is based on a 5-year smoothed expected rate of return, wherein the excess or shortfall of investment income over or under the actuarial assumed income rate (currently 6.95%) is recognized over a 5-year period.

Funds are derived from the excess of additions. which include contributions and investment earnings, over deductions that are comprised of benefits and administrative expenses. Funds are accumulated to meet future benefit obligations to retirees and beneficiaries. This accumulated balance is referred to as the "net position restricted for pensions" in the Combined Statements of Fiduciary Net Position in the Financial Section of the report. The total pension liability is not reported in the basic financial statements, but is disclosed in Note 5 to the basic financial statements and in the required supplementary information. The total pension liability is determined by the actuary and is a measure of the present value of actuarial accrued liabilities estimated to be payable in the future to current retirees, beneficiaries, and employees for service earned to date. The net pension liability is measured as the total pension liability less the amount of the pension plan's fiduciary net position. The net pension liability is an accounting measurement for financial statement purposes.

Independent Audit

An annual audit of the Systems and Plans was conducted by the independent accounting firm of Deloitte & Touche LLP. The auditors' report on the basic financial statements is included in the Financial Section of this report.

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Utah Retirement Systems for its Comprehensive Annual Financial Report for the fiscal year ended December 31, 2016. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. Such financial reports must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. The Utah Retirement Systems has received a Certificate of Achievement for the last 33 years. We believe our current report continues to conform to the Certificate of Achievement Program requirements, and we are submitting it to the GFOA.

In addition, the Utah Retirement Systems was awarded the Public Pension Coordinating Council Public Pension Standards 2017 Award. This award is in recognition of meeting professional standards for plan design and administration as set forth in the Public Pension Standards.

Acknowledgments

The compilation of this report reflects the combined efforts of the staff under the leadership of the Utah State Retirement Board. The report is intended to provide extensive and reliable information for making management decisions, determining compliance with legal provisions, and determining responsible stewardship for the assets contributed by the Systems' members and their employers.

We would like to take this opportunity to express our gratitude to the Board, the staff, the advisors, and the many people who have worked so diligently to assure the successful operation and financial soundness of the Utah Retirement Systems.

Sincerely yours,

Robert K. Kellersberger, CGFM

Finance Director

Daniel D. Andersen Executive Director

BOARD PRESIDENT'S LETTER

UTAH STATE RETIREMENT BOARD

UTAH RETIREMENT SYSTEMS

560 East 200 South Salt Lake City, Utah 84102-2044 801-366-7700 800-365-8772 801-366-7734 FAX

DANIEL D. ANDERSEN EXECUTIVE DIRECTOR

April 26, 2018

Utah State Retirement Board 560 East 200 South Salt Lake City, UT 84102-2044

Dear Members of the Retirement Systems:

If you like numbers, you're in for a treat with the URS Comprehensive Annual Financial Report in your hands or on your screen.

It's our yearly motherlode of URS data, containing detailed financial and statistical information. I invite you to explore the following pages to help understand the financial innerworkings of URS.

Numbers are important, but I want to talk about the story they tell. It's a story of a conservatively run, well-funded pension fund built to withstand market volatility and provide a stable return for the security of Utah public employees and retirees.

Thanks in part to strong equity markets, I'm pleased to report favorable numbers related to the performance of the pension fund in 2017. But we take these figures with a grain of salt. We don't expect, nor do we need, such returns, year after year. Our fund is built to maximize long-term returns over market cycles, with an emphasis on downside protection.

- >> The fund earned a 13.6% return in 2017, growing by \$3.33 billion to \$31.9 billion, an all-time high.
- » At year's end, the Plans Fiduciary Net Position, as a percentage of Total Pension Liability, increased to 90% (from 86% in 2016). Experts consider a funding ratio of about 80% or better to be sound for government pensions, and ours remains among the most well-funded statewide plans in the country.
- » Retirement savings plans contributions exceeded \$367.5 million in 2017, with total assets reaching almost \$5.8 billion.
- >> URS reduced its assumed investment rate of return from 7.2% to 6.95% in 2017.

A 6.95% rate of return is considered conservative and is among the lowest when compared to similar statewide pensions. As board members and trustees of URS, it's our solemn duty to safeguard retirement benefits for current and future retirees from Utah's public sector. A safe, prudent, well-researched assumed rate of return is a product of this commitment.

To summarize, the numbers in 2017 are once again solid. But, ultimately, the story of URS isn't about numbers. It's about the members we serve. We're committed to making sure the numbers always add up to peace of mind and retirement security for you.

Sincerely,

Roger G. Donohoe

President, Utah State Retirement Board

RETIREMENT BOARD

As of December 31, 2017



Pictured Left to Right

Ryan G. Hessenthaler

Appointed August 19, 2015 Term Expires July 1, 2019 Represents Investment Community

Vice President

Laura O. Houston

Appointed July 2, 2014 Term Expires July 1, 2018 Represents Investment Community

President

Roger G. Donohoe

Appointed December 17, 2014 Term Expires July 1, 2020 Represents Education Employees

Sheri K. Nelson

Appointed September 15, 2010 Term Expires July 1, 2019 Represents Public Employees

Edward T. Alter

Appointed February 2, 2012 Term Expires July 1, 2019 Represents Investment Community

David C. Damschen

State Treasurer Member Since December 10, 2015 Ex-officio Member

William W. Wallace

Appointed September 18, 2013 Term Expires July 1, 2017 Represents Investment Community

EXECUTIVE DIRECTOR



Daniel D. Andersen

MEMBERSHIP COUNCIL

Executive Committee Members:

Chairperson Mr. Marty Peterson	Represents Professional Firefighters of Utah
Vice Chairperson Mr. Richard Petersen	Represents Utah Public Employees' Association
Mr. Stuart Bailey	
Ms. Amy Ehresman	Represents Utah School Employees' Association
Ms. Brandy Grace	Represents Utah Association of Counties
Council Members:	
Mr. Fred Ash	Represents Utah Retired School Employees' Association
Mr. Scott Bond	Represents Utah League of Cities and Towns
Mr. Larry Evans	Represents Utah Public Employees' Association
Honorable David Mortensen	Represents Utah Judicial Council
Ms. Debra McBride	Represents Utah Association of Retired Public Employees
Ms. Susan McFarland	Represents Utah Education Association
Senior Trooper Arlow Hancock	Represents Utah Peace Officers' Association
Mr. Michael Harman	Represents Utah Education Association

ORGANIZATION CHART

As of December 31, 2017

Membership Council

ADMINISTRATIVE STAFF

Daniel D. Andersen
Executive Director

Todd W Rupp *Deputy Executive Director*

Steven M. West

Director, Internal Audit

Dee S Larsen General Counsel

Bruce H. Cundick
Chief Investment Officer

Jeff J. Allen *Shared Services Director*

Jayne R. Knecht
Director, Human Resources

W. Kendall Rima
Chief Information Officer

Robert K. Kellersberger Director, Finance

Matthew K. Judd

Director, Employer Services

Craige D. Stone *Director, Defined Contribution Savings Plans*

Mark M. Cain Director, Retirement

David J. BjarnasonChief Compliance Officer — Investments

Ryan C. Ashcraft

Director, Retirement Planning

PROFESSIONAL SERVICE PROVIDERS

Actuary

Gabriel, Roeder, Smith & Company 5605 N. MacArthur Blvd., Suite 870 Irving, TX 75038-2631

Auditor

Deloitte & Touche LLPCertified Public Accountants
111 South Main Street, Suite 1500
Salt Lake City, UT 84111



General Counsel

Dee S Larsen

Legal Services

Member Appeals and Litigation

Investment Transactions

Government Relations and Legislation

Outside Counsel



Chief Investment Officer

Bruce H. Cundick

Equity Investments

Debt Securities

Real Assets
Private Equity

Absolute Return



Shared Services Director

Jeff J. Allen

IT Functions

Internal Audit

General Services

Purchasing



Director Human Resources

Jayne R. Knecht

Human Resources

Safety/Security



Chief Information Officer

W. Kendall Rima

Server Hardware and Software

Applications Development

Helpdesk/ Workstation Support

Process Automation Workflow

Networking and Telecommunications

Web Service

Information Security

Utah State Retirement Board



Director

Daniel D. Andersen



Executive Director

••••• Todd W Rupp

Professional Services

Actuary • Auditor **Legal Consultants Investment Consultants**

Proxy Voting

Detail for professional service providers is shown to the left.

Investment professionals are presented on pages 146 and 152.



Internal Audit

Steven M. West



Director Finance

Robert K. Kellersberger

Financial Reporting and Accounting

Budgets

Tax Reporting

Cash Management

Disbursements

Accounts Payable

Payroll

Risk Management



Director Employer Services

Matthew K. Judd

Records Management

Employer Contributions Reporting

Member Account Management

Defined Contribution Daily Trade Reconciliation

Employer Compliance and Auditing



Director Defined Contribution Savings Plans

Craige D. Stone

401(k) Plan

457 Plan

Traditional IRA

Roth IRA



Director Retirement

Mark M. Cain

Retirement Benefits

Death Benefits

Redeposits and Purchases

Refunds

Branch Office



Chief Compliance Officer Investments

Bjarnason

Investment Compliance

Proxy Voting



Retirement Planning

Ryan C. Ashcraft

Member Education

Retirement Planning

Seminars

Stakeholder Relations

NONCONTRIBUTORY SYSTEM HIGHLIGHTS



The NONCONTRIBUTORY Retirement System

includes eligible public employees of the State of Utah and its political subdivisions and public education employees of those entities covered by the System.

The Public Employees

NONCONTRIBUTORY

RETIREMENT SYSTEM HIGHLIGHTS (Concluded)

Composite Picture

Total Membership 160,768 Active .59,578 Terminated Vested .47,292 Retired .53,898
2017 Active Members 59,578 Average Age 49.7 Average Years of Service 16.1 Average Annual Salary \$54,845
2017 Retirees Number 3,340 Average Age. 64.1 Average Years of Service 21.7 Final Average Salary \$50,983 Average Annual Benefit \$22,223
Average Annual Benefit — All Retirees \$22,576

Service Retirement

Age	Years of Service	Allowance Reduction
Any age	2 30	None
Any age	25	Full actuarial before age 60
60-61.	20 3	3% each year before age 65
62-64 .	10	3% each year before age 65
65	4	None

Service Benefit Formula

Number of years of service x 2.00% x FAS.*

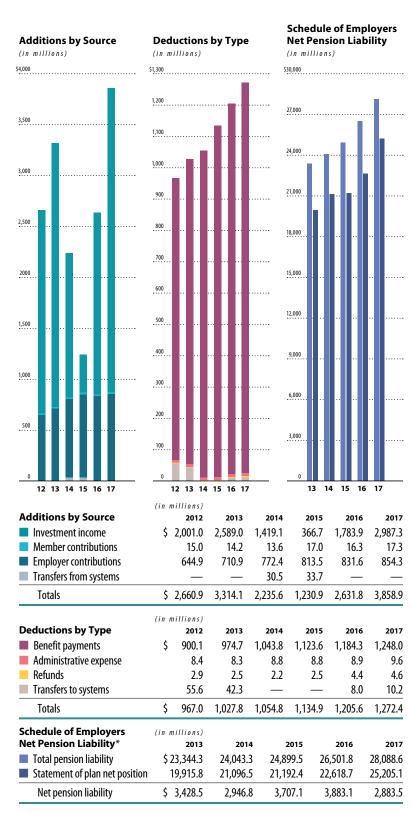
Cost-of-Living Allowance

Up to 4% annually on original retirement benefit.

Contribution Rates (as of 12-31-2017)

Employer rate for the State and School Division (Level A) is 22.19% of covered salary and 18.47% for the Local Government Division (Level B).

For more detail see Summary of Plan Provisions on page 178.



^{*}Additional years will be added as they become available.

^{*}FAS (Final Average Salary) = highest three years' earnings converted to a monthly average. Yearly salary increases are limited to 10% plus a COLA determined by the CPI.

CONTRIBUTORY SYSTEM HIGHLIGHTS



The CONTRIBUTORY Retirement System

includes eligible public employees of the State of Utah and its political subdivisions and public education employees of those entities covered by the System.



Pictured: Greta Ericsson, Teacher, DDI Vantage

The Public Employees

CONTRIBUTORY

RETIREMENT SYSTEM HIGHLIGHTS (Concluded)

Composite Picture

Total Membership	5,957
Active	621
Terminated Vested	1,294
Retired	4,042
2017 Active Members	. 621
Average Age	. 57.7
Average Years of Service	. 29.8
Average Annual Salary\$6	52,264
2017 Retirees Number	. 123
Average Age	. 62.9
Average Years of Service	. 29.5
Average Annual Salary\$5	56,336
Average Annual Benefit\$3	33,141
Average Annual Benefit — All Retirees \$1	19,831

Service Retirement

Age	Years of Service	Allowance Reduction
Any age	e 30	None
60-61 .	203%	each year before age 65
62-64 .	103%	each year before age 65
65	4	None

Service Benefit Formula

- 1. Number of years of service before 7-1-75 x 1.25% x FAS.*
- 2. Number of years of service after 6-30-75 x 2.00% x FAS.*
- 3. Plan 1 allowance = total of 1 and 2.

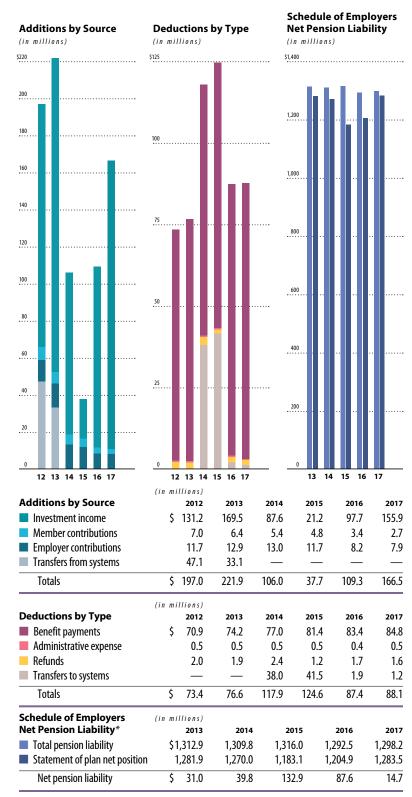
Cost-of-Living Allowance

Up to 4% annually on original retirement benefit.

Contribution Rates (as of 12-31-2017)

Member rate is 6% of covered salary. Employer rate for State and School Division (Level A) is 17.70% of covered salary and 14.46% for the Local Government Division (Level B).

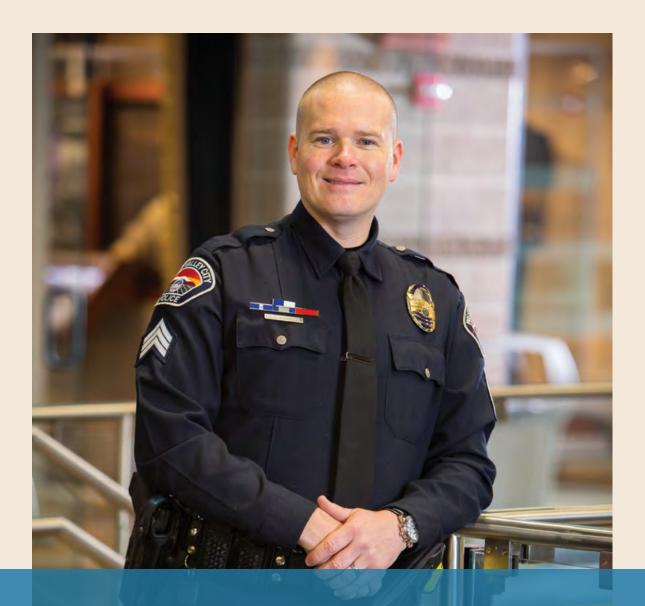
For more detail see Summary of Plan Provisions on page 179.



^{*}Additional years will be added as they become available.

^{*}FAS (Final Average Salary) = highest five years' earnings converted to a monthly average. Yearly salary increases are limited to 10% plus a COLA determined by the CPI.

PUBLIC SAFETY SYSTEM HIGHLIGHTS



The PUBLIC SAFETY Retirement System

includes eligible state and local government employees directly involved in law enforcement. The Public Safety System consists of the Noncontributory and Contributory divisions.



Pictured: Shawn Bias, Sergeant, West Valley City Police Department

PUBLIC SAFETY

RETIREMENT SYSTEM HIGHLIGHTS (Concluded)

Composite Picture

Total Membership Active Terminated Vested Retired	5,704 4,824
2017 Active Members	43.3
2017 Retirees Number	52.8 21.8 \$60,163
Average Annual Benefit — All Retirees	\$29,504

Service Retirement

Age	Years of Service	Allowance Reduction
Any age	20	None
60	10	None
65		None

Service Benefit Formula

- 1. 2.5% x FAS* x years of service up to 20 years.
- 2. 2.0% x FAS* x years of service over 20 years.
- 3. Monthly benefit = total of 1 and 2.

Cost-of-Living Allowance

Up to 2.5% or 4% (depending on employer) annually on original retirement benefit.

Contribution Rates (as of 12-31-2017)

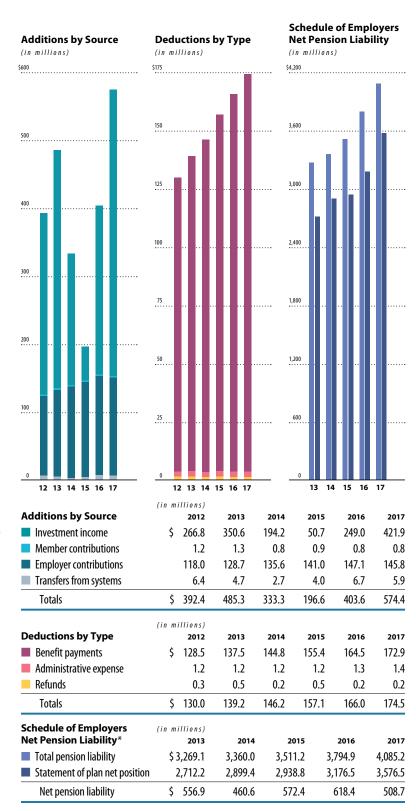
Noncontributory

Employer rates range from 32.20% to 49.58% of covered salary.

Contributory

Member rates range from 10.50% to 12.29% of covered salary. Employer rates range from 22.29% to 29.70% of covered salary.

For more detail see Summary of Plan Provisions on page 180.



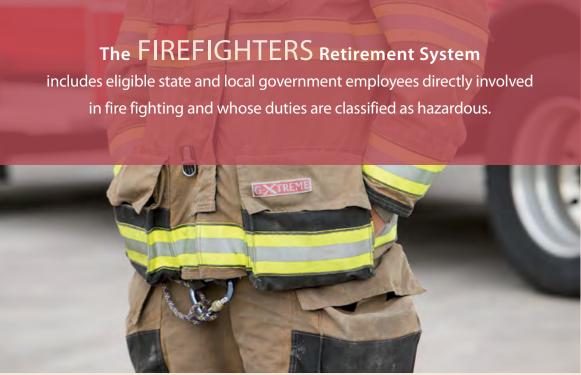
^{*}Additional years will be added as they become available.

^{*}FAS (Final Average Salary) = highest three years' earnings converted to a monthly average. Yearly salary increases are limited to 10% plus a COLA determined by the CPI.

FIREFIGHTERS

SYSTEM HIGHLIGHTS





Pictured: Eric Holmes, Public Information Officer, Unified Fire Authority

FIREFIGHTERS

RETIREMENT SYSTEM HIGHLIGHTS (Concluded)

Composite Picture

Total Membership 3,460 Active 1,602 Terminated Vested 435 Retired 1,423
2017 Active Members 1,602 Average Age 43.5 Average Years of Service 15.7 Average Annual Salary \$69,242
2017 Retirees Number .62 Average Age. .51.9 Average Years of Service .23.6 Average Annual Salary \$76,882 Average Annual Benefit \$41,010
Average Annual Benefit — All Retirees \$37,191

Service Retirement

Age	Years of Service	Allowance Reduction
Any age	20	None
60	10	None
65	4	None

Service Benefit Formula

- 1. 2.5% x FAS* x years of service up to 20 years.
- 2. 2.0% x FAS* x years of service over 20 years.
- 3. Monthly benefit = total of 1 and 2.

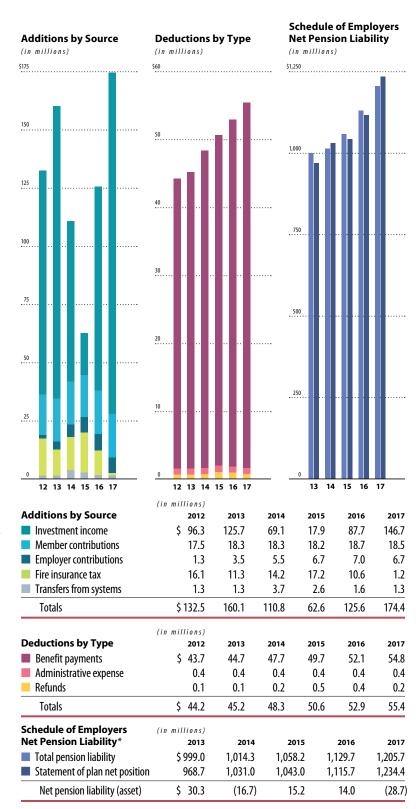
Cost-of-Living Allowance

Up to 4% (depending on employer) on original retirement benefit.

Contribution Rates (as of 12-31-2017)

Member rate for Division A (with Social Security) is 15.05% of covered salary and for Division B (without Social Security) is 16.71% of covered salary. Employer rate for Division A is 3.93% of covered salary and 6.70% for Division B.

For more detail see Summary of Plan Provisions on page 182.



^{*}Additional years will be added as they become available.

^{*}FAS (Final Average Salary) = highest three years' earnings converted to a monthly average. Yearly salary increases are limited to 10% plus a COLA determined by the CPI.

JUDGES SYSTEM HIGHLIGHTS



The JUDGES Retirement System

includes justices and judges of the courts of record as authorized in state statutes.



Pictured: Judge Diana Hagen, Utah Court of Appeals

JUDGES

RETIREMENT SYSTEM HIGHLIGHTS (Concluded)

Composite Picture

Total Membership 273 Active .114 Terminated Vested .11 Retired .148
2017 Active Members 114 Average Age 55.4 Average Years of Service 15.8 Average Annual Salary \$162,345
2017 Retirees Number .10 Average Age. .63.7 Average Years of Service .27.4 Average Annual Salary .\$155,269 Average Annual Benefit .\$115,756
Average Annual Benefit — All Retirees \$87,512

Service Retirement

Age	Years of Service	Allowance Reduction
Any age	25	None
55	20	Full actuarial reduction
62	10	None
70	6	None

Service Benefit Formula

- 1. 5.00% x FAS* x years of service up to 10 years.
- 2. 2.25% x FAS* x years of service between 10 and 20 years.
- 3. 1.00% x FAS* x years of service over 20 years.
- 4. Monthly benefit = total of 1, 2, and 3.

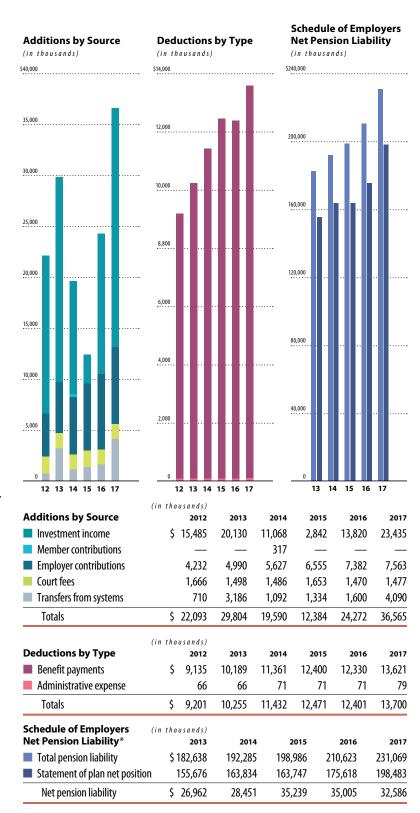
Cost-of-Living Allowance

Up to 4% compounded annually.

Contribution Rates (as of 12-31-2017)

Employer rate is 42.69% of covered salary.

For more detail see Summary of Plan Provisions on page 183.



^{*}Additional years will be added as they become available.

^{*}FAS (Final Average Salary) = highest two years' earnings converted to a monthly average. Yearly salary increases are limited to 10% plus a COLA determined by the CPI.

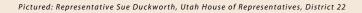
UTAH GOVERNORS AND LEGISLATORS PLAN HIGHLIGHTS



The UTAH GOVERNORS AND LEGISLATORS

Retirement Plan

includes governors and legislators of the State of Utah.



UTAH GOVERNORS AND LEGISLATORS

RETIREMENT PLAN HIGHLIGHTS (Concluded)

Composite Picture

Total Membership 400
Active52
Terminated Vested95
Retired253
2017 Active Members52
Average Age57.1
Average Years of Service12.2
Average Annual Salary
2017 Retirees Number
Average Age65.6
Average Years of Service10.8
Average Annual Salary
Average Annual Benefit\$3,973
Average Annual Benefit — All Retirees\$3,883

Service Retirement

Age	Years of Service	Allowance Reduction
65		None
62	10 3% 6	each vear before age

Service Benefit Formula

Governors

\$500*per month per term.

Legislators

\$10**per month each year of service as a legislator.

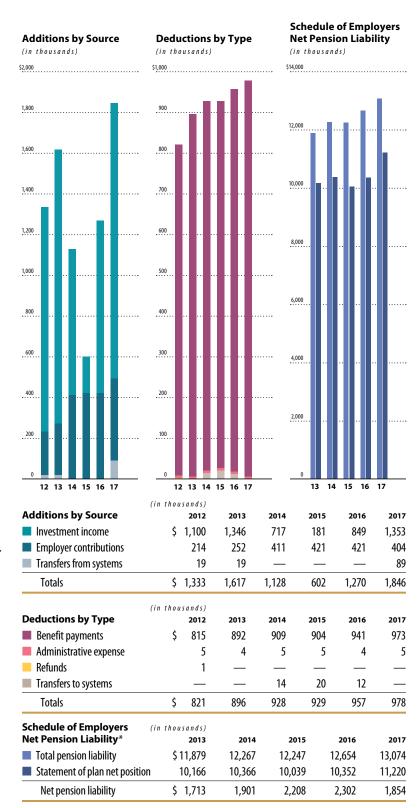
Cost-of-Living Allowance

Up to 4% annually on original retirement benefit.

Contribution Rates (as of 12-31-2017)

There was a 2017-18 appropriation payable by June 30, 2018, to the Utah Governors and Legislators Retirement Plan of \$391,883.

For more detail see Summary of Plan Provisions on page 184.



^{*}Additional years will be added as they become available.

^{*}Increased semi annually up to 2% based on the CPI. The amount as of 12-31-17 is \$1,380.

^{**}Increased semi annually up to 2% based on the CPI. The amount as of 12-31-17 is \$30.00.

TIER 2 PUBLIC EMPLOYEES SYSTEM HIGHLIGHTS



The TIER 2 PUBLIC EMPLOYEES

Contributory Retirement System

includes eligible employees of the State of Utah and its political subdivisions and public education employees of those entities covered by the System.



Pictured: Alexia Martinez, Digital Media Specialist, Ogden City

TIER 2 PUBLIC EMPLOYEES

CONTRIBUTORY RETIREMENT SYSTEM HIGHLIGHTS (Concluded)

Composite Picture

Total Membership Active Terminated Vested Retired	.27,152 1,175
2017 Active Members	36.5 2.6
2017 Retirees Number Average Age. Average Years of Service Average Annual Salary Average Annual Benefit	67.5 4.7 \$32,516
Average Annual Benefit — All Retirees	.\$1,932

Service Retirement

Age	Years of Service	Allowance Reduction
Any age	e 35	None
60-61 .	20	Full actuarial before age 65
62-64 .	10	Full actuarial before age 65
65	4	None

Service Benefit Formula

Number of years of service x 1.50% x FAS.*

*FAS (Final Average Salary) = highest five years' earnings converted to a monthly average. Yearly salary increases are limited to 10% plus a COLA determined by the CPI.

Cost-of-Living Allowance

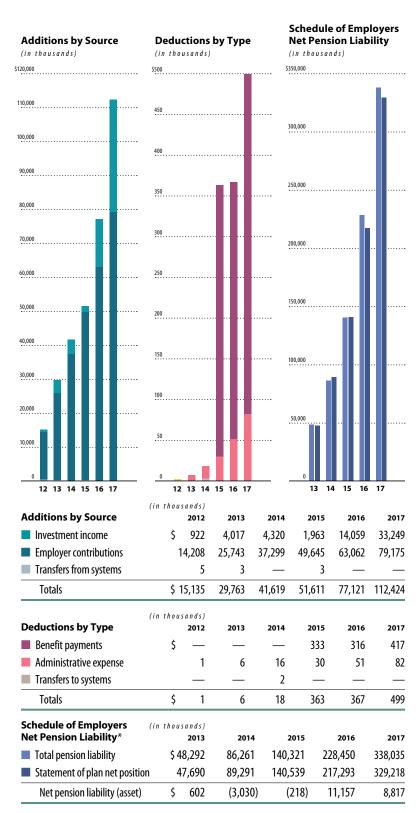
Up to 2.5% compounded annually on original retirement benefit.

Contribution Rates (as of 12-31-2017)

Employer rates range from 15.11% to 18.44% of covered salary.

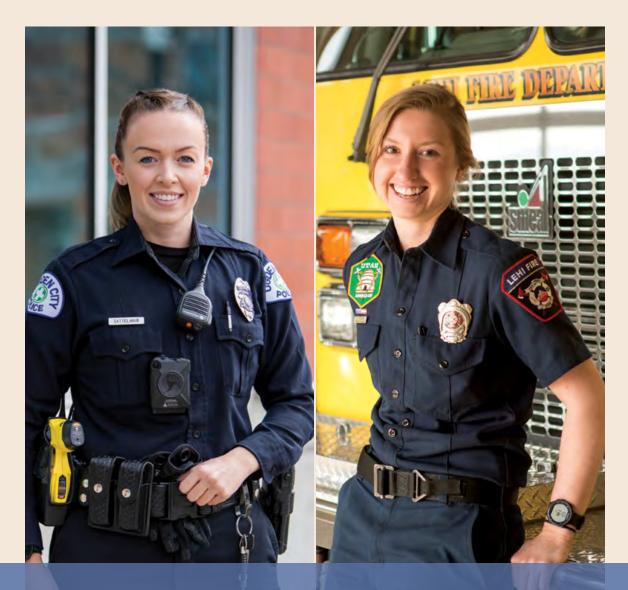
(Includes active member death benefit and Tier 1 amortization rate.)

For more detail see Summary of Plan Provisions on page 185.



^{*}Additional years will be added as they become available.

TIER 2 PUBLIC SAFETY AND FIREFIGHTER SYSTEM HIGHLIGHTS



The TIER 2 PUBLIC SAFETY AND FIREFIGHTER

Contributory Retirement System

includes eligible state and local government employees directly involved in law enforcement or directly involved in fire fighting and whose duties are classified as hazardous.



Pictured Left: Logan Sattelmair, Police Officer, Ogden City Police Department
Right: Aubrey Freiberg, Firefighter, Lehi City Fire Department

TIER 2 PUBLIC SAFETY AND FIREFIGHTER

CONTRIBUTORY RETIREMENT SYSTEM HIGHLIGHTS (Concluded)

Composite Picture

Total Membership 2,774 Active .2,699 Terminated Vested .75 Retired
2017 Active Members 2,699 Average Age 30.5 Average Years of Service 2.7 Average Annual Salary \$41,946
2017 Retirees Number — Average Age. — Average Years of Service — Average Annual Salary \$— Average Annual Benefit \$—
Average Annual Benefit — All Retirees\$—

Service Retirement

Age	Years of Service	Allowance Reduction
Any age	25	None
60-61	20	Full actuarial before age 65
62-64	10	Full actuarial before age 65
65	4	None

Service Benefit Formula

Number of years of service x 1.50% x FAS.*

Cost-of-Living Allowance

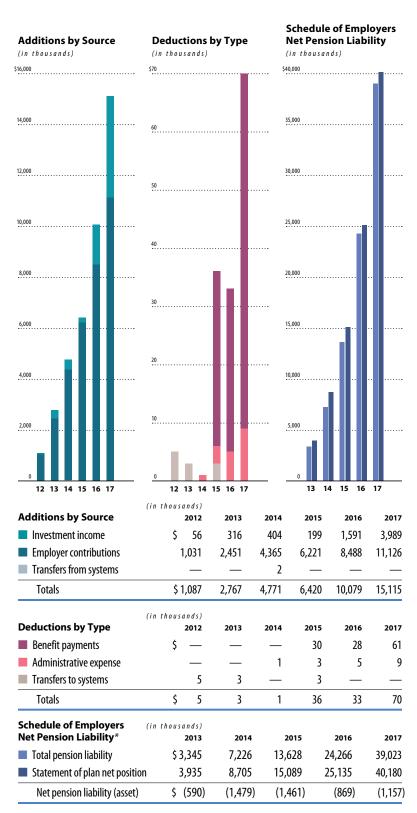
Up to 2.5% compounded annually on original retirement benefit.

Contribution Rates (as of 12-31-2017)

Employer rates range from 10.82% to 37.71% of covered salary.

(Includes active member death benefit and Tier 1 amortization rate.)

For more detail see Summary of Plan Provisions on page 187.



^{*}Additional years will be added as they become available.

^{*}FAS (Final Average Salary) = highest five years' earnings converted to a monthly average. Yearly salary increases are limited to 10% plus a COLA determined by the CPI.

DEFINED CONTRIBUTION SAVINGS PLANS HIGHLIGHTS

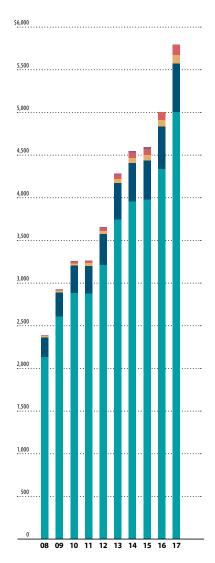
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Membership Information

at December 31, 2017	401(k)	457	Roth IRA	Traditional IRA
Number of active employees eligible to participate	106,137	102,180	224,216	224,216
Employee contributions (excluding employer contributions):				
Number of employees contributing	39,423	8,403	7,507	548
Percent of eligible employees contributing	37.1%	8.2%	3.3%	0.2%
Average % of salary deferred by employees	5.6%	6.1%	3.7%	2.5%
Total participants	171,966	17,903	10,383	2,042
Average participant account balance	\$ 29,092	\$ 31,804	\$ 11,490	\$ 50,151

Defined Contributions Member Balances

(in millions)



The purpose of the Defined Contribution Savings Plans (401(k), 457, Roth and traditional IRAs) is to allow public employees throughout Utah to adequately prepare themselves for retirement by investing a portion of their income in one or more of these retirement plans.

It has long been recognized that for employees to experience the comfortable and rewarding retirement they desire, they cannot rely entirely upon Social Security and their employer-provided retirement. Employees should take the initiative to personally put aside a portion of their salary into some type of long-term savings plan.

Each year the number of employees participating in these plans increases. Individuals may participate in more than one plan. As of December 31, 2017, the number of participants by investment plan was as shown in the table above.

Annualized rates of returns for the Investment Funds are shown on pages 149 and 150. The Plans provided the following benefits:

- » Convenient, automatic payroll deduction
- >> 20 investment options
- » Brokerage window option
- Tax-deferred and/or tax-free savings
- » Increase or decrease contributions as often as every pay period
- >>> Flexible payout options when eligible
- » Upon death, funds transfer to beneficiaries
- » No sales commissions
- >> Low investment and administrative fees
- >> Plan loans (401(k) and 457)
- >> Hardship and emergency withdrawals
- » Local customer service and counseling.

Defined Contributions Member Balances

at December 31, 2017 (in millions) 2009 2010 2011 2012 2013 2014 2015 2016 2017 2008 ■ HRA* 2 3 9 23 6 11 16 20 Roth IRA 21 24 48 70 7 12 34 59 89 119 Traditional IRA 19 22 26 30 39 50 60 69 82 102 457 229 284 317 321 360 425 451 454 494 569 401(k) 2,132 2,608 2,887 2,881 3,213 3,746 3,956 3,980 5,003 4,339 **Totals** \$ 2,389 2,929 3,257 3,265 3,657 4,285 4,546 4,596 5,004 5,793

^{*}Administration of the HRA was transferred to PEHP in October 2016.

Comprehensive Annual Financial Report

2017

FINANCIAL SECTION

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36	Management's Discussion and Analysis
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INDEPENDENT AUDITORS' REPORT

Deloitte.

INDEPENDENT AUDITORS' REPORT

Deloitte & Touche LLP 111 South Main Street Suite 1500 Salt Lake City, UT 84111 United States of America

Tel 801-328-4706 Fax: 801-366-7900 www.deloitte.com

Utah State Retirement Board:

REPORT ON THE FINANCIAL STATEMENTS

We have audited the accompanying financial statements of each of the defined benefit pension plans and of the total combined defined contribution plans of Utah Retirement Systems, a component unit of the State of Utah, administered by the Utah State Retirement Board, which comprise the statements of fiduciary net position of the pension (and other employee benefit) trust funds as of December 31, 2017, and the related statements of changes in fiduciary net position of the pension (and other employee benefit) trust funds for the year then ended, and the related notes to the financial statements, which collectively comprise Utah Retirement Systems' basic financial statements as listed in the foregoing table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the pension (and other employee benefit) trust funds of each of the defined benefit pension plans and of the total combined defined contribution plans of Utah Retirement Systems, a component unit of the State of Utah, administered by the Utah State Retirement Board, at December 31, 2017, and the changes in fiduciary net position of the pension (and other employee benefit) trust funds for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 3 to the financial statements, the financial statements include investments that are not listed on national exchanges or for which quoted market prices are not available. These investments include private equities, absolute returns, and investments in real assets. Such investments totaled \$12.9 billion (32.2% of total assets) at December 31, 2017. Where a publicly listed price is not available, the management of Utah Retirement Systems uses alternative sources of information including audited financial statements, unaudited interim reports, independent appraisals, and similar evidence to determine the fair value of the investments. Our opinion is not modified with respect to this matter.

Report on Summarized Comparative Information

We have previously audited Utah Retirement Systems' 2016 basic financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated April 26, 2017, which included an emphasis-of-matter paragraph regarding the fair value of investments where a publicly listed price is not available. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2016 is consistent, in all material respects, with the audited financial statements from which it has been derived.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis and the Schedules of Changes in the Employers' Net Pension Liability, of Employers' Net Pension Liability, of Employer Contributions, and of Investment Returns, listed in the foregoing table of contents, be presented to supplement the basic financial statements. Such information, although not part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of the financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise Utah Retirement Systems' basic financial statements. The additional combining information for the total combined defined contribution plans is presented for purposes of additional analysis of the financial statements rather than to present the fiduciary net position and the changes in fiduciary net position of the individual plans, and is not a required part of the basic financial statements. The supplementary financial supporting schedules listed in the foregoing table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The additional combining information and the supplementary financial supporting schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the additional combining information and the supplementary financial supporting schedules are fairly stated, in all material respects, in relation to the basic financial statements taken as a whole.

The Introductory Section, Investment Section, Actuarial Section, and Statistical Section listed in the foregoing table of contents have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated April 26, 2018 on our consideration of Utah Retirement Systems' internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Utah Retirement Systems' internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering Utah Retirement Systems' internal control over financial reporting and compliance.

April 26, 2018

Deloitte.

INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

Utah State Retirement Board:

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States, the financial statements of each of the defined benefit pension plans and of the total combined defined contribution plans of Utah Retirement Systems, a component unit of the State of Utah, administered by the Utah State Retirement Board, which comprise the statements of fiduciary net position of the pension (and other employee benefit) trust funds as of December 31, 2017, and the related statements of changes in fiduciary net position of the pension (and other employee benefit) trust funds for the year then ended, and the related notes to the financial statements, which collectively comprise Utah Retirement Systems' basic financial statements, and have issued our report thereon dated April 26, 2018, which included an emphasisof-matter paragraph regarding the fair value of investments where a publicly listed price is not available.

Deloitte : Touche LLP

INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS (Concluded)

Deloitte & Touche LLP 111 South Main Street Suite 1500 Salt Lake City, UT 84111 United States of America

Tel 801-328-4706 Fax: 801-366-7900 www.deloitte.com

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Utah Retirement Systems' internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Utah Retirement Systems' internal control. Accordingly, we do not express an opinion on the effectiveness of Utah Retirement Systems' internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Utah Retirement Systems' financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and Utah Retirement Systems' policies regarding purchasing, personnel, budgeting, and investments, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under Government Auditing Standards.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government* Auditing Standards in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

April 26, 2018

Deloitte & Touche LLP

UTAH RETIREMENT SYSTEMS

MANAGEMENT'S DISCUSSION AND ANALYSIS



Introduction

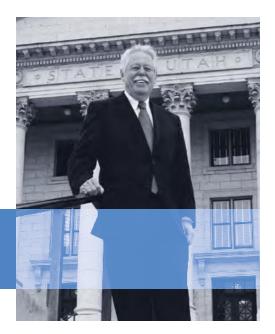
This section presents management's discussion and analysis of the Utah Retirement Systems' (URS) financial position and performance for the year ended December 31, 2017. It is presented as a narrative overview and analysis. Please read it in conjunction with the Letter of Transmittal included in the Introductory Section, the financial statements and other information that are presented in the Financial Section of this Comprehensive Annual Financial Report. URS is responsible for administering retirement and defined contribution benefits for state, local government, and public education employees in the State of Utah.

URS is composed of eight defined benefit pension systems (Systems) and four defined contribution plans (Plans). The eight defined benefit pension systems are the Public Employees Noncontributory Retirement System (Noncontributory System), the Public Employees Contributory Retirement System (Contributory System), the Public Safety Retirement System (Public Safety System), the Firefighters Retirement System (Firefighters System), the Judges Retirement System (Judges System), the Utah Governors and Legislators Retirement Plan (Governors and Legislators Plan), Tier 2 Public Employees Contributory Retirement System (Tier 2 Public Employees System), and the Tier 2 Public Safety and Firefighter Contributory Retirement System (Tier 2 Public Safety and Firefighter System). The four defined contribution plans (Plans) are the 401(k), 457, and Roth and traditional IRAs. All of these Systems and Plans are defined as pension (and other employee benefit) trust funds, which are fiduciary funds. Throughout this discussion and analysis units of measure

(i.e., billions, millions, thousands) are approximate, being rounded up or down to the nearest tenth of the respective unit value.

FINANCIAL HIGHLIGHTS

- » The URS Defined Benefit Pension Systems' combined total net position increased by \$3.3 billion, or 11.7% during calendar year 2017. The increase was primarily due to the increase in the markets.
- » The URS Defined Benefit Pension Systems' rate of return on investments during calendar year 2017 was 13.57% compared with the calendar year 2016 rate of return of 8.79%. The increase in rate of return was due primarily to the increase in market performance in 2017.
- » The URS Defined Benefit Pension Systems had a Net Pension Liability of \$3.4 billion and the Net Pension Liability as a percentage of covered payroll was 68.4% as of December 31, 2017.
- » The Defined Contribution Plans' combined total net position increased \$790 million during calendar year 2017 primarily due to investment gains.
- The Defined Contribution Plans' rates of return for investment options ranged from a high of 33.2% to a low of 1.7% compared to prior year investment option returns of a high of 23.3% and a low of 1.2%.



Overview of the Financial Statements

The URS 2017 financial statements, notes to the financial statements, and required supplementary information were prepared in conformity with GASB Statement No. 67, Financial Reporting for Pension Plans. This discussion and analysis is intended to serve as an introduction to the URS financial reporting, which is comprised of the following components:

- 1) basic financial statements,
- 2) notes to the basic financial statements,
- 3) required supplementary information, and
- 4) other supplementary schedules.

Collectively, this information presents the combined net position held in trust for pension benefits for each of the funds administered by URS as of December 31, 2017. This financial information also summarizes the combined changes in net position held in trust for pension benefits for the year then ended. The information in each of these components is briefly summarized as follows:

1) BASIC FINANCIAL STATEMENTS

For the calendar year ended December 31, 2017, basic financial statements are presented for the fiduciary funds administered by URS. Fiduciary funds are used to account for resources held for the benefit of the participants outside of URS. The fiduciary funds are comprised of 12 pension (and other employee benefit) trust funds that consist of eight defined benefit systems and four defined contribution plans.

- » The Statements of Fiduciary Net Position are presented for the pension trust funds at December 31, 2017, with combined total comparative information at December 31, 2016. These financial statements reflect the resources available to pay benefits to members, including retirees and beneficiaries, at the end of the years reported.
- » The Statements of Changes in Fiduciary Net Position are presented for the pension trust funds for the year ended December 31, 2017, with combined total comparative information for the year ended December 31, 2016. These financial statements reflect the changes in the resources available to pay benefits to members, including retirees and beneficiaries, for calendar years 2017 and 2016.

2) NOTES TO THE BASIC FINANCIAL STATEMENTS

The Notes to the Basic Financial Statements provide additional information that is essential to a full understanding of the data provided in the basic financial statements. Information in the Notes to the Basic Financial Statements is described as follows:

» Note 1 provides a general description of URS, as well as a description of each of the Systems and Plans administered by URS and a summary of benefits. Information regarding employer and member participation in the Systems and Plans administered by URS is also provided.

- » Note 2 provides a summary of significant accounting policies including the basis of accounting, investment accounting policies, management's use of estimates, information regarding the implementation of new accounting pronouncements, and other significant accounting policies.
- » Note 3 describes deposits, investment risk disclosures, fair value measurements and related disclosures, and additional information about cash, securities lending, and derivatives.
- » Note 4 explains property and equipment of URS including depreciation and net carrying amounts.
- » Note 5 provides information about net pension liability of employers.
- » Note 6 provides information about contributions to the defined benefit systems administered by URS.
- » Note 7 explains transfers to or from affiliated systems.
- » Note 8 describes supplemental benefits.
- » Note 9 provides information about litigation.
- » Note 10 describes commitments for investment funding.
- » Note 11 provides information about pension plan participation.
- » Note 12 provides information about URS postemployment benefits.
- » Note 13 describes compensated absences and insurance reserves.
- » Note 14 describes required supplementary information.



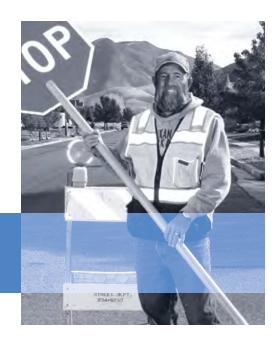
- » Note 15 provides information about risk management of URS.
- » Note 16 provides information about real estate liabilities.

3) REQUIRED SUPPLEMENTARY INFORMATION

The required supplementary information consists of four schedules of changes in employers' net pension liability, employers' net pension liability, employer contributions, and the money-weighted rate of investment returns of the defined benefit pension systems administered by URS.

4) OTHER SUPPLEMENTARY SCHEDULES

Other schedules include more detailed information pertaining to the Systems and Plans as well as schedules of administrative expenses.



Financial Analysis of the Systems — Defined Benefit Plan

INVESTMENTS

Investments of the URS Defined Benefit Systems are combined in a commingled investment pool as authorized by state statute. Each system owns an equity position in the pool and receives proportionate investment income from the pool in accordance with each respective ownership percentage.

Each system's allocated share of each type of investment in the pool is shown in the Statements of Net Position. Investment gains or losses are reported in the Statements of Changes in Fiduciary Net Position. The rate of return on investments is therefore approximately the same for each of the systems.

Systems' Total Investments

As of December 31, 2017, URS Defined Benefit Systems had total net position of \$31.9 billion, an increase of \$3.3 billion from calendar year 2016 investment totals. The combined investment portfolio experienced a return of 13.57% compared with the URS investment benchmark return of 14.05%. Investment results over time compared with URS benchmarks are presented on page 144 in the Investment Section.

Because the investment gain in all of the retirement systems was 13.57% of net position, further investment performance will not be evaluated in each respective system.

Equity Securities

As of December 31, 2017, URS Defined Benefit Systems held \$12.2 billion in U.S. and international equity securities, an increase of \$2.0 billion from year 2016. Equity securities had a return of 21.41% for calendar year 2017 compared with the URS benchmark return of 23.89%.

Debt Securities

As of December 31, 2017, URS Defined Benefit Systems held \$4.6 billion in U.S. debt and international debt securities, an increase of \$200.7 million from year 2016. Debt securities returned 3.88% in calendar year 2017 compared with the URS benchmark return of 3.93%.

Real Assets

As of December 31, 2017, URS Defined Benefit Systems held \$4.7 billion in real assets investments, an increase of \$475.5 million from year 2016. Real assets investments returned 11.74% in calendar year 2017 compared with the URS benchmark return of 7.18%.

Private Equity

As of December 31, 2017, URS Defined Benefit Systems held \$3.5 billion in private equity investments, an increase of \$160.1 million from year 2016. Private equity investments returned 19.12% in calendar year 2017. The URS benchmark for private equity investments was 23.63%.



Short Term

As of December 31, 2017, URS Defined Benefit Systems held \$2.8 billion in short-term investments, an increase of \$366.6 million from year 2016. Short-term investments returned 0.42% in calendar year 2017 compared with the URS benchmark return of 0.86%.

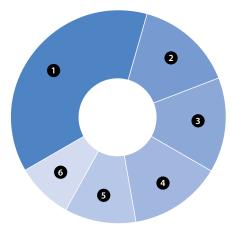
Absolute Return

As of December 31, 2017, URS Defined Benefit Systems held \$4.5 billion in absolute return investments, a decrease of \$49.5 million from year 2016. Absolute return investments returned 5.47% in calendar year 2017 compared with the URS benchmark return of 5.86%.

Securities Lending

The Systems earn additional investment income by lending investment securities to brokers. This is done on a pooled basis by URS' custodial bank, The Northern Trust Company (TNT). The brokers provide collateral to TNT and generally use the borrowed securities to cover short sales and failed trades. TNT invests the cash collateral received from the brokers in order to earn interest. As of December 31, 2017, the Systems had \$1.3 billion on loan secured by collateral of \$1.3 billion. For calendar year 2017, net securities lending income to the Systems amounted to \$6.0 million, a decrease of \$2.0 million over calendar year 2016. In order to mitigate risk, security lending was restricted to high yield low risk lending which resulted in lower revenue for 2017.





- 1 Equity Securities (37.8%) 4 Absolute Return (13.9%)

 - 2 Real Assets (14.8%)
- 5 Private Equity (10.7%)
- 3 Debt Securities (14.2%)
- 6 Short Term (8.6%)



Defined Benefit Systems Investment Rates of Return by Investment Type for 2017

(in percents) 21.41% 1 Equity Securities 2 Private Equity 3 Real Assets 4 Absolute Return 5 Debt Securities 6 Short Term



Analysis of the Defined Benefit Systems

NONCONTRIBUTORY SYSTEM

The Noncontributory System provides retirement benefits to covered State of Utah, local government, and public education employees. Benefits of the system are funded by employer contributions and by earnings on investments. The system net position as of December 31, 2017, totaled \$25.2 billion, an increase of \$2.6 billion (11.4%) from \$22.6 billion as of December 31, 2016. Additions to the Noncontributory System net position include employer contributions, investment income, and transfers. For the calendar year 2017, member and employer contributions increased from \$847.9 million for calendar year 2016 to \$871.5 million, an increase of \$23.6 million (2.8%). Contributions increased because salaries increased. The system recognized a net investment gain of \$3.0 billion for calendar year 2017 compared with net investment gain of \$1.78 billion for calendar year 2016. The increase in investment gain for 2017 compared to 2016 was due to the higher rate of return realized in 2017.

Deductions from the Noncontributory System net position include retirement benefits, administrative expenses, and transfers. For the calendar year 2017, benefits amounted to \$1.3 billion, an increase of \$64.0 million (5.4%) over calendar year 2016. The increase in benefit payments was due to an increased number of benefit recipients and benefit increases.

For the calendar year 2017, the costs of administering the system totaled \$9.6 million, an increase of \$723 thousand (8.2%) from calendar year 2016.

At December 31, 2017, the Noncontributory Retirement System total pension liability was \$28.1 billion. The Plan's fiduciary net position was \$25.2 billion leaving a net pension liability of \$2.9 billion. The Plan fiduciary net position as a percentage of the total pension liability was 89.7%.

CONTRIBUTORY SYSTEM

The Contributory System provides retirement benefits to covered State of Utah, local government, and public education employees. Benefits of the system are funded by member and employer contributions and by earnings on investments. The system net position as of December 31, 2017, totaled \$1.3 billion, an increase of \$78.5 million (6.5%) from \$1.2 billion as of December 31, 2016.

Additions to the Contributory System net position include employer and member contributions, investment income, and transfers. For calendar year 2017, member and employer contributions decreased from \$11.6 million for calendar year 2016 to \$10.6 million, a decrease of \$987 thousand (8.5%). Contributions decreased because of the number of active members. For the most part, the Contributory System is a closed system. For this reason both the numbers of active members and retired individuals are declining. The system recognized a net

Statements of Fiduciary Net Position — Defined Benefit Pension Plans

December 31

(dollars in thousands)

	Noncontributory System				Contributory System			Public Safety System			
	2017	2016	2015	2017	2016	2015	2017	2016	2015		
Assets:											
Cash and receivables	\$ 582,456	394,604	264,655	27,814	19,301	13,175	82,840	55,097	33,339		
Investments at fair value	25,403,896	22,995,043	21,506,695	1,295,483	1,226,675	1,202,149	3,604,502	3,229,586	2,985,545		
Invested securities											
lending collateral	1,058,631	554,319	1,602,253	53,985	29,570	89,560	150,205	77,853	222,424		
Property and equipment	3,472	3,875	2,488	177	207	139	492	544	345		
Total assets	27,048,455	23,947,841	23,376,091	1,377,459	1,275,753	1,305,023	3,838,039	3,363,080	3,241,653		
Liabilities:											
Securities lending liability	1,058,631	554,319	1,602,253	53,985	29,570	89,560	150,205	77,853	222,424		
Investment accounts											
and other payables	784,697	774,779	581,401	40,008	41,279	32,372	111,317	108,682	80,390		
Total liabilities	1,843,328	1,329,098	2,183,654	93,993	70,849	121,932	261,522	186,535	302,814		
Net position restricted											
for pensions	\$ 25,205,127	22,618,743	21,192,437	1,283,466	1,204,904	1,183,091	3,576,517	3,176,545	2,938,839		

(dollars in thousands)

			ier 2 Public ees System	á	Tier 2 Pu and Firefigh	blic Safety ter System	Total Defined Benefit Pension Plan			2017 Percent	2016 Percent
	2017	2016	2015	2017	2016	2015	2017 2016		2015	Change	Change
Assets:											
Cash and receivables	\$ 11,918	7,015	3,973	1,361	754	271	741,034	499,760	329,458	48.3%	51.7%
Investments at fair value	327,365	217,563	140,329	40,050	25,226	15,226	32,125,473	29,017,100	27,086,314	10.7	7.1
Invested securities											
lending collateral	13,642	5,245	10,454	1,669	608	1,134	1,338,730	699,487	2,017,935	91.4	(65.3)
Property and equipment	45	37	16	5	4	2	4,390	4,890	3,133	(10.2)	56.1
Total assets	352,970	229,860	154,772	43,085	26,592	16,633	34,209,627	30,221,237	29,436,840	13.2	2.7
Liabilities:											
Securities lending liability Investment accounts	13,642	5,245	10,454	1,669	608	1,134	1,338,730	699,487	2,017,935	91.4	(65.3)
and other payables	10,110	7,322	3,779	1,236	849	410	992,279	977,434	732,065	1.5	33.5
Total liabilities	23,752	12,567	14,233	2,905	1,457	1,544	2,331,009	1,676,921	2,750,000	39.0	(39.0)
Total position restricted	ć 220 210	217 202	140 520	40 100	25 125	15 000	21 070 610	20 544 216	26 696 940	11 70/	7.00/
for pensions	\$ 329,218	217,293	140,539	40,180	25,135	15,089	31,878,618	28,544,316	26,686,840	11.7%	7.0%

	Firefig	hters System		Ju	dges System	Legislators Retirement Plan			
2017	2016	2015	2017	2016	2015	2017	2016	2015	
29,792	19,654	11,916	4,613	3,172	1,904	240	163	225	
1,242,827	1,134,044	1,059,550	200,022	178,422	166,303	11,328	10,541	10,517	
54 TO4		70.004			40.000	470	254	70.4	
51,791	27,337	78,936	8,335	4,301	12,390	472	254	784	
170	191	123	27	30	19	2	2	1	
1,324,580	1,181,226	1,150,525	212,997	185,925	180,616	12,042	10,960	11,527	
51,791	27,337	78,936	8,335	4,301	12,390	472	254	784	
38,382	38,163	28,530	6,179	6,006	4,479	350	354	704	
90,173	65,500	107,466	14,514	10,307	16,869	822	608	1,488	
1,234,407	1,115,726	1,043,059	198,483	175,618	163,747	11,220	10,352	10,039	

investment gain of \$155.9 million for calendar year 2017 compared with net investment gain of \$97.7 million for the calendar year 2016. The increase in investment gain for 2017 compared to 2016 was due to the higher rate of return realized in 2017.

Deductions from the Contributory System net position include retirement benefits, administrative expenses, and transfers. For calendar year 2017, benefits amounted to \$86.4 million, an increase of \$1.2 million (1.4%) from calendar year 2016. The increase in benefit payments was due to the increase in the number of retired members in the system. For calendar year 2017, the costs of administering the system totaled \$457 thousand, an increase of \$11 thousand (2.5%) from calendar year 2016.

At December 31, 2017, the Contributory Retirement System total pension liability was \$1.298 billion. The Plan's fiduciary net position was \$1.283 billion leaving a net pension liability of \$14.7 million. The Plan fiduciary net position as a percentage of the total pension liability was 98.9%.

PUBLIC SAFETY SYSTEM

The Public Safety System provides retirement benefits to eligible public safety employees of the State of Utah, local governments, and higher education. Benefits of the system are funded by member and employer contributions and by earnings on investments. The system net position as of December 31, 2017, amounted to \$3.6 billion, an increase of \$400.0 million (12.6%) from \$3.2 billion as of December 31, 2016.

Utah Governors and

Additions to the Public Safety System net position include employer contributions, investment income, and transfers. For calendar year 2017, member and employer contributions decreased from \$147.9 million for calendar year 2016 to \$146.6 million, a decrease of \$1.3 million (0.9%). Contributions decreased because of the number of active members. For the most part, the Public Safety System is a closed system. For this reason both the numbers of active members and retired individuals are declining. The system recognized a net investment gain of \$421.9 million for calendar year 2017 compared with net investment gain of \$249.0 million for calendar year 2016. The increase in the investment gain for 2017 compared to 2016 was due to the higher rate of return realized in 2017.

Statements of Changes in Fiduciary Net Position — Defined Benefit Pension Plans

Year Ended December 31

(dollars in thousands)

	Noncontributory System				Contribu	itory System	Public Safety System			
	2017	2016	2015	2017	2016	2015	2017	2016	2015	
Additions:										
Contributions	\$ 871,540	847,939	830,469	10,621	11,608	16,490	146,607	147,929	141,929	
Investment income	2,987,282	1,783,911	366,748	155,949	97,693	21,251	421,917	249,027	50,654	
Transfers from affiliated systems	_	_	33,648		_	_	5,926	6,701	4,023	
Total additions	3,858,822	2,631,850	1,230,865	166,570	109,301	37,741	574,450	403,657	196,606	
Deductions:										
Pension benefits	1,248,037	1,184,317	1,123,647	84,761	83,447	81,390	172,870	164,508	155,387	
Refunds	4,635	4,366	2,496	1,613	1,700	1,215	226	183	533	
Administrative expenses	9,579	8,856	8,797	457	446	478	1,382	1,260	1,233	
Transfers to affiliated systems	10,187	8,005		1,177	1,895	41,558	_	_		
Total deductions	1,272,438	1,205,544	1,134,940	88,008	87,488	124,641	174,478	165,951	157,153	
Increase (decrease) in net position	42504204	4 424 224	05.005			(0.5.000)	202.072	227.704	20.452	
restricted for pensions	\$ 2,586,384	1,426,306	95,925	78,562	21,813	(86,900)	399,972	237,706	39,453	

(dollars in thousands)

	Tier 2 Public Employees System			an	Tier 2 Public Safety and Firefighter System			efined Benefit	2017 Percent	2016 Percent		
		2017	2016	2015	2017	2016	2015	2017	2016	2015	Change	Change
Additions: Contributions	\$	79,175	63,062	49,645	11,126	8,488	6,221	1,154,911	1,124,551	1,095,466	2.7%	2.7%
Investment income		33,249	14,059	1,963	3,989	1,591	199	3,773,910	2,248,696	461,772	67.8	387.0
Transfers from affiliated systems		_	_	3	_	_	_	11,364	9,912	41,581	14.6	(76.2)
Total additions		112,424	77,121	51,611	15,115	10,079	6,420	4,940,185	3,383,159	1,598,819	46.0	111.6
Deductions:												
Retirement benefits		417	316	333	61	28	30	1,575,533	1,497,989	1,423,762	5.2	5.2
Refunds		_	_	_	_	_	_	6,985	6,715	4,772	4.0	40.7
Administrative expense		82	51	30	9	5	3	12,001	11,067	10,988	8.4	0.7
Transfers to affiliated systems		_	_	_	_	_	3	11,364	9,912	41,581	14.6	(76.2)
Total deductions		499	367	363	70	33	36	1,605,883	1,525,683	1,481,103	5.3	3.0
Increase in net position restricted for pensions	\$	111,925	76,754	51,248	15,045	10,046	6,384	3,334,302	1,857,476	117,716	79.5%	1,477.9%

2015			ers system	Firefight	
	2016	2017	2015	2016	2017
8,208	8,852	9,040	42,083	36,252	26,398
2,842	13,820	23,435	17,934	87,746	146,736
1,334	1,600	4,090	2,573	1,611	1,259
12,384	24,272	36,565	62,590	125,609	174,393
12 400	12 330	13 621	49 671	52 102	54,793
			,		511
71	71	79	371	374	408
_	_	_	_	_	_
12,471	12,401	13,700	50,570	52,942	55,712
(87)	11 871	22 865	12 020	72 667	118,681
1,334 12,384 12,400 — 71	13,820 1,600 24,272 12,330 	23,435 4,090 36,565 13,621 — 79 —		2,573 62,590 49,671 528 371	87,746 17,934 1,611 2,573 125,609 62,590 52,102 49,671 466 528 374 371 — 52,942 50,570

Deductions from the Public Safety System net position include retirement benefits and administrative expenses. For calendar year 2017, benefits amounted to \$173.1 million, an increase of \$8.4 million (5.1%) over calendar year 2016. The increase in benefit payments was due to an increased number of benefit recipients and benefit increases. For calendar year 2017, the costs of administering the system totaled \$1.4 million, an increase of \$122 thousand (9.7%) from calendar year 2016.

At December 31, 2017, the Public Safety Retirement System total pension liability was \$4.1 billion. The Plan's fiduciary net position was \$3.6 billion leaving a net pension liability of \$509 million. The Plan fiduciary net position as a percentage of the total pension liability was 87.5%.

FIREFIGHTERS SYSTEM

The Firefighters System provides retirement benefits to covered firefighters of the State of Utah and local governments. Benefits of the system are funded by member and employer contributions and by earnings on investments. The system net position as of December 31, 2017, totaled \$1.2 billion, an increase of \$118.7 million (10.6%) from \$1.1 billion as of December 31, 2016.

Additions to the Firefighters System net position consist of employer contributions, including insurance premium taxes, investment income, and transfers. For calendar year 2017, member and employer contributions decreased from \$36.3 million for calendar year 2016 to \$26.4 million, a decrease of \$9.9 million (27.2%). Contributions decreased because insurance premium taxes decreased from \$10.6 million in 2016 to \$1.2 million (88.4%) in calendar year 2017. Contributions also decreased because of the number of active members. For the most part the Firefighters System is a closed system. For this reason both the number of active members and retired

individuals are declining. The system recognized a net investment gain of \$146.7 million for calendar year 2017 compared with net investment gain of \$87.7 million for calendar year 2016. The increase in investment gain for 2017 compared to 2016 was due to the higher rate of return realized in 2017.

Deductions from the Firefighters System net position include retirement benefits and administrative expenses. For calendar year 2017, benefits amounted to \$55.3 million, an increase of \$2.7 million (5.2%) over calendar year 2016. The increase in benefit payments was due to an increased number of benefit recipients and benefit increases. For calendar year 2017, the costs of administering the system totaled \$408 thousand, an increase of \$34 thousand (9.1%) from calendar year 2016.

At December 31, 2017, the Firefighters Retirement System total pension liability was \$1.206 billion. The Plan's fiduciary net position was \$1.234 billion leaving a net pension asset of \$28.7 million. The Plan fiduciary net position as a percentage of the total pension liability was 102.4%.

JUDGES SYSTEM

The Judges System provides retirement benefits to judges in the State of Utah who are eligible to participate in the system. Benefits of the system are funded by employer contributions and by earnings on investments. The system net position as of December 31, 2017, totaled \$198.5 million, an increase of \$22.9 thousand (13.0%) from \$175.6 million as of December 31, 2016.

Additions to the Judges System net position consist of employer contributions, including court fees, investment income, and transfers. For calendar year 2017, employer contributions increased from \$8.9 million for calendar year 2016 to \$9.0 million, an increase of \$188 thousand (2.1%). Contributions increased because court fees increased. The system recognized a net investment gain of \$23.4 million for the calendar year 2017 compared with net investment gain of \$13.8 million for calendar year 2016. The increase in investment gain for 2017 compared to 2016 was due to the higher rate of return realized in 2017.

Deductions from the Judges System net position held in trust for benefits include retirement benefits and administrative expenses. For calendar year 2017, benefits amounted to \$13.6 million, an increase of \$1.3 million (10.5%) over calendar year 2016. The increase in benefit payments was due to an increase in the current year retirees. For calendar year 2017, the costs of administering the system totaled \$79 thousand, an increase of 11.3% over the preceding year.

At December 31, 2017, the Judges System total pension liability was \$231.1 million. The Plan's fiduciary net position was \$198.5 million leaving a net pension liability of \$32.6 million. The Plan fiduciary net position as a percentage of the total pension liability was 85.9%.

UTAH GOVERNORS AND LEGISLATORS RETIREMENT PLAN

The Governors and Legislators Retirement Plan provides retirement benefits to governors and legislators of the State of Utah. Benefits of the system are funded by employer contributions and by earnings on investments. The system net position as of December 31, 2017, totaled \$11.2 million, an increase of \$868 thousand (8.4%) from \$10.4 million as of December 31, 2016.

Additions to the Governors and Legislators Retirement Plan net position include investment income and transfers. For calendar year 2017 employer contributions amounted to \$404 thousand. The Plan recognized a net investment gain of \$1.4 million for calendar year 2017 compared with net investment gain of \$849 thousand for calendar year 2016. The increase in investment gain for 2017 compared to 2016 was due to the higher rate of return realized in 2017.

Deductions from the Governors and Legislators Retirement Plan net position include retirement benefits and administrative expenses. For calendar year 2017, retirement benefits amounted to \$973 thousand, an increase of \$32 thousand (3.4%) from calendar year 2016. The increase in benefit payments was due to a increase in the number of benefit recipients. For calendar year 2017, the costs of administering the system totaled \$5 thousand, a slight increase over the preceding year.

At December 31, 2017, the Governors and Legislators Retirement Plan total pension liability was \$13.1 million. The Plan's fiduciary net position was \$11.2 million leaving a net pension liability of \$1.9 million. The Plan fiduciary net position as a percentage of the total pension liability was 85.8%.

TIER 2 PUBLIC EMPLOYEES SYSTEM

The Tier 2 Public Employees System provides retirement benefits to eligible State of Utah, local governments, and public education employees who started employment July 1, 2011, or after. Benefits of the system are funded by member and employer contributions and by earnings on investments. The system net position as of December 31, 2017, totaled \$329.2 million, an increase of \$111.9 million (51.5%) from \$217.3 million as of December 31, 2016.

Additions to the Tier 2 Public Employees System net position consist of employer contributions, investment income, and transfers. For calendar year 2017, member and employer contributions increased from \$63.1 million for calendar year 2016, to \$79.2 million, an increase of \$16.1 million (25.6%). Contributions increased because membership increased. The system recognized a net investment gain of \$33.2 million for calendar year 2017 compared with an investment gain of \$14.1 million for calendar year 2016. The increase in the investment gain for 2017 compared to 2016 was due to the higher rate of return realized in 2017.

Deductions from the Tier 2 Public Employees System net position for benefits include retirement benefits and administrative expenses. For calendar year 2017 the system paid \$417 thousand in retirement benefits and \$316 thousand in 2016. The costs of administering the system totaled \$82 thousand, an increase of \$31 thousand (60.8%) from calendar year 2016.

At December 31, 2017, the Tier 2 Public Employees Retirement System total pension liability was \$338.0 million. The Plan's fiduciary net position was \$329.2 million leaving a net pension liability of \$8.8 million. The Plan's fiduciary net position as a percentage of the total pension liability was 97.4%.

TIER 2 PUBLIC SAFETY AND FIREFIGHTER SYSTEM

The Tier 2 Public Safety and Firefighter System provides retirement benefits to eligible state and local government employees directly involved in law enforcement or fire fighting and are in a position of hazardous duty who started employment July 1, 2011, or after. Benefits of the system are funded by member and employer contributions and by earnings on investments. The system net position as of December 31, 2017, totaled \$40.2 million, an increase of \$15.0 million (59.9%) from \$25.1 million as of December 31, 2016.

Additions to the Tier 2 Public Safety and Firefighter System net position consist of employer contributions, investment income, and transfers. For calendar year 2017, member and employer contributions increased from \$8.5 million for calendar year 2016, to \$11.1 million in 2017, an increase of \$2.6 million (31.1%). Contributions increased because membership increased. The system recognized a net investment gain of \$4.0 million for calendar year 2017 compared with net investment gain of \$1.6 million for calendar year 2016. The increase in the investment gain for 2017 compared to 2016 was due to the higher rate of return realized in 2017.

Deductions from the Tier 2 Public Safety and Firefighter System net position include retirement benefits and administrative expenses. For calendar year 2017 the system paid \$61 thousand in retirement benefits and \$28 thousand in 2016. The costs of administering the system totaled \$9 thousand.

At December 31, 2017, the Tier 2 Public Safety and Firefighter Retirement System total pension liability was \$39.0 million. The Plan's fiduciary net position was \$40.2 million leaving a net pension asset of \$1.2 million. The Plan's fiduciary net position as a percentage of the total pension liability was 103.0%.

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Actuarial Valuations and Funding Progress

Actuarial valuation of each defined benefit system is performed annually. As of January 1, 2017, the date of the most recent actuarial valuation, the average funded ratio of the Systems using the actuarial value of assets was 85.2%. This was unchanged from the Systems' January 1, 2016 valuation average funded ratio of 85.2%. The funded ratio remained unchanged due to the investment gains and the current contribution effort to finance the unfunded actuarial accrued liability which was offset by the impact of the decreasing the investment return assumption from 7.20% to 6.95%. Absent of unfavorable actuarial experience, the Systems funded ratio will gradually increase in future years.

In determining contribution rates an actuarial value of assets is used rather than a market value of assets. The actuarial value of assets is based on a smoothed expected income investment rate. Investment income in excess or shortfall of the expected rate on fair value is smoothed over a 5-year period with 20% of a year's excess or shortfall being recognized each year beginning with the current year.

As of January 1, 2017, the Systems' underfunded actuarial accrued liability was \$5.0 billion. This was a net increase in the unfunded position of \$299 million compared to January 1, 2016. As of January 1, 2017, the difference between the actuarial value of assets and market value of assets was \$372 million in actuarially deferred losses. These actuarially deferred losses will be recognized by the actuary over the next four years.

Every three years in conjunction with the actuarial valuation the actuary performs an experience study. Based upon the 2017 experience study, the actuary recommended some changes in the actuarial assumptions that were adopted by the Board. Some of the changes were to decrease the earnings assumptions from 7.2% to 6.95%, decrease the inflation assumptions from 2.6% to 2.5%, and construct a new post-retirement mortality table based on actual experience (increases life expectancy for most groups). Additional changes by the Board were a decrease to the wage inflation assumption from 3.35% to 3.25% and a decrease to the payroll growth assumption from 3.1% to 3.0%.

In accordance with GASB Statement 67 regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the table on page 49 presents the net pension liability/(asset) of the participating employers calculated using the discount rate of 6.95%, as well as what the employers' net pension liability/(asset) would be if it were calculated using a discount rate that is 1.00% lower (5.95%) or 1.00% higher (7.95%) than the current rate.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

(dollars in thousands)

System	1.00% Decrease (5.95%)	Current Discount Rate (6.95%)	1.00% Increase (7.95%)
Noncontributory Retirement System	\$ 6,524,169	2,883,492	(156,134)
Contributory Retirement System	141,894	14,717	(92,965)
Public Safety Retirement System	1,090,853	508,686	33,689
Firefighters Retirement System	141,720	(28,680)	(168,271)
Judges Retirement System	58,168	32,586	10,782
Governors and Legislative Retirement System	3,134	1,854	766
Tier 2 Public Employees System	103,813	8,817	(64,439)
Tier 2 Public Safety and Firefighter System	10,247	(1,157)	(9,870)
Total	\$ 8,073,998	3,420,315	(446,442)

Some URS stakeholders may also be interested in the measure of the net pension liability if the liability was calculated using an interest rate based on the current yields of high-quality fixed income investments. For instance, if a 4.00% discount rate was used to calculate the Total Pension Liability, then the net pension liability would be \$20.237 billion. Note, although the disclosure of a net pension liability using a 4.00% discount rate may be useful for comparison purposes, it is not an appropriate basis for developing contribution requirements for participating employers in the retirement system.



Analysis of the Defined **Contribution Savings Plans**

401(k) DEFINED CONTRIBUTION PLAN

The 401(k) Plan was established under section 401(k) of the Internal Revenue Code. This plan provides supplemental and primary retirement benefits for plan participants. The plan is funded by contributions and by investment earnings. The plan net position as of December 31, 2017, amounted to \$5.0 billion, an increase of \$664 million (15.3%) over net position as of December 31, 2016. Contributions increased because of increased participation. The plan recognized a net investment gain of \$630.5 million for calendar year 2017 compared with a net investment gain of \$332.7 million for the calendar year 2016.

Additions to the 401(k) Plan net position include contributions and investment income. For calendar year 2017, contributions increased from those of calendar year 2016 from \$290.6 million to \$295.8 million or an increase of \$5.2 million (1.8%).

Deductions from the 401(k) Plan net position include participant and beneficiary refunds (including rollovers) and administrative expenses. For calendar year 2017, refunds amounted to \$254.7 million, a decrease of \$3.0 million (1.2%) over calendar year 2016. The decrease in

Statements of Fiduciary Net Position — Defined Contribution Savings Plans

December 31

(dollars in thousands)

			401(k) Plan			457 Plan	Roth IRA Plan			
	2017	2016	2015	2017	2016	2015	2017	2016	2015	
Assets:										
Cash and receivables	\$ 95,126	95,409	96,857	10,349	10,187	10,247	246	224	238	
Investments at fair value	4,917,565	4,253,489	3,896,025	559,308	484,552	444,668	119,087	88,971	69,664	
Total assets	5,012,691	4,348,898	3,992,882	569,657	494,739	454,915	119,333	89,195	69,902	
Liabilities:										
Investment accounts and other payables	9,783	9,925	12,477	267	320	558	36	30	188	
Total liabilities	9,783	9,925	12,477	267	320	558	36	30	188	
Net position restricted for pensions	\$ 5,002,908	4,338,973	3,980,405	569,390	494,419	454,357	119,297	89,165	69,714	

Statements of Changes in Fiduciary Net Position — Defined Contribution Savings Plans

Year Ended December 31

(dollars in thousands)

			401(k) Plan			457 Plan	Roth IRA Plan		
	2017	2016	2015	2017	2016	2015	2017	2016	2015
Additions: Contributions	\$ 295,804	290,632	271,097	31,475	27,326	26,968	19,669	16,585	14,073
Investment income (loss)	630,516	332,672	10,658	72,210	39,252	259	15,389	7,200	(308)
Total additions	926,320	623,304	281,755	103,685	66,578	27,227	35,058	23,785	13,765
Deductions:									
Refunds Administrative expenses	254,672 7,713	257,651 7,085	251,436 6,665	27,827 887	25,706 810	23,082 762	4,752 174	4,192 142	2,781 112
Total deductions	262,385	264,736	258,101	28,714	26,516	23,844	4,926	4,334	2,893
Increase (decrease) in net position restricted for pensions	\$ 663,935	358,568	23,654	74,971	40,062	3,383	30,132	19,451	10,872

refunds was due to a decrease in withdrawals for calendar year 2017. For calendar year 2017, the costs of administering the plan amounted to \$7.7 million, an increase of \$628 thousand over calendar year 2016.

Benefit obligations of the 401(k) Defined Contribution Plan are equal to the member account balances, which are equal to net position of the plan.

457 DEFINED CONTRIBUTION PLAN

The 457 Plan was established under Section 457(b) of the Internal Revenue Code. This plan provides supplemental retirement benefits for plan participants. The plan is funded by contributions and by investment earnings.

The plan net position as of December 31, 2017, totaled \$569.4 million, an increase of \$75.0 million (15.2%) over net position as of December 31, 2016.

Traditional IRA Plan			H	Health Reimbursement Arrangement (HRA)*			Total Defined Con	2017 Percent	2016 Percent	
2017	2016	2015	2017	2016	2015	2017	2016	2015	Change	Change
									(2.2)2/	(
32	72	121			255	105,753	105,892	107,718	(0.1)%	(1.7)%
102,422	81,484	69,108	_	_	23,156	5,698,382	4,908,496	4,502,621	16.1	9.0
102,454	81,556	69,229	_	_	23,411	5,804,135	5,014,388	4,610,339	15.7	8.8
45	23	243		_	137	10,131	10,298	13,603	(1.6)	(24.3)
45	23	243		_	137	10,131	10,298	13,603	(1.6)	(24.3)
102,409	81,533	68,986	_	_	23,274	5,794,004	5,004,090	4,596,736	15.8%	8.9%

*Administration of the HRA was transferred to PEHP in October 2016.

	Tradition	nal IRA Plan	Health Reimbursement Arrangement (HRA)*			1	Total Defined Contribution Plans			
2017	2016	2015	2017	2016	2015	2017	2017 2016		Percent Change	Percent Change
20,593	16,182	17,206	_	6,796	6,318	367,541	357,521	335,662	2.8%	6.5%
9,465	4,825	211		36	35	727,580	383,985	10,855	89.5	3,437.4
30,058	21,007	17,417		6,832	6,353	1,095,121	741,506	346,517	47.7	114.0
9,035	8,332	8,148	_	30,075	2,924	296,286	325,956	288,371	(9.1)	13.0
147	128	105	_	31	35	8,921	8,196	7,679	8.8	6.7
9,182	8,460	8,253		30,106	2,959	305,207	334,152	296,050	(8.7)	12.9
20,876	12,547	9,164		(23,274)	3,394	789,914	407,354	50,467	93.9%	707.2%

Additions to the 457 Plan net position include contributions and investment income. For calendar year 2017, contributions increased from those of calendar year 2016 from \$27.3 million to \$31.5 million or an increase of \$4.2 million (15.2%). Contributions increased because of increased participation. The plan recognized a net investment gain of \$72.2 million for calendar year 2017 compared with a net investment gain of \$39.3 million for the calendar year 2016.

Deductions from the 457 Plan net position include participant and beneficiary refunds (including rollovers) and administrative expenses. For calendar year 2017, refunds amounted to \$27.8 million, an increase of \$2.1 million (8.3%) over calendar year 2016. The increase in refunds was due to an increase in withdrawals for calendar year 2017. For calendar year 2017, the costs of administering the plan amounted to \$887 thousand, an increase of \$77 thousand over calendar year 2016.

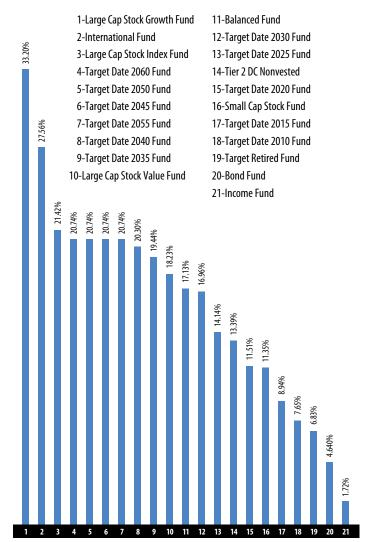


Year ended December 31

Investment Option Comparative Index	2017	2016
Income Fund	1.7%	1.6%
Bond Fund	4.6	5.9
Balanced Fund	17.1	9.3
Large Cap Value Stock Fund	18.2	21.2
Large Cap Stock Index Fund	21.4	11.8
Large Cap Stock Growth Fund	33.2	1.2
Small Cap Stock Fund	11.4	23.3
International Fund	27.6	4.4
Target Retired	6.8	6.1
Target Date 2010	7.7	6.1
Target Date 2015	8.9	6.8
Target Date 2020	11.5	7.7
Target Date 2025	14.1	8.7
Target Date 2030	17.0	9.3
Target Date 2035	19.4	9.7
Target Date 2040	20.3	9.9
Target Date 2045	20.7	10.0
Target Date 2050	20.7	10.0
Target Date 2055	20.7	10.0
Target Date 2060	20.7	10.0
Tier 2 DC Nonvested	13.4	8.3

Defined Contribution Savings Plans Investment Option Rates of Return for 2017

(in percents)



Benefit obligations of the 457 Defined Contribution Plan are equal to the member account balances, which are equal to net position of the plan.

ROTH IRA PLAN

The Roth IRA is a "deemed IRA" authorized by section 408(q) of the Internal Revenue Code, and governed by section 408A of the code. This plan allows participants to make after-tax contributions, while the earnings may be withdrawn tax free (for qualified distributions). The plan net position as of December 31, 2017, totaled \$119.3 million, an increase of \$30.1 million (33.8%) over net position as of December 31, 2016.

Additions to the Roth IRA Plan include contributions, transfers from other Roth IRAs, conversions from traditional IRAs, rollovers from other retirement plans, and investment earnings. For calendar year 2017, contributions increased from those of calendar year 2016 from \$16.6 million to \$19.7 million (18.6%). Contributions increased because of increased participation. The plan recognized a net investment gain of \$15.4 million for calendar year 2017 compared with a net investment gain of \$7.2 million for calendar year 2016.

Deductions from the Roth IRA Plan net position include participant and beneficiary refunds, transfers and rollovers, and administrative expenses. For calendar year 2017, refunds amounted to \$4.8 million, an increase of \$560 thousand (13.4%) over calendar year 2016. For calendar year 2017, the costs of administering the plan amounted to \$174 thousand, an increase of \$32 thousand over calendar year 2016.

TRADITIONAL IRA PLAN

The traditional IRA is a "deemed IRA" authorized by section 408(g) of the Internal Revenue Code, and governed by section 408 of the code. This plan allows participants to make after-tax contributions and possibly deduct all or a portion of the contributions from their current taxable income. This plan also allows participants to consolidate many other eligible plan assets when they become eligible for roll over (such as 401(k), 457, and other IRAs). Participants may also convert traditional IRA funds into a Roth IRA. The plan net position as of December 31, 2017, totaled \$102.4 million, an increase of \$20.9 million (25.6%) over net position as of December 31, 2016.



Additions to the traditional IRA Plan include contributions, rollovers, and investment earnings. For calendar year 2017, contributions increased from those of calendar year 2016 from \$16.2 million to \$20.6 million (27.3%). The plan recognized a net investment gain of \$9.5 million for calendar year 2017 compared with a net investment gain of \$4.8 million for calendar year 2016.

Deductions from the traditional IRA Plan net position include participant and beneficiary refunds, rollovers and transfers, and administrative expenses. For calendar year 2017, refunds amounted to \$9.0 million, an increase of \$703 thousand (8.4%) over calendar year 2016. For calendar year 2017, the costs of administering the plan amounted to \$147 thousand, an increase of \$19 thousand over calendar vear 2016.

GASB 68 EMPLOYER ALLOCATIONS AND PENSION REPORTING

URS has included information regarding employer's proportion share of the net pension liability, deferred outflows of resources, deferred inflows of resources, and pension expense. This section is where employers and auditors are able to get information regarding their pension disclosures for financial statement purposes.

UTAH RETIREMENT SYSTEMS

BASIC FINANCIAL STATEMENTS

Statements of Fiduciary Net Position — Pension (and Other Employee Benefit) Trust Funds

December 31, 2017 With Comparative Totals for December 31, 2016

(in thousands)

	Noncontributory System	Contributory System	Public Safety System	Firefighters System	Judges System	Utah Governors and Legislators Retirement Plan	
Assets:							
Cash	\$ 3	2	20	2	1	1	
Receivables:							
Member contributions	_	115	12	634	_	_	
Employer contributions	45,689	325	6,646	_	293	_	
Court fees and fire insurance tax	_	_	_	2,896	93	_	
Investments	536,764	27,372	76,162	26,260	4,226	239	
Total receivables	582,453	27,812	82,820	29,790	4,612	239	
Investments at fair value:							
Short-term securities	2,181,530	111,248	309,533	106,727	17,177	973	
Debt securities	3,603,652	183,770	511,315	176,300	28,374	1,607	
Equity investments	9,611,772	490,156	1,363,791	470,234	75,679	4,286	
Absolute return	3,526,238	179,822	500,330	172,512	27,765	1,572	
Private equity	2,728,872	139,160	387,194	133,504	21,486	1,217	
Real assets	3,751,832	191,327	532,339	183,550	29,541	1,673	
Total investments	25,403,896	1,295,483	3,604,502	1,242,827	200,022	11,328	
Invested securities lending collateral	1,058,631	53,985	150,205	51,791	8,335	472	
Property and equipment at cost,							
net of accumulated depreciation	3,472	177	492	170	27	2	
Total assets	27,048,455	1,377,459	3,838,039	1,324,580	212,997	12,042	
Liabilities:							
Securities lending liability	1,058,631	53,985	150,205	51,791	8,335	472	
Disbursements in excess		•	•		•		
of cash balance	28,974	1,374	3,822	1,318	212	12	
Compensated absences,							
post-employment benefits							
and insurance reserve	17,339	884	2,460	848	137	8	
Investment accounts payable	643,491	32,911	91,572	31,574	5,082	288	
Real estate liabilities	94,893	4,839	13,463	4,642	748	42	
Total liabilities	1,843,328	93,993	261,522	90,173	14,514	822	
Net position restricted for pensions	\$ 25,205,127	1,283,466	3,576,517	1,234,407	198,483	11,220	

The accompanying notes are an integral part of the financial statements.

Time 2 Public Fire Fights Pension Plans Pension Plans			tribution Plans	Defined Con				efit Pension Plans	Defined Ren	
Teal Public Engloyees Fireflyther Pention Plant 401kk Plan 457 Plan Right Right			ng Information	tional Combini	Addi			iener ension r iuns		
2 2 33 11,817 474 246 32 12,669 12,602 14,095 — — — 761 — — — — 761 792 4,999 513 58,465 — — — — 58,465 51,224 6,917 846 678,786 83,309 9,875 — — 93,184 771,970 537,792 11,916 1,359 741,001 83,309 9,875 — — 93,184 834,185 591,557 28,112 3,439 2,758,739 — — — — — 2,758,739 2,392,184 46,438 5,681 4,557,137 1,583,007 167,750 28,935 49,006 1,829,298 6,386,435 6,096,098 123,861 15,154 12,154,933 3,148,625 370,639 84,057 49,179 3,652,500 15,807,433 31,200,315 45,441 5,559 4,459,239			Contribution			457 Plan	401(k) Plan	Defined Benefit	Safety and Firefighter	Employees
— — 761 — — — — — 761 792 4,999 513 58,465 — — — — 58,465 51,224 — — 2,989 — — — — 2,989 1,749 6,917 846 678,786 83,309 9,875 — — 93,184 771,970 537,792 11,916 1,359 741,001 83,309 9,875 — — 93,184 834,185 591,557 28,112 3,439 2,758,739 — — — — — 2,758,739 2,392,184 46,438 5,681 4,557,137 1,583,007 167,750 28,935 49,606 1,829,298 6,386,435 6,096,098 123,861 15,154 12,154,933 3,148,625 370,639 84,057 49,179 3,652,500 15,807,433 13,200,315 45,441 5,559 4,459,239 — —	2010	2017	Tiuns	norrian	novi iun	437 1 1411	40 I (K) I Iuli	T CHSIOTI TIANS	3ystem	3,3.c.iii
4,999 513 58,465 — — — — — 2,989 1,749 6,917 846 678,786 83,309 9,875 — — 93,184 771,970 537,792 11,916 1,359 741,001 83,309 9,875 — — 93,184 771,970 537,792 28,112 3,439 2,758,739 — — — — 2,758,739 2,392,184 46,438 5,681 4,557,137 1,583,007 167,750 28,935 49,606 1,829,298 6,386,435 6,996,998 123,861 15,154 12,154,933 3,148,625 370,639 84,057 49,179 3,652,500 15,807,433 13,203,15 45,441 5,559 4,459,239 — — — — — — 4,459,239 4,508,784 35,165 4,302 3,450,900 — — — — — 4,459,239 4,508,784 322,765	14,095	12,602	12,569	32	246	474	11,817	33	2	2
4,999 513 58,465 — — — — — 2,989 1,749 6,917 846 678,786 83,309 9,875 — — 93,184 771,970 537,792 11,916 1,359 741,001 83,309 9,875 — — 93,184 771,970 537,792 28,112 3,439 2,758,739 — — — — 2,758,739 2,392,184 46,438 5,681 4,557,137 1,583,007 167,750 28,935 49,606 1,829,298 6,386,435 6,996,998 123,861 15,154 12,154,933 3,148,625 370,639 84,057 49,179 3,652,500 15,807,433 13,203,15 45,441 5,559 4,459,239 — — — — — — 4,459,239 4,508,784 35,165 4,302 3,450,900 — — — — — 4,459,239 4,508,784 322,765										
— — 2,989 — — — — 93,184 771,970 537,792 11,916 1,359 741,001 83,309 9,875 — — 93,184 771,970 537,792 28,112 3,439 2,758,739 — — — — 2,758,739 2,392,184 46,438 5,681 4,557,137 1,583,007 167,750 28,935 49,606 1,829,298 6,386,435 6,096,098 123,861 15,154 12,154,933 3,148,625 370,639 84,057 49,179 3,652,500 15,807,433 13,200,315 45,441 5,559 4,459,239 — — — — 4,459,239 4,500,203 4,500,203 3,450,900 — — — — 4,350,900 3,220,800 48,348 5,915 4,744,525 185,933 20,919 6,095 3,637 216,584 4,961,109 4,437,415 327,365 40,050 32,125,473 4,917,565 559,308<	792	761	_	_	_	_	_	761	_	_
6,917 846 678,786 83,309 9,875 — — 93,184 771,970 537,792 11,916 1,359 741,001 83,309 9,875 — — 93,184 834,185 591,557 28,112 3,439 2,758,739 — — — — — 2,758,739 2,392,184 46,438 5,681 4,557,137 1,583,007 167,750 28,935 49,606 1,829,298 6,386,435 6,096,098 123,861 15,154 12,154,933 3,148,625 370,639 84,057 49,179 3,652,500 15,807,433 13,200,315 45,441 5,559 4,459,239 — — — — — 4,459,239 4,508,784 35,165 4,302 3,450,900 — — — — — 4,459,139 3290,800 327,365 40,050 32,125,473 4,917,565 559,308 119,087 102,422 5,698,382 37,823,855 33,925,596 <td>51,224</td> <td>58,465</td> <td></td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>58,465</td> <td>513</td> <td>4,999</td>	51,224	58,465		_	_	_	_	58,465	513	4,999
11,916 1,359 741,001 83,309 9,875 — — 93,184 834,185 591,557 28,112 3,439 2,758,739 — — — — — 2,758,739 2,392,184 46,438 5,681 4,557,137 1,583,007 167,750 28,935 49,606 1,829,298 6,386,435 6,096,098 123,861 15,154 12,154,933 3,148,625 370,639 84,057 49,179 3,652,500 15,807,433 13,200,315 45,441 5,559 4,459,239 — — — — — 4,459,239 4,508,784 35,165 4,302 3,450,900 — — — — 4,459,239 4,508,784 35,165 4,302 3,450,900 — — — — 3,450,900 3,290,800 48,348 5,915 4,744,525 185,933 20,919 6,095 3,637 216,584 4,961,109 4,37415 327,365	1,749	2,989		_	_	_	_	2,989	_	-
28,112 3,439 2,758,739 — — — — — 2,758,739 2,392,184 46,438 5,681 4,557,137 1,583,007 167,750 28,935 49,606 1,829,298 6,386,435 6,096,098 123,861 15,154 12,154,933 3,148,625 370,639 84,057 49,179 3,652,500 15,807,433 13,200,315 45,441 5,559 4,459,239 — — — — 4,459,239 4,508,784 35,165 4,302 3,450,900 — — — — — 4,599,239 4,508,784 48,348 5,915 4,744,525 185,933 20,919 6,095 3,637 216,584 4,961,109 4,437,415 327,365 40,050 32,125,473 4,917,565 559,308 119,087 102,422 5,698,382 37,823,855 33,925,596 13,642 1,669 1,338,730 — — — — — 4,390 4,890	537,792	771,970	93,184	_	_	9,875	83,309	678,786	846	6,917
46,438 5,681 4,557,137 1,583,007 167,750 28,935 49,606 1,829,298 6,386,435 6,096,098 123,861 15,154 12,154,933 3,148,625 370,639 84,057 49,179 3,652,500 15,807,433 13,200,315 45,441 5,559 4,459,239 — — — — — 4,459,239 4,508,784 35,165 4,302 3,450,900 — — — — — 3,450,900 3,290,800 48,348 5,915 4,744,525 185,933 20,919 6,095 3,637 216,584 4,961,109 4,437,415 327,365 40,050 32,125,473 4,917,565 559,308 119,087 102,422 5,698,382 37,823,855 33,925,596 13,642 1,669 1,338,730 — — — — — 4,309 4,890 352,970 43,085 34,209,627 5,012,691 569,657 119,333 102,454 5,804,135 <t< td=""><td>591,557</td><td>834,185</td><td>93,184</td><td>_</td><td></td><td>9,875</td><td>83,309</td><td>741,001</td><td>1,359</td><td>11,916</td></t<>	591,557	834,185	93,184	_		9,875	83,309	741,001	1,359	11,916
46,438 5,681 4,557,137 1,583,007 167,750 28,935 49,606 1,829,298 6,386,435 6,096,098 123,861 15,154 12,154,933 3,148,625 370,639 84,057 49,179 3,652,500 15,807,433 13,200,315 45,441 5,559 4,459,239 — — — — — 4,459,239 4,508,784 35,165 4,302 3,450,900 — — — — — 3,450,900 3,290,800 48,348 5,915 4,744,525 185,933 20,919 6,095 3,637 216,584 4,961,109 4,437,415 327,365 40,050 32,125,473 4,917,565 559,308 119,087 102,422 5,698,382 37,823,855 33,925,596 13,642 1,669 1,338,730 — — — — — 4,309 4,890 352,970 43,085 34,209,627 5,012,691 569,657 119,333 102,454 5,804,135 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>										
123,861 15,154 12,154,933 3,148,625 370,639 84,057 49,179 3,652,500 15,807,433 13,200,315 45,441 5,559 4,459,239 — — — — — 4,459,239 4,508,784 35,165 4,302 3,450,900 — — — — — 3,450,900 3,290,800 48,348 5,915 4,744,525 185,933 20,919 6,095 3,637 216,584 4,961,109 4,437,415 327,365 40,050 32,125,473 4,917,565 559,308 119,087 102,422 5,698,382 37,823,855 33,925,596 13,642 1,669 1,338,730 — — — — — 4,390 4,890 352,970 43,085 34,209,627 5,012,691 569,657 119,333 102,454 5,804,135 40,013,762 35,235,625 13,642 1,669 1,338,730 — — — — — 1,338,730 699,487 347 42 36,101 1,791 107 1				_	_	_	_			•
45,441 5,559 4,459,239 — — — — — 4,459,239 4,508,784 35,165 4,302 3,450,900 — — — — — 3,450,900 3,290,800 48,348 5,915 4,744,525 185,933 20,919 6,095 3,637 216,584 4,961,109 4,437,415 327,365 40,050 32,125,473 4,917,565 559,308 119,087 102,422 5,698,382 37,823,855 33,925,596 13,642 1,669 1,338,730 — — — — — 4,390 4,890 352,970 43,085 34,209,627 5,012,691 569,657 119,333 102,454 5,804,135 40,013,762 35,235,625 13,642 1,669 1,338,730 — — — — — 1,338,730 699,487 347 42 36,101 1,791 107 1 13 1,912 38,013 41,508 <t< td=""><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td>•</td></t<>				-						•
35,165 48,348 4,302 5,915 3,450,900 4,744,525 — — — — — 3,450,900 3,637 3,450,900 216,584 3,290,800 4,961,109 3,290,800 4,437,415 327,365 40,050 32,125,473 4,917,565 559,308 119,087 102,422 5,698,382 37,823,855 33,925,596 13,642 1,669 1,338,730 — — — — — — 1,338,730 699,487 45 5 4,390 — — — — — 4,390 4,890 352,970 43,085 34,209,627 5,012,691 569,657 119,333 102,454 5,804,135 40,013,762 35,235,625 13,642 1,669 1,338,730 — — — — — 1,338,730 699,487 347 42 36,101 1,791 107 1 13 1,912 38,013 41,508 223 27 21,926 — — — — —			3,652,500	49,179	84,057	370,639	3,148,625			
48,348 5,915 4,744,525 185,933 20,919 6,095 3,637 216,584 4,961,109 4,437,415 327,365 40,050 32,125,473 4,917,565 559,308 119,087 102,422 5,698,382 37,823,855 33,925,596 13,642 1,669 1,338,730 — — — — — 4,390 4,890 352,970 43,085 34,209,627 5,012,691 569,657 119,333 102,454 5,804,135 40,013,762 35,235,625 13,642 1,669 1,338,730 — — — — — 4,890 13,642 1,669 1,338,730 — — — — — 1,338,730 699,487 347 42 36,101 1,791 107 1 13 1,912 38,013 41,508 223 27 21,926 — — — — — 21,926 20,667 8,317 1,017 <t< td=""><td></td><td></td><td></td><td>_</td><td>_</td><td>_</td><td>_</td><td></td><td></td><td></td></t<>				_	_	_	_			
327,365 40,050 32,125,473 4,917,565 559,308 119,087 102,422 5,698,382 37,823,855 33,925,596 13,642 1,669 1,338,730 — — — — — 1,338,730 699,487 45 5 4,390 — — — — — 4,390 4,890 352,970 43,085 34,209,627 5,012,691 569,657 119,333 102,454 5,804,135 40,013,762 35,235,625 13,642 1,669 1,338,730 — — — — — 1,338,730 699,487 347 42 36,101 1,791 107 1 13 1,912 38,013 41,508 223 27 21,926 — — — — — — 21,926 20,667 8,317 1,017 814,252 7,992 160 35 32 8,219 822,471 720,557 1,223 150 </td <td></td> <td></td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>3,450,900</td> <td>•</td> <td></td>			_	_	_	_	_	3,450,900	•	
13,642 1,669 1,338,730 — — — — — 1,338,730 699,487 45 5 4,390 — — — — — 4,390 4,890 352,970 43,085 34,209,627 5,012,691 569,657 119,333 102,454 5,804,135 40,013,762 35,235,625 13,642 1,669 1,338,730 — — — — — — 1,338,730 699,487 347 42 36,101 1,791 107 1 13 1,912 38,013 41,508 223 27 21,926 — — — — — — 21,926 20,667 8,317 1,017 814,252 7,992 160 35 32 8,219 822,471 720,557 1,223 150 120,000 — — — — — — — — — 23,41,140 1,687,219 <td>4,437,415</td> <td>4,961,109</td> <td>216,584</td> <td>3,637</td> <td>6,095</td> <td>20,919</td> <td>185,933</td> <td>4,744,525</td> <td>5,915</td> <td>48,348</td>	4,437,415	4,961,109	216,584	3,637	6,095	20,919	185,933	4,744,525	5,915	48,348
45 5 4,390 — — — — — 4,390 4,890 352,970 43,085 34,209,627 5,012,691 569,657 119,333 102,454 5,804,135 40,013,762 35,235,625 13,642 1,669 1,338,730 — — — — — — 1,338,730 699,487 347 42 36,101 1,791 107 1 13 1,912 38,013 41,508 223 27 21,926 — — — — — — 21,926 20,667 8,317 1,017 814,252 7,992 160 35 32 8,219 822,471 720,557 1,223 150 120,000 — — — — — — — — 120,000 205,000 23,752 2,905 2,331,009 9,783 267 36 45 10,131 2,341,140 1,687,219 <td>33,925,596</td> <td>37,823,855</td> <td>5,698,382</td> <td>102,422</td> <td>119,087</td> <td>559,308</td> <td>4,917,565</td> <td>32,125,473</td> <td>40,050</td> <td>327,365</td>	33,925,596	37,823,855	5,698,382	102,422	119,087	559,308	4,917,565	32,125,473	40,050	327,365
352,970 43,085 34,209,627 5,012,691 569,657 119,333 102,454 5,804,135 40,013,762 35,235,625 13,642 1,669 1,338,730 — — — — — 1,338,730 699,487 347 42 36,101 1,791 107 1 13 1,912 38,013 41,508 223 27 21,926 — — — — — 21,926 20,667 8,317 1,017 814,252 7,992 160 35 32 8,219 822,471 720,557 1,223 150 120,000 — — — — — — 10,131 2,341,140 1,687,219	699,487	1,338,730	_	_	_	_	_	1,338,730	1,669	13,642
13,642 1,669 1,338,730 — — — — — — 1,338,730 699,487 347 42 36,101 1,791 107 1 13 1,912 38,013 41,508 223 27 21,926 — — — — — 21,926 20,667 8,317 1,017 814,252 7,992 160 35 32 8,219 822,471 720,557 1,223 150 120,000 — — — — — 120,000 205,000 23,752 2,905 2,331,009 9,783 267 36 45 10,131 2,341,140 1,687,219	4,890	4,390	_	_	_	_	_	4,390	5	45
347 42 36,101 1,791 107 1 13 1,912 38,013 41,508 223 27 21,926 — — — — — — 21,926 20,667 8,317 1,017 814,252 7,992 160 35 32 8,219 822,471 720,557 1,223 150 120,000 — — — — — 120,000 205,000 23,752 2,905 2,331,009 9,783 267 36 45 10,131 2,341,140 1,687,219	35,235,625	40,013,762	5,804,135	102,454	119,333	569,657	5,012,691	34,209,627	43,085	352,970
347 42 36,101 1,791 107 1 13 1,912 38,013 41,508 223 27 21,926 — — — — — — 21,926 20,667 8,317 1,017 814,252 7,992 160 35 32 8,219 822,471 720,557 1,223 150 120,000 — — — — — 120,000 205,000 23,752 2,905 2,331,009 9,783 267 36 45 10,131 2,341,140 1,687,219										
223 27 21,926 — — — — — 21,926 20,667 8,317 1,017 814,252 7,992 160 35 32 8,219 822,471 720,557 1,223 150 120,000 — — — — — — 120,000 205,000 23,752 2,905 2,331,009 9,783 267 36 45 10,131 2,341,140 1,687,219	699,487	1,338,730	_	_	_	_	_	1,338,730	1,669	13,642
8,317 1,017 814,252 7,992 160 35 32 8,219 822,471 720,557 1,223 150 120,000 — — — — — — 120,000 205,000 23,752 2,905 2,331,009 9,783 267 36 45 10,131 2,341,140 1,687,219	41,508	38,013	1,912	13	1	107	1,791	36,101	42	347
8,317 1,017 814,252 7,992 160 35 32 8,219 822,471 720,557 1,223 150 120,000 — — — — — — 120,000 205,000 23,752 2,905 2,331,009 9,783 267 36 45 10,131 2,341,140 1,687,219										
8,317 1,017 814,252 7,992 160 35 32 8,219 822,471 720,557 1,223 150 120,000 — — — — — — 120,000 205,000 23,752 2,905 2,331,009 9,783 267 36 45 10,131 2,341,140 1,687,219	20,667	21,926	_	_	_	_	_	21,926	27	223
1,223 150 120,000 — — — — — 120,000 205,000 23,752 2,905 2,331,009 9,783 267 36 45 10,131 2,341,140 1,687,219			8,219	32	35	160	7,992		1,017	8,317
		•	_		_	_	· —		•	•
329,218 40,180 31,878,618 5,002,908 569,390 119,297 102,409 5,794,004 37,672,622 33,548,406	1,687,219	2,341,140	10,131	45	36	267	9,783	2,331,009	2,905	23,752
	33,548,406	37,672,622	5,794,004	102,409	119,297	569,390	5,002,908	31,878,618	40,180	329,218

Defined Contribution Plans

Utah Retirement Systems

BASIC FINANCIAL STATEMENTS (Continued)

Statements of Changes in Fiduciary Net Position — Pension (and Other Employee Benefit) Trust Funds

Year Ended December 31, 2017 With Comparative Totals for Year Ended December 31, 2016

(in thousands)

	Noncontributory System	Contributory System	Public Safety System	Firefighters System	Judges System	Utah Governors and Legislators Retirement Plan	
Additions:							
Contributions: Member	\$ 17,285	2,675	793	18,460			
Employer	854,255	2,073 7,946	145,814	6,715	7,563	404	
Court fees and fire insurance tax	— — —	_		1,223	1,477	_	
Total contributions	871,540	10,621	146,607	26,398	9,040	404	
Investment income:							
Net appreciation in fair value							
of investments	2,564,293	133,867	362,177	125,958	20,117	1,161	
Interest, dividends and other	462.262	24.105	65.430	22.756	2 624	210	
investment income	463,263	24,185	65,430	22,756	3,634	210	
Total income from							
investment activity	3,027,556	158,052	427,607	148,714	23,751	1,371	
Less investment expenses	45,007	2,350	6,357	2,211	353	20	
Net income from							
investment activity	2,982,549	155,702	421,250	146,503	23,398	1,351	
Income from security lending activity	5,361	280	756	263	42	2	
Less security lending expense	628	33	89	30	5	_	
Net income from security							
lending activity	4,733	247	667	233	37	2	
Net investment income	2,987,282	155,949	421,917	146,736	23,435	1,353	
Transfers from affiliated systems	_	_	5,926	1,259	4,090	89	
Total additions	3,858,822	166,570	574,450	174,393	36,565	1,846	
Deductions:							
Retirement benefits	1,063,894	72,073	143,774	44,331	11,405	808	
Cost-of-living benefits	184,143	12,624	28,854	10,258	2,216	165	
Supplemental retirement benefits	_	64	242	204	_	_	
Refunds	4,635	1,613	226	511			
Administrative expenses	9,579	457	1,382	408	79	5	
Transfers to affiliated systems	10,187	1,177		_		_	
Total deductions	1,272,438	88,008	174,478	55,712	13,700	978	
Increase from operations	2,586,384	78,562	399,972	118,681	22,865	868	
Net position restricted for pensions benefits beginning of year	22,618,743	1,204,904	3,176,545	1,115,726	175,618	10,352	
Net position restricted for pensions benefits end of year	\$ 25,205,127	1,283,466	3,576,517	1,234,407	198,483	11,220	

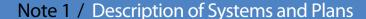
The accompanying notes are an integral part of the financial statements.

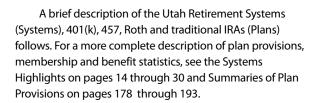
	Defined	Panafit Dancian Dlanc				Defined Cor	tribution Plans		
		Benefit Pension Plans			Add	itional Combini	ng Information		
Tier 2 Pub Employe	es Firefighte	I Total r Defined Benefit		457 Plan	Roth IRA Plan	Traditional IRA Plan	Total Defined Contribution Plans	Total Pe 	nsion Trust Funds 2016
Syste	iii systeii	rension Flans	401(K) Flaii	437 Pidii	INA PIdII	INA FIAII	ridiis	2017	2016
70.1		39,213	295,804	31,475	19,669	20,593	367,541	406,754	390,012
79,17	75 11,126	1,112,998	_	_	_	_	_	1,112,998	1,080,021
-		2,700					<u></u>	2,700	12,039
79,17	75 11,126	1,154,911	295,804	31,475	19,669	20,593	367,541	1,522,452	1,482,072
			400.00-					2 2 4 4 2 2 2	
28,50	7 3,421	3,239,501	630,227	72,152	15,461	9,537	727,377	3,966,878	2,183,967
5,19	94 622	585,294	3,573	421	_	_	3,994	589,288	493,404
57		303,27 .					3,22.	307,200	.,,,,,,,,
33,70	1 4,043	3,824,795	633,800	72,573	15,461	9,537	731,371	4,556,166	2,677,371
50		56,863		363	72	72	3,791	60,654	52,672
J(,5 00	30,803	3,284	303	/2	72	3,/91	00,034	32,072
22.10	ne 2.002	2 767 022	620 E16	72 210	15 200	0.465	727 590	4.405.513	2.624.600
33,19		3,767,932	630,516	72,210	15,389	9,465	727,580	4,495,512	2,624,699
(50 7	6,771						6,771	9,174
	7 1	793						793	1,192
	53 6	5,978						5,978	7,982
33,24	19 3,989	3,773,910	630,516	72,210	15,389	9,465	727,580	4,501,490	2,632,681
-		11,364	_	_	_	_	_	11,364	9,912
112,42	24 15,115	4,940,185	926,320	103,685	35,058	30,058	1,095,121	6,035,306	4,124,665
4.	7 61	1 226 762						1 226 762	1 260 150
4	7 61	1,336,763 238,260	_	_	_	_	_	1,336,763 238,260	1,260,159 237,268
		510						510	562
	_	6,985	254,672	27,827	4,752	9,035	296,286	303,271	332,671
-		12,001	7,713	887	174	147	8,921	20,922	19,263
-		11,364	,,, is	_	—	—	- O,JZ1	11,364	9,912
49	99 70		262,385	28,714	4,926	9,182	305,207	1,911,090	1,859,835
111,92	25 15,045	3,334,302	663,935	74,971	30,132	20,876	789,914	4,124,216	2,264,830
217,29	25,135	28,544,316	4,338,973	494,419	89,165	81,533	5,004,090	33,548,406	31,283,576
329,2	8 40,180	31,878,618	5,002,908	569,390	119,297	102,409	5,794,004	37,672,622	33,548,406

UTAH RETIREMENT SYSTEMS

NOTES TO BASIC FINANCIAL STATEMENTS

December 31, 2017





A) GENERAL INFORMATION AND REPORTING ENTITY

General — The Utah Retirement Systems are comprised of the following pension trust funds:

- i) the Public Employees Noncontributory Retirement System (Noncontributory System); the Public Employees Contributory Retirement System (Contributory System); and the Firefighters Retirement System are multiple-employer, cost-sharing, public employee retirement systems;
- ii) the Public Safety Retirement System is a mixed agent and cost-sharing, multiple-employer retirement system;
- iii) the Judges Retirement System and the Utah
 Governors and Legislators Retirement Plan are single-employer service-employee retirement systems;
- iv) the Tier 2 Public Employees Contributory Retirement System and the Tier 2 Public Safety and Firefighter Contributory Retirement System are multiple-employer, cost-sharing public employee retirement systems; and



v) four defined contribution plans comprised of the 401(k)
 Plan, 457 Plan, and Roth and traditional IRAs.

These Systems and Plans cover employees of the State of Utah and participating local government and public education entities.

Reporting Entity — These basic financial statements cover all of the foregoing retirement systems and defined contribution plans administered by the Utah State Retirement Board (Board), the sole governing body for these Systems and Plans.

The Systems are established and governed by the respective sections of Title 49 of the Utah Code Annotated 1953, as amended. The Systems' defined benefit plans are amended statutorily by the State Legislature. The Utah State Retirement Office Act in Title 49 provides for the administration of the Systems and Plans under the direction of the Board, whose members are appointed by the Governor. The Plans are established under the authority of the same sections of the Utah Code Annotated 1953, as amended, as well as under Sections 401(k), 457, 408, and 408A of the Internal Revenue Code. The Plans may be amended by the Board within the parameters of the Internal Revenue Code. The Systems and Plans are fiduciary funds defined as pension (and other employee benefit) trust funds. Utah Retirement Systems is a component unit of the State of Utah.

Summary of Benefits by System

	Noncontributory System	Contributory System	Public Fire- Safety fighters System System	Judges System	Tier 2 Public Employees System	Tier 2 Public Safety and Firefighter System
Final average salary is	Highest 3 years	Highest 5 years	Highest 3 years	Highest 2 years	Highest 5 years	Highest 5 years
Years of service required and/ or age eligible for benefit	30 years any age 25 years any age* 20 years age 60* 10 years age 62* 4 years age 65	30 years any age 20 years age 60* 10 years age 62* 4 years age 65	20 years any age 10 years age 60 4 years age 65	25 years any age 20 years age 55* 10 years age 62 6 years age 70	35 years any age 20 years age 60* 10 years age 62* 4 years age 65	25 years any age 20 years age 60* 10 years age 62* 4 years age 65
Benefit percent per year of service**	2.0% per year all years	1.25% per year to June 1975 2.0% per year July 1975 to present	2.5% per year up to 20 years 2.0% per year over 20 years	5.0% first 10 years 2.25% second 10 years 1.0% over 20 years	1.5% per year all years	1.5% per year all years

Note: The Utah Governors and Legislators Retirement Plan benefits are explained in the second paragraph of section B) below. *With actuarial reductions.

B) RETIREMENT AND DEATH BENEFITS

The Systems' benefits are specified by the statute listed in Note 1(A). The Systems are defined benefit plans wherein benefits are based on age and/or years of service and highest average salary. Various plan options within the Systems may be selected by retiring members. Some options require actuarial reductions based on attained age, age of spouse, and similar actuarial factors. A brief summary of eligibility and benefits of the various Systems is shown in the table above.

The Utah Governors and Legislators Retirement Plan provides the following benefits. Former governors at age 65 receive \$1,380 per month per term. Legislators receive a benefit at age 65 with four or more years of service at the rate of \$30 per month per year of service. Retirement at age 62 with 10 or more years of service will receive an actuarial reduction. Both the governors' and legislators' benefits are adjusted based on the CPI limited to 4% of the base benefit per year.

Death benefits for active and retired employees are in accordance with retirement statutes. Upon termination of employment, members of the Systems may leave their retirement account intact for future benefits based on vesting qualification or withdraw the accumulated funds in their individual member account and forfeit service credits and rights to future benefits upon which the contributions were based.

C) DEFINED CONTRIBUTION PLANS

The 401(k), 457, and Roth and traditional IRAs administered by the Board are defined contribution plans. These Plans are available as supplemental plans to the basic retirement benefits of the Retirement Systems and as a primary retirement plan for some Tier 2 participants. Contributions may be made into the Plans subject to plan and Internal Revenue Code limitations by employees of employers sponsoring the Plans. Employer contributions may be made into the 401(k) and 457 Plans at rates determined by the employers and according to Utah Title 49. There are 451 employers participating in the 401(k) Plan and 267 employers participating in the 457 Plan. There are 171,966 plan participants in the 401(k) Plan, 17,903

^{**}For members and retirees in the systems, prior to January 1, 1989, there may be a 3% benefit enhancement.

Defined Contribution Plans

	401(k)	457	Roth IRA	Traditional IRA
Number of participating employers	451	267	N/A	N/A
Total participants	171,966	17,903	10,383	2,042

participants in the 457 Plan, 10,383 participants in the Roth IRA, and 2,042 participants in the traditional IRA.

After termination of employment, benefits are paid out to individuals in lump sum, or as periodic benefit payments, at the option of the participant based on individual account balances and plan provisions. The Defined Contribution Plans account balances are fully vested to the participants at the time of deposit except for Tier 2 required employer contributions and associated earnings during the first four years of employment.

Investments in the vested portion of the Defined Contribution Plans are individually directed and controlled by plan participants who direct the investment of their funds among several investment options of varying degrees of risk and earnings potential. Participants may transfer their funds between these options no more frequently than every seven days. There is also a 2% trading fee for investment transfers between core fund options more frequently than every 30 days. Investments of the Plans are reported at fair value.

D) CONTRIBUTIONS

As a condition of participation in the Defined Benefit Systems, employers and/or employees are required to contribute certain percentages of salaries and wages as authorized by statute and specified by the Board. Employee contributions may be paid in part or in whole by the employer. Contributions in some Systems are also augmented by fees or insurance premium taxes. Contribution rates are listed in Note 6.

Employee (member) contributions are placed into member accounts, and in Systems where it is authorized, interest is credited to member accounts. Upon termination of employment, a member may withdraw his or her account balance including interest that has been credited. Upon withdrawal a member forfeits the service credit that corresponds to the member contributions withdrawn. The noncontributory retirement systems have no required member contributions flowing into them. However, where members had a balance transferred in or purchased service credit in the system, these balances and on-going interest, where authorized, are credited to individual member accounts that may be withdrawn upon the termination of employment.

In the 401(k) and 457 Defined Contribution Plans, voluntary deferral of compensation within the limits of plan provisions may be made by employees. In addition to employee voluntary deferrals, employer contributions may be made into the Plans on behalf of employees. The recognition of deferred compensation, employer contributions, and earnings on the accounts are deferred for income tax purposes until actually paid to the participant or beneficiary. The employee may also contribute to the Roth and traditional deemed IRAs where earnings may grow tax deferred and possibly tax free.

E) COVERED EMPLOYEES

The **Public Employees Noncontributory Retirement System (Noncontributory System)** was established on July 1, 1986, and is comprised of two divisions, the State and School division and the Local Government division. These divisions are not separate plans. All eligible employees of the State and School entities hired subsequent to that date are automatically members of the Noncontributory System until July 1, 2011, when Tier 2 came into effect. Local government entities had the option of adopting the new System or remaining

Participating Membership by System

	Noncontributory System	Contributory System	Public Safety System	Firefighters System	Judges System	and Legislators Retirement Plan	Tier 2 Public Employees System	Tier 2 Public Safety and Firefighter System
Number of participating:								
Employers	457	158	133	62	1	1	470	151
Members:								
Active	59,578	621	5,704	1,602	114	52	27,152	2,699
Terminated vested	47,292	1,294	4,824	435	11	95	1,175	75
Retirees and beneficiaries:								
Service benefits	49,287	3,388	4,900	1,196	115	176	26	_
Beneficiary benefits	4,611	654	738	227	33	77	_	_

with the Contributory System. All Contributory System members whose employers adopted the Noncontributory System were given the opportunity to transfer to the new System during limited window periods. All eligible new hires subsequent to adoption of the noncontributory plans are automatically members of that plan.

The Public Employees Contributory Retirement System (Contributory System) includes eligible public employees of the State of Utah and its political subdivisions including public education employees of those entities covered by the System. The System is comprised of two divisions, the State and School division and the Local Government division. These divisions are not separate plans. Members of this System are those who did not elect to transfer to the Public Employees Noncontributory Retirement System during the period when they were eligible to transfer or whose employers are not participants in the Noncontributory System.

The **Public Safety Retirement System** includes eligible State and local government employees directly involved in law enforcement (e.g., game wardens, prison guards, police officers, and highway patrol officers) and is comprised of eight divisions, the State of Utah, Division A with Social Security, Salt Lake City, Ogden, Provo, Logan, Bountiful, and Division B without Social Security. These divisions are not separate plans. The Public Safety System consists of both contributory and noncontributory divisions. The noncontributory divisions were authorized by the Legislature effective July 1, 1989.

The Firefighters Retirement System includes eligible State and local government employees directly involved in fire fighting and is comprised of two divisions, Division A with Social Security and Division B without Social Security. These divisions are not separate plans.

Hab Governore

The Judges Retirement System includes justices and judges of the court as authorized by state statutes.

The Utah Governors and Legislators Retirement **Plan** includes only governors and legislators of the State.

The Tier 2 Public Employees Contributory Retirement System includes eligible public employees entering into the Utah Retirement Systems on or after July 1, 2011, when Tier 2 came into effect.

The Tier 2 Public Safety and Firefighter Contributory Retirement System includes eligible public safety and firefighters entering into the Utah Retirement Systems on or after July 1, 2011, when Tier 2 came into effect.

The **Defined Contribution Plans** may be utilized by employers adopting the Plans and by their employees.

As of December 31, 2017, participating members by System are included in the table above.

December 31, 2017



Note 2 / Summary of Significant Accounting Policies

The following are the significant accounting policies followed by the Systems and Plans:

A) METHOD OF ACCOUNTING

The Systems and Plans maintain records and accounts, and prepare financial statements using fund accounting principles and the accrual basis of accounting, under which benefits and expenses are recognized when due and payable and revenues are recorded in the accounting period in which they are earned and become measurable in accordance with the terms of each System and Plan.

For financial reporting purposes, Utah Retirement Systems adheres to accounting principles generally accepted in the United States of America (GAAP). The Systems and Plans apply all applicable pronouncements of the Governmental Accounting Standards Board (GASB).

GASB Statement No. 67, Financial Reporting for Pensions, addresses accounting and financial reporting requirements for pension plans. Significant requirements include an actuarial calculation of total and net pension liability. It also includes comprehensive footnote disclosure regarding the pension liability, the sensitivity of the net pension liability to the discount rate, and increased investment activity disclosures. The total pension liability, determined in accordance with GASB Statement No. 67, is presented in Note 5 and in the Required Supplementary Information on page 92.

GASB Statement No. 72, Fair Value Measurement and Application, addresses accounting and reporting issues related to fair value measurements. This Statement requires

disclosures to be made about fair value measurements, the level of fair value hierarchy, and valuation techniques. Comprehensive footnote disclosure regarding this Statement is found in Note 3 beginning on page 64.

The financial statements include certain prior year summarized comparative information in total, but not by system or plan. Such information does not include sufficient detail to constitute a presentation in conformity with GAAP. Accordingly, such information should be read in conjunction with the Systems' financial statements for the year ended December 31, 2016, from which the summarized information was derived.

B) INVESTMENTS

By state statute all of the investment assets of the various Systems are pooled and invested in the common Utah State Retirement Investment Fund (Investment Fund). Each of the Systems has equity in the Investment Fund based on funds contributed and earnings allocated. Earnings of the Investment Fund are allocated based on the average month-end balances of each of the respective Systems. Individual investments in the Investment Fund are not specifically identified to the respective Systems (see Note 3). For financial statement presentation, the Investment Fund assets, liabilities, revenues, and expenses have been allocated to and presented in each respective system in the basic financial statements as required for investment pools.

December 31, 2017

Investments are presented at fair value. The defined contribution investments are classified by investment manager classification. The fair value of investments is based on published market prices and quotations from major investment brokers at current exchange rates, as available. Many factors are considered in arriving at that value. Corporate debt securities are valued based on yields currently available on comparable securities of issuers with similar credit ratings.

The fair value of real estate investments has been estimated based on independent appraisals and/or property cash flow. Short-term securities are reported at market value when published market prices and quotations are available, or at cost plus accrued interest, which approximates market or fair value. For alternative investments (private equity, absolute return, and real assets) where no readily ascertainable market value exists, management, in consultation with their investment advisors, value these investments in good faith based upon audited financials, cash-flow analysis, purchase and sales of similar investments, other practices used within the industry, or other information provided by the underlying investment advisors. The estimated fair value of these investments may differ significantly from values that would have been used had a ready market existed.

Approximately 10.2% of the investments held in trust for pension benefits are invested in debt securities of the U.S. Government and its instrumentalities. Of the 10.2%, approximately 2.6% are U.S. Government debt securities and approximately 7.6% are debt securities of the U.S. Government instrumentalities. The Systems and Plans have no investments of any commercial or industrial organization whose market value equals 5.0% or more of the Systems' or Plans' fiduciary net positions for pension benefits.

Investment policy. The pension plan's policy in regard to the allocation of invested assets is established and may be amended by the URS Board. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the pension plan. The following was the URS Board's adopted asset allocation policy as of December 31, 2017:

Asset Class	Target Allocation
Debt securities	20%
Equities	40
Real assets	15
Private equity	9
Absolute return	
Cash and cash equivalents	s—
Total	100%

Rate of return. For the year ended December 31, 2017, the annual money-weighted rate of return on pension plan investment, net of pension plan investment expense, was 13.38%. The money weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

C) PROPERTY AND EQUIPMENT

Property and equipment are recorded at cost (see Note 4), are depreciated utilizing the straight-line method, and are included in the assets of the Investment Fund. The schedule below summarizes the estimated useful life by class. The Systems' policy is to capitalize all acquisitions of furniture and equipment with a unit cost of \$10,000 and computer software of \$1,000,000 or more.

Buildings. 40 years Building improvements 10 years Furniture and equipment 3-10 years Computer software.....5 years

D) ADMINISTRATIVE EXPENSES

Expenses for the administration of the Systems and Plans are budgeted and approved by the Board. Systems' expenses are paid from investment earnings. Plan expenses are paid from Plan assets.

E) FEDERAL TAX STATUS

The Systems and Plans are exempt from Federal income taxes under the Internal Revenue Code.

F) USE OF ESTIMATES

Management of the Systems and Plans have made a number of estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities to prepare these financial statements in conformity with GAAP. Actual results could differ from these estimates.

G) SUBSEQUENT EVENTS

The Systems and Plans have performed an evaluation of subsequent events through April 26, 2018, the date the basic financial statements were available to be issued. No material events were identified by the Systems and Plans.

Note 3 / Deposits and Investment Risk Disclosures

A) DEPOSITS

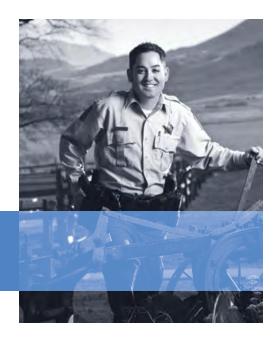
Custodial Credit Risk for Deposits is the risk that in the event of a bank failure, the Systems' and Plans' deposits may not be returned to them. The deposits are held in one financial institution with an insured balance of \$250,000. Deposits in the bank in excess of \$250,000 are uninsured and uncollateralized, because they are not required to be

by state statute.

Cash	Deposits	

	-	
(in	thousands)	The Systems and
Cash	\$ 12,602	Plans do not have
Disbursements in		a deposit policy for
excess of cash balances	(38,013)	custodial credit risk.
Total	\$ (25,411)	Deposits are presented
		in the basic financial

statements at cost plus accrued interest that is also the market or fair value. As of December 31, 2017, the carrying amount of deposits totaled approximately \$(25,411,000) and the corresponding bank balance was \$17,058 of which \$0 was exposed to custodial credit risk.



B) INVESTMENTS

The table on the on the top of page 67 shows the Systems' and Plans' investments by type.

12/31/2017

\$3,450,900

4,459,239 4,961,109 \$ 12,871,248

The investments	(in thousands)
listed to the right are	Private equity
not listed on national	Absolute return
exchanges, over-the-	Real assets
counter markets, nor	
do they have quoted	
market prices available.	

The Systems and Plans value these investments in good faith at the Systems' and Plans' pro-rata interest in the net assets of these investments based upon audited financial statements or other information provided to the Systems and Plans by the underlying investment managers. The estimated fair value of these investments may differ significantly from values that would have been used had a ready market existed.

	(in thousands)	Fair Value	
at December 31, 2017 —	Defined Benefit	Defined Contribution	Total All Systems and Plans
Short-term securities pools	\$ 2,758,739	_	2,758,739
Debt securities	3,983,667	1,829,298	5,812,965
Equity securities	11,477,604	3,652,500	15,130,104
Absolute return	4,459,239	_	4,459,239
Private equity	3,450,900	_	3,450,900
Real assets	4,744,525	216,584	4,961,109
Investments held by broker-dealers under securities lending program:			
Equities	677,329	_	677,329
Debt	573,470	_	573,470
Total investments	\$ 32,125,473	5,698,382	37,823,855
Securities lending collateral pool (not categor	rized) \$ 1,338,730	_	1,338,730

C) FAIR VALUE MEASUREMENTS

The Systems and Plans categorize its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements).

- Level 1 Unadjusted quoted prices for identical instruments in active markets.
- Level 2 Quoted prices for similar instruments in active markets; quoted priced for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.
- Level 3 Valuations derived from valuation techniques in which significant inputs are unobservable.

Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation.

The Systems and Plans assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability. The tables on pages 66-67 show the fair value leveling of the investments for the Systems and Plans. Debt, equity and derivative securities classified in Level 1 are valued using prices quoted in active markets for those securities.

Debt and debt derivative securities classified in Level 2 and Level 3 are valued using either a bid evaluation or a matrix pricing technique. Bid evaluations may include market quotations, yields,

maturities, call features and ratings. Matrix pricing is used to value securities based on the securities relationship to benchmark quoted prices. Index linked debt securities are valued by multiplying the external market price feed by the applicable day's Index Ratio. Level 2 debt securities have non-proprietary information that was readily available to market participants, from multiple independent sources which are known to be actively involved in the market. Level 3 debt securities use proprietary information or single source pricing. Equity and equity derivative securities classified in Level 2 are securities whose values are derived daily from associated traded securities. Equity securities classified in Level 3 are valued with last trade data having limited trading volume.

Real assets classified in Level 1 are valued using prices quoted in active markets for those securities. Real assets classified in Level 3 are real estate investment generally valued using the income approach by internal manager reviews or independent external appraisers. The Systems and Plans policy is to obtain an external appraisal a minimum of every three years for properties or portfolios that the Systems and Plans have some degree of control or discretion. In practice, some investments are appraised annually. Appraisals are performed by an independent appraiser with preference for Member Appraisal Institute (MAI) designated appraisers. The appraisals are performed using generally accepted valuation approaches applicable to the property type.

December 31, 2017

Investments and Derivative Instruments Measured at Fair Value

	(in thou	sands)						
				efined Benefit				Contribution
		Quoted Prices in Active Markets for Identical Assets	Significant Other	Significant Unobservable Inputs		Quoted Prices in Active Markets for Identical Assets	Significant Other	Significant Unobservable Inputs
	12/31/17	Level 1	Level 2	Level 3	12/31/17	Level 1	Level 2	Level 3
Investments by fair value level								
Short-term securities	\$ 2,662,439	_	2,662,439	_	\$ —	_	_	_
Debt securities								
Asset backed	229,580	_	211,769	17,811	14,753	_	9,775	4,978
Commercial mortgage-backed	113,712	_	112,951	761	2,318		2,318	
Corporate bonds	875,461	_	875,353	108	257,038		256,913	125
Funds — other fixed income	787	_	787	_	67,586		67,586	_
Government agencies	89,846	_	89,042	804	34,475		34,475	
Government bonds	1,187,366	_	1,187,366	_	201,606		201,606	_
Government mortgage backed securities	761,906	_	761,906	_	221,720		220,692	1,028
Index linked government bonds	1,260,789	_	1,260,789	_	123,788		123,788	_
Non-government backed C.M.O.s	36,487	_	36,487	_	752		752	_
Total debt securities	4,555,934	_	4,536,450	19,484	924,036	_	917,905	6,131
Equity investments								
Consumer goods	2,330,646	2,330,574	_	72	340,196	340,196	_	_
Energy	773,772	771,275	2,319	178	81,650		_	_
Equity other	35	35	· —	_	256,590	256,590	_	_
Financials	1,938,625	1,938,573	_	52	201,828	201,828	_	_
Health care	1,129,871	1,129,575	233	63	209,866	209,866		_
Industrials	1,489,346	1,487,991	1,069	286	170,145	170,145	_	_
Information technology	1,751,325	1,750,427	_	898	525,125	525,125	_	_
Materials	641,416	640,922	_	494	39,625	39,625	_	_
Real estate investment trusts	439,969	421,821	18,121	27	89,263	89,263	_	_
Telecommunication services	226,486	226,486	_	_	21,145	21,145	_	_
Utilities	278,114	278,105	_	9	31,265	31,265	_	_
Total equity investments	10,999,605	10,975,784	21,742	2,079	1,966,698	1,966,698	_	_
Real assets								
Agriculture	126,537	_	_	126,537	_	_	_	_
Commodities	38,275	38,275	_	_	_	_	_	_
Real estate	1,754,015		_	1,754,015				
Total real assets	1,918,827	38,275		1,880,552			_	
Total investments by fair value level	\$ 20,136,805	11,014,059	7,220,631	1,902,115	\$ 2 ,890,734	1,966,698	917,905	6,131

December 31, 2017

Investments and Derivative Instruments Measured at Fair Value (Continued)

	(in i	thou	sands)	, D	efined Benefit				Defined	Contribution
					easures Using					easures Using
			Quoted Prices in Active Markets for Identical Assets	Inputs	Significant Unobservable Inputs		Λ	oted Prices in Active Markets for Identical Assets	Inputs	Significant Unobservable Inputs
	12/	31/17	Level 1	Level 2	Level 3	12/	31/17	Level 1	Level 2	Level 3
Investments measured at the net asset valu										
Short-term securities	\$ 95	5,306								
Equity investments Co-mingled international equity fund Co-mingled U.S. small cap equity fund Co-mingled large cap equity fund Co-mingled Russell 1000 Growth equity fund		7,402 7,018 —				440 565	8,549 0,689 5,266 1,298			
Total equity investments measured at the NAV	1,154	1,420				1,68	5,802			
Absolute return Directional Equity long/short Event driven Multistrategy Relative value	1,060	9,981 9,582 8,291					_ _ _ _			
Total absolute return measured at the NAV	4,459									
Private equity — private equity partnerships	3,450					-				
Real assets Co-mingled commodities fund Co-mingled real estate equity fund Agriculture Energy Minerals Real estate Royalty Timber Total real assets measured at the NAV Total investments measured at the NAV Total investments measured at fair value Synthetic guaranteed investments contracts measured at contract value	1,107 275 1,136	5,592 5,695 9,571 2,462 5,625 5,490				210 1,900 \$ 4,799	3,758 2,826 ————————————————————————————————————			
Investments derivative instruments										
Short-term securities — options	\$	994	_	994	_			_	_	_
Debt securities Options Swaptions Swap liabilities Swap assets	(2	103 1,703 2,403 1,800) —	103 1,703 (2,403) 1,800		\$	217 119 (170) 99	_ _ _	217 119 (170) 99	_ _ _
Total debt security derivatives	1	,203		1,203			265		265	
Equity investments – options		908	908				_	_	_	
Real assets — swap liabilities	(10),927) —	(10,927)			_	_	_	
Total investment derivative instruments	\$ (7	7,822) 908	(8,730)		\$	265	_	265	_
Invested securities lending collateral										
Short-term securities Debt securities Equity investments	960 216	1,200),988 5,542	<u> </u>	161,200 960,988 —	=		_ _ _	_	_ _ _	_
Total invested securities lending collateral	\$ 1,338	3,/30	216,542	1,122,188						

December 31, 2017

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) is presented on page 69.

Synthetic guaranteed investment contracts that are fully benefit-responsive are measured at contract value and do not participate in fair value changes.

Defined Benefit

- Short-term Beta/Overlays. This type consists of one pooled investment fund that invests in exchange traded short-term options and futures referencing equity indexes used for portfolio rebalancing. The fair values have been determined using the NAV per share of the investments.
- 2. Co-mingled International Equity Fund and Co-mingled Small Cap Fund. This type consists of three institutional investment funds that invest in international equities diversified across all sectors and one fund that invests in U.S. small cap equities. The fair values of the investments in these types have been determined using the NAV per share of the investments.
- 3. Absolute Return Funds. The fair values of the investments in this type have been determined using the NAV per share of the investments. Directional funds include investments in eight funds whose investments are more directional in nature although they can shift opportunistically between having a directional bias and a non-directional bias. Equity long/short funds includes investments in five funds in which the equity securities maintain some level of market exposure (either net long or net short); however the level of market exposure may vary through time. Event driven funds includes investments in fifteen funds whose investments focus on identifying and analyzing securities that can benefit from the occurrence of an extraordinary corporate transaction or event (e.g.: restructurings, takeovers, mergers, spin-offs, bankruptcy, etc). One fund is in the process of redemption totaling \$1.3 million over the next 2 to 10 years. *Multi-strategy funds* include investments in ten funds. Investments in these funds represent a mix of the other absolute return strategies. Five funds are in the process of redemption totaling \$6.6 million over the next 1-5 years. Relative value funds include investments in fourteen funds. These funds seek returns by capitalizing

- on the mispricing of related securities or financial instruments. One new fund with a value of \$50.3 million has a redemption restriction of 2 years. All other funds currently have no redemption restrictions.
- 4. Private Equity Partnerships. This type includes investments in limited partnerships. Generally speaking, the types of partnership strategies included in this portfolio: venture capital, growth equity, buyouts, special situations, mezzanine, and distressed debt. These investments have an approximate life of 10 years and are considered illiquid. Redemptions are restricted over the life of the partnership. During the life of the partnerships distributions are received as underlying partnership investments are realized. The majority of the private equity partnership investments are managed by two gatekeepers. Both gatekeepers manage discretionary accounts for URS. The gatekeepers are required to manage the private equity portfolio in accordance with guidelines established by the URS. The Systems have no plans to liquidate the total portfolio. As of December 31, 2017, it is probable that all the investments in this type will be sold at an amount different from the NAV per share (or its equivalent) of the Systems ownership interest in partners' capital.
- 5. Energy, Mineral, and Royalty Funds. Investments in Energy consist of nineteen private equity partnerships which invest primarily in oil and gas related investments. Mineral funds include five private equity partnerships which invest in mineral mining equity securities, commodities and other mining investments. Royalty funds include one private equity partnership which invests primarily in drug royalties. These investments have an approximate life of 10 years and are considered illiquid. Redemption restrictions are in place over the life of the partnership. During the life of the partnerships distributions are received as underlying partnership investments are realized. As of December 31, 2017, it is probable that all the investments in this type will be sold at an amount different from the NAV per share (or its equivalent) of the Systems ownership interest in partners' capital. The fair values of these investments have been determined using estimates provided by the underlying partnerships using recent observable transactions information for similar investments.

Investments Measured at the NAV — Defined Benefit

(in thousands)	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Short-term securities - beta/overlays	\$ 95,306	_	Daily	None
quity investments				
Co-mingled international equity fund	807,402	_	Daily	None
Co-mingled U.S. small cap equity fund	347,018	_	Daily	None
Total equity investments	1,154,420	_		
Absolute return				
Directional	1,149,835	81,902	Monthly, Quarterly	3-60 days
Equity long/short	209,981	_	Monthly, Quarterly, Annually	30-60 days
Event driven	1,060,582	60,700	Monthly, Quarterly, Semi-annually, Annually, Bi-annually	45-120 days
Multistrategy	893,291		Monthly, Quarterly, Semi-annually, Annually	45-90 days
Relative value	1,145,550	_	Weekly, Monthly, Quarterly	30-90 days
Total absolute return	4,459,239	142,602		
Private equity — partnerships	3,450,900	1,587,972	Not eligible	N/A
Real assets				
Agriculture	34,615	27,732	Not eligible	N/A
Energy	1,107,690	382,847	Not eligible	N/A
Minerals	275,592	179,057	Not eligible	N/A
Real estate*	1,136,695	108,123	Not eligible	N/A
Royalty	9,571	70,206	Not eligible	N/A
Timber*	272,462	33,529	Not eligible	N/A
Total real assets	2,836,625	801,494		
Total investments measured at the NAV	\$11,996,490	2,532,068		

^{*}See redemption descriptions for these investment types on page 70.

Investments Measured at the NAV — Defined Contribution

(in thousands)

	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Equity securities				
Co-mingled international equity fund	\$ 648,549		Daily	None
Co-mingled U.S. small cap equity fund	440,689		Daily	None
Co-mingled large cap equity fund	565,266		Daily	None
Co-mingled Russell 1000 growth equity fund	31,298	_	Daily	None
Total equity securities	1,685,802	_		
Real assets				
Co-mingled commodities fund	73,758		Daily	None
Co-mingled real estate equity fund	142,826	_	Quarterly	None
Total real assets	216,584	_		
Total investments measured at the NAV	\$ 1,902,386	_		

Debt Securities Investments

at December 31, 2017

(dollars in thousands)

	1	Defined Benefit Plans	Contri		
Investment	Fair Value	Effective Weighted Duration	Fair Value	Effective Weighted Duration	Total All Systems and Plans
Asset backed securities	\$ 229,580	1.18	\$ 14,753	1.62	\$ 244,333
Commercial mortgage-backed	113,712	3.76	2,318	0.67	116,030
Corporate bonds	875,461	6.23	257,038	6.62	1,132,499
Fixed income other	1,990	_	67,851	_	69,841
Government agencies	89,846	4.86	34,475	8.14	124,321
Government bonds	1,187,366	7.47	201,606	5.63	1,388,972
Government mortgage backed securities	761,906	5.60	221,720	3.71	983,626
Index linked bonds	1,260,789	12.34	123,788	5.17	1,384,577
Non-government backed C.M.O.s	36,487	2.92	752	3.53	37,239
Total measured at fair value	4,557,137	7.83	\$924,301	5.39	5,481,438
Synthetic guaranteed investment contracts measured at contract value	_	_	904,997		904,997
Total	\$ 4,557,137		\$ 1,829,298		\$ 6,386,435

6. Real Estate and Timber Funds. This type includes twenty investments which are invested primarily in apartments and retail space in the United States. *Timber* includes two funds which invest in timber related resources. *Agriculture* includes three investments which operate in the production, processing, and distribution of high value foods. Investments in these types can never be redeemed with the funds. Instead, the nature of these investments are that distributions from each investment will be received as the underlying investments are liquidated. Because it is probable that any individual investment will be sold, the fair value of each individual investment has been determined using the NAV per share (or its equivalent) of the Systems ownership interest in partners' capital.

Defined Contribution

Co-Mingled Funds. The fair values of the investments in this type have been determined using the NAV per share of the investments. The *co-mingled real estate fund* is comprised of institutional quality commercial real estate across a broad range of real estate asset types. The *co-mingled commodities* fund invests mainly in bulk goods and raw materials. The other funds invest in securities indicative of their name.

D) CREDIT RISK DEBT SECURITIES

The Systems and Plans expect their domestic debt securities investment managers to maintain diversified portfolios by sector and by issuer by using the following quidelines:

- » U.S. Government and Agency Securities no restriction.
- » Total portfolio quality will maintain a minimum overall rating of "A".
- » Securities with a quality rating of below BBB- are considered below investment grade. No more than 5% of an investment manager's assets can be below investment grade. No more than 1% of an investment manager's assets can be with a single below investment grade issuer.
- » Upon approval, a domestic debt securities investment manager may invest up to 10% of the portfolio in non-U.S. dollar denominated bonds.

The international debt securities investment managers may hold up to 25% of the fair value of their portfolios in securities rated below investment grade (below BBB-/Baa3). The remaining assets will have an investment grade rating.

December 31, 2017

Credit Risk Debt Securities at Fair Value

at December 31, 2017	(in thous	ands)							Defined	Benefit Plans
Quality Rating	Total	Asset Backed	Commercial Mortgage Backed	Corporate Bonds	Fixed Income Other	Government Agencies	Government Bonds	Government Mortgage Backed	Index Linked Bonds	Non- Government Backed C.M.O.s
AAA	\$ 236,559	118,933	35,474	16,005	_	21,738	8,193	1,050	32,352	2,814
AA+	79,269	7,020	3,868	9,618	_	10,872	_	4,238	42,675	978
AA	22,093	2,965	_	10,234	_	1,608	7,286	_	_	_
AA-	31,983	·—	2,936	27,102	_	1,945	· —	_	_	_
A+	63,638	10,630	_	48,357	_	515	3,608	_	_	528
Α	92,677	3,415	3,118	85,014	_	912	_	_	_	218
A-	175,167	1,138	2,797	166,202	_	_	4,824	_	_	206
BBB+	208,641	450	_	193,795	_	7,539	6,724	_	_	133
BBB	132,614	2,940	_	115,565	_	_	12,832	_	_	1,277
BBB-	109,745	_	_	99,761	_	_	7,798	_	_	2,186
BB+	29,764	51	_	10,498	_	_	18,955	_	_	260
BB	13,095	_	88	8,930	_	_	2,867	_	_	1,210
B+	20,383	_	_	3,500	_	2,165	12,707	_	2,011	_
В	2,563	774		803		_	964		_	22
B-	11,242	_	456	4,618	_	_	6,058	_	_	110
BB-	12,191	251	2,450	9,490	_	_	_	_	_	_
CCC+	2,502	_	_	2,502	_	_	_	_	_	_
CCC	2,209	940	_	_	_	_	_	_	_	1,269
CCC-	922	922	_	_	_	_	_	_	_	_
D	204	204	_	_	_	_	_	_	_	_
NR	2,207,774	78,947	62,525	63,467	1,990	42,552	189,956	559,310	1,183,751	25,276
Subtotal	3,455,235	229,580	113,712	875,461	1,990	89,846	282,772	564,598	1,260,789	36,487
U.S. Treasuries	904,594									
Explicit U.S. Government Agencie	s 197,308									
Total debt securities investments	\$ 4,557,137									

									De	efined Contri	ibution Plans
Quality Rating		Total	Asset Backed	Commercial Mortgage Backed	Corporate Bonds	Fixed Income Other	Government Agencies	Government Bonds	Government Mortgage Backed	Index Linked Bonds	Non- Government Backed C.M.O.s
AAA	\$	29,931	_	_		_	3,005	20,301	_	6,625	_
AA+	·	68,549	_	_		1,388		_	_	67,161	_
AA		33,302	_	_	565	·—	_	14,152	_	18,585	_
AA-		258	_	_	258	_	_	_	_	· —	_
Α		27,299	127	_	25,380	_	_	1,792	_	_	_
A+		144,555	_	_	5,795	_	_	11,985	111,030	15,745	_
A-		102,414	_	_	20,695	_	11,964	_	69,755	_	_
BBB+		33,590	_	_	22,320	_	_	8,687		2,583	_
BBB		59,337	_	_	38,050	_	4,861	5,262		11,164	_
BBB-		28,964	_		27,088	_		1,876	_		_
BB+		7,013	_	_	3,283	_	_	3,730		_	_
BB		2,063	_	_	707	_	_	783		573	_
BB-		14,252	_	_	14,252	_	_	_		_	_
B+		2,566	_	_	269	_	895	1,402		_	_
В		1,730	_	_	280	_	_	1,092		358	_
B-		1,382	_	_	298	_	_	1,084		_	_
NR		246,454	14,626	2,318	97,798	66,463	13,750	8,818	40,935	994	752
Subtotal		803,659	14,753	2,318	257,038	67,851	34,475	80,964	221,720	123,788	752
U.S. Treasuries		120,642									
Synthetic Guaranteed Investment Contracts		904,997									
Total debt securities investment	ts \$	1,829,298									

December 31, 2017

The Systems and Plans' weighted quality rating average of the global debt securities, excluding pooled investments, as of December 31, 2017, was A-, and the fair value of below grade investments was \$124,081,000 or 1.94%.

The government mortgage backed securities in both the Systems and Plans that are not rated include \$179,733,000 Federal Home Loan Mortgage Corporation and \$419,547,000 of Federal National Mortgage Association securities which are implicitly guaranteed by the U.S. government.

E) CUSTODIAL CREDIT RISK

Custodial credit risk for investments is the risk that, in the event of a failure of the counterparty, the Systems and Plans will not be able to recover the value of the investment or collateral securities that are in the possession of an outside party. The Systems and Plans do not have an investment policy regarding custodial credit risk. As of December 31, 2017, the table below represents the investments that have custodial credit risk. The \$314,894,000 frictional cash and cash equivalents subject to custodial credit risk are in foreign banks in the Systems' and Plans' name. Because it is in foreign banks, it is subject to custodial credit risk. URS does not have an investment policy regarding custodial credit risk for frictional cash in foreign banks.

Custodial Credit Risk

Exposed to Custodial Credit Risk

	(in thousands)
Type of Investment	Fair Value
Cash and cash equivalents	\$ 314,894

Exposure to Custodial Credit Risk Not Determined

	(in thousands)
Investment	Fair Value
Other assets	\$ 461,658

F) CONCENTRATIONS CREDIT RISK

The Systems and Plans expect investment managers to maintain diversified portfolios by sector and by issuer using the following guidelines:

- » AAA/Aaa Debt Securities no more than 5% of an investment manager's assets at market with a single issuer.
- » AA-/Aa3 Debt Securities or higher no more than 4% of an investment manager's assets at market with a single issuer.
- » A-/A3 Debt Securities or higher no more than 3% of an investment manager's assets at market with a single issuer.
- >> BBB-/Baa3 Debt Securities or higher no more than 2% of an investment manager's assets at market with a single issuer.
- >> For Debt Securities no individual holding will constitute more than 10% of the fair value of outstanding debt of a single issuer with the exception of the U.S. Government or its agencies, or collateralized mortgage obligations.
- >> For Domestic Equity Securities no individual holdings will constitute more than 4% of the securities of any single issuer. Also, no more than 8% of an investment manager's assets will be invested in the equity or Real Estate Investment Trust (REIT) securities of any single issuer at market; or if specifically authorized in the manager's contract, the exposure of the portfolio to any single issuer will not exceed the greater of 5% of the portfolio value or 2% of the portfolio value plus the benchmark weight measured at the time of purchase.
- >> For International Equity Securities no more than 8% of an investment manager's assets will be invested in the equity or REIT securities of any single issuer at market; or if specifically authorized in the manager's contract, the exposure of the portfolio to any single issuer will not exceed the greater of 5% of the portfolio value or 2% of the portfolio value plus the benchmark weight measured at the time of purchase.

As of December 31, 2017, there were no single issuer investments that exceeded the above guidelines.

G) INTEREST RATE RISK

The Systems and Plans manage their exposure to fair value loss arising from increasing interest rates by complying with the following policy:

- >> For domestic debt securities managers, an individual debt securities investment manager's portfolio will have an effective duration between 75-125% of the effective duration of the appropriate index.
- >> The international debt securities investment managers will maintain an effective duration of their portfolio between 80 -120% of the appropriate index.
- >> The global debt securities investment managers will maintain an effective duration of their portfolio between 75-125% of the appropriate index.
- >> The global debt inflation-linked debt securities invest managers will maintain an effective duration of their portfolio between 80-120% of the appropriate index.

Duration is a measure of a debt investment's exposure to fair value changes arising from changes in interest rates. It uses the present value of cash flows, weighted for those cash flows as a percentage of the investment's full price.

The Systems compare an investment's effective duration against the Bloomberg Barclays US Aggregate Bond Index for domestic debt securities, the Bloomberg Barclays Global Aggregate Index (USD hedged) for global debt securities and the Bloomberg Barclays World Government Inflation-Linked Investment Bond Index (USD hedged) for inflation-linked debt securities. The index duration range as of December 31, 2017, was 4.49-7.48 for domestic debt securities, 5.24-8.74 for global debt securities, and 10.02-15.04 for inflation-linked debt securities.

The Plans compare an investment's effective duration against the Bloomberg Barclays US Intermediate Aggregate Bond Index for domestic debt securities, the Bloomberg Barclays Global Aggregate Index ex-U.S. (USD hedged) for international debt securities and the Bloomberg Barclays Global Inflation Linked Bond Index 1-10 Year (USD hedged) for inflation-linked debt securities. The index duration range as of December 31, 2017, was 3.01-5.01 for domestic debt securities, 6.27-9.41 for international debt securities and 4.03-6.05 for inflation-linked debt securities.



As of December 31, 2017, no individual debt security investment manager's portfolio was outside of the policy guidelines. As of December 31, 2017, the table on page 70 shows the investments by investment type, amount, and the effective weighted duration.

H) FOREIGN CURRENCY RISK

The Systems and Plans expect the International Securities Investment Managers to maintain diversified portfolios by sector and by issuer using the following guidelines:

- » International investment managers invest in fixed income instruments and equity instruments of corporations headquartered outside of the United States unless specifically authorized within the investment managers' contract.
- Domestic investment managers are allowed to invest in international corporations traded in American Depository Receipts (ADR).
- >> Portfolios should be adequately diversified to limit foreign currency and security risk.

Risk of loss arises from changes in currency exchange rates. The Systems' and Plans' exposure to foreign currency risk is shown on page 74.

December 31, 2017

Foreign Currency Risk

International Investment Securities at Fair Value at December 31, 2017

	(in thous	ands)			Defined	Benefit Plans	D	efined Contrib	ution Plans	Total
Currency	Short-Term	Debt	Equity	Absolute Return	Private Equity	Total	Debt	Equity	Total	All Systems and Plans
Argentine peso Australian dollar Bermudian dollar	\$ 246 2,270 —	5,950 28,832 —	— 189,793 —	_ _ _	8,135 —	6,196 229,030 —	1,051 9,524 —	— 30,592 13	1,051 40,116 13	7,247 269,146 13
Brazilian real British pound sterling Canadian dollar	664 3,101 2,048	— 323,471 51,729	100,696 797,910 346,452	_ _	51,660 —	101,360 1,176,142 400,229	— 15,714 9,227	10,768 79,022 42,855	10,768 94,736 52,082	112,128 1,270,878 452,311
Cayman Islands dollar Chilean peso Chinese yuan	37 —	3,745 —	14,922 —	_	_ _ _	18,704 —	617 —	77 1,957 43,447	77 2,574 43,447	77 21,278 43,447
Colombian peso Czech koruna Danish krone	34 14 427	3,630 — 2,281	6,264 1,369 61,499			9,928 1,383 64,207	569 — 294	639 262 7,970	1,208 262 8,264	11,136 1,645 72,471
Egyptian pound Euro Hong Kong dollar	— 146,314 1,834	284,720 —	1,207,115 413,410	465,031 —	178,150 —	2,281,330 415,244	48,161 —	248 140,045 15,267	248 188,206 15,267	248 2,469,536 430,511
Hungarian forint Indian rupee Indonesian rupiah	17 556 72	 1,272 	7,102 92,483 20,475	_ _ _		7,119 94,311 20,547	215 —	465 14,971 3,499	465 15,186 3,499	7,584 109,497 24,046
Japanese yen Malaysian ringgit Mexican peso	148,390 201 625	182,923 — 9,762	1,031,999 30,607 55,161	8,766 — 11,721	_ _ _	1,372,078 30,808 77,269	42,345 — 1,792	111,308 3,893 4,463	153,653 3,893 6,255	1,525,731 34,701 83,524
Moroccan dirham New Israeli shekel New Taiwan dollar	18 282 133	1,043 —	9,777 126,088	_ _ _	_ _ _	18 11,102 126,221	289 —	2,748 18,745	0 3,037 18,745	18 14,139 144,966
New Zealand dollar Norwegian krone Pakistani rupee	860 810 —	54,019 4,348 —	7,590 20,530 —	_ _ _	_ _ _	62,469 25,688 —	7,084 629 —	1,320 3,568 259	8,404 4,197 259	70,873 29,885 259
Peruvian nuevo sol Philippine peso Polish zloty	34 150 685	_ _ _	258 15,760 11,172	_ _ _	_ _ _	292 15,910 11,857	_ _ _	550 1,725 2,030	550 1,725 2,030	842 17,635 13,887
Qatar riyal Russian ruble Singapore dollar	— 266 946	7,057 2,699	— 19,971 61,935	_ _ _	_ _ _	27,294 65,580	1,308 —	868 4,693 6,154	868 6,001 6,154	868 33,295 71,734
South African rand South Korean won Swedish krona	571 89 665	18,955 — 10,644	66,454 193,681 109,485	_ _	_ _ _	85,980 193,770 120,794	3,730 — 3,263	10,755 24,231 13,444	14,485 24,231 16,707	100,465 218,001 137,501
Swiss franc Thai baht Turkish lira	1,489 79 93	— 1,964 6,791	315,810 47,619 17,665	_ _ _	_ _ _	317,299 49,662 24,549	— 578 1,123	33,596 3,855 1,696	33,596 4,433 2,819	350,895 54,095 27,368
United Arab Emirates dirhan Uruguayan peso	n 91 —	 3,904	8,543			8,634 3,904	674	1,149 —	1,149 674	9,783 4,578
Total securities subject to foreign currency risk	\$ 314,111	1,009,739	5,409,595	485,518	237,945	7,456,908	148,187	643,147	791,334	8,248,242

I) SECURITIES LENDING

The Systems and Plans participate in a securities lending program as authorized by Board policy, whereby securities are transferred to an independent broker or dealer in exchange for collateral in the form of cash, government securities, and irrevocable bank letters of credit, equal to approximately 103% of the fair value of the domestic securities on loan and 105% of the fair value of the international securities on loan, with a simultaneous agreement to return the collateral for the same securities in the future. The custodial bank is the agent for the securities lending program. Securities under loan are maintained in the financial records, and corresponding liabilities are recorded for the fair value of the collateral received.

At December 31, 2017, there was no credit risk exposure to borrowers because the collateral exceeded the amount borrowed. The securities on loan at year end were \$1,250,799,000 and the collateral received for those securities on loan was \$1,338,730,000. Under the terms of the lending agreement, the Systems and Plans are indemnified against loss should the lending agent be unable to recover borrowed securities and distributions due to borrower insolvency or failure of the lending agent to properly evaluate the credit worthiness of the borrower. In addition, the Systems and Plans are indemnified against loss should the lending agent fail to demand adequate and appropriate collateral on a timely basis. All securities loaned can be terminated on demand by either the Systems and Plans or the borrower. Cash collateral is invested in the lending agent's short-term investment pool.

The short-term investment pool guidelines specify that a minimum of 20% of the invested cash collateral is to be available each business day and the dollar weighted average maturity of holdings should not exceed 60 days. The relationship between the maturities of the short-term investment pool and the Systems' and Plans' loans is affected by the maturities of the securities loans made by other entities that use the agent's pool, which the Systems and Plans cannot determine. Because the securities lending collateral is in a pool maintained by the custodial bank, the Systems and Plans do not have the ability to pledge or sell the securities, and it is not necessary to report the total income and expenses of securities lending.

J) DERIVATIVE FINANCIAL INSTRUMENTS

The Systems and Plans invest in derivative financial investments as authorized by Board policy. Derivatives are financial arrangements between two parties whose payments are based on, or "derived" from, the performance of some agreed-upon benchmark. All derivatives are considered investments. The fair value of all derivative financial instruments is reported in the Statements of Fiduciary Net Position. Within the investment asset class, swaptions are recorded in debt securities. By policy, portfolio liabilities associated with investments will be backed by cash equivalents or deliverable securities. URS does not have a policy regarding master netting arrangements. As of December 31, 2017, the Systems and Plans had five types of derivative financial instruments: futures, currency forwards, options, swaps, and Synthetic Guaranteed Investment Contracts (SGIC).

Futures

Futures represent commitments to purchase (asset) or sell (liability) securities at a future date and at a specified price. Futures contracts are traded on organized exchanges (exchange traded) thereby minimizing the Systems' and Plans' credit risk. The net change in the futures contracts value is settled daily in cash with the exchanges. Net gains or losses resulting from the daily settlements are included with trading account securities gains in the Statements of Changes in Fiduciary Net Position. As of December 31, 2017, the Systems' and Plans' investments had the notional future balances as shown below.

	Futures
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ratures				
(in thousa	Notional Value			
		Defined Benefit Plans 2017	Defined Contribution Plans 2017	
Cash & Cash Equivalents	Long Short	\$ 451,122 (510,980)	14,678 (14,651)	
Equity	Long Short	372,866 (106,736)	65,002 —	
Fixed Income	Long Short	758,391 (531,747)	64,437 (34,812)	
Total Futures		\$ 432,916	94,654	

December 31, 2017

Currency Forwards

(in thousands)

(in thousands) Defined Benefit							
Currency	Notional Cost	Pending Foreign Exchange Purchases	Pending Foreign Exchange Sales	Fair Value 2017			
Argentine peso	\$ 3,613	8,720	(5,096)	3,624			
Australian dollar	(32,915)	2,179	(36,070)	(33,891)			
British pound sterling	(315,741)	17,086	(333,607)	(316,521)			
Canadian dollar	(58,348)	903	(60,730)	(59,827)			
Chilean peso	(3,408)	—	(3,541)	(3,541)			
Colombian peso	(152)	—	(155)	(155)			
Czech koruna	7,010	7,210	—	7,210			
Danish krone	(2,626)	—	(2,656)	(2,656)			
Euro	(480,770)	21,412	(507,347)	(485,935)			
Hong Kong dollar Hungarian forint Indian rupee	(953) 38 (1,604)	7,093 —	(951) (7,093) (1,637)	(951) — (1,637)			
Indonesian rupiah	13,364	13,437	—	13,437			
Japanese yen	(328,300)	4,323	(332,511)	(328,188)			
Mexican peso	8,879	38,276	(28,960)	9,316			
New Israeli shekel	(920)		(929)	(929)			
New Taiwan dollar	(13,861)		(14,120)	(14,120)			
New Zealand dollar	(52,164)		(53,789)	(53,789)			
Norwegian krone	9,351	9,521	—	9,521			
Peruvian nuevo sol	(25)	5,676	(5,676)	—			
Philippine peso	(5,068)	—	(5,236)	(5,236)			
Polish zloty Singapore dollar South African rand	(72) 4,583 (22,494)	7,320 5,139 —	(7,320) (456) (25,582)	4,683 (25,582)			
South Korean won	(17,621)	213	(18,295)	(18,082			
Swedish krona	9,317	27,240	(17,560)	9,680			
Swiss franc	(749)	531	(1,292)	(761)			
Thai baht	(1,867)		(1,897)	(1,897)			
Turkish lira	(6,802)		(6,964)	(6,964)			
United States dollar	1,290,305		(156,897)	1,290,304			
Total forwards subject to foreign currency risk	\$ —	1,623,480	(1,636,367)	(12,887)			

	Defined Contribution Plan						
Currency	Notional Cost	Pending Foreign Exchange Purchases	Pending Foreign Exchange Sales	Fair Value 2017			
Argentine peso Australian dollar British pound sterling	\$ 699 (9,210) (13,279)	1,871 — 3,844	(1,162) (9,481) (17,213)	709 (9,481) (13,369)			
Canadian dollar Chilean peso Colombian peso	(10,751) (618) 16	— — 17	(11,005) (642)	(11,005) (642) 17			
Czech koruna Danish krone Euro	1,259 (270) (59,102)	1,295 — 983	(273) (60,847)	1,295 (273) (59,864)			
Hungarian forint Indian rupee Indonesian rupiah	7 (361) 2,389	1,243 — 2,402	(1,243) (368)	— (368) 2,402			
Japanese yen Mexican peso New Israeli shekel	(28,752) (1,968) (266)	323 452 —	(29,134) (2,365) (268)	(28,811) (1,913) (268)			
New Taiwan dollar New Zealand dollar Norwegian krone	(2,439) (6,704) 1,785	 1,818	(2,485) (6,895) —	(2,485) (6,895) 1,818			
Peruvian nuevo sol Philippine peso Polish zloty	(4) (890) (13)	1,003 — 1,292	(1,003) (920) (1,292)	— (920) —			
Singapore dollar South African rand South Korean won	865 (4,211) (1,304)	883 — —	(4,792) (1,357)	883 (4,792) (1,357)			
Swedish krona Thai baht Turkish lira	(82) (549) (1,083)	1,395 — —	(1,476) (557) (1,109)	(81) (557) (1,109)			
United States dollar	134,836	151,996	(17,158)	134,838			
Total forwards subject to foreign currency risk	\$ —	170,817	(173,045)	(2,228)			

Currency Forwards

Currency forwards represent forward foreign exchange contracts that are entered into in order to hedge the exposure to changes in foreign currency exchange rate on the foreign currency denominated portfolio holdings. A forward foreign exchange contract is a commitment to purchase or sell a foreign currency at a future date at a negotiated forward rate. The gain or loss arising from the difference between the original contracts and the closing of such contracts is included in the net realized gains or losses on foreign currency related transactions in the Statements of Changes in Fiduciary Net Position. As of December 31, 2017, the Systems' and Plans' investments included the currency forwards balances at left.

Options

Options represent or give buyers the right, but not the obligation, to buy (call) or sell (put) an asset at a preset price over a specified period. The option's price is usually a small percentage of the underlying asset's value. As a writer of financial options, the Systems and Plans receive a premium at the outset of the agreement and bear the risk of an unfavorable change in the price of the financial instrument underlying the option. As a purchaser of financial options, the Systems and Plans pay a premium at the outset of the agreement and the counter-party bears the risk of an unfavorable change in the price of the financial instrument underlying the option. As of December 31, 2017, the Systems' and Plans' investments had the option balances shown below.

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(in thouse	Fair Val				
(/// (/// 0430		Defined Benefit Plans 2017	Defined Contribution Plans 2017		
Cash & Cash Equivalents	Call Put	\$ 354 640	_		
Equity	Call Put	(323) 1,231	_		
Fixed Income	Call Put	 103	83 134		
Swaptions	Call Put	87 1,616	16 103		
Total Options		\$ 3,708	336		



Swaps

The Systems and Plans have entered into various inflation, credit default and interest rate swap agreements in an attempt to manage their exposure to inflation, credit and interest rate risk. Interest rate and inflation risk represents the exposure to fair value losses arising from inflation and the future changes in prevailing market interest rates. Credit risk is an investor's risk of loss arising from a borrower who does not make payments as promised. Swaps represent an agreement between two or more parties to exchange sequences of cash flows over a period in the future. In the most common type of interest rate swap arrangement, one party agrees to pay fixed interest payments on designated dates to a counterparty, who in turn agrees to make return interest payments that float with some reference rate. The real estate interest rate swaps allowed the Systems to effectively convert most of their long-term variable interest rate credit facility loans into fixed interest rate loans, thereby mitigating some of their interest rate risk. All swap instruments contain collateral clauses. Gains and losses on swaps are determined based on fair values and are recorded in the Statements of Changes in Fiduciary Net Position. Swap fair values are determined by an independent third party. As of December 31, 2017, the Systems' and Plans' investments had the swap fair value balances as shown in the tables on pages 78-80.

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Fixed Income Portfolio Swaps

Counterparty	Notational Amount	Utah Rate	Counterparty Rate	Maturity Date	Credit Rating	Fair Value 201
Barclays	\$ 19,240	2.066%	US CPI	3/10/18	BBB	\$ (534)
Barclays	20,879	1.585%	CPURN	9/13/18	BBB	148
Goldman Sachs Bank	30,170	1.75%	3M LIBOR	4/12/19	A+	162
Soldman Sachs Bank	1,240	101.75%	3M LIBOR	5/21/20	A+	11
Goldman Sachs Bank Goldman Sachs Bank	5,650 39,540	2.11% 1.95%	3M LIBOR 3M LIBOR	9/3/20 11/16/20	A+ A+	3 257
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	12/14/20		~~~~~~
Goldman Sachs Bank Bank of America	11,500 11,880	2.274% 1.88%	3M LIBOR 1 day fed funds	5/31/22	A+ A-	4 50
Goldman Sachs Bank	14,690	1.88%	1 day fed funds	5/31/22	A+	62
Goldman Sachs Bank	16,310	6M Eurolibor	0.15%	6/12/22	A+	(59)
Bank of America	16,160	UK RPI	3.37%	6/15/22	<b>A</b> -	24
Goldman Sachs Bank	58,100	0.43%	3M STBOR	7/18/22	A+	(32)
Bank of America	174,300	0.46%	3M STBOR	7/19/22	A-	(115)
Bank of America	58,100	0.42%	3M STBOR	7/20/22	A-	(26)
Bank of America	9,570	1.25625%	EUR CPI	8/15/22	A-	98
Bank of America	15,595	UK RPI	3.395%	8/15/22	A-	65 77
Bank of America Bank of America	9,465 15,570	1.299% UK RPI	EUR CPI 3.30%	9/29/22 10/15/22	A- A-	77 101
Bank of America	1,512,925	6M LIBOR	0.92%	11/8/22	A-	101 1
Bank of America	1,512,925	6M LIBOR	0.921%	11/8/22	A- A-	1
foldman Sachs Bank	1,870	0.37%	6M Eurolibor	11/12/22	A+	(10)
Bank of America	23,100	1.075%	6M LIBOR	12/12/22	A-	(76)
Bank of America	16,200	UK RPI	3.35%	12/15/22	A-	66
ioldman Sachs Bank	11,060	3M LIBOR	2.72%	6/12/26	A+	108
Peutsche Bank	2,145	1.47%	EUR CPI	3/15/27	<b>A</b> -	12
oldman Sachs Bank	850	2.42%	3M LIBOR	6/12/27	A+	(3)
Bank of America	1,600	2.147%	3M LIBOR	8/25/27	A-	24
ank of America	9,929	3.055%	3M BBR	9/8/27	A-	(15)
Bank of America Bank of America	4,940 4,890	3.07% 3.067%	3M BBR 3M BBR	9/8/27 9/8/27	A- A-	(12) (11)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	······	~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~		~~~~~~
Bank of America Bank of America	723,570 11,335	0.272% 3.455%	6M LIBOR UK RPI	11/8/27 11/15/27	A- A-	(14) (134)
ioldman Sachs Bank	4,400	2.344%	3M LIBOR	11/30/27	A+	15
ioldman Sachs Bank	4,350	3M LIBOR	2.397%	12/1/27	A+	6
ioldman Sachs Bank	3,250	2.421%	3M LIBOR	12/12/27	A+	(10)
ioldman Sachs Bank	1,900	2.453%	3M LIBOR	12/29/27	A+	(10)
Bank of America	11,335	UK RPI	3.5475%	11/15/32	A-	185
Bank of America	6,825	UK RPI	3.6%	11/15/42	A-	191
ioldman Sachs Bank	6,910	2.602%	3M LIBOR	11/15/43	A+	(69)
ioldman Sachs Bank	2,220	3M LIBOR	2.606%	11/15/43	A+	24
Bank of America Goldman Sachs Bank	3,150 2,391	2.602% 3M LIBOR	3M LIBOR 2.594%	11/15/43 11/16/43	A- A+	(31) 20
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~	~~~~~~	
lank of America Deutsche Bank	1,240 2,145	3M LIBOR EUR CPI	1.73% 1.97%	8/31/46 3/15/47	A- ^	(208) 14
Bank of America	3,210	EUR CPI	1.832%	5/15/47 5/15/47	A- A-	(162)
Bank of America	3,145	EUR CPI	1.75%	6/15/47	A-	(274)
Bank of America	3,145	EUR CPI	1.88%	7/15/47	A-	(110)
ank of America	1,625	3.48625%	UK RPI	8/15/47	A-	35
ank of America	1,675	3.465%	UK RPI	10/15/47	A-	36
ank of America	256,750	0.921%	6M LIBOR	11/8/47	<b>A</b> -	(50)
lank of America	1,435	Euro P CPTFE	1.942%	11/15/47	A-	(22)
ank of America	3,030	EUR CPI	1.913%	11/15/47	A-	(83)
ank of America	2,990	Euro P CPTFE	1.92%	11/15/47	A-	(74)
ank of America	6,825	3.55%	UK RPI	11/15/47	A-	(246)
ank of America	660	3.360%	R RPI	1/12/67	A-	(13)
otal interest rate and credit default swaps	\$ 4,699,904					\$ (603)

December 31, 2017

#### Fixed Income Portfolio Swaps (Concluded)

Counterparty	Notational Amount	Utah Rate	Counterparty Rate	Maturity Date	Credit Rating	Fair Value 2017
Bank of America	\$ 1,020	2.066%	US CPI	3/10/18	A-	\$ (33)
Barclays	1,531	1.585%	CPURN	9/13/18	BBB	14
Credit Suisse First Boston	890	1.88%	1 day fed funds	5/31/22	BBB+	4
Credit Suisse First Boston	1,150	UK RPI	3.37%	6/15/22	BBB+	3
Bank of America	10,200	0.43%	3M STBOR	7/18/22	A-	(1)
Bank of America	30,700	0.46%	3M STBOR	7/19/22	A-	(7)
Bank of America	10,200	0.42%	3M STBOR	7/20/22	A-	0.5
Credit Suisse First Boston	1,280	UK RPI	3.395%	8/15/22	BBB+	6
Credit Suisse First Boston	780	1.25625%	EUR CPI	8/15/22	BBB+	8
Credit Suisse First Boston	625	1.299%	EUR CPI	9/29/22	BBB+	5
Bank of America	1,280	UK RPI	3.30%	10/15/22	BBB+	1
Credit Suisse First Boston	123,570	6M LIBOR	0.09%	11/8/22	BBB+	(1)
Credit Suisse First Boston	123,570	6M LIBOR	0.09%	11/8/22	BBB+	(1)
Bank of America	2,450	1.88%	6M LIBOR	12/12/22	A-	(7)
Credit Suisse First Boston	1,350	UK RPI	3.35%	12/15/22	BBB+	6
Deutsche Bank	165	1.47%	EUR CPI	3/15/27	A-	1
Credit Suisse First Boston	809	3.06%	3M BBR	8/9/27	BBB+	3
Credit Suisse First Boston	100	2.17%	3M LIBOR	8/27/27	BBB+	2
Credit Suisse First Boston Credit Suisse First Boston Credit Suisse First Boston	398 403 150	3.07% 3.07% 3.38%	3M BBR 3M BBR UK RPI	9/8/27 9/8/27 9/15/27	BBB+ BBB+	1 1 (1)
Credit Suisse First Boston	59,100	0.27%	6M LIBOR	11/8/27	BBB+	2
Credit Suisse First Boston	925	3.455%	UK RPI	11/15/27	BBB+	(10)
Credit Suisse First Boston	925	UK RPI	3.5475%	11/15/32	BBB+	14
Credit Suisse First Boston	555	UK RPI	3.60%	11/15/42	BBB+	14
Credit Suisse First Boston	300	2.6%	3M LIBOR	11/15/43	BBB+	(1)
Credit Suisse First Boston	50	3M LIBOR	1.73%	8/31/46	BBB+	(9)
Deutsche Bank	165	EUR CPI	1.97%	3/15/47	A-	2
Credit Suisse First Boston	230	EUR CPI	1.83%	5/15/17	BBB+	(11)
Credit Suisse First Boston	225	EUR CPI	1.75%	6/15/47	BBB+	(19)
Credit Suisse First Boston	260	EUR CPI	1.88%	7/15/47	BBB+	(8)
Credit Suisse First Boston	190	UK RPI	3.46%	7/26/47	BBB+	(9)
Credit Suisse First Boston	425	1.55%	6M LIBOR	7/26/47	BBB+	(17)
Credit Suisse First Boston	135	3.48625%	UK RPI	8/15/47	BBB+	3
Credit Suisse First Boston	35	3.47%	UK RPI	9/15/47	BBB+	1
Credit Suisse First Boston	140	3.465%	UK RPI	10/15/17	BBB+	4
Credit Suisse First Boston	30,970	0.92%	6M LIBOR	11/8/47	BBB+	2
Credit Suisse First Boston	245	EUR CPI	1.92%	11/15/47	BBB+	(5)
Credit Suisse First Boston	250	EUR CPI	1.913%	11/15/47	BBB+	(6)
Credit Suisse First Boston	555	3.55%	UK RPI	11/15/47	BBB+	(20)
Credit Suisse First Boston	120	EUR CPI	1.94%	11/15/47	BBB+	(2)
Credit Suisse First Boston	135	UK RPI	3.515%	11/15/47	BBB+	1
Credit Suisse First Boston Total interest rate and credit default swaps	55 \$ 408,611	3.36%	UK RPI	12/1/67	BBB+	(1) \$ (71)

US CPI — United States Consumer Price Index CPURN — Consumer Price Index Urban Consumers EUR CPI — European Consumer Price Index

UK RPI – United Kingdom Retail Price Index EURO LIBOR – European LIBOR STBOR – Stockholm Interbank Offered Rate

BBR — New Zealand Base Bank Rate

#### **Real Estate Portfolio Interest Swaps**

(in thousands)

					Defi	ned Benefit
Counterparty	Notional Amount	Utah Rate	Counterparty Rate	Maturity Date	Credit Rating	Fair Value 2017
Morgan Stanley	\$ 4,486	4.69%	1M LIBOR	3/1/18	BBB+	\$ (36)
Morgan Stanley	71,700	4.72%	1M LIBOR	10/1/20	BBB+	(5,481)
Morgan Stanley	43,660	5.294%	1M LIBOR	11/1/21	BBB+	(5,410)
Total interest rate and	÷ 110 046					ć (40.02 <b>7</b> )
credit default swaps	\$ 119,846					\$ (10,927)



Underlying Investments
Asset-backed securities
Agencies
Corporates
Government mortgage-backed securities
United States treasuries
Commercial mortgage-backed securities
Cash
Total

#### **Derivative Credit Risk**

Derivatives that are exchange traded are not subject to credit risk. No derivatives held are subject to custodial credit risk. The maximum loss that would be recognized as of December 31, 2017, if all counterparties fail to perform as contracted was \$8,672,563. Derivative credit risk at fair value is shown in the table below. This maximum exposure is reduced by \$5,270,590 of liabilities, resulting in \$3,401,973 exposure to credit risk. Credit ratings for the wrap contracts associated with the SGICs are noted in the bottom right table below. As of December 31, 2017, the counterparties' credit ratings for currency forwards, options, and swaps are subject to credit risk.

## Derivative Credit Risk at Fair Value

(in thousands)

Quality Rating		orwards	Options	Swaps	Total
AA-	\$	(749)	_	_	(749)
<b>A</b> +		(608)	644	_	36
Α		(5,455)	_	_	(5,455)
Α-		(2,957)	3,350	(210)	183
BBB+		(4,690)	(1,360)	(10,952)	(6,086)
BBB		(139)	380	(407)	(166)
BBB-		(517)	_	_	(517)
NA		_	1,030	_	1,030
	\$	(15,115)	4,044	(11,569)	(11,724)
	AA- A+ A A- BBB+ BBB BBB-	AA- \$ A+ A A- BBB+ BBB BBB- NA	AA- \$ (749) A+ (608) A (5,455) A- (2,957) BBB+ (4,690) BBB (139) BBB- (517)	AA- \$ (749) — A+ (608) 644 A (5,455) — A- (2,957) 3,350 BBB+ (4,690) (1,360) BBB (139) 380 BBB- (517) — NA — 1,030	AA- \$ (749) — — — — A+ (608) 644 — A (5,455) — — — A- (2,957) 3,350 (210) BBB+ (4,690) (1,360) (10,952) BBB (139) 380 (407) BBB- (517) — — NA — 1,030 —

#### **Synthetic Guaranteed Investment Contracts**

In the Utah Retirement Systems Defined Contribution Plans, members are able to participate in Synthetic Guaranteed Investment Contracts (SGICs). The SGICs are fully benefit responsive, which means that Utah Retirement Systems is prohibited from assigning and selling the contract or its proceeds to a third party without the consent of the issuer. Prospective interest crediting rate adjustments are provided to plan participants. The SGICs provide assurance that the probability of future rate adjustments resulting in an interest crediting rate less than zero is remote. The underlying investments are high credit quality averaging A+ and therefore credit loss is remote.

# V

#### **Wrap Contracts**

(in thousands)

Contract Issuer	Fair Value	Market Value	Rate D	uration	Quality Rating
American General	\$ 61,799	61,791	2.03%	2.45	<b>A</b> +
Lincoln National Life	116,032	115,862	1.99	2.45	AA-
MetLife	190,481	194,396	1.71	1.68	AA-
Transamerica	57,909	57,922	2.12	2.45	AA-
Transamerica	126,752	129,211	2.72	3.80	AA-
Pacific Life	201,686	201,365	2.03	2.45	AA-
Royal Bank of Canada	150,338	153,297	2.37	3.80	AA-
Subtotal					
wrap contracts	904,997	913,844			
Merrill Lynch					
repurchase	47,079	47,079			
Total	\$ 952,076	960,923			

December 31, 2017

(in thousands)

	1-5 Yr. Government/Credit Bond Interm			Intermediate Government/Credit Bond						t Bond MetLife Separate Account			Underlying nvestments
Fair Value	Market Value	Duration	Credit Rating	Fair Value	Market Value	Duration	Credit Rating	Fair Value	Market Value	Duration	Credit Rating	Fair Value	Market Value
\$ 75,106	75,023	0.96	AAA	\$ 33,251	33,901	1.07	AAA	\$ 37,868	38,646	1.08	AAA	\$ 146,225	147,570
48,029	47,976	3.14	AA+	27,515	28,053	2.87	AA+	17,105	17,457	2.27	AA+	92,649	93,486
148,069	147,904	3.57	A-	96,704	98,595	4.64	A-	68,135	69,535	1.7	Α-	312,908	316,034
56,690	56,627	3.32	AA+	23,719	24,183	3.23	AA+	5,486	5,599	2.47	AA+	85,895	86,409
48,073	48,020	2.52	AAA	55,390	56,473	7.41	AA+	24,763	25,271	2.57	AA+	128,226	129,764
50,523	50,467	1.35	AA+	35,468	36,161	1.43	AAA	33,163	33,844	1.30	AA+	119,154	120,472
10,936	10,923	_	_	5,043	5,142	_	_	3,961	4,044	_	_	19,940	20,109
\$ 437,426	436,940			\$ 277,090	282,508			\$ 190,481	194,396			\$ 904,997	913,844

The terms of the SGICs require all plan participants to initiate transactions within the fund at contract value. The contract value is the fair value (cost plus accrued interest). The fair value of these contracts as of December 31, 2017, was \$904,997,000 and the market value was \$913,844,000.

#### **K) INVESTMENT PAYABLES**

The investment accounts payable are comprised of investment advisor fees payable of \$9,714,000, administrative expenses payable of \$5,345,000, and investment purchases payable of \$807,412,000.

#### L) INVESTMENT COMPLIANCE OFFICER

The Systems and Plans have an investment compliance officer on staff who reports his/her findings directly to the Board. The investment compliance officer monitors all of the investments made by the investment managers to determine the investments were made in accordance with the investment policies that were approved by the Board.

# Note 4 / Property and Equipment

Property and equipment consist of the amounts shown in the following table as of December 31, 2017. There were no significant leases as of December 31, 2017.

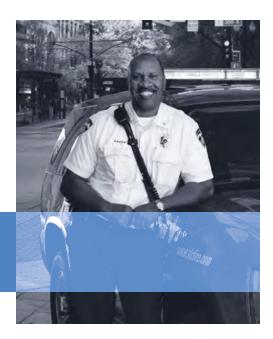


#### Property and Equipment

(in thousands)

	2017
Land	\$ 1,780
Buildings and building improvements	19,312
Furniture and equipment	2,579
Computer software	5,543
Total property and equipment	29,214
Less accumulated depreciation:	
Buildings and building improvements	10,098
Furniture and equipment	1,820
Computer software	2,271
Total accumulated depreciation	14,189
Less operating reserves	10,635
Net property and equipment	\$ 4,390

December 31, 2017



# Note 5 / Net Pension Liability of Employers

The net pension liability (i.e., the retirement system's liability determined in accordance with GASB Statement No. 67 less the fiduciary net position) as of December 31, 2017, is as shown below.

Actuarial valuation of the ongoing Systems involves estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The most recent experience study was conducted for the year ended December 31, 2016. The Schedule of Employers' Net Pension Liability presents multi-year trend information about whether the plan fiduciary net positions

are increasing or decreasing over time relative to the total pension liability. These schedules are presented in the Required Supplementary Information section. The Total Pension Liability as of December 31, 2017, is based on the results of an actuarial valuation date of January 1, 2017, and rolled-forward using generally accepted actuarial procedures.

A summary of the actuarial assumptions as of the latest actuarial valuation is shown on page 83 and are based on the results of the most recent experience study. The board decreased the assumed investment return from 7.20% to 6.95%, and the decrease in the assumed inflation rate from 2.60% to 2.50%. With the decrease

(4)

#### Net Pension Liability of Employers

(dollars in thousands)  System	(1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers' Net Pension Liability/(Asset) (1) - (2)	Plan Fiduciary Net Position as a % of the Total Pension Liability (2) / (1)	Lii (5) Projected Covered Employee Payroll	ability/(Asset) as a % of Covered Employee Payroll (3) / (5)
Noncontributory Retirement System	\$ 28,088,619	\$ 25,205,127	\$ 2,883,492	89.7%	\$ 3,375,321	85.4 %
Contributory Retirement System	1,298,183	1,283,466	14,717	98.9	45,177	32.6
Public Safety Retirement System	4,085,203	3,576,517	508,686	87.5	350,782	145.0
Firefighters Retirement System	1,205,727	1,234,407	(28,680)	102.4	112,953	(25.4)
Judges Retirement System	231,069	198,483	32,586	85.9	18,661	174.6
Utah Governors and Legislative Retirement Plan	13,074	11,220	1,854	85.8	722	256.8
Tier 2 Public Employees System	338,035	329,218	8,817	97.4	996,965	0.9
Tier 2 Public Safety and Firefighters System	39,023	40,180	(1,157)	103.0	98,113	(1.2)
Total	\$ 35,298,933	\$ 31,878,618	\$ 3,420,315	90.3%	\$ 4,998,694	68.4%

December 31, 2017

# Summary of Actuarial Assumptions

	Noncontributory	Contributory	Public Safety	Firefighters	Judges	Governors and Legislators	Tier 2 Public Employees	Tier 2 Public Safety and Firefighter
Valuation date	1/1/17	1/1/17	1/1/17	1/1/17	1/1/17	1/1/17	1/1/17	1/1/17
Actuarial cost method	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age
Actuarial assumptions:								
Investment rate of return	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%
Projected salary increases	3.25-9.75%	3.25-9.75%	3.25-7.25%	3.25-8.75%	3.25%	None	3.25-9.75%	3.25-8.75%
Inflation rate	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Post-retirement cost-of-living adjustment	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Mortality: (Non-educators)	:	6 of 2017 Public			•	ales, projected wi females, projecte		m the year 2017.
Mortality: (Educators)	:	of 2017 Public			•	es, projected witl emales, projected		•

Note: All post-retirement cost-of-living adjustments are noncompounding and are based on the original benefit except for Judges, which is a compounding benefit. The cost-of-living adjustments are also limited to the actual CPI increase for the year, although unused CPI increases not met may be carried forward to subsequent years.



_	Expected Return Arithmetic Basis						
Target / Asset Class Alloc		Real Return Arithmetic Basis	Long-term Expected Portfolio Real Rate of Return*				
Equity securities	40%	6.15%	2.46%				
Debt securities	20	0.40	0.08				
Real assets	15	5.75	0.86				
Private equity	9	9.95	0.89				
Absolute return	16	2.85	0.46				
Cash and							
cash equivalents	0	0.00	0.00				
Totals	100%		4.75%				
Inflation			2.50				
Expected arithmetic nominal return 7							

*The total URS Defined Benefit long-term expected rate of return is 6.95%, which is comprised of a 2.50% inflation assumption and a 4.45% net real rate of return.

in the assumed rate of inflation, both the payroll growth and wage inflation assumptions were each decreased by 0.10% from the prior year's assumption.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Systems target asset allocation as of December 31, 2017, are summarized in table to the left.

The discount rate used to measure the total pension liability was 6.95%. The projection of cash flows used to determine the discount rate assumed contributions from participating employers will be made based on the actuarially determined rates based on the Board's funding policy, which establishes the contractually required rates under Utah State Code. Based on those assumptions, the Systems' fiduciary net position was projected to be available to make all the projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

## Changes in Discount Rate

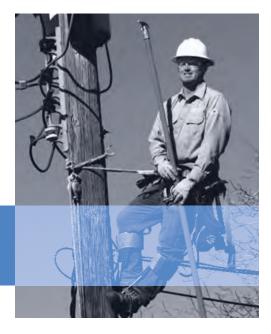
(dollars in thousands)  System	Net Pension Liability/(Asset) 1% Decrease (5.95%)	Net Pension Liability/(Asset) Current Discount Rate (6.95%)	Net Pension Liability/(Asset) 1% Increase (7.95%)
Noncontributory Retirement System	\$ 6,524,169	\$ 2,883,492	\$ (156,134)
Contributory Retirement System	141,894	14,717	(92,965)
Public Safety Retirement System	1,090,853	508,686	33,689
Firefighters Retirement System	141,720	(28,680)	(168,271)
Judges Retirement System	58,168	32,586	10,782
Utah Governors and Legislative Retirement Plan	3,134	1,854	766
Tier 2 Public Employees System	103,813	8,817	(64,439)
Tier 2 Public Safety and Firefighters System	10,247	(1,157)	(9,870)
Total	\$ 8,073,998	\$ 3,420,315	\$ (446,442)

In accordance with GASB Statement No. 67 regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the table above presents the net pension liability/(asset) of the participating employers calculated using the discount rate of 6.95%, as well as what the employers' net pension liability/(asset) would be if it were calculated using a discount rate that is 1.00% lower (5.95%) or 1.00% higher (7.95%) than the current rate.



Employer contribution rates consist of (1) an amount for normal cost, the estimated amount necessary to finance benefits earned by the members during the current year, and (2) an amount for amortization of the unfunded or excess funded actuarial accrued liability over an open 20-year amortization period. The rates are determined using the entry age actuarial cost method.

The top schedule on page 85 summarizes contribution rates in effect as of December 31, 2017. Contributions made by employers and members were in accordance with actuarially computed funding requirements. Fire insurance



premium taxes and court fees are considered as part of employer contributions in the schedule shown on page 85 for the Firefighters and Judges Systems, respectively. These contribution rates also include rates for a 3% benefit enhancement that is funded by the State. For contribution rate purposes the actuary evaluates the assets of the Systems based on a 5-year smoothed expected return wherein 20% of a year's excess or shortfall of expected return is recognized each year for five years.

The actual contributions for the Tier 1 Systems include contributions received on the Tier 2 payroll to help finance the unfunded actuarial accrued liability of the Tier 1 Systems.

Contributions as a percentage of covered payroll may be different than the board certified rate due to rounding and other administrative issues.

Information with regard to contributions to the Systems, for the year ended December 31, 2017, is indicated in the schedules shown below.

Member contributions in the 401(k), 457, Roth and traditional IRAs, total \$367,541,000, that in combination with the member contributions made in the Retirement Systems total \$406,754,000.

#### **Contribution Rates**

Decemb	er 31, 3017 Co	ntribution Rates as a	a Percent of Covered	d Payroll
System		Member	Employer	Other
Noncontributo	ory	_	18.47-22.19%	_
Contributory		6.00%	14.46-17.70	_
Public Safety:	Noncontributory	_	32.20-49.58	_
	Contributory	10.50-12.29	22.19-29.70	_
Firefighters:	Division A	15.05	3.93	11.60%
	Division B	16.71	6.70	11.60
Judges:	Noncontributory	_	42.69	9.22
Governors and	l Legislators	_	\$ 391,883	_
Tier 2 Public Employees		_	15.11-18.44%	_
Tier 2 Public Safety and Firefigh		r —	10.82-37.71	_

# Note 7 / Transfer to and from Affiliated Systems

Asset transfers to or from affiliated systems are for the purpose of spreading employer contribution costs across same employer and same class of employee group and to record transfers of benefits and corresponding assets where employees transfer from one system to another. Benefit transfers usually are between contributory and noncontributory systems as allowed during authorized transfer windows established by statute or as otherwise authorized.

# Note 8 / Supplemental Benefits

In the past, the Utah State legislature appropriated funds as supplemental retirement benefits to be paid to qualified participants who have previously retired under the Contributory System. These benefits, already granted, are now and will continue to be funded through contribution rates unless otherwise provided by the legislature.



## Required Contributions

(dollars in thousands)		Contribut	ion Requirements				
	Normal Cost	Unfunded Cost	Total Required Contributions	Total Actual Contributions	Member Contributions Made	Employer Contributions Made	
Noncontributory Retirement System	\$ 559,276	\$ 312,264	\$ 871,540	\$ 871,540	\$ 17,285	\$ 854,255	
Contributory	6,268	4,353	\$10,621	10,621	2,675	7,946	
Public Safety	93,058	53,549	\$146,607	146,607	793	145,814	
Firefighters	26,398		\$26,398	26,398	18,460	7,938	
Judges	7,074	1,966	\$9,040	9,040		9,040	
Governors & Legislators	404		\$404	404		404	
Tier 2 Public Employees	79,175		\$79,175	79,175		79,175	
Tier 2 Public Safety and Firefighters	11,126	_	\$11,126	11,126	_	11,126	
Total	\$ 782,779	\$ 372,132	\$ 1,154,911	\$ 1,154,911	\$ 39,213	\$ 1,115,698	

December 31, 2017

# Note 9 / Litigation

The Systems and Plans are involved in various claims and legal actions arising in the ordinary course of business. In the opinion of management and legal counsel, the ultimate disposition of these matters will not have a material adverse effect on the Systems' and Plans' financial position as a whole.

#### Note 10 / Commitments

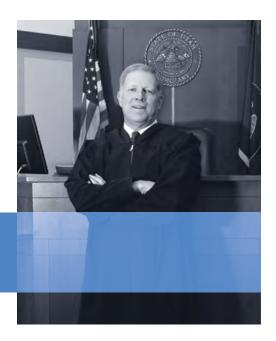
As of December 31, 2017, the Systems had committed to fund certain private equity partnerships, absolute return, and real asset funds projects for an amount of \$12,529,065,070. Funding of \$9,621,981,517 had been provided by December 31, 2017, leaving an unfunded commitment of \$2,907,083,553 as of December 31, 2017.

# Note 11 / Pension Plan Participation

#### **DEFINED BENEFIT PLANS**

Utah Retirement Systems (URS) contributes to the State and School Noncontributory Retirement System, a cost-sharing multiple-employer defined benefit pension plan administered by Utah Retirement Systems (Systems). The Systems provide refunds, retirement benefits, annual cost-of-living adjustments, and death benefits to plan members and beneficiaries in accordance with retirement statutes.

The Systems are established and governed by the respective sections of Chapter 49 of the Utah Code Annotated 1953 as amended. The Utah State Retirement Act in Chapter 49 provides for the administration of the Utah Retirement Systems and Plans under the direction of



the Utah State Retirement Board (Board) whose members are appointed by the governor. The Systems issue a publicly available financial report that includes financial statements and required supplementary information for the State and School Noncontributory Retirement System. A copy of the report may be obtained by writing to the Utah Retirement Systems, 560 East 200 South, Salt Lake City, UT 84102-2044 or by calling 1-800-365-8772.

Funding Policy: In the State and School Noncontributory Retirement System and the Tier 2 Public Employees

December 31, 2017

Retirement System, Utah Retirement Systems is required to contribute 22.19% and 20.02% of its annual covered salary, respectively. The contribution rates are the actuarially determined rates. The contributions were equal to the requirements of the Systems, are authorized by statute, and specified by the Board.

The Utah Retirement Systems' contributions to the State and School Noncontributory Retirement System for the years ended December 31, 2017, 2016, and 2015, were \$3,008,977, \$2,941,508, and \$2,681,089, respectively.

The contributions were equal to the required contributions for each year.

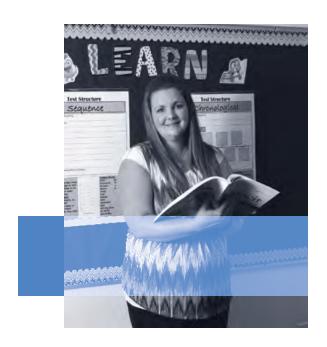
Employees hired beginning July 1, 2011, are automatically enrolled in the Tier 2 Public Employees Retirement System. The Utah Retirement Systems' contributions to the Tier 2 Public Employees Retirement Systems for years ended December 31, 2017, 2016, and 2014, were \$596,455, \$487,794, and \$399,721, respectively. The contributions were equal to the required contributions for each year.

#### **DEFINED CONTRIBUTION PLANS**

Utah Retirement Systems also participates in four defined contribution plans, the 401(k), 457, Roth and traditional IRAs.

#### 401(k) Plan

The Utah Retirement Systems offers its employees a 401(k) Plan to supplement retirement benefits accrued by participants in the Systems and may also be used as a primary retirement benefit. Employees covered by the State and School Noncontributory Retirement System have a contribution of 1.5% of covered salaries automatically made by Utah Retirement Systems. In addition, URS will match up to 2% and \$26 of employee contributions each pay period. Employees participating in the Systems can make additional contributions through payroll deduction to the 401(k) Plan up to specified limits. Contributions and earnings may be withdrawn by the employee upon termination or may be used as supplemental income during retirement. The employer 401(k) contributions for the years ended December 31, 2017, 2016, and 2015, were \$1,145,630, \$946,818, and \$764,166, respectively; the employee contributions for the years ended December 31, 2017, 2016, and 2015, were \$902,966, \$755,806, and



\$638,355, respectively. The 401(k) Plan funds are fully vested to the participants at the time of deposit except for employer required contributions and earnings for Tier 2. Plan assets are administered and held by Utah Retirement Systems.

#### 457 Plan

The Utah Retirement Systems also offers its employees a deferred compensation plan created in accordance with Internal Revenue Code Section 457. The plan, available to all employees, permits them to defer a portion of their salary until future years. Employees are eligible to voluntarily participate from the date of employment and are vested immediately upon participating. Employee contributions to the Section 457 Plan for the years ended December 31, 2017, 2016, and 2015, were \$507,529, \$460,828, and \$422,398, respectively.

#### **Roth and Traditional IRAs**

Utah Retirement Systems offers its employees two payroll deducted IRAs authorized by section 408 of the Internal Revenue Code. Employees are eligible to participate from the date of employment and are vested immediately upon participating. For the years ended December 31, 2017, 2016, and 2015, the Roth IRA employee contributions were \$192,786, \$186,088, and \$152,088, respectively. For the years ended December 31, 2017, 2016, and 2015, the traditional IRA employee contributions were \$11,185, \$8,985, and \$2,235, respectively.

December 31, 2017



# Note 12 / Post-Employment Healthcare Plan

#### **PLAN DESCRIPTION**

The Utah Retirement Office contributes to a noncontributory defined benefit post-employment healthcare plan to provide post-employment insurance benefits for retired employees of the Utah Retirement Office. This plan was established in 2005. The Utah Retirement Employees Post-Employment Healthcare Plan, (UREPEHP), is an agent multiple-employer post-employment healthcare plan administered by the Utah Retirement Office.

Assets and liabilities of the plan are identified separately for each employer. Plan assets may be used only for the payment of benefits to the members of that system, in accordance with the terms of the plan. UREPEHP issues a publicly available financial report that includes financial statements and required supplementary information for UREPEHP. A copy of the report may be obtained by writing the Utah Retirement Office, 560 East 200 South, Salt Lake City, UT 84102-2044 or by calling 1-800-365-8772.

#### **FUNDING POLICY**

The contribution requirements of Utah Retirement Employees Post-Employment Healthcare Plan are determined by the Plan and approved by the Board. Utah Retirement Office is required to contribute the annual required contribution (ARC), an actuarially determined rate in accordance with the parameters of GASB Statement No. 45. The ARC represents a level of funding that, if paid on an

ongoing basis, is projected to cover normal costs each year and amortize any unfunded actuarial liabilities (or funding excess) over an open 20-year period using the level dollar amount. The current dollar amount is \$0. Since the funded ratio exceeds 105% and the plan is closed to new entrants, there are no actuarial required contributions.

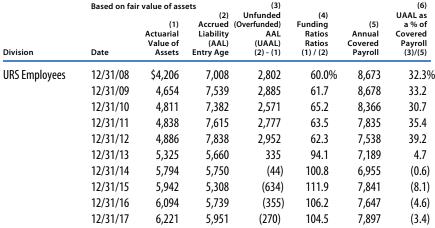
#### **ANNUAL COSTS**

For the year ended December 31, 2017, the annual cost (expense) of \$0 for UREPEHP was equal to the ARC. The net Other Post-Employment Benefits (OPEB) obligation for 2017 was as follows:

Year Ended	Annual Required Contributions	Percentage Contributed	Net OPEB Obligation
12/31/08	\$ 219,000	100%	\$ —
12/31/09	220,000	100	_
12/31/10	313,000	100	_
12/31/11	285,000	100	_
12/31/12	285,000	100	_
12/31/13	285,000	100	_
12/31/14	285,000	100	_
12/31/15	0	100	_
12/31/16	0	100	_
12/31/17	0	100	_

# Schedule of Funding Progress

(dollars in thousands)





January 1, 2017

(dollars in thousands)

		(dollars	in thouse	ands)
	Year Ended*	Annual Required Contributions	Percentage Contributed	Net OPEB Obligation
, )	12/31/08	\$ \$219	100	\$—
	12/31/09	9 220	100	_
	12/31/10	313	100	_
	12/31/1	1 285	100	_
	12/31/12	2 285	100	_
	12/31/13	3 285	100	_
	12/31/14	4 285	100	_
	12/31/15	5 0	100	_
	12/31/16	6 0	100	_
	12/31/17	7 0	100	_

# FUNDED STATUS AND FUNDING PROGRESS

The funded status of the plan as of January 1, 2017, the date of the most recent actuarial valuation, was as follows:

Actuarial accrued liability (AAL)	\$ 5,822,743
Actuarial value of plan assets	6,094,000
Unfunded (overfunded) actuarial accrued	
liability (UAAL)	(271,257)
Funded ratio (actuarial value of plan assets/AA	AL) 105%
Covered salaries and wages (active) (plan members)	\$ 7,897,200
UAAL as a percentage of covered salaries and wages	(3)%

Actuarial valuations of the ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status and the annual required contributions are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress shown above, presented as required supplementary information, shows the actuarial value of plan assets compared to the actuarial accrued liabilities for benefits.

# ACTUARIAL METHODS AND ASSUMPTIONS

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities consistent with the long-term perspective of the calculations.

In the January 1, 2017, actuarial valuation, the entry age actuarial cost method was used. The actuarial assumptions included a 6.95% investment rate of return (net of administrative expenses) and an annual healthcare cost trend rate of 7.5%, reduced by decrements to an ultimate rate of 4.5% after 15 years. Both rates include a 2.50% inflation assumption. The actuarial value of UREPEHP assets is based on smoothed expected income investment rate. Investment income in excess or shortfall of the expected rate on fair value is smoothed over a 5-year period with 20% of a year's excess or shortfall being recognized each year beginning with the current year. The actuarial accrued liability was computed using likely health benefits to be paid to retirees and to be paid active employees after their service that was discounted using the investment return, health cost increase, and various mortality assumptions.

December 31, 2017

# Note 13 / Compensated Absences and Insurance Reserve

The compensated absences liability for Utah Retirement Office employees as of December 31, 2017, was \$6,429,709. This represents the amount of unused leave to be paid to employees upon termination. As of December 31, 2017, the insurance reserve was \$5,000,000. The insurance reserve coverage is explained in Note 15, Risk Management.

# Note 14 / Required Supplementary Information

Required supplementary information is included immediately following the notes to the financial statements on pages 92 through 101. Other supplementary information presented in succeeding sections of this report is for the benefit of statement users and is not a required part of the basic financial statements.

# Note 15 / Risk Management

Most risks of loss to which the Systems, Plans, and Investment Fund are exposed, other than routine investment losses, are covered under commercial insurance policies. Risks in excess of coverage limits or large deductible, and otherwise uninsured losses, are retained by the Systems, Plans or Investment Fund through the insurance reserve. There have been no reductions of insurance coverage from coverages of the previous year in any of the categories of risk. Coverages are increased



or decreased commensurate with real estate acquisitions or dispositions. During the past three calendar years, no loss settlements exceeded insurance coverages beyond immaterial deductible amounts. The insurance reserve was established by the Board from investment earnings as authorized by statute.

December 31, 2017



# Note 16 / Real Estate Liabilities

The real estate liability consists of one line of credit. This note bears interest and is scheduled to be repaid over the next year. The rest of the liabilities are unsecured. As mentioned in Note 3, page 77, the Systems and Plans entered into various interest rate swap agreements that effectively changed credit facility liabilities from variable interest rates to fixed interest rates. As of December 31, 2017, there is \$120 million in credit facility debt. Using interest rates as of December 31, 2017, principal and interest requirements of the debt and net swap payments for the terms of the debt and swaps are shown below.



#### **Real Estate Liabilities**

(in thousands)

	(III tilousullus)		
	Initial Affected Balance	Maturity Date	Annual Payment
The Northern Trust	\$120,000	8/1/2018	\$120,000
Total	\$ 120,000		
Year Ending December 31,	Total Principal Payments	Total Interest Payments	Total Swap Payments
2018	\$120,000	1,215	3,911
2019	_		3,888
2020	_		3,348
2021	_	_	1,378

Loan and swap interest payments are calculated using the One Month LIBOR rate at December 31, 2017.

#### UTAH RETIREMENT SYSTEMS

# REQUIRED SUPPLEMENTARY INFORMATION

# Schedule of Changes in the Employers' Net Pension Liability

Year Ended December 31

(in thousands)

				Noncon	tributory System
	2017	2016	2015	2014	2013
Total pension liability					
Service cost	\$ 403,981	407,690	394,798	407,992	441,320
Interest	1,877,576	1,764,653	1,775,819	1,699,693	1,646,213
Benefit changes	_	48,400	_	_	23,123
Difference between actual					
and expected experience	(84,234)	6,408	(188,166)	(204,823)	(208,501)
Assumption changes	642,187	563,741	_	(157,921)	_
Benefit payments	(1,248,037)	(1,184,317)	(1,123,647)	(1,043,798)	(974,684)
Refunds	(4,635)	(4,366)	(2,496)	(2,204)	(2,454)
Net change in total pension liability	1,586,838	1,602,209	856,308	698,939	925,017
Total pension liability — beginning	26,501,781	24,899,572	24,043,264	23,344,325	22,419,308
Total pension liability — ending (a)	28,088,619	26,501,781	24,899,572	24,043,264	23,344,325
Dlan fiducian, not position					
Plan fiduciary net position  Contributions — member	17 205	16 200	17.020	12 507	14200
Contributions — member  Contributions — employer	17,285	16,308	17,020	13,587	14,208
Contributions — employer  Court fees and fire insurance tax	854,255	831,631	813,449	772,420	710,933
Net investment income	— 2,987,282	 1,783,911	— 366,748	1,419,053	2,588,981
			=		
Benefit payments Refunds	(1,248,037) (4,635)	(1,184,317) (4,366)	(1,123,647)	(1,043,798) (2,204)	(974,684) (2,454)
			(2,496) (9,707)		
Administrative expense Net transfers with affiliated systems	(9,579) (10,187)	(8,856) (8,005)	(8,797)	(8,828)	(8,329) (42,277)
Net transfers with anniated systems	(10,167)	(8,003)	33,648	30,467	(42,277)
Net change in plan fiduciary net position	2,586,384	1,426,306	95,925	1,180,697	2,286,378
Plan fiduciary net position — beginning	22,618,743	21,192,437	21,096,512	19,915,815	17,629,437
Plan fiduciary net position — ending (b)	25,205,127	22,618,743	21,192,437	21,096,512	19,915,815
Net pension liability/(asset) — ending (a-b)	\$ 2,883,492	3,883,038	3,707,135	2,946,752	3,428,510
Plan fiduciary net position as a percentage					
of the total pension liability	89.7%	85.3%	85.1%	87.7%	85.3%
Projected covered employee payroll	\$ 3,375,321	3,406,567	3,458,286	3,570,912	3,705,771
Net pension liability/(asset) as a percentage					
of covered employee payroll	85.4%	114.0%	107.2%	82.5%	92.5%

Contributory System				butory System					Public	Safety System
2017	2016	2015	2014	2013		2017	2016	2015	2014	2013
4,801	5,673	8,672	9,580	10,997		78,272	78,843	75,352	76,681	81,736
90,124	91,894	95,463	93,819	93,750		269,818	249,722	248,980	236,803	229,965
_	(45,057)	_	_	721		_	_	_	_	_
(24,988)	(13,801)	(15,289)	(22,839)	(20,520)		(3,041)	9,358	(17,164)	(25,225)	(29,228)
22,108	22,909	_	(4,233)	_		118,370	110,373		(52,410)	· · · —
(84,761)	(83,447)	(81,390)	(77,015)	(74,158)		(172,870)	(164,508)	(155,387)	(144,763)	(137,486)
(1,613)	(1,700)	(1,215)	(2,433)	(1,922)		(226)	(183)	(533)	(199)	(467)
5,671	(23,529)	6,241	(3,121)	8,868	_	290,323	283,605	151,248	90,887	144,520
1,292,512	1,316,041	1,309,800	1,312,921	1,304,053	_	3,794,880	3,511,275	3,360,027	3,269,140	3,124,620
1,298,183	1,292,512	1,316,041	1,309,800	1,312,921	_	4,085,203	3,794,880	3,511,275	3,360,027	3,269,140
2,675	3,420	4,771	5,461	6,376		793	830	905	835	1,258
7,946	8,188	11,719	12,954	12,874		145,814	147,099	141,024	135,588	128,744
· <u> </u>	_	_	_	_		_	_	_	· —	· —
155,949	97,693	21,251	87,577	169,510		421,917	249,027	50,654	194,222	350,563
(84,761)	(83,447)	(81,390)	(77,015)	(74,158)		(172,870)	(164,508)	(155,387)	(144,763)	(137,486)
(1,613)	(1,700)	(1,215)	(2,433)	(1,922)		(226)	(183)	(533)	(199)	(467)
(457)	(446)	(478)	(494)	(480)		(1,382)	(1,260)	(1,233)	(1,227)	(1,161)
(1,177)	(1,895)	(41,558)	(38,004)	33,094		5,926	6,701	4,023	2,746	4,676
78,562	21,813	(86,900)	(11,954)	145,294		399,972	237,706	39,453	187,202	346,127
1,204,904	1,183,091	1,269,991	1,281,945	1,136,651		3,176,545	2,938,839	2,899,386	2,712,184	2,366,057
1,283,466	1,204,904	1,183,091	1,269,991	1,281,945	_	3,576,517	3,176,545	2,938,839	2,899,386	2,712,184
14,717	87,608	132,950	39,809	30,976	_	508,686	618,335	572,436	460,641	556,956
98.9%	93.2%	89.9%	97.0%	97.6%		87.5%	83.7%	83.7%	86.3%	83.0%
45,177	53,615	82,426	90,623	98,023	-	350,782	352,407	355,171	360,750	365,998
43,177	33,013	02,420	90,023	90,023	_	330,762	332, <del>4</del> 0/	ا ۱۱,ددد	300,730	
32.6%	163.4%	161.3%	43.9%	31.6%		145.0%	175.5%	161.2%	127.7%	152.2%

Continued on page 94.

## REQUIRED SUPPLEMENTARY INFORMATION (Continued)

Schedules of Changes in the Employers' Net Pension Liability (Continued)

Year Ended December 31

(in thousands)

	Firefic						
		2017	2016	2015	2014	2013	
Total pension liability							
Service cost	\$	28,775	28,652	27,182	27,266	29,577	
Interest		80,386	75,334	75,212	71,490	70,259	
Benefit changes		_	_	_	_	_	
Difference between actual							
and expected experience		(9,216)	(5,525)	(8,259)	(15,077)	(13,083)	
Assumption changes		31,357	25,572	_	(20,372)	_	
Benefit payments		(54,793)	(52,102)	(49,671)	(47,710)	(44,747)	
Refunds		(511)	(466)	(528)	(293)	(106)	
Net change in total pension liability		75,998	71,465	43,936	15,304	41,900	
Total pension liability — beginning	1	,129,729	1,058,264	1,014,328	999,024	957,124	
Total pension liability — ending (a)	1	,205,727	1,129,729	1,058,264	1,014,328	999,024	
Plan fiduciary net position							
Contributions — member		18,460	18,729	18,175	18,300	18,325	
Contributions — employer		6,715	6,954	6,690	5,514	3,494	
Court fees and fire insurance tax		1,223	10,569	17,218	14,154	11,285	
Net investment income		146,736	87,746	17,934	69,070	125,685	
Benefit payments		(54,793)	(52,102)	(49,671)	(47,710)	(44,747)	
Refunds		(511)	(466)	(528)	(293)	(106)	
Administrative expense		(408)	(374)	(371)	(370)	(355)	
Net transfers with affiliated systems		1,259	1,611	2,573	3,713	1,302	
Net change in plan fiduciary net position		118,681	72,667	12,020	62,378	114,883	
Plan fiduciary net position — beginning	1	,115,726	1,043,059	1,031,039	968,661	853,778	
Plan fiduciary net position — ending (b)	1	,234,407	1,115,726	1,043,059	1,031,039	968,661	
Net pension liability/(asset) — ending (a-b)	\$	(28,680)	14,003	15,205	(16,711)	30,363	
Dian fiduciary not position as a porcentage							
Plan fiduciary net position as a percentage		102 40/	00.00/	00.60/	101 60/	07.00/	
of the total pension liability		102.4%	98.8%	98.6%	101.6%	97.0%	
Projected covered employee payroll	\$	112,953	112,322	111,133	111,305	110,741	
Net pension liability/(asset) as a percentage							
of covered employee payroll		(25.4)%	12.5%	13.7%	(15.0)%	27.4%	

2014 106 884	2015	2016	2017	2013	2014	2015	2016	2017
	00			2015	2014	2013	2016	2017
	00							
001		89	68	4,537	4,895	4,794	5,023	5,325
004	890	851	879	12,924	13,641	14,136	14,064	14,866
_	_	_	<del></del>	<del></del>	_	_	_	
307	(105)	167	182	(569)	2,602	171	1,995	809
_	_	241	264	_	(130)	_	2,885	13,067
(909)	(904)	(941)	(973)	(10,189)	(11,361)	(12,400)	(12,330)	(13,621)
_					_	_	_	
388	(20)	407	420	6,703	9,647	6,701	11,637	20,446
11,879	12,267	12,247	12,654	175,935	182,638	192,285	198,986	210,623
12,267	12,247	12,654	13,074	182,638	192,285	198,986	210,623	231,069
_	_	_	_	_	317	_		_
411	421	421	404	4,990	5,627	6,555	7,382	7,563
_	_	_	_	1,498	1,486	1,653	1,470	1,477
717								23,435
(909)	(904)	(941)	(973)	(10,189)		(12,400)	(12,330)	(13,621)
(5)	(5)	(4)	— (5)	(66)		(71)	(71)	(79)
(14)	(20)	(12)	89	3,186	1,092	1,334	1,600	4,090
200	(327)	313	868	19,549	8,158	(87)	11,871	22,865
10,166	10,366	10,039	10,352	136,127	155,676	163,834	163,747	175,618
10,366	10,039	10,352	11,220	155,676	163,834	163,747	175,618	198,483
1,901	2,208	2,302	1,854	26,962	28,451	35,239	35,005	32,586
84.5%	82.0%	81.8%	85.8%	85.2%	85.2%	82.3%	83.4%	85.9%
928	943	799	722	15,195	16,072	15,832	16,755	18,661
204.8%	234.1%	288.1%	256.6%	177.4%	177.0%	222.6%	208.9%	174.6%
——————————————————————————————————————	(9 3 11,8 12,2 4 7 (9 2 10,1 10,3 1,9 84	— (904) (9 — (20) 3 12,267 11,8 12,247 12,2  — 421 4 — 181 7 (904) (9 — (5) (20) (327) 2 10,366 10,1 10,039 10,3 2,208 1,9 82.0% 84. 943 9	241       —         (941)       (904)       (9         —       —       —         407       (20)       3         12,247       12,267       11,8         12,654       12,247       12,2         —       —       —         421       421       4         —       —       —         849       181       7         (941)       (904)       (9         —       —       —         (4)       (5)       (12)       (20)         313       (327)       2         10,039       10,366       10,1         10,352       10,039       10,3         2,302       2,208       1,9         81.8%       82.0%       84.         799       943       9	264       241       —         (973)       (941)       (904)       (9         —       —       —       —         420       407       (20)       3         12,654       12,247       12,267       11,8         13,074       12,654       12,247       12,2         —       —       —       —         404       421       421       4         —       —       —       —         1,353       849       181       7         (973)       (941)       (904)       (9         —       —       —       —         (5)       (4)       (5)         89       (12)       (20)         868       313       (327)       2         10,352       10,039       10,366       10,1         11,220       10,352       10,039       10,3         1,854       2,302       2,208       1,9         85.8%       81.8%       82.0%       84.         722       799       943       9	—       264       241       —         (10,189)       (973)       (941)       (904)       (9         —       —       —       —       —         6,703       420       407       (20)       3         175,935       12,654       12,247       12,267       11,8         182,638       13,074       12,654       12,247       12,2         —       —       —       —       —         4,990       404       421       421       42         1,498       —       —       —       —         20,130       1,353       849       181       7         (10,189)       (973)       (941)       (904)       (9         —       —       —       —       —         (66)       (5)       (4)       (5)         3,186       89       (12)       (20)         19,549       868       313       (327)       2         136,127       10,352       10,039       10,366       10,1         155,676       11,220       10,352       10,039       10,3         26,962       1,854       2,302       2,208       1	(130)       —       264       241       —       (904)       (93)       (941)       (904)       (94)       (94)       (94)       (94)       (94)       (94)       (94)       (94)       (94)       (94)       (94)       (94)       (94)       (94)       (94)       (94)       (94)       (94)       (94)       (90)       3       3420       407       (20)       3       3426       12,247       12,267       11,86       12,247       12,267       11,86       192,285       182,638       13,074       12,654       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247       12,247	—         (130)         —         264         241         —         (904)         (954)           (12,400)         (11,361)         (10,189)         (973)         (941)         (904)         (954)           6,701         9,647         6,703         420         407         (20)         3           192,285         182,638         175,935         12,654         12,247         12,267         11,8           198,986         192,285         182,638         13,074         12,654         12,247         12,267         11,8           198,986         192,285         182,638         13,074         12,654         12,247         12,267         11,8           198,986         192,285         182,638         13,074         12,654         12,247         12,2           -         317         —         —         —         —         —         —         6,555         5,627         4,990         404         421         421         42         42         14,241         42         14,241         14,241         14,241         14,241         14,241         14,241         14,241         14,241         14,241         14,241         14,241         14,241         14,241	2,885       —       (130)       —       264       241       —       (12,330)       (12,400)       (11,361)       (10,189)       (973)       (941)       (904)       (934)       (974)       (904)       (974)       (904)       (974)       (904)       (973)       (941)       (904)       (974)       (904)       (973)       (941)       (904)       (974)       (904)       (973)       (941)       (904)       (973)       (941)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (904)       (90

Continued on page 96.

## REQUIRED SUPPLEMENTARY INFORMATION (Continued)

Schedules of Changes in the Employers' Net Pension Liability (Concluded)

Year Ended December 31

(in thousands)

	( , , , , ,	10 4 3 4 11 4 3 7					
	Tier 2 Public Employees						
		2017	2016	2015	2014	2013	
Total pension liability							
Service cost	\$	84,388	69,887	51,005	39,283	29,318	
Interest		19,471	12,608	8,370	4,648	2,351	
Benefit changes		_	_	_		(119)	
Difference between actual							
and expected experience		357	(1,917)	(4,982)	(4,577)	(4,459)	
Assumption changes		5,786	7,867	_	(1,385)	_	
Benefit payments		(417)	(316)	(333)	_	_	
Refunds		_	_	_	_	_	
Net change in total pension liability		109,585	88,129	54,060	37,969	27,091	
Total pension liability — beginning		228,450	140,321	86,261	48,292	21,201	
Total pension liability — ending (a)		338,035	228,450	140,321	86,261	48,292	
Plan fiduciary net position							
Contributions — member		_	_	_	_	_	
Contributions — employer		79,175	63.062	49,645	37,299	25,743	
Court fees and fire insurance tax		_	_	_	_	_	
Net investment income		33,249	14,059	1,963	4,320	4,017	
Benefit payments		(417)	(316)	(333)	_	_	
Refunds		_	_	_	_	_	
Administrative expense		(82)	(51)	(30)	(16)	(6)	
Net transfers with affiliated systems		_	_	3	(2)	3	
Net change in plan fiduciary net position		111,925	76,754	51,248	41,601	29,757	
Plan fiduciary net position — beginning		217,293	140,539	89,291	47,690	17,933	
Plan fiduciary net position — ending (b)		329,218	217,293	140,539	89,291	47,690	
Net pension liability/(asset) — ending (a-b)	\$	8,817	11,157	(218)	(3,030)	602	-
Plan fiduciary net position as a percentage							
of the total pension liability		97.4%	95.1%	100.2%	103.5%	98.8%	
Projected covered employee payroll	\$	996,965	822,196	637,560	492,882	353,227	
Net pension liability/(asset) as a percentage							
of covered employee payroll		0.9%	1.4%	(0.0)%	(0.6)%	0.2%	

Tier 2 Public Safety and Firefighter System										Total All Retir	ement Systems
	2017	2016	2015	2014	2013		2017	2016	2015	2014	2013
	10,763	8,164	5,466	3,579	2,151		616,373	604,021	567,368	569,382	599,736
	2,133	1,274	746	379	159		2,355,253	2,210,400	2,219,616	2,121,357	2,056,481
	_	_	_	_	(7)		_	3,343	_	_	23,718
	(2)	425	220	50	106		(120,133)	(2,890)	(233,574)	(269,582)	(276,487)
	1,924	803	220	(127)	100		835,063	734,391	(233,374)	(236,578)	(270,467)
	(61)	(28)	(30)	(127)			(1,575,533)	(1,497,989)	(1,423,762)	(1,325,556)	(1,242,156)
	—	(20) —	(50)	_	_		(6,985)	(6,715)	(4,772)	(5,129)	(4,949)
	14,757	10,638	6,402	3,881	2,409	-	2,104,038	2,044,561	1,124,876	853,894	1,156,343
	24,266	13,628	7,226	3,345	936	-	33,194,895	31,150,334		29,171,564	28,015,221
		13,020		3,343	930	_	33,194,093	31,130,334	30,023,430	23,171,304	20,013,221
	39,023	24,266	13,628	7,226	3,345		35,298,933	33,194,895	31,150,334	30,025,458	29,171,564
		_		_			39,213	39,287	40,871	38,500	40,167
	11,126	8,488	6,221	4,365	2,451		1,112,998	1,073,225	1,035,724	974,178	889,481
				.,505 —			2,700	12,039	18,871	15,640	12,783
	3,989	1,591	199	404	316		3,773,910	2,248,696	461,772	1,786,431	3,260,548
	(61)	(28)	(30)	_	_		(1,575,533)	(1,497,989)	(1,423,762)	(1,325,556)	(1,242,156)
	_	_	_	_	_		(6,985)	(6,715)	(4,772)	(5,129)	(4,949)
	(9)	(5)	(3)	(1)	_		(12,001)	(11,067)	(10,988)	(11,012)	(10,401)
	_	_	(3)	2	(3)	_	_	_	_		
	15,045	10,046	6,384	4,770	2,764		3,334,302	1,857,476	117,716	1,473,052	2,945,473
	25,135	15,089	8,705	3,935	1,171	_	28,544,316	26,686,840	26,569,124	25,096,072	22,150,599
	40,180	25,135	15,089	8,705	3,935		31,878,618	28,544,316	26,686,840	26,569,124	25,096,072
	(1,157)	(869)	(1,461)	(1,479)	(590)		3,420,315	4,650,579	4,463,494	3,456,334	4,075,492
	103.0%	103.6%	110.7%	120.5%	117.6%	_	90.3%	86.0%	85.7%	88.5%	86.0%
	98,113	74,834	53,276	35,019	20,215	_	4,998,694	4,839,495	4,714,627	4,678,491	4,669,560
	(1.2)%	(1.2)%	(2.7)%	(4.2)%	(2.9)%		68.4%	96.1%	94.7%	73.9%	87.3%
	(,,,	(,,,	(=,,,,,	(, , 3	(=.5)70		33.170	2 3 70	2 70	. 2.2 /0	27.1270

REQUIRED SUPPLEMENTARY INFORMATION (Continued)

# Schedules of Employers' Net Pension Liability

	(dollars i	n thousands)	(2)	(4) Plan	(5)	(6) Net Pension Liability/(Asset)		
System	Date	(1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	Fiduciary Net Position as a Percentage of the Total Plan Liability	Projected Covered Employee Payroll	as a Percentage of Covered Employee Payroll	
Noncontributory	12/31/13	\$ 23,344,325	19,915,815	3,428,510	85.3%	\$ 3,705,771	92.5%	
Retirement	12/31/14	24,043,264	21,096,512	2,946,752	87.7	3,570,912	82.5	
System	12/31/15	24,899,572	21,192,437	3,707,135	85.1	3,458,286	107.2	
	12/31/16	26,501,781	22,618,743	3,883,038	85.3	3,406,567	114.0	
	12/31/17	28,088,619	25,205,127	2,883,492	89.7	3,375,321	85.4	
Contributory	12/31/13	\$ 1,312,921	1,281,945	30,976	97.6%	\$ 98,023	31.6%	
Retirement	12/31/14	1,309,800	1,269,991	39,809	97.0	90,623	43.9	
System	12/31/15	1,316,041	1,183,091	132,950	89.9	82,426	161.3	
	12/31/16	1,292,512	1,204,904	87,608	93.2	53,615	163.4	
	12/31/17	1,298,183	1,283,466	14,717	98.9	45,177	32.6	
Public Safety	12/31/13	\$ 3,269,140	2,712,184	556,956	83.0%	\$ 365,998	152.2%	
Retirement	12/31/14	3,360,027	2,899,386	460,641	86.3	360,750	127.7	
System	12/31/15	3,511,275	2,938,839	572,436	83.7	355,171	161.2	
	12/31/16	3,794,880	3,176,545	618,335	83.7	352,407	175.5	
	12/31/17	4,085,203	3,576,517	508,686	87.5	350,782	145.0	
Firefighters	12/31/13	\$ 999,024	968,661	30,363	97.0%	\$ 110,741	27.4%	
Retirement	12/31/14	1,014,328	1,031,039	(16,711)	101.6	111,305	(15.0)	
System	12/31/15	1,058,264	1,043,059	15,205	98.6	111,133	13.7	
	12/31/16	1,129,729	1,115,726	14,003	98.8	112,322	12.5	
	12/31/17	1,205,727	1,234,407	(28,680)	102.4	112,953	(25.4)	
Judges	12/31/13	\$ 182,638	155,676	26,962	85.2%	\$ 15,195	177.4%	
Retirement	12/31/14	192,285	163,834	28,451	85.2	16,072	177.0	
System	12/31/15	198,986	163,747	35,239	82.3	15,832	222.6	
	12/31/16	210,623	175,618	35,005	83.4	16,755	208.9	
	12/31/17	231,069	198,483	32,586	85.9	18,661	174.6	

REQUIRED SUPPLEMENTARY INFORMATION (Continued)

# Schedules of Employers' Net Pension Liability (Concluded)

System	(dollars in	tho	(1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	(4) Plan Fiduciary Net Position as a Percentage of the Total Plan Liability		(5) Projected Covered Employee Payroll	(6) Net Pension Liability/(Asset) as a Percentage of Covered Employee Payroll
Utah Governors	12/31/13	\$	11,879	10,166	1,713	85.6%	\$	390	439.2%
and Legislative	12/31/14		12,267	10,366	1,901	84.5		928	204.8
Retirement Plan	12/31/15		12,247	10,039	2,208	82.0		943	234.1
	12/31/16		12,654	10,352	2,302	81.8		799	288.1
	12/31/17		13,074	11,220	1,854	85.8		722	256.6
Tier 2 Public	12/31/13	\$	48,292	47,690	602	98.8%	\$	353,227	0.2%
Employees	12/31/14		86,261	89,291	(3,030)	103.5		492,882	(0.6)
<b>Retirement System</b>	12/31/15		140,321	140,539	(218)	100.2		637,560	(0.0)
	12/31/16		228,450	217,293	11,157	95.1		822,196	1.4
	12/31/17		338,035	329,218	8,817	97.4		996,965	0.9
Tier 2 Public Safety	12/31/13	\$	3,345	3,935	(590)	117.6%	\$	20,215	(2.9)%
and Firefighter	12/31/14		7,226	8,705	(1,479)	120.5		35,019	(4.2)
<b>Retirement System</b>	12/31/15		13,628	15,089	(1,461)	110.7		53,276	(2.7)
	12/31/16		24,266	25,135	(869)	103.6		74,834	(1.2)
	12/31/17		39,023	40,180	(1,157)	103.0		98,113	(1.2)
All Retirement	12/31/13	\$ 2	9,171,564	25,096,072	4,075,492	86.0%	\$ 4	4,669,560	87.3%
Systems	12/31/14	3	0,025,458	26,569,124	3,456,334	88.5	4	4,679,491	73.9
	12/31/15	3	1,150,334	26,686,840	4,463,494	85.7	4	4,714,627	94.7
	12/31/16	3	3,194,895	28,544,316	4,650,579	86.0	4	4,839,495	96.1
	12/31/17	3	5,298,933	31,878,618	3,420,315	90.3	4	4,998,694	68.4

REQUIRED SUPPLEMENTARY INFORMATION (Continued)

# **Schedules of Employer Contributions**

(dollars in thousands)

	(dollars in th	ousands)				
System	Year Ended December 31	Actuarial Determined Contribution*	Contributions in Relation to the Actuarial Determined Contribution	Contribution Deficiency (Excess)	Projected Covered Employee Payroll	Contributions as a Percentage of Covered Payroll**
Noncontributory Retirement System	2008 2009 2010	\$ 522,733 535,298 564,154	522,733 535,298 564,154	_ _ _	3,871,636 3,955,040 3,888,179	13.50% 13.53 14.51
	2011 2012 2013	610,270 644,907 710,933	610,270 644,907 710,933		3,900,106 3,794,929 3,705,771	15.65 16.99 19.18
	2014 2015 2016	772,420 813,449 831,631	772,420 813,449 831,631	_ _ _	3,570,912 3,458,286 3,406,567	21.63 23.52 24.41
	2017	854,255	854,255	<u> </u>	3,375,321	25.31
Contributory Retirement System	2008 2009 2010 2011	\$ 11,037 10,865 11,851 11,125	11,037 10,865 11,851 11,125	_ _ _	133,110 127,804 116,395 110,103	8.29% 8.50 10.18 10.10
	2012 2013 2014	11,705 12,874 12,954	11,705 12,874 12,954	_ _ _	103,074 98,023 90,623	11.36 13.13 14.29
	2015 2016 2017	11,719 8,188 7,946	11,719 8,188 7,946		82,426 53,615 45,177	14.22 15.27 17.59
Public Safety Retirement	2008 2009	\$ 93,899 98,729	93,899 98,729	_	365,043 373,959	25.72% 26.40
System	2010 2011 2012 2013	103,586 110,829 117,975 128,744	103,586 110,829 117,975 128,744	_ _ _ _	363,037 374,293 366,471 365,998	28.53 29.61 32.19 35.18
	2014 2015 2016 2017	135,588 141,024 147,099 145,814	135,588 141,024 147,099 145,814	_ _ _	360,750 355,171 352,407 350,783	37.59 39.71 41.74 41.57
Firefighters Retirement	2008 2009	\$ 10,219 16,159	10,219 16,159		102,252 107,625	9.99% 15.01
System	2010 2011 2012	10,915 13,005 17,321	10,915 13,005 17,321	=	107,023 105,275 110,751 110,608	10.37 11.74 15.66
	2013 2014 2015	14,779 19,668 23,908	14,779 19,668 23,908		110,741 111,305 111,133	13.35 17.67 21.51
	2016 2017	17,523 7,938	17,523 7,938	_	112,322 112,953	15.60 7.03
Judges Retirement System	2008 2009 2010	\$ 3,802 4,184 4,715	3,802 4,184 4,715	_ _ _	14,404 14,434 14,234	26.40% 28.99 33.12
	2011 2012 2013 2014	5,403 5,898 6,488 7,113	5,403 5,898 6,488 7,113	_ _ _	14,981 14,885 15,195 16,072	36.07 39.62 42.70 44.26
	2014 2015 2016 2017	8,208 8,852 9,040	8,208 8,852 9,040	_ _ _	16,072 15,832 16,755 18,661	51.84 52.83 48.44

^{*}Contributions for the Tier 1 Systems include contributions received on the Tier 2 payroll to help finance the unfunded actuarial accrued liability of the Tier 1 Systems.

^{**}Contributions as a percentage of covered payroll may be different than the board certified rate due to rounding and other administrative issues.

REQUIRED SUPPLEMENTARY INFORMATION (Concluded)

# Schedules of Employer Contributions (Concluded)

(dollars in thousands)

System	Year Ended December 31	I	Actuarial Determined entribution*	Contributions in Relation to the Actuarial Determined Contribution	Contribution Deficiency (Excess)	Projected Covered Employee Payroll	Contributions as a Percentage of Covered Payroll**
Utah Governors and Legislative Retirement Plan	2008 2010 2011	\$	  153	 _ 153	=	910 910 910	0.00% 0.00 16.81
	2012 2013 2014 2015 2016 2017		214 252 411 421 421 404	214 252 411 421 421 404	_ _ _ _ _	910 390 928 943 799 722	23.52 64.62 44.29 44.64 52.69 55.96
Tier 2 Public Employees Retirement System [†]	2011 2012 2013 2014 2015 2016 2017	\$	2,790 14,208 25,743 37,299 49,645 63,062 79,175	2,790 14,208 25,743 37,299 49,645 63,062 79,175	= = = = =	36,821 203,779 353,227 492,882 637,560 822,196 996,965	7.58% 6.97 7.29 7.57 7.79 7.67 7.94
Tier 2 Public Safety and Firefighter Retirement System [†]	2011 2012 2013 2014 2015 2016 2017	\$	89 1,031 2,451 4,365 6,221 8,488 11,126	89 1,031 2,451 4,365 6,221 8,488 11,126	- - - - - -	855 10,237 20,215 35,019 53,276 74,834 98,113	10.41% 10.07 12.12 12.46 11.68 11.34 11.34
All Retirement Systems	2008 2009 2010 2011 2012 2013 2014 2015 2016 2017	1	641,690 665,235 695,221 753,664 813,259 902,264 989,818 ,054,595 ,085,264 ,115,698	641,690 665,235 695,221 753,664 813,259 902,264 989,818 1,054,595 1,085,264 1,115,698	- - - - - - - -	4,487,355 4,579,772 4,488,030 4,548,820 4,604,893 4,669,560 4,678,491 4,714,628 4,839,495 4,998,694	14.30% 14.53 15.49 16.57 17.66 19.32 21.16 22.37 22.43 22.32

[†]Additional years will be displayed as they become available.

# Schedule of Investment Returns

Year Ended December 31

	2017	2016	2015	2014
Annual money weighted rate of return, net of investment expense	13.38%	8.73%	2.02%	7.94%

^{*}Contributions for the Tier 1 Systems include contributions received on the Tier 2 payroll to help finance the unfunded actuarial accrued liability of the Tier 1 Systems.

^{**}Contributions as a percentage of covered payroll may be different than the board certified rate due to rounding and other administrative issues.

#### UTAH RETIREMENT SYSTEMS

# SUPPLEMENTARY INFORMATION

# Note 1 / Schedules of Changes in the Employer Net Pension Liability

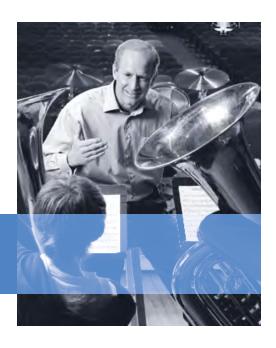
The total pension liability contained in this schedule was provided by the Systems actuary, Gabriel, Roeder, Smith & Company. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the Retirement Systems.

# Note 2 / Schedules of **Employer Contributions**

The required employer contributions and percent of those contributions actually made are presented in the schedule.

The actuarially determined contribution rates determined by an actuarial valuation are effective for the fiscal year beginning 18 months after the valuation date. For example, the actuarially determined contribution rate determined by the January 1, 2017 valuation is effective for the fiscal year beginning July 1, 2019.

The Board certifies the contribution rates that employers are contractually required to contribute to the retirement system. Per 49-11-301(5) of the Utah Code, if the funded ratio of the plan is less than 110%, then the Board is permitted to maintain the prior year's contribution rate if the actuarially determined contribution is lower. The Board has historically followed this policy. The projected covered payroll is an estimated payroll figure based upon the January 1, 2017, census data.



The actual contributions for the Tier 1 Systems include contributions received on the Tier 2 payroll to help finance the unfunded actuarial accrued liability of the Tier 1 Systems. Contributions as a percentage of covered payroll may be different than the board certified rate due to rounding and other administrative issues.

## Note 3 / Actuarial Assumptions

The information presented in the required supplementary schedules was used in the actuarial valuation for purposes of determining the actuarially determined contribution rate. The assumptions and methods used for this actuarial valuation were recommended by the actuary and adopted by the Board. Additional information as of the latest actuarial valuation follows.

# Summary of Actuarial Assumptions

		Noncontributory	Contributory	Public Safety	Firefighters	Judges	Governors and Legislators	Tier 2 Public Employees	Tier 2 Public Safety and Firefighter
Valua	tion date	1/1/17	1/1/17	1/1/17	1/1/17	1/1/17	1/1/17	1/1/17	1/1/17
Actua	rial cost method	Entry Age	Entry Age	Entry Age	Entry Age				
Amor	tization method	Level Percent of Payroll	Level Dollar Amount	Level Percent of Payroll	Level Percent of Payroll				
Amor	tization period	Open Group 20-Year Open Period	Open Group 20-Year Open Period	Open Group 20-Year Open Period	Open Group 20-Year Open Period	Open Group 20-Year Open Period	Closed Group 17-Year Closed Period	Open Group 20-Year Open Period	Open Group 20-Year Open Period
meth	rial asset valuation od (All Systems same method)	:	pected investme			excess or shortfal ers. One-fifth of t			
Actua	rial assumptions: Investment rate of return	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%
	Projected salary increases*	3.25-9.75%	3.25-9.75%	3.25-7.25%	3.25-8.75%	3.25%	None	3.25-9.75%	3.25-8.75%
	Inflation rate	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
	Post-retirement cost-of-living adjustment	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Morta	lity: (Non-educators)	:	% of 2017 Public			y Table for males Ality Table for fen			ne year 2017.
Morta	lity: (Educators)	:	of 2017 Public F	•		Table for males, ity Table for fem	,		e year 2017.

Note: All post-retirement cost-of-living adjustments are noncompounding and are based on the original benefit except for Judges, which is a compounding benefit. The cost-of-living adjustments are also limited to the actual CPI increase for the year, although unused CPI increases not met may be carried forward to subsequent years.

*Composed of 2.50% inflation, plus 0.75% productivity increase rate, plus step-rate promotional increases for members with less than 25 years of service.

#### **Noncontributory Retirement System**

# Schedules of Fiduciary Net Position — Pension Trust Fund by Division

December 31, 2017 With Comparative Totals for December 31, 2016

(in thousands)

	Local	State and		<b>Total All Divisions</b>
	Government	School School	2017	2016
Assets:				
Cash	\$ 1	2	3	827
Receivables:				
Employer contributions	7,841	37,848	45,689	41,021
Investments	105,947	430,817	536,764	352,756
Total receivables	113,788	468,665	582,453	393,777
Investments at fair value:				
Short-term securities	430,591	1,750,939	2,181,530	1,895,723
Debt securities	711,290	2,892,362	3,603,652	3,452,309
Equity investments	1,897,175	7,714,597	9,611,772	8,083,041
Absolute return	696,010	2,830,228	3,526,238	3,573,055
Private equity	538,626	2,190,246	2,728,872	2,607,844
Real assets	740,538	3,011,294	3,751,832	3,383,071
Total investments	5,014,230	20,389,666	25,403,896	22,995,043
Invested securities lending collateral	208,953	849,678	1,058,631	554,319
Property and equipment at cost,				
net of accumulated depreciation	685	2,787	3,472	3,875
Total assets	5,337,657	21,710,798	27,048,455	23,947,841
Liabilities:				
Securities lending liability	208,953	849,678	1,058,631	554,319
Disbursements in excess of cash balance	5,320	23,654	28,974	31,136
Compensated absences, post-employment				
benefits and insurance reserve	3,422	13,917	17,339	16,377
Investment accounts payable	127,386	516,105	643,491	564,811
Real estate liabilities	18,730	76,163	94,893	162,455
Total liabilities	363,811	1,479,517	1,843,328	1,329,098
Net position restricted for pensions	\$ 4,973,846	20,231,281	25,205,127	22,618,743

#### **Noncontributory Retirement System**

# Schedules of Changes in Fiduciary Net Position — Pension Trust Fund by Division

Year Ended December 31, 2017 With Comparative Totals for Year Ended December 31, 2016

(in thousands)

		Local	State and		Total All Divisions
	Gov	ernment	School	2017	2016
Additions:					
Contributions:					
Member	\$	3,928	13,357	17,285	16,308
Employer	1	74,037	680,218	854,255	831,631
Total contributions	1	77,965	693,575	871,540	847,939
Investment income:					
Net appreciation in fair value of investments	5	03,705	2,060,588	2,564,293	1,428,287
Interest, dividends, and other investment income		90,999	372,264	463,263	388,277
Total income from investment activity	5	94,704	2,432,852	3,027,556	1,816,564
Less investment expenses		8,841	36,166	45,007	38,987
Net income from investment activity	5	85,863	2,396,686	2,982,549	1,777,577
Income from security lending activity		1,053	4,308	5,361	7,279
Less security lending expense		123	505	628	945
Net income from security lending activity		930	3,803	4,733	6,334
Net investment income	5	86,793	2,400,489	2,987,282	1,783,911
Transfers from affiliated systems		_	_	_	_
Total additions	7	64,758	3,094,064	3,858,822	2,631,850
Deductions:					
Retirement benefits	1	76,137	887,757	1,063,894	1,001,451
Cost-of-living benefits		26,187	157,956	184,143	182,866
Refunds		814	3,821	4,635	4,366
Administrative expenses		1,828	7,751	9,579	8,856
Transfers to affiliated systems		(1,647)	11,834	10,187	8,005
Total deductions	2	03,319	1,069,119	1,272,438	1,205,544
Increase from operations	5	61,439	2,024,945	2,586,384	1,426,306
Net position restricted for pensions beginning of year	4,4	12,407	18,206,336	22,618,743	21,192,437
Net position restricted for pensions end of year	\$ 4,9	73,846	20,231,281	25,205,127	22,618,743

#### **Noncontributory Retirement System**

# Schedules of Changes in the Employers' Net Pension Liability by Division

Year Ended December 31

(in thousands)

	Local Governmen					
	2017	2016	2015	2014	2013	
Total pension liability						
Service cost	\$ 93,774	96,049	91,304	93,436	100,789	
Interest	359,989	330,648	328,120	310,587	297,617	
Benefit changes	_	48,400	_	_	6,063	
Difference between actual						
and expected experience	(22,546)	18,123	(19,610)	(16,109)	(39,370)	
Assumption changes	129,368	112,696	_	(52,889)	_	
Benefit payments	(202,324)	(191,011)	(177,915)	(159,967)	(149,891)	
Refunds	(814)	(392)	(248)	(235)	(620)	
Net change in total pension liability	357,447	414,513	221,651	174,823	214,588	
Total pension liability — beginning	5,054,529	4,640,016	4,418,365	4,243,542	4,028,954	
Total pension liability — ending (a)	5,411,976	5,054,529	4,640,016	4,418,365	4,243,542	
Plan fiduciary net position						
Contributions — member	3,928	5,023	5,481	3,859	2,637	
Contributions — employer	174,037	171,967	167,015	157,930	147,105	
Net investment income	586,793	346,001	69,895	266,210	478,461	
Benefit payments	(202,324)	(191,011)	(177,915)	(159,967)	(149,891)	
Refunds	(814)	(392)	(248)	(235)	(620)	
Administrative expense	(1,828)	(1,671)	(1,622)	(1,604)	(1,497)	
Net transfers with affiliated systems	1,647	8,323	27,420	14,058	(5,302)	
Net change in plan fiduciary net position	561,439	338,240	90,026	280,251	470,893	
Plan fiduciary net position — beginning	4,412,407	4,074,167	3,984,141	3,703,890	3,232,997	
Plan fiduciary net position — ending (b)	4,973,846	4,412,407	4,074,167	3,984,141	3,703,890	
Net pension liability — ending (a-b)	\$ 438,130	642,122	565,849	434,224	539,652	
Plan fiduciary net position as a percentage						
of the total pension liability	91.9%	87.3%	87.8%	90.2%	87.3%	
Projected covered employee payroll	\$ 811,404	830,406	826,998	845,364	864,838	
Net pension liability as a percentage of covered employee payroll	54.0%	77.3%	68.4%	51.4%	62.4%	

				State and School	nd School					otal All Divisions
2017	2016	2015	2014	2013		2017	2016	2015	2014	2013
310,207	311,641	303,494	314,556	340,531		403,981	407,690	394,798	407,992	441,320
1,517,587	1,434,005	1,447,699	1,389,106	1,348,596		1,877,576	1,764,653	1,775,819	1,699,693	1,646,213
_	_	_	_	17,060		_	48,400	_	_	23,123
( 61,688)	(11,715)	(168,556)	(188,714)	(169,131)		(84,234)	6,408	(188,166)	(204,823)	(208,501)
512,819	451,045	_	(105,032)	_		642,187	563,741	_	(157,921)	
(1,045,713)	(993,306)	(945,732)	(883,831)	(824,793)		(1,248,037)	(1,184,317)	(1,123,647)	(1,043,798)	(974,684)
(3,821)	(3,974)	(2,248)	(1,969)	(1,834)		(4,635)	(4,366)	(2,496)	(2,204)	(2,454)
1,229,391	1,187,696	634,657	524,116	710,429		1,586,838	1,602,209	856,308	698,939	925,017
21,447,252	20,259,556	19,624,899	19,100,783	18,390,354		26,501,781	24,899,572	24,043,264	23,344,325	22,419,308
22,676,643	21,447,252	20,259,556	19,624,899	19,100,783		28,088,619	26,501,781	24,899,572	24,043,264	23,344,325
13,357	11,285	11,539	9,728	11,571		17,285	16,308	17,020	13,587	14,208
680,218	659,664	646,434	614,490	563,828		854,255	831,631	813,449	772,420	710,933
2,400,489	1,437,910	296,853	1,152,843	2,110,520		2,987,282	1,783,911	366,748	1,419,053	2,588,981
(1,045,713)	(993,306)	(945,732)	(883,831)	(824,793)		(1,248,037)	(1,184,317)	(1,123,647)	(1,043,798)	(974,684)
(3,821)	(3,974)	(2,248)	(1,969)	(1,834)		(4,635)	(4,366)	(2,496)	(2,204)	(2,454)
(7,751)	(7,185)	(7,175)	(7,224)	(6,832)		(9,579)	(8,856)	(8,797)	(8,828)	(8,329)
(11,834)	(16,328)	6,228	16,409	(36,975)		(10,187)	(8,005)	33,648	30,467	(42,277)
2,024,945	1,088,066	5,899	900,446	1,815,485		2,586,384	1,426,306	95,925	1,180,697	2,286,378
18,206,336	17,118,270	17,112,371	16,211,925	14,396,440		22,618,743	21,192,437	21,096,512	19,915,815	17,629,437
20,231,281	18,206,336	17,118,270	17,112,371	16,211,925		25,205,127	22,618,743	21,192,437	21,096,512	19,915,815
2,445,362	3,240,916	3,141,286	2,512,528	2,888,858		2,883,492	3,883,038	3,707,135	2,946,752	3,428,510
 89.2%	84.9%	84.5%	87.2%	84.9%		89.7%	85.3%	85.1%	87.7%	85.3%
2,563,917	2,576,161	2,631,288	2,725,548	2,840,933		3,375,321	3,406,567	3,458,286	3,570,912	3,705,771
95.4%	125.8%	119.4%	92.2%	101.7%		85.4%	114.0%	107.2%	82.5%	92.5%

# Schedules of Net Pension Liability by Division

(dollars in thousands)

System	Date	(1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	(4) Plan Fiduciary Net Position as a Percentage of the Total Plan Liability	(5) Projected Covered Employee Payroll	(6) Net Pension Liability/(Asset) as a Percentage of Covered Employee Payroll
Noncontributory	12/31/13	\$ 4,243,542	3,703,890	539,652	87.3%	\$ 864,838	62.4%
Local Government	12/31/14	4,418,365	3,984,141	434,224	90.2	845,364	51.4
	12/31/15	4,640,016	4,074,167	565,849	87.8	826,998	68.4
	12/31/16	5,054,529	4,412,407	642,122	87.3	830,406	77.3
	12/31/17	5,411,976	4,973,846	438,130	91.9	811,404	54.0
Noncontributory	12/31/13	\$ 19,100,783	16,211,925	2,888,858	84.9%	\$ 2,840,933	101.7%
State and School	12/31/14	19,624,899	17,112,371	2,512,528	87.2	2,725,548	92.2
	12/31/15	20,259,556	17,118,270	3,141,286	84.5	2,631,288	119.4
	12/31/16	21,447,252	18,206,336	3,240,916	84.9	2,576,161	125.8
	12/31/17	22,676,643	20,231,281	2,445,362	89.2	2,563,917	95.4
Total	12/31/13	\$ 23,344,325	19,915,815	3,428,510	85.3%	\$ 3,705,771	92.5%
Noncontributory	12/31/14	24,043,264	21,096,512	2,946,752	87.7	3,570,912	82.5
Retirement System	12/31/15	24,899,572	21,192,437	3,707,135	85.1	3,458,286	107.2
•	12/31/16	26,501,781	22,618,743	3,883,038	85.3	3,406,567	114.0
	12/31/17	28,088,619	25,205,127	2,883,492	89.7	3,375,321	85.4

## Schedules of Employer Contributions by Division

#### (dollars in thousands)

System	Year Ended	Actuarial Determined Contribution*	Contributions in Relation to the Actuarial Determined Contribution	Contribution Deficiency (Excess)	Projected Covered Employee Payroll	Contributions as a Percentage of Covered Payroll**
Noncontributory	2013	\$ 147,105	147,105	_	864,838	17.01%
Local Government	2014	157,930	157,930		845,364	18.68
2000. 0070	2015	167,015	167,015	_	826,998	20.20
	2016	171,967	171,967	_	830,406	20.71
	2017	174,037	174,037	_	811,404	21.45
Noncontributory	2013	\$ 563,828	563,828	_	2,840,933	19.85%
State and School	2014	614,490	614,490		2,725,548	22.55
	2015	646,490	646,434	_	2,631,288	24.57
	2016	659,664	659,664		2,576,161	25.61
	2017	680,218	680,218	_	2,563,917	26.53
Total	2013	\$ 710,933	710,933	_	3,705,771	19.18%
Noncontributory	2014	772,420	772,420		3,570,912	21.63
Retirement System	2015	813,449	813,449		3,458,286	23.52
•	2016	831,631	831,631	_	3,406,567	24.41
	2017	854,255	854,255	_	3,375,321	25.31

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

^{*}Contributions for the Tier 1 Systems include contributions received on the Tier 2 payroll to help finance the unfunded actuarial accrued liability of the Tier 1 Systems.

 $^{{\}bf **} {\bf Contributions} \ as \ a \ percentage \ of \ covered \ payroll \ may \ be \ different \ than \ the \ board \ certified \ rate \ due \ to \ rounding$ and other administrative issues.

# Schedules of Fiduciary Net Position — Pension Trust Fund by Division

December 31, 2017 With Comparative Totals for December 31, 2016

	Land	Ca.a		<b>Total All Divisions</b>
	Local Government	State and School	2017	2016
Assets:				
Cash	\$ 1	1	2	2
Receivables:				
Member contributions	59	56	115	126
Employer contributions	160	165	325	355
Investments	9,697	17,675	27,372	18,818
Total receivables	9,916	17,896	27,812	19,299
Investments at fair value:				
Short-term securities	39,411	71,837	111,248	101,128
Debt securities	65,103	118,667	183,770	184,164
Equity investments	173,643	316,513	490,156	431,192
Absolute return	63,704	116,118	179,822	190,605
Private equity	49,299	89,861	139,160	139,116
Real assets	67,780	123,547	191,327	180,470
Total investments	458,940	836,543	1,295,483	1,226,675
Invested securities lending collateral	19,125	34,860	53,985	29,570
Property and equipment at cost,				
net of accumulated depreciation	63	114	177	207
Total assets	488,045	889,414	1,377,459	1,275,753
Liabilities:				
Securities lending collateral liability	19,125	34,860	53,985	29,570
Disbursements in excess of cash balance	487	887	1,374	1,660
Compensated absences, post-employment				
benefits and insurance reserve	313	571	884	874
Investment accounts payable	11,659	21,252	32,911	30,079
Real estate liabilities	1,714	3,125	4,839	8,666
Total liabilities	33,298	60,695	93,993	70,849
Net position restricted for pensions	\$ 454,747	828,719	1,283,466	1,204,904

# Schedules of Changes in Fiduciary Net Position — Pension Trust Fund by Division

Year Ended December 31, 2017 With Comparative Totals for Year Ended December 31, 2016

	Local	State and	т	otal All Divisions
	Government	School	2017	2016
Additions:				
Contributions:				
Member	\$ 1,289	1,386	2,675	3,420
Employer	2,969	4,977	7,946	8,188
Total contributions	4,258	6,363	10,621	11,608
Investment income:				
Net appreciation in fair value of investments	47,269	86,598	133,867	78,218
Interest, dividends, and other investment income	8,540	15,645	24,185	21,264
Total income from investment activity	55,809	102,243	158,052	99,482
Less investment expenses	830	1,520	2,350	2,135
Net income from investment activity	54,979	100,723	155,702	97,347
Income from securities lending activity	99	181	280	398
Less security lending expense	12	21	33	52
Net income from security lending activity	87	160	247	346
Net investment income	55,066	100,883	155,949	97,693
Total additions	59,324	107,246	166,570	109,301
Deductions:				
Retirement benefits	24,005	48,068	72,073	70,137
Cost-of-living benefits	3,452	9,172	12,624	13,232
Supplemental retirement benefits	11	53	64	78
Refunds	703	910	1,613	1,700
Administrative expenses	162	295	457	446
Transfers to affiliated systems	2,482	(1,305)	1,177	1,895
Total deductions	30,815	57,193	88,008	87,488
Decrease from operations	28,509	50,053	78,562	21,813
Net position restricted for pensions beginning of year	426,238	778,666	1,204,904	1,183,091
Net position restricted for pensions end of year	\$ 454,747	828,719	1,283,466	1,204,904

## Schedules of Changes in the Employers' Net Pension Liability by Division

Year Ended December 31

(in thousands)

			Local Government						
	2017	2016	2015	2014	2013				
Total pension liability									
Service cost	\$ 2,301	2,659	5,360	5,679	6,352				
Interest	32,120	34,422	35,298	34,255	33,840				
Benefit changes	_	(45,057)	_	_	415				
Difference between actual									
and expected experience	(11,176)	(4,618)	(4,833)	(8,465)	(8,020)				
Assumption changes	8,760	8,285	_	(2,914)	_				
Benefit payments	(27,468)	(26,126)	(26,652)	(23,177)	(21,607)				
Refunds	(703)	(655)	(623)	(1,294)	(855)				
Net change in total pension liability	3,836	(31,090)	8,550	4,084	10,125				
Total pension liability — beginning	459,050	490,140	481,590	477,506	467,381				
Total pension liability — ending (a)	462,884	459,050	490,140	481,590	477,506				
Plan fiduciary net position									
Contributions — member	1,289	1,759	2,572	3,103	3,418				
Contributions — employer	2,969	3,730	6,384	7,410	6,963				
Net investment income	55,066	34,351	7,597	30,871	58,533				
Benefit payments	(27,468)	(26,126)	(26,652)	(23,177)	(21,607				
Refunds	(703)	(655)	(623)	(1,294)	(855)				
Administrative expense	(162)	(157)	(176)	(179)	(172				
Net transfers with affiliated systems	(2,482)	(6,519)	(21,993)	(10,140)	5,790				
Net change in plan fiduciary net position	28,509	6,383	(32,891)	6,594	52,070				
Plan fiduciary net position — beginning	426,238	419,855	452,746	446,152	394,082				
Plan fiduciary net position — ending (b)	454,747	426,238	419,855	452,746	446,152				
Net pension liability — ending (a-b)	\$ 8,137	32,812	70,285	28,844	31,354				
Blood I also and a second									
Plan fiduciary net position as a percentage	00.204	02.00/	05.70/	0.4.00/	02.40/				
of the total pension liability	98.2%	92.9%	85.7%	94.0%	93.4%				
Projected covered employee payroll	\$ 20,724	23,959	48,590	51,420	54,445				
Net pension liability as a percentage									
of covered employee payroll	39.3%	137.0%	144.6%	56.1%	57.6%				

			St	ate and School	lool					Total All Divisions	
2017	2016	2015	2014	2013		2017	2016	2015	2014	2013	
2,500	3,014	3,312	3,901	4,645		4,801	5,673	8,672	9,580	10,997	
58,004	57,472	60,165	59,564	59,910		90,124	91,894	95,463	93,819	93,750	
_	_	_		306		_	(45,057)	_	_	721	
(13,814)	(9,183)	(10,456)	(14,374)	(12,500)		(24,988)	(13,801)	(15,289)	(22,839)	(20,520)	
13,348	14,624	_	(1,319)	_		22,108	22,909	_	(4,233)	_	
(57,293)	(57,321)	(54,738)	(53,838)	(52,551)		(84,761)	(83,447)	(81,390)	(77,015)	(74,158)	
(910)	(1,045)	(592)	(1,139)	(1,067)	_	(1,613)	(1,700)	(1,215)	(2,433)	(1,922)	
1,837	7,561	(2,309)	(7,205)	(1,257)		5,671	(23,529)	6,241	(3,121)	8,868	
833,462	825,901	828,210	835,415	836,672		1,292,512	1,316,041	1,309,800	1,312,921	1,304,053	
835,299	833,462	825,901	828,210	835,415		1,298,183	1,292,512	1,316,041	1,309,800	1,312,921	
1,386	1,661	2,199	2,358	2,958		2,675	3,420	4,771	5,461	6,376	
4,977	4,458	5,335	5,544	5,911		7,946	8,188	11,719	12,954	12,874	
100,883	63,342	13,654	56,706	110,977		155,949	97,693	21,251	87,577	169,510	
(57,293)	(57,321)	(54,738)	(53,838)	(52,551)		(84,761)	(83,447)	(81,390)	(77,015)	(74,158)	
(910)	(1,045)	(592)	(1,139)	(1,067)		(1,613)	(1,700)	(1,215)	(2,433)	(1,922)	
(295)	(289)	(302)	(315)	(308)		(457)	(446)	(478)	(494)	(480)	
1,305	4,624	(19,565)	(27,864)	27,304	_	(1,177)	(1,895)	(41,558)	(38,004)	33,094	
50,053	15,430	(54,009)	(18,548)	93,224	_	78,562	21,813	(86,900)	(11,954)	145,294	
778,666	763,236	817,245	835,793	742,569	_	1,204,904	1,183,091	1,269,991	1,281,945	1,136,651	
828,719	778,666	763,236	817,245	835,793		1,283,466	1,204,904	1,183,091	1,269,991	1,281,945	
6,580	54,796	62,665	10,965	(378)		14,717	87,608	132,950	39,809	30,976	
 99.2%	93.4%	92.4%	98.7%	100.0%		98.9%	93.2%	89.9%	97.0%	97.6%	
24,453	29,656	33,836	39,203	43,578		45,177	53,615	82,426	90,623	98,023	
26.9%	184.8%	185.2%	28.0%	(0.9)%		32.6%	163.4%	161.3%	43.9%	31.6%	

# Schedules of Net Pension Liability by Division

(dollars in thousands)

System	Date		(1) Total Pension Liability		(2) Plan Iuciary osition	Net	(3) ployers Pension iability/ (Asset)	Posit Pero of th	(4) Plan ary Net ion as a centage ne Total iability	Co Em _l	(5) jected overed oloyee Payroll	Liability as a Per of C	
Contributory	12/31/13	\$ 4	177,506	44	5,152	3	1,354	ç	93.4%	\$ 54	1,445		57.6%
Local Government	12/31/14		181,590	45	2,746	2	28,844	ç	94.0	51	,420		56.1
	12/31/15	4	190,140	41	9,855	7	0,285	8	35.7	48	,590		144.6
	12/31/16	4	159,050	42	5,238	3	2,812	ç	92.9	23	,959		137.0
	12/31/17	4	162,884	45	4,747		8,137	ġ	98.2	20	,724		39.3
Contributory	12/31/13	\$ 8	335,415	83	5,793		(378)	10	00.0%	\$ 43	3,578		(0.9)%
State and School	12/31/14	. 8	328,210	81	, 7,245	1	0,965	ç	98.7	39	,203		28.0
	12/31/15	8	325,901	76	3,236	6	2,665	9	92.4	33	,836		185.2
	12/31/16	8	333,462	77	3,666	5	4,796	ç	93.4	29	,656		184.8
	12/31/17	8	335,299	82	3,719		6,580	ģ	99.2	24	,453		26.9
Total	12/31/13	\$ 1,3	312,921	1,28	1,945	3	0,976	ç	97.6%	\$ 98	3,023		31.6%
Contributory	12/31/14	1,3	309,800	1,26	9,991		9,809	ç	97.0		,623		43.9
Retirement System	12/31/15	1,3	316,041	1,18	3,091	13	2,950	8	39.9	82	,426		161.3
•	12/31/16	1,2	292,512	1,20	4,904	8	7,608	ç	93.2	53	,615		163.4
	12/31/17	1,2	298,183	1,28	3,466	1	4,717	ġ	98.9	45	,177		32.6

## Schedules of Employer Contributions by Division

#### (dollars in thousands)

System	Year Ended	Actuarial Determined Contribution*	Contributions in Relation to the Actuarial Determined Contribution	Contribution Deficiency (Excess)	Projected Covered Employee Payroll	Contributions as a Percentage of Covered Payroll**
Contributory	2013	\$ 6,963	6,963	_	54,445	12.79%
Local Government	2014	7,410	7,410	_	51,420	14.41
20141 001011111	2015	6,384	6,384	_	48,590	13.14
	2016	3,730	3,730	_	23,959	15.57
	2017	2,969	2,969	_	20,724	14.33
Contributory	2013	\$ 5,911	5,911	_	43,578	13.56%
State and School	2014	5,544	5,544	_	39,203	14.14
	2015	5,335	5,335	_	33,836	15.77
	2016	4,458	4,458	_	29,656	15.03
	2017	4,977	4,977	_	24,453	20.35
Total	2013	\$ 12,874	12,874	_	98,023	13.13%
Contributory	2014	12,954	12,954	_	90,623	14.29
Retirement System	2015	11,719	11,719	_	82,426	14.22
·	2016	8,188	8,188	_	53,615	15.27
	2017	7,946	7,946	_	45,177	17.59

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

^{*}Contributions for the Tier 1 Systems include contributions received on the Tier 2 payroll to help finance the unfunded actuarial accrued liability of the Tier 1 Systems.

^{**}Contributions as a percentage of covered payroll may be different than the board certified rate due to rounding and other administrative issues.

# Schedules of Fiduciary Net Position — Pension Trust Fund by Division

December 31, 2017 With Comparative Totals for December 31, 2016

	State of Utah Public Safety	Other Division A (with Social Security)	Salt Lake City	
Assets:				
Cash	\$ 2	4	2	
Receivables:				
Member contributions	_	10	_	
Employer contributions	1,971	2,234	565	
Investments	25,700	30,907	6,238	
Total receivables	27,671	33,151	6,803	
Investments at fair value:				
Short-term securities	104,449	125,611	25,351	
Debt securities	172,539	207,496	41,878	
Equity investments	460,200	553,440	111,697	
Absolute return	168,832	203,039	40,978	
Private equity	130,655	157,127	31,712	
Real assets	179,633	216,028	43,600	
Total investments	1,216,308	1,462,741	295,216	
Invested securities lending collateral	50,686	60,955	12,302	
Property and equipment at cost,				
net of accumulated depreciation	166	200	40	
Total assets	1,294,833	1,557,051	314,363	
Liabilities:				
Securities lending liability	50,686	60,955	12,302	
Disbursements in excess of cash balance	1,290	1,552	313	
Compensated absences, post-employment				
benefits and insurance reserve	830	998	202	
Investment accounts payable	30,900	37,161	7,500	
Real estate liabilities	4,543	5,464	1,103	
Total liabilities	88,249	106,130	21,420	
Net position restricted for pensions	\$ 1,206,584	1,450,921	292,943	

				Other Division B		Total All Divisions
0gden	Provo	Logan	Bountiful	(without Social Security)	2017	2016
2	2	2	2	4	20	20
<del>_</del>	_	_	_	2	12	14
117	87	40	73	1,559	6,646	5,520
1,404	1,105	621	448	9,739	76,162	49,543
1,521	1,192	661	521	11,300	82,820	55,077
5,705	4,491	2,523	1,820	39,583	309,533	266,248
9,423	7,419	4,167	3,006	65,387	511,315	484,867
25,134	19,787	11,115	8,017	174,401	1,363,791	1,135,241
9,221	7,259	4,078	2,941	63,982	500,330	501,825
7,136	5,618	3,156	2,276	49,514	387,194	366,264
9,811	7,724	4,339	3,129	68,075	532,339	475,141
66,430	52,298	29,378	21,189	460,942	3,604,502	3,229,586
2,768	2,179	1,224	883	19,208	150,205	77,853
9	7	4	3	63	492	544
70,730	55,678	31,269	22,598	491,517	3,838,039	3,363,080
2,768	2,179	1,224	883	19,208	150,205	77,853
70	55	31	22	489	3,822	4,373
45	36	20	14	315	2,460	2,301
1,688	1,329	746	538	11,710	91,572	79,192
248	195	110	79	1,721	13,463	22,816
4,819	3,794	2,131	1,536	33,443	261,522	186,535
65,911	51,884	29,138	21,062	458,074	3,576,517	3,176,545

## Schedules of Changes in Fiduciary Net Position — Pension Trust Fund by Division

Year Ended December 31, 2017 With Comparative Totals for Year Ended December 31, 2016

	State of Utah Public Safety	Other Division A (with Social Security)	Salt Lake City	
Additions:				
Contributions:				
Member	\$ 221	366	_	
Employer	49,386	53,112	14,899	
Total contributions	49,607	53,478	14,899	
Investment income:				
Net appreciation in fair value of investments	122,491	147,479	29,703	
Interest, dividends, and other investment income	22,129	26,643	5,366	
Total income from investment activity	144,620	174,122	35,069	
Less investment expenses	2,150	2,588	521	
Net income from investment activity	142,470	171,534	34,548	
Income from security lending activity	256	308	62	
Less security lending expense	30	36	7	
Net income from security lending activity	226	272	55	
Net investment income	142,696	171,806	34,603	
Transfers from (to) affiliated systems	233	(11,797)	1,642	
Total additions	192,536	213,487	51,144	
Deductions:				
Retirement benefits	53,258	49,985	14,779	
Cost-of-living benefits	11,079	10,061	3,930	
Supplemental retirement benefits	114	82	36	
Refunds	66	158	2	
Administrative expenses	470	542	129	
Total deductions	64,987	60,828	18,876	
Increase (decrease) from operations	127,549	152,659	32,268	
Net position restricted for pensions beginning of year	1,079,035	1,298,262	260,675	
Net position restricted for pensions end of year	\$ 1,206,584	1,450,921	292,943	

Total All Divisions	1	Other Division B					
2016	2017	(without Social Security)	Bountiful	Logan	Provo	0gden	
830	793	206	_	_	_	_	
147,099	145,814	21,142	911	1,034	2,258	3,072	
147,929	146,607	21,348	911	1,034	2,258	3,072	
199,385	362,177	45,387	2,145	2,967	5,272	6,733	
54,203	65,430	8,200	388	536	952	1,216	
253,588	427,607	53,587	2,533	3,503	6,224	7,949	
5,444	6,357	797	38	52	93	118	
248,144	421,250	52,790	2,495	3,451	6,131	7,831	
1,015	756	95	4	6	11	14	
132	89	11	1	1	1	2	
883	667	84	3	5	10	12	
249,027	421,917	52,874	2,498	3,456	6,141	7,843	
6,701	5,926	15,601	323	36	16	(128)	
403,657	574,450	89,823	3,732	4,526	8,415	10,787	
135,697	143,774	17,324	1,268	1,265	2,523	3,372	
28,547	28,854	1,786	245	282	561	910	
264	242	_	1		5	4	
183	226	_	_		_	_	
1,260	1,382	169	9	12	22	29	
165,951	174,478	19,279	1,523	1,559	3,111	4,315	
237,706	399,972	70,544	2,209	2,967	5,304	6,472	
2,938,839	3,176,545	387,530	18,853	26,171	46,580	59,439	
3,176,545	3,576,517	458,074	21,062	29,138	51,884	65,911	

## Schedules of Changes in the Employers' Net Pension Liability by Division

Year Ended December 31

(in thousands)

					State of Utah
	2017	2016	2015	2014	2013
Total pension liability					
Service cost	\$ 24,057	24,327	23,270	24,190	26,013
Interest	91,628	86,361	87,273	83,519	81,713
Benefit changes	_	_	_	_	_
Difference between actual					
and expected experience	3,619	(3,139)	(14,298)	(12,067)	(2,099)
Assumption changes	32,840	29,315	_	(17,596)	
Benefit payments	(64,451)	(62,622)	(59,271)	(55,075)	(52,432)
Refunds	(66)	(8)	(18)	(12)	(2)
Net change in total pension liability	87,627	74,234	36,956	22,959	53,193
Total pension liability — beginning	1,292,844	1,218,610	1,181,654	1,158,695	1,105,502
Total pension liability — ending (a)	1,380,471	1,292,844	1,218,610	1,181,654	1,158,695
Plan fiduciary net position					
Contributions — member	221	112	115	152	103
Contributions — employer	49,386	50,554	47,449	45,810	43,393
Net investment income	142,696	84,744	17,349	66,949	121,520
Benefit payments	(64,451)	(62,622)	(59,271)	(55,075)	(52,432)
Refunds	(66)	(8)	(18)	(12)	(2)
Administrative expense	(470)	(432)	(431)	(434)	(413)
Net transfers with affiliated systems	233	3,363	2,301	1,124	757
Net change in plan fiduciary net position	127,549	75,711	7,494	58,514	112,926
Plan fiduciary net position — beginning	1,079,035	1,003,324	995,830	937,316	824,390
Plan fiduciary net position — ending (b)	1,206,584	1,079,035	1,003,324	995,830	937,316
Net pension liability — ending (a-b)	\$ 173,887	213,809	215,286	185,824	221,379
Plan fiduciary net position as a percentage of the total pension liability	87.4%	83.5%	82.3%	84.3%	80.9%
Projected covered employee payroll	\$ 107,557	108,759	108,967	113,111	115,960
Net pension liability as a percentage of covered employee payroll	161.7%	196.6%	197.6%	164.3%	190.9%

		Other	Division A (with	Social Security)				Salt Lake City					
2017	2016	2015	2014	2013	2017	2016	2015	2014	2013				
30,590	31,202	29,942	30,473	32,564	6,704	6,316	5,963	5,878	6,209				
107,017	98,935	98,538	93,276	90,791	24,937	23,099	23,023	22,171	21,719				
_	_	_	_	_	_	_	_	_	_				
(21,479)	(6,830)	(12,388)	(16,141)	(25,616)	2,143	2,815	2,063	(1,430)	(3,743)				
50,755	48,303	_	(21,812)	_	11,737	11,313	_	(4,551)	_				
(60,128)	(57,652)	(54,909)	(51,394)	(48,824)	(18,745)	(17,681)	(17,076)	(16,398)	(15,737)				
(158)	(175)	(208)	(115)	(97)	 (2)	_	_	_	(15)				
106,597	113,783	60,975	34,287	48,818	26,774	25,862	13,973	5,670	8,433				
1,501,190	1,387,407	1,326,432	1,292,145	1,243,327	352,364	326,502	312,529	306,859	298,426				
1,607,787	1,501,190	1,387,407	1,326,432	1,292,145	379,138	352,364	326,502	312,529	306,859				
366	515	701	597	714	_	8	_	4	13				
53,112	52,359	51,677	49,156	46,421	14,899	15,260	14,100	13,519	12,426				
171,806	102,156	20,899	80,565	146,201	34,603	20,441	4,178	16,113	29,378				
(60,128)	(57,652)	(54,909)	(51,394)	(48,824)	(18,745)	(17,681)	(17,076)	(16,398)	(15,737)				
(158)	(175)	(208)	(115)	(97)	(2)	_	_	_	(15)				
(542)	(496)	(485)	(482)	(458)	(129)	(118)	(116)	(116)	(110)				
(11,797)	(6,727)	(10,067)	(6,061)	(3,111)	 1,642	1,369	657	620	447				
152,659	89,980	7,608	72,266	140,846	32,268	19,279	1,743	13,742	26,402				
1,298,262	1,208,282	1,200,674	1,128,408	987,562	260,675	241,396	239,653	225,911	199,509				
1,450,921	1,298,262	1,208,282	1,200,674	1,128,408	292,943	260,675	241,396	239,653	225,911				
156,866	202,928	179,125	125,758	163,737	86,195	91,689	85,106	72,876	80,948				
90.2%	86.5%	87.1%	90.5%	87.3%	77.3%	74.0%	73.9%	76.7%	73.6%				
137,270	139,677	141,681	143,924	146,190	30,142	28,331	28,275	27,821	28,016				
114.3%	145.3%	126.4%	87.4%	112.0%	286.0%	323.6%	301.0%	261.9%	288.9%				

Continued on page 122.

Schedules of Changes in the Employers' Net Pension Liability by Division (Continued)

Year Ended December 31

(in thousands)

					Ogden
	2017	2016	2015	2014	2013
Total pension liability					
Service cost	\$ 1,200	1,139	1,164	1,170	1,304
Interest	5,549	5,232	5,359	5,185	5,028
Benefit changes	_	_	_	_	_
Difference between actual					
and expected experience	2,044	(288)	(1,153)	559	(713)
Assumption changes	2,724	2,544	_	(822)	_
Benefit payments	(4,286)	(4,208)	(4,090)	(3,956)	(3,864)
Refunds	_	_	_	_	_
Net change in total pension liability	7,231	4,419	1,280	2,136	1,755
Total pension liability — beginning	78,619	74,200	72,920	70,784	69,029
Total pension liability — ending (a)	85,850	78,619	74,200	72,920	70,784
Plan fiduciary net position					
Contributions — member	_		56		_
Contributions — employer	3,072	3,147	2,729	2,791	2,525
Net investment income	7,843	4,696	976	3,803	6,973
Benefit payments	(4,286)	(4,208)	(4,090)	(3,956)	(3,864)
Refunds	_			_	_
Administrative expense	(29)	(27)	(26)	(27)	(26)
Net transfers with affiliated systems	(128)	(74)	(66)	107	535
Net change in plan fiduciary net position	6,472	3,534	(421)	2,718	6,143
Plan fiduciary net position — beginning	59,439	55,905	56,326	53,608	47,465
Plan fiduciary net position — ending (b)	65,911	59,439	55,905	56,326	53,608
Net pension liability — ending (a-b)	\$ 19,939	19,180	18,295	16,594	17,176
Plan fiduciary net position as a percentage					
of the total pension liability	76.8%	75.6%	75.3%	77.2%	75.7%
Projected covered employee payroll	\$ 5,372	5,082	5,517	5,518	5,831
Net pension liability as a percentage					
of covered employee payroll	371.2%	377.4%	331.6%	300.7%	294.6%

				Provo						Logan
2017	2016	2015	2014	2013		2017	2016	2015	2014	2013
1,122	1,134	1,099	1,141	1,181		465	488	485	524	580
4,282	3,972	3,916	3,748	3,680		2,364	2,220	2,201	2,110	2,029
_	_	_	_	_		_	_	_	_	_
(1,391)	147	636	(638)	561		(766)	(264)	278	232	(701)
1,895	1,960	_	(859)	_		1,056	1,103	_	(420)	
(3,089)	(2,701)	(2,739)	(2,503)	(2,281)		(1,547)	(1,516)	(1,442)	(1,366)	(1,320)
_	_	_	(11)	(204)			_	_	_	_
2,819	4,512	2,912	878	2,937		1,572	2,031	1,522	1,080	588
60,455	55,943	53,031	52,153	49,216		33,375	31,344	29,822	28,742	28,154
63,274	60,455	55,943	53,031	52,153		34,947	33,375	31,344	29,822	28,742
_	_	_	_	_		_	_	_	35	49
2,258	2,403	2,314	2,255	2,158		1,034	1,052	1,044	989	944
6,141	3,660	749	2,877	5,204		3,456	2,068	432	1,671	3,047
(3,089)	(2,701)	(2,739)	(2,503)	(2,281)		(1,547)	(1,516)	(1,442)	(1,366)	(1,320)
=	_	_	(11)	(204)			_		_	_
(22)	(20)	(20)	(19)	(19)		(12)	(11)	(11)	(11)	(10)
16	(39)	66	145	16		36	(52)	(247)	100	88
5,304	3,303	370	2,744	4,874		2,967	1,541	(224)	1,418	2,798
46,580	43,277	42,907	40,163	35,289		26,171	24,630	24,854	23,436	20,638
51,884	46,580	43,277	42,907	40,163		29,138	26,171	24,630	24,854	23,436
11,390	13,875	12,666	10,124	11,990		5,809	7,204	6,714	4,968	5,306
82.0%	77.0%	77.4%	80.9%	77.0%		83.4%	78.4%	78.6%	83.3%	81.5%
5,023	5,065	5,213	5,424	5,295		2,088	2,183	2,306	2,459	2,584
					_					
226.8%	273.9%	243.0%	186.7%	226.4%		278.2%	330.0%	291.2%	202.0%	205.3%

Continued on page 124.

Schedules of Changes in the Employers' Net Pension Liability by Division (Concluded)

Year Ended December 31

(in thousands)

					Bountiful
	2017	2016	2015	2014	2013
Total pension liability					
Service cost	\$ 411	409	380	383	390
Interest	1,845	1,711	1,682	1,635	1,580
Benefit changes	_	_	_	_	_
Difference between actual					
and expected experience	(453)	383	652	297	(147)
Assumption changes	880	830		(229)	_
Benefit payments	(1,514)	(1,435)	(1,358)	(1,419)	(1,369)
Refunds	_	_	_	_	_
Net change in total pension liability	1,169	1,898	1,356	667	454
Total pension liability — beginning	26,173	24,275	22,919	22,252	21,798
Total pension liability — ending (a)	27,342	26,173	24,275	22,919	22,252
Plan fiduciary net position					
Contributions — member	_	_	_	_	_
Contributions — employer	911	943	883	822	716
Net investment income	2,498	1,493	310	1,220	2,271
Benefit payments	(1,514)	(1,435)	(1,358)	(1,419)	(1,369)
Refunds	_	_	_	_	_
Administrative expense	(9)	(9)	(9)	(9)	(8)
Net transfers with affiliated systems	323	35	35	14	99
Net change in plan fiduciary net position	2,209	1,027	(139)	628	1,709
Plan fiduciary net position — beginning	18,853	17,826	17,965	17,337	15,628
Plan fiduciary net position — ending (b)	21,062	18,853	17,826	17,965	17,337
Net pension liability — ending (a-b)	\$ 6,280	7,320	6,449	4,954	4,915
Plan fiduciary net position as a percentage					
of the total pension liability	77.0%	72.0%	73.4%	78.4%	77.9%
Projected covered employee payroll	\$ 1,814	1,810	1,776	1,795	1,749
Net pension liability as a percentage					
of covered employee payroll	346.2%	404.4%	363.1%	276.0%	281.0%

			Other	Division B (with S	ocial Security)					Tot	al All Divisions
	2017	2016	2015	2014	2013		2017	2016	2015	2014	2013
13,	723	13,828	13,049	12,922	13,495		78,272	78,843	75,352	76,681	81,736
32,		28,192	26,988	25,159	23,425		269,818	249,722	248,980	236,803	229,965
	_	_	_	_	_		_	_	_	_	_
13,		16,534	7,046	3,963	3,230		(3,041)	9,358	(17,164)	(25,225)	(29,228)
16,		15,005		(6,121)	_		118,370	110,373	_	(52,410)	_
(19,	110)	(16,693)	(14,502)	(12,652)	(11,659)		(172,870)	(164,508)	(155,387)	(144,763)	(137,486)
	_	_	(307)	(61)	(149)		(226)	(183)	(533)	(199)	(467)
56,	534	56,866	32,274	23,210	28,342		290,323	283,605	151,248	90,887	144,520
449,	360	392,994	360,720	337,510	309,168	_	3,794,880	3,511,275	3,360,027	3,269,140	3,124,620
506,	394	449,860	392,994	360,720	337,510	_	4,085,203	3,794,880	3,511,275	3,360,027	3,269,140
	206	195	33	47	379		793	830	905	835	1,258
21,	142	21,381	20,828	20,246	20,161		145,814	147,099	141,024	135,588	128,744
52,	374	29,769	5,761	21,024	35,969		421,917	249,027	50,654	194,222	350,563
(19,	110)	(16,693)	(14,502)	(12,652)	(11,659)		(172,870)	(164,508)	(155,387)	(144,763)	(137,486)
	_	_	(307)	(61)	(149)		(226)	(183)	(533)	(199)	(467)
(	169)	(147)	(135)	(129)	(117)		(1,382)	(1,260)	(1,233)	(1,227)	(1,161)
15,	501	8,826	11,344	6,697	5,845		5,926	6,701	4,023	2,746	4,676
70,	544	43,331	23,022	35,172	50,429		399,972	237,706	39,453	187,202	346,127
387,	530	344,199	321,177	286,005	235,576	_	3,176,545	2,938,839	2,899,386	2,712,184	2,366,057
458,	074	387,530	344,199	321,177	286,005		3,576,517	3,176,545	2,938,839	2,899,386	2,712,184
48,	320	62,330	48,795	39,543	51,505		508,686	618,335	572,436	460,641	556,956
90	5%	86.1%	87.6%	89.0%	84.7%		87.5%	83.7%	83.7%	86.3%	83.0%
61,	516	61,501	61,436	60,698	60,373	_	350,782	352,408	355,171	360,750	365,998
70	5%	101.3%	79.4%	65.1%	85.3%	_	145.0%	175.5%	161.2%	127.7%	152.2%
70	.J /U	101.570	, ,, ,, ,,	03.170	05.570		175.070	17 3.3 /0	101.270	127.7/0	1 32.2 /0

# Schedules of Net Pension Liability by Division

(dollars in thousands)

System	Date	(1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	(4) Plan Fiduciary Net Position as a Percentage of the Total Plan Liability	(5) Projected Covered Employee Payroll	(6) Net Pension Liability/(Asset) as a Percentage of Covered Employee Payroll
Public Safety	12/31/13	\$ 1,158,695	937,316	221,379	80.9%	\$ 115,960	190.9%
State of Utah	12/31/14	1,181,654	995,830	185,824	84.3	113,111	164.3
	12/31/15	1,218,610	1,003,324	215,286	82.3	108,967	197.6
	12/31/16	1,292,844	1,079,035	213,809	83.5	108,759	196.6
	12/31/17	1,380,471	1,206,584	173,887	87.4	107,557	161.7
Public Safety	12/31/13	\$ 1,292,145	1,128,408	163,737	87.3%	\$ 146,190	112.0%
Other Division A	12/31/14	1,326,432	1,200,674	125,758	90.5	143,924	87.4
(with Social Security)	12/31/15	1,387,407	1,208,282	179,125	87.1	141,681	126.4
	12/31/16	1,501,190	1,298,262	202,928	86.5	139,677	145.3
	12/31/17	1,607,787	1,450,921	156,866	90.2	137,270	114.3
Public Safety	12/31/13	\$ 306,859	225,911	80,948	73.6%	\$ 28,016	288.9%
Salt Lake City	12/31/14	312,529	239,653	72,876	76.7	27,821	261.9
	12/31/15	326,502	241,396	85,106	73.9	28,275	301.0
	12/31/16	352,364	260,675	91,689	74.0	28,331	323.6
	12/31/17	379,138	292,943	86,195	77.3	30,142	286.0
Public Safety	12/31/13	\$ 70,784	53,608	17,176	75.7%	\$ 5,831	294.6%
Ogden	12/31/14	72,920	56,326	16,594	77.2	5,518	300.8
	12/31/15	74,200	55,905	18,295	75.3	5,517	331.6
	12/31/16	78,619	59,439	19,180	75.6	5,082	377.4
	12/31/17	85,850	65,911	19,939	76.8	5,372	371.2
Public Safety	12/31/13	\$ 52,153	40,163	11,990	77.0%	\$ 5,295	226.4%
Provo	12/31/14	53,031	42,907	10,124	80.9	5,424	186.7
	12/31/15	55,943	43,277	12,666	77.4	5,213	243.0
	12/31/16	60,455	46,580	13,875	77.0	5,065	273.9
	12/31/17	63,274	51,884	11,390	82.0	5,023	226.8

Schedules of Net Pension Liability by Division (Concluded)

(dollars in thousands)

System	Date		(1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	(4) Plan Fiduciary Net Position as a Percentage of the Total Plan Liability	(5) Projected Covered Employee Payroll	(6) Net Pension Liability/(Asset) as a Percentage of Covered Employee Payroll
Public Safety	12/31/13	\$	28,742	23,436	5,306	81.5%	\$ 2,584	205.3%
Logan	12/31/14		29,822	24,854	4,968	83.3	2,459	202.0
	12/31/15		31,344	24,630	6,714	78.6	2,306	291.2
	12/31/16		33,375	26,171	7,204	78.4	2,183	330.0
	12/31/17		34,947	29,138	5,808	83.4	2,088	278.4
Public Safety	12/31/13	\$	22,252	17,337	4,915	77.9%	\$ 1,749	281.0%
Bountiful	12/31/14		22,919	17,965	4,954	78.4	1,795	275.9
	12/31/15		24,275	17,826	6,449	73.4	1,776	363.1
	12/31/16		26,173	18,853	7,320	72.0	1,810	404.4
	12/31/17		27,342	21,062	6,280	77.0	1,814	346.2
Public Safety	12/31/13	\$	337,510	286,005	51,505	84.7%	\$ 60,373	85.3%
Other Division B	12/31/14		360,720	321,177	39,543	89.0	60,698	65.1
(without Social Security)	12/31/15		392,994	344,199	48,795	87.6	61,436	79.4
	12/31/16		449,860	387,530	62,330	86.1	61,501	101.3
	12/31/17		506,394	458,074	48,320	90.5	61,516	78.5
Total	12/31/13	\$ 3	3,269,140	2,712,184	556,956	83.0%	\$ 365,998	152.2%
Public Safety	12/31/14		3,360,027	2,899,386	460,641	86.3	360,750	127.7
Retirement System	12/31/15		3,511,275	2,938,839	572,436	83.7	355,171	161.2
•	12/31/16	3	3,794,880	3,176,545	618,335	83.7	352,408	175.5
	12/31/17	4	4,085,203	3,576,517	508,686	87.5	350,782	145.0

## Schedules of Employer Contributions by Division

(dollars in thousands)

System	Year Ended	Actuarial Determined ntribution*	Contributions in Relation to the Actuarial Determined Contribution	Contribution Deficiency (Excess)	Projected Covered Employee Payroll	Contributions as a Percentage of Covered Payroll**
Public Safety	2013	\$ 43,393	43,393	_	115,960	37.42%
State of Utah	2014	45,810	45,810	_	113,111	40.50
	2015	47,449	47,449	_	108,967	43.54
	2016	50,554	50,554	_	108,759	46.48
	2017	49,386	49,386	_	107,557	45.92
Public Safety	2013	\$ 46,421	46,421	_	146,190	31.75%
Other Division A	2014	49,156	49,156	_	143,924	34.15
(with Social Security)	2015	51,677	51,677	_	141,681	36.47
,	2016	52,359	52,359	_	139,677	37.49
	2017	53,112	53,112	_	137,270	38.69
Public Safety	2013	\$ 12,426	12,426	_	28,016	44.35%
Salt Lake City	2014	13,519	13,519	_	27,821	48.59
•	2015	14,100	14,100	_	28,276	49.87
	2016	15,260	15,260	_	28,331	53.86
	2017	14,899	14,899	_	30,142	49.43
Public Safety	2013	\$ 2,525	2,525	_	5,831	43.30%
Ogden	2014	2,791	2,791	_	5,518	50.58
	2015	2,729	2,729	_	5,517	49.47
	2016	3,147	3,147	_	5,082	61.92
	2017	3,072	3,072	_	5,372	57.19
Public Safety	2013	\$ 2,158	2,158	_	5,295	40.76%
Provo	2014	2,255	2,255	_	5,424	41.57
	2015	2,314	2,314	_	5,213	44.39
	2016	2,403	2,403	_	5,065	47.44
	2017	2,258	2,258	_	5,023	44.95

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

^{*}Contributions for the Tier 1 Systems include contributions received on the Tier 2 payroll to help finance the unfunded actuarial accrued liability of the Tier 1 Systems.

 $^{**} Contributions \ as \ a \ percentage \ of \ covered \ payroll \ may \ be \ different \ than \ the \ board \ certified \ rate \ due \ to \ rounding$ and other administrative issues.

#### Schedules of Employer Contributions by Division (Concluded)

(dollars in thousands)

System	Year Ended		Actuarial etermined tribution*	Contributions in Relation to the Actuarial Determined Contribution	Contribution Deficiency (Excess)	Projected Covered Employee Payroll	Contributions as a Percentage of Covered Payroll**
Public Safety	2013	\$	944	944	_	2,584	36.53%
Logan	2014		989	989		2,459	40.42
-	2015		1,044	1,044		2,306	45.27
	2016		1,052	1,052	_	2,183	48.19
	2017		1,034	1,034		2,088	49.52
Public Safety	2013	\$	716	716	_	1,749	40.94%
Bountiful	2014		822	822		1,795	45.79
	2015		883	883		1,776	49.72
	2016		943	943	_	1,810	52.10
	2017		911	911	_	1,814	50.22
Public Safety	2013	\$	20,161	20,161	_	60,373	33.39%
Other Division B	2014		20,246	20,246		60,698	33.36
(without Social Security)	2015		20,828	20,828		61,436	33.90
,	2016		21,381	21,381		61,501	34.77
	2017		21,142	21,142	_	61,516	34.37
Total	2013	\$	128,744	128,744	_	365,998	35.18%
Public Safety	2014	-	135,588	135,588	_	360,750	37.59
Retirement System	2015		141,024	141,024	_	355,172	39.71
•	2016		147,099	147,099	_	352,408	41.74
	2017	•	145,814	145,814	_	350,783	41.57

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

^{*}Contributions for the Tier 1 Systems include contributions received on the Tier 2 payroll to help finance the unfunded actuarial accrued liability of the Tier 1 Systems.

^{**}Contributions as a percentage of covered payroll may be different than the board certified rate due to rounding and other administrative issues.

# Schedules of Fiduciary Net Position — Pension Trust Fund by Division

December 31, 2017 With Comparative Totals for December 31, 2016

	Division A	Division B		<b>Total All Divisions</b>
	(with Social Security)	(without Social Security)	2017	2016
Assets:				
Cash	\$ 1	1	2	2
Receivables:				
Member contributions	134	500	634	652
Fire insurance tax	727	2,169	2,896	1,603
Investments	4,627	21,633	26,260	17,397
Total receivables	5,488	24,302	29,790	19,652
Investments at fair value:				
Short-term securities	18,805	87,922	106,727	93,491
Debt securities	31,063	145,237	176,300	170,258
Equity investments	82,853	387,381	470,234	398,630
Absolute return	30,395	142,117	172,512	176,211
Private equity	23,523	109,981	133,504	128,611
Real assets	32,341	151,209	183,550	166,843
Total investments	218,980	1,023,847	1,242,827	1,134,044
Invested securities lending collateral	9,125	42,666	51,791	27,337
Property and equipment at cost,				
net of accumulated depreciation	30	140	170	191
Total assets	233,624	1,090,956	1,324,580	1,181,226
Liabilities:				
Securities lending collateral liability	9,125	42,666	51,791	27,337
Disbursements in excess of cash balance	232	1,086	1,318	1,536
Compensated absences, post-employment				
benefits and insurance reserve	149	699	848	807
Investment accounts payable	5,563	26,011	31,574	27,808
Real estate liabilities	818	3,824	4,642	8,012
Total liabilities	15,887	74,286	90,173	65,500
Net position restricted for pensions benefits	\$ 217,737	1,016,670	1,234,407	1,115,726

# Schedules of Changes in Fiduciary Net Position — Pension Trust Fund by Division

Year Ended December 31, 2017 With Comparative Totals for Year Ended December 31, 2016

	Division (wit			Total All Divisions
	Social Security	y) Social Security)	2017	2016
Additions:				
Contributions:				
Member	\$ 4,45	7 14,003	18,460	18,729
Employer	1,14	7 5,568	6,715	6,954
Fire insurance tax	26	2 961	1,223	10,569
Total contributions	5,86	6 20,532	26,398	36,252
Investment income:				
Net appreciation in fair value of investments	22,04	1 103,917	125,958	70,254
Interest, dividends, and other investment income	3,98	2 18,774	22,756	19,099
Total income from investment activity	26,02	3 122,691	148,714	89,353
Less investment expenses	38	7 1,824	2,211	1,918
Net income from investment activity	25,63	6 120,867	146,503	87,435
Income from securities lending activity	4	6 217	263	358
Less security lending expense		5 25	30	47
Net income from security lending activity	4	1 192	233	311
Net investment income	25,67	7 121,059	146,736	87,746
Transfers from affiliated systems	(70	6) 1,965	1,259	1,611
Total additions	30,83	7 143,556	174,393	125,609
Deductions:				
Retirement benefits	5,74	4 38,587	44,331	41,687
Cost-of-living benefits	91	2 9,346	10,258	10,195
Supplemental retirement benefits	1-	4 190	204	220
Refunds	12	4 387	511	466
Administrative expenses	7	0 338	408	374
Total deductions	6,86	4 48,848	55,712	52,942
Increase from operations	23,97	3 94,708	118,681	72,667
Net position restricted for pensions beginning of year	193,76	4 921,962	1,115,726	1,043,059
Net position restricted for pensions end of year	\$ 217,73	7 1,016,670	1,234,407	1,115,726

## Schedules of Changes in the Employers' Net Pension Liability by Division

Year Ended December 31

(in thousands)

			Other	Division A (with S	ocial Security)
	2017	2016	2015	2014	2013
Total pension liability					
Service cost	\$ 7,085	7,020	6,584	6,636	7,158
Interest	13,905	12,644	12,290	11,387	10,840
Benefit changes	_	_	,	_	_
Difference between actual					
and expected experience	(1,851)	(271)	(985)	(1,199)	(1,812
Assumption changes	6,170	4,636	· —	(4,028)	_
Benefit payments	(6,670)	(6,121)	(6,243)	(5,432)	(4,889
Refunds	(124)	(174)	(190)	(72)	_
Net change in total pension liability	18,515	17,734	11,456	7,292	11,297
Total pension liability — beginning	192,976	175,242	163,786	156,494	145,197
Total pension liability — ending (a)	211,491	192,976	175,242	163,786	156,494
Plan fiduciary net position					
Contributions — member	4,457	4,214	4,063	3,983	3,977
Contributions — employer	1,147	1,124	1,055	888	745
Fire insurance tax	262	2,581	4,170	3,398	2,748
Net investment income	25,677	15,014	2,982	11,118	19,648
Benefit payments	(6,670)	(6,121)	(6,243)	(5,432)	(4,889
Refunds	(124)	(174)	(190)	(72)	(1,005
Administrative expense	(70)	(62)	(60)	(58)	(54
Net transfers with affiliated systems	(706)	135	1,784	664	796
Net change in plan fiduciary net position	23,973	16,711	7,561	14,489	22,971
Plan fiduciary net position — beginning	193,764	177,053	169,492	155,003	132,032
Plan fiduciary net position — ending (b)	217,737	193,764	177,053	169,492	155,003
Net pension liability/(asset) — ending (a-b)	\$ (6,246)	(788)	(1,811)	(5,706)	1,491
Plan fiduciary net position as a percentage of the total pension liability	103.0%	100.4%	101.0%	103.5%	99.0%
Projected covered employee payroll	\$ 27,603	27,266	26,672	26,873	26,521
Net pension liability as a percentage of covered employee payroll	(22.6)%	(2.9)%	(6.8)%	(21.2)%	5.6%

		Tota	Total All Divisions						
2017	2016	2015	2014	2013	2017	2016	2015	2014	2013
21,690	21,632	20,598	20,630	22,419	28,775	28,652	27,182	27,266	29,577
66,481	62,690	62,922	60,103	59,419	80,386	75,334	75,212	71,490	70,259
_	_	_	_	_	_	_	_	_	_
(7,365)	(5,254)	(7,274)	(13,878)	(11,271)	(9,216)	(5,525)	(8,259)	(15,077)	(13,083)
25,187	20,936		(16,344)	_	31,357	25,572		(20,372)	_
(48,123)	(45,981)	(43,428)	(42,278)	(39,858)	(54,793)	(52,102)	(49,671)	(47,710)	(44,747)
(387)	(292)	(338)	(221)	(106)	(511)	(466)	(528)	(293)	(106)
57,483	53,731	32,480	8,012	30,603	75,998	71,465	43,936	15,304	41,900
936,753	883,022	850,542	842,530	811,927	1,129,729	1,058,264	1,014,328	999,024	957,124
994,236	936,753	883,022	850,542	842,530	1,205,727	1,129,729	1,058,264	1,014,328	999,024
14,003	14,515	14,112	14,317	14,348	18,460	18,729	18,175	18,300	18,325
5,568	5,830	5,635	4,626	2,749	6,715	6,954	6,690	5,514	3,494
961	7,988	13,048	10,756	8,537	1,223	10,569	17,218	14,154	11,285
121,059	72,732	14,952	57,952	106,037	146,736	87,746	17,934	69,070	125,685
(48,123)	(45,981)	(43,428)	(42,278)	(39,858)	(54,793)	(52,102)	(49,671)	(47,710)	(44,747)
(387)	(292)	(338)	(221)	(106)	(511)	(466)	(528)	(293)	(106)
(338)	(312)	(311)	(312)	(301)	(408)	(374)	(371)	(370)	(355)
1,965	1,476	789	3,049	506	1,259	1,611	2,573	3,713	1,302
94,708	55,956	4,459	47,889	91,912	118,681	72,667	12,020	62,378	114,883
921,962	866,006	861,547	813,658	721,746	1,115,726	1,043,059	1,031,039	968,661	853,778
1,016,670	921,962	866,006	861,547	813,658	1,234,407	1,115,726	1,043,059	1,031,039	968,661
(22,434)	14,791	17,016	(11,005)	28,872	(28,680)	14,003	15,205	(16,711)	30,363
102.3%	98.4%	98.1%	101.3%	96.6%	102.4%	98.8%	98.6%	101.6%	97.0%
85,350	85,056	84,461	84,432	84,220	112,953	112,322	111,133	111,305	110,741
(26.3)%	17.4%	20.1%	(13.0)%	34.3%	(25.4)%	12.5%	13.7%	(15.0)%	27.4%
,					, 11 //1				. , -

# Schedules of Net Pension Liability by Division

(dollars in thousands)

System	Date	(1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	(4) Plan Fiduciary Net Position as a Percentage of the Total Plan Liability	(5) Projected Covered Employee Payroll	(6) Net Pension Liability/(Asset) as a Percentage of Covered Employee Payroll
Firefighters	12/31/13	\$ 156,494	155,003	1,491	99.0%	\$ 26,521	5.6%
Division A	12/31/14	163,786	169,492	(5,706)	103.5	26,873	(21.2)
(with Social Security)	12/31/15	175,242	177,053	(1,811)	101.0	26,672	(6.8)
, ,,	12/31/16	192,976	193,764	(788)	100.4	27,266	(2.9)
	12/31/17	211,491	217,737	(6,246)	103.0	27,603	(22.6)
Firefighters	12/31/13	\$ 842,530	813,658	28,872	96.6%	\$ 84,220	34.3%
Division B	12/31/14	850,542	861,547	(11,005)	101.3	84,432	(13.0)
(without Social Security)	12/31/15	883,022	866,006	17,016	98.1	84,461	20.1
·	12/31/16	936,753	921,962	14,791	98.4	85,056	17.4
	12/31/17	994,236	1,016,670	(22,434)	102.3	85,350	(26.3)
Total	12/31/13	\$ 999,024	968,661	30,363	97.0%	\$ 110,741	27.4%
Firefighters	12/31/14	1,014,328	1,031,039	(16,711)	101.6	111,305	(15.0)
Retirement System	12/31/15	1,058,264	1,043,059	15,205	98.6	111,133	13.7
·	12/31/16	1,129,729	1,115,726	14,003	98.8	112,322	12.5
	12/31/17	1,205,727	1,234,407	(28,680)	102.4	112,953	(25.4)

## Schedules of Employer Contributions by Division

(dollars in thousands)

System	Year Ended	Actuarial Determined Contribution*	Contributions in Relation to the Actuarial Determined Contribution	Contribution Deficiency (Excess)	Projected Covered Employee Payroll	Contributions as a Percentage of Covered Payroll**
Firefighters	2013	\$ 3,493	3,493	_	26,521	13.17%
Division A	2014	5,514	5,514		26,873	20.52
(with Social Security)	2015	5,225	5,225		26,672	19.59
,	2016	3,705	3,705	_	27,266	13.59
	2017	1,409	1,409	_	27,603	5.10
Firefighters	2013	\$ 11,286	11,286	_	84,220	13.40%
Division B	2014	14,154	14,154		84,432	16.76
(without Social Security)	2015	18,683	18,683	_	84,461	22.12
	2016	13,818	13,818	_	85,056	16.25
	2017	6,529	6,529	_	85,350	7.65
Total	2013	\$ 14,779	14,779	_	110,741	13.35%
Firefighters	2014	19,668	19,668		111,305	17.67
Retirement System	2015	23,908	23,908	_	111,133	21.51
•	2016	17,523	17,523	_	112,322	15.60
	2017	7,938	7,938	_	112,953	7.03

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

^{*}Contributions for the Tier 1 Systems include contributions received on the Tier 2 payroll to help finance the unfunded actuarial accrued liability of the Tier 1 Systems.

^{**}Contributions as a percentage of covered payroll may be different than the board certified rate due to rounding and other administrative issues.

#### All Retirement Systems

## Schedules of Administrative and Investment Expenses

Year Ended December 31, 2017

	(in thousands) Total
Personal services:	Total
Salaries and wages	\$ 14,300
Employee benefits	7,085
Total personal services	21,385
Professional services:	
Audit	729
Actuarial services	308
General counsel Banking services	739 75
Security handling expense	924
Investment advisor fees	48,979
Other consulting services	2,895
Total professional services	54,649
Communications:	
Telephone	179
Postage	352
Total communications	531
Rentals:	
Office space	1,022 41
Office equipment rental  Total rentals	
	1,063
Miscellaneous: Data processing	990
Professional development	424
Contractual services	152
Supplies and maintenance	166
Insurance and bonding premiums	610
Office supplies	78
Other	445
Depreciation expense	1,083
Total miscellaneous	3,948
Total administrative and investment expenses	\$81,576
Allocation of administrative expenses:	
Noncontributory Retirement System	\$ 9,579
Contributory Retirement System	457
Public Safety Retirement System Firefighters Retirement System	1,382 408
Judges Retirement System	79
Utah Governors and Legislators Retirement Plan	5
Tier 2 Public Employees Retirement System	82
Tier 2 Public Safety and Firefighter Retirement System	9
401(k) Plan	7,713
457 Plan	887
Roth IRA Plan	174
Traditional IRA Plan	147
Total administrative expenses	20,922
Investment administrative expense Investment advisor fees:	11,676
Investment Fund	45,187
401(k) Plan	3,284
457 Plan	363
Roth IRA Plan	72
Traditional IRA Plan	72
Total investment expenses	60,654
Total administrative and investment expense allocations	\$ 81,576

#### **UTAH RETIREMENT SYSTEMS**

Comprehensive Annual Financial Report

# 2017

# INVESTMENT SECTION

#### **DEFINED BENEFIT INVESTMENTS**

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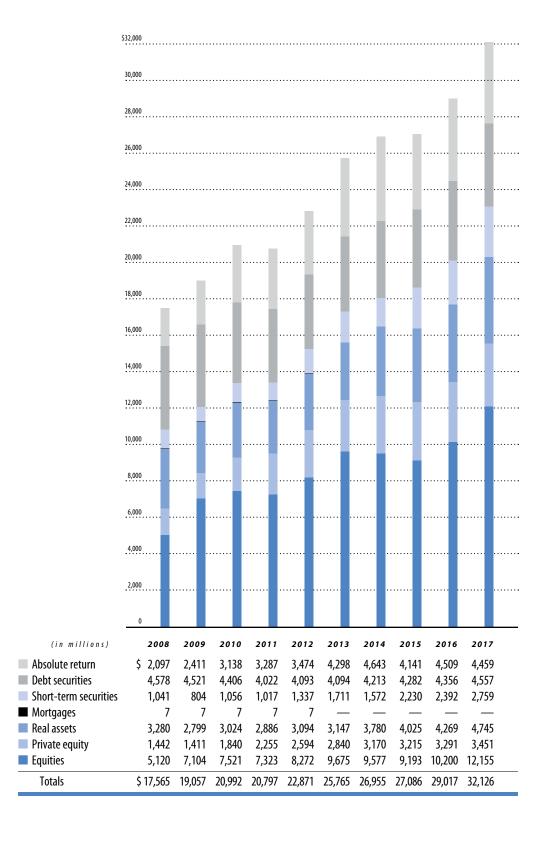
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#### UTAH RETIREMENT SYSTEMS

# 10-YEAR INVESTMENT COMPARISON

(in millions)



#### UTAH RETIREMENT SYSTEMS

# DEFINED BENEFIT **INVESTMENTS**



## Report on Investment Activity

**UTAH STATE RETIREMENT BOARD** 

#### **UTAH RETIREMENT SYSTEMS**

560 East 200 South Salt Lake City, Utah 84102-2044 801-366-7700 800-365-8772 801-366-7734 FAX

DANIEL D. ANDERSEN **EXECUTIVE DIRECTOR** 

April 26, 2018

**Utah State Retirement Board** 560 East 200 South Salt Lake City, UT 84102-2044

Dear Members of Utah Retirement Systems:

In 2017, we saw the ninth year of a global economic recovery. The market correction that many had predicted did not happen. The S&P 500 posted another stellar year, with a 21.8% gain. On the heels of a nearly 12% return in 2016, the S&P 500 now has posted positive returns for nine consecutive years since the Great Recession. U.S. markets benefited from the passage of tax reform legislation, regulatory relief, and strong corporate earnings. However, within the overall equity market return, there was an enormous divergence between value-style and growthstyle investing. Unlike in 2016, when value outperformed growth, this year growth dwarfed value in both U.S. and global equity markets. In the U.S., growth stocks returned more than twice that of value stocks for both small and

large capitalization (cap) equities. Global equities displayed the same growth bias across capitalization size, with one exception in emerging markets, where small cap value returned slightly more than small cap growth.

Large cap versus small cap also reversed trend from 2016, when small outperformed large. In 2017, large cap stocks outperformed both in the U.S. as well as internationally.

Although the Treasury curve continued to flatten, with near-term rates rising and long-term rates remaining subdued, the bond market, as measured by the Bloomberg Barclays Aggregate, returned 3.5%, compared to 2.7% the previous year. That was remarkable, considering the Federal Reserve (Fed) raised short-term interest rates three times in 2017 and began reducing its balance sheet. The Fed indicated that it expects to continue these activities in the coming years. Other central banks have begun to tighten as well, thus keeping the U.S. in a relatively balanced position with other developed economies.

The unemployment rate dropped to 4.1%, putting the labor market effectively in full employment. Consumer sentiment was high, which helped trigger greater spending and less saving. Other macroeconomic measures pointed toward continued growth: higher existing home sales, increased industrial production and durable goods orders, and relatively modest levels of inflation.

Although the dollar weakened in 2017, global growth was higher, and commodity prices continued to strengthen from the previous year. Global markets also experienced strong employment, weak inflation, easy monetary policies, and strong corporate profits. European consumer confidence was also high, similar to the U.S. The strong U.S. and developed international markets provided a catalyst to growth in export-driven emerging markets as well. Analysts predict emerging markets should be strong in the future.

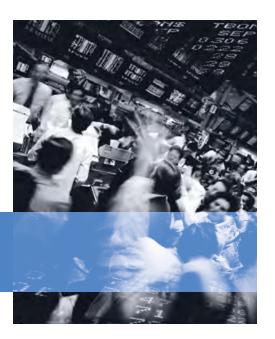
URS had an excellent investment year, returning nearly 14%. Our equity portfolio has meaningful exposure to value style and small cap stocks, which, as noted above, underperformed large cap growth equities during 2017. We believe that a well-diversified asset allocation is the best means of preserving capital in down markets and ensuring long-term growth. As a product of this philosophy, URS' investment portfolio holds bonds, absolute return funds, real estate, and private energy and private equity investments in addition to public equities. As mentioned, bonds only added low-single-digit returns last year. Absolute return funds are also used to further diversify the portfolio, as they are designed to carry only a modest relationship to public equity. These funds have performed in line with our expectations. We need other sources of return when equity markets are negative, and these active strategies have contributed to downside protection when equity markets have underperformed. In 2017, other asset classes contributed to plan-level returns as follows: Real Estate +13%, Private Energy +12%, and Private Equity +19%. By diversifying our portfolio across additional asset classes, we lower our risk, helping meet our long-term actuarial assumed rate of return of 6.95%. Of course, our ultimate goal and mission is to fulfill our obligations to our members; we believe that URS' portfolio is well-positioned for this purpose. In fact, we increased our funded status at the end of 2017 to 90%.



We don't take peer group comparisons too seriously, because we believe our strategy of preserving capital in down markets will create greater compounding of wealth over the long term. Many public plan peers add much more equity risk into their portfolios to achieve outsized returns in good equity markets. But they also hope for quick recoveries when equity markets lose large sums. History has demonstrated that it takes a long time to recover from bear equity markets, making it hard to catch up after periods of significant losses. Thus, in bull markets, we underperform our peers, and in bear markets we outperform. This strategy has produced favorable results in volatile markets, and our funded status has continued to grow. We also position ourselves to buy undervalued assets in down markets because of the extra liquidity we hold.

Equity markets had another strong performance in 2017, and so did our portfolio. We won't see such strong returns every year, and that's acceptable. We recognize that markets are volatile, and feel we have a solid strategy to deal with that volatility through the years to produce the best possible outcome for our members. The Systems' investments reported in the investment section are presented in the same basis of accounting as described in Note 2 of the financial statements.

me H. Cundik Bruce H. Cundick Chief Investment Officer **Utah Retirement Systems** 



#### **Outline of Investment Policies**

The governing body of the Utah Retirement Systems (Systems) is the seven member Utah State Retirement Board (Board). The Board is composed of the Utah State Treasurer, who serves as an ex-officio member, and six trustees who are appointed by the Governor. Four board members are appointed for their investment expertise, and two members are appointed to represent employee and employer interests.

The Board has statutory authority to pool pension assets in the Utah Retirement Investment Fund (Fund). Statutes also establish that this Fund will be invested in accordance with the "prudent person rule." The prudent person rule requires all members of the Board and investment staff to discharge their duties solely in the interest of Systems' participants and beneficiaries and with the care, skill, prudence, and diligence that they

would exercise in the conduct of their own affairs. To this end, a Statement of Investment Policy and Performance Objectives has been created for the Fund and adopted by the Board. The purpose of this Statement is to:

- >> Outline the expected return and risk profile for the Fund;
- >> Establish the target asset allocation mix and acceptable rebalancing ranges;
- » Describe plan and manager policies and objectives for performance evaluation;
- >> Communicate investment performance standards to investment managers.

### 2017 Investment Summary

(dollars in thousand	2017 Beginning Fair Value	Purchases	Sales and Redemptions	Increase (Decrease) in Fair Value	2017 Ending Fair Value Balance	Percent of Total Fair Value
Short-term securities	\$ 2,392,184	110,628,919	110,242,367	(19,997)	2,758,739	8.59%
Debt securities	4,356,418	41,209,009	41,120,785	112,495	4,557,137	14.19
Equities	10,199,869	4,144,033	3,852,044	1,663,075	12,154,933	37.84
Absolute return	4,508,784	2,406,442	2,496,470	40,483	4,459,239	13.88
Private equity	3,290,800	488,114	404,688	76,674	3,450,900	10.74
Real assets	4,269,045	1,688,138	1,407,612	194,954	4,744,525	14.77
Totals	\$ 29,017,100	160,564,655	159,523,966	2,067,684	32,125,473	100.00%

The primary investment objectives are to preserve Fund assets and generate an appropriate level of risk-adjusted return to meet future pension obligations. The Systems periodically complete an asset allocation and liability study to determine the optimal portfolio diversification to meet those obligations.

The Systems' investment portfolio includes strategic, long-term commitments in the following asset classes: Equities, Debt Securities, Real Assets, Private Equity, and Absolute Return. Asset allocation is reviewed in conjunction with the plan liabilities at least every five years.

The Board's policy is to establish a long-term strategic asset allocation that manages overall expected portfolio risk (volatility) and maximizes expected return without unduly constraining the discretionary, tactical decisionmaking process of the investment managers.

To implement the asset allocation plan, the Executive Director, supported by the Board, staff, and consultant, selects appropriate money management experts to invest the Fund assets. This selection process includes the creation of specific search criteria, completion and documentation

of analysis, and due diligence on potential candidates, and interviews completed by the staff and/or Board. It is not the staff or Board's intention to be involved with the day-to-day decisions made by external investment managers. Internal investment staff also manages segments of the portfolio.

December 31,	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Equities securities	29.2%	37.3	35.8	35.2	36.2	37.5	35.5	33.9	35.2	37.8
Debt securities	26.1	23.7	21.0	19.4	17.9	16.0	15.7	15.8	15.0	14.2
Private equity	8.2	7.4	8.8	10.8	11.3	11.0	11.8	11.9	11.3	10.7
Real assets	18.7	14.7	14.4	13.9	13.5	12.2	14.0	14.9	14.7	14.8
Short-term securities	5.9	4.2	5.0	4.9	5.9	6.6	5.8	8.2	8.2	8.6
Absolute return	11.9	12.7	15.0	15.8	15.2	16.7	17.2	15.3	15.6	13.9
Total portfolio	100.0%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

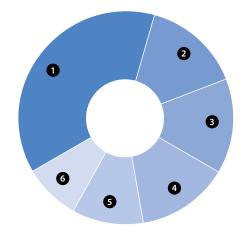
All managers are expected to communicate with the staff at least quarterly.

Managers' portfolios are evaluated both against appropriate market indices and similar manager style groups. The investment policy outlines appropriate benchmarks.

Investment return calculations are prepared using a time-weighted rate of return.

## Year-end Asset Allocation at Fair Value

December 31, 2017



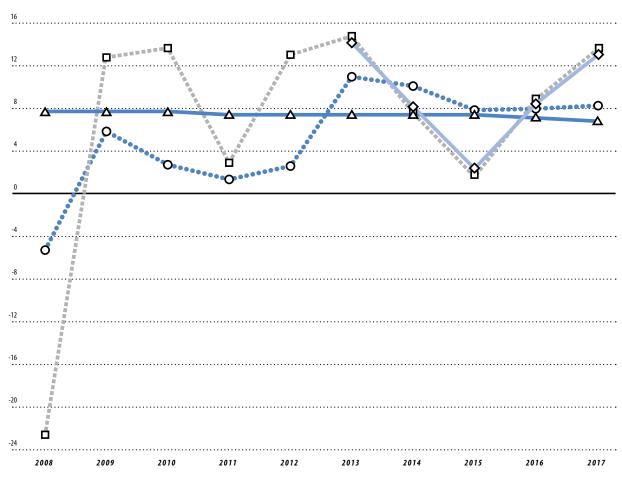
- 1 Equity Securities (37.8%)
  - 2 Real Assets (14.8%)
- 3 Debt Securities (14.2%)
- 4 Absolute Return (13.9%)
- 5 Private Equity (10.7%) 6 Short Term (8.6%)

31,	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	29.2%	37.3	35.8	35.2	36.2	37.5	35.5	33.9	35.2	37.8
	26.1	23.7	21.0	19.4	17.9	16.0	15.7	15.8	15.0	14.2
	8.2	7.4	8.8	10.8	11.3	11.0	11.8	11.9	11.3	10.7
	18.7	14.7	14.4	13.9	13.5	12.2	14.0	14.9	14.7	14.8
es	5.9	4.2	5.0	4.9	5.9	6.6	5.8	8.2	8.2	8.6
	11.9	12.7	15.0	15.8	15.2	16.7	17.2	15.3	15.6	13.9
	100.0%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The allocation of assets as reported to the board are as follows: Equity securities 41.0%, Debt securities 19.8%, Absolute return 14.0%, Private equity 10.8% and Real assets 14.4%. These allocation percentages differ from investment asset percentages presented in the MD&A and Statement of Fiduciary Net Position as a result of different methodologies used to categorize investment assets and the impact of derivatives for investment purposes versus financial statement presentation purposes. For investment purposes the impact of derivatives used to rebalance the defined portfolio are expressed using the notional value of those derivatives.

### 10-Year Total Pension Investment Rates of Return

(in percents)



(dollars	i n	millions)
(uoiiuis	, ,,	11111110113/

	Total Investment Portfolio Fair Value	(1) Smooth Expected Rate of Return	(2) Fair Value Rate of Return	(3) Actuarial Assumed Interest Rate	(4) Money Weighted Rate of Return
2008	\$17,565	(5.03)	(22.30)	7.75%	_
2009	19,058	6.11	12.88	7.75	_
2010	20,992	2.87	13.73	7.75	_
2011	20,796	1.34	2.89	7.50	_
2012	22,871	2.66	13.10	7.50	_
2013	25,765	11.03	14.89	7.50	14.55%
2014	26,955	10.20	7.52	7.50	7.94
2015	27,086	7.84	1.92	7.50	2.02
2016	29,017	8.06	8.79	7.20	8.73
2017	32,125	8.32	13.57	6.95	13.38

- (1) Smoothed Expected Rate of Return consists of investment income in excess or shortfall of the expected 6.95% on fair value smoothed over a 5-year period with 20% of a year's excess or shortfall being recognized each year beginning with the current year.
- (2) Fair Value Rate of Return consists of cash income plus gains and losses due to changes in fair value, whether realized or unrealized (before deduction of investment fees). (For 2017, 13.38% net of fees.)
- (3) Actuarial Assumed Interest Rate is the assumed rate of return on the fair value of assets, and is used in establishing retirement contribution rates and in determining current benefit reserve requirements.
- (4) Money Weighted Rate of Return is calculated as the internal rate of return on pension plan investments, net of investment expenses.

# Comparative Investment Results (1)(2)(3) Year Ended December 31, 2017

Investment Option Comparative Index	1 Year	3 Year	5 Year	10 Year
Global Equity	<b>21.41%</b> 23.89	<b>9.90%</b> 9.51	<b>11.71%</b> 11.05	<b>6.56%</b> 4.88
Fund Benchmark		<b>3.04</b> 2.96	<b>2.81</b> 2.64	<b>4.86</b> 4.38
Real Assets*	11.74	10.17	11.01	3.55
U.S. Consumer Price Index + 5.0%  Private Equity**  Private Equity Benchmark  Benchmark consisting of:  Russell 3000 + 2.5%	7.18 <b>19.12</b> 23.63	6.52 <b>13.40</b> 13.65	6.27 <b>15.93</b> 18.11	6.58 <b>10.97</b> 11.27
Absolute Return	<b>5.47</b> 5.86	<b>3.71</b> 5.41	<b>5.24</b> 5.27	<b>4.47</b> 5.39
Short Term	<b>0.42</b> 0.86	<b>0.39</b> 0.41	<b>0.26</b> 0.27	<b>1.01</b> 0.39
Fund Benchmark	<b>13.57</b> 14.05	<b>7.96</b> 7.53	<b>9.20</b> 8.40	<b>6.08</b> 5.91
CAI Public Fund —Very Large Database Median	16.37	8.19	9.31	6.00
Inflation	2.18	1.52	1.26	1.57

⁽¹⁾ Investment measurement services provided by Callan Associates Inc.

⁽²⁾ Total rates of return include cash income plus gains and losses due to changes in fair value, where realized or unrealized.

⁽³⁾ Investment return calculations were prepared using a time-weighted return except private equity which is prepared using a dollar weighted return.

^{*}The non real estate portion of Real Assets only reflects returns for years 1 and 3. Years 5 and 10 are for real estate only using a NCREIF Total Index Benchmark.

# List of Largest Assets Held



### Largest Equity Holdings*

(By Fair Value)

Description	Shares	Fair Value
Apple Inc.	740,795	\$ 125,364,738
Microsoft Corp.	1,081,392	92,502,272
Alphabet Inc.	86,721	91,351,901
Citigroup	1,033,688	76,916,724
Amazon Inc.	65,138	76,176,937
Facebook Inc.	410,225	72,393,597
Wells Fargo & Co.	1,163,401	70,583,539
Nestle SA	803,520	69,096,948
Berkshire Hathway	303,256	60,111,404
MLP Apollo	1,653,612	55,346,394



### **Largest Debt Securities Holdings**

(By Fair Value)

Description	Par Value	Fair Value
US Treasury Notes .125% Due 4-15-2020	72,180,000	\$ 75,871,281
GNMA II Jumbos 3.5% 30 year	68,104,103	70,402,616
US Treasury Notes 1.875% Due 12-15-2020	62,260,000	62,080,006
US Treasury Bonds 2.25% Due 8-15-2027	62,175,000	61,833,102
FNMA Pool 4% 8-1-2047	56,318,714	58,947,503
US Treasury Notes 1.125% Due 6-30-2021	52,365,000	50,712,256
US Treasury Notes 1.5% Due 10-31-2019	49,465,000	49,124,298
Government of Japan .1% Index Linked 9-2024	5,178,200,000	48,709,636
US Treasury Notes 2.0% Due 11-30-2022	48,585,000	48,142,779
GNMA II Jumbos 3% 30 year	45,146,000	45,555,158

^{*}As required by SEC Rule 13F, a list of publicly traded equity securities held by Utah Retirement Systems is available online through the SEC Electronic Data Gathering, Analysis, and Retrieval (EDGAR) website. This list is also available upon request.

### **Schedules of Fees** and Commissions

Year Ended December 31, 2017



### Broker Commission Fees

Broker	Total Commission Fees
Merrill Lynch	\$ 278,268
Instinet	222,337
Frank Russell	201,555
The Citation Group	123,023
Barclays	116,540
Jefferies	113,684
RBC	99,438
Convergex	90,047
Goldman Sachs	79,931
Liquidnet	77,055
Citigroup	56,042
All Others	1,043,035
Total	\$ 2,500,955

### Schedule of Investment Fees and Commissions

Investment advisor fees:*	
Equity securities	\$ 28,086,076
Debt securities	5,233,367
Private equity	4,076,853
Absolute return	4,702,243
Short-term	1,144,378
Real assets	1,944,083
Total investment advisor fees	45,187,000
Investment brokerage fees	2,500,955
Total fees and commissions	\$ 47,687,955

^{*}Represents fees that are invoiced and paid directly by URS. These numbers do not represent all management, performance, carried interest, or other fees charged directly by investment advisors. These and other investment related fees are netted from returns.

Utah Retirement Systems uses a commission recapture program as part of its trading strategies. During the year ending December 31, 2017, Utah Retirement Systems recaptured approximately \$190,431 from the gross commission charges. This recaptured sum was used to cover or offset the \$250,666 in investment expenses that otherwise would have been paid for with investment funds.



## **Utah Retirement Investment Consultants**

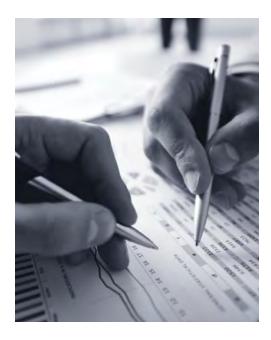
Albourne America LLC 655 Montgomery Street San Francisco, CA 94111

Callan Associates, Inc. 101 California Street Suite 3500 San Francisco, CA 94111

Glass Lewis & Company One Sansome Street Suite 3300 San Francisco, CA 94104

Russell Implementation Services, Inc. 1301 Second Avenue 18th Floor Seattle, WA 98101

The Northern Trust Company 50 South LaSalle Street Chicago, IL 60675



# DEFINED CONTRIBUTION SAVINGS PLANS **INVESTMENTS**



### **Defined Contribution** Savings Plans Investments

December 31, 2017

### **Investment Highlights**

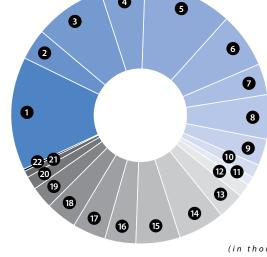
Utah Retirement Systems' 401(k), 457, Roth and traditional IRAs are tax-advantaged retirement savings plans authorized under sections 401(k), 457(b), and 408 of the Internal Revenue Code. These plans are available to employees of the state, local government, and public education employers throughout Utah.

The participants of the plans have a choice of 20 core investment funds and a brokerage window in which their monies may be invested. Each participant may choose one or a combination of the core funds. The table to the right shows the total assets in the various investment options. The graph above the table shows the asset distribution as of December 31, 2017.

### **INVESTMENT AND ADMINISTRATIVE EXPENSES**

There are no front-end load, redemption, or other hidden fees associated with these plans. All costs reflected in the table on page 148 are deducted from earnings prior to posting to participant accounts and do not appear as separate items on participant statements.

The administrative fee for the brokerage window account is a flat rate of \$25 per quarter. Investment fees and broker commissions are paid by the participant according to the trading and securities selected within the brokerage window.



1 Income Fund 14.44%
2 Bond Fund 3.85%
3 Balanced Fund 8.88%
4 Large Cap Stock Value Fund 5.59
5 Large Cap Stock Index Fund 11.17
6 Large Cap Stock Growth Fund 6.69
7 International Fund 4.04%
8 Small Cap Stock Fund 5.61%
9 Brokerage Window 3.15%
10 Tier 2 DC Nonvested 1.75%
11 Target Retired Fund 1.12%
12 Target Date 2010 Fund 1.73%
13 Target Date 2015 Fund 3.40%
14 Target Date 2020 Fund 5.68%
15 Target Date 2025 Fund 5.54%
16 Target Date 2030 Fund 4.11%
17 Target Date 2035 Fund 4.05%
18 Target Date 2040 Fund 3.77%
19 Target Date 2045 Fund 2.98%
20 Target Date 2050 Fund 1.71%
21 Target Date 2055 Fund 0.61%
22 Target Date 2060 Fund 0.16%

(in	thousands)
Investment Options	Total
Income Fund	\$ 822,758
Bond Fund	219,220
Balanced Fund	505,758
Large Cap Stock Value Fund	318,526
Large Cap Stock Index Fund	636,315
Large Cap Stock Growth Fund	381,348
International Fund	230,130
Small Cap Stock Fund	319,648
Brokerage Window	179,557
Tier 2 Nonvested	99,940
Target Retired Fund	63,688
Target Date 2010 Fund	98,431
Target Date 2015 Fund	193,774
Target Date 2020 Fund	323,541
Target Date 2025 Fund	315,662
Target Date 2030 Fund	234,217
Target Date 2035 Fund	230,576
Target Date 2040 Fund	214,593
Target Date 2045 Fund	169,578
Target Date 2050 Fund	97,339
Target Date 2055 Fund	34,531
Target Date 2060 Fund	9,252
Totals	\$ 5,698,382

### 2017 Investment Summary and Investment and Administrative Fees

(dollars in thousands)

Fund	2017 Beginning Fair Value	Purchases	Sales and Redemptions	Increase (Decrease) in Fair Value	2017 Ending Fair Value	Percent of Total Fair Value	Invest- ment Fees	Admin- istrative Fees	Total Fees
Income Fund	\$ 867,887	43,186	87,141	(1,174)	822,758	14.44%	0.29%	0.16%	0.45%
Bond Fund	222,041	17,795	24,972	4,356	219,220	3.85	0.12	0.16	0.28
Balanced Fund	446,809	22,550	23,937	60,336	505,758	8.88	0.27	0.16	0.43
Large Cap Stock Value Fund	292,499	17,144	23,895	32,778	318,526	5.59	0.42	0.16	0.58
Large Cap Stock Index Fund	550,396	14,699	35,788	107,008	636,315	11.17	0.03	0.16	0.19
Large Cap Stock Growth Fund	264,632	48,784	15,618	83,550	381,348	6.69	0.31	0.16	0.47
International Fund	170,413	25,371	10,740	45,086	230,130	4.04	0.06	0.16	0.22
Small Cap Stock Fund	310,949	15,703	20,747	13,743	319,648	5.61	0.37	0.16	0.53
Brokerage Window	152,320	25,303	9,256	11,190	179,557	3.15	N/A	N/A	N/A
Tier 2 Non Vested	82,050	28,207	19,350	9,033	99,940	1.75	0.18	0.16	0.34
Retired Fund	55,241	15,662	9,942	2,727	63,688	1.12	0.20	0.16	0.36
2010 Fund	86,394	16,930	9,403	4,510	98,431	1.73	0.19	0.16	0.35
2015 Fund	173,367	28,541	19,767	11,633	193,774	3.40	0.21	0.16	0.37
2020 Fund	271,503	42,639	17,127	26,526	323,541	5.68	0.22	0.16	0.38
2025 Fund	244,676	46,016	4,353	29,323	315,662	5.54	0.22	0.16	0.38
2030 Fund	179,468	31,969	4,421	27,201	234,217	4.11	0.23	0.16	0.39
2035 Fund	171,099	29,155	415	30,737	230,576	4.05	0.22	0.16	0.38
2040 Fund	158,199	24,514	(488)	31,392	214,593	3.77	0.22	0.16	0.38
2045 Fund	121,808	22,770	1,932	26,932	169,578	2.98	0.22	0.16	0.38
2050 Fund	63,374	20,008	842	14,799	97,339	1.71	0.22	0.16	0.38
2055 Fund	17,993	12,185	407	4,760	34,531	0.61	0.22	0.16	0.38
2060 Fund	5,378	4,970	2,196	1,100	9,252	0.16	0.22	0.16	0.38
Total	\$ 4,908,496	554,101	341,761	577,546	5,698,382	100.00%			

By administering the defined contribution plans internally rather than through a third party, expenses are kept at very low levels to maximize earnings to each participant. The table above shows these expenses to be nominal when compared to much higher fees on most annuities, mutual funds, and insurance contracts.

An annual account maintenance fee of \$15 is assessed to inactive accounts with combined 401(k), 457, Roth and traditional IRA balances of less than \$5,000. (Inactive accounts are defined as accounts that have had no contribution or withdrawal activity for a period of at least

12 months and the participant is no longer employed with a URS participating employer.) There is a \$60 one-time service fee for loans, and a 2% fee for short-term trading (more frequently than 30 days).

The investments described are not FDIC insured; not deposits or obligations of, or guaranteed by, any financial institution; and not guaranteed by the Utah Retirement Systems or any government agency.

The past performance of any of these funds does not guarantee future results.

## **Defined Contribution Plans** Comparative Annualized Rates of Return

Year Ended December 31, 2017

Investment Option		nualized		
Comparative Index	1-Year	3-Year	5-Year	10-Year
Income Fund	1.72%	1.64%	1.67%	2.14%
Treasury Bills Index	0.86	0.41	0.27	0.39
Bloomberg Barclays Capital	4.64	3.38	3.30	5.24
Aggregate Bond Index	3.54	2.24	2.10	4.01
Balanced Fund	17.13	9.05	11.74	7.85
Balanced Index ⁽¹⁾	14.13	7.70	10.21	7.05
Large Cap Stock Value Fund	18.23	11.02	16.22	7.61
*Russell 1000 Value Index	13.66	8.65	14.04	7.10
Large Cap Stock Index Fund	21.42	11.03	15.45	8.18
Large Cap Stock Blended Index (2)	21.69	11.23	15.71	8.40
Large Cap Stock Growth Fund	33.20	13.65	17.44	9.70
*Russell 1000 Growth Index	30.21	13.79	17.33	10.00
International Fund	27.56	8.33	7.19	1.72
International Blended Index (3)	27.81	8.38	7.22	1.36
Small Cap Stock Fund	11.35	9.86	14.44	9.74
*Russell 2000 Index	14.65	9.96	14.12	8.71
Target Retired Fund	6.83	4.36	N/A	N/A
Target Retired Index ⁽⁴⁾	5.91	3.47	_	_
Target Date 2010 Fund	7.65	4.54	N/A	N/A
Target Date 2010 Index (5)	6.64	3.96	_	_
Target Date 2015 Fund	8.94	5.27	N/A	N/A
Target Date 2015 Index (6)	8.03	4.83	_	_
Target Date 2020 Fund	11.51	6.34	N/A	N/A
Target Date 2020 Index (7)	10.44	5.82	_	_

Continued on page 150.

Annualized

Past performance does not guarantee future results.

All fund returns are reported net of investment and administrative fees. All returns for periods greater than one year are annualized.

Investment return calculations were prepared using a time-weighted return. Comparative indexes below reflect current asset allocation targets.

- (1) Balanced Index: 60% S&P 500, 40% Bloomberg Barclays US Aggregate Bond through 12/31/2014, 60% Russell 1000*, 40% Bloomberg Barclays US Aggregate Bond thereafter
- (2) Large Cap Stock Blended Index: S&P 500 through 6/30/2011, Russell 1000 Index* thereafter
- (3) International Blended Index: MSCI EAFE through 3/31/2011, MSCI ACWI ex US IMI thereafter
- (4) Target Date Retired Index: 25% 90 Day T-Bills, 20% Bloomberg Barclays US Aggregate Bond, 14% Russell 1000 Index*, 4% MSCI ACWI ex. US IMI, 1% Russell 2000 Index*, 10% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 3% Bloomberg Commodity Index, 20% Bloomberg Barclays Global Inflation-Linked Bond Index 1-10 Year (USD Hedged), 3% NFI-ODCE (Value Weighted)
- (5) Target Date 2010 Index: 22% 90 Day T-Bills, 21% Bloomberg Barclays US Aggregate Bond, 17% Russell 1000 Index*, 4% MSCI ACWI ex. US IMI, 1% Russell 2000 Index*, 10% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 3% Bloomberg Commodity Index, 19% Bloomberg Barclays Global Inflation-Linked Bond Index 1-10 Year (USD Hedged), 3% NFI-ODCE (Value Weighted)
- (6) Target Date 2015 Index: 17% 90 Day T-Bills, 21% Bloomberg Barclays US Aggregate Bond, 19% Russell 1000 Index*, 6% MSCI ACWI ex. US IMI, 2% Russell 2000 Index*, 10% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 3% Bloomberg Commodity Index, 14% Bloomberg Barclays Global Inflation-Linked Bond Index 1-10 Year (USD Hedged), 8% NFI-ODCE (Value Weighted)
- (7) Target Date 2020 Index: 12% 90 Day T-Bills, 18% Bloomberg Barclays US Aggregate Bond, 0.5% Russell 1000 Value Index*, 23% Russell 1000 Index*, 0.5% Russell 1000 Growth Index*, 11% MSCI ACWI ex. US IMI, 3% Russell 2000 Index, 10% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 3% Bloomberg Commodity Index, 9% Bloomberg Barclays Global Inflation-Linked Bond Index 1-10 Year (USD Hedged), 10% NFI-ODCE (Value Weighted)

*Russell Investment Group is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. Russell is a trademark of Russell Investment Group.

### **Defined Contribution Plans** Comparative Annualized Rates of Return (Concluded)

Year Ended December 31, 2017

Investment Option	Annualized					
Comparative Index	1-Year	3-Year	5-Year	10-Year		
Target Date 2025 Fund	14.14%	7.35%	N/A	N/A		
Target Date 2025 Index ⁽⁸⁾	13.13	6.89	_	_		
Target Date 2030 Fund	16.96	8.30	N/A	N/A		
Target Date 2030 Index (9)	16.08	7.87	_	_		
Target Date 2035 Fund	19.44	9.01	N/A	N/A		
Target Date 2035 Index (10)	18.50	8.58	_	_		
Target Date 2040 Fund	20.30	9.28	N/A	N/A		
Target Date 2040 Index (11)	19.55	8.83	_	_		
Target Date 2045 Fund	20.74	9.41	N/A	N/A		
Target Date 2045 Index (12)	19.84	8.93	_	_		
Target Date 2050 Fund	20.74	9.41	N/A	N/A		
Target Date 2050 Index (13)	19.83	8.93	_	_		
Target Date 2055 Fund	20.74	9.40	N/A	N/A		
Target Date 2055 Index (14)	19.83	8.93	_	_		
Target Date 2060 Fund	20.74	9.41	N/A	N/A		
Target Date 2060 Index (15)	19.83	8.93	_	_		
Tier 2 Nonvested Fund	13.39	6.53	7.33%	N/A		
Tier 2 Nonvested Index (16)	12.15	5.84	6.84	_		

### Past performance does not guarantee future results.

- (8) Target Date 2025 Index: 7% 90 Day T-Bills, 15% Bloomberg Barclays US Aggregate Bond, 2.5% Russell 1000 Value Index*, 24% Russell 1000 Index*, 2.5% Russell 1000 Growth Index*, 17% MSCI ACWI ex. US IMI, 4% Russell 2000 Index*, 9% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 2% Russell Fundamental US Select Real Estate Index**, 3% Bloomberg Commodity Index, 4% Bloomberg Barclays Global Inflation-Linked Bond Index 1-10 Year (USD Hedged), 10% NFI-ODCE (Value Weighted)
- (9) Target Date 2030 Index: 2% 90 Day T-Bills, 10% Bloomberg Barclays US Aggregate Bond, 4% Russell 1000 Value Index*, 24% Russell 1000 Index*, 4% Russell 1000 Growth Index*, 24% MSCI ACWI ex. US IMI, 7% Russell 2000 Index, 7% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 4% Russell Fundamental US Select Real Estate Index**, 4% Bloomberg Commodity Index, 10% NFI-ODCE (Value Weighted)
- (10) Target Date 2035 Index: 6% Bloomberg Barclays US Aggregate Bond, 6.5% Russell 1000 Value Index*, 23% Russell 1000 Index*, 6.5% Russell 1000 Growth Index*, 30% MSCI ACWI ex. US IMI, 9% Russell 2000 Index, 3% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 4% Russell Fundamental US Select Real Estate Index**, 4% Bloomberg Commodity Index, 8% NFI-ODCE (Value Weighted)
- (11) Target Date 2040 Index: 4% Bloomberg Barclays US Aggregate Bond, 9% Russell 1000 Value Index*, 21% Russell 1000 Index*, 9% Russell 1000 Growth Index*. 32% MSCI ACWI ex. US IMI, 10% Russell 2000 Index*, 2% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 4% Russell Fundamental US Select Real Estate Index**, 4% Bloomberg Commodity Index, 5% NFI-ODCE (Value Weighted)

(12) Target Date 2045 Index: 3% Bloomberg Barclays US Aggregate Bond, 10% Russell 1000 Value Index*, 20% Russell 1000 Index*, 10% Russell 1000 Growth Index*, 33% MSCI ACWI ex. US IMI, 10% Russell 2000 Index*, 2% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 4% Russell Fundamental US Select Real Estate Index**. 4% Bloomberg Commodity Index, 4% NFI-ODCE (Value Weighted)

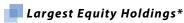
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- (13) Target Date 2050 Index: 3% Bloomberg Barclays US Aggregate Bond, 10% Russell 1000 Value Index*, 20% Russell 1000 Index*, 10% Russell 1000 Growth Index*, 33% MSCI ACWI ex. US IMI, 10% Russell 2000 Index*, 2% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 4% Russell Fundamental US Select Real Estate Index**, 4% Bloomberg Commodity Index, 4% NFI-ODCE (Value Weighted)
- (14) Target Date 2055 Index: 3% Bloomberg Barclays US Aggregate Bond, 10% Russell 1000 Value Index*, 20% Russell 1000 Index*, 10% Russell 1000 Growth Index*, 33% MSCI ACWI ex. US IMI, 10% Russell 2000 Index*, 2% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 4% Russell Fundamental US Select Real Estate Index**, 4% Bloomberg Commodity Index, 4% NFI-ODCE (Value Weighted)
- (15) Target Date 2060 Index: 3% Bloomberg Barclays US Aggregate Bond, 10% Russell 1000 Value Index*, 20% Russell 1000 Index*, 10% Russell 1000 Growth Index*, 33% MSCI ACWI ex. US IMI, 10% Russell 2000 Index*, 2% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 4% Russell Fundamental US Select Real Estate Index**, 4% Bloomberg Commodity Index, 4% NFI-ODCE (Value Weighted)
- (16) Tier 2 Nonvested Index: 30% Bloomberg Barclays US Aggregate Bond, 23% Russell 1000 Index*, 18% MSCI ACWI ex. US IMI, 5% Russell 2000 Index*, 10% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 4% Russell Fundamental US Select Real Estate Index**, 5% Bloomberg Commodity Index, 5% Bloomberg Barclays Global Inflation-Linked Bond Index 1-10 Year (USD Hedged)

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# List of Largest Assets Held



(By Fair Value)

Description	Shares	Fair Value
Apple Inc	368,208	\$ 62,311,840
Alphabet Inc.	55,514	58,279,879
Microsoft Corp.	596,987	51,040,606
Amazon Inc.	39,227	45,874,800
Facebook Inc.	238,852	42,147,824
Visa Inc.	267,133	30,458,505
Home Depot	156,736	29,706,174
Mastercard Inc.	191,047	28,916,874
Adobe Systems Inc.	123,051	21,563,457
Salesforce Inc.	195,515	20,396,418

### Largest Debt Securities Holdings

(By Fair Value)

Description	Par Value	Fair Value
US Treasury Notes 1% Due 5-31-2018	\$ 25,000,000	\$ 24,969,943
US Treasury Notes 1.75% Due 5-31-2022	23,000,000	22,632,650
Federal Home Loan Mortgage Corp. 4.5% Due 7-1-2047	16,165,853	17,239,902
US Treasury Notes 1.875% Due 1-31-2022	15,135,000	15,094,946
US Treasury Notes .125% Due 4-15-2020	13,554,000	14,250,777
Federal Home Loan Mortgage Corp. 4.5% Due 6-1-2047	10,701,523	11,412,670
US Treasury Notes 1.875% Due 8-31-2024	11,500,000	11,261,387
US Treasury Notes .75% Due 1-31-2018	10,845,000	10,874,464
Federal Home Loan Mortgage Corp. 4.5% Due 9-1-2046	9,350,270	9,970,071
US Treasury Notes 1.875% Due 8-28-2022	9,505,000	9,461,726

^{*}As required by SEC Rule 13F, a list of publicly traded equity securities held by Utah Retirement Systems is available online through the SEC Electronic Data Gathering, Analysis, and Retrieval (EDGAR) website. This list is also available upon request.

### **Schedules of Fees** and Commissions

Year Ended December 31, 2017



Broker	Total Commiss	ion Fees
Frank Russell	\$	67,629
Instinet		11,295
Jefferies		9,458
Deutsche Bank		7,045
Morgan Stanley		5,751
Bear Sterns		5,187
JP Morgan		4,440
Barclays		3,145
All others		30,778
Total	\$	144,728

### Schedule of Investment **Fees and Commissions**

Investment advisor fees:*	
Debt securities	\$ 1,217,040
Equity securities	2,430,423
Real assets	144,143
Total investment advisor fees	3,791,606
Investment brokerage fees	144,728
Total fees and commissions	\$3,936,334

^{*}Represents fees that are invoiced and paid directly by URS. These numbers do not represent all management, wrap, or other fees charged directly by the investment advisors. These and other investment related fees are netted from returns.

Utah Retirement Systems uses a commission recapture program as part of its trading strategies. During the year ending December 31, 2017, Utah Retirement Systems recaptured \$48,317 from the gross commission charges. This recaptured sum was used to cover or offset the \$59,922 in investment expenses that otherwise would have been paid for with investment funds.



### **Investment Professionals**

### **DEFINED CONTRIBUTION PLANS INVESTMENT PROFESSIONALS**

Ameriprise Trust Company 940 Ameriprise Financial Center Minneapolis, MN 55474

AOR 2 Greenwich Plaza 3rd Floor Greenwich, CT 06830

BlackRock Asset Management 40 East 52nd Street New York, NY 10019

**Charles Schwab** 101 Montgomery Street San Francisco, CA 94104

**Dimensional Fund** Advisors, Inc. 6300 Bee Cave Road Austin, TX 78746

Dodge & Cox **Investment Managers** 555 California Street 40th Floor San Francisco, CA 94104 lvy Investments 6300 Lamar Avenue Shawnee Mission, KS 66201

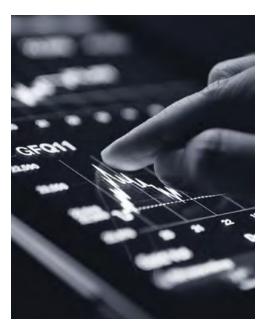
Jennison Associates, LLC 466 Lexington Avenue New York, NY 10017

Standish 201 Washington Street Suite 2900 Boston, MA 02108

The Northern Trust Company 50 South LaSalle Street Chicago, IL 60675

The Prudential Insurance Company of America 751 Broad Street Newark, NJ 07102

**Utah Retirement Systems** 560 East 200 South Salt Lake City, UT 84102



Comprehensive Annual Financial Report

# 2017

# ACTUARIAL SECTION

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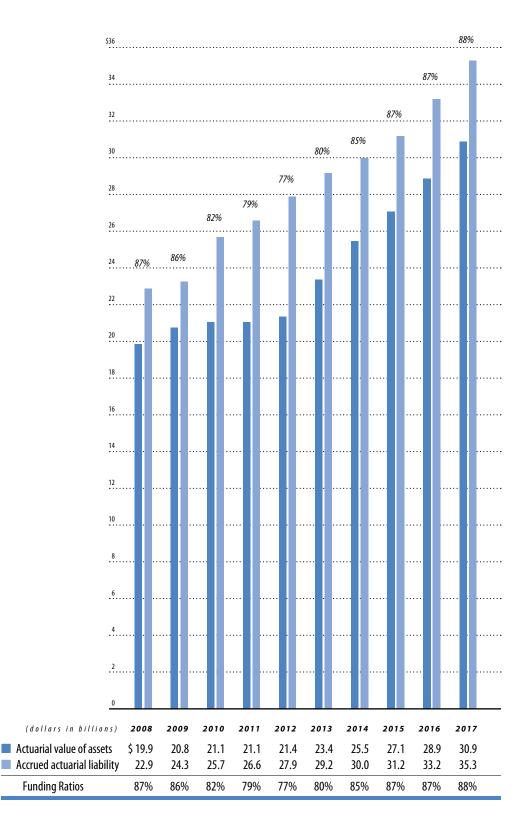
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**Summary of Act** 

# FUNDING PROGRESS WITH FUNDING RATIOS

(dollars in billions)



# ACTUARY'S CERTIFICATION LETTER



P: 469.524.0000 | F: 469.524.0003 | www.grsconsulting.com

August 17, 2017

**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, 2017**

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. In addition, the report provides various summaries of the data. A separate report is issued with regard to valuation results determined in accordance with Governmental Accounting Standards Board (GASB) Statements 67 and 68. Results of this report should not be used for any other purpose without consultation with the undersigned. Valuations are prepared annually as of January 1, the first day of the URS plan year. This report was prepared at the request of the Board and is intended for use by the URS staff and those designated or approved by the Board. This report may be provided to parties other than URS staff only in its entirety and only with the permission of the Board.

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. In other words, the rates determined by this January 1, 2017

actuarial valuation will be used by the Board when certifying the employer contribution rates for the year beginning July 1, 2018 and ending June 30, 2019. 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 are:

- >> To set rates so that the unfunded actuarial accrued liability (UAAL) will be amortized over a reasonable 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 20 years in installments that increase at the assumed rate of growth in payroll for URS.

5605 North MacArthur Boulevard | Suite 870 | Irving, Texas 75038-2631

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

Section 49-11-301(5) of the Utah Code 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 historically followed this policy, 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%.

The funded ratio on a combined basis remains unchanged from the prior year at 85.2%. The improvement in the funded ratio due to investment gains and the current contribution effort to finance the unfunded actuarial accrued liability were offset by the impact of the new actuarial assumptions. Absent unfavorable actuarial experience, we expect the funded ratio to gradually increase in future years.

If market value had been used in the calculation instead of actuarial value, the aggregate funded ratio for all funds combined would have been 84.1% compared to 83.8% in the prior year. The increase in the funded ratio on a market value basis is attributable to the 8.4% return on the market value of assets during the prior year and the current contribution effort to finance the unfunded actuarial accrued liability.

### **Benefit provisions**

The benefit provisions reflected in this valuation are those which were in effect on January 1, 2017. There were no legislative changes enacted since the previous valuation that had a measurable effect on the current valuation.

### **Assumptions and methods**

The Board, in consultation with its actuary, sets the actuarial assumptions and methods used in the valuation. Current Board policy is to have the actuary 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 to the actuarial assumptions (except as noted). Our recommendations included:

- >> Decrease the investment return assumption from 7.20% to at least 7.00%, with 6.95% or 6.90% as other possible assumptions. (7.00% reflects 0.1% decrease in inflation assumption and 0.1% decrease in real rate of return assumption). The Board elected to use a 6.95% assumption.
- >> Decrease the payroll growth assumption from 3.10% to 3.00%.
- >> Decrease in the rates of salary increase for individuals (reflects a 0.1% decrease in inflation assumption and small decreases in service based rates for most groups).
- >> Constructed new post-retirement mortality table based on URS experience (increases life expectancy for most groups).
- >>> Pre-retirement mortality assumptions based on RP-2014 white collar mortality table for employees, with adjustments for different employee types.
- » Modify the retirement rates for most groups. The changes varied by group and gender with some rates increasing and some decreasing.



### ACTUARY'S CERTIFICATION LETTER (Concluded)

- » Modify the termination rates for most groups. The changes varied by group and gender with some rates increasing and some decreasing.
- » Modify the disability rates for most groups. The rates of disability incidence were generally decreased for those groups (rates for firefighters were increased slightly).

In addition to these assumption changes, several university and college entities (referred to as Higher Ed in the remainder of the report) were moved into their own risk group to reflect their decision to classify new employees such that they do not participate in URS.

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 and calculated contribution rates.

It is our opinion that the assumptions used to perform this valuation are internally consistent and are reasonable based on past and anticipated future experience of the System. Also, these assumptions and methods used for funding purposes satisfy the parameters set by the Actuarial Standards of Practice.

### **Data**

Member data for retired, active and inactive members was supplied as of December 31, 2016 by the URS staff. The staff also supplied asset information as of December 31, 2016. We did not audit this data, but we did apply a number of tests to the data and concluded that it was reasonable and consistent with the prior year's data. GRS is not responsible for the accuracy or completeness of the information provided to us by URS.

GRS prepared the following schedules in the actuarial section: Summary of Actuarial Assumptions and Methods, Analysis of Financial Experience, and the Member and Employer Contribution Rates. In addition, GRS prepared the following schedules in the financial section in accordance with GASB Statement No. 67: Net Pension

Liability of Employers, Changes in Discount Rate, Schedule of Changes in the Employers' Net Pension Liability, Schedule of Employers' Net Pension Liability, and the Schedules of Employer Contributions.

URS relied upon the data prepared by GRS to prepare the following schedules: Calculation of Actuarial Value of Assets, Actuarial Value of Assets by System, Schedules of Funding Progress, Solvency Tests, Schedules of Active Member Valuation Data, and the Schedules of Retirants and Beneficiaries.

#### Certification

We certify that the information presented herein is accurate and fairly portrays the actuarial position of URS as of January 1, 2017.

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. White is an Enrolled Actuary and a Member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. Both consultants below are experienced in performing valuations for large public retirement systems.

Sincerely,

Daniel J. White, FSA, EA, MAAA

Senior Consultant

Lewis Ward Consultant



# SUMMARY OF ACTUARIAL **ASSUMPTIONS** AND METHODS

as of January 1, 2017

# Actuarial Assumptions and Methods

a) The actuarial valuation was prepared using the entry age actuarial cost method. As described in the certification letter, the contribution rates are set based on the board's funding policy, which states the contribution rate will not be less than the amount needed to amortize the unfunded actuarial accrued liability of each System over a 20-year period from the valuation date (January 1, 2017).

In calculating this minimum, amortization payments are designed to remain level as a percent of payroll, and payroll is assumed to increase 3.00% per year. Under this method, actuarial gains and losses are identified and amortized as part of the unfunded actuarial accrued liability over a period that does not exceed 20 years.

b) The future investment earnings of the assets of the Systems are assumed to accrue at an annual rate of 6.95%, compounded annually. This rate is made up of a 2.50% assumed inflation rate and a 4.45% assumed real rate of return. This assumption was adopted January 1, 2017.



- c) The total rates of assumed annual salary increase are shown on the actuarial schedule on page 163. The rates include increases due to promotion and longevity and a 3.25% per annum rate of increase in the general wage level of the membership. Salaries of judges are assumed to increase at 3.25%. All of these assumptions were adopted January 1, 2017.
- d) Post-retirement benefit increases are based on the consumer price index (CPI), limited by the provisions of each System. The increases are assumed to be 2.5% for all Systems. Increases are based on the member's original retirement allowance except in the Judges Retirement System where increases are compounded. For current retirees who have received cumulative COLAs less than the total of annual CPI increases since retirement, higher COLAs are assumed, subject to the annual maximum (2.5% or 4% for Public Safety and 4% for all other Systems), as long as the member has "banked" CPI increases left.

as of January 1, 2017



### **Retired Member Mortality**

Class of Member

### **Educators and Judges**

Men 2017URSM (90%) Women 2017URSF (90%)

### **Public Safety and Firefighters**

2017URSM (110%) Men Women 2017URSF (110%)

### **Local Government, Public Employees**

Men 2017URSM (110%) Women 2017URSF (110%)

2017URSM = Constructed mortality table based on actual experience of male URS retirees multiplied by given percentage

2017URSF = Constructed mortality table based on actual experience of female URS retirees multiplied by given percentage

e) Tables of mortality rates for male members retired for service and beneficiaries were developed from actual experience of URS retirees. Mortality rates for female members retired for service and beneficiaries were developed from actual experience of the URS retirees. The mortality basis is adjusted based upon the member's class and gender as shown above. These base rates are adjusted for future improvement in mortality using published Scale AA projected from the year 2017. All of these rates were adopted January 1, 2017. Mortality rates for active members use the RP2014 employees mortality tables with white collar adjustment as the underlying assumption with scaling factors applied based on employee group and gender. The assumptions were adopted effective January 1, 2017.

- f) Mortality among disabled members is based on 110% of the RP2014 disabled mortality table for males, and 120% of the RP2014 disabled mortality table for females. The rates for males and females are also adjusted for future improvement in mortality using published Scale AA projected from the year 2006.
- g) Other demographic assumptions regarding retirement, mortality, disablement, and termination from employment are illustrated in the following actuarial schedules.

The retirement assumptions illustrated are for members of the Systems who are eligible to retire with 30 years of service (35 years of service for Tier 2). For public employees the rates vary by age and eligibility for reduced or unreduced retirement. For Public Safety, Firefighters, and Judges the rates vary by age and service groupings.

Rates of assumed termination from employment are assumed to vary by years of service. All terminating members who are not eligible for vested benefits are assumed to withdraw their contributions immediately. Vested members are assumed to withdraw their contributions and forfeit the right to further benefits at the rates illustrated.

- h) The Retirement Board uses the expected rate of return method for calculating the actuarial value of assets. This method is based on the total earnings of the commingled investments and spreads the excess/ shortfall of actual investment returns over or under the expected return over five years. One-fifth of the excess/shortfall is recognized each year. The actuarial values of assets under this method were calculated and reported to us by the Systems' staff.
- i) All of the actuarial assumptions were renewed or adopted by the Retirement Board in 2017, as recommended by the actuary. The assumptions for Tier 2 members are the same as the Tier 1 members, except for retirement rates.

as of January 1, 2017

					F	Percent Retiring	Within	Next Ye	ear Among Act	ive Members		
							Elig	ible fo	r Retirement			
					Male				Female	Governors and		
	D. 1.	State and Sch			Local	State and Sch			Local	Legislators		
	Retirement Age	Educators	Emplo		Government Division	Educators	Employ		Government Division	Retirement Plan		
Tier 1	50	20.00%	15	.00%	15.00%	30.00%	17	.00%	20.00%	0.00	%	
Noncontributory	51	20.00	15	.00	15.00	30.00	16	.00	20.00	0.00		
and Contributory	52	20.00	15	.00	15.00	30.00	16	.00	20.00	0.00		
Retirement Systems	53	20.00	15	.00	15.00	14.00	16	.00	20.00	0.00		
Adopted January 1, 2017	54	15.00		.00	15.00	14.00	16		20.00	0.00		
ridopica saridary 1, 2017	55	15.00		5.00	15.00	14.00	16		25.00	0.00		
	56	15.00		5.00	15.00	18.00	16		25.00	0.00		
	57	15.00		5.00	15.00	18.00	16		25.00	0.00		
	58	15.00		00.	15.00	18.00	20		25.00	0.00		
	59	15.00		.00	15.00	18.00	20		25.00	0.00		
	60	23.00		0.00	20.00	30.00	25		30.00	0.00		
	61	23.00		0.00	20.00	30.00	25		30.00	0.00		
	62	33.00	30	0.00	23.00	35.00	33		30.00	100.00		
	63	33.00	30	0.00	23.00	35.00	33	.00	30.00	100.00		
	64	33.00	30	.00	23.00	35.00	33	.00	30.00	100.00		
	65	33.00	22	2.00	23.00	35.00	28	.00	25.00	100.00		
	66	33.00	22	2.00	30.00	35.00	28	.00	25.00	100.00		
	67	30.00	22	2.00	22.00	35.00	28	.00	25.00	100.00		
	68	30.00		2.00	22.00	23.00	22		25.00	100.00		
	69	25.00		2.00	22.00	23.00	22		25.00	100.00		
	70	20.00		2.00	22.00	23.00	22		20.00	100.00		
	71	20.00		2.00	18.00	23.00	22		15.00	100.00		
	72	20.00		2.00	18.00	23.00	22		15.00	100.00		
	73	20.00		2.00	18.00	23.00	22		15.00	100.00		
	74	20.00		2.00	18.00	23.00	22		15.00	100.00		
	75	100.00	100	0.00	100.00	100.00	100	.00	100.00	100.00		
		Datina				ent Retiring Wit		Year A				Retirement
	Retirement Age	Retire	Age		Retirement Age	Retire	Age		Retirement Age	Keti	rement Age	
Tier 1	45	15.00%	50	15.00	0% 55	15.00%	59	20.00	% 63	35.00%	67	50.00%
Public Safety	46	15.00	51	15.00	56	15.00	60	20.00	64	35.00	68	50.00
Retirement System	47	15.00	52	15.00	57	15.00	61	20.00	65	50.00	69	50.00
Adopted January 1, 2017	48	15.00	53	15.00	58	15.00	62	35.00	66	50.00	70	100.00
,	49	15.00	54	15.00	)							
					Perce	ent Retiring Wit	hin Next	Year A	mong Active I	Members Eligi	ble for F	Retirement
	Retirement	Retire			Retirement	Retire	ment		Retirement		rement	
Tior 1	Age	15 000/	Age 50	1E 00	Age	15 000/	Age	20.00	Age	25.000/	Age 67	E0 000
Tier 1	45	15.00%		15.00		15.00%		20.00		25.00%	67	50.00%
Firefighters	46	15.00		15.00		15.00		20.00		25.00	68	50.00
Retirement System	47	15.00		15.00		15.00		20.00		50.00	69	50.00
Adopted January 1, 2017	48 49	15.00 15.00		15.00 15.00		20.00	62	25.00	66	50.00	70	100.00
	1,7	13.00	<b>J</b> 1	15.00								
	Retirement	Retire	ment		Perce Retirement	ent Retiring Wit Retire		Year A	mong Active I		ble for F	Retirement
	Age	netilei	Age		Age	netilei	Age		Age	neti	Age	
Judges	45	10.00%	50	10.00	)% 55	10.00%	59	10.00	% 63	20.00%	67	20.00%
Retirement System	46	10.00	51	10.00	56	10.00	60	10.00	64	20.00	68	20.00
Adopted January 1, 2014	47	10.00	52	10.00	57	10.00	61	10.00	65	20.00	69	20.00
•	48	10.00	53	10.00	58	10.00	62	20.00	66	20.00	70	100.00
	49	10.00		10.00								

as of January 1, 2017

				P	ercent Retiring	Within Next	Year Among Acti	ve Members
						Eligible f	for Retirement	
				Male			Female	Governors
		State and Sch	ool Division	Local	State and Sch	ool Division	Local	and Legislators
	Retirement Age	Educators	Public Employees	Government Division	Educators	Public Employees	Government Division	Retirement Plan
Tier 2	50	20.00%	15.00%	15.00%	30.00%	17.00%	6 20.00%	0.00%
Public Employees	51	20.00	15.00	15.00	30.00	16.00	20.00	0.00
Retirement System	52	20.00	15.00	15.00	30.00	16.00	20.00	0.00
Adopted January 1, 2014	53	20.00	15.00	15.00	14.00	16.00	20.00	0.00
	54	12.00	15.00	15.00	14.00	16.00	20.00	0.00
	55	12.00	16.00	15.00	14.00	16.00	25.00	0.00
	56	12.00	16.00	15.00	18.00	16.00	25.00	0.00
	57	12.00	16.00	15.00	18.00	16.00	25.00	0.00
	58	12.00	16.00	15.00	18.00	20.00	25.00	0.00
	59	12.00	16.00	15.00	18.00	20.00	25.00	0.00
	60	23.00	20.00	20.00	30.00	30.00	30.00	0.00
	61	23.00	20.00	20.00	30.00	30.00	30.00	0.00
	62	30.00	33.00	23.00	35.00	30.00	30.00	100.00
	63	30.00	33.00	23.00	35.00	30.00	30.00	100.00
	64	30.00	30.00	23.00	30.00	30.00	30.00	100.00
	65	30.00	22.00	23.00	30.00	26.00	25.00	100.00
	66	30.00	22.00	30.00	30.00	26.00	25.00	100.00
	67	30.00	22.00	22.00	30.00	22.00	25.00	100.00
	68	30.00	22.00	22.00	23.00	22.00	25.00	100.00
	69	25.00	22.00	22.00	23.00	22.00	25.00	100.00
	70	20.00	22.00	22.00	23.00	22.00	20.00	100.00
	71	20.00	22.00	18.00	23.00	22.00	15.00	100.00
	72	20.00	22.00	18.00	23.00	22.00	15.00	100.00
	73	20.00	22.00	18.00	23.00	22.00	15.00	100.00
	74	20.00	22.00	18.00	23.00	22.00	15.00	100.00
	75	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Retirement rates at the age the member is first eligible for an unreduced retirement benefit prior to age 65 is increased by 30%.

Tier 2 Public Safety and Firefighter			ement Age	Reti	Perc rement Age					Retirement Retiren  Age		
Retirement System	45	12.00%	50	12.00%	55	12.00%	59	12.00%	63	35.00%	67	50.009
	46	12.00	51	12.00	56	12.00	60	25.00	64	35.00	68	50.00
Public Safety	47	12.00	52	12.00	57	12.00	61	30.00	65	50.00	69	50.00
Adopted January 1, 2014	48	12.00	53	12.00	58	12.00	62	35.00	66	50.00	70	100.00
	49	12.00	54	12.00								
					Perc	ent Retiring W	ithin Ne	xt Year Amon	g Active	Members Eligi	ble for F	Retirement
	Retirement Age	Reti	ement Age	Reti	Pero rement Age		ithin Ne ement Age		g Active rement Age		ble for F rement Age	Retirement
Firefighters		Retii 9.00%		9.00%	rement		ement		rement		rement	
Firefighters Adopted January 1, 2014	Age		Age		rement Age	Retir	ement Age	Retii	rement Age	Reti	rement Age	
_	Age 45	9.00%	Age 50	9.00%	rement Age	12.00%	ement Age 59	Retir	rement Age	Reti	rement Age 67	60.009
_	45 46	9.00% 9.00	50 51	9.00% 9.00	rement Age 55 56	12.00% 12.00	ement Age 59 60	12.00% 40.00	rement Age 63 64	40.00% 40.00	rement Age 67 68	60.009 60.00

as of January 1, 2017

		Oth	er Terminatior	of Employment	Percent of Act	tive Members		
		State and Sch	ool Division	Male	State and Sch	ool Division	Female	Governors and
	Years of Service	Educators		Local - Government Division	Educators		Local Government Division	Legislators Retirement Plan
	Service	Luucators	Lilipioyees	DIVISION	Luucators	Lilipioyees	DIVISION	Fiaii
Noncontributory	0	14.00%	25.00%	17.00%	16.00%	28.00%	22.00%	10.00%
and Contributory	1	11.00	20.00	13.00	15.00	23.00	18.00	10.00
Retirement Systems	2	8.00	14.00	9.00	12.00	17.00	13.00	10.00
Adopted January 1, 2017	3	7.00	10.00	8.00	10.00	13.00	11.00	10.00
	4	6.50	10.00	7.50	9.00	12.50	10.50	10.00
	5	6.00	10.00	7.00	8.00	11.00	10.00	10.00
	6	5.50	9.00	6.50	7.50	10.00	9.50	10.00
	7	4.00	7.50	6.00	6.00	7.50	9.00	10.00
	8	3.50	6.00	5.50	5.00	6.50	7.50	10.00
	9	3.00	5.50	4.75	4.50	6.00	7.00	10.00
	10	2.75	5.00	4.50	4.00	5.50	6.00	10.00
	11	2.50	4.50	4.00	3.50	4.75	5.50	10.00
	12	2.50	4.00	3.50	3.25	4.50	5.25	10.00
	13	2.25	3.75	3.00	3.00	4.25	5.00	10.00
	14	2.00	3.50	3.00	2.50	3.75	4.50	10.00
	15	2.00	3.00	2.75	2.25	3.50	4.00	10.00
	16	1.75	2.75	2.75	2.00	3.00	3.75	10.00
	17	1.75	2.50	2.75	1.75	2.75	3.50	10.00
	18	1.75	2.00	2.50	1.50	2.75	3.00	10.00
	19	1.50	2.00	2.50	1.25	2.75	3.00	10.00
	20	1.00	2.00	2.00	1.25	2.75	2.50	10.00
	21	1.00	2.00	2.00	1.25	2.50	2.50	10.00
	22	1.00	2.00	1.75	1.25	2.25	2.25	10.00
	23	1.00	1.50	1.50	1.25	2.00	2.00	10.00
	24	1.00	1.50	1.25	1.25	2.00	2.00	10.00
	25+	1.00	1.00	1.00	1.00	1.00	1.00	10.00

				Ot	her Terminatio	n of Employn	nent of Active I	Members Sep	arating Within N	Next Year
	Years of Ser	vice	Years of Serv	/ice	Years of Serv	/ice	Years of Serv	/ice	Years of Servi	ice
Public Safety	0	12.00%	5	4.50%	9	3.25%	13	2.25%	17	1.50%
Retirement System	1	8.00	6	4.25	10	3.00	14	1.50	18	1.50
Adopted January 1, 2010	2	6.50	7	4.00	11	2.75	15	1.50	19	1.50
	3	6.00	8	3.50	12	2.50	16	1.50	20+	1.00
	4	5.00								

				Ot	her Terminatio	n of Employn	nent of Active I	Members Sep	arating Within I	Next Year
	Years of Serv	rice	Years of Serv	/ice	Years of Serv	/ice	Years of Serv	/ice	Years of Serv	ice
Firefighters	0	6.00%	5	2.50%	9	1.50%	13	0.50%	17	0.50%
Retirement System	1	5.00	6	2.25	10	1.50	14	0.50	18	0.50
Adopted January 1, 2010	2	4.00	7	2.00	11	1.50	15	0.50	19	0.50
	3 4	3.50 3.00	8	1.75	12	0.50	16	0.50	20+	0.50

Other Termination of Employment of Active Members Separating Within Next Year

**Judges Retirement System** Adopted January 1,1993

None assumed.

as of January 1, 2017

											Total	Annual Incre	ase in Salary
												(Male	and Female)
	Years of	School	Public Governn		etirement	Firefighters Retirement		ears of				Retirement	Firefighters Retirement
		Educators Em	ployees Divi	sion	System	System	_		Educators		Division	System System	System
All Retirement	0	9.75%		75%	7.259		6	13	4.75%				
Systems	1	9.00		25	6.25	8.25		14	4.00	4.00	4.00		4.50
Adopted	2	8.00		.50	6.00	8.00		15	4.00	3.75	4.00		4.50
January 1, 2017	3	7.50		.00	5.75	7.75		16	4.00	3.75	3.75		4.50
	4	7.25		.50	5.75	7.50		17	3.75	3.75	3.75		
	5	7.00		25	5.75	7.25		18	3.75	3.75	3.75		
	6	7.00		.00	5.75	7.25		19	3.75	3.75	3.75		
	7	6.75		.75	5.50	6.75		20	3.75	3.50	3.50		
	8	6.75		.50	5.25	6.50		21	3.75	3.50	3.50		3.75
	9	6.50		.50	5.25	6.25		22	3.75	3.50	3.50		3.50
	10	6.00		.25	5.00	5.75		23	3.75	3.50	3.25		3.50
	11	5.50		.05	4.75	5.00		24	3.50	3.25	3.25		3.50
	12	5.25	4.25 4.	.05	4.50	5.00		25-	- 3.25	3.25	3.25	3.25	3.25
								Prob	ability of Mo	rtality With	in the Next	Year for Acti	
			Male			Female					Male		Female
			Local		_	Local				<b></b>	Local		Local
			Government and Public		G	overnment and Public					nment Public		Government and Public
	Age	Educators	Employees	Edu	cators	Employees		Ag	e Educate			Educators	Employees
	20	0.02200/	0.02050/	0.0	20.00/	0.01100	, –		0 000	160/ 0	11020/	0.04650/	0.07440
Noncontributory	20	0.0228%	0.0285%		0069%	0.01109	0	5			1182%	0.0465%	0.0744%
and Contributory	25	0.0271	0.0339		0073	0.0117		5.			1955	0.0706	0.1230
<b>Retirement Systems</b>	30	0.0254	0.0317		0092	0.0147		6			3288	0.1030	0.1648
Adopted January 1, 2017	, 35	0.0294	0.0367		0121	0.0193		6			5805	0.1560	0.2495
, .,	40	0.0352	0.0440		0167	0.0267		7	0.822	23 1.	0279	0.2717	0.4346
	45	0.0546	0.0682	0.0	0277	0.0443							
			_				Percent	Electin		f Contribut	ons Upon 1	ermination \	
									Male				Female
			Yes	rs of			Public	Gov	Local ernment			Public	Local Government
				rvice	Educate	ors Emp	loyees	dov	Division	Educato	rs Em	ployees	Division
Noncontributory an	d Con	tributory	(	)-3	10	00%	100%	6	100%	10	00%	100%	100%
Retirement Systems		,		4	-	75	86		75	6	55	80	77
•				5		73	83		73		54	79	75
Adopted January 1, 1993	•			10		54	73		61		3	64	61
				15		33	63		49		32	52	40
				19	•	9	29		23	-	8	22	13
				20		0	0		0		0	0	0
								Prob	ability of Mo	rtality With	in the Next	Year for Acti	ve Members
			_								ic Safety an		s Employees
			,	Age		,	Age			Age		Age	
<b>Public Safety Retire</b>	ment	Svstem		20	0.0276	%	35	0.061	8%	50 C	.1710%	65	0.6058%
and Firefighters Ret				25	0.0301		40	0.086	3	55 C	.2423	70	0.7938
Adopted January 1, 2008				30	0.0355			0.120			.3902		
Adopted January 1, 2006	)												
			<u>P</u>	ercent	Electing a	Refund of Co		_					
			_				atety and	1 Firefi	ghters Retire		oyees		
Dublic Cofety Detire		Cuetarr		Yea	rs of Servi		NO/		Years of S	ervice	250/		
Public Safety Retire					0-3	100			15		35%		
and Firefighters Ret		nt System			4	76			19		15		
Adopted January 1, 1993	3				5	74			20		0		
					10	57	•						

# Calculation of Actuarial Value of Assets

1. Fair value	of assets			\$ 28,544,316
2. Deferral to	smooth asse	t values l	pased	. , ,
on (exce	ess)/shortfall c	of expecte	ed	
investm	ent income fo	or:		
Year	Total Excess/ (Shortfall)	% Deferred	Amount Deferred	
a. 2016	\$ 329,863	80%	\$ 263,890	
b. 2015	(1,529,412)	60%	(917,647)	
c. 2014	(95,447)	40%	(38,180)	
d. 2013	1,600,276	20%	320,053	
e. 2012	1,017,197	0%	_	
f. Total de	eferred gains	(losses)	(371,884)	
g. Total d	leferred losse:	S		371,884
3. Actuarial v	alue of assets	5		
available	for benefits*			\$ 28,916,200

December 31, 201	17		(dollars in	thousands)
1. Fair value o	of assets			\$ 31,878,618
2. Deferral to	smooth asse	t values	based	
on (exces	ss)/shortfall c	of expect	ted	
investme	nt income fo	or:		
Year	Total Excess/ (Shortfall)	% Deferred	Amount Deferred	
a. 2017 \$	1,792,941	80%	\$ 1,434,354	
b. 2016	329,863	60%	197,920	
c. 2015	(1,529,412)	40%	(611,763)	
d. 2014	(95,447)	20%	(19,087)	
e. 2013	1,600,276	0%	_	
f. Total de	ferred gains	(losses)	1,001,424	
g. Total de	eferred gains			(1,001,424)
3. Actuarial va	alue of assets	5		
available f	or benefits*			\$ 30,877,194

^{*}Actuarial value of assets cannot exceed 125% of the fair value of assets or below 75% of the fair value of assets.

# Actuarial Value of Assets by System

January 1, 2017

(in thousands)

	Noncontributory System	Contributory System	Public Safety System	Firefighters System	Judges System	Governors and Legislators	Tier 2 Public Employees System	Tier 2 Public Safety and Firefighter System	Total All Systems
1. Net assets available for benefits at fair value	\$ 22,618,743	1,204,904	3,176,545	1,115,726	175,618	10,352	217,293	25,135	28,544,316
Adjustments to smooth asset values based on (excess)/shortfall of expected investment income on fair value for		22.168	40.676	14,472	2.164	118	2.592	253	371,884
			,	, ., _	_,		_,		
3. Actuarial value of assets available for benefits (1-2)	\$ 22,908,184	1,227,072	3,217,221	1,130,198	177,782	10,470	219,885	25,388	28,916,200

# Analysis of Financial Experience

(in thousands)

U System	January 1, 2016 nfunded Actuarial Accrued Liability	Amortization Payments	Liability (Gain) Loss	Asset (Gain) Loss	Changes in Actuarial Assumptions	Change in Benefit Provisions	Asset Transfers	January 1, 2017 Unfunded Actuarial Accrued Liability
Noncontributory	\$ 3,947,842	(171,883)	(87,363)	(185,712)	666,171	_	1,196	4,170,251
Contributory	73,441	(861)	(4,597)	(13,719)	12,714	_	(1,196)	65,782
Public Safety	634,538	(25,891)	(9,526)	(24,292)	116,742	_	_	691,571
Firefighters	16,651	(6,673)	(10,207)	(8,835)	31,468	_	_	22,404
Judges	37,242	(1,286)	(845)	(1,513)	12,591	_	_	46,189
<b>Utah Governors and Legislators</b>	2,511	(170)	130	(117)	320	_	_	2,674
Tier 2 Public Employees	353	1,600	(1,321)	1,114	9,574	_	_	11,320
Tier 2 Public Safety and Firefighter	r (844)	69	(470)	120	1,546	_	_	421

# Member and Employer Contribution Rates

				Contributory	ľ	loncontributory
System	Year	Member	Employer	Employer	Employer	Employer
Noncontributory			State and School	Local Government	State and School	Local Government
and Contributory	2008	6.00%	9.73%	7.61%	14.22%	11.62%
Retirement Systems	2009	6.00	9.73	7.65	14.22	11.66
	2010	6.00	11.83	9.36	16.32	13.37
	2011	6.00	12.37	9.76	16.86	13.77
	2012	6.00	14.27	12.03	18.76	16.04
	2013	6.00	15.97	13.28	20.46	17.29
	2014	6.00	17.70	14.46	22.19	18.47
	2015	6.00	17.70	14.46	22.19	18.47
	2016	6.00	17.70	14.46	22.19	18.47
	2017	6.00	17.70	14.46	22.19	18.47
		(with S	Division A ocial Security)	(without S	Division B ocial Security)	All Divisions Fire Insurance
		Member	Employer	Member	Employer	Premium Tax
Firefighters	2008	13.14%	_	9.68%	_	11.12%
Retirement System	2009	13.49	_	9.68	_	12.34
	2010	15.05	_	16.18	_	11.87
	2011	15.05	0.50%	16.18	_	12.29
	2012	15.05	2.66	16.71	2.08%	11.84
	2013	15.05	2.96	16.71	4.46	11.75
	2014	15.05	3.82	16.71	6.59	11.71
	2015	15.05	3.99	16.71	6.76	11.54
	2016	15.05	3.89	16.71	6.66	11.64
	2017	15.05	3.93	16.71	6.70	11.60
					Judges	Governors and
				oncontributory		Legislators
		Member	Employer	Employer	Court Fees	Appropriation
Judges	2008	2.00%	11.51%	12.38%	14.32%	\$ <u> </u>
Retirement System	2009	2.00	15.09	17.09	13.83	_
	2010	_	_	23.72	14.08	_
Utah Governors	2011	_	_	25.82	14.26	153,000
and Legislators	2012	_		32.87	14.02	214,000
Retirement Plan	2013		_	35.66	12.74	252,000
	2014		_	40.01	11.90	411,489
	2015		_	41.58	10.33	421,009
	2016		_	42.12	9.79	404,409
	2017	_	_	42.39	9.22	391,883

# Member and Employer Contribution Rates (Continued)

			State	e of Utah		Other	2.5% COLA Division A al Security)			0% COLA Division A Security)			Bountiful
System	Year	Me	mber E	mployer	N	lember	Employer		Member	Employer	Mer	nber	Employer
Public Safety	2008		_	26.75%		_	22.61%		_	_		_	22.47%
Retirement	2009		_	30.18		_	23.34		_	25.90%	, 0	_	23.07
System	2010		_	32.75		_	26.13		_	28.82		_	27.73
Noncontributory	2011		_	34.12		_	27.07		_	28.82		_	29.19
Division A	2012		_	37.29		_	30.45			33.65			37.16
	2013		_	39.31		_	32.14		_	34.17		_	42.79
	2014		_	41.35		_	34.04		_	35.71		_	47.33
	2015		_	41.35		_	34.04		_	35.71		_	47.33
	2016		_	41.35		_	34.04			35.71		_	47.33
	2017		_	41.35		_	34.04		_	35.71		_	49.58
Public Safety	2008	1.	2.29%	15.46%		12.29%	11.22%		_	_		_	_
Retirement	2009	1.	2.29	19.01		12.29	12.47		12.29%	15.01%	ó	_	_
System	2010	1.	2.29	21.68		12.29	14.86		12.29	18.34		_	_
Contributory	2011	1.	2.29	22.88		12.29	15.78		12.29	18.34		_	_
Division A	2012	1.	2.29	25.52		12.29	19.08		12.29	22.34		_	_
	2013	1.	2.29	27.63		12.29	20.83		12.29	22.75		_	_
	2014	1.	2.29	29.70		12.29	22.75		12.29	24.33		_	_
	2015		2.29	29.70		12.29	22.75		12.29	24.33		_	_
	2016	1.	2.29	29.70		12.29	22.75		12.29	24.33		_	_
	2017	1.	2.29	29.70		12.29	22.75		12.29	24.33		_	_
		Salt I	Lake City		Ogden		Logan		Provo	Other D	5% COLA Division B t Soc Sec)	Other I	.0% COLA Division B at Soc Sec)
	Year	Member E	mployer	Member E	mployer	Member	Employer	Membe	r Employer	Member I	Employer	Member	Employer
Public Safety	2008	_	35.71%	_	31.479	% —	25.48%	. —	- 29.84%	<u> </u>	25.49%	_	_
Public Safety Retirement	2008 2009	_	35.71% 35.71	_	31.479 33.11	% <u> </u>	25.48% 27.74	) <u> </u>	- 29.84% - 30.91	— —	25.49% 26.21	_	— 28.73%
Retirement System		_ _ _		_ _ _		% — — —		) — —		— — —		_ _ _	28.73% 32.70
Retirement System Noncontributory	2009	_ _ _ _	35.71	_ _ _ _	33.11	% — — — —	27.74	- - -	- 30.91 - 32.98	_	26.21	_ _ _ _	
Retirement System	2009 2010	_ _ _ _	35.71 36.31		33.11 34.93	_	27.74 31.49	_	- 30.91 - 32.98	_	26.21 28.24	_	32.70
Retirement System Noncontributory	2009 2010 2011	_ _ _ _ _	35.71 36.31 36.71		33.11 34.93 36.13	_ 	27.74 31.49 31.91	_	- 30.91 - 32.98 - 33.05	_ _ _	26.21 28.24 28.64	_ _ _	32.70
Retirement System Noncontributory	2009 2010 2011 2012	_ _ _ _ _	35.71 36.31 36.71 41.95		33.11 34.93 36.13 42.21	_ 	27.74 31.49 31.91 38.18	_	- 30.91 - 32.98 - 33.05 - 38.54	_ _ _	26.21 28.24 28.64 32.20	_ _ _	32.70 32.70 36.97
Retirement System Noncontributory	2009 2010 2011 2012 2013	_ _ _ _ _ _	35.71 36.31 36.71 41.95 44.83	——————————————————————————————————————	33.11 34.93 36.13 42.21 44.98	_ 	27.74 31.49 31.91 38.18 39.84	_	- 30.91 - 32.98 - 33.05 - 38.54 - 39.97	_ _ _	26.21 28.24 28.64 32.20 32.20	_ _ _	32.70 32.70 36.97 37.45
Retirement System Noncontributory	2009 2010 2011 2012 2013 2014 2015 2016	_ _ _ _	35.71 36.31 36.71 41.95 44.83 46.67 46.67		33.11 34.93 36.13 42.21 44.98 48.68 48.68 48.68	_ 	27.74 31.49 31.91 38.18 39.84 41.92 41.92 41.92	_	- 30.91 - 32.98 - 33.05 - 38.54 - 39.97 - 42.16 - 42.16	_ _ _	26.21 28.24 28.64 32.20 32.20 34.04 34.04	_ _ _	32.70 32.70 36.97 37.45 38.94 38.94
Retirement System Noncontributory	2009 2010 2011 2012 2013 2014 2015	_ _ _ _	35.71 36.31 36.71 41.95 44.83 46.67 46.67		33.11 34.93 36.13 42.21 44.98 48.68 48.68	_ 	27.74 31.49 31.91 38.18 39.84 41.92 41.92	_	30.91 32.98 33.05 38.54 39.97 42.16 42.16	_ _ _	26.21 28.24 28.64 32.20 32.20 34.04 34.04	_ _ _	32.70 32.70 36.97 37.45 38.94 38.94
Retirement System Noncontributory Division B	2009 2010 2011 2012 2013 2014 2015 2016 2017	_ _ _ _ _	35.71 36.31 36.71 41.95 44.83 46.67 46.67		33.11 34.93 36.13 42.21 44.98 48.68 48.68 48.68	- - - - - - - - 11.13	27.74 31.49 31.91 38.18 39.84 41.92 41.92 41.92 41.92	- - - - - -	- 30.91 - 32.98 - 33.05 - 38.54 - 39.97 - 42.16 - 42.16 - 42.16 - 42.16	10.50%	26.21 28.24 28.64 32.20 32.20 34.04 34.04 34.04 34.04		32.70 32.70 36.97 37.45 38.94 38.94 38.94
Retirement System Noncontributory Division B  Public Safety Retirement	2009 2010 2011 2012 2013 2014 2015 2016 2017	_ _ _ _ _	35.71 36.31 36.71 41.95 44.83 46.67 46.67 46.67		33.11 34.93 36.13 42.21 44.98 48.68 48.68 48.68	11.13	27.74 31.49 31.91 38.18 39.84 41.92 41.92 41.92 41.92 % 14.61% 17.81	- - - - - -	- 30.91 - 32.98 - 33.05 - 38.54 - 39.97 - 42.16 - 42.16 - 42.16	10.50%	26.21 28.24 28.64 32.20 32.20 34.04 34.04 34.04 6 15.69% 16.67	10.509	32.70 32.70 36.97 37.45 38.94 38.94 38.94 6 — 19.179
Retirement System Noncontributory Division B  Public Safety Retirement System	2009 2010 2011 2012 2013 2014 2015 2016 2017 2008 2009 2010	_ _ _ _ _	35.71 36.31 36.71 41.95 44.83 46.67 46.67 46.67		33.11 34.93 36.13 42.21 44.98 48.68 48.68 48.68	11.13 11.13 11.13	27.74 31.49 31.91 38.18 39.84 41.92 41.92 41.92 41.92 % 14.61% 17.81 20.95	- - - - - - -	- 30.91 - 32.98 - 33.05 - 38.54 - 39.97 - 42.16 - 42.16 - 42.16 - 42.16	10.50%	26.21 28.24 28.64 32.20 32.20 34.04 34.04 34.04 34.04 6 15.69% 16.67 18.98	10.509 10.50	32.70 32.70 36.97 37.45 38.94 38.94 38.94 
Retirement System Noncontributory Division B  Public Safety Retirement System Contributory	2009 2010 2011 2012 2013 2014 2015 2016 2017 2008 2009 2010 2011	_ _ _ _ _	35.71 36.31 36.71 41.95 44.83 46.67 46.67 46.67		33.11 34.93 36.13 42.21 44.98 48.68 48.68 48.68	11.13 11.13 11.13	27.74 31.49 31.91 38.18 39.84 41.92 41.92 41.92 41.92 % 14.61% 17.81 20.95 21.36		- 30.91 - 32.98 - 33.05 - 38.54 - 39.97 - 42.16 - 42.16 - 42.16 — —	10.50% 10.50 10.50 10.50	26.21 28.24 28.64 32.20 32.20 34.04 34.04 34.04 6 15.69% 16.67 18.98 19.48	10.509 10.50 10.50	32.70 32.70 36.97 37.45 38.94 38.94 38.94 6 — 19.17% 23.22 23.22
Retirement System Noncontributory Division B  Public Safety Retirement System	2009 2010 2011 2012 2013 2014 2015 2016 2017 2008 2009 2010 2011 2012	_ _ _ _ _	35.71 36.31 36.71 41.95 44.83 46.67 46.67 46.67		33.11 34.93 36.13 42.21 44.98 48.68 48.68 48.68	11.13 11.13 11.13 11.13 11.13	27.74 31.49 31.91 38.18 39.84 41.92 41.92 41.92 41.92 % 14.61% 17.81 20.95 21.36 27.95		- 30.91 - 32.98 - 33.05 - 38.54 - 39.97 - 42.16 - 42.16 - 42.16 — —	10.50% 10.50 10.50 10.50 10.50	26.21 28.24 28.64 32.20 32.20 34.04 34.04 34.04 6 15.69% 16.67 18.98 19.48 22.29	10.509 10.50 10.50 10.50	32.70 32.70 36.97 37.45 38.94 38.94 38.94 6 — 19.179 23.22 23.22 27.29
Retirement System Noncontributory Division B  Public Safety Retirement System Contributory	2009 2010 2011 2012 2013 2014 2015 2016 2017 2008 2009 2010 2011 2012 2013	_ _ _ _ _	35.71 36.31 36.71 41.95 44.83 46.67 46.67 46.67		33.11 34.93 36.13 42.21 44.98 48.68 48.68 48.68	11.13 11.13 11.13 11.13 11.13 11.13	27.74 31.49 31.91 38.18 39.84 41.92 41.92 41.92 41.92 % 14.61% 17.81 20.95 21.36 27.95 29.76		- 30.91 - 32.98 - 33.05 - 38.54 - 39.97 - 42.16 - 42.16 - 42.16 — —	10.50% 10.50 10.50 10.50 10.50	26.21 28.24 28.64 32.20 32.20 34.04 34.04 34.04 6 15.69% 16.67 18.98 19.48 22.29 22.29	10.509 10.50 10.50 10.50 10.50	32.70 32.70 36.97 37.45 38.94 38.94 38.94 6 — 19.17% 23.22 23.22 27.29 27.49
Retirement System Noncontributory Division B  Public Safety Retirement System Contributory	2009 2010 2011 2012 2013 2014 2015 2016 2017 2008 2009 2010 2011 2012 2013 2014	_ _ _ _ _	35.71 36.31 36.71 41.95 44.83 46.67 46.67 46.67		33.11 34.93 36.13 42.21 44.98 48.68 48.68 48.68	11.13 11.13 11.13 11.13 11.13 11.13	27.74 31.49 31.91 38.18 39.84 41.92 41.92 41.92 41.92 % 14.61% 17.81 20.95 21.36 27.95 29.76 31.80		- 30.91 - 32.98 - 33.05 - 38.54 - 39.97 - 42.16 - 42.16 - 42.16 	10.50% 10.50 10.50 10.50 10.50 10.50	26.21 28.24 28.64 32.20 32.20 34.04 34.04 34.04 6 15.69% 16.67 18.98 19.48 22.29 22.29 22.29	10.509 10.50 10.50 10.50 10.50 10.50 10.50	32.70 32.70 36.97 37.45 38.94 38.94 38.94 6 — 19.179 23.22 23.22 27.29 27.49 28.95
Retirement System Noncontributory Division B  Public Safety Retirement System Contributory	2009 2010 2011 2012 2013 2014 2015 2016 2017 2008 2009 2010 2011 2012 2013 2014 2015	_ _ _ _ _	35.71 36.31 36.71 41.95 44.83 46.67 46.67 46.67		33.11 34.93 36.13 42.21 44.98 48.68 48.68 48.68	11.13 11.13 11.13 11.13 11.13 11.13 11.13	27.74 31.49 31.91 38.18 39.84 41.92 41.92 41.92 41.92 % 14.61% 17.81 20.95 21.36 27.95 29.76 31.80 31.80		- 30.91 - 32.98 - 33.05 - 38.54 - 39.97 - 42.16 - 42.16 - 42.16 - 42.16 — — — — — — — — — — — — — — — — — —	10.50% 10.50 10.50 10.50 10.50 10.50 10.50 10.50	26.21 28.24 28.64 32.20 32.20 34.04 34.04 34.04 6 15.69% 16.67 18.98 19.48 22.29 22.29 22.29 22.29	10.509 10.50 10.50 10.50 10.50 10.50 10.50 10.50	32.70 32.70 36.97 37.45 38.94 38.94 38.94 6 — 19.179 23.22 23.22 27.29 27.49 28.95 28.95
Retirement System Noncontributory Division B  Public Safety Retirement System Contributory	2009 2010 2011 2012 2013 2014 2015 2016 2017 2008 2009 2010 2011 2012 2013 2014	_ _ _ _ _	35.71 36.31 36.71 41.95 44.83 46.67 46.67 46.67		33.11 34.93 36.13 42.21 44.98 48.68 48.68 48.68 ———————————————————————————————————	11.13 11.13 11.13 11.13 11.13 11.13	27.74 31.49 31.91 38.18 39.84 41.92 41.92 41.92 % 14.61% 17.81 20.95 21.36 27.95 29.76 31.80 31.80 31.80		- 30.91 - 32.98 - 33.05 - 38.54 - 39.97 - 42.16 - 42.16 - 42.16 - 42.16 — — — — — — — — — — — — — — — — — —	10.50% 10.50 10.50 10.50 10.50 10.50	26.21 28.24 28.64 32.20 32.20 34.04 34.04 34.04 6 15.69% 16.67 18.98 19.48 22.29 22.29 22.29	10.509 10.50 10.50 10.50 10.50 10.50 10.50	32.70 32.70 36.97 37.45 38.94 38.94 38.94 6 — 19.179 23.22 23.22 27.29 27.49 28.95

### Member and Employer Contribution Rates (Continued)

		Contributory		Noncontributory	
System	Year	Employer	Employer	Employer	
Tier 2 Public Employees		Local Government	State and School	Local Government	
Contributory	2011	12.40%	12.74%	10.33%	
Retirement System*	2012	14.51	15.06	12.74	
	2013	15.75	16.75	13.99	
	2014	16.70	18.27	14.94	
	2015	16.67	18.24	14.91	
	2016	16.67	18.24	14.91	
	2017	16.67	18.44	15.11	
Tier 2 Public Safety and Firefighter Contributory		State of Utah	Bountiful	2.5% COLA Other Division A (with Soc Sec)	4% COLA Other Division A (with Soc Sec)
Retirement System*	Year	Employer	Employer	Employer	Employer
Public Safety	2011	22.06%	18.15%	16.27%	17.18%
Noncontributory	2012	25.46	25.89	19.25	21.94
Division A	2013	27.40	31.38	20.85	22.37
	2014	29.26	35.68	22.55	23.71
	2015	29.21	35.63	22.50	23.66
	2016	29.21	35.63	22.50	23.66
	2017	29.28	37.71	22.57	23.73
Public Safety	2011	_	_	16.27%	17.47%
Contributory	2012	_	_	19.25	21.94
Division A	2013	_	_	20.85	22.37
	2014	_	_	20.66	23.71
	2015	_	_	20.61	23.66
	2016	_	_	20.61	23.66
	2017	_	_	20.61	23.73

^{*}Includes active member death benefit and Tier 1 amortization rate. Does not include the 401(k) component of the contribution rate.

### Member and Employer Contribution Rates (Concluded)

Tier 2 Public Safety and
<b>Firefighter Contributory</b>
Patiroment System

Firefighter Contributory Retirement System (Continued)*	Year	Salt Lake City Employer	Ogden Employer	Logan Employer	Provo Employer	2.5% COLA Other Division B (without Soc Sec) Employer	4.% COLA Other Division B (without Soc Sec) Employer
Public Safety	2011	25.82%	25.21%	21.15%	22.01%	17.72%	20.89%
Noncontributory	2012	30.47	30.78	26.59	27.08	20.71	25.05
Division B	2013	33.27	33.47	28.19	28.19	20.77	25.38
	2014	34.97	37.07	30.13	30.36	20.55	26.72
	2015	34.92	37.02	30.08	30.31	20.39	26.67
	2016	34.92	37.02	30.08	30.31	20.39	26.67
	2017	34.99	37.09	30.38	30.38	20.50	26.74
Public Safety	2011	_	_	_	_	17.72%	20.89%
Contributory	2012	_	_	_	_	20.71	25.05
Division B	2013	_	_	_	_	20.77	25.38
	2014	_	_		_	20.55	26.72
	2015	_	_		_	20.50	26.67
	2016	_	_		_	20.50	26.67
	2017	_	_	_	_	20.57	26.74
		Other Division A (with Social Security)		ther Division B Social Security)			
Firefighters	Year	Employer		Employer			
	2011	10.649	%	10.64%			
	2012	11.10		11.10			
	2013	11.02		11.02			
	2014	10.80		10.80			
	2015	10.75		10.75			
	2016	10.75		10.75			
	2017	10.82		10.82			

^{*}Includes active member death benefit and Tier 1 amortization rate. Does not include the 401(k) component of the contribution rate.

# **Schedules of Funding Progress**

(dollars in thousands)

				Based on Actuarial Va	alue of Assets		
System	Date	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL) Entry Age	(3) Unfunded AAL (UAAL) Actuarial Value of Assets (2) - (1)	(4) Funded Ratios Based on Actuarial Value of Assets (1) / (2)	(5) Projected Annual Covered Payroll	(6) UAAL as a % of Covered Payroll (3) / (5)
Noncontributory	1/01/09	\$ 15,839,461	18,306,590	2,467,129	86.5%	\$ 3,871,636	63.7%
Retirement	1/01/10	16,619,831	19,384,503	2,764,672	85.7	3,955,040	69.9
System	1/01/11	16,852,691	20,388,759	3,536,068	82.7	3,888,179	90.9
•	1/01/12	16,805,952	21,260,843	4,454,891	79.0	3,900,106	114.2
	1/01/13	16,969,392	22,200,896	5,231,504	76.4	3,794,929	137.9
	1/01/14	18,601,513	22,981,585	4,380,072	80.9	3,705,771	118.2
	1/01/15	20,240,645	23,868,225	3,627,580	84.8	3,570,912	101.6
	1/01/16	21,528,737	25,476,579	3,947,842	84.5	3,458,286	114.2
	1/01/17	22,908,184	27,078,436	4,170,252	84.6	3,406,567	122.4
	12/31/17	24,412,985	28,088,619	3,675,634	86.9	3,375,321	108.9
Contributory	1/01/09	\$ 1,097,711	1,218,572	120,861	90.1%	133,110	90.8%
Retirement	1/01/10	1,116,736	1,236,009	119,273	90.4	127,804	93.3
System	1/01/11	1,132,661	1,251,412	118,751	90.5	116,395	102.0
	1/01/12	1,135,251	1,269,042	133,791	89.5	110,103	121.5
	1/01/13	1,133,433	1,280,836	147,403	88.5	103,074	143.0
	1/01/14	1,165,002	1,285,851	120,849	90.6	98,023	123.3
	1/01/15	1,198,862	1,295,581	96,719	92.5	90,623	106.7
	1/01/16	1,209,069	1,282,510	73,441	94.3	82,426	89.1
	1/01/17	1,227,072	1,292,854	65,782	94.9	53,615	122.7
	12/31/17	1,245,414	1,298,183	52,769	95.9	45,177	116.8
Public Safety	1/01/09	\$ 2,017,576	2,473,667	456,091	81.6%	\$ 365,043	124.9%
Retirement	1/01/10	2,137,027	2,650,675	513,648	80.6	373,959	137.4
System	1/01/11	2,194,015	2,844,101	650,086	77.1	363,037	179.1
	1/01/12	2,222,202	2,948,481	726,279	75.4	374,293	194.0
	1/01/13	2,283,911	3,093,227	809,316	73.8	366,471	220.8
	1/01/14	2,530,709	3,191,506	660,797	79.3	365,998	180.5
	1/01/15	2,781,314	3,344,059	562,745	83.2	360,750	156.0
	1/01/16	2,988,371	3,622,965	634,594	82.5	355,172	178.7
	1/01/17	3,217,221	3,908,793	691,572	82.3	352,408	196.2
	12/31/17	3,462,919	4,085,203	622,284	84.8	350,783	177.4
Firefighters	1/01/09	\$ 765,871	776,622	10,751	98.6%	\$ 102,252	10.5%
Retirement	1/01/10	802,576	833,844	31,268	96.3	107,625	29.1
System	1/01/11	810,216	872,133	61,917	92.9	105,275	58.8
	1/01/12	810,764	903,399	92,635	89.7	110,751	83.6
	1/01/13	824,060	944,791	120,731	87.2	110,608	109.2
	1/01/14	903,627	963,574	59,947	93.8	110,741	54.1
	1/01/15	988,806	1,006,646	17,840	98.2	111,305	16.0
	1/01/16	1,060,312	1,076,963	16,651	98.5	111,133	15.0
	1/01/17	1,130,198	1,152,602	22,404	98.1	112,322	19.9
	12/31/17	1,195,358	1,205,727	10,369	99.1	112,953	9.2
Judges Patiroment	1/01/09	\$ 126,120	145,965	19,845	86.4%	\$ 14,404	137.8%
Retirement	1/01/10	131,491	158,303	26,812	83.1	14,434	185.8
System	1/01/11	131,869	167,581	35,712	78.7	14,234	250.9
	1/01/12	130,561	167,982	37,421	77.7	14,981	249.8
	1/01/13	131,217	174,923	43,706	75.0	14,885	293.6
	1/01/14	145,121	185,113	39,992	78.4	15,195	263.2
	1/01/15	156,956	192,445	35,489	81.6	16,072	220.8
	1/01/16	166,298	203,540	37,242	81.7	15,832	235.2
	1/01/17	177,782	223,971	46,189	79.4	16,755	275.7
	12/31/17	192,037	231,069	39,032	83.1	18,661	209.2

See accompanying notes to required supplementary information.

## Schedules of Funding Progress (Concluded)

(dollars in thousands)

				E	Based on Actuarial Val	ue of Assets			
System	Date	Act	(1) tuarial Value of Assets	(2) Actuarial Accrued Liability (AAL) Entry Age	(3) Unfunded AAL (UAAL) Actuarial Value of Assets (2) - (1)	(4) Funded Ratios Based on Actuarial Value of Assets (1) / (2)		(5) Projected Annual Covered Payroll	(6) UAAL as a % of Covered Payroll (3) / (5)
Governors and	1/01/09	\$	10,841	10,982	141	98.7%	\$	910	15.5%
Legislators	1/01/10		10,769	11,305	536	95.3		910	58.9
Retirement Plan	1/01/11		10,197	11,513	1,316	88.6		910	144.6
	1/01/12		9,565	12,029	2,464	79.5		910	270.8
	1/01/13		9,077	11,925	2,848	76.1		910	313.0
	1/01/14		9,457	12,186	2,729	77.6		390	699.7
	1/01/15		9,908	12,223	2,315	81.1		928	249.5
	1/01/16		10,173	12,684	2,511	80.2		943	266.3
	1/01/17		10,470	13,144	2,674	79.7		799	334.7
	12/31/17		10,855	13,074	2,219	83.0		722	307.1
Tier 2 Public	1/01/12	\$	2,833	3,055	222	92.7%	\$	36,821	0.6%
Employees	1/01/13		17,818	16,755	(1,063)	106.3		203,779	(0.5)
Contributory	1/01/14		46,241	42,328	(3,913)	109.2		353,227	(1.1)
Retirement	1/01/15		88,743	81,624	(7,119)	108.7		492,882	(1.4)
System*	1/01/16		145,518	145,871	353	99.8		637,560	0.1
•	1/01/17		219,885	231,205	11,320	95.1		822,196	1.4
	12/31/17		318,754	338,035	19,281	94.3		996,965	1.9
Tier 2 Public	1/01/12	\$	90	101	11	89.1%	\$	855	1.3%
Safety and	1/01/13		1,161	1,042	(119)	111.4		10,237	(1.2)
Firefighter	1/01/14		3,822	3,269	(553)	116.9		20,215	(2.7)
Contributory	1/01/15		8,666	7,432	(1,234)	116.6		35,019	(3.5)
Retirement	1/01/16		15,618	14,774	(844)	105.7		53,276	(1.6)
System*	1/01/17		25,388	25,809	421	98.4		74,834	0.6
•	12/31/17		38,871	39,023	152	99.6		98,113	0.2
All	1/01/09	\$ 1	9,857,580	22,932,398	3,074,818	86.6%	\$.	4,487,355	68.5%
Retirement	1/01/10	2	0,818,430	24,274,639	3,456,209	85.8		4,579,772	75.5
Systems	1/01/11	2	1,131,649	25,535,499	4,403,850	82.8		4,488,030	98.1
•	1/01/12	2	1,117,218	26,564,932	5,447,714	79.5		4,548,820	119.8
	1/01/11		1,370,069	27,724,395	6,354,326	77.1		4,604,893	138.0
	1/01/14		3,405,492	28,665,412	5,259,920	81.7		4,669,560	112.6
	1/01/15	2	5,473,901	29,808,235	4,334,334	85.5		4,678,491	92.6
	1/01/16		7,124,096	31,835,886	4,711,790	85.2		4,714,628	99.9
	1/01/17		8,916,200	33,926,814	5,010,614	85.2		4,839,496	103.5
	12/31/17		0,877,194	35,298,933	4,421,739	87.5		4,998,694	88.1
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^{*}New system additional years will be added as they become available.

See accompanying notes to required supplementary information.

# Solvency Tests

			Accrued Liabilities							
		(1) Active Members	(2) Retired and	(3) Active Member (Employer	(4) Total Actuarial Accrued	Actuarial Value	Lia	rtion of Actibilities Cov	vered by A	Assets
System	Date	Contributions	Beneficiaries	Financed Portion)	Liabilities	of Assets	(1)	(2)	(3)	(4)
Noncontributory	1/01/09	\$ 699,314	7,671,008	9,936,268	18,306,590	15,839,461	100%	100%	75%	87%
Retirement	1/01/10	618,209	8,347,578	10,418,716	19,384,503	16,619,831	100	100	73	86
System	1/01/11	575,867	8,958,451	10,854,441	20,388,759	16,852,691	100	100	67	83
	1/01/12	539,951	9,875,383	10,845,509	21,260,843	16,805,952	100	100	59	79
	1/01/13	498,575	10,075,732	11,626,589	22,200,896	16,969,392	100	100	55	76
	1/01/14	455,136	10,798,876	11,727,573	22,981,585	18,601,513	100	100	63	81
	1/01/15	411,752	11,446,753	12,009,720	23,868,225	20,240,645	100	100	70	85
	1/01/16	383,017	12,405,935	12,687,627	25,476,579	21,528,737	100	100	69	85
	1/01/17	331,097	13,201,269	13,546,070	27,078,436	22,908,184	100	100	69	85
	12/31/17	331,775	13,569,930	14,186,914	28,088,619	24,412,985	100	100	74	87
Contributory	1/01/09	\$ 334,732	520,848	362,992	1,218,572	1,097,711	100%	100%	67%	90%
Retirement	1/01/10	318,205	556,495	361,309	1,236,009	1,116,736	100	100	67	90
System	1/01/11	307,896	591,899	351,617	1,251,412	1,132,661	100	100	66	91
	1/01/12	308,962	630,747	329,333	1,269,042	1,135,251	100	100	59	89
	1/01/13	294,317	669,744	316,775	1,280,836	1,133,433	100	100	53	88
	1/01/14	286,020	717,842	281,989	1,285,851	1,165,002	100	100	57	91
	1/01/15	272,720	766,078	256,783	1,295,581	1,198,862	100	100	62	93
	1/01/15	236,592	838,922	206,996	1,282,510	1,209,069	100	100	65	94
	1/01/10	206,024	898,668	188,162	1,292,854	1,209,009	100	100	65	95
	12/31/17	206,344	897,862	193,978	1,298,183	1,245,414	100	100	73	96
Public Safety	1/01/09	\$ 87,976	1,254,909	1,130,782	2,473,667	2,017,576	100%	100%	60%	82%
Retirement	1/01/10	81,677	1,345,480	1,223,518	2,650,675	2,137,027	100	100	58	81
System	1/01/11	76,375	1,455,233	1,312,493	2,844,101	2,194,015	100	100	50	77
,	1/01/11	77,231	1,501,102	1,370,148	2,948,481	2,222,202	100	100	47	75
	1/01/12	74,661	1,593,128	1,425,438	3,093,227	2,283,911	100	100	43	74
	1/01/13	74,001	1,682,390	1,435,104	3,191,506	2,530,709	100	100	54	7 <del>-</del> 79
	1/01/14	74,012	1,769,909	1,433,104	3,191,300	2,781,314	100	100	63	83
	1/01/13					2,781,314	100	100		82
		66,232	1,937,777	1,618,956	3,622,965	-			61	
	1/01/17 12/31/17	61,343 61,419	2,093,058 2,070,512	1,754,392 1,953,272	3,908,793 4,085,203	3,217,221 3,462,919	100 100	100 100	61 68	82 85
Firefighters	1/01/09	\$ 94,583	437,796	244,243	776,622	765,871	100%	100%	96%	99%
Retirement	1/01/09	96,734	467,284	269,826	833,844	802,576	100 / 0	100 / 0	88	96
System	1/01/10	103,678	495,985	272,470	872,133	810,216	100	100	77	93
-,	1/01/11	116,966	516,105	272,470	903,399	810,764	100	100	66	90
				284,983	903,399			100	58	90 87
	1/01/13	127,442	532,366			824,060	100			
	1/01/14	141,471	544,643	307,460	993,574	903,627	100	100	71	91
	1/01/15	152,667	566,583	287,396	1,006,646	988,806	100	100	94	98
	1/01/16	162,377	600,565	314,021	1,076,963	1,060,312	100	100	95	98
	1/01/17	171,328	636,389	344,885	1,152,602	1,130,198	100	100	94	98
	12/31/17	172,231	633,548	399,948	1,205,727	1,195,358	100	100	97	99

# Solvency Tests (Concluded)

				Actuarial Ac							
		(1) Active Members	(2) Retired and	(3) Active Member (Employer	(4) Total Actuarial Accrued	Actuarial Value	Portion of Actuarial Accrued Liabilities Covered by Assets				
System	Date	Contributions	Beneficiaries	Financed Portion)	Liabilities	of Assets	(1)	(2)	(3)	(4)	
Judges	1/01/09	\$ 7,738	69,534	68,693	145,965	126,120	100%	100%	71%	86%	
Retirement	1/01/10	5,802	81,582	70,919	158,303	131,491	100	100	62	83	
System	1/01/11	4,309	93,548	69,724	167,581	131,869	100	100	49	79	
	1/01/12	4,376	97,460	66,146	167,982	130,561	100	100	47	78	
	1/01/13	4,102	98,499	72,322	174,923	131,217	100	100	40	75	
	1/01/14	3,567	111,132	70,414	185,113	145,121	100	100	43	78	
	1/01/15	3,374	120,460	68,611	192,445	156,956	100	100	48	82	
	1/01/16	2,604	129,958	70,978	203,540	166,298	100	100	48	82	
	1/01/17	2,540	136,618	84,813	223,971	177,782	100	10	46	79	
	12/31/17	2,540	131,763	96,766	231,069	192,037	100	100	60	83	
Utah	1/01/09	\$ 119	6,508	4,355	10,982	10,841	100%	100%	97%	99%	
Governors	1/01/10	119	6,508	4,678	11,305	10,769	100	100	89	95	
and	1/01/11	102	6,315	5,096	11,513	10,197	100	100	74	89	
Legislators	1/01/12	107	6,482	5,440	12,029	9,565	100	100	55	80	
Retirement	1/01/13	104	6,396	5,425	11,925	9,077	100	100	48	76	
Plan	1/01/14	94	7,037	5,055	12,186	9,457	100	100	46	78	
	1/01/15	62	7,201	4,960	12,223	9,908	100	100	37	81	
	1/01/16	66	7,619	4,999	12,684	10,173	100	100	50	80	
	1/01/17	46	8,254	4,844	13,144	10,470	100	100	45	80	
	12/31/17	45	8,112	4,916	13,074	10,855	100	100	55	83	
Tier 2	1/01/12	\$ —	_	3,055	3,055	2,833	100%	100%	100%	93%	
Public	1/01/13	_	_	16,755	16,755	17,818	100	100	106	106	
Employees	1/01/14	_	_	42,328	42,328	46,241	100	100	109	109	
Contributory	1/01/15	_	_	81,624	81,624	88,743	100	100	109	109	
Retirement	1/01/16	_	12	145,859	145,871	145,518	100	100	100	100	
System*	1/01/17	_	181	231,024	231,205	219,885	100	100	95	95	
	12/31/17	_	160	337,875	338,035	318,754	100	100	94	94	
Tier 2	1/01/12	\$ —	_	101	101	90	100%	100%	100%	89%	
Public	1/01/13	_	_	1,042	1,042	1,161	100	100	100	100	
Safety and	1/01/14	_	_	3,269	3,269	3,822	100	100	100	117	
Firefighter	1/01/15	_	_	7,432	7,432	8,666	100	100	100	117	
Contributory	1/01/16	_	_	14,774	14,774	15,618	100	100	100	106	
Retirement	1/01/17	_	_	25,809	25,809	25,388	100	100	98	98	
System*	12/31/17		_	39,023	39,023	38,871	100	100	100	100	
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^{*}New systems' additional years will be added as they become available.

# Schedules of Active Member Valuation Data

Noncontributory   2008		Number o				Activ	Active Members		
System   2009	System	Year	Participating					Increase	
System   2009	Noncontributory	2008	416	93,576	\$ 3,871,636,000	40,531	2.39%	0.10%	
2011	Retirement	2009	416	92,766		41,945	3.49	2.70	
2012	System	2010	419	92,392	3,881,790,000	41,854	(0.22)	1.50	
2013		2011	430	87,901	3,900,106,000	43,308	3.47	3.20	
2014   437   71,827   3,570,912,000   47,994   3.67   1.60		2012	436	82,259	3,794,929,000	44,828	3.51	2.10	
2015		2013	439	76,845	3,675,331,000	46,294	3.27	1.50	
2016		2014	437	71,827	3,570,912,000	47,994	3.67	1.60	
Contributory 2008 158 2,743 \$ 133,110,000 46,830 4.38% 0.10% Retirement 2009 160 2,515 127,804,000 47,941 2.37 2.70   System 2010 159 2,330 116,395,000 47,620 (0.67) 1.50   2011 159 2,137 110,103,000 48,806 2.49 3.20   2012 159 1,937 103,074,000 50,504 3.48 2.10   2013 159 1,733 94,895,000 51,680 2.33 1.50   2014 159 1,503 90,623,000 54,003 4.49 1.60   2015 158 943 82,426,000 56,747 5.08 0.10   2016 158 738 53,615,000 60,936 7.38 1.30   2017 158 621 45,178,000 62,264 2.18 2.10   Public Safety 2008 128 7,894 \$ 365,043,000 45,964 4.70% 0.10% Retirement 2009 130 7,695 373,959,000 47,145 2.57 2.70   System 2010 130 7,619 374,293,000 46,898 (0.52) 1.50   2011 130 7,619 374,293,000 47,329 0.92 3.20   2012 130 7,313 366,471,000 48,416 2.30 2.10   2013 130 7,019 363,389,000 49,825 2.91 1.50   2014 131 6,672 360,751,000 53,488 3.65 0.10   2015 131 6,399 355,172,000 53,488 3.65 0.10   2016 132 6,032 352,408,000 57,381 7.28 1.30   2017 133 5,704 350,783,000 59,841 4.29 2.10   Firefighters 2008 52 1,849 \$ 102,252,000 54,741 0.50 1.50   2016 132 6,032 352,408,000 57,381 7.28 1.30   2017 133 5,704 350,783,000 58,193 2.98 1.50   2012 57 1,884 110,608,000 56,507 2.29 2.10   2013 58 1,845 112,158,000 58,193 2.98 1.50   2014 59 1,787 111,305,000 60,081 3.24 1.60   2015 50 1,735 111,133,000 62,628 4.24 0.10   2016 50 1,735 111,133,000 62,628 4.24 0.10   2016 62 1,663 112,322,000 67,114 7.16 1.30		2015	451	68,273	3,458,286,000	50,002	4.18	0.10	
Contributory 2008 158 2,743 \$ 133,110,000 46,830 4.38% 0.10% Retirement 2009 160 2,515 127,804,000 47,941 2.37 2.70 System 2010 159 2,330 116,395,000 47,620 (0.67) 1.50 2011 159 2,137 110,103,000 48,806 2.49 3.20 2012 159 1,937 103,074,000 50,504 3.48 2.10 2013 159 1,733 94,895,000 51,680 2.33 1.50 2014 159 1,503 90,623,000 54,003 4.49 1.60 2015 158 943 82,426,000 56,747 5.08 0.10 2016 158 738 53,615,000 60,936 7.38 1.30 2017 158 621 45,178,000 62,264 2.18 2.10 2017 158 621 45,178,000 62,264 2.18 2.10 2018 2019 130 7,695 373,959,000 47,145 2.57 2.70 2011 130 7,619 374,293,000 46,898 (0.52) 1.50 2012 130 7,313 366,471,000 48,416 2.30 2.10 2013 130 7,019 363,389,000 49,825 2.91 1.50 2014 131 6,672 360,751,000 51,603 3.57 1.60 2015 131 6,399 355,172,000 53,488 3.65 0.10 2016 132 6,032 352,408,000 59,841 4.29 2.10 2017 133 5,704 350,783,000 59,841 4.29 2.10 2017 157 1,932 110,7651,000 55,240 0.91 3.20 2017 133 5,704 350,783,000 59,841 4.29 2.10 2012 57 1,884 110,608,000 56,507 2.29 2.10 2013 58 1,845 112,158,000 58,193 2.98 1.50 2014 59 1,787 1133,000 58,193 2.98 1.50 2015 58 1,845 112,158,000 58,193 2.98 1.50 2015 50 1,787 111,133,000 62,6268 4.24 0.10 2016 62 1,663 112,322,000 67,114 7.16 1.30		2016	453	63,214	3,406,567,000	51,984	3.96	1.30	
Retirement         2009         160         2,515         127,804,000         47,941         2.37         2.70           System         2010         159         2,330         116,395,000         47,620         (0.67)         1.50           2011         159         2,137         110,103,000         48,806         2.49         3.20           2012         159         1,937         103,074,000         50,504         3.48         2.10           2013         159         1,733         94,895,000         51,680         2.33         1.50           2014         159         1,503         90,623,000         54,003         4.49         1.60           2015         158         943         82,426,000         56,747         5.08         0.10           2016         158         738         53,615,000         60,936         7.38         1.30           2017         158         621         45,178,000         62,264         2.18         2.10           Public Safety         2008         128         7,894         \$ 365,043,000         45,964         4.70%         0.10%           Retirement         2009         130         7,629         373,959,000		2017	457	59,578	3,375,321,000	54,845	5.50	2.10	
System         2010         159         2,330         116,395,000         47,620         (0,67)         1.50           2011         159         2,137         110,103,000         48,806         2.49         3.20           2012         159         1,937         103,074,000         50,504         3.48         2.10           2013         159         1,733         94,895,000         51,680         2.33         1.50           2014         159         1,503         90,623,000         54,003         4.49         1.60           2015         158         943         82,426,000         56,747         5.08         0.10           2016         158         738         53,615,000         60,936         7.38         1.30           2017         158         621         45,178,000         62,264         2.18         2.10           Public Safety         2008         128         7,894         \$ 365,043,000         45,964         4.70%         0.10%           Retirement         2009         130         7,695         373,959,000         47,145         2.57         2.70           System         2010         130         7,619         374,293,000	Contributory	2008	158	2,743	\$ 133,110,000	46,830	4.38%	0.10%	
2011   159   2,137   110,103,000   48,806   2.49   3.20		2009	160	2,515	127,804,000	47,941		2.70	
2012   159   1,937   103,074,000   50,504   3.48   2.10	System	2010	159	2,330	116,395,000	47,620	(0.67)	1.50	
2013   159   1,733   94,895,000   51,680   2.33   1.50		2011	159	2,137	110,103,000		2.49	3.20	
2014   159   1,503   90,623,000   54,003   4.49   1.60		2012	159	1,937	103,074,000		3.48	2.10	
2015		2013	159		94,895,000	51,680	2.33	1.50	
2016						54,003		1.60	
Public Safety         2008         128         7,894         \$ 365,043,000         45,964         4.70%         0.10%           Retirement         2009         130         7,695         373,959,000         47,145         2.57         2.70           System         2010         130         7,624         363,037,000         46,898         (0.52)         1.50           2011         130         7,619         374,293,000         47,329         0.92         3.20           2012         130         7,313         366,471,000         48,416         2.30         2.10           2013         130         7,019         363,389,000         49,825         2.91         1.50           2014         131         6,672         360,751,000         51,603         3.57         1.60           2015         131         6,399         355,172,000         53,488         3.65         0.10           2016         132         6,032         352,408,000         57,381         7.28         1.30           2017         133         5,704         350,783,000         59,841         4.29         2.10           Firefighters         2008         52         1,849         \$ 102,252,000			158	943	82,426,000	56,747	5.08	0.10	
Public Safety         2008         128         7,894         \$ 365,043,000         45,964         4.70%         0.10%           Retirement         2009         130         7,695         373,959,000         47,145         2.57         2.70           System         2010         130         7,624         363,037,000         46,898         (0.52)         1.50           2011         130         7,619         374,293,000         47,329         0.92         3.20           2012         130         7,313         366,471,000         48,416         2.30         2.10           2013         130         7,019         363,389,000         49,825         2.91         1.50           2014         131         6,672         360,751,000         51,603         3.57         1.60           2015         131         6,399         355,172,000         53,488         3.65         0.10           2016         132         6,032         352,408,000         57,381         7.28         1.30           2017         133         5,704         350,783,000         59,841         4.29         2.10           Firefighters         2008         52         1,849         \$ 102,252,000		2016	158	738	53,615,000	60,936	7.38	1.30	
Retirement         2009         130         7,695         373,959,000         47,145         2.57         2.70           System         2010         130         7,624         363,037,000         46,898         (0.52)         1.50           2011         130         7,619         374,293,000         47,329         0.92         3.20           2012         130         7,313         366,471,000         48,416         2.30         2.10           2013         130         7,019         363,389,000         49,825         2.91         1.50           2014         131         6,672         360,751,000         51,603         3.57         1.60           2015         131         6,399         355,172,000         53,488         3.65         0.10           2016         132         6,032         352,408,000         57,381         7.28         1.30           2017         133         5,704         350,783,000         59,841         4.29         2.10           Firefighters         2008         52         1,849         \$ 102,252,000         54,111         3.57%         0.10%           Retirement         2009         55         1,907         107,625,000		2017	158	621	45,178,000	62,264	2.18	2.10	
System         2010         130         7,624         363,037,000         46,898         (0.52)         1.50           2011         130         7,619         374,293,000         47,329         0.92         3.20           2012         130         7,313         366,471,000         48,416         2.30         2.10           2013         130         7,019         363,389,000         49,825         2.91         1.50           2014         131         6,672         360,751,000         51,603         3.57         1.60           2015         131         6,399         355,172,000         53,488         3.65         0.10           2016         132         6,032         352,408,000         57,381         7.28         1.30           2017         133         5,704         350,783,000         59,841         4.29         2.10           Firefighters         2008         52         1,849         \$ 102,252,000         54,111         3.57%         0.10%           Retirement         2009         55         1,907         107,625,000         54,466         0.66         2.70           System         2010         56         1,887         105,	Public Safety	2008	128	7,894	\$ 365,043,000	45,964	4.70%	0.10%	
2011   130					373,959,000	47,145			
2012   130	System	2010	130	7,624	363,037,000	46,898	(0.52)	1.50	
2013   130   7,019   363,389,000   49,825   2.91   1.50		2011	130	7,619	374,293,000	47,329	0.92		
2014					366,471,000				
2015   131   6,399   355,172,000   53,488   3.65   0.10		2013	130		363,389,000		2.91	1.50	
2016         132         6,032         352,408,000         57,381         7.28         1.30           2017         133         5,704         350,783,000         59,841         4.29         2.10           Firefighters         2008         52         1,849         \$ 102,252,000         54,111         3.57%         0.10%           Retirement         2009         55         1,907         107,625,000         54,466         0.66         2.70           System         2010         56         1,887         105,275,000         54,741         0.50         1.50           2011         57         1,932         110,751,000         55,240         0.91         3.20           2012         57         1,884         110,608,000         56,507         2.29         2.10           2013         58         1,845         112,158,000         58,193         2.98         1.50           2014         59         1,787         111,305,000         60,081         3.24         1.60           2015         60         1,735         111,133,000         62,628         4.24         0.10           2016         62         1,663         112,322,000         67,114		2014	131		360,751,000	51,603	3.57	1.60	
Firefighters         2008         52         1,849         \$ 102,252,000         54,111         3.57%         0.10%           Retirement         2009         55         1,907         107,625,000         54,466         0.66         2.70           System         2010         56         1,887         105,275,000         54,741         0.50         1.50           2011         57         1,932         110,751,000         55,240         0.91         3.20           2012         57         1,884         110,608,000         56,507         2.29         2.10           2013         58         1,845         112,158,000         58,193         2.98         1.50           2014         59         1,787         111,305,000         60,081         3.24         1.60           2015         60         1,735         111,133,000         62,628         4.24         0.10           2016         62         1,663         112,322,000         67,114         7.16         1.30					355,172,000	53,488			
Firefighters 2008 52 1,849 \$ 102,252,000 54,111 3.57% 0.10% Retirement 2009 55 1,907 107,625,000 54,466 0.66 2.70 System 2010 56 1,887 105,275,000 54,741 0.50 1.50 2011 57 1,932 110,751,000 55,240 0.91 3.20 2012 57 1,884 110,608,000 56,507 2.29 2.10 2013 58 1,845 112,158,000 58,193 2.98 1.50 2014 59 1,787 111,305,000 60,081 3.24 1.60 2015 60 1,735 111,133,000 62,628 4.24 0.10 2016 62 1,663 112,322,000 67,114 7.16 1.30									
Retirement         2009         55         1,907         107,625,000         54,466         0.66         2.70           System         2010         56         1,887         105,275,000         54,741         0.50         1.50           2011         57         1,932         110,751,000         55,240         0.91         3.20           2012         57         1,884         110,608,000         56,507         2.29         2.10           2013         58         1,845         112,158,000         58,193         2.98         1.50           2014         59         1,787         111,305,000         60,081         3.24         1.60           2015         60         1,735         111,133,000         62,628         4.24         0.10           2016         62         1,663         112,322,000         67,114         7.16         1.30		2017	133	5,704	350,783,000	59,841	4.29	2.10	
System         2010         56         1,887         105,275,000         54,741         0.50         1.50           2011         57         1,932         110,751,000         55,240         0.91         3.20           2012         57         1,884         110,608,000         56,507         2.29         2.10           2013         58         1,845         112,158,000         58,193         2.98         1.50           2014         59         1,787         111,305,000         60,081         3.24         1.60           2015         60         1,735         111,133,000         62,628         4.24         0.10           2016         62         1,663         112,322,000         67,114         7.16         1.30	Firefighters			· ·					
2011     57     1,932     110,751,000     55,240     0.91     3.20       2012     57     1,884     110,608,000     56,507     2.29     2.10       2013     58     1,845     112,158,000     58,193     2.98     1.50       2014     59     1,787     111,305,000     60,081     3.24     1.60       2015     60     1,735     111,133,000     62,628     4.24     0.10       2016     62     1,663     112,322,000     67,114     7.16     1.30	_			1,907	107,625,000	54,466			
2012     57     1,884     110,608,000     56,507     2.29     2.10       2013     58     1,845     112,158,000     58,193     2.98     1.50       2014     59     1,787     111,305,000     60,081     3.24     1.60       2015     60     1,735     111,133,000     62,628     4.24     0.10       2016     62     1,663     112,322,000     67,114     7.16     1.30	System		56	1,887	105,275,000	54,741			
2013     58     1,845     112,158,000     58,193     2.98     1.50       2014     59     1,787     111,305,000     60,081     3.24     1.60       2015     60     1,735     111,133,000     62,628     4.24     0.10       2016     62     1,663     112,322,000     67,114     7.16     1.30									
2014     59     1,787     111,305,000     60,081     3.24     1.60       2015     60     1,735     111,133,000     62,628     4.24     0.10       2016     62     1,663     112,322,000     67,114     7.16     1.30									
2015     60     1,735     111,133,000     62,628     4.24     0.10       2016     62     1,663     112,322,000     67,114     7.16     1.30									
2016 62 1,663 112,322,000 67,114 7.16 1.30									
2017 62 1,602 112,954,000 69,242 3.17 2.10									
		2017	62	1,602	112,954,000	69,242	3.17	2.10	

### Schedules of Active Member Valuation Data (Concluded)

		Number of			Activ	ve Members	Inflation
System	Year	Participating Employers	Active Members	Projected Annual Payroll	Average Pay	Percent Increase	Increase (CPI)
Judges	2008	1	106	\$ 14,404,000	128,706	7.09%	0.10%
Retirement	2009	1	104	14,434,000	131,742	2.36	2.70
System	2010	1	109	14,234,000	133,692	1.48	1.50
	2011	1	111	14,918,000	132,615	(0.80)	3.20
	2012	1	111	14,885,000	132,644	0.02	2.10
	2013	1	112	14,942,000	139,135	4.89	1.50
	2014	1	114	15,195,000	136,234	(2.09)	1.60
	2015	1	112	15,832,000	145,112	6.52	0.10
	2016	1	115	16,755,000	155,852	7.40	1.30
	2017	1	114	18,661,000	162,345	4.17	2.10
Utah Governors	2008	1	93	\$ 910,000	9,785	7.42%	0.10%
and Legislators	2009	1	119	910,000	7,647	(21.85)	2.70
Retirement Plan	2010	1	125	910,000	7,280	(4.80)	1.50
	2011	1	115	910,000	7,913	8.70	3.20
	2012	1	113	910,000	8,053	1.77	2.10
	2013	1	99	975,000	10,172	26.31	1.50
	2014	1	105	1,032,000	9,526	(6.35)	1.60
	2015	1	93	943,000	10,099	6.02	0.10
	2016	1	61	799,000	12,285	21.64	1.30
	2017	1	52	722,000	12,285	0.00	2.10
Tier 2 Public	2011	456	4,777	\$ 36,821,000	7,708	100.00%	1.50%
Employees	2012	461	10,356	203,779,000	27,030	250.68	2.10
Contributory	2013	461	13,718	349,257,000	30,279	12.02	1.50
Retirement	2014	463	17,225	353,227,000	32,388	6.97	1.60
System*	2015	465	21,778	637,560,000	34,031	5.07	0.10
	2016	466	24,372	822,196,000	30,809	(9.47)	1.30
	2017	470	27,152	996,965,000	39,229	27.33	2.10
Tier 2	2011	145	99	\$ 855,000	8,636	100.00%	1.50%
Public Safety	2012	145	477	10,237,000	33,394	286.68	2.10
and Firefighter	2013	145	885	24,656,000	33,902	1.52	1.50
Contributory	2014	149	1,331	35,019,000	35,871	5.81	1.60
Retirement	2015	149	1,824	53,276,000	37,051	3.29	0.10
System*	2016	150	2,240	74,834,000	35,363	(4.56)	1.30
	2017	151	2,699	98,113,000	41,946	18.62	2.10

^{*}New systems' additional years will be added as they become available.

# Schedules of Retirants and Beneficiaries

			Added to Rolls	F	Removed from Rolls			Rolls End of Year	% Increase in Annual	Average Annual
System	Year	Number	Allowances	Number	Allowances	Number		Allowances	Allowances	Allowances
Noncontributory	2008	2,082	\$ 75,142,000	316	\$ 24,876,000	31,731	\$	659,792,000	8.25%	\$ 19,616
Retirement	2009	2,540	84,601,000	370	21,340,000	33,901		723,053,000	9.59	20,039
System	2010	2,697	101,281,000	459	30,530,000	36,139		793,804,000	9.79	20,432
	2011	2,629	92,161,000	552	42,268,000	38,216		843,697,000	6.29	20,618
	2012	2,745	99,170,000	505	42,739,000	40,456		900,128,000	6.69	20,841
	2013	3,366	118,337,000	715	43,781,000	43,107		974,684,000	8.28	21,063
	2014	3,680	123,894,000	866	54,780,000	45,921		1,043,798,000	7.09	21,170
	2015	3,399	140,471,000	578	60,622,000	48,742	•	1,123,647,000	7.65	21,363
	2016	3,965	141,910,000	1,352	81,240,000	51,355		1,184,317,000	5.40	22,475
	2017	3,340	148,952,000	797	85,232,000	53,898		1,248,037,000	5.38	22,576
Contributory	2008	151	\$ 6,547,000	464	\$ 6,129,000	5,239	\$	62,096,000	0.68%	\$ 11,067
Retirement	2009	181	8,434,000	449	5,681,000	4,971		64,849,000	4.43	11,961
System	2010	218	9,641,000	425	6,925,000	4,764		67,565,000	4.19	12,890
	2011	177	8,271,000	389	7,461,000	4,552		68,375,000	1.20	13,777
	2012	184	9,403,000	366	6,928,000	4,370		70,850,000	3.62	14,863
	2013	222	9,875,000	340	6,567,000	4,252		74,158,000	4.67	15,996
	2014	209	10,036,000	146	7,179,000	4,315		77,015,000	3.85	16,341
	2015	187	11,793,000	280	7,418,000	4,222		81,390,000	5.68	17,497
	2016	227	10,463,000	284	8,406,000	4,165		83,447,000	2.53	19,284
	2017	123	8,205,000	246	6,891,000	4,042		84,761,000	1.57	19,831
Public Safety	2008	197	\$ 16,691,000	45	\$ 9,611,000	3,766	\$	98,944,000	7.71%	\$ 24,391
Retirement	2009	170	11,925,000	105	4,597,000	3,831		106,272,000	7.41	25,710
System	2010	212	14,221,000	31	4,662,000	4,012		115,831,000	8.99	26,497
	2011	157	11,329,000	44	6,591,000	4,125		120,569,000	4.09	27,182
	2012	195	13,695,000	28	5,725,000	4,292		128,539,000	6.61	27,693
	2013	230	15,532,000	41	6,585,000	4,481		137,486,000	6.96	28,233
	2014	562	15,463,000	135	8,185,000	4,908		144,764,000	5.29	27,226
	2015	268	18,681,000	12	8,058,000	5,164		155,387,000	7.34	27,550
	2016	368	18,523,000	120	9,402,000	5,412		164,508,000	5.87	29,241
	2017	266	16,937,000	40	8,575,000	5,638		172,870,000	5.08	29,504
Firefighters	2008	33	\$ 3,457,000	13	\$ 2,038,000	1,083	\$	35,355,000		\$ 29,169
Retirement	2009	38	4,503,000	9	1,547,000	1,112		38,311,000	8.36	30,158
System	2010	44	5,173,000	7	2,354,000	1,149		41,130,000	7.36	31,044
	2011	32	3,171,000	8	2,897,000	1,173		41,404,000	0.67	31,874
	2012	35	4,114,000	4	1,843,000	1,204		43,675,000	5.48	32,584
	2013	46	4,552,000	20	3,480,000	1,230		44,747,000	2.45	33,292
	2014	119	4,664,000	51	1,701,000	1,298		47,710,000	6.62	32,763
	2015	55	4,788,000	20	2,827,000	1,333		49,671,000	4.11	33,319
	2016	72	4,715,000	33	2,284,000	1,372		52,102,000	4.89	36,574
	2017	62	5,126,000	11	2,435,000	1,423		54,793,000	5.16	37,191

### Schedules of Retirants and Beneficiaries (Concluded)

			Added to Rolls	Removed from Rolls			Rolls End of Year	% Increase in Annual	Average Annual
System	Year	Number	Allowances	Number	Allowances	Number	Allowances	Allowances	Allowances
Judges	2008	3	\$ 583,000	2	\$ 338,000	97	\$ 6,580,000	3.87%	\$ 63,084
Retirement	2009	10	1,015,000	_	_	107	7,595,000	15.43	65,133
System	2010	8	1,415,000	_	_	115	9,010,000	18.63	68,784
	2011	5	629,000	4	991,000	116	8,648,000	(4.02)	72,696
	2012	4	783,000	3	296,000	117	9,135,000	5.63	74,705
	2013	11	1,898,000	4	844,000	124	10,189,000	11.54	76,264
	2014	14	1,840,000	6	668,000	132	11,361,000	11.50	79,202
	2015	9	1,711,000	1	672,000	140	12,400,000	9.15	81,633
	2016	7	637,000	6	707,000	141	12,330,000	(0.56)	84,793
	2017	10	2,315,000	3	1,024,000	148	13,621,000	10.47	87,512
Utah Governors	2008	8	\$ 70,000	6	\$ 65,000	222	\$ 763,000	0.66%	\$ 2,941
and Legislators	2009	5	73,000	3	52,000	224	784,000	2.75	3,030
Retirement Plan	2010	5	60,000	9	54,000	220	790,000	0.77	3,076
	2011	7	56,000	7	47,000	220	799,000	1.14	3,151
	2012	8	52,000	4	37,000	224	814,000	1.88	3,160
	2013	21	119,000	6	41,000	239	892,000	9.58	3,167
	2014	9	80,000	12	63,000	236	909,000	1.91	3,287
	2015	12	73,000	7	78,000	241	904,000	(0.55)	3,311
	2016	17	128,000	14	91,000	244	941,000	4.09	3,863
	2017	11	87,000	2	55,000	253	973,000	3.40	3,883
Tier 2 Public	2011	_	_	_	_	_	_	_	_
Employees	2012	_	_	_	_	_	_	_	_
Contributory	2013	_	_	_	_	_	_	_	_
Retirement	2014	_	_	_	_	_	_	_	_
System	2015	1	\$ 401,000	_	\$ 68,000	1	\$ 333,000	_	\$ 865
	2016	8	26,000	_	43,000	9	316,000	(5.11)%	1,565
	2017	17	72,000	_	(29,000)	26	417,000	31.96	1,932
Tier 2	2011	_		_		_			_
Public Safety	2012	_	_	_	_	_	_	_	_
and Firefighter	2013	_	_	_	_	_	_	_	_
Contributory	2014	_	_	_	_	_	_	_	_
Retirement	2015	_	\$ 30,000	_	_	_	\$ 30,000	_	_
System*	2016	_	_	_	\$ 2,000	_	28,000	(6.67)%	_
	2017	_	_	_	(33,000)	_	61,000	117.86	_

^{*}There are currently no retirees in the system.

# DEFINED BENEFIT SYSTEMS SUMMARY OF PLAN PROVISIONS

as of January 1, 2017

# Noncontributory Retirement System

### **Membership Eligibility**

The Public Employees Noncontributory Retirement System was established on July 1, 1986. All eligible employees of the State and School entities hired subsequent to that date are automatically members of the Noncontributory System. Local government entities had the option of adopting the new System or remaining with the Contributory System. An employee is qualified for membership in the Noncontributory System if his or her employer participates in the System and the employee initially began full-time employment prior to July 1, 2011, and works at least 20 hours per week and receives benefits normally provided by his or her employer as approved by the Retirement Board, and teachers who teach half-time.

### Vesting

Retirement benefit becomes vested upon the member's completion of four years of qualifying service.

### Service Retirement

Age	Years of Service	Allowance Reduction†
Any age	30	None
Any age	25	Full actuarial before age 60
60-61	20	3% each year before age 65
62-64	10	3% each year before age 65
65	4	None

† With fewer than 30 years of service from any combination of Utah Retirement Systems, retiring before age 65 will reduce the monthly benefit approximately 7% for every year under age 60 and 3% for each year between ages 60 and 65.

### Service Benefit Formula

Number of years of service x 2.0% x FAS.*

* FAS (Final Average Salary) = highest three years' earnings converted to a monthly average. Yearly salary increases are limited to 10% plus a COLA determined by the CPI.

### **Cost-of-Living Allowance**

Up to 4% annually on the original retirement benefit. Eligible after one year.

SUMMARY OF PLAN PROVISIONS (Continued)

Noncontributory Retirement System (Concluded)

# **Death Benefits**

An active member's death benefit consists of a payment equal to 75% of the highest annual salary with a minimum of \$1,000 and a refund of transferred contributions plus interest, if applicable. The spouse of a deceased member is eligible for a monthly benefit if they have been married for at least six months and the member meets age and service qualifications or has 15 or more years of service credit.

An inactive member's death benefit for someone with fewer than 10 years of service consists of a refund of transferred contributions plus interest, if applicable. For those with 10 or more years of service credited to their account prior to July 1, 1987, and who have not withdrawn their contributions, the benefit is the same as for active members.

A retired member's death benefit depends on the retirement option selected at retirement. No death benefit is available without a reduced retirement benefit.

#### Refunds

A terminated member who transferred from the Contributory Retirement System is eligible for a 100% refund of transferred member contributions plus interest. There is a 60-day refund processing period after the last day of paid employment.

# Redeposits

A redeposit with interest may be made in monthly installments, by a lump-sum payment, or by direct transfer from a qualified plan. A redeposit must be completed prior to retirement. Service credit is restored when the redeposit is completed.

# Contribution Rates (as of 12-31-2017)

Employer rate for State and School (Level A) is 22.19% of covered salary and 18.47% for Local Government (Level B).

#### Interest

Up to 7.20% on member accounts transferred from the Contributory Retirement System.



# Contributory Retirement System

# **Membership Eligibility**

The Public Employees Contributory Retirement System includes eligible public employees of the State of Utah and its political subdivisions including public education employees of those entities covered by the System. An employee is qualified for membership in the Contributory System if his or her employer participates in the System and the employee initially began full-time employment prior to July 1, 2011, and works at least 20 hours per week and receives benefits normally provided by his or her employer as approved by the Retirement Board, and teachers who teach half-time.

# Vesting

Retirement benefit becomes vested upon the member's completion of four years of qualifying service. Eligible member contributions and interest thereon vest immediately.

# **Service Retirement**

Age	Years of Service	Allowance Reduction†
Any age.	30	. None
60-61	20	. 3% each year before age 65
62-64	10	. 3% each year before age 65
65	4	. None

[†] With fewer than 30 years of service from any combination of Utah Retirement Systems, retiring before age 65 will reduce the monthly benefit by 3% for each year between ages 60 and 65.

SUMMARY OF PLAN PROVISIONS (Continued)

Contributory Retirement System (Concluded)

# Service Benefit Formula

- 1) Number of years of service before 7-1-75 x 1.25% x FAS.*
- 2) Number of years of service after 6-30-75 x 2.0% x FAS.*
- 3) Plan 1 allowance = total of 1 and 2.
- * FAS (Final Average Salary) = highest five years' earnings converted to a monthly average. Yearly salary increases are limited to 10% plus a COLA determined by the CPI.

# Cost-of-Living Allowance

Up to 4% annually on the original retirement benefit. Eligible after one year.

#### **Death Benefits**

An active member's death benefit consists of a payment equal to 75% of the highest annual salary with a minimum of \$1,000 and a refund of contributions plus interest. The spouse of a deceased member is eligible for a monthly benefit if they have been married for at least six months and the member meets age and service qualifications, or has 25 years of service.

An inactive member's death benefit for someone with fewer than 10 years of service consists of a refund of contributions plus interest. For those with 10 or more years of service credited to their account prior to July 1, 1987, and who have not withdrawn their contributions, the benefit is the same as for active members.

A retired member's death benefit depends on the retirement option selected at retirement. No death benefit is available without a reduced retirement benefit.

# Refunds

A terminated member is eligible for a 100% refund of member contributions plus interest. There is a 60-day refund processing period after the last day of paid employment.

# Redeposits

A redeposit with interest may be made in monthly installments, by a lump-sum payment, or by direct transfer from a qualified plan. A redeposit must be completed prior to retirement. Service credit is restored when the redeposit is completed.

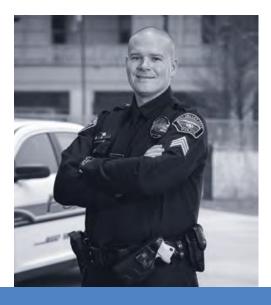
#### Contribution Rates (as of 12-31-2017)

Member contribution rate is 6.00%* of covered salary. Employer rate for State and School (Level A) is 17.0% of covered salary and 14.46% for Local Government (Level B).

*Employers have the option of paying all or part of member contributions on behalf of their employees.

#### Interest

Up to 7.20% on member accounts.



# **Public Safety Retirement System**

# **Membership Eligibility**

The Public Safety Retirement System includes eligible State and local government employees directly involved in law enforcement. The Public Safety System consists of the Contributory and Noncontributory divisions. Employees are qualified for membership in the Public Safety System if the employee initially began employment prior to July 1, 2011, and: (1) they are regularly scheduled to work and be compensated for 2,080 hours a year in a recognized public safety department; (2) they have completed a certified training program; (3) their primary duty is as a peace officer, correctional officer, special function officer, certified dispatcher whose employer elected coverage in the Public Safety System, or full-time member of the Board of Pardons and Parole; and (4) in the course of employment their life or personal safety is at risk.

# Vesting

Retirement benefit becomes vested upon the member's completion of four years of service credit. Eligible member contributions vest immediately.

# Service Retirement

Age	Years of Service	Allowance Reduction
Any age.	20	None
60	10	None
65	4	None

SUMMARY OF PLAN PROVISIONS (Continued)

Public Safety Retirement System (Concluded)

# Service Benefit Formula

- 1) 2.5% x FAS* x years of service up to 20 years.
- 2) 2.0% x FAS* x years of service over 20 years.
- 3) Monthly benefit = total of 1 and 2.
- *FAS (Final Average Salary) = highest three years' earnings converted to a monthly average. Yearly salary increases are limited to 10% plus a COLA determined by the CPI.

# **Cost-of-Living Allowance**

Up to 2.5% annually on original retirement benefit. Employers have the option to provide an enhanced cost-ofliving (COLA) benefit to their public safety retirees that will raise the maximum COLA from 2.5% to 4% based on the CPI. Eligible after one year.

# **Death Benefits**

# **Division A (with Social Security)**

If death is in the line of duty, the benefit to the surviving spouse is a lump-sum payment equal to six months of the final average salary plus a monthly benefit of 30% of the final average salary. In the noncontributory system only, if the member has 20 years of service credit, the spouse's benefit is the same as for a retired member. If death is not in the line of duty, the benefit is \$1,000 or a refund of contributions for members with fewer than 10 years of service. For more than 10 years of service, the benefit to the surviving spouse is \$500 plus a monthly benefit of 2% of the final average salary for each year of service to a maximum of 30% of the final average salary. If there is no spouse, the settlement is a 100% refund of vested contributions payable to the beneficiary, or \$500, whichever is greater. Dependent children receive no additional benefits. A retired member's death benefit to the surviving spouse is 65% of the monthly benefit unless the member selects a reduced monthly benefit at the time of retirement to provide a 75% spousal benefit.

# **Division B (without Social Security)**

If death is in the line of duty, the benefit to the surviving spouse is a lump-sum payment equal to six months of the final average salary plus a monthly benefit of 37.5% of the final average salary. Each unmarried child under 18 or dependent unmarried mentally or physically disabled child receives \$50 per month if the member has two or more years of service. If death is not in the line of duty and the member has less than two years of service, the spouse at the time of death will receive a refund of contributions plus 50% of the last 12 months of salary. For members with more than two years of service, the benefit is the same as that for death in the line of duty. If there is no spouse, the settlement is a 100% refund of

vested contributions payable to the beneficiary, or \$500, whichever is greater. A retired member's death benefit to a surviving spouse is 65% of the monthly benefit unless the member selects a reduced monthly benefit at the time of retirement to provide a 75% spousal benefit. An unmarried child under 18 or dependent unmarried mentally or physically disabled child receives \$50 per month.

# Refunds

A terminated member is eligible for a 100% refund of member contributions. There is a 60-day refund processing period after the last day of paid employment.

# **Redeposits**

A redeposit with interest may be made in monthly installments, by a lump-sum payment, or by direct transfer from a qualified plan. A redeposit must be completed prior to retirement. Service credit is restored when the redeposit is completed.

# Contribution Rates (as of 12-31-2017)

# **Noncontributory Option**

Employer rates for Division A are: State units 41.58%; Bountiful 49.58%; other law enforcement units with a 2.5% COLA 34.04% and units with a 4.0% COLA 35.71% of salary. Employer rates for Division B are: Salt Lake City 46.67%; Ogden 48.68%; Provo 42.16%; Logan 41.92%; other law enforcement units with a 2.5% COLA 32.20% and units with a 4.0% COLA 38.94% of salary.

# **Contributory Option**

Member rates in Division A are: State units 12.29%; all other law enforcement units with a 2.5% COLA 12.29% and units with a 4.0% COLA 12.29% of covered salary. Member rates in Division B are: other law enforcement units with a 2.5% COLA 10.5% and units with a 4.0% COLA 10.5% of salary.*

Employer rates for Division A are: State units 29.70%; all other law enforcement units with a 2.5% COLA 22.75% and units with a 4.0% COLA 24.33% of covered salary. Employer rates for Division B are other law enforcement units with a 2.5% COLA 22.29% and units with a 4.0% COLA 28.95% of salary.

*Employers have the option of paying all or part of member contributions on behalf of their employees.

#### Interest

Up to 7.20% on member accounts.

SUMMARY OF PLAN PROVISIONS (Continued)

# Firefighters Retirement System

# **Membership Eligibility**

The Firefighters Retirement System includes eligible State and local government employees directly involved in fire fighting and whose duties are classified as hazardous. If an employer does not classify the duties as hazardous, the employee will be enrolled in either the Public Employees Contributory or Noncontributory Retirement System.

Employees are qualified for membership in the Firefighters System if they initially began employment prior to July 1, 2011, and are regularly scheduled to work and be compensated for 2,080 hours a year in a regular constituted fire department and are regularly assigned to hazardous duty, or are the State Fire Marshall or a Deputy State Fire Marshall. Although volunteer firefighters who are on the rolls of a legally organized volunteer fire department do not contribute to the System and are not eligible for service retirement benefits, they or their beneficiaries receive benefits based on the salary of the lowest paid firefighters in a first-class city if they are disabled or killed in the line of duty.

# Vesting

Retirement benefit becomes vested upon the member's completion of four years of service credit. Eligible member contributions vest immediately.

# **Service Retirement**

Age	Years of Service	Allowance Reduction
Any age.	20	None
60	10	None
65	4	None

# Service Benefit Formula

- 1) 2.5% x FAS* x years of service up to 20 years.
- 2) 2.0% x FAS* x years of service over 20 years.
- 3) Monthly benefit = total of 1 and 2.
- *FAS (Final Average Salary) = highest three years' earnings converted to a monthly average. Yearly salary increases are limited to 10% plus a COLA determined by the CPI.



# **Cost-of-Living Allowance**

Up to 4.0% annually on original retirement benefit. Eligible after one year.

# **Disability Benefits**

If disability is in the line of duty, the benefit is 50% of the final average salary with no minimum age or service requirements. If disability is not in the line of duty, the benefit is a refund of contributions for members with fewer than five years of service. For members with more than five years of service, the benefit is the same as that for disability incurred in the line of duty. Benefits are suspended while receiving Workers Compensation.

# **Death Benefits**

# **Division A (with Social Security)**

If death is in the line of duty, the benefit to the surviving spouse is a lump-sum payment equal to six months of the final average salary plus a monthly benefit of 30% of final average salary. If death is in the line of duty, and the member has 20 or more years of service credit, the spouse's benefit is the same as for a retired member.

If death is not in the line of duty, the benefit is \$1,000 or a refund of contributions for members with fewer than 10 years of service. For members with more than 10 years of service, the benefit to the surviving spouse consists of \$500 plus a monthly benefit of 2% of the final average salary for each year of service to a maximum of 30% of the final average salary. If there is no spouse, the settlement is a 100% refund of vested contributions payable to the beneficiary, or \$500, whichever is greater.

SUMMARY OF PLAN PROVISIONS (Continued)

Firefighter Retirement System (Concluded)

# **Division B (without Social Security)**

If death is in the line of duty, the benefit to the surviving spouse is a lump-sum payment equal to six months of the final average salary plus a monthly benefit of 37.5% of the final average salary. Each unmarried child under 21 or dependent unmarried mentally or physically disabled child receives \$75 per month if the member had five or more years of service. If death is in the line of duty, and the member has 20 or more years of service credit, the spouse's benefit is the same as for a retired member.

If death is not in the line of duty, the benefit is a refund of contributions plus 50% of the last 12 months of salary for members with fewer than five years of service. For members with more than five years of service, the benefit is the same as that for death in the line of duty. If there is no spouse, the settlement is a 100% refund of vested contributions payable to the beneficiary, or \$500, whichever is greater. Total benefits cannot exceed 75% of the final average salary.

A retired member's death benefit to a surviving spouse is 75% of the monthly benefit with a minimum monthly payment of \$350. An unmarried child under 21 or dependent unmarried mentally or physically disabled child receives \$75 per month.

#### Refunds

A terminated member is eligible for a 100% refund of member contributions. There is a 60-day refund processing period after the last day of paid employment.

# Redeposits

A redeposit with interest may be made in monthly installments, by a lump-sum payment, or by direct transfer from a qualified plan. A redeposit must be completed prior to retirement. Service credit is restored when the redeposit is completed.

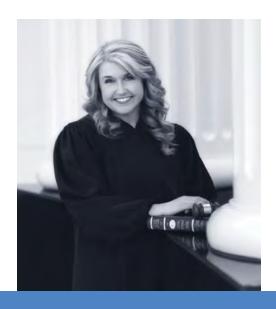
# Contribution Rates (as of 12-31-2017)

Member rate in Division A is 15.05% of covered salary. Member rate in Division B is 16.71% of covered salary.* Employer rate in Division A is 3.93% and in Division B is 6.70% of covered salary. A fire insurance premium tax egual to 11.64% of salaries is also an additional part of the employer contribution rates. Fire insurance premium taxes are collected by the Utah State Treasurer for the Firefighters Retirement System to help fund retirement benefits.

* Employers have the option of paying all or part of member contributions on behalf of their employees.

# **Interest**

Member contributions receive no interest.



# **Judges Retirement System**

# **Membership Eligibility**

The Judges Retirement System includes justices and judges of the courts of record as authorized in state statutes.

# Vesting

Retirement benefit becomes vested upon the member's completion of 6 years of service credit. Eligible member contributions and interest thereon vest immediately.

# Service Retirement

Age	Years of Service	Allowance Reduction
Any age.	25	.None
55	20	.Full actuarial reduction
62	10	.None
70	6	.None

# Service Benefit Formula

- 1) 5.00% x FAS* x years of service up to 10 yrs.
- 2) 2.25% x FAS* x years of service between 10 and 20 yrs.
- 3) 1.00% x FAS* x years of service over 20 yrs.
- 4) Monthly benefit = total of 1, 2, and 3.
- *FAS (Final Average Salary) = highest two years' earnings in judicial service converted to a monthly average. Yearly salary increases are limited to 10% plus a COLA determined by the CPI.

# SUMMARY OF PLAN PROVISIONS (Continued)

Judges Retirement System (Concluded)

# Cost-of-Living Allowance

Up to 4% compounded annually, beginning one year after retirement.

# **Death Benefits**

An active or inactive member's death benefit to the surviving spouse consists of a refund of member contributions and interest plus 65% of the member's most recent 12 months' compensation prior to death, or a monthly allowance equal to 65% of the amount computed for a service retirement with no early retirement reduction.

A retired member's death benefit to the surviving spouse is 65% of the member's monthly benefit at the time of death. If the member elected a reduced monthly benefit, the surviving spouse will receive a death benefit of 75% of the member's monthly benefit.

# Refunds

A terminated member is eligible for a 100% refund of member contributions plus interest. There is a 60-day refund processing period after the last day of paid employment.

# **Redeposits**

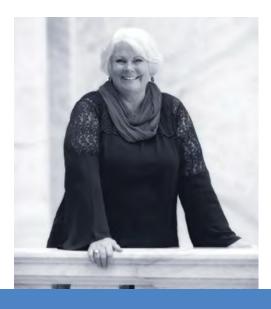
A redeposit with interest may be made in monthly installments, by a lump-sum payment, or by direct transfer from a qualified plan. A redeposit must be completed prior to retirement. Service credit is restored when the redeposit is completed.

# Contribution Rates (as of 12-31-2017)

Employer rate includes 42.69% of covered salary and 9.22% from court fees.

# Interest

Up to 7.20% on member accounts.



# **Utah Governors and Legislators** Retirement Plan

# **Membership Eligibility**

The Utah Governors and Legislators Retirement Plan includes only governors and legislators of the State of Utah.

# Vesting

Retirement benefit becomes vested upon the member's completion of four years of service credit.

# **Service Retirement**

Age	Years of Service	Allowance Reduction
65	4	. None
62	10	. 3% each year before age 65

# **Service Benefit Formula**

Governors: \$500 per month per term increased semi-annually up to 2% based on the CPI. The amount as of 12-31-17 is \$1,380.00.

**Legislators:** \$10 per month per each year of service as a legislator increased semi-annually up to 2% based on the CPI. The amount as of 12-31-17 is \$30.00.

SUMMARY OF PLAN PROVISIONS (Continued)

Utah Governors and Legislators Retirement Plan (Concluded)

# Cost-of-Living Allowance

Up to 4% annually on the original retirement benefit. Eligible after one year.

An additional \$3.50 per month, for each year of service, is payable to elected and appointed legislators and governors who were members of this Plan before March 1, 2000.

# **Death Benefits**

An active or retired member's death benefit to a spouse consists of a monthly pension equal to 50% of the retirement allowance paid, or to which the member would have been entitled to upon reaching age 65, if the member has four or more years of service as a governor or legislator. The deceased member and surviving spouse must have been married at least six months.

# Contribution Rates (as of 12-31-2017)

There was a 2017-18 appropriation payable by June 30, 2018, to the Utah Governors and Legislators Retirement Plan of \$391,883.



Tier 2 Public Employees Contributory Retirement System

# **Membership Eligibility**

The Tier 2 Public Employees Contributory Retirement System, brought about by SB 63, became effective on July 1, 2011. All eligible employees beginning employment on or after July 1, 2011, who have no previous service credit with any of the Utah Retirement Systems, are members of the Tier 2 Retirement System. A person initially entering full-time employment with a participating employer on or after July 1, 2011, must make an election to participate in either the Tier 2 Hybrid Public Employees Retirement System or the Tier 2 Defined Contribution (DC) Plan, within one year of his or her employment date. The election made is irrevocable. If no election is made, the employee automatically becomes a member of the Tier 2 Hybrid Public Employees Retirement System.

An employee is qualified for membership in the Tier 2 Public Employees Retirement System if his or her employer participates in this system, and one of the following: the employment, contemplated to continue during a fiscal or calendar year, normally requires an average of 20 hours or more per week and the employee receives benefits normally provided by the employer as approved by the Retirement Board; the employee is a classified school employee whose employment normally requires an average of 20 hours or more per week regardless of benefits; the employee is a teacher who teaches half-time

SUMMARY OF PLAN PROVISIONS (Continued)

Tier 2 Public Employees Contributory Retirement System (Concluded)

or more and receives benefits normally provided by the employer as approved by the Retirement Board; the employee is an appointed officer* whose position is full time as certified by the participating employer; the employee is in a probationary status and meets eligibility requirements; the employee performs services through an employee leasing or similar arrangement and meets eligibility requirements.

*Appointed officers are employees appointed to a position for a definite and fixed term of office, and the position is recorded in the employer's charter, creation document, or similar document.

# Vesting

Retirement benefit is vested upon the member's completion of four years of qualifying service credit.

# **Service Retirement**

# Applies only to the Tier 2 Hybrid Retirement System

Age	Years of Service	Allowance Reduction†
Any age	35	. None
60-61	20	. Full actuarial before age 65
62-64	10	. Full actuarial before age 65
65	4	None

† When fewer than 35 years of service from any combination of Utah Retirement Systems, the allowance will be reduced by approximately 7% for each year between ages 60 and 63 and approximately 9% for each year between ages 64 and 65.

# Service Benefit Formula

# Applies only to the Tier 2 Hybrid Retirement System

Service benefit formula is based upon number of years of service credit x 1.5% x highest five years' earnings converted to a monthly average.

# **Cost-of-Living Allowance**

The Tier 2 Hybrid Retirement System has a COLA up to 2.5% on the retirement allowance. There is no COLA in the Tier 2 Defined Contribution Plan.

#### **Death Benefits**

# Death Benefits for Non-Retired Members — Applies only to the Tier 2 Hybrid Public Employees **Retirement System**

The spouse of a deceased member is eligible for a monthly benefit if they have been married for at least six months and the member meets age and service qualifications or has 15 or more years of service credit.

If there are any member contributions in the employee's Tier 2 Hybrid Public Employees Retirement Account and the surviving spouse does not qualify for a career benefit, the beneficiary(ies) will receive a refund of the employee's contributions plus interest.

# Death Benefits — Applies to both the Hybrid Public Employees Retirement System and the DC Plan

If an employee is a non-retired member who is employed by a participating employer at the time of his or her death, his or her beneficiary(ies) will receive a payment representing 75% of the employee's highest annual salary. If the employee has less than 12 months of service, the benefit is prorated. The minimum insurance payment is \$1,000.

# Death Benefits for Non-Retired Members in the Tier 2 Retirement Plan

After death, any money vested in the employee's URS Savings Plans (401(k), 457, IRAs) is payable to his or her beneficiary(ies).

# Refunds

If the employee has a balance in his or her Tier 2 Defined Contribution account, he or she may be able to withdraw funds under certain circumstances. When an employee has four years of eligible employment, the employer contributions in his or her 401(k) account become vested and he or she is able to take a refund of the account upon termination of employment.

If the employee terminates employment prior to the vesting period and subsequently enters employment with a URS participating employer within 10 years of the previous termination date, all employer contributions will be reinstated upon completion of the vesting period. If he or she is not re-employed and eligible to participate in the DC Plan within 10 years of the previous termination date, the funds are forfeited. If the employee makes personal deferrals (i.e., payroll deductions) to the DC Plan, those deferrals are vested immediately and may be taken as a refund when terminating employment.

# Contribution Rates* (as of 12-31-2017)

Range from 16.69% to 18.45% of salary for local government employers. The rate for State and School Employers is 20.02%.

* Includes 401(k) portion of the contribution rate.

SUMMARY OF PLAN PROVISIONS (Continued)

# Tier 2 Public Safety and Firefighter Contributory Retirement System

# **Membership Eligibility**

The Tier 2 Public Safety and Firefighter Contributory Retirement System, brought about by SB 63, became effective on July 1, 2011. All eligible employees beginning employment on or after July 1, 2011, who have no previous service credit with any of the Utah Retirement Systems, are members of the Tier 2 Public Safety and Firefighter Retirement System. A person initially entering full-time employment with a participating employer on or after July 1, 2011, must make an election to participate in either the Tier 2 Public Safety and Firefighter Retirement System or the Tier 2 Defined Contribution (DC) Plan, within one year of his or her employment date. The election made is irrevocable. If no election is made, the employee automatically becomes a member of the Tier 2 Hybrid Public Safety and Firefighter Retirement System.

An employee qualifies for membership if: The employment normally requires an average of 2,080 hours of regularly scheduled employment per year in a recognized public safety department, as a law enforcement officer, correctional officer, special function officer, or full-time member of the Board of Pardons and Parole, and in the course of employment the employee's life or personal safety is at risk, and he or she has completed a certified training program, which is documented with our office, OR, if the employment normally requires an average of 2,080 hours of regularly scheduled employment per year in a regularly constituted fire department, the employee has been trained in firefighter techniques, and is assigned to a position of hazardous duty.

If the employee doesn't meet the eligibility requirements outlined in the previous explanation, based on the employer's participation, the employee will be enrolled in the Tier 2 Public Employees Contributory Retirement System as long as eligibility requirements are met.



# Vesting

Retirement benefit is vested upon the member's completion of four years of qualifying service credit.

# **Service Retirement**

# Applies only to the Tier 2 Hybrid Public Safety and Firefighter Retirement System

Age	Years of Service	Allowance Reduction†
Any age	2 25	. None
60-61	20	. Full actuarial before age 65
62-64	10	. Full actuarial before age 65
65	1	None

[†] When fewer than 25 years of service from any combination of Utah Retirement Systems, the allowance will be reduced by approximately 7% for each year between ages 60 and 63 and approximately 9% for each year between ages 64 and 65.

# **Service Benefit Formula**

# Applies only to the Tier 2 Hybrid Public Safety and Firefighter Retirement System

Service benefit formula is based upon number of years of service credit x 1.5% x highest five years' earnings converted to a monthly average.

# **Cost-of-Living Allowance**

The Tier 2 Hybrid Public Safety and Firefighter Retirement System has a COLA up to 2.5% on the retirement allowance. There is no COLA in the Tier 2 Defined Contribution Plan.

# SUMMARY OF PLAN PROVISIONS (Concluded)

Tier 2 Public Safety and Firefighter Contributory Retirement System (Concluded)

# **Death Benefits**

# Applies only to the Tier 2 Hybrid Public Safety and Firefighter Retirement System

An active member's death benefit consists of a payment equal to 75% of the highest annual salary with a minimum of \$1,000. The spouse of a deceased member is eligible for a monthly benefit if they have been married for at least six months and the member meets age and service qualifications or has 15 or more years of service credit. If there are any member contributions in the employee's Tier 2 Hybrid Public Employees Retirement Account and the surviving spouse does not qualify for a career benefit, the beneficiary(ies) will receive a refund of the employee's contributions plus interest.

# Line-of-Duty Death — Applies only to the Tier 2 Hybrid **Public Safety and Firefighter Retirement System**

If an employee accrued less than 20 years of public safety or firefighter service credit, his or her spouse at the time of death will receive a lump-sum payment equal to six months of the final average salary and a monthly benefit equal to 30% of the employee's monthly final average salary.

If an employee accrued 20 or more years of public safety or firefighter service credit, he or she will be considered to heave retired with an option one selection calculated without an actuarial reduction and his or her spouse at the time of your death will receive the allowance that would have been payable to the employee.

# Death Benefit — Applies to both the Hybrid Public Safety and Firefighter Retirement System and the Tier 2 DC Plan

If an employee is a non-retired member who is employed by a participating employer at the time of his or her death, his or her beneficiary(ies) will receive a payment representing 75% of the employee's highest annual salary. If the employee has less than 12 months of service, the benefit is prorated. The minimum insurance payment is \$1,000.

# Death Benefits for Non-Retired Members in the Tier 2 DC Plan

After death, any money vested in the employee's URS Savings Plans (401(k), 457, IRAs) is payable to his or her beneficiary(ies).



# Refunds

If the employee has a balance in his or her Tier 2 Defined Contribution account, he or she may be able to withdraw funds under certain circumstances. When an employee has four years of eligible employment, the employer contributions in his or her 401(k) account becomes vested and he or she is able to take a refund of the account upon termination of employment.

If the employee terminates employment prior to the vesting period and subsequently enters employment with a URS participating employer within 10 years of the previous termination date, all employer contributions will be reinstated upon completion of the vesting period. If he or she is not re-employed and eligible to participate in the DC Plan within 10 years of the previous termination date, the funds are forfeited. If the employee makes personal deferrals (i.e., payroll deductions) to the DC Plan, those deferrals are vested immediately and may be taken as a refund when terminating employment.

# Contribution Rates* (as of 12-31-2017)

Public Safety rates range from a low of 21.72% to a high of 38.97% of salary. The Firefighter rate is 12.08% of salary.

*Includes 401(k) portion of the contribution rate.

#### UTAH RETIREMENT SYSTEMS

# CHANGES IN PLAN PROVISIONS



# 2017 Legislation

The following retirement-related bills were passed by the 2017 Utah Legislature:

# FIREFIGHTERS RETIREMENT SYSTEM

# S.B. 18: Firefighters' Disability Retirement **Benefit Amendments**

Modifies the standard for determining a disability for members of the Firefighters Retirement System, including using the "objective medical impairment" standard that is used for URS' long term disability (LTD) insurance programs.

# **GENERAL**

# S.B. 19: Retirement Systems Payments to Survivors **Amendments**

Provides that divorce revokes any URS beneficiary designation naming the divorced member's former spouse.

# S.B. 21: Retirement System Amendments

The annual administrative and technical amendments to Title 49 recommended to the Legislature by URS. At the time of retirement, a retiring member who is married may select options that provide the surviving spouse with an increased monthly allowance if the retiree dies or if there is a divorce without a domestic relations order dividing the benefit. The changes in this bill include a clarification that the increase to such benefits takes effect after notice to the Office of the spouse's death or a divorce.

# S.B. 92: Workers' Compensation Fund Revisions

Requires the Workers' Compensation Fund (WCF) to make an election no later than January 1, 2018, relating to the retirement participation of current employees in conjunction with WCF's withdrawal from URS participation for future employees.

#### UTAH RETIREMENT SYSTEMS

# DEFINED CONTRIBUTION SAVINGS PLANS SUMMARY OF PLAN PROVISIONS



# **Defined Contribution Plans**

# INTRODUCTION

The 401(k), 457, Roth and traditional IRAs administered by the Board are Defined Contribution Savings Plans. These Plans are generally supplemental plans to the basic retirement benefits of the Retirement Systems, but may also be used as a primary retirement plan. These Plans are voluntary tax-advantaged retirement savings programs authorized under sections 401(k), 457(b), and 408 of the Internal Revenue Code and are available to state, local government, and education employees throughout Utah whose employers have adopted the plans.

#### **EMPLOYER CONTRIBUTIONS**

In addition to accepting employee contributions, the 401(k) and 457 Plans also accept employer contributions on behalf of their employees. All state and public education employees participating in the Noncontributory Retirement System receive an amount equal to 1.5% of their salary in the 401(k) Plan and Tier 2 Public Employees and Tier 2 Public Safety and Firefighter Retirement Systems participants also receive contributions according to their retirement plan. In addition, some employers match a portion of their employees' elective deferrals.

# SOCIAL SECURITY SUBSTITUTE

Organizations that have exempted themselves from Social Security coverage and have part-time, temporary, or seasonal employees, who are not participating in a qualifying retirement system, must cover these employees with a substitute plan.

Employers may use the 401(k)/457 Plans as a qualifying retirement system for these employees, but must contribute a minimum of 7.5% of salary to the Plan(s) on their behalf for it to be considered a "qualifying system." The employer may contribute the 7.5% themselves, or they may require their employees to pay a portion or all of it.

# **SUMMARY OF PLAN PROVISIONS**

# **Deferral Limits**

401(k) — Limited in 2017 to an annual maximum of \$18,000. Employer contributions and employee deferrals combined could not exceed the lesser of \$54,000 or 100% of compensation.

457 — Limited to an annual maximum of \$18,000 or 100% of includable compensation.

Roth and Traditional IRA — Limited to an annual maximum of \$5,500 into all IRAs owned by the participant.

# **Defined Contribution Savings Plans**

SUMMARY OF PLAN PROVISIONS (Continued)

# **Coordination of Deferrals**

**401(k)** — Deferrals to the 401(k) and 403(b) plans must be coordinated.

457 — Contributions to the 457 must be coordinated with all 457(b) plans.

Roth and Traditional IRA — All Roth and traditional IRA contributions must be coordinated.

# **Catch-up Provisions**

401(k) — An additional \$6,000 for participants 50 or older during the year.

457 — An additional \$6,000 for participants age 50 or older during the year. There is an additional "special catch-up" provision that allows participants to double their contributions to a 457(b) plan during the three years immediately preceding the year they qualify for retirement. However, the special catch-up is limited to unused deferrals allowed in previous years.

Roth and Traditional IRA — An additional \$1,000 for participants 50 or older.

#### Withdrawals

**401(k)** — Vested balances upon termination of employment, age 591/2, retirement, disability, death, or hardship caused by immediate and heavy financial needs. (Hardships from employee deferrals only.)

457 — Allowable upon termination of employment, age 70 1/2, retirement, death, or severe unforeseeable financial emergencies.

Roth and Traditional IRA — Allowable at any time, but with possible tax penalties if withdrawn prior to age 591/2.

# **Rollovers**

401(k) — Allowable from other eligible retirement plans, or to other eligible retirement plans upon termination of employment or other qualifying events. May be either a direct rollover by the Plan or an indirect rollover by the participant within 60 days after distribution.

**457** — Allowable to other eligible retirement plans or from another 457(b) plan.

Roth and Traditional IRA — Allowable from other eligible retirement plans or to other eligible plans (depending on acceptance of receiving plan).

# Vesting

**401(k)** — Employee and other employer contributions are fully vested. Tier 2 employer required contributions are vested after four years of eligible service (except for elected officials).

457 — Fully vested.

Roth and Traditional IRA — Fully vested.

#### Loans

**401(k) and 457** — Available up to 50% of member account balance, to a maximum of \$50,000 during a 12-month period. Only one outstanding loan allowed, per plan. Tier 2 employer required contributions are not eligible.

Roth and Traditional IRA — Not available.

# SHORT-TERM TRADING FEES

Each time money managers purchase or redeem stocks and bonds there are trading costs involved. Because of the costs generated by frequent or short-term trading, it became necessary to impose a short-term trading fee. Individuals who transfer any or all of their current account between core investment options more often than once every 30 days, are charged 2% of the amount transferred for each additional trade. Each transfer starts a new 30-day period.

# INVESTMENT TRANSFER OPTIONS

Changes in deferral amounts and in the investment options for future contributions may be made at any time. Participants may make one transfer of accumulated balances within each plan no more frequently than every seven calendar days.

# **Defined Contribution Savings Plans**

SUMMARY OF PLAN PROVISIONS (Continued)

# 2017 CORE INVESTMENT OPTIONS

# **Income Fund**

The Income Fund is a stable value option and the most conservative of the investment choices. Approximately 95% of its assets are invested in investment grade bonds. which are "wrapped" with book value contracts. The contracts are financial agreements from creditworthy banks and insurance companies, protecting against changes in interest rates and allowing the returns to be smoothed over the duration of the portfolio. The remaining 5% is invested in short-term instruments for liquidity.

# **Bond Fund**

The Bond Fund invests in a diversified portfolio consisting of U.S. government securities, mortgage and asset-backed securities, corporate bonds, and shortterm funds.

# **Balanced Fund**

The Balanced Fund invests in a portfolio consisting of approximately 60% stocks and 40% bonds.

# **Large Cap Stock Value Fund**

The Large Cap Stock Value Fund invests in a diversified portfolio of common stocks that appear to be undervalued by the stock market, but have a favorable outlook for long-term growth.

# **Large Cap Stock Index Fund**

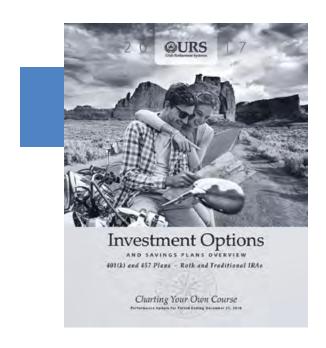
The Large Cap Stock Index Fund invests in stocks included in the Russell 1000 Index and is similarly weighted. This fund represents a broad range of industries in the U.S. economy.

# **Large Cap Stock Growth Fund**

The Large Cap Stock Growth Fund emphasizes capital appreciation and seeks to identify companies with future relative earnings strength at a reasonable valuation.

# International Fund

The International Fund tracks the performance of the MSCI All Country World Index – ex. U.S. – Investable Market Index (ACWI ex. U.S. IMI) as closely as possible. The index is designed as a measure of the global stock market performance of developed and emerging markets that excludes the United States.



# **Small Cap Stock Fund**

The Small Cap Stock Fund invests in a broad crosssection of U.S. small companies whose size (market capitalization) falls within the smallest 10% of the market universe. The market universe is comprised of companies listed on the NYSE and NASDAQ.

# **BROKERAGE WINDOW**

The brokerage window is a self-directed brokerage account available through Charles Schwab. The brokerage account offers a wide variety of investment options with varying degrees of risk. The brokerage window allows the participant to choose from mutual funds, stocks, bonds, and exchange traded funds (ETFs).

# **REAL ASSETS***

# **U.S. REITS**

U.S. REITS, real estate investment trusts, is a passively managed portfolio of real estate properties and mortgage related investments within the U.S. market. The U.S. REITs portfolio tracks the Russell Fundamental US Select Real Estate Index. REITs increase diversification within the Target Date Funds and also add long-term inflation protection.

# **Defined Contribution Savings Plans**

SUMMARY OF PLAN PROVISIONS (Concluded)



# **Target Date Funds Asset Allocation**

	Target Da										arget Date	.e i uiius
Asset Classes	Retired	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
URS Income Fund	25%	22%	17%	12%	7%	2%	_	_	_	_	_	_
URS Bond Fund	20	21	21	18	15	10	6%	4%	3%	3%	3%	3%
URS Large Cap Stock Value Fund	_		_	0.5	2.5	4	6.5	9	10	10	10	10
URS Large Cap Stock Index Fund	14	17	19	23	24	24	23	21	20	20	20	20
URS Large Cap Stock Growth Fund	_		_	0.5	2.5	4	6.5	9	10	10	10	10
URS International Stock Fund	4	4	6	11	17	24	30	32	33	33	33	33
URS Small Cap Stock Fund	1	1	2	3	4	7	9	10	10	10	10	10
International Bonds	10	10	10	10	9	7	3	2	2	2	2	2
U.S. Real Estate Investment Trusts	_		_	_	2	4	4	4	4	4	4	4
Commodities	3	3	3	3	3	4	4	4	4	4	4	4
Global Inflation-Linked Bonds	20	19	14	9	4	_	_	_		_	_	_
Private Real Estate	3	3	8	10	10	10	8	5	4	4	4	4
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

# **Commodities**

Commodities are bulk goods and raw materials, such as grains, metals, livestock, oil, cotton, coffee, sugar, and cocoa; goods used to produce consumer products. Commodities are bought and sold on the cash market, and they are also traded on the futures exchanges in the form of futures contracts. In addition to their diversification benefits, commodities are used as a long-term hedge against inflation.

# **Private Real Estate**

Private Real Estate is a fund of funds that allows investors to gain exposure to portfolios of direct real estate investments. The fund will invest primarily in existing private real estate funds, publicly traded real estate securities, and other real estate related investments. These portfolios are comprised of institutional quality commercial real estate across a broad range of real estate asset types.

# International Bonds*

# **International Bonds**

International Bonds are used to diversify the bond investments within the Target Date Funds. An international bond is a bond issued outside of the United States by a government or non-U.S. corporation.

# **Global Inflation-Linked Bonds**

Global Inflation-linked bonds are debt instruments created to protect investors from the effects of inflation through inflation-linked bonds issued primarily by developed countries. An example of inflation-linked bonds are TIPS (Treasury Inflation-Protected Securities), which are issued by the U.S. Government and are designed to reduce the risk of inflation by indexing the principal of the bond to an inflation rate.

Target Date Funds

*The Real Assets and International Bonds asset classes are exclusive to the URS Target Date Funds and are not available as a stand-alone investment option.

# **URS TARGET DATE FUNDS**

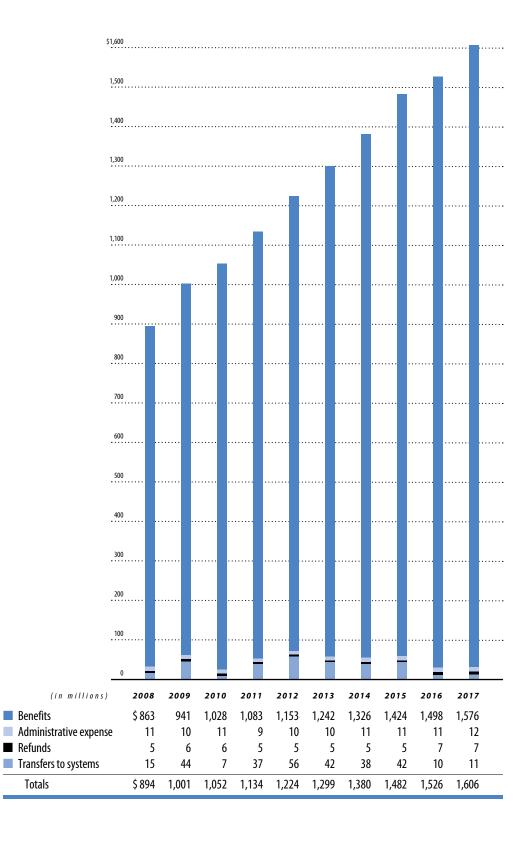
The URS Target Date Funds offer a one-fund approach to investing in the URS Savings Plans. A Target Date Fund will give participants a diversified portfolio through a single investment option. The funds will gradually adjust throughout the participant's career and into retirement. The investment mix – which includes stocks, bonds, and real assets – is automatically reallocated to be weighted more conservatively as the participant ages and enters into retirement.

The historical rates of returns for each investment fund are found on pages 149 and 150.

# UTAH RETIREMENT SYSTEMS

# **EDUCTIONS BY TYPE**

(in millions)



# 2017

# STATISTICAL SECTION

Schedules of Retirees by Age and Gender 211

196	Schedules of Changes in Net Position — Defined Benefit Systems These schedules allow readers to view changes in net assets and benefits over a 10-year period.
200	Schedules of Changes in Net Position — Defined Contribution Plans These schedules allow readers to view changes in net assets and refunds over a 10-year period.
202	Schedules of Benefit Deductions by Type These schedules provide readers with information regarding the type of benefit deductions for the last 10 years.
204	Schedules of Retired Members by Type of Benefit Option These schedules provide readers with information regarding benefit payments by years of service.
206	Schedules of Average Benefit Payments These schedules provide readers with information regarding benefit payments by years of service.
210	Schedules of Active Members by Age and Gender These schedules provide readers with information regarding members by age and gender.

Schedules of Principal Participating Employers 212
These schedules provide readers with information regarding the largest participating employers.

Schedule of Litab Retirement Office Employees 216

These schedules provide readers with information regarding retirees by age and gender.

- Schedule of Utah Retirement Office Employees 216
  This schedule provides readers with information regarding the number of Utah Retirement Systems' employees.
  - Schedules of Participating Employers 218
    This schedule provides readers with information regarding the participating employers and the systems in which they participate.
  - Utah Retirement Systems A Highlight History 224 This summary provides readers with historical highlights of the Utah Retirement Systems.

# Schedules of Changes in Net Position — Defined Benefit Systems

Year Ended December 31

	$(d \cap I)$	arc	in	thousands)	
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	(dolla	rs in thousan	ds)					
					Total Employer Contributions			
				-		Contributions		
		Beginning	Member	Employer	Court Fees/ Fire Insurance	as a Percent of Covered	Net Investment	
System	Year	Net Position	Contributions	Contributions	Tax	Payroll	Income	
Noncontributory	2008	\$ 16,751,804	14,110	522,733	_	13.50%	\$(3,888,624)	
Retirement	2009	12,714,371	14,109	535,298	_	13.53	1,667,478	
	2010	14,152,562	33,528	564,154	_	14.51	1,860,976	
System	2010	15,802,205	12,879	610,270	_	15.65	401,105	
	2011			-	_	16.99	2,000,995	
	2012	15,935,472	15,014	644,907				
		17,629,437	14,208	710,933		19.18	2,588,981	
	2014	19,915,815	13,587	772,420		21.63	1,419,053	
	2015	21,096,512	17,020	813,449	_	23.26	366,748	
	2016	21,192,437	16,308	831,631	_	24.05	1,783,911	
	2017	22,618,743	17,285	854,255	_	25.31	2,987,282	
Contributory	2008	\$ 1,131,316	9,410	11,037	_	8.29%	\$ (261,227)	
Retirement	2009	835,370	8,655	10,865	_	8.50	112,626	
	2010	937,587	10,299	11,851	_	10.18	121,153	
System	2010	•	7,300			10.10	26,009	
	2011	1,007,248		11,125	_		•	
		1,013,050	6,962	11,705	_	11.36	131,169	
	2013	1,136,651	6,376	12,874	_	13.13	169,510	
	2014	1,281,945	5,461	12,954	_	14.29	87,577	
	2015	1,269,991	4,771	11,719	_	16.50	21,251	
	2016	1,183,091	3,420	8,188		15.27	97,693	
	2017	1,204,904	2,675	7,946	_	17.59	155,949	
Public Safety	2008	\$ 2,106,302	2,159	93,899	_	25.72%	\$ (491,024)	
Retirement	2009	1,614,057	1,556	98,729	_	26.40	213,627	
	2010	1,824,758	1,713	103,586	_	28.53	241,203	
System	2011	2,058,019	1,070	110,829	_	29.61	52,655	
	2011		1,155			32.19	266,753	
	2012	2,103,751		117,975	_			
		2,366,057	1,258	128,744	_	35.18	350,563	
	2014	2,712,184	835	135,588		37.59	194,222	
	2015	2,899,386	905	141,024	_	39.51	50,654	
	2016	2,938,839	830	147,099	_	41.74	249,027	
	2017	3,176,545	793	145,814	_	41.57	421,917	
Firefighters	2008	\$ 814,674	10,428	_	10,219	9.99%	\$ (188,095)	
Retirement	2009	612,699	11,273	_	16,159	15.01	79,811	
	2010	682,219	14,112	238	10,677	10.37	89,122	
System	2011	756,260	17,328	316	12,689	11.74	19,218	
	2012	765,524	17,523	1,264	16,057	15.66	96,255	
	2012		18,325	3,494	11,285	13.35	125,685	
		853,778			11,203			
	2014	968,661	18,300	5,514	14,154	17.67	69,070	
	2015	1,031,039	18,175	6,690	17,218	21.08	17,934	
	2016	1,043,059	18,729	6,954	10,569	15.60	87,746	
	2017	1,115,726	18,460	6,715	1,223	7.03	146,736	
Judges	2008	\$ 134,364	138	1,730	2,072	26.40%	\$ (31,053)	
Retirement	2009	100,895	67	2,083	2,101	28.99	13,214	
	2010	111,726	_	2,771	1,944	33.12	14,597	
System	2010	123,037		3,588	1,815	36.22	3,114	
			_					
	2012	123,235	_	4,232	1,666	39.62	15,485	
	2013	136,127	 217	4,990	1,498	42.70	20,130	
	2014	155,676	317	5,627	1,486	44.26	11,068	
	2015	163,834	_	6,555	1,653	49.78	2,842	
	2016	163,747	_	7,382	1,470	52.83	13,820	
	2017	175,618	_	7,563	1,477	48.44	23,435	

Transfers from Systems	Total Additions	Benefit Payments	Refunds	Administrative & Actuarial Expense	Transfers to Systems	Total Deductions	Changes in Net Position	Ending Net Position
_	(3,351,781)	659,792	2,514	8,809	14,537	685,652	(4,037,433)	12,714,371
_	2,216,885	723,052	2,882	8,340	44,420	778,694	1,438,191	14,152,562
_	2,458,658	793,804	3,620	8,389	3,202	809,015	1,649,643	15,802,205
_	1,024,254	843,696	2,514	7,304	37,473	890,987	133,267	15,935,472
_	2,660,916	900,133	2,858	8,397	55,563	966,951	1,693,965	17,629,437
_	3,314,122	974,684	2,454	8,329	42,277	1,027,744	2,286,378	19,915,815
30,467	2,235,527	1,043,798	2,204	8,828	72,277	1,054,830	1,180,697	21,096,512
33,648	1,230,865	1,123,647	2,496	8,797	_	1,134,940	95,925	21,192,437
33,046			4,366			1,205,544	1,426,306	
<del>-</del>	2,631,850	1,184,317		8,856	8,005			22,618,743
	3,858,822	1,248,037	4,635	9,579	10,187	1,272,438	2,586,384	25,205,127
9,008	(231,772)	62,096	1,473	605	_	64,174	(295,946)	835,370
37,633	169,779	64,849	2,158	555	_	67,562	102,217	937,587
_	143,303	67,565	1,632	535	3,910	73,642	69,661	1,007,248
32,064	76,498	68,375	1,872	449	_	70,696	5,802	1,013,050
47,098	196,934	70,855	1,975	503	_	73,333	123,601	1,136,651
33,094	221,854	74,158	1,922	480		76,560	145,294	1,281,945
· _	105,992	77,015	2,433	494	38,004	117,946	(11,954)	1,269,991
_	37,741	81,390	1,215	478	41,558	124,641	(86,900)	1,183,091
_	109,301	83,447	1,700	446	1,895	87,488	21,813	1,204,904
_	166,570	84,761	1,613	457	1,177	88,008	78,562	1,283,466
3,727	(391,239)	98,944	899	1,163	_	101,006	(492,245)	1,614,057
4,578	318,490	106,272	390	1,103	_	107,789	210,701	1,824,758
4,248	350,750	115,831	512	1,127	_	117,489	233,261	2,058,019
3,303	167,857	120,570	536	1,019	_	122,125	45,732	2,103,751
6,411	392,294	128,532	292	1,164	_	129,988	262,306	2,366,057
4,676	485,241	137,486	467	1,161	_	139,114	346,127	2,712,184
2,746	333,391	144,763	199	1,227	_	146,189	187,202	2,899,386
4,023	196,606	155,387	533	1,233	_	157,153	39,453	2,938,839
6,701	403,657	164,508	183	1,260	_	165,951	237,706	3,176,545
5,926	574,450	172,870	226	1,382		174,478	399,972	3,576,517
1,491	(165,957)	35,355	284	379	_	36,018	(201,975)	612,699
1,173	108,416	38,311	231	354	_	38,896	69,520	682,219
1,784	115,933	41,130	401	361	_	41,892	74,041	756,260
1,699	51,250	41,406	268	312		41,986	9,264	765,524
1,325	132,404	43,660	133	357	_	44,150	88,254	853,778
1,302	160,091	44,747	106	355	_	45,208	114,883	968,661
3,713	110,751	47,710	293	370	_	48,373	62,378	1,031,039
2,573	62,590	49,671	528	371	_	50,570	12,020	1,043,059
1,611	125,609	52,102	466	374		52,942	72,667	1,115,726
1,259	174,393	54,793	511	408	_	55,712	118,681	1,234,407
294	(26,819)	6,580		70		6 6 5 0	(33,469)	100,895
1,027			_		_	6,650 7,661		
	18,492	7,595	_	66	_	7,661	10,831	111,726
1,078	20,390	9,010	_	69	_	9,079	11,311	123,037
390	8,907	8,649	_	60	_	8,709	198	123,235
710	22,093	9,135	_	66	_	9,201	12,892	136,127
3,186	29,804	10,189	_	66	_	10,255	19,549	155,676
1,092	19,590	11,361	_	71	_	11,432	8,158	163,834
1,334	12,384	12,400	_	71	_	12,471	(87)	163,747
1,600	24,272	12,340	_	71	_	12,401	11,871	175,618
4,090	36,565	13,621		79		13,700	22,865	198,483

Continued on page 198.

# Schedules of Changes in Net Position — Defined Benefit Systems (Concluded)

Year Ended December 31

	(dolla	rs ir	n thousar	n d s )		Total Employer Contributions	Contributions		
System	Year		Beginning Net Position	Member Contributions	Employer Contributions	Court Fees/ Fire Insurance Tax	as a Percent of Covered Payroll	Investm Inco	
Utah Governors	2008	\$	12,196	_	_	_	_	\$ (2,70	53)
and Legislators	2009		8,675	_	_	_	_	1,09	98
Retirement Plan	2010		8,993	_		_	_	1,14	12
	2011		9,337	_	153	_	26.94%	23	31
	2012		8,933	_	214	_	46.22	1,10	00
	2013		9,445	_	252	_	64.62	1,34	16
	2014		10,166	_	411		44.29	7	17
	2015		10,366	_	421	_	44.50	18	31
	2016		10,039	_	421	_	52.69	84	19
	2017		10,352	_	404	_	55.96	1,3	53
Tier 2	2011	\$	_	_	2,790	_	7.58%	\$	9
Public Employees	2012		2,799	_	14,208	_	6.97	92	22
Contributory	2013		17,933	_	25,743	_	7.29	4,0	17
Retirement	2014		47,690	_	37,299	_	7.57	4,32	20
System*	2015		89,291	_	49,645	_	7.64	1,96	53
	2016		140,539	_	63,062	_	7.67	14,0	59
	2017		217,293	_	79,175	_	7.94	33,24	19
Tier 2	2011	\$	_	_	89	_	10.41%	\$ -	_
Public Safety	2012		89	_	1,031		10.07	!	56
and Firefighter	2013		1,171	_	2,451		12.12	3	16
Contributory	2014		3,935	_	4,365	_	12.46	40	)4
Retirement	2015		8,705	_	6,221	_	10.38	19	99
System*	2016		15,089	_	8,488	_	11.34	1,59	91
	2017		25,135	_	11,126	_	11.34	3,98	39
All Retirement	2008	\$ 2	0,950,656	36,245	629,399	12,291	14.30%	\$(4,862,78	36)
Systems	2009	1.	5,886,067	35,660	646,975	18,260	14.53	2,087,85	54
	2010	1	7,717,845	59,652	682,600	12,621	15.49	2,328,19	93
	2011	19	9,756,106	38,577	739,160	14,504	16.57	502,3	<b>1</b> 1
	2012	19	9,952,853	40,634	795,536	17,723	17.66	2,512,73	35
	2013	2	2,150,599	40,167	889,481	12,783	19.32	3,260,5	18
	2014	2	5,096,072	38,500	974,178	15,640	21.16	1,786,43	31
	2015		6,569,124	40,871	1,035,724	18,871	22.37	461,7	
	2016		6,686,840	39,287	1,073,225	12,039	22.19	2,248,69	
	2017		8,544,316	39,213	1,112,998	2,700	22.32	3,773,9	

^{*}Additional years will be added as they become available.

Transfers from Systems	Total Additions	Benefit Payments	Ac Refunds	lministrative & Actuarial Expense	Transfers to Systems	Total Deductions	Changes in Net Position	Ending Net Position
17	(2,746)	763	7	5	_	775	(3,521)	8,675
9	1,107	784	_	5	_	789	318	8,993
2	1,144	790	5	5	_	800	344	9,337
17	401	801	_	4	_	805	(404)	8,933
19	1,333	815	1	5	_	821	512	9,445
19	1,617	892	_	4	_	896	721	10,166
_	1,128	909	_	5	14	928	200	10,366
_	602	904	_	5	20	929	(327)	10,039
_	1,270	941	_	4	12	957	313	10,352
89	1,846	973	_	5	_	978	868	11,220
_	2,799	_	_	_	_	_	2,799	2,799
5	15,135	_	_	1	_	1	15,134	17,933
3	29,763	_	_	6	_	6	29,757	47,690
_	41,619	_	_	16	2	18	41,601	89,291
3	51,611	333	_	30	_	363	51,248	140,539
_	77,121	316	_	51	_	367	76,754	217,293
_	112,424	417	_	82	_	499	111,925	329,218
_	89	_	_	_	_	_	89	89
_	1,087	_	_	_	5	5	1,082	1,171
_	2,767	_	_	_	3	3	2,764	3,935
2	4,771	_	_	1	_	1	4,770	8,705
_	6,420	30	_	3	3	36	6,384	15,089
_	10,079	28	_	5	_	33	10,046	25,135
_	15,115	61	_	9	_	70	15,045	40,180
14,537	(4,170,314)	863,530	5,177	11,031	14,537	894,275	(5,064,589)	15,886,067
44,420	2,833,169	940,863	5,661	10,447	44,420	1,001,391	1,831,778	17,717,845
7,112	3,090,178	1,028,130	6,170	10,505	7,112	1,051,917	2,038,261	19,756,106
37,473	1,332,055	1,083,497	5,190	9,148	37,473	1,135,308	196,747	19,952,853
55,568	3,422,196	1,153,130	5,259	10,493	55,568	1,224,450	2,197,746	22,150,599
42,280	4,245,259	1,242,156	4,949	10,401	42,280	1,299,786	2,945,473	25,096,072
38,020	2,852,769	1,325,556	5,129	11,012	38,020	1,379,717	1,473,052	26,569,124
41,581	1,598,819	1,423,762	4,772	10,988	41,581	1,481,103	117,716	26,686,840
9,912	3,383,159	1,497,988	6,715	11,067	9,912	1,525,682	1,857,477	28,544,317
11,364	4,940,185	1,575,533	6,985	12,001	11,364	1,605,883	3,334,302	31,878,618

# Schedules of Changes in Net Position — Defined Contribution Plans

Year Ended December 31

(in thousands)

System	Year	Beginning Net Position	Contributions	Net Investment Income / (Loss)	Total Additions	
401(k) Plan	2008 2009 2010	\$ 2,604,148 2,131,945 2,607,287	229,981 222,369 222,474	(554,176) 386,989 254,289	(324,195) 609,358 476,763	
	2011	2,886,677	210,592	(14,864)	195,728	
	2012	2,881,007	218,888	313,374	532,262	
	2013	3,212,874	230,086	532,216	762,302	
	2014 2015	3,746,281 3,956,751	255,044	213,230	468,274	
	2016	3,980,405	271,097 290,632	10,658 332,672	281,755 623,304	
	2017	4,338,973	295,804	630,516	926,320	
457 Plan	2008	\$ 277,063	29,021	(57,267)	(28,246)	
	2009	229,469	26,617	41,581	68,198	
	2010	283,619	26,522	27,628	54,150	
	2011	316,874	26,441 24,501	(2,422)	24,019	
	2012 2013	321,356 360,381	24,501 25,696	35,065 60,421	59,566 86,117	
	2013	424,568	26,711	23,342	50,053	
	2015	450,974	26,968	25,542	27,227	
	2016	454,357	27,326	39,252	66,578	
	2017	494,419	31,475	72,210	103,685	
Roth IRA Plan	2008	\$ 6,336	3,346	(2,051)	1,295	
	2009	7,088	3,623	2,008	5,631	
	2010	12,248	8,116	1,827	9,943	
	2011	20,571	6,619	(508)	6,111	
	2012 2013	24,400 33,750	7,685 9,113	3,256 6,870	10,941 15,983	
	2013	47,763	11,664	2,816	14,480	
	2015	58,842	14,073	(308)	13,765	
	2016	69,714	16,585	7,200	23,785	
	2017	89,165	19,669	15,389	35,058	
Traditional IRA Plan	2008	\$ 17,840	7,433	(3,488)	3,945	
	2009	19,194	3,161	2,803	5,964 7,700	
	2010 2011	22,471	6,097	1,692	7,789	
	2012	26,251 30,013	7,346 9,799	(55) 2,811	7,291 12,610	
	2012	38,595	11,213	5,050	16,263	
	2014	49,852	14,930	2,645	17,575	
	2015	59,822	17,206	211	17,417	
	2016	68,986	16,182	4,825	21,007	
	2017	81,533	20,593	9,465	30,058	
HRA Plan*	2008	\$ 685	1,129	23	1,152	
	2009	1,546	1,974	7	1,981	
	2010 2011	2,988 6,275	4,274 4,264	11 17	4,285 4,281	
	2012	9,113	4,092	22	4,114	
	2012	11,469	6,750	30	6,780	
	2014	16,184	6,393	24	6,417	
	2015	19,880	6,318	35	6,353	
	2016	23,274	6,796	36	6,832	
	2017			_	<u> </u>	
All Defined	2008	\$ 2,906,072	270,910	(616,959)	(346,049)	
Contribution Plans	2009	2,389,242	257,744	433,388	691,132	
	2010	2,928,613	267,483	285,447	552,930	
	2011	3,256,648	255,262	(17,832)	237,430	
	2012 2013	3,265,889 3,657,069	264,965 282,858	354,528 604,587	619,493 887,445	
	2013	4,284,648	202,030 314,742	242,058	556,800	
	2014	4,546,269	335,662	10,857	346,519	
	2016	4,596,736	357,521	383,985	741,506	
	2017	5,004,090	367,541	727,580	1,095,121	
		, . ,	• -	,	• • •	

^{*}Administration of the HRA was transferred to PEHP in October 2016.

Refunds	Administrative	Total	Changes in	Ending
	Expenses	Deductions	Net Position	Net Position
141,904	6,104	148,008	(472,203)	2,131,945
127,675	6,341	134,016	475,342	2,607,287
190,963	6,410	197,373	279,390	2,886,677
194,933	6,465	201,398	(5,670)	2,881,007
194,538	5,857	200,395	331,867	3,212,874
223,523	5,372	228,895	533,407	3,746,281
251,496	6,308	257,804	210,470	3,956,751
251,436	6,665	258,101	23,654	3,980,405
257,651	7,085	264,736	358,568	4,338,973
254,672	7,713	262,385	663,935	5,002,908
18,683	665	19,348	(47,594)	229,469
13,349	699	14,048	54,150	283,619
20,184	711	20,895	33,255	316,874
18,811	726	19,537	4,482	321,356
19,877	664	20,541	39,025	360,381
21,314	616	21,930	64,187	424,568
22,920	727	23,647	26,406	450,974
23,082	762	23,844	3,383	454,357
25,706	810	26,516	40,062	494,419
27,827	887	28,714	74,971	569,390
524	19	543	752	7,088
445	26	471	5,160	12,248
1,582	38	1,620	8,323	20,571
2,230	52	2,282	3,829	24,400
1,538	53	1,591	9,350	33,750
1,908	62	1,970	14,013	47,763
3,310	91	3,401	11,079	58,842
2,781	112	2,893	10,872	69,714
4,192	142	4,334	19,451	89,165
4,752	174	4,926	30,132	119,297
2,545 2,635 3,954 3,469 3,967 4,940 7,514 8,148 8,332 9,035	46 52 55 60 61 66 91 105 128	2,591 2,687 4,009 3,529 4,028 5,006 7,605 8,253 8,460 9,182	1,354 3,277 3,780 3,762 8,582 11,257 9,970 9,164 12,547 20,876	19,194 22,471 26,251 30,013 38,595 49,852 59,822 68,986 81,533 102,409
288 533 987 1,426 1,736 2,041 2,690 2,924 30,075	3 6 11 17 22 24 31 35 31	291 539 998 1,443 1,758 2,065 2,721 2,959 30,106	861 1,442 3,287 2,838 2,356 4,715 3,696 3,394 (23,274)	1,546 2,988 6,275 9,113 11,469 16,184 19,880 23,274
163,944	6,837	170,781	(516,830)	2,389,242
144,637	7,124	151,761	539,371	2,928,613
217,670	7,225	224,895	328,035	3,256,648
220,869	7,320	228,189	9,241	3,265,889
221,656	6,657	228,313	391,180	3,657,069
253,726	6,140	259,866	627,579	4,284,648
287,922	7,256	295,178	261,622	4,546,270
288,373	7,679	296,052	50,467	4,596,736
325,956	8,196	334,152	407,354	5,004,090
296,286	8,921	305,207	789,914	5,794,004

# Schedules of Benefit Deductions by Type

Year Ended December 31

(in thousands)

Total Benefits	Supplemental Benefits	Cost-of- Living Benefits	Service and Disability Benefits	Year	System
659,792	_	108,401	\$ 551,391	2008	Noncontributory
723,052	_	123,596	599,456	2009	Retirement
793,804	_	132,086	661,718	2010	System
843,696	_	134,337	709,359	2011	
900,133		146,978	753,155	2012	
974,684		162,134	812,550	2013	
1,043,798	_	171,799	871,999	2014	
1,123,647	_	180,056	943,591	2015	
1,184,317	_	182,866	1,001,451	2016	
1,248,037	_	184,143	1,063,894	2017	
62,096	569	17,309	\$ 44,218	2008	Contributory
64,849	444	17,086	47,319	2009	Retirement
67,564	353	16,389	50,822	2010	System
68,375	282	15,160	52,933	2011	
70,855	225	14,746	55,884	2012	
74,158	177	14,778	59,203	2013	
77,015	127	14,328	62,560	2014	
81,390	95	13,785	67,510	2015	
83,447	78	13,232	70,137	2016	
84,761	64	12,624	72,073	2017	
98,944	485	15,317	\$ 83,142	2008	Public Safety
106,272	454	17,186	88,632	2009	Retirement
115,832	433	19,068	96,331	2010	System
120,570	403	20,482	99,685	2011	
128,532	380	22,372	105,780	2012	
137,486	354	24,662	112,470	2013	
144,763	326	26,407	118,030	2014	
155,387	295	27,807	127,285	2015	
164,508	264	28,547	135,697	2016	
172,870	242	28,854	143,774	2017	
35,355	470	7,093	\$ 27,792	2008	Firefighters
38,311	422	7,792	30,097	2009	Retirement
41,133	401	8,242	32,490	2010	System
41,406	377	8,313	32,716	2011	
43,660	344	8,871	34,445	2012	
44,747	311	9,485	34,951	2013	
47,710	269	9,844	37,597	2014	
49,671	236	10,095	39,340	2015	
52,102	220	10,195	41,687	2016	
54,793	204	10,258	44,331	2017	

# Schedules of Benefit Deductions by Type (Concluded)

Year Ended December 31

(in thousands)

System	Year	Service and Disability Benefits	Cost-of- Living Benefits	Supplemental Benefits	Total Benefits
Judges	2008	\$ 5,201	1,379	_	6,580
Retirement	2009	6,046	1,549	_	7,595
System	2010	7,317	1,693	_	9,010
	2011	6,974	1,675	_	8,649
	2012	7,364	1,771	_	9,135
	2013	8,248	1,941	_	10,189
	2014	9,305	2,056	_	11,361
	2015	10,252	2,148	_	12,400
	2016	10,070	2,260	_	12,330
	2017	11,405	2,216	_	13,621
Utah Governors	2008	\$ 606	157	_	763
and Legislators	2009	619	165	_	784
Retirement Plan	2010	625	165	_	790
	2011	639	162	_	801
	2012	647	168	_	815
	2013	718	174	_	892
	2014	734	175	_	909
	2015	731	173	_	904
	2016	773	168	_	941
	2017	808	165	_	973
Tier 2	2011	_	_	_	_
Public Employees	2012	_	_	_	_
Contributory	2013	_	_	_	_
Retirement	2014	_	_	_	_
System*	2015	\$ 333	_	_	333
	2016	316	_	_	316
	2017	417	_	_	417
Tier 2	2011	_	_	_	_
Public Safety	2012	_	_	_	_
and Firefighter	2013	_	_	_	_
Contributory	2014	_	_	_	_
Retirement	2015	\$ 30	_	_	30
System*	2016	28	_	_	28
	2017	61	_	_	61
		<u> </u>			31

 $^{{\}it *Additional\ years\ will\ be\ added\ as\ they\ become\ available}.$ 

# Schedules of Retired Members by Type of Benefit Option

Year Ended December 31, 2017

	Amount of						Nun	nber of Reti	rees by Benef	fit Option
System	Monthly Benefit	1	2	3	4	5	6	7	8	9
Noncontributory	\$ 1-1,000	9,832	658	3,519	392	3,585	928	_	_	_
Retirement	1,001-2,000	4,864	704	2,508	449	3,048	1,054	_	_	_
System	2,001-3,000	3,077	766	2,322	303	2,920	861	_	_	_
	3,001-4,000	2,256	680	1,882	238	2,041	604	_	_	_
	4.001-5,000	814	209	865	129	659	214	_	_	_
	over-5,000	366	107	580	65	291	108	_	_	_
Contributory	\$ 1-1,000	548	223	250	50	276	107	_	_	_
Retirement	1,001-2,000	343	192	255	33	256	59	_	_	_
System	2,001-3,000	209	159	204	32	212	47	_	_	_
	3,001-4,000	103	72	72	16	97	29	_	_	_
	4.001-5,000	30	27	30	7	18	14	_	_	_
	over-5,000	16	14	29	2	7	4	_	_	_
Public Safety	\$ 1-1,000	_	_	2	_	_	_	_	540	138
Retirement	1,001-2,000	_	_	3	_	_	_	_	925	303
System	2,001-3,000	_	_	1	_	_	_	_	1,473	702
	3,001-4,000	_	_	_	_	_	_	_	646	284
	4.001-5,000	_	_	_	_	_	_	_	269	146
	over-5,000	_	_	_	_	_	_	_	142	64
Firefighters	\$ 1-1,000	_	_	1	_	_	_	_	_	62
Retirement	1,001-2,000	_	_	1	_	_	_	_	_	219
System	2,001-3,000	_	_	_	_	_	_	_	_	431
	3,001-4,000	_	_	_	_	_	_	_	_	374
	4,001-5,000	_	_	_	_	_	_	_	_	199
	over-5,000	_	_	_	_	_	_	_	_	136

- 1- A maximum monthly benefit for the retiree's life. No benefit to a beneficiary.
- 2– A reduced lifetime benefit to the retiree. A beneficiary receives the balance in retiree's account after the monthly annuity payments are deducted.
- 3– A reduced lifetime benefit to a retiree and a lifetime benefit equal to the retiree's benefit payable to the retiree's lawful spouse at the time of retirement.
- 4– A reduced lifetime benefit to the retiree and a lifetime benefit equal to half of the retiree's benefit to the retiree's lawful spouse at the time of retirement.
- 5- Approximately 95% of the benefit in type 3 and the same lifetime benefit for retiree's lawful spouse at the time of retirement. Benefit reverts to 100% at time of spouse's death.

- 6- Approximately 98% of the benefit in type 4 and a lifetime benefit equal to half of the retiree's for retiree's lawful spouse at the time of the retirement. Benefit reverts to 100% at time of spouse's death.
- 7– Normal retirement for age and service and a lifetime benefit of 65% of the retiree's benefit to the retiree's lawful spouse at the time of the retiree's death.
- 8- Normal retirement for age and service and a lifetime benefit of 75% of the retiree's benefit to the retiree's lawful spouse at the time of the retiree's death.
- 9- Normal retirement for age and service and a lifetime benefit of 75% of the retiree's benefit to the retiree's lawful spouse at the time of the retirement.

# Schedules of Retired Members by Type of Benefit Option (Concluded)

Year Ended December 31, 2017

	Amount of						Nun	nber of Retire	es by Benefi	t Option
System	Monthly Benefit	1	2	3	4	5	6	7	8	9
Judges	\$ 1-1,000	_	_	_	_	_	_	_	_	_
Retirement	1,001-2,000	_		_	_		_	_	4	1
System	2,001-3,000	_		_	_		_	_	6	3
	3,001-4,000	_		_	_		_	_	4	1
	4.001-5,000	_		_	_		_	_	5	5
	over-5,000	_	_	_	_	_	_	_	58	61
Utah	\$ 1-1,000	_	_	3	242	1	_	_	_	_
Governors	1,001-2,000	_	_	_	6	_	_	_	_	_
and Legislators	2,001-3,000	_	_	_	_	_	_	_	_	_
Retirement	3,001-4,000	_	_	_	1	_	_	_	_	_
Plan*	4.001-5,000	_	_	_	_	_	_	_	_	_
	over-5,000	_	_	_	_	_	_	_	_	_
Tier 2 Public	\$ 1-1,000	15	_	4	_	6	1	_	_	_
Employees	1,001-2,000	_	_	_	_	_		_	_	_
Retirement	2,001-3,000	_	_	_	_	_	_	_	_	_
System	3,001-4,000	_	_	_	_	_	_	_	_	_
	4.001-5,000	_	_	_	_	_	_	_	_	_
	over-5,000	_	_	_	_	_	_	_	_	_
Tier 2 Public	\$ 1-1,000	_	_	_	_	_	_	_	_	_
Public Safety	1,001-2,000	_	_	_	_	_	_		_	_
and Firefighter	2,001-3,000	_	_	_	_	_	_		_	_
Retirement	3,001-4,000	_	_	_	_	_	_	_	_	_
System**	4,001-5,000	_	_	_	_	_	_		_	_
•	over-5,000	_	_	_	_	_	_		_	_

^{*}Governors & Legislative Pension Plan provides a normal lifetime pension to the retiree and 50% of the retiree's benefit to the retirees lawful spouse at the time of death if the retiree had four or more years of service.

^{**}There are currently no retirees in the system.

# Schedules of Average Benefit Payments

December 31

						Υ	ears of Credi	ted Service
System			4-10	11-15	16-20	21-25	26-30	31-
Noncontributory	2012	Average Monthly Benefit	\$ 334	774	1,228	1,629	2,502	3,419
Retirement		Monthly Final Average Salary	2,526	3,182	3,860	4,119	4,774	5,516
System		Number of Active Retired	629	422	423	441	463	367
	2013	Average Monthly Benefit	\$ 366	811	1,290	1,626	2,522	3,532
		Monthly Final Average Salary	2,611	3,405	3,990	4,102	4,841	5,611
		Number of Active Retired	719	484	479	535	607	541
	2014	Average Monthly Benefit	\$ 373	837	1,274	1,742	2,610	3,743
		Monthly Final Average Salary	2,498	3,300	3,792	4,093	4,809	5,687
		Number of Active Retired	665	410	468	434	588	467
	2015	Average Monthly Benefit	\$ 376	811	1,294	1,742	2,692	3,736
		Monthly Final Average Salary	2,587	3,275	3,675	4,148	4,907	5,530
		Number of Active Retired	704	443	468	514	737	533
	2016	Average Monthly Benefit	\$ 263	583	831	1,196	2,563	3,525
		Monthly Final Average Salary	1,998	2,453	2,572	3,023	4,766	5,460
		Number of Active Retired	793	551	592	609	784	636
	2017	Average Monthly Benefit	\$ 402	856	1,277	1,800	2,668	3,688
		Monthly Final Average Salary	2,745	3,466	3,903	4,363	5,042	5,682
		Number of Active Retired	640	438	466	456	779	561
Contributory	2012	Average Monthly Benefit	\$ 371	561	1,252	1,452	2,126	2,712
Retirement		Monthly Final Average Salary	2,294	2,224	3,966	3,952	4,092	4,455
System		Number of Active Retired	7	9	8	9	100	51
	2013	Average Monthly Benefit	\$ 600	796	797	1,454	2,085	2,817
		Monthly Final Average Salary	4,494	3,238	2,447	3,446	4,034	4,743
		Number of Active Retired	7	9	12	9	109	76
	2014	Average Monthly Benefit	\$ 300	735	1,219	1,376	2,066	2,840
		Monthly Final Average Salary	2,098	3,447	4,234	3,650	3,993	4,359
		Number of Active Retired	11	8	3	8	75	79
	2015	Average Monthly Benefit	\$ 482	699	1,208	1,612	2,311	3,297
		Monthly Final Average Salary	3,043	3,010	3,801	3,855	4,228	4,801
		Number of Active Retired	5	9	6	11	71	85
	2016	Average Monthly Benefit	\$ 398	587	964	1,132	2,489	2,928
		Monthly Final Average Salary	2,299	2,405	3,045	2,937	4,486	4,476
		Number of Active Retired	12	10	4	6	64	131
	2017	Average Monthly Benefit	\$ 339	604	1,031	3,758	2,243	3,249
		Monthly Final Average Salary	2,456	2,227	2,974	7,936	4,098	5,063
		Number of Active Retired	9	9	3	5	7	90

# Schedules of Average Benefit Payments (Continued)

December 31

						Υ	ears of Credi	ted Service
System			4-10	11-15	16-20	21-25	26-30	31-
Public Safety	2012	Average Monthly Benefit	\$ 717	1,397	2,187	2,498	3,613	3,969
Retirement		Monthly Final Average Salary	3,396	4,489	4,706	4,890	5,827	5,486
System		Number of Active Retired	12	13	69	69	17	15
	2013	Average Monthly Benefit	\$ 413	1,339	2,156	2,509	3,676	4,584
		Monthly Final Average Salary	2,676	4,287	4,709	4,813	5,716	6,178
		Number of Active Retired	7	8	88	76	25	24
	2014	Average Monthly Benefit	\$ 617	1,301	2,206	2,828	3,518	4,179
		Monthly Final Average Salary	3,125	3,855	4,665	5,007	5,307	5,574
		Number of Active Retired	16	14	80	96	18	23
	2015	Average Monthly Benefit	\$ 586	2,070	2,358	2,768	3,683	3,900
		Monthly Final Average Salary	2,796	4,799	4,557	4,919	5,368	5,373
		Number of Active Retired	13	12	115	77	31	20
	2016	Average Monthly Benefit	\$ 198	560	588	2,176	3,192	4,120
		Monthly Final Average Salary	1,420	1,768	1,271	3,978	5,556	5,576
		Number of Active Retired	11	20	123	128	55	31
	2017	Average Monthly Benefit	\$ 776	1,344	2,354	2,879	3,559	4,219
		Monthly Final Average Salary	3,160	3,834	4,961	5,205	5,542	5,793
		Number of Active Retired	13	13	104	92	31	13
Firefighters	2012	Average Monthly Benefit	\$ 1,731	2,094	2,398	3,315	4,288	4,871
Retirement		Monthly Final Average Salary	4,364	4,188	5,094	6,274	6,739	6,487
System		Number of Active Retired	4	3	7	6	6	9
	2013	Average Monthly Benefit	\$ 1,800	2,301	2,248	3,078	3,706	4,425
		Monthly Final Average Salary	3,600	4,602	5,337	5,893	5,747	6,012
		Number of Active Retired	1	3	4	10	18	10
	2014	Average Monthly Benefit	\$ 2,052	2,929	2,844	3,332	3,801	6,065
		Monthly Final Average Salary	3,661	5,227	5,292	5,560	6,169	7,451
		Number of Active Retired	1	4	14	13	9	10
	2015	Average Monthly Benefit	\$ 807	1,697	2,407	2,635	5,034	4,238
		Monthly Final Average Salary	1,239	4,780	4,870	5,025	6,771	5,484
		Number of Active Retired	6	2	12	10	11	14
	2016	Average Monthly Benefit	\$ 1,616	1,814	400	3,177	4,260	5,038
		Monthly Final Average Salary	3,232	5,054	800	6,468	6,294	7,757
		Number of Active Retired	4	7	19	9	16	17
	2017	Average Monthly Benefit	\$ 1,427	5,958	2,365	3,447	3,926	6,650
		Monthly Final Average Salary	4,571	6,402	5,801	6,841	7,186	7,220
		Number of Active Retired	5	2	21	14	14	6

Continued on page 208.

# Schedules of Average Benefit Payments (Continued)

December 31

							١	ears of Cred	ited Service
System				4-10	11-15	16-20	21-25	26-30	31-
Judges	2012	Average Monthly Benefit	\$	_	_	6,768	_	_	9,697
Retirement		Monthly Final Average Salary			_	11,064	_	_	11,068
System		Number of Active Retired		_	_	2	_	_	2
	2013	Average Monthly Benefit	\$	_	_	7,204	8,215	6,647	11,006
		Monthly Final Average Salary		_	_	11,151	11,163	11,688	11,132
		Number of Active Retired		_	_	2	4	1	4
	2014	Average Monthly Benefit	\$	_	_	9,263	8,850	9,836	9,180
		Monthly Final Average Salary		_	_	11,201	11,149	11,225	11,180
		Number of Active Retired		_	_	2	2	2	1
	2015	Average Monthly Benefit	\$	3,747	4,162	7,807	_	8,884	12,033
		Monthly Final Average Salary		9,556	7,570	11,635	_	11,252	11,690
		Number of Active Retired		2	1	3	_	1	2
	2016	Average Monthly Benefit	\$	_	_	_	8,736	_	11,741
		Monthly Final Average Salary		_	_	_	11,988	_	11,638
		Number of Active Retired		_	2	_	3	_	2
	2017	Average Monthly Benefit	\$	_	7,184	8,109	8,849	_	12,045
		Monthly Final Average Salary			13,279	13,374	12,736	_	12,653
		Number of Active Retired		_	2	2	2	_	4
Utah Governors	2012	Average Monthly Benefit	\$	158	320	_	_	_	_
and Legislators		Monthly Final Average Salary	•	_	_	_	_	_	_
Retirement		Number of Active Retired		6	2	_	_	_	_
Plan	2013	Average Monthly Benefit	\$	216	314	475	555	_	
		Monthly Final Average Salary	•	_	_	_	_		_
		Number of Active Retired		13	3	4	1	_	_
	2014	Average Monthly Benefit	\$	256	342		846		
		Monthly Final Average Salary		_	_	_	_	_	_
		Number of Active Retired		4	2	_	1	_	_
	2015	Average Monthly Benefit	\$	223	347	319	_	_	
		Monthly Final Average Salary		_	_	_	_	_	_
		Number of Active Retired		7	4	1	_	_	_
	2016	Average Monthly Benefit	\$	594	_	_	_	_	
		Monthly Final Average Salary		1,634	_	_	_	_	_
		Number of Active Retired		17					
	2017	Average Monthly Benefit	\$	201	365	491			1,016
		Monthly Final Average Salary		_	_	_	_	_	_
		Number of Active Retired		7	2	1	_	_	1

# Schedules of Average Benefit Payments (Concluded)

December 31

							ars of Credite	
System			4-10	11-15	16-20	21-25	26-30	31+
Tier 2	2012	Average Monthly Benefit	\$ <b>—</b>	_	_	_	_	_
Public		Monthly Final Average Salary	_	_	_	_	_	_
Employees		Number of Active Retired	_	_	_	_	_	_
Contributory Retirement	2013	Average Monthly Benefit	\$ —	_	_	_	_	
System		Monthly Final Average Salary	_	_	_	_	_	_
-,		Number of Active Retired	_	_	_	_	_	_
	2014	Average Monthly Benefit	\$ —	_	_	_	_	
		Monthly Final Average Salary	_	_	_	_	_	_
		Number of Active Retired	_	_	_	_	_	_
	2015	Average Monthly Benefit	\$ 72	_	_	_	_	_
		Monthly Final Average Salary	1,479	_	_	_	_	_
		Number of Active Retired	1	_	_		_	_
	2016	Average Monthly Benefit	\$ 138	_	_	_	_	
		Monthly Final Average Salary	2,066	_	_	_	_	_
		Number of Active Retired	8	_	_	_	_	_
	2017	Average Monthly Benefit	\$ 176	_	_	_	_	
		Monthly Final Average Salary	2,710	_	_	_	_	_
		Number of Active Retired	17	_	_	_	_	_
	2012	Average Monthly Benefit	\$ —			_	_	
Tier 2	2012	Monthly Final Average Salary	_	_	_	_	_	_
Public Safety		Number of Active Retired	_	_	_	_	_	_
and Firefighter Contributory	2013	Average Monthly Benefit	\$ —					
Retirement	20.0	Monthly Final Average Salary	_	_	_	_	_	_
System*		Number of Active Retired	_	_	_	_	_	_
	2014	Average Monthly Benefit	\$ —					
	2014	Monthly Final Average Salary	<b>,</b> –	_	_	_	_	
		Number of Active Retired	_	_	_	_	_	_
	2015	Average Monthly Benefit	\$ —					
	2013	Monthly Final Average Salary	<b>,</b> —	_	_	_	_	_
		Number of Active Retired	_	_	_	_	_	_
	2016	Average Monthly Benefit	\$ —					
	2010	Monthly Final Average Salary	_	_	_	_	_	_
		Number of Active Retired	_	_	_	_	_	_
	2017	Average Monthly Benefit	\$ —	_	_	_		
	2017	Monthly Final Average Salary	_	_	_	_	_	_
		Number of Active Retired						

^{*}There are currently no retirees in the system.

# Schedules of Active Members by Age and Gender

Year Ended December 31, 2017

System	Ages	Male	Female	Total	System	Ages	Male	Female	Total
Noncontributory	Under 20	_	_	_	<b>Utah Governors</b>	Under 20	_	_	_
Retirement	20 to 29	262	375	637	and Legislators	20 to 29	_	_	_
System	30 to 39	4,372	6,290	10,662	Retirement Plan	30 to 39	_	1	1
•	40 to 49	6,870	10,715	17,585		40 to 49	12	1	13
	50 to 54	3,317	5,871	9,188		50 to 54	5	1	6
	55 to 59	3,395	6,822	10,217		55 to 59	4	3	7
	60 to 69	3,532	7,011	10,543		60 to 69	19	3	22
_	70 and Older	339	407	746	_	70 and Older	3	_	3
	Total	22,087	37,491	59,578		Total	43	9	52
Contributory	Under 20	_	_	_	Tier 2	Under 20	95	62	157
Retirement	20 to 29	2	2	4	<b>Public Employees</b>	20 to 29	3,175	6,212	9,387
System	30 to 39	5	15	20	Contributory	30 to 39	3,614	4,485	8,099
	40 to 49	13	24	37	Retirement	40 to 49	1,654	3,769	5,423
	50 to 54	36	44	80	System	50 to 54	553	1,072	1,625
	55 to 59	107	113	220	•	55 to 59	512	806	1,318
	60 to 69	125	118	243		60 to 69	573	487	1,060
	70 and Older	11	6	17		70 and Older	63	20	83
	Total	299	322	621		Total	10,239	16,913	27,152
Public Safety	Under 20	_	_	_	Tier 2	Under 20	1	_	1
Retirement	20 to 29	72	11	83	Public Safety	20 to 29		160	1,407
System	30 to 39	1,742	195	1,937	and Firefighter	30 to 39	945	106	1,051
<b>5</b> ,5te	40 to 49	-	284	2,481	Contributory	40 to 49	178	33	211
	50 to 54	515	103	618	Retirement	50 to 54	14	2	16
	55 to 59	305	61	366	System	55 to 59	6	1	7
	60 to 69	172	40	212	<b>5</b> ,510	60 to 69	6		6
	70 and Older	6	1	7		70 and Older	_	_	_
_	Total	5,009	695	5,704		Total	2,397	302	2,699
Firefighters	Under 20	_	_		Tier 2 DC Only	Under 20	2	1	3
Retirement	20 to 29	20	_	20	Public Employees	20 to 29	443	1,203	1,646
System	30 to 39	513	19	532	Contributory	30 to 39	886	875	1,761
-,	40 to 49	702	20	722	Retirement	40 to 49	343	718	1,061
	50 to 54	169	6	175	System	50 to 54	101	220	321
	55 to 59	91	_	91	-,	55 to 59	106	176	282
	60 to 69	61	1	62		60 to 69	130	97	227
	70 and Older	_	_	_		70 and Older	23	5	28
_	Total	1,556	46	1,602		Total	2,034	3,295	5,329
Judges	Under 20	_	_	_	Tier 2 DC Only	Under 20	_	_	_
Retirement	20 to 29	_	_	_	Public Safety	20 to 29	120	18	138
System	30 to 39	1	_	1	and Firefighter	30 to 39	133	12	145
-,5	40 to 49	18	12	30	Contributory	40 to 49	31	7	38
	50 to 54	16	6	22	Retirement	50 to 54	4	1	5
	55 to 59	15	8	23	System	55 to 59	4	1	5
	60 to 69	30	4	34	Jystein	60 to 69	2	_'	2
	70 and Older	4	_	4		70 and Older	_	_	_
_	Total	84	30	114	_	Total	294	39	333
	TOTAL	04	30	114		10(a)	27 <del>4</del>	39	333

# Schedules of Retirees by Age and Gender

Year Ended December 31, 2017

System	Ages	Male	Female	Total	System	Ages	Male	Female	Total
Noncontributory	Under 55	180	254	434	Judges	Under 55	_	2	2
Retirement	55 to 59	614	937	1,551	Retirement	55 to 59	1	_	1
System	60 to 64	2,005	3,807	5,812	System	60 to 64	10	3	13
•	65 to 69	4,671	9,354	14,025	•	65 to 69	23	10	33
	70 to 74	4,543	8,320	12,863		70 to 74	26	8	34
	75 to 79	3,257	5,487	8,744		75 to 79	16	4	20
	80 to 84	2,229	3,725	5,954		80 to 84	10	6	16
	85 to 89	1,229	2,052	3,281		85 to 89	6	10	16
	90 to 94	413	711	1,124		90 to 94	6	3	9
	95 to 100	36	71	107		95 to 100	_	4	4
	Over 100	1	2	3		Over 100	_		_
	Total	19,178	34,720	53,898	-	Total	98	50	148
Contributory	Under 55	18	27	45	Utah Governors	Under 55		1	1
Retirement	55 to 59	114	123	237	and Legislators	55 to 59	1	1	2
System	60 to 64	220	277	497	Retirement Plan	60 to 64	5	2	7
System	65 to 69	314	414	728	nethement rian	65 to 69	35	10	45
	70 to 74	257	445	702		70 to 74	27	19	46
	75 to 79	171	350	521		75 to 79	20	13	33
	80 to 84	97	262	359		80 to 84	30	16	33 46
	85 to 89	92	242	334		85 to 89	16	26	42
	90 to 94 95 to 100	102	288	390		90 to 94	10	11	21
		39	170	209		95 to 100	6	4	10
	Over 100 Total	5 1,429	15 2,613	4,042	_	Over 100 Total	150	103	253
							150	103	233
Public Safety	Under 55	836	241	1,077	Tier 2	Under 55	_		_
Retirement	55 to 59	473	143	616	Public Employees	55 to 59	_		_
System	60 to 64	738	232	970	Contributory	60 to 64	_	_	_
	65 to 69	814	231	1,045	Retirement	65 to 69	11	10	21
	70 to 74	670	183	853	System	70 to 74	4	1	5
	75 to 79	355	151	506		75 to 79	_	_	_
	80 to 84	211	119	330		80 to 84	_	_	_
	85 to 89	92	97	189		85 to 89	_	_	_
	90 to 94	13	28	41		90 to 94	_	_	_
	95 to 100	1	10	11		95 to 100	_	_	_
	Over 100		_	_		Over 100	_	_	_
	Total	4,203	1,435	5,638		Total	15	11	26
Firefighters	Under 55	137	45	182	Tier 2	Under 55			
Retirement	55 to 59	121	28	149	Public Safety	55 to 59	_	_	_
System	60 to 64	204	42	246	and Firefighter	60 to 64	_	_	_
-,	65 to 69	248	41	289	Contributory	65 to 69	_	_	_
	70 to 74	186	43	229	Retirement	70 to 74	_	_	_
	75 to 79	123	31	154	System*	75 to 79	_	_	_
	80 to 84	50	31	81	-,	80 to 84	_	_	_
	85 to 89	25	32	57		85 to 89	_	_	_
	90 to 94	15	15	30		90 to 94	_	_	
	95 to 100	3	2	5		95 to 100			
	Over 100	1	_			Over 100		_	_
		1,113	310	1,423	-	Total			
	10(a)	1,113	310	1,743		iotal			

^{*}There are no retirees in this system.

# Schedules of Principal Participating Employers

Year Ended December 31

	2017					2016			2015	2014				
System/ Employer	Active Members	Rank	Percent of Total Active Member	Active Members	Rank	Percent of Total Active Member	Active Members	Rank	Percent of Total Active Members	Active Members	Rank	Percent of Total Active Members		
Noncontributory Retirement System														
State of Utah	10,277	1	17.25%	10,898	1	17.24%	11,788	1	17.27%	12,550	1	17.47%		
Davis School District	3,668	2	6.16	3,904	2	6.18	4,090	2	5.99	4,338	2	6.04		
Granite School District	3,460	3	5.81	3,740	3	5.92	4,044	3	5.92	4,337	3	6.04		
Alpine School District	3,305	4	5.55	3,458	4		3,711	4	5.44	3,938	4	5.48		
Jordan School District Weber School District	2,329 2,006	5 6	3.91 3.37	2,424 2,130	5 6	3.83 3.37	2,635 2,286	5 6	3.86 3.35	2,747 2,360	5 6	3.82 3.29		
Salt Lake County	1,962	7	3.29	2,130	7		2,260	7	3.33 3.21	2,350	7	3.29		
University of Utah	1,620	8	2.72	1,774	8	2.81	1,864	10	2.73	2,039	8	2.84		
Nebo School District	1,614	9	2.71	1,753	9	2.77	1,868	9	2.74	1,941	10	2.70		
Canyons School District	1,588	10	2.67	, <u> </u>	_	_	1,880	8	2.75	,  —	_	_		
Salt Lake School District	_	_	_	1,684	10	2.66	_	_	_	1,977	9	2.75		
Other	27,749		46.58	29,370		46.46	31,913		46.74	33,248		46.29		
Total Noncontributory System active members	59,578		100.00%	63.214		100.00%	68.273		100.00%	71.827		100.00%		
	32,370					. 5 5 . 5 6 7 6	55,2,5		. 5 5.5 6	,027		. 50.50 /0		
Contributory Retirement System														
State of Utah	101	1	16.26%	117	1	15.85%	152	1	16.13%	186	1	12.38%		
DDI Vantage	65	2	10.47	68	2	9.21	70	2		70	5	4.66		
Salt Lake City Corp.	36	3	5.80	44	3	5.96	53	4	5.62	73	4	4.86		
University of Utah	36	4	5.80	44	3	5.96	60	3	6.36	68	6	4.52		
Granite School District	34	5	5.48	39	5	5.28	53	4	5.62	67	8	4.46		
University of Utah Hospital Salt Lake County	33 23	6 7	5.31 3.70	38 26	6 7	5.15 3.52	42 37	6 7	4.45 3.92	47 45	9 10	3.13 2.99		
Davis School District	18	8	2.90	23	8	3.12	30	8	3.18	<del>-</del> -	_	2.55		
Salt Lake School District	17	9	2.74	20	9	2.71	25	9	2.65	_	_	_		
Duchesne County	16	10	2.58	17	10	2.30	24	10	2.55	68	6	4.52		
South Jordan City	_	_	_	_	_	_	_	_	_	153	2	10.18		
Uintah County	_	_			_	—	_	_		136	3	9.05		
Other	242		38.97	302		40.92	397		42.10	590		39.25		
Total Contributory System active members	621		100.00%	738		100.00%	943		100.00%	1,503		100.00%		
									,	.,,,,,,				
Public Safety Retirement System														
State of Utah	1,789	1	31.36%	1,881	1	31.18%	2,006	1	31.35%	2,076	1	31.12%		
Salt Lake City Corp.	400	2	7.01	424	2		412			423	3	6.34		
Salt Lake County	371	3	6.50	381	3	6.32	397	3	6.20	424	2	6.35		
Jnified Police Department	337	4	5.91	355	4		359	4	5.61	365	4	5.47		
Jtah County	220		3.86	232			236	5	3.69	239	5	3.58		
Weber County Corp.	185	6	3.24	194		3.22	211	6	3.30	221	6	3.31		
Davis County Vest Valley City	135 118		2.37 2.07	145 127	7 8		163 145	7 8	2.55 2.27	179 169	7 8	2.68 2.53		
Washington County	87	9	1.53	96			145	9		113	9	2.53 1.69		
City of West Jordan	80	10	1.40	89			109	_	1.70 —	—	<del>-</del>	1.09		
Ogden City Corp.	_	_	_	_	_		97	10		110	10	1.65		
Sandy City	_	_	_	_	_		_	_	_	_	_	_		
Other	1,982		34.75	2,108		34.95	2,264		35.38	2,353		35.27		
Total Public Safety System			_			_			_			_		
active members	5,704		100.00%	6,032		100.00%	6,399		100.00%	6,672		100.00%		

Active Members	Rank	Percent of Total Active Members	Active Members	Rank	2008 Percent of Total Active Members												
13,510	1	17.58%	14,450	1	17.57%	15,273	1	17.38%	16,071	1	17.39%	16,435	1	17.72%	16,979	1	18.14%
4,624 4,702 4,280	3 2 4	6.02 6.12 5.57	4,871 5,012 4,659	3 2 4	5.92 6.09 5.66	5,113 5,400 5,095	3 2 4	5.82 6.14 5.80	5,330 5,781 5,551	4 2 3	5.77 6.26 6.01	5,433 6,148 5,487	4 2 3	5.86 6.63 5.91	5,501 6,130 5,354	4 2 5	5.88 6.55 5.72
2,943	5	3.83	3,099	5	3.77	3,239	6	3.68	3,366	6	3.64	3,560	6	3.84	5,819	3	6.22
2,503 2,476	6 7	3.26 3.22	2,660 2,605	6 8	3.23 3.17	2,784 2,813	8 7	3.17 3.20	2,861 2,869	8 7	3.10 3.11	2,875 2,968	8 7	3.10 3.20	2,859 3,084	9 7	3.06 3.30
2,290	8	2.98	2,646	7	3.22	3,895	5	4.43	4,217	5	4.56 —	4,274	5	4.61 —	4,406 2,465	6 10	4.71 2.63
2,076	10	2.70	2,281	10	2.77	2,460	10	2.80	2,637	10	2.85	2,572		2.77	· —	_	_
2,144 35,297	9	2.79 45.93	2,343 37,633	9	2.85 45.75	2,520 39,309	9	2.87 44.72	2,683 41,026	9	2.90 44.40	2,842 40,172	9	3.06 43.30	2,950 38,029	8	3.15 40.64
76,845		100.00%	82,259		100.00%	87,901		100.00%	92,392		100.00%	92,766		100.00%	93,576		100.00%
237	1	13.68%	269	1	13.89%	293	1	13.71%	325	1	13.95%	387	1	15.39%	435	1	15.86%
76 84	6 4	4.39 4.85	85 93	6 4	4.39 4.80	94 104	7 5	4.40 4.87	91 112	8 6	3.91 4.81	82 128	8 6	3.26 5.09	76 137	10 6	2.77 4.99
75	7	4.33	84	7	4.34	153	4	7.16	162	4	6.95	178	4	7.08	195	3	7.11
81 50	5 9	4.67 2.89	91 56	5 9	4.70 2.89	102	6	4.77 —	114	5 —	4.89 —	131	5 —	5.21	141	5 —	5.14 —
47 —	10	2.71	52 —	10	2.68	59 —	9	2.76 —	61 —	9	2.62	80	9	3.18	90	8	3.28
— 73	_ 8	— 4.21	— 77	 8	— 3.98	55 82	10 8	2.57 3.84	58 104	10 7	2.49 4.46	67 90	10 7	2.66 3.58	— 87	_ 7	— 3.17
167	2	9.64	177	2	9.14	196	2	9.17	203	2	8.71	208	2	8.27	212	2	7.73
146 697	3	8.42	158	3	8.16	168	3	7.86	187	3	8.03	193	3	7.67	191	4	6.96
097	_	40.22%	795		41.04	831		38.89	913		39.18	971		38.61	1,179		42.98
1,733		100.00%	1,937		100.00%	2,137		100.00%	2,330		100.00%	2,515		100.00%	2,743		100.00%
2,211 432	1 3	31.50% 6.15	2,317 452	1	31.68% 6.18	2,390 463	1	31.37% 6.08	2,380 480	1	31.22% 6.30	2,448 480	1 3	31.81% 6.24	2,592 479	1	32.84% 6.07
459	2	6.54	494	2	6.76	540	2	7.09	547	2	7.17	828		10.76	860	2	10.89
378 237	4 5	5.39 3.38	377 239	4 5	5.16 3.27	329 236	4 6	4.32 3.10	293 233	4 6	3.84 3.06	238	 5	3.09	 244	 5	3.09
228	6	3.25	237	6	3.24	249	5	3.27	246	5	3.23	252	4	3.27	266	4	3.37
193	7	2.75	201	7	2.75	208	7	2.73	209	7	2.74	209	6	2.72	208	6	2.63
162 120	8 9	2.31 1.71	172 129	8 9	2.35 1.76	177 129	8 9	2.32 1.69	177 126	8 9	2.32 1.65	175 123	7 8	2.27 1.60	176 120	7 9	2.23 1.52
 116	 10	 1.65	 122	 10	 1.67	 127	 10	 1.67	 119	 10	 1.56	 117	_ 9	 1.52	122	_ 8	1.55
 2,483	_	— 35.38%	 2,573	_	— 35.18	 2,771	_	— 36.37	 2,814	_	— 36.91	109 2,716	10	1.42 35.30	115 2,712	10	1.46 34.36
7,019		100.00%			100.00%			100.00%			100.00%			100.00%			100.00%
															ontinuos	lann	220 214

# Schedules of Principal Participating Employers (Continued)

Year Ended December 31

			2017			2016			2015			2014	
			Percent of Total										
System/ Employer	Active Members	Rank	Active	Active Members	Rank	Active	Active Members	Rank	Active Members	Active Members	Rank	Active Members	
Firefighters													
Retirement System													
Unified Fire Authority	354	1	22.10%	380	1	22.85%	386	1	22.25%	395	1	22.10%	
Salt Lake City Corp.	273	2	17.04	274	2	16.48	295	2	17.00	302	2	16.90	
West Valley City	79	3	4.93	80	4	4.81	80	4	4.61	87	4	4.87	
Ogden City Corp.	72	4	4.49	82	3	4.93	85	3	4.90	90	3	5.04	
City of West Jordan	62	5	3.87	64	5	3.85	66	6	3.80	66	7	3.69	
Provo City	60	6	3.75	63	6	3.79	67	5	3.86	70	5	3.92	
•													
Park City Fire Service	56	7	3.50	63	6	3.79	65	7	3.75	68	6	3.81	
Sandy City	51	8	3.18	57	8	3.43	59	8	3.40	64	8	3.58	
South Davis Metro Fire Agency	48	9	3.00	_	_	_	_	_	_		_	_	
Murray City	47	10	2.93	_	_	_		_		51	10	2.85	
Orem City	_	_	_	49	10	2.95	52	10	3.00	56	9	3.13	
Weber Fire District	_	_	_	51	9	3.07	53	9	3.05	_	_		
Other	500		31.21	500		30.07	527		30.37	538		30.11	
Total Firefighters System													
active members	1,602		100.00%	1 663		100.00%	1,735		100.00%	1,787		100.00%	
active members	1,002		100.00%	1,663		100.00%	1,733		100.0070	1,707		100.00%	
Judges Retirement System													
-			100 000/	445	_	100 000/	440		100 000/			100 000/	
State of Utah	114	1	100.00%	115	1	100.00%	112	1	100.00%	114	1	100.00%	
Utah Governors and Legislators													
Retirement Plan													
State of Utah	52	1	100.00%	61	1	100.00%	93	1	100.00%	105	1	100.00%	
Tier 2 Public Employees													
Contributory Retirement System													
State of Utah	4,951	1	18.23%	4,345	1	17.83%	3,642	1	16.72%	2,772	1	16.09%	
Alpine School District	1,524	2	5.61	1,361	2	5.58	1,232	3	5.66	1,090	3	6.33	
Davis School District	1,426	3	5.25	1,263	4	5.18	980	5	4.50	778	5	4.52	
Granite School District	1,408	4	5.19	1,302	3	5.34	1,028	4	4.72	829	4	4.81	
Jordan School District	1,408	5	3.19 4.44	1,095	6	3.34 4.49	962	6	4.72	755	6	4.38	
Canyons School District	1,203	6	3.69	858	7	3.52	781	7	4.42 3.59	614	7	4.56 3.56	
•													
University of Utah	887	7	3.27	1,181	5	4.85	1,458	2	6.69	1,223	2	7.10	
Salt Lake County	870	8	3.20	786	8	3.23	655	8	3.01	484	9	2.81	
Nebo School District	836	9	3.08	692	9	2.84	624	9	2.87	549	8	3.19	
Washington School District	635	10	2.34	_	_	_	_	_	_	360	10	2.09	
Provo School District	_	_	_	_	_	_	_	_	_	_	_	_	
Salt Lake City District	_	_	_	_	_	_	479	10	2.20	_	_	_	
Weber County School District	_	_	_	494	10	2.03	_	_	_	_	_	_	
Other	12,407		45.69	10,995		45.11	9,937		45.63	7,771		45.11	
Total Tier 2 Public Employees													
System active members	27,152		100.00%	24 272		100.00%	21 779		100.00%	17 225		100.00%	
System active members	۷,۱۵۷		100.00%	۷٦,٥/۷		100.00%	21,//0		100.00%	17,223		100.0070	

Additional information will be added when it becomes available.

Active		2013 Percent of Total Active	Active		Percent of Total Active	Active		2011 Percent of Total Active	Active		Percent of Total Active	Active		2009 Percent of Total Active	Active		2008 Percent of Total Active
Members	Rank	Members	Members	Rank	Members	Members	Rank	Members	Members	Rank	Members	Members	Rank	Members	Members	Rank	Members
398	1	21.57%	404	1	21.44%	404	1	20.91%	356	1	18.87%	365	1	19.14%	352	1	19.04%
309	2	16.75	309	2	16.40	314	2	16.25	312	2	16.53	309	2	16.20	324	2	17.52
89	4	4.82	92	4	4.88	96	4	4.97	100	4	5.30	97	4	5.09	97	4	5.25
102	3	5.53	109	3	5.79	110	3	5.69	111	3	5.88	113	3	5.93	111	3	6.00
68	8	3.69	72	6	3.82	73	7	3.78	73	6	3.87	70	8	3.67	72	8	3.89
72	5	3.90	74	5	3.93	78	5	4.04	64	9	3.39	76	6	3.99	75	6	4.06
71	6	3.85	72	6	3.82	74	6	3.83	77	5	4.08	80	5	4.20	80	5	4.33
69	7	3.74	69	8	3.66	70	8	3.62	70	7	3.71	72	7	3.78	75	7	4.06
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
55	10	2.98		_	_	56	10	2.90	60	10	3.18	59	10	3.09	_	_	_
62	9	3.36	67	9	3.56	68	9	3.52	68	10	3.60	69	9	3.62	66	9	3.57
- 02	_	J.50 —	56	10	2.97	_	_	J.J2 —	_	_	J.00		_	J.02	55	10	2.97
550		 29.81	560	10	29.75	589		30.49	596		31.58	 597		31.31	542	10	29.31
		29.01			29.73	309		JU. <del>T</del>							J72		
1,845		100.00%	1,884		100.00%	1,932		100.00%	1,887		100.00%	1,907		100.00%	1,849		100.00%
1,013		100.0070	1,001		100.0070	1,752		100.0070	1,007		100.0070	1,507		100.0070	1,015		100.0070
112	1	100.00%	111	1	100.00%	111	1	100.00%	109	1	100.00%	104	1	100.00%	106	1	100.00%
99	1	100.00%	113	1	100.00%	115	1	100.00%	125	1	100.00%	119	1	100.00%	97	1	100.00%
0.470		45040/	4 500		4.4.740/			40 560/									
2,173	1	15.84%	1,523	1	14.71%	600	1	12.56%									
1,080	2	7.87	1,072	2	10.35	574	2	12.02									
591	7	4.31	463	5	4.47	235	6	4.92									
664	4	4.84	638	4	6.16	336	3	7.03									
661	5	4.82	417	6	4.03	238	5	4.98									
593	6	4.32	387	7	3.74	177	8	3.71									
944	3	6.88	738	3	7.13	323	4	6.76									
378	9	2.76	_	_	_	_	_	_									
403	8	2.94	327	8	3.16	165	9	3.45									
_	_	_	_	_	_	_	_	_									
_	_	_	310	9	2.99	186	7	3.89									
363	10	2.65	302	10	2.92	165	10	3.45									
_	_	_		_	_	_	_	_									
5,868		42.78	4,179		40.34	1,778		37.22									
13,718		100.00%	10.356		100.00%	4,777		100.00%									
, 5		• • , •	,		• • , •	.,		70									

Continued on page 216.

### Schedules of Principal Participating Employers (Concluded)

Year Ended December 31

			2017			2016			2015			2014	
System/ Employer	Active Members	Rank	Percent of Total Active Member	Active Members	Rank	Percent of Total Active Member	Active Members	Rank	Percent of Total Active Members	Active Members	Rank	Percent of Total Active Members	
Tier 2 Public Safety and Firefighter Contributory Retirement System													
State of Utah	705	1	26.12%	626	1	27.95%	523	1	28.67%	371	1	27.87%	
Salt Lake County	203	2	7.52	176	2	7.86	132	2	7.24	122	2	9.17	
Salt Lake City Corp.	116	3	4.30	95	3	4.24	58	3	3.18	51	3	3.83	
West Valley City	88	4	3.26	68	4	3.04	32	7	1.75	22	7	1.65	
Ogden City Corp.	76	5	2.82	54	5	2.41	29	9	1.59	21	9	1.58	
Sandy City	58	6	2.15	46	8	2.05	_	_	_	_	_	_	
Weber County Corp.	56	7	2.07	41	9	1.83	39	6	2.14	22	7	1.65	
Davis County .	51	8	1.89	48	7	2.14	43	5	2.36	31	5	2.33	
Unified Fire Authority	49	9	1.82	53	6	2.37	44	4	2.41	40	4	3.01	
City of South Jordan	46	10	1.70	35	10	1.56	_	_	_	_	_	_	
Cache County	_	_	_	_	_	_	31	8	1.70	26	6	1.95	
Duchesne County	_	_	_	_	_	_	_	_	_	_	_	_	
Grand County	_	_	_	_	_	_	_	_	_	_	_	_	
Iron County	_	_	_	_	_	_	_	_	_	_	_	_	
Layton City	_	_	_	_	_	_	_	_	_	_	_	_	
Murray City	_	_	_	_	_	_	_	_	_	_	_	_	
Park City Fire Service	_	_	_	_	_	_	_	_	_	_	_	_	
St. George City	_	_	_	_	_	_	_	_	_	_	_	_	
Unified Police Department	_	_	_	_	_	_	29	9	1.59	20	10	1.50	
Utah County	_	_	_	_	_	_	_	_	_	_	_	_	
Other	1,251		46.35	998		44.55	864		47.37	605		45.45	
Total Tier 2 Public Safety and Firefighter System active members	2,699		100.00%	2,240		100.00%	1,824		100.00%	1,331		100.00%	

Additional information will be added when it becomes available.

# Schedule of Utah Retirement Office Employees

Year	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Number of employees	180	176	169	162	168	163	161	161	165	164

		2013			2012			2011
Active Members	Rank	Percent of Total Active Members	Active Members	Rank	Percent of Total Active Members	Active Members	Rank	Percent of Total Active Members
074		22.24			20.400/	-	•	2.020/
274	1	30.96	144	1	30.19%	3	9	3.03%
93	2	10.51	46	2	9.64	17	1	17.17
38	3	4.29	34	3	7.13	6	3	6.06
	_	_	_	_	_	4	8	4.04
11	9	1.24	_	_	_	4	7	4.04
	_	1.60	_	_	_	_	_	_
15	6	1.69	_	_	2.52	_	_	_
22	4	2.49	12	4	2.52	4	5	4.04
13	7	1.47	_	_	_	_	_	_
_	_	2.40	_	_	1.60	_	_	_
22	4	2.49	8	6	1.68	_	_	_
_	_	_	8	6	1.68	_	_	_
	_		_	_	_	3	10	3.03
11	9	1.24	_	_	1 26	_	_	_
_	_	_	6	9	1.26	_	_	_
	_	1 26	9	5	1.89	_	_	_
12	8	1.36	_	_	_	8	2	8.08
_	_	_	_	_	_	4	6	4.04
_	_	_	_	_		_	_	
_	_	-	7	8	1.47	5	4	5.05
374		42.26	197		41.28	41		41.41
885		100.00	477		100.00%	99		100.00%

**Employer** 

# **Schedules of Participating Employers**

 $\textcolor{red}{\mathsf{N}} \text{/ Public Employees Retirement System} \textcolor{gray}{\longleftarrow} \text{Noncontributory} \textcolor{gray}{\longleftarrow} \textcolor{gray}{\mathsf{C}} \text{/ Public Employees Retirement System} \textcolor{gray}{\longleftarrow} \text{Contributory}$ PS / Public Safety Retirement System • F / Firefighters Retirement System • T / Tier 2 Retirement Systems **D** / 457 Plan • **K** / 401(k) Plan

Employer

N C PS F T D K

N C PS F T D K

Employer	IN	C P3 F				Employer	IN	_	гэ г			
School Districts and Education Em	nplo	yers				Northern Utah Academy of Math,						
Academy for Math Engineering						Engineering and Science						
Academy for Math, Engineering			_	_		Charter School (NUAMES)	. N			Τ	D	K
and Science Charter School (AMES)				D		Ogden School District	. N	C		Τ	D	K
Active Re-Entry Incorporated		_	T	_	K	Ogden-Weber Applied Technical Center	. N	C		Т	D	K
Alpine School District		C		D	K	Ogden Weber/NEA/UEA Uniserv				Т	D	K
Alpine Unisery				D	K	Park City School District		C		Т	D	Κ
American Leadership Academy			T	_	K	Piute School District		C		T	_	K
Beaver School District				D	K	Provo School District					D	K
Bonneville Uniserv				D	K	Recreation and Habilitation Services		_		T	U	K
Box Elder School District		C	Т	D	K	Rich School District		_			_	
Bridgerland Applied Technology Center			T	D	K			C		T		K
Cache School District	N	C	Τ	D	K	Salt Lake Arts Academy		_		T		K
Canyons School District	N		Т	D	K	Salt Lake Community College					D	
Carbon School District	N	C	Τ	D	K	Salt Lake School District		C		T		K
Color Country Uniserv	N		Τ	D	K	San Juan School District	. N	C		Τ	D	K
Daggett School District	N	C	Τ	D	K	Sevier School District	. N	C		Τ	D	K
Davis Applied Technology College			Τ	D	K	Snow College	. N	C		Τ	D	K
Davis School District		C	Т	D	K	Soldier Hollow Charter School	. N			Τ		K
Davis Unisery	N		Т	D	K	South Sanpete School District	. N	C		Т	D	Κ
Dixie Applied Technology College	N		Т		K	South Summit School District	. N			Т	D	K
Dixie State University		C PS	Т	D	K	Southern Utah University		C	PS	Т	D	Κ
Duchesne School District				D	K	Southwest Applied Technology Center				Т		Κ
East Hollywood High School			Т	D	K	Southwest Educational Development Center.				T		K
Educators Mutual Insurance		С		D	K	Space Dynamics Lab/USU				Т	D	K
Emery School District				D	K	Success Academy				T	D	K
Fast Forward Charter High School		•	T	_	K	Summit Academy Charter School					D	K
Garfield School District		С	T		K	•				T	D	
Grand School District			-	D	K	Summit Academy High School		_		T	_	K
Granite School District				D	K	Tintic School District		C			D	K
Granite Unisery				D	K	Tooele Applied Technology College		_		T	_	K
High Desert Uniserv				D	K	Tooele School District		C		T	D	K
High School Activity Association		C	Ť	D	K	Tuacahn High School				Т		K
Intech Collegiate High School		C	T		K	Uintah Basin Applied Technology Center		C		Τ	D	K
Iron School District		C		D	K	Uintah School District	. N	C		Τ	D	K
		_	T	U		University of Utah			PS	Τ		K
Itineris High School Jordan School District		C		D	K K	University of Utah Hospital	. N	C				Κ
		C				Utah County Academy of Sciences	. N			Τ		Κ
Jordan Uniserv		_		D	K	Utah Education Association		C		Т	D	K
Juab School District		C		D	K	Utah School Boards Association				Т		K
Kane School District		C		D	K	Utah School Boards Risk Man Mut Ins Assn				Т	D	Κ
Liberty Academy Charter School		_	T	_	K	Utah School Employee Association						K
Logan School District		C		D	K	Utah State University		c	PS		D	
Master Academy, Inc		_	T		K	Utah Uniserv		C		-	D	
Millard School District		C		D						_		
Monticello Academy				D		Utah Valley University		C		T	D	
Morgan School District				D	K	Wasatch School District		C		  -	D	
Mountainland Applied Technology Center			Т	D	K	Wasatch Uniserv		_		I	_	K
Murray School District			Т	D	K	Washington School District		C		T	D	K
Nebo School District		C	Т	D	K	Wayne School District				T	D	K
Noah Webster Academy, Inc	N		Т	D	K	Weber County School District		C		Т	D	K
North Sanpete School District		C	Т	D	K	Weber State University		C		Т	D	K
North Summit School District	N	C	T	D	K	Woodland Peaks Uniserv	N			T		K

Employer	N	c	PS	F	Т	D	К	Employer	N	c	PS	F	т	D	K
State and Other Employers								Apple Valley Town					Т		Κ
Heber Valley Historic Railroad	. N				Т		K	Aurora City					T	_	K
State of Utah (also participates in the								Ballard City					_	D	K
Judges Retirement System and the Utah								Beaver City					-	D	K
Governors and Legislators Retirement Plan)	. N	C	PS	F	Т	D	K	Bicknell Town					T		.,
Utah Communications Authority					Т	D	K	Big Water Municipal Corp			PS		T		K
Utah Dairy Council					T	_	K	Blanding City		_	PS		T	_	K
Utah Housing Corporation		C			Т	D	Κ	Bluffdale City			PS	_	-		K
Utah Retirement Systems					Т		K	Bountiful City			PS	F			K
Utah Safety Council					T	_	K	Brian Head Town			PS		-	D	K
Utah State Fair Corporation					Т		K	Brigham City		C	PS	F		D	K
Workers Compensation Fund		c				D		Castle Dale City					Т	_	K
Tronicis compensation and minimum		•			·	_	•••	Cedar City			PS	F			K
<b>Counties and County Organization</b>	ıs							Cedar Hills City					-	_	K
			PS		т	D	V	Centerfield City		_	PS				K
Beaver County		_					K	Centerville City		C	PS				K
Box Elder County			PS	_	T		K	Clearfield City			PS	F		D	K
Cache County			PS	F	T		K	Cleveland Town					Т		K
Carbon County		C	PS		T	D	K	Clinton City		C	PS	F	Т	D	K
Daggett County			PS		T	_	K	Coalville City					Т		K
Davis County		_	PS			D	K	Corinne City		C			Т		
Duchesne County		_	PS			D	K	Cottonwood Heights City			PS		Т	D	K
Emery County			PS			D	K	Daniel Town					Т		K
Garfield County			PS			D	K	Delta City		C			Т		K
Grand County		C				D	K	Draper City					Т	D	K
Iron County			PS			D	K	Duchesne City					Т		K
Juab County		C	PS		T	_	K	Eagle Mountain City				F	Т	D	K
Kane County		_	PS		T	_	K	East Carbon City			PS		Т	D	K
Millard County		C	PS			D	K	Elk Ridge Town					Т		K
Morgan County			PS			D	K	Emery Town		C			Т		K
Piute County		_	PS		T		K	Enoch City			PS		Т		K
Rich County			PS	_	T	_	K	Enterprise City					Т		K
Salt Lake County			PS	F	T		K	Ephraim City	Ν		PS		Τ	D	K
San Juan County			PS			D	K	Escalante Town	Ν		PS		Т	D	K
Sanpete County			PS		T		K	Eureka City					Τ	D	
Sevier County			PS			D	K	Fairview City			PS		Т	D	K
Summit County			PS	_	T	_	K	Farmington City	Ν		PS	F	Τ	D	K
Tooele County			PS	F	T		K	Farr West City	Ν				Т	D	K
Uintah County		C	PS	_	T		K	Ferron City					Т		K
Unified Fire Authority		_	PS	F	T		K	Fillmore City	Ν				Т	D	K
Utah County		C	PS			D	K	Fountain Green City	Ν		PS		Т		
Wasatch County			PS	_		D	K	Francis Town					Т		K
Wasatch Co. Fire District				F	T		K	Fruit Heights City	Ν				Т	D	K
Washington County			PS			D		Garden City	Ν				Τ		K
Wayne County		_	PS		T	_	K	Garland City		C	PS		Τ	D	K
Weber County			PS	_	T		K	Genola Town	Ν				Т		K
Weber Fire District	. N	C		F	T	D	K	Goshen Town	Ν				Т		K
Cities and Towns								Grantsville City	Ν		PS		Т	D	K
Cities and Towns								Green River City	Ν				Т		K
Alpine City	. N				Т	D	Κ	Gunnison City	Ν		PS		Т	D	K
Alta Town					Т		Κ	Harrisville City	Ν	C	PS		Т	D	K
American Fork City	. N		PS	F	Т		Κ	Heber City			PS		Т	D	K
															K

Employer	N	c	PS	F	Т	D	K	Employer	N	c	PS	F	Т	D	К
Herriman City	N				Т	D	K	Orem City	N	C	PS	F	Т	D	K
Highland City	. N				Т	D	Κ	Panguitch City					Т	D	K
Hinckley Town	. N				Т		Κ	Paragonah Town		C			Т		
Holden Town					Т			Park City		C	PS		Т		K
Holladay City					Т	D	Κ	Parowan City		C	PS		Т	D	K
Hooper City					Т		Κ	Payson City			PS	F	Т	D	Κ
Huntington City					Т	D	Κ	Perry City			PS		Т	D	K
Hurricane City			PS	F	Т	D	Κ	Plain City					Т	D	Κ
Hyde Park City					Т		K	Pleasant Grove City			PS	F	Т		Κ
Hyrum City					Т	D	K	Pleasant View City		C	PS		Т	D	K
Ivins City			PS	F	T	D	K	Price City			PS	F	T	D	K
Kamas City			PS	•	T	D	K	Providence City		_			Т	D	K
Kanab City			PS	F	T		K	Provo City		c	PS	F	T		
Kaysville City		c	PS	•	T	_	K	Randolph Town		Č		•	Ť	_	
LaVerkin City			PS		T		K	Redmond Town					Т		
Layton City			PS	F	T	D	K	Richfield City		c	PS		T	D	K
Lehi City			PS		T	D	K	Richmond City		_			T	0	K
Levan Town		_	13	٠	T	U	IX	Riverdale City		c	PS	F	T	D	K
Lewiston City					T		K	Riverton City		C	1 3	F	T	D	K
Lindon City			PS		T	D	K	Roosevelt City		_	PS	F	T	D	K
		_		г	T		K	· ·		_	PS	F	T	D	K
Logan City			PS	F		D		Roy City		C		Г		D	
Manila Town		C			T		K	Salem City			PS		T	_	K
Manti City			ъс.		T		K	Salina City		_	PS	_	T	D	K
Mantua City			PS		T	_	K	Salt Lake City			PS	F	T	D	K
Mapleton City			PS		T	D	K	Sandy City		C	PS	F	T	D	K
Marriott/Slaterville City					T		K	Santa Clara City			PS	F	T	D	K
Mayfield Town					T		K	Santaquin City			PS	_	T	D	K
Meadow Town					T		K	Saratoga Springs Town			PS	F	T	D	K
Mendon City		_		_	Τ	_	K	Smithfield City		_	PS	F	T		K
Midvale City			PS	F	Т		K	South Jordan City		C	PS	F	T	D	K
Midway City		C			Т	D	K	South Ogden City			PS		Т	D	K
Milford City			PS		Т		K	South Salt Lake City			PS	F	T	D	K
Millcreek City	. N				Т	D	K	South Weber City					Т		K
Millville City					Т	D	K	Spanish Fork City	Ν		PS		Т		K
Minersville Town	. N				Т		K	Spring City		C	PS		Т		K
Moab City	. N	C	PS		Т	D	K	Springdale Town	Ν		PS		Τ	D	K
Monroe City	. N				Т		K	Springville City	Ν	C	PS	F	Τ		K
Monticello City	N		PS		Т	D	Κ	St. George City		C	PS		Т	D	K
Morgan City	. N				Т		Κ	Stockton Town	Ν				Т		K
Moroni City	. N		PS		Т		Κ	Sunset City	Ν	C	PS		Τ	D	K
Mt Pleasant City	. N	C	PS		Т		Κ	Syracuse City	Ν		PS	F	Т	D	K
Murray City	. N	C	PS	F	Т	D	Κ	Taylorsville City	Ν		PS		Т	D	K
Myton City					Т		Κ	Tooele City	Ν	C	PS		Т	D	K
Naples City		C	PS		Т	D	Κ	Toquerville City					Т	D	K
Nephi City			PS		Т	D	Κ	Torrey Town					Т		K
Nibley City					Т	D	Κ	Tremonton City	Ν	C	PS		Т	D	K
North Logan City		C	PS	F	Т		Κ	Uintah City					Т		Κ
North Ogden City			PS		Т		K	Vernal City		C	PS		Т	D	K
North Salt Lake City		_	PS	•	T	D	K	Vineyard Town		_	. •		Ť	_	K
Oakley City		C			Ť			Washington City				F	T	D	K
Ogden City			PS	F	T		K	Washington Terrace City			PS	F	Ť	D	K
Orangeville City		_		•	T	J	K	Wellington City			PS	'	T	J	K
Orderville Town					T		K	Wellsville City			, ,		T		K
OTACT FILE TOWIT	. IN				•		1	** C113 V111C C1Cy	1.4				•		11

Employer	N	c	PS	F	т	D	К	Employer	N	c	PS	F	т	D	к
Wendover City	. N		PS		Т	D	K	Emery Water Conservancy District	N				Т		K
West Bountiful City	. N	C	PS		Т	D	K	Five-County Association of Governments	Ν	C			Т	D	Κ
West Haven City	. N				Т	D	K	Four Corners Regional Care Center	Ν	C			Т	D	Κ
West Jordan City		C	PS	F	Т	D	Κ	Fox Hollow Golf Course	Ν				Т		K
West Point City	. N				Т	D	Κ	Garden City Fire District				F	Т		Κ
West Valley City		C	PS	F	Т	D	K	Grand County Cemetery Maintenance District	Ν				Т		K
Willard City			PS		Т		Κ	Grand County Water Sewer/Service					Т		Κ
Woods Cross City		C	PS		Т	D	Κ	Granger-Hunter Improvement District					Т	D	K
,								Gunnison Valley Fire Department	Ν		PS		Т	D	K
Other Government Entities								Gunnison Valley Hospital	Ν	C			T		K
Ash Creek Special Service District	Ν				Т	D	Κ	Heber Light & Power					T	D	K
Ashley Valley Sewer Management Board	Ν				Т	D	K	Heber Valley Special District					T	_	
Ashley Valley Improvement District					Т		Κ	Hooper Water Improvement District					T	D	K
Bear Lake Special Service District					Т		K	Housing Authority of Carbon County					Т		K
Bear River Association of Governments					Т	D	K	Housing Authority of Ogden City					Т		K
Bear River Health Department		C			Т	D	K	Housing Authority of Salt Lake City		C			T	D	K
Bear River Mental Health		Ĭ			T		K	Housing Authority of Salt Lake County					Т		K
Bear River Water District					Ť		K	Hurricane Valley Fire Spec. Service District				F	Т		K
Beaver Housing Authority					Ť		K	Impact Mitigation Special Service District					Т		K
Beaver Valley Hospital					Ť	D	K	Jordan River Commission	Ν				Т	D	K
Benchland Water Company					T	U	K	Jordan Valley Water Conservancy District		C			Т	D	K
Bona Vista Water Improvement					T	D	K	Jordanelle Special Service District	Ν				Т	D	K
					T		K	Kane Water Conservancy District	Ν				Т		K
Bountiful Irrigation District						U		Kearns Improvement District	Ν	C			Т	D	K
Box Elder County Mosquito District					T		K	Leeds Area Special Service District				F	Т		
Cache Metro Planning Organization	IN				Т		K	Lone Peak Safety District	Ν		PS	F	Т	D	K
Carbon County Recreation and					_		.,	Maesar Water Improvement District	Ν				Т		Κ
Transportation Special Service District		_			T	_	K	Magna Mosquito Abatement	Ν				Т		Κ
Castle Valley Special Service District		C			T		K	Metro Water District—SLC/Sandy	Ν				Τ	D	Κ
Cedar City Housing Authority				_	T	D	K	Midvalley Improvement District	Ν				Т		Κ
Cedar Mountain Fire Protection District				F	T		K	Military Installation Development Authority	Ν				Т		Κ
Central Iron County Water Conservancy Dist					Т		K	Millard County Care and Rehabilitation, Inc	Ν				Т		Κ
Central Davis Sewer District					Т	D	K	Moab Valley Fire Protection	Ν			F	Т		Κ
Central Utah Counseling Center					Т	D	K	Mountain Regional Water Special Service Dist					Т		K
Central Utah Public Health	Ν				Т	D	K	Mountainland Association of Governments	Ν	C			Т	D	K
Central Utah Water District	Ν				Т	D	K	Mt. Olympus Improvement District	Ν				Т		Κ
Central Weber Sewer District	Ν	C			Т	D	K	Nebo Credit Union	Ν				Т		K
Children's Aid Society—Utah	Ν				Т		K	North Davis County Sewer District		C			Т		Κ
Cottonwood Heights P&R Services	Ν				Т	D	K	North Davis Fire District	Ν			F	Т		Κ
Cottonwood Improvement District	Ν				Т	D	Κ	North East Counseling Center					Т	D	Κ
Council on Aging —								North Emery Water Users Special Service Dist					Т		K
Golden Age Center Special Service District	Ν				Т	D	Κ	North Fork Special Service District					Т		K
Davis & Weber Counties Canal Company		C			Т	D	K	North Park Police Agency			PS		Т	D	
Davis Behavioral Health					Т	D	K	North Pointe Solid Waste Special Service Dist						D	
Davis County Housing Authority		C			Т		K	North Tooele County Fire Protection	•				•	_	•
Davis County Mosquito Abatement					Т		K	Service District	N			F	Т	D	Κ
Davis County Solid Waste Management					T	D	K	North View Fire District					T	_	K
DDI Advantage		C			T	_	K	Northern Utah Environmental Resource Agency				•	T	D	K
Duchesne County Mosquito District		C			Ť			Oquirrh Recreation and Parks District					T	D	K
Duchesne County Water Conservancy District		_			Ť	D	K	Park City Fire Service District				F	T		K
East Duchesne Culinary Water Imp District					T	٦	K	Price River Water Improvement				•	T		K
Emery County Care and Rehabilitation Center		C			T	D	K	Provo Housing Authority					T	U	K
		_			T		K	Provo River Water Users						D	
Emery County Recreation Special Service Dist	IN				'		ľ	FIOVO INVEL WALEI USEIS	IN				ı	U	I.

Employer	N	c	PS	F	T I	D	к	Employer N C PS	F T	. D	K
Roosevelt City Housing Authority	N				Т			Unified Police Department N PS	Т	. D	K
Roy Water Conservancy District	Ν				Τ [	D	K	Upper Country Water District N		D	1
Salt Lake County Service Area 3	;N				Τ		K	Utah Association of Counties N	Т	•	K
Salt Lake City Library	Ν				Т [	D	K	Utah Counties Indemnity Pool N	Т	-	Κ
Salt Lake City Mosquito Abatement					Т		K	Utah County Housing Authority N C	Т	D	K
Salt Lake City Sub. Sanitation #1	Ν				Т		K	Utah Local Governments Trust N	Т	D	K
San Juan Mental Health/Substance Abuse Dist	Ν				Т		K	Utah Lake Commission N	Т	-	Κ
Sandy Suburban Improvement District	Ν				Т [	O	K	Utah League of Cities & Towns C	Т	-	Κ
Six-County Association of Governments	Ν	C			Т [	O	K	Utah Municipal Power Agency N	Т	-	K
Six-County Infrastructure Coalition	Ν				Т		K	Utah Public Employees Association N C	Т	. D	K
Snyderville Basin Water Reclamation District		C			Т [	)	K	Utah Telecommunication Open			
Solid Waste Management Special Serv Dist #1					Т		K	Infrastructure Agency (UTOPIA) N	Т	. D	K
Solitude Improvement District					Т		K	Utah Valley Dispatch Special Services Dist N	Т	-	Κ
South Davis County Sewer Improvement Dist		C			Т [	0	K	Utah Zoological Society N C	Т	-	Κ
South Davis County Water Improvement Dist					Т [		K	Valley Emergency Communication Center N	Т	. D	
South Davis Metro Fire Agency				F	Т [		Κ	Wasatch Front Regional Council C	Т	. D	
South Davis Recreation Center							K	Wasatch Front Waste and Recycling District N	T		
South Ogden Conservancy District					Т [		K	Wasatch Integrated Waste Management N	Т		
South Utah Valley Animal								Wasatch Mental Health Special Services Dist N C	T		
Services Special Service District	N				Т		K	Washington County Solid Waste #1 N	T		
South Utah Valley Electric Service District					T		K	Washington County Water District	T		K
South Utah Valley Solid Waste					T		K	Waste Management Service District #5	T		K
South Valley Sewer District		C			-	0	K	Weber Area Dispatch 911 & Emergency	•		
South Valley Water Reclamation Facility		•			T .		K	Services District N	т	. D	K
Southeastern Utah Assoc. of Governments		C				0	K	Weber Basin Water Conservancy N	T	_	
Southeastern Utah Health		C			T .		K	Weber County Mosquito Abatement N	Ť		
Southern Salt Lake Valley Mosquito Abatement		_					K	Weber Human Services N	T		
Southern Utah Valley Power System							K	Weber River Water Users	Ť		K
Southwest Behavioral Health Center							K	Western Kane County Special Service	'		IX.
Southwest Mosquito Abatement and							11	District #1 N	Т		K
Control District	N				Т		K	White City Water Improvement District N	-		K
Southwest Utah Public Health Department		C					K	Write City Water improvement district	'	D	IX
St. George Housing Authority		_			T .	,	K				
Summit Mosquito Abatement District					T		K				
Taylor West Weber Water Improvement Dist					'		K	Total Participating Employers			
Taylorsville – Bennion Improvement					т [		K	Noncontributory		Δ	157
Timber Lakes Special Service District					T .		K	Contributory			
Timpanogos Special Service District		C			T		K				
. •		_					K	Public Safety			33
Tooele County Housing Tooele Valley Mosquito Abatement District					T .	,	K	Firefighters			62
Trans-Jordan Cities						0	K	Judges			1
					T .		K	Governor and Legislators			1
Tridell-Lapoint Water District	IN				1		K				
Uintah Animal Control and	N				Т		K	Tier 2 Public Employees			170
Shelter Special Service District							K	Tier 2 Public Safety and Firefighter			51
Uintah Basin Assistance Council					T T r		K	457 Plan		. 2	267
Uintah Basin Association of Government							K	401(k) Plan		. 4	151
Uintah County Care Center						O		1- 3		. '	
Uintah County Mosquito Abatement					T T		K				
Uintah Fire Suppression Special Service Dist					T		K				
Uintah Highlands Improvement District					T T	_	K				
Uintah Recreation District							K				
Uintah Transportation Special Service Dist					T T		K				
Lintan Water ( oncervancy Lictrict	N				1		ĸ				

Uintah Water Conservancy District...... N

#### **Employer**

### **Inactive Units**

American Fork Hospital Bay Area Refuse Disposal

**Bear River Town Bingham City** 

Box Elder County Nursing Home

Carbon County Hospital Carbon Nursing Home Cedar City Library Central Utah Ed Ser Circleville

Coalville Health Center College of Eastern Utah

Copperton Improvement District

Cottage Program

**Davis County Department of Human Services** 

**Department of Employment Security** 

Dixie Center at St. George

Dixie Hospital **East Layton** 

**Emery Medical Center** 

Four Corners Regional Hospital

Genola

Golden Hours Homemaker

**Grand County Road Special Service District** 

Hiawatha Town Honeyville Town I W Allen Hospital Juab County Hospital Kanosh Town Corporation

Leeds Town

Marysvale Town

Metro Water District — Orem Metro Water District — Provo Midvale Wastewater Treatment Midway Sanitation District Milford Valley Hospital

Morgan County Historical Society

Morgan County Library

Mountain America Credit Union

Nebo Credit Union **New Harmony Town** Northern Utah Crime Payson City Hospital Pioneer Care Center Randolph Town

Reg 2 Law Enforcement Plan Agency

Salt Lake County Fair

Salt Lake School District Credit Union

San Juan County Hospital

Six-County Economic Development

**Snow College South** 

South Davis Fire Department

Southeastern Utah Economic Development

Statewide Assn of Prosec Sugarhouse Park Authority **Summit Employment** Summit Park Water Special Service District

**Thomas Edison Charter School** 

**Timpanogos Academy Tooele Council of Aging Tooele Valley Hospital** Trail Incorporated

Twin Creeks Special Service District

U of U Research Institute U S H Patients Funds Uintah Basin Counseling Uintah Basin Dist Health **Uintah Basin Medical Center Uintah County Council on Aging** 

**Uintah County Hospital USU Comm Credit Union USU Community Credit Union** Ut Assn of Sec Sch Princ

**Utah College of Applied Technology** 

**Utah County Council of Govt** Utah Industries for the Blind

**Utah Partnership for Education Economics** 

**Utah Technology Corporation** 

Valley Mental Health

Washington County Association for Retarded

Citizens

**Wasatch County Hospital** 

Wasatch County Special Service District #1

Weber County Hospital

Weber Economic Development Corp

Weber River Water Quality West Millard Hospital West Millard Recreation Woodland Hills City

### UTAH RETIREMENT SYSTEMS

# A HIGHLIGHT HISTORY 1907-2017

- 1907 The Legislature authorizes the organization of local teacher retirement associations.
- 1908 | Salt Lake City institutes the first teacher retirement commission. Ogden follows in 1933 and Provo in 1934.
- 1919 First statewide pension plan for all full-time paid and volunteer firemen. Actuarially unsound, the system would be transferred to the Retirement Office in 1965.
- 1921 | First police pension plans in Salt Lake, Ogden, Provo, and Logan. Actuarially unsound, these plans would be transferred to the Public Safety Retirement System in 1969.
- 1927 The Prison and Industrial School Guards Retirement System is enacted. Industrial school guards join the teachers retirement system in 1937. Prison guards transfer to the Public Safety Retirement System in 1970.
- 1934 The Utah Education Association prepares a teacher retirement plan to present to the Legislature. This plan will form much of the basis for a new retirement system.
- 1937 First statewide teachers retirement system. Seven member board hires Ray L. Lillywhite as the first executive secretary.
- 1943 Utah Supreme Court rules that a retiree's statutory retirement benefit cannot be reduced, affirming the principle of vested rights. The Court would later affirm that a vested retirement benefit may not be reduced without providing a "substantial substitute."



- 1947 The State Officers' and Employees' Retirement System is created with a 3% contribution rate each by employee and employer.
  - Teachers in local systems are required to join the State Teachers Retirement System.
- 1948 The Utah Supreme Court permits service credit for prior service in parochial schools.
- 1949 The State Officers and Employees Retirement System is renamed The Public Employees Retirement System; it will cover all public employees and judges. Retirement benefit ceiling is \$100 a month.
- 1952 Ray Lillywhite resigns; Leonard W. McDonald is hired as second executive secretary of the Teachers Retirement System.
- 1953 The short-lived Teachers Retirement System is liquidated in favor of Social Security.

### A HIGHLIGHT HISTORY 1907-2017 (Continued)

- 1954 The Teachers Retirement System is replaced by the Utah School Employees Retirement System and integrated with Social Security to preserve its solvency. Local teacher retirement associations are terminated.
- 1957 Minimum monthly retirement benefit is \$85.
- 1959 The Utah State Public Employees Association is formed with the intent to produce a comprehensive plan for a statewide public employee retirement system.
- 1961 The Public Employees Retirement System is created with a seven member board.
  - The public employees and teachers retirement systems retain separate boards but unite under a single administrator and office.
- 1963 Creation of a single board for all retirement systems is the crowning achievement in Utah public retirement history and the birth of today's Utah Retirement Systems.
- 1967 The heretofore separate school and public retirement systems are consolidated into a single Utah State Retirement System.
- 1969 The Utah Public Safety Retirement Act covers all public safety employees engaged full time in hazardous duty. Benefits were uniform in each jurisdiction, but contribution rates varied.
- 1971 Members gain a salary deferral program.
- 1975 Current service formula rises from 1.25% to 2%. The cost-of-living ceiling rises to 4%.
- 1976 Leonard W. McDonald retires. Bert D. Hunsaker becomes executive director.
- 1977 Governor Scott Matheson dedicates the new Leonard W. McDonald Building for the Utah Retirement Systems.
- Board gains custody of the retirement fund and greater investment authority.



- 1982 The court affirms that the Board is independent of the executive department and has authority to hire its own legal counsel.
- 1983 The Retirement Board sees its first actuarial surplus as new investments prove their worth; hires a fulltime investment manager.
- 1986 | Public Employees Noncontributory Retirement System debuts: employers pay all contributions; 3-year final average salary; State and education employers pay 1.5% of salary into URS' 401(k) Plan. Employees forfeit access to contributions, but the new system portends a superior career retirement.
- 1987 A "25-and-out" retirement incentive plan permits public employees to retire after 25 years with no actuarial reduction; and increases to 2% the value of each year of service. Over 3000 employees take advantage of its 6-month window.

### A HIGHLIGHT HISTORY 1907-2017 (Continued)

1989 The U.S. Supreme Court rules that if federal retirement benefits are taxable, then stateprovided retirement benefits cannot be exempt. Legislature grants a 3% substantial substitute benefit for affected members.

> Bert Hunsaker steps down. Dee Williams becomes executive director.

The Public Safety Noncontributory Retirement System is created.

The Systems' assets nearly quadruple from \$1 billion to \$3.85 billion during the 1980s.

1990 | Public Employees Noncontributory Retirement members receive 2% for all years of service.

1994 URS begins dividing pension, death, and DC benefits after court rules that a former spouse may be awarded death and retirement benefits, whether or not the spouse remarries.

1995 Members with 25 years of service in the **Public Employees Noncontributory System** may buy future service credit to permit immediate retirement.

1996 URS recovers 100% of member assets originally invested in Guaranteed Investment Contracts that failed when Confederation Life Insurance Company of Canada was declared insolvent in August 1994.

1997 Judges Noncontributory Retirement System is created.

> The URS DC video receives a Telly Award — the commercial equivalent of an "Oscar" for motion pictures; URS' publication for retirees, Cycles, places second worldwide among corporate and institutional newsletters.

Legislature affirms the Board's authority to define provisions and terms of the retirement code.



1998 The 401(k) Plan launches a bold marketing program to help members better map a retirement investment strategy. Investment options are enhanced and expanded.

> State employees at retirement may defer 25% of accumulated sick leave to the 401(k) Plan, convert it to paid-up health or Medicare supplement insurance or take it as cash.

1999 Members may buy up to five years of future service credit, even if it exceeds the years required to retire.

> Leonard W. McDonald, director of the Utah Retirement Systems 1952-1976 and to whom much of the structure of the Systems can be attributed, dies.

Dee Williams retires. Robert V. Newman becomes executive director.

Systems' assets rise from \$3.85 billion to over \$13 billion during the 1990s.

2000 401(k) Plan participants may now apply for a fixed rate loan for any purpose of up to 50% of his or her 401(k) account balance.

### A HIGHLIGHT HISTORY 1907-2017 (Continued)

2001 A value stock fund joins the menu of DC investment options.

> URS website calculators invite members to estimate pension benefits and compute potential 401(k)/457 earnings.

**2002** The Olympic Winter Games are staged in Salt Lake City. URS adopts telecommuting.

> 457 Plan permits deferrals up to 100% of includable compensation; offers a new catch-up feature; drops irrevocable withdrawal decisions; allows rollovers to any acceptant 457, 403(b), 401(k), or IRA; allows use for URS pension redeposits or to buy URS service credit.

Internet-based personal retirement account manager, myURS, lets members view and transfer account balances, alter deferrals, estimate payouts, integrate Social Security, and more.

- 2003 To protect 401(k) and 457 investors from the costs of others' adverse trading activities, URS restricts frequent trading privileges. Systems' assets are \$14.2 billion.
- 2004 Ray L. Lillywhite, executive secretary of the Teachers Retirement System from 1937 to 1952, dies.
- 2005 Legislature repeals 1998 benefit allowing 25% of a state employee's accumulated sick leave to be converted to other retirement benefits.
- 2006 Members gain a partial lump-sum payment option (PLSO) at retirement.
- **2007** Retirement Systems' assets reached \$23.9 billion.

Members of the Public Safety Contributory Retirement System gain a window to convert to the Public Safety Noncontributory System.

- 2008 The Retirement Systems pay over \$1,000,000,000 in annual benefits.
- 2009 New online enrollment feature at urs.org offers simple, convenient way to enroll for benefits electronically.



IRS Private Letter Ruling confirms URS 457 Plan is an eligible deferred compensation plan as defined in IRC Section 457(b).

**2010** Retirees who resume work for a URS employer within a year after retiring will be returned to active status to earn further service credit and may thereafter choose between retirement allowance options.

**2011** URS creates the Tier 2 Retirement System for members initially entering full-time employment with a participating employer on or after July 1, 2011. These employees choose to participate in either the Tier 2 Hybrid Retirement System or the Tier 2 Defined Contribution (DC) Plan.

> The URS Defined Contribution Department introduces a new and expanded set of asset classes within the Horizon Funds. The changes bring a broader, more diversified mix of securities to the Horizon Funds and offer inflation protection as well as exposure to real estate and commodities.

### A HIGHLIGHT HISTORY 1907-2017 (Concluded)

- 2012 Legislative bills brought about four noteworthy changes for the Utah Retirement Systems. First, executive director of the Department of Corrections is now allowed to exempt from the Noncontributory Retirement System. Second, Tier 2 firefighters, including volunteers, are covered under the PEHP long-term disability policy. Third, certain Tier 2 Retirement Systems at-will employees are allowed to exempt from the 4-year vesting requirements. And fourth, new legislators and governors will not receive post-retirement health benefits.
- 2013 Robert V. Newman retires. Daniel D. Andersen becomes executive director.
- 2014 URS received a No-Action Letter from the Utah Division of Securities in preparation for its new Investment Advice Program to be offered in 2015.
  - After the close of business on December 31, 2014, all assets held in the DC Plan Horizon Funds were transferred into the new Target Date Funds. The assets were allocated according to the Target Date that corresponded with the participant's age.
- 2015 URS rolled out its retirement planning advisory program. In 2015, advisors conducted more than 1,600 sessions across the state. In satisfaction surveys, 98% of members were at least satisfied with their session, with 85% giving the highest satisfaction rating.
- 2016 S.B. 19: establishes an optional "Phased Retirement" program that allows continuing employment on a half-time basis of a retiree with the same participating employer after the retiree's retirement date while the retiree receives 50% of the retiree's monthly retirement allowance. This new program is offered beginning on January 1, 2017.



**2017** URS broadened the scope of member education. The "Your Benefits, Your Way" campaign debuted, encouraging members to learn about their benefits in the way that best fits their learning style. Options include publications, videos, live trainings and, new for 2017, regular webinars. The online Message Center debuted, allowing members to send secure messages to URS through their myURS account. URS published targeted editions of the member newsletter ViewPoint, tailored to three specific audiences, Tier 1 members, Tier 2 members, and members within their first year of employment. URS continued to increase participation in individual retirement planning sessions. More than 3,700 members attended such sessions in 2017.

2017

# GASB SCHEDULES OF EMPLOYER ALLOCATION AND PENSION REPORTING SECTION

independent Additor's Report for Agent Plans
Public Safety Retirement System Schedule of Changes in Fiduciary Net Position — Pension Trust Fund by Division
Independent Auditor's Report for Cost Sharing Plans
Noncontributory Retirement System Local Government Division
Noncontributory Retirement System State and School Division
Contributory Retirement System Local Government Division
Contributory Retirement System State and School Division
Public Safety Retirement System Other Division A with Social Security
Public Safety Retirement System State of Utah / Public Safety Retirement System Salt Lake City Public Safety Retirement System Ogden City / Public Safety Retirement System Provo City
Public Safety Retirement System Logan City / Public Safety Retirement System Bountiful City Public Safety Retirement System Other Division B without Social Security
Firefighters Retirement System Other Division A with Social Security
Firefighters Retirement System Other Division B without Social Security Judges Retirement System / Utah Governors and Legislators Retirement Plan
Tier 2 Public Employees Contributory Retirement System
Tier 2 Public Safety and Firefighter Contributory Retirement System
Utah Retirement Systems Schedule of Employer Allocations and Pension Amounts
Notes to the Public Safety Retirement System Schedule of Changes in Fiduciary Net Position — Pension Trust Fund by Division and Schedules of Employer Allocations and Pension Amounts
Aggregation of Funds with a Net Pension Asset
Aggregation of Funds with a Net Pension Liability
Systems and Plans Statistical Highlight

### UTAH RETIREMENT SYSTEMS

# INDEPENDENT AUDITORS' REPORT FOR AGENT PLANS

# **Deloitte.**

INDEPENDENT AUDITORS' REPORT

Deloitte & Touche LLP 111 South Main Street Suite 1500 Salt Lake City, UT 84111 United States of America

Tel 801-328-4706 Fax: 801-366-7900 www.deloitte.com

**Utah State Retirement Board:** 

#### REPORT ON THE SCHEDULE

We have audited the fiduciary net position as of December 31, 2017, and the changes in fiduciary net position for the year then ended, included in the accompanying Schedule of Changes in Fiduciary Net Position by Employer—Pension Trust Fund by Division ("Schedule") of the Public Safety Retirement System of Utah Retirement Systems, a component unit of the State of Utah, administered by the Utah State Retirement Board, and the related notes.

### Management's Responsibility for the Schedule

Management is responsible for the preparation and fair presentation of the Schedule in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the Schedule that is free from material misstatement, whether due to fraud or error.

### **Auditors' Responsibility**

Our responsibility is to express an opinion on the fiduciary net position and the changes in fiduciary net position included in the Schedule based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the fiduciary net position and the changes in fiduciary net position included in the Schedule are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts in the Schedule. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the fiduciary net position and the changes in fiduciary net position included in the Schedule, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the fiduciary net position and the changes in fiduciary net position included in the Schedule in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's

internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the fiduciary net position and the changes in fiduciary net position included in the Schedule.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Opinion**

In our opinion, the Schedule referred to above presents fairly, in all material respects, the fiduciary net position of the Public Safety Retirement System of Utah Retirement Systems, a component unit of the State of Utah, administered by the Utah State Retirement Board, as of December 31, 2017, and the changes in fiduciary net position for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

### **Other Matters**

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States, the financial statements of Utah Retirement Systems, a component unit of the State of Utah, administered by the Utah State Retirement Board, which includes the Public Safety Retirement System, as of and for the year ended December 31, 2017, and our report thereon, dated April 26, 2018, expressed an unmodified opinion on those financial statements and included an emphasis-of-matter paragraph regarding the fair value of investments where a publicly listed price is not available.

Our audit of the financial statements of Utah Retirement Systems was conducted for the purpose of forming an opinion on the financial statements as a whole. The individual employer information presented in each of the individual columns of the accompanying Schedule is presented for purposes of additional analysis and is not a required part of the financial statements. The individual employer information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Each column of individual employer information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the individual employer information presented in each individual column of the accompanying Schedule is stated fairly, in all material respects, in relation to the financial statements of Utah Retirement Systems, a component unit of the State of Utah, administered by the Utah State Retirement Board, which includes the Public Safety Retirement System, as a whole. We do not express an opinion on the fiduciary net position or changes in fiduciary net position of each individual employer.

#### **Restrictions on Use**

Our report is intended solely for the information and use of Utah Retirement Systems' management, the Utah State Retirement Board, the participating employers of the Public Safety Retirement System of Utah Retirement Systems and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Deloitte : Touche LLP

April 26, 2018

### **Public Safety Retirement System**

# Schedule of Changes in Fiduciary Net Position — Pension Trust Fund by Division

Year Ended December 31, 2017 With Comparative Totals for Year Ended December 31, 2016

(in thousands)

	Salt Lake City	Ogden	Provo	
Additions:				
Contributions:				
Member	\$ —	_	_	
Employer	14,899	3,072	2,258	
Total contributions	14,899	3,072	2,258	
Investment income:				
Net appreciation in fair value of investments	29,703	6,733	5,272	
Interest, dividends, and other investment income	5,366	1,216	952	
Total income from investment activity	35,069	7,949	6,224	
Less investment expenses	521	118	93	
Net income from investment activity	34,548	7,831	6,131	
Income from security lending activity	62	14	11	
Less security lending expense	7	2	1	
Net income from security lending activity	55	12	10	
Net investment income	34,603	7,843	6,141	
Transfers from (to) affiliated systems	1,642	(128)	16	
Total additions	51,144	10,787	8,415	
Deductions:				
Retirement benefits	14,779	3,372	2,523	
Cost-of-living benefits	3,930	910	561	
Supplemental retirement benefits	36	4	5	
Refunds	2	_	_	
Administrative expenses	129	29	22	
Total deductions	18,876	4,315	3,111	
Increase from operations	32,268	6,472	5,304	
Net position restricted for pensions beginning of year	260,675	59,439	46,580	
Net position restricted for pensions end of year	\$ 292,943	65,911	51,884	

	ost Sharing Plans	C			
	Other Division B	Other Division A		A mant Diana	
Total All Divisions 2017 2016	(without —	(with Social	State of Utah	Agent Plans	1
2017 2016	Social Security)	Security)	Public Safety	Bountiful	Logan
793 830	206	366	221	_	_
145,814 147,099	21,142	53,112	49,386	911	1,034
146,607 147,929	21,348	53,478	49,607	911	1,034
362,177 199,385	45,387	147,479	122,491	2,145	2,967
65,430 54,203	8,200	26,643	22,129	388	536
427,607 253,588	53,587	174,122	144,620	2,533	3,503
6,357 5,444	797	2,588	2,150	38	52
421,250 248,144	52,790	171,534	142,470	2,495	3,451
756 1,015	95	308	256	4	6
89 132 132	11	36	30	1	1
667 883	84	272	226	3	5
421,917 249,027	52,874	171,806	142,696	2,498	3,456
5,926 6,701	15,601	(11,797)	233	323	36
574,450 403,657	89,823	213,487	192,536	3,732	4,526
143,774 135,697	17,324	49,985	53,258	1,268	1,265
28,854 28,547	1,786	10,061	33,236 11,079	245	282
242 264	_	82	114	1	
226 183	_	158	66	_	_
1,382 1,260	169	542	470	9	12
174,478 165,951	19,279	60,828	64,987	1,523	1,559
399,972 237,706	70,544	152,659	127,549	2,209	2,967
3,176,545 2,938,839	387,530	1,298,262	1,079,035	18,853	26,171
3,576,517 3,176,545	458,074	1,450,921	1,206,584	21,062	29,138

### UTAH RETIREMENT SYSTEMS

# INDEPENDENT AUDITORS' REPORT FOR COST SHARING PLANS

# Deloitte.

INDEPENDENT AUDITORS' REPORT

Deloitte & Touche LLP 111 South Main Street Suite 1500 Salt Lake City, UT 84111 United States of America

Tel 801-328-4706 Fax: 801-366-7900 www.deloitte.com

**Utah State Retirement Board:** 

### **REPORT ON THE SCHEDULES**

We have audited the employer allocations and the total for all entities of the columns titled employer contributions, net pension liability/(asset), total deferred outflows of resources, total deferred inflows of resources, and total employer net pension expense excluding that attributable to employer-paid member contributions (specified column totals) included in the accompanying schedules of employer allocations and pension amounts of the Noncontributory Retirement System, Contributory Retirement System, Public Safety Retirement System, Firefighters Retirement System, Judges Retirement System, Utah Governors and Legislators Retirement Plan, Tier 2 Public Employees Contributory Retirement System, and Tier 2 Public Safety and Firefighters Contributory Retirement System ("Defined Benefit Pension Plans") of Utah Retirement Systems, a component unit of the State of Utah, administered by the Utah State Retirement Board, as of and for the year ended December 31, 2017, and the related notes.

### **Management's Responsibility for the Schedules**

Management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatement. whether due to fraud or error.

### **Auditors' Responsibility**

Our responsibility is to express an opinion on the employer allocations and the specified column totals included in the schedules of employer allocations and pension amounts based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the employer allocations and the specified column totals included in the schedules of employer allocations and pension amounts are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the employer allocations and the disclosures and specified column totals included in the schedules of employer allocations and pension amounts. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the employer allocations and the specified column totals included in the schedules of employer allocations and pension amounts, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the employer allocations and the specified column totals included in the schedules of employer allocations and pension amounts in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the employer allocations and the specified column totals included in the schedules of employer allocations and pension amounts.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### **Opinion**

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and the total employer contributions, net pension liability/(asset), total deferred outflows of resources, total deferred inflows of resources, and total employer net pension expense excluding that attributable to employer-paid member contributions for the total of all participating entities for the Noncontributory Retirement System, Contributory Retirement System, Public Safety Retirement System, Firefighters Retirement System, Judges Retirement System, Utah Governors and

Legislators Retirement Plan, Tier 2 Public Employees Contributory Retirement System, and Tier 2 Public Safety and Firefighters Contributory Retirement System of Utah Retirement Systems, a component unit of the State of Utah, administered by the Utah State Retirement Board, as of and for the year ended December 31, 2017, in accordance with accounting principles generally accepted in the United States of America.

#### **Other Matter**

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States, the financial statements of Utah Retirement Systems, a component unit of the State of Utah, administered by the Utah State Retirement Board, which includes the Defined Benefit Pension Plans, as of and for the year ended December 31, 2017, and our report thereon, dated April 26, 2018, expressed an unmodified opinion on those financial statements and included an emphasisof-matter paragraph regarding the fair value of investments where a publicly listed price is not available.

### **Restrictions on Use**

Our report is intended solely for the information and use of Utah Retirement Systems' management, the Utah State Retirement Board, the employers of the Defined Benefit Pension Plans of Utah Retirement Systems and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Deloitte : Touche LLP

April 26, 2018

# Schedule of Employer Allocations and Pension Amounts

Seriedate of Employer A	.ocacioi						
and Pension Amounts							Net Difference Between
at December 31, 2017						Differences	Projected and Actual
Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Between Expected and Actual Experience	Investment Earnings on Pension Plan Investments
4 Corners Comm Behavior Health	\$ 406,338	0.2370289%	\$ 1,038,495	2,808,577	(433,241)	23,165	223,581
Alpine City	137,190	0.0800270	350,622	948,247	(146,273)	7,821	75,487
American Fork City Annabella Town	812,532 14,795	0.4739739 0.0086302	2,076,622 37,811	5,616,160 102,260	(866,329) (15,774)	46,322 843	447,083 8,141
Ash Creek SS District	157,181	0.0916884	401,714	1,086,424	(167,588)	8,961	86,486
Ashley Valley Improv Dist	139,458	0.0813497	356,417	963,920	(148,691)	7,950	76,734
Ashley Valley Sewer Mgmt Board	69,816	0.0407257	178,432	482,563	(74,438)	3,980	38,415
Ballard Town Bear Lake SSD	30,821 21,304	0.0179788 0.0124275	78,771 54,449	213,032 147,255	(32,862) (22,715)	1,757 1,215	16,959 11,722
Bear River Assn of Govts	232,066	0.1353711	593,101	1,604,025	(247,431)	13,230	127,691
Bear River Health Dept	748,426	0.4365793	1,912,785	5,173,068	(797,979)	42,667	411,810
Bear River Mental Health	582,767	0.3399452	1,489,402	4,028,042	(621,351)	33,223	320,658
Bear River Water District Beaver City	31,396 163,593	0.0183140 0.0954284	80,239 418,100	217,004 1,130,740	(33,474) (174,424)	1,790 9,326	17,275 90,014
Beaver County	315,743	0.1841821	806,957	2,182,391	(336,648)	18,000	173,732
Beaver Housing Authority	18,552	0.0108218	47,414	128,228	(19,780)	1,058	10,208
Beaver Valley Hospital	745,858	0.4350809	1,906,220	5,155,313	(795,240)	42,521	410,396
Benchland Water Company Bicknell Town	69,106 5,763	0.0403116 0.0033615	176,617 14,728	477,656 39,831	(73,681) (6,144)	3,940 329	38,024 3,171
Big Cottonwood Canyon Imp Dist	11,821	0.0053013	30,211	81,704	(12,603)	674	6,504
Blanding City	138,662	0.0808854	354,383	958,419	(147,842)	7,905	76,296
Bluffdale City	243,848	0.1422440	623,214	1,685,462	(259,993)	13,902	134,174
Bona Vista Water Improve Bountiful Irrigation District	85,088 82,286	0.0496341 0.0479998	217,462 210,302	588,119 568,754	(90,721) (87,734)	4,851 4,691	46,818 45,276
Box Elder Co Mosq Dist	41,336	0.0479998	105,645	285,714	(87,734) (44,073)	2,357	22,745
Box Elder County	764,944	0.4462148	1,955,001	5,287,240	(815,591)	43,609	420,898
Brigham City .	718,987	0.4194068	1,837,547	4,969,590	(766,591)	40,989	395,611
Cache County Cache Metro Planning Org	1,011,974 15,258	0.5903142 0.0089003	2,586,344 38,995	6,994,687 105,460	(1,078,975) (16,268)	57,692 870	556,822 8,395
Carbon County	776,855	0.4531626	1,985,441	5,369,565	(828,290)	44,288	427,452
Carbon County Rec/Trans SSD	8,188	0.0047761	20,926	56,592	(8,730)	467	4,505
Castle Dale City	17,987	0.0104923	45,970	124,324	(19,178)	1,025	9,897
Castle Valley SSD Cedar City	88,416 706,272	0.0515759 0.4119892	225,969 1,805,048	611,128 4,881,698	(94,270) (753,033)	5,041 40,264	48,650 388,615
Cedar City Housing Auth	29,313	0.0170989	74,915	202,606	(31,253)	1,671	16,129
Centerfield City	12,089	0.0070519	30,896	83,559	(12,889)	689	6,652
Centerville City	315,140	0.1838307	805,417	2,178,227	(336,005)	17,966	173,401
Central Davis Sewer Dist Central Iron Co Water Conserv	169,113 24,857	0.0986488 0.0144995	432,210 63,527	1,168,899 171,806	(180,310) (26,502)	9,641 1,417	93,052 13,677
Central Ut Public Health	254,252	0.1483126	649,802	1,757,370	(271,085)	14,495	139,898
Central Utah Counseling Center	490,042	0.2858561	1,252,421	3,387,135	(522,487)	27,937	269,638
Central Utah Water Dist	1,248,035	0.7280158	3,189,656	8,626,326	(1,330,666)	71,149	686,711
Central Weber Sewer Dist City of Aurora	274,519 13,177	0.1601348 0.0076864	701,599 33,676	1,897,452 91,077	(292,694) (14,049)	15,650 751	151,049 7,250
City of Bountiful	1,410,478	0.8227739	3,604,819	9,749,123	(1,503,865)	80,410	776,093
City of Cedar Hills	177,719	0.1036686	454,203	1,228,379	(189,485)	10,132	97,787
City of Draper City of Duchesne	1,031,160 45,121	0.6015060 0.0263206	2,635,378 115,318	7,127,300 311,875	(1,099,432) (48,109)	58,786 2,572	567,379 24,827
City of Enterprise	43,121 62,647	0.0263206	160,109	433,010	(46,109) (66,795)	2,572 3,571	34,470
City of Green River	59,368	0.0346311	151,729	410,347	(63,299)	3,385	32,666
City of Harrisville	100,631	0.0587011	257,187	695,555	(107,294)	5,737	55,371
City of Helper	44,902 174,720	0.0261929	114,759	310,362	(47,875)	2,560	24,707
City of Holladay City of Kanab	174,730 86,584	0.1019250 0.0505070	446,564 221,286	1,207,719 598,462	(186,298) (92,317)	9,961 4,936	96,142 47,641
City of Milford	44,062	0.0257029	112,612	304,556	(46,980)	2,512	24,245

								N	et Amortization of Deferred		
Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
373,022	34,177	653,945	63,554	587,085	24,264	29,037	703,940	369,803	(5,554)	_	364,249
125,942	23,236	232,486	21,458	198,215	8,192	18,915	246,780	124,855	6,368	_	131,223
745,913 13,582	105,271 1,757	1,344,589 24,323	127,086 2,314	1,173,961 21,376	48,519 883	45,446 390	1,395,012 24,963	739,475 13,464	23,265 451	_	762,740 13,915
144,294	43,580	283,321	24,584	227,098	9,386		261,068	143,048	15,081		158,129
128,023	6,433	219,140	21,812	201,491	8,327	27,382	259,012	126,918	(5,860)	<del>-</del>	121,058
64,092	332	106,819	10,920	100,871	4,169	1,919	117,879	63,539	(603)	_	62,936
28,294 19,558	1,303 3,849	48,313 36,344	4,821 3,332	44,531 30,781	1,840 1,272	3,986 1,049	55,178 36,434	28,050 19,389	(637) 1,133	_	27,413 20,522
213,039	5,740	359,700	36,297	335,294	13,857	9,128	394,576	211,200	(116)		211,084
687,063	28,207	1,169,747	117,059	1,081,341	44,691	24,560	1,267,651	681,133	8,066		689,199
534,986	·—	888,867	91,149	841,993	34,799	108,586	1,076,527	530,369	(52,863)	_	477,506
28,822	3,045	50,932	4,911	45,361	1,875	584	52,731	28,573	1,418	_	29,991
150,180 289,855	16,306	249,520 497,893	25,587 49,384	236,362 456,191	9,769 18,854	61,827 56,926	333,545 581,355	148,883 287,353	(27,793) (13,737)	_	121,090 273,616
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17,031 684,705	5,023 122,781	33,320 1,260,403	2,902 116,658	26,804 1,077,629	1,108 44,537	22,810	30,814 1,261,634	16,884 678,795	1,895 32,956	_	18,779 711,751
63,440	21,479	126,883	10,809	99,846	4,127		114,782	62,893	8,723	_	71,616
5,290	1,022	9,812	901	8,326	344	842	10,413	5,244	213	_	5,457
10,852	2,086	20,116	1,849	17,079	706	794	20,428	10,758	329		11,087
127,293		211,494	21,688	200,341	8,280	24,536	254,845	126,194	(13,574)	_	112,620
223,855 78,111	290,933 6,788	662,864 136,568	38,140 13,308	352,317 122,936	14,561 5,081	20,141	405,018 161,466	221,923 77,437	143,387 (3,248)	_	365,310 74,189
75,539	914	126,420	12,870	118,888	4,914	13,796	150,468	74,887	(5,865)	_	69,022
37,947	3,255	66,304	6,465	59,724	2,468	_	68,657	37,620	1,263	_	38,883
702,227	82,349	1,249,083	119,643	1,105,206	45,677	30,575	1,301,101	696,166	19,729	_	715,895
660,038	29,600	1,126,238	112,455	1,038,807	42,933	28,371	1,222,566	654,341	(7,504)	_	646,837
929,003 14,007	87,596 1,734	1,631,113 25,006	158,280 2,386	1,462,119 22,045	60,428 911	_	1,680,827 25,342	920,984 13,886	36,943 743	_	957,927 14,629
713,161		1,184,901	121,506	1,122,415	46,388	124,786	1,415,095	707,006	(55,953)	_	651,053
7,516	817	13,305	1,281	11,830	489	783	14,383	7,451	(93)		7,358
16,512	377	27,811	2,813	25,988	1,074	529	30,404	16,370	(68)	_	16,302
81,167	1,981	136,839	13,829	127,746	5,280	1,578	148,433	80,467	118	_	80,585
648,365 26,909	8,383 3,961	1,085,627 48,670	110,466 4,585	1,020,435 42,351	42,174 1,750	62,224 1,345	1,235,299 50,031	642,769 26,677	(31,065) 1,116	_	611,704 27,793
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11,098 289,302	— 12,931	18,439 493,600	1,891 49,290	17,466 455,321	722 18,818	13,057 75,467	33,136 598,896	11,002 286,805	(4,691) (19,728)	_	6,311 267,077
155,248	_	257,941	26,451	244,338	10,098	28,302	309,189	153,908	(12,839)	_	141,069
22,818	5,667	43,579	3,888	35,913	1,484		41,285	22,622	2,480	_	25,102
233,406	17,792	405,591	39,767	367,348	15,182	32,399	454,696	231,391	(1,639)		229,752
449,864	61,327	808,766	76,646	708,022	29,262	70 720	813,930	445,981	25,642	_	471,623
1,145,709 252,011	104,366 31,232	2,007,935 449,942	195,202 42,937	1,803,185 396,630	74,524 16,392	78,739 22,298	2,151,650 478,257	1,135,820 249,836	(6,247) (1,087)	_	1,129,573 248,749
12,096	1,091	21,188	2,061	19,038	787	233	22,119	11,992	333	_	12,325
1,294,834	45,044	2,196,381	220,609	2,037,886	84,224	212,368	2,555,087	1,283,658	(68,990)		1,214,668
163,148	5,421	276,488	27,796	256,771	10,612	28,784	323,963	161,740	(6,678)	_	155,062
946,616	84,860	1,657,641	161,281	1,489,839	61,574	103,058	1,815,752	938,445	(14,373)	_	924,072
41,422 57,510	4,818 4,792	73,639 100,343	7,057 9,798	65,192 90,513	2,694 3,741	10,708 3,887	85,651 107,939	41,064 57,014	(1,134) (243)	_	39,930 56,771
54,500	23,108	113,659	9,798	85,776	3,741	5,771	107,939	54,030	4,515	_	58,545
92,380	17,785	171,273	15,739	145,394	6,009	2,806	169,948	91,583	7,207		98,790
41,221	916	69,404	7,023	64,876	2,681	4,442	79,022	40,865	(1,745)	_	39,120
160,404	19,040	285,547	27,329	252,453	10,434	46,105	336,321	159,019	(6,888)	_	152,131
79,485 40,450	264 8,918	132,326 76,125	13,542 6,892	125,098 63,662	5,170 2,631	11,982	155,792 73,185	78,799 40,101	(4,815) 3,638	_	73,984 43,739
10,130	0,210	, 0, 123	0,072	33,002	2,031		73,103	70,101	3,030		15,157

Schedule of Employer Allocations and Pension Amounts (Continued)

							Net Difference Between Projected
Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	and Actual Investment Earnings on Pension Plan Investments
City of Moab	\$ 466,328	0.2720231%	\$ 1,191,815	3,223,227	(497,203)	26,585	256,590
City of Monticello	71,383	0.0416397	182,436	493,393	(76,109)	4,069	39,277
City of Naples City of North Salt Lake	52,262 419,322	0.0304862 0.2446027	133,569 1,071,678	361,234 2,898,320	(55,723) (447,084)	2,979 23,905	28,757 230,725
City of Orem	1,968,088	1.1480441	5,029,925	13,603,280	(2,098,393)	112,199	1,082,909
City of Riverton	864,963	0.5045584	2,210,622	5,978,559	(922,231)	49,311	475,932
City of Santa Clara	243,226	0.1418812	621,624	1,681,163	(259,330)	13,866	133,831
City of Saratoga Springs	507,113	0.2958139	1,296,049	3,505,126	(540,688)	28,910	279,031
City of South Jordan City of South Salt Lake	1,701,084 794,579	0.9922930 0.4635013	4,347,533 2,030,738	11,757,771 5,492,069	(1,813,711) (847,187)	96,977 45,298	935,994 437,204
City of St George	3,721,118	2.1706389	9,510,220	25,720,099	(3,967,490)	212,138	2,047,486
City of Taylorsville	288,847	0.1684929	738,218	1,996,488	(307,971)	16,467	158,933
City of Uintah	16,821	0.0098120	42,989	116,263	(17,934)	959	9,255
City of Washington Terrace	156,515	0.0912999	400,012	1,081,821	(166,878)	8,923	86,120
City of Wendover	44,106	0.0257282	112,723	304,856	(47,026)	2,514	24,268
City of West Haven City of West Jordan	108,634 2,168,605	0.0633695 1.2650118	277,641	750,871	(115,827)	6,193	59,774
City of Woodland Hills	2,108,603	0.0169779	5,542,396 74,385	14,989,241 201,173	(2,312,186) (31,032)	123,630 1,659	1,193,240 16,015
Clearfield City	542,163	0.3162596	1,385,628	3,747,389	(578,059)	30,908	298,316
Cleveland Town	2,062	0.0012030	5,271	14,254	(2,199)	118	1,135
Clinton City	282,239	0.1646383	721,330	1,950,814	(300,926)	16,090	155,297
Coalville City	45,432	0.0265017	116,112	314,021	(48,440)	2,590	24,998
Cottonwood Heights City Cottonwood Heights P&R Srv	328,749 158,282	0.1917693 0.0923304	840,199 404,527	2,272,292 1,094,031	(350,516) (168,761)	18,742 9,024	180,889 87,092
Cottonwood Imp District	357,865	0.2087534	914,611	2,473,538	(381,559)	20,402	196,910
Council On Aging Golden Age SS	45,850	0.0267456	117,180	316,911	(48,886)	2,614	25,228
Daggett County	99,927	0.0582903	255,387	690,687	(106,543)	5,697	54,983
Davis Behavioral Health Inc Davis Co Housing Authority	1,397,550 66,750	0.8152326 0.0389371	3,571,778 170,595	9,659,766 461,369	(1,490,081) (71,169)	79,673 3,805	768,980 36,728
Davis Co Mosquito Abate	38,887	0.0226838	99,385	268,782	(41,461)	2,217	21,397
Davis County	4,531,143	2.6431503	11,580,434	31,318,930	(4,831,145)	258,317	2,493,189
Delta City	100,765	0.0587795	257,531	696,484	(107,437)	5,745	55,445
Duchesne Co Water Conserv Dist Duchesne County	33,653 551,925	0.0196307 0.3219544	86,008 1,410,579	232,606 3,814,867	(35,881) (588,468)	1,919 31,465	18,517 303,688
E Duchesne Cul Water Imp Dist	11,545	0.3219344	29,507	79,800	(12,310)	658	6,353
Eagle Mountain City	431,088	0.2514663	1,101,749	2,979,647	(459,630)	24,576	237,199
East Carbon City	46,152	0.0269217	117,952	318,998	(49,207)	2,631	25,394
Elk Ridge City	16,070	0.0093739 0.2840770	41,070	111,072	(17,134)	916	8,842
Emery County Emery County Recreation SSD	486,992 2,816	0.2840770	1,244,627 7,197	3,366,054 19,463	(519,235) (3,002)	27,763 161	267,960 1,549
Emery Water Conserv Dist	45,912	0.0267816	117,338	317,338	(48,951)	2,617	25,262
Enoch City	75,106	0.0438114	191,951	519,125	(80,078)	4,282	41,326
Ephraim City	179,579	0.1047535	458,956	1,241,234	(191,468)	10,238	98,810
Escalante City Eureka City Corporation	32,689 19,317	0.0190683 0.0112682	83,544 49,369	225,942 133,518	(34,853) (20,596)	1,864 1,101	17,986 10,629
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Fairview City Farmington City	52,863 438,469	0.0308368 0.2557718	135,105 1,120,613	365,388 3,030,663	(56,363) (467,499)	3,014 24,997	29,087 241,260
Farr West City	67,635	0.0394535	172,858	467,488	(72,113)	3,856	37,215
Ferron City	19,556	0.0114075	49,980	135,169	(20,851)	1,115	10,760
Fillmore City	68,619	0.0400275	175,372	474,290	(73,162)	3,912	37,757
Five-County Assn of Govts	267,737	0.1561792	684,268	1,850,582	(285,464)	15,263	147,318
Fountain Green City Fox Hollow Golf Course	16,593 24,060	0.0096795 0.0140347	42,409 61,490	114,693 166,298	(17,692) (25,653)	946 1,372	9,130 13,238
Francis City	23,236	0.0140547	59,384	160,603	(24,774)	1,372	12,785
Fruit Heights City	70,189	0.0409432	179,384	485,140	(74,836)	4,001	38,620

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	Changes in Proportion and Differences Between Employer Contributions and Proportionate	Total Deferred	Differences Between Expected	Net Difference Between Projected and Actual Investment Earnings on		Changes in Proportion and Differences Between Employer Contributions and Proportionate	Total Deferred		let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions Proportionate	Proportionate Share of	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid
Changes of Assumptions	Share of Contributions	Outflows of Resources	and Actual Experience	Pension Plan Investments	Changes of Assumptions	Share of Contributions	Inflows of Resources	Pension Expense	Share of Contributions	Nonemployer Contributions	Member Contributions
428,094	233,925	945,194	72,937	673,760	27,846	74,896	849,439	424,399	38,905	_	463,304
65,530	8,346	117,222	11,165	103,135	4,262	9,371	127,933	64,965	1,312	_	66,277
47,977 384,942	69,297 22,626	149,010 662,198	8,174 65,585	75,510 605,844	3,121 25,039	35,114	86,805 731,582	47,563 381,619	31,006 1,247		78,569 382,866
1,806,726	29,618	3,031,452	307,823	2,843,531	117,520	122,185	3,391,059	1,791,131	(37,839)	_	1,753,292
794,045	34,812	1,354,100	135,286	1,249,715	51,650	153,506	1,590,157	787,191	(33,347)	_	753,844
223,284	30,891	401,872	38,042	351,418	14,524	24,500	428,484	221,357	(1,285)	_	220,072
465,535 1,561,614	67,868 2,047,122	841,344 4,641,707	79,316 266,062	732,686 2,457,759	30,281 101,577	_	842,283 2,825,398	461,517 1,548,135	28,858 1,002,413	_	490,375 2,550,548
729,432	27,857	1,239,791	124,278	1,148,022	47,447	96,728	1,416,475	723,136	(31,693)	_	691,443
3,416,027	181,580	5,857,231	582,010	5,376,343	222,199	26,254	6,206,806	3,386,542	77,594	_	3,464,136
265,164	0.566	440,564	45,178	417,331	17,248	108,148	587,905	262,876	(41,007)	_	221,869
15,442 143,683	8,566 10,012	34,222 248,738	2,631 24,480	24,303 226,136	1,004 9,346	2,261 2,059	30,199 262,021	15,308 142,442	2,072 3,184	_	17,380 145,626
40,490	28,018	95,290	6,898	63,725	2,634	4,444	77,701	40,140	7,666	_	47,806
99,727	18,372	184,066	16,991	156,957	6,487	6,278	186,713	98,866	2,880	_	101,746
1,990,803	250,472	3,558,145	339,185	3,133,242	129,494	43,861	3,645,782	1,973,620	90,125	_	2,063,745
26,719 497,711	32,244 38,783	76,637 865,718	4,552 84,798	42,052 783,327	1,738 32,374	153 56,144	48,495 956,643	26,488 493,415	11,011 (18,771)	_	37,499 474,644
1,893	233	3,379	323	2,980	123	3,105	6,531	1,877	(1,531)	_	346
259,098	5,539	436,024	44,144	407,784	16,853	13,672	482,453	256,862	(4,459)		252,403
41,707	3,866	73,161	7,106	65,641	2,713	509	75,969	41,347	1,128	_	42,475
301,796 145,304	110,678 28,414	612,105 269,834	51,419 24,756	474,983 228,688	19,631 9,451	2,587	546,033 265,482	299,191 144,050	48,808 14,407	_	347,999 158,457
328,524	11,363	557,199	55,973	517,051	21,369	51,426	645,819	325,689	(12,870)	_	312,819
42,091		69,933	7,171	66,245	2,738	26,197	102,351	41,727	(10,045)		31,682
91,734		152,414	15,629	144,376	5,967	83,904	249,876	90,942	(33,393)	_	57,549
1,282,966 61,277	161,534 84,051	2,293,153 185,861	218,587 10,440	2,019,208 96,441	83,452 3,986	124,927	2,446,174 121,522	1,271,893 60,748	10,460 38,477	_	1,282,353 99,225
35,698	2,070	61,382	6,082	56,184	2,322	10,655 5,045	69,633	35,390	(2,327)	_	33,063
4,159,638	244,136	7,155,280	708,703	6,546,683	270,568	325,503	7,851,457	4,123,735	(46,903)		4,076,832
92,504	8,829	162,523	15,760	145,588	6,017	20,767	188,132	91,705	(7,772)	_	83,933
30,894	15,948	67,278	5,264	48,622	2,010	2,537	58,433	30,627	4,486	_	35,113
506,673 10,599	716,600 1,281	1,558,426 18,891	86,325 1,806	797,432 16,681	32,957 689	29,248 607	945,962 19,783	502,300 10,507	318,150 269	_	820,450 10,776
395,743		657,518	67,425	622,844	25,742	182,845	898,856	392,327	(95,880)		296,447
42,368	4,729	75,122	7,218	66,681	2,756	28,567	105,222	42,002	(7,223)	_	34,779
14,752 447,064	 14,879	24,510 757,666	2,513 76,169	23,218 703,616	960 29,080	25,439 99,500	52,130 908,365	14,625 443,205	(12,836) (44,713)	_	1,789 398,492
2,585	489	4,784	440	4,068	168	2,865	7,541	2,563	(836)	_	1,727
42,147	10,655	80,681	7,181	66,334	2,742	1,414	77,671	41,784	3,301		45,085
68,948		114,556	11,747	108,514	4,485	2,446	127,192	68,353	(974)	_	67,379
164,855	34,884	308,787	28,087	259,459	10,723	2,402	300,671	163,432	12,211	_	175,643
30,009 17,733	1,401 4,462	51,260 33,925	5,113 3,021	47,229 27,910	1,952 1,153	4,497 309	58,791 32,393	29,750 17,580	(1,917) 1,329	_	27,833 18,909
48,529	5,314	85,944	8,268	76,378	3,157	19,060	106,863	48,110	(3,793)		44,317
402,519	55,164	723,940	68,580	633,508	26,182	_	728,270	399,045	21,551	_	420,596
62,090	21,429	124,590	10,579	97,720	4,039	1,858	114,196	61,554	7,589	_	69,143
17,952 62,993	14,128	29,827 118,790	3,059 10,733	28,255 99,142	1,168 4,097	20,582 1,103	53,064 115,075	17,798 62,449	(7,745) 4,965	_	10,053 67,414
245,786	7,841	416,208	41,876	386,832	15,987	30,528	475,223	243,664	(14,703)		228,961
15,233	195	25,504	2,595	23,975	991	6,951	34,512	15,102	(2,351)	_	12,751
22,087	154 5 269	36,851	3,763	34,762	1,437	1,674	41,636	21,896	(490)	_	21,406
21,331 64,434	5,368 9,857	40,809 116,912	3,634 10,978	33,571 101,410	1,387 4,191	_	38,592 116,579	21,146 63,878	2,054 4,204	_	23,200 68,082
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### Schedule of Employer Allocations and Pension Amounts (Continued)

								Net Difference Between Projected
Participating Employer	Emp Contribu	loyer tions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	and Actual Investment Earnings on Pension Plan Investments
Garfield County Genola Town Grand Co Cemetery Mtce Dist Grand County Grand Water/Sewer Service	16 14 741	3,188 5,915 4,553 1,236 3,205	0.2001916% 0.0098669 0.0084894 0.4323850 0.0222859	\$ 877,099 43,230 37,195 1,894,408 97,641	2,372,089 116,914 100,592 5,123,369 264,068	(365,910) (18,035) (15,517) (790,312) (40,734)	19,565 964 830 42,257 2,178	188,834 9,307 8,008 407,853 21,021
Granger-Hunter Imp Dist Grantsville City Gunnison City Gunnison Valley Hospital Gunnison Valley Police Dept	185 42 916	4,524 5,330 2,705 5,097 9,719	0.3818030 0.1081083 0.0249109 0.5343866 0.0056695	1,672,793 473,655 109,142 2,341,308 24,840	4,524,019 1,280,985 295,172 6,331,996 67,178	(697,859) (197,600) (45,532) (976,751) (10,363)	37,314 10,565 2,435 52,226 554	360,141 101,975 23,498 504,068 5,348
Heber City Heber Light & Power Heber Valley SSD Herriman City Highland City	528 33 820	5,732 3,719 3,889 0,904 2,425	0.2372588 0.3084177 0.0197686 0.4788577 0.1355806	1,039,502 1,351,270 86,612 2,098,019 594,019	2,811,301 3,654,470 234,240 5,674,029 1,606,507	(433,661) (563,725) (36,133) (875,255) (247,814)	23,187 30,142 1,932 46,799 13,250	223,798 290,919 18,647 451,689 127,888
Hinckley Town Hooper City Hooper Water Improv Dist Housing Auth of Carbon Co Housing Auth of SI County	58 79 39	0,038 3,300 9,680 9,723 5,303	0.0058554 0.0340083 0.0464799 0.0231718 0.3064250	25,654 149,001 203,642 101,523 1,342,540	69,381 402,967 550,745 274,565 3,630,858	(10,702) (62,160) (84,956) (42,353) (560,083)	572 3,324 4,543 2,265 29,947	5,523 32,079 43,843 21,857 289,040
Housing Authority of SLC Housing Authority Ogden City Huntington City Hurricane City Hurricane Valley Fire SSD	129 36 587	0,505 9,027 5,496 7,881 4,673	0.3094592 0.0752651 0.0212889 0.3429286 0.0085593	1,355,834 329,759 93,273 1,502,473 37,501	3,666,810 891,823 252,254 4,063,392 101,420	(565,629) (137,569) (38,912) (626,804) (15,645)	30,244 7,356 2,081 33,515 837	291,902 70,995 20,081 323,472 8,074
Hyde Park City Hyrum City Impact Mitigation SSD Iron County Ivins City	245 31 747	3,080 5,528 1,002 7,805 9,565	0.0455463 0.1432240 0.0180842 0.4362166 0.1397454	199,552 627,507 79,232 1,911,196 612,267	539,682 1,697,074 214,281 5,168,770 1,655,856	(83,249) (261,785) (33,054) (797,316) (255,426)	4,451 13,997 1,767 42,632 13,657	42,962 135,098 17,058 411,467 131,817
Jordan River Commission Jordan Valley Water Conserv Jordanelle SSD Juab County Kamas City	1,492 249 300	4,908 2,552 9,006 0,707 0,278	0.0086963 0.8706501 0.1452528 0.1754111 0.0234956	38,101 3,814,579 636,396 768,529 102,941	103,043 10,316,413 1,721,114 2,078,462 278,402	(15,895) (1,591,373) (265,493) (320,616) (42,945)	850 85,089 14,196 17,143 2,296	8,203 821,253 137,012 165,459 22,163
Kane County Kane County Water Conserv Dist Kaysville City Kearns Improvement Dist Laverkin City	73 622 311	5,147 3,675 2,645 1,635 1,077	0.2544178 0.0429768 0.3632073 0.1817857 0.0531282	1,114,681 188,294 1,591,320 796,458 232,771	3,014,620 509,236 4,303,677 2,153,995 629,521	(465,024) (78,553) (663,870) (332,268) (97,108)	24,864 4,200 35,496 17,766 5,192	239,983 40,538 342,600 171,472 50,114
Layton City Lehi City Lewiston City Lindon City Logan City		3,580 1,776 3,799	0.7008208 0.9004162 0.0185361 0.1976314 1.3008213	3,070,506 3,944,993 81,212 865,882 5,699,288	8,304,090 10,669,114 219,636 2,341,753 15,413,551	(1,280,959) (1,645,779) (33,880) (361,230) (2,377,639)	68,492 87,998 1,812 19,315 127,130	661,059 849,330 17,484 186,419 1,227,018
Lone Peak PS District Maeser Water Improve Dist Magna Mosquito Abatement Manti City Mapleton City	58 14 94	5,831 3,182 4,706 4,599 2,457	0.0209016 0.0339393 0.0085783 0.0551827 0.1355993	91,576 148,698 37,584 241,772 594,101	247,665 402,150 101,645 653,865 1,606,729	(38,204) (62,034) (15,679) (100,863) (247,848)	2,043 3,317 838 5,393 13,252	19,716 32,014 8,092 52,052 127,906
Marriott-Slaterville City Mayfield Town Mendon City Metro Water Dist SIc/Sandy Midvale City	10 700	0,458 3,314 0,148 0,881 5,519	0.0177669 0.0048500 0.0059199 0.4088446 0.3590503	77,842 21,249 25,937 1,791,271 1,573,107	210,522 57,468 70,145 4,844,437 4,254,420	(32,474) (8,865) (10,820) (747,285) (656,271)	1,736 474 579 39,957 35,090	16,759 4,575 5,584 385,648 338,679

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Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources		et Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
315,050	_	523,449	53,677	495,844	20,493	31,991	602,005	312,331	(12,830)	_	299,501
15,528	2,955	28,754	2,646	24,439	1,010	_	28,095	15,394	1,505	_	16,899
13,360	7,376	29,574	2,276	21,027	869	_	24,172	13,245	3,316	_	16,561
680,463	129,517	1,260,090	115,935	1,070,952	44,261	42,698	1,273,846	674,589	19,141	_	693,730
35,072	10,693	68,964	5,975	55,199	2,281	10,777	74,232	34,770	(1,575)	_	33,195
600,860		998,315	102,372	945,668	39,084	164,145	1,251,269	595,673	(64,318)		531,355
170,135	1,825	284,500	28,987	267,768	11,067	11,469	319,291	168,666	(6,299)	_	162,367
39,203	_	65,136	6,679	61,701	2,550	11,430	82,360	38,865	(4,287)	_	34,578
840,987	141,850	1,539,131	143,284	1,323,595	54,703	38,068	1,559,650	833,728	57,751	_	891,479
8,922	20,185	35,009	1,520	14,042	580	_	16,142	8,845	6,847	_	15,692
373,384	1/15 257	~~~~~	62 616	587,654	24,287		675 557	370,161	51,428	~~~~~	421,589
485,370	145,357 57,463	765,726 863,894	63,616 82,696	763,904	24,287 31,571	54,226	675,557 932,397	481,181	(12,361)	_	421,589 468,820
31,111		51,690	5,301	48,964	2,024	10,110	66,399	30,842	(3,539)	_	27,303
753,599	169,891	1,421,978	128,395	1,186,058	49,019	10,110	1,363,472	747,094	79,122	_	826,216
213,369	4,964	359,471	36,353	335,813	13,879	7,637	393,682	211,527	(2,736)	_	208,791
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9,215	1,158	16,468	1,570	14,503	599	5,699	22,371	9,135	(1,507)	_	7,628
53,520 73,147	5,615 8,260	94,538 129,793	9,119 12,463	84,233 115,124	3,481 4,758	6,833 136	103,666 132,481	53,058 72,516	(2,257) 3,170	_	50,801 75,686
36,466	0,200	60,588	6,213	57,393	2,372	34,609	100,587	36,152	(12,977)	_	23,175
482,234	24,926	826,147	82,161	758,968	31,367	38,835	911,331	478,072	(7,365)	_	470,707
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487,009	26,047	835,202	82,975	766,484	31,678	122,523	1,003,660	482,806	(53,216)	_	429,590
118,448	4,709	201,508	20,181	186,420	7,705	12,632	226,938	117,426	(2,283)	_	115,143
33,503	3,924	59,589	5,708	52,729	2,179	4,081	64,697	33,214	(839)	_	32,375
539,681 13,470	44,061 17,647	940,729 40,028	91,949 2,295	849,382 21,200	35,104 876	26,755	1,003,190 24,371	535,023 13,354	11,611 8,839	_	546,634 22,193
13,470	17,047	40,020	Z,Z73	~~~~~	~~~~~	<del>-</del>	~~~~~	13,334	0,037	<del>-</del>	~~~~~
71,678	2,668	121,759	12,212	112,811	4,662	4,831	134,516	71,059	(1,561)	_	69,498
225,398	23,283	397,776	38,402	354,744	14,661	20,732	428,539	223,452	(1,231)	_	222,221
28,460	560	47,845	4,849	44,792	1,851	2,163	53,655	28,214	(845)	_	27,369
686,493	17,030	1,157,622	116,962	1,080,442	44,654	180,807	1,422,865	680,567	(72,359)	_	608,208
219,923	19,729	385,126	37,470	346,128	14,305	74,639	472,542	218,025	(15,811)		202,214
13,686	653	23,392	2,332	21,539	890	3,177	27,938	13,568	(690)	_	12,878
1,370,179	2,901	2,279,422	233,446	2,156,468	89,125	36,959	2,515,998	1,358,353	(17,552)	_	1,340,801
228,591	15,966	395,765	38,946	359,769	14,869	14,819	428,403	226,617	888	_	227,505
276,052	49,814	508,468	47,033	434,467	17,956	15,402	514,858	273,669	7,875	_	281,544
36,976	1,365	62,800	6,300	58,195	2,405	6,499	73,399	36,657	(1,369)		35,288
400,388	26,690	691,925	68,217	630,154	26,044	44,385	768,800	396,932	(7,438)	_	389,494
67,634	6,269	118,641	11,523	106,447	4,399	8,700	131,069	67,051	(41)	_	67,010
571,595	46,370	996,061	97,386	899,609	37,180	60,825	1,095,000	566,661	5,478	_	572,139
286,084	6,153	481,475	48,742	450,256	18,609	22,774	540,381	283,615	(7,258)	_	276,357
83,610	188,433	327,349	14,245	131,590	5,439		151,274	82,888	64,036		146,924
1,102,912	_	1,832,463	187,910	1,735,827	71,740	185,307	2,180,784	1,093,392	(73,851)	_	1,019,541
1,417,023	186,204	2,540,555	241,427	2,230,194	92,172	<i>_</i>	2,563,793	1,404,792	70,982	_	1,475,774
29,171	2,079	50,546	4,970	45,911	1,897	18,263	71,041	28,919	(5,416)		23,503
311,021	45,407	562,162	52,991	489,503	20,231	2,439	565,164	308,336	16,823	_	325,159
2,047,158	46,742	3,448,048	348,787	3,221,937	133,160	203,567	3,907,451	2,029,488	(53,479)		1,976,009
32,894	14,824	69,477	5,604	51,770	2,140	4,142	63,656	32,610	2,534	_	35,144
53,412	259	89,002	9,100	84,062	3,474	7,623	104,259	52,951	(4,039)	_	48,912
13,500	4,289	26,719	2,300	21,247	878	3,018	27,443	13,384	(402)	_	12,982
86,843	6,626	150,914	14,796	136,679	5,649	3,319	160,443	86,094	2,286	_	88,380
213,398	2,649	357,205	36,358	335,859	13,881	42,485	428,583	211,556	(13,035)	_	198,521
27,961	2,590	49,046	4,764	44,006	1,819	116	50,705	27,719	985		28,704
7,633	3,936	16,618	1,300	12,013	496	362	14,171	7,567	1,170	_	8,737
9,316	2,517	17,996	1,587	14,663	606	_	16,856	9,236	966	_	10,202
643,416	7,254	1,076,275	109,623	1,012,646	41,852	56,078	1,220,199	637,863	(16,623)	_	621,240
565,053	2,520	941,342	96,272	889,313	36,754	34,498	1,056,837	560,176	(13,091)	_	547,085

### Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments
Participating Employer  Midvalley Improvement District Midway City Military Installation Devel Millard Co Care & Rehab Inc Millard County	\$ 110,859 117,828 47,655 202,595 695,549	0.0646676% 0.0687327 0.0277984 0.1181799 0.4057347		766,252 814,420 329,386 1,400,324 4,807,588	(118,199) (125,630) (50,810) (216,009) (741,601)	6,320 6,717 2,717 11,550 39,653	60,999 64,833 26,221 111,475 382,715
Millcreek City	16,835	0.0098201	43,025	116,359	(17,949)	960	9,263
Millville City	29,663	0.0173036	75,812	205,032	(31,627)	1,691	16,322
Minersville Town	26,938	0.0157136	68,846	186,192	(28,721)	1,536	14,822
Monroe City	84,916	0.0495340	217,023	586,933	(90,538)	4,841	46,724
Morgan City Corporation	152,618	0.0890267	390,053	1,054,886	(162,723)	8,701	83,976
Morgan County	262,779	0.1532870	671,596	1,816,312	(280,178)	14,981	144,590
Moroni City	16,043	0.0093583	41,002	110,887	(17,105)	915	8,827
Mount Pleasant City	107,098	0.0624737	273,716	740,257	(114,189)	6,106	58,929
Mountain Regional Water SSD	298,037	0.1738540	761,707	2,060,012	(317,770)	16,991	163,990
Mountainland Assn of Govt	388,847	0.2268262	993,794	2,687,684	(414,593)	22,168	213,957
Mt Olympus Improvement Dist	290,401	0.1693994	742,190	2,007,229	(309,628)	16,556	159,788
Murray City	2,385,422	1.3914877	6,096,525	16,487,865	(2,543,359)	135,991	1,312,540
Myton City	21,228	0.0123826	54,252	146,723	(22,633)	1,210	11,680
N Tooele Co Fire Protection SD	627	0.0003655	1,601	4,331	(668)	36	345
N Ut Environmental Rsrc Agcy	56,349	0.0328700	144,013	389,480	(60,080)	3,212	31,005
Nebo Credit Union	132,493	0.0772871	338,618	915,782	(141,265)	7,553	72,902
Nephi City	271,855	0.1585813	694,792	1,879,044	(289,855)	15,498	149,584
Nibley City Corporation	100,763	0.0587781	257,524	696,467	(107,435)	5,744	55,443
North Davis Co Sewer Dist	466,030	0.2718489	1,191,052	3,221,162	(496,885)	26,568	256,425
North Davis Fire District	10,504	0.0061272	26,845	72,602	(11,199)	599	5,780
North Emery Water Users SSD North Fork SSD North Logan City North Ogden City North Park Police Agency	4,448	0.0025944	11,367	30,741	(4,742)	254	2,447
	17,510	0.0102142	44,751	121,029	(18,669)	998	9,635
	154,402	0.0900675	394,613	1,067,218	(164,625)	8,802	84,957
	285,285	0.1664153	729,115	1,971,870	(304,174)	16,264	156,974
	14,872	0.0086751	38,008	102,792	(15,856)	848	8,183
North Pointe Solid Waste	178,246	0.1039762	455,551	1,232,024	(190,048)	10,162	98,077
North View Fire District	8,502	0.0049592	21,728	58,762	(9,064)	485	4,678
Northeastern Counseling Ctr	365,652	0.2132958	934,513	2,527,361	(389,862)	20,846	201,194
Ogden City Corp	2,380,440	1.3885814	6,083,792	16,453,428	(2,538,046)	135,707	1,309,799
Oquirrh Rec And Parks District	169,750	0.0990203	433,838	1,173,301	(180,989)	9,677	93,402
Orangeville City	19,218	0.0112105	49,117	132,834	(20,491)	1,096	10,574
Orderville Town	14,580	0.0085051	37,263	100,778	(15,546)	831	8,023
Panguitch City Corporation	39,950	0.0233040	102,102	276,131	(42,595)	2,278	21,982
Park City	2,021,766	1.1793561	5,167,113	13,974,298	(2,155,625)	115,259	1,112,444
Park City Fire Service	69,450	0.0405122	177,496	480,033	(74,048)	3,959	38,214
Parowan City	177,214	0.1033744	452,914	1,224,893	(188,948)	10,103	97,509
Payson City	739,269	0.4312374	1,889,380	5,109,771	(788,215)	42,145	406,771
Perry City	67,911	0.0396145	173,563	469,396	(72,407)	3,872	37,367
Piute County	88,236	0.0514704	225,507	609,877	(94,078)	5,030	48,550
Plain City	55,703	0.0324933	142,363	385,016	(59,391)	3,176	30,650
Pleasant Grove City	551,829	0.3218981	1,410,332	3,814,200	(588,365)	31,459	303,635
Pleasant View City	131,750	0.0768539	336,720	910,649	(140,473)	7,511	72,494
Price City	449,306	0.2620933	1,148,309	3,105,567	(479,054)	25,615	247,223
Price River Water Improve	252,077	0.1470439	644,243	1,742,337	(268,767)	14,371	138,701
Providence City	83,784	0.0488737	214,130	579,109	(89,331)	4,776	46,101
Provo City Corp	3,645,882	2.1267511	9,317,934	25,200,068	(3,887,272)	207,849	2,006,088
Provo Housing Authority	113,491	0.0662027	290,054	784,442	(121,005)	6,470	62,447
Provo River Water Users	157,015	0.0915917	401,291	1,085,278	(167,411)	8,951	86,395
Recreation & Habilitation Srvs	9,152	0.0053384	23,389	63,255	(9,758)	522	5,036
Redmond Town	16,949	0.0098868	43,317	117,150	(18,071)	966	9,326

										,	
	Changes in Proportion and	·		Net		Changes in Proportion and	_		let Amortization of Deferred Amounts from Changes in Proportion and		Total
	Differences Between			Difference Between		Differences Between			Differences Between		Employer Net Pension
	Employer			Projected		Employer		Proportionate	Employer		Expense
	Contributions	Total	Differences	and Actual		Contributions	Total	Share of	Contributions	Dranartianata	Excluding That
	and Proportionate	Total Deferred	Between Expected	Investment Earnings on		and Proportionate	Total Deferred	Allocable Plan Gross	and Proportionate	Proportionate Share of	Attributable to Employer-Paid
Changes of Assumptions	Share of Contributions	Outflows of Resources	and Actual Experience	Pension Plan Investments	Changes of Assumptions	Share of Contributions	Inflows of Resources	Pension Expense	Share of Contributions	Nonemployer Contributions	Member Contributions
· .			•		•					Continuations	
101,770 108,168	36,431 12,992	205,520 192,710	17,339 18,429	160,172 170,240	6,620 7,036	6,683	184,131 202,388	100,892 107,234	14,364 5,669	_	115,256 112,903
43,748	7,923	80,609	7,454	68,852	2,846	0,003 —	79,152	43,370	3,274	_	46,644
185,985	9,940	318,950	31,687	292,714	12,098	12,773	349,272	184,379	190		184,569
638,522	_	1,060,890	108,789	1,004,943	41,533	92,762	1,248,027	633,011	(41,707)	_	591,304
15,454	34,963	60,640	2,633	24,323	1,005		27,961	15,321	11,860		27,181
27,231	3,411	48,655	4,640	42,858	1,771	4,527	53,796	26,996	13	_	27,009
24,729	6,642	47,729	4,213	38,920	1,609	1,439	46,181	24,516	2,115	_	26,631
77,954	13,103	142,622	13,281	122,688	5,071	_	141,040	77,281	5,386	_	82,667
140,105	19,486	252,268	23,871	220,506	9,113		253,490	138,896	7,184		146,080
241,234	3,596	404,401	41,101	379,669	15,691	15,290	451,751	239,152	(6,218)	_	232,934
14,728	2,301	26,771	2,509	23,179	958	4,942	31,588	14,600	(1,107)		13,493
98,318	22,682	186,035	16,751	154,738	6,395 17,707	706	178,590	97,469	10,063	_	107,532
273,601 356,966	16,435 34,800	471,017 627,891	46,615 60,819	430,610 561,814	17,797 23,219	3,086	498,108 645,852	271,240 353,885	8,218 13,065	_	279,458 366,950
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266,591 2,189,843	16,998 26,458	459,933 3,664,832	45,421 373,097	419,577 3,446,504	17,341 142,441	40,691 156,239	523,030 4,118,281	264,290 2,170,942	(10,024) (42,041)	_	254,266 2,128,901
19,487	13,914	46,291	3,320	30,670	1,268	2,320	37,578	19,319	3,800	_	23,119
575	1,301	2,257	98	905	37	2,320	1,040	570	441		1,011
51,729	117,028	202,974	8,813	81,414	3,365	_	93,592	51,282	39,698	_	90,980
121,630	18,123	220,208	20,723	191,428	7,912	10,587	230,650	120,580	492		121,072
249,566	8,301	422,949	42,520	392,782	16,233	26,227	477,762	247,412	(12,223)	_	235,189
92,502	16,287	169,976	15,760	145,584	6,017	_	167,361	91,703	8,806	_	100,509
427,820	6,593	717,406	72,890	673,329	27,828	38,203	812,250	424,128	(11,582)	_	412,546
9,643	1,090	17,112	1,643	15,176	627	579	18,025	9,559	56		9,615
4,083	20	6,804	696	6,426	266	9,525	16,913	4,048	(3,221)	_	827
16,075	635	27,343	2,739	25,299	1,046	15,155	44,239	15,936	(6,546)	_	9,390
141,743 261,895	10,147	245,649	24,150	223,084	9,220	84,189	340,643	140,520	(25,706)	_	114,814
13,652	18,843 24,366	453,976 47,049	44,621 2,326	412,185 21,487	17,035 888	14,561	488,402 24,701	259,634 13,535	(1,122) 9,320	_	258,512 22,855
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163,632 7,805	18,667 563	290,538 13,531	27,879 1,330	257,533 12,283	10,644 508	6,845 97	302,901 14,218	162,219 7,737	2,845 175	_	165,064 7,912
335,673	3,995	561,708	57,191	528,301	21,834	43,120	650,446	332,775	(19,914)	_	312,861
2,185,270	139,228	3,770,004	372,318	3,439,306	142,143	46,878	4,000,645	2,166,408	50,496	_	2,216,904
155,832	40,115	299,026	26,550	245,258	10,136	1,566	283,510	154,487	12,649	_	167,136
17,642	1,389	30,701	3,006	27,767	1,148	_	31,921	17,490	590	_	18,080
13,385	1,746	23,985	2,280	21,066	871		24,217	13,269	625	_	13,894
36,674	11,827	72,761	6,248	57,720	2,386	9,631	75,985	36,358	(1,506)	_	34,852
1,856,003	336,650	3,420,356	316,219	2,921,086	120,726	147,284	3,505,315	1,839,983	75,346		1,915,329
63,756	13,143	119,072	10,862	100,343	4,147	8,004	123,356	63,205	3,090	<del>-</del>	66,295
162,685	6,124	276,421	27,718	256,043	10,582	27,501	321,844	161,281	(7,193)	_	154,088
678,657	26,737	1,154,310 109,739	115,627	1,068,110	44,144	47,811	1,275,692 117,618	672,799	(2,278)	_	670,521
62,343 81,001	6,157 8,330	142,911	10,622 13,801	98,119 127,484	4,055 5,269	4,822 23,178	169,732	61,805 80,302	2,130 (10,353)	_	63,935 69,949
51,136	28,161	113,123	8,712	80,481	3,326	7,626	100,145	50,695	9,038	_	59,733
506,585	51,127	892,806	86,310	797,293	32,951	26,192	942,746	502,212	14,258		516,470
120,948	16,177	217,130	20,607	190,355	7,867	4,234	223,063	119,904	8,238	_	128,142
412,467		685,305	70,275	649,165	26,829	90,439	836,708	408,907	(36,999)	_	371,908
231,409	_	384,481	39,427	364,205	15,052	38,276	456,960	229,412	(15,726)	_	213,686
76,915		127,792	13,104	121,053	5,003	16,047	155,207	76,251	(6,960)		69,291
3,346,959	_	5,560,896	570,242	5,267,640	217,707	315,894	6,371,483	3,318,070	(125,553)	_	3,192,517
104,186	440	173,103	17,751	163,974	6,777	22,249	210,751	103,287	(9,341)	_	93,946
144,142	449	239,937	24,558	226,859	9,376	12,624	273,417	142,898	(4,890)	_	138,008
8,401 15,559	899 1,604	14,858 27,455	1,431 2,651	13,222 24,488	546 1,012	2,895 285	18,094 28,436	8,329 15,425	(569) 558	_	7,760 15,983
7,00	1,004	رر۴٫۱	2,001	24,400	1,012	203	20,70	13,423	220		13,703

### Schedule of Employer Allocations and Pension Amounts (Continued)

		Employer	Net Pension	Net Pension Liability/(Asset)	Net Pension Liability/(Asset)	Differences Between Expected	Net Difference Between Projected and Actual Investment Earnings on
Participating Employer	Employer Contributions	Allocation Percentage	Liability/(Asset) (6.95% Discount)	1.00% Decrease (5.95%)	1.00% Increase (7.95%)	and Actual Experience	Pension Plan Investments
Rich County	\$ 96,381	0.0562216%	\$ 246,324	666,175	(102,762)	5,495	53,032
Richfield City	201,850	0.1177453	515,877	1,395,175	(215,215)	11,507	111,065
Richmond City Riverdale City	37,441 327,270	0.0218402 0.1909065	95,688 836,419	258,787 2,262,069	(39,919) (348,939)	2,134 18,657	20,601 180,075
Roosevelt City	227,293	0.1325866	580,902	1,571,031	(242,342)	12,958	125,064
Roosevelt City Housing	7,026	0.0040985	17,957	48,564	(7,491)	401	3,866
Roy City	603,535	0.3520598	1,542,480	4,171,589	(643,494)	34,407	332,085
Roy Water Conserv Dist	77,546	0.0452349 0.0877801	198,188	535,992	(82,680)	4,421	42,668
S Utah Valley Electric Svc Dst S Utah Valley Solid Waste	150,481 141,351	0.0824540	384,591 361,256	1,040,114 977,005	(160,444) (150,709)	8,579 8,058	82,800 77,776
Salem City	290,969	0.1697310	743,642	2,011,158	(310,234)	16,588	160,101
Salina City	53,643	0.0312914	137,097	370,775	(57,194)	3,058	29,516
Salt Lake City Corp	17,418,367	10.1606511	44,516,859	120,394,484	(18,571,619)	993,006	9,584,178
Salt Lake City Public Library Salt Lake Co Serv Area 3	812,245 30,640	0.4738069	2,075,890	5,614,181	(866,023) (32,669)	46,305	446,925
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Salt Lake County San Juan County	23,243,992 732,059	13.5589116 0.4270319	59,405,660 1,870,955	160,660,771 5,059,940	(24,782,956) (780,528)	1,325,110 41,734	12,789,642 402,804
San Juan Mental Health	138,604	0.4270319	354,236	958,022	(147,781)	7,902	76,265
Sandy City	2,566,741	1.4972565	6,559,930	17,741,129	(2,736,683)	146,328	1,412,308
Sandy Suburban Imp Dist	198,415	0.1157411	507,096	1,371,427	(211,551)	11,311	109,174
Sanpete County	350,920	0.2047020	896,861	2,425,533	(374,154)	20,006	193,088
Santaquin City	209,749	0.1223531	536,066	1,449,773	(223,637)	11,958	115,411
Seven County Infrastructure	2,463	0.0014365	6,294	17,021	(2,626)	140	1,355
Sevier County Six-County Assoc of Govt	392,084 160,568	0.2287140 0.0936643	1,002,065 410,371	2,710,053 1,109,837	(418,043) (171,199)	22,352 9,154	215,738 88,350
SIc Mosquito Abatement	78,575	0.0458354	200,819	543,108	(83,778)	4,480	43,235
Smithfield City Corp	213,081	0.1242967	544,581	1,472,803	(227,189)	12,148	117,245
Snyder Basin Special Rec Dist	155,127	0.0904905	396,466	1,072,230	(165,398)	8,844	85,356
Snyderville Basin W R D	517,849	0.3020769	1,323,489	3,579,337	(552,136)	29,522	284,938
So Davis Metro Fire Agency	18,839	0.0109894	48,148	130,214	(20,086)	1,074	10,366
So Davis Recreation Center So SI Valley Mosq Abate	82,140 36,292	0.0479149 0.0211704	209,930 92,754	567,748 250,850	(87,579) (38,695)	4,683 2,069	45,196 19,969
So Utah Valley Animal Svcs SSD	15,168	0.0211704	38,765	104,840	(16,172)	865	8,346
So Utah Valley Power Systems	17,167	0.0100138	43,873	118,654	(18,303)	979	9,446
Solid Waste SSD #1	24,496	0.0142891	62,605	169,313	(26,118)	1,396	13,478
South Davis Sewer Dist	313,330	0.1827746	800,790	2,165,713	(334,075)	17,863	172,405
South Davis Water Dist	64,545	0.0376509	164,960	446,129	(68,818)	3,680	35,515
South Ogden City South Ogden Conserv Dist	321,377 210,565	0.1874685 0.1228287	821,356 538,149	2,221,331 1,455,408	(342,655) (224,506)	18,321 12,004	176,832 115,860
South Valley Sewer District	512,838	0.2991534	1,310,681	3,544,696	(546,792)	29,236	282,181
South Valley Water Reclamation	474,352	0.2767033	1,212,320	3,278,683	(505,758)	27,042	261,004
South Weber City	80,432	0.0469185	205,564	555,942	(85,758)	4,585	44,257
Southeastern Utah AOG	127,295	0.0742547	325,332	879,851	(135,723)	7,257	70,042
Southeastern Utah Health Spanish Fork City	150,315 1,428,972	0.0876831 0.8335616	384,166 3,652,083	1,038,965 9,876,948	(160,267) (1,523,582)	8,569 81,464	82,708 786,269
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Spring City Springville City	31,395 1,294,682	0.0183135 0.7552263	80,237 3,308,873	216,998 8,948,745	(33,473) (1,380,401)	1,790 73,809	17,274 712,378
St George Housing Auth	1,294,062 26,551	0.7552265	67,858	183,521	(1,380,401)	1,514	14,609
Summit County	1,901,198	1.1090256	4,858,974	13,140,946	(2,027,075)	108,386	1,046,104
Sunset City	79,610	0.0464390	203,463	550,260	(84,881)	4,539	43,804
Sw Behavioral Health Center	1,051,292	0.6132501	2,686,833	7,266,457	(1,120,897)	59,933	578,457
Sw Mosquito Abatement/Control	22,300	0.0130082	56,993	154,135	(23,776)	1,271	12,270
Sw Ut Public Health Dept	365,839	0.2134048	934,990	2,528,653	(390,061)	20,856	201,297
Syracuse City Corp Taylor West Weber Wtr Imp Dist	339,748 26,964	0.1981849 0.0157292	868,307 68,914	2,348,311 186,377	(362,242) (28,750)	19,369 1,537	186,941 14,837
iayidi west webei wili iliip dist	20,904	0.013/292	08,914	180,3//	(28,750)	1,53/	14,837

Pension Expense Excluding That Attributable to Employer-Paid Member Contributions

Deferred Outflo	ws of Resources	Deferred Inflows of Resources
Deienieu Guine	as or nesources	Deserted minority of mesources

								N	let Amortization of Deferred		
Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
88,478	151,259	298,264	15,075	139,252	5,755	_	160,082	87,715	59,222	_	146,937
185,301	10,747	318,620	31,571	291,637	12,053	9,189	344,450	183,701	(1,966)	_	181,735
34,371 300,438	4,258 11,824	61,364 510,994	5,856 51,187	54,095 472,846	2,236 19,542	22,739 4,882	84,926 548,457	34,074 297,845	(5,315) 2,676	_	28,759 300,521
208,657	22,161	368,840	35,550	328,397	13,572	46,797	424,316	206,856	(5,629)		201,227
6,450	_	10,717	1,099	10,151	420	661	12,331	6,394	(296)	_	6,098
554,052 71,188	65,277 7,779	985,821	94,397	871,999	36,039	60,520 3,979	1,062,955 132,779	549,269 70,574	214	_	549,483
138,143	29,424	126,056 258,946	12,129 23,536	112,040 217,418	4,631 8,986	2,103	252,043	136,951	1,832 12,262	_	72,406 149,213
129,761	_	215,595	22,108	204,226	8,440	148,819	383,593	128,641	(52,276)	_	76,365
267,113	54,347	498,149	45,510	420,398	17,375	_	483,283	264,807	21,511	_	286,318
49,245	1,113	82,932	8,390	77,504	3,203	26,457	115,554	48,820	(9,821)	_	38,999
15,990,249 745,650	153,361 32,507	26,720,794 1,271,387	2,724,358 127,041	25,166,392 1,173,548	1,040,103 48,502	1,305,176 54,653	30,236,029 1,403,744	15,852,232 739,214	(360,464) (6,291)	_	15,491,768 732,923
28,128	815	47,549	4,792	44,269	1,830	1,827	52,718	27,885	(264)	_	27,621
21,338,241	177,386	35,630,379	3,635,529	33,583,371	1,387,969	1,714,944	40,321,813	21,154,068	(782,538)	-	20,371,530
672,038	32,120	1,148,696	114,499	1,057,693	43,713	23,673	1,239,578	666,238	9,314	_	675,552
127,240 2,356,296	29,912 130,809	241,319 4,045,741	21,679 401,457	200,258 3,708,477	8,276 153,268	12,205 227,080	242,418 4,490,282	126,142 2,335,958	10,774 (26,546)	_	136,916 2,309,412
182,147	1,651	304,283	31,033	286,673	11,848	25,740	355,294	180,575	(9,555)	_	171,020
322,148	4,731	539,973	54,886	507,016	20,954	17,341	600,197	319,368	(6,964)		312,404
192,552	14,795	334,716	32,806	303,050	12,525	785	349,166	190,890	8,063	_	198,953
2,261 359,937	33,691 6,496	37,447 604,523	385 61,325	3,558 566,490	147 23,412	62,665 221,188	66,755 872,415	2,241 356,830	(1,871) (83,395)	_	370 273,435
147,403		244,907	25,114	231,992	9,588	48,505	315,199	146,131	(23,327)	_	122,804
72,133	5,048	124,896	12,290	113,527	4,692	11,768	142,277	71,511	(1,425)	_	70,086
195,611	4,167	329,171	33,327	307,864	12,724	31,969	385,884	193,923	(10,174)	_	183,749
142,409 475,391	226,103 75,857	462,712 865,708	24,263 80,995	224,131 748,199	9,263 30,922	11,809	257,657 871,925	141,180 471,288	92,242 24,691	_	233,422 495,979
17,294	3,383	32,117	2,947	27,219	1,125		31,291	17,145	1,207	_	18,352
75,406		125,285	12,847	118,678	4,905	11,678	148,108	74,755	(4,635)		70,120
33,317	1,556	56,911	5,676	52,436	2,167	288	60,567	33,029	553	_	33,582
13,924 15,759	6,583 789	29,718 26,973	2,372 2,685	21,915 24,803	906 1,025	964 96	26,157 28,609	13,804 15,623	2,520 237	_	16,324 15,860
22,487	1,362	38,723	3,831	35,392	1,463	25,407	66,093	22,293	(7,965)	_	14,328
287,640	27,106	505,014	49,007	452,705	18,710	15,064	535,486	285,157	8,075	_	293,232
59,253 295,027	1,526 13,356	99,974 503,536	10,095 50,266	93,256 464,331	3,854 19,190	381 11,576	107,586 545,363	58,741 292,481	792 2,832	_	59,533 295,313
193,301		321,165	32,934	304,228	12,573	71,481	421,216	191,632	(33,039)	_	158,593
470,790	39,565	821,772	80,211	740,958	30,623	<u>'</u>	851,792	466,727	16,671	_	483,398
435,460	18,339	741,845	74,192	685,352	28,325	21,535	809,404	431,701	3,309	-	435,010
73,838	13,784	136,464	12,580	116,210	4,803 7,601	29,660	163,253	73,200	(2,925)	_	70,275
116,858 137,991	14,489	208,646 229,268	19,910 23,510	183,918 217,178	7,601 8,976	44,825 116,517	256,254 366,181	115,849 136,800	(19,585) (51,104)	_	96,264 85,696
1,311,811	170,920	2,350,464	223,501	2,064,606	85,328	· · · ·	2,373,435	1,300,489	70,307		1,370,796
28,821	44,421	92,306	4,910	45,360	1,875	_	52,145	28,572	18,431	_	47,003
1,188,532	2 072	1,974,719	202,498	1,870,581	77,309	224,851	2,375,239	1,178,273	(83,067)	_	1,095,206
24,374 1,745,321	2,873 72,124	43,370 2,971,935	4,153 297,361	38,362 2,746,888	1,585 113,526	1,111 152,844	45,211 3,310,619	24,164 1,730,256	573 (7,623)	_	24,737 1,722,633
73,083	4,581	126,007	12,452	115,022	4,754	16,449	148,677	72,452	(2,831)		69,621
965,098	31,676	1,635,164	164,430	1,518,928	62,776	28,328	1,774,462	956,768	826	_	957,594
20,472	5,966	39,979	3,488 57,220	32,219	1,332		37,039 672,057	20,295	2,600	_	22,895
335,844 311,892	16,203	557,997 534,405	57,220 53,139	528,571 490,874	21,845 20,287	64,421 19,186	672,057 583,486	332,945 309,200	(31,731) (4,888)	_	301,214 304,312
24,754	9,080	50,208	4,217	38,959	1,610	_	44,786	24,540	3,483	_	28,023

Schedule of Employer Allocations and Pension Amounts (Continued)

	Employer	Employer Allocation	Net Pension Liability/(Asset)	Net Pension Liability/(Asset) 1.00% Decrease	Net Pension Liability/(Asset) 1.00% Increase	Differences Between Expected and Actual	Net Difference Between Projected and Actual Investment Earnings on Pension Plan
Participating Employer Taylorsville-Bennion Imp Timberlakes Water SSD Timpanogos SSD Tooele City	\$ 372,267 35,492 362,343 637,864	0.2171544% 0.0207034 0.2113651 0.3720852	\$ 951,419 90,708 926,054 1,630,217	(5.95%) 2,573,082 245,316 2,504,484 4,408,872	(7.95%) (396,914) (37,842) (386,333) (680,097)	21,223 2,023 20,657 36,364	204,834 19,529 199,373 350,975
Tooele County Tooele County Housing Tooele Valley Mosquito Abtmnt Toquerville City Torrey Town Town of Alta	1,415,662	0.8257978	3,618,068	9,784,954	(1,509,392)	80,706	778,945
	45,417	0.0264934	116,076	313,923	(48,425)	2,589	24,990
	3,899	0.0022743	9,964	26,948	(4,157)	222	2,145
	15,052	0.0087803	38,469	104,039	(16,049)	858	8,282
	2,981	0.0017391	7,620	20,607	(3,179)	170	1,640
	79,886	0.0465996	204,167	552,163	(85,175)	4,554	43,956
Town of Apple Valley Town of Brian Head Town of Daniel Town of Garden City Town of Goshen	11,779	0.0068709	30,103	81,414	(12,559)	671	6,481
	85,313	0.0497653	218,037	589,674	(90,961)	4,864	46,942
	6,160	0.0035932	15,743	42,576	(6,568)	351	3,389
	38,063	0.0222032	97,279	263,088	(40,583)	2,170	20,943
	4,675	0.0027269	11,947	32,311	(4,984)	267	2,572
Town of Levan Town of Manila Town of Mantua Town of Randolph Town of Springdale	24,151	0.0140877	61,722	166,926	(25,749)	1,377	13,288
	4,762	0.0027779	12,171	32,916	(5,077)	271	2,620
	14,342	0.0083660	36,654	99,129	(15,291)	818	7,891
	9,499	0.0055409	24,276	65,655	(10,128)	542	5,227
	114,447	0.0667606	292,498	791,052	(122,025)	6,525	62,973
Trans-Jordan Cities Tremonton City Tridell-Lapoint Water Uintah Animal Control/Shelter Uintah Basin Assn of Govt	271,426	0.1583309	693,695	1,876,077	(289,397)	15,474	149,348
	222,309	0.1296792	568,163	1,536,581	(237,027)	12,674	122,322
	7,646	0.0044603	19,542	52,851	(8,153)	436	4,207
	42,895	0.0250220	109,629	296,488	(45,735)	2,445	23,602
	166,339	0.0970304	425,119	1,149,722	(177,352)	9,483	91,525
Uintah Basin Asst Council Uintah Co Care Center SSD Uintah County Uintah Fire Suppression SSD Uintah Highlands Improv Dist	5,329	0.0031086	13,620	36,834	(5,682)	304	2,932
	397,065	0.2316196	1,014,795	2,744,482	(423,354)	22,636	218,478
	1,404,582	0.8193346	3,589,751	9,708,371	(1,497,578)	80,074	772,849
	5,286	0.0030833	13,509	36,534	(5,636)	301	2,908
	13,439	0.0078396	34,348	92,892	(14,329)	766	7,395
Uintah Mosquito Abate District	31,464	0.0183538	80,414	217,476	(33,547)	1,794	17,312
Uintah Recreation District	182,811	0.1066393	467,219	1,263,579	(194,915)	10,422	100,589
Uintah Transportation SSD	31,899	0.0186078	81,526	220,486	(34,011)	1,819	17,552
Uintah Water Conserv Dist	88,607	0.0516871	226,457	612,445	(94,474)	5,051	48,755
Unified Fire Authority	482,735	0.2815938	1,233,747	3,336,631	(514,697)	27,520	265,617
Unified Police Department	1,060,152	0.6184180	2,709,475	7,327,691	(1,130,343)	60,438	583,332
Upper Country Water Dist	19,793	0.0115458	50,586	136,807	(21,103)	1,128	10,891
Ut Municipal Power Agency	257,521	0.1502198	658,158	1,779,968	(274,571)	14,681	141,697
Ut Public Employees Assn	38,055	0.0221986	97,259	263,033	(40,575)	2,169	20,939
Utah Assn of Counties	100,442	0.0585908	256,704	694,248	(107,092)	5,726	55,267
Utah Co Housing Authority	159,319	0.0929354	407,178	1,101,200	(169,867)	9,083	87,663
Utah Counties Indemnity Pool	66,509	0.0387967	169,980	459,706	(70,913)	3,792	36,596
Utah County	5,338,289	3.1139825	13,643,291	36,897,863	(5,691,731)	304,331	2,937,308
Utah Lake Commission	2,340	0.0013650	5,980	16,174	(2,495)	133	1,288
Utah Local Governments Trust	240,696	0.1404052	615,157	1,663,674	(256,632)	13,722	132,439
Utah Valley Dispatch SSD	269,037	0.1569371	687,588	1,859,562	(286,849)	15,338	148,033
Utah Zoological Society	790,200	0.4609469	2,019,547	5,461,802	(842,518)	45,049	434,795
UTOPIA	403,489	0.2353673	1,031,215	2,788,889	(430,204)	23,003	222,014
Valley Emergency Comm Ctr	710,910	0.4146947	1,816,902	4,913,755	(757,978)	40,528	391,167
Vernal City	370,511	0.2161302	946,931	2,560,947	(395,042)	21,123	203,868
Vineyard Town	122,755	0.0716065	313,730	848,472	(130,882)	6,998	67,544
Wasatch County	1,309,385	0.7638032	3,346,451	9,050,374	(1,396,078)	74,647	720,468
Wasatch County Fire District	14,831	0.0086513	37,904	102,510	(15,813)	845	8,160
Wasatch Front Regional Council	318,041	0.1855225	812,830	2,198,273	(339,098)	18,131	174,997
Wasatch Front Waste/Recycling	518,870	0.3026723	1,326,098	3,586,392	(553,224)	29,580	285,500

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	Changes in Proportion and Differences Between Employer Contributions Aroportionate	Total Deferred	Differences Between Expected	Net Difference Between Projected and Actual Investment Earnings on		Changes in Proportion and Differences Between Employer Contributions and Proportionate	Total Deferred		let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate	Proportionate Share of	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid
Changes of Assumptions	Share of	Outflows of Resources	and Actual Experience	Pension Plan Investments	Changes of Assumptions	Share of Contributions	Inflows of Resources	Pension Expense	Share of Contributions	Nonemployer Contributions	Member Contributions
341,745	27,888	595,690	58,225	537,859	22,229	_	618,313	338,795	10,338	_	349,133
32,582	2,763	56,897	5,551	51,279	2,119	1,228	60,177	32,301	815	_	33,116
332,634	24,975	577,639	56,673	523,519	21,637	13,763	615,592	329,763	10,424	_	340,187
585,566 1,299,593	101,014	972,905 2,260,258	99,767 221,420	921,599 2,045,376	38,089 84,533	87,061 56,904	1,146,516 2,408,233	580,512 1,288,376	(33,131) 28,651	_	547,381 1,317,027
41,694	2,776	72,049	7,104	65,620	2,712	156	75,592	41,334	910		42,244
3,579	879	6,825	610	5,633	233	4,676	11,152	3,548	(2,528)	_	1,020
13,818	31,261	54,219	2,354	21,747	899	_	25,000	13,699	10,604	_	24,303
2,737	1,484	6,031	466	4,307	178	933	5,884	2,713	(2)	_	2,711
73,336	7,937	129,783	12,495	115,420	4,770	7,537	140,222	72,703	981		73,684
10,813	13,978	31,943	1,842	17,018	703	2 265	19,563	10,720	6,969	_	17,689
78,318 5,655	98,717 10,066	228,841 19,461	13,343 963	123,261 8,900	5,094 368	2,265	143,963 10,231	77,642 5,606	49,970 3,999		127,612 9,605
34,942	9,912	67,967	5,953	54,994	2,273	9,284	72,504	34,641	(2,348)	_	32,293
4,291	1,953	9,083	731	6,754	279	4,004	11,768	4,254	(1,216)	_	3,038
22,170	2,384	39,219	3,777	34,893	1,442	44	40,156	21,979	1,403		23,382
4,372	8,521	15,784	745	6,880	284	_	7,909	4,334	3,112	_	7,446
13,166	1,931	23,806	2,243	20,721	856	2,492	26,312	13,052	(853)	_	12,199
8,720	369	14,858	1,486	13,724	567	320	16,097	8,645	25	_	8,670
105,064	8,790	183,352	17,900	165,356	6,834	3,105	193,195	104,157	2,965	-	107,122
249,172	73,126 8,249	487,120	42,453	392,162	16,208	48,204	499,027	247,021	16,248	_	263,269
204,082 7,019	6,249 575	347,327 12,237	34,771 1,196	321,196 11,047	13,275 457	9,649 266	378,891 12,966	202,320 6,959	(831) 206	_	201,489 7,165
39,378		65,425	6,709	61,976	2,561	27,943	99,189	39,038	(10,955)	_	28,083
152,701	_	253,709	26,017	240,330	9,933	42,751	319,031	151,383	(17,281)	_	134,102
4,892	783	8,911	834	7,700	318	13,071	21,923	4,850	(4,188)		662
364,510	15,031	620,655	62,104	573,687	23,710	119,188	778,689	361,363	(34,813)	_	326,550
1,289,422	1,882,358	4,024,703	219,687	2,029,368	83,872	242,701	2,575,628	1,278,292	802,234	_	2,080,526
4,852 12,338	6,684	8,061 27,183	827 2,102	7,637 19,418	316 803	3,728	12,508 22,323	4,810 12,231	(1,576) 2,353	_	3,234 14,584
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28,884 167,823	1,540	49,530 278,834	4,921 28,593	45,460 264,129	1,879 10,916	2,938 47,155	55,198 350,793	28,635 166,374	(828) (18,415)	_	27,807 147,959
29,284	37,000	85,655	4,989	46,089	1,905	21,401	74,384	29,031	4,186	_	33,217
81,342	7,491	142,639	13,859	128,021	5,291	11,265	158,436	80,640	587	_	81,227
443,156	92,102	828,395	75,503	697,465	28,826	8,912	810,706	439,331	36,345		475,676
973,231	59,892	1,676,893	165,815	1,531,728	63,305	51,965	1,812,813	964,830	(5,420)	_	959,410
18,170	540	30,729 392,785	3,096 40,278	28,597 372,072	1,182 15,377	788 27 228	33,663 454 055	18,013	(88)	_	17,925
236,407 34,935	1,151	592,785 59,194	40,278 5,952	372,072 54,983	15,377 2,272	27,228 10,496	454,955 73,703	234,367 34,633	(10,600) (5,320)	_	223,767 29,313
92,207	34,808	188,008	15,710	145,121	5,998	79,945	246,774	91,411	(8,557)	_	82,854
146,256		243,002	24,919	230,187	9,513	21,530	286,149	144,994	(10,012)		134,982
61,056	1,522	102,966	10,402	96,094	3,971	10,175	120,642	60,529	(3,148)	_	57,381
4,900,607	159,543	8,301,789	834,947	7,712,862	318,765	639,099	9,505,673	4,858,308	(146,458)	_	4,711,850
2,148	1,744	5,313	366	3,381	140	14,394	18,281	2,130	(7,682)	_	(5,552)
220,962	10,092	377,215	37,647	347,762	14,373	32,815	432,597	219,054	(14,103)	<del>-</del>	204,951
246,979 725,412	30,625	410,350 1,235,881	42,079 123,593	388,709 1,141,696	16,065 47,185	49,471 4,454	496,324 1,316,928	244,847 719,150	(23,401) 12,027	_	221,446 731,177
725,412 370,408	62,270	677,695	63,109	582,969	47,185 24,094	4,454 38,996	709,168	367,210	(316)	_	731,177 366,894
652,623		1,084,318	111,191	1,027,136	42,451	155,470	1,336,248	646,990	(65,156)	_	581,834
340,133	5,657	570,781	57,951	535,322	22,124	90,494	705,891	337,197	(29,035)	_	308,162
112,690	155,672	342,904	19,200	177,358	7,330	_	203,888	111,718	60,847	<del>-</del>	172,565
1,202,030	52,119	2,049,264	204,797	1,891,825	78,187	16,804	2,191,613	1,191,654	25,436	_	1,217,090
13,615	5,956 25,845	28,576	2,320	21,428	886 19 001	308	24,942 528 246	13,497	2,048 12,600	_	15,545 302 144
291,965 476,328	25,845 8,134	510,938 799,542	49,744 81,155	459,511 749,673	18,991 30,983	27,882	528,246 889,693	289,445 472,217	12,699 (11,900)	_	302,144 460,317
17 0/320	3,13 1	,	0.,155	, 0 . 3	55,703	2.,002	557,073	4,4.11	(.1/200)		.00/51/

### Schedule of Employer Allocations and Pension Amounts (Concluded)

at December 31, 2017

Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	
Wasatch Integrated Waste Mgmt	\$ 427,949	0.2496354%	\$ 1,093,728	2,957,953	(456,283)	24,397	235,472	
Wasatch Mental Health SSD	2,417,699	1.4103159	6,179,017	16,710,962	(2,577,773)	137,831	1,330,300	
Washington City	819,179	0.4778517	2,093,612	5,662,108	(873,416)	46,701	450,740	
Washington Co Solid Waste	99,985	0.0583239	255,534	691,085	(106,604)	5,700	55,015	
Washington Co Wat Con Dist	331,881	0.1935961	848,203	2,293,938	(353,855)	18,920	182,612	
Washington County	1,789,059	1.0436110	4,572,373	12,365,842	(1,907,510)	101,993	984,401	
Waste Management Serv Dist #5	26,058	0.0152006	66,598	180,113	(27,784)	1,486	14,338	
Wayne County	103,631	0.0604508	264,853	716,287	(110,492)	5,908	57,021	
Weber Area Dispatch 911	502,786	0.2932901	1,284,992	3,475,221	(536,075)	28,663	276,650	
Weber Basin Water Conserv	941,024	0.5489272	2,405,015	6,504,289	(1,003,328)	53,647	517,783	
Weber Co Mosquito Abate	88,571	0.0516662	226,365	612,198	(94,435)	5,049	48,735	
Weber County Corp	3,631,971	2.1186366	9,282,382	25,103,919	(3,872,440)	207,056	1,998,434	
Weber Fire District	21,719	0.0126694	55,508	150,121	(23,157)	1,238	11,951	
Weber Human Services	1,769,873	1.0324192	4,523,338	12,233,230	(1,887,054)	100,899	973,844	
Wellington City	15,635	0.0091205	39,960	108,070	(16,670)	891	8,603	
Wellsville City Corp	62,474	0.0364427	159,666	431,813	(66,610)	3,562	34,375	
West Bountiful City	110,834	0.0646525	283,262	766,073	(118,172)	6,319	60,984	
West Kane County SSD #1	33,080	0.0192966	84,544	228,647	(35,270)	1,886	18,202	
West Point City	127,615	0.0744414	326,150	882,063	(136,064)	7,275	70,218	
West Valley City	2,851,524	1.6633788	7,287,761	19,709,528	(3,040,321)	162,563	1,569,006	
White City Water Imp Dist	77,822	0.0453959	198,893	537,900	(82,975)	4,437	42,820	
Willard City Corp	42,823	0.0249802	109,446	295,993	(45,659)	2,441	23,563	
Woods Cross City	153,718	0.0896683	392,864	1,062,488	(163,896)	8,763	84,581	
Grand Total	\$171,429,638	100.0000000%	\$ 438,129,988	1,184,909,145	(182,779,814)	9,773,059	94,326,413	
No Proportionate Share for 2017 Canyonlands Health Care Sunnyside City Valley Mental Health Summit Mosquito Abatement Dist	\$ _ _ _	0.0000000% 0.0000000 0.0000000 0.0000000	\$  	_ _ _ _	_ _ _ _	_ _ _ _	_ _ _ _	
Grand Total	\$171,429,638	100.0000000%	\$ 438,129,988	1,184,909,145	(182,779,814)	9,773,059	94,326,413	

Columns may not add to total due to rounding.

Pension Expense Excluding That Attributable to Employer-Paid Member Contributions

<b>Deferred Outflows of Resources</b>	Deferred Inflows of Resource

Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
392,862	_	652,731	66,934	618,309	25,554	386,320	1,097,117	389,471	(139,546)	_	249,925
2,219,474	272,096	3,959,701	378,146	3,493,139	144,368	62,113	4,077,766	2,200,317	75,693	_	2,276,010
752,016	117,725	1,367,182	128,126	1,183,566	48,916	46,333	1,406,941	745,525	15,431	_	760,956
91,787	1,249	153,751	15,638	144,459	5,970	12,043	178,110	90,995	(3,796)	_	87,199
304,670	438,345	944,547	51,909	479,508	19,818	12,043	551,235	302,041	192,255		494,296
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1,642,375	_	2,728,769	279,822	2,584,866	106,830	200,311	3,171,829	1,628,199	(71,072)	_	1,557,127
23,922	1,833	41,579	4,076	37,650	1,556	39	43,321	23,715	671	_	24,386
95,134	_	158,063	16,209	149,727	6,188	33,158	205,282	94,313	(14,486)	_	79,827
461,563	25,452	792,328	78,639	726,435	30,023	37,867	872,964	457,579	607	_	458,186
863,870	123,495	1,558,795	147,183	1,359,609	56,191	<del>_</del>	1,562,983	856,414	55,368	<del>_</del>	911,782
81,309	2,233	137,326	13,853	127,969	5,289	33,484	180,595	80,607	(12,186)	_	68,421
3,334,189	352,171	5,891,850	568,066	5,247,542	216,876	365,938	6,398,422	3,305,410	(25,783)	_	3,279,627
19,938	38,048	71,175	3,397	31,380	1,297	<i>'</i> —	36,074	19,766	14,058	_	33,824
1,624,762	105,483	2,804,988	276,821	2,557,146	105,684	62,404	3,002,055	1,610,738	21,248	_	1,631,986
14,353	_	23,847	2,445	22,590	934	4,081	30,050	14,229	(2,259)	_	11,970
57,351	11,942	107,230	9,771	90,263	3,730	340	104,104	56,856	4,123		60,979
101,746	135,565	304,614	17,335	160,134	6,618		184,087	100,868	65,110	_	165,978
30,368	4,295	54,751	5,174	47,795	1,975	845	55,789	30,106	1,110	_	31,216
117,152	.,2.75	194,645	19,960	184,380	7,620	13,955	225,915	116,140	(5,035)	_	111,105
2,617,730	51,113	4,400,412	445,999	4,119,937	170,273	239,534	4,975,743	2,595,135	(79,257)	_	2,515,878
71,441	4,713	123,411	12,172	112,439	4,647	1,364	130,622	70,825	1,164		71,989
39,312	8,882	74,198	6,698	61,872	2,557	5,843	76,970	38,973	(233)	_	38,740
141,115	19,140	253,599	24,043	222,095	9,179	2,214	257,531	139,897	6,510	_	146,407
157,374,259	15,500,883	276,974,614	26,812,831	247,684,837	10,236,580	14,966,033	299,700,281	156,015,905	603,500	_	156,619,405
_	_	_	_	_	_	30,845	30,845	_	(19,111)	_	(19,111)
<u> </u>	_	_	_	_	_	1,498	1,498	_	(928)	_	(928)
_	_	_	_	_	_	3,985,459	3,985,459	_	(2,067,355)	_	(2,067,355)
_	_	_	_	_	_	13,769	13,769	_	(6,438)	_	(6,438)
157,374,259	15,500,883	276,974,614	26,812,831	247,684,837	10,236,580	18,997,604	303,731,852	156,015,905	(1,490,332)	_	154,525,573

### **Noncontributory Retirement System State and School Division**

# Schedule of Employer Allocations and Pension Amounts

and Pension Amoun							Net Difference Between	
at December 31, 2017  Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Projected and Actual Investment Earnings on Pension Plan Investments	
Active Re Entry Inc	\$ 68,763	0.0104014%	\$ 254,352	555,358	2,772	_	41,725	
Alpine School District	48,766,784	7.3766612	180,386,083	393,859,133	1,965,573	_	29,591,115	
Alpine Uniserv American Leadership Academy	17,987 913,172	0.0027208 0.1381302	66,533 3,377,784	145,271 7,375,131	725 36,806	_	10,914 554,103	
AMES Charter School	366,210	0.0553944	1,354,594	2,957,651	14,760	_	222,212	
Beaver School District	1,262,661	0.1909952	4,670,524	10,197,731	50,892	_	766,168	~~
Box Elder School District	8,518,526	1.2885468	31,509,636	68,798,866	343,344	_	5,168,942	
Bridgerland Technical College Cache School District	1,059,644 12,169,419	0.1602861 1.8407956	3,919,576 45,014,119	8,558,092 98,284,866	42,710 490,495	_	642,980	
Canyons School District	25,358,168	3.8357792	93,798,694	204,802,231	1,022,075	_	7,384,261 15,387,041	
Carbon School District	2,706,951	0.4094643	10,012,885	21,862,364	109,105		1,642,546	~~
Color Country Uniserv	17,519	0.0026501	64,805	141,496	706	_	10,631	
Daggett School District	334,402	0.0505830	1,236,938	2,700,758	13,478	_	202,911	
Davis School District Davis Technical College	50,590,431 824,759	7.6525134 0.1247564	187,131,668 3,050,746	408,587,600 6,661,069	2,039,076 33,242	_	30,697,683 500,454	
Davis Uniserv	12,693	0.0019200	46,951	102,514	512		7,702	~~
Dixie Applied Tech College	84,198	0.0013200	311,446	680,019	3,394	_	51,091	
Dixie State University	1,063,990	0.1609435	3,935,651	8,593,192	42,885	_	645,617	
Duchesne School District	3,534,151	0.5345900	13,072,662	28,543,151	142,446	_	2,144,482	
East Hollywood High School	193,689	0.0292982	716,447	1,564,307	7,807		117,528	~~
Educators Mutual Insurance	1,381,057	0.2089043	5,108,467	11,153,944	55,664	_	838,009	
Emery School District Fast Forward Charter HS	2,399,743 187,915	0.3629949 0.0284248	8,876,540 695,089	19,381,242 1,517,674	96,723 7,574	_	1,456,136 114,025	
Garfield School District	984,674	0.1489458	3,642,264	7,952,604	39,688		597,489	
Grand School District	1,504,492	0.2275755	5,565,045	12,150,848	60,639	_	912,908	
Granite School District	51,948,025	7.8578686	192,153,347	419,552,048	2,093,794	_	31,521,455	~~~
Granite Uniserv	56,773	0.0085877	210,000	458,520	2,288	_	34,449	
Heber Valley Historic Railroad High Desert Uniserv	52,172 8,575	0.0078917 0.0012971	192,981 31,719	421,358 69,256	2,103 346	_	31,657 5,203	
High School Activities Assn	117,268	0.0177385	433,771	947,105	4,727	_	71,157	
Intech Collegiate High School	117,432	0.0177632	434,375	948,423	4,733	_	71,256	~~
Iron School District	6,533,925	0.9883480	24,168,688	52,770,471	263,354	_	3,964,710	
Itineris High School Jordan School District	238,707 34,572,654	0.0361078 5.2295997	882,966 127,882,653	1,927,889 279,221,934	9,621 1,393,470	_	144,845 20,978,283	
Jordan Uniserv	42,444	0.0064202	156,997	342,791	1,711	_	25,754	
Juab School District	1,749,414	0.2646235	6,471,003	14,128,937	70,511		1,061,524	~~
Kane School District	1,221,596	0.1847836	4,518,628	9,866,077	49,237	_	741,250	
Liberty Academy Charter	76,837	0.0116227	284,217	620,566	3,097	_	46,624	
Logan School District Millard School District	4,075,160 3,101,610	0.6164252 0.4691621	15,073,829 11,472,713	32,912,545 25,049,785	164,252 125,012	_	2,472,760 1,882,021	
Monticello Academy	293,902	0.0444568	1,087,130	2,373,664	11,846	·····	178,336	~~
Morgan School District	1,596,946	0.2415605	5,907,029	12,897,544	64,366	_	969,008	
Mountainland Technical College	346,553	0.0524210	1,281,883	2,798,894	13,968	_	210,284	
Murray School District	4,884,044	0.7387803	18,065,854	39,445,402	196,854	_	2,963,581	
Nebo School District	22,862,043	3.4582051	84,565,640	184,642,567	921,467		13,872,421	~~
Noah Webster Academy Inc	183,870	0.0278129	680,126	1,485,003	7,411	_	111,570	
North Sanpete School Dist North Summit School District	1,970,469 1,065,181	0.2980612 0.1611236	7,288,676 3,940,056	15,914,263 8,602,808	79,421 42,933	_	1,195,658 646,339	
Nuames Charter School	465,727	0.0704477	1,722,701	3,761,386	18,771	_	282,598	
Ogden School District	9,715,260	1.4695695	35,936,297	78,464,139	391,579	_	5,895,106	~~~
Ogden Weber/Nea/Uea Uniserv	25,113	0.0037988	92,894	202,828	1,012	_	15,239	
Ogden-Weber Tech College	718,367	0.1086631	2,657,206	5,801,806	28,954	_	435,897	
Park City School District Piute School District	6,126,770 397,299	0.9267600 0.0600970	22,662,639 1,469,589	49,482,127 3,208,735	246,943 16,013	_	3,717,652 241,076	
Provo School District	10,798,617	1.6334426	39,943,588	87,213,750	435,244	_	6,552,475	
	• •				•			

	Deletted Outilot	ws or nesources				Deferred Inflo	vs or nesources		to Empio	yer ruid membe	er Contributions
								N	let Amortization of Deferred		
Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
64,222	4,575	110,522	14,733	105,360	1,933	5,542	127,568	62,488	512	_	63,000
45,546,212	4,978,389	80,115,716	10,448,948	74,720,920	1,371,019	_	86,540,887	44,316,136	2,025,858	_	46,341,994
16,799 852,867	156,832	27,713 1,563,802	3,854 195,660	27,560 1,399,172	506 25,673	32,841 71,715	64,761 1,692,220	16,346 829,833	(19,341) 26,907	_	(2,995) 856,740
342,025	72,210	636,447	78,465	561,110	10,296	5,293	655,164	332,788	23,983	_	356,771
1,179,274	16,327	1,961,769	270,542	1,934,661	35,498	108,886	2,349,587	1,147,426	(28,831)	_	1,118,595
7,955,961	761,547	13,886,450	1,825,210	13,052,165	239,488	250,898	15,367,761	7,741,092	120,536	_	7,861,628
989,665 11,365,747	106,271 1,882,330	1,738,916 20,632,338	227,043 2,607,464	1,623,597 18,646,097	29,791 342,129	144,409	2,024,840 21,595,690	962,937 11,058,790	20,211 782,626	_	983,148 11,841,416
23,683,508	397,790	39,468,339	5,433,333	38,854,021	712,914	722,085	45,722,353	23,043,882	(133,668)	_	22,910,214
2,528,183		4,170,729	580,001	4,147,615	76,103	332,120	5,135,839	2,459,904	(160,491)		2,299,413
16,363	40,165	67,159	3,754	26,844	493	3,584	34,675	15,921	13,281	_	29,202
312,318 47,249,425	75,096 4,201,984	590,325 82,149,092	71,650 10,839,690	512,374 77,515,129	9,401 1,422,289	21,384 799,609	614,809 90,576,717	303,883 45,973,350	14,090 1,083,179	_	317,973 47,056,529
770,292	150,108	1,420,854	176,716	1,263,704	23,187	_	1,463,607	749,488	71,410	_	820,898
11,855	191	19,748	2,720	19,448	357	29,000	51,525	11,535	(15,897)	<del>-</del>	(4,362)
78,638 993,724	77,505	207,234	18,041	129,010	2,367	356,677	149,418	76,514	32,316	_	108,830
3,300,755	67,312	1,639,341 5,512,549	227,974 757,240	1,630,256 5,415,059	29,913 99,358	199,359	2,244,820 6,471,016	966,886 3,211,611	(141,024) (27,501)	_	825,862 3,184,110
180,898	74,405	372,831	41,501	296,772	5,445	8,028	351,746	176,012	21,378	_	197,390
1,289,852	49,119	2,176,980	295,910	2,116,069	38,827	339,740	2,790,546	1,255,016	(120,250)	_	1,134,766
2,241,264 175,505	68,492	3,697,400 358,022	514,178 40,263	3,676,909 287,925	67,466 5,283	524,485	4,783,038 333,471	2,180,733 170,765	(249,635) 26,563	_	1,931,098 197,328
919,646	93,570	1,610,705	210,980	1,508,727	27,683	78,388	1,825,778	894,809	31,033	_	925,842
1,405,135	11,311	2,329,354	322,358	2,305,196	42,297	48,101	2,717,952	1,367,186	(15,771)	_	1,351,415
48,517,363	2,309,431	82,348,249	11,130,573	79,595,247	1,460,456	4,479,959	96,666,235	47,207,045	(1,566,636)	<del>-</del>	45,640,409
53,024 48,726	36,766 16,931	124,239 97,314	12,164 11,178	86,988 79,938	1,596 1,467	_	100,748 92,583	51,592 47,410	18,671 10,246	_	70,263 57,656
8,009	18,285	31,497	1,837	13,139	241	3,584	18,801	7,792	4,533	_	12,325
109,524	5,110	185,791	25,126	179,680	3,297	24,505	232,608	106,566	(5,699)	_	100,867
109,677	72,270	253,203	25,161	179,930	3,301		208,392	106,714	31,516	_	138,230
6,102,423 222,943	262,399 24,085	10,329,532 391,873	1,399,983 51,146	10,011,341 365,749	183,693 6,711	132,049 3,155	11,727,066 426,761	5,937,614 216,922	36,957 12,083	_	5,974,571 229,005
32,289,467	1,812,349	55,080,099	7,407,663	52,972,543	971,969	792,588	62,144,763	31,417,419	273,487	_	31,690,906
39,641	468	65,863	9,094	65,033	1,193	14,080	89,400	38,570	(4,569)		34,001
1,633,883	281,989	2,977,396	374,836	2,680,469	49,183	21.624	3,104,488	1,589,756	118,140	_	1,707,896
1,140,922 71,763	18,717 17,043	1,900,889 135,430	261,744 16,463	1,871,741 117,731	34,344 2,160	21,624 92,105	2,189,453 228,459	1,110,109 69,825	1,282 (37,151)	_	1,111,391 32,674
3,806,035	189,188	6,467,983	873,159	6,243,998	114,568	574,032	7,805,757	3,703,245	(89,956)	_	3,613,289
2,896,779	112,400	4,891,200	664,562	4,752,316	87,198	129,920	5,633,996	2,818,545	23,884		2,842,429
274,493	36,951	489,780	62,973	450,319	8,263	121,919	643,474	267,079	(30,595)	_	236,484
1,491,483 323,666	72,712 96,118	2,533,203 630,068	342,167 74,254	2,446,855 530,992	44,896 9,743	79,279 12,171	2,913,197 627,160	1,451,202 314,925	(24,912) 44,295	_	1,426,290 359,220
4,561,501	478,827	8,003,909	1,046,473	7,483,378	137,309	378,675	9,045,835	4,438,307	(18,263)	_	4,420,044
21,352,227	2,361,547	37,586,195	4,898,504	35,029,434	642,739		40,570,677	20,775,563	1,033,737		21,809,300
171,727	5,952	289,249	39,397	281,727	5,169	19,051	345,344	167,089	(3,429)	_	163,660
1,840,339 994,836	27,238 103,879	3,063,235 1,745,054	422,200 228,230	3,019,172 1,632,080	55,397 29,946	18,451 33,259	3,515,220 1,923,515	1,790,637 967,968	5,589 15,957	_	1,796,226 983,925
434,970	352,987	1,070,555	99,788	713,591	13,093	_	826,472	423,223	152,621	_	575,844
9,073,661	125,006	15,093,773	2,081,627	14,885,811	273,133	790,691	18,031,262	8,828,607	(247,831)		8,580,776
23,455 670,926	20,274	58,968 1,106,823	5,381 153,920	38,479 1,100,689	706 20,196	 381,235	44,566 1,656,040	22,822 652,806	7,777 (152,410)	_	30,599 500,396
5,722,156	602,115	10,041,923	1,312,744	9,387,494	20,196 172,247	381,233 299,206	1,656,040	5,567,617	110,643	_	5,678,260
371,061	1,993	614,130	85,127	608,745	11,170	72,499	777,541	361,040	(27,625)	_	333,415
10,085,474	946,061	17,584,010	2,313,751	16,545,742	303,590	472,724	19,635,807	9,813,093	65,083		9,878,176

### **Noncontributory Retirement System State and School Division**

# Schedule of Employer Allocations and Pension Amounts (Concluded)

at December 31, 2017

Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	
Rich School District	\$ 670,216	0.1013796%	\$ 2,479,098	5,412,921	27,013	_	406,679	
Salt Lake Arts Academy	256,817	0.0388471	949,952	2,074,148	10,351	_	155,833	
Salt Lake Community College	3,695,975	0.5590681	13,671,240	29,850,100	148,968	_	2,242,674	
Salt Lake School District San Juan School District	24,603,882 3,538,681	3.7216829 0.5352753	91,008,626 13,089,420	198,710,333 28,579,741	991,673 142,629	_	14,929,349 2,147,231	
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Sevier School District Snow College	3,810,763 888,796	0.5764315 0.1344429	14,095,838 3,287,616	30,777,177 7,178,256	153,595 35,823	_	2,312,327 539,311	
Soldier Hollow Charter School	136,713	0.0206798	505,696	1,104,148	5,510	_	82,956	
South Sanpete School Dist	2,784,013	0.4211211	10,297,936	22,484,751	112,211	_	1,689,307	
South Summit School District	1,436,527	0.2172948	5,313,645	11,601,935	57,900	_	871,667	
Southern Utah University	2,520,913	0.3813235	9,324,741	20,359,854	101,607	_	1,529,661	~~~~~
Southwest Educ Development Ctr	87,534	0.0132407	323,783	706,955	3,528	_	53,114	
Southwest Technical College	334,754	0.0506362	1,238,238	2,703,598	13,492	_	203,125	
Space Dynamics Lab / USU State of Utah	607,565	0.0919028	2,247,356	4,906,930	24,488	_	368,664	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	155,091,069	23.4597029	573,674,704	1,252,574,570	6,251,035	<del>-</del>	94,107,451	
Success Academy	192,523	0.0291218	712,133	1,554,889	7,760	_	116,821	
Summit Academy High School Summit Academy Inc	208,908 938,627	0.0316002 0.1419806	772,739 3,471,940	1,687,217 7,580,714	8,420 37,832	_	126,763 569,548	
Tintic School District	357,522	0.0540802	1,322,457	2,887,483	14,410	_	216,940	
Tooele School District	9,671,575	1.4629616	35,774,710	78,111,326	389,818	_	5,868,599	
Tooele Technical College	224,685	0.0339867	831,098	1,814,638	9,056		136,336	~~~~~~
Tuacahn High School	236,960	0.0358436	876,506	1,913,783	9,551	_	143,785	
Uintah Basin Technical College	595,883	0.0901357	2,204,144	4,812,580	24,017	_	361,575	
Uintah School District	5,048,046	0.7635878	18,672,487	40,769,939	203,464	_	3,063,095	
University of Utah	20,920,155	3.1644674	77,382,689	168,959,147	843,199		12,694,106	
University of Utah Hospital	8,376,290	1.2670315	30,983,509	67,650,108	337,611	_	5,082,635	
UT School Board Risk Mgmt	179,619	0.0271698	664,400	1,450,666	7,240	_	108,990	
Utah Co Academy of Sciences Utah Communications Authority	222,322 463,792	0.0336293 0.0701551	822,358 1,715,546	1,795,556 3,745,763	8,961 18,693	_	134,902 281,424	
Utah Dairy Council	104,436	0.0157975	386,306	843,470	4,209		63,371	
Utah Education Association	299,664	0.0453284	1,108,444	2,420,201	12,078		181,833	~~~~~~
Utah Housing Corporation	1,051,485	0.1590519	3,889,395	8,492,195	42,381	_	638,029	
Utah Retirement Systems	5,683,883	0.8597671	21,024,419	45,905,202	229,092	_	3,448,914	
Utah Safety Council	81,222	0.0122859	300,435	655,976	3,274	_	49,284	
Utah School Boards Association	154,651	0.0233931	572,046	1,249,018	6,233	_	93,840	
Utah School Employees Assn	72,877	0.0110236	269,567	588,579	2,937	_	44,221	
Utah State Fair Corp	106,994	0.0161844	395,767	864,127	4,312	_	64,923	
Utah State University	8,733,955	1.3211334	32,306,496	70,538,749	352,027	_	5,299,662	
Utah Valley University Wasatch School District	4,961,388 5,544,466	0.7504796 0.8386783	18,351,944 20,508,722	40,070,058 44,779,216	199,972 223,473	_	3,010,512 3,364,317	
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Washington School District	18,946	0.0028658	70,079 78 165 068	153,013	764 851 72 <i>4</i>	_	11,496	
Washington School District Wayne School District	21,131,669 470,379	3.1964618 0.0711514	78,165,068 1,739,909	170,667,412 3,798,958	851,724 18,959	_	12,822,450 285,420	
Weber County School District	24,903,327	3.7669782	92,116,260	201,128,766	1,003,743	_	15,111,049	
Weber State University	3,544,939	0.5362218	13,112,565	28,630,277	142,881	_	2,151,028	
Woodland Peaks Uniserv	29,504	0.0044628	109,132	238,281	1,189		17,902	~~~~~~
Workers Compensation Fund	6,415,956	0.9705035	23,732,326	51,817,707	258,599	_	3,893,127	
Grand Total	\$ 661,095,616	100.0000000%	\$ 2,445,362,179	5,339,260,164	26,645,831	_	401,145,107	

									<u> </u>	,	
								1	Net Amortization		
									of Deferred		
	Chang	oc in				Changes in			Amounts from Changes in		
	Proportion			Net		Proportion and			Proportion and		Total
	Differe	nces		Difference		Differences			Differences		Employer
	Betv			Between		Between			Between		Net Pension
	Empl Contribut		Differences	Projected and Actual		Employer Contributions		Proportionate Share of	Employer Contributions		Expense Excluding That
	Contribu	and Tota		Investment		and	Total	Allocable	and	Proportionate	Attributable to
	Proportio	nate Deferred	l Expected	Earnings on		Proportionate	Deferred	Plan Gross	Proportionate	Share of	Employer-Paid
Chang		re of Outflows o		Pension Plan	Changes of	Share of	Inflows of	Pension	Share of	Nonemployer	Member
Assump	tions Contribut	ions Resource	Experience	Investments	Assumptions	Contributions	Resources	Expense	Contributions	Contributions	Contributions
621	. 055 103	264 1 124 000	142 602	1 026 011	10 0/12		1 100 256	600.050	40 221		640 271
	5,955 102			1,026,911	18,842	_	1,189,356	609,050	40,321	_	649,371
		247 469,936		393,497	7,220	4 250 524	455,743	233,378	28,081	_	261,459
3,451				5,663,007	103,908	1,259,524	7,818,352	3,358,666	43,313	_	3,401,979
22,979		— 37,908,384		37,698,298	691,709	1,620,901	45,282,625	22,358,436	(740,096)	_	21,618,340
3,304	1,986 28	,099 5,480,316	758,211	5,422,001	99,486	206,494	6,486,192	3,215,728	(64,991)	-	3,150,737
3,559	9.100 23	,055 5,894,482	816,508	5,838,887	107,135	129,467	6,891,997	3,462,978	(45,785)		3,417,193
		138 1,436,549		1,361,822	24,987	131,270	1,708,516	807,681	(9,664)		798,017
	7,685	— 210,641		209,473	3,844	85,065	327,675	124,236	(43,656)		80,580
2,600		— 4,289,463		4,265,691	78,269	114,189	5,054,662	2,529,933	(66,386)		2,463,547
										_	
1,341	1,658 249	243 2,462,568	307,795	2,201,059	40,386	38,097	2,587,337	1,305,423	62,944		1,368,367
2,354	1,431 336	.269 4,220,361	540,140	3,862,566	70,872	3,696	4,477,274	2,290,845	128,504	_	2,419,349
		.578 172,445		134,120	2,461	·—	155,336	79,545	19,526	_	99,071
	2,646 137			512,913	9,411	_	594,050	304,203	70,358	_	374,561
	7,442 229			930,917	17,081	_	1,078,177	552,117	105,100	_	657,217
144,848				237,631,975	4,360,199	25,767,904	300,990,454	140,936,844	(6,089,432)	_	134,847,412
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~	~~~~~~	~~~~~	~~~	~~~	~~~~		~~~~~~	~~~~~	~~~~~	
		,293 389,923		294,985	5,413	_	341,649	174,953	36,336	_	211,289
		,221 364,095		320,090	5,873	_	370,724	189,842	18,454	_	208,296
	5,640 910			1,438,174	26,388	_	1,665,676	852,965	384,919	_	1,237,884
333	3,911 42	,074 592,925	76,604	547,798	10,051	_	634,453	324,893	24,171	_	349,064
9,032	2,862 326	,544 15,228,005	2,072,267	14,818,877	271,905	958,838	18,121,887	8,788,909	(363,586)		8,425,323
200	9,846 75	,468 421,650	48,142	344,264	6,317		398,723	204,179	37,269		241,448
		,790 393,887		363,073	6,662	47,548	468,055	215,335	2,338		217,673
										_	
	5,531	918,106		913,018	16,753	149,645	1,207,092	541,501	(86,725)	_	454,776
4,714		<b>—</b> 7,777,766		7,734,662	141,920	866,146	9,824,341	4,587,341	(373,774)		4,213,567
19,538	3,583	— 32,232,689	4,482,429	32,054,057	588,145	9,968,311	47,092,942	19,010,900	(3,948,583)	<del>_</del>	15,062,317
7,823	3.117	— 12,905,752	1,794,734	12,834,229	235,489	1,780,302	16,644,754	7,611,837	(798,480)		6,813,357
		,102 372,848		275,213	5,050	24,508	343,257	163,226	26,118	_	189,344
		,481 372,023		340,644	6,250	2.,500	394,529	202,032	15,951		217,983
	3,163 486			710,627	13,039	_	823,040	421,465	222,693	_	644,158
		,923 169,834		160,019	2,936	16,233	201,565	94,905	(3,518)		91,387
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	,J40 0	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	~~~~~~	~~~~~	~~~~~~	~~~~~	201,303	~~~~~	(3,5,0)		~~~~~
	9,874	— 461,707	64,207	459,148	8,425	52,777	584,557	272,316	(22,676)		249,640
982	2,045 130	,833 1,750,907	225,295	1,611,095	29,561	_	1,865,951	955,522	77,642	_	1,033,164
5,308	3,517 1,316	.084 10,073,515	1,217,849	8,708,898	159,796	77,045	10,163,588	5,165,149	466,395	_	5,631,544
		402 166,544		124,448	2,283	21,283	165,417	73,809	15,280	_	89,089
	1,438 141			236,957	4,348	12,147	286,588	140,537	46,558	_	187,095
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	·	~~~~~ <u>`</u>	~~~~		~~~~	~~~··~	~~~··~	~~~~~	~~~··~	~~~~~	~~~~~
	3,064	— 112,285		111,662	2,049	56,103	185,429	66,226	(30,907)	_	35,319
		.776 183,627		163,938	3,008	3,222	193,093	97,230	6,535	_	103,765
8,157				13,382,247	245,545	1,741,551	17,240,712	7,936,860	(497,881)	_	7,438,979
4,633	3,736 448	,584 8,092,832	1,063,045	7,601,884	139,483	1,071,670	9,876,082	4,508,592	(140,952)	_	4,367,640
5,178	3,307 788	,450 9,331,074	1,187,977	8,495,282	155,876	58,570	9,897,705	5,038,456	319,615	_	5,358,071
17	7,695 21	,683 50,874	4,059	29,029	533	449	34,070	17,217	7,309		24,526
19,736				32,378,140	594,091	——————————————————————————————————————	37,499,979	19,203,110	600,110	_	19,803,220
		,850 728,585		720,719	13,224	174,445	1,009,173	427,450	(69,078)	_	358,372
23,258				38,157,111	700,127	625,454	44,818,570	22,630,553	(58,086)	_	22,572,467
3,310	),830 129	.579 5,591,437	759,551	5,431,588	99,662	523,488	6,814,289	3,221,414	(129,485)		3,091,929
27	7,555 1	499 46,956	6,322	45,205	829	1	52,357	26,811	950	_	27,761
5,992				9,830,588	180,377	_	11,385,671	5,830,411	371,018	_	6,201,429
						(0 (45 3:5					
617,436	5,684 42,154	.377 1,060,736,16	3 141,648,750	1,012,936,857	18,585,908	60,615,245	1,233,786,760	600,761,442	(7,267,038)		593,494,404

### **Contributory Retirement System Local Government Division**

# Schedule of Employer Allocations and Pension Amounts

and Pension Amounts	nocaciói	15					Net Difference
at December 31, 2017 Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Between Projected and Actual Investment Earnings on Pension Plan Investments
Box Elder County Brigham City Carbon County Castle Valley SSD Centerville City	\$ 18,402 7,463 16,027 11,980 26,929	0.6271518% 0.2543553 0.5462064 0.4082823 0.9177603	\$ 51,034 20,698 44,447 33,224 74,682	346,015 140,334 301,355 225,259 506,350	(196,402) (79,655) (171,053) (127,860) (287,411)	_ _ _ _	64,447 26,138 56,129 41,956 94,310
City of Naples City of Orem City of South Jordan City of St George City of West Jordan	8,838 134,861 1,203 15,448 8,967	0.3011952 4.5962283 0.0410018 0.5264730 0.3055995	24,510 374,014 3,336 42,841 24,868	166,177 2,535,848 22,622 290,468 168,607	(94,324) (1,439,381) (12,840) (164,873) (95,703)	_ _ _ _	30,951 472,314 4,213 54,101 31,404
Clinton City Corinne City Davis & Weber County Canal Co Davis Co Housing Authority DDI Vantage	13,942 18,334 101,639 27,899 576,621	0.4751719 0.6248353 3.4639813 0.9508243 19.6519595	38,667 50,845 281,878 77,373 1,599,161	262,164 344,736 1,911,161 524,592 10,842,453	(148,808) (195,677) (1,084,800) (297,766) (6,154,321)	_ _ _ _	48,829 64,209 355,963 97,708 2,019,460
Duchesne Co Mosquito Dist Duchesne County Emery Co Care & Rehab Ctr Emery County Emery Town	9,197 116,059 78,863 14,708 5,924	0.3134304 3.9554467 2.6877335 0.5012839 0.2018868	25,505 321,871 218,712 40,792 16,428	172,927 2,182,313 1,482,886 276,570 111,386	(98,156) (1,238,710) (841,706) (156,985) (63,224)		32,208 406,468 276,195 51,513 20,746
Five-County Assn of Govts Garfield County Garland City Grand County Honeyville City	11,118 9,120 25,414 18,704 13,564	0.3789076 0.3108041 0.8661456 0.6374406 0.4622622	30,833 25,291 70,482 51,871 37,616	209,052 171,478 477,873 351,691 255,041	(118,661) (97,333) (271,247) (199,625) (144,765)		38,937 31,939 89,006 65,504 47,503
Housing Authority of SLC Iron County Jordan Valley Water Conserv Juab County Kaysville City	7,789 6,809 37,865 7,837 12,386	0.2654753 0.2320729 1.2904699 0.2671003 0.4221291	21,603 18,885 105,011 21,735 34,350	146,469 128,040 711,983 147,366 232,899	(83,138) (72,677) (404,131) (83,647) (132,196)		27,281 23,848 132,610 27,448 43,379
Kearns Improvement Dist Laverkin City Layton City Logan City Mountainland Assn of Govt	37,048 6,193 36,568 12,846 17,046	1.2626538 0.2110731 1.2462996 0.4378243 0.5809550	102,747 17,176 101,417 35,628 47,275	696,636 116,454 687,613 241,558 320,527	(395,420) (66,101) (390,298) (137,112) (181,935)		129,752 21,690 128,071 44,991 59,700
Murray City North Davis Co Sewer Dist North Logan City Oakley City Ogden City Corp	61,538 12,307 8,772 20,751 80,457	2.0972913 0.4194541 0.2989745 0.7072152 2.7420655	170,665 34,133 24,329 57,549 223,133	1,157,125 231,423 164,951 390,187 1,512,863	(656,800) (131,359) (93,629) (221,476) (858,721)		215,520 43,104 30,723 72,674 281,778
Park City Provo City Corp Provo Housing Authority Rich County Roy City	125,648 61,178 19,597 9,903 12,463	4.2822288 2.0850282 0.6678810 0.3374999 0.4247650	348,463 169,667 54,348 27,464 34,565	2,362,607 1,150,360 368,486 186,207 234,353	(1,341,048) (652,959) (209,157) (105,693) (133,022)	_ _ _ _ _	440,047 214,260 68,632 34,682 43,649
Salt Lake City Corp Salt Lake County Sandy City South Davis Sewer Dist Tooele City	407,927 226,318 90,297 45,494 2,621	13.9026595 7.7131952 3.0774344 1.5504906 0.0893416	1,131,317 627,655 250,424 126,170 7,270	7,670,428 4,255,553 1,697,894 855,443 49,292	(4,353,837) (2,415,509) (963,747) (485,561) (27,979)	_ _ _ _ _	1,428,654 792,617 316,241 159,330 9,181
Tooele County Town of Manila Town of Paragonah Utah Co Housing Authority Utah County	7,584 8,489 5,677 11,143 80,694	0.2584563 0.2893097 0.1934756 0.3797774 2.7501520	21,032 23,542 15,744 30,904 223,791	142,596 159,619 106,745 209,532 1,517,324	(80,940) (90,602) (60,590) (118,933) (861,254)		26,559 29,730 19,882 39,026 282,609

	Deletted Outflow	75 OI RESOUICES				Deletteu IIIIlo	ws or resources		to Empire	yer-Paid Membe	ei Contributions
								N	let Amortization of Deferred Amounts from		
	Changes in Proportion and Differences Between Employer			Net Difference Between Projected		Changes in Proportion and Differences Between Employer		Proportionate	Changes in Proportion and Differences Between Employer		Total Employer Net Pension Expense
	Contributions	Total	Differences	and Actual		Contributions	T-4-1	Share of	Contributions	D	Excluding That
	and Proportionate	Total Deferred	Between Expected	Investment Earnings on		and Proportionate	Total Deferred	Allocable Plan Gross	and Proportionate	Proportionate Share of	Attributable to Employer-Paid
Changes of	Share of	Outflows of	and Actual	Pension Plan	Changes of	Share of	Inflows of	Pension	Share of	Nonemployer	Member
Assumptions	Contributions	Resources	Experience	Investments	Assumptions	Contributions	Resources	Expense	Contributions	Contributions	Contributions
	_	64,447		146,349		_	146,349	16,269	(14,906)	_	1,363
_		26,138		59,355		_	59,355	6,598	8,097	_	14,695
<u></u>	_	56,129		127,460			127,460	14,169	(7,535)	_	6,634
		41,956		95,274			95,274	10,591	21,327	_	31,918
_	_	94,310	_	214,163	_	_	214,163	23,808	28,859	_	52,667
	~~~~~	~~~	~~~~~	~~~~~	~~~~~		~~~~	~~~~	~~~~~		
_	_	30,951	_	70,285	_	_	70,285	7,813	(27,631)	_	(19,818)
_	_	472,314	_	1,072,550	_	_	1,072,550	119,233	87,642	_	206,875
_	_	4,213	_	9,568	_	_	9,568	1,064	(123,516)	_	(122,452)
_	_	54,101	_	122,855	_	_	122,855	13,658	(28,149)	_	(14,491)
	-	31,404		71,313			71,313	7,928	6,369		14,297
_		48,829	_	110,883	_	_	110,883	12,327	(51,538)	_	(39,211)
_	_	64,209	_	145,808	_	_	145,808	16,209	25,542	_	41,751
_	_	355,963	_	808,335	_	_	808,335	89,861	61,599	_	151,460
_	_	97,708	_	221,879	_	_	221,879	24,666	16,410	_	41,076
		2,019,460	_	4,585,870	_	_	4,585,870	509,803	678,837	_	1,188,640
		32,208	_	73,140	_	_	73,140	8,131	11,231		19,362
_	_	406,468	_	923,020	_	_	923,020	102,613	28,999	_	131,612
_	_	276,195	_	627,194	_		627,194	69,724	76,819	_	146,543
<u> </u>	_	51,513	_	116,977	_	_	116,977	13,004	4,147	_	17,151
_		20,746	_	47,111	_	_	47,111	5,237	7,897	_	13,134
_	<u>-</u>	38,937		88,420	<u>-</u>	<u>-</u>	88,420	9,829	14,350	<u>-</u>	24,179
<u></u>		31,939	_	72,527			72,527	8,063	11,618		19,681
		89,006		202,119			202,119	22,469	31,455		53,924
_	_	65,504	_	148,750	_	_	148,750	16,536	(6,849)	_	9,687
_	_	47,503	_	107,871	_	_	107,871	11,992	16,957	_	28,949
	~~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~~	~~~~~	C 007	~~~~~	~~~~~	~~~~~
<del>_</del>	_	27,281 23,848	_	61,950 54,155	_	_	61,950 54,155	6,887 6,020	(4,179) 6,928	_	2,708 12,948
	_	23,646 132,610	_	34,133 301,137	_	_	34,133	33,477	51,315	_	84,792
_		27,448		62,329			62,329	6,929	11,675		18,604
<u> </u>		43,379	_	98,506			98,506	10,951	12,502		23,453
	~~~~~~	~~~~	~~~~~	~~~~	~~~~~	~~~~~	~~~~	~~~~	~~~~	~~~~~	
_	_	129,752	_	294,646	_	_	294,646	32,755	5,095	_	37,850
_	_	21,690	_	49,255	_	_	49,255	5,476	(448,108)	_	(442,632)
_	_	128,071	_	290,829	_	_	290,829	32,331	(20,300)		12,031
_	_	44,991 59,700	_	102,168 135,568	_	_	102,168 135,568	11,358 15,071	14,809 23,856	_	26,167 38,927
	-	~~~		~~~··~~	-	-	~~~~	~~~··~	~~~··~	-	
_	_	215,520	_	489,412	_	_	489,412	54,407	(62,922)	_	(8,515)
_	_	43,104	_	97,881	_	_	97,881	10,881	13,765	_	24,646
_	_	30,723	_	69,767	_	_	69,767	7,756	(12,105)	_	(4,349)
_	_	72,674	_	165,032	_	_	165,032	18,346	23,738	_	42,084
	-	281,778	-	639,873			639,873	71,134	(41,816)		29,318
_	_	440,047	_	999,277	_	_	999,277	111,088	162,760	_	273,848
_	_	214,260	_	486,550	_	_	486,550	54,089	52,857	_	106,946
_	_	68,632	_	155,853	_	_	155,853	17,326	18,967	_	36,293
-	_	34,682	_	78,757	_	_	78,757	8,755	(126,825)	_	(118,070)
	-	43,649		99,121			99,121	11,019	19,655		30,674
_	_	1,428,654	_	3,244,246	_	_	3,244,246	360,657	(60,146)	_	300,511
_	_	792,617	_	1,799,907	_		1,799,907	200,093	(96,416)	_	103,677
_	_	316,241	_	718,133	_		718,133	79,834	24,306	_	104,140
_	_	159,330	_	361,814	_	_	361,814	40,222	56,973	_	97,195
_	<u> </u>	9,181	_	20,848	_	_	20,848	2,318	(26,487)	_	(24,169)
_		26,559	_	60,312	_	_	60,312	6,705	8,935	_	15,640
_	_	29,730	_	67,512	_	_	67,512	7,505	8,610	_	16,115
_	_	19,882	_	45,148	_	_	45,148	5,019	13,868	_	18,887
_	_	39,026	_	88,623	_	_	88,623	9,852	14,064	_	23,916
_	_	282,609	_	641,760	_	_	641,760	71,343	(19,706)	_	51,637

Contributory Retirement System Local Government Division

Schedule of Employer Allocations and Pension Amounts (Concluded)

at December 31, 2017

Participating Employer	Co	Employer ntributions	Employer Allocation Percentage		Net Pension ability/(Asset) 95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	
Utah League Cities/Towns	\$	54,123	1.8445904%	\$	150,102	1,017,704	(577,663)	_	189,552	
Vernal City Weber County Corp		23,300 16,621	0.7940805 0.5664797		64,618 46,097	438,113 312,540	(248,679)	_	81,601 58,212	
Weber River Water Users		9,130	0.3004797		25,321	312,340 171,681	(177,402) (97,448)	_	31,976	
West Valley City		46,093	1.5708981		127,830	866,702	(491,952)	_	161,427	
Woods Cross City	~~~	12,431	0.4236628	~~	34,475	233,745	(132,677)		43,536	
Grand Total	\$	2,934,164	100.0000000%	\$	8,137,414	55,172,376	(31,316,578)	_	10,276,123	
No Proportionate Share for 2017										
Bountiful City	\$	_	0.0000000%	\$	_	_	_	_	_	
Gunnison Valley Hospital		_	0.0000000		_	_	_	_	_	
Riverdale City		_	0.0000000		_	_	_	_	_	
San Juan County Spring City		_	0.0000000 0.0000000		_	_	_	_	_	
······	~~~	~~~~~	~~~~~	~~	~~~~~		~~~~~~	~~~~~	~~~~~	
Springville City Timpanogos Special Service District		_	0.0000000 0.0000000		_	_	_	_	_	
Uintah County		_	0.0000000					_	_	
Washington County Water District		_	0.0000000		_	_	_	_	_	
Weber Fire District		_	0.0000000		_	_	_	_	_	
Bluffdale City	~~~		0.0000000	~~	~~~~~~	<u>-</u>				~~~~~~
Brian Head Town		_	0.0000000		_	_	_	_	_	
Millard County		_	0.0000000		_	_	_	_	_	
Southeastern Utah Asscoc. of Governments		_	0.0000000		_	_	_	_	_	
Sunset City	~~~		0.0000000	~~	_				_	
West Bountiful City		_	0.0000000		_	_	_	_	_	
Cache County		_	0.0000000		_	_	_	_	_	
Midway City		_	0.0000000		_	_	_	_	_	
Mount Pleasant City Pleasant View City		_	0.0000000 0.0000000		_	_	_	_	_	
Sevier County	~~~		0.0000000	~~	~~~~~~	<u>-</u>			<u>-</u>	~~~~~~
South Valley Sewer District		_	0.0000000		_					
Southeastern Utah Health		_	0.0000000		_	_	_	_	_	
Valley Mental Health		_	0.0000000		_	_	_	_	_	
Grand Total	\$	2,934,164	100.0000000%	\$	8,137,414	55,172,376	(31,316,578)	_	10,276,123	

	Deferred Outflow	vs of Resources				Deferred Inflo	ws of Resources			ense Excluding T oyer-Paid Membe	
Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
_	_	189,552	_	430,443	_	_	430,443	47,852	(43,325)	_	4,527
_	_	81,601		185,302			185,302	20,600	27,614		48,214
_	_	58,212	_	132,190	_		132,190	14,695	(37,972)	_	(23,277)
_	_	31,976		72,613		_	72,613	8,072	14,042	_	22,114
_	_	161,427	_	366,576	_	_	366,576	40,752	(121,808)	_	(81,056)
_		43,536	_	98,864			98,864	10,990	18,518		29,508
_	_	10,276,123	_	23,335,433	_	_	23,335,433	2,594,160	360,768	_	2,954,928
									()		
_	_	_	_	_	_	_	_	_	(47,628)	_	(47,628)
-	_	_	_	_	_			_	(27,848)	_	(27,848)
_	_	_	_	_	_	_	_	_	(21,043)	_	(21,043)
_	_	_	_	_	_	_	_	_	(46,855)	_	(46,855)
_ _						 .			(16,979)		(16,979)
-	_	-	_	_	_	-	_	_	(48,212)	_	(48,212)
_	_	_	_	_	_	_	_	_	(104,718)	_	(104,718)
_	_	_	_	_	_	_	_	_	(32,843)	_	(32,843)
_	_	_	_	_	_	_	_	_	(10,474)	_	(10,474)
_	_	_	_	_	_			_	(16,887)	_	(16,887)
_					~~~~~~ <u> </u>				(9,234)		(9,234)
_	_	_	_	_	_			_	(7,320)	_	(7,320)
_	_	_	_	_	_	_	_	_	141	_	141
_	_	_	_	_	_	_	_	_	(318)	_	(318)
_	_	_	_	_	_	_	_	_	(2,262)	_	(2,262)
				·····		<u>-</u>	·····		(4,320)		(4,320)
								_	(3,204)	_	(3,204)
		_						_	(1,140)		(1,140)
		_						_	(1,001)	_	(1,001)
_	_	_	_	_	_	_	_	_	(3,101)	_	(3,101)
	~~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~~	~~~~~	~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
_	_	_	_	_	_	_	_	_	(775)	_	(775)
_	_	_	_	_	_	_	_	_	(585)	_	(585)
_	_	_	_	_	_	_	_	_	(157)	_	(157)
_									(622)		(622)
_	_	10,276,123	_	23,335,433	_	_	23,335,433	2,594,160	(46,617)	_	2,547,543

## **Contributory Retirement System State and School Division**

# Schedule of Employer Allocations and Pension Amounts

at December 31, 2017 Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Between Projected and Actual Investment Earnings on Pension Plan Investments	
Alpine School District	\$ 150,886	3.7466170%	\$ 246,543	3,249,144	(2,309,740)	_	699,824	
Box Elder School District	14,777	0.3669324	24,146	318,211	(226,209)		68,539	
Cache School District	68,569	1.7026128	112,039	1,476,541	(1,049,638)	_	318,028	
Carbon School District	2,686	0.0667065	4,390	57,849	(41,124)	_	12,460	
Davis School District	207,476	5.1517894	339,009	4,467,738	(3,176,010)	_	962,293	~~~~
Dixie State University	8,250	0.2048447	13,480	177,646	(126,284)	_	38,263	
Duchesne School District	34,432	0.8549635	56,260	741,442	(527,074)	_	159,697	
Educators Mutual Insurance	28,792	0.7149357	47,046	620,007	(440,748)	_	133,542	
Emery School District	12,407	0.3080711	20,272	267,166	(189,922)	_	57,544	
Granite School District	379,369	9.4200388	619,877	8,169,253	(5,807,330)		1,759,552	~~~~~
Iron School District	10,213	0.2536067	16,688	219,933	(156,345)	_	47,371	
Jordan School District	87,645	2.1763100	143,210	1,887,341	(1,341,666)	_	406,509	
Kane School District	2,350	0.0583500	3,840	50,602	(35,972)	_	10,899	
Logan School District	24,068	0.5976242	39,326	518,272	(368,427)	_	111,629	
Millard School District	30,063	0.7464813	49,122	647,364	(460,196)	<del>-</del>	139,434	
Murray School District	9,392	0.2332231	15,347	202,256	(143,779)	_	43,563	
Nebo School District	11,046	0.2742856	18,049	237,866	(169,093)	_	51,233	
North Sanpete School Dist	2,939	0.0729674	4,802	63,279	(44,983)	_	13,629	
Ogden-Weber Tech College Park City School District	15,550 10,200	0.3861244 0.2532695	25,409 16,666	334,855 219,641	(238,041) (156,137)	_	72,123 47,308	
	~~~~		~~~~~	·····		·····		~~~~~
Provo School District	46,946	1.1657032	76,708	1,010,922	(718,641)	_	217,740	
Salt Lake Community College	45,487	1.1294832	74,325	979,511	(696,312)	_	210,974	
Salt Lake School District San Juan School District	223,985 3,581	5.5617268 0.0889145	365,984 5,851	4,823,245 77,108	(3,428,731) (54,815)	_	1,038,865 16,608	
Sevier School District	8,039	0.0869143	13,135	173,107	(123,058)	_	37,285	
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Snow College	7,889	0.1958899	12,890	169,880	(120,764)	_	36,590	
Southern Utah University	5,420	0.1345811	8,856	116,712	(82,967)	_	25,138	
State of Utah Tooele School District	1,247,622 2,730	30.9794794 0.0677760	2,038,574 4,460	26,866,044 58,777	(19,098,441) (41,783)	_	5,786,601 12,660	
Uintah School District	30,608	0.7600335	50,013	659,117	(468,551)		141,965	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~	~~~~~	~~~~	·····	~~~~~~	~~~~~		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
University of Utah	401,347	9.9657805	655,789	8,642,531	(6,143,772)	_	1,861,490	
University of Utah Hospital Utah Housing Corporation	411,432 96,925	10.2162054 2.4067297	672,268 158,373	8,859,705 2,087,166	(6,298,156) (1,483,717)	_	1,908,267 449,549	
Utah State University	74,832	1.8581414	122,273	1,611,419	(1,145,520)		347,079	
Utah Valley University	91,387	2.2692109	149,323	1,967,907	(1,398,939)	_	423,862	
Washington School District	32,361	0.8035448	52,877	696,851	(495,375)		150,093	
Weber State University	85,323	2.1186295	139,414	1,837,319	(1,306,107)	_	395,735	
Workers Compensation Fund	100,230	2.4888050	163,773	2,158,343	(1,534,315)	_	464,879	
Grand Total	\$ 4,027,252	100.0000000%	\$ 6,580,407	86,722,070	(61,648,682)	_	18,678,820	
No Proportionate Share for 2017								
Juab School District	\$ —	0.0000000%	\$ —	_	_	_	_	
Weber County School District	. –	0.0000000	_	_	_	_	_	
Grand Total	\$ 4,027,252	100.0000000%	\$ 6,580,407	86,722,070	(61,648,682)	_	18,678,820	

Net Difference

Pension Expense Excluding That Attributable to Employer-Paid Member Contributions

Deferred Outflows of Resources	Deferred Inflows of Resource

Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources		let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
									()		
_	_	699,824	_	1,624,991	_	_	1,624,991	63,958	(34,580)	_	29,378
_	_	68,539	_	159,147	_	_	159,147	6,264	8,896	_	15,160
_		318,028	_	738,461 28,932	_	_	738,461 28,932	29,065	(2,468)	_	26,597
_	_	12,460	_		_	_		1,139	(16,455)	_	(15,316)
		962,293		2,234,445		-	2,234,445	87,945	(67,236)	-	20,709
_		38,263	_	88,846	_	_	88,846	3,497	10,634	_	14,131
_		159,697	_	370,817	_	_	370,817	14,595	3,020	_	17,615
_		133,542	_	310,083	_	_	310,083	12,205	(27,972)	_	(15,767)
_		57,544	_	133,617	_	_	133,617	5,259	11,990	_	17,249
_	_	1,759,552	_	4,085,679	_	_	4,085,679	160,808	(106,506)	_	54,302
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~	47 271	~~~~~	100.005	~~~~~	~~~~~	100.005	4 220	E 966	~~~~~	10 105
<del>-</del>	_	47,371	_	109,995 943,914	_	_	109,995	4,329	5,866	_	10,195
<del>_</del>	<del>_</del>	406,509 10,899	_	25,308	_	_	943,914 25,308	37,151 996	8,514 (10,352)	_	45,665 (9,356)
<del>_</del>	<del>_</del>	111,629	_	259,203	_	_	259,203	10,202	30,759	_	40,961
	_	139,434		323,765		_	323,765	12,743	25,181	_	37,924
·····	~~~~~~	~~~~~~~	·····	~~~~~~	·····	<del>-</del>	~~~~~	12,743	23,101	<del>-</del>	~~~~~~
_	_	43,563	_	101,154	_		101,154	3,981	14,733	_	18,714
_	_	51,233	_	118,964	_	_	118,964	4,682	15,341	_	20,023
_	_	13,629	_	31,648	_	_	31,648	1,246	(6,927)	_	(5,681)
_	_	72,123	_	167,471	_	_	167,471	6,591	(90,707)	_	(84,116)
_	_	47,308	_	109,849	_	_	109,849	4,324	(70,183)	_	(65,859)
_		217,740		505,591			505,591	19,900	(97,473)		(77,573)
<u></u>		210,974		489,882		_	489,882	19,281	(120,183)		(100,902)
	_	1,038,865		2,412,244		_	2,412,244	94,943	11,880	_	106,823
<u> </u>		16,608		38,564	_	_	38,564	1,518	(55,215)		(53,697)
<u> </u>		37,285		86,576	_	_	86,576	3,408	10,302		13,710
·····	~~~~~	~~~~	~~~~~	~~~~	~~~~~	~~~~~	·····	~~~··~	~~~~	~~~~~	~~~~
_	_	36,590	_	84,962	_	_	84,962	3,344	11,710	_	15,054
_	_	25,138	_	58,371	_	_	58,371	2,297	4,522	_	6,819
<del>-</del>	_	5,786,601	_	13,436,484	_		13,436,484	528,846	(266,444)	_	262,402
_	_	12,660	_	29,396	_	_	29,396	1,157	(51,752)	_	(50,595)
<del>_</del>	<del>_</del>	141,965	<del>_</del>	329,643	<del>_</del>	<del>_</del>	329,643	12,974	(35,083)	<del>_</del>	(22,109)
_	_	1,861,490	_	4,322,380	_	_	4,322,380	170,124	(465,414)	_	(295,290)
_		1,908,267	_	4,430,994	_	_	4,430,994	174,399	138,998	_	313,397
_	_	449,549		1,043,852		_	1,043,852	41,085	152,163		193,248
_	_	347,079	_	805,917	_	_	805,917	31,720	49,812	_	81,532
_	_	423,862	_	984,207	_	_	984,207	38,737	(137,997)	_	(99,260)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~	150.002	~~~~~	240 515	~~~~~	~~~~~	240 515	12 717	(7.066)	~~~~~	6 6 5 1
-		150,093	_	348,515	_	_	348,515	13,717 36,167	(7,066) 89,443		6,651
-		395,735 464,879	_	918,896 1,079,450	_	_	918,896 1,079,450	42,486	133,152	_	125,610 175,638
_	_	18,678,820	_	43,372,213	_	_	43,372,213	1,707,083	(933,097)	_	773,986
_		_	_	_	_		_	_	(16 222)	_	(16.333)
_ _			_						(16,323)		(16,323)
_	_	18,678,820	_	43,372,213	_	_	43,372,213	1,707,083	(949,420)	_	757,663
		.,,		.,,,			. ,,	,,	· ·-, ·=•)		,

Public Safety Retirement System Other Division A with Social Security

Schedule of Employer Allocations and Pension Amounts

and Pension Amo							Net Difference Between
Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Projected and Actual Investment Earnings on Pension Plan Investments
American Fork City	\$ 524,542	0.9866517%	\$ 1,547,719	3,899,557	(358,418)	_	278,462
Beaver County	800,488	1.5057001	2,361,929	5,950,999	(546,971)	_	424,953
Big Water Municipal Corp Blanding City	3,910 73,768	0.0073554 0.1387556	11,538 217,660	29,071 548,406	(2,672) (50,405)	_	2,076 39,161
Box Elder County	1,029,838	1.9371014	3,038,650	7,656,032	(703,685)	_	546,707
Brigham City	471,440	0.8867681	1,391,036	3,504,785	(322,134)		250,272
Cache County	1,588,588	2.9880980	4,687,305	11,809,900	(1,085,478)	_	843,329
Carbon County	689,734	1.2973734 1.0298082	2,035,135	5,127,626	(471,293)	_	366,157
Cedar City Centerfield City	547,486 3,694	0.0069487	1,615,417 10,900	4,070,125 27,463	(374,095) (2,524)	_	290,642 1,961
Centerville City	339,224	0.6380725	1,000,918	2,521,862	(231,791)		180,083
City of Draper	588,440	1.1068419	1,736,257	4,374,586	(402,079)	_	312,383
City of Harrisville	88,755	0.1669461	261,881	659,823	(60,646)	_	47,117
City of Helper City of Kanab	65,558 86,116	0.1233136 0.1619829	193,437 254,096	487,374 640,207	(44,796) (58,843)	_	34,803 45,716
·······	······		~~~~~	·····	~~~~~		~~~~~
City of Moab City of Monticello	188,541 33,976	0.3546422 0.0639085	556,312 100,251	1,401,657 252,586	(128,830) (23,216)	_	100,090 18,037
City of Naples	59,805	0.1124923	176,462	444,605	(40,865)	_	31,749
City of North Salt Lake	359,681	0.6765509	1,061,277	2,673,941	(245,769)	_	190,943
City of South Jordan	835,966	1.5724336	2,466,611	6,214,750	(571,213)		443,787
City of South Salt Lake	930,811	1.7508336	2,746,460	6,919,843	(636,020)	_	494,137
City of St George Clearfield City	1,855,379 405,864	3.4899246 0.7634211	5,474,499 1,197,547	13,793,276 3,017,279	(1,267,775) (277,326)	_	984,959 215,460
Clinton City	212,278	0.7034211	626,349	1,578,117	(145,049)	_	112,691
Daggett County	71,581	0.1346416	211,207	532,146	(48,911)	_	38,000
Davis County	3,212,454	6.0425527	9,478,700	23,882,062	(2,195,060)		1,705,386
Duchesne County	460,328	0.8658668	1,358,249	3,422,177	(314,541)	_	244,373
East Carbon City Emery County	27,345 541,766	0.0514355 1.0190491	80,685 1,598,540	203,289 4,027,601	(18,685) (370,187)	_	14,517 287,606
Enoch City	46,712	0.0878650	137,830	347,270	(31,918)	_	24,798
Ephraim City	76,849	0.1445514	226,752	571,312	(52,511)		40,797
Fairview City	515	0.0009684	1,519	3,827	(352)	_	273
Farmington City	246,176	0.4630506	726,368	1,830,121	(168,211)	_	130,686
Fountain Green City Garfield County	12,595 409,361	0.0236908 0.7699981	37,163 1,207,864	93,633 3,043,274	(8,606) (279,715)	_	6,686 217,316
Garland City	29,195	0.0549152	86,143	217,042	(19,949)		15,499
Grand County	295,415	0.5556692	871,655	2,196,179	(201,856)	_	156,826
Grantsville City	150,824	0.2836970	445,024	1,121,259	(103,058)	_	80,068
Gunnison City Heber City	11,755	0.0221104 0.6348638	34,684	87,387	(8,032) (230,625)	_	6,240
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	337,518	~~~~~	995,884	2,509,181	~~~~~~		179,177
Hurricane City Iron County	321,126 861,729	0.6040303 1.6208921	947,517 2,542,626	2,387,317 6,406,274	(219,424) (588,817)	_	170,475 457,463
lvins City	188,992	0.3554897	557,642	1,405,007	(129,138)	_	100,330
Juab County	263,861	0.4963167	778,551	1,961,599	(180,296)	_	140,075
Kamas City	35,392	0.0665719	104,429	263,113	(24,183)		18,789
Kane County	479,105	0.9011864	1,413,653	3,561,771	(327,371)	_	254,341
Kaysville City	474,881	0.8932410	1,401,190	3,530,368	(324,485)	_	252,099
Laverkin City Layton City	53,072 1,269,557	0.0998277 2.3880074	156,596 3,745,967	394,550 9,438,154	(36,264) (867,484)	_	28,174 673,966
Lehi City	711,861	1.3389936	2,100,423	5,292,122	(486,412)	_	377,903
Lindon City	309,860	0.5828402	914,277	2,303,567	(211,727)		164,495
Mapleton City	115,887	0.2179803	341,937	861,526	(79,185)	_	61,520
Millard County	746,964	1.4050214	2,203,998	5,553,085	(510,398)	_	396,538
Morgan County Mount Pleasant City	134,150 75,869	0.2523327 0.1427087	395,824 223,861	997,298 564,030	(91,664) (51,841)	_	71,216 40,277
mount i reasunt city	7 5,007	V. 174/00/	223,001	JU-1,UJU	(170,10)		TU,2//

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	Changes in Proportion and Differences			Net Difference		Changes in Proportion and Differences			et Amortization of Deferred Amounts from Changes in Proportion and Differences		Total Employer
	Between			Between		Between Employer		Droportionato	Between		Net Pension
	Employer Contributions		Differences	Projected and Actual		Contributions		Proportionate Share of	Employer Contributions		Expense Excluding That
	and	Total	Between	Investment		and	Total	Allocable	and	Proportionate	Attributable to
	Proportionate	Deferred	Expected	Earnings on		Proportionate	Deferred	Plan Gross	Proportionate	Share of	Employer-Paid
Changes of Assumptions		Outflows of Resources	and Actual Experience	Pension Plan Investments	Changes of Assumptions	Share of Contributions	Inflows of Resources	Pension Expense	Share of Contributions	Nonemployer Contributions	Member Contributions
7.554	201111111111111111111111111111111111111	nesources	zapenence	veste.res	713541115113	Continuations	nesources	zapense		Continuations	Continuations
569,928	26,778	875,168	226,999	715,804	21,327	35,981	1,000,111	598,766	(5,876)	_	592,890
869,751	67,936	1,362,640	346,417	1,092,368	32,546	_	1,471,331	913,759	49,239	_	962,998
4,249	1,533	7,858	1,692	5,336	159	433	7,620	4,464	1,241	_	5,705
80,151	25,990	145,302	31,924	100,666	2,999	_	135,589	84,206	12,620	_	96,826
1,118,945	18,255	1,683,907	445,670	1,405,344	41,871	136,950	2,029,835	1,175,562	(41,844)	_	1,133,718
	75 104	027.600	204.010	C42 240	10.160	10.040	077.276	520.150	25.652		562.002
512,232	75,194	837,698	204,019	643,340	19,168	10,849	877,376	538,150	25,653	_	563,803
1,726,041	94,451	2,663,821	687,473	2,167,830	64,589	163,214	3,083,106	1,813,376	(2,486)	_	1,810,890
749,413	69,563	1,185,133	298,487	941,229	28,043	25,937	1,293,696	787,332	48,312	_	835,644
594,857	63,293	948,792	236,928	747,114	22,260	9,177	1,015,479	624,956	18,717	_	643,673
4,014	1,470	7,445	1,599	5,041	150	31,799	38,589	4,217	(12,938)	<del>_</del>	(8,721)
368,575	54,887	603,545	146,802	462,914	13,792	_	623,508	387,225	37,197	_	424,422
639,355	33,982	985,720	254,652	803,001	23,925	59,706	1,141,284	671,705	(9,601)	_	662,104
96,435	19,063	162,615	38,409	121,117	3,609	16,159	179,294	101,314	2,495	_	103,809
71,231	17,003	106,034	28,371	89,463	2,665	19,651	140,150	74,835	(13,424)	_	61,411
93,568	6,880	146,164	37,267	117,517	3,501		158,285	98,302	4,642	_	102,944
······			~~~~	~~~~	~~~~		·····		~~~~		
204,855	42,547	347,492	81,593	257,289	7,666	11,561	358,109	215,220	7,558	_	222,778
36,916	26,586	81,539	14,703	46,365	1,381	435	62,884	38,784	12,500	_	51,284
64,980	_	96,729	25,881	81,612	2,432	70,249	180,174	68,268	(38,797)	_	29,471
390,802	26,860	608,605	155,654	490,830	14,624	_	661,108	410,576	14,386	_	424,962
908,299	36,229	1,388,315	361,771	1,140,782	33,989	39,520	1,576,062	954,257	12,000		966,257
1,011,349		1,505,486	402,815	1,270,209	37,845	182,992	1,893,861	1,062,522	(104,449)		958,073
2,015,916	202,454	3,203,329	802,929	2,531,900	75,436	102,332	3,519,739	2,117,918	77,252	_	2,195,170
440,982	10,189	666,631	175,641	553,853	16,502	57,436	803,432	463,295	(43,396)	_	419,899
230,645	26,588	369,924	91,865	289,680	8,631	37, <del>4</del> 30	390,176	242,315	15,841	_	258,156
250,045 77,774	20,300	309,924 115,774	30,977	269,680 97,681	2,910	181,946	313,514	81,709	(93,559)	_	(11,850)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			~~~~~	27,001	2,910	101,740	٠٠٠٠٠٠٠	01,709	(80,05)		(11,050)
3,490,412	11,363	5,207,161	1,390,213	4,383,801	130,613	734,943	6,639,570	3,667,022	(373,084)	_	3,293,938
500,158	43,279	787,810	199,210	628,176	18,716	111,856	957,958	525,465	(22,667)	_	502,798
29,711	96	44,324	11,834	37,316	1,112	17,510	67,772	31,214	(13,878)	_	17,336
588,642	67,162	943,410	234,453	739,308	22,027	62,685	1,058,473	618,427	(645)	_	617,782
50,754	7,575	83,127	20,215	63,745	1,899	36,792	122,651	53,322	(11,714)	_	41,608
92.400	22 221	156 516	22.257	104 970	2 125	10 164	151 416	07 722	16 002		102 016
83,498	32,221	156,516	33,257	104,870	3,125	10,164	151,416	87,723	16,093	_	103,816
559	1,096	1,928	223	703	21	47 222	947	588	464 (11 202)	_	1,052
267,476	15,840	414,002	106,534	335,938	10,009	47,232	499,713	281,010	(11,383)	_	269,627
13,685	14 (00	20,371	5,451	17,187	512	931	24,081	14,377	(518)	_	13,859
444,781	14,689	676,786	177,154	558,625	16,644	13,126	765,549	467,286	4,889		472,175
31,721	_	47,220	12,634	39,840	1,187	42,915	96,576	33,326	(26,943)	_	6,383
320,976	35,907	513,709	127,843	403,132	12,011	10,932	553,918	337,217	6,884	_	344,101
163,874	3,385	247,327	65,270	205,819	6,132	19,557	296,778	172,166	(14,159)	_	158,007
12,772	_	19,012	5,087	16,041	478	85,362	106,968	13,418	(36,514)		(23,096)
366,722	124,823	670,722	146,063	460,586	13,723		620,372	385,277	63,847	_	449,124
348,911	30,046	549,432	138,970	438,217	13,056	8,775	599,018	366,566	19,191	~~~~~	385,757
	30,040									_	
936,290 205,345	20 522	1,393,753 336,207	372,919	1,175,938 257,904	35,036	204,547	1,788,440	983,665	(115,461) (291)	_	868,204
	30,532		81,788		7,684	44,282	391,658	215,735		_	215,444
286,692	47,490 11,210	474,257	114,188	360,072	10,728	7,566 1,755	492,554	301,198	14,106	_	315,304
38,455	11,319	68,563	15,316	48,297	1,439	1,755	66,807	40,400	9,020		49,420
520,560	20,880	795,781	207,336	653,800	19,480	2,690	883,306	546,900	12,330	_	559,230
515,971	49,710	817,780	205,508	648,036	19,308	71,835	944,687	542,078	3,717	_	545,795
57,664	2,707	88,545	22,967	72,424	2,158	15,389	112,938	60,582	(6,834)	_	53,748
1,379,406	17,161	2,070,533	549,410	1,732,471	51,618	113,070	2,446,569	1,449,201	(42,580)	_	1,406,621
773,455	77,169	1,228,527	308,063	971,424	28,943	58,334	1,366,764	812,590	28,902	_	841,492
	~~~~~~		124 004	422.044	~~~~~	~~~~~	~~~~~	252 704	~~~~~	~~~~~	
336,671	53,183	554,349	134,094	422,844	12,598	12 210	569,536	353,706	25,084	_	378,790
125,914	5,689	193,123	50,151	158,142	4,712	13,210	226,215	132,285	(8,903)	_	123,382
811,595	7,317	1,215,450	323,254	1,019,327	30,370	37,324	1,410,275	852,660	(11,865)	_	840,795
145,757	7,902	224,875	58,054	183,064	5,454	33,083	279,655	153,132	(18,092)	_	135,040
82,434	8,148	130,859	32,833	103,533	3,085	788	140,239	86,605	3,352	_	89,957

## **Public Safety Retirement System** Other Division A with Social Security

# Schedule of Employer Allocations and Pension Amounts

Seriedate of Employer 7	mocation	13						
and Pension Amounts							Net Difference	
at December 31, 2017							Between Projected	
at Becember 31, 2017						Differences	and Actual	
		Employer	Net Pension	Net Pension Liability/(Asset)	Net Pension Liability/(Asset)	Between Expected	Investment Earnings on	
Participating Employer	Employer Contributions	Allocation Percentage	Liability/(Asset) (6.95% Discount)	1.00% Decrease (5.95%)	1.00% Increase (7.95%)	and Actual Experience	Pension Plan Investments	
Murray City	\$ 1,260,512	2.3709950%	\$ 3,719,281	9,370,915	(861,304)	_	669,164	
Nephi City North Oqden City	127,412 264,745	0.2396597 0.4979801	375,944 781,161	947,210 1,968,173	(87,060) (180,900)	_	67,639 140,545	
North Park Police Agency	91,886	0.1728356	271,120	683,100	(62,785)	_	48,779	
Park City	748,360	1.4076471	2,208,117	5,563,462	(511,352)	_	397,279	
Parowan City	66,304	0.1247169	195,638	492,920	(45,306)		35,199	~~~~~~
Payson City	280,873	0.5283152	828,746	2,088,067	(191,920)	_	149,106	
Perry City	91,993	0.1730358	271,434	683,892	(62,858)	_	48,836	
Piute County	46,976	0.0883610	138,608	349,230	(32,099)	_	24,938	
Pleasant Grove City	363,605	0.6839326	1,072,857	2,703,116	(248,450)		193,026	
Pleasant View City	120,230	0.2261499	354,752	893,815	(82,153)	_	63,826	
Price City Rich County	261,627 93,759	0.4921150 0.1763578	771,960 276,645	1,944,993 697,021	(178,769) (64,065)	_	138,889 49,773	
Richfield City	187,703	0.3530646	553,838	1,395,422	(128,257)	_	99,645	
Riverdale City	388,919	0.7315468	1,147,547	2,891,302	(265,747)	_	206,464	
Roosevelt City	166,095	0.3124200	490,080	1,234,782	(113,492)		88,174	~~~~~~
Roy City	659,743	1.2409621	1,946,645	4,904,671	(450,801)	_	350,236	
Salem City	158,970	0.2990184	469,058	1,181,814	(108,624)	_	84,392	
Salina City	35,206	0.0662217	103,879	261,729	(24,056)	_	18,690	
Salt Lake County	8,090,153	15.2173917	23,870,888	60,143,908	(5,527,976)		4,294,798	
San Juan County	321,033	0.6038551	947,242	2,386,625	(219,361)	_	170,426	
Sanpete County	441,536	0.8305200	1,302,802	3,282,475	(301,701)	_	234,397	
Santaquin City Sevier County	187,935 631,279	0.3535016	554,523	1,397,149 4,693,063	(128,415) (431,351)	_	99,769 335,125	
Smithfield City Corp	88,795	1.1874218 0.1670221	1,862,659 262,001	660,124	(60,674)	_	47,139	
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South Ogden City Spanish Fork City	445,660 635,212	0.8382768 1.1948197	1,314,970 1,874,264	3,313,133 4,722,302	(304,518) (434,039)	_	236,586 337,213	
Springville City	361,168	0.6793483	1,065,665	2,684,997	(246,785)	_	191,732	
Stockton Town	13,570	0.0255253	40,040	100,884	(9,273)	_	7,204	
Summit County	1,729,279	3.2527334	5,102,427	12,855,822	(1,181,611)	_	918,017	~~~~
Sunset City	85,463	0.1607542	252,168	635,351	(58,397)	_	45,370	
Syracuse City Corp	339,138	0.6379115	1,000,665	2,521,226	(231,732)	_	180,037	
Tooele City	474,687	0.8928747	1,400,615	3,528,921	(324,352)	_	251,995	
Tooele County Town of Brian Head	853,534 93,971	1.6054773 0.1767580	2,518,445 277,273	6,345,349 698,603	(583,217) (64,210)	_	453,113 49,886	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	·····	~~~~~	~~~~~	·····	~~~~~~	~~~~~		~~~~~
Town of Springdale Tremonton City	138,797 115,661	0.2610742 0.2175551	409,536 341,270	1,031,847 859,846	(94,840) (79,031)	_	73,683 61,400	
Uintah County	793,552	1.4926527	2,341,462	5,899,431	(542,232)	_	421,270	
Unified Fire Authority	52,947	0.0995923	156,226	393,620	(36,179)	_	28,108	
Vernal City	366,739	0.6898284	1,082,105	2,726,418	(250,592)	_	194,690	
Wasatch County	781,544	1.4700657	2,306,031	5,810,160	(534,026)		414,896	~~~~~~
Washington City	208,854	0.3928491	616,246	1,552,663	(142,709)	_	110,874	
Washington County	1,958,694	3.6842591	5,779,343	14,561,347	(1,338,370)	_	1,039,806	
Wayne County Weber County Corp	60,267	0.1133613	177,825	448,039	(41,180)	_	31,994	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	4,544,209	8.5475520	13,408,188	33,782,604	(3,105,044)		2,412,370	~~~~~
Wellington City	20,254	0.0380971	59,761	150,572	(13,839)	_	10,752	
West Bountiful City Willard City Corp	117,861 40,571	0.2216936 0.0763130	347,761 119,709	876,203 301,613	(80,534) (27,722)	_	62,568 21,538	
Grand Total		100.0000000%						
	\$ 53,163,860	100.0000000%	\$ 156,865,824	395,231,340	(36,326,707)	_	28,222,940	
No Proportionate Share for 2017	ć	0.00000000	¢.					
Escalante Town Taylorsville City	\$ <u> </u>	0.0000000% 0.0000000	> <u> </u>			_	_	
North Logan City	_	0.0000000	_	_	_	_	_	
Grand Total	\$ 53,163,860		\$ 156,865,824	395,231,340	(36,326,707)	_	28,222,940	
Grand Ividi	000,001,00	100.000000070	7 130,003,024	373,231,340	(30,320,707)		20,222,740	

Total Properties Total Selection Properties Prope		Deferred Outflow	vs of Resources				Deferred Inflo	ws of Resources		to Emplo	oyer-Paid Memb	er Contributions
188,447 19,748 225,824 55,139 173,700 5,180 23,314 275,503 145,41 2,047 99,837 149,074 277,690 30,764 125,390 3,766 188,890 104,888 75,670 813,111 2,041 17,483 114,723 28,694 90,481 2,096	Changes of	Proportion and Differences Between Employer Contributions and Proportionate Share of	Deferred Outflows of	Between Expected and Actual	Difference Between Projected and Actual Investment Earnings on Pension Plan	Changes of	Proportion and Differences Between Employer Contributions and Proportionate Share of	Deferred Inflows of	Proportionate Share of Allocable Plan Gross Pension	of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	Share of Nonemployer	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
188,447 19,748 225,824 55,139 173,700 5,180 23,314 275,503 145,41 2,047 99,837 149,074 277,690 30,764 125,390 3,766 188,890 104,888 75,670 813,111 2,041 17,483 114,723 28,694 90,481 2,096	1 260 570	110 600	2 157 242	E 4 E 40 6	1 720 120	£1 2£0	226 002	2 5 4 2 0 5 0	1 420 077	(21.260)		1,417,509
287,653 \$6,416 484,614 114,571 361,279 10,764 — 486,614 302,271 30,318 — 9,837 481,711 261,660 1472,690 32,2858 1021,232 30,427 — 1375,517 884,254 155,096 — 20,135,111 261,660 1472,690 32,2858 1021,232 30,427 — 1375,517 884,254 155,096 — 20,135,175 31,298 482,198 121,530 383,287 11,420 75,431 591,688 320,617 1,530 1,540 — 1,540 1,540 — 1,54												1,417,309
99,887 149,074 297,690 33,764 125,390 3,736 — 166,890 104,888 75,670 — 17,275,175 140,085 175,098 — 17,275 175,096 — 17,275 — 17,												332,525
R33111 261660 1A72050 323288 1021222 30427												180,558
72,041												1,009,352
305,175 32,998 447,189 121,550 383,287 11,420 75,431 591,688 320,617 12,529 51,041 4079 80,058 20,329 64,105 1910 1,727 88,071 51,523 469 395,066 58,082 157,533 469,185 14,784 72,714 741,05 541,623 546,627 -	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~	~~~~~~	~~~~~	~~~~~	~~~~~			~~~~~	~~~~~	~~~~~	~~~~~
99.952 70.871 219.659 39.810 125.335 3.740 — 169.085 105.010 36.450 — 380.08 20.239 64.105 1.910 1.727 88.071 53.62 499 — 395.066 — 880.08 20.239 64.105 1.910 1.727 88.071 53.62 499 — 3195.066 — 880.08 20.239 64.105 1.910 1.727 88.071 53.62 499 — 3195.066 — 180.035 20.754 215.213 52.030 164.069 4.888 4.975 225.962 137.743 13.116 — 244.05 9.981 433.135 133.221 37.044 10.637 45.63 526.545 288.048 (26.766) — 101.271 18.371 170.015 40.757 127.946 3.812 10.006 182.339 107.026 11.220 — 422.70 28.944 658.38 168.07 530.729 13.813 25.087 79.935 44.3551 (5.019) — 422.70 28.944 658.38 168.07 530.729 13.813 25.087 79.935 44.3551 (5.019) — 716.828 86.81 1.153.345 285.590 900.394 26.824 33.269 14.45.906 73.398 8.255 — 719.252 34.95 34.9												84,130
\$1,041												318,088
130,633 20,754 215,213 32,030 164,069 4,888 4,975 225,962 137,243 13,116 244,265 9,981 433,135 113,221 357,041 10,637 45,663 5,645 298,646 62,296 -101,871 18,371 170,015 40,575 127,946 3,812 10,006 182,239 107,026 11,290 -233,444 9,703 313,122 813,230 256,144 7,632 349 345,355 214,263 4,305 -242,270 29,844 658,818 168,307 530,729 15,813 25,867 739,956 443,951 (5,019) -104,211 279,061 71,879 226,657 67,533 10,715 316,004 819,597 (1,266) -104,211 279,061 71,879 226,657 6,633 8,749 300,941 81,464 71,088 -172,725 3,655 283,769 68,795 216,934 6,463 8,749 300,941 81,464 71,088 -172,725 3,565 283,769 43,501,071 10,400,102 232,934 36,565 15,233,700 224,324,244 83,466 -182,339 3,452 24,452 3,4												141,460 54,032
130,633 20,754 215,213 52,010 164,069 4,888 4,975 225,962 137,243 13,116 — 224,265 9,981 433,135 113,221 357,024 10,637 45,663 526,515 296,648 62,265 — 101,871 18,371 170,015 40,575 127,946 3,812 10,006 182,339 107,026 11,290 — 203,944 9,703 313,722 81,320 256,144 7,632 349 345,355 214,263 4,305 — 424,570 29,804 688,838 168,807 530,729 15,813 25,087 73,9936 443,951 (5,019) — 101,0466 10,421 279,061 71,879 226,657 6,733 10,715 316,004 189,597 (1,266) — 716,828 86,481 1,133,455 285,509 900,304 26,824 33,369 1,245,906 755,098 8,285 — 172,725 32,652 299,769 66,795 216,944 64,63 8,749 300,941 181,464 17,088 — 18,790,151 491,725 13,576,674 35,001,771 1,040,042 338,934 363,655 13,3708 234,924 (33,486) — 34,8810 — 519,236 138,229 438,090 13,033 61,158 651,230 366,459 (36,661) 479,741 29,613 743,751 191,078 602,333 17,952 7,884 819,47 504,015 8,786 — 10,11,026 273,191 861,461 25,667 147,089 1,307,408 720,666 600,763 484,221 47,273 768,080 192,863 608,160 18,120 15,176 834,319 508,722 10,543 — 4484,221 47,273 768,080 192,863 608,160 18,120 15,176 834,319 508,722 10,543 — 14,744 14,459 36,407 5,473 5,473 5,473 18,188 552 2,382 7,281 15,490 2,384 4,274 6,938 — 14,744 14,459 36,407 5,473 5,473 5,473 5,473 5,473 5,474 5,473 5,474 5,474 5,475 5,47												378,183
284,265 9,981 433,135 113,221 357,024 10,637 45,663 526,545 298,648 (£6,296) —	~~~~	~~~~~	~~~~	~~~~	~~~~	~~~~		~~~~ <u>`</u>		~~~~	~~~~~	·····
101,871 18,371 170,015 40,575 127,946 3,812 10,006 182,339 107,026 11,290												150,359
203,944 9,703 313,92 812,30 256,144 7,632 349 345,355 214,263 4,305												272,352 118,316
180,466 10,421 279,061 71,879 226,657 6,753 10,715 316,004 189,597 (1,266)												218,568
716,828 86,481 1,153,545 285,509 900,304 26,824 33,269 1,245,506 753,008 8,285 — 172,725 32,685 289,769 68,795 216,934 6,463 8,749 300,941 181,464 17,088 — 183,652 — 56,942 15,236 48,043 1,431 10,283 74,993 40,188 (5,923) — 183,790,151 491,725 13,576,674 3,501,077 11,040,042 32,8934 365,655 15,233,708 9,234,924 (83,486) — 183,881 1,497,741 29,613 743,751 191,078 602,533 71,952 7,884 819,447 504,015 8,786 — 204,196 30,965 334,930 81,330 256,461 7,641 17,413 36,2465 214,528 18,138 — 685,901 — 10,21,026 273,191 861,461 25,667 147,089 1,307,408 720,606 (80,763) — 96,478 12,352 155,969 38,427 121,173 3,610 22,694 185,904 101,360 (15,554) — 184,221 47,273 768,080 192,863 66,828 52,827 — 1,167,348 725,096 44,274 — 392,418 — 584,150 156,298 492,859 14,684 121,181 785,022 412,274 (69,938) — 14,744 14,459 36,407 5,873 18,518 552 2,338 27,281 11,5400 5,284 — 18,187,905 447,495 3,244,147 748,338 2,359,820 70,309 — 3,178,487 19,73574 259,888 — 12,878,905 447,495 3,244,177 748,358 2,359,820 70,309 — 3,178,487 19,73574 259,888 — 12,273 64,570 14,665 36,652 36,773 13,789 — 623,351 33,7127 61,215 — 12,224 48,944 13,322,18 34,319 54,856 (32,074) — 12,2568 13,656 20,0724 50,033 15,783 4,793 15,752 41,573 15,759 8,707 776,461 205,424 47,773 13,789 — 623,351 33,7127 61,215 — 12,268 13,656 200,724 50,033 15,783 4,793 15,752 51,575 51,575 51,576 140,665 15,337 11,647,55 34,703 42,763 16,11,594 97,330 (11,256) — 125,668 13,656 200,724 50,033 15,783 4,793 32,248 1 33,249 32,249 32,249 32,249 32,249 32,249 33,249 34,340 34,341 33,2418 34,341 33,2418 34,341 34,341 37,372 32,341 34,341 33,2418 34,341 34,34											_	438,932
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172,725 32,652 289,769 68,795 216,934 6,463 8,749 300,941 181,464 17,088												761,383
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8,790,151 491,725 13,576,674 3,501,077 11,040,042 328,934 363,655 15,233,708 9,234,924 (83,486) — 348,810 — 519,236 138,929 438,990 13,053 61,158 651,230 366,459 (36,661) — 479,741 29,613 743,751 191,078 602,533 17,952 7,884 819,47 504,015 8,786 — 204,196 30,965 334,930 81,330 256,461 7,641 17,413 362,845 214,528 18,138 — 685,901 — 1,021,026 273,191 861,461 25,667 147,089 1,307,408 720,060 (80,763) — 96,678 12,352 155,969 38,427 121,173 3,610 22,694 185,904 101,360 (15,554) — 484,221 47,273 768,080 192,863 608,160 18,120 15,176 834,319 508,722 10,543 — 690,174 62,122 1,089,509 274,893 866,828 25,827 — 1,167,548 725,096 44,274 — 93,92,418 — 584,150 156,298 492,859 14,684 121,181 785,022 412,74 (69,938) — 14,744 14,459 36,407 5,873 18,518 552 2,338 27,281 15,490 5,284 — 1,878,905 447,995 3,244,417 748,358 2,359,820 70,309 — 3,178,487 1973,974 259,888 — 92,858 587 138,815 36,985 116,625 3,475 10,753 167,838 97,556 (10,048) — 92,858 587 138,815 36,985 116,625 3,475 10,753 167,838 97,556 (10,048) — 1515,759 8,707 776,461 25,944 464,770 19,300 41,437 913,931 541,856 (22,074) — 92,7386 45,769 1,426,68 369,373 1,164,755 34,703 42,763 1,151,94 97,4310 (11,256) — 102,102 12,732 164,720 40,667 128,236 3,821 — 172,724 107,268 7,743 — 150,807 161,299 385,789 60,065 189,406 5,643 — 255,114 18,437 83,107 — 152,668 13,656 200,724 50,053 157,834 4,703 — 255,114 158,437 83,107 — 152,668 13,656 200,724 50,053 157,834 4,703 — 255,114 158,437 83,107 — 125,668 13,656 200,724 50,053 157,834 4,703 — 255,114 158,437 83,107 — 152,668 13,656 200,724 50,053 157,834 4,703 — 255,114 158,437 83,107 — 152,668 13,666 200,724 50,053 157,834 4,703 — 255,114 158,437 83,107 — 152,668 13,666 200,724 50,053 157,834 4,703 — 255,114 158,437 83,107 — 152,668 13,666 200,724 50,053 157,834 4,703 — 255,114 158,437 03,227 6,409 — 152,668 13,365 200,724 50,053 157,834 4,703 — 255,114 158,437 132,00 1,566,90 — 152,609 5,046 13,337,31 338,219 1,066,515 31,776 12,780 1449,20 892,133 253,334 — 226,925 23,561 361,360 90,838 285,007 8,49									,		_	34,265
479,741 29,613 743,751 191,078 602,533 17,952 7,884 819,447 504,015 8,786 — 204,196 30,965 334,930 813,330 256,461 7,641 17,413 362,845 214,528 18,138 — 96,478 12,352 155,969 38,427 121,173 3,610 22,694 185,904 101,300 (15,554) — 484,221 47,273 768,080 192,863 608,160 18,120 15,176 834,319 506,722 10,543 — 960,174 62,122 1,089,509 274,893 866,828 25,827 — 1,167,548 755,906 44,274 — 392,418 — 584,150 156,298 492,859 14,684 121,181 785,022 412,274 (69,938) — 1,878,905 447,495 3,244,417 748,358 2,359,820 70,309 — 3,178,487 1,973,974 259,888 — 92,858 587		491,725							9,234,924		_	9,151,438
479,741 29,613 743,751 191,078 602,533 17,952 7,884 819,447 504,015 8,786 — 204,196 30,965 334,930 813,330 256,461 7,641 17,413 362,845 214,528 18,138 — 96,478 12,352 155,969 38,427 121,173 3,610 22,694 185,904 101,300 (15,554) — 484,221 47,273 768,080 192,863 608,160 18,120 15,176 834,319 506,722 10,543 — 960,174 62,122 1,089,509 274,893 866,828 25,827 — 1,167,548 755,906 44,274 — 392,418 — 584,150 156,298 492,859 14,684 121,181 785,022 412,274 (69,938) — 1,878,905 447,495 3,244,417 748,358 2,359,820 70,309 — 3,178,487 1,973,974 259,888 — 92,858 587	348.810		519.236	138.929	438.090	13.053	61.158	651.230	366.459	(36,661)		329,798
204,196 30,965 334,930 81,330 256,461 7,641 17,413 362,845 214,528 18,138 — 685,901 — 1,021,026 273,191 861,461 25,667 147,089 1,307,408 720,606 (80,763) — 1,021,026 273,191 861,461 25,667 147,089 1,307,408 720,606 (80,763) — 1,021,026 274,993 866,828 25,827 — 1,167,548 725,096 44,274 — 1,021,026 274,893 866,828 25,827 — 1,167,548 725,096 44,274 — 1,021,026 274,027		29,613										512,801
685,901 — 1,021,026 273,191 861,461 25,667 147,089 1,307,408 720,606 (80,763) — 96,478 12,352 155,969 38,427 121,173 3,610 22,694 185,904 101,360 (15,554) — 484,221 47,273 768,080 192,863 608,160 18,120 15,176 834,319 508,722 10,543 — 690,174 62,122 1,089,509 274,893 866,828 25,827 — 1,167,548 725,096 44,274 — 392,418 — 584,150 156,298 492,859 14,684 121,181 785,022 412,274 (69,938) — 14,744 14,459 36,407 5,873 185,18 552 2,338 27,281 15,490 5,284 — 1,878,905 447,495 3,244,417 748,358 2,359,820 70,309 — 3,178,487 1,973,974 259,888 — 92,858 587 138,815 36,985 116,625 3,475 10,753 167,838 97,556 (10,048) — 515,7579 8,707 776,61 205,424 647,770 19,300 41,437 913,931 541,856 (32,074) — 927,386 45,769 1,426,268 369,373 1,164,755 34,703 42,763 1,611,594 974,310 (11,256) — 102,102 12,732 164,720 40,667 128,236 3,821 — 172,724 107,268 7,743 — 862,214 48,934 1,332,418 343,415 1,082,902 32,264 208,251 1,666,832 905,841 (46,949) — 862,214 48,934 1,332,418 343,415 1,082,902 32,264 208,251 1,666,832 905,841 (46,949) — 593,162 158,709 500,462 14,911 83,143 757,225 418,634 (51,841) — 593,162 158,709 500,462 14,911 83,143 757,225 418,634 (51,841) — 64,937,337 1,283,895 8,633,662 1,566,540 6,201,149 184,759 455,999 8,808,447 5,187,211 292,481 — 64,937,337 1,283,895 8,633,662 1,566,540 6,201,149 184,759 455,999 8,808,447 5,187,211 292,481 — 64,937,337 1,283,895 8,633,662 1,566,540 6,201,149 184,759 455,999 8,808,447 5,187,211 292,481 — 64,937,337 1,283,895 8,633,662 1,566,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 64,937,337 1,283,895 8,633,662 1,566,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 64,937,337 1,283,895 8,633,662 1,566,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 64,937,337 1,283,895 8,633,662 1,566,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 64,937,337 1,283,895 8,633,662 1,566,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 64,937,337 1,283,895 8,633,662 1,566,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 64,937,337 1,283,895 8											_	232,666
484,221		_	1,021,026	273,191	861,461	25,667	147,089	1,307,408	720,606	(80,763)	_	639,843
690,174 62,122 1,089,509 274,893 866,828 25,827 — 1,167,548 725,096 44,274 — 392,418 — 584,150 156,298 492,899 14,684 121,181 785,022 412,274 (69,938) — 1,4744 14,459 36,407 5,873 18,518 552 2,338 72,281 15,490 5,284 — 1,878,905 447,495 3,244,417 748,358 2,359,820 70,309 — 3,178,487 1,973,974 259,888 — 9,2858 587 138,815 36,985 116,625 3,475 10,753 167,838 97,556 (10,048) — 368,482 127,417 675,936 146,765 462,797 13,789 — 623,351 387,127 61,215 — 515,759 8,707 776,461 205,424 647,770 19,300 41,437 913,931 541,856 (32,074) — 927,386 45,769 1,426,268 369,373 1,164,755 34,703 42,763 1,611,594 974,310 (11,256) — 102,102 12,732 164,720 40,667 128,236 3,821 — 172,724 107,268 7,743 — 105,807 161,299 385,789 60,065 189,406 5,643 — 255,114 158,437 83,107 — 125,668 13,656 200,724 50,053 157,834 4,703 — 215,590 132,027 6,409 — 862,214 48,934 1,332,418 343,415 1,082,902 32,264 208,251 1,666,832 905,841 (46,949) — 57,528 5,045 90,681 22,913 72,253 2,153 — 97,319 60,439 2,515 — 384,727 — 593,162 158,709 500,462 14,911 83,143 757,225 418,634 (51,841) — 226,925 23,561 361,360 90,383 285,007 8,492 8337 392,219 238,407 6,686 — 2,128,171 24,192 3,192,169 847,639 2,2672,887 79,637 364,030 3,964,193 2,235,853 (131,271) — 65,482 20,973 118,449 26,081 82,242 2,450 389 111,162 68,795 9,216 — 4,937,397 1,283,895 8,633,662 1,966,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 22,006 1,173 33,931 8,765 27,639 823 12,577 49,804 23,120 (7,028) — 128,059 20,087 210,714 51,005 160,836 4,992 7,071 223,704 134,538 11,983 — 44,081 16,646 82,265 17,557 55,364 1,650 — 74,571 46,312 8,290 —	96,478	12,352	155,969	38,427	121,173	3,610	22,694	185,904	101,360	(15,554)		85,806
690,174 62,122 1,089,509 274,893 866,828 25,827 — 1,167,548 725,096 44,274 — 392,418 — 584,150 156,298 492,899 14,684 121,181 785,022 412,274 (69,938) — 1,4744 14,459 36,407 5,873 18,518 552 2,338 72,281 15,490 5,284 — 1,878,905 447,495 3,244,417 748,358 2,359,820 70,309 — 3,178,487 1,973,974 259,888 — 9,2858 587 138,815 36,985 116,625 3,475 10,753 167,838 97,556 (10,048) — 368,482 127,417 675,936 146,765 462,797 13,789 — 623,351 387,127 61,215 — 515,759 8,707 776,461 205,424 647,770 19,300 41,437 913,931 541,856 (32,074) — 927,386 45,769 1,426,268 369,373 1,164,755 34,703 42,763 1,611,594 974,310 (11,256) — 102,102 12,732 164,720 40,667 128,236 3,821 — 172,724 107,268 7,743 — 105,807 161,299 385,789 60,065 189,406 5,643 — 255,114 158,437 83,107 — 125,668 13,656 200,724 50,053 157,834 4,703 — 215,590 132,027 6,409 — 862,214 48,934 1,332,418 343,415 1,082,902 32,264 208,251 1,666,832 905,841 (46,949) — 57,528 5,045 90,681 22,913 72,253 2,153 — 97,319 60,439 2,515 — 384,727 — 593,162 158,709 500,462 14,911 83,143 757,225 418,634 (51,841) — 226,925 23,561 361,360 90,383 285,007 8,492 8337 392,219 238,407 6,686 — 2,128,171 24,192 3,192,169 847,639 2,2672,887 79,637 364,030 3,964,193 2,235,853 (131,271) — 65,482 20,973 118,449 26,081 82,242 2,450 389 111,162 68,795 9,216 — 4,937,397 1,283,895 8,633,662 1,966,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 22,006 1,173 33,931 8,765 27,639 823 12,577 49,804 23,120 (7,028) — 128,059 20,087 210,714 51,005 160,836 4,992 7,071 223,704 134,538 11,983 — 44,081 16,646 82,265 17,557 55,364 1,650 — 74,571 46,312 8,290 —	484,221	47,273	768,080	192,863	608,160	18,120	15,176	834,319	508,722	10,543	_	519,265
392,418 — 584,150 156,298 492,859 14,684 121,181 785,022 412,274 (69,938) — 14,744 14,459 36,407 5,873 18,518 552 2,338 27,281 15,490 5,284 — 18,789,905 447,495 3,244,417 748,358 2,359,820 — 3,178,487 1,973,974 259,888 — 92,858 587 138,815 36,985 116,625 3,475 10,753 167,838 97,556 (10,048) — 368,482 127,417 675,936 146,765 462,797 13,789 — 623,351 387,127 61,215 — 515,759 8,707 776,461 205,424 647,770 19,300 41,437 913,931 541,856 (32,074) — 927,386 45,769 1,46,668 369,373 1,164,755 34,703 42,763 1,611,594 974,310 (11,256) — 102,102 12,732 164,720 40,667 128,236 34,831 — 172,724 107,268 7,743 — 150,807 161,299 385,789 60,065 189,406 5,643 — 255,114 158,437 83,107 — 125,668 13,656 200,724 50,053 157,834 4,703 — 212,590 132,027 6,409 — 862,214 48,934 13,332,418 343,415 1,082,902 32,264 208,251 1,666,832 905,841 (46,949) — 57,528 5,045 90,681 22,913 72,253 2,153 — 97,319 60,439 2,515 — 93,162 158,709 500,462 14,911 83,143 757,225 418,644 (51,841) — 849,167 49,668 1,313,731 338,219 1,066,515 31,776 12,780 1,449,290 892,133 25,394 — 226,925 23,561 361,360 90,383 285,007 8,492 8,337 392,219 238,407 6,686 — 21,28,171 24,192 3,192,169 847,639 2,672,887 79,637 364,030 3,964,193 2,235,853 (131,271) — 65,482 20,973 118,449 26,081 82,242 2,450 389 111,162 68,795 9,216 — 49,337,397 1,283,895 8,633,662 1,966,540 6,201,149 184,759 455,999 8,808,447 5,187,212 292,481 — 22,006 1,173 33,931 8,765 27,639 823 12,577 49,804 23,120 (7,028) — 128,059 20,087 210,714 51,005 160,836 4,792 7,071 223,704 134,538 11,983 — 44,081 16,646 82,265 17,557 55,364 1,650 — 74,571 46,312 8,290 —							_				_	769,370
1,878,905 447,495 3,244,417 748,358 2,359,820 70,309 — 3,178,487 1,973,974 259,888 — 92,858 587 138,815 36,985 116,625 3,475 10,753 167,838 97,556 (10,048) — 368,482 127,417 675,936 146,765 462,797 13,789 — 623,351 387,127 61,215 — 515,759 8,707 776,461 205,424 647,770 19,300 41,437 913,931 541,856 32,074) — 927,386 45,769 1,426,268 369,373 1,164,755 34,703 42,763 1,611,594 974,310 (11,256) — 102,102 12,732 164,720 40,667 128,236 3,821 — 172,724 107,268 7,743 — 150,807 161,299 385,789 60,065 189,406 5,643 — 255,114 158,437 83,107 — 125,668 13,656 200,724 50,053 157,834 4,703 — 212,590 132,027							121,181				_	342,336
92,858 587 138,815 36,985 116,625 3,475 10,753 167,838 97,556 (10,048) — 368,482 127,417 675,936 146,765 462,797 13,789 — 623,351 387,127 61,215 — 515,759 8,707 776,461 205,424 647,770 19,300 41,437 913,931 541,856 (32,074) — 927,386 45,769 1,426,268 369,373 1,164,755 34,703 42,763 1,611,594 974,310 (11,256) — 102,102 12,732 164,720 40,667 128,236 3,821 — 172,724 107,268 7,743 — 150,807 161,299 385,789 60,065 189,406 5,643 — 255,114 158,437 83,107 — 125,668 13,656 200,724 50,053 157,834 4,703 — 212,590 132,027 6,409 — 862,214 48,934 1,332,418 343,415 1,082,902 32,264 208,251 1,666,832 905,841 (46,949) — 57,528 5,045 90,681 22,913 72,253 2,153 — 97,319 60,439 2,515 — 398,472 — 593,162 158,709 500,462 14,911 83,143 757,225 418,634 (51,841) — 849,167 49,668 1,313,731 338,219 1,066,515 31,776 12,780 1,449,290 892,133 25,394 — 226,925 23,561 361,360 90,383 285,007 8,492 8,337 392,219 238,407 6,666 — 2,128,171 24,192 3,192,169 847,639 2,672,887 79,637 364,030 3,964,193 2,235,853 (131,271) — 65,482 20,973 118,449 26,081 82,242 2,450 389 111,162 68,795 9,216 — 4,937,397 1,283,895 8,633,662 1,966,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 22,006 1,173 33,931 8,765 27,639 823 12,577 49,804 23,120 (7,028) — 128,059 20,087 210,714 51,005 160,836 4,792 7,071 223,704 134,538 11,983 — 44,081 16,646 82,265 17,557 55,364 1,650 — 74,571 46,312 8,290 —	14,744	14,459	36,407	5,873	18,518	552	2,338	27,281	15,490	5,284	_	20,774
368,482 127,417 675,936 146,765 462,797 13,789 — 623,351 387,127 61,215 — 515,759 8,707 776,461 205,424 647,770 19,300 41,437 913,931 541,856 (32,074) — 927,386 45,769 1,426,268 369,373 1,164,755 34,703 42,763 1,611,594 974,310 (11,256) — 102,102 12,732 164,720 40,667 128,236 3,821 — 172,724 107,268 7,743 — 150,807 161,299 385,789 60,065 189,406 5,643 — 255,114 158,437 83,107 — 125,668 13,656 200,724 50,053 157,834 4,703 — 212,590 132,027 6,409 — 862,214 48,934 1,332,418 343,415 1,082,902 32,264 208,251 1,666,832 905,841 (46,949) — 57,528 5,045 90,881 22,913 72,253 2,153 — 97,319 60,439 <t< td=""><td>1,878,905</td><td>447,495</td><td>3,244,417</td><td>748,358</td><td>2,359,820</td><td>70,309</td><td> .</td><td>3,178,487</td><td>1,973,974</td><td>259,888</td><td> .</td><td>2,233,862</td></t<>	1,878,905	447,495	3,244,417	748,358	2,359,820	70,309	 .	3,178,487	1,973,974	259,888	 .	2,233,862
368,482 127,417 675,936 146,765 462,797 13,789 — 623,351 387,127 61,215 — 515,759 8,707 776,461 205,424 647,770 19,300 41,437 913,931 541,856 (32,074) — 927,386 45,769 1,426,268 369,373 1,164,755 34,703 42,763 1,611,594 974,310 (11,256) — 102,102 12,732 164,720 40,667 128,236 3,821 — 172,724 107,688 7,743 — 150,807 161,299 385,789 60,065 189,406 5,643 — 255,114 158,437 83,107 — 125,668 13,656 200,724 50,053 157,834 4,703 — 212,590 132,027 6,409 — 862,214 48,934 1,332,418 343,415 1,082,902 32,264 208,251 1,666,832 905,841 (46,949) — 57,528 5,045 90,881 22,913 72,253 2,153 — 97,319 60,439 <t< td=""><td>92,858</td><td>587</td><td>138,815</td><td>36,985</td><td>116,625</td><td>3,475</td><td>10,753</td><td>167,838</td><td>97,556</td><td>(10,048)</td><td>_</td><td>87,508</td></t<>	92,858	587	138,815	36,985	116,625	3,475	10,753	167,838	97,556	(10,048)	_	87,508
927,386		127,417									_	448,342
102,102 12,732 164,720 40,667 128,236 3,821 — 172,724 107,268 7,743 — 150,807 161,299 385,789 60,065 189,406 5,643 — 255,114 158,437 83,107 — 125,668 13,656 200,724 50,053 157,834 4,703 — 212,590 132,027 6,409 — 862,214 48,934 1,332,418 343,415 1,082,902 32,264 208,251 1,666,832 905,841 (46,949) — 57,528 5,045 90,681 22,913 72,253 2,153 — 97,319 60,439 2,515 — 398,472 — 593,162 158,709 500,462 14,911 83,143 757,225 418,634 (51,841) — 849,167 49,668 1,313,731 338,219 1,066,515 31,776 12,780 1,449,290 892,133 25,394 — 2,128,171 24,192 3,192,169 847,639 2,672,887 79,637 364,030 3,964,193 2,235,853	515,759	8,707	776,461	205,424	647,770	19,300	41,437	913,931	541,856	(32,074)	_	509,782
150,807 161,299 385,789 60,065 189,406 5,643 — 255,114 158,437 83,107 — 125,668 13,656 200,724 50,053 157,834 4,703 — 212,590 132,027 6,409 — 862,214 48,934 1,332,418 343,415 1,082,902 32,264 208,251 1,666,832 905,841 (46,949) — 57,528 5,045 90,681 22,913 72,253 2,153 — 97,319 60,439 2,515 — 398,472 — 593,162 158,709 500,462 14,911 83,143 757,225 418,634 (51,841) — 849,167 49,668 1,313,731 338,219 1,066,515 31,776 12,780 1,449,290 892,133 25,394 — 226,925 23,561 361,360 90,383 285,007 8,492 8,337 392,219 238,407 6,686 — 2,128,171 24,192 3,192,169 847,639 2,672,887 79,637 364,030 3,964,193 2,235,853 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>42,763</td> <td></td> <td>974,310</td> <td></td> <td>_</td> <td>963,054</td>							42,763		974,310		_	963,054
125,668 13,656 200,724 50,053 157,834 4,703 — 212,590 132,027 6,409 — 862,214 48,934 1,332,418 343,415 1,082,902 32,264 208,251 1,666,832 905,841 (46,949) — 57,528 5,045 90,681 22,913 72,253 2,153 — 97,319 60,439 2,515 — 398,472 — 593,162 158,709 500,462 14,911 83,143 757,225 418,634 (51,841) — 849,167 49,668 1,313,731 338,219 1,066,515 31,776 12,780 1,449,290 892,133 25,394 — 226,925 23,561 361,360 90,383 285,007 8,492 8,337 392,119 238,407 6,686 — 2,128,171 24,192 3,192,169 847,639 2,672,887 79,637 364,030 3,964,193 2,235,853 (131,271) — 65,482 20,973 118,449 26,081 82,242 2,450 389 111,62 68,795 </td <td>102,102</td> <td>12,732</td> <td>164,720</td> <td>40,667</td> <td>128,236</td> <td>3,821</td> <td></td> <td>172,724</td> <td>107,268</td> <td>7,743</td> <td></td> <td>115,011</td>	102,102	12,732	164,720	40,667	128,236	3,821		172,724	107,268	7,743		115,011
862,214 48,934 1,332,418 343,415 1,082,902 32,264 208,251 1,666,832 905,841 (46,949) — 57,528 5,045 90,681 22,913 72,253 2,153 — 97,319 60,439 2,515 — 398,472 — 593,162 158,709 500,462 14,911 83,143 757,225 418,634 (51,841) — 849,167 49,668 1,313,731 338,219 1,066,515 31,776 12,780 1,449,290 892,133 25,394 — 226,925 23,561 361,360 90,383 285,007 8,492 8,337 392,219 238,407 6,686 — 2,128,171 24,192 3,192,169 847,639 2,672,887 79,637 364,030 3,964,193 2,235,853 (131,271) — 65,482 20,973 118,449 26,081 82,242 2,450 389 111,162 68,795 9,216 — 4,937,397 1,283,895 8,633,662 1,966,540 6,201,149 184,759 455,999 8,808,447 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td>_</td> <td>241,544</td>							_				_	241,544
57,528 5,045 90,681 22,913 72,253 2,153 — 97,319 60,439 2,515 — 398,472 — 593,162 158,709 500,462 14,911 83,143 757,225 418,634 (51,841) — 849,167 49,668 1,313,731 338,219 1,066,515 31,776 12,780 1,449,290 892,133 25,394 — 226,925 23,561 361,360 90,383 285,007 8,492 8,337 392,219 238,407 6,686 — 2,128,171 24,192 3,192,169 847,639 2,672,887 79,637 364,030 3,964,193 2,235,853 (131,271) — 65,482 20,973 118,449 26,081 82,242 2,450 389 111,162 68,795 9,216 — 4,937,397 1,283,895 8,633,662 1,966,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 22,006 1,173 33,931 8,765 27,639 823 12,577 49,804 23												138,436
398,472 — 593,162 158,709 500,462 14,911 83,143 757,225 418,634 (51,841) — 849,167 49,668 1,313,731 338,219 1,066,515 31,776 12,780 1,449,290 892,133 25,394 — 226,925 23,561 361,360 90,383 285,007 8,492 8,337 392,219 238,407 6,686 — 2,128,171 24,192 3,192,169 847,639 2,672,887 79,637 364,030 3,964,193 2,235,853 (131,271) — 65,482 20,973 118,449 26,081 82,242 2,450 389 111,162 68,795 9,216 — 4,937,397 1,283,895 8,633,662 1,966,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 22,006 1,173 33,931 8,765 27,639 823 12,577 49,804 23,120 (7,028) — 128,059 20,087 210,714 51,005 160,836 4,792 7,071 223,704												858,892
849,167 49,668 1,313,731 338,219 1,066,515 31,776 12,780 1,449,290 892,133 25,394 — 226,925 23,561 361,360 90,383 285,007 8,492 8,337 392,219 238,407 6,686 — 2,128,171 24,192 3,192,169 847,639 2,672,887 79,637 364,030 3,964,193 2,235,853 (131,271) — 65,482 20,973 118,449 26,081 82,242 2,450 389 111,162 68,795 9,216 — 4,937,397 1,283,895 8,633,662 1,966,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 22,006 1,173 33,931 8,765 27,639 823 12,577 49,804 23,120 (7,028) — 128,059 20,087 210,714 51,005 160,836 4,792 7,071 223,704 134,538 11,983 — 44,081 16,646 82,265 17,557 55,364 1,650 — 74,571 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>62,954 366,793</td></td<>												62,954 366,793
226,925 23,561 361,360 90,383 285,007 8,492 8,337 392,219 238,407 6,686 — 2,128,171 24,192 3,192,169 847,639 2,672,887 79,637 364,030 3,964,193 2,235,853 (131,271) — 65,482 20,973 118,449 26,081 82,242 2,450 389 111,162 68,795 9,216 — 4,937,397 1,283,895 8,633,662 1,966,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 22,006 1,173 33,931 8,765 27,639 823 12,577 49,804 23,120 (7,028) — 128,059 20,087 210,714 51,005 160,836 4,792 7,071 223,704 134,538 11,983 — 44,081 16,646 82,265 17,557 55,364 1,650 — 74,571 46,312 8,290 —	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	-	~~~~~
2,128,171 24,192 3,192,169 847,639 2,672,887 79,637 364,030 3,964,193 2,235,853 (131,271) — 65,482 20,973 118,449 26,081 82,242 2,450 389 111,162 68,795 9,216 — 4,937,397 1,283,895 8,633,662 1,966,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 22,006 1,173 33,931 8,765 27,639 823 12,577 49,804 23,120 (7,028) — 128,059 20,087 210,714 51,005 160,836 4,792 7,071 223,704 134,538 11,983 — 44,081 16,646 82,265 17,557 55,364 1,650 — 74,571 46,312 8,290 —												917,527
65,482 20,973 118,449 26,081 82,242 2,450 389 111,162 68,795 9,216 — 4,937,397 1,283,895 8,633,662 1,966,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 22,006 1,173 33,931 8,765 27,639 823 12,577 49,804 23,120 (7,028) — 128,059 20,087 210,714 51,005 160,836 4,792 7,071 223,704 134,538 11,983 — 44,081 16,646 82,265 17,557 55,364 1,650 — 74,571 46,312 8,290 —												245,093
4,937,397 1,283,895 8,633,662 1,966,540 6,201,149 184,759 455,999 8,808,447 5,187,221 292,481 — 22,006 1,173 33,931 8,765 27,639 823 12,577 49,804 23,120 (7,028) — 128,059 20,087 210,714 51,005 160,836 4,792 7,071 223,704 134,538 11,983 — 44,081 16,646 82,265 17,557 55,364 1,650 — 74,571 46,312 8,290 —												2,104,582
22,006 1,173 33,931 8,765 27,639 823 12,577 49,804 23,120 (7,028) — 128,059 20,087 210,714 51,005 160,836 4,792 7,071 223,704 134,538 11,983 — 44,081 16,646 82,265 17,557 55,364 1,650 — 74,571 46,312 8,290 —												78,011 5,479,702
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44,081 16,646 82,265 17,557 55,364 1,650 — 74,571 46,312 8,290 —												16,092
												146,521 54,602
	5/,/63,8/3	5,000,//0	21,293,283	Z3,UU/,U3 I	12,348,832	2,101,548	3,323,506	103,242,93/	00,086,633	13,959		60,700,592
		_					Q 21N	0 210		(7 5/19)		(7,548
		_	_	_	_	_			_			(8,757
— 3,076 3,076 — — 148,671 148,671 — (73,677) —	_	3,076		_	_				_			(73,677
				23 007 051								60,610,611
בניסיסילינו בעליסילי ארייניין בעליסיליני פארייניין ארייניין בעליסיליני ארייניין ארייין ארייניין ארייין ארייניין ארייניין ארייניין ארייניין ארייין ארייניין ארייין ארייין אריייין ארייין ארייייין אריייין אריייין אריייין ארייייין אריייין ארייייין אריייייין ארייייין אר	31,103,013	J,007,0 4 0	71,370,037	۱ د۱,۱۷۷۱ دع	12,340,032	۷,۱۵۱,۵40	3,032,003	103,410,034	00,000,033	(70,022)	_	00,010,011

Public Safety Retirement System State of Utah

Schedule of Employer Allocations and Pension Amounts

at December 31, 2017 Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Projected and Actual Investment Earnings on Pension Plan Investments	
Dixie State University Snow College Southern Utah University	\$ 78,012 28,836 99,422	0.1560612% 0.0576864 0.1988919	\$ 271,370 100,309 345,846	563,901 208,440 718,663	31,125 11,505 39,667	3,915 1,447 4,990	36,524 13,501 46,547	
State of Utah University of Utah Utah State University	48,751,653 855,764 174,485	97.5263743 1.7119332 0.3490530	169,585,356 2,976,823 606,957	352,395,484 6,185,789 1,261,245	19,450,621 341,427 69,615	2,446,744 42,949 8,757	22,824,498 400,651 81,690	~~~~~
Grand Total	\$ 49,988,173	100.0000000%	\$ 173,886,661	361,333,522	19,943,960	2,508,802	23,403,411	

Difference

Difference

Difference

Difference

Columns may not add to total due to rounding.

Public Safety Retirement System Salt Lake City

Schedule of Employer Allocations and Pension Amounts

Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Projected and Actual Investment Earnings on Pension Plan Investments	
Salt Lake City Corp	\$ 14,899,169	100.0000000%	\$ 86,194,634	137,497,858	44,045,920	3,226,957	5,633,153	

Public Safety Retirement System Ogden City

Schedule of Employer Allocations and Pension Amounts

at December 31, 2017 Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Projected and Actual Investment Earnings on Pension Plan Investments	
Ogden City Corp	\$ 3,072,136	100.0000000%	\$ 19,938,952	31,567,731	10,420,361	1,211,508	1,314,543	

Public Safety Retirement System Provo City

Schedule of Employer Allocations and Pension Amounts

at December 31, 2017 Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Projected and Actual Investment Earnings on Pension Plan Investments	
	\$ 2.257.577	100.0000000%	\$ 11,389,861	20.182.811	4.192.119	298.874	1,008,506	

Controllation Controllatio		ense Excluding T oyer-Paid Membe			ws of Resources	Deferred Inflo				s of Resources	Deferred Outflow	
28,346 28,566 63,008 25,944 34,679 223 27,466 24,503 22,005 47,506 74,750 74	Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member	Share of Nonemployer	of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	Proportionate Share of Allocable Plan Gross Pension	Deferred Inflows of	Proportion and Differences Between Employer Contributions and Proportionate Share of		Difference Between Projected and Actual Investment Earnings on Pension Plan	Between Expected and Actual	Deferred Outflows of	Proportion and Differences Between Employer Contributions and Proportionate Share of	Changes of
1,23,398 1,23 1,2	47,508	_ _ _	23,005	24,503	37,496	_	223	34,679	2,594	63,908	28,566	20,394
Deferred Outflows of Resources Cases in Proportion and Differences Extrement Combibulions Changes of Combibulions Combibulions Changes of Combibulions Combibulions Changes of Combibulions Changes of Combibulions Changes of Combibulions Combibulions Changes of Combibulions Combibulions Combibulions Combibulions Combibulions Combibulions Combibulions Combibulions Combibulions Changes of Combibulions Combibulions Changes of Combibulions Changes of Combibulions Combibulions Changes of Combibulions Combibulions Changes of Combibulions Combibulions Combibulions Changes of Combibulions Changes of Combibulions Changes of Combibul	1,048,369		321,208	727,161	1,112,766	_ _ _ _	6,629	1,029,143	76,994	1,519,344	470,535	605,209
Deferred Outflows of Resources Proportion and Prop	42,944,290	_	468,257	42,476,033	65,063,775	63,274	387,200	60,115,835	4,497,466	62,011,925	747,354	35,352,358
Proportion and Differences Between Bet			to Emplo et Amortization of Deferred Amounts from	N	ws of Resources					s of Resources		
Deferred Outflows of Resources Deferred Inflows of Resources Deferred Inflows of Resources Deferred Inflows of Resources Pension Expense Excluding That Attributable to Employer-Paid Member Contributions Net Amounts from Changes in Proportion and Differences Between Employer Contributions Changes of Share of Outflows of Resources Differences Between Proportionate Proportion and Contributions Changes of Share of Contributions 2,379,400 — 4,905,451 229,345 3,316,907 — — 3,546,252 4,831,200 — — 4,831,200 Deferred Outflows of Resources Deferred Inflows of Resources Deferred Inflows of Resources Pension Expense Excluding That Attributable Contributions Proportionate Proportionate Proportionate Proportionate Contributions 2,379,400 — 4,905,451 229,345 3,316,907 — — 3,546,252 4,831,200 — — 4,831,200 Deferred Outflows of Resources Deferred Inflows of Resources Deferred Inflows of Resources Pension Expense Excluding That Attributable Contributions Proportionate Proportionate Proportionate Proportionate Outflows of Resources Deferred Inflows of Resources Deferred Inflows of Resources Deferred Inflows of Resources Pension Expense Excluding That Attributable Contributions Contributions Contributions Contributions Not Amounts from Contributions Contributions Contributions Not Amounts from Contributions Contributions Contributions Not Amounts from Contributions Contributions Not Amounts from Contributions Contributions Contributions Not Amounts from Contributions Contributions Not Amounts from Contributions Contributions Contributions Not Amounts from Contributions Contributions Contributions Not Amounts from Contributions Contributions Not Amounts from Contributions Contributions Contributions Not Amounts from Contributions Contributions Contributions Not Amounts from Contributions Contributions Contributions Contributions Not Amounts from Contributions	Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member	Share of Nonemployer	Proportion and Differences Between Employer Contributions and Proportionate Share of	Proportionate Share of Allocable Plan Gross Pension	Deferred Inflows of	Proportion and Differences Between Employer Contributions and Proportionate Share of	Changes of	Difference Between Projected and Actual Investment Earnings on Pension Plan	Between Expected and Actual	Deferred Outflows of	Proportion and Differences Between Employer Contributions and Proportionate Share of	Changes of
Deferred Outflows of Resources Changes in Proportion and Differences Between Employer Contributions Changes of Share o	17,369,585	_	_	17,369,585	14,590,217	_	_	14,590,217	_	22,342,509	_	13,482,399
Deferred Outflows of Resources Resources Resources Resources Resources Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions Differences Between Employer Contributions Differences Between Employer Contributions Differences Between Employer Contributions Differences Between Employer Contributions Differences Between Employer Contributions And Total Between Proportionate Deferred Earnings on Proportionate Deferred Earnings on Changes of Share of Contributions Share of Changes on Share of Changes on Share of Share of Nonemployer Member Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions	pyer-Paid Membe Proportionate Share of Nonemployer	to Emplo et Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	Proportionate Share of Allocable Plan Gross Pension Expense	Total Deferred Inflows of Resources	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of		Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Between Expected and Actual Experience	Total Deferred Outflows of Resources	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	Changes of Assumptions
Deferred Outflows of Resources Resources Resources Resources Resources Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions Differences Between Employer Contributions Differences Between Employer Contributions Differences Between Employer Contributions Differences Between Employer Contributions Differences Between Employer Contributions And Total Between Proportionate Deferred Earnings on Proportionate Deferred Earnings on Changes of Share of Contributions Share of Changes on Share of Changes on Share of Share of Nonemployer Member Contributions	1,05 1,200			1,03.1,200	3,3 10,232			3,3 13,301	227/5 15	1,703,131		2,51,7,100
Changes in Proportion and Proportion and Differences Employer Projected Employer Proportionate Employer Projected Employer Proportionate Differences Expense Employer Proportionate Differences Differ			to Emplo et Amortization of Deferred	N	ws of Resources	Deferred Inflo				s of Resources	Deferred Outflow	
2,448,597 — 3,755,977 1,164,499 2,586,915 169,040 — 3,920,454 2,391,349 — — 2,391,349	Employer Net Pension		Changes in Proportion and			Proportion and Differences		Difference Between			Proportion and Differences	

Public Safety Retirement System Logan City

Schedule of Employer Allocations and Pension Amounts

at December 31, 2017 Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Between Projected and Actual Investment Earnings on Pension Plan Investments	
Logan City	\$ 1,034,307	100.0000000%	\$ 5,809,852	10,703,039	1,855,547	33,602	578,561	

Net Difference

Net Difference

Net Difference

Public Safety Retirement System Bountiful City

Schedule of Employer Allocations and Pension Amounts

at December 31, 2017 Participating Employer	mployer ibutions	Employer Allocation Percentage	Lia	Net Pension bility/(Asset) 5% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Projected and Actual Investment Earnings on Pension Plan Investments	
City of Bountiful	\$ 910,989	100.0000000%	\$	6,280,025	9,848,354	3,335,206	444,052	419,780	

Public Safety Retirement System Other Division B without Social Security

Schedule of Employer Allocations and Pension Amounts

at December 31, 2017 Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Between Projected and Actual Investment Earnings on Pension Plan Investments	
City of Orem	\$ 1,565,019	7.4094711%	\$ 3,580,282	9,223,958	(1,020,816)	1,904,993	576,775	
City of Saratoga Springs	318,200	1.5064946	727,943	1,875,416	(207,552)	387,323	117,270	
City of West Jordan	1,973,926	9.3454120	4,515,735	11,633,987	(1,287,533)	2,402,728	727,474	
Cottonwood Heights City	516,534	2.4454912	1,181,670	3,044,361	(336,920)	628,742	190,364	
Gunnison Valley Police Dept	49,380	0.2337858	112,966	291,037	(32,209)	60,107	18,199	~~~~~~
Lone Peak PS District	337,129	1.5961116	771,247	1,986,979	(219,899)	410,364	124,246	
Sandy City	1,644,979	7.7880332	3,763,204	9,695,225	(1,072,971)	2,002,322	606,243	
Town of Mantua	18,075	0.0855763	41,351	106,533	(11,790)	22,002	6,662	
Unified Police Department	7,410,984	35.0867757	16,954,051	43,679,088	(4,833,965)	9,020,893	2,731,259	~~~~~~~
Utah County	4,219,392	19.9764093	9,652,669	24,868,382	(2,752,184)	5,135,983	1,555,022	
West Valley City	2,893,751	13.7002595	6,620,012	17,055,282	(1,887,508)	3,522,369	1,066,468	
Woods Cross City	174,505	0.8261797	399,213	1,028,501	(113,824)	212,413	64,312	
Grand Total	\$ 21,121,873	100.0000000%	\$ 48,320,343	124,488,749	(13,777,171)	25,710,239	7,784,294	

	Deferred Outflow	s of Resources				Deferred Inflo	ws of Resources	Pension Expense Excluding That Attributal to Employer-Paid Member Contributio			
								N	et Amortization of Deferred Amounts from		
Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
1,164,705	_	1,776,868	619,112	1,459,198	60,256	_	2,138,566	1,155,195	_	_	1,155,195

Deferred	Outflows of Resources	Pension Expense Excluding Tha S Deferred Inflows of Resources to Employer-Paid Member								
							N	et Amortization of Deferred Amounts from		
Chang Proportio			Net		Changes in Proportion and			Changes in Proportion and		Total
Differ Bet	nces veen		Difference Between		Differences Between			Differences Between		Employer Pension
Emp Contribu	tions	Differences	Projected and Actual		Employer Contributions		Proportionate Share of	Employer Contributions		Net Expense Excluding That
Proporti Changes of Sh Assumptions Contribu	re of Outflows of	Between Expected and Actual Experience	Investment Earnings on Pension Plan Investments	Changes of Assumptions	and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Allocable Plan Gross Pension Expense	and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Attributable to Employer-Paid Member Contributions
1,059,443	— 1,923,275	328,830	1,057,220	33,272	_	1,419,322	1,114,700	_	_	1,114,700

	Deferred Outflow	s of Resources					Pension Expense Excluding That Attributable to Employer-Paid Member Contributions					
Chan Assum	nges of ptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources		et Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
1,66	66,071	27,870	4,175,709	_	1,641,976	162,340	118,066	1,922,382	953,362	(25,906)	_	927,456
33	88,746	20,138	863,477		333,847	33,007	11,284	378,138	193,838	1,849		195,687
2,10)1,380	215,202	5,446,784	_	2,070,991	204,756	14,467	2,290,214	1,202,456	68,872	_	1,271,328
54	19,886	64,885	1,433,877		541,933	53,580	13,724	609,237	314,657	17,939		332,596
5	52,568	46,184	177,058	_	51,808	5,122	_	56,930	30,081	12,138	-	42,219
35	8,897	4,488	897,995	_	353,706	34,971	17,891	406,568	205,369	(4,440)	_	200,929
1,75	51,193	3,051	4,362,809		1,725,868	170,635	92,942	1,989,445	1,002,071	(28,415)		973,656
1	19,242	16,609	64,515	_	18,964	1,875	_	20,839	11,011	4,466	_	15,477
7,88	39,502	319,334	19,960,988	_	7,775,407	768,747	144,762	8,688,916	4,514,548	36,268	_	4,550,816
4,49	91,833	173,011	11,355,849	_	4,426,873	437,680	105,992	4,970,545	2,570,326	26,979	_	2,597,305
3,08	30,598	_	7,669,435	_	3,036,047	300,170	357,676	3,693,893	1,762,786	(105,781)	_	1,657,005
	35,772	3,928	466,425	_	183,086	18,101	15,672	216,859	106,303	(3,308)	_	102,995
22,48	35,688	894,701	56,874,922	_	22,160,506	2,190,984	892,476	25,243,966	12,866,808	661	_	12,867,469

Firefighters Retirement System Other Division A with Social Security

Schedule of Employer Allocations and Pension Amounts

Penelan firk (Ty) 1,999/59/9 1,999/59/	at December 31, 2017 Participating Employer	Co	Employer ontributions	Employer Allocation Percentage		Net Pension ability/(Asset) 95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Between Projected and Actual Investment Earnings on Pension Plan Investments	
Gly of Santa Clara 4,634 0,0596822 (25,299) 107,42 (132,299) — 16,564 Cly of South Jordan 66,67 8,4059141 (25,7790) (23,730) 2,215,883 (277,791) — 345,562 Cly of St. George 57,258 5,005/1828 (313,200) 1,213,272 (24,408) — 204,474 Cly of Washington Terrace 1,973 0.1724810 (10,772) 45,962 (56,615) — 7,053 Clutton Cry 12,258 1,101381 (68,711) 233,168 (36),1015 — 44,988 Famington City 12,175 1,099/1829 (68,652) 22,22,191 (68,602) — 44,950 Hurriance Valley fire Protection 1,174 0,499/181 (77,064) 3,2811 (465,018) — 50,458 Layton City 1,199 4,4075373 (29,001) 1,439,556 (1,713,166) — 20,907 Mab Valley fire Protection 5,349 0,4075373 (29,001) 1,459 (13,472,381) — 19,120 Morpain City 1,32,451 1,15781685 (72,311)<	Brigham City Cache County Cedar City	\$	12,477 8,006 21,283	1.0906511 0.6998638 1.8604718	\$	(68,117) (43,710) (116,196)	290,635 186,498 495,775	(357,994) (229,722) (610,679)	_	44,599 28,619 76,079	
Clinton (Dr. 12.586 1.1001583 68.711 293,168 G1.115 — 44.988 Administration (Pr. 12.575 1.099229 68.652 29.918 636,087) — 44.4950 Administration (Pr. 12.39138 77,064 32.8811 405,018 — 50.458 Administration (Pr. 13.39138 77,064 78,082 — 79,024 7	City of Santa Clara City of South Jordan City of South Salt Lake		4,634 96,672 91,141	0.4050682 8.4505314 7.9670752		(25,299) (527,780) (497,586)	107,942 2,251,883 2,123,052	(132,959) (2,773,791) (2,615,102)		16,564 345,562 325,793	
Lehi Ciry 61,799 \$.4021529 (33,333) 1,439,556 (1,773,196) — 220,907 Morgan County 2,750 0.2403496 (15,011) 64,048 (78,892) — 9,828 Murray City 132,451 11,5781685 (723,117) 3,085,333 (3,004,033) — 473,488 NTocele Co Fire Protection SD 2,227 1,946694 (12,158) 51,875 (68,898) — 7,960 North Davis Fire District 30,566 2,6718895 (166,872) 771,1995 (877,011) — 109,259 North Gris Fire District 30,566 2,6718895 (166,872) 771,1995 (877,011) — 109,259 North Gris SD 2,523 0.2208252 (13,777) 8,808 (72,404) — 9,020 North Gris SD 3,803 0.3015950 (13,618) 484,776 (597,130) — 74,391 North Gris Gris Gris Gris Gris Gris Gris Gris	Clinton City Farmington City Hurricane Valley Fire SSD		12,586 12,575 14,116	1.1001583 1.0992229 1.2339138		(68,711) (68,652) (77,064)	293,168 292,919 328,811	(361,115) (360,807) (405,018)	_	44,988 44,950 50,458	
North Davis Fire District 30,566 2,6718695 (166,872) 711,995 (877,011) — 109,259 (166,872) 711,995 (17,404) — 9,020 (17,404) — 9,020 (17,404) — 9,020 (17,404) — 9,020 (17,404) — 9,020 (17,404) — 9,020 (17,404) — 9,020 (17,404) — 9,020 (17,404) — 9,020 (17,404) — 9,020 (17,404) — 9,020 (18,404) — 1,404 — 1,4	Lehi City ´ Moab Valley Fire Protection Morgan County		61,799 5,349 2,750	5.4021529 0.4675573 0.2403496		(337,393) (29,201) (15,011)	1,439,556 124,594 64,048	(1,773,196) (153,470) (78,892)	_	220,907 19,120 9,828	
Pleasant Grove City 18,946 1.6561702 (103,437) 441,333 (543,619) — 67,725 Price City 2,916 0.2548569 (15,917) 67,914 (83,654) — 10,422 Riverdale City 20,391 1.7824474 (111,323) 474,983 (585,068) — 72,889 Roy City 44,258 3.8688262 (241,629) 1,030,958 (1,269,898) — 158,206 Smithfield City Corp 4,728 0.4132930 (25,812) 110,134 (135,659) — 16,901 So Davis Metro Fire Agency 125,305 10,9334331 (684,100) 2,918,851 (3,595,340) — 447,912 South Ogden City 24,420 2.1346254 (133,319) 568,831 (700,667) — 87,290 Springville City 6,018 0.5260681 (32,856) 140,186 (172,676) — 21,512 State of Utah 43,885 3.8361804 (239,590) 1,022,259 (1,259,183) — 74,353 Uintah Fire Suppression SSD 4,713 0.4120045 (25,732) 109,790	North Davis Fire District North Fork SSD North Logan City		30,566 2,523 5,803	2.6718695 0.2205825 0.5072530	~~~	(166,872) (13,777) (31,681)	711,995 58,780 135,172	(877,011) (72,404) (166,500)	_	109,259 9,020 20,743	
So Davis Metro Fire Agency 125,305 10.9534331 (684,100) 2.918,851 (3,595,340) — 447,912 South Ogden City 24,420 2.1346254 (133,319) 568,831 (700,667) — 87,290 Springville City 6,018 0.5260681 (32,856) 140,186 (172,676) — 21,512 State of Utah 43,885 3.8361804 (239,590) 1,022,259 (1,259,183) — 156,871 Syracuse City Corp 20,800 1.8182585 (113,560) 484,526 (596,823) — 74,353 Uintah Fire Suppression SSD 4,713 0.4120054 (25,732) 109,790 (135,236) — 16,848 Wasatch County Fire District 32,747 2.8625598 (178,782) 762,810 (939,603) — 117,057 Washington City 6,653 0.5815955 (36,324) 154,983 (190,902) — 23,783 Grand Total \$ 1,143,975 100.000000% \$ — — — — — — — — — — — — — — — — No Proportionate Share for 2017 \$ — — — — — — — — — — — — — — — — — — —	Pleasant Grove City Price City Riverdale City		18,946 2,916 20,391	1.6561702 0.2548569 1.7824474	~~	(103,437) (15,917) (111,323)	441,333 67,914 474,983	(543,619) (83,654) (585,068)	_ _ _	67,725 10,422 72,889	
Uintah Fire Suppression SSD 4,713 0.4120054 (25,732) 109,790 (135,236) — 16,848 Wasatch County Fire District 32,747 2.8625598 (178,782) 762,810 (939,603) — 117,057 Washington City 6,653 0.5815955 (36,324) 154,983 (190,902) — 23,783 Grand Total \$ 1,143,975 100.000000% (6,245,527) 26,647,823 (32,823,869) — 4,089,239 No Proportionate Share for 2017 \$ — 0.0000000 \$ — — — — Hurricane City \$ — 0.0000000 — — — — Leeds Area Special Service District — 0.0000000 — — — — Ivins City — 0.0000000 — — — — —	So Davis Metro Fire Agency South Ogden City Springville City		125,305 24,420 6,018	10.9534331 2.1346254 0.5260681		(684,100) (133,319) (32,856)	2,918,851 568,831 140,186	(3,595,340) (700,667) (172,676)		447,912 87,290 21,512	
No Proportionate Share for 2017 Hurricane City \$ — 0.00000000 \$ — — — — — — — — — — — — — — —	Uintah Fire Suppression SSD Wasatch County Fire District		4,713 32,747	0.4120054 2.8625598		(25,732) (178,782)	109,790 762,810	(135,236) (939,603)	_	16,848 117,057	
Hurricane City \$ — 0.0000000% \$ —	Grand Total	\$	1,143,975	100.0000000%		(6,245,527)	26,647,823	(32,823,869)		4,089,239	
Grand Total \$ 1,143,975 100.000000% \$ (6,245,527) 26,647,823 (32,823,869) — 4,089,239	Hurricane City Leeds Area Special Service District	\$	=	0.0000000	\$	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	
	Grand Total	\$	1,143,975	100.0000000%	\$	(6,245,527)	26,647,823	(32,823,869)		4,089,239	

Net Difference

								N	let Amortization of Deferred		
Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
165,368 92,970 59,658 158,592 356,816	2,643 — 941 1,742 —	247,341 137,569 89,218 236,413 527,986	57,198 32,157 20,635 54,855 123,417	208,536 117,239 75,232 199,991 449,959	39,022 21,938 14,078 37,423 84,198	21,963 32,961 1,010 9,388 175,695	326,719 204,295 110,955 301,657 833,269	57,648 32,410 20,797 55,286 124,387	(3,528) (6,472) 2 (1,368) (32,228)	(5,081) (2,857) (1,833) (4,873) (10,963)	49,039 23,081 18,966 49,045 81,196
17,179 34,529 720,349 679,137 426,657	664 — 13,461 73,142 13,714	26,084 51,093 1,079,372 1,078,072 645,045	5,942 11,943 249,157 234,903 147,574	21,663 43,543 908,388 856,419 538,031	4,054 8,148 169,981 160,256 100,678	9,513 — 1,135 9,029	31,659 73,147 1,327,526 1,252,713 795,312	5,989 12,037 251,115 236,749 148,734	137 (1,945) 2,676 13,342 711	(528) (1,061) (22,133) (20,867) (13,109)	5,598 9,031 231,658 229,224 136,336
14,703 93,781 93,701 105,183 42,580	169 15,652 — 55	21,925 154,421 138,651 155,696 63,006	5,085 32,437 32,410 36,381 14,728	18,541 118,261 118,161 132,639 53,695	3,469 22,129 22,111 24,820 10,048	91 2,002 7,205 13,916 19,219	27,186 174,829 179,887 207,756 97,690	5,125 32,692 32,664 36,667 14,844	12 2,422 (1,403) (3,038) (3,834)	(452) (2,881) (2,879) (3,232) (1,308)	4,685 32,233 28,382 30,397 9,702
816,818 460,496 39,856 20,488 986,958	55,559 8,625 709 — 23,400	1,264,217 690,028 59,685 30,316 1,483,816	282,525 159,278 13,786 7,087 341,371	1,030,039 580,703 50,260 25,836 1,244,592	192,745 108,663 9,405 4,835 232,890	9,418 2,004 10,032 22,000	1,505,309 858,062 75,455 47,790 1,840,853	284,745 160,530 13,894 7,142 344,056	10,483 (341) (243) (1,850) (38)	(25,097) (14,149) (1,225) (630) (30,324)	270,131 146,040 12,426 4,662 313,694
16,594 227,758 18,803 43,240 155,074	2,536 18,308 707 812 621	27,090 355,325 28,530 64,795 230,086	5,740 78,778 6,504 14,956 53,638	20,926 287,212 23,711 54,527 195,554	3,916 53,744 4,437 10,203 36,593	357 — 8,962 4,969 11,586	30,939 419,734 43,614 84,655 297,371	5,785 79,397 6,555 15,073 54,059	468 3,621 (1,539) (756) (1,992)	(510) (6,998) (578) (1,329) (4,765)	5,743 76,020 4,438 12,988 47,302
25,927 141,177 21,725 151,941 329,790	729 24,911 356 11,716 23,472	39,094 233,813 32,503 236,546 511,468	8,968 48,831 7,514 52,554 114,069	32,696 178,030 27,396 191,604 415,878	6,118 33,314 5,126 35,854 77,821	111 — 6 —	47,893 260,175 40,042 280,012 607,768	9,038 49,215 7,573 52,967 114,966	116 4,793 67 2,225 4,544	(797) (4,338) (668) (4,668) (10,133)	8,357 49,670 6,972 50,524 109,377
35,230 933,704 181,962 44,844 327,008	11,329 33,409 1,956 1,047 19,412	63,460 1,415,025 271,208 67,403 503,291	12,186 322,953 62,938 15,511 113,107	44,427 1,177,436 229,461 56,550 412,369	8,313 220,326 42,938 10,582 77,164	— 153 1,729 28,651	64,926 1,720,715 335,490 84,372 631,291	12,281 325,491 63,432 15,633 113,996	2,283 6,287 348 (122) (2,480)	(1,082) (28,689) (5,591) (1,378) (10,048)	13,482 303,089 58,189 14,133 101,468
154,994 35,121 244,013 49,577	1,403 1,550 547 11,335	230,750 53,519 361,617 84,695	53,610 12,148 84,400 17,148	195,453 44,288 307,710 62,518	36,574 8,287 57,580 11,699	846 463 16,579 82	286,483 65,186 466,269 91,447	54,031 12,243 85,064 17,283	88 226 (2,973) 2,198	(4,762) (1,079) (7,497) (1,523)	49,357 11,390 74,594 17,958
8,524,301 — —	9,433 6,323 11,023	9,433 6,323 11,023	2,948,422 — — —	10,749,474 — — —	2,011,480 — — —	421,075 — — —	16,130,451 — — —	2,971,593 — — —	2,101 1,291 2,148	(261,915) — — —	2,700,579 2,101 1,291 2,148
8,524,301	403,410	13,016,950	2,948,422	10,749,474	2,011,480	421,075	16,130,451	2,971,593	(3,560)	(261,915)	2,706,118

Firefighters Retirement System Other Division B without Social Security

Schedule of Employer Allocations and Pension Amounts

at December 31 2017

Participating Employer	Co	Employer entributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)		Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Projected and Actual Investment Earnings on Pension Plan Investments	
City of Orem	\$	212,364	3.7993255%			(5,146,081)	_	769,527	
City of Saratoga Springs		26,892	0.4811169	(107,932		(651,659)	_	97,447	
City of West Jordan Logan City		322,946 158,792	5.7776911 2.8408753	(1,296,140 (637,309		(7,825,722) (3,847,887)	_	1,170,232 575,400	
Lone Peak PS District		32,021	0.5728708	(128,515		(775,938)	_	116,031	
Ogden City Corp	~~	338,857	6.0623445	(1,359,998	6,976,070	(8,211,277)	_	1,227,887	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Park City Fire Service		296,169	5.2986341	(1,188,671	6,097,252	(7,176,853)	_	1,073,202	
Provo City Corp		274,511	4.9111599	(1,101,747	5,651,377	(6,652,030)	_	994,722	
Salt Lake City Corp		1,419,609	25.3976443	(5,697,589	29,225,615	(34,400,404)	_	5,144,120	
Sandy City		265,064	4.7421452	(1,063,831	5,456,888	(6,423,104)		960,489	
Unified Fire Authority		1,691,545	30.2627299	(6,788,998	34,823,975	(40,990,028)	_	6,129,509	
Weber Fire District		177,311	3.1721957	(711,636	3,650,314	(4,296,651)	_	642,507	
West Valley City		373,451	6.6812668	(1,498,844	7,688,277	(9,049,590)	_	1,353,245	
Grand Total	\$	5,589,531	100.0000000%	\$ (22,433,533	115,072,149	(135,447,224)	_	20,254,318	

Difference Between

Net Difference

Net

Columns may not add to total due to rounding.

Judges Retirement System

Schedule of Employer Allocations and Pension Amounts

at December 31, 2017

Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Projected and Actual Investment Earnings on Pension Plan Investments	
State of Utah	\$ 7,563,431	100.0000000%	\$ 32,585,945	58,167,690	10,782,067	1,593,433	3,835,628	

Utah Governors and Legislators Retirement Plan

Schedule of Employer Allocations and Pension Amounts

at December 31, 2017								Difference Between Projected	
Participating Employer	Co	Employer ntributions	Employer Allocation Percentage	Net Pension ability/(Asset) 95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	and Actual Investment Earnings on Pension Plan Investments	
State Of Utah	\$	404,409	100.0000000%	\$ 1,853,770	3,133,984	766,391	_	236,248	

Pension Expense Excluding That Attributable urces to Employer-Paid Member Contributions	ws of Resources	Deferred Inflo				vs of Resources	Deferred Outflov	
erred Plan Gross Proportionate Share of Employer-Paid ws of Pension Share of Nonemployer Member	Total Deferred Inflows of Resources	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Changes of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Differences Between Expected and Actual Experience	Total Deferred Outflows of Resources	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Changes of Assumptions
,974 129,209 (4,825) (36,497) 87,887	2,933,974	16,841	253,529	1,940,497	723,107	2,084,951	430	1,314,994
	369,403	_	32,105	245,729	91,569	271,021	7,053	166,521
	4,436,127		385,545	2,950,943	1,099,639	3,211,645	41,682	1,999,731
	2,190,946	9,714	189,571	1,450,971	540,690	1,560,061	1,399	983,262
	440,321	468	38,228	292,593	109,032	317,639	3,330	198,278
	4,675,710	21,025	404,540	3,096,329	1,153,816	3,337,498	11,358	2,098,253
	4,080,440	12,133	353,578	2,706,266	1,008,463	2,907,126	_	1,833,924
	3,775,897	5,094	327,722	2,508,364	934,717	2,694,536	1 107	1,699,814
	19,504,018 3,647,293	3,635 6,261	1,694,784 316,443	12,971,791 2,422,040	4,833,808 902,549	13,935,669 2,610,044	1,107 8,239	8,790,442 1,641,316
	~~~~~	·····	·····		·····	~~~~~~	~~~···~	
	23,249,859	14,050	2,019,430	15,456,625	5,759,754	16,628,209	24,391	10,474,309
	2,435,620	27.024	211,680	1,620,192	603,748	1,746,925	6,481	1,097,937
,829 227,220 (6,970) (64,182) 156,068	5,157,829	27,934	445,841	3,412,442	1,271,612	3,671,496	5,781	2,312,470
,435 3,400,846 (2,274) (960,626) 2,437,946	76,897,435	117,153	6,672,996	51,074,782	19,032,504	54,976,819	111,250	34,611,251
·	ws of Resources	Deferred Inflo				vs of Resources	Deferred Outflov	
Net Amortization of Deferred Amounts from Changes in Proportion and Setween Proportionate Share of Plan Gross Pension Share of Pension Share of Nonemployer  Total Allocable Plan Gross Proportionate ws of Pension Share of Nonemployer  Total Allocable Plan Gross Proportionate ws of Pension Share of Nonemployer  Total Allocable Plan Gross Proportionate Share of Nonemployer  Total Member Contributions  Total Employer-Paid Member Contributions	ws of Resources  Total  Deferred Inflows of Resources	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Changes of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Differences Between Expected and Actual Experience	vs of Resources  Total Deferred Outflows of Resources	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	Changes of Assumptions
Net Amortization of Deferred Amounts from Changes in Proportion and Share of Share of Ontributions  Proportionate Share of Contributions  Total Allocable erred Plan Gross Pension Use of Pension was of Pension Contributions	Total Deferred Inflows of	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of		Difference Between Projected and Actual Investment Earnings on Pension Plan	Between Expected and Actual	Total Deferred Outflows of	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	
Net Amortization of Deferred Amounts from Changes in Proportionate Expense Excluding That Attributable to Employer-Paid Member Contributions  Proportion and Differences Between Employer Contributions  Proportion and Differences Between Expense Excluding That Attributable to Employer-Paid Member Contributions  Proportion and Proportionate Share of Contributions  Pension Expense Excluding That Attributable to Employer-Paid Member Contributions  Pension Expense Excluding That Attributable to Employer-Paid Member Contributions  Proportion and Total Contributions  Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Expense Excluding That Attributable to Employer-Paid Member Contributions  Proportion and Differences Between Employer Share of Contributions  Proportion and Differences Between Employer Share of Share of Share of Nonemployer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions  Proportion and Differences Between Employer Share of Nonemployer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions  Proportion and Proportion and Differences Between Employer Share of Nonemployer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions	Total Deferred Inflows of Resources	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Between Expected and Actual	Total Deferred Outflows of Resources 16,595,554	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions  Changes in Proportion and Differences Between Employer Contributions and Proportion and Differences Share of	Assumptions
Net Amortization of Deferred Amounts from Changes in Proportion and Between Expense Excluding That Attributable to Employer-Paid Member Contributions  Net Amortization of Deferred Share of Contributions  Total Allocable Plan Gross Pension Expense Excluding That Attributable to Employer-Paid Member Contributions  Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer-Paid Member Contributions  Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Share of Contributions  Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Share of Contributions  Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Share of Contributions  Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Share of Contributions Share of Ontributions Share of Contributions Share of Contributions Share of Contributions Share of Contributions Con	Total Deferred Inflows of Resources  9,905,667  ws of Resources  Total Deferred Inflows of	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions  Deferred Inflo  Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Proportionate Share of	Assumptions — Changes of	Difference Between Projected and Actual Investment Earnings on Pension Plan Investments  9,905,667  Net Difference Between Projected and Actual Investments	Between Expected and Actual Experience  Differences Between Expected and Actual	Total Deferred Outflows of Resources  16,595,554  Total Deferred Outflows of	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions  Changes in Proportion and Differences Between Employer Contributions and Proportion and Differences Share of	Assumptions 11,166,493  Changes of

# **Schedule of Employer Allocations** and Pension Amounts

and Pension Amounts at December 31, 2017							Net Difference Between
Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Projected and Actual Investment Earnings on Pension Plan Investments
4 Corners Comm Behavior Health	\$ 82,576	0.1003664%	\$ 8,849	104,193	(64,675)	331	2,775
Active Re Entry Inc	1,757	0.0021360	188	2,217	(1,376)	7	59
Alpine City	17,813	0.0216500	1,909	22,475	(13,951)	71	599
Alpine School District	4,592,044	5.5813395	492,092	5,794,139	(3,596,547)	18,423	154,304
American Fork City	77,924	0.0947122	8,351	98,323	(61,031)	313	2,618
American Leadership Academy	142,470	0.1731627	15,267	179,765	(111,584)	572	4,787
AMES Charter School	4,801	0.0058350	514	6,057	(3,760)	19	161
Ash Creek SS District	2,991	0.0036351	320	3,774	(2,342)	12	100
Ashley Valley Improv Dist	10,437	0.0126855	1,118	13,169	(8,174)	42	351
Ballard Town	1,791	0.0021774	192	2,260	(1,403)	7	60
Bear River Assn of Govts	24,356	0.0296028	2,610	30,731	(19,076)	98	818
Bear River Health Dept	106,652	0.1296282	11,429	134,571	(83,531)	428	3,584
Bear River Mental Health	90,558	0.1100676	9,704	114,264	(70,926)	363	3,043
Bear River Water District	7,305	0.0088793	783	9,218	(5,722)	29	245
Beaver City	24,809	0.0301537	2,659	31,303	(19,431)	100	834
Beaver County	55,866	0.0679015	5,987	70,490	(43,755)	224	1,877
Beaver School District	75,937	0.0922964	8,138	95,815	(59,475)	305	2,552
Beaver Valley Hospital	72,438	0.0880432	7,763	91,400	(56,734)	291	2,434
Benchland Water Company	3,357	0.0040805	360	4,236	(2,629)	13	113
Blanding City	13,699	0.0166501	1,468	17,285	(10,729)	55	460
Bluffdale City	64,498	0.0783930	6,912	81,382	(50,515)	259	2,167
Bona Vista Water Improve	3,300	0.0040114	354	4,164	(2,585)	13	111
Bountiful Irrigation District	5,020	0.0061011	538	6,334	(3,931)	20	169
Box Elder Co Mosq Dist	3,421	0.0041584	367	4,317	(2,680)	14	115
Box Elder County	77,118	0.0937316	8,264	97,305	(60,400)	309	2,591
Box Elder School District	609,751	0.7411140	65,342	769,370	(477,565)	2,446	20,489
Bridgerland Technical College	41,676	0.0506540	4,466	52,585	(32,641)	167	1,400
Brigham City	86,466	0.1050945	9,266	109,101	(67,722)	347	2,905
Cache County	98,440	0.1196470	10,549	124,209	(77,099)	395	3,308
Cache School District	936,491	1.1382455	100,356	1,181,643	(733,472)	3,757	31,468
Canyons School District Carbon County Carbon School District Castle Dale City Castle Valley SSD	2,957,503	3.5946577	316,931	3,731,711	(2,316,354)	11,865	99,379
	117,925	0.1433307	12,637	148,795	(92,361)	473	3,963
	264,023	0.3209033	28,293	333,138	(206,786)	1,059	8,872
	1,961	0.0023840	210	2,475	(1,536)	8	66
	3,577	0.0043479	383	4,514	(2,802)	14	120
Cedar City Cedar City Housing Auth Centerfield City Centerville City Central Davis Sewer Dist	88,381	0.1074217	9,471	111,517	(69,221)	355	2,970
	5,214	0.0063374	559	6,579	(4,084)	21	175
	1,147	0.0013946	123	1,448	(899)	5	39
	16,483	0.0200346	1,766	20,798	(12,910)	66	554
	11,487	0.0139620	1,231	14,494	(8,997)	46	386
Central Iron Co Water Conserv	10,310	0.0125312	1,105	13,009	(8,075)	41	346
Central Ut Public Health	31,920	0.0387971	3,421	40,276	(25,000)	128	1,073
Central Utah Counseling Center	43,887	0.0533416	4,703	55,375	(34,373)	176	1,475
Central Utah Water Dist	143,024	0.1738361	15,327	180,464	(112,018)	574	4,806
Central Weber Sewer Dist	62,737	0.0762534	6,723	79,161	(49,137)	252	2,108
City of Bountiful City of Cedar Hills City of Draper City of Duchesne City of Green River	171,977	0.2090270	18,429	216,997	(134,694)	690	5,779
	14,307	0.0173892	1,533	18,052	(11,205)	57	481
	134,244	0.1631646	14,386	169,386	(105,141)	539	4,511
	5,241	0.0063700	562	6,613	(4,105)	21	176
	8,999	0.0109379	964	11,355	(7,048)	36	302
City of Harrisville City of Helper City of Holladay City of Kanab City of Milford	7,076	0.0086000	758	8,928	(5,542)	28	238
	6,638	0.0080678	711	8,375	(5,199)	27	223
	15,622	0.0189876	1,674	19,712	(12,235)	63	525
	24,391	0.0296455	2,614	30,776	(19,103)	98	820
	8,854	0.0107615	949	11,172	(6,935)	36	298
City of Moab City of Monticello City of Naples City of North Salt Lake City of Orem	87,283	0.1060867	9,353	110,131	(68,361)	350	2,933
	15,092	0.0183430	1,617	19,042	(11,820)	61	507
	7,851	0.0095428	841	9,907	(6,149)	31	264
	40,636	0.0493908	4,355	51,274	(31,827)	163	1,365
	243,530	0.2959959	26,097	307,281	(190,736)	977	8,183

Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Betweeted and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources		et Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
11,909 253 2,569 662,260 11,238	10,486 222 2,356 557,250 9,569	25,501 541 5,595 1,392,237 23,738	8,287 176 1,788 460,861 7,821	12,872 274 2,777 715,802 12,147	896 19 193 49,817 845		22,055 498 4,758 1,226,480 20,813	83,970 1,787 18,113 4,669,566 79,240	1,050 18 232 56,409 976	_ _ _ _	85,020 1,805 18,345 4,725,975 80,216
20,547 692 431 1,505 258	17,981 676 422 1,176 197	43,887 1,548 965 3,074 522	14,298 482 300 1,047 180	22,208 748 466 1,627 279	1,546 52 32 113 19		38,052 1,467 798 2,787 478	144,875 4,882 3,041 10,613 1,822	1,811 55 39 119 21	_ _ _ _	146,686 4,937 3,080 10,732 1,843
3,513 15,381 13,060 1,054 3,578	3,047 13,037 10,583 937 3,152	7,476 32,430 27,049 2,265 7,664	2,444 10,704 9,088 733 2,490	3,797 16,625 14,116 1,139 3,867	264 1,157 982 79 269	_ _ _ _ _	6,505 28,486 24,186 1,951 6,626	24,767 108,452 92,087 7,429 25,228	309 1,348 1,102 97 318	_ _ _ _ _	25,076 109,800 93,189 7,526 25,546
8,057 10,952 10,447 484 1,976	6,935 9,342 9,353 387 1,843	17,093 23,151 22,525 997 4,334	5,607 7,621 7,270 337 1,375	8,708 11,837 11,291 523 2,135	606 824 786 36 149		14,921 20,282 19,347 896 3,659	56,809 77,219 73,660 3,414 13,930	700 941 920 40 180		57,509 78,160 74,580 3,454 14,110
9,302 476 724 493 11,122	8,135 450 670 389 10,036	19,863 1,050 1,583 1,011 24,058	6,473 331 504 343 7,740	10,054 514 782 533 12,021	700 36 54 37 837		17,227 881 1,340 913 20,598	65,587 3,356 5,104 3,479 78,420	818 48 66 40 1,001		66,405 3,404 5,170 3,519 79,421
87,938 6,010 12,470 14,197 135,060	77,337 5,462 10,534 11,476 120,892	188,210 13,039 26,256 29,376 291,177	61,195 4,183 8,678 9,879 93,987	95,047 6,496 13,478 15,345 145,979	6,615 452 938 1,068 10,159		162,857 11,131 23,094 26,292 250,125	620,045 42,379 87,926 100,101 952,301	7,689 563 1,054 1,181 11,939		627,734 42,942 88,980 101,282 964,240
426,528 17,007 38,077 283 516	358,530 14,718 32,732 248 404	896,302 36,161 80,740 605 1,054	296,817 11,835 26,498 197 359	461,012 18,382 41,156 306 558	32,084 1,279 2,864 21 39		789,913 31,496 70,518 590 956	3,007,431 119,916 268,480 1,995 3,638	36,129 1,497 3,274 21 42		3,043,560 121,413 271,754 2,016 3,680
12,746 752 165 2,377 1,657	11,369 597 195 2,018 1,245	27,440 1,545 404 5,015 3,334	8,870 523 115 1,654 1,153	13,777 813 179 2,569 1,791	959 57 12 179 125	99 —	23,606 1,393 405 4,402 3,069	89,873 5,302 1,167 16,762 11,681	1,137 62 11 200 128		91,010 5,364 1,178 16,962 11,809
1,487 4,604 6,329 20,627 9,048	1,180 3,928 5,344 19,506 7,829	3,054 9,733 13,324 45,513 19,237	1,035 3,204 4,405 14,354 6,296	1,607 4,976 6,841 22,294 9,779	112 346 476 1,552 681		2,754 8,526 11,722 38,200 16,756	10,484 32,459 44,628 145,438 63,797	121 390 522 1,916 784		10,605 32,849 45,150 147,354 64,581
24,802 2,063 19,360 756 1,298	20,889 1,711 17,045 670 1,275	52,160 4,312 41,455 1,623 2,911	17,260 1,436 13,473 526 903	26,808 2,230 20,926 817 1,403	1,866 155 1,456 57 98		45,934 3,821 35,855 1,400 2,404	174,880 14,548 136,510 5,329 9,151	2,145 180 1,694 67 120		177,025 14,728 138,204 5,396 9,271
1,020 957 2,253 3,518 1,277	980 761 1,831 3,225 1,091	2,266 1,968 4,672 7,661 2,702	710 666 1,568 2,448 889	1,103 1,035 2,435 3,802 1,380	77 72 169 265 96		1,890 1,773 4,172 6,515 2,365	7,195 6,750 15,886 24,803 9,003	95 80 186 314 109		7,290 6,830 16,072 25,117 9,112
12,588 2,177 1,132 5,861 35,122	11,877 1,824 1,064 4,792 30,372	27,748 4,569 2,491 12,181 74,654	8,760 1,515 788 4,078 24,441	13,606 2,352 1,224 6,334 37,961	947 164 85 441 2,642		23,313 4,031 2,097 10,853 65,044	88,756 15,346 7,984 41,322 247,642	1,140 189 113 484 3,082		89,896 15,535 8,097 41,806 250,724

# Schedule of Employer Allocations and Pension Amounts (Continued)

						Differences	Net Difference Between Projected and Actual	
Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Between Expected and Actual Experience	Investment Earnings on Pension Plan Investments	
City of Riverton City of Santa Clara City of Saratoga Springs City of South Jordan City of South Salt Lake	\$ 110,692 25,946 110,007 201,919 141,219	0.1345390% 0.0315360 0.1337068 0.2454196 0.1716426	\$ 11,862 2,780 11,789 21,638 15,133	139,669 32,738 138,805 254,777 178,187	(86,695) (20,321) (86,159) (158,145) (110,604)	444 104 441 810 567	3,720 872 3,697 6,785 4,745	
City of St George	542,804	0.6597438	58,168	684,898	(425,131)	2,178	18,240	~~~~
City of Taylorsville	34,606	0.0420613	3,708	43,665	(27,104)	139	1,163	
City of Washington Terrace	9,945	0.0120871	1,066	12,548	(7,789)	40	334	
City of Wendover	20,236	0.0245955	2,169	25,533	(15,849)	81	680	
City of West Haven	16,163	0.0196448	1,732	20,394	(12,659)	65	543	
City of West Jordan City of Woodland Hills Clearfield City Cleveland Town Clinton City	283,889 3,893 96,661 2,623 22,246	0.3450485 0.0047315 0.1174857 0.0031883 0.0270384	30,422 417 10,358 281 2,384	358,204 4,912 121,965 3,310 28,069	(222,345) (3,049) (75,706) (2,055) (17,423)	1,139 16 388 11 89	9,539 131 3,248 88 748	
Coalville City Color Country Uniserv Cottonwood Heights City Cottonwood Heights P&R Srv Cottonwood Imp District	9,102 1,524 59,546 18,673 19,350	0.0110634 0.0018525 0.0723742 0.0226962 0.0235186	975 163 6,381 2,001 2,074	11,485 1,923 75,134 23,562 24,415	(7,129) (1,194) (46,637) (14,625) (15,155)	37 6 239 75 78	306 51 2,001 627 650	
Council On Aging Golden Age SS	4,229	0.0051396	453	5,336	(3,312)	17	142	
Daggett County	8,678	0.0105481	930	10,950	(6,797)	35	292	
Daggett School District	28,296	0.0343916	3,032	35,703	(22,162)	114	951	
Davis & Weber County Canal Co	6,783	0.0082443	727	8,559	(5,313)	27	228	
Davis Behavioral Health Inc	235,682	0.2864562	25,256	297,378	(184,589)	946	7,919	
Davis Co Housing Authority	9,972	0.0121208	1,069	12,583	(7,810)	40	335	~~~
Davis County	393,943	0.4788127	42,216	497,068	(308,541)	1,580	13,237	
Davis School District	4,005,178	4.8680402	429,202	5,053,644	(3,136,906)	16,068	134,584	
Davis Technical College	57,993	0.0704864	6,215	73,174	(45,421)	233	1,949	
DDI Vantage	129,256	0.1571028	13,851	163,093	(101,235)	519	4,343	
Delta City Dixie State University Duchesne County Duchesne School District Eagle Mountain City	13,955 57,534 101,924 420,078 84,802	0.0169616 0.0699292 0.1238824 0.5105785 0.1030719	1,495 6,165 10,922 45,016 9,088	17,608 72,595 128,606 530,045 107,002	(10,930) (45,062) (79,828) (329,011) (66,418)	56 231 409 1,685 340	469 1,933 3,425 14,116 2,850	~~~
East Carbon City East Hollywood High School Educators Mutual Insurance Elk Ridge City Emery Co Care & Rehab Ctr	6,346 36,036 29,639 17,224 15,803	0.0077128 0.0437999 0.0360246 0.0209344 0.0192081	680 3,862 3,176 1,846 1,694	8,007 45,470 37,398 21,733 19,940	(4,970) (28,224) (23,214) (13,490) (12,377)	25 145 119 69 63	213 1,211 996 579 531	
Emery County	40,793	0.0495812	4,371	51,472	(31,950)	164	1,371	
Emery County Recreation SSD	3,579	0.0043494	383	4,515	(2,803)	14	120	
Emery School District	130,015	0.1580254	13,933	164,050	(101,830)	522	4,369	
Emery Water Conserv Dist	12,463	0.0151482	1,336	15,726	(9,761)	50	419	
Enoch City	16,133	0.0196081	1,729	20,356	(12,635)	65	542	
Ephraim City	22,607	0.0274776	2,423	28,525	(17,706)	91	760	~~~~
Fairview City	2,808	0.0034127	301	3,543	(2,199)	11	94	
Farmington City	69,401	0.0843521	7,437	87,568	(54,355)	278	2,332	
Farr West City	736	0.0008944	79	929	(576)	3	25	
Fast Forward Charter HS	31,523	0.0383142	3,378	39,775	(24,689)	126	1,059	
Ferron City	4,653	0.0056556	499	5,871	(3,644)	19	156	~~~
Fillmore City	7,523	0.0091443	806	9,493	(5,892)	30	253	
Five-County Assn of Govts	52,122	0.0633512	5,586	65,767	(40,823)	209	1,751	
Francis City	1,365	0.0016589	146	1,722	(1,069)	5	46	
Fruit Heights City	7,457	0.0090631	799	9,409	(5,840)	30	251	
Garfield County	26,437	0.0321327	2,833	33,358	(20,706)	106	888	
Garfield School District	48,721	0.0592175	5,221	61,475	(38,159)	195	1,637	
Garland City	5,531	0.0067226	593	6,979	(4,332)	22	186	
Grand Co Cemetery Mtce Dist	6,024	0.0073215	646	7,601	(4,718)	24	202	
Grand County	114,145	0.1387361	12,232	144,026	(89,400)	458	3,836	

Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	of Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
15,964 3,742 15,865 29,121 20,366	13,285 3,369 14,539 25,519 16,792	33,413 8,087 34,542 62,235 42,470	11,109 2,604 11,040 20,265 14,173	17,255 4,044 17,148 31,475 22,013	1,201 281 1,193 2,191 1,532	_ _ _ _	29,565 6,929 29,381 53,931 37,718	112,561 26,384 111,864 205,328 143,603	1,354 333 1,437 2,577 1,706	_ _ _ _	113,915 26,717 113,301 207,905 145,309
78,283 4,991 1,434 2,918 2,331	65,273 3,815 1,149 2,925 2,114	163,974 10,108 2,957 6,604 5,053	54,476 3,473 998 2,031 1,622	84,612 5,394 1,550 3,154 2,519	5,889 375 108 220 175		144,977 9,242 2,656 5,405 4,316	551,967 35,190 10,113 20,578 16,436	6,662 404 119 272 208		558,629 35,594 10,232 20,850 16,644
40,942 561 13,940 378 3,208	37,213 628 12,490 352 2,686	88,833 1,336 30,066 829 6,731	28,491 391 9,701 263 2,233	44,252 607 15,067 409 3,468	3,080 42 1,049 28 241	_ _ _ _ _	75,823 1,040 25,817 700 5,942	288,681 3,959 98,293 2,667 22,621	3,695 56 1,237 36 271		292,376 4,015 99,530 2,703 22,892
1,313 220 8,588 2,693 2,791	1,123 192 7,934 2,399 2,433	2,779 469 18,762 5,794 5,952	914 153 5,976 1,874 1,942	1,419 238 9,282 2,911 3,016	99 17 646 203 210		2,432 408 15,904 4,988 5,168	9,256 1,550 60,551 18,989 19,677	117 20 771 235 240		9,373 1,570 61,322 19,224 19,917
610 1,252 4,081 978 33,990	450 992 3,493 1,385 28,855	1,219 2,571 8,639 2,618 71,710	424 871 2,840 681 23,653	659 1,353 4,411 1,057 36,738	46 94 307 74 2,557	   927 	1,129 2,318 7,558 2,739 62,948	4,300 8,825 28,773 6,898 239,660	48 107 350 58 2,913		4,348 8,932 29,123 6,956 242,573
1,438 56,814 577,622 8,364 18,641	1,217 48,557 504,792 7,407 14,882	3,030 120,188 1,233,066 17,953 38,385	1,001 39,536 401,963 5,820 12,972	1,554 61,407 624,322 9,040 20,148	108 4,274 43,450 629 1,402		2,663 105,217 1,069,735 15,489 34,522	10,141 400,593 4,072,792 58,972 131,438	124 4,908 50,295 730 1,543		10,265 405,501 4,123,087 59,702 132,981
2,013 8,298 14,699 60,583 12,230	1,695 6,494 12,195 50,642 10,554	4,233 16,956 30,728 127,026 25,974	1,401 5,774 10,229 42,159 8,511	2,175 8,968 15,888 65,481 13,219	151 624 1,106 4,557 920		3,727 15,366 27,223 112,197 22,650	14,191 58,505 103,645 427,170 86,234	176 686 1,246 5,188 1,063		14,367 59,191 104,891 432,358 87,297
915 5,197 4,275 2,484 2,279	735 4,188 3,023 2,110 1,743	1,888 10,741 8,413 5,242 4,616	637 3,617 2,975 1,729 1,586	989 5,617 4,620 2,685 2,463	69 391 322 187 171	    	1,695 9,625 7,917 4,601 4,299	6,453 36,645 30,140 17,515 16,070	75 437 317 222 179		6,528 37,082 30,457 17,737 16,249
5,883 516 18,751 1,797 2,327	5,268 402 15,969 1,562 2,199	12,686 1,052 39,611 3,828 5,133	4,094 359 13,048 1,251 1,619	6,359 558 20,267 1,943 2,515	443 39 1,410 135 175		10,896 1,004 34,725 3,329 4,309	41,482 3,639 132,210 12,674 16,405	532 40 1,616 154 211		42,014 3,679 133,826 12,828 16,616
3,260 405 10,009 106 4,546	2,873 396 8,487 102 4,035	6,984 906 21,106 236 9,766	2,269 282 6,965 74 3,164	3,524 438 10,818 115 4,914	245 30 753 8 342		6,038 750 18,536 197 8,420	22,989 2,855 70,572 748 32,055	286 41 864 9 395		23,275 2,896 71,436 757 32,450
671 1,085 7,517 197 1,075	715 1,048 6,282 220 874	1,561 2,416 15,759 468 2,230	467 755 5,231 137 748	725 1,173 8,125 213 1,162	50 82 565 15 81		1,242 2,263 13,921 365 1,991	4,732 7,650 53,002 1,388 7,583	70 87 632 20 87		4,802 7,737 53,634 1,408 7,670
3,813 7,027 798 869 16,462	3,555 6,156 800 832 14,996	8,362 15,015 1,806 1,927 35,752	2,653 4,890 555 605 11,456	4,121 7,595 862 939 17,793	287 529 60 65 1,238		7,061 13,014 1,477 1,609 30,487	26,883 49,544 5,624 6,125 116,072	344 601 76 87 1,482		27,227 50,145 5,700 6,212 117,554

# Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments
Grand School District Grand Water/Sewer Service Granger-Hunter Imp Dist Granite School District Grantsville City	\$ 221,547	0.2692763%	\$ 23,741	279,543	(173,518)	889	7,445
	10,568	0.0128453	1,133	13,335	(8,277)	42	355
	87,804	0.1067205	9,409	110,789	(68,769)	352	2,950
	4,325,428	5.2572836	463,521	5,457,728	(3,387,730)	17,353	145,345
	25,501	0.0309949	2,733	32,177	(19,973)	102	857
Gunnison City	2,826	0.0034353	303	3,566	(2,214)	11	95
Gunnison Valley Hospital	83,061	0.1009556	8,901	104,805	(65,055)	333	2,791
Heber City	92,239	0.1121103	9,884	116,385	(72,243)	370	3,099
Heber Light & Power	48,051	0.0584033	5,149	60,630	(37,634)	193	1,615
Heber Valley Historic Railroad	16,303	0.0198155	1,747	20,571	(12,769)	65	548
Herriman City	106,210	0.1290918	11,382	134,014	(83,185)	426	3,569
High Desert Uniserv	1,524	0.0018525	163	1,923	(1,194)	6	51
High School Activities Assn	3,188	0.0038743	342	4,022	(2,497)	13	107
Highland City	10,856	0.0131953	1,163	13,698	(8,503)	44	365
Hinckley Town	5,572	0.0067729	597	7,031	(4,364)	22	187
Hooper City Hooper Water Improv Dist Housing Auth of Carbon Co Housing Auth of SI County Housing Authority of SLC	14,841	0.0180384	1,590	18,726	(11,624)	60	499
	3,452	0.0041954	370	4,355	(2,703)	14	116
	2,645	0.0032153	283	3,338	(2,072)	11	89
	136,134	0.1654628	14,588	171,771	(106,622)	546	4,574
	103,033	0.1252302	11,041	130,005	(80,697)	413	3,462
Housing Authority Ogden City	8,767	0.0106561	940	11,062	(6,867)	35	295
Hurricane City	60,594	0.0736480	6,493	76,456	(47,458)	243	2,036
Hurricane Valley Fire SSD	1,623	0.0019730	174	2,048	(1,271)	7	55
Hyde Park City	4,488	0.0054550	481	5,663	(3,515)	18	151
Hyrum City	11,093	0.0134834	1,189	13,997	(8,689)	45	373
Intech Collegiate High School	21,914	0.0266348	2,348	27,650	(17,163)	88	736
Iron County	115,726	0.1406582	12,401	146,021	(90,638)	464	3,889
Iron School District	444,965	0.5408270	47,683	561,447	(348,502)	1,785	14,952
Itineris High School	15,918	0.0193474	1,706	20,085	(12,467)	64	535
Ivins City	38,073	0.0462752	4,080	48,040	(29,819)	153	1,279
Jordan School District	3,579,619	4.3508001	383,598	4,516,683	(2,803,603)	14,361	120,284
Jordan Valley Water Conserv	105,757	0.1285404	11,333	133,441	(82,830)	424	3,554
Jordanelle SSD	27,221	0.0330848	2,917	34,346	(21,319)	109	915
Juab County	23,006	0.0279618	2,465	29,028	(18,018)	92	773
Juab School District	137,876	0.1675793	14,775	173,969	(107,986)	553	4,633
Kamas City	1,123	0.0013651	120	1,417	(880)	5	38
Kane County	118,852	0.1444571	12,736	149,965	(93,086)	477	3,994
Kane County Water Conserv Dist	13,847	0.0168307	1,484	17,472	(10,845)	56	465
Kane School District	120,266	0.1461758	12,888	151,749	(94,194)	482	4,041
Kaysville City	65,709	0.0798652	7,041	82,910	(51,464)	264	2,208
Kearns Improvement Dist	22,561	0.0274209	2,418	28,466	(17,670)	91	758
Laverkin City	6,539	0.0079483	701	8,251	(5,122)	26	220
Layton City	170,537	0.2072770	18,275	215,180	(133,567)	684	5,730
Lehi City	202,304	0.2458871	21,679	255,262	(158,447)	812	6,798
Lewiston City	8,711	0.0105873	933	10,991	(6,822)	35	293
Liberty Academy Charter	53,324	0.0648121	5,714	67,283	(41,764)	214	1,792
Lindon City	18,912	0.0229866	2,027	23,863	(14,812)	76	635
Logan City	237,598	0.2887848	25,461	299,795	(186,089)	953	7,984
Logan School District	392,828	0.4774572	42,096	495,661	(307,668)	1,576	13,200
Lone Peak PS District	618	0.0007516	66	780	(484)	2	21
Manti City	9,442	0.0114765	1,012	11,914	(7,395)	38	317
Mapleton City	18,640	0.0226562	1,998	23,520	(14,599)	75	626
Marriott-Slaterville City	2,599	0.0031594	279	3,280	(2,036)	10	87
Mendon City	1,877	0.0022819	201	2,369	(1,470)	8	63
Metro Water Dist Slc/Sandy	35,276	0.0428754	3,780	44,510	(27,628)	142	1,185
Midvale City	102,767	0.1249071	11,013	129,669	(80,489)	412	3,453
Midvalley Improvement District	4,508	0.0054786	483	5,687	(3,530)	18	151
Midway City	20,355	0.0247398	2,181	25,683	(15,942)	82	684
Millard Co Care & Rehab Inc	50,202	0.0610176	5,380	63,344	(39,319)	201	1,687
Millard County	68,366	0.0830940	7,326	86,262	(53,545)	274	2,297

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Changes of Assumptions		Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources		let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
31,951 1,524 12,663 623,808 3,678	11,771 537,532	67,878 3,197 27,736 1,324,038 8,213	22,235 1,061 8,812 434,103 2,559	34,534 1,647 13,687 674,242 3,975	2,403 115 953 46,924 277	_ _ _ _	59,172 2,823 23,452 1,155,269 6,811	225,287 10,747 89,287 4,398,449 25,932	2,788 129 1,145 54,086 345	_ _ _ _	228,075 10,876 90,432 4,452,535 26,277
408 11,979 13,303 6,930 2,351	308 10,203 11,727	822 25,306 28,499 14,817 4,917	284 8,336 9,257 4,822 1,636	441 12,947 14,378 7,490 2,541	31 901 1,001 521 177		756 22,184 24,636 12,833 4,354	2,874 84,463 93,796 48,862 16,578	32 1,011 1,162 608 205		2,906 85,474 94,958 49,470 16,783
15,318 220 460 1,566 804	13,307 192 513	32,620 469 1,093 3,543 1,901	10,659 153 320 1,090 559	16,556 238 497 1,692 869	1,152 17 35 118 60		28,367 408 852 3,269 1,488	108,003 1,550 3,241 11,040 5,666	1,342 20 46 113 80		109,345 1,570 3,287 11,153 5,746
2,140 498 382 19,633 14,859	415 427 17,436	4,620 1,043 909 42,189 31,670	1,489 346 265 13,663 10,340	2,313 538 412 21,220 16,061	161 37 29 1,477 1,118		3,963 921 706 36,360 27,519	15,092 3,510 2,690 138,433 104,772	190 43 38 1,753 1,279		15,282 3,553 2,728 140,186 106,051
1,264 8,739 234 647 1,600	1,196 7,669	2,790 18,687 636 1,422 3,276	880 6,081 163 450 1,113	1,367 9,445 253 700 1,729	95 657 18 49		2,342 16,183 486 1,199 2,962	8,915 61,617 1,651 4,564 11,281	126 767 27 64 126		9,041 62,384 1,678 4,628 11,407
3,160 16,690 64,172 2,296 5,491	2,841 13,917 54,777 2,155	6,825 34,960 135,686 5,050	2,199 11,614 44,657 1,598	3,416 18,039 69,361 2,481	238 1,255 4,827 173 413		5,853 30,908 118,845 4,252	22,284 117,680 452,477 16,187	290 1,391 5,482 215 483		22,574 119,071 457,959 16,402
516,249 15,252 3,926 3,318	13,239 3,473 2,795	11,668 1,087,704 32,469 8,423 6,978	3,821 359,253 10,614 2,732 2,309	5,935 557,986 16,485 4,243 3,586	38,833 1,147 295 250		956,072 28,246 7,270 6,145	3,640,049 107,542 27,680 23,394	44,013 1,336 357 268		39,199 3,684,062 108,878 28,037 23,662
19,884 162 17,141 1,997 17,345	14,448 1,773 14,890	386 36,060 4,291 36,758	13,837 113 11,928 1,390 12,070	21,492 175 18,526 2,159 18,747	1,496 12 1,289 150 1,305		36,825 300 31,743 3,699 32,122	140,203 1,142 120,858 14,081 122,296	1,764 16 1,470 176 1,513		141,967 1,158 122,328 14,257 123,809
9,476 3,254 943 24,595 29,176	2,754 819 21,752 25,879	20,389 6,857 2,008 52,761 62,665	6,595 2,264 656 17,115 20,303	3,517 1,019 26,583 31,535	713 245 71 1,850 2,195		6,026 1,746 45,548 54,033	22,941 6,650 173,416 205,719	275 81 2,174 2,537		23,216 6,731 175,590 208,256
1,256 7,690 2,727 34,266 56,653 89	6,713 2,327 29,884 47,122	2,713 16,409 5,765 73,087 118,551 211	5,352 1,898 23,845 39,424 62	1,358 8,312 2,948 37,036 61,233 96	578 205 2,578 4,262		2,326 14,242 5,051 63,459 104,919 165	54,224 19,231 241,609 399,459 629	707 238 3,012 4,841		54,931 19,469 244,621 404,300 638
1,362 2,688 375 271 5,087	1,070 2,725	2,787 6,114 891 588 10,945	948 1,871 261 188 3,540	1,472 2,906 405 293 5,499	102 202 28 20 383		2,522 4,979 694 501 9,422	9,602 18,955 2,643 1,909 35,871	103 260 37 23 449		9,705 19,215 2,680 1,932 36,320
14,821 650 2,936 7,240 9,860	12,822 465 2,500 5,660	31,508 1,284 6,202 14,788 21,676	10,314 452 2,043 5,038 6,861	16,019 703 3,173 7,825 10,657	1,115 49 221 545 742		27,448 1,204 5,437 13,408 18,260	104,502 4,584 20,698 51,050 69,520	1,277 50 263 580 892		105,779 4,634 20,961 51,630 70,412

# Schedule of Employer Allocations and Pension Amounts (Continued)

						Differences	Net Difference Between Projected and Actual
Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Between Expected and Actual Experience	Investment Earnings on Pension Plan Investments
Millard School District	\$ 209,041	0.2540760%	\$ 22,401	263,763	(163,723)	839	7,024
Millcreek City	4,132	0.0050222	443	5,214	(3,236)	17	139
Millville City	3,389	0.0041191	363	4,276	(2,654)	14	114
Minersville Town	1,132	0.0013759	121	1,428	(887)	5	38
Monroe City	1,641	0.0019944	176	2,070	(1,285)	7	55
Monticello Academy	65,798	0.0799738	7,051	83,023	(51,534)	264	2,211
Morgan City Corporation	5,433	0.0066035	582	6,855	(4,255)	22	183
Morgan County	25,828	0.0313925	2,768	32,589	(20,229)	104	868
Morgan School District	173,982	0.2114640	18,644	219,526	(136,265)	698	5,846
Moroni City	3,900	0.0047406	418	4,921	(3,055)	16	131
Mount Pleasant City	15,185	0.0184565	1,627	19,160	(11,893)	61	510
Mountain Regional Water SSD	20,292	0.0246634	2,175	25,604	(15,893)	81	682
Mountainland Assn of Govt	30,841	0.0374848	3,305	38,914	(24,155)	124	1,036
Mt Olympus Improvement Dist	21,549	0.0261918	2,309	27,190	(16,878)	86	724
Murray City	203,383	0.2471986	21,795	256,624	(159,292)	816	6,834
Murray School District	406,446	0.4940096	43,555	512,845	(318,334)	1,631	13,658
Myton City	2,459	0.0029882	263	3,102	(1,926)	10	83
N Ut Environmental Rsrc Agcy	3,504	0.0042592	376	4,422	(2,745)	14	118
Nebo Credit Union	12,430	0.0151082	1,332	15,684	(9,736)	50	418
Nebo School District	2,200,132	2.6741210	235,770	2,776,077	(1,723,171)	8,827	73,930
Nephi City	36,782	0.0447064	3,942	46,411	(28,808)	148	1,236
Nibley City Corporation	20,364	0.0247514	2,182	25,695	(15,950)	82	684
Noah Webster Academy Inc	57,693	0.0701218	6,182	72,795	(45,186)	231	1,939
North Davis Co Sewer Dist	24,069	0.0292549	2,579	30,370	(18,852)	97	809
North Emery Water Users SSD	4,495	0.0054640	482	5,672	(3,521)	18	151
North Fork SSD	5,069	0.0061613	543	6,396	(3,970)	20	170
North Logan City	26,508	0.0322191	2,841	33,448	(20,762)	106	891
North Ogden City	54,016	0.0656528	5,788	68,156	(42,306)	217	1,815
North Pointe Solid Waste	25,176	0.0306001	2,698	31,767	(19,718)	101	846
North Sanpete School Dist	128,798	0.1565461	13,802	162,515	(100,876)	517	4,328
North Summit School District	44,127	0.0536337	4,729	55,679	(34,561)	177	1,483
Northeastern Counseling Ctr	53,715	0.0652875	5,756	67,777	(42,070)	216	1,805
Nuames Charter School	38,757	0.0471068	4,153	48,903	(30,355)	155	1,302
Oakley City	5,430	0.0066004	582	6,852	(4,253)	22	182
Ogden City Corp	368,355	0.4477123	39,474	464,782	(288,500)	1,478	12,378
Ogden School District	1,190,515	1.4469956	127,578	1,502,165	(932,426)	4,776	40,004
Ogden-Weber Tech College	16,686	0.0202805	1,788	21,054	(13,069)	67	561
Oquirrh Rec And Parks District	2,632	0.0031994	282	3,321	(2,062)	11	88
Orangeville City	652	0.0007919	70	822	(510)	3	22
Orderville Town	1,277	0.0015517	137	1,611	(1,000)	5	43
Panguitch City Corporation	9,575	0.0116380	1,026	12,082	(7,499)	38	322
Park City	527,627	0.6412973	56,541	665,748	(413,244)	2,117	17,730
Park City Fire Service	14,989	0.0182188	1,606	18,913	(11,740)	60	504
Park City School District	604,779	0.7350711	64,809	763,097	(473,671)	2,426	20,322
Parowan City	11,773	0.0143090	1,262	14,855	(9,221)	47	396
Payson City Perry City Piute County Piute School District Plain City	82,344 5,392 5,536 33,463 4,250	0.1000834 0.0065537 0.0067287 0.0406717 0.0051653	8,824 578 593 3,586 455	103,899 6,804 6,985 42,222 5,362	(64,493) (4,223) (4,336) (26,208) (3,328)	330 22 22 22 134 17	2,767 181 186 1,124 143
Pleasant Grove City	56,466	0.0686307	6,051	71,247	(44,225)	227	1,897
Pleasant View City	14,584	0.0177256	1,563	18,401	(11,422)	59	490
Price City	33,647	0.0408953	3,606	42,455	(26,352)	135	1,131
Price River Water Improve	17,897	0.0217527	1,918	22,582	(14,017)	72	601
Providence City	12,700	0.0154365	1,361	16,025	(9,947)	51	427
Provo City Corp	545,632	0.6631815	58,471	688,467	(427,346)	2,189	18,335
Provo Housing Authority	26,611	0.0323441	2,852	33,577	(20,842)	107	894
Provo River Water Users	12,513	0.0152089	1,341	15,789	(9,800)	50	420
Provo School District	1,248,359	1.5173017	133,776	1,575,152	(977,731)	5,008	41,948
Rich County	19,525	0.0237313	2,092	24,636	(15,292)	78	656

	Changes in Proportion and Differences Between Employer Contributions and	Total	Differences Between	Net Difference Between Projected and Actual Investment		Changes in Proportion and Differences Between Employer Contributions and	Total		let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and	Proportionate	Total Employer Net Pension Expense Excluding That Attributable to
Changes of Assumptions	Proportionate Share of Contributions	Deferred Outflows of Resources	Expected and Actual Experience	Earnings on Pension Plan Investments	Changes of Assumptions	Proportionate Share of Contributions	Deferred Inflows of Resources	Plan Gross Pension Expense	Proportionate Share of Contributions	Share of Nonemployer Contributions	Employer-Paid Member Contributions
30,148 596 489 163 237	26,587 666 546 139 186	64,598 1,418 1,163 345 485	20,979 415 340 114 165	32,585 644 528 176 256	2,268 45 37 12 18	_ _ _ _	55,832 1,104 905 302 439	212,570 4,202 3,446 1,151 1,669	2,653 60 49 14 19	_ _ _ _	215,223 4,262 3,495 1,165 1,688
9,489 784 3,725 25,091 563	7,934 760 2,875 22,797 437	19,898 1,749 7,572 54,432 1,147	6,604 545 2,592 17,461 391	10,257 847 4,026 27,120 608	714 59 280 1,887 42	_ _ _ _ _	17,575 1,451 6,898 46,468 1,041	66,909 5,525 26,264 176,919 3,966	804 76 300 2,252 45	_ _ _ _ _	67,713 5,601 26,564 179,171 4,011
2,190 2,926 4,448 3,108 29,332	1,892 2,236 3,940 2,603 24,392	4,653 5,925 9,548 6,521 61,374	1,524 2,036 3,095 2,163 20,412	2,367 3,163 4,807 3,359 31,703	165 220 335 234 2,206	_ _ _ _ _	4,056 5,419 8,237 5,756 54,321	15,441 20,634 31,361 21,913 206,816	196 239 404 266 2,493	_ _ _ _ _	15,637 20,873 31,765 22,179 209,309
58,617 355 505 1,793 317,301	51,645 339 565 1,522 274,960	125,551 787 1,202 3,783 675,018	40,791 247 352 1,248 220,807	63,356 383 546 1,938 342,954	4,409 27 38 135 23,868	_ _ _ _ _ _	108,556 657 936 3,321 587,629	413,308 2,500 3,563 12,640 2,237,274	5,122 32 50 156 27,541	_ _ _ _ _	418,430 2,532 3,613 12,796 2,264,815
5,305 2,937 8,320 3,471 648	4,805 2,513 7,017 3,352 478	11,494 6,216 17,507 7,729 1,295	3,691 2,044 5,790 2,416 451	5,734 3,174 8,993 3,752 701	399 221 626 261 49	_ _ _ _	9,824 5,439 15,409 6,429 1,201	37,403 20,708 58,667 24,476 4,571	477 254 690 332 50	_ _ _ _ _	37,880 20,962 59,357 24,808 4,621
731 3,823 7,790 3,631 18,575	594 3,523 6,811 3,012 16,294	1,515 8,343 16,633 7,590 39,714	509 2,660 5,421 2,527 12,926	790 4,132 8,420 3,924 20,077	55 288 586 273 1,397	30 — — — —	1,384 7,080 14,427 6,724 34,400	5,155 26,956 54,928 25,601 130,973	57 344 682 308 1,644		5,212 27,300 55,610 25,909 132,617
6,364 7,747 5,590 783 53,124	5,343 6,618 4,662 875 46,241	13,367 16,386 11,709 1,862 113,221	4,429 5,391 3,890 545 36,968	6,878 8,373 6,041 846 57,419	479 583 420 59 3,996		11,786 14,347 10,351 1,450 98,383	44,872 54,622 39,411 5,522 374,574	537 673 488 78 4,645		45,409 55,295 39,899 5,600 379,219
171,695 2,406 380 94 184	143,933 2,189 406 105 193	360,408 5,223 885 224 425	119,481 1,675 264 65 128	185,576 2,601 410 102 199	12,915 181 29 7 14	  167  	317,972 4,457 870 174 341	1,210,613 16,967 2,677 663 1,298	14,659 212 26 9 18	_ _ _ _	1,225,272 17,179 2,703 672 1,316
1,381 76,094 2,162 87,221 1,698	1,195 68,242 1,707 77,983 1,613	2,936 164,183 4,433 187,952 3,754	961 52,953 1,504 60,696 1,182	1,493 82,246 2,337 94,272 1,835	104 5,724 163 6,561 128		2,558 140,923 4,019 161,529 3,145	9,737 536,534 15,243 614,989 11,971	125 6,855 179 7,686 161	_ _ _ _ _	9,862 543,389 15,422 622,675 12,132
11,875 778 798 4,826 613	10,333 951 658 4,328 440	25,305 1,932 1,664 10,412 1,213	8,264 541 556 3,358 427	12,836 841 863 5,216 662	893 58 60 363 46	350 — — —	21,993 1,790 1,479 8,937 1,135	83,734 5,483 5,629 34,028 4,321	1,058 70 69 437 45	_ _ _ _	84,792 5,553 5,698 34,465 4,366
8,143 2,103 4,852 2,581 1,832	7,265 2,139 4,265 2,182 1,599	17,532 4,791 10,383 5,436 3,909	5,667 1,464 3,377 1,796 1,275	8,802 2,273 5,245 2,790 1,980	613 158 365 194 138	_ _ _ _ _	15,082 3,895 8,987 4,780 3,393	57,419 14,830 34,215 18,199 12,915	742 202 434 212 156	_ _ _ _ _	58,161 15,032 34,649 18,411 13,071
78,690 3,838 1,805 180,037 2,816	66,241 3,329 1,424 150,642 2,153	165,455 8,168 3,699 377,635 5,703	54,760 2,671 1,256 125,286 1,960	85,052 4,148 1,951 194,593 3,044	5,919 289 136 13,543 212		145,731 7,108 3,343 333,422 5,216	554,844 27,060 12,724 1,269,434 19,855	6,719 321 139 15,315 225		561,563 27,381 12,863 1,284,749 20,080

# Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	
Rich School District	\$ 37,782	0.0459212%	\$ 4,049	47,672	(29,591)	152	1,270	
Richfield City	6,515	0.0079190	698	8,221	(5,103)	26	219	
Richmond City	11,929	0.0144989	1,278	15,052	(9,343)	48	401	
Riverdale City	20,708	0.0251689	2,219	26,129	(16,219)	83	696	
Roosevelt City	24,968	0.0303468	2,676	31,504	(19,555)	100	839	
Roy City	68,996	0.0838608	7,394	87,058	(54,039)	277	2,318	~~~
S Utah Valley Electric Svc Dst	18,396	0.0223597	1,971	23,212	(14,408)	74	618	
S Utah Valley Solid Waste	3,445	0.0041877	369	4,347	(2,699)	14	116	
Salem City	19,477	0.0236725	2,087	24,575	(15,254)	78	654	
Salina City	5,041	0.0061273	540	6,361	(3,948)	20	169	
Salt Lake Arts Academy	34,665	0.0421333	3,715	43,740	(27,150)	139	1,165	~~~
Salt Lake City Corp	2,218,151	2.6960221	237,701	2,798,813	(1,737,284)	8,899	74,535	
Salt Lake City Public Library	104,534	0.1270542	11,202	131,898	(81,872)	419	3,513	
Salt Lake Community College	385,073	0.4680321	41,265	485,877	(301,594)	1,545	12,939	
Salt Lake County	2,768,307	3.3647022	296,657	3,492,988	(2,168,173)	11,106	93,022	
Salt Lake School District	1,861,507	2.2625445	199,482	2,348,808	(1,457,956)	7,468	62,551	~~~
San Juan County	64,727	0.0786714	6,936	81,671	(50,695)	260	2,175	
San Juan Mental Health	10,486	0.0127450	1,124	13,231	(8,213)	42	352	
San Juan School District	323,223	0.3928568	34,637	407,835	(253,152)	1,297	10,861	
Sandy City	275,754	0.3351613	29,550	347,940	(215,974)	1,106	9,266	
Sandy Suburban Imp Dist	3,968	0.0048225	425	5,006	(3,108)	16	133	
Sanpete County	51,268	0.0623130	5,494	64,689	(40,154)	206	1,723	
Santaquin City	20,823	0.0253088	2,231	26,274	(16,309)	84	700	
Sevier County	51,313	0.0623675	5,499	64,745	(40,189)	206	1,724	
Sevier School District	186,665	0.2268795	20,003	235,530	(146,198)	749	6,272	
Six-County Assoc of Govt	3,780	0.0045947	405	4,770	(2,961)	15	127	
SIc Mosquito Abatement	18,131	0.0220370	1,943	22,877	(14,200)	73	609	
Smithfield City Corp	27,856	0.0338572	2,985	35,148	(21,817)	112	936	
Snow College	38,593	0.0469069	4,136	48,695	(30,226)	155	1,297	
Snyder Basin Special Rec Dist	56,642	0.0688445	6,070	71,469	(44,363)	227	1,903	
Snyderville Basin W R D	24,027	0.0292035	2,575	30,317	(18,818)	96	807	
So Davis Recreation Center	8,976	0.0109096	962	11,326	(7,030)	36	302	
So SI Valley Mosq Abate	7,801	0.0094821	836	9,844	(6,110)	31	262	
So Utah Valley Animal Svcs SSD	4,686	0.0056953	502	5,912	(3,670)	19	157	
Soldier Hollow Charter School	25,729	0.0312724	2,757	32,465	(20,152)	103	865	
Solid Waste SSD #1	16,904	0.0205462	1,812	21,330	(13,240)	68	568	
South Davis Sewer Dist	11,322	0.0137612	1,213	14,286	(8,868)	45	380	
South Ogden City	19,236	0.0233803	2,061	24,272	(15,066)	77	646	
South Ogden Conserv Dist	29,440	0.0357820	3,155	37,146	(23,057)	118	989	
South Sanpete School Dist	171,743	0.2087423	18,404	216,701	(134,511)	689	5,771	
South Summit School District	89,813	0.1091618	9,625	113,324	(70,343)	360	3,018	
South Valley Sewer District	65,924	0.0801267	7,065	83,182	(51,633)	264	2,215	
South Valley Water Reclamation	50,012	0.0607870	5,359	63,105	(39,170)	201	1,681	
South Weber City	15,064	0.0183092	1,614	19,007	(11,798)	60	506	
Southeastern Utah AOG	12,161	0.0147813	1,303	15,345	(9,525)	49	409	
Southeastern Utah Health	25,722	0.0312638	2,756	32,456	(20,146)	103	864	
Southern Utah University	278,652	0.3386836	29,861	351,597	(218,244)	1,118	9,363	
Southwest Educ Development Ctr	17,413	0.0211643	1,866	21,971	(13,638)	70	585	
Southwest Technical College	45,896	0.0557836	4,918	57,910	(35,946)	184	1,542	
Space Dynamics Lab / USU	27,666	0.0336265	2,965	34,909	(21,669)	111	930	
Spanish Fork City	180,873	0.2198402	19,383	228,222	(141,662)	726	6,078	
Spring City	2,834	0.0034451	304	3,576	(2,220)	11	95	
Springville City	165,293	0.2009037	17,713	208,564	(129,460)	663	5,554	
St George Housing Auth	1,762	0.0021418	189	2,223	(1,380)	7	59	
State of Utah	15,147,184	18.4104436	1,623,208	19,112,389	(11,863,473)	60,767	508,980	
Success Academy	23,356	0.0283877	2,503	29,470	(18,293)	94	785	
Summit Academy High School	57,525	0.0699177	6,164	72,583	(45,054)	231	1,933	
Summit Academy Inc	288,576	0.3507462	30,924	364,119	(226,017)	1,158	9,697	
Summit County	201,609	0.2450434	21,605	254,386	(157,903)	809	6,775	
Sunset City	6,519	0.0079233	699	8,225	(5,106)	26	219	

Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
5,449 940 1,720 2,986 3,601	4,559 768 1,700 2,616 2,638	11,430 1,953 3,869 6,381 7,178	3,792 654 1,197 2,078 2,506	5,889 1,016 1,859 3,228 3,892	410 71 129 225 271	30 	10,091 1,771 3,185 5,531 6,669	38,419 6,625 12,130 21,057 25,389	450 70 163 251 263	_ _ _ _ _	38,869 6,695 12,293 21,308 25,652
9,951 2,653 497 2,809 727	8,626 2,262 497 2,584 711	21,172 5,607 1,124 6,125 1,627	6,925 1,846 346 1,955 506	10,755 2,868 537 3,036 786	749 200 37 211 55	180 —	18,429 4,914 1,100 5,202 1,347	70,161 18,707 3,504 19,805 5,126	867 229 35 252 69		71,028 18,936 3,539 20,057 5,195
4,999 319,899 15,076 55,535 399,242	3,822 270,450 12,913 46,030 339,253	10,125 673,783 31,921 116,049 842,623	3,479 222,615 10,491 38,646 277,829	5,404 345,762 16,295 60,025 431,520	376 24,064 1,134 4,177 30,032		9,259 592,441 27,920 106,402 739,381	35,250 2,255,597 106,299 391,574 2,815,041	400 27,439 1,285 4,563 34,343		35,650 2,283,036 107,584 396,137 2,849,384
268,465 9,335 1,512 46,615 39,769	229,887 8,608 1,080 39,955 34,818	568,371 20,378 2,986 98,728 84,959	186,822 6,496 1,052 32,439 27,675	290,169 10,090 1,635 50,384 42,984	20,194 702 114 3,506 2,992		497,185 17,288 2,833 86,329 73,651	1,892,933 65,820 10,663 328,679 280,409	23,196 862 111 4,044 3,536		1,916,129 66,682 10,774 332,723 283,945
572 7,394 3,003 7,400 26,921	458 6,153 2,542 6,337 22,355	1,179 15,476 6,329 15,667 56,297	398 5,145 2,090 5,150 18,734	618 7,992 3,246 7,999 29,097	43 556 226 557 2,025		1,059 13,693 5,562 13,706 49,856	4,035 52,133 21,174 52,179 189,816	48 619 257 638 2,301		4,083 52,752 21,431 52,817 192,117
545 2,615 4,017 5,566 8,169	461 2,439 3,278 4,904 7,809	1,148 5,736 8,343 11,922 18,108	379 1,820 2,796 3,873 5,685	589 2,826 4,342 6,016 8,829	41 197 302 419 614		1,009 4,843 7,440 10,308 17,364	3,844 18,437 28,326 39,244 57,598	50 244 343 532 582		3,894 18,681 28,669 39,776 58,180
3,465 1,294 1,125 676 3,711	2,832 1,065 995 708 3,229	7,200 2,697 2,413 1,560 7,908	2,411 901 783 470 2,582	3,745 1,399 1,216 730 4,011	261 97 85 51 279		6,417 2,397 2,084 1,251 6,872	24,433 9,127 7,933 4,765 26,164	293 110 103 64 329		24,726 9,237 8,036 4,829 26,493
2,438 1,633 2,774 4,246 24,769	2,295 1,467 2,360 3,818 21,037	5,369 3,525 5,857 9,171 52,266	1,697 1,136 1,931 2,955 17,236	2,635 1,765 2,999 4,589 26,771	183 123 209 319 1,863		4,515 3,024 5,453 7,863 45,870	17,190 11,513 19,561 29,937 174,642	226 142 224 375 2,166		17,416 11,655 19,785 30,312 176,808
12,953 9,508 7,213 2,172 1,754	11,083 7,981 6,095 1,777 1,795	27,414 19,968 15,190 4,515 4,007	9,014 6,616 5,019 1,512 1,221	14,000 10,276 7,796 2,348 1,896	974 715 543 163 132		23,988 17,607 13,358 4,023 3,262	91,329 67,037 50,857 15,318 12,367	1,129 822 616 180 169		92,458 67,859 51,473 15,498 12,536
3,710 40,187 2,511 6,619 3,990	3,516 36,846 2,114 5,310 3,406	8,193 87,514 5,280 13,655 8,437	2,582 27,966 1,748 4,606 2,777	4,010 43,436 2,714 7,154 4,313	279 3,023 189 498 300		6,871 74,425 4,651 12,258 7,390	26,157 283,356 17,707 46,671 28,133	335 3,560 220 537 364		26,492 286,916 17,927 47,208 28,497
26,085 409 23,838 254 2,184,503	23,231 341 21,683 213 1,824,540	56,120 856 51,738 533 4,578,790	18,153 284 16,589 177 1,520,182	28,194 442 25,766 275 2,361,112	1,962 31 1,793 19 164,317		48,309 757 44,148 471 4,045,611	183,927 2,882 168,084 1,792 15,402,898	2,299 33 2,114 21 185,361		186,226 2,915 170,198 1,813 15,588,259
3,368 8,296 41,618 29,076 940	2,838 6,419 37,551 23,201 893	7,085 16,879 90,024 59,861 2,078	2,344 5,773 28,962 20,234 654	3,641 8,967 44,983 31,427 1,016	253 624 3,131 2,187 71		6,238 15,364 77,076 53,848 1,741	23,750 58,496 293,448 205,013 6,629	293 687 3,722 2,388 87		24,043 59,183 297,170 207,401 6,716

# Schedule of Employer Allocations and Pension Amounts (Continued)

						Differences	Net Difference Between Projected and Actual
Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Between Expected and Actual Experience	Investment Earnings on Pension Plan Investments
Sw Behavioral Health Center	\$ 178,543	0.2170077%	\$ 19,133	225,282	(139,837)	716	5,999
Sw Mosquito Abatement/Control	8,454	0.0102753	906	10,667	(6,621)	34	284
Sw Ut Public Health Dept	53,878	0.0654855	5,774	67,982	(42,198)	216	1,810
Syracuse City Corp	59,241	0.0720038	6,348	74,749	(46,398)	238	1,991
Taylor West Weber Wtr Imp Dist	4,996	0.0060718	535	6,303	(3,913)	20	168
Taylorsville-Bennion Imp	25,923	0.0315080	2,778	32,709	(20,303)	104	871
Timberlakes Water SSD	8,075	0.0098141	865	10,188	(6,324)	32	271
Timpanogos SSD	47,612	0.0578689	5,102	60,075	(37,290)	191	1,600
Tintic School District	10,295	0.0125126	1,103	12,990	(8,063)	41	346
Tooele City	92,481	0.1124047	9,910	116,690	(72,432)	371	3,108
Tooele County	229,712	0.2792006	24,616	289,846	(179,913)	922	7,719
Tooele County Housing	14,297	0.0173773	1,532	18,040	(11,198)	57	480
Tooele School District	830,557	1.0094891	89,004	1,047,978	(650,503)	3,332	27,909
Tooele Technical College	17,618	0.0214140	1,888	22,230	(13,799)	71	592
Toquerville City	11,822	0.0143684	1,267	14,916	(9,259)	47	397
Torrey Town	2,903	0.0035287	311	3,663	(2,274)	12	98
Town of Alta	3,410	0.0041451	365	4,303	(2,671)	14	115
Town of Apple Valley	4,567	0.0055513	489	5,763	(3,577)	18	153
Town of Brian Head	5,272	0.0064074	565	6,652	(4,129)	21	177
Town of Garden City	12,346	0.0150060	1,323	15,578	(9,670)	50	415
Town of Goshen	5,962	0.0072466	639	7,523	(4,670)	24	200
Town of Manila	6,057	0.0073613	649	7,642	(4,744)	24	204
Town of Paragonah	1,176	0.0014299	126	1,484	(921)	5	40
Town of Springdale	17,101	0.0207849	1,833	21,577	(13,394)	69	575
Trans-Jordan Cities	36,132	0.0439165	3,872	45,591	(28,299)	145	1,214
Tremonton City	17,865	0.0217133	1,914	22,541	(13,992)	72	600
Tridell-Lapoint Water	9,717	0.0118104	1,041	12,261	(7,610)	39	327
Tuacahn High School	37,919	0.0460885	4,063	47,846	(29,699)	152	1,274
Uintah Animal Control/Shelter	3,190	0.0038767	342	4,025	(2,498)	13	107
Uintah Basin Assn of Govt	52,215	0.0634636	5,595	65,883	(40,895)	209	1,755
Uintah Basin Asst Council	3,770	0.0045817	404	4,756	(2,952)	15	127
Uintah Basin Technical College	110,998	0.1349106	11,895	140,054	(86,935)	445	3,730
Uintah Co Care Center SSD	67,068	0.0815163	7,187	84,624	(52,528)	269	2,254
Uintah County	242,456	0.2946904	25,982	305,926	(189,895)	973	8,147
Uintah Highlands Improv Dist	4,147	0.0050408	444	5,233	(3,248)	17	139
Uintah Recreation District Uintah School District Uintah Transportation SSD Unified Fire Authority Unified Police Department	24,403	0.0296597	2,615	30,791	(19,112)	98	820
	610,002	0.7414185	65,369	769,687	(477,761)	2,447	20,498
	17,318	0.0210495	1,856	21,852	(13,564)	69	582
	40,022	0.0486443	4,289	50,499	(31,346)	161	1,345
	142,152	0.1727768	15,233	179,364	(111,335)	570	4,777
University of Utah	2,622,887	3.1879526	281,073	3,309,500	(2,054,278)	10,523	88,135
University of Utah Hospital	3,277	0.0039833	351	4,135	(2,567)	13	110
Ut Municipal Power Agency	11,314	0.0137515	1,212	14,276	(8,861)	45	380
Ut Public Employees Assn	6,685	0.0081246	716	8,434	(5,235)	27	225
UT School Board Risk Mgmt	9,937	0.0120783	1,065	12,539	(7,783)	40	334
Utah Assn of Counties	756	0.0009189	81	954	(592)	3	25
Utah Co Academy of Sciences	26,004	0.0316061	2,787	32,811	(20,367)	104	874
Utah Co Housing Authority	41,514	0.0504579	4,449	52,382	(32,514)	167	1,395
Utah Communications Authority	9,402	0.0114273	1,008	11,863	(7,364)	38	316
Utah Counties Indemnity Pool	2,705	0.0032876	290	3,413	(2,118)	11	91
Utah County	611,006	0.7426385	65,476	770,953	(478,547)	2,451	20,531
Utah Dairy Council	5,040	0.0061258	540	6,359	(3,947)	20	169
Utah Education Association	20,894	0.0253953	2,239	26,364	(16,364)	84	702
Utah Housing Corporation	143,054	0.1738736	15,330	180,503	(112,042)	574	4,807
Utah Lake Commission	2,855	0.0034700	306	3,602	(2,236)	11	96
Utah League Cities/Towns	3,761	0.0045708	403	4,745	(2,945)	15	126
Utah Local Governments Trust	26,299	0.0319646	2,818	33,183	(20,598)	106	884
Utah Retirement Systems	464,630	0.5647288	49,791	586,260	(363,904)	1,864	15,613
Utah Safety Council	18,291	0.0222313	1,960	23,079	(14,326)	73	615
Utah School Boards Association	16,749	0.0203568	1,795	21,133	(13,118)	67	563

Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources		let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
25,749 1,219 7,770 8,544 720	22,004 1,022 6,614 7,211 563	54,468 2,559 16,410 17,984 1,471	17,919 848 5,407 5,945 501	27,831 1,318 8,398 9,234 779	1,937 92 584 643 54	_ _ _	47,687 2,258 14,389 15,822 1,334	181,557 8,597 54,788 60,241 5,080	2,280 103 671 719 59	_ _ _ _	183,837 8,700 55,459 60,960 5,139
3,739 1,165 6,866 1,485 13,337	3,443 1,002 5,734 1,382 11,204	8,157 2,470 14,391 3,254 28,020	2,602 810 4,778 1,033 9,281	4,041 1,259 7,422 1,605 14,416	281 88 517 112 1,003		6,924 2,157 12,717 2,750 24,700	26,361 8,211 48,415 10,469 94,042	334 105 593 127 1,121		26,695 8,316 49,008 10,596 95,163
33,129 2,062 119,782 2,541 1,705	29,380 1,795 101,386 1,949 1,905	71,150 4,394 252,409 5,153 4,054	23,054 1,435 83,355 1,768 1,186	35,807 2,229 129,466 2,746 1,843	2,492 155 9,010 191 128		61,353 3,819 221,831 4,705 3,157	233,590 14,539 844,578 17,916 12,021	2,934 190 10,224 197 170		236,524 14,729 854,802 18,113 12,191
419 492 659 760 1,781	295 344 585 658 1,519	824 965 1,415 1,616 3,765	291 342 458 529 1,239	453 532 712 822 1,925	31 37 50 57 134		775 911 1,220 1,408 3,298	2,952 3,468 4,644 5,361 12,555	29 36 60 65 152		2,981 3,504 4,704 5,426 12,707
860 873 170 2,466 5,211	848 865 189 2,502 4,487	1,932 1,966 404 5,612 11,057	598 608 118 1,716 3,626	929 944 183 2,666 5,632	65 66 13 186 392	37 — — —	1,629 1,618 314 4,568 9,650	6,063 6,159 1,196 17,389 36,742	74 80 17 240 450		6,137 6,239 1,213 17,629 37,192
2,576 1,401 5,469 460 7,530	2,156 1,053 4,817 356 6,359	5,404 2,820 11,712 936 15,853	1,793 975 3,806 320 5,240	2,785 1,515 5,911 497 8,139	194 105 411 35 566		4,772 2,595 10,128 852 13,945	18,166 9,881 38,559 3,243 53,096	224 111 475 37 635		18,390 9,992 39,034 3,280 53,731
544 16,008 9,672 34,967 598	523 13,288 7,454 27,457 642	1,209 33,471 19,649 71,544 1,396	378 11,140 6,731 24,333 416	588 17,302 10,454 37,794 646	41 1,204 728 2,630 45	116 — — — —	1,123 29,646 17,913 64,757 1,107	3,833 112,871 68,200 246,549 4,217	46 1,373 792 2,907 58		3,879 114,244 68,992 249,456 4,275
3,519 87,974 2,498 5,772 20,501	3,106 69,947 2,335 4,749 17,024	7,543 180,866 5,484 12,027 42,872	2,449 61,220 1,738 4,017 14,266	3,804 95,086 2,700 6,239 22,158	265 6,618 188 434 1,542	_ _ _ _ _	6,518 162,924 4,626 10,690 37,966	24,814 620,300 17,611 40,698 144,552	331 7,372 232 489 1,755	_ _ _ _	25,145 627,672 17,843 41,187 146,307
378,270 473 1,632 964 1,433	330,292 528 1,227 824 1,205	807,220 1,124 3,284 2,040 3,012	263,235 329 1,135 671 997	408,852 511 1,764 1,042 1,549	28,454 36 123 73 108	56,675 — — — —	757,216 876 3,022 1,786 2,654	2,667,166 3,333 11,505 6,797 10,105	30,859 47 128 80 126	_ _ _ _ _	2,698,025 3,380 11,633 6,877 10,231
109 3,750 5,987 1,356 390	122 3,065 5,218 1,158 315	259 7,793 12,767 2,868 807	76 2,610 4,166 944 271	118 4,053 6,471 1,466 422	8 282 450 102 29	   24	202 6,945 11,087 2,512 746	769 26,443 42,215 9,561 2,751	11 318 532 123 31	_ _ _ _	780 26,761 42,747 9,684 2,782
88,119 727 3,013 20,631 412	77,112 589 2,829 17,202 421	188,213 1,505 6,628 43,214 940	61,321 506 2,097 14,357 287	95,243 786 3,257 22,299 445	6,628 55 227 1,552 31	_ _ _ _ _	163,192 1,347 5,581 38,208 763	621,320 5,125 21,247 145,469 2,903	7,753 62 301 1,738 41	_ _ _ _ _	629,073 5,187 21,548 147,207 2,944
542 3,793 67,008 2,638 2,415	561 3,474 56,946 1,789 2,094	1,244 8,257 141,431 5,115 5,139	377 2,639 46,631 1,836 1,681	586 4,099 72,426 2,851 2,611	41 285 5,041 198 182	157 — — — —	1,161 7,023 124,098 4,885 4,474	3,824 26,743 472,474 18,600 17,031	44 362 5,785 183 200		3,868 27,105 478,259 18,783 17,231

## Schedule of Employer Allocations and Pension Amounts (Continued)

at December 31, 2017

Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	
Utah School Employees Assn	4,480	0.0054449%	480	5,652	(3,509)	18	151	
Utah State Fair Corp	8,346	0.0101439	894	10,531	(6,537)	33	280	
Utah State University	638,160	0.7756433	68,386	805,216	(499,815)	2,560	21,444	
Utah Valley Dispatch SSD	42,189	0.0512785	4,521	53,234	(33,043)	169	1,418	
Utah Valley University	465,837	0.5661958	49,920	587,783	(364,850)	1,869	15,653	
Utah Zoological Society	161,297	0.1960464	17,285	203,521	(126,330)	647	5,420	
UTOPIA	114,190	0.1387905	12,237	144,082	(89,435)	458	3,837	
Valley Emergency Comm Ctr	186,652	0.2268641	20,002	235,514	(146,188)	749	6,272	
Vernal City	32,304	0.0392637	3,462	40,761	(25,301)	130	1,085	
Vineyard Town	47,182	0.0573468	5,056	59,533	(36,954)	189	1,585	
Wasatch County	206,713	0.2512465	22,152	260,826	(161,900)	829	6,946	
Wasatch Front Regional Council	39,230	0.0476816	4,204	49,500	(30,725)	157	1,318	
Wasatch Front Waste/Recycling	122,248	0.1485845	13,100	154,250	(95,746)	490	4,108	
Wasatch Integrated Waste Mgmt	56,873	0.0691251	6,095	71,761	(44,543)	228	1,911	
Wasatch Mental Health SSD	261,987	0.3184292	28,075	330,570	(205,192)	1,051	8,803	
Wasatch School District	552,840	0.6719420	59,243	697,561	(432,991)	2,218	18,577	
Washington City	81,839	0.0994700	8,770	103,262	(64,097)	328	2,750	
Washington Co Solid Waste	12,934	0.0157203	1,386	16,320	(10,130)	52	435	
Washington Co Wat Con Dist	36,675	0.0445758	3,930	46,275	(28,724)	147	1,232	
Washington County	217,993	0.2649571	23,361	275,059	(170,735)	875	7,325	
Washington School District	1,803,235	2.1917175	193,238	2,275,281	(1,412,316)	7,234	60,593	
Wayne County	15,036	0.0182747	1,611	18,971	(11,776)	60	505	
Wayne School District	36,448	0.0443001	3,906	45,989	(28,546)	146	1,225	
Weber Area Dispatch 911	79,472	0.0965934	8,516	100,276	(62,244)	319	2,670	
Weber Basin Water Conserv	58,478	0.0710768	6,267	73,787	(45,801)	235	1,965	
Weber County Corp	660,367	0.8026349	70,766	833,237	(517,208)	2,649	22,190	
Weber County School District	1,552,107	1.8864876	166,327	1,958,414	(1,215,630)	6,227	52,154	
Weber Fire District	10,469	0.0127246	1,122	13,210	(8,200)	42	352	
Weber Human Services	288,690	0.3508846	30,937	364,263	(226,106)	1,158	9,701	
Weber State University	259,670	0.3156128	27,827	327,646	(203,377)	1,042	8,726	
Wellington City	6,286	0.0076400	674	7,931	(4,923)	25	211	~~~~~
Wellsville City Corp	6,608	0.0080315	708	8,338	(5,175)	27	222	
West Bountiful City	23,236	0.0282423	2,490	29,319	(18,199)	93	781	
West Kane County SSD #1	3,952	0.0048035	424	4,987	(3,095)	16	133	
West Point City	29,557	0.0359252	3,167	37,295	(23,150)	119	993	
West Valley City	323,900	0.3936794	34,710	408,689	(253,682)	1,299	10,884	
White City Water Imp Dist	4,419	0.0053705	474	5,575	(3,461)	18	148	
Willard City Corp	3,910	0.0047522	419	4,933	(3,062)	16	131	
Woods Cross City	10,184	0.0123783	1,091	12,850	(7,976)	41	342	
Workers Compensation Fund	609,810	0.7411857	65,348	769,445	(477,611)	2,447	20,491	
Grand Total	\$ 82,274,953	100.0000000%	\$ 8,816,731	103,812,697	(64,438,786)	330,080	2,764,635	
No Proportionate Share for 2017 Aurora City Canyonlands Health Care	\$ <u> </u>	0.0000000% 0.0000000	\$ <u>-</u>	Ξ	=	_	_	
Alpine Uniserv Davis County Mosquito Abatement Enterprise City Huntington City Massers Water District	_ _ _	0.000000 0.000000 0.000000 0.000000	_ _ _	_ _ _ _	_ _ _ _	_ _ _ _	_ _ _	
Maeser Water District Mantua City Valley Mental Health Jordan River Commission Ogden Weber/NEA/UEA Uniserv	_ _ _ _	0.000000 0.000000 0.000000 0.000000 0.000000	= =	_ _ _ _	_ _ _ _	_ _ _ _	_ _ _ _	
Recreation and Habilitation Services Uintah City Uintah Water Conserv Dist	=	0.0000000 0.0000000 0.0000000	=	_ _ _	=	<u>-</u> - -	_ _ _	
Grand Total	\$ 82,274,953	100.0000000%	\$ 8,816,731	103,812,697	(64,438,786)	330,080	2,764,635	

6,944

171

283

124

328

10,143,289

11,865,602

6,944

171

283

124

328

412

25,103,606

8,257,173

12,824,908

Total

Employer Net Pension

Excluding That

Attributable to

Employer-Paid

Contributions

Expense

Member

4,616

8,530

656,386

43,408

479,522

165,999

117,555

192,202

33,210

48,609

212,888

40,365

125,803

58,507

269,687

569,175

84,235

13,320

37,743

224,401

1,856,496

15,477

37,514

81,811

60,221

680,023

10,795

297,152

267,138

6,472

6,809

23,924

4,067

30,426

333,281

4,545

4,027

10,485

627,550

(11)

(61)

(5)

(9)

(4)

(9)

(10)

(663)

(0)

(9)

(10)

4

84,682,432

84,683,212

1,597,826

14,559

208

452

121

505

464

98,716

892,556

14,559

208

452

121

505

464

83,663,902

22,073,353

(663)

(0)

(9)

(10)

1,018,530

0

## Tier 2 Public Safety and Firefighter Contributory Retirement System

# **Schedule of Employer Allocations** and Pension Amounts

and Pension Amounts at December 31, 2017							Net Difference	
Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Between Projected and Actual Investment Earnings on Pension Plan Investments	
American Fork City	\$ 157,541	1.3835740%	\$ (16,009)	141,770	(136,552)	8,351	3,950	
Beaver County	72,927	0.6404653	(7,411)	65,626	(63,211)	3,866	1,828	
Big Water Municipal Corp	3,589	0.0315223	(365)	3,230	(3,111)	190	90	
Blanding City	3,705	0.0325426	(377)	3,335	(3,212)	196	93	
Bluffdale City	8,155	0.0716233	(829)	7,339	(7,069)	432	204	
Box Elder County	72,979	0.6409247	(7,416)	65,673	(63,256)	3,869	1,830	
Brigham City	31,202	0.2740269	(3,171)	28,078	(27,045)	1,654	782	
Cache County	140,494	1.2338577	(14,277)	126,429	(121,776)	7,448	3,523	
Carbon County	50,624	0.4445921	(5,144)	45,556	(43,879)	2,684	1,269	
Cedar City	52,107	0.4576159	(5,295)	46,890	(45,165)	2,762	1,306	
Cedar Mtn Fire Protection Dist	3,606	0.0316664	(366)	3,245	(3,125)	191	90	
Centerville City	4,577	0.0401947	(465)	4,119	(3,967)	243	115	
City of Bountiful	27,640	0.2427410	(2,809)	24,873	(23,957)	1,465	693	
City of Draper	76,434	0.6712652	(7,767)	68,782	(66,251)	4,052	1,916	
City of Harrisville	9,229	0.0810498	(938)	8,305	(7,999)	489	231	
City of Helper City of Moab City of Monticello City of Naples City of North Salt Lake	9,199 27,881 9,642 7,307 25,677	0.0807858 0.2448621 0.0846751 0.0641748 0.2255066	(935) (2,833) (980) (743) (2,609)	8,278 25,090 8,676 6,576 23,107	(7,973) (24,167) (8,357) (6,334) (22,256)	488 1,478 511 387 1,361	231 699 242 183 644	~~
City of Orem City of Santa Clara City of Saratoga Springs City of South Jordan City of South Salt Lake	186,028 416 61,327 197,829 108,267	1.6337586 0.0036548 0.5385951 1.7373905 0.9508348	(18,904) (42) (6,232) (20,103) (11,002)	167,405 374 55,188 178,024 97,428	(161,244) (361) (53,157) (171,472) (93,843)	9,861 22 3,251 10,487 5,739	4,664 10 1,538 4,960 2,715	
City of St George City of West Jordan Clearfield City Clinton City Cottonwood Heights City	150,746 176,683 46,360 41,245 49,125	1.3239008 1.5516803 0.4071432 0.3622222 0.4314339	(15,318) (17,954) (4,711) (4,191) (4,992)	135,655 158,995 41,718 37,116 44,207	(130,663) (153,143) (40,183) (35,750) (42,580)	7,991 9,366 2,458 2,186 2,604	3,780 4,430 1,162 1,034 1,232	
Daggett County Davis County Dixie State University Duchesne County East Carbon City	5,160 248,139 4,563 77,174 8,076	0.0453132 2.1792298 0.0400736 0.6777614 0.0709238	(524) (25,215) (464) (7,842) (821)	4,643 223,297 4,106 69,448 7,267	(4,472) (215,080) (3,955) (66,892) (7,000)	274 13,154 242 4,091 428	129 6,221 114 1,935 202	~~~
Emery County	29,136	0.2558834	(2,961)	26,219	(25,254)	1,545	731	~~~
Enoch City	9,630	0.0845711	(979)	8,666	(8,347)	510	241	
Ephraim City	2,085	0.0183082	(212)	1,876	(1,807)	111	52	
Farmington City	41,898	0.3679596	(4,258)	37,703	(36,316)	2,221	1,050	
Garfield County	28,957	0.2543126	(2,943)	26,058	(25,099)	1,535	726	
Garland City	4,376	0.0384328	(445)	3,938	(3,793)	232	110	~~~
Grand County	54,846	0.4816774	(5,573)	49,356	(47,539)	2,907	1,375	
Grantsville City	23,762	0.2086810	(2,415)	21,383	(20,596)	1,260	596	
Gunnison Valley Police Dept	3,450	0.0302987	(351)	3,105	(2,990)	183	86	
Heber City	32,429	0.2848050	(3,295)	29,183	(28,109)	1,719	813	
Hurricane City	17,317	0.1520796	(1,760)	15,583	(15,010)	918	434	~~~
Hurricane Valley Fire SSD	51,206	0.4497034	(5,203)	46,079	(44,384)	2,714	1,284	
Iron County	93,620	0.8222001	(9,513)	84,248	(81,147)	4,963	2,347	
Ivins City	16,848	0.1479603	(1,712)	15,161	(14,603)	893	422	
Juab County	46,490	0.4082862	(4,724)	41,836	(40,296)	2,464	1,166	
Kane County	32,630	0.2865633	(3,316)	29,363	(28,282)	1,730	818	
Kaysville City	33,153	0.2911591	(3,369)	29,834	(28,736)	1,757	831	
Laverkin City	1,153	0.0101289	(117)	1,038	(1,000)	61	29	
Layton City	130,787	1.1486106	(13,290)	117,694	(113,362)	6,933	3,279	
Lehi City	151,459	1.3301614	(15,391)	136,297	(131,281)	8,029	3,797	

	Deferred Outilo	ws of Resources				Deletted IIIIIo	ws or resources		to Empire	yer-Paid Membe	ei Continuutions
	Changes in Proportion and			Net		Changes in Proportion and			let Amortization of Deferred Amounts from Changes in Proportion and		Total
	Differences Between Employer		D:#	Difference Between Projected		Differences Between Employer Contributions		Proportionate	Differences Between Employer		Employer Net Pension Expense
	Contributions and Proportionate	Total Deferred	Differences Between Expected	and Actual Investment Earnings on		and Proportionate	Total Deferred	Share of Allocable Plan Gross	Contributions and Proportionate	Proportionate Share of	Excluding That Attributable to Employer-Paid
Changes of Assumptions		Outflows of Resources	and Actual Experience	Pension Plan Investments	Changes of Assumptions	Share of Contributions	Inflows of Resources	Pension Expense	Share of Contributions	Nonemployer Contributions	Member Contributions
35,053 16,226		60,285 28,048	48 22	21,365 9,890	1,369 634	_	22,782 10,546	147,064 68,077	788 365	_	147,852 68,442
799		1,846	1	487	31	129	648	3,351	38	_	3,389
824 1,815		2,040 2,451	1 2	503 1,106	32 71	430 1,472	966 2,651	3,459 7,613	27 (86)	_	3,486 7,527
16,238		25,151	22	9,897	634	1,075	11,628	68,126	137		68,263
6,943		10,051	10	4,231	271	1,401	5,913	29,127	(48)	_	29,079
31,260 11,264		67,115 15,777	43 15	19,053 6,865	1,221 440	— 769	20,317 8,089	131,151 47,257	1,525 (15)	_	132,676 47,242
11,594		15,662	16	7,066	453	2,533	10,068	48,641	(155)	_	48,486
802 1,018		1,991 1,718	1 1	489 621	31 40	464 610	985 1,272	3,366 4,272	31 (18)	_	3,397 4,254
6,150		9,268	8	3,748	240	1,467	5,463	25,802	(34)	_	25,768
17,007	3,074	26,049	23	10,365	664	6,033	17,085	71,351	(162)	_	71,189
2,053	1,788	4,561	3	1,252	80	563	1,898	8,615	77		8,692
2,047	449	3,215	3	1,247	80	1,142	2,472	8,587	(44)	_	8,543
6,204 2,145		9,797 3,251	8	3,781 1,308	242 84	831 134	4,862 1,529	26,027 9,000	30 15	_	26,057 9,015
1,626		3,756	2	991	63	48	1,104	6,821	91	_	6,912
5,713	1,493	9,211	8	3,482	223	1,412	5,125	23,970	10		23,980
41,391 93	3,025 1,098	58,941 1,223	57	25,228 56	1,616 4	2,089 513	28,990 573	173,657 388	63 32	_	173,720 420
13,645		21,830	19	8,317	533	_	8,869	57,249	210	_	57,459
44,017	1,602	61,066	60	26,828	1,719	6,053	34,660	184,673	(257)	_	184,416
24,090	~~~~~	35,693	33	14,683	941	5,066	20,723	101,067	(138)	<del>-</del>	100,929
33,541 39,312		60,000 75,372	46 54	20,443 23,961	1,310 1,535	_	21,799 25,550	140,722 164,933	884 1,356	_	141,606 166,289
10,315		16,548	14	6,287	403	2,708	9,412	43,277	(9)	_	43,268
9,177		17,757	13	5,593	358		5,964	38,502	333	_	38,835
10,930	3,925	18,691	15	6,662	427	1,625	8,729	45,858	149		46,007
1,148 55,211	5,587 26,821	7,138 101,407	2 76	700 33,651	45 2,156	1,993	2,740 35,883	4,816 231,637	201 1,630	_	5,017 233,267
1,015		2,159	1	619	40	_	660	4,260	49	_	4,309
17,171	13,269	36,466	24	10,466	671	_	11,161	72,041	806	_	72,847
1,797	137	2,564	2	1,095	70	1,068	2,235	7,539	(56)		7,483
6,483 2,143		9,927 3,704	9	3,951 1,306	253 84	2,278 1,663	6,491 3,056	27,199 8,989	(59) (51)	_	27,140 8,938
2,143 464		2,057	1	283	18	376	678	1,946	68	_	2,014
9,322		14,683	13	5,682	364	171	6,230	39,112	119	_	39,231
6,443	3,551	12,255	9	3,927	252		4,188	27,032	216		27,248
974		1,316	1	593	38	597	1,229	4,085	(36)	_	4,049
12,203 5,287		21,792 9,413	17 7	7,438 3,222	477 206	1,735	9,667 3,435	51,199 22,181	205 137	_	51,404 22,318
768		1,037	1	468	30	623	1,122	3,221	(36)	_	3,185
7,216		15,364	10	4,398	282		4,690	30,273	337	_	30,610
3,853	1,035	6,240	5	2,348	150	62	2,565	16,165	63	_	16,228
11,393		15,431	16	6,944	445	7,871	15,276	47,800	(463)	_	47,337
20,831 3,749	7,695 954	35,836 6,018	29 5	12,696 2,285	813 146	<u> </u>	13,538 2,707	87,394 15,727	470 45	_	87,864 15,772
3,749 10,344		20,930	14	6,305	404	2/1 —	6,723	43,398	45 421	_ _	43,819
7,260		11,024	10	4,425	284	254	4,973	30,460	60	_	30,520
7,377		12,702	10	4,496	288	1,171	5,965	30,948	86	_	31,034
257 29,100		1,003 44,980	40	156 17,737	10 1,136	499 2,384	665 21,297	1,077 122,089	8 215	_	1,085 122,304
33,700		45,664	46	20,540	1,130	1,262	23,164	141,387	(66)	_	141,321
33,100		, '		,*	.,	-,	,	,	(30)		,-= /

# Tier 2 Public Safety and Firefighter Contributory Retirement System

# Schedule of Employer Allocations and Pension Amounts (Concluded)

Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments
Logan City	\$ 96,764	0.8498104%	\$ (9,833)	87,077	(83,872)	5,129	2,426
Lone Peak PS District	58,414	0.5130109	(5,936)	52,566	(50,632)	3,097	1,465
Mapleton City	13,943	0.1224532	(1,417)	12,547	(12,086)	739	350
Millard County	71,490	0.6278485	(7,265)	64,333	(61,966)	3,790	1,792
Moab Valley Fire Protection	4,252	0.0373439	(432)	3,826	(3,686)	225	107
Morgan County	20,758	0.1823062	(2,109)	18,680	(17,993)	1,100	520
Murray City	169,760	1.4908812	(17,251)	152,765	(147,143)	8,999	4,256
N Tooele Co Fire Protection SD	9,882	0.0867906	(1,004)	8,893	(8,566)	524	248
Nephi City	14,191	0.1246330	(1,442)	12,771	(12,301)	752	356
North Davis Fire District	34,649	0.3043000	(3,521)	31,180	(30,033)	1,837	869
North Ogden City	25,180	0.2211418	(2,559)	22,660	(21,826)	1,335	631
North Park Police Agency	13,080	0.1148755	(1,329)	11,771	(11,338)	693	328
North View Fire District	42,263	0.3711698	(4,295)	38,032	(36,633)	2,240	1,060
Ogden City Corp	300,881	2.6424306	(30,575)	270,760	(260,795)	15,950	7,544
Park City	33,111	0.2907906	(3,365)	29,796	(28,700)	1,755	830
Park City Fire Service	98,932	0.8688494	(10,053)	89,028	(85,751)	5,244	2,480
Parowan City	7,941	0.0697406	(807)	7,146	(6,883)	421	199
Payson City	31,826	0.2795099	(3,234)	28,640	(27,586)	1,687	798
Perry City	4,476	0.0393088	(455)	4,028	(3,880)	237	112
Pleasant Grove City	58,012	0.5094809	(5,895)	52,205	(50,283)	3,075	1,455
Pleasant View City	5,131	0.0450631	(521)	4,617	(4,448)	272	129
Price City	15,513	0.1362408	(1,576)	13,960	(13,446)	822	389
Provo City Corp	188,848	1.6585203	(19,190)	169,942	(163,688)	10,011	4,735
Rich County	5,121	0.0449766	(520)	4,609	(4,439)	271	128
Richfield City	10,912	0.0958308	(1,109)	9,819	(9,458)	578	274
Riverdale City	25,183	0.2211644	(2,559)	22,662	(21,828)	1,335	631
Roosevelt City	10,152	0.0891577	(1,032)	9,136	(8,799)	538	255
Roy City	106,867	0.9385360	(10,860)	96,168	(92,629)	5,665	2,679
Salem City	8,376	0.0735608	(851)	7,537	(7,260)	444	210
Salina City	3,785	0.0332408	(385)	3,406	(3,281)	201	95
Salt Lake City Corp	589,773	5.1795695	(59,931)	530,731	(511,199)	31,264	14,787
Salt Lake County	789,715	6.9355150	(80,249)	710,656	(684,502)	41,863	19,800
San Juan County	38,197	0.3354604	(3,882)	34,373	(33,108)	2,025	958
Sandy City	236,298	2.0752385	(24,012)	212,642	(204,816)	12,526	5,925
Sanpete County	23,871	0.2096460	(2,426)	21,482	(20,691)	1,265	599
Santaquin City	5,641	0.0495447	(573)	5,077	(4,890)	299	141
Sevier County	33,321	0.2926380	(3,386)	29,986	(28,882)	1,766	835
Smithfield City Corp	24,422	0.2144840	(2,482)	21,977	(21,169)	1,295	612
So Davis Metro Fire Agency	85,814	0.7536485	(8,720)	77,223	(74,382)	4,549	2,152
South Ogden City	37,972	0.3334788	(3,859)	34,170	(32,913)	2,013	952
Southern Utah University	3,708	0.0325679	(377)	3,337	(3,214)	197	93
Spanish Fork City	39,429	0.3462816	(4,007)	35,482	(34,176)	2,090	989
Springville City	56,936	0.5000307	(5,786)	51,236	(49,351)	3,018	1,428
State of Utah	2,883,084	25.3201170	(292,965)	2,594,458	(2,498,975)	152,838	72,288
Summit County	66,183	0.5812395	(6,725)	59,557	(57,366)	3,508	1,659
Sunset City	12,255	0.1076291	(1,245)	11,028	(10,622)	650	307
Syracuse City Corp	41,342	0.3630793	(4,201)	37,203	(35,834)	2,192	1,037
Tooele City	80,916	0.7106312	(8,223)	72,816	(70,136)	4,289	2,029
Tooele County	56,682	0.4977973	(5,760)	51,007	(49,130)	3,005	1,421
Town of Brian Head	4,139	0.0363517	(421)	3,725	(3,588)	219	104
Tremonton City	6,778	0.0595283	(689)	6,100	(5,875)	359	170
Uintah County	110,500	0.9704407	(11,229)	99,437	(95,778)	5,858	2,771
Unified Fire Authority	259,433	2.2784157	(26,363)	233,461	(224,869)	13,753	6,505
Unified Police Department	186,436	1.6373416	(18,945)	167,772	(161,598)	9,883	4,674
University of Utah	34,672	0.3045036	(3,523)	31,201	(30,053)	1,838	869

Part		Deletted Outilo	ws or resources				Deletted lillio	ws of Resources		to Empire	yer-Palu Mellib	er Contributions
Part		Proportion and Differences			Difference		Proportion and Differences			of Deferred Amounts from Changes in Proportion and Differences		Employer
Personal Process   Personal Pr		Employer			Projected		Employer		Proportionate	Employer		Expense
Second Company			T-4-1					Takal			D	
Champord												
21,530		Share of	Outflows of	and Actual	Pension Plan		Share of	Inflows of	Pension	Share of	Nonemployer	Member
1,102	Assumptions	Contributions	Resources	Experience	Investments	Assumptions	Contributions	Resources	Expense	Contributions	Contributions	Contributions
1,102	21,530	14.144	43,229	29	13.123	841	_	13,993	90.329	848	_	91,177
1,102 2,237 6,428 4 1,891 121 — 2,016 13,016 135 — 13,151 15,007 3,707 25,166 22 — 9,055 6,21 — 10,381 6,675 22 — 6,6358 46,46							912				_	
15,907   3,707   25,196   22   9,895   621				4							_	
946 622 1,000 1 577 37 42 657 3,569 34 — 4,003  4,619 363 6,602 6 2,215 100 1,868 4,259 1032 1,104 — 159,664  2,199 1,965 4,995 1 1,340 66 389 1,518 9,225 102 9,222  3,158 1,097 5,536 4 1,925 122 171 2,222 13,248 55 — 13,203  7,700 785 11,000 11 4,699 301 733 5,744 132,45 5 — 3,340  5,603 4,157 11,726 8 3,415 219 — 3,642 2,506 254 — 23,347  5,603 4,157 11,726 8 3,415 219 — 3,642 2,506 254 — 23,346  9,644 2,771 15,475 13 5,732 367 — 6,112 39,513 170 — 33,623  6,6946 2,2716 11,275 92 46,804 2,414 — 43,100 28,807 2 1,369  7,7367 7,266 17,638 10 4,490 288 — 4,788 30,909 467 — 31,376  2,2012 11,818 41,554 30 14,477 89 388 1,516 7,413 32 — 23,347  7,081 11,172 11,069 10 4,480 288 — 4,788 30,909 467 — 31,376  7,081 11,172 11,098 10 4,316 277 635 5,238 29,710 25 — 28,745  7,966 1,200 2,245 1 0,007 39 607 1,254 4,78 36 — 4,748  4,009 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,409 3,4	15,907		25,196	22	9,695	621	_	10,338	66,736	222	_	66,958
19,772   19,897   70,924   52   22,022   1,475   24,549   158,470   1,194   199,684		622	1,900	1	577	37	42	657		34	_	4,003
19,772   19,897   70,924   52   22,022   1,475   24,549   158,470   1,194   199,684	4 619	363	6,602	6	2 815	180	1 368	4 369	19 378	(59)		19 319
1,199											_	
1,156											_	
1,709   785   11,200   11											_	
5,603         4,157         11,726         8         3,415         219         —         3,642         23,506         224         —         22,700           2,914         2,771         33,531         4         1,772         114         2,103         3,955         12,103         10,104         —         1,208           66,946         2,2116         112,756         92         46,884         1,264         —         4,178         30,002         13,29         —         38,621           7,667         7,686         17,638         30         13,417         860         —         14,300         92,333         727         —         93,000           1,767         867         3,244         2         1,077         69         368         1,516         7,413         32         —         7,445           7,861         1,132         1,068         10         4,316         2.77         695         5,238         29,710         25         —         29,755           1,767         8,373         1,424         1,767         8         1,622         4,666         4,744         1,742         4,744         1,742         1,744         4,744         1,742 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td></t<>											_	
2,910		4 157	~~~~~		~~~~	~~~~~	~~~~~	~~~~	~~~~	254	~~~~~	~~~~~
9,404   2777   15,475   13   5,732   367     6,112   39,453   170     39,023   7,367   7,666   17,638   10   4,449   288     4,378   30,999   467     31,376   22,211   1,818   41,554   30   13,417   860     14,307   92,353   727     93,080   1,767   7,681   1,152   10,698   10   4,316   277   69   368   15,167   7,413   32     7,445   7,981   1,152   10,698   10   4,316   277   69   368   15,167   7,413   32     7,445   1,209     7,748   18   7,867   594   3,896   12,285   4,178   36     4,174   1,209     7,748   18   7,867   594   3,896   12,285   4,178   36     4,214   4,219     1,448   4,219     1,448   4,219     1,448   4,219   4,219     1,448   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,219   4,											_	
66,96         22316         112,756         92         40,804         2.614         — 4,8510         280,872         1,369         — 822,241           7,367         7,686         17,638         10         4,490         288         — 4,783         30,999         467         — 31,376           22,012         11,818         41,554         30         13,417         860         — 14,307         92,333         727         — 93,080           1,767         557         3,244         2         1,077         69         368         1,516         7,413         32         — 7,445           1,208         1,00         2,545         1         607         39         607         1,254         4,178         36         — 22,715           1,142         770         2,213         2         696         45         422         1,166         4,790         19         — 4,800           3,452         1,190         5,653         5         2,104         135         1,311         3,375         14,81         — 14,81           4,209         5,409         62,174         58         25,610         1,641         — 22,79         26,793         330         — 176,619											_	
7,367         7,686         17,638         10         4,490         288         —         4,788         30,999         467         —         31,376           22,012         11,818         41,554         30         13,417         860         —         14,307         92,353         727         —         93,080           1,767         657         3,244         2         1,077         69         368         1,516         7,413         32         —         7,456           7,061         1,132         10,698         10         4,316         277         615         5,228         29,710         25         —         29,735           986         1,200         2,248         1         1,060         39         607         1,244         4,178         36         4,241           1,142         770         2,213         2         66         45         422         1,60         4,799         19         —         4,809           3,452         1,190         5,833         5         2,104         135         1,311         3,375         14,481         —         -         14,481           4,209         5,409         6,117         58												
22,012							_				_	
1,767	~~~~~	~~~~	~~~~	~~~~~	~~~~	~~~~~	~~~~~	~~~~		~~~~~	~~~~~	
1,081   1,132   10,698   10   4,316   277   635   5,238   29,710   25   29,725												
12,006												
12,908												
1,142 770 2,313 2 666 45 422 1,165 4,790 19 — 4,899 3,452 1,190 5,853 5 2,104 135 1,131 3,375 14,481 — 14,481 42,019 5,409 62,174 58 25,610 1,641 — 27,309 1,762,89 330 — 176,619 1,139 1,234 2,772 2 669 44 — 741 4,781 75 — 4,856 2,428 1,013 4,293 3 1,480 99 670 2,248 1,0186 17 — 10,203 5,603 406 7,975 8 3,415 219 2,209 5,851 22,508 (105) — 22,403 22,599 2,388 5,440 3 1,377 88 166 1,634 9,477 133 — 9,610 23,778 10,188 4,2310 33 14,493 929 — 15,455 99,760 619 — 100,379 1,864 1,516 40,94 3 1,136 73 1,209 2,421 7,819 24 — 7,843 842 122 1,260 1 513 33 559 1,106 3,533 (27) — 3,506 131,225 30,053 20,329 180 79,981 5,124 — 8,528 5,505,553 1,823 — 55,324 175,712 97,173 334,548 241 107,096 6,861 — 114,198 737,198 6,021 — 743,219 8,499 2,261 13,743 12 5,180 322 — 5,524 3,667 135 — 3,579 2,526 52,576 13,420 84,447 72 32,045 2,053 2,643 36,813 22,084 630 — 221,214 5,311 2,079 9,254 7 3,227 207 37 3,488 22,284 121 — 22,405 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,587 1,580 1,09 1,09 1,09 1,00 1,00 1,00 1,00 1,0				-								
3,452	~~~~~				7,007	~~~~~	3,070	12,203	~~~··~	(242)		
42,019   5,409   62,174   58   25,610   1,641									4,790	19	_	
1,139											_	
2,428         1,013         4,293         3         1,480         95         670         2,248         10,186         17         —         10,203           5,603         406         7,775         8         3,415         219         2,209         5,851         23,508         (105)         —         23,408           2,2729         2,388         5,440         3         1,377         88         166         1,634         9,477         133         —         9,610           1,864         1,516         4,034         3         1,136         73         1,209         2,421         7,819         24         —         7,843           1,864         1,516         4,034         3         1,136         73         1,209         2,421         7,819         24         —         7,843           1,864         1,516         4,034         3         1,136         73         1,209         2,421         7,819         24         —         7,843           1,872         30,033         207,329         180         7,99         1         1,818         2,51         3,51         3,51         3,51         3,51         3,52         3,51         3,52											_	
5,603         406         7,975         8         3,415         219         2,209         5,851         23,508         (105)         —         23,403           2,259         2,388         5,440         3         1,377         88         166         1,634         9,477         133         —         9,610           23,778         10,188         42,310         33         14,493         929         —         15,455         99,760         619         —         100,379           1,864         1,516         4,034         3         1,136         73         1,209         2,421         7,819         24         —         7,843           842         122         1,260         1         513         33         559         1,106         3,533         (27)         —         7,843           131,225         30,053         207,329         180         7,9981         5,124         —         85,285         550,553         18,23         —         523,276           17,712         9,173         334,48         241         107,096         6,861         —         11,419         73,718         6,021         —         742,219           52,576         1											_	
2,259         2,388         5,440         3         1,377         88         166         1,634         9,477         133         —         9,610           23,778         10,188         42,310         33         14,493         929         —         15,455         99,760         619         —         100,379           1,864         1,516         4,034         3         1,136         73         1,209         2,421         7,819         24         —         7,843           842         122         1,260         1         513         33         559         1,106         3,533         (27)         —         3,506           131,225         30,053         207,329         180         79,981         5,124         —         85,285         550,553         1,823         —         55,2376           15,7712         97,73         334,548         241         107,996         6,861         —         114,198         737,198         6021         —         742,219           8,499         2,261         13,743         12         5,180         332         —         5,524         35,667         135         —         33,792           2,5,76	2,428	1,013	4,293	<b></b>	1,480	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	6/0	2,248	10,186			10,203
23,778         10,188         42,310         33         14,493         329         —         15,455         99,760         619         —         100,379           1,864         1,516         4,034         3         1,136         73         1,209         2,421         7,819         24         —         7,848           842         122         1,260         1         513         33         559         1,106         3,533         (27)         —         3,506           131,225         30,053         207,329         180         79,981         5,124         —         85,285         550,553         1,823         —         552,376           175,712         97,173         334,548         241         107,096         6,861         —         114,198         737,198         6,021         —         743,219           8,499         2,261         13,743         12         5,180         332         —         5,524         35,667         135         —         35,219           2,576         13,420         84,447         72         32,045         2,053         2,643         36,813         220,584         630         —         22,114           5,311 <td></td> <td></td> <td></td> <td>8</td> <td></td> <td></td> <td>2,209</td> <td>5,851</td> <td></td> <td>(105)</td> <td>_</td> <td>23,403</td>				8			2,209	5,851		(105)	_	23,403
1,864		2,388	5,440	3		88	166	1,634	9,477	133	_	9,610
842         122         1,260         1         513         33         559         1,106         3,533         (27)         —         3,506           131,225         30,063         207,329         180         79,981         5,124         —         85,285         550,553         1,823         —         552,376           175,712         97,173         334,548         241         107,096         6,661         —         114,198         737,198         6,021         —         743,219           8,499         2,261         13,743         12         5,180         332         —         5,524         35,657         135         —         35,792           5,276         13,420         84,447         72         32,045         2,053         2,643         36,813         22,284         121         —         22,404           1,255         —         1,695         2         765         49         29         1,745         5,266         (55)         —         5,211           7,414         5,587         15,602         10         4,519         290         —         4,819         31,105         339         —         31,444           5,434 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td></td<>											_	
131,225   30,053   207,329   180   79,981   5,124   — 85,285   550,553   1,823   — 552,376   175,712   97,173   334,548   241   107,096   6,861   — 114,198   737,198   6,021   — 743,219   8,499   2,261   13,743   12   5,180   332   — 5,524   35,667   135   — 35,792   52,576   13,420   84,447   72   32,045   2,053   2,643   36,813   220,584   630   — 221,214   5,311   2,079   9,254   7   3,237   207   37   3,488   22,284   121   — 22,405   1,255   — 1,695   2   765   49   929   1,745   5,266   (55)   — 5,211   7,414   5,587   15,602   10   4,519   290   — 4,819   31,105   339   — 31,444   5,434   — 7,341   7   3,312   212   2,742   6,273   22,798   (168)   — 22,630   19,094   11,550   37,345   26   11,638   746   — 12,410   80,108   706   — 80,814   8,449   1,924   13,318   12   5,149   330   — 5,491   35,447   115   — 35,562   8,449   1,924   13,318   12   5,149   330   — 5,491   35,447   115   — 35,562   12,668   8,482   25,596   17   7,721   495   — 8,233   53,150   520   — 3,6765   12,668   8,482   25,596   17   7,721   495   — 8,233   53,150   520   — 5,3670   641,487   223,675   1,090,288   875   30,905   25,047   — 416,907   2,691,356   13,554   — 2,704,910   14,726   3,642   23,535   20   8,975   575   3,413   12,983   61,782   — — 61,782   2,704,910   14,726   3,642   23,535   20   8,975   575   3,413   12,983   61,782   — — 61,782   2,704,910   14,726   3,642   23,535   20   8,975   575   3,413   12,983   61,782   — — 61,782   2,704,910   12,943   13,560   13,554   — 2,704,910   14,726   3,642   23,535   20   8,975   575   3,413   12,983   61,782   — — — 61,782   14,484   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,485   14,4				3							_	
175,712	842	122	1,260	1	513	33	559	1,106	3,533	(27)		3,506
8,499       2,261       13,743       12       5,180       332       —       5,524       35,657       135       —       35,792         52,576       13,420       84,447       72       32,045       2,053       2,643       36,813       220,584       630       —       221,214         5,311       2,079       9,254       7       3,237       207       37       3,488       22,284       121       —       22,405         1,255       —       1,695       2       765       49       929       1,745       5,266       (55)       —       5,211         7,414       5,587       15,602       10       4,519       290       —       4,819       31,105       339       —       31,444         5,434       —       7,341       7       3,312       212       2,742       6,273       22,798       (168)       —       22,639         19,094       11,550       37,345       26       11,638       746       —       12,410       80,108       706       —       80,814         8,449       1,924       13,338       12       5,149       330       —       5,491       35,447       115	131,225	30,053	207,329	180	79,981	5,124	_	85,285	550,553	1,823	_	552,376
52,576         13,400         84,447         72         32,045         2,053         2,643         36,813         220,584         630         —         221,214           5,311         2,079         9,254         7         3,237         207         37         3,488         22,284         121         —         22,405           1,255         —         1,695         2         765         49         929         1,745         5,266         (55)         —         5,211           7,414         5,587         15,602         10         4,519         290         —         4,819         31,105         339         —         31,444           5,434         —         7,341         7         3,312         212         2,742         6,273         22,798         (168)         —         22,630           19,094         11,550         37,345         26         11,638         746         —         12,410         80,108         706         —         80,814           8,449         1,924         13,338         12         5,149         330         —         5,491         35,447         115         —         35,562           827         7,7		97,173	334,548	241				114,198		6,021	_	743,219
5,311         2,079         9,254         7         3,237         207         37         3,488         22,284         121         —         22,405           1,255         —         1,695         2         765         49         929         1,745         5,266         (55)         —         5,211           7,414         5,587         15,602         10         4,519         290         —         4,819         31,105         339         —         31,444           5,434         —         7,341         7         3,312         212         2,742         6,273         22,798         (168)         —         22,630           19,094         11,550         37,345         26         11,638         746         —         12,410         80,108         706         —         80,814           8,449         1,924         13,338         12         5,149         330         —         5,491         35,447         115         —         35,562           825         —         1,115         1         503         32         559         1,095         3,462         (33)         —         3,429           8,773         1,091         12,943		2,261	13,743	12	5,180	332	_	5,524		135	_	
1,255         —         1,695         2         765         49         929         1,745         5,266         (55)         —         5,211           7,414         5,587         15,602         10         4,519         290         —         4,819         31,105         339         —         31,444           5,434         —         7,341         7         3,312         212         2,742         6,273         22,798         (168)         —         22,630           19,094         11,550         37,345         26         11,638         746         —         12,410         80,108         706         —         80,814           8,449         1,924         13,338         12         5,149         330         —         5,491         35,447         115         —         35,562           825         —         1,115         1         503         32         559         1,095         3,462         (33)         —         3,429           8,773         1,091         12,943         12         5,347         343         1,836         7,538         36,807         (42)         —         36,765         12,668         8,482         25,596 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td></td<>											_	
7,414       5,587       15,602       10       4,519       290       —       4,819       31,105       339       —       31,444         5,434       —       7,341       7       3,312       212       2,742       6,273       22,798       (168)       —       22,630         19,094       11,550       37,345       26       11,638       746       —       12,410       80,108       706       —       80,614         8,449       1,924       13,338       12       5,149       330       —       5,491       35,447       115       —       35,562         825       —       1,115       1       503       32       559       1,095       3,462       (33)       —       34,29         8,773       1,091       12,943       12       5,347       343       1,836       7,538       36,807       (42)       —       36,765         12,668       8,482       25,596       17       7,721       495       —       8,233       53,150       520       —       53,670         641,487       22,675       1,990,288       875       390,985       25,047       —       416,907       2,691,356       13,	5,311	2,079	9,254	7	3,237	207	37	3,488	22,284	121		22,405
7,414         5,587         15,602         10         4,519         290         —         4,819         31,105         339         —         31,444           5,434         —         7,341         7         3,312         212         2,742         6,273         22,798         (168)         —         22,630           19,094         11,550         37,345         26         11,638         746         —         12,410         80,108         706         —         80,614           8,449         1,924         13,338         12         5,149         330         —         5,491         35,447         115         —         35,562           825         —         1,115         1         503         32         559         1,095         3,462         (33)         —         3,429           8,773         1,091         12,943         12         5,347         343         1,836         7,538         36,807         (42)         —         36,765           12,668         8,482         25,596         17         7,721         495         —         8,233         53,150         520         —         53,670           641,867         223,675	1,255	_	1,695	2	765	49	929	1,745	5,266	(55)	_	5,211
5,434       —       7,341       7       3,312       212       2,742       6,273       22,798       (168)       —       22,630         19,094       11,550       37,345       26       11,638       746       —       12,410       80,108       706       —       80,814         8,449       1,924       13,338       12       5,149       330       —       5,491       35,447       115       —       35,562         825       —       1,115       1       503       32       559       1,095       3,462       (33)       —       3,429         8,773       1,091       12,943       12       5,347       343       1,836       7,538       36,807       (42)       —       36,765         12,668       8,482       25,596       17       7,721       495       —       8,233       53,150       520       —       53,670         641,487       223,675       1,090,288       875       390,985       25,047       —       416,907       2,691,356       13,554       —       2,704,910         14,726       3,642       23,535       20       8,975       575       3,413       12,983       61,782											_	
19,094       11,550       37,345       26       11,638       746       —       12,410       80,108       706       —       80,814         8,449       1,924       13,338       12       5,149       330       —       5,491       35,447       115       —       35,562         825       —       1,115       1       503       32       559       1,095       3,462       (33)       —       3,429         8,773       1,091       12,943       12       5,347       343       1,836       7,538       36,807       (42)       —       36,765         12,668       8,482       25,596       17       7,721       495       —       8,233       53,150       520       —       53,676         641,487       223,675       1,090,288       875       390,985       25,047       —       416,907       2,691,356       13,554       —       2,704,910         14,726       3,642       23,535       20       8,975       575       3,413       12,983       61,782       —       —       61,782         2,727       925       4,609       4       1,662       106       59       1,831       11,440	5,434		7,341				2,742				_	
825         —         1,115         1         503         32         559         1,095         3,462         (33)         —         3,429           8,773         1,091         12,943         12         5,347         343         1,836         7,538         36,807         (42)         —         36,765           12,668         8,482         25,596         17         7,721         495         —         8,233         53,150         520         —         53,670           641,487         223,675         1,090,288         875         390,985         25,047         —         416,907         2,691,356         13,554         —         2,704,910           14,726         3,642         23,535         20         8,975         575         3,413         12,983         61,782         —         —         61,782           2,727         925         4,609         4         1,662         106         59         1,831         11,440         54         —         11,494           9,199         5,627         18,055         13         5,607         359         —         5,979         38,593         343         —         38,936           18,004 <t< td=""><td>19,094</td><td></td><td>37,345</td><td></td><td></td><td></td><td></td><td>12,410</td><td></td><td></td><td>_</td><td>80,814</td></t<>	19,094		37,345					12,410			_	80,814
8,773       1,091       12,943       12       5,347       343       1,836       7,538       36,807       (42)       —       36,765         12,668       8,482       25,596       17       7,721       495       —       8,233       53,150       520       —       53,670         641,487       223,675       1,090,288       875       390,985       25,047       —       416,907       2,691,356       13,554       —       2,704,910         14,726       3,642       23,535       20       8,975       575       3,413       12,983       61,782       —       —       61,782         2,727       925       4,609       4       1,662       106       59       1,831       11,440       54       —       11,494         9,199       5,627       18,055       13       5,607       359       —       5,979       38,593       343       —       38,936         18,004       3,769       28,091       25       10,973       703       652       12,353       75,535       195       —       75,730         12,612       4,229       21,267       17       7,687       492       3,147       11,343       5	8,449	1,924	13,338	12	5,149	330	_	5,491	35,447	115	_	35,562
8,773       1,091       12,943       12       5,347       343       1,836       7,538       36,807       (42)       —       36,765         12,668       8,482       25,596       17       7,721       495       —       8,233       53,150       520       —       53,670         641,487       223,675       1,090,288       875       390,985       25,047       —       416,907       2,691,356       13,554       —       2,704,910         14,726       3,642       23,535       20       8,975       575       3,413       12,983       61,782       —       —       61,782         2,727       925       4,609       4       1,662       106       59       1,831       11,440       54       —       11,494         9,199       5,627       18,055       13       5,607       359       —       5,979       38,593       343       —       38,936         18,004       3,769       28,091       25       10,973       703       652       12,353       75,535       195       —       75,730         12,612       4,229       21,267       17       7,687       492       3,147       11,343       5	875		1.115	1	503	37	559	1.095	3.467	(33)		3.429
12,668       8,482       25,596       17       7,721       495       —       8,233       53,150       520       —       53,670         641,487       223,675       1,090,288       875       390,985       25,047       —       416,907       2,691,356       13,554       —       2,704,910         14,726       3,642       23,535       20       8,975       575       3,413       12,983       61,782       —       —       61,782         2,727       925       4,609       4       1,662       106       59       1,831       11,440       54       —       11,494         9,199       5,627       18,055       13       5,607       359       —       5,979       38,593       343       —       38,936         18,004       3,769       28,091       25       10,973       703       652       12,353       75,535       195       —       75,730         12,612       4,229       21,267       17       7,687       492       3,147       11,343       52,912       46       —       52,958         921       —       1,244       1       561       36       605       1,203       3,864												
641,487         223,675         1,090,288         875         390,985         25,047         —         416,907         2,691,356         13,554         —         2,704,910           14,726         3,642         23,535         20         8,975         575         3,413         12,983         61,782         —         —         61,782           2,727         925         4,609         4         1,662         106         59         1,831         11,440         54         —         11,494           9,199         5,627         18,055         13         5,607         359         —         5,979         38,593         343         —         38,936           18,004         3,769         28,091         25         10,973         703         652         12,353         75,535         195         —         75,730           12,612         4,229         21,267         17         7,687         492         3,147         11,343         52,912         46         —         52,958           921         —         1,244         1         561         36         605         1,203         3,864         (36)         —         52,958           921												
14,726       3,642       23,535       20       8,975       575       3,413       12,983       61,782       —       —       61,782         2,727       925       4,609       4       1,662       106       59       1,831       11,440       54       —       11,494         9,199       5,627       18,055       13       5,607       359       —       5,979       38,593       343       —       38,936         18,004       3,769       28,091       25       10,973       703       652       12,353       75,535       195       —       75,730         12,612       4,229       21,267       17       7,687       492       3,147       11,343       52,912       46       —       52,958         921       —       1,244       1       561       36       605       1,203       3,864       (36)       —       3,828         1,508       783       2,820       2       919       59       229       1,209       6,327       36       —       6,363         24,586       18,156       51,371       34       14,985       960       —       15,979       103,151       1,100       —<												
9,199       5,627       18,055       13       5,607       359       —       5,979       38,593       343       —       38,936         18,004       3,769       28,091       25       10,973       703       652       12,353       75,535       195       —       75,730         12,612       4,229       21,267       17       7,687       492       3,147       11,343       52,912       46       —       52,958         921       —       1,244       1       561       36       605       1,203       3,864       (36)       —       3,828         1,508       783       2,820       2       919       59       229       1,209       6,327       36       —       6,363         24,586       18,156       51,371       34       14,985       960       —       15,979       103,151       1,100       —       104,251         57,724       23,312       101,294       79       35,183       2,254       —       37,516       242,180       1,416       —       243,596         41,482       10,898       66,937       57       25,283       1,620       —       26,960       174,038       65				20			3,413		61,782	_	_	
9,199       5,627       18,055       13       5,607       359       —       5,979       38,593       343       —       38,936         18,004       3,769       28,091       25       10,973       703       652       12,353       75,535       195       —       75,730         12,612       4,229       21,267       17       7,687       492       3,147       11,343       52,912       46       —       52,958         921       —       1,244       1       561       36       605       1,203       3,864       (36)       —       3,828         1,508       783       2,820       2       919       59       229       1,209       6,327       36       —       6,363         24,586       18,156       51,371       34       14,985       960       —       15,979       103,151       1,100       —       104,251         57,724       23,312       101,294       79       35,183       2,254       —       37,516       242,180       1,416       —       243,596         41,482       10,898       66,937       57       25,283       1,620       —       26,960       174,038       65	7 777	975	<b>4 609</b>	Δ	1 667	106	ξ0	1 831	11 440	5.1		11 49/
18,004     3,769     28,091     25     10,973     703     652     12,353     75,535     195     —     75,730       12,612     4,229     21,267     17     7,687     492     3,147     11,343     52,912     46     —     52,958       921     —     1,244     1     561     36     605     1,203     3,864     (36)     —     3,828       1,508     783     2,820     2     919     59     229     1,209     6,327     36     —     6,363       24,586     18,156     51,371     34     14,985     960     —     15,979     103,151     1,100     —     104,251       57,724     23,312     101,294     79     35,183     2,254     —     37,516     242,180     1,416     —     243,596       41,482     10,898     66,937     57     25,283     1,620     —     26,960     174,038     659     —     174,697												
12,612     4,229     21,267     17     7,687     492     3,147     11,343     52,912     46     —     52,958       921     —     1,244     1     561     36     605     1,203     3,864     (36)     —     3,828       1,508     783     2,820     2     919     59     229     1,209     6,327     36     —     6,363       24,586     18,156     51,371     34     14,985     960     —     15,979     103,151     1,100     —     104,251       57,724     23,312     101,294     79     35,183     2,254     —     37,516     242,180     1,416     —     243,596       41,482     10,898     66,937     57     25,283     1,620     —     26,960     174,038     659     —     174,697												
921     —     1,244     1     561     36     605     1,203     3,864     (36)     —     3,828       1,508     783     2,820     2     919     59     229     1,209     6,327     36     —     6,363       24,586     18,156     51,371     34     14,985     960     —     15,979     103,151     1,100     —     104,251       57,724     23,312     101,294     79     35,183     2,254     —     37,516     242,180     1,416     —     243,596       41,482     10,898     66,937     57     25,283     1,620     —     26,960     174,038     659     —     174,697												
1,508     783     2,820     2     919     59     229     1,209     6,327     36     —     6,363       24,586     18,156     51,371     34     14,985     960     —     15,979     103,151     1,100     —     104,251       57,724     23,312     101,294     79     35,183     2,254     —     37,516     242,180     1,416     —     243,596       41,482     10,898     66,937     57     25,283     1,620     —     26,960     174,038     659     —     174,697												
24,586     18,156     51,371     34     14,985     960     —     15,979     103,151     1,100     —     104,251       57,724     23,312     101,294     79     35,183     2,254     —     37,516     242,180     1,416     —     243,596       41,482     10,898     66,937     57     25,283     1,620     —     26,960     174,038     659     —     174,697	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	702		~~~~~		~~~~~	~~~~~	~~~~~	~~~~	~~~~~		~~~~~
57,724     23,312     101,294     79     35,183     2,254     —     37,516     242,180     1,416     —     243,596       41,482     10,898     66,937     57     25,283     1,620     —     26,960     174,038     659     —     174,697	1,508 24 504											
41,482 10,898 66,937 57 25,283 1,620 — 26,960 174,038 659 — 174,697							_					
							_					
2,000 3,000 20,000 20,000 20,000							_				<u> </u>	
		1,1.33	,.,,		.,, 02	301		3,011	52,501	201		32,010

# Tier 2 Public Safety and Firefighter Contributory Retirement System

# Schedule of Employer Allocations and Pension Amounts (Continued)

at December 31, 2017

Participating Employer		imployer ributions	Employer Allocation Percentage	Liabi	et Pension lity/(Asset) 6 Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	
Utah County	\$	176,670	1.5515733%	\$	(17,953)	158,984	(153,133)	9,365	4,430	
Utah State University		3,641	0.0319725		(370)	3,276	(3,156)	193	91	
Vernal City		12,348	0.1084463		(1,255)	11,112	(10,703)	655	310	
Wasatch County		34,202	0.3003697		(3,475)	30,778	(29,645)	1,813	858	
Wasatch County Fire District		25,798	0.2265645		(2,622)	23,215	(22,361)	1,368	647	
Washington City		50,033	0.4394074	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(5,084)	45,024	(43,367)	2,652	1,254	
Washington County		139,073	1.2213792		(14,132)	125,150	(120,544)	7,372	3,487	
Wayne County		2,966	0.0260465		(301)	2,669	(2,571)	157	74	
Weber County Corp		234,556	2.0599419		(23,835)	211,074	(203,306)	12,434	5,881	
Weber Fire District		98,071	0.8612884		(9,966)	88,253	(85,005)	5,199	2,459	
Wellington City		4,064	0.0356872		(413)	3,657	(3,522)	215	102	
West Bountiful City		22,901	0.2011225		(2,327)	20,608	(19,850)	1,214	574	
West Valley City		395,793	3.4759765		(40,219)	356,170	(343,062)	20,981	9,924	
Woods Cross City		28,320	0.2487134		(2,878)	25,485	(24,547)	1,501	710	
Grand Total	\$ 11	,386,535	100.0000000%	\$ (	(1,157,070)	10,246,620	(9,869,526)	603,603	285,489	
No Proportionate Share for 2017										
Springdale Town	\$	_	0.0000000%		_	_	_	_	_	
Garden City Fire District		_	0.0000000		_	_	_	_	_	
North Logan City		_	0.0000000		_	_	_	_	_	
Stockton Town		_	0.0000000		_	_	_	_	_	
Grand Total	\$ 11	,386,535	100.0000000%	\$ (	(1,157,070)	10,246,620	(9,869,526)	603,603	285,489	

Net

Columns may not add to total due to rounding.

# **Utah Retirement Systems**

# Schedule of Employer Allocations and Pension Amounts

at December 31, 2017

					Net Differences	Net Difference Between Projected and Actual		
Retirement System	Employer Contributions	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Between Expected and Actual Experience	Investment Earnings on Pension Plan Investments	Changes of Assumptions	
Noncontributory Retirement System	\$ 832,525,254	2,883,492,167	6,524,169,309	(156,133,983)	9,773,059	495,471,520	774,810,943	
Contributory Retirement System	6,961,415	14,717,821	141,894,446	(92,965,260)	_	28,954,943	_	
Public Safety Retirement System	146,448,085	508,686,152	1,090,853,404	33,689,235	33,434,034	68,365,188	136,136,463	
Firefighters Retirement System	6,733,506	(28,679,060)	141,719,972	(168,271,093)	_	24,343,557	43,135,552	
Judges Retirement System	7,563,431	32,585,945	58,167,690	10,782,067	1,593,433	3,835,628	11,166,493	
Utah Governors and Legislators Retirement Plan	404,409	1,853,770	3,133,984	766,391	_	236,248	_	
Tier 2 Public Employees Contributory Retirement System	82,274,953	8,816,731	103,812,697	(64,438,786)	330,080	2,764,635	11,865,602	
Tier 2 Public Safety & Firefighter Contributory								
Retirement System	11,386,535	(1,157,070)	10,246,620	(9,869,526)	603,603	285,489	2,533,513	
Grand Total	\$ 1,094,297,588	3,420,316,456	8,073,998,122	(446,440,955)	45,734,209	624,257,208	979,648,566	

Columns may not add to total due to rounding.

Pension Expense Excluding That Attributable to Employer-Paid Member Contributions

<b>Deferred Outflows of Resources</b>	Deferred Inflows of Resource

Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
39,309	3,623	56,727	54	23,959	1,535	2,530	28,078	164,922	74	_	164,996
810	_	1,094	1	494	32	608	1,135	3,398	(36)	_	3,362
2,748	_	3,713	4	1,675	107	910	2,696	11,527	(58)	_	11,469
7,610	2,845	13,126	10	4,638	297	_	4,945	31,927	173	_	32,100
5,740	1,229	8,984	8	3,499	224	2,325	6,056	24,082	(77)	_	24,005
11,132	7,461	22,499	15	6,785	435	<del>-</del>	7,235	46,706	458	<del>-</del>	47,164
30,944	9,155	50,958	42	18,860	1,208	2,664	22,774	129,824	373	_	130,197
660	609	1,500	1	402	26	494	923	2,769	5	_	2,774
52,189	7,158	77,662	71	31,809	2,038	4,921	38,839	218,958	146	_	219,104
21,821	8,025	37,504	30	13,300	852	1,413	15,595	91,549	386	_	91,935
904	128	1,349	1	551	35	589	1,176	3,793	(28)	_	3,765
5,095	1,736	8,619	7	3,106	199	1,077	4,389	21,378	34	_	21,412
88,064	9,507	128,476	121	53,675	3,439	3,271	60,506	369,472	383	_	369,855
6,301	_	8,512	9	3,841	246	2,718	6,814	26,437	(163)	_	26,274
2,533,513	873,220	4,295,825	3,469	1,544,172	98,932	120,804	1,767,377	10,629,312	45,734	_	10,675,046
_	686	686	_	_	_	_	_	_	42	_	42
_	1,146	1,146	_	_	_	_	_	_	74	_	74
_	1,570	1,570	_	_	_	_	_	_	95	_	95
_	1,222	1,222	_	_	_	633	633	_	33	_	33
2,533,513	877,843	4,300,448	3,469	1,544,172	98,932	121,437	1,768,010	10,629,312	45,978	_	10,675,290

Deferred Ou	tflows of Resources				Deferred Infl	ows of Resources			Expense Excluding	
Changes ir Proportion and Differences Betweer Employei Contributions and Proportionate Share o' Contributions	Total Deferred Outflows of	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources		let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
57,655,261	1,337,710,783	168,461,581	1,260,621,694	28,822,488	79,612,848	1,537,518,611	756,777,347	(8,757,370)	_	748,019,977
	28,954,943	_	66,707,646	_	_	66,707,646	4,301,243	(996,037)	_	3,305,206
7,251,901	245,187,586	29,846,303	177,835,630	5,002,300	6,648,353	219,332,586	142,891,503	392,896	_	143,284,399
514,660	67,993,769	21,980,926	61,824,256	8,684,476	538,229	93,027,887	6,372,439	(5,834)	(1,222,541)	5,144,064
<del>-</del>	16,595,554	_	9,905,667	_	_	9,905,667	6,711,217	_	(1,476,874)	5,234,343
	236,248	_	587,225	_	_	587,225	546,774	_	_	546,774
10,143,289	25,103,606	8,257,173	12,824,908	892,556	98,716	22,073,353	83,663,902	1,018,530	_	84,682,432
877,843	4,300,448	3,469	1,544,172	98,932	121,437	1,768,010	10,629,312	45,978	_	10,675,290
76,442,954	1,726,082,937	228,549,452	1,591,851,198	43,500,752	87,019,583	1,950,920,985	1,011,893,737	(8,301,837)	(2,699,415)	1,000,892,485

#### UTAH RETIREMENT SYSTEMS

NOTES TO THE PUBLIC SAFETY SYSTEM F OF CHANGES IN FIDU N—PENSION TRU

PENSION AMOUNTS



# Note 1 / Description of Systems

A brief description of the Utah Retirement Systems (Systems) follows. For a more complete description of plan provisions, membership and benefit statistics, see the Systems Highlights on pages 14 through 30 and Summaries of Plan Provisions on pages 178 through 193.

### A) GENERAL INFORMATION AND REPORTING ENTITY

**General** — The Utah Retirement Systems are comprised of the following pension trust funds:

- i) the Public Employees Noncontributory Retirement System (Noncontributory System); the Public **Employees Contributory Retirement System** (Contributory System); and the Firefighters Retirement System are multiple-employer, cost-sharing, public employee retirement systems;
- ii) the Public Safety Retirement System is a mixed agent and cost-sharing, multiple-employer retirement system;
- iii) the Judges Retirement System and the Utah Governors and Legislators Retirement Plan are single-employer service-employee retirement systems; and

iv) the Tier 2 Public Employees Contributory Retirement System and the Tier 2 Public Safety and Firefighter Contributory Retirement System are multiple-employer, cost-sharing public employee retirement systems.

These Systems cover employees of the State of Utah and participating local government and public education entities.

Reporting Entity — These Schedules of Employer Allocations and Pension amounts cover all of the foregoing retirement systems administered by the Utah State Retirement Board (Board), the sole governing body for these Systems.

The Systems are established and governed by the respective sections of Title 49 of the Utah Code Annotated 1953, as amended. The Systems' defined benefit plans are amended statutorily by the State Legislature. The Utah State Retirement Office Act in Title 49 provides for the administration of the Systems under the direction of the Board, whose members are appointed by the Governor. The Systems are fiduciary funds defined as pension (and other employee benefit) trust funds. Utah Retirement Systems is a component unit of the State of Utah.

December 31, 2017

#### Summary of Benefits by System

	Noncontributory System	Contributory System	Public Fire- Safety fighters System System	Judges System	Tier 2 Public Employees System	Tier 2 Public Safety and Firefighter System
Final average salary is	Highest 3 years	Highest 5 years	Highest 3 years	Highest 2 years	Highest 5 years	Highest 5 years
Years of service required and/ or age eligible for benefit	30 years any age 25 years any age* 20 years age 60* 10 years age 62* 4 years age 65	30 years any age 20 years age 60* 10 years age 62* 4 years age 65	20 years any age 10 years age 60 4 years age 65	25 years any age 20 years age 55* 10 years age 62 6 years age 70	35 years any age 20 years age 60* 10 years age 62* 4 years age 65	25 years any age 20 years age 60* 10 years age 62* 4 years age 65
Benefit percent per year of service**	2.0% per year all years	1.25% per year to June 1975 2.0% per year July 1975 to present	2.5% per year up to 20 years 2.0% per year over 20 years	5.0% first 10 years 2.25% second 10 years 1.0% over 20 years	1.5% per year all years	1.5% per year all years

Note: The Utah Governors and Legislators Retirement Plan benefits are explained in the second paragraph of section B) below. *With actuarial reductions.

## **B) RETIREMENT AND DEATH BENEFITS**

Retirement Systems' benefits are specified by the statute in Note 1(A) and are defined benefit plans wherein benefits are based on age and/or years of service and highest average salary. Various plan options within the Systems may be selected by retiring members. Some options require actuarial reductions based on attained age, age of spouse, and similar actuarial factors. A brief summary of eligibility and benefits of the various Systems is shown in the table above.

The Utah Governors and Legislators Retirement Plan provides the following benefits. Former governors at age 65 receive \$1,380 per month per term. Legislators receive a benefit at age 65 with four or more years of service at the rate of \$30 per month per year of service. Retirement at age 62 with 10 or more years of service will receive an actuarial reduction. Both the governors' and legislators' benefits are adjusted based on the CPI limited to 4% of the base benefit per year.

Death benefits for active and retired employees are in accordance with retirement statutes. Upon termination of employment, members of the Systems may leave their retirement account intact for future benefits based on vesting qualification or withdraw the accumulated funds in their individual member account and forfeit service credits

and rights to future benefits upon which the contributions were based.

#### **C) CONTRIBUTIONS**

As a condition of participation in the Defined Benefit Systems, employers and/or employees are required to contribute certain percentages of salaries and wages as authorized by statute and specified by the Board.



#### **Contribution Rates**

Decemo	c (er 31, 3017	ontribution Rates as a	a Percent of Covere	d Payroll
System		Member	Employer	Other
Noncontributo	ory	_	18.47-22.19%	_
Contributory		6.00%	14.46-17.70	_
Public Safety:	Noncontributory	_	32.20-49.58	_
	Contributory	10.50-12.29	22.19-29.70	_
Firefighters:	Division A	15.05	3.93	11.60%
	Division B	16.71	6.70	11.60
Judges:	Noncontributory	_	42.69	9.22
Governors and	l Legislators	_	\$ 391,883	_
Tier 2 Public E	mployees	_	15.11-18.44%	_
Tier 2 Public S	afety and Firefight	er —	10.82-37.71	_

^{**}For members and retirees in the systems, prior to January 1, 1989, there may be a 3% benefit enhancement.

December 31, 2017

Employee contributions may be paid in part or in whole by the employer. Contributions in some Systems are also augmented by fees or insurance premium taxes.

Employee (member) contributions are placed into member accounts, and in Systems where it is authorized, interest is credited to member accounts. Upon termination of employment, a member may withdraw his or her account balance including interest that has been credited. Upon withdrawal a member forfeits the service credit that corresponds to the member contributions withdrawn.

The noncontributory retirement systems have no required member contributions flowing into them. However, where members had a balance transferred in or purchased service credit in the system, these balances and on-going interest, where authorized, are credited to individual member accounts that may be withdrawn upon the termination of employment.

#### D) COVERED EMPLOYEES

The Public Employees Noncontributory Retirement System (Noncontributory System) was established on July 1, 1986, and is comprised of two divisions, the State and School division and the Local Government division. These divisions are not separate plans. All eligible employees of the State and School entities hired subsequent to that date are automatically members of the Noncontributory System until July 1, 2011, when Tier 2 came into effect. Local government entities had the option of adopting the new System or remaining with the Contributory System. All Contributory System members whose employers adopted the Noncontributory System

were given the opportunity to transfer to the new System during limited window periods. All eligible new hires subsequent to adoption of the noncontributory plans are automatically members of that plan.

The Public Employees Contributory Retirement System (Contributory System) includes eligible public employees of the State of Utah and its political subdivisions including public education employees of those entities covered by the System. The System is comprised of two divisions, the State and School division and the Local Government division. These divisions are not separate plans. Members of this System are those who did not elect to transfer to the Public Employees Noncontributory Retirement System during the period when they were eligible to transfer or whose employers are not participants in the Noncontributory System.

The **Public Safety Retirement System** includes eligible State and local government employees directly involved in law enforcement (e.g., game wardens, prison guards, police officers, and highway patrol officers) and is comprised of eight divisions, the State of Utah, Division A with Social Security, Salt Lake City, Ogden, Provo, Logan, Bountiful, and Division B without Social Security. These divisions are not separate plans. The Public Safety System consists of both contributory and noncontributory divisions. The noncontributory divisions were authorized by the Legislature effective July 1, 1989.

The **Firefighters Retirement System** includes eligible State and local government employees directly involved in fire fighting and is comprised of two divisions, Division A with Social Security and Division B without Social Security. These divisions are not separate plans.

Utah Governors

# Participating Membership by System

	Noncontributory System	Contributory System	Public Safety System	Firefighters System	Judges System	and Legislators Retirement Plan	Tier 2 Public Employees System	Tier 2 Public Safety and Firefighter System
Number of participating:								
Employers	457	158	133	62	1	1	470	151
Members:								
Active	59,578	621	5,704	1,602	114	52	27,152	2,699
Terminated vested	47,292	1,294	4,824	435	11	95	1,175	75
Retirees and beneficiaries:								
Service benefits	49,287	3,388	4,900	1,196	115	176	26	_
Beneficiary benefits	4,611	654	738	227	33	77	_	_

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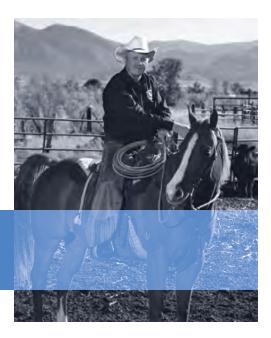
The Judges Retirement System includes justices and judges of the court as authorized by state statutes.

The Utah Governors and Legislators Retirement **Plan** includes only governors and legislators of the State.

The Tier 2 Public Employees Contributory **Retirement System** includes eligible public employees entering into the Utah Retirement Systems on or after July 1, 2011, when Tier 2 came into effect.

The Tier 2 Public Safety and Firefighter Contributory Retirement System includes eligible public safety and firefighters entering into the Utah Retirement Systems on or after July 1, 2011, when Tier 2 came into effect.

As of December 31, 2017, participating members by System are included in the table to the left.



# Note 2 / Basis of Presentation

The Schedules of Employer Allocations and Pension Amounts for the Noncontributory Retirement System, Contributory Retirement System, Public Safety Retirement System, Firefighters Retirement System, Judges Retirement System, Utah Governors and Legislators Retirement Plan, Tier 2 Public Employees Contributory Retirement System and the Tier 2 Public Safety and Firefighter Retirement System present amounts that are considered elements of the financial statements of the Systems or of its participating employers. Accordingly, they do not purport to be a complete presentation of the financial position or changes in financial position of the Systems or of its participating employers. The amounts presented in the Schedules were prepared in accordance with accounting principles generally accepted in the United State of America. Such preparation requires management of the Systems to make a number of estimates and assumptions related to the reported amounts. Due to the inherent nature of these estimates, actual results could differ from those estimates. The following are the significant accounting policies followed by the Systems:

### A) ALLOCATION PERCENTAGE **METHODOLOGY**

Each employer's proportion is equal to the ratio of the employer's actual contributions to the Systems during the plan year over the total of all employer contributions to the Systems during the plan year. This allocation method is a reasonable representation of each employer's proportionate share of the projected long-term contribution effort to the System and satisfies applicable requirements within Governmental Accounting Standards Board Statement Number 68 (GASB No. 68). The change in proportion each year is reflected in deferred outflows and deferred inflows of resources.

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## **B) COLLECTIVE NET PENSION LIABILITY** OF PARTICIPATING EMPLOYERS AND ACTUARIAL INFORMATION

The Systems used updated procedures to roll forward the total pension liability from January 1, 2017, to December 31, 2017. The components of the current-year pension liability/(asset) of the employers as of December 31, 2017, were as shown in the schedule below.

## C) ACTUARIAL ASSUMPTIONS

Actuarial valuation of the ongoing Systems involve estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The last experience study was performed in 2017 and the

#### **Net Pension Liability by Division**

Year Ended December 31, 2017 Plan **Net Pension** (in thousands) **Fiduciary Net** Liability/ (5) (Asset) as a (3) Position as a (2) **Employers** Percentage Projected Percentage Total Plan of the Total Covered of Covered **Net Pension** Fiduciary Liability Employee Employee System Liability **Net Position** (Asset) Liability Payroll Payroll Noncontributory Retirement System **Local Government** \$ 5,411,975,297 4,973,845,309 438,129,988 91.9% \$ 811.404.013 54.0% State and School 22,676,644,771 20,231,282,592 2,445,362,179 89.2 2,563,916,530 95.4 Total 28,088,620,068 25,205,127,901 2,883,492,167 89.7 3,375,320,543 85.4 Contributory Retirement System **Local Government** 462,881,788 454,744,374 8,137,414 98.2 20,724,385 39.3 State and School 835,299,312 828,718,905 6,580,407 99.2 24,453,262 26.9 Total 1,298,181,100 1,283,463,279 14,717,821 98.9 45,177,647 32.6 **Public Safety Retirement System** State of Utah 1,380,470,403 1,206,583,742 173,886,661 87.4 107,557,496 161.7 Other Division A (with Social Security) 1,607,786,477 1.450.920.653 156.865.824 90.2 137.270.438 114.3 Salt Lake City 379,138,746 292,944,112 86,194,634 77.3 30,142,604 286.0 **Ogden** 65,910,599 19,938,952 85,849,551 76.8 5,371,519 371.2 Provo 63,273,188 51,883,327 11,389,861 82.0 5,023,277 226.7 Logan 34,947,387 29,137,535 5,809,852 83.4 2.088.014 278.2 Bountiful 27,340,057 21,060,032 6,280,025 77.0 1,813,605 346.3 Other Division B (without Social Security) 506,393,599 458,073,256 48,320,343 90.5 61,516,156 78.5 Total 4,085,199,408 3,576,513,256 508,686,152 87.5 350,783,109 145.0 Firefighters Retirement System Division A (with Social Security) 211,491,670 217,737,197 (6.245.527)103.0 27,603,447 (22.6)Division B (without Social Security) 994,234,908 1,016,668,441 (22,433,533)102.3 85,350,287 (26.3)Total 1,205,726,578 (28,679,060) 102.4 112,953,734 (25.4)1,234,405,638 32,585,945 85.9 18,660,643 Judges Retirement System 231,071,842 198,485,897 174.6 Governors and Legislators Retirement Plan 13,073,434 11,219,664 1,853,770 85.8 721,630 256.9 Tier 2 Public Employees Retirement System 338,033,998 329,217,267 8,816,731 97.4 996,964,512 0.9 Tier 2 Public Safety and Firefighter Retirement System 39,023,571 40,180,641 (1,157,070)103.0 98,113,308 (1.2)68.4% **Grand Total** \$35,298,929,999 31,878,613,543 3,420,316,456 90.3% \$4,998,695,126

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# Summary of Actuarial Assumptions

		Noncontributory	Contributory	Public Safety	Firefighters	Judges	Governors and Legislators	Tier 2 Public Employees	Tier 2 Public Safety and Firefighter
Valua	tion date	1/1/17	1/1/17	1/1/17	1/1/17	1/1/17	1/1/17	1/1/17	1/1/17
Actua	rial cost method	Entry Age	Entry Age	Entry Age	Entry Age				
Amort	tization method	Level Percent of Payroll	Level Dollar Amount	Level Percent of Payroll	Level Percent of Payroll				
Amort	tization period	Open Group 20-Year Open Period	Open Group 20-Year Open Period	Open Group 20-Year Open Period	Open Group 20-Year Open Period	Open Group 20-Year Open Period	Closed Group 17-Year Closed Period	Open Group 20-Year Open Period	Open Group 20-Year Open Period
metho	rial asset valuation od (All Systems r same method)	:	pected investme			excess or shortfal ers. One-fifth of t			
Actua	rial assumptions: Investment rate of return	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%
	Projected salary increases*	3.25-9.75%	3.25-9.75%	3.25-7.25%	3.25-8.75%	3.25%	None	3.25-9.75%	3.25-8.75%
	Inflation rate	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
	Post-retirement cost-of-living adjustment	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Morta	llity: (Non-educators)	:	10% of 2017 Pub			lity Table for ma ortality Table for			•
Mortality: (Educators)  Male: 90% of 2017 Public Retirees of Utah (PR Utah) Mortality Table for males, projected with Scale AA from Female: 90% of 2017 Public Retirees of Utah (PR Utah) Mortality Table for females, projected with Scale AA from the year 2017.								the year 2017.	

Note: All post-retirement cost-of-living adjustments are noncompounding and are based on the original benefit except for Judges, which is a compounding benefit. The cost-of-living adjustments are also limited to the actual CPI increase for the year, although unused CPI increases not met may be carried forward to subsequent years.

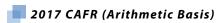
*Composed of 2.50% inflation, plus 0.75% productivity increase rate, plus step-rate promotional increases for members with less than 25 years of service.

December 31, 2017

next experience study is scheduled to be conducted in 2020. The Schedule of Employers' Net Pension Liability presents multi-year trend information about whether the plan fiduciary net positions are increasing or decreasing over time relative to the total pension liability. These schedules are presented in the Required Supplementary Information section. The total pension liability as of December 31, 2017, is based on the results of an actuarial valuation date of January 1, 2017, and rolled-forward using accepted actuarial procedures.

A summary of the actuarial assumptions, as of the latest actuarial valuation, is as shown in the table on page 297.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Systems target asset allocation, as of December 31, 2017, are summarized in the top table above.



Asset Class	Target Asset Allocation	Real Return Arithmetic Basis	Long-term Expected Portfolio Real Rate of Return*	
Equity securities	securities 40%		2.46%	
Debt securities	20	0.40	0.08	
Real assets	15	5.75	0.86	
Private equity	9	9.95	0.89	
Absolute return	16	2.85	0.46	
Cash and cash equivalents	0	0.00	0.00	
Totals	100%		4.75%	
Inflation			2.50%	
Expected arithmetic nominal return				

*The total URS Defined Benefit long-term expected rate of return is 6.95%, which is comprised of a 2.50% inflation assumption and a 4.45% net real rate of return assumption.

#### D) DISCOUNT RATE

The discount rate used to measure the total pension liability was 6.95%. The projection of cash flows used to determine the discount rate assumed contributions from participating employers will be made based on the actuarially determined rates based on the Board's funding policy, which establishes the contractually required rates under Utah State Code. Based on those assumptions, the Systems' fiduciary net position was projected to be available to make all the projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

# E) SENSITIVITY TO THE DISCOUNT RATE

The table to the right presents the current-period net pension liability/(asset) of the employers calculated using the current-period discount rate assumption of 6.95%, as well as what the net pension liability/(asset) would be if it were calculated using a 1.00% point lower (5.95%) or a 1.00% point higher (7.95%) than the current assumption.

December 31, 2017

# **Changes in Discount Rate**

Year ended December 31, 2017 Net Pension **Net Pension Net Pension** Liability/(Asset) Current Liability/(Asset) Liability/(Asset) 1% Decrease (5.95%) 1% Increase (7.95%) Discount Rate (6.95%) System Noncontributory Retirement System **Local Government** \$ 1,184,909,145 438,129,988 (182,779,814) State and School 5,339,260,164 2,445,362,179 26,645,831 Total 6,524,169,310 2,883,492,167 (156,133,983) **Contributory Retirement System** Local Government (31,316,579) 55,172,376 8,137,414 State and School 86,722,070 6,580,407 (61,648,682) Total 141,894,446 14,717,821 (92,965,261) **Public Safety Retirement System** State of Utah 361,333,522 173,886,661 19,943,960 Other Division A (with Social Security) 395,231,340 156,865,824 (36,326,707)Salt Lake City 137,497,858 86,194,634 44,045,920 **Ogden** 31,567,731 19,938,952 10,420,361 Provo 20,182,811 11,389,861 4,192,119 10,703,039 5,809,852 Logan 1,855,547 6,280,025 Bountiful 9,848,354 3,335,206 Other Division B (without Social Security) 124,488,750 48,320,343 (13,777,171)Total 1,090,853,405 508,686,152 33,689,235 Firefighters Retirement System Division A (with Social Security) 26,647,823 (6,245,527)(32,823,869) Division B (without Social Security) 115,072,149 (22,433,533)(135,447,224)141,719,971 Total (28,679,060) (168,271,093) **Judges Retirement System** 32,585,945 10,782,067 58,167,690 **Governors and Legislators Retirement Plan** 3,133,984 1,853,770 766,391 Tier 2 Public Employees Retirement System 103,812,697 8,816,731 (64,438,786)Tier 2 Public Safety and Firefighter **Retirement System** 10,246,620 (9,869,526) (1,157,070)**Grand Total** \$ 8,073,998,121 3,420,316,456 (446,440,956)

December 31, 2017



# Note 3 / Deferred Outflows of Resources and Deferred Inflows of Resources

Deferred outflows of resources and deferred inflows of resources represent the inflows or outflows that have been deferred or delayed until a future period. What is being deferred is the recognition of those outflows and inflows as revenues and expenses.

# A) DIFFERENCE BETWEEN EXPECTED AND ACTUAL EXPERIENCE

The difference between expected and actual experience with regard to economic and demographic factors is amortized over the average remaining service lives of the members (active and inactive members). The first year of amortization is recognized as a pension expense with the remaining years shown as either a deferred inflow or deferred outflow of resources. The collective amounts of the difference between the expected and actual experience for the year ended December 31, 2017, are shown in the left table on page 301.

### **B) CHANGES IN ASSUMPTIONS**

The changes in assumptions about future economic or demographic factors or other inputs is amortized over the average remaining service lives of the members (active and inactive members). The first year of amortization is recognized as a pension expense with the remaining years shown as either a deferred inflow or deferred outflow of resources.

#### **Assumptions and Methods**

Every three years in conjunction with the actuarial valuation the actuary performs an experience study. Based upon the 2017 experience study, the actuary recommended some changes in the actuarial assumptions that were adopted by the Board. Some of the changes were to decrease the earnings assumptions from 7.2% to 6.95%, decrease the inflation assumptions from 2.6% to 2.5%, and construct a new post-retirement mortality table based on actual experience (increases life expectancy for most groups). Additional changes by the Board were a decrease to the wage inflation assumption from 3.35% to 3.25% and a decrease to the payroll growth assumption from 3.1% to 3.0%.

December 31, 2017



December 31, 2017

System		Deferred Outflows	Deferred Inflows
Noncontributory Retirement System			
Local Government	\$	9,773,059	26,812,831
State and School		_	141,648,750
Total		9,773,059	168,461,581
Contributory Retirement System			
Local Government		_	_
State and School		_	_
Total		_	
Public Safety Retirement System			
State of Utah		2,508,802	4,497,466
Other Division A (with Social Security)		_	23,007,051
Salt Lake City		3,226,957	_
Ogden ,		1,211,508	229,345
Provo		298,874	1,164,499
Logan		33,602	619,112
Bountiful		444,052	328,830
Other Division B (without Social Security)		25,710,239	_
Total		33,434,034	29,846,303
Firefighters Retirement System			
Other Division A (with Social Security)		_	2,948,422
Other Division B (without Social Security)		_	19,032,504
Total		_	21,980,926
Judges Retirement System		1,593,433	_
Governors and Legislators Retirement Plan		_	_
Tier 2 Public Employees Retirement System		330,080	8,257,173
Tier 2 Public Safety and Firefighter			
Retirement System		603,603	3,469
Grand Total	\$ 4	45,734,209	228,549,452

# C) NET DIFFERENCE BETWEEN PROJECTED AND ACTUAL **INVESTMENT EARNINGS ON** PENSION PLAN INVESTMENTS

The difference between the System's expected rate of return of 6.95% and actual investment earnings on pension plan investments is amortized over a five-year closed



### **Changes in Assumptions**

December 31, 2017

System	Deferred Outflows	Deferred Inflows
Noncontributory Retirement System		
Local Government	\$ 157,374,259	10,236,580
State and School	617,436,684	18,585,908
Total	774,810,943	28,822,488
Contributory Retirement System		
Local Government	_	_
State and School	_	_
Total		
Public Safety Retirement System		
State of Utah	35,352,358	387,200
Other Division A (with Social Security)	57,763,873	2,161,548
Salt Lake City	13,482,399	_
Ogden	2,379,400	_
Provo	2,448,597	169,040
Logan	1,164,705	60,256
Bountiful	1,059,443	33,272
Other Division B (without Social Security	22,485,688	2,190,984
Total	136,136,463	5,002,300
Firefighters Retirement System		
Other Division A (with Social Security)	8,524,301	2,011,480
Other Division B (without Social Security	y) 34,611,251	6,672,996
Total	43,135,552	8,684,476
Judges Retirement System	11,166,493	_
Governors and Legislators Retirement Plan	_	_
Tier 2 Public Employees Retirement System Tier 2 Public Safety and Firefighter	11,865,602	892,556
Retirement System	2,533,513	98,932
Grand Total	\$ 979,648,566	43,500,752

period in accordance with GASB Statement No. 68. The first year of amortization is recognized as pension expense with the remaining years shown as either a deferred outflow or deferred inflow of resources. The collective deferred outflow amounts of the difference between expected and actual experience for the year ended December 31, 2017, is \$624,257,208 and deferred inflows of \$1,591,851,198 as illustrated in the table at the top left of page 302.

December 31, 2017



#### Net Difference Between Projected and Actual Investment Earnings on Plan Investments

December 31, 2017		
System	Deferred Outflows	Deferred Inflows
Noncontributory Retirement System		
	\$ 94,326,413	247.684.837
State and School	401,145,107	
Total	495,471,520	1,260,621,694
Contributory Retirement System		
Local Government	10,276,123	23,335,433
State and School	18,678,820	43,372,213
Total	28,954,943	66,707,646
Public Safety Retirement System		
State of Utah	23,403,411	60,115,835
Other Division A (with Social Security)	28,222,940	72,548,832
Salt Lake City	5,633,153	14,590,217
0gden	1,314,543	3,316,907
Provo	1,008,506	2,586,915
Logan	578,561	1,459,198
Bountiful	419,780	1,057,220
Other Division B (without Social Security	y) 7,784,294	22,160,506
Total	68,365,188	177,835,630
Firefighters Retirement System		
Other Division A (with Social Security)	4,089,239	10,749,474
Other Division B (without Social Security	y) 20,254,318	51,074,782
Total	24,343,557	61,824,256
Judges Retirement System	3,835,628	9,905,667
Governors and Legislators Retirement Plan	236,248	587,225
Tier 2 Public Employees Retirement System	2,764,635	12,824,908
Tier 2 Public Safety and Firefighter		
Retirement System	285,489	1,544,172
Grand Total	\$ 624,257,208	1,591,851,198



#### **Proportionate Share** of Gross Pension Expense

December 31, 2017

System	
Noncontributory Retirement System	
Local Government	\$ 156,015,905
State and School	600,761,442
Total	756,777,347
Contributory Retirement System	
Local Government	2,594,159
State and School	1,707,083
Total	4,301,242
Public Safety Retirement System	
State of Utah	42,476,033
Other Division A (with Social Security)	60,686,632
Salt Lake City	17,369,585
Ogden	4,831,200
Provo	2,391,349
Logan	1,155,195
Bountiful	1,114,700
Other Division B (without Social Security)	12,866,808
Total	142,891,502
Firefighters Retirement System	
Other Division A (with Social Security)	2,971,593
Other Division B (without Social Security)	3,400,846
Total	6,372,439
Judges Retirement System	6,711,217
Governors and Legislators Retirement Plan	546,774
Tier 2 Public Employees Retirement System	83,663,902
Tier 2 Public Safety and Firefighter Retirement System	10,629,312
Grand Total	\$ 1,011,893,735

# D) CHANGES IN PROPORTION AND **DIFFERENCES BETWEEN CONTRIBUTIONS** AND PROPORTIONATE SHARE **OF CONTRIBUTIONS**

The change in employer proportionate share is the amount of difference between the employer proportionate share of the net pension liability/(asset) in the prior year compared to the current year. The difference between the employer contributions and proportionate share of contributions is the difference between the total amount

of the employer contributions and the amount of the proportionate share of the employer contributions. The change in proportionate share and the difference between employer contributions and proportionate share of contributions is amortized over the average remaining service lives of the members (active and inactive members). The first year of amortization is recognized as pension expense with the remaining years shown as either a deferred outflow or deferred inflow of resources.

December 31, 2017

## **E) PROPORTIONATE SHARE** OF ALLOCABLE GROSS **PENSION EXPENSE**

The collective gross pension expense includes certain current period changes in the collective net pension liability/(asset), projected earnings on pension plan investments and amortization of deferred inflows of resources and deferred outflows of resources for the current period. The collective pension expense for the year ended December 31, 2017, is as shown in the top-right table on page 302.

# F) NET AMORTIZATION OF DEFERRED AMOUNTS FROM CHANGES IN PROPORTION AND DIFFERENCES BETWEEN **EMPLOYER CONTRIBUTIONS** AND PROPORTIONATE SHARE OF CONTRIBUTIONS

The change in the employer's proportion of the collective net pension liability/(asset), since the prior measurement date (December 31, 2016), the net effect of the change on the employer's proportionate share of the collective net pension liability/(asset), and collective deferred outflows of resources and deferred inflows of resources related to pensions, determined at the beginning of the measurement period, is recognized in the employer's pension expense, beginning in the current period, using average remaining services lives for both active and inactive members. The table to the right illustrates the average remaining service lives for the cost sharing retirement plans.

### G) PROPORTIONATE SHARE OF NONEMPLOYER CONTRIBUTIONS

The Firefighters Retirement System collects fire insurance premium tax. Fire insurance premium taxes are collected by the Utah State Treasurer and are used to help fund the Firefighters Retirement System. The proportionate share of nonemployer contributions is based upon the same methodology used to calculate each employer's proportionate share of the net pension liability/(asset) and was equal to \$1,222,541 in calendar year 2017 and



**Net Amortization of Deferred Amounts** from Changes in Proportion and Differences Between Employer **Contributions and Proportionate Share of Contributions** 

Year ended December 31, 2017

Cost Sharing Retirement System	Average Remaining Service Live
Noncontributory Retirement System	
Local Government	3.95
State and School	3.00
Contributory Retirement System	
Local Government	0.73
State and School	0.37
Public Safety Retirement System	
State of Utah	3.26
Other Division A (with Social Security)	3.36
Other Division B (without Social Secur	ity) 4.8°
Firefighters Retirement System	
Other Division A (with Social Security)	6.46
Other Division B (without Social Secur	ity) 5.6°
Tier 2 Public Employees Retirement System	m 12.19
Tier 2 Public Safety and Firefighter Retirem	ent System 18.10

was used to offset gross pension plan expense in the Firefighters Retirement System.

The Judges Retirement System collects court fees from the Utah Judiciary System and is used to help fund the retirement system. The Judges Retirement System collected \$1,476,874 in court fees in calendar year 2017 and was used to offset gross pension plan expense.

### H) TOTAL EMPLOYER **NET PENSION PLAN EXPENSE**

This amount is equal to the gross pension expense less net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate of contributions and any proportionate share of nonemployer contributions.

(Employer's Collective Net Pension Asset for All Participating Retirement Systems)

# **Schedule of Employer Allocations** and Pension Amounts

Schedule of Employer A	mocati	OHS				N .	
and Pension Amounts						Net Difference	
at December 31, 2017						Between Projected	
Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions
4 Corners Comm Behavior Health	N/A	\$ —	_	_	_	_	_
Active Re Entry Inc	N/A	_	_	_	_		_
Alpine City Alpine School District	N/A N/A	_	_	_	_	_	_
Alpine Uniserv	N/A	_	_	_	_	_	_
American Fork City	N/A	(137,170)	658,728	(773,323)	8,351	83,280	200,421
American Leadership Academy	N/A	_	_	_	_	_	_
Ames Charter School Annabella Town	N/A N/A	_	_	_	_	_	_
Ash Creek SS District	N/A	_	_	_	_	_	_
Ashley Valley Improv Dist	N/A				_	_	<del>_</del>
Ashley Valley Sewer Mgmt Board Ballard Town	N/A N/A	_	_	_	_	_	_
Bear Lake SSD	N/A N/A	_	_	_	_	_	_
Bear River Assn of Govts	N/A	<del>_</del>	<u> </u>	<del>_</del>	<del>_</del>	<del>_</del>	<del>_</del>
Bear River Health Dept	N/A	_	_	_	_	_	_
Bear River Mental Health Bear River Water District	N/A N/A		_	_	_	_	_
Beaver City	N/A N/A	_	_	_	_	_	_
Beaver County	N/A	(7,411)	65,626	(63,211)	3,866	1,828	16,226
Beaver Housing Authority	N/A	_	_	_	_	_	_
Beaver School District Beaver Valley Hospital	N/A N/A	_	_	_	_	_	_
Benchland Water Company	N/A	_	_	_	_	_	_
Bicknell Town	N/A						
Big Cottonwood Canyon Imp Dist	N/A	(265)		(2.111)	100		
Big Water Municipal Corp Blanding City	N/A N/A	(365) (377)	3,230 3,335	(3,111) (3,212)	190 196	90 93	799 824
Bluffdale City	N/A	(829)	7,339	(7,069)	432	204	1,815
Bona Vista Water Improve	N/A						
Bountiful Irrigation District	N/A N/A	_	_	_	_	_	_
Box Elder Co Mosq Dist Box Elder County	N/A N/A	(7,416)	65,673	(63,256)	3,869	1,830	16,238
Box Elder School District	N/A	· · – ·	_	· · · —	-	_	· <del>-</del>
Bridgerland Applied Tech Ctr	N/A	<del>-</del>	<del>-</del>	<del>-</del>			<del>-</del>
Brigham City Cache County	N/A N/A	(71,288) (57,987)	318,713 312,927	(385,039) (351,498)	1,654 7,448	45,381 32,142	99,913 90,918
Cache Metro Planning Org	N/A	(57,567)		(55,1,0)	— —	J2, 172 —	
Cache School District	N/A	_	_	_	_	_	_
Canyons School District	N/A						
Carbon County Carbon County Rec/Trans SSD	N/A N/A	(5,144)	45,556 —	(43,879)	2,684	1,269	11,264 —
Carbon School District	N/A	_	_	_	_	_	_
Castle Dale City Castle Valley SSD	N/A N/A	_	_	_	_	_	_
Cedar City	N/A	(121,491)	542,665	(655,844)	2,762	77,385	170,186
Cedar City Housing Auth	N/A N/A	(121,491)	J42,00J —	(055,844)	2,702	//,363 —	170,100
Cedar Mtn Fire Protection Dist	N/A	(366)	3,245	(3,125)	191	90	802
Centerfield City Centerville City	N/A N/A	(465)	— 4,119	(3,967)	243	115	1,018
Central Davis Sewer Dist	N/A			(5,5.7)	<u>-</u> -		
Central Iron Co Water Conserv	N/A	_	_	_	_	_	_
Central UT Public Health	N/A	_	_	_	_	_	_
Central Utah Counseling Center Central Utah Water Dist	N/A N/A	_	_	_	_	_	_
Central Weber Sewer Dist	N/A					<u>-</u>	
City of Aurora	N/A	_	_	_	_	_	_
City of Bountiful City of Cedar Hills	N/A N/A	(2,809)	24,873	(23,957)	1,465	693	6,150
City of Draper	N/A N/A	(269,196)	 1,184,224	(1,440,215)	4,052	173,086	373,823
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**Deferred Outflows of Resources** 

Deferred	Inflows of	f Resources

**Net Amortization** of Deferred Amounts from Changes in Changes in Changes in Proportion and Net Proportion and Proportion and Total Difference Differences Between Employer Net Pension Differences Differences Between Between Between Projected and Actual Employer Contributions Proportionate Share of Employer Contributions Expense Excluding That Employer Contributions Differences Allocable Investment Earnings on and Total Between and Total and Proportionate Attributable to Proportionate Proportionate Deferred Expected Proportionate Deferred Plan Gross Share of **Employer-Paid** Changes of Assumptions Nonemployer Contributions Share of Outflows of and Actual Pension Plan Share of Inflows of Pension Share of Member Contributions Investments Contributions Contributions Resources Experience Resources Expense Contributions 15,574 307,626 57,246 229,901 40,391 21,963 349,501 204,712 (2,741)(5,081)196,890 6,128 28,048 22 9,890 634 10,546 68,077 365 68,442 767 1,846 1 487 31 129 648 3,351 38 3,389 927 2,040 1 503 32 430 966 3,459 27 3,486 2,451 2 71 1,106 1,472 2,651 7,613 (86)7,527 3,214 25,151 22 9,897 634 1,075 11,628 68,126 137 68,263 61,537 672 147,620 32,167 121,470 22,209 34,362 210,208 (6.520)(2.857)52,160 20,678 94,285 131,272 1,528 151,948 (1,833)25,825 156,333 15,299 1,010 151,643 560 15,777 15 6,865 440 769 8,089 47,257 (15)47,242 1,742 252,075 54,871 207,057 37,876 11,921 311,725 103,927 (1,524)(4,873)97,530 908 1,991 1 489 31 464 985 3,366 31 3,397 342 1 40 1,718 621 610 1,272 4,272 (18)4,254 3,748 25,802 960 9,268 8 240 1,467 5,463 (34) 25,768 3,074 554,035 123,440 460,324 84,862 181,727 850,353 195,738 (32,391)(10,963)152,384

(Employer's Collective Net Pension Asset for All Participating Retirement Systems)

# Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions
City of Duchesne	N/A	\$ —	_	_	_	_	_
City of Enterprise City of Green River	N/A N/A	_	_	_	_	_	<u> </u>
City of Harrisville City of Helper	N/A N/A	(938) (935)	8,305 8,278	(7,999) (7,973)	489 488	231 231	2,053 2,047
City of Holladay City of Kanab City of Milford	N/A N/A N/A	(12,587)	53,703	(66,150)	_ _ _	8,241	 17,179 
City of Moab City of Monticello	N/A N/A	(2,833) (980)	25,090 8,676	(24,167) (8,357)	1,478 511	699 242	6,204 2,145
City of Naples City of North Salt Lake City of Orem City of Riverton	N/A N/A N/A N/A	(743) (2,609) (871,227) —	6,576 23,107 4,539,370	(6,334) (22,256) (5,307,325) —	387 1,361 9,861 —	183 644 774,191	1,626 5,713 1,356,385 —
City of Santa Clara	N/A	(25,341)	108,316	(133,320)	22	16,574	34,622
City of Saratoga Springs City of South Jordan City of South Salt Lake City of St George City of Taylorsville	N/A N/A N/A N/A N/A	(114,164) (547,883) (508,588) (327,918)	608,820 2,429,907 2,220,480 1,469,427	(704,816) (2,945,263) (2,708,945) (1,773,558)	3,251 10,487 5,739 7,991	98,985 350,522 328,508 208,454	180,166 764,366 703,227 460,198
City of Uintah	N/A N/A	(10.772)	— 45,962	(56.615)	_	 7,053	— 14,703
City of Washington Terrace City of Wendover	N/A N/A	(10,772)	45,902	(56,615) —	_	7,055	14,703
City of West Haven City of West Jordan	N/A N/A	(1,314,094)	6,807,508	(7,978,865)	9,366	 1,174,662	2,039,043
City of Woodland Hills	N/A				~~~~~ <del>"</del>		
Clearfield City Cleveland Town	N/A N/A	(4,711)	41,718	(40,183)	2,458	1,162	10,315
Clinton City Coalville City	N/A N/A N/A	(72,902)	330,284	(396,865)	2,186	46,022	102,958
Color Country Uniserv Corinne City Cottonwood Heights City Cottonwood Heights P&R Srv Cottonwood Imp District	N/A N/A N/A N/A N/A	(4,992) —	44,207 —	(42,580) ————————————————————————————————————	2,604 —	1,232 —	10,930
Council On Aging Golden Age SS	N/A	— (534)		— (4.472)		— 120	— 1 140
Daggett County Daggett School District	N/A N/A	(524) —	4,643	(4,472)	274 —	129	1,148
Davis & Weber County Canal Co Davis Applied Tech College	N/A N/A	_ _	_ _	<u>-</u>	<u> </u>	_	<u>-</u> -
Davis Behavioral Health Inc Davis Co Housing Authority	N/A N/A	_	_	_	_	<del>-</del>	<u>–</u> –
Davis Co Mosquito Abate Davis County Davis School District	N/A N/A N/A	(25,215)	223,297	(215,080)	13,154	6,221	55,211 —
Davis Uniserv	N/A	_	_	_	_	_	_
Ddi Vantage Delta City	N/A N/A	_	_	_	_	_	_
Dixie Applied Tech College Dixie State University	N/A N/A	(464)	4,106	(3,955)	242	114	1,015
Duchesne Co Mosquito Dist	N/A		_	_	_	_	_
Duchesne Co Water Conserv Dist Duchesne County	N/A N/A	(7,842)	69,448	(66,892)	— 4,091	 1,935	 17,171
Duchesne School District E Duchesne Cul Water Imp Dist	N/A N/A		<u> </u>			<u> </u>	_ 
Eagle Mountain City East Carbon City	N/A N/A	(821)	— 7,267	(7,000)	— 428	<u> </u>	— 1,797
East Hollywood High School	N/A	(021)		(7,000) —	—		
Educators Mutual Insurance Elk Ridge City	N/A N/A	_	_ _				

Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
_	_	_	_		_	_		_	_	_
_ _	_	_	_	_	_	_	_	_	_	_
1,788 449	4,561 3,215	3 3	1,252 1,247	80 80	563 1,142	1,898 2,472	8,615 8,587	77 (44)	_ 	8,692 8,543
664 —	26,084	5,942 —	21,663	4,054	_ _ _	31,659 —	5,989	137	(528)	5,598
1,416 353	9,797 3,251	8 3	3,781 1,308	242 84	831 134	4,862 1,529	26,027 9,000	30 15	_ 	26,057 9,015
1,560 1,493 3,454	3,756 9,211 2,143,891	2 8 723,164	991 3,482 1,965,725	63 223 255,145	48 1,412 18,930	1,104 5,125 2,962,964	6,821 23,970 302,866	91 10 (4,763)	(36,497)	6,912 23,980 261,606
1,098	52,316	11,943	43,599	8,152	10,026	73,720	12,425	(1,913)	(1,061)	9,451
10,449 15,063 76,291 28,401	292,851 1,140,438 1,113,765 705,044	91,588 249,217 234,936 147,620	254,046 935,216 871,102 558,474	32,638 171,700 161,197 101,988	6,053 6,201 9,029	378,272 1,362,186 1,273,436 817,111	73,611 435,788 337,816 289,456	2,215 2,419 13,204 1,595	(4,622) (22,133) (20,867) (13,109)	71,204 416,074 330,153 277,942
	21,925 —	5,085 —	18,541 —	3,469 —	91 —	27,186 —	5,125 —	— 12 —	(452) —	4,685 —
63,946	3,287,017	1,099,693	2,974,904	387,080	_	4,461,677	361,423	13,517	(55,502)	319,438
2,613	— 16,548	— 14	<u> </u>	<del></del> 403	 2,708	— 9,412	— 43,277	<del></del> (9)	_	43,268
21,011	172,177 —	32,450 —	123,854	22,487	2,002	180,793	71,194	2,755	(2,881)	71,068
	_	_	_		_	_	_	_	_	_
3,925	18,691	15	6,662	427	1,625	8,729	45,858	149	=	46,007
<u>-</u>	<u>-</u>	<u>-</u> -		<u>-</u>	<u>-</u> -	<u>-</u>	<u>-</u>	<u>-</u> -	~~~~~ <u>~</u>	<u>-</u>
5,587 — —	7,138 —	<u>2</u> 	700 —	45 —	1,993	2,740	4,816 —	201	_ _ _	5,017 —
_ _	_	_	_	_	_	_	_	_	_	_
 26,821	 101,407		 33,651	 2,156	_	 35,883	231,637	 1,630	_	233,267
	— — 					— — ——————————————————————————————————		— — ——————————————————————————————————	<u>-</u>	— — — — — — — — — — — — — — — — — — —
_ _	_ _	_	_	_		_	_			_
788	<u> </u>	_ 1	619	40	_	660	4,260	49	_ _	4,309
_	_				_				_	
13,269	36,466	24	10,466	671	_	11,161	72,041	806	_	72,847
	_  ~~~~~		_ 		_ 	_ 		_ 	 	
 137 	2,564 —	2	1,095	70	1,068	2,235	7,539	(56)		7,483

(Employer's Collective Net Pension Asset for All Participating Retirement Systems)

# Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions
Emery Co Care & Rehab Ctr Emery County Emery County Recreation SSD Emery School District Emery Town	N/A N/A N/A N/A	\$ <u>—</u> (2,961) — —	26,219 — —	(25,254) — — —	1,545 — — —	 731   	6,483
Emery Water Conserv Dist Enoch City Ephraim City Escalante City Eureka City Corporation	N/A N/A N/A N/A N/A	(979) (212) —	8,666 1,876 —	(8,347) (1,807) — —	510 111 —	241 52 —	2,143 464 —
Fairview City Farmington City Farr West City Fast Forward Charter HS Ferron City	N/A N/A N/A N/A N/A	(72,910) — — — —	330,622 — — —	(397,123)	2,221 — — —	46,000 — — —	103,023
Fillmore City Five-County Assn of Govts Fountain Green City Fox Hollow Golf Course Francis City	N/A N/A N/A N/A	_ _ _	_ _ _ _	_ _ _ _			_ _ _ _
Fruit Heights City Garden City Fire District Garfield County Garfield School District Garland City	N/A N/A N/A N/A	(2,943) — (445)	26,058 — 3,938	(25,099) — (3,793)	 1,535 	— 726 — 110	6,443 — 974
Genola Town Grand Co Cemetery Mtce Dist Grand County Grand School District Grand Water/Sewer Service	N/A N/A N/A N/A	(5,573) ————————————————————————————————————	49,356 —	(47,539) ————————————————————————————————————	2,907 —	 1,375 	12,203 — —
Granger-Hunter Imp Dist Granite School District Granite Uniserv Grantsville City Gunnison City	N/A N/A N/A N/A	(2,415)	21,383	(20,596)	  1,260 		5,287
Gunnison Valley Hospital Gunnison Valley Police Dept Heber City Heber Light & Power Heber Valley Historic Railroad	N/A N/A N/A N/A	(351) (3,295) —	3,105 29,183 —	(2,990) (28,109) ————————————————————————————————————	183 1,719 —	86 813 —	768 7,216 —
Heber Valley SSD Herriman City High Desert Uniserv High School Activities Assn Highland City	N/A N/A N/A N/A	= = =	= = = =	_ _ _ _	_ _ _ _ _	_ _ _ _	_ _ _ _
Hinckley Town Honeyville City Hooper City Hooper Water Improv Dist Housing Auth of Carbon Co	N/A N/A N/A N/A	= = =	= = =	_ _ _ _	= = = =	= = = =	_ _ _ _
Housing Auth of SL County Housing Authority of SLC Housing Authority Ogden City Huntington City Hurricane City	N/A N/A N/A N/A N/A			   (15,010)	   918	   434	
Hurricane Valley Fire SSD Hyde Park City Hyrum City Impact Mitigation SSD Intech Collegiate High School	N/A N/A N/A N/A N/A	(82,267) — — — —	374,890 — — —	(449,402) — — — —	2,714 — — — —	51,742 — — — —	116,576 — — — —

**Deferred Outflows of Resources** 

Deferred	Inflows of	Resources
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**Net Amortization** of Deferred Amounts from Changes in Proportion and Changes in Changes in Net Proportion and Proportion and Total Difference Between Differences Between Employer Net Pension Differences Differences Between Between Employer Contributions Projected and Actual Employer Contributions Proportionate Share of Employer Contributions Expense Excluding That Differences Allocable Between Expected Investment Earnings on and Total and Total and Proportionate Attributable to Proportionate Proportionate Deferred Proportionate Deferred Plan Gross Share of **Employer-Paid** Changes of Assumptions Nonemployer Contributions Share of Outflows of and Actual Pension Plan Share of Pension Share of Contributions Investments Contributions Contributions Contributions Resources Experience Resources Expense 1,168 9,927 9 3,951 253 2,278 6,491 27,199 (59) 27,140 810 3,704 3 1,306 84 1,663 3,056 8,989 (51)8,938 2,057 283 18 1,946 2,014 1,430 1 376 678 68 2,090 153,334 32,423 123,843 22,475 7,376 186,117 71,776 (1,284) (2,879) 67,613 1,146 74 74 1.146 9 3,927 252 4,188 27,032 216 3,551 12,255 27,248 1,316 1 38 597 1,229 4,085 (36)4,049 593 5,307 21,792 17 7,438 477 1,735 9,667 51,199 205 51,404 7 2,270 9,413 3,222 206 3,435 22,181 137 22,318 1,037 1 468 30 623 1,122 3,221 (36) 3,185 5,616 10 15,364 4,398 282 4,690 30,273 337 30,610 10,469 15,674 5 2,348 150 62 2,565 16,165 2,164 18,329 95 171,127 36,397 139,583 21,788 223,033 84,467 (3,501)(3,232)77,734 25,265

(Employer's Collective Net Pension Asset for All Participating Retirement Systems)

# Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions
Iron County	N/A	\$ (9,513)	84,248	(81,147)	4,963	2,347	20,831
Iron School District Itineris High School Ivins City Jordan River Commission	N/A N/A N/A N/A		 15,161 	(14,603) —	893 —	422 —	3,749
Jordan School District Jordan Uniserv	N/A N/A N/A						
Jordan Valley Water Conserv Jordanelle SSD Juab County	N/A N/A N/A	(4,724)	41,836	(40,296)	2,464	1,166	10,344
Juab School District Kamas City	N/A N/A	_ _ _		_ _ _	_		_ _ _
Kane County Kane County Water Conserv Dist Kane School District	N/A N/A N/A	(3,316)	29,363 —	(28,282)	1,730 — —	818 — —	7,260 —
Kaysville City Kearns Improvement Dist	N/A N/A	(34,566)	162,943	(192,696)	1,757	21,257	49,957
Laverkin City Layton City Lehi City	N/A N/A N/A	(117) (611,751) (352,784)	1,038 2,671,149 1,575,853	(1,000) (3,258,620) (1,904,477)	61 6,933 8,029	29 395,119 224,704	257 845,918 494,196
Lewiston City Liberty Academy Charter	N/A N/A	_	_	_	_	_	_
Lindon City Logan City Logan School District	N/A N/A N/A	(647,142) —	3,356,133 —	(3,931,759) —	5,129 —	577,826 —	1,004,792 —
Lone Peak PS District Maeser Water Improve Dist	N/A N/A	(134,451)	711,781	(826,570)	3,097	117,496	211,275
Magna Mosquito Abatement Manti City Mapleton City	N/A N/A N/A N/A	(1,417)	12,547	(12,086)	739	350	3,102
Marriott-Slaterville City	N/A	<del>-</del>	<del>-</del>	<del>-</del>		<del>-</del>	<del>-</del>
Mayfield Town Mendon City Metro Water Dist SLC/Sandy	N/A N/A	_	_	_	_	_	_
Midvale City	N/A N/A						
Midvalley Improvement District Midway City	N/A N/A	_	_	_	_	_	_
Militarý Installation Devel Millard Co Care & Rehab Inc	N/A N/A	_	_	_	_	_	_
Millard County	N/A	(7,265)	64,333	(61,966)	3,790	1,792	15,907
Millard School District Millcreek City Millville City	N/A N/A	_	_	_	_	_	_
Minersville Town Moab Valley Fire Protection	N/A N/A N/A	(29,633)	128,420	(157,156)	225	19,227	40,802
Monroe City	N/A N/A	(29,033)	120,420	(137,130)			40,002
Monticello Academy Morgan City Corporation	N/A N/A	_	_	_	_	_	_
Morgan County Morgan School District	N/A N/A	(17,120)	82,728 —	(96,885)	1,100	10,348	25,107 —
Moroni City Mount Pleasant City	N/A N/A						
Mountain Regional Water SSD  Mountainland Assn of Govt	N/A N/A N/A	_				_	_
Mountainland ATC	N/A N/A						
Mt Olympus Improvement Dist Murray City	N/A N/A	— (740,368)	3,238,098	(3,947,546)	8,999	— 477,714	1,024,730
Murraý School District Myton City	N/A N/A		- · · · · · - · · - · · · · · · ·	_			_
N Tooele Co Fire Protection SD	N/A	(13,162)	60,768	(72,464)	524	8,208	18,793

Deferred Outflows of Resources	Deferred Inflows of Resource

Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
7,695	35,836	29	12,696	813	_	13,538	87,394	470	_	87,864
11,977	17,041	5	2,285	146	271 —	2,707	15,727	2,193	_ _ _	17,920 —
										<del>-</del>
	_	_		_	_	_	=	_	_	_
6,956	20,930	14	6,305	404		6,723	43,398	421		43,819
	_	_	_	_	_	_	_	_	_	_
1,216 — —	11,024 — —	10 — —	4,425 — —	284 — —	254 — —	4,973 — —	30,460	60 —	_ _ _	30,520 — —
2,737	75,708	14,738	58,191	10,336	20,390	103,655	45,792	(3,747)	(1,308)	40,737
656 61,227 8,763	1,003 1,309,197 735,692	282,565 159,324	156 1,047,776 601,243	10 193,881 109,979	499 2,384 10,680	665 1,526,606 881,226	1,077 406,834 301,917	8 10,698 (407)	(25,097) (14,149)	1,085 392,435 287,361
	_ _ _		_ _ _		_ _ _	_ _ _		_ _ _	_ _	_ _
15,542	1,603,289 —	540,719 —	1,464,094 —	190,412	9,714 —	2,204,939	186,943 —	(1,550) —	(27,290) —	158,103 —
11,208	343,076	109,050	300,515	38,736	1,380	449,681	74,012	1,288	(5,503)	69,797
_	_	_	_	_	_	_	_	_	_	_
2,237	6,428	4	1,891	121		2,016	13,016	135		13,151
	_	_	_	<u> </u>	_	_	_	_	_	_
	_	_	_	_	_	_	_	_	_	_
		<u>-</u>		<u>-</u>	<u>-</u>					<u>-</u>
_	_	_	_	_	_	_	_	_	_	_
3,707	 25,196		<u> </u>	<u> </u>	_	10,338	66,736	222	_	66,958
	<del>-</del>									<del>-</del>
_	_	_	_	_	_	_	_	_	_	_
1,331	61,585	13,787	<u> </u>	— 9,442	2,046	— 76,112	17,863	(209)	— (1,225)	16,429
	_	_	_	_	_	_	_	_	_	_
363 —	36,918 —	7,093 —	28,651 —	5,015 —	11,400 —	52,159 —	26,520 —	(1,909) —	(630) —	23,981
	_ _ _		_ _ _		_ _ _	_ _ _		_ _ _	_ _	_ _
_ _	_	_	_	_	_	_	_	_	_	_
43,297	1,554,740 —	341,423	1,267,614	234,365	22,000	1,865,402 —	502,526 —	1,156 —	(30,324)	473,358 —
4,501	32,026	5,743	22,266	4,002	746	32,757	15,010	570	(510)	15,070

(Employer's Collective Net Pension Asset for All Participating Retirement Systems)

# Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions
N Ut Environmental Rsrc Agcy Ne Counseling Center Nebo Credit Union Nebo School District Nephi City	N/A N/A N/A N/A N/A	\$ — — — (1,442)	   12,771				
Nibley City Corporation Noah Webster Academy Inc North Davis Co Sewer Dist North Davis Fire District North Emery Water Users SSD	N/A N/A N/A N/A N/A	(170,393)	743,175	(907,044)		110,128	235,467
North Fork SSD North Logan City North Ogden City North Park Police Agency North Pointe Solid Waste	N/A N/A N/A N/A	(13,777) (31,681) (2,559) (1,329)	58,780 135,172 22,660 11,771	(72,404) (166,500) (21,826) (11,338)	1,335 693	9,020 20,743 631 328 —	18,803 43,240 5,603 2,910
North Sanpete School Dist North Summit School District North View Fire District Northeastern Counseling Ctr NUAMES Charter School	N/A N/A N/A N/A	(117,913) — —	522,808 —	(633,763)	2,240	75,451 ————————————————————————————————————	164,478 — —
Oakley City Ogden City Corp Ogden School District Ogden Weber/NEA/UEA Uniserv Ogden-Weber Tech College	N/A N/A N/A N/A N/A	(1,390,573) ————————————————————————————————————	7,246,830	(8,472,072) ————————————————————————————————————	15,950 — — —	1,235,431 — — —	2,165,199 — — —
Oquirrh Rec And Parks District Orangeville City Orderville Town Panguitch City Corporation Park City	N/A N/A N/A N/A N/A	(3,365)	29,796	(28,700)	   1,755		   7,367
Park City Fire Service Park City School District Parowan City Payson City Perry City	N/A N/A N/A N/A N/A	(1,198,724) — (807) (22,230) (455)	6,186,280 	(7,262,604) — (6,883) (127,423) (3,880)	5,244 — 421 1,687 237	1,075,682 ————————————————————————————————————	1,855,936 — 1,767 33,008 996
Piute County Piute School District Plain City Pleasant Grove City Pleasant View City	N/A N/A N/A N/A	(109,332) (521)	493,538 4,617	(593,902) (4,448)	3,075 272	69,180 129	154,085 1,142
Price City Price River Water Improve Providence City Provo City Corp Provo Housing Authority	N/A N/A N/A N/A N/A	(17,493) — — (1,120,937) —	81,874 — 5,821,319	(97,100) ———————————————————————————————————	822  10,011 	10,811 — — 999,457 —	25,177 — — 1,741,833 —
Provo River Water Users Provo School District Recreation & Habilitation Srvs Redmond Town Rich County	N/A N/A N/A N/A N/A		4,609	(4,439)			1,139
Rich School District Richfield City Richmond City Riverdale City Roosevelt City	N/A N/A N/A N/A N/A	(1,109) — (113,882) (1,032)	9,819 — 497,645 9,136	(9,458) (606,896) (8,799)		73,520 255	2,428 — 157,544 2,259
Roosevelt City Housing Roy City Roy Water Conserv Dist S Utah Valley Electric Svc Dst S Utah Valley Solid Waste	N/A N/A N/A N/A N/A	(252,489) ————————————————————————————————————	1,127,126 ————————————————————————————————————	(1,362,527) ————————————————————————————————————	5,665 — — —	160,885 — —	353,568 — — —

							N	let Amortization of Deferred		
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
_	_	_	_	_	_	_	_	_	_	_
_ _	_	_	_	_	_	_	_	_	_	_
		_					- 12 240		_	
1,097	5,363	4	1,925	123	171	2,223	13,248	55		13,303
	_	_	_	_	_	_	_	_	_	_
19,093	366,525	— 78,789	<u> </u>	 54,045	— 733	— 425,478	— 111,742	3,623	(6,998)	108,367
——————————————————————————————————————	—	—		— —				-	(0,750) —	—
707	28,530	6,504	23,711	4,437	8,962	43,614	6,555	(1,539)	(578)	4,438
2,382 4,157	66,365 11,726	14,956 8	54,527 3,415	10,203 219	4,969	84,655 3,642	15,073 23,506	(660) 254	(1,329)	13,084 23,760
· —	3,931	4	1,774	114	2,103	3,995	12,210	(124)	_	12,086
		<u>-</u> -	<u>-</u> -			<u>-</u> -	<u>-</u> -		<u>-</u>	
 3,392	245,561	53,651	201,286	36,960	11,586	303,483	93,512	(1,823)	(4,765)	86,924
_	_	_	_	_	_	_	_	_	_	_
	·····	·····	<u>-</u>		<u>-</u>		<u>-</u>	<u>-</u>	·····	
33,673	3,450,253	1,153,908	3,137,133	407,154	21,025	4,719,220	487,043	(2,226)	(58,236)	426,581
	_	_	_	_	_	_	_	_	_	_
_ _	_	_	_	_	<u> </u>	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_
7,686	17,638	10	— 4,490	288		4,788	30,909	467		31,376
11,818	2,948,680	1,008,493	2,719,683	354,438	12,133	4,094,747	272,551	(2,638)	(50,900)	219,013
857	3,244	2	1,077	69	368	1,516	7,413	32	_	7,445
1,862 1,200	49,793 2,545	8,978 1	37,012 607	6,395 39	745 607	53,130 1,254	38,748 4,178	141 36	(797) —	38,092 4,214
_			_			_	_	_		
 24,911	 251,251	48,849	185,897	33,818	3,896	272,460	103,369	4,551	(4,338)	103,582
770	2,313	2	696	45	422	1,165	4,790	19	(4,336) — ~~~~~	4,809
1,546	38,356	7,519 —	29,500	5,261	1,137	43,417	22,054	68	(668)	21,454
_	_	_	_	_	_	_	_	_	_	_
5,409	2,756,710	934,775	2,533,974	329,363	5,094	3,803,206	343,310 —	(1,042)	(47,178)	295,090
_ _	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_
1,234	 2,772		— 695	44		— 741	4,781	— 75		4,856
1,013	4,293	3	1,480	— 95	670	2,248	— 10,186	— 17	_ _	10,203
12,122	244,521	52,562	— 195,019	36,073	2,209	285,863	76,475	2,120	(4,668)	73,927
2,388	5,440	3 —	1,377		166 —	1,634	9,477	133	<u>-</u>	9,610
33,659	553,777	114,102	430,371	78,750 —	_	623,223	214,726	5,163	(10,133)	209,756
=	_	_	_	_	_	_	_	_	_	_

(Employer's Collective Net Pension Asset for All Participating Retirement Systems)

# Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions
Salem City	N/A	\$ (851)	7,537	(7,260)	444	210	1,864
Salina City Salt Lake Arts Academy	N/A N/A	(385)	3,406	(3,281)	201	95	842
Salt Lake City Corp Salt Lake City Public Library	N/A N/A	(5,757,520)	29,756,346	(34,911,603)	31,264	5,158,907 —	8,921,667 —
Salt Lake Co Serv Area 3 Salt Lake Community College	N/A N/A	_	_	_	_	_	_
Salt Lake County	N/A	(80,249)	710,656	(684,502)	41,863	19,800	175,712
Salt Lake School District San Juan County	N/A N/A	(3,882)	34,373	(33,108)	2,025	958	8,499
San Juan Mental Health San Juan School District	N/A N/A			_	_	_	_
Sandy City	N/A	(1,087,843)	5,669,530	(6,627,920)	12,526	966,414	1,693,892
Sandy Suburban Imp Dist Sanpete County	N/A N/A	(2,426)	21,482	(20,691)	1,265	599	5,311
Santaquin City	N/A	(573)	5,077	(4,890)	299	141	1,255
Seven County Infrastructure Sevier County	N/A N/A	(3,386)	29,986	(28,882)	1,766	835	 7,414
Sevier School District Six-County Assoc of Govt	N/A N/A	_	_	_	_	_	_
SIc Mosquito Abatement	N/A						
Smithfield City Corp Snow College	N/A N/A	(28,294)	132,111	(156,828)	1,295	17,513	40,664
Snyder Basin Special Rec Dist Snyderville Basin W R D	N/A N/A	=	_	=	_ _	_	Ξ
So Davis Metro Fire Agency So Davis Recreation Center	N/A N/A	(692,820)	2,996,074	(3,669,722)	4,549	450,064	952,798
So SI Valley Mosq Abate	N/A	_	_	_	_	_	_
So Utah Valley Animal Svcs SSD So Utah Valley Power Systems	N/A N/A					_ 	
Soldier Hollow Charter School Solid Waste SSD #1	N/A N/A	_	_	_	_	_	_
Solitude Improvement Dist South Davis Sewer Dist	N/A N/A	_	_	_	_	_	_
South Davis Water Dist	N/A N/A	_	_	_	_	_	_
South Ogden City	N/A	(137,178)	603,001	(733,580)	2,013	88,242	190,411
South Ogden Conserv Dist South Sanpete School Dist	N/A N/A	_	_	_	_	_	_
South Summit School District South Valley Sewer District	N/A N/A	_	_	_	_	_	_
South Valley Water Reclamation	N/A		<u>-</u>		<u>-</u>	<u>-</u>	<u>-</u>
South Weber City Southeastern Utah AOG	N/A N/A	_	_	_	_	_	_
Southeastern Utah Health	N/A	(277)		(2.214)			
Southern Utah University Southwest Applied Tech	N/A N/A	(377)	3,337	(3,214)	197	93	825
Southwest Educ Development Ctr	N/A	_	_	_	_	_	_
Space Dynamics Lab / USU Spanish Fork City	N/A N/A	(4,007)	35,482	(34,176)	2,090	989	8,773
Spring City	N/A						— 
Springville City St George Housing Auth	N/A N/A	(38,642)	191,422 —	(222,027)	3,018	22,940	57,512 —
State of Utah Stockton Town	N/A N/A	(532,555)	3,616,717	(3,758,158)	152,838	229,159	968,495 —
Success Academy	N/A		_	_	_	_	_
Summit Academy High School Summit Academy Inc	N/A N/A	_	_	_	_	_	=
Summit County '	N/A	(6,725)	59,557	(57,366)	3,508	1,659	14,726
Sunset City SW Behavioral Health Center	N/A N/A	(1,245)	11,028	(10,622)	650	307 —	2,727

<b>Deferred Outflows of Resources</b>	Deferred Inflows of Resource
Deterred outflows of nesources	Beleffed inflows of Resource

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	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
	1,516 122	4,034 1,260	3 1	1,136 513	73 33	1,209 559	2,421 1,106	7,819 3,533	24 (27)	_	7,843 3,506
	31,160	14,142,998	4,833,988	13,051,772	1,699,908	3,635	19,589,303	1,414,288	1,361	(243,976)	1,171,673
~~~~~~											<u>-</u>
	97,173	334,548	241	107,096	6,861	_	114,198	737,198	6,021	_	743,219
	2,261	13,743	12	5,180	332		5,524	35,657	135		35,792
	_	_	_	_	_	_	_	_	_		_
	21,659	2,694,491	902,621 —	2,454,085	318,496 —	8,904 —	3,684,106	381,857	1,402	(45,554) —	337,705
	2,079	9,254	7	3,237 765	207 49	37 929	3,488	22,284	121	-	22,405
	<u> </u>	15,602		4,519	— 290	929 —	4,819	5,266 — 31,105	(55) — 339		31,444
		15,002	— —	ч,519 —	— —	<u> </u>	4,019	51,105 —	— —	=	— —
~~~~~~			······						<u>-</u>		
	11,329 —	70,801	12,193	47,739 —	8,525 —	2,742 —	71,199 —	35,079 —	2,116 —	(1,082)	36,113 —
	_ _	_ _	_ _	_ _		_ _	_ _	_ _	_ 	_ 	_ _
	44,959 —	1,452,370	322,979	1,189,074	221,072	_ _	1,733,125	405,599	6,993	(28,689)	383,903
	_	_	_	_	_	_	_	 _	_ _	_	_
	_	_	_	_	_	_	_	_	_	_	_
	_	_	_	_	_	_	_	_	_	_	_
	3,880	284,546	62,950	234,610	43,268	153	340,981	98,879	463	(5,591)	93,751
	_	<u>-</u>	_	_	_	_	<u> </u>	_	<u> </u>	_	_
	_	_	_	_	_	_	_	_	_	_	_
	_		_		_	_		_		_	_
	_	_	_	_	_	_	_	_	_	_	_
		1,115	1	503	32	559	1,095	3,462	(33)		3,429
	_	_	_	_	_	_	_	_	_	_	_
	1,091	12,943	12	5,347 —	343	1,836	7,538	36,807	(42) —	<u> </u>	36,765
	9,528	92,998	15,528	64,271	11,077	1,729	92,605	68,783	397	(1,378)	67,802
	243,087 1,222	1,593,579 1,222	113,982	803,354	102,211 — —	28,651 633	1,048,198 633	2,805,352	11,074 33	(10,048)	2,806,378 33
			<u>-</u>								
	3,642 925	23,535 4,609	20 4	8,975 1,662	575 106	3,413 59	12,983 1,831	61,782 11,440	<u></u>	_ _ _	— 61,782 11,494

(Employer's Collective Net Pension Asset for All Participating Retirement Systems)

# Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	
Sw Mosquito Abatement/Control SW Ut Public Health Dept Syracuse City Corp Taylor West Weber Wtr Imp Dist Taylorsville-Bennion Imp	N/A N/A N/A N/A	\$ <u>—</u> (117,761) —	521,729 —	(632,657)		75,390 —	164,193 —	
Timber Lakes Water SSD Timpanogos SSD Tintic School District Tooele Applied Tech College Tooele City	N/A N/A N/A N/A N/A	(8,223)	72,816	(70,136)	4,289	2,029	18,004	
Tooele County Tooele County Housing Tooele School District Tooele Valley Mosquito Abtmnt Toquerville City	N/A N/A N/A N/A N/A	(5,760) — — — —	51,007 — — — —	(49,130) — — — —	3,005 — — — —	1,421 — — — —	12,612 — — — —	
Torrey Town Town of Alta Town of Apple Valley Town of Brian Head Town of Daniel	N/A N/A N/A N/A N/A	(421) —	3,725	(3,588)			921 —	
Town of Garden City Town of Goshen Town of Levan Town of Manila Town of Mantua	N/A N/A N/A N/A N/A	_ _ _	_ _ _ _	_ _ _ _	= = =	_ _ _ _	_ _ _ _	
Town of Paragonah Town of Randolph Town of Springdale Trans-Jordan Cities Tremonton City	N/A N/A N/A N/A N/A	— — — (689)	6,100	— — — (5,875)			    1,508	
Tridell-Lapoint Water Tuacahn High School Uintah Animal Control/Shelter Uintah Basin Applied Tech Ctr Uintah Basin Assn of Govt	N/A N/A N/A N/A N/A							
Uintah Basin Asst Council Uintah Co Care Center SSD Uintah County Uintah Fire Suppression SSD Uintah Highlands Improv Dist	N/A N/A N/A N/A N/A	— (11,229) (25,732) —	99,437 109,790	(95,778) (135,236)	5,858 —		24,586 35,121	
Uintah Mosquito Abate District Uintah Recreation District Uintah School District Uintah Transportation SSD Uintah Water Conserv Dist	N/A N/A N/A N/A	_ _ _ _	_ _ _ _	_ _ _ _	_ _ _ _	_ _ _ _	_ _ _ _	~~~
Unified Fire Authority Unified Police Department University of Utah University of Utah Hospital Upper Country Water Dist	N/A N/A N/A N/A	(6,815,361) (18,945) (3,523) — —	35,057,436 167,772 31,201 —	(41,214,897) (161,598) (30,053) —	13,753 9,883 1,838 —	6,136,014 4,674 869 —	10,532,033 41,482 7,715 —	~~~
Ut Municipal Power Agency Ut Public Employees Assn UT School Board Risk Mgmt Utah Assn of Counties Utah Co Academy of Sciences	N/A N/A N/A N/A	_ _ _	_ _ _ _	_ _ _ _	_ _ _	_ _ _ _		
Utah Co Housing Authority Utah Communications Authority Utah Counties Indemnity Pool Utah County Utah Dairy Council	N/A N/A N/A N/A N/A	(17,953)	158,984	(153,133)	9,365 —		39,309 —	

Deferred Outflows of Resources

Deferred	Inflows of	f Resources

Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
_	_	_	_	_	_	_	_	_	_	_
7,030	248,805	53,623	201,060	36,933	<del></del> 846	292,462	92,624	— 431	(4,762)	88,293
7,030 —	240,003		201,000	J0,533 —	—	272,402	72,02 <del>4</del>	— —	(4,702)	
		<del>_</del>				<del>_</del>			<del>_</del>	
_	_	_	_	_	_	_	_	_	_	_
_ _	_	_	_	_	_	_	_	_	_	_
 3,769	28,091	 25	10,973	<del></del> 703	— 652	12,353	— 75,535	— 195	_	 75,730
4,229	21,267	17	7,687	492	3,147	11,343	52,912	46	<u>-</u>	52,958
				—				_	_	—
_ _	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	<del>-</del>	_	_	_	_	_	_
	_	_	_	_	_	_	_	_	_	_
_	1,244	1	561	36	605	1,203	3,864	(36)	_	3,828
		<del>-</del>								
	_	_	_	_	_	_	_	_	_	_
	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_
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 686	686	_	_	_	_	_	_	42	_	42
<del>-</del>	_	_	_	_	_	_	_	_	_	_
783	2,820	2	919	59	229	1,209	6,327	36		6,363
_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_
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_	_	_	_	_	_	_	_	_		_
18,156 1,550	51,371 53,519	34 12,148	14,985 44,288	960 8,287	463	15,979 65,186	103,151 12,243	1,100 226	(1,079)	104,251 11,390
			,250		_	—	.2,2.5		(., <i>c.,</i> )	
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47.702	16 720 502		15 401 000	2 021 604		22 207 275	1 271 270		~~~~~	005 103
47,703 10,898	16,729,503 66,937	5,759,833 57	15,491,808 25,283	2,021,684 1,620	14,050	23,287,375 26,960	1,271,370 174,038	4,525 659	(290,713)	985,182 174,697
4,755	15,177	11	4,702	301	_	5,014	32,367	281	_	32,648
_ _	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_
_ _	_	_	_	_	_	_	_	_	_	_
	_	_	_	_	_	_	_	_	_	_
_		_		_	_	_		_	_	
3,623	56,727	54	23,959	1,535	2,530	28,078	164,922	74 —	_	164,996

(Employer's Collective Net Pension Asset for All Participating Retirement Systems)

# Schedule of Employer Allocations and Pension Amounts (Concluded)

at December 31, 2017

at December 31, 2017						Net Difference Between Projected		
Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	
Utah Education Association	N/A	\$ —	_	_	_	_	_	
Utah Housing Corporation Utah Lake Commission	N/A N/A	_	_	_	_	_	_	
Utah League Cities/Towns	N/A	_	_	_	_	_	_	
Utah Local Governments Trust	N/A					<del>-</del>		~~~~~
Utah Retirement Systems Utah Safety Council	N/A N/A	_	_	_	_	_	_	
Utah School Boards Association	N/A	_	_	_	_	_	_	
Utah School Employees Assn Utah State Fair Corp	N/A N/A	_ _	_	<u> </u>	_	_	_	
Utah State University	N/A	(370)	3,276	(3,156)	193	91	810	~~~~~~
Utah Valley Dispatch SSD	N/A	\(\frac{1}{-}\)	_		_	_	_	
Utah Valley University Utah Zoological Society	N/A N/A		_	_	_	_	_	
UTOPIA	N/A	<u> </u>	_	_	_	_	_	
Valley Emergency Comm Ctr	N/A N/A	(1.355)	11,112	— /10.703\	— 655		 2,748	
Vernal City Vineyard Town	N/A N/A	(1,255)	·—	(10,703)	_	310	2,748	
Wasatch County Wasatch County Fire District	N/A N/A	(3,475) (181,404)	30,778 786,025	(29,645) (961,964)	1,813 1,368	858 117,704	7,610 249,753	
Wasatch Front Regional Council	N/A N/A	(101,404)	700,023	(501,504)			247,733	~~~~~~
Wasatch Front Waste/Recycling	N/A	_	_	_	_	_	_	
Wasatch Integrated Waste Mgmt Wasatch Mental Health SSD	N/A N/A	_	_	_	_	_	_	
Wasatch School District	N/A	_	_	_	_	_	_	
Wasatch Uniserv	N/A				<del>-</del>			~~~~~~
Washington City Washington Co Solid Waste	N/A N/A	(41,408)	200,007	(234,269)	2,652	25,037	60,709	
Washington Co Wat Con Dist	N/A	(44.422)		(120.514)				
Washington County	N/A	(14,132)	125,150	(120,544)	7,372	3,487	30,944	
Washington School District Waste Management Serv Dist #5	N/A N/A		_	_	_	_	_	
Wayne County Wayne School District	N/A N/A	(301)	2,669	(2,571)	157	74	660	
Weber Area Dispatch 911	N/A N/A	_	_	_	_	_	_	
Weber Basin Water Conserv	N/A							~~~~~~
Weber Co Mosquito Abate Weber County Corp	N/A N/A	(23,835)	211,074	(203,306)	— 12,434	5,881	52,189	
Weber County School District	N/A	· · · —	´—	· · · —	_	·—	· —	
Weber Fire District	N/A	(721,602)	3,738,567	(4,381,656)	5,199	644,966	1,119,758	
Weber Human Services Weber River Water Users	N/A N/A		_	_	_	_	_	
Weber State University Wellington City	N/A N/A	(412)	3,657	(2.522)	215	102		
Wellsville City	N/A N/A	(413)	J,0J/ —	(3,522)	215 —	102	904 —	
West Bountiful City	N/A	(2,327)	20,608	(19,850)	1,214	574	5,095	~~~~~
West Kane County SSD #1 West Point City	N/A N/A	_	_	_	_	_	_	
West Valley City	N/A	(1,539,063)	8,044,447	(9,392,652)	20,981	1,363,169	2,400,534	
White City Water Imp Dist	N/A							
Willard City Corp Woodland Peaks Uniserv	N/A N/A	_	_	_	_	_	_	
Woods Cross City	N/A	(2,878)	25,485	(24,547)	1,501	710	6,301	
Workers Compensation Fund	N/A		151 044 502	(170 140 (40)			45.000.00	
Grand Total		\$ (29,836,130)	151,966,592	(178,140,619)	603,603	24,629,046	45,669,065	
No Proportionate Share for 2017 Sunnyside City	N/A	\$ —	_	_	_	_	_	
Valleý Mental Health	N/A	· –	_	_	_	_	_	
Summit Mosquito Abatement Dist Leeds Area Special Service District	N/A N/A	_	_	_	_	_	_	
Canyonlands Health Care	N/A	_	_	_	_		_	
Grand Total		\$ (29,836,130)	151,966,592	(178,140,619)	603,603	24,629,046	45,669,065	

Columns may not add to total due to rounding.

Deferred Outflows of Resources					Deferred Inflo	Pension Expense Excluding That Attributable to Employer-Paid Member Contributions				
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	det Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
_	_	_	_	_	_	_	_	_	_	_
_	_	_	<u> </u>	_	_	_	_	_	_	_
_										
	_	_	_	_	_	_	_	_	_	_
_	_	_		_	_		_	_	_	_
					_		_			_
	1,094	1	494	32	608	1,135	3,398	(36)		3,362
_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_
_ _	3,713	<u> </u>	1,675	107	<u> </u>	2,696	11,527	(58)	_	— 11,469
 2,845	13,126	 10	4,638	 297	_	4,945	31,927	173	_	32,100
1,776	370,601	84,408	311,209	57,804	18,904	472,325	109,146	(3,050)	(7,497)	98,599
	_	_	_		_	_	_	_	_	_
	_	_	_	_	_	_	_	_	_	_
	<del>-</del>	<del>-</del>		<del>-</del>						
18,796	107,194	17,163	69,303	12,134	82	98,682	63,989	2,657	(1,523)	65,123
		_	_	_	_	_		_	_	
9,155	50,958	42	18,860	1,208	2,664	22,774	129,824	373	<u>-</u>	130,197
609	 1,500	<u> </u>	— 402	<u></u>	<u> </u>	<u> </u>	 2,769		_	 2,774
— —			——————————————————————————————————————		— —			_	_	
	<u>-</u> -	<u>-</u>	<u>-</u>	<u>-</u>		<u>-</u> -		<u>-</u> -	<u>-</u>	
 7,158	— 77,662	<del></del> 71	31,809	2,038	 4,921	38,839	218,958	— 146	_	<u> </u>
14,506	1,784,429	603,778	1,633,492	212,532	1,413	2,451,215	199,430	2,174	(30,473)	171,131
——————————————————————————————————————									— (50,175) —	
_ _	_	_	_	_	_	_	_	_	_	_
128	1,349	1	551 —	35	589 —	1,176	3,793	(28)	_	3,765
1,736	8,619	7	3,106	199	1,077	4,389	21,378	34	<del>-</del>	21,412
_ _			_ _							
15,289	3,799,973	1,271,733	3,466,117	449,280	31,205	5,218,335 —	596,692 —	(6,586)	(64,182)	525,924 —
_		_				_			_	
=	8,512	9	3,841	246	2,718	6,814	26,437	(163)	_	26,274
1,386,180	72,287,894	21,984,395	63,368,428	8,783,408	659,665	94,795,896	17,001,751	38,853	(1,222,541)	15,818,063
.,233,100	-, ,000 .	.,,		.,, 100	,000	.,	- ,	- 2/000	,,,==-,,,	.,=.5,005
=	_ _	_	_	_	_	_		_	_	_
6,323	6,323	_	_	_	_	_	_	1,291	_	 1,291
							47.004.754		(4.222.544)	
1,392,503	72,294,217	21,984,395	63,368,428	8,783,408	659,665	94,795,896	17,001,751	40,144	(1,222,541)	15,819,354

# Aggregation of Funds with a Net Pension Liability

(Employer's Collective Net Pension Liability for All Participating Retirement Systems)

# **Schedule of Employer Allocations** and Pension Amounts

Seriedate of Employer 7	mocaci	0115					
and Pension Amounts  at December 31, 2017  Net Difference Between Projected and Actual							
Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Between Expected and Actual Experience	Investment Earnings on Pension Plan Investments	Changes of Assumptions
4 Corners Comm Behavior Health Active Re Entry Inc Alpine City Alpine School District Alpine Uniserv	N/A N/A N/A N/A N/A	\$ 1,047,344 254,540 352,531 181,124,718 66,533	2,912,770 557,575 970,722 402,902,416 145,271	(497,916) 1,396 (160,224) (3,940,714) 725	23,496 7 7,892 18,423 —	226,356 41,784 76,086 30,445,243 10,914	384,931 64,475 128,511 46,208,472 16,799
American Fork City American Leadership Academy Ames Charter School Annabella Town Ash Creek SS District	N/A N/A N/A N/A	3,632,692 3,393,051 1,355,108 37,811 402,034	9,614,040 7,554,896 2,963,708 102,260 1,090,198	(1,285,778) (74,778) 11,000 (15,774) (169,930)	46,635 572 19 843 8,973	728,163 558,890 222,373 8,141 86,586	1,327,079 873,414 342,717 13,582 144,725
Ashley Valley Improv Dist Ashley Valley Sewer Mgmt Board Ballard Town Bear Lake SSD Bear River Assn of Govts	N/A N/A N/A N/A N/A	357,535 178,432 78,963 54,449 595,711	977,089 482,563 215,292 147,255 1,634,756	(156,865) (74,438) (34,265) (22,715) (266,507)	7,992 3,980 1,764 1,215 13,328	77,085 38,415 17,019 11,722 128,509	129,528 64,092 28,552 19,558 216,552
Bear River Health Dept Bear River Mental Health Bear River Water District Beaver City Beaver County	N/A N/A N/A N/A	1,924,214 1,499,106 81,022 420,759 3,174,873	5,307,639 4,142,306 226,222 1,162,043 8,203,880	(881,510) (692,277) (39,196) (193,855) (927,374)	43,095 33,586 1,819 9,426 18,224	415,394 323,701 17,520 90,848 600,562	702,444 548,046 29,876 153,758 1,167,663
Beaver Housing Authority Beaver School District Beaver Valley Hospital Benchland Water Company Bicknell Town	N/A N/A N/A N/A	47,414 4,678,662 1,913,983 176,977 14,728	128,228 10,293,546 5,246,713 481,892 39,831	(19,780) (8,583) (851,974) (76,310) (6,144)	1,058 305 42,812 3,953 329	10,208 768,720 412,830 38,137 3,171	17,031 1,190,226 695,152 63,924 5,290
Big Cottonwood Canyon Imp Dist Big Water Municipal Corp Blanding City Bluffdale City Bona Vista Water Improve	N/A N/A N/A N/A	30,211 11,538 573,511 630,126 217,816	81,704 29,071 1,524,110 1,766,844 592,283	(12,603) (2,672) (208,976) (310,508) (93,306)	674  7,960 14,161 4,864	6,504 2,076 115,917 136,341 46,929	10,852 4,249 209,420 233,157 78,587
Bountiful Irrigation District Box Elder Co Mosq Dist Box Elder County Box Elder School District Bridgerland Applied Tech Ctr	N/A N/A N/A N/A	210,840 106,012 5,052,949 31,599,124 3,924,042	575,088 290,031 13,386,592 69,886,447 8,610,677	(91,665) (46,753) (1,776,078) (360,430) 10,069	4,711 2,371 43,918 2,446 167	45,445 22,860 1,034,643 5,257,970 644,380	76,263 38,440 1,832,294 8,043,899 995,675
Brigham City Cache County Cache Metro Planning Org Cache School District Canyons School District	N/A N/A N/A N/A	3,258,547 7,284,198 38,995 45,226,514 94,115,625	8,723,810 18,928,796 105,460 100,943,050 208,533,942	(1,236,102) (2,241,552) (16,268) (1,292,615) (1,294,279)	41,336 58,087 870 3,757 11,865	674,926 1,403,459 8,395 7,733,757 15,486,420	1,184,740 2,669,241 14,007 11,500,807 24,110,036
Carbon County Carbon County Rec/Trans SSD Carbon School District Castle Dale City Castle Valley SSD	N/A N/A N/A N/A N/A	4,077,660 20,926 10,045,568 46,180 259,576	10,947,341 56,592 22,253,351 126,799 840,901	(1,562,997) (8,730) (138,805) (20,714) (224,932)	44,761 467 1,059 1,033 5,055	853,701 4,505 1,663,878 9,963 90,726	1,479,581 7,516 2,566,260 16,795 81,683
Cedar City Cedar City Housing Auth Cedar Mtn Fire Protection Dist Centerfield City Centerville City	N/A N/A N/A N/A N/A	3,429,936 75,474 — 41,919 1,882,783	9,063,340 209,185 — 112,470 5,227,237	(1,196,349) (35,337) — (16,312) (868,117)	40,619 1,692 — 694 18,032	682,227 16,304 — 8,652 448,348	1,255,968 27,661 — 15,277 660,254
Central Davis Sewer Dist Central Iron Co Water Conserv Central UT Public Health Central Utah Counseling Center Central Utah Water Dist	N/A N/A N/A N/A N/A	433,441 64,632 653,223 1,257,124 3,204,983	1,183,393 184,815 1,797,646 3,442,510 8,806,790	(189,307) (34,577) (296,085) (556,860) (1,442,684)	9,687 1,458 14,623 28,113 71,723	93,438 14,023 140,971 271,113 691,517	156,905 24,305 238,010 456,193 1,166,336
Central Weber Sewer Dist City of Aurora City of Bountiful City of Cedar Hills City of Draper	N/A N/A N/A N/A N/A	708,322 33,676 9,903,273 455,736 4,386,021	1,976,613 91,077 19,814,474 1,246,431 11,671,272	(341,831) (14,049) 1,696,647 (200,690) (1,606,652)	15,902 751 525,152 10,189 59,325	153,157 7,250 1,201,652 98,268 884,273	261,059 12,096 2,379,079 165,211 1,605,331

Deferred Outflows of Resources

# Aggregation of Funds with a Net Pension Liability

(Employer's Collective Net Pension Liability for All Participating Retirement Systems)

# Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions
City of Duchesne City of Enterprise City of Green River City of Harrisville City of Helper	N/A	\$ 115,880	318,488	(52,214)	2,593	25,003	42,178
	N/A	160,109	433,010	(66,795)	3,571	34,470	57,510
	N/A	152,693	421,702	(70,347)	3,421	32,968	55,798
	N/A	519,826	1,364,306	(173,482)	5,765	102,726	189,835
	N/A	308,907	806,111	(97,870)	2,587	59,733	113,409
City of Holladay	N/A	448,238	1,227,431	(198,533)	10,024	96,667	162,657
City of Kanab	N/A	477,996	1,269,445	(170,263)	5,034	94,177	176,571
City of Milford	N/A	113,561	315,728	(53,915)	2,548	24,543	41,727
City of Moab	N/A	1,757,480	4,735,015	(694,394)	26,935	359,613	645,537
City of Monticello	N/A	284,304	765,021	(111,145)	4,130	57,821	104,623
City of Naples	N/A	335,382	981,923	(197,061)	3,010	91,721	114,089
City of North Salt Lake	N/A	2,137,310	5,623,535	(724,680)	24,068	423,033	781,605
City of Orem	N/A	9,010,318	25,670,367	(4,749,326)	2,018,169	2,140,181	3,507,919
City of Riverton	N/A	2,222,484	6,118,228	(1,008,926)	49,755	479,652	810,009
City of Santa Clara	N/A	624,404	1,713,901	(279,651)	13,970	134,703	227,026
City of Saratoga Springs	N/A	2,035,781	5,519,347	(834,399)	416,674	399,998	820,146
City of South Jordan	N/A	6,839,118	18,249,920	(2,555,909)	97,787	1,390,779	2,499,034
City of South Salt Lake	N/A	4,792,331	12,590,099	(1,593,811)	45,865	936,086	1,761,147
City of St George	N/A	15,085,728	40,488,741	(5,825,269)	214,316	3,104,786	5,510,226
City of Taylorsville	N/A	741,926	2,040,153	(335,075)	16,606	160,096	270,155
City of Uintah	N/A	42,989	116,263	(17,934)	959	9,255	15,442
City of Washington Terrace	N/A	401,078	1,094,369	(174,667)	8,963	86,454	145,117
City of Wendover	N/A	114,892	330,389	(62,875)	2,595	24,948	43,408
City of West Haven	N/A	279,373	771,265	(128,486)	6,258	60,317	102,058
City of West Jordan	N/A	10,113,421	27,150,039	(3,917,767)	2,527,497	1,961,657	4,133,125
City of Woodland Hills	N/A	74,802	206,085	(34,081)	1,675	16,146	27,280
Clearfield City	N/A	2,593,533	6,886,633	(931,091)	31,296	517,024	952,633
Cleveland Town	N/A	5,552	17,564	(4,254)	129	1,223	2,271
Clinton City	N/A	1,388,730	3,819,164	(612,206)	16,179	317,565	492,951
Coalville City	N/A	117,087	325,506	(55,569)	2,627	25,304	43,020
Color Country Uniserv Corinne City Cottonwood Heights City Cottonwood Heights P&R Srv Cottonwood Imp District	N/A	64,968	143,419	(488)	6	10,682	16,583
	N/A	50,845	344,736	(195,677)	—	64,209	—
	N/A	2,028,250	5,391,787	(734,073)	647,723	373,254	860,270
	N/A	406,528	1,117,593	(183,386)	9,099	87,719	147,997
	N/A	916,685	2,497,953	(396,714)	20,480	197,560	331,315
Council On Aging Golden Age SS	N/A	117,633	322,247	(52,198)	2,631	25,370	42,701
Daggett County	N/A	467,524	1,233,783	(162,251)	5,732	93,275	170,760
Daggett School District	N/A	1,239,970	2,736,461	(8,684)	114	203,862	316,399
Davis & Weber County Canal Co	N/A	282,605	1,919,720	(1,090,113)	27	356,191	978
Davis Applied Tech College	N/A	3,056,961	6,734,243	(12,179)	233	502,403	778,656
Davis Behavioral Health Inc	N/A	3,597,034	9,957,144	(1,674,670)	80,619	776,899	1,316,956
Davis Co Housing Authority	N/A	249,037	998,544	(376,745)	3,845	134,771	62,715
Davis Co Mosquito Abate	N/A	99,385	268,782	(41,461)	2,217	21,397	35,698
Davis County	N/A	21,101,350	55,698,060	(7,334,746)	259,897	4,211,812	7,706,864
Davis School District	N/A	187,899,879	418,108,982	(4,273,840)	16,068	31,794,560	47,827,047
Davis Uniserv Ddi Vantage Delta City Dixie Applied Tech College Dixie State University	N/A N/A N/A N/A N/A	46,951 1,613,012 259,026 311,446 4,226,666	102,514 11,005,546 714,092 680,019 9,407,334	512 (6,255,556) (118,367) 3,394 (97,336)	519 5,801 — 4,146	7,702 2,023,803 55,914 51,091 722,337	11,855 18,641 94,517 78,638 1,057,193
Duchesne Co Mosquito Dist Duchesne Co Water Conserv Dist Duchesne County Duchesne School District E Duchesne Cul Water Imp Dist	N/A N/A N/A N/A N/A	25,505 86,008 3,101,621 13,173,938 29,507	172,927 232,606 9,547,963 29,814,638 79,800	(98,156) (35,881) (2,221,547) (713,639) (12,310)	1,919 31,874 1,685 658	32,208 18,517 957,954 2,318,295 6,353	30,894 1,021,530 3,361,338 10,599
Eagle Mountain City East Carbon City East Hollywood High School Educators Mutual Insurance Elk Ridge City	N/A	1,110,837	3,086,649	(526,048)	24,916	240,049	407,973
	N/A	199,317	530,294	(72,862)	2,656	40,124	72,994
	N/A	720,309	1,609,777	(20,417)	145	118,739	186,095
	N/A	5,158,689	11,811,349	(408,298)	119	972,547	1,294,127
	N/A	42,916	132,805	(30,624)	985	9,421	17,236

Deferred Outflo	ws of Resources				Deferred Inflo	ws of Resources	Pension Expense Excluding That Attri to Employer-Paid Member Contri			
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	et Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
5,487	75,261	7,583	66,009	2,751	10,708	87,051	46,393	(1,067)	_	45,326
4,792	100,343	9,798	90,513	3,741	3,972	108,024	57,014	(253)	_	56,761
24,383	116,570	10,189	87,179	3,643	5,771	106,782	63,181	4,635	_	67,816
37,828	336,154	54,858	267,614	9,695	18,965	351,132	200,092	9,797	_	209,889
1,676	177,405	36,060	155,374	5,418	24,093	220,945	122,450	(15,089)	_	107,361
20,871	290,219	28,897	254,888	10,603	46,105	340,493	174,905	(6,703)		168,202
10,370	286,152	53,257	246,417	8,936	11,982	320,592	201,904	141		202,045
10,009	78,827	7,781	65,042	2,727	—	75,550	49,104	3,746		52,850
288,349	1,320,434	163,290	944,655	36,459	86,457	1,230,861	728,375	47,603		775,978
36,756	203,330	27,383	151,852	5,807	9,806	194,848	119,095	14,001		133,096
70,361	279,181	34,843	228,631	5,638	70,249	339,361	131,628	(35,310)	=	96,318
54,278	1,282,984	225,317	1,103,008	40,104	35,114	1,403,543	833,517	16,117		849,634
87,860	7,754,129	332,264	5,596,018	282,502	240,251	6,451,035	3,111,368	26,979		3,138,347
48,097	1,387,513	146,395	1,266,970	52,851	153,506	1,619,722	899,752	(31,994)		867,758
34,260	409,959	40,646	355,462	14,805	24,500	435,413	247,741	(952)		246,789
102,546 2,108,870 44,649 449,307 3,815	1,739,364 6,096,470 2,787,747 9,278,635 450,672	90,356 648,098 541,266 1,439,415 48,651	1,083,681 3,639,584 2,440,244 8,115,710 422,725	64,481 137,757 86,824 303,524 17,623	11,284 39,520 279,720 135,729 117,264	1,249,802 4,464,959 3,348,054 9,994,378 606,263	767,219 2,708,784 1,929,261 6,070,085 298,066	32,143 893,474 (134,436) 133,358 (49,361)	_ _ _ _	799,362 3,602,258 1,794,825 6,203,443 248,705
8,894 11,161 30,943 20,486 502,888	34,550 251,695 101,894 189,119 9,125,167	2,631 25,478 8,929 18,613 367,676	24,303 227,686 66,879 159,476 5,319,798	1,004 9,454 2,854 6,662 337,330	2,766 2,059 4,444 6,278 58,327	30,704 264,677 83,106 191,029 6,083,131	15,308 152,555 60,718 115,302 3,472,685	2,063 3,303 7,938 3,088 169,062	_ _ _ _	17,371 155,858 68,656 118,390 3,641,747
32,872	77,973	4,943	42,659	1,780	153	49,535	30,447	11,067		41,514
61,462	1,562,415	270,140	1,352,247	49,925	113,580	1,785,892	1,055,003	(60,929)		994,074
585	4,208	586	3,389	151	3,105	7,231	4,544	(1,496)		3,048
34,812	861,507	138,242	811,815	25,725	13,672	989,454	534,125	(39,886)		494,239
4,989	75,940	8,020	67,060	2,812	509	78,401	50,603	1,245		51,848
40,357 ————————————————————————————————————	67,628 64,209 2,064,744 275,629 563,151	3,907 — 57,395 26,630 57,915	27,082 145,808 1,026,198 231,599 520,067	510 — 73,857 9,654 21,579	3,584 — 13,724 2,587 51,426	35,083 145,808 1,171,174 270,470 650,987	17,471 16,209 674,399 163,039 345,366	13,301 25,542 67,518 14,642 (12,630)		30,772 41,751 741,917 177,681 332,736
450 992 78,590 1,385 157,514	71,152 270,759 598,965 358,581 1,438,806	7,595 47,477 74,490 681 182,536	66,904 243,410 516,785 809,392 1,272,744	2,784 8,971 9,708 74 23,816	26,197 265,850 21,384 927	103,480 565,708 622,367 811,074 1,479,096	46,027 181,476 332,656 96,759 808,460	(9,997) (126,845) 14,440 61,657 72,139		36,030 54,631 347,096 158,416 880,599
190,390	2,364,864	242,240	2,055,946	86,009	124,927	2,509,122	1,511,553	13,373		1,524,926
85,268	286,599	11,441	319,874	4,094	10,655	346,064	95,555	55,011		150,566
2,116	61,428	6,082	56,184	2,322	5,152	69,740	35,390	(2,332)		33,058
304,056	12,482,629	2,138,452	10,991,891	405,455	1,060,446	14,596,244	8,191,350	(415,079)		7,776,271
4,706,776	84,344,451	11,241,653	80,373,896	1,465,739	799,609	93,880,897	50,134,087	1,066,238		51,200,325
191	19,748	2,720	19,448	357	29,000	51,525	11,535	(15,897)		(4,362)
14,882	2,057,845	12,972	4,606,018	1,402	—	4,620,392	641,241	680,380		1,321,621
10,525	166,757	17,161	147,763	6,168	20,767	191,859	105,896	(7,596)		98,300
77,505	207,234	18,041	129,010	2,367	—	149,418	76,514	32,316		108,830
9,312	1,792,988	240,767	1,821,887	31,141	404,818	2,498,613	1,095,177	(147,708)		947,469
15,948 772,073 117,955 1,281	32,208 67,278 2,783,431 5,799,273 18,891	5,264 295,764 799,399 1,806	73,140 48,622 2,364,516 5,851,357 16,681	2,010 52,779 103,915 689	2,537 141,103 199,359 607	73,140 58,433 2,854,162 6,954,030 19,783	8,131 30,627 1,234,023 3,653,376 10,507	11,231 4,486 325,728 (19,293) 269		19,362 35,113 1,559,751 3,634,083 10,776
10,554	683,492	75,936	636,063	26,662	182,845	921,506	478,561	(94,817)		383,744
5,560	121,334	19,689	104,986	3,937	46,077	174,689	79,669	(21,027)		58,642
78,593	383,572	45,118	302,389	5,836	8,028	361,371	212,657	21,815		234,472
52,141	2,318,934	298,885	2,430,772	39,149	339,740	3,108,546	1,297,361	(147,905)		1,149,456
2,110	29,752	4,242	25,903	1,147	25,439	56,731	32,140	(12,615)		19,525

(Employer's Collective Net Pension Liability for All Participating Retirement Systems)

## Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions
Emery Co Care & Rehab Ctr Emery County Emery County Recreation SSD Emery School District Emery Town	N/A N/A N/A N/A N/A	\$ 220,406 2,888,330 7,580 8,910,745 16,428	1,502,826 7,721,697 23,978 19,812,458 111,386	(854,083) (1,078,357) (5,805) (195,029) (63,224)	63 27,927 175 522	276,726 608,450 1,669 1,518,049 20,746	2,279 1,041,589 3,101 2,260,015
Emery Water Conserv Dist	N/A	118,674	333,064	(58,712)	2,667	25,681	43,944
Enoch City	N/A	331,510	886,751	(124,631)	4,347	66,666	122,029
Ephraim City	N/A	688,131	1,841,071	(261,685)	10,329	140,367	251,613
Escalante City	N/A	83,544	225,942	(34,853)	1,864	17,986	30,009
Eureka City Corporation	N/A	49,369	133,518	(20,596)	1,101	10,629	17,733
Fairview City	N/A	136,925	372,758	(58,914)	3,025	29,454	49,493
Farmington City	N/A	1,854,418	4,948,352	(690,065)	25,275	374,278	680,004
Farr West City	N/A	172,937	468,417	(72,689)	3,859	37,240	62,196
Fast Forward Charter HS	N/A	698,467	1,557,449	(17,115)	126	115,084	180,051
Ferron City	N/A	50,479	141,040	(24,495)	1,134	10,916	18,623
Fillmore City	N/A	176,178	483,783	(79,054)	3,942	38,010	64,078
Five-County Assn of Govts	N/A	720,687	2,125,401	(444,948)	15,472	188,006	253,303
Fountain Green City	N/A	79,572	208,326	(26,298)	946	15,816	28,918
Fox Hollow Golf Course	N/A	61,490	166,298	(25,653)	1,372	13,238	22,087
Francis City	N/A	59,530	162,325	(25,843)	1,330	12,831	21,528
Fruit Heights City	N/A	180,183	494,549	(80,676)	4,031	38,871	65,509
Garden City Fire District	N/A	—	—	—	—	—	—
Garfield County	N/A	2,113,087	5,620,199	(763,664)	19,671	438,977	763,644
Garfield School District	N/A	3,647,485	8,014,079	1,529	195	599,126	926,673
Garland City	N/A	157,218	701,894	(295,528)	22	104,691	32,519
Genola Town	N/A	43,230	116,914	(18,035)	964	9,307	15,528
Grand Co Cemetery Mtce Dist	N/A	37,841	108,193	(20,235)	854	8,210	14,229
Grand County	N/A	2,830,166	7,815,265	(1,281,193)	42,715	634,019	1,017,901
Grand School District	N/A	5,588,786	12,430,391	(112,879)	889	920,353	1,437,086
Grand Water/Sewer Service	N/A	98,774	277,403	(49,011)	2,220	21,376	36,596
Granger-Hunter Imp Dist	N/A	1,682,202	4,634,808	(766,628)	37,666	363,091	613,523
Granite School District	N/A	193,236,745	433,179,029	(7,101,266)	17,353	33,426,352	49,141,171
Granite Uniserv	N/A	210,000	458,520	2,288	—	34,449	53,024
Grantsville City	N/A	921,412	2,434,421	(320,631)	10,667	182,900	337,687
Gunnison City	N/A	144,129	386,125	(55,778)	2,446	29,833	52,383
Gunnison Valley Hospital	N/A	2,350,209	6,436,801	(1,041,806)	52,559	506,859	852,966
Gunnison Valley Police Dept	N/A	137,806	358,215	(42,572)	60,661	23,547	61,490
Heber City	N/A	2,045,270	5,436,867	(736,529)	23,557	406,074	753,409
Heber Light & Power	N/A	1,356,419	3,715,100	(601,359)	30,335	292,534	492,300
Heber Valley Historic Railroad	N/A	194,728	441,929	(10,666)	65	32,205	51,077
Heber Valley SSD	N/A	86,612	234,240	(36,133)	1,932	18,647	31,111
Herriman City	N/A	2,109,401	5,808,043	(958,440)	47,225	455,258	768,917
High Desert Uniserv	N/A	31,882	71,179	(848)	6	5,254	8,229
High School Activities Assn	N/A	434,113	951,127	2,230	13	71,264	109,984
Highland City	N/A	595,182	1,620,205	(256,317)	13,294	128,253	214,935
Hinckley Town	N/A	26,251	76,412	(15,066)	594	5,710	10,019
Honeyville City	N/A	37,616	255,041	(144,765)	—	47,503	—
Hooper City	N/A	150,591	421,693	(73,784)	3,384	32,578	55,660
Hooper Water Improv Dist	N/A	204,012	555,100	(87,659)	4,557	43,959	73,645
Housing Auth of Carbon Co	N/A	101,806	277,903	(44,425)	2,276	21,946	36,848
Housing Auth of SL County	N/A	1,357,128	3,802,629	(666,705)	30,493	293,614	501,867
Housing Authority of SLC	N/A	1,388,478	3,943,284	(729,464)	30,657	322,645	501,868
Housing Authority Ogden City	N/A	330,699	902,885	(144,436)	7,391	71,290	119,712
Huntington City	N/A	93,273	252,254	(38,912)	2,081	20,081	33,503
Hurricane City	N/A	2,456,483	6,527,165	(893,686)	33,758	495,983	897,331
Hurricane Valley Fire SSD	N/A	37,675	103,468	(16,916)	844	8,129	13,704
Hyde Park City	N/A	200,033	545,345	(86,764)	4,469	43,113	72,325
Hyrum City	N/A	628,696	1,711,071	(270,474)	14,042	135,471	226,998
Impact Mitigation SSD	N/A	79,232	214,281	(33,054)	1,767	17,058	28,460
Intech Collegiate High School	N/A	436,723	976,073	(12,430)	88	71,992	112,837

Deferred Outflo	ws of Resources				Deferred Inflo	ws of Resources	ources to Employer-Paid Member Contribution			
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	et Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
1,743 87,308 890	280,811 1,765,274 5,835	1,586 314,716 799	629,657 1,566,260 4,626	171 51,550 207	79 162,185 2,913	631,493 2,094,711 8,545	85,794 1,116,118 6,202	76,998 (40,679) (796)	_ _ _	162,792 1,075,439 5,406
15,969	3,794,555 20,746	527,226 —	3,830,793 47,111	68,876	524,485	4,951,380 47,111	2,318,202 5,237	(236,028) 7,897		2,082,174 13,134
12,217 9,774 69,978 1,401 4,462	84,509 202,816 472,287 51,260 33,925	8,432 33,581 63,613 5,113 3,021	68,277 174,774 367,853 47,229 27,910	2,877 6,559 14,093 1,952 1,153	1,414 39,238 12,566 13,807 309	81,000 254,152 458,125 68,101 32,393	54,458 138,080 274,144 29,750 17,580	3,455 (12,477) 28,590 (9,465) 1,329	_ _ _ _ _	57,913 125,603 302,734 20,285 18,909
6,806 79,491 21,531 72,527 715	88,778 1,159,048 124,826 367,788 31,388	8,773 182,079 10,653 43,427 3,526	77,519 980,264 97,835 292,839 28,980	3,208 36,944 4,047 5,625 1,218	19,060 47,232 1,858 — 20,582	108,560 1,246,519 114,393 341,891 54,306	51,553 750,627 62,302 202,820 22,530	(3,288) 11,033 7,598 26,958 (7,675)		48,265 761,660 69,900 229,778 14,855
15,176 14,123 195 154 5,588	121,206 470,904 45,875 36,851 41,277	11,488 47,107 8,046 3,763 3,771	100,315 483,377 41,162 34,762 33,784	4,179 16,552 1,503 1,437 1,402	1,356 30,528 7,882 1,674	117,338 577,564 58,593 41,636 38,957	70,099 306,495 29,479 21,896 22,534	5,052 279 (2,869) (490) 2,074		75,151 306,774 26,610 21,406 24,608
10,731	119,142	11,726	102,572	4,272		118,570	71,461	4,291		75,752
18,245 99,727 800	1,240,537 1,625,721 138,032	233,484 215,870 13,189	1,131,117 1,516,322 242,821	37,424 28,212 1,247	45,118 78,388 42,915	1,447,143 1,838,792 300,172	814,563 944,353 61,419	4,021 31,635 4,588	_ _ _ _	818,584 975,988 66,007
2,955 8,208 180,420 38,905 11,969	28,754 31,501 1,875,055 2,397,233 72,161	2,646 2,881 255,234 344,593 7,036	24,439 21,966 1,640,627 2,339,730 56,846	1,010 934 57,510 44,700 2,396	53,629 48,101 10,777	28,095 25,781 2,007,000 2,777,124 77,055	15,394 19,370 1,144,414 1,592,473 45,517	1,505 3,403 20,658 (12,984) (1,446)		16,899 22,773 1,165,072 1,579,489 44,071
11,771 2,846,963 36,766 8,785 308	1,026,051 85,431,839 124,239 540,039 84,970	111,184 11,564,676 12,164 96,816 12,050	959,355 84,355,168 86,988 477,562 78,183	40,037 1,507,380 1,596 17,476 3,059	164,145 4,479,959 — 31,027 96,792	1,274,721 101,907,183 100,748 622,881 190,084	684,960 51,766,302 51,592 366,764 55,157	(63,173) (1,619,056) 18,671 (20,113) (40,769)		621,787 50,147,246 70,263 346,651 14,388
152,054 66,369 281,908 63,542 18,883	1,564,438 212,067 1,464,948 878,711 102,230	151,620 1,520 218,936 87,518 12,814	1,336,542 65,850 1,062,618 771,394 82,479	55,604 5,702 39,011 32,092 1,644	38,068 — — 54,226 —	1,581,834 73,072 1,320,565 945,230 96,937	918,191 38,926 849,234 530,043 63,988	30,914 18,985 116,437 (11,753) 10,451		949,105 57,911 965,671 518,290 74,439
183,199 18,477 5,624 6,531	51,690 1,454,599 31,966 186,885 363,013	5,301 139,054 1,990 25,446 37,443	48,964 1,202,614 13,377 180,177 337,505	2,024 50,171 258 3,332 13,997	10,110  3,584 24,505 8,006	66,399 1,391,839 19,209 233,460 396,951	30,842 855,097 9,342 109,807 222,567	(3,539) 80,465 4,553 (5,653) (2,623)	_ _ _ _	27,303 935,562 13,895 104,154 219,944
2,047 — 7,536 8,675 427	18,370 47,503 99,158 130,836 61,497	2,129 — 10,608 12,809 6,478	15,372 107,871 86,546 115,662 57,805	659 — 3,642 4,795 2,401	5,699 — 6,833 136 34,609	23,859 107,871 107,629 133,402 101,293	14,801 11,992 68,150 76,026 38,842	(1,428) 16,957 (2,067) 3,213 (12,939)		13,373 28,949 66,083 79,239 25,903
42,362 38,983 5,904 3,930 81,776	868,336 894,153 204,297 59,595 1,508,848	95,824 93,315 21,061 5,708 237,000	780,188 844,495 187,787 52,729 1,297,044	32,844 32,796 7,800 2,179 48,817	38,835 122,523 12,632 4,126 35,530	947,691 1,093,129 229,280 64,742 1,618,391	616,505 594,465 126,341 33,214 963,206	(5,612) (56,117) (2,157) (843) 31,570		610,893 538,348 124,184 32,371 994,776
17,987 3,275 24,541 560 75,110	40,664 123,182 401,052 47,845 260,027	2,458 12,662 39,515 4,849 27,360	21,453 113,511 356,473 44,792 183,346	894 4,711 14,781 1,851 3,539	52 4,831 20,732 2,163	24,857 135,715 431,501 53,655 214,245	15,005 75,623 234,733 28,214 128,998	8,866 (1,498) (1,104) (845) 31,806		23,871 74,125 233,629 27,369 160,804

(Employer's Collective Net Pension Liability for All Participating Retirement Systems)

## Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions
Iron County Iron School District Itineris High School Ivins City Jordan River Commission	N/A N/A N/A N/A	\$ 4,485,108 24,233,059 884,672 1,173,989 38,101	11,849,105 53,551,851 1,947,974 3,108,903 103,043	(1,549,448) (241,493) (2,846) (414,383) (15,895)	43,096 1,785 64 13,810 850	896,667 4,027,033 145,380 233,426 8,203	1,639,473 6,166,595 225,239 430,759 13,686
Jordan School District	N/A	128,409,461	285,625,958	(2,751,799)	14,361	21,505,076	32,805,716
Jordan Uniserv	N/A	156,997	342,791	1,711	—	25,754	39,641
Jordan Valley Water Conserv	N/A	3,930,923	11,161,837	(2,078,334)	85,513	957,417	1,385,431
Jordanelle SSD	N/A	639,313	1,755,460	(286,812)	14,305	137,927	232,517
Juab County	N/A	1,571,280	4,216,455	(602,577)	17,235	333,755	566,062
Juab School District Kamas City Kane County Kane County Water Conserv Dist Kane School District	N/A N/A N/A N/A	6,485,778 207,490 2,541,070 189,778 4,535,356	14,302,906 542,932 6,726,356 526,708 10,068,428	(37,475) (68,008) (885,481) (89,398) (80,929)	553 2,301 25,341 4,256 482	1,066,157 40,990 498,318 41,003 756,190	1,653,767 75,593 938,089 69,631 1,158,267
Kaysville City	N/A	3,033,901	8,149,854	(1,172,015)	35,760	640,286	1,097,042
Kearns Improvement Dist	N/A	901,623	2,879,097	(745,358)	17,857	301,982	289,338
Laverkin City	N/A	407,244	1,148,776	(204,595)	5,218	100,198	142,217
Layton City	N/A	6,936,165	18,645,037	(2,672,308)	69,176	1,468,826	2,506,913
Lehi City	N/A	6,067,095	16,216,498	(2,290,638)	88,810	1,234,031	2,219,654
Lewiston City	N/A	82,145	230,627	(40,702)	1,847	17,777	30,427
Liberty Academy Charter	N/A	289,931	687,849	(38,667)	214	48,416	79,453
Lindon City	N/A	1,782,186	4,669,183	(587,769)	19,391	351,549	650,419
Logan City	N/A	11,570,229	26,657,943	(845,293)	161,685	1,858,554	3,246,129
Logan School District	N/A	15,155,251	33,926,478	(511,843)	1,576	2,597,589	3,862,688
Lone Peak PS District	N/A	862,889	2,235,424	(258,587)	412,409	143,983	391,880
Maeser Water Improve Dist	N/A	148,698	402,150	(62,034)	3,317	32,014	53,412
Magna Mosquito Abatement	N/A	37,584	101,645	(15,679)	838	8,092	13,500
Manti City	N/A	242,784	665,779	(108,258)	5,431	52,369	88,205
Mapleton City	N/A	938,036	2,491,775	(341,632)	13,327	190,052	342,000
Marriott-Slaterville City	N/A	78,121	213,802	(34,510)	1,746	16,846	28,336
Mayfield Town	N/A	21,249	57,468	(8,865)	474	4,575	7,633
Mendon City	N/A	26,138	72,514	(12,290)	587	5,647	9,587
Metro Water Dist SLC/Sandy	N/A	1,795,051	4,888,947	(774,913)	40,099	386,833	648,503
Midvale City	N/A	1,584,120	4,384,089	(736,760)	35,502	342,132	579,874
Midvalley Improvement District	N/A	283,811	771,939	(121,729)	6,338	61,150	102,420
Midway City	N/A	303,320	840,103	(141,572)	6,799	65,517	111,104
Military Installation Devel	N/A	121,793	329,386	(50,810)	2,717	26,221	43,748
Millard Co Care & Rehab Inc	N/A	523,162	1,463,668	(255,328)	11,751	113,162	193,225
Millard County	N/A	3,988,969	10,446,935	(1,305,544)	39,927	781,550	1,459,977
Millard School District Millcreek City Millville City Minersville Town Moab Valley Fire Protection	N/A N/A N/A N/A	11,544,236 43,468 76,175 68,967	25,960,912 121,573 209,308 187,620	(498,907) (21,185) (34,281) (29,608)	839 977 1,705 1,541	2,028,479 9,402 16,436 14,860	2,926,927 16,050 27,720 24,892
Monroe City	N/A	217,199	589,003	(91,823)	4,848	46,779	78,191
Monticello Academy	N/A	1,094,181	2,456,687	(39,688)	264	180,547	283,982
Morgan City Corporation	N/A	390,635	1,061,741	(166,978)	8,723	84,159	140,889
Morgan County	N/A	1,070,188	2,846,199	(392,071)	15,085	216,674	390,716
Morgan School District	N/A	5,925,673	13,117,070	(71,899)	698	974,854	1,516,574
Moroni City Mount Pleasant City Mountain Regional Water SSD Mountainland Assn of Govt Mountainland ATC	N/A N/A N/A N/A N/A	41,420 499,204 763,882 1,044,374 1,281,883	115,808 1,323,447 2,085,616 3,047,125 2,798,894	(20,160) (177,923) (333,663) (620,683) 13,968	931 6,167 17,072 22,292	8,958 99,716 164,672 274,693 210,284	15,291 182,942 276,527 361,414 323,666
Mt Olympus Improvement Dist	N/A	744,499	2,034,419	(326,506)	16,642	160,512	269,699
Murray City	N/A	10,008,266	27,272,529	(4,220,755)	136,807	2,204,058	3,588,754
Murray School District	N/A	18,124,756	40,160,503	(265,259)	1,631	3,020,802	4,620,118
Myton City	N/A	54,515	149,825	(24,559)	1,220	11,763	19,842
N Tooele Co Fire Protection SD	N/A	1,601	4,331	(668)	36	345	575

Deferred Outflows of Resources

(Employer's Collective Net Pension Liability for All Participating Retirement Systems)

## Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions
N Ut Environmental Rsrc Agcy Ne Counseling Center	N/A N/A	\$ 144,389 —	393,902 —	(62,825)	3,226	31,123	52,234 —
Nebo Credit Únion	N/A	339,950	931,466	(151,001)	7,603	73,320	123,423
Nebo School District	N/A	84,819,459	187,656,510	(970,797)	8,827	13,997,584	21,669,528
Nephi City	N/A	1,074,678	2,872,665	(405,723)	15,646	218,459	393,308
Nibley City Corporation	N/A	259,706	722,162	(123,385)	5,826	56,127	95,439
Noah Webster Academy Inc	N/A	686,308	1,557,798	(37,775)	231	113,509	180,047
North Davis Co Sewer Dist	N/A	1,227,764	3,482,955	(647,096)	26,665	300,338	431,291
North Davis Fire District	N/A	26,845	72,602	(11,199)	599	5,780	9,643
North Emery Water Users SSD	N/A	11,849	36,413	(8,263)	272	2,598	4,731
North Fork SSD	N/A	45,294	127,425	(22,639)	1,018	9,805	16,806
North Logan City	N/A	421,783	1,265,617	(279,016)	8,908	116,571	145,566
North Ogden City	N/A	1,516,064	4,008,199	(527,380)	16,481	299,334	557,338
North Park Police Agency	N/A	309,128	785,892	(78,641)	848	56,962	113,489
North Pointe Solid Waste	N/A	458,249	1,263,791	(209,766)	10,263	98,923	167,263
North Sanpete School Dist	N/A	7,307,280	16,140,057	(66,438)	517	1,213,615	1,858,914
North Summit School District	N/A	3,944,785	8,658,487	8,372	177	647,822	1,001,200
North View Fire District	N/A	21,728	58,762	(9,064)	485	4,678	7,805
Northeastern Counseling Ctr	N/A	940,269	2,595,138	(431,932)	21,062	202,999	343,420
NUAMES Charter School	N/A	1,726,854	3,810,289	(11,584)	155	283,900	440,560
Oakley City	N/A	58,131	397,039	(225,729)	22	72,856	783
Ogden City Corp	N/A	26,285,351	49,998,804	6,735,094	1,348,693	2,918,498	4,617,794
Ogden School District	N/A	36,063,875	79,966,304	(540,847)	4,776	5,935,110	9,245,356
Ogden Weber/NEA/UEA Uniserv	N/A	92,894	202,828	1,012	—	15,239	23,455
Ogden-Weber Tech College	N/A	2,684,403	6,157,715	(222,156)	67	508,581	673,332
Oquirrh Rec And Parks District	N/A	434,120	1,176,622	(183,051)	9,688	93,490	156,212
Orangeville City	N/A	49,187	133,656	(21,001)	1,099	10,596	17,736
Orderville Town	N/A	37,400	102,389	(16,546)	836	8,066	13,569
Panguitch City Corporation	N/A	103,128	288,213	(50,094)	2,316	22,304	38,055
Park City	N/A	7,780,234	22,566,115	(4,421,269)	117,376	1,967,500	2,745,208
Park City Fire Service	N/A	179,102	498,946	(85,788)	4,019	38,718	65,918
Park City School District	N/A	22,744,114	50,464,865	(382,865)	2,426	3,785,282	5,809,377
Parowan City	N/A	649,814	1,732,668	(243,475)	10,150	133,104	236,424
Payson City	N/A	2,726,950	7,301,737	(1,044,628)	42,475	558,644	995,707
Perry City	N/A	445,575	1,160,092	(139,488)	3,894	86,384	163,073
Piute County	N/A	364,708	966,092	(130,513)	5,052	73,674	132,840
Piute School District	N/A	1,473,175	3,250,957	(10,195)	134	242,200	375,887
Plain City	N/A	142,818	390,378	(62,719)	3,193	30,793	51,749
Pleasant Grove City	N/A	2,489,240	6,588,563	(881,040)	31,686	498,558	909,794
Pleasant View City	N/A	693,035	1,822,865	(234,048)	7,570	136,810	253,684
Price City	N/A	1,923,875	5,093,015	(684,175)	25,750	387,243	701,584
Price River Water Improve	N/A	646,161	1,764,919	(282,784)	14,443	139,302	233,990
Providence City	N/A	215,491	595,134	(99,278)	4,827	46,528	78,747
Provo City Corp	N/A	20,935,933	47,221,706	(775,458)	508,912	3,247,189	5,874,246
Provo Housing Authority	N/A	347,254	1,186,505	(351,004)	6,577	131,973	108,024
Provo River Water Users	N/A	402,632	1,101,067	(177,211)	9,001	86,815	145,947
Provo School District	N/A	40,154,072	89,799,824	(1,261,128)	5,008	6,812,163	10,265,511
Recreation & Habilitation Srvs	N/A	23,389	63,255	(9,758)	522	5,036	8,401
Redmond Town	N/A	43,317	117,150	(18,071)	966	9,326	15,559
Rich County	N/A	552,525	1,574,039	(287,812)	5,573	138,143	193,165
Rich School District	N/A	2,483,147	5,460,593	(2,578)	152	407,949	631,404
Richfield City	N/A	1,070,413	2,798,818	(348,575)	11,533	210,929	390,185
Richmond City	N/A	96,966	273,839	(49,262)	2,182	21,002	36,091
Riverdale City	N/A	1,986,185	5,179,500	(630,905)	18,740	387,235	725,994
Roosevelt City	N/A	1,073,658	2,837,317	(375,389)	13,058	214,077	392,724
Roosevelt City Housing	N/A	17,957	48,564	(7,491)	401	3,866	6,450
Roy City	N/A	3,531,084	9,397,671	(1,281,356)	34,684	728,288	1,280,831
Roy Water Conserv Dist	N/A	198,188	535,992	(82,680)	4,421	42,668	71,188
S Utah Valley Electric Svc Dst	N/A	386,562	1,063,326	(174,852)	8,653	83,418	140,796
S Utah Valley Solid Waste	N/A	361,625	981,352	(153,408)	8,072	77,892	130,258

Deferred Outflows of Resources

Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
117,593	204,176	9,165	81,960	3,403	_	94,528	54,845	39,748	_	94,593
19,645	223,991	21,971	193,366	8,047	10,587	233,971	133,220	649	_	133,869
2,636,507	38,312,446	5,119,311	35,491,352	666,607	—	41,277,270	23,017,519	1,076,618	_	24,094,137
32,854	660,267	101,350	572,386	21,812	49,541	745,089	430,256	(9,698)	_	420,558
18,799 12,969 9,945 1,090 498	176,191 306,756 768,239 17,112 8,099	17,804 45,187 75,306 1,643 1,147	148,758 290,720 774,962 15,176 7,127	6,238 5,795 28,089 627 315	19,051 38,203 579 9,525	172,800 360,753 916,560 18,025 18,114	112,411 225,756 459,485 9,559 8,619	9,060 (2,740) 2,516 56 (3,171)	_ _ _ _	121,471 223,016 462,001 9,615 5,448
1,229	28,858	3,248	26,089	1,101	15,186	45,624	21,091	(6,489)		14,602
16,747	287,792	26,810	296,983	9,508	232,860	566,161	175,232	(111,143)		64,089
82,070	955,223	164,613	781,884	28,385	14,561	989,443	616,769	29,878		646,647
173,440	344,739	42,090	146,877	4,624	—	193,591	118,423	84,990		203,413
21,679	298,128	30,406	261,457	10,917	6,845	309,625	187,820	3,152		190,972
43,532 109,222 563 10,614 357,649	3,116,578 1,758,421 13,531 578,095 1,082,264	435,126 232,659 1,330 62,582 103,678	3,070,897 1,638,958 12,283 536,674 719,632	56,794 30,425 508 22,417 13,513	18,451 33,259 97 43,120	3,581,268 1,935,301 14,218 664,793 836,823	1,922,856 1,012,840 7,737 387,397 462,634	306 16,495 175 (19,241) 153,109		1,923,162 1,029,335 7,912 368,156 615,743
875 185,469 268,940 20,556 2,189	74,536 9,070,454 15,454,182 59,250 1,184,169	545 638,631 2,201,108 5,381 155,595	165,878 7,453,505 15,071,387 38,479 1,270,761	59 146,139 286,048 706 20,377	46,878 790,691 452 381,235	166,482 8,285,153 18,349,234 45,018 1,827,968	23,868 7,443,316 10,039,220 22,822 676,364	23,817 13,326 (233,172) 7,768 (242,905)		47,685 7,456,642 9,806,048 30,590 433,459
40,521	299,911	26,814	245,668	10,165	1,733	284,380	157,164	12,675		169,839
1,494	30,925	3,071	27,869	1,155	—	32,095	18,153	599		18,752
1,938	24,409	2,408	21,265	885	—	24,558	14,567	642		15,209
13,022	75,697	7,209	59,213	2,490	9,631	78,543	46,095	(1,381)		44,714
666,553	5,496,637	693,030	5,023,841	156,877	147,284	6,021,032	3,341,859	400,059		3,741,918
14,851	123,506	12,366	102,680	4,310	8,018	127,374	78,448	3,269		81,717
680,098	10,277,183	1,373,440	9,591,615	178,808	299,206	11,443,069	6,186,930	48,146		6,235,076
25,220	404,898	57,594	348,359	13,406	27,501	446,860	248,938	1,412		250,350
69,978	1,666,804	245,441	1,464,233	56,457	123,242	1,889,373	1,077,150	(3,749)		1,073,401
77,979	331,330	50,973	224,495	7,853	5,172	288,493	172,298	38,650		210,948
13,067	224,633	34,686	192,452	7,239	24,904	259,281	139,554	(9,875)		129,679
6,320	624,541	88,485	613,961	11,533	72,499	786,478	395,068	(27,188)		367,880
28,602	114,337	9,139	81,143	3,372	7,626	101,280	55,016	9,083		64,099
58,392	1,498,430	249,330	1,302,280	48,348	98,906	1,698,864	974,687	(21,873)		952,814
39,070	437,134	74,101	356,697	12,913	9,209	452,920	271,977	18,454		290,431
14,246	1,128,823	186,873	1,011,434	37,831	136,102	1,372,240	741,770	(62,861)		678,909
2,182	389,917	41,223	366,995	15,246	38,276	461,740	247,611	(15,513)		232,098
1,599	131,701	14,379	123,033	5,141	16,047	158,600	89,166	(6,804)		82,362
66,241	9,696,588	1,789,501	8,426,157	392,666	315,894	10,924,218	6,318,352	(65,978)		6,252,374
3,329	249,903	20,422	323,975	7,066	22,249	373,712	147,673	9,948		157,621
1,872	243,635	25,814	228,810	9,512	12,624	276,760	155,622	(4,750)		150,872
1,096,703	18,179,385	2,439,037	17,245,926	317,133	472,724	20,474,820	11,102,427	(17,075)		11,085,352
1,023	14,982	1,431	13,222	546	3,016	18,215	8,329	(566)		7,763
1,604	27,455	2,651	24,488	1,012	285	28,436	15,425	558		15,983
171,783	508,664	57,610	348,999	9,779	10,006	426,394	223,351	(56,087)		167,264
106,924 21,218 5,958 44,244 35,221	1,146,429 633,865 65,233 1,176,213 655,080	147,395 113,455 7,053 221,572 109,935	1,032,800 548,797 55,954 1,006,803 558,946	19,252 19,756 2,365 35,580 20,596	9,568 22,739 29,969 57,512	1,199,447 691,576 88,111 1,293,924 746,989	647,469 404,589 46,204 762,853 421,842	40,771 2,410 (5,153) (23,135) (6,632)		688,240 406,999 41,051 739,718 415,210
160,383 7,779 31,686 497	10,717 2,204,186 126,056 264,553 216,719	1,099 386,831 12,129 25,382 22,454	10,151 1,882,179 112,040 220,286 204,763	420 63,612 4,631 9,186 8,477	661 93,790 3,979 2,103 148,999	12,331 2,426,412 132,779 256,957 384,693	6,394 1,383,547 70,574 155,658 132,145	(296) 29,022 1,832 12,491 (52,242)		6,098 1,412,569 72,406 168,149 79,903

(Employer's Collective Net Pension Liability for All Participating Retirement Systems)

## Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions
Salem City	N/A	\$ 1,214,787	3,217,547	(434,112)	16,666	245,147	442,647
Salina City	N/A	241,516	638,865	(85,198)	3,078	48,375	88,224
Salt Lake Arts Academy	N/A	953,667	2,117,888	(16,799)	139	156,998	244,855
Salt Lake City Corp	N/A	132,080,511	268,361,583	19,383,180	4,228,862	16,720,520	29,792,547
Salt Lake City Public Library	N/A	2,087,092	5,746,079	(947,895)	46,724	450,438	760,726
Salt Lake Co Serv Area 3	N/A	78,308	211,781	(32,669)	1,747	16,859	28,128
Salt Lake Community College	N/A	13,786,830	31,315,488	(848,938)	1,545	2,466,587	3,507,427
Salt Lake County	N/A	84,200,860	228,553,220	(34,894,614)	1,336,216	17,970,079	30,527,634
Salt Lake School District	N/A	91,574,092	205,882,386	(3,895,014)	7,468	16,030,765	23,247,500
San Juan County	N/A	2,825,133	7,528,236	(1,050,584)	41,994	575,405	1,030,183
San Juan Mental Health	N/A	355,360	971,253	(155,994)	7,944	76,617	128,752
San Juan School District	N/A	13,129,908	29,064,684	(165,338)	1,297	2,174,700	3,351,601
Sandy City	N/A	10,603,108	29,482,188	(4,989,375)	2,149,756	2,344,058	4,147,258
Sandy Suburban Imp Dist	N/A	507,521	1,376,433	(214,659)	11,327	109,307	182,719
Sanpete County	N/A	2,205,157	5,772,697	(716,009)	20,212	429,208	809,283
Santaquin City	N/A	1,092,820	2,873,196	(368,361)	12,042	215,880	399,751
Seven County Infrastructure	N/A	6,294	17,021	(2,626)	140	1,355	2,261
Sevier County	N/A	2,870,223	7,467,861	(889,583)	22,558	552,587	1,053,238
Sevier School District	N/A	14,128,976	31,185,814	(115,661)	749	2,355,884	3,586,021
Six-County Assoc of Govt	N/A	410,776	1,114,607	(174,160)	9,169	88,477	147,948
SIc Mosquito Abatement	N/A	202,762	565,985	(97,978)	4,553	43,844	74,748
Smithfield City Corp	N/A	809,567	2,168,075	(309,680)	12,260	165,320	296,106
Snow College	N/A	3,404,951	7,605,271	(103,662)	1,602	590,699	856,060
Snyder Basin Special Rec Dist	N/A	402,536	1,143,699	(209,761)	9,071	87,259	150,578
Snyderville Basin W R D	N/A	1,326,064	3,609,654	(570,954)	29,618	285,745	478,856
So Davis Metro Fire Agency	N/A	48,148	130,214	(20,086)	1,074	10,366	17,294
So Davis Recreation Center	N/A	210,892	579,074	(94,609)	4,719	45,498	76,700
So SI Valley Mosq Abate	N/A	93,590	260,694	(44,805)	2,100	20,231	34,442
So Utah Valley Animal Svcs SSD	N/A	39,267	110,752	(19,842)	884	8,503	14,600
So Utah Valley Power Systems	N/A	43,873	118,654	(18,303)	979	9,446	15,759
Soldier Hollow Charter School	N/A	508,453	1,136,613	(14,642)	103	83,821	131,396
Solid Waste SSD #1	N/A	64,417	190,643	(39,358)	1,464	14,046	24,925
Solitude Improvement Dist	N/A	—	—	—	—	—	—
South Davis Sewer Dist	N/A	928,173	3,035,442	(828,504)	17,908	332,115	289,273
South Davis Water Dist	N/A	164,960	446,129	(68,818)	3,680	35,515	59,253
South Ogden City South Ogden Conserv Dist South Sanpete School Dist South Summit School District South Valley Sewer District	N/A	2,138,387	5,558,736	(662,239)	18,398	414,064	782,022
	N/A	541,304	1,492,554	(247,563)	12,122	116,849	197,547
	N/A	10,316,340	22,701,452	(22,300)	689	1,695,078	2,624,925
	N/A	5,323,270	11,715,259	(12,443)	360	874,685	1,354,611
	N/A	1,317,746	3,627,878	(598,425)	29,500	284,396	480,298
South Valley Water Reclamation	N/A	1,217,679	3,341,788	(544,928)	27,243	262,685	442,673
South Weber City	N/A	207,178	574,949	(97,556)	4,645	44,763	76,010
Southeastern Utah AOG	N/A	326,635	895,196	(145,248)	7,306	70,451	118,612
Southeastern Utah Health	N/A	386,922	1,071,421	(180,413)	8,672	83,572	141,701
Southern Utah University	N/A	9,709,304	21,546,826	(159,937)	6,108	1,610,709	2,464,931
Southwest Applied Tech	N/A	1,243,156	2,761,508	(22,454)	184	204,667	319,265
Southwest Educ Development Ctr	N/A	325,649	728,926	(10,110)	70	53,699	84,264
Space Dynamics Lab / USU	N/A	2,250,321	4,941,839	2,819	111	369,594	571,432
Spanish Fork City	N/A	5,545,730	14,827,472	(2,099,283)	82,190	1,129,560	2,028,070
Spring City	N/A	80,541	220,574	(35,693)	1,801	17,369	29,230
Springville City	N/A	4,392,251	11,842,306	(1,756,646)	74,472	909,664	1,604,788
St George Housing Auth	N/A	68,047	185,744	(29,689)	1,521	14,668	24,628
State of Utah	N/A	781,361,557	1,712,250,161	6,288,200	4,100,944	127,299,406	192,677,677
Stockton Town	N/A	40,040	100,884	(9,273)	—	7,204	14,744
Success Academy	N/A	714,636	1,584,359	(10,533)	94	117,606	183,177
Summit Academy High School	N/A	778,903	1,759,800	(36,634)	231	128,696	203,407
Summit Academy Inc	N/A	3,502,864	7,944,833	(188,185)	1,158	579,245	918,258
Summit County	N/A	9,983,006	26,251,154	(3,366,589)	109,195	1,970,896	3,653,302
Sunset City	N/A	456,330	1,193,836	(148,384)	4,565	89,393	166,881
SW Behavioral Health Center	N/A	2,705,966	7,491,739	(1,260,734)	60,649	584,456	990,847

Deferred Outflo	ows of Resources				Deferred Inflo	ws of Resources	Pension Expense Excluding That Attributa ces to Employer-Paid Member Contribution			
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
89,583 1,824 78,069 423,811 45,420	794,043 141,501 480,061 51,165,740 1,303,308	116,260 24,132 58,505 2,946,973 137,532	640,368 126,333 398,901 43,346,617 1,189,843	24,049 4,689 7,596 1,064,167 49,636	8,749 36,741 — 1,305,176 54,653	789,426 191,895 465,002 48,662,933 1,431,664	466,076 94,134 268,628 35,838,071 845,513	38,851 (15,675) 28,481 (393,172) (5,006)	_ _ _ _ _	504,927 78,459 297,109 35,444,899 840,507
815 912,424 1,008,364 229,887 40,729	47,549 6,887,983 50,842,293 39,515,620 1,688,311	4,792 830,559 7,414,435 5,458,539 259,924	44,269 6,212,914 46,854,840 40,400,711 1,505,873	1,830 108,085 1,746,935 711,903 57,468	1,827 1,263,078 2,078,599 1,620,901 84,831	52,718 8,414,636 58,094,809 48,192,054 1,908,096	27,885 3,769,521 33,404,126 24,346,312 1,098,517	(264) (72,306) (928,098) (705,020) (73,340)	_ _ _ _ _	27,621 3,697,215 32,476,028 23,641,292 1,025,177
30,992 68,054 168,679 2,108 40,497	244,305 5,595,652 8,809,751 305,461 1,299,200	22,731 790,650 429,132 31,431 251,109	201,893 5,510,949 6,195,462 287,291 1,117,541	8,390 102,992 326,895 11,891 39,462	12,237 206,494 320,022 25,740 25,225	245,251 6,611,085 7,271,511 356,353 1,433,337	136,805 3,545,925 3,698,272 184,610 875,516	10,885 (116,162) (27,119) (9,507) 2,441	_ _ _ _	147,690 3,429,763 3,671,153 175,103 877,957
48,302 33,691 12,833 45,409 461	675,975 37,447 1,641,216 5,988,063 246,055	116,226 385 339,666 835,242 25,493	562,757 3,558 1,435,950 5,954,560 232,581	20,392 147 49,636 109,160 9,629	18,198 62,665 368,277 129,467 48,505	717,573 66,755 2,193,529 7,028,429 316,208	426,592 2,241 1,129,615 3,656,202 149,975	26,458 (1,871) (164,295) (33,182) (23,276)	_ _ _ _	453,050 370 965,320 3,623,020 126,699
7,487 19,797 100,608 233,912 78,689	130,632 493,483 1,548,969 480,820 872,908	14,110 74,550 196,904 29,948 83,406	116,353 433,379 1,487,479 232,960 751,944	4,889 16,636 25,629 9,877 31,183	11,768 54,663 131,270 2,236 11,809	147,120 579,228 1,841,282 275,021 878,342	89,948 323,609 874,772 198,778 495,721	(1,181) (25,385) 25,584 92,824 24,984	_ _ _ _	88,767 298,224 900,356 291,602 520,705
3,383 1,065 2,551 7,290 789	32,117 127,982 59,324 31,277 26,973	2,947 13,748 6,459 2,842 2,685	27,219 120,077 53,652 22,645 24,803	1,125 5,002 2,252 957 1,025	11,678 288 964 96	31,291 150,505 62,651 27,408 28,609	17,145 83,882 40,962 18,569 15,623	1,207 (4,525) 657 2,585 237		18,352 79,357 41,619 21,154 15,860
3,229 3,657	218,549 44,092	31,875 5,528	213,484 38,027	4,123 1,646	85,065 25,407	334,547 70,608	150,400 39,483	(43,328) (7,739)		107,072 31,744
28,573 1,526	667,869 99,974	50,143 10,095	816,284 93,256	18,833 3,854	15,064 381	900,324 107,586	336,892 58,741	65,190 792	_ 	402,082 59,533
62,989 3,818 21,037 260,326 47,546	1,277,473 330,336 4,341,729 2,489,982 841,740	245,060 35,889 613,749 316,809 86,827	1,075,490 308,817 4,292,462 2,215,059 751,234	37,519 12,892 80,132 41,360 31,338	27,066 71,481 114,189 38,097	1,385,135 429,079 5,100,532 2,611,325 869,399	820,764 221,569 2,704,575 1,396,752 533,764	13,599 (32,664) (64,220) 64,073 16,909	_ _ _ _	834,363 188,905 2,640,355 1,460,825 550,673
24,434 15,560 16,284 3,516 393,640	757,035 140,978 212,653 237,461 4,475,388	79,211 14,092 21,131 26,092 577,051	693,148 118,558 185,814 221,188 4,083,939	28,868 4,966 7,733 9,255 74,665	21,535 29,660 44,838 116,517 18,829	822,762 167,276 259,516 373,052 4,754,484	482,558 88,518 128,216 162,957 2,660,979	3,925 (2,745) (19,734) (50,926) 138,136	_ _ _ _	486,483 85,773 108,482 112,031 2,799,115
142,347 39,693 233,311 256,273 44,762	666,463 177,726 1,174,448 3,496,093 93,162	76,332 20,503 132,956 516,547 5,194	520,067 136,834 935,230 2,959,628 45,802	9,909 2,650 17,381 113,117 1,906		606,308 159,987 1,085,567 3,589,292 52,902	350,874 97,252 580,250 2,209,512 31,454	70,895 19,746 105,464 116,881 1,484		421,769 116,998 685,714 2,326,393 32,938
21,683 3,086 10,016,083 14,459 96,131	2,610,607 43,903 334,094,110 36,407 397,008	375,385 4,330 39,136,773 5,873 43,595	2,389,206 38,637 322,551,257 18,518 298,626	93,786 1,604 4,902,138 552 5,666	346,032 1,111 25,767,904 2,338	3,204,409 45,682 392,358,072 27,281 347,887	1,758,631 25,956 205,551,914 15,490 198,703	(199,102) 594 (6,035,280) 5,284 36,629	(1,476,874) ————————————————————————————————————	1,559,529 26,550 198,039,760 20,774 235,332
48,640 947,734 542,820 6,060 53,679	380,974 2,446,395 6,276,213 266,899 1,689,631	50,534 230,076 1,065,953 50,091 182,349	329,057 1,483,157 5,138,135 232,663 1,546,759	6,497 29,519 186,022 8,300 64,713	152,844 27,202 28,328	386,088 1,742,752 6,542,954 318,256 1,822,149	248,338 1,146,413 3,909,243 176,637 1,138,325	19,140 388,641 254,653 (15,054) 3,106		267,478 1,535,054 4,163,896 161,583 1,141,431

(Employer's Collective Net Pension Liability for All Participating Retirement Systems)

## Schedule of Employer Allocations and Pension Amounts (Continued)

Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions
Sw Mosquito Abatement/Control	N/A	\$ 57,899	164,802	(30,397)	1,305	12,554	21,691
SW Ut Public Health Dept	N/A	940,764	2,596,635	(432,259)	21,072	203,107	343,614
Syracuse City Corp	N/A	1,875,320	4,944,286	(640,372)	19,607	368,969	688,918
Taylor West Weber Wtr Imp Dist	N/A	69,449	192,680	(32,663)	1,557	15,005	25,474
Taylorsville-Bennion Imp	N/A	954,197	2,605,791	(417,217)	21,327	205,705	345,484
Timber Lakes Water SSD	N/A	91,573	255,504	(44,166)	2,055	19,800	33,747
Timpanogos SSD	N/A	931,156	2,564,559	(423,623)	20,848	200,973	339,500
Tintic School District	N/A	1,323,560	2,900,473	6,347	41	217,286	335,396
Tooele Applied Tech College	N/A	832,986	1,836,868	(4,743)	71	136,928	212,387
Tooele City	N/A	3,048,012	8,103,775	(1,104,860)	36,735	615,259	1,114,662
Tooele County	N/A	6,182,161	16,562,745	(2,353,462)	81,628	1,266,336	2,260,108
Tooele County Housing	N/A	117,608	331,963	(59,623)	2,646	25,470	43,756
Tooele School District	N/A	35,868,174	79,218,081	(302,468)	3,332	5,909,168	9,152,644
Tooele Valley Mosquito Abtmnt	N/A	9,964	26,948	(4,157)	222	2,145	3,579
Toquerville City	N/A	39,736	118,955	(25,308)	905	8,679	15,523
Torrey Town	N/A	7,931	24,270	(5,453)	182	1,738	3,156
Town of Alta	N/A	204,532	556,466	(87,846)	4,568	44,071	73,828
Town of Apple Valley	N/A	30,592	87,177	(16,136)	689	6,634	11,472
Town of Brian Head	N/A	495,875	1,294,929	(159,300)	4,885	97,005	181,180
Town of Daniel	N/A	15,743	42,576	(6,568)	351	3,389	5,655
Town of Garden City Town of Goshen Town of Levan Town of Manila Town of Mantua	N/A N/A N/A N/A	98,602 12,586 61,722 36,362 78,005	278,666 39,834 166,926 200,177 205,662	(50,253) (9,654) (25,749) (100,423) (27,081)	2,220 291 1,377 295 22,820	21,358 2,772 13,288 32,554 14,553	36,723 5,151 22,170 5,245 32,408
Town of Paragonah Town of Randolph Town of Springdale Trans-Jordan Cities Tremonton City	N/A N/A N/A N/A	15,870 24,276 703,867 697,567 911,347	108,229 65,655 1,844,476 1,921,668 2,418,968	(61,511) (10,128) (230,259) (317,696) (330,050)	5 542 6,594 15,619 12,746	19,922 5,227 137,231 150,562 184,322	170 8,720 258,337 254,383 332,326
Tridell-Lapoint Water Tuacahn High School Uintah Animal Control/Shelter Uintah Basin Applied Tech Ctr Uintah Basin Assn of Govt	N/A N/A N/A N/A	20,583 880,569 109,971 2,216,039 430,714	65,112 1,961,629 300,513 4,952,634 1,215,605	(15,763) (20,148) (48,233) (62,918) (218,247)	475 152 2,458 445 9,692	4,534 145,059 23,709 365,305 93,280	8,420 226,781 39,838 572,539 160,231
Uintah Basin Asst Council	N/A	14,024	41,590	(8,634)	319	3,059	5,436
Uintah Co Care Center SSD	N/A	1,021,982	2,829,106	(475,882)	22,905	220,732	374,182
Uintah County	N/A	5,957,195	15,913,728	(2,229,705)	81,047	1,202,266	2,186,603
Uintah Fire Suppression SSD	N/A	13,509	36,534	(5,636)	301	2,908	4,852
Uintah Highlands Improv Dist	N/A	34,792	98,125	(17,577)	783	7,534	12,936
Uintah Mosquito Abate District Uintah Recreation District Uintah School District Uintah Transportation SSD Uintah Water Consery Dist	N/A N/A N/A N/A	80,414 469,834 18,787,869 83,382 226,457	217,476 1,294,370 42,198,743 242,338 612,445	(33,547) (214,027) (742,848) (47,575) (94,474)	1,794 10,520 2,447 1,888 5,051	17,312 101,409 3,225,558 18,134 48,755	28,884 171,342 4,802,645 31,782 81,342
Unified Fire Authority Unified Police Department University of Utah University of Utah Hospital Upper Country Water Dist	N/A N/A N/A N/A	1,394,262 19,678,759 81,296,374 31,656,128 50,586	3,780,750 51,186,143 187,096,967 76,513,948 136,807	(582,222) (6,075,643) (7,013,424) (5,963,112) (21,103)	27,681 9,081,901 53,472 13 1,128	295,070 3,319,368 15,044,382 6,991,012 10,891	506,456 8,883,234 20,522,062 7,823,590 18,170
Ut Municipal Power Agency	N/A	659,370	1,794,244	(283,432)	14,726	142,077	238,039
Ut Public Employees Assn	N/A	97,975	271,467	(45,810)	2,196	21,164	35,899
UT School Board Risk Mgmt	N/A	665,465	1,463,205	(543)	40	109,324	169,189
Utah Assn of Counties	N/A	256,785	695,202	(107,684)	5,729	55,292	92,316
Utah Co Academy of Sciences	N/A	825,145	1,828,367	(11,406)	104	135,776	211,390
Utah Co Housing Authority	N/A	442,531	1,363,114	(321,314)	9,250	128,084	152,243
Utah Communications Authority	N/A	1,716,554	3,757,626	11,329	38	281,740	434,519
Utah Counties Indemnity Pool	N/A	170,270	463,119	(73,031)	3,803	36,687	61,446
Utah County	N/A	23,585,227	64,054,522	(9,783,716)	5,442,765	4,795,470	9,480,559
Utah Dairy Council	N/A	386,846	849,829	262	20	63,540	98,267

Deferred Outflov	vs of Resources				Deferred Inflo	vs of Resources	urces to Employer-Paid Member Contributi			
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
6,988 6,614 150,831 9,643 31,330	42,538 574,407 1,228,325 51,679 603,846	4,336 62,627 205,849 4,718 60,827	33,537 536,969 962,905 39,738 541,900	1,424 22,429 34,719 1,664 22,510	64,421 19,186 —	39,297 686,446 1,222,659 46,120 625,237	28,892 387,733 756,568 29,620 365,156	2,703 (31,061) 57,046 3,542 10,672	_ _ _ _	31,595 356,672 813,614 33,162 375,828
3,765 30,709 43,455 77,417 19,911	59,367 592,030 596,178 426,803 1,786,567	6,361 61,451 77,637 49,910 314,472	52,538 530,941 549,403 347,010 1,604,633	2,207 22,154 10,163 6,508 58,392	1,228 13,763 — — 128,499	62,334 628,309 637,203 403,428 2,105,996	40,512 378,178 335,362 222,095 1,218,728	920 (93,701) 24,299 37,466 (90,571)		41,432 284,477 359,661 259,561 1,128,157
176,164 4,571 427,930 879 33,166	3,784,236 76,443 15,493,074 6,825 58,273	613,847 8,539 2,155,622 610 3,540	3,306,250 67,849 14,977,739 5,633 23,590	121,728 2,867 280,915 233 1,027	99,667 156 958,838 4,676	4,141,492 79,411 18,373,114 11,152 28,157	2,502,981 55,873 9,634,644 3,548 25,720	29,264 1,100 (405,115) (2,528) 10,774		2,532,245 56,973 9,229,529 1,020 36,494
1,779 8,281 14,563 112,107 10,066	6,855 130,748 33,358 395,177 19,461	757 12,837 2,300 54,539 963	4,760 115,952 17,730 252,319 8,900	209 4,807 753 8,972 368	933 7,537 — 2,265	6,659 141,133 20,783 318,095 10,231	5,665 76,171 15,364 190,271 5,606	27 1,017 7,029 50,458 3,999	= = = =	5,692 77,188 22,393 240,729 9,605
11,430 2,801 2,384 9,386 18,540	71,731 11,015 39,219 47,480 88,321	7,192 1,329 3,777 1,353 2,243	56,919 7,683 34,893 75,336 39,685	2,407 344 1,442 350 2,731	9,284 4,042 44 — 2,580	75,802 13,398 40,156 77,039 47,239	47,196 10,317 21,979 17,998 24,063	(2,196) (1,142) 1,403 11,802 3,603		45,000 9,175 23,382 29,800 27,666
189 369 172,591 77,613 24,061	20,286 14,858 574,753 498,177 553,455	118 1,486 79,681 46,079 86,617	45,331 13,724 357,428 397,794 481,815	13 567 12,663 16,600 18,172	320 3,105 48,204 9,649	45,462 16,097 452,877 508,677 596,253	6,215 8,645 279,983 283,763 352,513	13,885 25 86,311 16,698 5,802		20,100 8,670 366,294 300,461 358,315
1,627 33,607 356 13,288 6,359	15,056 405,599 66,361 951,577 269,562	2,171 54,578 7,029 138,816 31,257	12,562 368,984 62,473 930,320 248,469	562 7,073 2,596 17,957 10,499	266 47,548 27,943 149,645 42,751	15,561 478,183 100,041 1,236,738 332,976	16,840 253,894 42,281 654,372 204,479	316 2,813 (10,918) (85,352) (16,645)		17,156 256,707 31,363 569,020 187,834
1,307 22,485 1,958,749 — 7,326	10,121 640,304 5,428,665 8,061 28,579	1,212 68,835 587,435 827 2,518	8,288 584,141 3,150,064 7,637 20,064	359 24,438 118,766 316 848	13,186 119,188 450,952 3,728	23,045 796,602 4,307,217 12,508 23,430	8,683 429,563 2,430,682 4,810 16,448	(4,142) (34,021) 725,349 (1,576) 2,411		4,541 395,542 3,156,031 3,234 18,859
1,540 3,106 69,947 39,335 7,904	49,530 286,377 8,100,597 91,139 143,052	4,921 31,042 1,142,833 6,727 13,859	45,460 267,933 8,159,391 48,789 128,021	1,879 11,181 148,538 2,093 5,291	2,938 47,155 866,146 21,401 11,729	55,198 357,311 10,316,908 79,010 158,900	28,635 191,188 5,220,615 46,642 80,640	(828) (18,084) (401,486) 4,418 591		27,807 173,104 4,819,129 51,060 81,231
101,895 396,250 800,827 528 540	931,102 21,680,753 36,420,743 14,815,143 30,729	102,433 180,081 4,822,658 1,795,063 3,096	775,957 9,329,293 37,814,432 17,265,734 28,597	31,413 833,594 623,228 235,525 1,182	8,912 196,728 10,024,986 1,780,302 788	918,715 10,539,696 53,285,304 21,076,624 33,663	540,468 5,623,930 22,575,351 7,789,569 18,013	39,349 32,604 (4,061,930) (659,434) (88)	_ _ _ _	579,817 5,656,534 18,513,421 7,130,135 17,925
1,227 1,974 97,307 34,929 32,546	396,069 61,233 375,860 188,266 379,816	41,413 6,623 39,483 15,786 50,245	373,836 56,025 276,762 145,239 344,697	15,500 2,345 5,158 6,006 6,532	27,228 10,496 24,508 79,945 —	457,977 75,489 345,911 246,976 401,474	245,872 41,430 173,331 92,180 228,475	(10,472) (5,241) 26,244 (8,546) 16,269		235,400 36,189 199,575 83,634 244,744
5,218 487,695 1,837 409,666 9,511	294,795 1,203,992 103,773 20,128,460 171,338	29,085 100,318 10,673 896,268 22,883	325,281 712,093 96,516 12,876,738 160,805	9,963 13,141 4,000 763,073 2,991	21,530 — 10,199 745,091 16,233	385,859 825,552 121,388 15,281,170 202,912	197,061 431,026 63,280 8,121,297 100,030	4,584 222,816 (3,117) (131,432) (3,456)		201,645 653,842 60,163 7,989,865 96,574

(Employer's Collective Net Pension Liability for All Participating Retirement Systems)

## Schedule of Employer Allocations and Pension Amounts (Concluded)

at December 31, 2017

at December 51, 2017						Net Difference Between Projected		
Participating Employer	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95% Discount)	Net Pension Liability/(Asset) 1.00% Decrease (5.95%)	Net Pension Liability/(Asset) 1.00% Increase (7.95%)	Differences Between Expected and Actual Experience	and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	
Utah Education Association Utah Housing Corporation Utah Lake Commission Utah League Cities/Towns Utah Local Governments Trust	N/A N/A N/A N/A	\$ 1,110,683 4,063,098 6,286 150,505 617,975	2,446,565 10,759,864 19,776 1,022,449 1,696,857	(4,286) (1,553,378) (4,731) (580,608) (277,230)	84 574 144 15 13,828	182,535 1,092,385 1,384 189,678 133,323	282,887 1,002,676 2,560 542 224,755	
Utah Retirement Systems	N/A	21,074,210	46,491,462	(134,812)	1,864	3,464,527	5,375,525	~~~~
Utah Safety Council	N/A	302,395	679,055	(11,052)	73	49,899	78,496	
Utah School Boards Association	N/A	573,841	1,270,151	(6,885)	67	94,403	146,853	
Utah School Employees Assn	N/A	270,047	594,231	(572)	18	44,372	68,710	
Utah State Fair Corp	N/A	396,661	874,658	(2,225)	33	65,203	101,132	
Utah State University	N/A	33,104,112	74,216,629	(1,223,693)	11,317	5,749,875	8,372,595	
Utah Valley Dispatch SSD	N/A	692,109	1,912,796	(319,892)	15,507	149,451	253,064	
Utah Valley University	N/A	18,551,187	42,625,748	(1,563,817)	1,869	3,450,027	4,700,919	
Utah Zoological Society	N/A	2,036,832	5,665,323	(968,848)	45,696	440,215	748,674	
UTOPIA	N/A	1,043,452	2,932,971	(519,639)	23,461	225,851	386,876	
Valley Emergency Comm Ctr	N/A	1,836,904	5,149,269	(904,166)	41,277	397,439	679,542	
Vernal City	N/A	2,097,116	5,766,239	(919,614)	21,253	481,244	743,264	
Vineyard Town	N/A	318,786	908,005	(167,836)	7,187	69,129	119,495	
Wasatch County	N/A	5,674,634	15,121,360	(2,092,004)	75,476	1,142,310	2,081,009	
Wasatch County Fire District	N/A	37,904	102,510	(15,813)	845	8,160	13,615	
Wasatch Front Regional Council	N/A	817,034	2,247,773	(369,823)	18,288	176,315	297,623	
Wasatch Front Waste/Recycling	N/A	1,339,198	3,740,642	(648,970)	30,070	289,608	493,958	
Wasatch Integrated Waste Mgmt	N/A	1,099,823	3,029,714	(500,826)	24,625	237,383	401,064	
Wasatch Mental Health SSD	N/A	6,207,092	17,041,532	(2,782,965)	138,882	1,339,103	2,257,258	
Wasatch School District	N/A	20,567,965	45,476,777	(209,518)	2,218	3,382,894	5,258,037	
Wasatch Uniserv Washington City Washington Co Solid Waste Washington Co Wat Con Dist Washington County	N/A N/A N/A N/A N/A	70,079 2,718,628 256,920 852,133 10,375,077	153,013 7,318,033 707,405 2,340,213 27,202,248	764 (1,080,222) (116,734) (382,579) (3,416,615)	47,029 5,752 19,067 102,868	11,496 564,364 55,450 183,844 2,031,532	17,695 990,744 93,652 309,959 3,801,985	
Washington School District	N/A	78,411,183	173,639,544	(1,055,967)	7,234	13,033,136	19,996,188	
Waste Management Serv Dist #5	N/A	66,598	180,113	(27,784)	1,486	14,338	23,922	
Wayne County	N/A	444,289	1,183,297	(163,448)	5,968	89,520	162,784	
Wayne School District	N/A	1,743,815	3,844,947	(9,587)	146	286,645	444,571	
Weber Area Dispatch 911	N/A	1,293,508	3,575,497	(598,319)	28,982	279,320	473,024	
Weber Basin Water Conserv	N/A	2,411,282	6,578,076	(1,049,129)	53,882	519,748	872,304	
Weber Co Mosquito Abate	N/A	226,365	612,198	(94,435)	5,049	48,735	81,309	
Weber County Corp	N/A	22,807,433	60,032,300	(7,672,094)	209,705	4,491,206	8,366,823	
Weber County School District	N/A	92,282,587	203,087,180	(211,887)	6,227	15,163,203	23,482,548	
Weber Fire District	N/A	56,630	163,331	(31,357)	1,280	12,303	21,448	
Weber Human Services	N/A	4,554,275	12,597,493	(2,113,160)	102,057	983,545	1,666,397	
Weber River Water Users	N/A	25,321	171,681	(97,448)	—	31,976	—	
Weber State University	N/A	13,279,806	30,795,242	(1,366,603)	1,042	2,555,489	3,348,279	
Wellington City	N/A	100,395	266,573	(35,432)	916	19,566	37,266	
Wellsville City Corp	N/A	160,374	440,151	(71,785)	3,589	34,597	58,304	
West Bountiful City West Kane County SSD #1 West Point City West Valley City White City Water Imp Dist	N/A N/A N/A N/A N/A	633,513 84,968 329,317 14,070,313 199,367	1,671,595 233,634 919,358 38,040,201 543,475	(216,905) (38,365) (159,214) (5,673,463) (86,436)	6,412 1,902 7,394 3,686,231 4,455	124,333 18,335 71,211 2,807,785 42,968	233,156 30,938 121,415 5,745,040 72,078	~~~~
Willard City Corp	N/A	229,574	602,539	(76,443)	2,457	45,232	83,957	
Woodland Peaks Uniserv	N/A	109,132	238,281	1,189	—	17,902	27,555	
Woods Cross City	N/A	827,643	2,337,584	(418,373)	221,217	192,771	328,356	
Workers Compensation Fund	N/A	23,961,447	54,745,495	(1,753,327)	2,447	4,378,497	6,080,191	
Grand Total	N/A	\$ 3,450,152,586	7,922,031,530	(268,300,336)	45,130,606	599,628,162	933,979,501	
No Proportionate Share for 2017 Sunnyside City Valley Mental Health Summit Mosquito Abatement Dist Leeds Area Special Service District Canyonlands Health Care	N/A N/A N/A N/A	\$   	=======================================	= =	=	=	=======================================	
Grand Total	N/A	\$ 3,450,152,586	7,922,031,530	(268,300,336)	45,130,606	599,628,162	933,979,501	

 ${\it Columns \ may \ not \ add \ to \ total \ due \ to \ rounding.}$ 

D	eferred Outflo	ows of Resources	Deferred Inflows of Resour					esources to Employer-Paid Member Contributions			
	Chanana in					Chanasain		I	Net Amortization of Deferred Amounts from		
C Pr	Changes in portion and Differences Between Employer ontributions and roportionate Share of ontributions	Total Deferred Outflows of Resources	Differences Between Expecided and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
	2,829 148,035 2,164	468,335 2,243,670 6,252	66,304 239,652 653	462,405 2,677,246 3,826	8,652 31,113 171	52,777 — 14,394	590,138 2,948,011 19,044	293,563 1,142,076 5,033	(22,376) 231,543 (7,641)	_	271,187 1,373,619 (2,608)
	561 13,567	190,796 385,473	377 40,286	431,029 351,861	41 14,658	157 32,815	431,604 439,620	51,676 245,797	(43,281) (13,741)	=	8,395 232,056
	1,373,030 43,191 143,324 635 20,539	10,214,946 171,659 384,647 113,735 186,907	1,264,480 19,239 34,817 16,065 23,763	8,781,324 127,299 239,568 112,360 165,239	164,837 2,481 4,530 2,098 3,099	77,045 21,283 12,147 56,103 4,873	10,287,686 170,302 291,062 186,626 196,974	5,637,623 92,409 157,568 70,781 105,717	472,180 15,463 46,757 (30,846) 6,578	_ _ _ _ _	6,109,803 107,872 204,325 39,935 112,295
	307,413 4,902 506,217 49,754 76,173	14,441,200 422,924 8,659,032 1,284,339 712,361	1,951,114 46,313 1,109,797 139,781 74,569	14,497,476 395,285 8,658,705 1,166,839 600,769	253,820 16,523 144,537 48,935 25,333	1,750,160 49,471 1,076,423 4,454 38,996	18,452,570 507,592 10,989,462 1,360,009 739,667	8,765,777 287,749 5,021,030 883,170 483,328	(435,352) (22,895) (273,128) 14,005 1,121		8,330,425 264,854 4,747,902 897,175 484,449
~~~~	23,748 9,178 162,377 128,419 5,956	1,142,006 1,254,939 358,188 3,427,214 28,576	129,924 219,902 23,935 563,762 2,320	1,056,231 1,226,122 184,713 2,990,562 21,428	44,476 37,385 7,842 112,206 886	155,470 173,637 — 29,584 308	1,386,101 1,657,046 216,490 3,696,114 24,942	836,793 809,281 159,697 2,293,990 13,497	(62,757) (52,903) 61,477 53,515 2,048		774,036 756,378 221,174 2,347,505 15,545
~~~~	30,452 22,604 6,489 304,232 858,603	522,678 836,240 669,561 4,039,475 9,501,752	53,681 93,424 72,642 404,439 1,243,460	465,626 768,729 627,174 3,533,977 8,581,458	19,417 32,309 26,171 147,210 161,873	27,882 386,384 62,113 58,570	538,724 922,344 1,112,371 4,147,739 10,045,361	329,337 596,529 447,304 2,466,727 5,600,629	13,173 (10,409) (138,872) 78,969 326,617		342,510 586,120 308,432 2,545,696 5,927,246
	21,683 151,426 2,980 442,922 51,799	50,874 1,753,563 157,834 955,792 5,988,184	4,059 226,722 16,936 55,590 1,149,339	29,029 1,481,330 146,475 485,225 5,291,734	533 58,296 6,110 20,216 188,832	449 54,670 12,043 — 564,341	34,070 1,821,018 181,564 561,031 7,194,246	17,217 1,067,152 104,147 339,335 4,085,725	7,309 23,133 (3,628) 182,230 (199,615)		24,526 1,090,285 100,519 521,565 3,886,110
~~~~	1,557,478 1,833 22,804 8,210 35,279	34,594,036 41,579 281,076 739,572 816,605	4,708,722 4,076 43,799 104,443 86,615	33,007,741 37,650 234,313 726,400 738,823	613,653 1,556 8,801 13,619 30,885	39 33,547 174,445 37,867	38,330,116 43,321 320,460 1,018,907 894,190	21,050,503 23,715 178,397 464,513 538,393	615,864 671 (5,081) (68,627) 1,604		21,666,367 24,386 173,316 395,886 539,997
	130,849 2,233 1,720,066 860,280 39,778	1,576,783 137,326 14,787,800 39,512,258 74,809	153,052 13,853 2,600,881 5,491,649 4,448	1,368,725 127,969 11,683,818 38,399,051 33,012	56,825 5,289 408,799 716,965 1,411	33,484 821,937 625,454 103	1,578,602 180,595 15,515,435 45,233,119 38,974	915,880 80,607 9,178,842 24,208,862 30,412	56,122 (12,186) 237,232 (54,892) (2,680)		972,002 68,421 9,416,074 24,153,970 27,732
	140,303 — 158,742 1,924 12,929	2,892,302 31,976 6,063,552 59,672 109,419	305,794 — 785,612 11,841 10,434	2,602,147 72,613 6,390,961 51,209 91,293	108,816 — 102,479 1,825 3,802	62,404 — 523,488 16,658 340	3,079,161 72,613 7,802,540 81,533 105,869	1,904,302 8,072 3,521,635 43,741 63,575	24,836 14,042 (36,958) (9,207) 4,213	= = = =	1,929,138 22,114 3,484,677 34,534 67,788
	158,508 4,779 3,748 89,104 5,206	522,409 55,954 203,768 12,328,160 124,707	70,672 5,571 22,926 478,506 12,615	324,592 48,411 188,987 7,573,049 113,128	11,662 2,018 7,941 473,957 4,695	7,071 845 13,955 597,210 1,364	413,997 56,845 233,809 9,122,722 131,802	259,035 34,125 146,196 4,728,041 75,318	73,068 1,158 (4,665) (302,933) 1,216		332,103 35,283 141,531 4,425,108 76,534
	26,080 1,499 24,332 1,009,103	157,726 46,956 766,676 11,470,238	24,647 6,322 25,065 1,435,907	117,845 45,205 505,633 11,005,094	4,249 829 27,390 186,992	5,843 1 17,886 —	152,584 52,357 575,974 12,627,993	89,261 26,811 267,546 6,493,002	8,108 950 21,849 511,615		97,369 27,761 289,395 7,004,617
	75,043,507 — 6,944	1,653,781,776	206,565,057	1,528,482,770	34,717,344	82,313,256 1,498	1,852,078,427	994,891,986	(6,246,803) (928)	(1,476,874)	987,168,309 (928)
	U,344 ———————————————————————————————————	6,944	_ _ _	_ _ _		4,000,018 13,769 — 31,377	4,000,018 13,769 — 31,377	_ _ _	(2,068,641) (6,438) — (19,172)	_ _ _	(2,068,641) (6,438) — (19,172)
	75,050,451	1,653,788,720	206,565,057	1,528,482,770	34,717,344	86,359,917	1,856,125,088	994,891,986	(8,341,981)	(1,476,874)	985,073,131

SYSTEMS AND PLANS STATISTICAL HIGHLIGHTS

Year Ended December 31, 2017

Defined Benefit Sy	ystems					Governors	Tier 2	Tier 2 Public	Tier 2 Defined	Averages			
	Noncontributory	Contributory	Public Safety	Firefighters	Judges	and Legislators	Public Employees	Safety and Firefighter					
Membership Information													
Total Membership	160,768	5,957	16,166	3,460	273	400	28,353	2,774	6,065	224,216			
Active	59,578	621	5,704	1,602	114	52	27,152	2,699	5,662	103,184			
Terminated vested	47,292	1,294	4,824	435	11	95	1,175	75	403	55,604			
Retired	53,898	4,042	5,638	1,423	148	253	26	_	_	65,428			
Total 2017 Active Membe	rs 59,578	621	5,704	1,602	114	52	27,152	2,699	5,662	103,184			
Average age	49.7	57.7	43.3	43.5	55.4	57.1	36.5	30.5	37.1	44.6			
Average years of service	16.1	29.8	15.8	15.7	15.8	12.2	2.6	2.7	3.3	11.5			
Average annual salary	\$ 54,845	62,264	59,841	69,242	162,345	N/A	39,229	41,946	45,078	50,504			
2017 Retirees													
Number	3,340	123	266	62	10	11	17	_	N/A	3,829			
Average age	64.1	62.9	52.8	51.9	63.7	65.6	67.5	_	N/A	63.1			
Average years of service Final average	21.7	29.5	21.8	23.6	27.4	10.8	4.7	_	N/A	21.9			
annual salary	\$ 50,983	56,336	60,163	76,882	155,269	N/A	32,516	_	N/A	52,413			
Average annual benefit	22,223	33,141	31,749	41,010	115,756	3,973	2,116	_	N/A	23,650			
Average annual benefit —all retirees	\$ 22,576	19,831	29,504	37,191	87,512	3,883	1,932	_	N/A	23,375			
Changes in Fiduciary Net F	Position Rest (in thousand		Pensions							· · · · · · · · · · · · · · · · · · ·			
Contributions	\$ 871,540	10,621	146,607	26,398	9,040	404	79,175	11,126	N/A	1,154,911			
Investment income	2,987,282		421,917	-	23,435	1,353	33,249	3,989	N/A	3,773,910			
Pension benefits	1,248,037	84,761	172,870	54,793	13,621	973	417	61	N/A	1,575,533			
Plan fiduciary net position	\$ 25,205,127	1,283,466	3,576,517	1,234,407	198,483	11,220	329,218	40,180	N/A	31,878,618			
Actuarial Information (G	ASB 67)												
Employers' Net Pension L	iability/(Ass	et) (dolla	rs in thou	sands)									
Total pension liability Plan fiduciary net	\$ 28,088,619	1,298,183	4,085,203	1,205,727	231,069	13,074	338,035	39,023	N/A	35,298,933			
position (market value) Employers net pension	25,205,127	1,283,466	3,576,517	1,234,407	198,483	11,220	329,218	40,180	N/A	31,878,618			
liability/(asset) Percentage of the total	2,883,492	14,717	508,686	(28,680)	32,586	1,854	8,817	(1,157)	N/A	3,420,315			
pension liability	89.7%	98.9%	87.5%	102.4%	85.9%	85.8%	97.4%	103.0%	N/A	90.3%			
Actuarial Information (F Funding Progress	unding) (dollars in	thousand	s)										
Actuarial value of assets	\$ 24,412,985	1,245,414	3,462,919	1,195,358	192,037	10,855	318,754	38,871	N/A	30,877,194			
Actuarial accrued liability Unfunded actuarial	\$ 28,088,619				231,069	13,074	338,035	39,023	N/A	35,298,933			
accrued liability	\$ 3,675,634	52,769	622,284	10,369	39,032	2,219	19,281	152	N/A	4,421,739			
Funded ratios	86.9%	95.9%	84.8%	99.1%	83.1%	83.0%	94.3%	99.6%	N/A	87.5%			

SYSTEMS AND PLANS STATISTICAL HIGHLIGHTS (Concluded)

Year Ended December 31, 2017

Defined Contribution Plans

		401(k)	457	Roth IRA	Traditional IRA	
Membership Information						
Number of Active Employees Eligible to Participate		106,137	102,180	224,216	224,216	
Employee contributions (excluding employer contributions):		• • • • • • • • • • • • • • • • • • • •				••••••••••••
Number of employees contributing		39,423	8,403	7,507	548	
Percent of eligible employees contributing		37.1%	8.2%	3.3%	0.2%	
Average percent of salary deferred by employees		5.6%	6.1%	3.7%	2.5%	
Total participants		171,966	17,903	10,383	2,042	
Average participant account balance	\$	29,092	31,804	11,490	50,151	
Financial Information						
Changes in Fiduciary Net Position						
(in thousands)						Total
Contributions	\$	295,804	31.475	19.669	20,593	367,541
Net investment income		630,516	72,210	15,389	9,465	727,580
Refunds		254,672	27,827	4,752	9,035	296,286
Plan net position	\$ 5	,002,908	569,390	119,297	102,409	5,794,004

Back cover: (left to right, top to bottom) Judge Diana Hagen, Utah Court of Appeals Alexia Martinez, Digital Media Specialist, Ogden City Aubrey Freiberg, Firefighter, Lehi City Fire Department Eric Holmes, Public Information Officer, Unified Fire Authority

Representative Sue Duckworth, Utah House of Representatives, District 22 Shawn Bias, Sergeant, West Valley City Police Department Michael Fazio, City Engineer, Bluffdale City Logan Sattelmair, Police Officer, Ogden City Police Department Greta Ericsson, Teacher, DDI Vantage



