





A Component Unit of the State of Utah

2020 Annual Comprehensive Financial Report

For the Year Ended December 31, 2020

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
Tier 2 Public Safety and Firefighter Contributory Retirement System

401(k) and 457(b) 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 D. Dolphin, Chief Financial Officer

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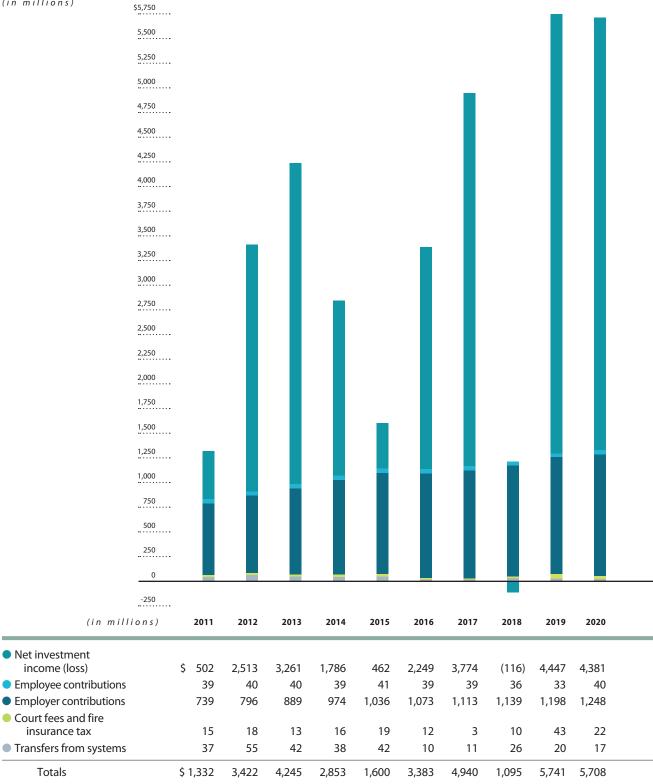
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Letter of Transmittal

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 30, 2021

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

Dear Board Members:

We are pleased to present the 2020 Annual Comprehensive Financial Report of the Utah Retirement Systems (Systems), including the 401(k), 457(b), 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 2020.

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(b), 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(b), Roth and Traditional IRAs were established by legislation and authorized as indicated in the notes to the basic financial statements on page 56. The Summaries of Plan Provisions are presented on pages 188 through 203. 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.

Letter of Transmittal (Continued)

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.

Investments

The economic condition of the Systems is based primarily upon investment earnings. For 2020, the Systems experienced a 12.96% 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 154 of this report.

The investment portfolio mix at fair value as of the end of 2020 was 13.5% debt securities, 39.9% equities, 11.5% private equity, 13.3% real assets, 6.7% short-term, and 15.1% 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 \$47.0 billion in both the Defined Benefit and Defined Contribution investments at fair value as of December 31, 2020, 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

Letter of Transmittal (Concluded)

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 Eide Bailly LLP. The auditor's 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 Annual Comprehensive Financial Report for the fiscal year ended December 31, 2019. 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 annual comprehensive 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 36 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 2020 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 ensure the successful operation and financial soundness of the Utah Retirement Systems.

Sincerely yours,

Robert D. Dolphin Chief Financial Officer

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 30, 2021

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

Dear Members of the Retirement Systems:

We sometimes describe the URS pension fund as being "Built for All Seasons." This means it's carefully designed and managed to thrive and preserve gains in all financial market cycles and economic environments.

Thinking back on March 2020 in Utah, the days were getting longer, the trees were blossoming, and the snow was melting away along the Wasatch Mountains. But, in terms of the financial seasons, we all felt the cold descent of the darkest of economic winters.

The World Health Organization declared the COVID-19 outbreak a global pandemic on March 11, and in a matter of days, life changed for us all. Events were canceled, schools were closed, and worldwide financial markets plummeted. In a dizzying 30 days in February and March, world stock indexes shed one-third of their value. The S&P 500 Index hit a low of 2,237 on March 23, down 34% from its February 19 peak.

Some pundits were predicting a new great depression in the United States. Economic confidence was as scarce as toilet paper rolls and hand sanitizer.

During a seemingly endless summer of stock market gains leading up to the pandemic, it felt to many like market indexes were on an inexorable upward march. Then something like March 2020 comes along as a cold reminder of how quickly seasons can change.

URS didn't need to be reminded. We invest our pension fund in a careful, diverse way to maximize long-term returns throughout market cycles, with an emphasis on downside protection. We're prepared for all seasons. Rather than chasing fads and high-flying, short-term gains, we invest across diverse classes of assets to achieve our assumed rate of return (6.95%) with optimal risk. We achieve this strategy by investing in a diverse range of investments, including stocks, bonds, real assets, and private equity. It's all part of a design to achieve needed investment returns while managing risk with investments minimally correlated with one another.

Remarkably, in a year of such turmoil, the URS pension fund returned 13% in 2020. If you stepped outside without a coat on December 31, it certainly still felt like winter. But around the United States, the vaccine rollout was heating up, and stock indexes had largely returned to or exceeded pre-pandemic highs. Financial markets were signaling brighter days ahead. URS was working towards re-opening its offices, which had been closed to visitors since March 16, 2020. It appeared we had weathered the worst of the pandemic, perhaps a little wiser, and as committed as ever to providing retirement security to Utah public employees.

Sincerely,

David C. Damschen

President, Utah State Retirement Board

Retirement Board

As of December 31, 2020



Pictured Left to Right

Ryan G. Hessenthaler Appointed August 19, 2015

Term Expires July 1, 2023
Represents Investment Community

Vice President

Larry W. Evans

Appointed August 21, 2019 Term Expires July 1, 2024 Represents Public Employees

Laura O. Houston

Appointed July 2, 2014 Term Expires July 1, 2022 Represents Investment Community

Roger G. Donohoe

Appointed December 17, 2014 Term Expires July 1, 2024 Represents Education Employees

Richard K Ellis

Appointed February 13, 2020 Term Expires July 1, 2024 Represents Investment Community

President

David C. Damschen

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

William W. Wallace

Appointed September 18, 2013 Term Expires July 1, 2021 Represents Investment Community

Executive Director



Daniel D. Andersen

Membership Council

Executive Committee Members:

Chairperson	
Mr. Marty Peterson	Represents Professional Firefighters of Utah
Vice Chairperson Ms. Sheri Nelson	Represents Utah Public Employees' Association
Ms. Amy Ehresman	Represents Utah School Employees' Association
Mr. Larry Millward	Represents Utah Retired School Employees' Association
Mr. Zane Woolstenhulme	Represents Utah Association of School Business Officials

Council Members:

Mr. Brandon Baca	.Represents Utah Education Association
Mr. LeGrand Bitter	.Represents Utah Association of Special Service Districts
Mr. Jamie Davidson	.Represents Utah League of Cities and Towns
Ms. Taylee Foulger	.Represents Utah Public Employees' Association
Ms. Marilyn Gillette	.Represents Utah Association of Counties
Senior Trooper Arlow Hancock	.Represents Utah Peace Officers' Association
Mr. Michael Harman	.Represents Utah Education Association
Mr. Tyler Jensen	.Represents Utah Education Association
Ms. Debra McBride	.Represents Utah Association of Retired Public Employees
Honorable Kara Pettit	.Represents Utah Judicial Council

Organization Chart

As of December 31, 2020

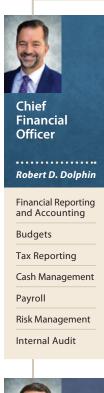
Membership Council











Administrative Staff

Daniel D. Andersen
Executive Director

Outside Counsel

Mark M. Cain
Deputy Executive Director

Steven M. West *Director, Internal Audit*

Dee S Larsen General Counsel

Bruce H. Cundick
Chief Investment Officer

Jayne R. Knecht
Director, Human Resources

W. Kendall Rima Chief Information Officer

Robert D. Dolphin

Chief Financial Officer

David J. Bjarnason
Chief Compliance Officer —
Investments

Matthew K. Judd

Director, Employer Services

Craige D. Stone

Director, Defined

Contribution Savings Plans

Stacey Nielsen
Director, Retirement Benefits

Ryan C. Ashcraft
Director, Retirement Planning

Tiffany G. LundProject Management Director



Utah State Retirement Board



Director

••••• Daniel D. Andersen





Professional Service Providers

Actuary

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

Auditor

Eide Bailly LLP Certified Public Accountants 5 Triad Center, Suite 600 Salt Lake City, UT 84180

Additional professional service providers are presented on pages 156 and 162.

A schedule of investment fees and commissions are presented on pages 155 and 161.



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(b) Plan

Traditional IRA

Roth IRA



Director Retirement Benefits

••••• Stacey Nielsen

Retirement **Benefits**

Death Benefits

Redeposits and Purchases

Refunds

Branch Office



Director Retirement **Planning**

••••• Ryan C. Ashcraft

Member Education

Retirement Planning

Seminars

Stakeholder Relations



Project Management Director

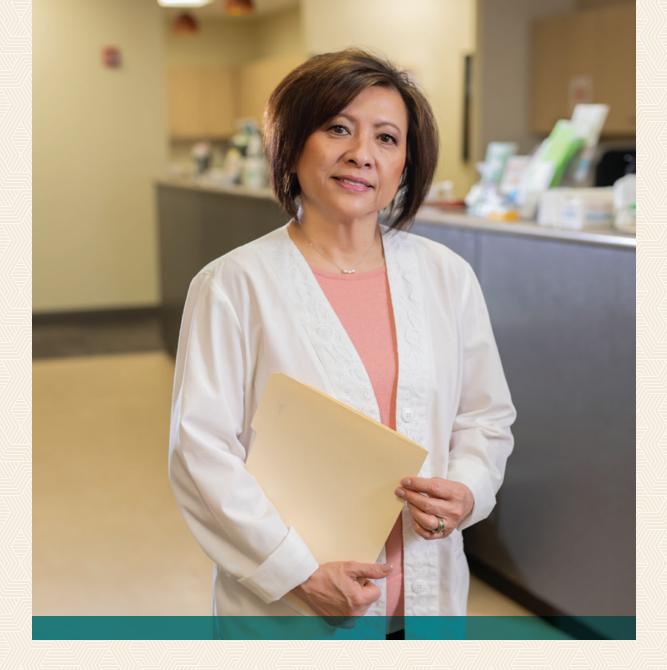
••••• Tiffany G. Lund

Project Management Office

Business Requirements

Project Scope

Implementation



Noncontributory Retirement System Highlights

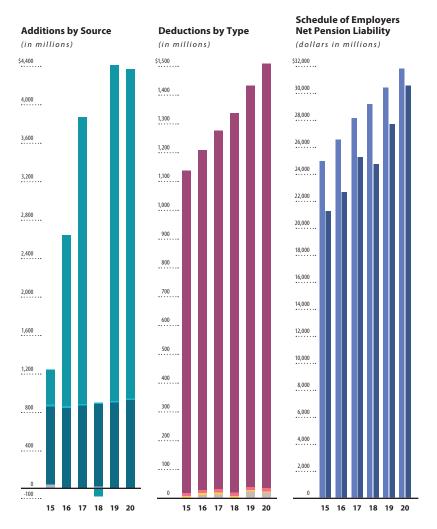
The Public Employees Noncontributory Retirement System includes eligible public employees of the State of Utah and its political subdivisions and public education employees of those entities covered by the System.

Total Membership	160,798
Active	51,161
Terminated vested	48,611
Retired	61,026
2020 Active Members	51 161
Average age	77A(((((
////// //////////////////////////////	
Average years of service	17.7
Average annual salary	\$64,446
2020 Retirees	3,491
Average age	64.3
Average years of service	
Final average annual salary.	
Average annual benefit	\$26,265
Average annual benefit	
<u> </u>	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
—all retirees	\$23,902

Noncontributory Retirement System

Highlights (Concluded)

			2015	2016	2017	2018	2019	2020
(in millions))						
Additions by Source	Investment income (loss)	\$	366.7	1,783.9	2,987.3	(92.2)	3,499.2	3,431.0
	Member contributions		17.0	16.3	17.3	14.6	11.7	16.4
	Employer contributions		813.5	831.6	854.3	858.4	888.1	912.5
	Transfers from systems		33.7	_	_	13.0	_	_
	Totals	\$	1,230.9	2,631.8	3,858.9	793.8	4,399.0	4,359.9
	(in millions,)						
Deductions by Type	Benefit payments	\$	1,123.6	1,184.3	1,248.0	1,320.2	1,397.0	1,488.6
	Administrative expense		8.8	8.9	9.6	10.0	9.4	9.8
	Refunds		2.5	4.4	4.6	2.8	3.1	2.3
	Transfers to systems		_	8.0	10.2	_	19.6	17.0
	Totals	\$	1,134.9	1,205.6	1,272.4	1,333.0	1,429.1	1,517.7
	(dollars in r	nillior	ns)					
Schedule of Employers	Total pension liability	\$	24,899.5	26,501.8	28,088.6	29,122.9	30,351.8	31,763.9
Net Pension Liability	Statement of plan net position		21,192.4	22,618.7	25,205.1	24,666.1	27,635.9	30,478.1
	Net pension liability	\$	3,707.1	3,883.1	2,883.5	4,456.8	2,715.9	1,285.8



Service Retirement

Age	Years of Service	Allowance Reduction
Any age	30	None
Any age	25Full actua	rial before age 65
60	20 3% each y	ear before age 65
62	10 3% each y	ear before age 65
65	4	None

Service Benefit Formula

Number of years of service x 2.00% 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 original retirement benefit.

Contribution Rates (as of 12-31-2020)

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 188.

Pictured: Neriza Oka, Nurse, Davis County Health Department



Contributory Retirement System Highlights

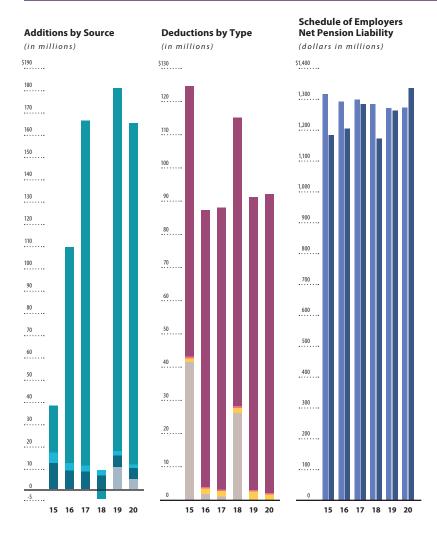
The Public Employees Contributory Retirement System includes eligible public employees of the State of Utah and its political subdivisions and public education employees of those entities covered by the System.

Total Membership	5,094
Active	379
Terminated vested	1,036
Retired	3,679
2020 Active Members	379
Average age	59.3
Average years of service	
Average annual salary	
2020 Retirees	80
Average age	
Average years of service	
Final average annual salary	
Average annual benefit	
Average annual benefit	
—all retirees	\$23,401

Contributory Retirement System

Highlights (Concluded)

			2015	2016	2017	2018	2019	2020
	(in million	ıs)						
Additions by Source	Investment income (loss)	\$	21.2	97.7	155.9	(4.5)	163.9	154.4
	Member contributions		4.8	3.4	2.7	2.5	2.0	1.7
	Employer contributions		11.7	8.2	7.9	6.0	5.4	4.8
	Transfers from systems		_	_	_	_	9.8	4.5
	Totals	\$	37.7	109.3	166.5	4.0	181.1	165.4
	(in million	ıs)						
Deductions by Type	Benefit payments	\$	81.4	83.4	84.8	86.8	88.2	89.9
	Administrative expense		0.5	0.4	0.5	0.5	0.4	0.4
	Refunds		1.2	1.7	1.6	1.5	2.7	1.8
	Transfers to systems		41.5	1.9	1.2	26.3	_	_
	Totals	\$	124.6	87.4	88.1	115.1	91.3	92.1
	(dollars in	n millions	:)					
Schedule of Employers	Total pension liability	\$	1,316.0	1,292.5	1,298.2	1,284.0	1,270.1	1,272.7
Net Pension Liability	Statement of plan net position		1,183.1	1,204.9	1,283.5	1,172.4	1,262.3	1,335.6
	Net pension liability	\$	132.9	87.6	14.7	111.6	7.8	(62.9)



Service Retirement

Age	Years of Service	e Allowance Reduction
Any age	30	None
60	20	3% each year before age 65
62	10	3% 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.
- *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

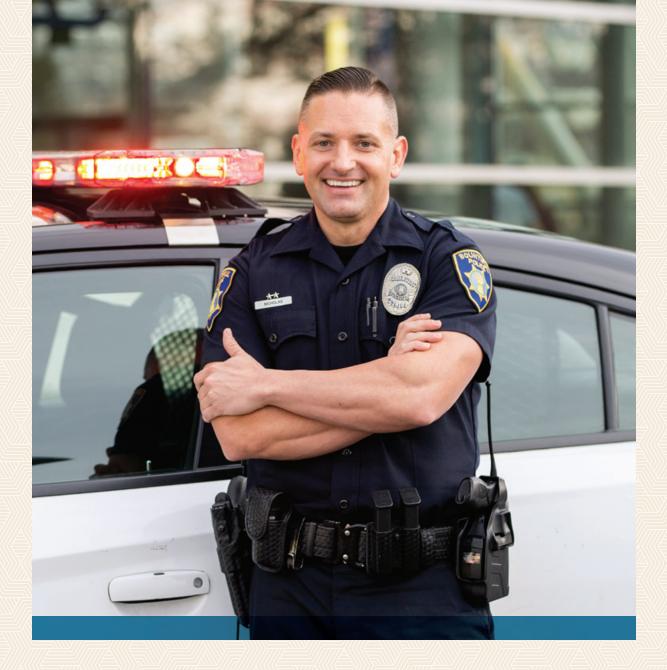
Up to 4% annually on original retirement benefit.

Contribution Rates (as of 12-31-2020)

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 189.

Pictured: Audree Ketchum, Water Meter Technician Manager, Salt Lake City



Public Safety Retirement System Highlights

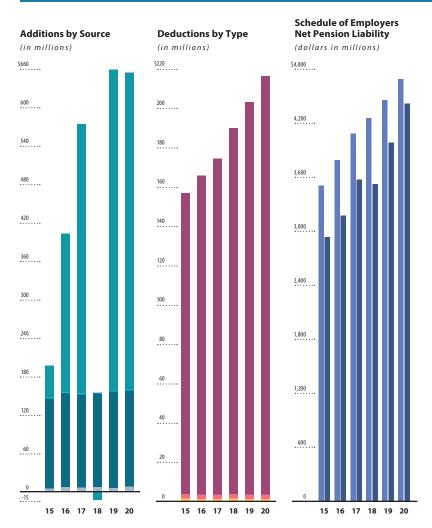
The Public Safety Retirement System includes eligible state and local government employees directly involved in law enforcement. The Public Safety System consists of the Noncontributory and Contributory divisions.

Total Membership	15,993
Active	4,596
Terminated vested	4,846
Retired	6,551
2020 Active Members	4,596
Average age	44.8
Average years of service	17.4
Average annual salary	\$69,418
2020 Retirees	331
Average age	53.0
Average years of service	
Final average annual salary	
Average annual benefit	
Average annual benefit	
—all retirees	\$31,477

Public Safety Retirement System

Highlights (Concluded)

			2015	2016	2017	2018	2019	2020
	(in millions)	ı						
Additions by Source	Investment income (loss)	\$	50.7	249.0	421.9	(13.1)	502.7	496.7
	Member contributions		0.9	0.8	8.0	0.9	0.9	0.6
	Employer contributions		141.0	147.1	145.8	147.1	150.5	150.5
	Transfers from systems		4.0	6.7	5.9	7.0	5.5	7.4
	Totals	\$	196.6	403.6	574.4	141.9	659.6	655.2
	(in millions)							
Deductions by Type	Benefit payments	\$	155.4	164.5	172.9	188.4	201.9	215.3
	Administrative expense		1.2	1.3	1.4	1.5	1.4	1.4
	Refunds		0.5	0.2	0.2	0.4	0.1	0.1
	Totals	\$	157.1	166.0	174.5	190.3	203.4	216.8
	(dollars in n	nillions)					
Schedule of Employers	Total pension liability	\$	3,511.2	3,794.9	4,085.2	4,258.2	4,460.4	4,694.2
Net Pension Liability	Statement of plan net position		2,938.8	3,176.5	3,576.5	3,528.1	3,984.2	4,422.5
	Net pension liability	\$	572.4	618.4	508.7	730.1	476.2	271.7



Service Retirement

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

Service Benefit Formula

- 1. 2.5% x FAS* x years of service up to 20 years.
- 2. $2.0\% \times FAS^* \times years$ of service over 20 years.
- 3. Monthly benefit = total of 1 and 2.
- *FAS (Final Average Salary) = highest three years' eligible 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% or 4% (depending on employer) annually on original retirement benefit.

Contribution Rates (as of 12-31-2020)

Noncontributory: Employer rates range from 32.28% to 50.38% of covered salary.

Contributory: Member rates range from 10.50% to 12.29% of covered salary. Employer rates range from 22.79% to 28.98% of covered salary.

For more detail see Summary of Plan Provisions on page 190.

Pictured: Jake R. Nicholas, Bountiful Police Department



Firefighters Retirement System Highlights

The Firefighters Retirement System includes eligible state and local government employees directly involved in fire fighting and whose duties are classified as hazardous.

Total Membership	3,419
Active	1,427
Terminated vested	
Retired	1,543
2020 Active Members	1,427
Average age	45.5
Average years of service	17.6
Average annual salary	\$78,711
2020 Retirees	61
Average age	52.7
Average years of service	24.1
Final average annual salary	\$80,915
Average annual benefit	\$46,798
Average annual benefit	
—all retirees	\$39.681

Firefighters Retirement System

Highlights (Concluded)

			2015	2016	2017	2018	2019	2020
	(in millions)							
Additions by Source	Investment income (loss)	\$	17.9	87.7	146.7	(4.5)	174.1	173.8
	Member contributions		18.2	18.7	18.5	18.3	18.7	18.7
	Employer contributions		6.7	7.0	6.7	7.0	7.4	7.5
	Fire insurance tax		17.2	10.6	1.2	8.7	41.9	20.3
	Transfers from systems		2.6	1.6	1.3	1.9	2.0	2.8
	Totals	\$	62.6	125.6	174.4	31.4	244.1	223.1
	(in millions)							
Deductions by Type	Benefit payments	\$	49.7	52.1	54.8	57.4	59.8	62.8
	Administrative expense		0.4	0.4	0.4	0.4	0.4	0.4
	Refunds		0.5	0.4	0.2	0.4	0.1	0.1
	Totals	\$	50.6	52.9	55.4	58.2	60.3	63.3
	(dollars in n	nillions))					
Schedule of Employers	Total pension liability	\$ 1	1,058.2	1,129.7	1,205.7	1,261.3	1,316.6	1,388.5
Net Pension Liability	Statement of plan net position	1	1,043.0	1,115.7	1,234.4	1,207.9	1,391.6	1,551.2
	Net pension liability	\$	15.2	14.0	(28.7)	53.4	(75.0)	(162.7)



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% on original retirement benefit.

Contribution Rates (as of 12-31-2020)

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 4.61% of covered salary and 7.24% for Division B.

For more detail see Summary of Plan Provisions on page 192.

Pictured:

Roxanne Bauman, Firefighter, Layton Fire Department

^{*}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 Retirement System Highlights

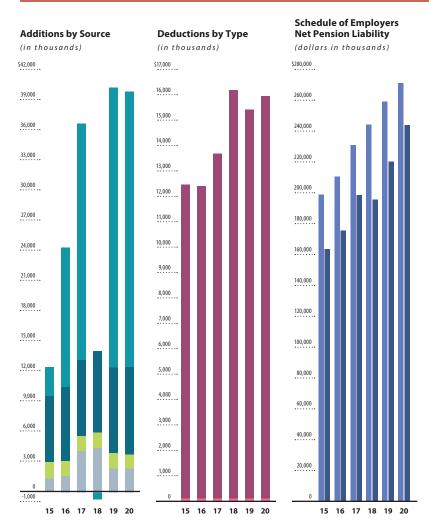
The Judges Retirement System includes justices and judges of the courts of record authorized in state statutes.

Total Membership	282
Active	119
Terminated vested	8
Retired	155
2020 Active Members	
Average age	55.3
Average years of service	14.8
Average annual salary	\$172,055
2020 Retirees	5
Average age	
Average years of service	24.0
Final average annual salary	\$168,183
Average annual benefit	\$121,691
Average annual benefit	
—all retirees	\$99 180

Judges Retirement System

Highlights (Concluded)

			2015	2016	2017	2018	2019	2020
	(in thousand	ds)						
Additions by Source	Investment income (loss)	\$	2,842	13,820	23,435	(730)	27,775	27,391
	Employer contributions		6,555	7,382	7,563	8,091	8,500	8,646
	Court fees		1,653	1,470	1,477	1,518	1,536	1,410
	Transfers from systems		1,334	1,600	4,090	4,403	2,339	2,340
	Totals	\$	12,384	24,272	36,565	13,282	40,150	39,787
	(in thousand	ds)						
Deductions by Type	Benefit payments	\$	12,400	12,330	13,621	16,111	15,346	15,863
	Administrative expense		71	71	79	84	81	84
	Totals	\$	12,471	12,401	13,700	16,195	15,427	15,947
	(dollars in t	housai	nds)					
Schedule of Employers	Total pension liability	\$	198,986	210,623	231,069	244,209	259,181	271,116
Net Pension Liability	Statement of plan net position		163,747	175,618	198,483	195,570	220,293	244,133
	Net pension liability	\$	35,239	35,005	32,586	48,639	38,888	26,983



Service Retirement

Age	Years of Service	Allowance Reduction
Any age.	25	None
55	20Full	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.
- *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.

Cost-of-Living Allowance

Up to 4% compounded annually.

Contribution Rates (as of 12-31-2020)

Employer rate is 44.31% of covered salary.

For more detail see Summary of Plan Provisions on page 194.

Pictured:

Judge Royal I. Hansen, 3rd District Court, Salt Lake City

INMEMORIAM



LaWanna "Lou" Shurtliff

June 13, 1935 - December 30, 2020

Lou Shurtliff served in the Utah House of Representatives from 1999 through 2008, and was elected again in 2018 and 2020. A former long-time teacher, she's remembered as a widely respected legislator who passionately advocated for such things as equal access to schooling. She served on the Retirement and Independent Entities Committee for many years. Said House Minority Leader Rep. Brian King in a statement: "This remarkable teacher and legislator shaped lives and served as few others do. She combined tenacity with compassion and wisdom to create a singular force for good in Utah."

Photo courtery Utah House of Representatives

Utah Retirement Systems

Utah Governors and Legislators Retirement Plan Highlights

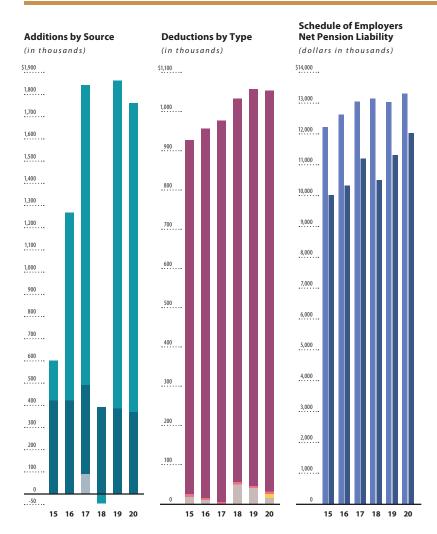
The Utah Governors and Legislators
Retirement Plan includes governors and
legislators of the State of Utah.

Total Membership	371
Active	41
Terminated vested	81
Retired	249
2020 Active Members	41
Average age	57.8
Average years of service	14.7
Average annual salary	N/A
2020 Retirees	10
Average age	67.4
Average years of service	
Final average annual salary	
Average annual benefit	
Average annual benefit	
—all retirees	\$3,969

Utah Governors and Legislators Retirement Plan

Highlights (Concluded)

			2015	2016	2017	2018	2019	2020
	(in thousand	s)						
Additions by Source	Investment income (loss)	\$	181	849	1,353	(41)	1,481	1,396
	Employer contributions		421	421	404	392	384	369
	Transfers from systems		_	_	89	_	_	_
	Totals	\$	602	1,270	1,846	351	1,865	1,765
	(in thousand	s)						
Deductions by Type	Benefit payments	\$	904	941	973	978	1,012	1,023
	Administrative expense		5	4	5	5	4	4
	Refunds		_	_	_	_	_	10
	Transfers to systems		20	12	_	51	42	17
	Totals	\$	929	957	978	1,034	1,058	1,054
	(dollars in th	ousana	s)					
Schedule of Employers	Total pension liability	\$ 1	2,247	12,654	13,074	13,177	13,053	13,330
Net Pension Liability	 Statement of plan net position 	1	0,039	10,352	11,220	10,537	11,344	12,055
	Net pension liability	\$	2,208	2,302	1,854	2,640	1,709	1,275



Service Retirement

Age	Years of Service	Allowance Reduction
Gove	ernors:	
65	1 Term	None
62	10 years 3% e	each year before age 65
Legis	slators:	
65		None
62	103% e	ach year before age 65

Service Benefit Formula

Governors: \$500*per month per term.

*Increased semi annually up to 2% based on the Consumer Price Index. The amount as of 12-31-20 is \$1,440.

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

**Increased semi annually up to 2% based on the Consumer Price Index. The amount as of 12-31-20 is \$31.20.

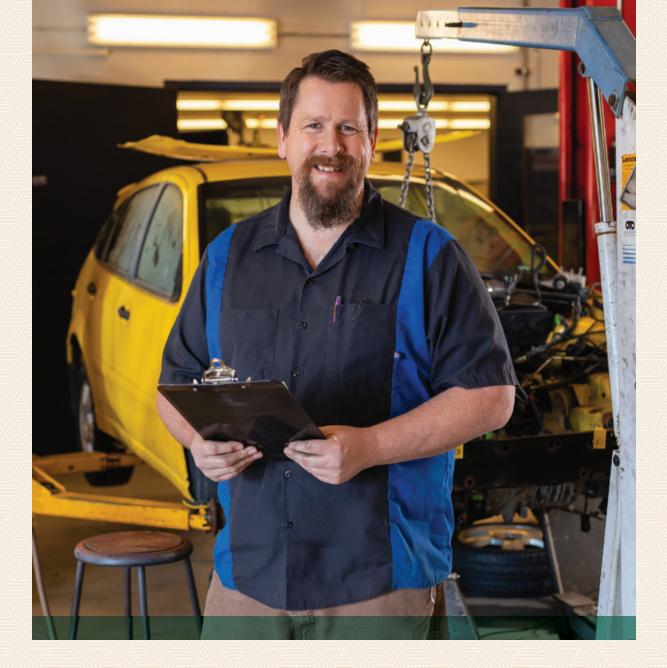
Cost-of-Living Allowance

Up to 4% annually on original retirement benefit.

Contribution Rates (as of 12-31-2020)

There was a 2020-21 appropriation payable by June 30, 2021, to the Utah Governors and Legislators Retirement Plan of \$361,437.

For more detail see Summary of Plan Provisions on page 195.



Tier 2 Public Employees Contributory Retirement System Highlights

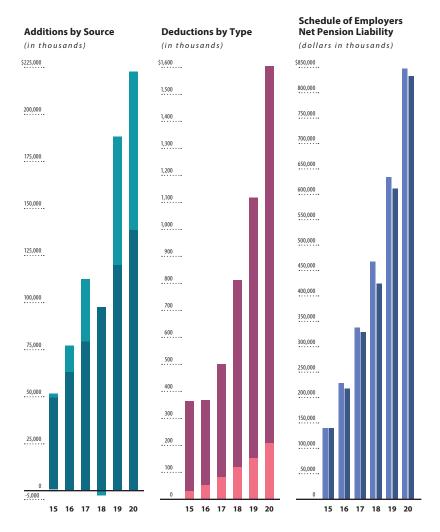
The Tier 2 Public Employees Contributory Retirement System includes eligible employees of the State of Utah and its political subdivisions and public education employees of those entities covered by the System.

Total Membership	40,209
Active	35,895
Terminated vested	4,121
Retired	193
2020 Active Members	35,895
Average age	37.9
Average years of service	3.7
Average annual salary	\$47,050
2020 Retirees	71
Average age	67.4
Average years of service	
Final average annual salary	\$36,824
Average annual benefit	\$3,316
Average annual benefit	
—all retirees	. \$2,917

Tier 2 Public Employees Contributory Retirement System

Highlights (Concluded)

			2015	2016	2017	2018	2019	2020
	(in thousand:	s)						
Additions by Source	Investment income (loss)	\$	1,963	14,059	33,249	(1,454)	68,228	84,040
	Employer contributions		49,645	63,062	79,175	97,680	119,839	138,466
	Transfers from systems		3	_	_	_	_	_
	Totals	\$	51,611	77,121	112,424	96,226	188,067	222,506
51 (1 7	(in thousand:	s)						
Deductions by Type	Benefit payments	\$	333	316	417	692	965	1,397
	Administrative expense		30	51	82	119	152	207
	Totals	\$	363	367	499	811	1,117	1,604
	(dollars in th	ousa	nds)					
Schedule of Employers	Total pension liability	\$	140,321	228,450	338,035	467,461	634,074	846,868
Net Pension Liability	Statement of plan net position		140,539	217,293	329,218	424,633	611,583	832,485
	Net pension liability	\$	(218)	11,157	8,817	42,828	22,491	14,383



Service Retirement

Age	Years of Service	Allowance Reduction
Any age	35	None
55	20Fu	ıll actuarial before age 65
60	10Fu	ıll 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% annually on original retirement benefit.

Contribution Rates (as of 12-31-2020)

Member rate 0.00% of covered salary. Employer rate range from 15.80% to 19.13% of covered salary.

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

For more detail see Summary of Plan Provisions on page 196.

Pictured: Adam Arndt, Auto Teacher, Bonneville High School, Weber School District





Tier 2 Public Safety and Firefighter Contributory Retirement 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.

Total Membership	4,565
Active	4,301
Terminated vested	260
Retired	4
2020 Active Members	4,301
Average age	31.3
Average years of service	3.8
Average annual salary	\$48,773
2020 Retirees	3
Average age	52.7
Average years of service	3.9
Final average annual salary	\$54,595
Average annual benefit	\$6,907
Average annual benefit	
—all retirees	\$8,360

Tier 2 Public Safety and Firefighter Contributory Retirement System

Highlights (Concluded)

			2015	2016	2017	2018	2019	2020
	(in thousand:	s)						
Additions by Source	Investment income (loss)	\$	199	1,591	3,989	(180)	8,958	11,645
	Employer contributions		6,221	8,488	11,126	14,295	18,197	25,020
	Totals		6,420	10,079	15,115	14,115	27,155	36,665
	(in thousand:	s)						
	Benefit payments		30	28	61	_	90	76
Deductions by Type	 Administrative expense 		3	5	9	14	20	29
	Transfers to systems		3	_	_	_	_	_
	Totals	\$	36	33	70	14	110	105
	(dollars in th	ousan	ds)					
	Total pension liability		13,628	24,266	39,023	56,841	90,787	129,253
Schedule of Employers Net Pension Liability	Statement of plan net position		15,089	25,135	40,180	54,336	81,381	120,284
	Net pension liability	\$ (1,461)		(869)	(1,157)	2,505	9,406	8,969



Service Retirement

Age	Years of Service	Allowance Reduction
Any a	ge 25	None
60	20Full ac	tuarial before age 65
62	10Full ac	tuarial before age 65
65	4	None

Service Benefit Formula

- 1) Number of years of service before 7-1-2020 x 1.50% x FAS.*
- 2) Number of years of after before 6-30-2020 x 2.0% x FAS.*

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 2.5% annually on original retirement benefit.

Contribution Rates (as of 12-31-2020)

Member rate 2.27% of covered salary. Employer rate range from 14.08% to 40.97% of covered salary.

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

For more detail see Summary of Plan Provisions on page 198.

Pictured:

Mikaela Vega, Police Officer, West Jordan Police Department Jeffrey Jarrow, Engineer, Farmington City Fire Department

Defined Contribution Savings Plans

The purpose of the Savings Plans (401(k), 457(b), 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, 2020, the number of participants by savings plan was as shown in the table below.

Annualized rates of returns for the Investment Funds are shown on pages 159 and 160.

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(b))
- » Hardship and emergency withdrawals
- » Local customer service and counseling.

Member Information

At December 31, 2020	401(k)	457(b)	Roth IRA	Traditional IRA
Number of active employees				
eligible to participate	109,875	106,189	237,533	237,533
Employee contributions				
(excluding employer contributions):				
Number of employees contributing	41,910	8,471	10,698	686
Percent of eligible employees contributing	38.1%	8.0%	4.5%	0.3%
Average % of salary deferred by employees	5.8%	6.6%	N/A	N/A
Total participants	188,356	19,040	15,382	2,825
Average participant account balance	\$ 35,248	\$ 39,455	\$ 15,525	\$ 66,838

Savings Plans Member Balances

At December 31, 2020

,	(in millions)									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
● HRA*	\$ 9	11	16	20	23	_	_	_	_	_
Roth IRA	24	34	48	59	70	89	119	132	180	239
Traditional IRA	30	39	50	60	69	82	102	120	164	189
457(b)	321	360	425	451	454	494	569	544	645	751
• 401(k)	2,881	3,213	3,746	3,956	3,980	4,339	5,003	4,834	5,723	6,639
Totals	\$ 3,265	3,657	4,285	4,546	4,596	5,004	5,793	5,630	6,712	7,818

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

Savings Plans Member Balances

(in millions)

\$8,000

7,500

6,500

6,000

5,500

4,000

3,500

2,500

1,500

1,500

1,000

5,000

Financial

Section

2020 Annual Comprehensive Financial Report



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Independent Auditor's Report



CPAs & BUSINESS ADVISORS

INDEPENDENT AUDITOR'S REPORT

To the Utah State Retirement Board Utah State Retirement Systems Salt Lake City, Utah

Report on 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, 2020, and the related statements of changes in fiduciary net position of the pension plan (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 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.

Auditor's 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 from 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.

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Independent Auditor's Report (Continued)

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 State Retirement Systems, a component unit of the State of Utah, administered by the Utah State Retirement Board, at December 31, 2020, 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 return, and investments in real assets. Such investments totaled \$15.9 billion (33% of total assets) at December 31, 2020. 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.

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, employers ontributions, and investment returns, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of 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 inquires of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquires, 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 of individual retirement systems' schedules by division and schedules of administrative and investment expenses as listed in the 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 reporting schedules as listed in the table of contents 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 supplemental financial reporting schedules is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Independent Auditor's Report (Concluded)

The introductory, investment, actuarial and statistical sections 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.

We have previously audited Utah Retirement Systems 2019 basic financial statements, and we expressed an unmodified opinion on those audited financial statements in our report dated April 30, 2020, 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, 2019 is consistent, in all material respects, with the audited financial statements from which it has been derived.

Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated April 30, 2021 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 grant agreements and other matters. The purpose of that report is solely 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

Salt Lake City, Utah April 30, 2021



CPAs & BUSINESS ADVISORS

INDEPENDENT AUDITOR'S REPORT

To the Utah State Retirement Board Utah State Retirement Systems Salt Lake City, Utah

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

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 Auditina Standards. issued by the Comptroller General of the United States, the financial statements of each of the defined benefit 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 (and other employee benefit) trust funds as of December 31, 2020 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 State Retirement Systems' basic financial statements, and have issued our report thereon dated April 30, 2021, which included in emphasis-of-matter paragraph regarding the fair value of investments where a publicly listed price is not available.

Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters (Concluded)

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) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions 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 a 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 State Retirement Systems' financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. 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.

Salt Lake City, Utah April 30, 2021

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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, 2020. 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 Annual Comprehensive 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(b), 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 \$3.8 billion, or 10.8% during calendar year 2020. 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 2020 was 12.96% compared with the calendar year 2019 rate of return of 14.45%. The decrease in rate of return was due primarily to the decrease in market performance in 2020.
- » The URS Defined Benefit Pension Systems had a Net Pension Liability of \$1.4 billion and the Net Pension Liability as a percentage of covered payroll was 24.7% as of December 31, 2020.
- » The Defined Contribution Plans' combined total net position increased \$1.1 billion during calendar year 2020 primarily due to investment gains.
- » The Defined Contribution Plans' rates of return for investment options ranged from a high of 51.78% to a low of 2.15% compared to prior year investment option returns of a high of 32.27% and a low of 2.60%.



Overview of the Financial Statements

The URS 2020 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, 2020. 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, 2020, 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, 2020, with combined total comparative information at December 31, 2019. 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, 2020, with combined total comparative information for the year ended December 31, 2019. These financial statements reflect the changes in the resources available to pay benefits to members, including retirees and beneficiaries, for calendar years 2020 and 2019.

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 post-employment 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 and investment expenses.



Financial Analysis of the Systems — Defined Benefit Plan

Investments

Investments of the URS Defined Benefit Systems are combined in a co-mingled 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.

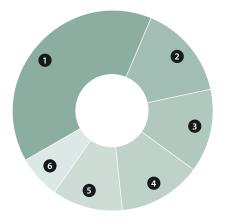
Systems' Total Investments

As of December 31, 2020, URS Defined Benefit Systems had total net position of \$39.0 billion, an increase of \$3.8 billion from calendar year 2019 investment totals. The combined investment portfolio experienced a return of 12.96% compared with the URS investment benchmark return of 13.83%. Investment results over time compared with URS benchmarks are presented on page 154 in the Investment Section.

Because the investment gain in all of the retirement systems was 12.96% of net position, further investment performance will not be evaluated in each respective system.

Equity Securities

As of December 31, 2020, URS Defined Benefit Systems held \$15.7 billion in U.S. and international equity securities, an increase of \$2.2 billion from year 2019. Equity securities had a return of 15.54% for calendar year 2020 compared with the URS benchmark return of 16.21%.



Defined Benefit Systems Investments at Fair Value

- 1 Equity Securities (39.9%)
- 2 Absolute Return (15.1%)
- 3 Debt Securities (13.5%)
- 4 Real Assets (13.3%)
- 5 Private Equity (11.5%)
- 6 Short Term (6.7%)

Debt Securities

As of December 31, 2020, URS Defined Benefit Systems held \$5.3 billion in U.S. debt and international debt securities, a decrease of \$857.8 million from year 2019. Debt securities returned 9.32% in calendar year 2020 compared with the URS benchmark return of 7.80%.

Real Assets

As of December 31, 2020, URS Defined Benefit Systems held \$5.2 billion in real assets investments, an increase of \$284.7 million from year 2019. Real assets investments returned 0.86% in calendar year 2020 compared with the URS benchmark return of 6.45%.

Private Equity

As of December 31, 2020, URS Defined Benefit Systems held \$4.5 billion in private equity investments, an increase of \$522.2 million from year 2019. Private equity investments returned 36.73% in calendar year 2020. The URS benchmark for private equity investments was 24.10%.

Short Term

As of December 31, 2020, URS Defined Benefit Systems held \$2.6 billion in short-term investments, an increase of \$776.0 million from year 2019. Short-term investments returned 1.51% in calendar year 2020 compared with the URS benchmark return of 0.67%.

Absolute Return

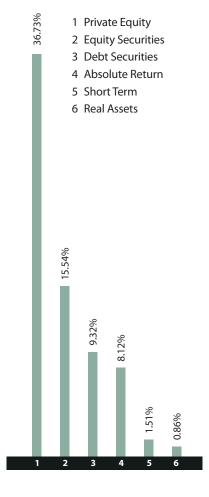
As of December 31, 2020, URS Defined Benefit Systems held \$5.9 billion in absolute return investments, an increase of \$737.4 million from year 2019. Absolute return investments returned 8.12% in calendar year 2020 compared with the URS benchmark return of 5.67%.

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, Northern Trust Company (NT). The brokers provide collateral to NT and generally use the borrowed securities to cover short sales and failed trades. NT invests the cash collateral received from the brokers in order to earn interest. As of December 31, 2020, the Systems had \$1.1 billion on loan secured by collateral of \$1.1 billion. For calendar year 2020, net securities lending income to the Systems amounted to \$5.0 million, a decrease of \$573 thousand over calendar year 2019. Security lending income decreased due to lower demand for securities lent compared to 2019.

Defined Benefit Systems Investment Rates of Return by Investment Type for 2020

(in percents)





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, 2020, totaled \$30.5 billion, an increase of \$2.8 billion (10.3%) from \$27.6 billion as of December 31, 2019.

Additions to the Noncontributory System net position include employer contributions, investment income, and transfers. For the calendar year 2020, member and employer contributions increased from \$900.0 million for calendar year 2019 to \$928.9 million, an increase of \$29.1 million (3.2%). Contributions increased because salaries increased. The system recognized a net investment gain of \$3.4 billion for calendar year 2020 compared with net investment gain of \$3.5 billion for calendar year 2019. The decrease in investment gain for 2020 compared to 2019 was due to the lower rate of return realized in 2020.

Deductions from the Noncontributory System net position include retirement benefits, administrative expenses, and transfers. For the calendar year 2020, benefits amounted to \$1.5 billion, an increase of \$90.9 million (6.5%) over calendar year 2019. The increase in benefit payments was due to an increased number of benefit recipients and benefit increases. For the calendar year 2020, the costs of administering the system totaled \$9.8 million, an increase of \$394 thousand (4.2%) from calendar year 2019.

At December 31, 2020, the Noncontributory Retirement System total pension liability was \$31.76 billion. The Plan's fiduciary net position was \$30.48 billion leaving a net pension liability of \$1.28 billion. The Plan fiduciary net position as a percentage of the total pension liability was 96.0%.

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, 2020, totaled \$1.3 billion, an increase of \$73.3 million (5.8%) from \$1.3 billion as of December 31, 2019.

Additions to the Contributory System net position include employer and member contributions, investment income, and transfers. For calendar year 2020, member and employer contributions decreased from \$7.4 million for calendar year 2019 to \$6.5 million, a decrease of \$896 thousand (12.1%). Contributions decreased because of the number of active members decreased. 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 investment gain of \$154.4 million for calendar year 2020 compared with net investment gain of \$163.9 million for the calendar year 2019. The decrease in investment gain for 2020 compared to 2019 was due to the lower rate of return realized in 2020.



Deductions from the Contributory System net position include retirement benefits, administrative expenses, and transfers. For calendar year 2020, benefits amounted to \$91.6 million, an increase of \$821 thousand (0.9%) from calendar year 2019. The increase in benefit payments was due to the increase in the number of retired members in the system. For calendar year 2020, the costs of administering the system totaled \$406 thousand, a decrease of \$2 thousand (0.5%) from calendar year 2019.

At December 31, 2020, the Contributory Retirement System total pension liability was \$1.27 billion. The Plan's fiduciary net position was \$1.34 billion leaving a net pension asset of \$63 million. The Plan fiduciary net position as a percentage of the total pension liability was 104.9%.

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, 2020, amounted to \$4.4 billion, an increase of \$438.3 million (11.0%) from \$4.0 billion as of December 31, 2019.

Additions to the Public Safety System net position include employer contributions, investment income, and transfers. For calendar year 2020, member and employer contributions decreased from \$151.3 million for calendar year 2019 to \$151.1 million, a decrease of \$254 thousand (0.2%). Contributions decreased because the covered payroll decreased due to less active Tier 1 employees. The system recognized a net investment gain of \$496.7 million for calendar year 2020 compared with a net investment gain of \$502.7 million for calendar year 2019. The decrease in the investment gain for 2020 compared to 2019 was due to the lower rate of return realized in 2020.

Deductions from the Public Safety System net position include retirement benefits and administrative expenses. For calendar year 2020, benefits amounted to \$215.5 million, an increase of \$13.4 million (6.6%) over calendar year 2019. The increase in benefit payments was due to an increased number of benefit recipients and benefit increases. For calendar year 2020, the costs of administering the system totaled \$1.4 million, an increase of \$66 thousand (4.8%) from calendar year 2019.

At December 31, 2020, the Public Safety Retirement System total pension liability was \$4.7 billion. The Plan's fiduciary net position was \$4.4 billion leaving a net pension liability of \$271.6 million. The Plan fiduciary net position as a percentage of the total pension liability was 94.2%.

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, 2020, totaled \$1.6 billion, an increase of \$159.6 million (11.5%) from \$1.4 billion as of December 31, 2019.

Additions to the Firefighters System net position consist of employer contributions, including insurance premium taxes, budget appropriations from the General Fund, investment income, and transfers. For calendar year 2020, member and employer contributions decreased from \$68.0 million for calendar year 2019 to \$46.5 million, a decrease of \$21.5 million (31.6%). Contributions in calendar year 2020 decreased primarily because the covered payroll decreased due to less active Tier 1 employees in the Firefighters Retirement System. The total fire insurance premiums and appropriations from the General Fund for calendar year 2020 were \$20.3 million compared to \$41.9 million in 2019, a decrease of \$21.6 million (52.0%). The system recognized a net investment gain of \$173.8 million for the calendar year 2020 compared with net investment gain of \$174.1 million for calendar year 2019. The decrease in investment gain for 2020 compared to 2019 was due to the lower rate of return realized in 2020.

Deductions from the Firefighters System net position include retirement benefits and administrative expenses. For calendar year 2020, benefits amounted to \$63.0 million, an increase of \$2.9 million (4.8%) over calendar year 2019. The increase in benefit payments was due to an increased number of benefit recipients and benefit increases. For calendar year 2020, the costs of administering the system totaled \$425 thousand, an increase of \$20 thousand (4.9%) from calendar year 2019.

Statements of Fiduciary Net Position — Defined Benefit Pension Plans

December 31 (dollars in thousands)

b cccinioci b i	(aoriars in the	ousanas)				
		Noncont	tributory System		Cont	ributory System
	2020	2019	2018	2020	2019	2018
Assets:						
Cash and receivables	\$ 368,107	316,264	525,604	14,432	12,705	23,343
Investments at fair value	30,723,906	27,962,267	24,760,259	1,348,139	1,278,948	1,178,582
Invested securities lending collateral	893,221	694,246	834,951	39,194	31,754	39,744
Property and equipment	9,060	6,949	3,689	398	318	176
Total assets	31,994,294	28,979,726	26,124,503	1,402,163	1,323,725	1,241,845
Liabilities:						
Securities lending liability	893,221	694,246	834,951	39,194	31,754	39,744
Investment accounts and other payables	623,001	649,557	623,493	27,330	29,679	29,672
Total liabilities	1,516,222	1,343,803	1,458,444	66,524	61,433	69,416
Net position restricted for pensions	\$ 30,478,072	27,635,923	24,666,059	1,335,639	1,262,292	1,172,429
	(dollars in th	Uta	h Governors and Retirement Plan		Tier 2 Public Em	ployees System
	2020	2019	2018	2020	2019	2018
Assets:						
Cash and receivables	\$ 129	112	208	16,204	12,680	13,763
Investments at fair value	12,169	11,496	10,594	832,921	612,977	421,417
Invested securities lending collateral	354	285	357	24,215	15,219	14,211
Property and equipment	4	3	2	246	152	63
Total assets	12,656	11,896	11,161	873,586	641,028	449,454
Liabilities:						
Securities lending liability	354	285	357	24,215	15,219	14,211
Investment accounts and other payables	247	267	267	16,886	14,226	10,610
Total liabilities	601	552	624	41,101	29,445	24,821
Total position restricted for pensions	\$ 12,055	11,344	10,537	832,485	611,583	424,633

At December 31, 2020, the Firefighters Retirement System total pension liability was \$1.4 billion. The Plan's fiduciary net position was \$1.6 billion leaving a net pension asset of \$162.7 million. The Plan fiduciary net position as a percentage of the total pension liability was 111.7%.

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, 2020, totaled \$244.1 million, an increase of \$23.8 million (10.8%) from \$220.3 million as of December 31, 2019.

Additions to the Judges System net position consist of employer contributions, including court fees, investment income, and transfers. For calendar year 2020, employer contributions increased from \$10.0 million for calendar year 2019 to \$10.1 million, an increase of \$20 thousand (0.2%). The system recognized a net investment gain of \$27.4 million for the calendar year 2020 compared with net investment gain of \$27.8 million for calendar year 2019. The decrease in investment gain for 2020 compared to 2019 was due to the lower rate of return realized in 2020.

	Pub	lic Safety System		Fire	fighters System			udges System
20	20 2019	2018	2020	2019	2018	2020	2019	2018
52,18	36 44,618	74,354	17,371	14,614	25,340	3,081	2,617	4,250
4,459,42	•	3,542,367	1,565,220	1,409,636	1,212,906	245,966	222,791	196,230
129,64	7 100,108	119,453	45,505	34,999	40,901	7,151	5,531	6,617
1,31	5 1,003	528	462	350	180	73	55	29
4,642,57	2 4,177,866	3,736,702	1,628,558	1,459,599	1,279,327	256,271	230,994	207,126
129,64	7 100,108	119,453	45,505	34,999	40,901	7,151	5,531	6,617
90,40		89,180	31,859	33,047	30,537	4,987	5,170	4,939
220,05	55 193,680	208,633	77,364	68,046	71,438	12,138	10,701	11,556
4,422,51	7 3,984,186	3,528,069	1,551,194	1,391,553	1,207,889	244,133	220,293	195,570
		Public Safety and refighter System		Total Defined Be	enefit Pension Plans	2020 Percent	2019 Percent	
20	20 2019	2018	2020	2019	2018	Change	Change	
2,42	1,506	1,653	473,934	405,116	668,515	17.0%	(39.4)%	
120,26	81,752	54,035	39,308,008	35,612,004	31,376,390	10.4	13.5	
3,49	2,030	1,822	1,142,783	884,172	1,058,056	29.2	(16.4)	
3	35 20	8	11,593	8,850	4,675	31.0	89.3	
126,2	8 85,308	57,518	40,936,318	36,910,142	33,107,636	10.9	11.5	
3,49	96 2,030	1,822	1,142,783	884,172	1,058,056	29.2	(16.4)	
2,43	•	1,360	797,156	827,415		(3.7)	4.7	
5,93	·	3,182	1,939,939	1,711,587		13.3	(7.4)	
120,28	·	54,336	38,996,379	35,198,555		10.8%	12.6%	
120,20	01,301	34,330	30,330,379	22,190,333	31,239,322	10.0%	12.0%	

Deductions from the Judges System net position held in trust for benefits include retirement benefits and administrative expenses. For calendar year 2020, benefits amounted to \$15.9 million, an increase of \$517 thousand (3.4%) over calendar year 2019. The increase in benefit payments was due to an increase in the current year retirees. For calendar year 2020, the costs of administering the system totaled \$84 thousand, an increase of \$3 thousand (3.7%) from calendar year 2019. At December 31, 2020, the Judges System total pension liability was \$271.1 million. The Plan's fiduciary net position was \$244.1 million leaving a net pension liability of \$27.0 million. The Plan fiduciary net position as a percentage of the total pension liability was 90.0%.

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

Year Ended December 31

(dollars in thousands)

	Noncontributory System					
	2020	2019	2018	2020	2019	2018
Additions:						
Contributions	\$ 928,910	899,808	873,046	6,487	7,383	8,482
Investment income	3,430,989	3,499,188	(92,207)	154,367	163,935	(4,513)
Transfers from affiliated systems	_	_	13,035	4,542	9,775	_
Total additions	4,359,899	4,398,996	793,874	165,396	181,093	3,969
Deductions:						
Pension benefits	1,488,627	1,396,983	1,320,214	89,890	88,162	86,795
Refunds	2,338	3,127	2,766	1,753	2,660	1,471
Administrative expenses	9,805	9,411	9,962	406	408	454
Transfers to affiliated systems	16,980	19,611		_	_	26,286
Total deductions	1,517,750	1,429,132	1,332,942	92,049	91,230	115,006
		2060064	(530,060)	72.247	00.063	(111,037)
Increase (decrease) in net position restricted for pensions	\$ 2,842,149 (dollars in		•	73,347	89,863	(111,037)
Increase (decrease) in net position restricted for pensions	(dollars in	t h o u s a n d Utah (Legislators Re	s) Governors and etirement Plan	Tier	2 Public Empl	oyees System
Increase (decrease) in net position restricted for pensions		thousand Utah (s) Governors and			
Additions:	(dollars in	thousand Utah (Legislators Re 2019	S) Governors and etirement Plan 2018	Tier 2020	2 Public Empl 2019	oyees System 2018
	(dollars in	t h o u s a n d Utah (Legislators Re	s) Governors and etirement Plan	Tier	2 Public Empl	oyees System
Additions:	(dollars in	thousand Utah (Legislators Re 2019	S) Governors and etirement Plan 2018	Tier 2020	2 Public Empl 2019	oyees System 2018
Additions: Contributions	(dollars in 2020 \$ 369	thousand Utah (Legislators Re 2019	Governors and etirement Plan 2018	Tier 2020 138,466	2 Public Empl 2019 119,839	oyees System 2018 97,680
Additions: Contributions Investment income	(dollars in 2020 \$ 369	thousand Utah (Legislators Re 2019 384 1,481	Governors and etirement Plan 2018 392 (41)	Tier 2020 138,466	2 Public Empl 2019 119,839	oyees System 2018 97,680
Additions: Contributions Investment income Transfers from affiliated systems	\$ 369 1,396	thousand Utah (Legislators Re 2019 384 1,481	Solution of the state of the st	138,466 84,040	2 Public Empl 2019 119,839 68,228	97,680 (1,454)
Additions: Contributions Investment income Transfers from affiliated systems Total additions Deductions:	\$ 369 1,396	thousand Utah (Legislators Re 2019 384 1,481	Solution of the state of the st	138,466 84,040	2 Public Empl 2019 119,839 68,228	97,680 (1,454)
Additions: Contributions Investment income Transfers from affiliated systems Total additions Deductions: Retirement benefits	\$ 369 1,396 — 1,765	thousand Utaho Legislators Re 2019 384 1,481 — 1,865	392 (41)	138,466 84,040 — 222,506	2 Public Empl 2019 119,839 68,228 — 188,067	97,680 (1,454) — 96,226
Additions: Contributions Investment income Transfers from affiliated systems Total additions Deductions:	\$ 369 1,396 — 1,765	thousand Utaho Legislators Re 2019 384 1,481 — 1,865	392 (41)	138,466 84,040 — 222,506	2 Public Empl 2019 119,839 68,228 — 188,067	97,680 (1,454) — 96,226
Additions: Contributions Investment income Transfers from affiliated systems Total additions Deductions: Retirement benefits Refunds	\$ 369 1,396 — 1,765 1,023 10	thousand Utaha Legislators Re 2019 384 1,481 — 1,865	392 (41) ————————————————————————————————————	138,466 84,040 — 222,506	2 Public Empl 2019 119,839 68,228 — 188,067	97,680 (1,454) 96,226
Additions: Contributions Investment income Transfers from affiliated systems Total additions Deductions: Retirement benefits Refunds Administrative expense	\$ 369 1,396 — 1,765 1,023 10 4	thousand Utah (Legislators Re 2019 384 1,481 — 1,865 1,012 — 4	392 (41) 351	Tier 2020 138,466 84,040 — 222,506 1,397 — 207	2 Public Empl 2019 119,839 68,228 — 188,067 965 — 152	97,680 (1,454 — 96,226

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, 2020, totaled \$12.1 million, an increase of \$711 thousand (6.3%) from \$11.3 million as of December 31, 2019.

Additions to the Governors and Legislators Retirement Plan net position include investment income and transfers. For calendar year 2020 employer contributions amounted to \$369 thousand as compared to \$384 thousand for 2019. The decrease was due to favorable actuarial experience. The Plan recognized a net investment gain of \$1.4 million for calendar year 2020 compared with net investment gain of \$1.5 million for calendar year 2019. The decrease in

Judges System			hters System	Firefig		Safety System	Public	
2018	2019	2020	2018	2019	2020	2018	2019	2020
9,609	10,036	10,056	34,073	68,003	46,498	147,996	151,323	151,069
(730)	27,775	27,391	(4,509)	174,141	173,818	(13,134)	502,657	496,725
4,403	2,339	2,340	1,917	2,027	2,751	6,982	5,512	7,364
13,282	40,150	39,787	31,481	244,171	223,067	141,844	659,492	655,158
16,111	15,346	15,863	57,440	59,847	62,842	188,414	201,923	215,289
_	_		132	255	159	428	76	96
84	81	84	427	405	425	1,450	1,376	1,442
16,195	15,427	 15,947		60,507	63,426	190,292	203,375	216,827
		<u> </u>		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			·
(2,913)	24,723	23,840	(26,518)	183,664	159,641	(48,448)	456,117	438,331
	2019	2020	efit Pension Plans	Total Defined Ben		olic Safety and fighter System		
	Percent Change	Percent Change	2018	2019	2020	2018	2019	2020
	7.5%	2.7%	1,185,628	1,274,973	1,309,218	14,350	18,197	27,363
	(3,907.9)	(1.5)	(116,768)	4,446,363	4,380,371	(180)	8,958	11,645
	(25.4)	(13.5)	26,337	19,653	16,997		_	_
	424.2	(0.6)	1,095,197	5,740,989	5,706,586	14,170	27,155	39,008
	5.6	6.3	1,670,644	1,764,328	1,875,007	_	90	76
	27.5	(28.8)	4,797	6,118	4,356	_	_	_
	(5.3)	4.6	12,515	11,857	12,402	14	20	29
	(25.4)	(13.5)	26,337	19,653	16,997			<u> </u>
	5.1	5.9	1,714,293	1,801,956	1,908,762	14	110	105
)	(736.3)%	(3.6)%	(619,096)	3,939,033	3,797,824	14,156	27,045	38,903

investment gain for 2020 compared to 2019 was due to the lower rate of return realized in 2020.

Deductions from the Governors and Legislators Retirement Plan net position include retirement benefits and administrative expenses. For calendar year 2020, retirement benefits amounted to \$1.0 million, an increase of \$21 thousand (2.1%) from calendar year 2019. The increase in benefit payments was due to an increase in the number of benefit recipients. For calendar year 2020, the costs of administering the system totaled \$4 thousand.

At December 31, 2020, the Governors and Legislators Retirement Plan total pension liability was \$13.3 million.

The Plan's fiduciary net position was \$12.1 million leaving a net pension liability of \$1.3 million. The Plan fiduciary net position as a percentage of the total pension liability was 90.4%.



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, 2020, totaled \$832.5 million, an increase of \$220.9 million (36.1%) from \$611.6 million as of December 31, 2019.

Additions to the Tier 2 Public **Employees System net position consist** of employer contributions, investment income, and transfers. For calendar year 2020, member and employer contributions increased from \$119.8 million for calendar year 2019, to \$138.5 million, an increase of \$18.6 million (15.5%). Contributions increased because membership increased. The system recognized a net investment gain of \$84.0 million compared with a net investment gain of \$68.2 million in 2019. The increase in investment gain for 2020 compared to 2019 was due to the system having a larger proportionate share of the earning due to an increase in membership. Deductions from the Tier 2 Public Employees System net position for benefits include retirement benefits and administrative expenses. For calendar year 2020 the system paid \$1.4 million in retirement benefits and \$965 thousand in 2019, an increase of \$432 thousand (44.8%). The costs of administering the system totaled \$207 thousand, an increase of \$55 thousand (36.2%) from calendar year 2019.

At December 31, 2020, the Tier 2 Public Employees Retirement System total pension liability was \$846.9 million. The Plan's fiduciary net position was \$832.5 million leaving a net pension liability of \$14.4 million. The Plan's fiduciary net position as a percentage of the total pension liability was 98.3%.

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, 2020, totaled \$120.3 million, an increase of \$38.9 million (47.8%) from \$81.4 million as of December 31, 2019.

Additions to the Tier 2 Public Safety and Firefighter System net position consist of employer contributions, investment income, and transfers. For calendar year 2020, member and employer contributions increased from \$18.2 million for calendar year 2019, to \$27.4 million in 2020, an increase of \$9.2 million (50.4%). Contributions increased because membership increased. The system recognized a net investment gain of \$11.6 million for calendar year 2020 compared with net investment gain of \$8.2 million for calendar year 2019. The increase in investment gain for 2020 compared to 2019 was due to the system having a larger proportionate share of the earning due to an increase in membership.

Deductions from the Tier 2 Public Safety and Firefighter System net position include retirement benefits and administrative expenses. For calendar year 2020, benefits amounted to \$76 thousand, a decrease of \$14 thousand (15.6%) over calendar year 2019. The costs of administering the system totaled \$29 thousand, an increase of \$9 thousand (45.0%) from calendar year 2019.

At December 31, 2020, the Tier 2 Public Safety and Firefighter Retirement System total pension liability was \$129.3 million. The Plan's fiduciary net position was \$120.3 million leaving a net pension liability of \$9.0 million. The Plan's fiduciary net position as a percentage of the total pension liability was 93.1%.



Actuarial Valuations and Funding Progress

Actuarial valuation of each defined benefit system is performed annually. As of January 1, 2020, the date of the most recent actuarial valuation, the average funded ratio of the Systems using the actuarial value of assets was 87.4%. This was increased from the Systems' January 1, 2019 valuation average funded ratio of 87.2%. The funded ratio increased due to the investment gains realized in calendar year 2019. 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 fair 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, 2020, the Systems' underfunded actuarial accrued liability was \$4.9 billion. This was a net increase in the unfunded position of \$164.8 million

compared to January 1, 2019. As of January 1, 2020, the difference between the actuarial value of assets and fair value of assets was \$2.3 billion in actuarially deferred gains. These actuarially deferred gains will be recognized by the actuary over the next four years.

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 to the left 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/(Asset) to Changes in the Discount Rate

(in thousands) System	1.00% Decrease (5.95%)	Current Discount Rate (6.95%)	1.00% Increase (7.95%)
Noncontributory Retirement System	\$ 5,340,592	1,285,787	(2,100,920)
Contributory Retirement System	56,535	(62,949)	(164,728)
Public Safety Retirement System	926,006	271,667	(262,642)
Firefighters Retirement System	30,392	(162,697)	(320,705)
Judges Retirement System	57,467	26,983	1,124
Utah Governors and Legislative Retirement Plan	2,545	1,275	192
Tier 2 Public Employees Retirement System	242,019	14,383	(159,753)
Tier 2 Public Safety and Firefighter Retirement System	42,288	8,969	(17,604)
Total	\$ 6,697,844	1,383,418	(3,025,036)

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, the NPL at a 3.00% discount rate is \$30.3 billion as of December 31, 2020. This amount consists of a \$69.3 billion Total Pension Liability less the \$39.0 billion Fiduciary Net Position. Note, although the disclosure of a net pension liability using a 3.00% 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, 2020, amounted to \$6.7 billion, an increase of \$916.3 million (16.0%) over net position as of December 31, 2019. Contributions increased because of increased participation. The plan recognized a net investment gain of \$870.8 million for calendar year 2020 compared with a net investment gain of \$892.9 million for the calendar year 2019.

Additions to the 401(k) Plan net position include contributions and investment income. For calendar year 2020, contributions increased from those of calendar year 2019 from \$324.3 million to \$358.2 million or an increase of \$33.9 million (10.5%).

Deductions from the 401(k) Plan net position include participant and beneficiary refunds (including rollovers) and administrative expenses. For calendar year 2020, refunds amounted to \$305.6 million, a decrease of \$15.5 million (4.8%) over calendar year 2019. The decrease in refunds was due to a decrease in withdrawals for calendar year 2020. For calendar year 2020, the costs of administering the plan amounted to \$7.1 million, a decrease of \$344 thousand over calendar year 2019.

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(b) Defined Contribution Plan

The 457(b) 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, 2020, totaled \$751.2 million, an increase of \$105.8 million (16.4%) over net position as of December 31, 2019.

Additions to the 457(b) Plan net position include contributions and investment income. For calendar year 2020, contributions increased from those of calendar year 2019 from \$34.9 million to \$36.5 million or an increase of \$1.6 million (4.7%). Contributions increased because of increased participation. The plan recognized a net investment gain of \$101.3 million for calendar year 2020 compared with a net investment gain of \$101.5 million for the calendar year 2019.

Deductions from the 457(b) Plan net position include participant and beneficiary refunds (including rollovers) and administrative expenses. For calendar year 2020, refunds amounted to \$31.3 million, a decrease of \$3.1 million (8.9%) over calendar year 2019. The decrease in refunds was due to a decrease in withdrawals for calendar year 2020. For calendar year 2020, the costs of administering the plan amounted to \$778 thousand, a decrease of \$55 thousand over calendar year 2019.

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

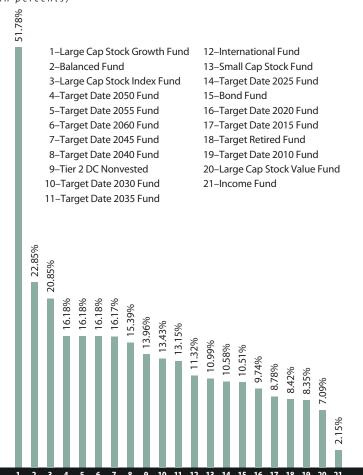
Defined Contribution Comparative Annualized Rates of Return

Year Ended December 31

Investment Option Comparative Index	2020	2019
Income Fund	2.15%	2.60%
Bond Fund	10.51	9.57
Balanced Fund	22.85	20.24
Large Cap Stock Value Fund	7.09	24.75
Large Cap Stock Index Fund	20.85	31.15
Large Cap Stock Growth Fund	51.78	32.27
International Fund	11.32	21.55
Small Cap Stock Fund	10.99	21.56
Target Retired	8.42	10.35
Target Date 2010 Fund	8.35	10.83
Target Date 2015 Fund	8.78	12.03
Target Date 2020 Fund	9.74	14.28
Target Date 2025 Fund	10.58	16.58
Target Date 2030 Fund	13.43	19.76
Target Date 2035 Fund	13.15	21.74
Target Date 2040 Fund	15.39	23.35
Target Date 2045 Fund	16.17	23.78
Target Date 2050 Fund	16.18	23.78
Target Date 2055 Fund	16.18	23.78
Target Date 2060 Fund	16.18	23.78
Tier 2 Nonvested	13.96	17.40

Defined Contribution Savings Plans Investment Option Rates of Return for 2020

(in percents)



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, 2020, totaled \$238.8 million, an increase of \$58.5 million (32.4%) over net position as of December 31, 2019.

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 2020, contributions increased from those of calendar year 2019 from \$28.7 million to \$34.8 million (21.4%). Contributions increased because of increased participation. The plan recognized a net investment gain of \$32.7 million for calendar year 2020 compared with a net investment gain of \$27.7 million for calendar year 2019.

Deductions from the Roth IRA
Plan net position include participant
and beneficiary refunds, transfers and
rollovers, and administrative expenses.
For calendar year 2020, refunds
amounted to \$8.8 million, an increase
of \$1.2 million (16.3%) over calendar year
2019. For calendar year 2020, the costs
of administering the plan amounted
to \$238 thousand, an increase of
\$17 thousand over calendar year 2019.

Statements of Fiduciary Net Position — Defined Contribution Savings Plans

December 31 (dollars in thousands)

			401(k) Plan		457(b) Plan	
	2020	2019	2018	2020	2019	2018
Assets:						
Cash and receivables	\$ 183,507	96,150	97,302	18,831	11,658	10,604
Investments at fair value	6,560,033	5,637,834	4,746,307	741,216	634,153	533,869
Total assets	6,743,540	5,733,984	4,843,609	760,047	645,811	544,473
Liabilities:						
Investment accounts and other payables	104,391	11,144	9,526	8,827	358	316
Total liabilities	104,391	11,144	9,526	8,827	358	316
Net position restricted for pensions	\$ 6,639,149	5,722,840	4,834,083	751,220	645,453	544,157

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

Year Ended December 31

(dollars in thousands)

	401(k)				457(b) Pla			
		2020	2019	2018	2020	2019	2018	
Additions:								
Contributions	\$	358,220	324,333	317,548	36,554	34,919	32,589	
Investment income (loss)		870,766	892,949	(202,398)	101,250	101,538	(24,212)	
Total additions		1,228,986	1,217,282	115,150	137,804	136,457	8,377	
Deductions:								
Refunds		305,565	321,069	276,023	31,259	34,328	32,709	
Administrative expenses		7,112	7,456	7,952	778	833	901	
Total deductions		312,677	328,525	283,975	32,037	35,161	33,610	
Increase (decrease) in net position restricted for pensions	\$	916,309	888,757	(168,825)	105,767	101,296	(25,233)	

Traditional IRA Plan

The Traditional IRA is a "deemed IRA" authorized by section 408(q) 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(b), and other IRAs).

Participants may also convert Traditional IRA funds into a Roth IRA. The plan net position as of December 31, 2020, totaled \$188.8 million, an increase of \$24.4 million (14.8%) over net position as of December 31, 2019.

Additions to the Traditional IRA Plan include contributions, rollovers, and investment earnings. For calendar year 2020, contributions decreased from those of calendar year 2019 from \$40.7 million to \$16.6 million (59.2%). The plan recognized a net investment gain of \$21.5 million for calendar year 2020 compared with a net investment gain of \$17.9 million for calendar year 2019.

Deductions from the Traditional IRA Plan net position include participant and beneficiary refunds, rollovers and transfers, and administrative expenses. For calendar year 2020, refunds amounted to \$13.4 million, a decrease of \$472 thousand (3.4%) over calendar year 2019. For calendar year 2020, the costs of administering the plan amounted to \$234 thousand, an increase of \$33 thousand over calendar year 2019.

	Roth IRA Plan Traditional IRA Plan						otal Defined Con	tribution Plans	2020	2019
2020	2019	2018	2020	2019	2018	2020	2019	2018	Percent Change	Percent Change
2,418	192	399	13,111	553	1,280	217,867	108,553	109,585	100.7%	(0.9)%
238,829	180,241	131,490	188,875	164,496	119,235	7,728,953	6,616,724	5,530,901	16.8	19.6
241,247	180,433	131,889	201,986	165,049	120,515	7,946,820	6,725,277	5,640,486	18.2	19.2
2,449	95	98	13,169	622	610	128,836	12,219	10,550	954.4	15.8
2,449	95	98	13,169	622	610	128,836	12,219	10,550	954.4	15.8
238,798	180,338	131,791	188,817	164,427	119,905	7,817,984	6,713,058	5,629,936	16.5%	19.2%
	R	oth IRA Plan		Traditio	onal IRA Plan	т	otal Defined Con	tribution Plans	2020 Percent	2019 Percent
2020	R 2019	oth IRA Plan 2018	2020	Traditic 2019	onal IRA Plan 2018	T 2020	otal Defined Con 2019	tribution Plans 2018	2020 Percent Change	2019 Percent Change
2020			2020						Percent	Percent
	2019	2018		2019	2018	2020	2019	2018	Percent Change	Percent Change
 34,833	28,682	25,280	16,598	40,674	30,108	446,205	428,608	405,525	Percent Change 4.1%	Percent Change
34,833 32,668	28,682 27,655	25,280 (7,353)	16,598	40,674 17,942	30,108 (2,287)	446,205 1,026,134	428,608 1,040,084	405,525 (236,250)	Percent Change 4.1% (1.3)	5.7% (540.2)
34,833 32,668	28,682 27,655	25,280 (7,353)	16,598	40,674 17,942	30,108 (2,287)	446,205 1,026,134	428,608 1,040,084	405,525 (236,250)	Percent Change 4.1% (1.3)	5.7% (540.2)
34,833 32,668 67,501	2019 28,682 27,655 56,337	25,280 (7,353) 17,927	16,598 21,450 38,048	40,674 17,942 58,616	30,108 (2,287) 27,821	446,205 1,026,134 1,472,339	428,608 1,040,084 1,468,692	405,525 (236,250) 169,275	4.1% (1.3) 0.2	5.7% (540.2) 767.6
34,833 32,668 67,501 8,803	2019 28,682 27,655 56,337 7,569	25,280 (7,353) 17,927	16,598 21,450 38,048	40,674 17,942 58,616	30,108 (2,287) 27,821	446,205 1,026,134 1,472,339 359,051	428,608 1,040,084 1,468,692 376,859	2018 405,525 (236,250) 169,275 324,115	4.1% (1.3) 0.2 (4.7)	5.7% (540.2) 767.6

GASB 68 Employer Allocations and Pension Reporting

URS has included information regarding employer's proportionate 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.

Basic Financial Statements

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

December 31, 2020 With Comparative Totals for December 31, 2019

(in thousands)

	Noncontributory System	Contributory System	Public Safety System	Firefighters System	Judges System	Utah Governors and Legislators Retirement Plan	
Assets:							
Cash	\$ 4	3	20	2	1	1	
Receivables:							
Member contributions	_	65	7	587	_	_	
Employer contributions	45,065	190	5,271	239	337	_	
Court fees and fire insurance tax	_	_	_	86	157	_	
Investments	323,038	14,174	46,888	16,457	2,586	128	
Total receivables	368,103	14,429	52,166	17,369	3,080	128	
Investments at fair value:							
Short-term securities	2,057,085	90,263	298,574	104,797	16,468	815	
Debt securities	4,157,213	182,415	603,401	211,788	33,281	1,646	
Equity investments	12,247,251	537,399	1,777,630	623,932	98,048	4,851	
Absolute return	4,627,952	203,071	671,724	235,770	37,050	1,833	
Private equity	3,544,729	155,540	514,499	180,585	28,378	1,404	
Real assets	4,089,676	179,451	593,596	208,348	32,741	1,620	
Total investments	30,723,906	1,348,139	4,459,424	1,565,220	245,966	12,169	
Invested securities lending collateral	893,221	39,194	129,647	45,505	7,151	354	
Property and equipment at cost,							
net of accumulated depreciation	9,060	398	1,315	462	73	4	
Total assets	31,994,294	1,402,163	4,642,572	1,628,558	256,271	12,656	
Liabilities:							
Securities lending liability	893,221	39,194	129,647	45,505	7.151	354	
Disbursements in excess of cash balance	31,302	1,289	4,266	1,497	235	12	
Compensated absences, post-employment	•	,	,	•			
benefits and insurance reserve	19,304	847	2,803	984	155	8	
Investment accounts payable	478,601	21,079	69,724	24,600	3,846	190	
Real estate liabilities	93,794	4,115	13,615	4,778	751	37	
Total liabilities	1,516,222	66,524	220,055	77,364	12,138	601	
Net position restricted for pensions	\$ 30,478,072	1,335,639	4,422,517	1,551,194	244,133	12,055	

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

		tribution Plans	Defined Con				efit Pension Plans	Defined Ben	
		ng Information	itional Combini	Add				Tier 2 Public	
nsion Trust Funds	Total Pe	Total Defined	- 11.1				Total	Safety and	Tier 2 Public
2019	2020	Contribution Plans	Traditional IRA Plan	Roth IRA Plan	457(b) Plan	401(k) Plan	Defined Benefit Pension Plans	Firefighter System	Employees System
12,674	127,037	127,001	13,111	2,418	8,653	102,819	36	2	3
754	820	_	_	_	_	_	820	161	_
58,369	59,542	_	_	_	_	_	59,542	997	7,443
119	243	_	_	_	_	_	243	_	
441,753	504,159	90,866	_	_	10,178	80,688	413,293	1,264	8,758
500,995	564,764	90,866	_	_	10,178	80,688	473,898	2,422	16,201
1 055 706	2 (24 022						2 (21 022	0.052	55.760
1,855,786	2,631,822		-				2,631,822	8,052	55,768
8,340,975	7,782,402	2,463,683	96,462	62,733	225,692	2,078,796	5,318,719	16,273	112,702
17,610,758	20,679,449	5,010,377	87,538	166,221	493,218	4,263,400	15,669,072	47,940	332,021
5,183,620	5,920,978	_	_	_	_	_	5,920,978	18,115	125,463
4,012,872	4,535,107		4.075	- 0.075			4,535,107	13,875	96,097
5,224,717	5,487,203	254,893	4,875	9,875	22,306	217,837	5,232,310	16,008	110,870
42,228,728	47,036,961	7,728,953	188,875	238,829	741,216	6,560,033	39,308,008	120,263	832,921
884,172	1,142,783	_	_	_	_	_	1,142,783	3,496	24,215
8,850	11,593	_	_	_	_	_	11,593	35	246
43,635,419	48,883,138	7,946,820	201,986	241,247	760,047	6,743,540	40,936,318	126,218	873,586
884,172	1,142,783	_	_	_	_	_	1,142,783	3,496	24,215
35,213	154,486	114,973	13,111	2,375	8,603	90,884	39,513	115	797
22,922	24,700	_	_	_	_	_	24,700	76	523
661,498	626,806	13,863	58	74	224	13,507	612,943	1,880	13,023
120,001	120,000	_	_	_	_	_	120,000	367	2,543
1,723,806	2,068,775	128,836	13,169	2,449	8,827	104,391	1,939,939	5,934	41,101
41,911,613	46,814,363	7,817,984	188,817	238,798	751,220	6,639,149	38,996,379	120,284	832,485

Basic Financial Statements (Concluded)

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

Year Ended December 31, 2020 With Comparative Totals for Year Ended December 31, 2019

(in thousands)

	Noncontributory System	Contributory System	Public Safety System	Firefighters System	Judges System	Utah Governors and Legislators Retirement Plan	
Additions:							
Contributions:							
Member	\$ 16,385	1,728	557	18,729	_	_	
Employer	912,525	4,759	150,512	7,490	8,646	369	
Court fees and fire insurance tax	_	_	_	20,279	1,410	_	
Total contributions	928,910	6,487	151,069	46,498	10,056	369	
Investment income:							
Net appreciation in fair value of investments	3,003,831	135,147	434,881	152,177	23,980	1,222	
Interest, dividends and other investment income	e 484,408	21,795	70,131	24,541	3,867	197	
Total income from investment activity	3,488,239	156,942	505,012	176,718	27,847	1,419	
Less investment expenses	61,170	2,752	8,855	3,099	488	25	
Net income from investment activity	3,427,069	154,190	496,157	173,619	27,359	1,394	
Income from security lending activity	4,481	202	649	227	36	2	
Less security lending expense	561	25	81	28	4	_	
Net income from security lending activity	3,920	177	568	199	32	2	
Net investment income	3,430,989	154,367	496,725	173,818	27,391	1,396	
Transfers from affiliated systems	_	4,542	7,364	2,751	2,340	_	
Total additions	4,359,899	165,396	655,158	223,067	39,787	1,765	
Deductions:							
Retirement benefits	1,260,170	76,228	179,491	50,671	13,174	857	
Cost-of-living benefits	228,457	13,638	35,627	12,023	2,689	166	
Supplemental retirement benefits	_	24	171	148	_		
Refunds	2,338	1,753	96	159	_	10	
Administrative expenses	9,805	406	1,442	425	84	4	
Transfers to affiliated systems	16,980	_	_	_	_	17	
Total deductions	1,517,750	92,049	216,827	63,426	15,947	1,054	
Increase from operations	2,842,149	73,347	438,331	159,641	23,840	711	
Net position restricted for pensions							
benefits beginning of year	27,635,923	1,262,292	3,984,186	1,391,553	220,293	11,344	
Net position restricted for pensions benefits end of year	\$30,478,072	1,335,639	4,422,517	1,551,194	244,133	12,055	

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

		tribution Plans	Defined Cor				efit Pension Plans	Defined Ren	
		ng Information	itional Combini	Add				Tier 2 Public	
nsion Trust Funds 2019	Total Pe	Total Defined Contribution Plans	Traditional IRA Plan	Roth IRA Plan	457(b) Plan	401(k) Plan	Total Defined Benefit Pension Plans	Safety and Firefighter System	Tier 2 Public Employees System
2019	2020	Fiails	INA FIGIT	INA FIGII	437(b) Flaii	401(K) Flair	rension rians	Jysteiii	System
461,845	485,947	446 205	16,598	34,833	36,554	358,220	39,742	2,343	
1,198,341	465,947 1,247,787	446,205	10,396	34,033	30,334	330,220	39,742 1,247,787	2,343 25,020	138,466
43,395	21,689	_		_	_	_	21,689	25,020	—
1,703,581	1,755,423	446,205	16,598	34,833	36,554	358,220	1,309,218	27,363	138,466
1,7 03,301	1,733,123	110,203	10,330	3 1,033	30,33 1	330/220	1,303,210	27,303	130,100
4,812,425	4,861,050	1,026,092	21,590	32,820	101,163	870,519	3,834,958	10,193	73,527
741,214	623,652	5,143	_	_	576	4,567	618,509	1,647	11,923
5,553,639	5,484,702	1,031,235	21,590	32,820	101,739	875,086	4,453,467	11,840	85,450
72,772	83,204	5,101	140	152	489	4,320	78,103	208	1,506
5,480,867	5,401,498	1,026,134	21,450	32,668	101,250	870,766	4,375,364	11,632	83,944
6,418	5,722	_	_	_	_	_	5,722	15	110
838	715	_	_	_	_	_	715	2	14
5,580	5,007	_	_	_	_	_	5,007	13	96
5,486,447	5,406,505	1,026,134	21,450	32,668	101,250	870,766	4,380,371	11,645	84,040
19,653	16,997	_	_	_	_	_	16,997	_	_
7,209,681	7,178,925	1,472,339	38,048	67,501	137,804	1,228,986	5,706,586	39,008	222,506
1,491,679	1,582,056	_	_	_	_	_	1,582,056	76	1,389
272,253	292,608	_	_	_	_	_	292,608	_	8
396 382,977	343 363,407	— 359,051	— 13,424	8,803	— 31,259	305,565	343 4,356	_	-
20,568	20,764	8,362	234	238	778	7,112	12,402	 29	207
19,653	16,997			_	_		16,997	_	
2,187,526	2,276,175	367,413	13,658	9,041	32,037	312,677	1,908,762	105	1,604
5,022,155	4,902,750	1,104,926	24,390	58,460	105,767	916,309	3,797,824	38,903	220,902
36,889,458	41,911,613	6,713,058	164,427	180,338	645,453	5,722,840	35,198,555	81,381	611,583
41,911,613	46,814,363	7,817,984	188,817	238,798	751,220	6,639,149	38,996,379	120,284	832,485

Notes to Basic Financial Statements

December 31, 2020



Note 1 Description of Systems and Plans

A brief description of the Utah Retirement Systems (Systems), 401(k), 457(b), Roth and Traditional IRAs (Plans) 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 188 through 203.

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, costsharing, public employee retirement systems;
- ii) the Public Safety Retirement System is a mixed agent and cost-sharing, multipleemployer 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 multipleemployer, cost-sharing public employee retirement systems; and
- four defined contribution plans comprised of the 401(k) Plan, 457(b) 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(b), 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.

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 on page 57.

December 31, 2020



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*
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 to June 2020; 2.0% per year July 2020 to present

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

The Utah Governors and Legislators Retirement Plan provides the following benefits. Former governors at age 65 receive \$1,440 per month per term. Legislators receive a benefit at age 65 with four or more years of service at the rate of \$31.20 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(b), 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

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

December 31, 2020

Defined Contribution Plans

	401(k)	457(b)	Roth IRA	Traditional IRA
Number of participating employers	476	299	N/A	N/A
Total participants	188,356	19,040	15,382	2,825

made into the 401(k) and 457(b) Plans at rates determined by the employers and according to Utah Title 49. There are 472 employers participating in the 401(k) Plan and 295 employers participating in the 457(b) Plan. There are 188,356 plan participants in the 401(k) Plan, 19,040 participants in the 457(b) Plan, 15,382 participants in the Roth IRA, and 2,825 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(b) 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 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.

December 31, 2020



Participating Membership by System

Farticipating Membe	ersnip by sys	stem				Utah Governors			
	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	473	158	134	63	1	1	485	152	
Members:									
Active	51,161	379	4,596	1,427	119	41	35,895	4,301	
Terminated vested	48,611	1,036	4,846	449	8	81	4,121	260	
Retirees and beneficiari	es:								
Service benefits	55,659	3,152	5,737	1,304	125	181	191	2	
Beneficiary benefits	5,367	527	814	239	30	68	2	2	

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.

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, 2020, participating members by System are included in the table above.

December 31, 2020





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 88.

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 62.

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, 2019, 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.

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.

December 31, 2020



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 fair 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 fair 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 7.9% of the investments held in trust for pension benefits are invested in debt securities of the U.S. Government and its instrumentalities. Of the 7.9%, approximately 5.9% are U.S. Government debt securities and approximately 1.9% are debt securities of the U.S. Government instrumentalities. The Systems and Plans have no investments of any commercial or industrial organization whose fair 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, 2020:

Asset Class	Target Allocation
Debt securities	20%
Equities	37
Real assets	15
Private equity	12
Absolute return	16
Cash and cash equivalents	—
Total	100%

Rate of return. For the year ended December 31, 2020, the annual money-weighted rate of return on pension plan investment, net of pension plan investment expense, was 12.64%. 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 30, 2021. No material events were identified by the Systems and Plans.

December 31, 2020





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

Cash \$ 127,037 Disbursements in excess of cash balances (154,486) Total \$ (27,449)

(in thousands)

The Systems and Plans do not have a deposit policy for custodial credit risk. Deposits are presented in the basic financial statements at cost plus accrued interest that is also the

2020, the carrying amount of deposits totaled approximately \$(27,449,000) and the corresponding bank balance was \$346,514 of which \$ 96,514 was exposed to custodial credit risk.

market or fair value. As of December 31,

B) Investments

The table on the bottom left shows the Systems' and Plans' investments by type.

The investments listed below are not listed on national exchanges, over-the-counter markets, nor do they have quoted market prices available.

(in thousands)	12/31/2020
Private equity	\$ 4,535,107
Absolute return	5,920,978
Real assets	5,487,203
	\$ 15,943,288

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
Defined Benefit	Defined Contribution	Total All Systems and Plans
\$ 2,631,822	_	2,631,822
4,854,381	2,463,683	7,318,064
15,075,522	5,010,377	20,085,899
5,920,978	_	5,920,978
4,535,107	_	4,535,107
5,232,310	254,893	5,487,203
593,550	_	593,550
464,338	_	464,338
\$ 39,308,008	7,728,953	47,036,961
\$ 1,142,783	_	1,142,783
	Defined Benefit \$ 2,631,822 4,854,381 15,075,522 5,920,978 4,535,107 5,232,310 593,550 464,338 \$ 39,308,008	Benefit Contribution \$ 2,631,822 — 4,854,381 2,463,683 15,075,522 5,010,377 5,920,978 — 4,535,107 — 5,232,310 254,893 593,550 — 464,338 — \$ 39,308,008 7,728,953

December 31, 2020



C) Fair Value Measurements

The Systems and Plans categorize their 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 64-65 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.

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) is presented on page 67.

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

December 31, 2020



	(TIT ETTO U	sands)	0	efined Benefit			Defined	d Contribution	
Investments and	-		Fair Value N	easures Using		Fair Value Measures U			
Derivative Instruments Measured at Fair Value		Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs	-	Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs	
	12/31/20	Level 1	Level 2	Level 3	12/31/20	Level 1	Level 2	Level 3	
Investments by fair value level									
Short-term securities	\$ 1,179,652	257,624	848,494	73,534	\$ —	_	_	_	
Debt securities									
Asset-backed	177,271	_	153,794	23,477	43,503	_	42,688	815	
Commercial mortgage-backed	124,128	_	98,587	25,541	2,774	_	1,883	891	
Corporate bonds	1,812,857	_	1,812,793	64	451,810	_	437,711	14.099	
Funds – other fixed income	86,641	_	76,257	10,384	70,086	_	70,086	_	
Government agencies	52,411	_	52,411		32,654	_	32,654	_	
Government bonds	1,145,152	_	1,145,152	_	374,002	_	374,002	_	
Government mortgage-	.,,		.,,				,		
backed securities	730,795	_	698,758	32,037	344,903	_	298,825	46,078	
Index linked government bonds	1,157,398	_	1,157,398		121,097	_	121,097		
Non-government backed C.M.O.s	27,457	_	25,976	1,481	1,724	_	1,724	_	
Total debt securities	5,314,110	_	5,221,126	92,984	1,442,553	_	1,380,670	61,883	
Equity investments									
Consumer goods	3,252,510	3,252,118	_	392	567,505	567,505	_	_	
Energy	389,109	389,093	_	16	39,545	39,545	_	_	
Equity other	2,893	148	_	2,745	292,635	292,635	_	_	
Financials	1,784,569	1,784,327	60	182	200,906	200,906	_	_	
Health care	1,743,120	1,731,887	_	11,237	339,848	339,848	_	_	
Industrials	1,683,064	1,682,590	_	474	190,369	190,369	_	_	
Information technology	2,913,772	2,913,340	_	432	881,880	881,880	_	_	
Materials	639,400	639,224	6	170	50,182	50,182	_	_	
Real estate investment trusts	450,100	450,033	_	67	63,857	63,857	_	_	
Telecommunication services	1,075,031	1,074,582	_	449	328,098	328,098	_	_	
Utilities	326,419	324,485	_	1,934	48,864	48,864	_	_	
Total equity investments	14,259,991	14,241,827	66	18,098	3,003,689	3,003,689	_		
Real assets									
Real Estate	1,090,091	35	_	1,090,056	_	_	_	_	
Agriculture	180,712	_		180,712					
Total real assets	1,270,803	35		1,270,768					
Total investments by fair value level	\$ 22,024,556	14,499,486	6,069,686	1,455,384	\$4,446,242	3,003,689	1,380,670	61,883	

December 31, 2020

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	(in	thousan	ds)		ined Benefit				5.6.14	
Investments and Derivative Instruments Measured at Fair Value			F	Det air Value Me	Defined Contribution Fair Value Measures Using					
(Continued)		٨	Assets	Other Observable Inputs	Significant Unob- servable Inputs			Assets	Other Observable Inputs	Significant Unob- servable Inputs
		12/31/20	Level 1	Level 2	Level 3	_	12/31/20	Level 1	Level 2	Level 3
Investments measured at the net asset value		-								
Short-term securities	\$	1,452,663				\$				
Equity investments Co-mingled equity funds		1,409,081				2	,006,688			
Absolute return										
Directional		1,624,843					_			
Equity long/short		139,763					_			
Event driven		1,273,926					_			
Opportunistic		56,784					_			
Multistrategy		577,706					_			
Relative value		2,010,816					_			
Plus		237,140				_				
Total absolute return measured at the NAV		5,920,978								
Private equity – private equity partnerships		4,535,107								
Real assets							_			
Co-mingled commodities fund							5			
Co-mingled real estate equity fund		152 676					254,888			
Agriculture Energy		153,676 896,550								
Minerals		381,251					_			
Partnerships		9,158					_			
Infrastructure		86,758					_			
Real estate		2,129,691					_			
Royalty		36,139					_			
Timber		270,381					_			
Total real assets measured at the NAV		3,963,604					254,893			
Total investments measured at the NAV	1	7,281,433				2	,261,581			
Total investments measured at fair value	\$ 3	9,305,989				\$ 6	,707,823			
Synthetic guaranteed investments contracts measured at contract value	\$					\$ 1	,020,676			
						<u> </u>	, ,			
Investments derivative instruments Short-term securities – options	\$	(493)	(493)			ċ	(17)	(17)		
Debt securities	٠	(433)	(493)			\$	(17)	(17)		
Options		(611)	43	(654)			17	1	16	
Swaptions		(2,011)	45	(1,804)			16		16	
Swap liabilities		(29,319)	_	(29,319)			(1,408)	_	(1,408)	_
Swap assets		36,550	_	36,550	_		1,846	_	1,846	_
Total debt security derivatives		4,609	43	4,773	(207)		471	1	470	_
Real assets – swap liabilities		(2,097)	_	(2,097)			_	_	_	_
Total investment derivative instruments	\$	2,019	(450)		(207)	\$	454	(16)	470	_
Invested securities lending collateral										
Short-term securities	\$	71,037	_	730	70,307	\$	_	_	_	_
Debt securities	•	118,572	30,152	26,426	61,994	*	_	_	_	_
Equity investments		953,174	_		953,174		_	_	_	_
Total invested securities lending collateral	\$ 1	,142,783	30,152	27,156	1,085,475	\$	_	_	_	_
		. ,	,	,	. , -					

December 31, 2020

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.
- Co-mingled Equity Funds and Co-mingled Small Cap Fund. This type consists of three institutional investment funds that invest in international equities, three funds that invest in domestic 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.
- 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 twelve funds whose investments are more directional in nature although they can shift opportunistically between having a directional bias and a non-directional bias. One fund with a value of \$24.8 million is in redemption. Equity long/short funds include investments in nine 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. There is one fund in redemption with a value of \$28.5 thousand. Event driven funds include investments in twenty-one 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 \$58.6 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. Seven

funds are in the process of redemption totaling \$87 million over the next 1-5 years. *Relative value funds* include investments in ten funds. These funds seek returns by capitalizing on the mispricing of related securities or financial instruments. One fund with a value of \$12.9 million is in redemption. No other funds currently have redemption restrictions.

- 4. Private Equity Partnerships.
 - This type includes investments in limited partnerships. Generally speaking, the types of partnership strategies included in this portfolio are buyouts, venture capital, growth equity, and special situations. 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, 2020, 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 twenty-nine private equity
 partnerships which invest primarily
 in oil and gas related investments.
 Mineral funds include seven private
 equity partnerships which invest
 in mineral mining equity securities,
 commodities and other mining
 investments. Royalty funds include
 two private equity partnerships
 which invest 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, 2020, 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.
- 6. Real Estate and Timber Funds. Real Estate type includes sixty-six investments which are invested primarily in apartments, industrial, office, specialty, and retail properties in the United States. *Timber* includes three funds which invest in timber related resources. Agriculture includes seven 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.

December 31, 2020

Investments Measured at the NAV — Defined Benefit

(in thousands)	Fair V	alue	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Short-term securities – beta/overlays	\$ 1,452,	563	\$ —	Daily	None
Equity investments					
Co-mingled equity funds	1,409,	081	8,358	Daily	None
Total equity investments	1,409,	081	8,358		
Absolute return					
Directional	1,624,	843	_	Monthly, Quarterly	30-60 days
Equity long/short	139,	763	_	Monthly, Quarterly, Annually	30-60 days
Event driven	1,273,	926	110,989	Monthly, Quarterly, Semi-annually,	
				Annually, Bi-annually	45-120 days
Multistrategy	577,	706	_	Monthly, Quarterly, Semi-annually, Annually	45-90 days
Relative value	2,010,	816	_	Monthly, Quarterly, Semi-annually, Annually	30-90 days, N/A
Plus	293,	924	768,597		
Total absolute return	5,920,	978	879,586		
Private equity – partnerships	4,535,	107	1,541,963	Not eligible	N/A
Real assets					
Agriculture	334,	388	163,701	Not eligible	N/A
Energy	896,	550	642,451	Not eligible	N/A
Minerals	381,	251	150,492	Not eligible	N/A
Real Estate	3,219,	747	580,762	Not eligible	N/A
Royalty	36,	139	_	Not eligible	N/A
Timber	270,	381	5,019	Not eligible	N/A
Infrastructure	86,	758	142,874		
Partnerships	9,	158	_		
Total real assets	5,234,	372	1,685,299		
Total investments					
measured at the NAV	\$ 18,552,	201	\$ 4,115,206		

^{*}See redemption descriptions for these investment types on page 66.

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 funds	\$ 2,006,688	_	Daily	None
Total equity securities		_		
Real assets				
Co-mingled real estate equity fund	254,888	_	Quarterly	N/A
Co-mingled commodities fund	5	_	Daily	N/A
Total real assets	254,893	_		
Total investments measured at the NAV	\$ 2,261,581	_		

December 31, 2020

Credit Risk Debt Securities at Fair Value

At December 31, 2020

(in thousands)

At December 31, 2020			(In	tnousand	15)						Defined I	Benefit Plans
	Quality Rating	F	air Value	Asset- Backed Securities	Commercial Mortgage- Backed Securities	Corporate Bonds	Fixed Income Other	Government Agencies	Government Bonds	Government Mortgage- Backed Securities	Index Linked Government Bonds	Government Backed
	AAA	\$ 5!	59,493	76,249	45,151	13,995	_	10,652	17,545	_	386,505	9,396
	AA+	8	89,932	1,815	3,507	34,531	_	22,457	5,768	_	21,734	120
	AA	3	36,733	4,367	· —	19,411	_	7,097	5,858	_	<i>'</i> —	_
	AA-	20	05,181	1,769	590	191,035	5,001	· —	6,786	_	_	_
	A+	2.5	55,263	1,708	_	247,662	_	2,053	3,840	_	_	_
	Α	22	20,499	6,711	_	209,848	_	856	1,831	_	_	1,253
	A-	33	38,373	_	2,894	334,878	_	_	578	_	_	23
	BBB+	37	79,633	310	_	355,101	_	_	24,222	_		_
	BBB	22	24,609	_	_	187,772	_	1,858	34,979	_		_
	BBB-	14	46,577	_	_	127,755	_	_	18,822	_	_	_
	BB+		12,385	25	_	11,801	_	_	425	_	_	134
	BB	3	31,022	_	_	24,649	_	_	6,087	_	_	286
	BB-		16,725	138	_	14,898	_	_	1,689	_	_	_
	B+		6,233	_	_	4,460	_	_	1,773	_	_	_
	В		8,810	468		2,100	_	_	5,633	_	_	609
	B-		1,681	1,080	_	_	_	_	_	_	_	601
	CCC		534	37	_	_	_	_	_	_	_	497
	CCC-		549	549	_	_	_	_	_	_	_	_
	D		169	169	_	_	_	_	_	_	_	_
	N/R	1,2	50,523	81,876	71,986	32,961	86,247	7,438	206,317	_	749,159	14,539
Subtotal		3,78	84,924	177,271	124,128	1,812,857	91,248	52,411	342,153	_	1,157,398	27,458
N/A		1,53	33,795	_	_	_	_	_	803,000	730,795	_	_
Total debt sed investments		\$ 5,3	18,719	177,271	124,128	1,812,857	91,248	52,411	1,145,153	730,795	1,157,398	27,458
											Defined Contri	hution Plans

									ι	Defined Contri	bution Plans
Quality Rating		Fair Value	Asset- Backed Securities	Commercial Mortgage- Backed Securities	Corporate Bonds	Fixed Income Other	Government Agencies	Government Bonds	Government Mortgage- Backed Securities	Index Linked Government Bonds	Non- Government Backed C.M.O.s
AAA	\$	23,373	2,464	446	1,414		2,727	14,791		_	1,531
AA+	•	40,661	36,087	_	1,120	_		1,518	_	1,936	
AA		11,384	178	_	8,665	_	2,541	_		_	_
AA-		2,252	_	98	2,154	_	_	_	_	_	_
A+		15,374	_		10,487	_	_	4,887	_	_	_
Α		5,673	204	_	5,217	_	252	_	_	_	_
A-		50,424	_	_	40,890	_	974	8,560	_	_	_
BBB+	-	99,015	62	_	93,108	_	_	5,845	_	_	_
BBB		121,021	_	_	97,033	_	22,517	1,471	_	_	_
BBB-		81,981	_	 -	72,841	_	_	9,140	_	_	_
BB+		58,183	_	 -	57,985	_	_	198	_	_	_
BB		18,227	_	 -	14,820	_	_	3,407	_	_	_
BB-		32,482	_	_	29,845	_	2,105	532	_	_	_
B+		1,735	_	_	1,056	_	_	679	_	_	_
В		1,788	_	_	_	_	_	1,788	_	_	_
N/R		353,565	4,508	2,230	15,175	70,540	1,538	140,220	_	119,161	193
Subtotal		917,138	43,503	2,774	451,810	70,540	32,654	193,036	_	121,097	1,724
N/A		525,869	_	_	_	_	_	_	525,869	_	
Total debt securities investments	\$ 1	,443,007	43,503	2,774	451,810	70,540	32,654	193,036	525,869	121,097	1,724
Synthetic Guaranteed Investment Contracts	\$ 1	,020,676									
Total	\$ 2	,463,683									

December 31, 2020

Doht	Sac	uritios	Investn	onte
IJPNT	SPC	IIPITIES	investn	1PNTS

		Defined B	enefit Plans	Defined Contril		
At December 31, 2020 (dolla Investment	rs in thousands)	Fair Value	Effective Weighted Duration	Fair Value	Effective Weighted Duration	Total All Systems and Plans
Asset-backed securities	\$	177,271	2.13	\$ 43,503	3.06	\$ 220,774
Commercial mortgage-backed		124,128	4.21	2,774	1.99	126,902
Corporate bonds		1,812,857	4.68	451,810	7.71	2,264,667
Fixed income other		91,249	0.33	70,540	_	161,789
Government agencies		52,411	7.81	32,654	9.03	85,065
Government bonds		1,145,152	10.85	374,002	7.02	1,519,154
Government mortgage-backed securities		730,795	3.27	344,903	3.61	1,075,698
Index linked bonds		1,157,398	10.82	121,097	3.97	1,278,495
Non-government backed C.M.O.s		27,458	2.71	1,724	2.23	29,182
Total measured at fair value		5,318,719	7.01	1,443,007	6.01	6,761,726
Synthetic guaranteed investment contracts me	asured at fair value	_		1,020,676		1,020,676
Total	Ç	5,318,719		\$ 2,463,683		\$ 7,782,401
						_

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 guidelines:

- » 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. For the Systems, no more than 5% of an investment manager's assets can be below investment grade and no more than 1% of an investment manager's assets can be with a single below investment grade issuer. For the Plans, no more than 15% of an investment manager's assets can be below investment grade.
- » Upon approval, a domestic debt securities investment manager may invest up to 10% of the portfolio in non-U.S. dollar denominated bonds.

For the Systems, global 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. For the Plans, international debt securities investment managers may hold up to 20% 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.

The Systems and Plans' weighted quality rating average of the global debt securities, excluding pooled investments, as of December 31, 2020, was A+, and the fair value of below grade investments was \$190,523,000 or 2.45%.

The notation N/R represents those securities that are not rated, and N/A represents those securities for which the rating disclosure requirements are not applicable such as obligations of the United States Government and obligations guaranteed by the United States 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, 2020, the table below represents the investments that have custodial credit risk. The \$219,502,000 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

Type of Investment	(in	thousands)	Fair Value
Cash and cash	equi	valents	\$ 219,502

Exposure to Custodial Credit Risk Not Determined

Investment	(in	thousands)	Fair Value
Other assets			\$ 396,351

December 31, 2020

F) Concentrations Credit Risk

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

- » 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

 for the Systems, no more than
 of an investment manager's assets at market with a single issuer.
- » For Debt Securities for the Systems, 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.

As of December 31, 2020, 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 investment 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 Bond Index (USD hedged) for global debt securities and the Bloomberg Barclays World Government Inflation-Linked Bond Index (USD hedged) for inflation-linked debt securities. The index duration range as of December 31, 2020, was 4.67 to 7.78 for domestic debt securities, 5.57 to 9.29 for global debt securities, and 10.06 to 15.08 for inflation-linked debt securities.

The Plans compare an investment's effective duration against the Bloomberg Barclays US Aggregate Bond Index for domestic debt securities, the Bloomberg Barclays Global Aggregate ex-U.S. Bond Index (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, 2020, was 4.67 to 7.78 for domestic debt securities, 6.63 to 9.95 for international debt securities, and 4.07 to 6.11 for inflation-linked debt securities.

As of December 31, 2020, no individual debt securities investment manager's portfolio was outside of the policy guidelines. As of December 31, 2020, the table on page 69 shows the debt securities 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 71.

I) Securities Lending

The Systems 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, egual to approximately 102% 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.

December 31, 2020

Foreign Currency Risk

International Investment Securities at Fair Value at December 31, 2020

(in thousands)

	(in tho	usands)			Defined	Benefit Plans	Defined Contribution Plans		Total	
Currency	Short-Term	Debt	Equity	Absolute Return	Private Equity	Total	Debt	Equity	Total	All Systems and Plans
Argentine peso Australian dollar Brazilian real	\$ — 1,998 180	44,068 —	— 234,743 100,635	_	 1,843 	282,652 100,815	26,468 —	477 43,085 14,574	477 69,553 14,574	477 352,205 115,389
British pound sterling Canadian dollar Chilean peso	111,365 1,812 352	363,514 47,532 —	762,009 452,326 8,068		110,823 — —	1,347,711 501,670 8,420	44,732 11,123 —	86,288 58,890 1,527	131,020 70,013 1,527	1,478,731 571,683 9,947
Chinese yuan renminbi Colombian peso Czech koruna	i 1,269 228 31	18,845 — —	96,236 4,179 1,381			116,350 4,407 1,412	11,600	99,834 580 255	111,434 580 255	227,784 4,987 1,667
Danish krone Egyptian pound Euro	226 — 73,889	2,295 — 540,353	61,697 1,548 1,456,746	— — 385,598	— — 192,378	64,218 1,548 2,648,964	342 — 140,701	14,100 295 180,826	14,442 295 321,527	78,660 1,843 2,970,491
Hong Kong dollar Hungarian forint Indian rupee	1,293 21 242	_ _ 3	736,423 17,513 146,759	_ _ _	_ _ _	737,716 17,534 147,004	_ _ _	18,080 546 26,874	18,080 546 26,874	755,796 18,080 173,878
Indonesian rupiah Japanese yen Kuwaiti dinar	10 2,602 280	83,008 —	19,603 1,203,626 7,938	 11 	_ _ _	19,613 1,289,247 8,218	97,202 —	3,904 152,975 1,407	3,904 250,177 1,407	23,517 1,539,424 9,625
Malaysian ringgit Mexican peso Moroccan dirham	115 588 18	2,088 11,608 —	36,570 73,690 —	41,373 —	_ _ _	38,773 127,259 18	1,005 5,354 —	4,716 4,867 —	5,721 10,221 —	44,494 137,480 18
New Israeli shekel New Romanian leu New Taiwan dollar	224 65 510	_ _ _	15,110 468 196,346	_ _ _	_ _ _	15,334 533 196,856	_ _ _	5,066 — 37,669	5,066 — 37,669	20,400 533 234,525
New Zealand dollar Norwegian krone Pakistani rupee	446 552 —	24,873 — —	11,516 21,342 —	_ _ _	_ _ _	36,835 21,894 —	2,410 557 —	2,871 4,960 189	5,281 5,517 189	42,116 27,411 189
Peruvian nuevo sol Philippine peso Polish zloty	23 9 270	_ _ _	— 52,853 28,111	_ _ _	_ _ _	23 52,862 28,381		638 2,069 2,031	638 2,069 2,031	661 54,931 30,412
Qatar riyal Russian ruble Saudi riyal	 189	10,314 —	23,229 35,832			33,543 36,021	4,515 —	1,972 7,637 6,727	1,972 12,152 6,727	1,972 45,695 42,748
Singapore dollar South African rand South Korean won	82 292 1,497	6,087 —	49,549 63,209 269,347	_ _ _	_ _ _	49,631 69,588 270,844	3,407 3,990	6,931 9,531 38,589	6,931 12,938 42,579	56,562 82,526 313,423
Swedish krona Swiss franc Thai baht	270 716 24	6,971 — 4,383	174,576 375,178 38,801	7,517 —	_ _ _	181,817 383,411 43,208	2,599 — 3,124	23,467 52,969 5,474	26,066 52,969 8,598	207,883 436,380 51,806
Turkish lira United Arab Emirates dirham	133	_ _	10,303 9,710	_ _ _	_ _	10,436 9,741	_ _	1,378 1,459	1,378 1,459	11,814 11,200
Total securities subject to foreign currency risk	\$ 201,852	1,165,942	6,797,170	434,499	305,044	8,904,507	359,129	925,727	1,284,856	10,189,363

December 31, 2020



At December 31, 2020, there was no credit risk exposure to borrowers because the collateral exceeded the amount borrowed. The securities on loan at year end were \$1,057,888,000 and the collateral received for those securities on loan was \$1,142,783,000. Under the terms of the lending agreement, the Systems 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 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 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' loans is affected by the maturities of the securities loans made by other entities that use the agent's pool, which the Systems cannot determine. Because the securities lending collateral is in a pool maintained by the custodial bank, the Systems 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, 2020, 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, 2020, the Systems' and Plans' investments had the notional futures balances as shown on page 73.

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, 2020, the Systems' and Plans' investments included the currency forwards balances on page 73.

December 31, 2020

Futures

Notional Value

		Defined Benefit Plans 2020	Defined Contribution Plans 2020
Cash &	Long	\$ —	_
Cash Equivalents	Short	(147,469)	
Equity	Long	37,919	19,896
	Short	(116,197)	—
Fixed Income	Long	751,774	57,602
	Short	(632,256)	(107,407)
Total Futures		\$ (106,229)	(29,909)

(in thousands)



Currency Forwards

(in thousands)

(in t	housands))	Defined	Benefit Plans
Currency	Notional Cost	Pending Foreign Exchange Purchases	Pending Foreign Exchange Sales	Fair Value 2020
Australian dollar	\$ (46,547)	2,123	(49,936)	(47,813)
British pound sterling	(453,816)	12,560	(475,672)	(463,112)
Canadian dollar	(48,649)	2,259	(51,364)	(49,105)
Chilean peso	3,511	3,660	_	3,660
Czech koruna	3,488	3,533	_	3,533
Danish krone	(2,758)	_	(2,819)	(2,819)
Euro HK offshore Chinese	(601,240)	210,344	(820,949)	(610,605)
yuan renminbi	(18,529)	_	(18,626)	(18,626)
Hong Kong dollar	1,477	1,476	_	1,476
Indian rupee	6,811	6,886	(88,347)	(81,461)
Japanese yen	(78,612)	9,265	(2,119)	7,146
Malaysian ringgit	(2,088)	_	(8,174)	(8,174)
Mexican peso	(8,189)	24	(27,977)	(27,953)
New Zealand dollar	(27,306)	_	(3,103)	(3,103)
Norwegian krone	(3,047)	_	_	_
Polish zloty	3,548	3,490	(5,177)	(1,687)
Russian ruble	3,680	8,841	_	8,841
Singapore dollar	383	387	(6,177)	(5,790)
South African rand	(6,074)	_	(10,439)	(10,439)
Swedish krona	(8,900)	1,260	(1,048)	212
Swiss franc	1,712	2,757	_	2,757
Thai baht	(3,268)	_	(3,277)	(3,277)
United States dollar	1,284,413	1,552,723	(268,309)	1,284,414
Total forwards subject to foreign				_
currency risk	\$ —	1,821,588	(1,843,513)	(21,925)

	Defined Contribution Plans			
Currency	Notional Cost	Pending Foreign Exchange Purchases	Pending Foreign Exchange Sales	Fair Value 2020
Australian dollar	\$ (9,429)	692	(10,350)	(9,658)
British pound sterling	(20,083)	5,309	(25,857)	(20,548)
Canadian dollar	(12,602)	342	(12,939)	(12,597)
Chilean peso	959	999	_	999
Czech koruna	960	973	_	973
Danish krone	(340)	_	(349)	(349)
Euro HK offshore Chinese	(137,326)	25,616	(164,179)	(138,563)
yuan renminbi	(11,422)	_	(11,484)	(11,484)
Indian rupee	2,644	2,671	_	2,671
Japanese yen	(55,271)	2,448	(57,845)	(55,397)
Malaysian ringgit	(888)	_	(901)	(901)
Mexican peso	(4,141)	_	(4,138)	(4,138)
New Zealand dollar	(3,310)	208	(3,595)	(3,387)
Norwegian krone	(1,376)	_	(1,402)	(1,402)
Polish zloty	965	950	_	950
Russian ruble	685	2,312	(1,624)	688
South African rand	(3,271)	_	(3,327)	(3,327)
South Korean won	(4,175)		(4,172)	(4,172)
Swedish krona	(3,614)	1,362	(5,083)	(3,721)
Swiss franc	758	759	_	759
Thai baht	(2,830)		(2,836)	(2,836)
United States dollar	263,107	307,524	(44,416)	263,108
Total forwards subject to foreign				
currency risk	\$ —	352,165	(354,497)	(2,332)

December 31, 2020

Options			Fair Value
——————————————————————————————————————	(in thousands)	Defined Benefit Plans 2020	Defined Contribution Plans 2020
Cash Cash Equivalents	Call Put	\$ (493) —	(17) —
Fixed Income	Call Put	— 43	- 1
Swaptions	Call Put	1,427 (3,438)	56 (40)
Interest Rate Contracts		(654)	16
Total Options		\$ (3,115)	16

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 counterparty bears the risk of an unfavorable change in the price of the financial instrument underlying the option. As of December 31, 2020, the Systems' and Plans' investments had the option balances shown in the top right table.

Swaps

The Systems and Plans have entered into various inflation, overnight indexed 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

		Fair Value
Swaps (in thousands	Defined Benefit Plans 2020	Defined Contribution Plans 2020
Fixed Income Portfolio Swaps		
Interest Rate Swaps Pay Fixed Receive Variable Pay Variable Receive Fixed	\$ (20,460) 24,842	(890) 932
Retail Price Index Swaps Pay Fixed Receive Variable Pay Variable Receive Fixed	(3)	214 222
Overnight Indexed Swaps Pay Fixed Receive Variable Pay Variable Receive Fixed	2,852 —	2 (2)
Other	_	(40)
Real Estate Swaps Interest Rate Swaps		
Pay Fixed Receive Variable	(2,097)	
Total Swaps	\$ 5,134	438

Synthetic Guaranteed Investment Contracts Underlying Investments

(in thousands)		1-5 Yr. G	iovernment/C	redit Bond
Underlying Investments	Fair Value	Market Value	Duration	Credit Rating
Asset-backed securities	\$ 113,250	119,720	1.24	AAA
Agencies	45,607	48,212	1.86	AA+
Corporates	179,308	189,552	4.33	A-
Government mortgage-backed securities	80,272	84,858	2.64	AA+
United States treasuries	35,739	37,780	3.40	AA+
Commercial mortgage-backed securities	56,293	59,508	1.42	AA+
Cash	818	865	_	_
Total	\$ 511,287	540,495		

December 31, 2020

Derivative Credit Risk at Fair Value

(in thousands)

Quality Rating	Forwards	Options	Swaps	Total
AA-	\$ (39)	_	_	(39)
A+	(10,686)	(355)	_	(11,041)
A	_	(458)	_	(458)
A-	(1,714)	53	2,998	1,337
BBB+	(6,371)	(1,922)	(146)	(8,439)
BBB	(5,431)	47	414	(4,970)
N/R	(16)	(464)	(17)	(497)
Total subject to credit risk	\$ (24,257)	(3,099)	3,249	(24,107)

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, 2020, the Systems' and Plans' investments had the swap fair value balances as shown in the middle table on page 74.

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, 2020, if all counterparties fail to perform as contracted was \$2,196,622,854. Derivative credit risk at fair value is shown in the table above. This maximum exposure is reduced by \$2,220,732,357 of liabilities, resulting in \$0 exposure to credit risk. Credit ratings for the wrap contracts associated with the SGICs are noted in the table below on pages 74-75. As of December 31, 2020, the counterparties' credit ratings for currency forwards, options, and swaps are subject to credit risk.

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. 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).

Intermediate Government/Credit Bond					
Fair Value	Market Value	Duration	Credit Rating		
\$ 60,429	63,888	1.17	AAA		
28,023	29,626	5.39	AA+		
133,484	141,124	5.93	A-		
48,645	51,429	2.64	AA+		
42,051	44,458	5.41	AA+		
34,301	36,264	1.51	AAA		
3,788	4,005	_	_		
\$ 350,721	370,794				

MetLife Separate Account				То	tal Underlying Investments
Fair Value	Market Value	Duration	Credit Rating	Fair Value	Market Value
\$ 33,653	34,924	1.06	AAA	\$ 207,332	218,532
4,760	4,940	2.27	AA+	78,390	82,778
55,740	57,844	2.14	A-	368,532	388,520
25,292	26,246	2.96	AA+	154,209	162,533
11,091	11,510	3.03	AA+	88,881	93,748
26,561	27,564	1.14	AA+	117,155	123,336
1,571	1,630	_	_	6,177	6,500
\$ 158,668	164,658			\$ 1,020,676	1,075,947

December 31, 2020

Wrap Contracts

(in thousands)

Fair Value	Market Value	Rate	Duration	Quality Rating
\$ 86,823	92,058	2.41%	3.30	A+
118,963	125,881	2.37	3.30	AA-
158,668	164,658	2.30	1.98	AA-
206,823	218,778	2.29	3.30	AA-
28,650	28,807	0.66	3.29	AA-
154,476	165,329	1.60	3.30	AA-
75,540	78,173	1.64	3.29	AA-
190,733	202,263	2.30	3.3	A+
1,020,676	1,075,947			
49,100	49,100			
\$ 1,069,776	1,125,047			
	\$ 86,823 118,963 158,668 206,823 28,650 154,476 75,540 190,733 1,020,676 49,100	\$ 86,823 92,058 118,963 125,881 158,668 164,658 206,823 218,778 28,650 28,807 154,476 165,329 75,540 78,173 190,733 202,263 1,020,676 1,075,947 49,100 49,100	\$ 86,823 92,058 2.41% 118,963 125,881 2.37 158,668 164,658 2.30 206,823 218,778 2.29 28,650 28,807 0.66 154,476 165,329 1.60 75,540 78,173 1.64 190,733 202,263 2.30 1,020,676 1,075,947 49,100 49,100	\$ 86,823 92,058 2.41% 3.30 118,963 125,881 2.37 3.30 158,668 164,658 2.30 1.98 206,823 218,778 2.29 3.30 28,650 28,807 0.66 3.29 154,476 165,329 1.60 3.30 75,540 78,173 1.64 3.29 190,733 202,263 2.30 3.3 1,020,676 1,075,947 49,100 49,100

The fair value of these contracts as of December 31, 2020, was \$1,069,776 and the market value was \$1,125,047.

K) Investment Payables

The investment accounts payable are comprised of investment advisor fees payable of \$11,847,858, administrative expenses payable of \$11,655,560, and investment purchases payable of \$603,302,581.

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 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, 2020 and 2019. There were no significant leases as of December 31, 2020 or 2019.

Property and Equipment

(in thousands)

	2020	2019
Land	\$ 1,780	1,780
Buildings and building improvements	20,870	20,675
Furniture and equipment	5,093	4,096
Computer software	14,810	10,957
Total property and equipment	42,553	37,508
Less accumulated depreciation:		
Buildings and building improvements	11,300	10,862
Furniture and equipment	3,962	2,715
Computer software	4,718	4,013
Total accumulated depreciation	19,980	17,590
Less operating reserves	10,980	11,069
Net property and equipment	\$ 11,593	8,850

December 31, 2020



N I d

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, 2020, is as shown on page 78.

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 five-year period ending 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, 2020, is based on the results of an actuarial valuation date of January 1, 2020, and rolled-forward using generally accepted actuarial procedures.

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, 2020, are summarized in the table on page 79.

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)	(4) Plan Fiduciary Net Position as a % of the Total Pension Liability (2) / (1)	Li (5) Projected Covered Employee Payroll	(6) Net Pension ability/(Asset) as a % of Projected Covered Employee Payroll (3) / (5)
Noncontributory Retirement System	\$ 31,763,859	30,478,072	1,285,787	96.0%	\$ 3,306,382	38.9%
Contributory Retirement System	1,272,690	1,335,639	(62,949)	104.9	30,748	(204.7)
Public Safety Retirement System	4,694,184	4,422,517	271,667	94.2	338,919	80.2
Firefighters Retirement System	1,388,497	1,551,194	(162,697)	111.7	114,458	(142.1)
Judges Retirement System	271,116	244,133	26,983	90.0	20,071	134.4
Utah Governors and Legislative Retirement Plan	13,330	12,055	1,275	90.4	757	168.3
Tier 2 Public Employees Retirement System	846,868	832,485	14,383	98.3	1,609,102	0.9
Tier 2 Public Safety and Firefighter Retirement System	129,253	120,284	8,969	93.1	188,667	4.8
Total	\$ 40,379,797	38,996,379	1,383,418	96.6%	\$ 5,609,104	24.7%

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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
Valuation date	1/1/20	1/1/20	1/1/20	1/1/20	1/1/20	1/1/20	1/1/20	1/1/20
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	3.25-9.25%	3.25-9.25%	3.25-7.25%	3.25-8.50%	3.25%	None	3.25-9.25%	3.25-8.50%
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)	of the ultin Female ret	Male retirees: 110% of 2020 PR UTAH Retiree Mortality Table for males, projected with 80% of the ultimate rates from the MP-2019 mortality improvement scale using a base year of 2020. Female retirees: 110% of 2020 PR UTAH Retiree Mortality Table for females, projected with 80% of the ultimate rates from the MP-2019 mortality improvement scale using a base year of 2020.						
Mortality: (Educators)	of the ultin Female ret	Male retirees: 90% of 2020 PR UTAH Retiree Mortality Table for males, projected with 80% of the ultimate rates from the MP-2019 mortality improvement scale using a base year of 2020. Female retirees: 90% of 2020 PR UTAH Retiree Mortality Table for females, projected with 80% of the ultimate rates from the MP-2019 mortality improvement scale using a base year of 2020.						

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.

December 31, 2020



Target Allocations

larget Allocations		Expected Return	Arithmetic Basis
Asset Class	Target Asset Allocation	Real Return Arithmetic Basis	Long-term Expected Portfolio Real Rate of Return*
Equity securities	37%	6.30%	2.33%
Debt securities	20	0.00	0.00
Real assets	15	6.19	0.93
Private equity	12	9.50	1.14
Absolute return	16	2.75	0.44
Cash and cash equivalents	0	0.00	0.00
Totals	100%		4.84%
Inflation			2.50
Expected arithmeti	c nominal return		7.34%

^{*}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.

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	\$ 5,340,592	1,285,787	(2,100,920)
Contributory Retirement System	56,535	(62,949)	(164,728)
Public Safety Retirement System	926,006	271,667	(262,642)
Firefighters Retirement System	30,392	(162,697)	(320,705)
Judges Retirement System	57,467	26,983	1,124
Utah Governors and Legislative Retirement Plan	2,545	1,275	192
Tier 2 Public Employees Retirement System	242,019	14,383	(159,753)
Tier 2 Public Safety and Firefighters Retirement System	42,288	8,969	(17,604)
Total	\$ 6,697,844	1,383,418	(3,025,036)

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.

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 to the left 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.

December 31, 2020





Note 6

Employer Contribution Requirements

The schedule below summarizes contribution rates in effect as of December 31, 2020. 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 below 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, 2020, is indicated in the schedules shown below and on page 81.

Member contributions in the 401(k), 457(b), Roth and Traditional IRAs, total \$446,205,000, that in combination with the member contributions made in the Retirement Systems total \$485,947,000.

Contribution Rates

December 31, 3020

Contribution Rates as a Percent of Covered Payroll

System		Member	Employer	Other
Noncontributory Retirement System		_	18.47-22.19%	_
Contributory Retirement System		6.00%	14.46-17.70	_
Public Safety Retirement System:	Noncontributory	_	32.28-50.38	_
	Contributory	10.50-12.29	22.79-28.98	_
Firefighters Retirement System:	Division A	15.05	4.61	11.06%
	Division B	16.71	7.24	11.06
Judges Retirement System:	Noncontributory	_	44.31	7.60
Governors and Legislators Retirement Pla	an	_	\$ 361,437	_
Tier 2 Public Employees Contributory Ret	rirement System	_	15.80-19.13%	_
Tier 2 Public Safety and Firefighter Contri	butory Retirement System	2.17	14.08-40.97	_

December 31, 2020

Required Contributions

(dollars in thousands)	Contribution Requirements					
System	Normal Cost	Unfunded Cost	Total Required Contributions	Total Actual Contributions	Member Contributions Made	Employer Contributions Made
Noncontributory Retirement System	\$ 614,830	314,080	928,910	928,910	16,385	912,525
Contributory Retirement System	3,571	2,916	6,487	6,487	1,728	4,759
Public Safety Retirement System	98,783	52,286	151,069	151,069	557	150,512
Firefighters Retirement System	46,498	_	46,498	46,498	18,729	27,769
Judges Retirement System	7,542	2,514	10,056	10,056	_	10,056
Governors & Legislators Retirement Plan	369	_	369	369	_	369
Tier 2 Public Employees Contributory Retirement System Tier 2 Public Safety and Firefighter	138,466	_	138,466	138,466	_	138,466
Contributory Retirement System	27,363	_	27,363	27,363	2,343	25,020
Total	\$ 937,422	371,796	1,309,218	1,309,218	39,742	1,269,476



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.



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, 2020, the Systems had committed to fund certain private equity partnerships, absolute return, and real asset funds projects for an amount of \$18,639,848. Funding of \$14,524,643 had been provided by December 31, 2020, leaving an unfunded commitment of \$4,115,206 as of December 31, 2020.

December 31, 2020





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 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.

Utah Retirement Systems' contributions to the State and School Noncontributory Retirement System for the years ended December 31, 2020, 2019, and 2018, were \$3,021,405, \$3,049,184, and \$3,055,948 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, 2020, 2019, and 2018, were \$839,373, \$769,581, and \$679,751, 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(b), Roth and Traditional IRAs.

401(k) Plan

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, 2020, 2019, and 2018, were \$1,688,217, \$1,417,961, and \$1,342,138, respectively; the employee contributions for the years ended December 31, 2020, 2019, and 2018, were \$1,150,635, \$1,055,776, and \$888,860, 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.

December 31, 2020



457(b) Plan

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(b) Plan for the years ended December 31, 2020, 2019, and 2018, were \$571,709, \$516,714, and \$486,440, 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, 2020, 2019, and 2018, the Roth IRA employee contributions were \$289,617, \$268,807, and \$211,468, respectively. For the years ended December 31, 2020, 2019, and 2018, the traditional IRA employee contributions were \$6,896, \$681, and \$2,719, respectively.



Note 12 Post-Employment Healthcare Plan

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.

For purposes of measuring the net OPEB liability/(asset), deferred outflows/inflows of resources and expenses, information about the fiduciary net positions of the Other Postemployment Benefit Plan and additions to/ deductions from the Plans' fiduciary net positions have been determined on the same basis as they are reported by the Plans. For this purpose, the Plans recognize benefit payments when due and payable in accordance with the benefit terms. OPEB investments for the Plans are reported at fair value.

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.

Membership (as in January 1, 2019, the last actuarial valuation date)

Number of retirees 42
Inactive, nonretired —
Active members 78
Total membership 120

Net OPEB Liability/(Asset)

The net OPEB asset was measured as of December 31, 2020. The total OPEB liability, used to calculate the net OPEB liability/(asset), was determined by an actuarial valuation as of January 1, 2019, and rolled-forward using generally accepted actuarial procedures. The combined total net OPEB asset is \$1.8 million. On pages 84 and 85 are the changes in the net OPEB liability/(asset) and related ratios of the net OPEB liability/(asset).

December 31, 2020

Summary of Actuarial Assumptions

Actuarial Cost Method	Individual Entry Age Normal
Discount Rate	6.95%, net of OPEB plan investment expense, including inflation
Inflation	2.50%
Salary Increases	3.25% to 8.50%, including inflation
Demographic Assumptions	The demographic assumptions were based on the experience study covering the five year period ending January 1, 2016 as conducted for the Utah Retirement Systems (URS).
Mortality Assumptions	Male retirees: 110% of 2017 PR UTAH Retiree Mortality Table for males, projected with Scale AA from 2017.
	Female retirees: 110% of 2017 PR UTAH Retiree Mortality Table for females, projected with Scale AA from 2017.
Participation Rates	All eligible members are assumed to convert all unused sick leave into health coverage at retirement.
Health Care Trend Rates	Initial trend rate of 7.50%, decreasing to an ultimate of 4.50% over 15 years.

Schedule of Changes in Net OPEB Liability and Related Ratios Multiyear*

Fiscal Year Ending December 31		2020	2019	2018	2017
Total OPEB Liability					
Service cost	\$	33,886	36,184	35,009	36,798
Interest on the total OPEB liability		335,030	407,198	402,338	393,103
Changes of benefit terms		_	_	_	_
Difference between expected and actual experience		113,234	(1,043,159)	15,944	68,615
Changes of assumptions		(114,455)	_	_	_
Benefit payments		(466,576)	(408,363)	(359,523)	(369,968
Net change in total OPEB liability		(98,881)	(1,008,140)	93,768	128,548
Total OPEB liability – beginning		5,036,919	6,045,059	5,951,291	5,822,743
Total OPEB liability – ending (a)	\$	4,938,038	5,036,919	6,045,059	5,951,291
Plan Fiduciary Net Position					
Employer contributions	\$	_	_	_	_
Employee contributions		_	_	_	_
OPEB plan net investment income		788,499	832,923	(23,149)	781,412
Benefit payments		(466,576)	(408,363)	(359,523)	(369,968
OPEB plan administrative expense		(15,106)	(25,269)	(2,482)	_
Other		_	_	_	_
Net change in plan fiduciary net position		306,817	399,291	(385,154)	411,444
Plan fiduciary net position – beginning	-	6,434,251	6,034,960	6,420,114	6,008,670
Plan fiduciary net position – ending (b)		6,741,068	6,434,251	6,034,960	6,420,114
Net OPEB liability/(asset) – ending (a) - (b)	\$(1,803,030)	(1,397,332)	10,099	(468,823
Plan fiduciary net position as a percentage of total OPEB liability		136.51%	127.74%	99.83%	107.88%
Covered payroll	\$	7,404,513	7,404,513	7,897,200	7,897,200
Net OPEB liability as a percentage of covered payroll		(24.35)%	(18.87)%	0.13%	(5.94)%

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

December 31, 2020

Net OPEB Liability/(Asset)

Total OPEB Liability Plan Fiduciary Net Position	\$ 4,938,038 6,741,068			
Net OPEB Liability/(Asset)	\$ (1,803,030)			
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability 136.519				
Net OPEB Liability/(Asset) as Percentage of Covered Pay				

The actuarial valuation was performed as of January 1, 2019. Update procedures were used to roll forward the total OPEB liability to December 31, 2020. All assumptions and methods used to develop the December 31, 2020, total OPEB liability are identical to those used in the January 1, 2019, actuarial valuation.

Single Discount Rate

A Single Discount Rate of 6.95% was used to measure the total OPEB liability. This Single Discount Rate was based on the expected rate of return on OPEB plan investments of 6.95%. The funding policy is to pay the recommended actuarially determined contribution, which is based on a maximum 20-year amortization period. For both funds, the Fiduciary Net Position currently exceeds the total OPEB liability. As a result, the OPEB plan's fiduciary net position is expected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Target Allocations

3		Expected Return	n Arithmetic Basis
Asset Class	Target Asset Allocation	Real Return Arithmetic Basis	Long-term Expected Portfolio Real Rate of Return*
Equity securities	37%	6.30%	2.33%
Debt securities	20	0.00	0.00
Real assets	15	6.19	0.93
Private equity	12	9.50	1.14
Absolute return	16	2.75	0.44
Cash and cash equivalents	0	0.00	0.00
Totals	100%		4.84%
Inflation			2.50%
Expected arithmeti	c nominal return		7.34%

^{*}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.

Target Allocations

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, 2020, are summarized in the table above:

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. 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 as of the most recent actuarial valuation, January 1, 2019, was over 100% and the plan is closed to new participants.

December 31, 2020

Required Contributions

For the year ended December 31, 2020, the annual cost (expense) of \$0 for UREPEHP was equal to the ARC. The net Other Post-Employment Benefits (OPEB) obligation for 2020 was as follows:

Frequency and Timing of the Actuarial Valuation

An actuarial valuation to determine the total OPEB liability is required to be performed at least every two years. If the actuarial valuation is not calculated as of

Actual

the plan's fiscal year end, the total OPEB liability is required to be rolled forward from the actuarial valuation date to the OPEB plan's fiscal year end. If update procedures are used to roll forward the total OPEB liability, the date of the actuarial valuation must be no more than 24 months earlier than the OPEB plan's most recent fiscal year-end.

The total OPEB liability shown in this report is based on an actuarial valuation performed as of January 1, 2019, and a measurement date of December 31, 2020.

Schedule of Contributions Multiyear Last 10 Fiscal Years

FY Ending December 31,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2011	\$ 285	\$ 285	\$ <i>-</i>	\$ 7,835	3.64%
2012	285	285	_	7,538	3.78
2013	285	285	_	7,189	3.96
2014	285	285	_	6,955	4.10
2015	_	_	_	7,841	0.00
2016	_	_	_	7,647	0.00
2017	_	_	_	7,897	0.00
2018	_	_	_	7,897	0.00
2019	_	_	_	7,404	0.00
2020	_	_	_	7,404	0.00

Notes to the Schedule of Contributions

Valuation Date:	January 1, 2019
Methods and Assumption	ns Used to Determine Contribution Rates:
Actuarial Cost Method	Individual Entry Age Normal
Amortization Method	Level Dollar Contributions
Remaining Amortization Period	20 years, maximum
Asset Valuation Method	5-year smoothed
Investment Rate of Return	6.95%, net of OPEB plan investment expense, including inflation
Inflation	2.50%
Salary Increases	3.25% to 8.50%, including inflation
Demographic	The demographic assumptions were Assumptions based on the experience study covering the five year period ending January 1, 2019, as conducted for the Utah Retirement Systems (URS).
Mortality Assumptions	Male retirees: 110% of 2017 PR UTAH Retiree Mortality Table for males, projected with Scale AA from 2017.
	Female retirees: 110% of 2017 PR UTAH Retiree Mortality Table for females, projected with Scale AA from 2017.
Participation Rates	All eligible members are assumed to convert all unused sick leave into health coverage at retirement.
Health Care Trend Rates	Initial trend rate of 7.50%, decreasing to an ultimate to an ultimate of 4.50% over 15 years.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects (1) a long-term expected rate of return on OPEB plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on OPEB plan investments is 6.95%; the municipal bond rate is 2.00% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index"); and the resulting Single Discount Rate is 6.95%.

Sensitivity of Net OPEB Liability

Regarding the sensitivity of the net OPEB liability to changes in the Single Discount Rate, the following presents the plan's net OPEB liability, calculated using a Single Discount Rate of 6.95%, as well as what the plan's net OPEB liability would be if it were calculated using a Single Discount Rate that is one percent lower or one percent higher:

December 31, 2020

Sensitivity of Net OPEB Liability to a Single Discount Rate Assumption

1% Decrease 5.95%	Current Single Discount Rate Assumption 6.95%	1% Increase 7.95%
\$ (1,455,573)	\$ (1,803,030)	\$ (2,119,151)

Regarding the sensitivity of the net OPEB liability to changes in the healthcare cost trend rates, the following presents the plan's net OPEB liability, calculated using the assumed trend rates as well as what the plan's net OPEB liability would be if it were calculated using a trend rate that is one percent lower or one percent higher:

Sensitivity of Net OPEB Liability to the Healthcare Cost Trend Rate Assumption

1% Decrease	Current Healthcare Cost Trend Rate Assumption	1% Increase
\$ (2,214,687)	\$ (1,803,030)	\$ (1,344,303)



Note 13

Compensated Absences and Insurance Reserve

The compensated absences liability for Utah Retirement Office employees at December 31, 2020, was \$7,699,050. This represents the amount of unused leave to be paid to employees upon termination. At December 31, 2020, 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 88 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.



Note 16

Real Estate Liabilities

The real estate liability consists of one line of credit. This note bears interest at One Month LIBOR + .20 and contains an annual renewal option. The rest of the liabilities are unsecured.

As mentioned in Note 3, page 74, 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, 2020, there is \$120 million in credit facility debt. Using interest rates as of December 31, 2020, 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 LIIOUSUI	145)	
	Initial Affected Balance	Maturity Date	Annual Payment
Northern Trust	\$ 120,000	8/1/2021	\$ 120,000
Total	\$ 120,000		
Year Ending December 31,	Total Principal Payments	Total Interest Payments	Total Swap Payments
2021	\$ 120,000	248	1,870

Loan and swap interest payments are calculated using the One Month LIBOR rate at December 31, 2020.

Required Supplementary Information

Schedule of Changes in the Employers' Net Pension Liability

Year Ended December 31

(in thousands)

	2020	2019	2018	2017	2016	2015	
Total pension liability							
Service cost	\$ 402,446	404,539	404,391	403,981	407,690	394,798	
Interest	2,071,626	1,989,449	1,920,238	1,877,576	1,764,653	1,775,819	
Benefit changes	_	_	_	_	48,400	_	
Difference between actual and expected experience	252,553	234,989	32,680	(84,234)	6,408	(188,166)	
Assumption changes	176,384	_	_	642,187	563,741	_	
Benefit payments	(1,488,627)	(1,396,983)	(1,320,214)	(1,248,037)	(1,184,317)	(1,123,647)	
Refunds	(2,338)	(3,127)	(2,766)	(4,635)	(4,366)	(2,496)	
Net change in total pension liability	1,412,044	1,228,867	1,034,329	1,586,838	1,602,209	856,308	
Total pension liability — beginning	30,351,815	29,122,948	28,088,619	26,501,781	24,899,572	24,043,264	
Total pension liability — ending (a)	31,763,859	30,351,815	29,122,948	28,088,619	26,501,781	24,899,572	
DI CI :							
Plan fiduciary net position	16 205	11 720	14602	17.205	16 200	17.000	
Contributions — member	16,385	11,730	14,602	17,285	16,308	17,020	
Contributions — employer Court fees and fire insurance tax	912,525	888,078	858,444	854,255	831,631	813,449	
	2 420 000	2 400 100	(02.207)	2 007 202	1 702 011	266 740	
Net investment income	3,430,989	3,499,188	(92,207)	2,987,282	1,783,911	366,748	
Benefit payments Refunds	(1,488,627) (2,338)	(1,396,983) (3,127)	(1,320,214)	(1,248,037) (4,635)	(1,184,317) (4,366)	(1,123,647) (2,496)	
Administrative expense	(2,336)	(9,411)	(2,766) (9,962)	(9,579)	, , ,	. , ,	
Net transfers with affiliated systems	(16,980)			(9,579)	(8,856)	(8,797) 33,648	
·	(10,960)	(19,611)	13,035	(10,167)	(8,005)	33,046	
Net change in plan fiduciary net position	2,842,149	2,969,864	(539,068)	2,586,384	1,426,306	95,925	
Plan fiduciary net position — beginning	27,635,923	24,666,059	25,205,127	22,618,743	21,192,437	21,096,512	
Plan fiduciary net position — ending (b)	30,478,072	27,635,923	24,666,059	25,205,127	22,618,743	21,192,437	
Net pension liability/(asset) — ending (a-b)	\$ 1,285,787	2,715,892	4,456,889	2,883,492	3,883,038	3,707,135	
Plan fiduciary net position as							
a percentage of the total pension liability	96.0%	91.1%	84.7%	89.7%	85.3%	85.1%	
Projected covered payroll	\$ 3,306,382	3,328,314	3,330,548	3,375,321	3,406,567	3,458,286	
Net pension liability/(asset) as							
a percentage of covered payroll	38.9%	81.6%	133.8%	85.4%	114.0%	107.2%	

	loncontributory tirement System							Reti	Contributory rement System
2014	2013	2020	2019	2018	2017	2016	2015	2014	2013
407,992	441,320	3,175	3,536	4,044	4,801	5,673	8,672	9,580	10,997
1,699,693	1,646,213	85,198	86,205	87,297	90,124	91,894	95,463	93,819	93,750
_	23,123	_	_	_	_	(45,057)	_	_	721
(204,823)	(208,501)	(5,463)	(12,817)	(17,249)	(24,990)	(13,801)	(15,289)	(22,839)	(20,520)
(157,921)	_	11,312	_	_	22,108	22,909	_	(4,233)	_
(1,043,798)	(974,684)	(89,890)	(88,162)	(86,795)	(84,759)	(83,447)	(81,390)	(77,015)	(74,158)
(2,204)	(2,454)	(1,753)	(2,660)	(1,471)	(1,613)	(1,700)	(1,215)	(2,433)	(1,922)
698,939	925,017	2,579	(13,898)	(14,174)	5,671	(23,529)	6,241	(3,121)	8,868
23,344,325	22,419,308	1,270,111	1,284,009	1,298,183	1,292,512	1,316,041	1,309,800	1,312,921	1,304,053
24,043,264	23,344,325	1,272,690	1,270,111	1,284,009	1,298,183	1,292,512	1,316,041	1,309,800	1,312,921
13,587	14,208	1,728	1,950	2,455	2,675	3,420	4,771	5,461	6,376
772,420	710,933	4,759	5,433	6,027	7,946	8,188	11,719	12,954	12,874
	_			(4.542)			_		
1,419,053	2,588,981	154,367	163,935	(4,513)	155,949	97,693	21,251	87,577	169,510
(1,043,798)	(974,684)	(89,890)	(88,162)	(86,795)	(84,761)	(83,447)	(81,390)	(77,015)	(74,158)
(2,204)	(2,454)	(1,753)	(2,660)	(1,471)	(1,613)	(1,700)	(1,215)	(2,433)	(1,922)
(8,828)	(8,329)	(406)	(408)	(454)	(457)	(446)	(478)	(494)	(480)
30,467	(42,277)	4,542	9,775	(26,286)	(1,177)	(1,895)	(41,558)	(38,004)	33,094
1,180,697	2,286,378	73,347	89,863	(111,037)	78,562	21,813	(86,900)	(11,954)	145,294
19,915,815	17,629,437	1,262,292	1,172,429	1,283,466	1,204,904	1,183,091	1,269,991	1,281,945	1,136,651
21,096,512	19,915,815	1,335,639	1,262,292	1,172,429	1,283,466	1,204,904	1,183,091	1,269,991	1,281,945
2,946,752	3,428,510	(62,949)	7,819	111,580	14,717	87,608	132,950	39,809	30,976
87.7%	85.3%	104.9%	99.4%	91.3%	98.9%	93.2%	89.9%	97.0%	97.6%
3,570,912	3,705,771	30,748	34,317	39,279	45,177	53,615	82,426	90,623	98,023
82.5%	92.5%	(204 7)%	22.8%	284.1%	32.6%	163.4%	161.3%	43.9%	31.6%
82.5%	92.5%	(204.7)%	22.8%	284.1%	32.6%	163.4%	161.3%	43.9%	31.6%

Continued on page 90.

Required Supplementary Information (Continued)

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

Year Ended December 31

(in thousands)

2020	2019	2018	2017	2016	2015	
\$ 77,899	78,229	80,296	78,272	78,843	75,352	
	•		•	•		
· —	· —	· —	· —	· —	· —	
72,199	34,291	1,441	(3,041)	9,358	(17,164)	
	· —	, <u> </u>	118,370	110,373		
(215,289)	(201,923)	(188,414)	(172,870)	(164,508)	(155,387)	
(96)	(76)	(428)	(226)	(183)	(533)	
233,769	202,168	173,044	290,323	283,605	151,248	
4,460,415	4,258,247	4,085,203	3,794,880	3,511,275	3,360,027	
4,694,184	4,460,415	4,258,247	4,085,203	3,794,880	3,511,275	
150,512	150,467	147,101	145,814	,	141,024	
_						
•	,	. , ,		. , .		
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` ,	, ,	, ,	, ,	, ,	, ,	
7,364	5,512	6,982	5,926	6,701	4,023	
438,331	456,117	(48,448)	399,972	237,706	39,453	
3,984,186	3,528,069	3,576,517	3,176,545	2,938,839	2,899,386	
4,422,517	3,984,186	3,528,069	3,576,517	3,176,545	2,938,839	
\$ 271,667	476,229	730,178	508,686	618,335	572,436	
94.2%	89.3%	82.9%	87.5%	83.7%	83.7%	
\$ 338,919	339,705	348,475	350,782	352,407	355,171	
80.2%	140.2%	209.5%	145.0%	175.5%	161.2%	
	\$ 77,899 305,221 — 72,199 (6,165) (215,289) (96) 233,769 4,460,415 4,694,184 557 150,512 — 496,725 (215,289) (96) (1,442) 7,364 438,331 3,984,186 4,422,517 \$ 271,667 94.2% \$ 338,919	\$ 77,899	\$ 77,899	\$ 77,899	\$ 777,899	\$ 77,899

2013									
	2014	2015	2016	2017	2018	2019	2020	2013	2014
29,577	27,266	27,182	28,652	28,775	29,378	29,281	29,553	81,736	76,681
70,259	71,490	75,212	75,334	80,386	82,819	86,589	90,343	229,965	236,803
—) (13,083)	— (15,077)	(8,259)	(5,525)	(9,216)	937	(437)	8,829	(29,228)	(25,225)
	(20,372)		25,572	31,357	_		6,153	· · · · ·	(52,410)
	(47,710)	(49,671)	(52,102)	(54,793)	(57,440)	(59,847)	(62,842)	(137,486)	(144,763)
	(293)	(528)	(466)	(511)	(132)	(255)	(159)	(467)	(199)
41,900	15,304	43,936	71,465	75,998	55,562	55,331	71,877	144,520	90,887
957,124	999,024	1,014,328	1,058,264	1,129,729	1,205,727	1,261,289	1,316,620	3,124,620	3,269,140
999,024	1,014,328	1,058,264	1,129,729	1,205,727	1,261,289	1,316,620	1,388,497	3,269,140	3,360,027
18,325	18,300	18,175	18,729	18,460	18,305	18,701	18,729	1,258	835
3,494	5,514	6,690	6,954	6,715	7,021	7,443	7,490	128,744	135,588
11,285	14,154	17,218	10,569	1,223	8,747	41,859	20,279	_	_
125,685	69,070	17,934	87,746	146,736	(4,509)	174,141	173,818	350,563	194,222
(44,747)	(47,710)	(49,671)	(52,102)	(54,793)	(57,440)	(59,847)	(62,842)	(137,486)	(144,763)
) (106)	(293)	(528)	(466)	(511)	(132)	(255)	(159)	(467)	(199)
) (355)	(370)	(371)	(374)	(408)	(427)	(405)	(425)	(1,161)	(1,227)
1,302	3,713	2,573	1,611	1,259	1,917	2,027	2,751	4,676	2,746
114,883	62,378	12,020	72,667	118,681	(26,518)	183,664	159,641	346,127	187,202
853,778	968,661	1,031,039	1,043,059	1,115,726	1,234,407	1,207,889	1,391,553	2,366,057	2,712,184
968,661	1,031,039	1,043,059	1,115,726	1,234,407	1,207,889	1,391,553	1,551,194	2,712,184	2,899,386
30,363	(16,711)	15,205	14,003	(28,680)	53,400	(74,933)	(162,697)	556,956	460,641
97.0%	101.6%	98.6%	98.8%	102.4%	95.8%	105.7%	111.7%	83.0%	86.3%
110,741	111,305	111,133	112,322	112,953	113,587	113,330	114,458	365,998	360,750
27.4%	(15.0)%	13.7%	12.5%	(25.4)%	47.0%	(66.1)%	(142.1)%	152.2%	127.7%

Continued on page 92.

Required Supplementary Information (Continued)

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

Year Ended December 31

(in thousands)

	2020	2019	2018	2017	2016	2015	
Total pension liability							
Service cost	\$ 6,144	6,054	5,682	5,325	5,023	4,794	
Interest	17,675	16,649	15,697	14,866	14,064	14,136	
Benefit changes	_	_	_	_	_	_	
Difference between actual and expected experience	548	7,615	7,872	809	1,995	171	
Assumption changes	3,431	_	_	13,067	2,885	_	
Benefit payments	(15,863)	(15,346)	(16,111)	(13,621)	(12,330)	(12,400)	
Refunds	_	_	_	_	_	_	
Net change in total pension liability	11,935	14,972	13,140	20,446	11,637	6,701	
Total pension liability — beginning	259,181	244,209	231,069	210,623	198,986	192,285	
Total pension liability — ending (a)	271,116	259,181	244,209	231,069	210,623	198,986	
Plan fiduciary net position							
Contributions — member	_	_	_	_	_	_	
Contributions — employer	8,646	8,500	8,091	7,563	7,382	6,555	
Court fees and fire insurance tax	1,410	1,536	1,518	1,477	1,470	1,653	
Net investment income	27,391	27,775	(730)	23,435	13,820	2,842	
Benefit payments	(15,863)	(15,346)	(16,111)	(13,621)	(12,330)	(12,400)	
Refunds	_	_	_	_	_	_	
Administrative expense	(84)	(81)	(84)	(79)	(71)	(71)	
Net transfers with affiliated systems	2,340	2,339	4,403	4,090	1,600	1,334	
Net change in plan fiduciary net position	23,840	24,723	(2,913)	22,865	11,871	(87)	
Plan fiduciary net position — beginning	220,293	195,570	198,483	175,618	163,747	163,834	
Plan fiduciary net position — ending (b)	244,133	220,293	195,570	198,483	175,618	163,747	
Net pension liability/(asset) — ending (a-b)	\$ 26,983	38,888	48,639	32,586	35,005	35,239	
Plan fiduciary net position as							
a percentage of the total pension liability	90.0%	85.0%	80.1%	85.9%	83.4%	82.3%	
Projected covered payroll	\$ 20,071	19,596	18,802	18,661	16,755	15,832	
Net pension liability/(asset) as							
a percentage of covered payroll	134.4%	198.4%	258.7%	174.6%	208.9%	222.6%	

irement Plai	tah Governors an Ret							ement System	Retire
201	2014	2015	2016	2017	2018	2019	2020	2013	2014
100	106	99	89	68	65	59	104	4,537	4,895
860	884	890	851	879	877	883	875	12,924	13,641
_	_	_	_	_	_	_	_	_	_
(233	307	(105)	167	182	139	(54)	224	(569)	2,602
(00)	(222)	(00.4)	241	264	(070)	(4.042)	107		(130)
(892	(909)	(904)	(941)	(973)	(978)	(1,012)	(1,023)	(10,189)	(11,361)
_					_	_	(10)		
(165	388	(20)	407	420	103	(124)	277	6,703	9,647
12,044	11,879	12,267	12,247	12,654	13,074	13,177	13,053	175,935	182,638
11,879	12,267	12,247	12,654	13,074	13,177	13,053	13,330	182,638	192,285
_	_	_	_	_	_	_	_	_	317
252	411	421	421	404	392	384	369	4,990	5,627
_		_	_	_			_	1,498	1,486
1,346	717	181	849	1,353	(41)	1,481	1,396	20,130	11,068
(892	(909)	(904)	(941)	(973)	(978)	(1,012)	(1,023)	(10,189)	(11,361)
_	_	_	_	_	_	_	(10)	_	_
(4	(5)	(5)	(4)	(5)	(5)	(4)	(4)	(66)	(71)
19	(14)	(20)	(12)	89	(51)	(42)	(17)	3,186	1,092
72	200	(327)	313	868	(683)	807	711	19,549	8,158
9,445	10,166	10,366	10,039	10,352	11,220	10,537	11,344	136,127	155,676
10,166	10,366	10,039	10,352	11,220	10,537	11,344	12,055	155,676	163,834
1,713	1,901	2,208	2,302	1,854	2,640	1,709	1,275	26,962	28,451
85.6%	84.5%	82.0%	81.8%	85.8%	80.0%	86.9%	90.4%	85.2%	85.2%
390	928	943	799	722	639	639	757	15,195	16,072
439.2%	204.8%	234.1%	288.1%	256.6%	413.1%	267.4%	168.4%	177.4%	177.0%

Continued on page 94.

Required Supplementary Information (Continued)

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

Year Ended December 31

(in thousands)

		2020	2019	2018	2017	2016	2015	
Total pension liability								
Service cost	\$	146,284	124,244	104,736	84,388	69,887	51,005	
Interest		49,103	36,773	27,109	19,471	12,608	8,370	
Benefit changes		· —	_	_	_	_	_	
Difference between actual and expected experience		8,201	6,561	(1,727)	357	(1,917)	(4,982)	
Assumption changes		10,603	_	_	5,786	7,867	_	
Benefit payments		(1,397)	(965)	(692)	(417)	(316)	(333)	
Refunds		_	_	_	_	_	_	
Net change in total pension liability		212,794	166,613	129,426	109,585	88,129	54,060	
Total pension liability — beginning		634,074	467,461	338,035	228,450	140,321	86,261	
Total pension liability — ending (a)		846,868	634,074	467,461	338,035	228,450	140,321	
Plan fiduciary net position								
Contributions — member		_	_	_	_	_	_	
Contributions — member Contributions — employer		138,466	119,839	97,680	79,175	63,062	49,645	
Court fees and fire insurance tax				<i>77,</i> 000	75,175		т <i>э</i> ,отэ	
Net investment income		84.040	68,228	(1,454)	33,249	14.059	1,963	
Benefit payments		(1,397)	(965)	(692)	(417)	(316)	(333)	
Refunds		_	_	_	_	—	_	
Administrative expense		(207)	(152)	(119)	(82)	(51)	(30)	
Net transfers with affiliated systems		· —	· —	` —	_	_	3	
Net change in plan fiduciary net position		220,902	186,950	95,415	111,925	76,754	51,248	
Plan fiduciary net position — beginning		611,583	424,633	329,218	217,293	140,539	89,291	
Plan fiduciary net position — ending (b)		832,485	611,583	424,633	329,218	217,293	140,539	
Net pension liability/(asset) — ending (a-b)	\$	14,383	22,491	42,828	8,817	11,157	(218)	_
Plan fiduciary net position as								
a percentage of the total pension liability		98.3%	96.5%	90.8%	97.4%	95.1%	100.2%	
Projected covered payroll	\$ 1	,609,102	1,380,488	1,171,543	996,965	822,196	637,560	
Net pension liability/(asset) as								
a percentage of covered payroll		0.9%	1.6%	3.7%	0.9%	1.4%	(0.0)%	

ement System	2 Public Safety an Retirer	Tier 2						lic Employees ement System	
2013	2014	2015	2016	2017	2018	2019	2020	2013	2014
2,151	3,579	5,466	8,164	10,763	13,998	24,849	29,998	29,318	39,283
159	379	746	1,274	2,133	3,199	4,811	7,350	2,351	4,648
(7	_	_	_	_	_	2,537	_	(119)	_
106	50	220	425	(2)	621	1,839	2,133	(4,459)	(4,577)
_	(127)	_	803	1,924	_	_	(939)	_	(1,385)
_	_	(30)	(28)	(61)	_	(90)	(76)	_	_
_	_	_	_	_	_	_	_	_	_
2,409	3,881	6,402	10,638	14,757	17,818	33,946	38,466	27,091	37,969
936	3,345	7,226	13,628	24,266	39,023	56,841	90,787	21,201	48,292
3,345	7,226	13,628	24,266	39,023	56,841	90,787	129,253	48,292	86,261
							2.242		
 2,451	4 365	6 221	— 8,488	11 126	55 14,295	— 18,197	2,343 25,020	— 25,743	— 37,299
2,451	4,365 —	6,221 —	8,488	11,126 —	14,295	18,197	25,020	25,/43	37,299
316	404	199	1,591	3,989	(180)	8,958	11,645	4,017	4,320
_	_	(30)	(28)	(61)	_	(90)	(76)	_	_
_	_	_	_	_	_	_	_	_	_
_	(1)	(3)	(5)	(9)	(14)	(20)	(29)	(6)	(16)
(3	2	(3)	_	_	_	_	_	3	(2)
2,764	4,770	6,384	10,046	15,045	14,156	27,045	38,903	29,757	41,601
1,171	3,935	8,705	15,089	25,135	40,180	54,336	81,381	17,933	47,690
3,935	8,705	15,089	25,135	40,180	54,336	81,381	120,284	47,690	89,291
(590	(1,479)	(1,461)	(869)	(1,157)	2,505	9,406	8,969	602	(3,030)
117.6%	120.5%	110.7%	103.6%	103.0%	95.6%	89.6%	93.1%	98.8%	103.5%
20,215	35,019	53,276	74,834	98,113	123,439	156,778	188,667	353,227	492,882
(2.9)%	(4.2)%	(2.7)%	(1.2)%	(1.2)%	2.0%	6.0%	4.8%	0.2%	(0.6)%

Continued on page 96.

Required Supplementary Information (Continued)

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

Year Ended December 31

(in thousands)

	2020	2019	2018	2017	
Total pension liability					
Service cost	\$ 695,603	670,791	642,590	616,373	
Interest	2,627,391	2,513,006	2,417,385	2,355,253	
Benefit changes	_	2,537	_	_	
Difference between actual and expected experience	339,224	271,987	24,714	(120,133)	
Assumption changes	200,886	_	_	835,063	
Benefit payments	(1,875,007)	(1,764,328)	(1,670,644)	(1,575,533)	
Refunds	(4,356)	(6,118)	(4,797)	(6,985)	
Net change in total pension liability	1,983,741	1,687,875	1,409,248	2,104,038	
Total pension liability — beginning	38,396,056	36,708,181	35,298,933	33,194,895	
Total pension liability — ending (a)	40,379,797	38,396,056	36,708,181	35,298,933	
Plan fiduciary net position					
Contributions — member	39,742	33,237	36,312	39,213	
Contributions — employer	1,247,787	1,198,341	1,139,051	1,112,998	
Court fees and fire insurance tax	21,689	43,395	10,265	2,700	
Net investment income	4,380,371	4,446,363	(116,768)	3,773,910	
Benefit payments	(1,875,007)	(1,764,328)	(1,670,644)	(1,575,533)	
Refunds	(4,356)	(6,118)	(4,797)	(6,985)	
Administrative expense	(12,402)	(11,857)	(12,515)	(12,001)	
Net transfers with affiliated systems	_	_	_	_	
Net change in plan fiduciary net position	3,797,824	3,939,033	(619,096)	3,334,302	
Plan fiduciary net position — beginning	35,198,555	31,259,522	31,878,618	28,544,316	
Plan fiduciary net position — ending (b)	38,996,379	35,198,555	31,259,522	31,878,618	
Net pension liability/(asset) — ending (a-b)	\$ 1,383,418	3,197,501	5,448,659	3,420,315	
Diag 6 duction and the cities of					
Plan fiduciary net position as a percentage of the total pension liability	96.6%	91.7%	85.2%	90.3%	
Projected covered payroll	\$ 5,609,104	5,373,167	5,146,312	4,998,694	
Net pension liability/(asset) as a percentage of covered payroll	24.7%	59.5%	105.9%	68.4%	

etirement Systems	Total All R		
2013	2014	2015	2016
599,736	569,382	567,368	604,021
2,056,481	2,121,357	2,219,616	2,210,400
23,718	_	_	3,343
(276,487)	(269,582)	(233,574)	(2,890)
_	(236,578)	_	734,391
(1,242,156)	(1,325,556)	(1,423,762)	(1,497,989)
(4,949)	(5,129)	(4,772)	(6,715)
1,156,343	853,894	1,124,876	2,044,561
28,015,221	29,171,564	30,025,458	31,150,334
29,171,564	30,025,458	31,150,334	33,194,895
40,167	38,500	40,871	39,287
889,481	974,178	1,035,724	1,073,225
12,783	15,640	18,871	12,039
3,260,548	1,786,431	461,772	2,248,696
(1,242,156)	(1,325,556)	(1,423,762)	(1,497,989)
(4,949)	(5,129)	(4,772)	(6,715)
(10,401)	(11,012)	(10,988)	(11,067)
2,945,473	1,473,052	 117,716	 1,857,476
	· ·	,	· ·
22,150,599	25,096,072	26,569,124	26,686,840
25,096,072	26,569,124	26,686,840	28,544,316
4,075,492	3,456,334	4,463,494	4,650,579
86.0%	88.5%	85.7%	86.0%
4,669,560	4,678,491	4,714,627	4,839,495
87.3%	73.9%	94.7%	96.1%

Required Supplementary Information (Continued)

Schedules of Employers' Net Pension Liability

	(dollars i	n thousands)			(4) Plan Fiduciary Net		(6) Net Pension
System	Date	(1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	Position as a Percentage of the Total Pension Liability	(5) Projected Covered Payroll	Liability/ (Asset) as a Percentage of Covered 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
	12/31/18	29,122,948	24,666,059	4,456,889	84.7	3,330,548	133.8
	12/31/19	30,351,815	27,635,923	2,715,892	91.1	3,328,314	81.6
	12/31/20	31,763,859	30,478,072	1,285,787	96.0	3,306,382	38.9
Contributory	12/31/13	\$ 1,312,921	1,281,945	30,976	97.6%		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
	12/31/18	1,284,009	1,172,429	111,580	91.3	39,279	284.1
	12/31/19	1,270,111	1,262,292	7,819	99.4	34,317	22.8
	12/31/20	1,272,690	1,335,639	(62,949)	104.9	30,748	(204.7)
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
	12/31/18	4,258,247	3,528,069	730,178	82.9	348,475	209.5
	12/31/19	4,460,415	3,984,186	476,229	89.3	339,705	140.2
	12/31/20	4,694,184	4,422,517	271,667	94.2	338,919	80.2
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)
	12/31/18	1,261,289	1,207,889	53,400	95.8	113,587	47.0
	12/31/19	1,316,620	1,391,553	(74,933)	105.7	113,330	(66.1)
	12/31/20	1,388,497	1,551,194	(162,697)	111.7	114,458	(142.1)
Judges	12/31/13	\$ 182,638	155,676	26,962	85.2%		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
	12/31/18	244,209	195,570	48,639	80.1	18,802	258.7
	12/31/19	259,181	220,293	38,888	85.0	19,596	198.4
	12/31/20	271,116	244,133	26,983	90.0	20,071	134.4

Required Supplementary Information (Continued)

Schedules of Employers' Net Pension Liability (Concluded)

	(dollars i	n th	nousands)			(4) Plan Fiduciary Net		(6) Net Pension
System	Date		(1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	Position as a Percentage of the Total Pension Liability	(5) Projected Covered Payroll	Liability/ (Asset) as a Percentage of Covered 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
	12/31/18		13,177	10,537	2,640	80.0	639	413.1
	12/31/19		13,053	11,344	1,709	86.9	639	267.4
	12/31/20		13,330	12,055	1,275	90.4	757	168.4
Tier 2	12/31/13	\$	48,292	47,690	602	98.8%	\$ 353,227	0.2%
Public Employees	12/31/14		86,261	89,291	(3,030)	103.5	492,882	(0.6)
Retirement	12/31/15		140,321	140,539	(218)	100.2	637,560	(0.0)
System	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
	12/31/18		467,461	424,633	42,828	90.8	1,171,543	3.7
	12/31/19		634,074	611,583	22,491	96.5	1,380,488	1.6
	12/31/20		846,868	832,485	14,383	98.3	1,609,102	0.9
Tier 2	12/31/13	\$	3,345	3,935	(590)	117.6%	\$ 20,215	(2.9)%
Public Safety	12/31/14		7,226	8,705	(1,479)	120.5	35,019	(4.2)
and Firefighter	12/31/15		13,628	15,089	(1,461)	110.7	53,276	(2.7)
Retirement	12/31/16		24,266	25,135	(869)	103.6	74,834	(1.2)
System	12/31/17		39,023	40,180	(1,157)	103.0	98,113	(1.2)
	12/31/18		56,841	54,336	2,505	95.6	123,439	2.0
	12/31/19		90,787	81,381	9,406	89.6	156,778	6.0
	12/31/20		129,253	120,284	8,969	93.1	188,667	4.8
All Retirement	12/31/13	\$ 2	9,171,564	25,096,072	4,075,492	86.0%	\$ 4,669,560	87.3%
Systems	12/31/14	3	0,025,458	26,569,124	3,456,334	88.5	4,679,491	73.9
	12/31/15	3	1,150,334	26,686,840	4,463,494	85.7	4,714,627	94.7
	12/31/16	3	3,194,895	28,544,316	4,650,579	86.0	4,839,495	96.1
	12/31/17	3	5,298,933	31,878,618	3,420,315	90.3	4,998,694	68.4
	12/31/18	3	6,708,181	31,259,522	5,448,659	85.2	5,146,312	105.9
	12/31/19	3	8,396,056	35,198,555	3,197,501	91.7	5,373,167	59.5
	12/31/20	4	0,379,797	38,996,379	1,383,418	96.6	5,609,104	24.7

Required Supplementary Information (Continued)

Schedules of Employer Contributions

(dollars in thousands)

	(dollars in	thousands)				
System	Year Ended December 31	Actuarial Determined Contribution*	Contributions in Relation to the Actuarial Determined Contribution	Contribution Deficiency (Excess)	Projected Covered Payroll	Contributions as a Percentage of Covered Payroll**
Noncontributory	2011	¢ 610 270	610 270		2 000 106	15 650/
Noncontributory	2011	\$ 610,270	610,270	_	3,900,106	15.65%
Retirement	2012	644,907	644,907	_	3,794,929	16.99
System	2013	710,933	710,933	_	3,705,771	19.18
	2014	772,420	772,420	_	3,570,912	21.63
	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
	2018	858,444	858,444	_	3,330,548	25.77
	2019	888,078	888,078	_	3,328,314	26.68
	2020	912,525	912,525	_	3,306,382	27.60
Contributory	2011	\$ 11,125	11,125	_	110,103	10.10%
Retirement	2012	11,705	11,705	_	103,074	11.36
System	2013	12,874	12,874	_	98,023	13.13
•	2014	12,954	12,954	_	90,623	14.29
	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
	2018	6,027	6,027	_	39,279	15.34
	2019	5,433	5,433	_	34,317	15.83
	2020	4,759	4,759	_	30,748	15.48
Public Safety	2011	\$ 110,829	110,829	_	374,293	29.61%
Retirement	2012	117,975	117,975	_	366,471	32.19
System	2012	128,744	128,744	_	365,998	35.18
System	2013	135,588	135,588	_	360,750	37.59
	2015	141,024	141,024	_	355,171	39.71
	2016	147,099	147,024	_	352,407	41.74
	2017	145,814		_	350,783	
		•	145,814	_	•	41.57
	2018	147,101	147,101	_	348,475	42.21
	2019 2020	150,467 150,512	150,467 150,512	_	339,705 338,919	44.29 44.41
Einofiahtons	2011	¢ 12.00E	12.005		110.751	11 740/
Firefighters	2011	\$ 13,005	13,005	_	110,751	11.74%
Retirement	2012	17,321	17,321	_	110,608	15.66
System	2013	14,779	14,779	_	110,741	13.35
	2014	19,668	19,668	_	111,305	17.67
	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
	2018	15,768	15,768	_	113,587	13.88
	2019	49,302	49,302	_	113,330	43.50
	2020	27,769	27,769		114,458	24.26
Judges	2011	\$ 5,403	5,403	_	14,981	36.07%
Retirement	2012	5,898	5,898	_	14,885	39.62
System	2013	6,488	6,488	_	15,195	42.70
	2014	7,113	7,113	_	16,072	44.26
	2015	8,208	8,208	_	15,832	51.84
	2016	8,852	8,852	_	16,755	52.83
	2017	9,040	9,040	_	18,661	48.44
	2018	9,609	9,609	_	18,802	51.11
	2019	10,036	10,036	_	19,596	51.21
	2020	10,056	10,056	_	20,071	50.10
	2020	10,030	10,030		20,071	30.10

^{*}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) Contributions Contributions in Relation to the Actuarial Percentage Actuarial Contribution Projected Covered Payroll Year Ended Determined Determined Deficiency of Covered Payroll** December 31 System Contribution (Excess) Contribution³ **Utah Governors** 2011 \$ 153 153 910 16.81% and Legislative 2012 214 214 910 23.52 **Retirement Plan** 2013 252 252 390 64.62 2014 411 411 928 44.29 2015 421 421 943 44.64 2016 421 421 799 52.69 404 2017 404 722 55.96 2018 392 392 639 61.35 2019 384 384 639 60.09 2020 369 369 757 48.75 Tier 2 2011 2,790 2,790 36,821 7.58% **Public Employees** 14,208 2012 14,208 203,779 6.97 Retirement 2013 25,743 25,743 353,227 7.29 System[†] 2014 37,299 37,299 492,882 7.57 2015 49,645 49,645 637,560 7.79 2016 63,062 63,062 822,196 7.67 2017 79,175 79,175 996,965 7.94 2018 97,680 97,680 1,171,543 8.34 119,839 2019 119,839 1,380,488 8.68 2020 138,466 138,466 1,609,102 8.61 Tier 2 2011 89 89 855 10.41% **Public Safety** 2012 1,031 1,031 10,237 10.07 and Firefighter 2013 2,451 2,451 20,215 12.12 Retirement 2014 4,365 4,365 35,019 12.46 System† 2015 6,221 6,221 53,276 11.68 8,488 2016 8,488 74,834 11.34 2017 11,126 11,126 98,113 11.34 2018 14,295 14,295 123,439 11.58 2019 18,197 18,197 156,778 1161 25,020 2020 25,020 188,667 13.26 753,664 **All Retirement** 2011 753,664 4,548,820 16.57% 813,259 4,604,893 **Systems** 2012 813,259 17.66 2013 902,264 902,264 4,669,560 19.32 2014 21.16 989,818 989,818 4,678,491 2015 1,054,595 1,054,595 4,714,628 22.37 2016 1,085,264 1,085,264 4,839,495 22.43 2017 1,115,698 4,998,694 22 32 1.115.698 2018 1,149,316 1,149,316 5,146,312 22.33

2019

2020

1,241,736

1,269,476

5,373,167

5,609,104

23.11

22.63

Schedule of Investment Returns

Year Ended December 31	2020	2019	2018	2017	2016	2015	2014
Annual money weighted rate of return, net of investment expense	12.64%	13.80%	(0.38)%	13.38%	8.73%	2.02%	7.94%

1,241,736

1,269,476

[†]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.

Notes to Required 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

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, 2020 valuation is effective for the fiscal year beginning July 1, 2022.

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, 2020, 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.

Notes to Required Supplementary Information (Concluded)

December 31, 2020

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	1/1/20	1/1/20	1/1/20	1/1/20	1/1/20	1/1/20	1/1/20	1/1/20	
Actuarial cost method	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	
Amortization method	Level Percent of Payroll	Level Percent of Payroll	Level Percent of Payroll	Level Percent of Payroll	Level Percent of Payroll	Level Dollar Amount	Level Percent of Payroll	Level Percent of Payroll	
Amortization 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 15-Year Closed Period	Open Group 20-Year Open Period	Open Group 20-Year Open Period	
Actuarial asset valuation method (All Systems under same method)	Based on the total fair value income of investments with the excess or shortfall of actual investment income over or under the expected investment return smoothed over five years. One-fifth of the excess or shortfall is recognized each year for five years.								
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**	3.25-9.25%	3.25-9.25%	3.25-7.25%	3.25-8.50%	3.25%	None	3.25-9.25%	3.25-8.50%	
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)	Male retirees: 110% of 2020 PR UTAH Retiree Mortality Table for males, projected with 80% of the ultimate rates from the MP-2019 mortality improvement scale using a base year of 2020. Female retirees: 110% of 2020 PR UTAH Retiree Mortality Table for females, projected with 80% of the ultimate rates from the MP-2019 mortality improvement scale using a base year of 2020.								
Mortality: (Educators)	of the ultin Female ret	Male retirees: 90% of 2020 PR UTAH Retiree Mortality Table for males, projected with 80% of the ultimate rates from the MP-2019 mortality improvement scale using a base year of 2020. Female retirees: 90% of 2020 PR UTAH Retiree Mortality Table for females, projected with 80% of the ultimate rates from the MP-2019 mortality improvement scale using a base year of 2020.							

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.

^{*}The amortization period for the Higher Education divisions (Noncontributory and Contributory) are closed 17-year periods.

^{**}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, 2020 With Comparative Totals for December 31, 2019

(in thousands)

	Local	State and	Higher		Total All Divisions
	Government	School	Higher Education	2020	2019
Assets:					
Cash	\$ 1	2	1	4	526
Receivables:					
Employer contributions	6,027	35,942	3,096	45,065	44,599
Investments	65,749	233,997	23,292	323,038	271,139
Total receivables	71,776	269,939	26,388	368,103	315,738
Investments at fair value:					
Short-term securities	418,686	1,490,075	148,324	2,057,085	1,457,149
Debt securities	846,132	3,011,329	299,752	4,157,213	4,849,738
Equity investments	2,492,726	8,871,449	883,076	12,247,251	10,549,504
Absolute return	941,943	3,352,315	333,694	4,627,952	4,070,137
Private equity	721,471	2,567,669	255,589	3,544,729	3,150,876
Real assets	832,386	2,962,408	294,882	4,089,676	3,884,863
Total investments	6,253,344	22,255,245	2,215,317	30,723,906	27,962,267
Invested securities lending collateral	181,800	647,016	64,405	893,221	694,246
Property and equipment at cost,					
net of accumulated depreciation	1,844	6,563	653	9,060	6,949
Total assets	6,508,765	23,178,765	2,306,764	31,994,294	28,979,726
Liabilities:					
Securities lending liability	181,800	647,016	64,405	893,221	694,246
Disbursements in excess of cash balance	5,981	23,202	2,119	31,302	26,612
Compensated absences, post-employment					
benefits and insurance reserve	3,929	13,983	1,392	19,304	17,998
Investment accounts payable	97,775	346,188	34,638	478,601	510,724
Real estate liabilities	19,090	67,941	6,763	93,794	94,223
Total liabilities	308,575	1,098,330	109,317	1,516,222	1,343,803
Net position restricted for pensions	\$ 6,200,190	22,080,435	2,197,447	30,478,072	27,635,923

Noncontributory Retirement System

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

Year Ended December 31, 2020 With Comparative Totals for Year Ended December 31, 2019

(in thousands)

	Local	State and	Higher	1	Total All Divisions
	Government	School	Education	2020	2019
Additions:					
Contributions:					
Member	\$ 4,664	11,141	580	16,385	11,730
Employer	185,102	676,531	50,892	912,525	888,078
Total contributions	189,766	687,672	51,472	928,910	899,808
Investment income:					
Net appreciation in fair value of investments	608,821	2,183,907	211,103	3,003,831	2,969,243
Interest, dividends, and other investment income	98,180	352,185	34,043	484,408	579,304
Total income from investment activity	707,001	2,536,092	245,146	3,488,239	3,548,547
Less investment expenses	12,398	44,473	4,299	61,170	53,752
Net income from investment activity	694,603	2,491,619	240,847	3,427,069	3,494,795
Income from security lending activity	908	3,258	315	4,481	5,051
Less security lending expense	114	408	39	561	658
Net income from security lending activity	794	2,850	276	3,920	4,393
Net investment income	695,397	2,494,469	241,123	3,430,989	3,499,188
Transfers from affiliated systems	_	_	_	_	_
Total additions	885,163	3,182,141	292,595	4,359,899	4,398,996
Deductions:					
Retirement benefits	220,653	964,723	74,794	1,260,170	1,184,852
Cost-of-living benefits	34,184	182,680	11,593	228,457	212,131
Refunds	853	1,483	2	2,338	3,127
Administrative expenses	1,915	7,245	645	9,805	9,411
Transfers to affiliated systems	(2,563)	108,399	(88,856)	16,980	19,611
Other*	_	_	_	_	
Total deductions	255,042	1,264,530	(1,822)	1,517,750	1,429,132
Increase from operations	630,121	1,917,611	294,417	2,842,149	2,969,864
Net position restricted for pensions beginning of year	5,570,069	20,162,824	1,903,030	27,635,923	24,666,059
Net position restricted for pensions end of year	\$ 6,200,190	22,080,435	2,197,447	30,478,072	27,635,923

stRepresents adjustment to record the employers' prior year proportionate share of beginning of year Total Pension Liability and Plan Fiduciary Net Position of the state school fund to the new Higher Education division.

Noncontributory Retirement System

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

Year Ended December 31

(in thousands)

		2020	2019	2018	2017	2016	2015	
Total pension liability								
Service cost	\$	90,169	90,437	91,556	93,774	96,049	91,304	
Interest		407,562	388,407	371,702	359,989	330,648	328,120	
Benefit changes		_	_	_	_	48,400	_	
Difference between actual								
and expected experience		72,209	42,865	5,305	(22,546)	18,123	(19,610)	
Assumption changes		(9,722)	_	_	129,368	112,696	_	
Benefit payments		(254,837)	(235,654)	(218,307)	(202,324)	(191,011)	(177,915)	
Refunds		(853)	(593)	(738)	(814)	(392)	(248)	
Net change in total pension liability		304,528	285,462	249,518	357,447	414,513	221,651	
Total pension liability — beginning	5	5,946,956	5,661,494	5,411,976	5,054,529	4,640,016	4,418,365	
Total pension liability — ending (a)	6	5,251,484	5,946,956	5,661,494	5,411,976	5,054,529	4,640,016	
Plan fiduciary net position								
Contributions — member		4,664	3,027	4,491	3,928	5,023	5,481	
Contributions — employer		185,102	180,808	176,481	174,037	171,967	167,015	
Net investment income		695,397	702,659	(18,315)	586,793	346,001	69,895	
Benefit payments		(254,837)	(235,654)	(218,307)	(202,324)	(191,011)	(177,915)	
Refunds		(853)	(593)	(738)	(814)	(392)	(248)	
Administrative expense		(1,915)	(1,829)	(1,919)	(1,828)	(1,671)	(1,622)	
Net transfers with affiliated systems		2,563	(3,471)	9,583	1,647	8,323	27,420	
Other*		· —	_	· —	_	· —	· —	
Net change in plan fiduciary net position		630,121	644,947	(48,724)	561,439	338,240	90,026	
Plan fiduciary net position — beginning	5	5,570,069	4,925,122	4,973,846	4,412,407	4,074,167	3,984,141	
Plan fiduciary net position — ending (b)	6	5,200,190	5,570,069	4,925,122	4,973,846	4,412,407	4,074,167	_
Net pension liability — ending (a-b)	\$	51,294	376,887	736,372	438,130	642,122	565,849	
Plan fiduciary net position as								
a percentage of the total pension liability		99.2%	93.7%	87.0%	91.9%	87.3%	87.8%	
Projected covered payroll	\$	796,350	796,508	804,891	811,404	830,406	826,998	
Net pension liability as a percentage of covered payroll		6.4%	47.3%	91.5%	54.0%	77.3%	68.4%	
Projected covered payroll	\$	796,350	796,508	804,891	811,404	830,406	826,998	

^{*}Represents adjustment to record the employers' prior year proportionate share of beginning of year Total Pension Liability and Plan Fiduciary Net Position of the state school fund to the new Higher Education division.

Loc	cal Government	ment State and So						tate and School	
2014	2013	2020	2019	2018	2017	2016	2015	2014	2013
93,436	100,789	288,524	286,588	312,835	310,207	311,641	303,494	314,556	340,531
310,587	297,617	1,525,827	1,478,470	1,548,536	1,517,587	1,434,005	1,447,699	1,389,106	1,348,596
_	6,063	_	_	_	_	_	_	_	17,060
(16,109)	(39,370)	183,309	32,444	27,375	(61,688)	(11,715)	(168,556)	(188,714)	(169,131)
(52,889)	_	180,257	_	_	512,819	451,045	_	(105,032)	_
(159,967)	(149,891)	(1,147,403)	(1,082,760)	(1,101,907)	(1,045,713)	(993,306)	(945,732)	(883,831)	(824,793)
(235)	(620)	(1,483)	(2,511)	(2,028)	(3,821)	(3,974)	(2,248)	(1,969)	(1,834)
174,823	214,588	1,029,031	712,231	784,811	1,229,391	1,187,696	634,657	524,116	710,429
4,243,542	4,028,954	22,384,526	21,672,295	22,676,643	21,447,252	20,259,556	19,624,899	19,100,783	18,390,354
4,418,365	4,243,542	23,413,557	22,384,526	23,461,454	22,676,643	21,447,252	20,259,556	19,624,899	19,100,783
_									
3,859	2,637	11,141	8,276	10,111	13,357	11,285	11,539	9,728	11,571
157,930	147,105	676,531	655,354	681,963	680,218	659,664	646,434	614,490	563,828
266,210	478,461	2,494,469	2,561,197	(73,892)	2,400,489	1,437,910	296,853	1,152,843	2,110,520
(159,967)	(149,891)	(1,147,403)	(1,082,760)	(1,101,907)	(1,045,713)	(993,306)	(945,732)	(883,831)	(824,793)
(235)	(620)	(1,483)	(2,511)	(2,028)	(3,821)	(3,974)	(2,248)	(1,969)	(1,834)
(1,604)	(1,497)	(7,245)	(6,960)	(8,043)	(7,751)	(7,185)	(7,175)	(7,224)	(6,832)
14,058	(5,302)	(108,399)	(44,024)	3,452	(11,834)	(16,328)	6,228	16,409	(36,975)
_	_	_	(161,251)	_	_	_	_	_	_
280,251	470,893	1,917,611	1,927,321	(490,344)	2,024,945	1,088,066	5,899	900,446	1,815,485
3,703,890	3,232,997	20,162,824	18,235,503	20,231,281	18,206,336	17,118,270	17,112,371	16,211,925	14,396,440
3,984,141	3,703,890	22,080,435	20,162,824	19,740,937	20,231,281	18,206,336	17,118,270	17,112,371	16,211,925
434,224	539,652	1,333,122	2,221,702	3,720,517	2,445,362	3,240,916	3,141,286	2,512,528	2,888,858
90.2%	87.3%	94.3%	90.1%	84.1%	89.2%	84.9%	84.5%	87.2%	84.9%
845,364	864,838	2,301,546	2,290,749	2,525,657	2,563,917	2,576,161	2,631,288	2,725,548	2,840,933
51.4%	62.4%	57.9%	97.0%	147.3%	95.4%	125.8%	119.4%	92.2%	101.7%

Continued on page 108.

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

Year Ended December 31

(in thousands)

		Higher Education			
	2020	2019	2020	2019	
Total pension liability					
Service cost	\$ 23,753	27,514	402,446	404,539	
Interest	138,237	122,572	2,071,626	1,989,449	
Benefit changes	_	_	_	_	
Difference between actual and expected experience	(2,965)	159,680	252,553	234,989	
Assumption changes	5,849	_	176,384	_	
Benefit payments	(86,387)	(78,569)	(1,488,627)	(1,396,983)	
Refunds	(2)	(23)	(2,338)	(3,127)	
Net change in total pension liability	78,485	231,174	1,412,044	1,228,867	
Total pension liability — beginning	2,020,333	1,789,159	30,351,815	29,122,948	
Total pension liability — ending (a)	2,098,818	2,020,333	31,763,859	30,351,815	
Plan fiduciary net position					
Contributions — member	580	427	16,385	11,730	
Contributions — employer	50,892	51,916	912,525	888,078	
Net investment income	241,123	235,332	3,430,989	3,499,188	
Benefit payments	(86,387)	(78,569)	(1,488,627)	(1,396,983)	
Refunds	(2)	(23)	(2,338)	(3,127)	
Administrative expense	(645)	(622)	(9,805)	(9,411)	
Net transfers with affiliated systems	88,856	27,884	(16,980)	(19,611)	
Other*	_	161,251	_	_	
Net change in plan fiduciary net position	294,417	397,596	2,842,149	2,969,864	
Plan fiduciary net position — beginning	1,903,030	1,505,434	27,635,923	24,666,059	
Plan fiduciary net position — ending (b)	2,197,447	1,903,030	30,478,072	27,635,923	
Net pension liability — ending (a-b)	\$ (98,629)	117,303	1,285,787	2,715,892	
Plan fiduciary net position as					
a percentage of the total pension liability	104.7%	94.2%	96.0%	91.1%	
Projected covered payroll	\$ 208,486	241,057	3,306,382	3,328,314	
Net pension liability/(asset) as a percentage of covered payroll	(47.3)%	48.7%	38.9%	81.6%	

^{*}Represents adjustment to record the employers' prior year proportionate share of beginning of year Total Pension Liability and Plan Fiduciary Net Position of the state school fund to the new Higher Education division.

otal All Division						
2013	2014	2015	2016	2017	2018	
441,320	407,992	394,798	407,690	403,981	404,391	
1,646,213	1,699,693	1,775,819	1,764,653	1,877,576	1,920,238	
23,123	(204.022)	(100.166)	48,400	(04.224)	22.600	
(208,501	(204,823)	(188,166)	6,408 563,741	(84,234) 642,187	32,680	
(974,684	(157,921) (1,043,798)	(1,123,647)	(1,184,317)	(1,248,037)	(1,320,214)	
(2,454	(2,204)	(1,123,047)	(4,366)	(4,635)	(2,766)	
(2,434	(2,204)	(2,490)	(4,300)	(4,033)	(2,700)	_
925,017	698,939	856,308	1,602,209	1,586,838	1,034,329	_
22,419,308	23,344,325	24,043,264	24,899,572	26,501,781	28,088,619	
23,344,325	24,043,264	24,899,572	26,501,781	28,088,619	29,122,948	
14,208	13,587	17,020	16,308	17,285	14,602	
710,933	772,420	813,449	831,631	854,255	858,444	
2,588,981	1,419,053	366,748	1,783,911	2,987,282	(92,207)	
(974,684	(1,043,798)	(1,123,647)	(1,184,317)	(1,248,037)	(1,320,214)	
(2,454	(2,204)	(2,496)	(4,366)	(4,635)	(2,766)	
(8,329	(8,828)	(8,797)	(8,856)	(9,579)	(9,962)	
(42,277	30,467	33,648	(8,005)	(10,187)	13,035	
2,286,378	1,180,697	95,925	1,426,306	2,586,384	(539,068)	
		·	· ·	· · ·	. , ,	
17,629,437	19,915,815	21,096,512	21,192,437	22,618,743	25,205,127	_
19,915,815	21,096,512	21,192,437	22,618,743	25,205,127	24,666,059	_
3,428,510	2,946,752	3,707,135	3,883,038	2,883,492	4,456,889	
85.3%	87.7%	85.1%	85.3%	89.7%	84.7%	
3,705,771	3,570,912	3,458,286	3,406,567	3,375,321	3,330,548	_
92.5%	82.5%	107.2%	114.0%	85.4%	133.8%	

Schedules of Net Pension Liability by Division

	(dollars in	thousands)		(3)	(4) Plan Position as a Fiduciary Net		(6) Net Pension Liability
System	Date	(1) Total Pension Liability	(2) Plan Fiduciary Net Position	Employers Net Pension Liability/ (Asset)	Percentage of the Total Pension Liability	(5) Projected Covered Payroll	(Asset) as a Percentage of Covered 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
	12/31/18	5,661,494	4,925,122	736,372	87.0	804,891	91.5
	12/31/19	5,946,956	5,570,069	376,887	93.7	796,508	47.3
	12/31/20	6,251,484	6,200,190	51,294	99.2	796,350	6.4
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
	12/31/18	23,461,454	19,740,937	3,720,517	84.1	2,525,657	147.3
	12/31/19	22,384,526	20,162,824	2,221,702	90.1	2,290,749	97.0
	12/31/20	23,413,557	22,080,435	1,333,122	94.3	2,301,546	57.9
Noncontributory	12/31/19	\$ 2,020,333	1,903,030	117,303	94.2%	\$ 241,057	48.7%
Higher Education	12/31/20	2,098,818	2,197,447	(98,629)	104.7	208,486	(47.3)
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	12/31/15	24,899,572	21,192,437	3,707,135	85.1	3,458,286	107.2
System	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
	12/31/18	29,122,948	24,666,059	4,456,889	84.7	3,330,548	133.8
	12/31/19	30,351,815	27,635,923	2,715,892	91.1	3,328,314	81.6
	12/31/20	31,763,859	30,478,072	1,285,787	96.0	3,306,382	38.9

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 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
	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
	2018	176,481	176,481	_	804,891	21.93
	2019	180,808	180,808	_	796,508	22.70
	2020	185,102	185,102	_	796,350	23.24
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
	2018	681,963	681,963	_	2,525,657	27.00
	2019	655,354	655,354	_	2,290,749	28.61
	2020	676,531	676,531	_	2,301,546	29.39
Noncontributory	2019	\$ 51,916	51,916	_	241,057	21.54%
Higher Education	2020	50,892	50,892	_	208,486	24.41
Total	2013	\$ 710,933	710,933	_	3,705,771	19.18%
Noncontributory	2014	772,420	772,420	_	3,570,912	21.63
Retirement	2015	813,449	813,449	_	3,458,286	23.52
System	2016	831,631	831,631	_	3,406,567	24.41
	2017	854,255	854,255	_	3,375,321	25.31
	2018	858,444	858,444	_	3,330,548	25.77
	2019	888,078	888,078	_	3,328,314	26.68
	2020	912,525	912,525	_	3,306,382	27.60

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, 2020 With Comparative Totals for December 31, 2019

(in thousands)

	Local	State and	Higher	т	otal All Divisions
	Government	School	Education	2020	2019
Assets:					
Cash	\$ 1	1	1	3	3
Receivables:					
Member Contributions	29	23	13	65	77
Employer contributions	83	67	40	190	224
Investments	5,084	7,146	1,944	14,174	12,401
Total receivables	5,196	7,236	1,997	14,429	12,702
Investments at fair value:					
Short-term securities	32,376	45,507	12,380	90,263	66,648
Debt securities	65,428	91,967	25,020	182,415	221,819
Equity investments	192,753	270,938	73,708	537,399	482,516
Absolute return	72,837	102,381	27,853	203,071	186,162
Private equity	55,789	78,418	21,333	155,540	144,116
Real assets	64,365	90,473	24,613	179,451	177,687
Total investments	483,548	679,684	184,907	1,348,139	1,278,948
Invested securities lending collateral	14,058	19,760	5,376	39,194	31,754
Property and equipment at cost,					
net of accumulated depreciation	143	200	55	398	318
Total assets	502,946	706,881	192,336	1,402,163	1,323,725
Liabilities:					
Securities lending liability	14,058	19,760	5,376	39,194	31,754
Disbursements in excess of cash balance	462	650	177	1,289	1,217
Compensated absences, post-employment					
benefits and insurance reserve	304	427	116	847	823
Investment accounts payable	7,561	10,627	2,891	21,079	23,329
Real estate liabilities	1,476	2,075	564	4,115	4,310
Total liabilities	23,861	33,539	9,124	66,524	61,433
Net position restricted for pensions	\$ 479,085	673,342	183,212	1,335,639	1,262,292

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

Year Ended December 31, 2020 With Comparative Totals for Year Ended December 31, 2019

(in thousands)

Additions: Contributions: Member Employer	\$ 882 2,397 3,279	State and School 579 1,575	Higher Education	1,728	2019
Contributions: Member	2,397			1,728	
Member	2,397			1,728	
	2,397			1,728	
Employer		1,575	707		1,950
	3,279		/0/	4,759	5,433
Total contributions		2,154	1,054	6,487	7,383
Investment income:					
Net appreciation in fair value of investments	48,423	68,942	17,782	135,147	139,108
Interest, dividends, and other investment income	7,809	11,118	2,868	21,795	27,140
Total income from investment activity	56,232	80,060	20,650	156,942	166,248
Less investment expenses	986	1,404	362	2,752	2,518
Net income from investment activity	55,246	78,656	20,288	154,190	163,730
Income from security lending activity	72	103	27	202	236
Less security lending expense	9	13	3	25	31
Net income from security lending activity	63	90	24	177	205
Net investment income	55,309	78,746	20,312	154,367	163,935
Transfers from affiliated systems	(2,884)	(1,797)	9,223	4,542	9,775
Total additions	55,704	79,103	30,589	165,396	181,093
Deductions:					
Retirement benefits	25,655	42,140	8,433	76,228	75,044
Cost-of-living benefits	4,224	8,222	1,192	13,638	13,083
Supplemental retirement benefits	4	19	1	24	35
Refunds	809	938	6	1,753	2,660
Administrative expenses	146	209	51	406	408
Transfers to affiliated systems	_	_	_	_	_
Other*					
Total deductions	30,838	51,528	9,683	92,049	91,230
Increase from operations	24,866	27,575	20,906	73,347	89,863
Net position restricted for pensions beginning of year	454,219	645,767	162,306	1,262,292	1,172,429
Net position restricted for pensions end of year	\$ 479,085	673,342	183,212	1,335,639	1,262,292

^{*}Represents adjustment to record the employers' prior year proportionate share of beginning of year Total Pension Liability and Plan Fiduciary Net Position of the state school fund to the new Higher Education division.

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

Year Ended December 31

(in thousands)

	2020	2019	2018	2017	2016	2015	
Total pension liability							
Service cost	\$ 1,643	1,731	1,945	2,301	2,659	5,360	
Interest	31,014	30,943	31,251	32,120	34,422	35,298	
Benefit changes	_	_	_	_	(45,057)	_	
Difference between actual and expected experience	(4,209)	(1,383)	(8,463)	(11,176)	(4,618)	(4,833)	
Assumption changes	2,635	_	_	8,760	8,285	_	
Benefit payments	(29,883)	(28,458)	(27,964)	(27,468)	(26,126)	(26,652)	
Refunds	(809)	(1,284)	(430)	(703)	(655)	(623)	
Net change in total pension liability	391	1,549	(3,661)	3,834	(31,090)	8,550	
Total pension liability — beginning	460,772	459,223	462,884	459,050	490,140	481,590	
Total pension liability — ending (a)	461,163	460,772	459,223	462,884	459,050	490,140	
Plan fiduciary net position							
Contributions — member	882	956	1,068	1,289	1,759	2,572	
Contributions — member Contributions — employer	2,397	2,640	2,762	2,969	3,730	6,384	
Net investment income	55,309	58,811	(1,605)	55,066	34,351	7,597	
Benefit payments	(29,883)	(28,458)	(27,964)	(27,468)	(26,126)	(26,652)	
Refunds	(809)	(1,284)	(430)	(703)	(655)	(623)	
Administrative expense	(146)	(1,231)	(161)	(162)	(157)	(176)	
Net transfers with affiliated systems	(2,884)	3,058	(9,774)	(2,482)	(6,519)	(21,993)	
Other*	—	_	_	—			
Net change in plan fiduciary net position	24,866	35,576	(36,104)	28,509	6,383	(32,891)	
Plan fiduciary net position — beginning	454,219	418,643	454,747	426,238	419,855	452,746	
Plan fiduciary net position — ending (b)	479,085	454,219	418,643	454,747	426,238	419,855	
Net pension liability — ending (a-b)	\$ (17,922)	6,553	40,580	8,137	32,812	70,285	_
Plan fiduciary net position as a percentage of the total pension liability	103.9%	98.6%	91.2%	98.2%	92.9%	85.7%	
Projected covered payroll	\$ 15,375	16,251	18,276	20,724	23,959	48,590	
Net pension liability/(asset) as							_
a percentage of covered payroll	(116.6)%	40.3%	222.0%	39.3%	137.0%	144.6%	

^{*}Represents adjustment to record the employers' prior year proportionate share of beginning of year Total Pension Liability and Plan Fiduciary Net Position of the state school fund to the new Higher Education division.

Loca	l Government							Sta	ite and School
2014	2013	2020	2019	2018	2017	2016	2015	2014	2013
5,679	6,352	1,056	1,277	2,099	2,500	3,014	3,312	3,901	4,645
34,255 —	33,840 415	43,614 —	38,509 —	56,046 —	58,004 —	57,472 —	60,165 —	59,564 —	59,910 306
(8,465)	(8,020)	(3,800)	85,249	(8,786)	(13,814)	(9,183)	(10,456)	(14,374)	(12,500)
(2,914)	_	7,336	· —		13,348	14,624		(1,319)	
(23,177)	(21,607)	(50,381)	(50,282)	(58,831)	(57,291)	(57,321)	(54,738)	(53,838)	(52,551)
(1,294)	(855)	(938)	(1,350)	(1,041)	(910)	(1,045)	(592)	(1,139)	(1,067)
4,084	10,125	(3,113)	73,403	(10,513)	1,837	7,561	(2,309)	(7,205)	(1,257)
477,506	467,381	652,671	579,268	835,299	833,462	825,901	828,210	835,415	836,672
481,590	477,506	649,558	652,671	824,786	835,299	833,462	825,901	828,210	835,415
3,103	3,418	579	667	1,387	1,386	1,661	2,199	2,358	2,958
7,410	6,963	1,575	1,874	3,265	4,977	4,458	5,335	5,544	5,911
30,871	58,533	78,746	84,690	(2,908)	100,883	63,342	13,654	56,706	110,977
(23,177)	(21,607)	(50,381)	(50,282)	(58,831)	(57,293)	(57,321)	(54,738)	(53,838)	(52,551)
(1,294)	(855)	(938)	(1,350)	(1,041)	(910)	(1,045)	(592)	(1,139)	(1,067)
(179)	(172)	(209)	(211)	(293)	(295)	(289)	(302)	(315)	(308)
(10,140)	5,790	(1,797)	4,388	(16,512)	1,305	4,624	(19,565)	(27,864)	27,304
			76,588	_	_	_	_	_	
6,594	52,070	27,575	116,364	(74,933)	50,053	15,430	(54,009)	(18,548)	93,224
446,152	394,082	645,767	529,403	828,719	778,666	763,236	817,245	835,793	742,569
452,746	446,152	673,342	645,767	753,786	828,719	778,666	763,236	817,245	835,793
28,844	31,354	(23,784)	6,904	71,000	6,580	54,796	62,665	10,965	(378)
94.0%	93.4%	103.7%	98.9%	91.4%	99.2%	93.4%	92.4%	98.7%	100.0%
51,420	54,445	10,445	12,599	21,003	24,453	29,656	33,836	39,203	43,578
		(227.7)61	54.00	220.007	25.00/	40400/	405.007	22.00/	(0.0)5;
56.1%	57.6%	(227.7)%	54.8%	338.0%	26.9%	184.8%	185.2%	28.0%	(0.9)%

Continued on page 116

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

Year Ended December 31

(in thousands)

	ŀ	Higher Education			
	2020	2019	2020	2019	
Total pension liability					
Service cost	\$ 476	528	3,175	3,536	
Interest	10,570	16,753	85,198	86,205	
Benefit changes	_	_	_	_	
Difference between actual and expected experience	2,546	(96,683)	(5,463)	(12,817)	
Assumption changes	1,341	_	11,312	_	
Benefit payments	(9,626)	(9,422)	(89,890)	(88,162)	
Refunds	(6)	(26)	(1,753)	(2,660)	
Net change in total pension liability	5,301	(88,850)	2,579	(13,898)	
Total pension liability — beginning	156,668	245,518	1,270,111	1,284,009	
Total pension liability — ending (a)	161,969	156,668	1,272,690	1,270,111	
Plan fiduciary net position					
Contributions — member	267	327	1,728	1,950	
Contributions — employer	787	919	4,759	5,433	
Net investment income	20,312	20,434	154,367	163,935	
Benefit payments	(9,626)	(9,422)	(89,890)	(88,162)	
Refunds	(6)	(26)	(1,753)	(2,660)	
Administrative expense	(51)	(50)	(406)	(408)	
Net transfers with affiliated systems	9,223	2,329	4,542	9,775	
Other*	_	(76,588)	_	_	
Net change in plan fiduciary net position	20,906	(62,077)	73,347	89,863	
Plan fiduciary net position — beginning	162,306	224,383	1,262,292	1,172,429	
Plan fiduciary net position — ending (b)	183,212	162,306	1,335,639	1,262,292	
Net pension liability — ending (a-b)	\$ (21,243)	(5,638)	(62,949)	7,819	
Plan fiduciary net position as					
a percentage of the total pension liability	113.1%	103.6%	104.9%	99.4%	
Projected covered payroll	\$ 4,928	5,467	30,748	34,317	
Net pension liability/(asset) as a percentage of covered payroll	(431.1)%	(103.1)%	(204.7)%	22.8%	

^{*}Represents adjustment to record the employers' prior year proportionate share of beginning of year Total Pension Liability and Plan Fiduciary Net Position of the state school fund to the new Higher Education division.

otal All Divisions	To					_
2013	2014	2015	2016	2017	2018	
10,997	9,580	8,672	5,673	4,801	4,044	
93,750	93,819	95,463	91,894	90,124	87,297	
721	_	_	(45,057)	_	_	
(20,520	(22,839)	(15,289)	(13,801)	(24,990)	(17,249)	
_	(4,233)	_	22,909	22,108	_	
(74,158	(77,015)	(81,390)	(83,447)	(84,759)	(86,795)	
(1,922	(2,433)	(1,215)	(1,700)	(1,613)	(1,471)	
8,868	(3,121)	6,241	(23,529)	5,671	(14,174)	
1,304,053	1,312,921	1,309,800	1,316,041	1,292,512	1,298,183	
1,312,921	1,309,800	1,316,041	1,292,512	1,298,183	1,284,009	
6,376	5,461	4,771	3,420	2,675	2,455	
12,874	12,954	11,719	8,188	7,946	6,027	
169,510	87,577	21,251	97,693	155,949	(4,513)	
(74,158	(77,015)	(81,390)	(83,447)	(84,761)	(86,795)	
(1,922	(2,433)	(1,215)	(1,700)	(1,613)	(1,471)	
(480	(494)	(478)	(446)	(457)	(454)	
33,094	(38,004)	(41,558)	(1,895)	(1,177)	(26,286)	
	_				_	
145,294	(11,954)	(86,900)	21,813	78,562	(111,037)	
1,136,651	1,281,945	1,269,991	1,183,091	1,204,904	1,283,466	
1,281,945	1,269,991	1,183,091	1,204,904	1,283,466	1,172,429	
30,976	39,809	132,950	87,608	14,717	111,580	
97.6%	97.0%	89.9%	93.2%	98.9%	91.3%	
98,023	90,623	82,426	53,615	45,177	39,279	
31.6%	43.9%	161.3%	163.4%	32.6%	284.1%	

Schedules of Net Pension Liability by Division

	(dollars in	tho	usands)			(4) Plan Position as a		(6) Net Pension
System	Date		(1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	Fiduciary Net Percentage of the Total Pension Liability	(5) Projected Covered Payroll	Liability (Asset) as a Percentage of Covered Payroll
Contributory	12/31/13	\$	477,506	446,152	31,354	93.4%	\$ 54,445	57.6%
Local Government	12/31/14		481,590	452,746	28,844	94.0	51,420	56.1
	12/31/15		490,140	419,855	70,285	85.7	48,590	144.6
	12/31/16		459,050	426,238	32,812	92.9	23,959	137.0
	12/31/17		462,884	454,747	8,137	98.2	20,724	39.3
	12/31/18		459,223	418,643	40,580	91.2	18,276	222.0
	12/31/19		460,772	454,219	6,553	98.6	16,251	40.3
	12/31/20		461,163	479,085	(17,922)	103.9	15,375	(116.6)
Contributory	12/31/13	\$	835,415	835,793	(378)	100.0%	\$ 43,578	(0.9)%
State and School	12/31/14		828,210	817,245	10,965	98.7	39,203	28.0
	12/31/15		825,901	763,236	62,665	92.4	33,836	185.2
	12/31/16		833,462	778,666	54,796	93.4	29,656	184.8
	12/31/17		835,299	828,719	6,580	99.2	24,453	26.9
	12/31/18		824,786	753,786	71,000	91.4	21,003	338.0
	12/31/19		652,671	645,767	6,904	98.9	12,599	54.8
	12/31/20		649,558	673,342	(23,784)	103.7	10,445	(227.7)
Contributory	12/31/19	\$	156,668	162,306	(5,638)	103.6	\$ 5,467	(103.1)%
Higher Education	12/31/20		161,969	183,212	(21,243)	113.1	4,928	431.0
Total	12/31/13	\$ 1	,312,921	1,281,945	30,976	97.6%	\$ 98,023	31.6%
Contributory	12/31/14	1	,309,800	1,269,991	39,809	97.0	90,623	43.9
Retirement	12/31/15	1	,316,041	1,183,091	132,950	89.9	82,426	161.3
System	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
	12/31/18	1	,284,009	1,172,429	111,580	91.3	39,279	284.1
	12/31/19	1	,270,111	1,262,292	7,819	99.4	34,317	22.8
	12/31/20	1	,272,690	1,335,639	(62,949)	104.9	30,748	(204.7)

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 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
	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
	2018	2,762	2,762	_	18,276	15.11
	2019	2,640	2,640	_	16,251	16.25
	2020	2,397	2,397	_	15,375	15.59
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
	2018	3,265	3,265	_	21,003	15.55
	2019	1,874	1,874		12,599	14.87
	2020	1,575	1,575	_	10,445	15.08
Contributory	2019	\$ 919	919	_	5,467	16.81%
Higher Education	2020	787	787	_	4,928	15.97
Total	2013	\$ 12,874	12,874	_	98,023	13.13%
Contributory	2014	12,954	12,954		90,623	14.29
Retirement	2015	11,719	11,719		82,426	14.22
System	2016	8,188	8,188	_	53,615	15.27
	2017	7,946	7,946	_	45,177	17.59
	2018	6,027	6,027	_	39,279	15.34
	2019	5,433	5,433	_	34,317	15.83
	2020	4,759	4,759	_	30,748	15.48

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, 2020 With Comparative Totals for December 31, 2019

(in thousands)

State of Utah Public Safety	Other Division A (with Social Security)	Salt Lake City	
\$ 2			
\$ 2			
	4	2	
_	6	_	
1,999	1,744	566	
15,639	18,753	3,825	
17,638	20,503	4,391	
99,586	119,416	24,358	
201,258	241,332	49,226	
592,909	710,969	145,021	
224,046	268,659	54,800	
171,606	205,776	41,973	
197,988	237,411	48,426	
1,487,393	1,783,563	363,804	
43,242	51,853	10,577	
439	526	107	
1,548,714	1,856,449	378,881	
43,242	51,853	10,577	
1,423	1,706	348	
935	1,121	229	
23,256	27,887	5,688	
4,541	5,445	1,111	
73,397	88,012	17,953	
\$ 1,475,317	1,768,437	360,928	
	15,639 17,638 99,586 201,258 592,909 224,046 171,606 197,988 1,487,393 43,242 439 1,548,714 43,242 1,423 935 23,256 4,541 73,397	1,999 1,744 15,639 18,753 17,638 20,503 99,586 119,416 201,258 241,332 592,909 710,969 224,046 268,659 171,606 205,776 197,988 237,411 1,487,393 1,783,563 43,242 51,853 439 526 1,548,714 1,856,449 43,242 51,853 1,423 1,706 935 1,121 23,256 27,887 4,541 5,445 73,397 88,012	1,999 1,744 566 15,639 18,753 3,825 17,638 20,503 4,391 99,586 119,416 24,358 201,258 241,332 49,226 592,909 710,969 145,021 224,046 268,659 54,800 171,606 205,776 41,973 197,988 237,411 48,426 1,487,393 1,783,563 363,804 43,242 51,853 10,577 439 526 107 1,548,714 1,856,449 378,881 43,242 51,853 10,577 1,423 1,706 348 935 1,121 229 23,256 27,887 5,688 4,541 5,445 1,111 73,397 88,012 17,953

				Other Division B (without		Total All Divisions
0gden	Provo	Logan	Bountiful	Social Security)	2020	2019
2	2	2	2	4	20	20
_						
_	_	_	_	1	7	6
103	_	41	39	779	5,271	5,493
816	674	370	259	6,552	46,888	39,099
919	674	411	298	7,332	52,166	44,598
5,195	4,292	2,358	1,647	41,722	298,574	210,118
10,500	8,674	4,767	3,327	84,317	603,401	699,329
30,932	25,554	14,043	9,803	248,399	1,777,630	1,521,231
11,689	9,656	5,306	3,704	93,864	671,724	586,911
8,953	7,396	4,064	2,837	71,894	514,499	454,354
10,329	8,533	4,689	3,273	82,947	593,596	560,194
77,598	64,105	35,227	24,591	623,143	4,459,424	4,032,137
2,256	1,864	1,024	715	18,116	129,647	100,108
23	19	10	7	184	1,315	1,003
80,798	66,664	36,674	25,613	648,779	4,642,572	4,177,866
2,256	1,864	1,024	715	18,116	129,647	100,108
74	61	34	24	596	4,266	3,837
49	40	22	15	392	2,803	2,596
1,213	1,002	551	384	9,743	69,724	73,552
237	196	108	75	1,902	13,615	13,587
3,829	3,163	1,739	1,213	30,749	220,055	193,680
76,969	63,501	34,935	24,400	618,030	4,422,517	3,984,186

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

Year Ended December 31, 2020 With Comparative Totals for Year Ended December 31, 2019

(in thousands)

	(
	State of Utah Public Safety	Other Division A (with Social Security)	Salt Lake City	
Additions:				
Contributions:				
Member	\$ 19	367	89	
Employer	48,698	56,308	15,608	
Total contributions	48,717	56,675	15,697	
Investment income:				
Net appreciation in fair value of investments	145,321	174,204	35,496	
Interest, dividends, and other investment income	23,435	28,093	5,724	
Total income from investment activity	168,756	202,297	41,220	
Less investment expenses	2,959	3,547	723	
Net income from investment activity	165,797	198,750	40,497	
Income from security lending activity	217	260	53	
Less security lending expense	27	33	7	
Net income from security lending activity	190	227	46	
Net investment income	165,987	198,977	40,543	
Transfers from (to) affiliated systems	5,523	(6,607)	1,175	_
Total additions	220,227	249,045	57,415	
Deductions:				
Retirement benefits	65,288	64,654	16,989	
Cost-of-living benefits	13,518	12,431	4,532	
Supplemental retirement benefits	77	60	28	
Refunds	_	43	_	
Administrative expenses	476	566	130	
Total deductions	79,359	77,754	21,679	
Increase from operations	140,868	171,291	35,736	
Net position restricted for pensions beginning of year	1,334,449	1,597,146	325,192	
Net position restricted for pensions end of year	\$ 1,475,317	1,768,437	360,928	

Γotal All Divisions		Other Division B				
2019	2020	(without Social Security)	Bountiful	Logan	Provo	0gden
856	557	82	_	_	_	_
150,467	150,512	22,680	1,032	1,055	2,420	2,711
151,323	151,069	22,762	1,032	1,055	2,420	2,711
426,532	434,881	60,056	2,472	3,437	6,256	7,639
83,217	70,131	9,685	399	554	1,009	1,232
509,749	505,012	69,741	2,871	3,991	7,265	8,871
7,721	8,855	1,223	50	70	127	156
502,028	496,157	68,518	2,821	3,921	7,138	8,715
725	649	90	4	5	9	11
96	81	11	_	1	1	1
629	568	79	4	4	8	10
502,657	496,725	68,597	2,825	3,925	7,146	8,725
5,512	7,364	7,422	(666)	214	19	284
659,492	655,158	98,781	3,191	5,194	9,585	11,720
168,702	179,491	22,941	1,298	1,473	2,776	4,072
33,026	35,627	2,772	315	351	663	1,045
195	171	_	_	_	4	2
76	96	53	_		_	_
1,376	1,442	199	9	12	22	28
203,375	216,827	25,965	1,622	1,836	3,465	5,147
456,117	438,331	72,816	1,569	3,358	6,120	6,573
3,528,069	3,984,186	545,214	22,831	31,577	57,381	70,396
3,984,186	4,422,517	618,030	24,400	34,935	63,501	76,969

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

Year Ended December 31

(in thousands)

	2020	2019	2018	2017	2016	2015	
Total pension liability							
Service cost	\$ 23,422	24,209	24,680	24,057	24,327	23,270	
Interest	101,080	97,263	94,417	91,628	86,361	87,273	
Benefit changes	_	_	_	_	_	_	
Difference between actual and expected experience	11,783	9,405	(7,483)	3,619	(3,139)	(14,298)	
Assumption changes	562	_	_	32,840	29,315	_	
Benefit payments	(78,883)	(72,218)	(68,479)	(64,451)	(62,622)	(59,271)	
Refunds	_	(30)	(113)	(66)	(8)	(18)	
Net change in total pension liability	57,964	58,629	43,022	87,627	74,234	36,956	
Total pension liability — beginning	1,482,122	1,423,493	1,380,471	1,292,844	1,218,610	1,181,654	
Total pension liability — ending (a)	1,540,086	1,482,122	1,423,493	1,380,471	1,292,844	1,218,610	
Plan fiduciary net position							
Contributions — member	19	4	264	221	112	115	
Contributions — employer	48,698	50,140	50,030	49,386	50,554	47,449	
Net investment income	165,987	168,368	(4,419)	142,696	84,744	17,349	
Benefit payments	(78,883)	(72,218)	(68,479)	(64,451)	(62,622)	(59,271)	
Refunds	_	(30)	(113)	(66)	(8)	(18)	
Administrative expense	(476)	(459)	(487)	(470)	(432)	(431)	
Net transfers with affiliated systems	5,523	4,526	738	233	3,363	2,301	
Net change in plan fiduciary net position	140,868	150,331	(22,466)	127,549	75,711	7,494	_
Plan fiduciary net position — beginning	1,334,449	1,184,118	1,206,584	1,079,035	1,003,324	995,830	
Plan fiduciary net position — ending (b)	1,475,317	1,334,449	1,184,118	1,206,584	1,079,035	1,003,324	
Net pension liability/(asset) — ending (a-b)	\$ 64,769	147,673	239,375	173,887	213,809	215,286	
Plan fiduciary net position as							
a percentage of the total pension liability	95.8%	90.0%	83.2%	87.4%	83.5%	82.3%	
Projected covered payroll	\$ 102,302	105,488	107,407	107,557	108,759	108,967	_
Net pension liability as a percentage of covered payroll	63.3%	140.0%	222.9%	161.7%	196.6%	197.6%	

_	State of Utah							Division A (with	Social Security)
2014	2013	2020	2019	2018	2017	2016	2015	2014	2013
24,190 83,519	26,013 81,713	31,161 120,561	30,869 115,292	31,875 110,510	30,590 107,017	31,202 98,935	29,942 98,538	30,473 93,276	32,564 90,791
— (12,067) (17,596)	(2,099) —	23,097 (3,878)	4,368 —	(3,170) —	— (21,479) 50,755	(6,830) 48,303	(12,388) —	(16,141) (21,812)	(25,616) —
(55,075) (12)	(52,432) (2)	(77,145) (43)		(67,207) (85)	(60,128) (158)	(57,652) (175)	(54,909) (208)	(51,394) (115)	(48,824) (97)
22,959	53,193	93,753	77,998	71,923	106,597	113,783	60,975	34,287	48,818
1,158,695	1,105,502	1,757,708	1,679,710	1,607,787	1,501,190	1,387,407	1,326,432	1,292,145	1,243,327
1,181,654	1,158,695	1,851,461	1,757,708	1,679,710	1,607,787	1,501,190	1,387,407	1,326,432	1,292,145
152	103	367	454	545	366	515	701	597	714
45,810 66,949	43,393	56,308	55,243	53,057	53,112	52,359	51,677 20,899	49,156	46,421
(55,075)	121,520 (52,432)	198,977 (77,145)	202,090 (72,527)	(5,312) (67,207)	171,806 (60,128)	102,156 (57,652)	(54,909)	80,565 (51,394)	146,201 (48,824)
(12)	(2)	(43)		(85)	(158)	(37,032)	(208)	(115)	(97)
(434)	(413)	(566)		(569)	(542)	(496)	(485)	(482)	(458)
1,124	757	(6,607)		(8,899)	(11,797)	(6,727)	(10,067)	(6,061)	(3,111)
58,514	112,926	171,291	174,695	(28,470)	152,659	89,980	7,608	72,266	140,846
937,316	824,390	1,597,146	1,422,451	1,450,921	1,298,262	1,208,282	1,200,674	1,128,408	987,562
995,830	937,316	1,768,437	1,597,146	1,422,451	1,450,921	1,298,262	1,208,282	1,200,674	1,128,408
185,824	221,379	83,024	160,562	257,259	156,866	202,928	179,125	125,758	163,737
84.3%	80.9%	95.5%	90.9%	84.7%	90.2%	86.5%	87.1%	90.5%	87.3%
113,111	115,960	135,602	134,008	138,269	137,270	139,677	141,681	143,924	146,190
164.3%	190.9%	61.2%	119.8%	186.1%	114.3%	145.3%	126.4%	87.4%	112.0%

Continued on page 126.

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

Year Ended December 31

(in thousands)

	2020	2019	2018	2017	2016	2015	
Total pension liability							
Service cost	\$ 6,567	6,665	6,763	6,704	6,316	5,963	
Interest	27,597	26,741	25,881	24,937	23,099	23,023	
Benefit changes		_	_	_	_		
Difference between actual and expected experience	3,340	344	532	2,143	2,815	2,063	
Assumption changes	(243)	_	_	11,737	11,313		
Benefit payments	(21,549)	(21,229)	(20,225)	(18,745)	(17,681)	(17,076)	
Refunds	_	_	(39)	(2)	_	_	
Net change in total pension liability	15,712	12,521	12,912	26,774	25,862	13,973	
Total pension liability — beginning	404,571	392,050	379,138	352,364	326,502	312,529	
Total pension liability — ending (a)	420,283	404,571	392,050	379,138	352,364	326,502	
Plan fiduciary net position Contributions — member Contributions — employer Net investment income Benefit payments	89 15,608 40,543 (21,549)	— 15,609 41,115 (21,229)	— 15,294 (1,075) (20,225)	— 14,899 34,603 (18,745)	8 15,260 20,441 (17,681)	— 14,100 4,178 (17,076)	
Refunds	_	_	(39)	(2)	_	_	
Administrative expense	(130)	(126)	(135)	(129)	(118)	(116)	
Net transfers with affiliated systems	1,175	801	2,259	1,642	1,369	657	
Net change in plan fiduciary net position	35,736	36,170	(3,921)	32,268	19,279	1,743	
Plan fiduciary net position — beginning	325,192	289,022	292,943	260,675	241,396	239,653	
Plan fiduciary net position — ending (b)	360,928	325,192	289,022	292,943	260,675	241,396	
Net pension liability/(asset) — ending (a-b)	\$ 59,355	79,379	103,028	86,195	91,689	85,106	
Plan fiduciary net position as a percentage of the total pension liability	85.9%	80.4%	73.7%	77.3%	74.0%	73.9%	
Projected covered payroll	\$ 28,518	28,862	29,356	30,142	28,331	28,275	
Net pension liability as a percentage of covered payroll	208.1%	275.0%	351.0%	286.0%	323.6%	301.0%	

	Salt Lake City								Ogden
2014	2013	2020	2019	2018	2017	2016	2015	2014	2013
5,878 22,171	6,209 21,719	915 5,999	1,004 5,849	1,143 5,838	1,200 5,549	1,139 5,232	1,164 5,359	1,170 5,185	1,304 5,028
(1,430) (4,551) (16,398)	(3,743) — (15,737) (15)	(1,792) (53) (5,119)	378 — (4,949) —	(1,850) — (4,846) —	2,044 2,724 (4,286)	(288) 2,544 (4,208)	(1,153) — (4,090) —	559 (822) (3,956)	(713) — (3,864) —
5,670	8,433	(50)	2,282	285	7,231	4,419	1,280	2,136	1,755
306,859	298,426	88,417	86,135	85,850	78,619	74,200	72,920	70,784	69,029
312,529	306,859	88,367	88,417	86,135	85,850	78,619	74,200	72,920	70,784
4 13,519 16,113 (16,398) — (116) 620 13,742 225,911 239,653 72,876	13 12,426 29,378 (15,737) (15) (110) 447 26,402 199,509 225,911 80,948	2,711 8,725 (5,119) — (28) 284 6,573 70,396 76,969	2,743 8,983 (4,949) — (28) (224) 6,525 63,871 70,396 18,021	2,970 (240) (4,846) — (30) 106 (2,040) 65,911 63,871 22,264	3,072 7,843 (4,286) — (29) (128) 6,472 59,439 65,911 19,939	3,147 4,696 (4,208) — (27) (74) 3,534 55,905 59,439 19,180	56 2,729 976 (4,090) — (26) (66) (421) 56,326 55,905 18,295	2,791 3,803 (3,956) — (27) 107 2,718 53,608 56,326 16,594	2,525 6,973 (3,864) — (26) 535 6,143 47,465 53,608
76.7%	73.6%	87.1%	79.6%	74.2%	76.8%	75.6%	75.3%	77.2%	75.7%
27,821	28,016	3,975	4,337	4,940	5,372	5,082	5,517	5,518	5,831
261.9%	288.9%	286.7%	415.5%	450.7%	371.2%	377.4%	331.6%	300.7%	294.6%

Continued on page 128.

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

Year Ended December 31

(in thousands)

	2020	2019	2018	2017	2016	2015	
Total pension liability							
Service cost	\$ 1,027	1,036	1,091	1,122	1,134	1,099	
Interest	4,618	4,496	4,323	4,282	3,972	3,916	
Benefit changes		_	_	_	_	_	
Difference between actual and expected experience	2,353	(314)	458	(1,391)	147	636	
Assumption changes	(85)	_	_	1,895	1,960	_	
Benefit payments	(3,443)	(3,468)	(3,240)	(3,089)	(2,701)	(2,739)	
Refunds	_	_	_	_	_	_	
Net change in total pension liability	4,470	1,750	2,632	2,819	4,512	2,912	
Total pension liability — beginning	67,656	65,906	63,274	60,455	55,943	53,031	
Total pension liability — ending (a)	72,126	67,656	65,906	63,274	60,455	55,943	
Plan fiduciary net position Contributions — member Contributions — employer Net investment income	 2,420 7,146	217 2,335 7,225	 2,266 (190)	— 2,258 6,141	 2,403 3,660	— 2,314 749	
Benefit payments Refunds	(3,443)	(3,468)	(3,240)	(3,089)	(2,701)	(2,739)	
Administrative expense Net transfers with affiliated systems	(22) 19	(21) 299	(23) 97	(22) 16	(20) (39)	(20) 66	
Net change in plan fiduciary net position	6,120	6,587	(1,090)	5,304	3,303	370	
Plan fiduciary net position — beginning	57,381	50,794	51,884	46,580	43,277	42,907	
Plan fiduciary net position — ending (b)	63,501	57,381	50,794	51,884	46,580	43,277	
Net pension liability/(asset) — ending (a-b)	\$ 8,625	10,275	15,112	11,390	13,875	12,666	
Plan fiduciary net position as a percentage of the total pension liability	88.0%	84.8%	77.1%	82.0%	77.0%	77.4%	
Projected covered payroll	\$ 4,417	4,468	4,699	5,023	5,065	5,213	
Net pension liability as a percentage of covered payroll	195.3%	230.0%	321.6%	226.8%	273.9%	243.0%	

	Provo									Logan
2014	2013	_	2020	2019	2018	2017	2016	2015	2014	2013
1,141 3,748	1,181 3,680		446 2,467	486 2,412	482 2,389	465 2,364	488 2,220	485 2,201	524 2,110	580 2,029
— (638) (859) (2,503)	561 — (2,281)		1,022 (99) (1,824)	(181) — (1,990)	(736) — (1,625)	— (766) 1,056 (1,547)	— (264) 1,103 (1,516)	278 — (1,442)	232 (420) (1,366)	(701) — (1,320)
(11)	(204)		_	_	_	_	_	_	_	_
878	2,937		2,012	727	510	1,572	2,031	1,522	1,080	588
52,153	49,216		36,184	35,457	34,947	33,375	31,344	29,822	28,742	28,154
53,031	52,153		38,196	36,184	35,457	34,947	33,375	31,344	29,822	28,742
_	_		_	_	_	_	_	_	35	49
2,255	2,158		1,055	1,053	1,068	1,034	1,052	1,044	989	944
2,877	5,204		3,925	4,034	(107)	3,456	2,068	432	1,671	3,047
(2,503)	(2,281)		(1,824)	(1,990)	(1,625)	(1,547)	(1,516)	(1,442)	(1,366)	(1,320)
(11)	(204)		(12)	(1.1)	(1.2)	(1.2)	(11)	(1.1)	(1.1)	(10)
(19) 145	(19) 16		(12) 214	(11) (156)	(12) 185	(12) 36	(11) (52)	(11) (247)	(11) 100	(10) 88
2,744	4,874		3,358	2,930	(491)	2,967	1,541	(224)	1,418	2,798
40,163	35,289		31,577	28,647	29,138	26,171	24,630	24,854	23,436	20,638
42,907	40,163		34,935	31,577	28,647	29,138	26,171	24,630	24,854	23,436
10,124	11,990		3,261	4,607	6,810	5,809	7,204	6,714	4,968	5,306
80.9%	77.0%	_	91.5%	87.3%	80.8%	83.4%	78.4%	78.6%	83.3%	81.5%
5,424	5,295		1,926	2,108	2,079	2,088	2,183	2,306	2,459	2,584
186.7%	226.4%		169.3%	218.5%	327.6%	278.2%	330.0%	291.2%	202.0%	205.3%

Continued on page 130.

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

Year Ended December 31

(in thousands)

	2020	2019	2018	2017	2016	2015	
Total pension liability							
Service cost	\$ 416	402	394	411	409	380	
Interest	1,966	1,903	1,859	1,845	1,711	1,682	
Benefit changes	_	_	_	_	_	_	
Difference between actual and expected experience	(5)	166	(92)	(453)	383	652	
Assumption changes	35	_	_	880	830	_	
Benefit payments	(1,613)	(1,521)	(1,570)	(1,514)	(1,435)	(1,358)	
Refunds	_	_	_	_	_	_	
Net change in total pension liability	799	950	591	1,169	1,898	1,356	
Total pension liability — beginning	28,883	27,933	27,342	26,173	24,275	22,919	
Total pension liability — ending (a)	29,682	28,883	27,933	27,342	26,173	24,275	
Plan fiduciary net position Contributions — member Contributions — employer Net investment income Benefit payments Refunds	1,032 2,825 (1,613)	1,033 2,889 (1,521)	— 964 (78) (1,570) —	911 2,498 (1,514)	943 1,493 (1,435)	— 883 310 (1,358) —	
Administrative expense	(9)	(9)	(10)	(9)	(9)	(9)	
Net transfers with affiliated systems	(666)	36	35	323	35	35	
Net change in plan fiduciary net position	1,569	2,428	(659)	2,209	1,027	(139)	
Plan fiduciary net position — beginning	22,831	20,403	21,062	18,853	17,826	17,965	
Plan fiduciary net position — ending (b)	24,400	22,831	20,403	21,062	18,853	17,826	
Net pension liability/(asset) — ending (a-b)	\$ 5,282	6,052	7,530	6,280	7,320	6,449	
Plan fiduciary net position as a percentage of the total pension liability	82.2%	79.0%	73.0%	77.0%	72.0%	73.4%	
Projected covered payroll	\$ 1,780	1,707	1,675	1,814	1,810	1,776	
Net pension liability as a percentage of covered payroll	296.7%	354.5%	449.6%	346.2%	404.4%	363.1%	

	Bountiful						Other	r Division B (with S	ocial Security)
2014	2013	2020	2019	2018	2017	2016	2015	2014	2013
383	390	13,945	13,558	13,868	13,723	13,828	13,049	12,922	13,495
1,635	1,580	40,933	37,691	34,932	32,196	28,192	26,988	25,159	23,425
_	_	_	_	_	_	_	_	_	_
297	(147)	32,401	20,125	13,782	13,242	16,534	7,046	3,963	3,230
(229)	(1.260)	(2,404)		(24.222)	16,483	15,005	(1.4.502)	(6,121)	(11.650)
(1,419)	(1,369)	(25,713)		(21,222)	(19,110)	(16,693)	(14,502)	(12,652)	(11,659)
		(53)) (42)	(191)			(307)	(61)	(149)
667	454	59,109	47,311	41,169	56,534	56,866	32,274	23,210	28,342
22,252	21,798	594,874	547,563	506,394	449,860	392,994	360,720	337,510	309,168
22,919	22,252	653,983	594,874	547,563	506,394	449,860	392,994	360,720	337,510
		82	181	86	206	195	33	47	379
822	— 716	22,680		21,452	21,142	21,381	20,828	20,246	20,161
1,220	2,271	68,597		(1,713)	52,874	29,769	5,761	21,024	35,969
(1,419)	(1,369)	(25,713)	-	(21,222)	(19,110)	(16,693)	(14,502)	(12,652)	(11,659)
_	_	(53)		(191)	_	_	(307)	(61)	(149)
(9)	(8)	(199)		(184)	(169)	(147)	(135)	(129)	(117)
14	99	7,422	10,251	12,461	15,601	8,826	11,344	6,697	5,845
628	1,709	72,816	76,451	10,689	70,544	43,331	23,022	35,172	50,429
17,337	15,628	545,214	468,763	458,074	387,530	344,199	321,177	286,005	235,576
17,965	17,337	618,030	545,214	468,763	458,074	387,530	344,199	321,177	286,005
4,954	4,915	35,953	49,660	78,800	48,320	62,330	48,795	39,543	51,505
78.4%	77.9%	94.5%	91.7%	85.6%	90.5%	86.1%	87.6%	89.0%	84.7%
1,795	1,749	60,399	58,727	60,050	61,516	61,501	61,436	60,698	60,373
276.0%	281.0%	59.5%	84.6%	131.2%	78.5%	101.3%	79.4%	65.1%	85.3%

Continued on page 132.

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

Year Ended December 31

(in thousands)

		2020	2019	2018	2017
Total pension liability					
Service cost	\$ 7	7,899	78,229	80,296	78,272
Interest	30	5,221	291,647	280,149	269,818
Benefit changes		_	_	_	_
Difference between actual and expected experience	7:	2,199	34,291	1,441	(3,041)
Assumption changes	(6	6,165)	_	_	118,370
Benefit payments	(21:	5,289)	(201,923)	(188,414)	(172,870)
Refunds		(96)	(76)	(428)	(226)
Net change in total pension liability	23:	3,769	202,168	173,044	290,323
Total pension liability — beginning	4,460	0,415	4,258,247	4,085,203	3,794,880
Total pension liability — ending (a)	4,69	4,184	4,460,415	4,258,247	4,085,203
Dies Colories and a seiden					
Plan fiduciary net position			056	005	703
Contributions — member	1.5	557	856	895	793
Contributions — employer		0,512	150,467	147,101	145,814
Net investment income		6,725	502,657	(13,134)	421,917
Benefit payments	(21:	5,289)	(201,923)	(188,414)	(172,870)
Refunds	4	(96)	(76)	(428)	(226)
Administrative expense		1,442)	(1,376)	(1,450)	(1,382)
Net transfers with affiliated systems		7,364	5,512	6,982	5,926
Net change in plan fiduciary net position	438	8,331	456,117	(48,448)	399,972
Plan fiduciary net position — beginning	3,98	4,186	3,528,069	3,576,517	3,176,545
Plan fiduciary net position — ending (b)	4,42	2,517	3,984,186	3,528,069	3,576,517
Net pension liability — ending (a-b)	\$ 27	1,667	476,229	730,178	508,686
Plan fiduciary net position as	_		0.5.55		
a percentage of the total pension liability	9	94.2%	89.3%	82.9%	87.5%
Projected covered payroll	\$ 33	8,919	339,705	348,475	350,782
Net pension liability as a percentage of covered payroll	8	30.2%	140.2%	209.5%	145.0%

tal All Divisions	Tot		
2013	2014	2015	2016
81,736	76,681	75,352	78,843
229,965	236,803	248,980	249,722
			_
(29,228	(25,225)	(17,164)	9,358
(427.406	(52,410)	(4.55.207)	110,373
(137,486	(144,763)	(155,387)	(164,508)
(467	(199)	(533)	(183)
144,520	90,887	151,248	283,605
3,124,620	3,269,140	3,360,027	3,511,275
3,269,140	3,360,027	3,511,275	3,794,880
1,258	835	905	830
128,744	135,588	141,024	147,099
350,563	194,222	50,654	249,027
(137,486	(144,763)	(155,387)	(164,508)
(467	(199)	(533)	(183)
(1,161	(1,227)	(1,233)	(1,260)
4,676	2,746	4,023	6,701
346,127	187,202	39,453	237,706
2,366,057	2,712,184	2,899,386	2,938,839
2,712,184	2,899,386	2,938,839	3,176,545
556,956	460,641	572,436	618,335
83.0%	86.3%	83.7%	83.7%
365,998	360,750	355,171	352,408
152.2%	127.7%	161.2%	175.5%

Schedules of Net Pension Liability by Division

	(dollars i	n thousands)			(4) Plan Position as a		(6) Net Pension
System	Date	(1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	Fiduciary Net Percentage of the Total Pension Liability	(5) Projected Covered Payroll	Liability (Asset) as a Percentage of Covered 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
	12/31/18	1,423,493	1,184,118	239,375	83.2	107,407	222.9
	12/31/19	1,482,122	1,334,449	147,673	90.0	105,488	140.0
	12/31/20	1,540,086	1,475,317	64,769	95.8	102,302	63.3
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
	12/31/18	1,679,710	1,422,451	257,259	84.7	138,269	186.1
	12/31/19	1,757,708	1,597,146	160,562	90.9	134,008	119.8
	12/31/20	1,851,461	1,768,437	83,024	95.5	135,602	61.2
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
	12/31/18	392,050	289,022	103,028	73.7	29,356	351.0
	12/31/19	404,571	325,192	79,379	80.4	28,862	275.0
	12/31/20	420,283	360,928	59,355	85.9	28,518	208.1
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
	12/31/18	86,135	63,871	22,264	74.2	4,940	450.7
	12/31/19	88,417	70,396	18,021	79.6	4,337	415.5
	12/31/20	88,367	76,969	11,398	87.1	3,975	286.7
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	
	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
	12/31/18	65,906	50,794	15,112	77.1	4,699	
	12/31/19	67,656	57,381	10,275	84.8	4,468	230.0
	12/31/20	72,126	63,501	8,625	88.0	4,417	195.3

Schedules of Net Pension Liability by Division (Concluded)

System	(dollars)	in t	(1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	(4) Plan Position as a Fiduciary Net Percentage of the Total Pension Liability		(5) Projected Covered Payroll	(6) Net Pension Liability (Asset) as a Percentage of Covered Payroll
Public Safety	12/31/13	\$	28,742	23,436	5,306	81.5%	Ś	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
	12/31/18		35,457	28,647	6,810	80.8		2,079	327.6
	12/31/19		36,184	31,577	4,607	87.3		2,108	218.5
	12/31/20		38,196	34,935	3,261	91.5		1,926	169.3
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
	12/31/18		27,933	20,403	7,530	73.0		1,675	449.6
	12/31/19		28,883	22,831	6,052	79.0		1,707	354.5
	12/31/20		29,682	24,400	5,282	82.2		1,780	296.7
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
	12/31/18		547,563	468,763	78,800	85.6		60,050	131.2
	12/31/19		594,874	545,214	49,660	91.7		58,727	84.6
	12/31/20		653,983	618,030	35,953	94.5		60,399	59.5
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	3,360,027	2,899,386	460,641	86.3		360,750	127.7
Retirement	12/31/15	3	3,511,275	2,938,839	572,436	83.7		355,171	161.2
System	12/31/16	3	3,794,880	3,176,545	618,335	83.7		352,408	175.5
	12/31/17	4	1,085,203	3,576,517	508,686	87.5		350,782	145.0
	12/31/18	4	1,258,247	3,528,069	730,178	82.9		348,475	209.5
	12/31/19	2	1,460,415	3,984,186	476,229	89.3		339,705	140.2
	12/31/20	4	1,694,184	4,422,517	271,667	94.2		338,919	80.2

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 Payroll	Contributions as a Percentage of Covered Payrol!**
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
	2018	50,030	50,030	_	107,407	46.58
	2019	50,140	50,140	_	105,488	47.53
	2020	48,698	48,698	_	102,302	47.60
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
	2018	53,057	53,057	_	138,269	38.37
	2019	55,243	55,243	_	134,008	41.22
	2020	56,308	56,308	_	135,602	41.52
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
	2018	15,294	15,294	_	29,356	52.10
	2019	15,609	15,609	_	28,862	54.08
	2020	15,608	15,608	_	28,518	54.73
Public Safety	2013	\$ _,	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
	2018	2,970	2,970	_	4,940	60.12
	2019	2,743	2,743	_	4,337	63.25
	2020	2,711	2,711	_	3,975	68.20
Public Safety	2013	\$ _,	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
	2018	2,266	2,266	_	4,699	48.22
	2019	2,335	2,335	_	4,468	52.26
	2020	2,420	2,420	_	4,417	54.79

^{*}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 Determined Contribution*	Contributions in Relation to the Actuarial Determined Contribution	Contribution Deficiency (Excess)	Projected Covered Payroll	Contributions as a Percentage of Covered Payrol **
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
	2018	1,068	1,068	_	2,079	51.37
	2019	1,053	1,053	_	2,108	49.95
	2020	1,055	1,055	_	1,926	54.78
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
	2018	964	964	_	1,675	57.55
	2019	1,033	1,033	_	1,707	60.52
	2020	1,032	1,032	_	1,780	57.98
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
	2018	21,452	21,452	_	60,050	35.72
	2019	22,311	22,311	_	58,727	37.99
	2020	22,680	22,680	_	60,399	37.55
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
	2018	147,101	147,101	_	348,475	42.21
	2019	150,467	150,467	_	339,705	44.29
	2020	150,512	150,512	_	338,919	44.41

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, 2020 With Comparative Totals for December 31, 2019

(in thousands)

	Division A (with	Division B (without		Total All Divisions
	Social Security)	Social Security)	2020	2019
Assets:				
Cash	\$ 1	1	2	2
Receivables:				
Member contributions	120	467	587	671
Employer contributions	37	202	239	272
Fire insurance tax	25	61	86	_
Investments	3,128	13,329	16,457	13,669
Total receivables	3,310	14,059	17,369	14,612
Investments at fair value:				
Short-term securities	19,918	84,879	104,797	73,459
Debt securities	40,253	171,535	211,788	244,485
Equity investments	118,588	505,344	623,932	531,822
Absolute return	44,812	190,958	235,770	205,184
Private equity	34,323	146,262	180,585	158,842
Real assets	39,600	168,748	208,348	195,844
Total investments	297,494	1,267,726	1,565,220	1,409,636
Invested securities lending collateral	8,649	36,856	45,505	34,999
Property and equipment at cost,				
net of accumulated depreciation	88	374	462	350
Total assets	309,542	1,319,016	1,628,558	1,459,599
Liabilities:				
Securities lending collateral liability	8,649	36,856	45,505	34,999
Disbursements in excess of cash balance	285	1,212	1,497	1,341
Compensated absences, post-employment				
benefits and insurance reserve	187	797	984	907
Investment accounts payable	4,652	19,948	24,600	26,049
Real estate liabilities	908	3,870	4,778	4,750
Total liabilities	14,681	62,683	77,364	68,046
Net position restricted for pensions benefits	\$ 294,861	1,256,333	1,551,194	1,391,553

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

Year Ended December 31, 2020 With Comparative Totals for Year Ended December 31, 2019

(in thousands)

	Division A (with	Division B (without	To	otal All Divisions
	Social Security)	Social Security)	2020	2019
Additions:				
Contributions:				
Member	\$ 4,920	13,809	18,729	18,701
Employer	1,507	5,983	7,490	7,443
Fire insurance tax	5,679	14,600	20,279	41,859
Total contributions	12,106	34,392	46,498	68,003
Investment income:				
Net appreciation in fair value of investments	28,392	123,785	152,177	147,767
Interest, dividends, and other investment income	4,579	19,962	24,541	28,830
Total income from investment activity	32,971	143,747	176,718	176,597
Less investment expenses	578	2,521	3,099	2,675
Net income from investment activity	32,393	141,226	173,619	173,922
Income from securities lending activity	42	185	227	252
Less security lending expense	5	23	28	33
Net income from security lending activity	37	162	199	219
Net investment income	32,430	141,388	173,818	174,141
Transfers from affiliated systems	318	2,433	2,751	2,027
Total additions	44,854	178,213	223,067	244,171
Deductions:				
Retirement benefits	7,050	43,621	50,671	48,331
Cost-of-living benefits	1,169	10,854	12,023	11,350
Supplemental retirement benefits	8	140	148	166
Refunds	14	145	159	255
Administrative expenses	80	345	425	405
Total deductions	8,321	55,105	63,426	60,507
Increase from operations	36,533	123,108	159,641	183,664
Net position restricted for pensions beginning of year	258,328	1,133,225	1,391,553	1,207,889
Net position restricted for pensions end of year	\$ 294,861	1,256,333	1,551,194	1,391,553

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

Year Ended December 31

(in thousands)

2020	2019	2018	2017	2016	2015	
\$ 8,331	8,128	7,756	7,085	7,020	6,584	
17,095	15,962	14,704	13,905	12,644	12,290	
_	_	_	_	_	_	
2,979	227	3,268	(1,851)	(271)	(985)	
809	_	_	6,170	4,636	_	
(8,227)	(7,933)	(7,558)	(6,670)	(6,121)	(6,243)	
(14)	(61)	(58)	(124)	(174)	(190)	
20,973	16,323	18,112	18,515	17,734	11,456	
245,926	229,603	211,491	192,976	175,242	163,786	
266,899	245,926	229,603	211,491	192,976	175,242	
4.020	4.017	4.630	4 457	4 21 4	4.063	
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310		(902)	(706)		1,/04	
36,533	41,710	(1,119)	23,973	16,711	7,561	
258,328	216,618	217,737	193,764	177,053	169,492	
294,861	258,328	216,618	217,737	193,764	177,053	
\$ (27,962)	(12,402)	12,985	(6,246)	(788)	(1,811)	
110.5%	105.0%	94.3%	103.0%	100.4%	101.0%	
\$ 31,970	31,104	29,680	27,603	27,266	26,672	
(87.5)%	(39.9)%	43.8%	(22.6)%	(2.9)%	(6.8)%	
	\$ 8,331 17,095 — 2,979 809 (8,227) (14) 20,973 245,926 266,899 4,920 1,507 5,679 32,430 (8,227) (14) (80) 318 36,533 258,328 294,861 \$ (27,962)	\$ 8,331 8,128 17,095 15,962 — — — 2,979 227 809 — — (8,227) (7,933) (14) (61) 20,973 16,323 245,926 229,603 266,899 245,926 4,920 4,817 1,507 1,475 5,679 11,858 32,430 31,078 (8,227) (7,933) (14) (61) (80) (74) 318 550 36,533 41,710 258,328 216,618 294,861 258,328 \$ (27,962) (12,402)	\$ 8,331	\$ 8,331	\$ 8,331	\$ 8,331

	ner Division A cial Security)								ther Division B ocial Security)
2014	2013	2020	2019	2018	2017	2016	2015	2014	2013
6,636	7,158	21,222	21,153	21,622	21,690	21,632	20,598	20,630	22,419
11,387	10,840	73,248	70,627	68,115	66,481	62,690	62,922	60,103	59,419
_	_	_	_	_	_	_	_	_	_
(1,199)	(1,812)	5,850	(664)	(2,331)	(7,365)	(5,254)	(7,274)	(13,878)	(11,271)
(4,028)	_	5,344		_	25,187	20,936	_	(16,344)	_
(5,432)	(4,889)	(54,615)	(51,914)	(49,882)	(48,123)	(45,981)	(43,428)	(42,278)	(39,858)
(72)	_	(145)	(194)	(74)	(387)	(292)	(338)	(221)	(106)
7,292	11,297	50,904	39,008	37,450	57,483	53,731	32,480	8,012	30,603
156,494	145,197	1,070,694	1,031,686	994,236	936,753	883,022	850,542	842,530	811,927
163,786	156,494	1,121,598	1,070,694	1,031,686	994,236	936,753	883,022	850,542	842,530
3,983	3,977	13,809	13,884	13,667	14,003	14,515	14,112	14,317	14,348
888	745	5,983	5,968	5,702	5,568	5,830	5,635	4,626	2,749
3,398	2,748	14,600	30,001	6,352	961	7,988	13,048	10,756	8,537
11,118	19,648	141,388	143,063	(3,712)	121,059	72,732	14,952	57,952	106,037
(5,432)	(4,889)	(54,615)	(51,914)	(49,882)	(48,123)	(45,981)	(43,428)	(42,278)	(39,858)
(72)	_	(145)	(194)	(74)	(387)	(292)	(338)	(221)	(106)
(58)	(54)	(345)	(331)	(351)	(338)	(312)	(311)	(312)	(301)
664	796	2,433	1,477	2,899	1,965	1,476	789	3,049	506
14,489	22,971	123,108	141,954	(25,399)	94,708	55,956	4,459	47,889	91,912
155,003	132,032	1,133,225	991,271	1,016,670	921,962	866,006	861,547	813,658	721,746
169,492	155,003	1,256,333	1,133,225	991,271	1,016,670	921,962	866,006	861,547	813,658
(5,706)	1,491	(134,735)	(62,531)	40,415	(22,434)	14,791	17,016	(11,005)	28,872
103.5%	99.0%	112.0%	105.8%	96.1%	102.3%	98.4%	98.1%	101.3%	96.6%
26,873	26,521	82,488	82,226	83,907	85,350	85,056	84,461	84,432	84,220
(21.2)%	5.6%	(163.3)%	(76.0)%	48.2%	(26.3)%	17.4%	20.1%	(13.0)%	34.3%

Continued on page 142

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

Year Ended December 31

(in thousands)

		2020	2019	2018	2017	
Total pension liability						
Service cost	\$	29,553	29,281	29,378	28,775	
Interest		90,343	86,589	82,819	80,386	
Benefit changes		_	_	_	_	
Difference between actual and expected experience		8,829	(437)	937	(9,216)	
Assumption changes		6,153	_	_	31,357	
Benefit payments		(62,842)	(59,847)	(57,440)	(54,793)	
Refunds		(159)	(255)	(132)	(511)	
Net change in total pension liability		71,877	55,331	55,562	75,998	
Total pension liability — beginning	1	,316,620	1,261,289	1,205,727	1,129,729	
Total pension liability — ending (a)	1	,388,497	1,316,620	1,261,289	1,205,727	
Plan fiduciary net position						
Contributions — member		18,729	18,701	18,305	18,460	
Contributions — employer		7,490	7,443	7,021	6,715	
Fire insurance tax		20,279	41,859	8,747	1,223	
Net investment income		173,818	174,141	(4,509)	146,736	
Benefit payments		(62,842)	(59,847)	(57,440)	(54,793)	
Refunds		(159)	(255)	(132)	(511)	
Administrative expense		(425)	(405)	(427)	(408)	
Net transfers with affiliated systems		2,751	2,027	1,917	1,259	
Net change in plan fiduciary net position		159,641	183,664	(26,518)	118,681	
Plan fiduciary net position — beginning	1	,391,553	1,207,889	1,234,407	1,115,726	
Plan fiduciary net position — ending (b)	1	,551,194	1,391,553	1,207,889	1,234,407	
Net pension liability — ending (a-b)	\$	(162,697)	(74,933)	53,400	(28,680)	
Plan fiduciary net position as						
a percentage of the total pension liability		111.7%	105.7%	95.8%	102.4%	
Projected covered payroll	\$	114,458	113,330	113,587	112,953	
Net pension liability/(asset) as a percentage of covered payroll		(142.1)%	(66.1)%	47.0%	(25.4)%	_

tal All Divisions	То			
2013	2014	2015	2016	
29,577	27,266	27,182	28,652	
70,259	71,490	75,212	75,334	
(13,083	— (15,077)	— (8,259)	— (5,525)	
(13,003	(20,372)	(0,239)	25,572	
(44,747	(47,710)	(49,671)	(52,102)	
(106	(293)	(528)	(466)	
41,900	15,304	43,936	71,465	
957,124	999,024	1,014,328	1,058,264	-
999,024	1,014,328	1,058,264	1,129,729	
18,325	18,300	18,175	18,729	
3,494	5,514	6,690	6,954	
11,285	14,154	17,218	10,569	
125,685	69,070	17,934	87,746	
(44,747	(47,710)	(49,671)	(52,102)	
(106	(293)	(528)	(466)	
(355	(370)	(371)	(374)	
1,302	3,713	2,573	1,611	
114,883	62,378	12,020	72,667	-
853,778	968,661	1,031,039	1,043,059	
968,661	1,031,039	1,043,059	1,115,726	
30,363	(16,711)	15,205	14,003	
				=
97.0%	101.6%	98.6%	98.8%	
110,741	111,305	111,133	112,322	
27.4%	(15.0)%	13.7%	12.5%	

Firefighters Retirement System

Schedules of Net Pension Liability by Division

System	(dollars i	n thousands (1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	(4) Plan Position as a Fiduciary Net Percentage of the Total Pension Liability	(5) Projected Covered Payroll	(6) Net Pension Liability (Asset) as a Percentage of Covered 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)
	12/31/18	229,603	216,618	12,985	94.3	29,680	43.8
	12/31/19	245,926	258,328	(12,402)	105.0	31,104	(39.9)
	12/31/20	266,899	294,861	(27,962)	110.5	31,970	(87.5)
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)
	12/31/18	1,031,686	991,271	40,415	96.1	83,907	48.2
	12/31/19	1,070,694	1,133,225	(62,531)	105.8	82,226	(76.0)
	12/31/20	1,121,598	1,256,333	(134,735)	112.0	82,488	(163.3)
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	12/31/15	1,058,264	1,043,059	15,205	98.6	111,133	13.7
System	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)
	12/31/18	1,261,289	1,207,889	53,400	95.8	113,587	47.0
	12/31/19	1,316,620	1,391,553	(74,933)	105.7	113,330	(66.1)
	12/31/20	1,388,497	1,551,194	(162,697)	111.7	114,458	(142.1)

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

Firefighters Retirement System

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 Payroll	Contributions as a Percentage of Covered Payroll**
Firefighters	2013	\$ 3,493	3,493	_	26,521	13.17%
Division A	2014	4,286	4,286	_	26,873	15.95
(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
	2018	3,714	3,714	_	29,680	12.51
	2019	13,333	13,333	_	31,104	42.87
	2020	7,186	7,186	_	31,970	22.48
Firefighters	2013	\$ 11,286	11,286	_	84,220	13.40%
Division B	2014	15,382	15,382	_	84,432	18.22
(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
	2018	12,054	12,054	_	83,907	14.37
	2019	35,969	35,969	_	82,226	43.74
	2020	20,583	20,583	_	82,488	24.95
Total	2013	\$ 14,779	14,779	_	110,741	13.35%
Firefighters	2014	19,668	19,668	_	111,305	17.67
Retirement	2015	23,908	23,908	_	111,133	21.51
System	2016	17,523	17,523	_	112,322	15.60
•	2017	7,938	7,938	_	112,953	7.03
	2018	15,768	15,768	_	113,587	13.88
	2019	49,302	49,302		113,330	43.50
	2020	27,769	27,769		114,458	24.26

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.

(in thousands)

All Retirement Systems

Schedules of Administrative and Investment Expenses

Year Ended December 31, 2020

	Total
Personal services	
Salaries and wages	\$ 17,139
Employee benefits	7,061
Total personal services	24,200
Professional services: Audit	365
Actuarial services	323
General counsel	716
Banking services	17
Security handling expense	1,053
Investment advisor fees	68,864
Other consulting services	3,468
Total professional services	74,806
Communications:	105
Telephone Postage	185 423
Total communications	608
Rentals:	
Office space	1,121
Office equipment rental	40
Total rentals	1,161
Miscellaneous:	
Data processing	1,289
Professional development	170
Contractual services	144
Supplies and maintenance Insurance and bonding premiums	161 727
Office supplies	51
Other	82
Depreciation expense	572
Total miscellaneous	3,196
Total administrative and investment expenses	\$ 103,971
Allocation of administrative expenses:	
Noncontributory Retirement System	\$ 9,805
Contributory Retirement System	406
Public Safety Retirement System	1,442
Firefighters Retirement System Judges Retirement System	425 84
Utah Governors and Legislators Retirement Plan	4
Tier 2 Public Employees Retirement System	207
Tier 2 Public Safety and Firefighter Retirement System	29
401(k) Plan	7,112
457(b) Plan	778
Roth IRA Plan Traditional IRA Plan	238 234
	20,764
Total administrative expenses	14,342
Investment administrative expense Investment advisor fees:	14,342
Investment Fund	63,761
401(k) Plan	4,320
457(b) Plan	489
Roth IRA Plan	152
Traditional IRA Plan	140
Total investment expenses	83,204
Total administrative and investment expense allocations	\$ 103,968

Investment

Section

2020 Annual Comprehensive Financial Report



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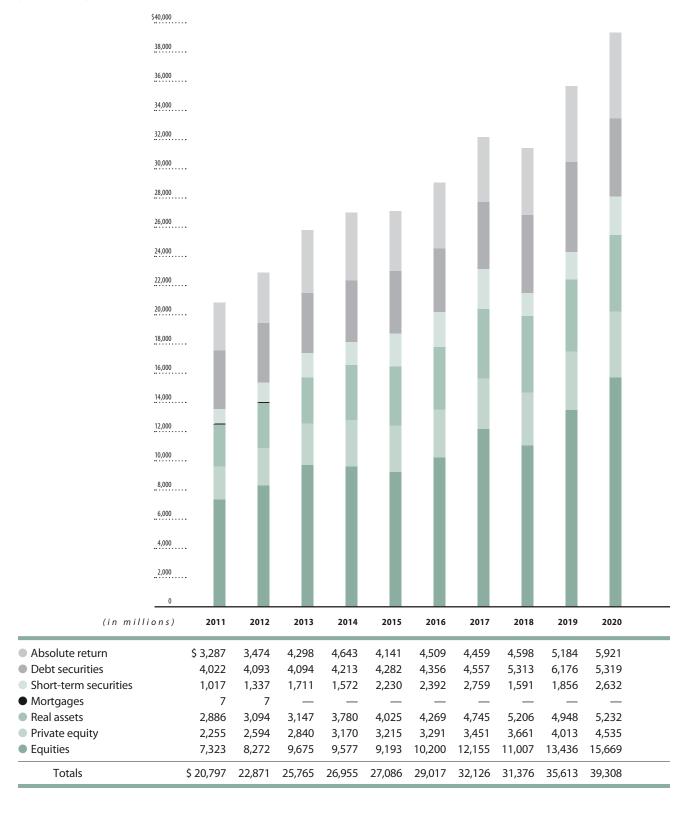
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10-Year Investment Comparison

(in millions)



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 30, 2021

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

Dear Members of Utah Retirement Systems:

I mentioned in my 2019 letter that the biggest story for that year was trade. However, 2020 could possibly be best described by Abbott Capital Management, LLC, one of our investment managers, which stated the following:

"It would be an understatement to say that 2020 delivered unique challenges, which tested not only the world's economy and financial markets, but also individuals' home lives, health, and livelihoods. In reviewing past Abbott market reviews, the terms 'interesting,' 'volatile,' 'challenging,' and 'cautious,' were used to describe the past years' environments. In an attempt to sum up 2020, one word comes to mind: unprecedented. While the world has dealt with public health crises before, the sheer scope and global scale of the COVID-19 pandemic, as well as preventative measures taken by a number of countries, steep

economic declines and subsequent snap backs, recordsetting accommodating monetary policies, and scientific achievements have all been unprecedented."

As we entered 2020, pandemic fear caused a ripple effect, as the government shut down businesses, travel, schools, and overall human activity in hopes to stem the contagion. This caused the markets to plummet, with the Standard and Poor's (S&P) 500 index hitting a low of 2,237.40 on March 23, down 34% from its February 19 peak. The Federal Reserve quickly reacted by infusing massive amounts of liquidity into the financial system. This caused the fixed income market to rally and interest rates to decrease to a level of 67 basis points, as measured by the U.S. Treasury 10-year note. Thus, the treasury market experienced a decrease of 125 basis points in the 10-year note by the end of the first quarter. The first half of the year was characterized by a significant drawdown of economic activity with Gross Domestic Product (GDP) dropping 5% in the first quarter and a stunning 31.4% in the second quarter.

The third quarter of the year saw businesses begin to reopen, and economic activity rebounded with GDP increasing 33.4% but still way below its original level at the beginning of the year. Still, the U.S. ended the year in the red, with GDP declining by 3.5%.

With the anticipation of vaccines on the near-term horizon, the equity market discounted the good news, recovering in the third and fourth quarters, with the S&P 500 rising over nearly 9% and over 12%, respectively.

Due to the pandemic, the world economy slowed, and the Federal Reserve increased liquidity substantially. However, the fiscal response to the pandemic was also very significant, with a \$2 trillion stimulus package going to individuals and small businesses signed into law on



March 27, 2020. This helped the economy from a further recession and set the foundation for a quick recovery later in the year.

Spot oil prices fell dramatically, even going negative by almost \$38 per barrel for two days beginning April 20, 2020, for West Texas Intermediate crude oil due to storage problems as oil futures contracts expired. Saudi Arabia and Russia purposely cut prices to try and disrupt the U.S. oil market. By in large, they were successful.

Due to the shutdown of economic activity to try and slow the pandemic, employment was especially hit hard. The unemployment rate hit a high of 14.7%. However, CNBC reported that the broader employment picture of adults not in the labor force and those who were discouraged (not actively looking for employment) added to those who were actively seeking, increased the unemployment number to 47%.

Geopolitical risk throughout the year was somewhat tempered due to the pandemic and everyone focused on trying to stay safe and looking anxiously for when the vaccines would become available. U.S. and China relations deteriorated further due to the U.S. blaming China for the start of the pandemic and both countries unwilling to compromise on trade sanctions.

The United States once again had to deal with its own domestic challenges, as 2020 was an election year and President Donald Trump was impeached in the House of Congress for a second time after his supporters stormed the Capitol Building on January 6, 2021.

Although equity markets were negative the first half of 2020, the second half of 2020 was an entirely different story, with the fourth quarter being especially strong. Equities went from negative territory in the first half to positive in the second half, as markets saw the economy begin to pick up and vaccines beginning to get FDA approval. The S&P 500 ended the year up 18.4%. After suffering most of the year due to the pandemic, small

capitalization (cap) stocks surged in the fourth quarter over 31% ending the year ahead of the S&P 500 posting a nearly 20% return. Small cap value stocks outperformed small cap growth stocks in the fourth quarter as well. Technology stocks were the darling of the equity market, returning nearly 49%, as people worked, shopped, and communicated remotely. International stocks also rebounded with the Morgan Stanley Capital International (MSCI) Europe, Australasia, Far East index returning 7.8% and the MSCI Emerging Markets index returning 18.3%. Private equity was also very positive for the year.

Interest yields rates in most developed markets were lower relative to 2019. The Bloomberg Barclays Aggregate returned an unexpected 7.5% return in 2020.

URS had a very good year. We returned 13%, outperforming our assumed long-term average actuarial return of 6.95%. Our alternative asset classes, including Absolute Return and Private Equity, did particularly well for the year. The oil crisis dragged down our Real Asset returns, causing it to be our lowest-performing asset class.

Our funded status continued to improve. As of December 31, 2020, it increased to 96.6%. Again, it is one of the highest funded statuses among public pension plans in the country. Our portfolio strategy worked extremely well given the significant volatility we experienced this year.

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 and prepared using a time-weighted rate of return based on the market rate of return.

Bruce 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.

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 decision-making process of the investment managers.

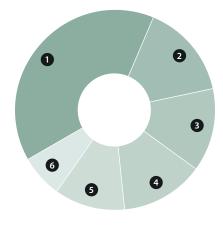
2020 Investment Summary

(dollars in thousands)	202 Beginnin Fair Valu	9	Sales and Redemptions	Increase (Decrease) in Fair Value	2020 Ending Fair Value Balance	Percent of Total Fair Value
Short-term securities	\$ 1,855,786	30,232,096	(29,454,593)	(1,467)	2,631,822	6.70%
Equities	13,435,570	4,796,675	(4,394,985)	1,831,812	15,669,072	39.86
Debt securities	6,176,498	3 25,605,913	(26,628,628)	164,936	5,318,719	13.53
Real assets	4,947,658	848,340	(833,648)	269,960	5,232,310	13.31
Private equity	4,012,872	582,171	(321,926)	261,990	4,535,107	11.54
Absolute return	5,183,620	2,698,645	(2,199,978)	238,691	5,920,978	15.06
Totals	\$ 35,612,004	4 64,763,840	(63,833,758)	2,765,922	39,308,008	100.00%



Defined Benefit Systems Investments at Fair Value

December 31, 2020



- 1 Equity Securities (39.9%)
- 2 Absolute Return (15.1%)
- 3 Debt Securities (13.5%)
- 4 Real Assets (13.3%)
- 5 Private Equity (11.5%)
- 6 Short Term (6.7%)

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.

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

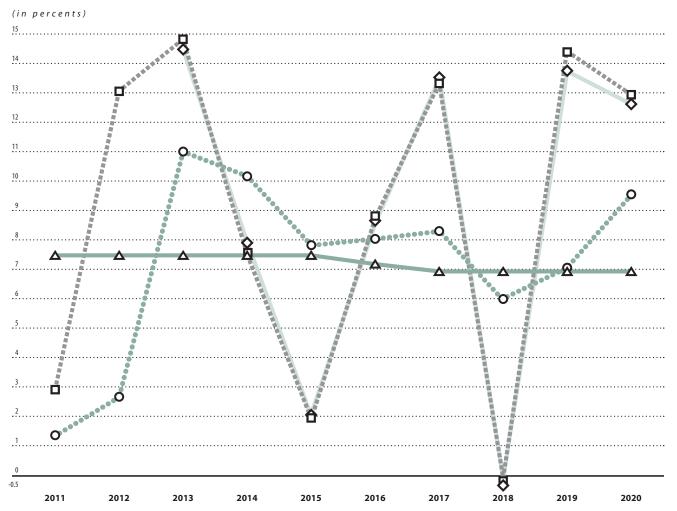
Managers' portfolios are evaluated both against appropriate market indices and similar manager style groups. The investment policy outlines appropriate benchmarks.

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

The allocation of assets as reported to the board are as follows: Equity securities 40.0%, Debt securities 19.8%, Absolute return 15.5%, Private equity 11.7% and Real assets 13.0%. 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.

December 31,	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Equities securities	35.2%	36.2	37.5	35.5	33.9	35.2	37.8	35.1	37.7	39.9
Debt securities	19.4	17.9	16.0	15.7	15.8	15.0	14.2	16.9	17.3	13.5
Private equity	10.8	11.3	11.0	11.8	11.9	11.3	10.7	11.7	11.3	11.5
Real assets	13.9	13.5	12.2	14.0	14.9	14.7	14.8	16.6	13.9	13.3
Short-term securities	4.9	5.9	6.6	5.8	8.2	8.2	8.6	5.1	5.2	6.7
Absolute return	15.8	15.2	16.7	17.2	15.3	15.6	13.9	14.6	14.6	15.1
Total portfolio	100.0%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

10-Year Total Pension Investment Rates of Return



(dollars in millions)

	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
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
2018	31,376	5.99	(0.22)	6.95	(0.38)
2019	35,612	7.08	14.45	6.95	13.80
2020	39,308	9.58	12.96	6.95	12.64

- (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 2020, 12.85% 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, 2020

Investment Option Comparative Index	1 Year	3 Year	5 Year	10 Year
Global Equity*	15.54%	9.02%	11.83%	9.92%
FSTE Global All Cap Net Index	16.21	9.72	12.12	9.58
Fund Benchmark	7.80	6.02 5.49	5.31 4.92	4.66 4.21
Real Assets**	0.86	4.98	7.42	8.93
U.S. Consumer Price Index + 5.0%	6.45	6.85	6.94	6.68
Private Equity	36.73	24.71	20.31	18.14
Private Equity Benchmark Russell 3000 + 2.5%	24.10	17.32	18.13	16.44
Absolute Return	8.12	5.21	5.45	4.87
3-Month Treasury Bills + 5.0%	5.67	6.61	6.20	5.64
Short Term	1.51	3.09	2.06	1.08
3-Month Treasury Bills	0.67	1.61	1.20	0.64
Total Fund***	12.96	8.89	9.79	8.82
Fund Benchmark		9.39	9.93	8.45
CAI Public Fund —Very Large Database Median	11.48	8.46	9.87	8.53
Inflation	1.45	1.84	1.94	1.67

⁽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.

stGlobal equity and fixed income returns are reported at gross for comparability to the benchmarks which are reported as gross of fees. All other returns are reported a net of fees.

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

^{***}Total fund return is blended based upon gross returns for global equity and fixed income and net returns for Real Assets, Absolute Return, Short Term and Private Equity. Total fund net return is 12.85%, 8.74%, 9.62% and 8.63% for 1,3,5 and 10 year periods.

List of Largest Assets Held

December 31, 2020

Largest Equity Holdings*

(By Fair Value)

Description	Shares	Fair Value
Apple Inc.	2,396,476	\$ 317,988,400
Microsoft Corp.	1,111,941	247,317,917
Amazon Inc.	62,975	205,105,167
Alphabet Inc.	87,800	153,848,878
Facebook Inc.	357,028	97,525,768
Tesla Inc.	110,000	77,623,700
Taiwan Semiconductor Inc.	3,544,637	66,860,901
Johnson & Johnson Inc.	391,592	61,628,749
JP Morgan Chase Inc.	450,369	57,228,389
Visa Inc.	251,085	54,919,822

Largest Debt Securities Holdings

(By Fair Value)

	,	
Description	Par Value	Fair Value
United States Treasury Note 1.5% Due 2/15/2020	\$ 63,220,000	\$ 66,882,315
United States Treasury Bond 1.125% Due 8/15/2040	48,620,000	46,029,466
United States Treasury Note .625% Due 11/30/2027	44,625,000	44,618,027
Gate SME CLO SER 144A FLTG 15/12/2025	38,069,496	43,789,796
Federal National Mortgage Assocation 2% 2/15/2051	39,720,816	41,191,900
United States Treasury Bond 3.125% Due 5/15/2048	29,960,000	40,216,619
United States Treasury Bond 3.125% Due 11/15/2041	28,790,000	37,653,046
United States Treasury Bond 1.25% Due 5/15/2050	38,345,000	34,786,105
United States Treasury Inflation Indexed .75% 7/15/2028	27,783,000	33,513,857

^{*}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, 2020

Broker Commission Fees

Broker	Total Commission Fees		
Morgan Stanley	\$	618,930	
Cowen		460,318	
Instinet		234,272	
Jefferies		219,774	
Goldman Sachs		214,920	
HSBC		175,147	
Citigroup		110,992	
UBS		110,811	
Liquidnet		95,797	
CLSA		90,069	
All Others	1	,320,013	
Total	\$ 3	3,651,043	

Schedule of Investment Fees and Commissions

Investment advisor fees:*	
Absolute return	\$ 3,612,516
Equity	31,011,662
Debt securities	13,689,543
Private equity	3,692,996
Real assets	11,264,001
Short term	499,425
Total investment advisor fees	63,770,143
Investment brokerage fees	3,651,043
Total fees and commissions	\$ 67,421,186

*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, 2020, Utah Retirement Systems recaptured approximately \$92,016 from the gross commission charges. This recaptured sum was used to cover or offset the \$9,124 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

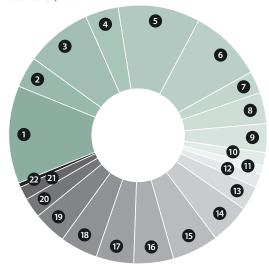
Northern Trust Company 50 South LaSalle Street Chicago, IL 60675

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

Defined Contribution Savings Plans Investments

Savings Plans Investments by Percentage

December 31, 2020



- 1 Income Fund (12.31%)
- 2 Bond Fund (4.02%)
- 3 Balanced Fund (8.22%)
- 4 Large Cap Stock Value Fund (4.13%)
- 5 Large Cap Stock Index Fund (10.45%)
- 6 Large Cap Stock Growth Fund (8.95%)
- 7 International Fund (2.88%)
- 8 Small Cap Stock Fund (4.03%)
- 9 Brokerage Window (3.46%)
- 10 Tier 2 Nonvested Fund (1.80%)
- 11 Target Retired Fund (1.12%)
- 12 Target Date 2010 Fund (1.48%)
- 13 Target Date 2015 Fund (2.99%)
- 14 Target Date 2020 Fund (5.08%)
- 15 Target Date 2025 Fund (5.88%)
- 16 Target Date 2030 Fund (4.90%)
- 17 Target Date 2035 Fund (4.89%)
- 18 Target Date 2040 Fund (4.73%)
- 19 Target Date 2045 Fund (4.02%)
- 20 Target Date 2050 Fund (2.67%)
- 21 Target Date 2055 Fund (1.53%)
- 22 Target Date 2060 Fund (0.46%)

Defined Contribution Savings Plans Investments



Savings Plans Investments

December 31, 2020

	(in	tho	u s a n d s)
Investment Options	(Total
Income Fund		\$	951,786
Bond Fund			310,707
Balanced Fund			635,270
Large Cap Stock			
Value Fund			319,170
Large Cap Stock			
Index Fund			807,303
Large Cap Stock			
Growth Fund			691,967
International Fund			222,300
Small Cap Stock Fund			311,134
Brokerage Window			267,451
Tier 2 Nonvested Fund			139,289
Target Retired Fund			86,298
Target Date 2010 Fund			114,207
Target Date 2015 Fund			231,311
Target Date 2020 Fund			392,897
Target Date 2025 Fund			454,497
Target Date 2030 Fund			378,983
Target Date 2035 Fund			378,182
Target Date 2040 Fund			365,449
Target Date 2045 Fund			310,765
Target Date 2050 Fund			206,179
Target Date 2055 Fund			118,439
Target Date 2060 Fund			35,369
Totals		\$ 7	7,728,953

Investment Highlights

Utah Retirement Systems' 401(k), 457(b), 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 left shows the total assets in the various investment options. The graph to the right and the table shows the asset distribution as of December 31, 2020.

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 158 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 was a flat rate of \$12 per quarter. Investment fees and broker commissions are paid by the participant according to the trading and securities selected within the brokerage window.

By administering the savings 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(b), 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 on amounts traded).

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.



2020 Investment Summary and Investment and Administrative Fees

(dollars in thousands)

Fund	2020 Beginning Fair Value	Purchases	Sales and Redemptions	Increase (Decrease) in Fair Value	2020 Ending Fair Value	Percent of Total Fair Value	Invest- ment Fees	Admin- istrative Fees	Total Fees
Income Fund	\$ 854,580	195,343	102,664	4,527	951,786	12.31%	0.26%	0.16%	0.42%
Bond Fund	256,417	82,708	46,361	17,943	310,707	4.02	0.10	0.16	0.26
Balanced Fund	544,418	32,195	13,436	72,093	635,270	8.22	0.24	0.16	0.40
Large Cap Stock Value Fund	317,927	22,002	22,953	2,194	319,170	4.13	0.42	0.16	0.58
Large Cap Stock Index Fund	717,993	23,732	(260,724)	(195,146)	807,303	10.45	0.03	0.16	0.19
Large Cap Stock Growth Fund	473,360	65,343	45,295	198,559	691,967	8.95	0.26	0.16	0.42
International Fund	206,849	10,026	12,324	17,749	222,300	2.88	0.06	0.16	0.22
Small Cap Stock Index Fund	292,622	20,919	19,323	16,916	311,134	4.03	0.37	0.16	0.53
Brokerage Window	208,448	41,456	(12,035)	5,512	267,451	3.46	N/A	N/A	N/A
Tier 2 Nonvested	113,402	25,044	(2,176)	(1,333)	139,289	1.80	0.18	0.16	0.34
Target Date Retired Fund	75,771	23,397	15,890	3,020	86,298	1.12	0.19	0.16	0.35
Target Date 2010 Fund	111,937	14,794	21,747	9,223	114,207	1.48	0.18	0.16	0.34
Target Date 2015 Fund	225,749	18,553	24,454	11,463	231,311	2.99	0.20	0.16	0.36
Target Date 2020 Fund	392,814	26,153	43,361	17,291	392,897	5.08	0.21	0.16	0.37
Target Date 2025 Fund	406,185	46,016	23,785	26,081	454,497	5.88	0.21	0.16	0.37
Target Date 2030 Fund	314,150	39,086	(5,651)	20,096	378,983	4.90	0.22	0.16	0.38
Target Date 2035 Fund	313,356	34,020	(13,525)	17,281	378,182	4.89	0.22	0.16	0.38
Target Date 2040 Fund	292,595	32,490	(32,999)	7,365	365,449	4.73	0.21	0.16	0.37
Target Date 2045 Fund	241,806	30,620	(90,925)	(52,586)	310,765	4.02	0.21	0.16	0.37
Target Date 2050 Fund	155,533	25,397	(65,813)	(40,564)	206,179	2.67	0.21	0.16	0.37
Target Date 2055 Fund	80,269	22,924	(38,400)	(23,154)	118,439	1.53	0.21	0.16	0.37
Target Date 2060 Fund	20,543	11,810	(9,938)	(6,922)	35,369	0.46	0.21	0.16	0.37
Total	\$6,616,724	844,028	(140,593)	127,608	7,728,953	100.00%			

Defined Contribution Plans Comparative Annualized Rates of Return

Year Ended December 31, 2020

Income Fund	1-Year 2.15% 0.67	3-Year 2.30 %	5-Year	10-Year
		2.30%		
	0.67		2.05%	1.91%
90-day Treasury Bills Index		1.60	1.20	0.64
Bond Fund	10.51	6.57	6.04	4.89
Bloomberg Aggregate Index	7.51	5.34	4.44	3.84
Balanced Fund	22.85	13.21	13.19	11.35
Balanced Index ⁽¹⁾	16.29	11.43	11.35	10.11
Large Cap Stock Value Fund	7.09	7.45	12.20	11.87
*Russell 1000 Value Index	2.80	6.07	9.74	10.50
Large Cap Stock Index Fund	20.85	14.61	15.38	13.74
Large Cap Stock Blended Index (2)	20.96	14.82	15.60	13.97
Large Cap Stock Growth Fund	51.78	25.77	21.80	17.99
*Russell 1000 Growth Index	38.49	22.99	21.00	17.21
International Fund	11.32	4.97	9.03	5.10
International Blended Index (3)	11.12	4.83	8.98	5.07
Small Cap Stock Fund	10.99	5.38	9.95	10.11
*Russell 2000 Index	19.96	10.25	13.26	11.20
Target Retired Fund	8.42	5.85	6.09	N/A
Target Date Retirement Index (4)	7.06	5.40	5.37	N/A
Target Date 2010 Fund	8.35	5.88	6.28	N/A
Target Date 2010 Index (5)	7.27	5.58	5.71	N/A
Target Date 2015 Fund	8.78	6.35	6.95	N/A
Target Date 2015 Index (6)	8.14	6.13	6.47	N/A
Target Date 2020 Fund	9.74	6.99	8.02	N/A
Target Date 2020 Index (7)	9.22	6.79	7.51	N/A

Continued on page 160.

Past performance does not quarantee 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: 24% 90 Day T-Bills, 20% Bloomberg Barclays US Aggregate Bond, 15% 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)
- (6) Target Date 2015 Index: 19% 90 Day T-Bills, 21% Bloomberg Barclays US Aggregate Bond, 18% Russell 1000 Index*, 5% MSCI ACWI ex. US IMI, 2% Russell 2000 Index*, 10% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 3% Bloomberg Commodity Index, 16% Bloomberg Barclays Global Inflation-Linked Bond Index 1-10 Year (USD Hedged), 6% NFI-ODCE (Value Weighted)
- (7) Target Date 2020 Index: 14% 90 Day T-Bills, 18% Bloomberg Barclays US Aggregate Bond, 22% Russell 1000 Index*, 9% MSCI ACWI ex. US IMI, 3% Russell 2000 Index*, 10% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 3% Bloomberg Commodity Index, 11% 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, 2020

Investment Option	Annualized								
Comparative Index	1-Year	3-Year	5-Year	10-Year					
Target Date 2025 Fund	10.58% 10.36	7.45% 7.47	8.99% 8.70	N/A N/A					
Target Date 2030 Fund	13.43 11.50	8.50 8.05	10.30 9.77	N/A N/A					
Target Date 2035 Fund	13.15 12.48	8.47 8.41	10.84 10.59	N/A N/A					
Target Date 2040 Fund	15.39 13.32	9.33 8.77	11.56 11.07	N/A N/A					
Target Date 2045 Fund	16.17 13.78	9.58 8.98	11.81 11.26	N/A N/A					
Target Date 2050 Fund	16.18 13.78	9.58 8.98	11.81 11.26	N/A N/A					
Target Date 2055 Fund	16.18 13.78	9.58 8.98	11.81 11.26	N/A N/A					
Target Date 2060 Fund	16.18 13.78	9.58 8.98	11.81 11.26	N/A N/A					
Tier 2 Nonvested Fund	13.96 11.10	8.21 7.62	9.25 8.52	N/A N/A					

Past performance does not guarantee future results.

- (8) Target Date 2025 Index: 9% 90 Day T-Bills, 17% Bloomberg Barclays US Aggregate Bond, 1.5% Russell 1000 Value Index*, 24% Russell 1000 Index*, 1.5% Russell 1000 Growth Index*, 14% MSCI ACWI ex. US IMI, 3% Russell 2000 Index*, 10% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 1% Russell Fundamental US Select Real Estate Index**, 3% Bloomberg Commodity Index, 6% Bloomberg Barclays Global Inflation-Linked Bond Index 1-10 Year (USD Hedged), 10% NFI-ODCE (Value Weighted)
- (9) Target Date 2030 Index: 4% 90 Day T-Bills, 12% Bloomberg Barclays US Aggregate Bond, 3.5% Russell 1000 Value Index*, 24% Russell 1000 Index*, 3.5% Russell 1000 Growth Index*, 21% MSCI ACWI ex. US IMI, 6% Russell 2000 Index*, 8% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 3% Russell Fundamental US Select Real Estate Index**, 1% Bloomberg Barclays Global Inflation-Linked Bond Index 1-10 Year (USD Hedged), 4% Bloomberg Commodity Index, 10% NFI-ODCE (Value Weighted)
- (10) Target Date 2035 Index: 8% Bloomberg Barclays US Aggregate Bond, 5.5% Russell 1000 Value Index*, 23% Russell 1000 Index*, 5.5% Russell 1000 Growth Index*, 28% MSCI ACWI ex. US IMI, 8% Russell 2000 Index, 5% Bloomberg Barclays Global Aggregate ex. US Bond Index (hedged), 4% Russell Fundamental US Select Real Estate Index**. 4% Bloomberg Commodity Index, 9% NFI-ODCE (Value Weighted)
- (11) Target Date 2040 Index: 4% Bloomberg Barclays US Aggregate Bond, 8% Russell 1000 Value Index*, 22% Russell 1000 Index*, 8% Russell 1000 Growth Index*, 32% 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, 6% 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)
- *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.
- **Russell Investments and Research Affiliates LLC have entered into a strategic alliance with respect to the Russell Fundamental Indexes. Subject to Research Affiliate's intellectual property rights in certain content, Russell Investments is the owner of all copyrights related to the Russell Fundamental Indexes. Russell Investments and Research Affiliate jointly own all trademark and service mark rights in and to the Russell Fundamental Indexes. Research Affiliates is the owner of the trademarks, service marks, patents and copyrights related to the Fundamental Index and the Fundamental Index methodology.

List of Largest Assets Held

December 31, 2020

Largest Equity Holdings*

(By Fair Value) Description Shares Fair Value Apple Inc. 1,142,079 \$ 151,539,463 39,045 127,166,832 Amazon Inc. Microsoft Corp. 555,567 123,569,212 Alphabet Inc. 54,782 95,990,869 124,310 Tesla Inc. 87,721,838 Facebook Inc. 244,231 66,714,140 Nvidia Corp. 86,479 45,159,334 Salesforce Inc. 200,490 44,615,040 Visa Inc. 197,600 43,221,048

Largest Debt Securities Holdings

(By Fair Value)

Description	Par Value	Fair Value			
United States Treasury Note .25% Due 11/15/2023	\$ 40,000,000	\$ 40,125,483			
FNMA Single Family Mortgage 2.5%	32,732,000	32,446,737			
United States Treasury Note .625% Due 11/30/2027	33,000,000	32,994,844			
FNMA Pool #CA6329 2.5% Due 7/01/2050	34,524,247	26,110,910			
United States Treasury Note .125% Due 6/30/2022	25,780,000	25,784,028			
FHLMC Pool #RA-3404 Due 7/1/2050	23,969,090	25,090,148			
United States Treasury Note 0% Due 3/15/2051	23,727,000	24,566,735			
United States Treasury Note . 375% Due 11/30/2025	24,000,000	24,033,750			
United States Treasury Note .125% Due 12/15/2023	24,000,000	23,971,875			
SLM Student Loan 2006-8 1/25/2041	19,017,264	19,269,436			

^{*}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, 2020

Broker Commission Fees

Broker Total Commission Fe						
Instinet	\$ 48,692					
Frank Russell	28,851					
Cowen	13,416					
Morgan Stanley	12,853					
Credit Suisse	11267					
Allen & Company	8,612					
Bear Stearns	8,210					
Goldman Sachs	7,605					
Merrill Lynch	7,209					
Bernstein, Sanford	4,102					
All Others	37,785					
Total	\$ 188,602					

Schedule of Investment Fees and Commissions

Investment advisor fees:*	
Debt securities	\$ 1,684,428
Equity securities	3,242,859
Real assets	174,182
Total investment advisor fees	5,101,469
Investment brokerage fees	188,602
Total fees and commissions	\$ 5,290,071

^{*}Represents fees that are invoiced and paid directly by URS. These numbers do not represent all management, wrap, or other fees charged directly by investment advisors. These and other 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, 2020, Utah Retirement Systems recaptured \$18,077 from the gross commission charges. This recaptured sum was used to cover or offset the \$9,640 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

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

Standish 201 Washington Street **Suite 2900** Boston, MA 02108

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

Actuarial

2020 Annual Comprehensive Financial Report



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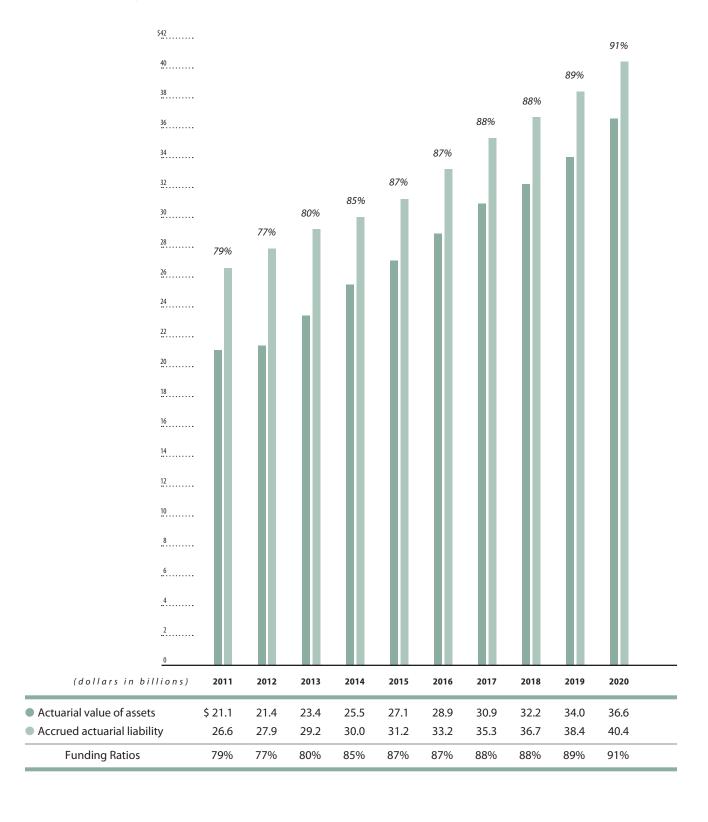
188 Defined Benefit Systems Summaries of Plan Provisions

200 Changes in Plan Provisions

201 Defined Contribution Savings Plans Summary of Plan Provisions

Funding Progress with Funding Ratios

(dollars in billions)



Actuary's Certification Letter



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August 13, 2020

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, 2020

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, the Board may choose to maintain 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, 2020 actuarial valuation will be used by the Board when certifying the employer contribution rates for the 12-month period beginning July 1, 2021 and ending June 30, 2022. If new legislation is enacted between the valuation date and the date the contribution rates become effective, the Board certified contribution rates will be updated 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

Actuary's Certification Letter (Continued)

20 years in installments that increase at the assumed rate of growth in payroll for URS.

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 certified 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%.

Since the prior year's valuation, the funded ratio on a combined basis slightly increased from 87.2% to 87.4%. Absent unfavorable actuarial experience, we expect the funded ratio to continue increasing 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 90.5% compared to 84.6% in the prior year. The increase in the funded ratio on a market value basis is attributable to the 14.3% 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, 2020. 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, and then makes recommendations to the Board.

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

- Decrease the payroll growth assumption from 3.00% to 2.90%;
- » Post-retirement mortality table constructed based on URS experience and update the mortality improvement assumption;
- Pre-retirement mortality assumption based on PUB-2010 mortality tables for employees, with adjustments for different employee types;
- Disabled mortality assumption based on PUB-2010 mortality tables for disabled annuitants;
- Modified retirement rates for most employee groups. The changes varied by employee type and gender with some rates increasing and some decreasing. In general, rates of reduced retirement were decreased while rates of unreduced retirement were only slightly adjusted;
- Modified termination rates for all employee groups. The changes varied by employee type and gender with some rates increasing and some decreasing;
- Modified disability rates for most employee groups. The rates of disability incidence were generally decreased (rates for male teachers were not changed and rates for firefighters were increased); and
- » Modified rates of salary increase for individuals. In general, rates were slightly decreased but changes vary by employee type. No adjustment to wage inflation assumption (i.e. salary increase for members with more than 25 years of service).



Actuary's Certification Letter (Concluded)

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.

This actuarial valuation was prepared as of December 31, 2019, and does not reflect any of the investment and demographic experience that has occurred since that date caused by the COVID-19 pandemic. It is unknown at this time as to the magnitude of the financial impact (if any) on URS due to this pandemic.

Data

Member data for retired, active and inactive members was supplied as of December 31, 2019 by the URS staff. The staff also supplied asset information as of December 31, 2019. 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, 2020.

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. Mr. White and Ms. Shaw are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. All of the undersigned are experienced in performing valuations for large public retirement systems.

Sincerely,

Daniel J. White, FSA, EA, MAAA Senior Consultant

Lewis Ward Consultant

Janie Shaw, ASA, MAAA

Consultant



Summary of Actuarial Assumptions and Methods

As of January 1, 2020

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, 2020).

In calculating this minimum, amortization payments are designed to remain level as a percent of payroll, and payroll is assumed to increase 2.90% 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 effective January 1, 2017.
- C) The total rates of assumed annual salary increase are shown on the actuarial schedule on page 173. 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 effective January 1, 2020.
- 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 remaining.

• 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 to the right. These base rates are adjusted for future improvement in mortality using 80% of the ultimate rates from the published MP-2019 mortality improvement scale projected from the year 2020. All of these rates were adopted effective January 1, 2020. Mortality rates for active members use the PUB-2010 **Employees Mortality Table for public** employees, teachers, and public safety members, as applicable for each member's employee group. The assumptions were adopted effective January 1, 2020.

As of January 1, 2020



Retired Member Mortality

Class of Member

Educators and Judges	
Men	2020URSM (90%)
Women	2020URSF (90%)
Public Safety and Firefighters	
Men	2020URSM (110%)
Women	2020URSF (110%)
Local Government, Public Employees	
Men	2020URSM (110%)
Women	2020URSF (110%)

2020URSM = Constructed mortality table based on actual experience of male URS retirees multiplied by given percentage

2020URSF = Constructed mortality table based on actual experience of female URS retirees multiplied by given percentage

- Mortality among disabled members is based on 115% of the PUB-2010 Disabled Retiree Table for general employees for males, and 125% of the PUB-2010 Disabled Retiree Table for general employees for females. The rates for males and females are also adjusted for future improvement in mortality using 80% of the ultimate rates from the published MP-2019 mortality scale from the year 2010.
- Other demographic assumptions regarding retirement, mortality, disablement, and termination from employment are illustrated in the following actuarial schedules.

The retirement assumptions illustrated for the Noncontributory and Contributory Retirement Systems (and the Tier 2 Public Employees Retirement System) are for members eligible for unreduced retirement benefits. The retirement assumptions illustrated for the Public Safety, Firefighters, and Judges Retirement Systems 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 co-mingled 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.
- All of the actuarial assumptions were renewed or adopted by the Retirement Board in 2020, 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, 2020

as of January 1, 2020												
						Percent Retirin			/ear Among Act or Retirement	ive Members		
					Male			Governors				
		State and Sc	hool Di	ivision	Local	State and Sc	hool D	ivision	Local	and Legislators		
	Retirement Age	Educators		Public oyees	Government Division	Educators		Public loyees	Government Division	Retirement Plan		
Tier 1	50	20.00%	1.	5.00%	15.00%	30.00% 17		17.00% 12.00%		0.00%)	
Noncontributory	51	20.00	1.	5.00	15.00	30.00	1	6.00	12.00	0.00		
and Contributory	52	20.00	1.	5.00	15.00	30.00	1	6.00	12.00	0.00		
Retirement Systems	53	20.00	1.	5.00	15.00	14.00	1	6.00	12.00	0.00		
Adopted January 1, 2020	54	15.00	1.	5.00	15.00	14.00	1	6.00	12.00	0.00		
	55	15.00	1	6.00	15.00	14.00	1	6.00	15.00	0.00		
	56	15.00	1	6.00	15.00	18.00	1	6.00	15.00	0.00		
	57	15.00	16.00		15.00	18.00		6.00	15.00	0.00		
	58	15.00	1	6.00	15.00	18.00	2	0.00	15.00	0.00		
	59	15.00	1	6.00	15.00	18.00		0.00	20.00	0.00		
	60	23.00		0.00	20.00	30.00		5.00	20.00	0.00		
	61	23.00		0.00	20.00	30.00		5.00	20.00	0.00		
	62	33.00		0.00	23.00	35.00		3.00	28.00	100.00		
	63	33.00		0.00	23.00	35.00		3.00	28.00	100.00		
	64	33.00		0.00	23.00	35.00		3.00	28.00	100.00		
	65	33.00		2.00	23.00	35.00		8.00	28.00	100.00		
	66	33.00		2.00	23.00	35.00		8.00	28.00	100.00		
	67	30.00			22.00	35.00		8.00	28.00	100.00		
	68	30.00		2.00	22.00	28.00		2.00	28.00	100.00		
	69	25.00		2.00	22.00	28.00		2.00	28.00	100.00		
	70	20.00		2.00	22.00	28.00		2.00	30.00	100.00		
	71 72	20.00		2.00	22.00	28.00		2.00	30.00	100.00		
	72 73	20.00		2.00	22.00	28.00		2.00	30.00	100.00 100.00		
	73 74	20.00 20.00		2.00	22.00 22.00	28.00 28.00		2.00 2.00	25.00 25.00			
	75	100.00	22.00 100.00		100.00	100.00		0.00	100.00	100.00 100.00		
					Per	rcent Retiring W	ithin N	ext Year	Among Active	Members Eligil	ole for I	Retirement
	Retirement Age	Retirement Age				Retire		Retirement Age		Retirement Age		
Tier 1	45	15.00%	50	15.00	0% 55	15.00%	59	20.00	0% 63	30.00%	67	50.00%
Public Safety	46	15.00	51	15.00		15.00	60	20.00		30.00	68	50.00
Retirement System	47	15.00	52	15.00		15.00	61	20.00	65	30.00	69	50.00
Adopted January 1, 2020	48	15.00	53	15.00		15.00	62	30.00		40.00	70	100.00
, taopica sarraary 1,2020	49	15.00	54	15.00)							
					Per	rcent Retiring W	ithin N	ext Year	Among Active	Members Eligil	ole for I	Retirement
	Retirement Age	Retire	ment Age		Retirement Age	Retire	ment Age		Retirement Age	Retire	Age	
Tier 1	45	15.00%	50	15.00	0% 55	15.00%	59	20.00	0% 63	25.00%	67	50.00%
Firefighters	46	15.00	51	15.00	56	15.00	60	20.00	64	25.00	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, 2020	48	15.00	53	15.00		20.00	62	25.00) 66	50.00	70	100.00
	49	15.00	54	15.00)							
	Datiroment	Dativo	mont				ng Within Next Year Among Active					Retirement
	Retirement Age	Retire	Age		Retirement Age	Retire	Age		Retirement Age	Ketire	Age	
Judges	45	10.00%	50	10.00	0% 55	10.00%	59	10.00	0% 63	10.00%	67	25.00%
Retirement System	46	10.00	51	10.00		10.00	60	10.00		20.00	68	25.00
Adopted January 1, 2020	47	10.00	52	10.00		10.00	61	10.00		20.00	69	25.00
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	48 49	10.00 10.00	53 54	10.00		10.00	62	10.00) 66	25.00	70	100.00
	49	10.00	J4	10.00	,							

as of January 1, 2020

					Percent Retirin	g Within Next	Year Among Act	ive Members
						Eligible	for Retirement	
				Male			Female	Governors and Legislators
		State and Sc	hool Division	Local .	State and Scl		Local	
	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%	12.00%	0.00%
Public Employees	51	20.00	15.00	15.00	30.00	16.00	12.00	0.00
Retirement System	52	20.00	15.00	15.00	30.00	16.00	12.00	0.00
Adopted January 1, 2020	53	20.00	15.00	15.00	14.00	16.00	12.00	0.00
	54	15.00	15.00	15.00	14.00	16.00	12.00	0.00
	55	15.00	16.00	15.00	14.00	16.00	15.00	0.00
	56	15.00	16.00	15.00	18.00	16.00	15.00	0.00
	57	15.00	16.00	15.00	18.00	16.00	15.00	0.00
	58	15.00	16.00	15.00	18.00	20.00	15.00	0.00
	59	15.00	16.00	15.00	18.00	20.00	20.00	0.00
	60	23.00	20.00	20.00	30.00	30.00	20.00	0.00
	61	23.00	20.00	20.00	30.00	25.00	20.00	0.00
	62	33.00	30.00	23.00	35.00	25.00	28.00	100.00
	63	33.00	30.00	23.00	35.00	33.00	28.00	100.00
	64	33.00	30.00	23.00	35.00	33.00	28.00	100.00
	65	33.00	22.00	23.00	35.00	28.00	28.00	100.00
	66	33.00	22.00	23.00	35.00	28.00	28.00	100.00
	67	30.00	22.00	22.00	35.00	28.00	28.00	100.00
	68	30.00	22.00	22.00	28.00	22.00	28.00	100.00
	69	25.00	22.00	22.00	28.00	22.00	28.00	100.00
	70	20.00	22.00	22.00	28.00	22.00	30.00	100.00
	71	20.00	22.00	22.00	28.00	22.00	30.00	100.00
	72	20.00	22.00	22.00	28.00	22.00	30.00	100.00
	73	20.00	22.00	22.00	28.00	22.00	25.00	100.00
	74	20.00	22.00	22.00	28.00	22.00	25.00	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					Pe	rcent Retiring	Within N	lext Year Amo	ng Active	Members Elig	ible for F	Retirement
Public Safety and Firefighter	Retirement Age	Retirement Age		Retirement Age		Retirement Age		Retirement Age		Retirement Age		
Retirement System	45	15.00%	50	15.00%	55	15.00%	59	20.00%	63	30.00%	67	50.00%
	46	15.00	51	15.00	56	15.00	60	20.00	64	30.00	68	50.00
Public Safety	47	15.00	52	15.00	57	15.00	61	20.00	65	30.00	69	50.00
Adopted January 1, 2020	48	15.00	53	15.00	58	15.00	62	30.00	66	40.00	70	100.00
	49	15.00	54	15.00								

Retirement rates at the age the member is first eligible for an unreduced retirement benefit prior to age 65 is increased by 10%.

	Percent Retiring Within Next Year Among Active Members Eligible for Retireme											Retirement	
Retiremen Age		Retirement Age		Retirement Age		Retirement Age		Retirement Age		Retirement Age			
Firefighters	45	15.00%	50	15.00%	55	15.00%	59	20.00%	63	25.00%	67	50.00%	
Adopted January 1, 2020	46	15.00	51	15.00	56	15.00	60	20.00	64	25.00	68	50.00	
	47	15.00	52	15.00	57	15.00	61	20.00	65	50.00	69	50.00	
	48	15.00	53	15.00	58	20.00	62	25.00	66	50.00	70	100.00	
	49	15.00	54	15.00									

Retirement rates at the age the member is first eligible for an unreduced retirement benefit prior to age 65 is increased by 10%.

as of January 1, 2020

			reminati	on of Employme Male	creent of Ac		Female	Governors
		State and Sch	ool Division		State and Sch	ool Division		and
	Years of Service	Educators	Public Employees	Local Government Division	Educators	Public Employees	Local Government Division	Legislators Retirement Plan
Noncontributory	0	16.00%	27.00%	18.00%	17.00%	28.00%	24.00%	10.00%
and Contributory	1	12.00	20.00	13.00	15.00	21.00	18.00	10.00
Retirement Systems	2	8.50	12.00	9.00	13.00	15.00	14.00	10.00
Adopted January 1, 2020	3	7.00	10.00	8.50	11.00	13.00	12.00	10.00
	4	6.50	9.00	7.50	9.00	11.00	11.00	10.00
	5	6.00	8.00	7.00	8.00	10.00	9.50	10.00
	6	5.50	7.00	6.50	7.00	8.50	9.00	10.00
	7	4.50	6.00	5.50	5.50	7.25	8.00	10.00
	8	4.00	5.00	5.00	4.75	6.25	6.50	10.00
	9	3.50	5.00	4.50	4.25	5.75	6.50	10.00
	10	3.00	4.50	4.00	4.00	5.25	5.50	10.00
	11	2.75	4.50	3.50	3.50	4.50	5.00	10.00
	12	2.75	4.00	3.25	3.00	4.25	4.75	10.00
	13	2.25	3.75	3.00	2.50	4.00	4.50	10.00
	14	2.00	3.50	3.00	2.00	3.75	4.00	10.00
	15	2.00	3.00	2.75	2.00	3.50	4.00	10.00
	16	2.00	2.75	2.75	1.75	3.00	3.75	10.00
	17	2.00	2.50	2.50	1.75	2.75	3.50	10.00
	18	2.00	2.00	2.50	1.75	2.75	3.00	10.00
	19	1.50	2.00	2.50	1.50	2.75	3.00	10.00
	20	1.50	2.00	2.00	1.50	2.75	2.50	10.00
	21	1.50	2.00	2.00	1.50	2.50	2.50	10.00
	22	1.50	2.00	1.75	1.50	2.25	2.25	10.00
	23	1.50	1.50	1.50	1.50	2.00	2.00	10.00
	24	1.50	1.50	1.25	1.50	2.00	2.00	10.00
	25+	1.00	1.00	1.00	1.00	1.00	1.00	10.00

				(Other Terminati	on of Employ	ment of Active	Members Sep	parating Within	Next Year
	Years of Ser	vice	Years of Serv	rice	Years of Serv	rice	Years of Serv	rice	Years of Serv	ice
Public Safety	0	15.00%	5	4.50%	9	3.00%	13	2.00%	17	1.50%
Retirement System	1	8.00	6	4.00	10	2.50	14	1.75	18	1.50
Adopted January 1, 2020	2	6.50	7	4.00	11	2.50	15	1.75	19	1.50
	3 4	6.00 5.00	8	3.50	12	2.00	16	1.50	20+	1.00

				(Other Terminati	on of Employ	ment of Active	Members Sep	parating Within	Next Year
	Years of Serv	rice	Years of Serv	/ice	Years of Serv	rice	Years of Serv	/ice	Years of Serv	ice
Firefighters	0	7.00%	5	2.50%	9	1.50%	13	0.50%	17	0.50%
Retirement System	1	5.50	6	2.00	10	1.50	14	0.50	18	0.50
Adopted January 1, 2020	2	4.00	7	1.75	11	1.50	15	0.50	19	0.50
,	3	3.50	8	1.50	12	1.00	16	0.50	20+	0.50
	4	3.00								

Other Termination of Employment of Active Members Separating Within Next Year

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

None assumed.

as of January 1, 2020

, .											Tota	Annual Incre	
	Years of Service		tate and Division Public Gover pployees D	Local nment ivision		Firefighters Retirement System		Years of Service	Sch		Loca Governmen Divisio	Public Il Safety t Retirement	Firefighters Retirement
All Retirement	0	9.25%	8.25%	8.25%	6.75	% 8.50	%	13	4.75%	6 4.25°	% 4.00	0% 4.50	% 4.50%
Systems	1	8.50		7.00	6.00	8.00		14	4.50	4.00	4.00	4.50	
Adopted	2	7.50	6.50	6.50	6.00	7.75		15	4.25	3.75	4.00	4.50	
January 1, 2020	3	7.25		6.00	6.00	7.50		16	4.00	3.75	3.75		
, , , ,	4	7.00		5.50	6.00	7.50		17	3.75	3.75	3.75		
	5	6.75		5.25	6.00	7.25		18	3.75	3.75	3.75		
	6	6.75		5.00	5.75	7.25		19 20	3.75 3.75	3.75 3.50	3.50 3.50		
	7 8	6.50 6.50		4.75 4.50	5.50 5.25	6.75 6.50		21	3.75	3.50	3.50		
	9	6.25		4.50 4.50	5.25	6.00		22	3.75	3.50	3.50		
	10	5.75		4.25	5.00	5.50		23	3.50	3.50	3.25		
	11	5.50		4.00	4.75	5.00		24	3.50	3.25	3.25		
	12	5.25		4.00	4.50	4.75		25-	+ 3.25	3.25	3.25		
								Pro	bability of N	Nortality Wit	thin the Nex	t Year for Act	ive Members
			Male Local	_		Female Local					Male		Female Local
	Age	Educators	Government and Public Employees	Edi	ucators	Government and Public Employees		Aç	ge Educa	and	rnment d Public ployees	Educators	Government and Public Employees
Noncontributory	20	0.0340%	0.03709	6 0	.0130%	0.0130	%	5	0 0.11	10% 0.	.1490%	0.0730%	0.0830%
and Contributory	25	0.0160	0.0280		.0090	0.0090	, 0		5 0.17		.2190	0.1070	0.1230
Retirement Systems		0.0220	0.0360		.0140	0.0150			0 0.26		.3190	0.1610	0.1860
Adopted January 1, 2020	35	0.0300	0.0470	0	.0200	0.0230		6	5 0.43	50 0.	.4680	0.2700	0.2960
Adopted January 1, 2020	40 45	0.0420 0.0670	0.0660 0.0980		.0310 .0480	0.0360 0.0560		7	0 0.70	90 0.	.7030	0.4850	0.4890
							Per	cent Elect	ing a Refund	of Contribu	ıtions Upon	Termination	While Vested
									Male				Female
				_				_	Local				Local
			Years Servi		Educat	ors Em	Publi oloyee		rnment Division	Educ	ators E	Public mployees	Government Division
Noncontributory and	d Cont	ributory	0-3	,	1	00%	100	0%	100%		100%	100%	100%
Retirement Systems		•	4			75	86	5	75		65	80	77
Adopted January 1, 1993			5	;		73	83	3	73		64	79	75
, idopted 301, 101, 17, 1775			10			54	73		61		53	64	61
			15			33	63		49		32	52	40
			19			9	29	_	23		8	22	13
			20			0		0	0		0	0	0
								Pro	bability of N				rs Employees
			Age	1	Male	Female	ŀ	Age	Male	Female	Age	Male	Female
Public Safety Retirer			20		410%	0.0160%				0.0490%	60	0.2640%	
and Firefighters Ret	iremen	t System	25		370	0.0200				0.0670	65	0.4100	0.2280
Adopted January 1, 2020			30 35)410)470	0.0270 0.0360				0.0910 0.1230	70	0.7660	0.4540
				D	and Fig. 45	- D-6 1 - C	C	·	T'	Air-18/1-11 *	la sta d		
				Perce	ent Electing				pon Termina ighters Retir				
				Ye	ears of Servi				Years of S				
Public Safety Retirer					0-3	10	0%		15	;	35%		
and Firefighters Ret	iremen	t System			4		6		19		15		
Adopted January 1, 1993					5		4		20)	0		
					10	5	7				_		

Calculation of Actuarial Value of Assets

January 1, 202	0		(dollars in	thousands)	Decemb
1. Fair value	of assets			\$ 35,198,555	1. Fair
2. Deferral to	o smooth asse	t values k	oased		2. Defe
on (exc	ess)/shortfall o	f expecte	ed		or
investm	nent income fo	r:			in
Year	Total Excess/ (Shortfall)	% Deferred	Amount Deferred		Year
a. 2019	\$ 2,279,189	80%	\$ 1,823,352		a. 2
b. 2018	(2,327,819)	60%	(1,396,692)		b. 2
c. 2017	1,792,944	40%	717,178		c. 2
d. 2016	329,864	20%	65,973		: d. 2
e. 2015	(1,529,413)	0%	_		e. 2
f. Total d	eferred gains ((losses)	\$ 1,209,811		f. T
g. Total o	deferred (gains	s) losses		(1,209,811)	g.1
3. Actuarial	value of assets	;			3. Actu
available	for benefits*			\$ 33,988,744	ava

1. Fair value	of assets			\$ 38,996,379
2. Deferral to	o smooth asse	t values b	pased	
on (exc	ess)/shortfall o	f expecte	ed	
investm	ent income fo	r:		
Year	Total Excess/ (Shortfall)	% Deferred	Amount Deferred	
a. 2020	\$ 1,941,476	80%	\$ 1,553,182	
b. 2019	2,279,189	60%	1,367,513	
c. 2018	(2,327,819)	40%	(931,128)	
d. 2017	1,792,944	20%	358,589	
e. 2016	329,864	0%	_	
f. Total d	eferred gains (losses)	\$ 2,348,156	
g. Total o	deferred (gains) losses		(2,348,156
3. Actuarial	value of assets			
available	for benefits*			\$ 36,648,223

^{*}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, 2020									
	(in thousand	ds)				Governors	Tier 2 Public	Tier 2 Public Safety and	
	Noncontributory System	Contributory System	Public Safety System	Firefighters System	Judges System	and Legislators	Employees System	Firefighter System	Total All Systems
Net assets available for benefits at fair value	\$ 27,622,119	1,276,101	3,984,182	1,391,551	220,293	11,344	611,583	81,382	35,198,555
2. Adjustments to smooth asset values based on (excess)/shortfall of expected investment									
income on fair value for:	(951,595)	(45,413)	(136,866)	(48,151)	(7,743)	(418)	(17,310)	(2,315)	(1,209,811)
3. Actuarial value of assets available									
for benefits (1-2)	\$ 26,670,522	1,230,688	3,847,316	1,343,400	212,550	10,926	594,273	79,067	33,988,744
December 31, 2020									
<i>December 51, 2020</i>	(in thousand	ds)					Tier 2	Tier 2 Public	
	Noncontributory System	Contributory System	Public Safety System	Firefighters System	Judges System	Governors and Legislators	Public Employees System	Safety and Firefighter System	Total All Systems
Net assets available for benefits at fair value	\$ 30,478,072	1,335,639	4,422,517	1,551,194	244,133	12,055	832,485	120,284	38,996,379
2. Adjustments to smooth asset values based on (excess)/shortfall of expected investment									
income on fair value for:	(1,840,642)	(84,202)	(266,642)	(93,502)	(14,843)	(768)	(41,852)	(5,705)	(2,348,156)
3. Actuarial value of assets available									
for benefits (1-2)	\$ 28,637,430	1,251,437	4,155,875	1,457,692	229,290	11,287	790,633	114,579	36,648,223

Analysis of Financial Experience

(in thousands)

System	January 1, 2019 Unfunded Actuarial Accrued Liability	Amortization Payments	Liability (Gain) Loss	Asset (Gain) Loss	Changes in Actuarial Assumptions	Change in Benefit Provisions	Asset Transfers	January 1, 2020 Unfunded Actuarial Accrued Liability
Noncontributory								
Retirement System	\$ 3,932,200	(239,191)	245,727	(44,660)	173,064	_	13,336	4,080,475
Contributory								
Retirement System	49,684	(526)	(4,865)	13,377	542	_	(13,336)	44,876
Public Safety								
Retirement System	654,486	(30,139)	61,979	(5,726)	(5,512)	_	_	675,091
Firefighters								
Retirement System	16,186	(38,938)	6,229	(2,002)	5,932	_	_	(12,592)
Judges								
Retirement System	50,003	(646)	(1,825)	(389)	3,303	_	_	50,446
Utah Governors and Legislators								
Retirement Plan	2,322	(183)	258	(13)	100	_	_	2,484
Tier 2 Public Employees								
Retirement System	35,231	2,586	12,088	(2,436)	8,218	_	_	55,687
Tier 2 Public Safety and Firefighter								
Retirement System	4,861	7,780	1,433	(359)	(385)	_	_	13,330

Member and Employer Contribution Rates

As of December 31

Noncontributory and Contributory 2011 6.00% 12.37% 9.76% 16.86% 60vernment 31.377% 7.76% 16.86% 13.77% 7.76% 16.86% 13.77% 7.76% 16.86% 13.77% 7.76% 16.86% 13.77% 7.76% 16.86% 16.04% 7.29 7.76% 16.86% 17.29 7.76% 16.86% 17.29 7.76% 16.86% 17.29 7.76% 16.86% 17.29 7.76% 16.86% 17.29 18.47 7.76% 14.46 22.19 18.47 7.20% 14.46 22.19 18.47 7.20% 16.00% 17.70 14.46 22.19 18.47 17.20% 18.47					Contributory		Noncontributory
Noncontributory and Contributory 2011	System	Year	Member	Employer	Employer	Employer	Employer
Retirement Systems	Noncontributory						
Retirement Systems	-	2011	6.00%	12.37%	9.76%	16.86%	13.77%
2013 6.00 15.97 13.28 20.46 17.29	-	2012	6.00	14.27	12.03	18.76	16.04
2014 6.00 17.70 14.46 22.19 18.47	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2013	6.00	15.97	13.28	20.46	17.29
			6.00		14.46	22.19	18.47
2017		2015	6.00	17.70	14.46	22.19	18.47
		2016	6.00	17.70	14.46	22.19	18.47
2019		2017	6.00	17.70	14.46	22.19	18.47
2020 6.00 17.70 14.46 22.19 18.47		2018	6.00	17.70	14.46	22.19	18.47
		2019	6.00	17.70	14.46	22.19	18.47
		2020	6.00	17.70	14.46	22.19	18.47
Name			(with 5		(without S		
Retirement System			Member	Employer	Member	Employer	
Retirement System	Eirofighters	2011	15.05%	0.50%	16 18%	_	12 20%
2013 15.05 2.96 16.71 4.46 11.75	_					2 08%	
2014 15.05 3.82 16.71 6.59 11.71	nethement system						
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							
2018 15.05 4.61 16.71 7.24 11.06							
2019 15.05 4.61 16.71 7.24 11.06							
Dudges 2011							
Contributory Noncontributory Employer Court Fees Governors and Legislators Appropriation							
Noncontributory Noncontributory Legislators Legislators Noncontributory Employer Employer Employer Court Fees Legislators Appropriation						Judges	
Member Employer Employer Court Fees Appropriation				Contributory	Noncontributory		
Retirement System 2012 — 32.87 14.02 214,000 2013 — 35.66 12.74 252,000 Utah Governors 2014 — 40.01 11.90 411,489 and Legislators 2015 — 41.58 10.33 421,009 Retirement Plan 2016 — 42.12 9.79 404,409 2017 — 42.39 9.22 391,883 2018 — 43.68 8.23 384,103 2019 — 43.75 8.16 369,226			Member	Employer	Employer	Court Fees	
2013	Judges	2011	_	_	25.82%	14.26%	\$ 153,000
Utah Governors 2014 — — 40.01 11.90 411,489 and Legislators 2015 — — 41.58 10.33 421,009 Retirement Plan 2016 — — 42.12 9.79 404,409 2017 — — 42.39 9.22 391,883 2018 — — 43.68 8.23 384,103 2019 — — 43.75 8.16 369,226	Retirement System	2012	_	_	32.87	14.02	214,000
and Legislators 2015 — 41.58 10.33 421,009 Retirement Plan 2016 — 42.12 9.79 404,409 2017 — 42.39 9.22 391,883 2018 — 43.68 8.23 384,103 2019 — 43.75 8.16 369,226		2013	_	_	35.66	12.74	252,000
Retirement Plan 2016 — 42.12 9.79 404,409 2017 — — 42.39 9.22 391,883 2018 — — 43.68 8.23 384,103 2019 — — 43.75 8.16 369,226	Utah Governors	2014	_	_	40.01	11.90	411,489
2017 — — 42.39 9.22 391,883 2018 — — 43.68 8.23 384,103 2019 — — 43.75 8.16 369,226	and Legislators	2015	_	_	41.58	10.33	421,009
2018 — — 43.68 8.23 384,103 2019 — — 43.75 8.16 369,226	Retirement Plan	2016	_	_	42.12	9.79	404,409
2019 — 43.75 8.16 369,226		2017	_	_	42.39	9.22	391,883
		2018	_	_	43.68	8.23	384,103
2020 — — 44.31 7.60 361,437		2019	_	_	43.75	8.16	369,226
		2020	_	_	44.31	7.60	361,437

Member and Employer Contribution Rates (Continued)

As of December 31

	c		2.5% COLA Other Division A (with Social Security)			4.0% COLA Other Division A (with Social Security)				Bountiful		
System	Year	Member	Employer		-	Employer	M		Employer	Mei	mber	Employer
Public Safety	2011	_	34.12%		_	27.07%		_	28.82%		_	 29.19%
Retirement	2011		37.29			30.45			33.65			37.16
System	2012	_	39.31			32.14		_	34.17			42.79
Noncontributory	2013	_	41.35		_	34.04		_	35.71		_	47.33
Division A	2015	_	41.35			34.04		_	35.71			47.33
DIVISION A	2015	_	41.35			34.04		_	35.71			47.33
	2010					34.04			35.71			49.58
		_	41.35 41.35		_	34.04		_			_	49.36 50.38
	2018	_			_			_	35.71		_	
	2019	_	41.35		_	34.04		_	35.71		_	50.38
	2020		41.35		_	34.04		_	35.71		_	50.38
Public Safety	2011	12.29%	22.88%	1	2.29%	15.78%	1	2.29%	18.34%		_	_
Retirement	2012	12.29	25.52	1	2.29	19.08	1	2.29	22.34		_	_
System	2013	12.29	27.63	1	2.29	20.83	1	2.29	22.75		_	_
Contributory	2014	12.29	29.70	1	2.29	22.75	1	2.29	24.33		_	_
Division A	2015	12.29	29.70	1	2.29	22.75	1	2.29	24.33			_
	2016	12.29	29.70	1	2.29	22.75	1	2.29	24.33		_	_
	2017	12.29	29.70	1	2.29	22.75	1	2.29	24.33			_
	2018	*	*	1	2.29	22.79	1	2.29	24.37			_
	2019	*	*		2.29	22.79		2.29	24.37			_
	2020	*	*		2.29	22.79		2.29	24.37		_	_
									2.	5% COLA		4.0% COLA
		Salt Lake City	,	Ogden		Logan		Provo	Other [Division B t Soc Sec)	Other	Division B out Soc Sec)
	Year	Member Employer			Member		Member		Member E			Employer
Public Safoty		Member Employer	Member E	Employer		Employer	Member	Employer	Member E	mployer	Member	Employer
•	2011	Member Employer — 36.71	Member E	36.13%) —	Employer 31.91%	Member	Employer 33.05%	Member E	mployer 28.64%	Member	Employer 32.70%
Retirement	2011 2012	Member Employer — 36.71 — 41.95	Member E	36.13% 42.21	o — —	31.91% 38.18	_	33.05% 38.54	Member E	28.64% 32.20	Member	32.70% 36.97
Public Safety Retirement System	2011 2012 2013	Member Employer 36.71 41.95 44.83	Member E	36.13% 42.21 44.98) — — —	31.91% 38.18 39.84	Member —	33.05% 38.54 39.97	Member E	28.64% 32.20 32.20	Member	32.70% 36.97 37.45
Retirement System Noncontributory	2011 2012 2013 2014	Member Employer - 36.71 - 41.95 - 44.83 - 46.67	Member E	36.13% 42.21 44.98 48.68	o — — — —	31.91% 38.18 39.84 41.92	_ _ _ _	33.05% 38.54 39.97 42.16	Member E	28.64% 32.20 32.20 34.04	Member — — — — —	32.70% 36.97 37.45 38.94
Retirement System Noncontributory	2011 2012 2013 2014 2015	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67	Member E	36.13% 42.21 44.98 48.68 48.68	o — — — —	31.91% 38.18 39.84 41.92 41.92	_	33.05% 38.54 39.97 42.16 42.16	Member E	28.64% 32.20 32.20 34.04 34.04	Member — — — — — — — — — — —	32.70% 36.97 37.45 38.94 38.94
Retirement System Noncontributory	2011 2012 2013 2014 2015 2016	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.67	Member E	36.13% 42.21 44.98 48.68 48.68 48.68	o — — — —	31.91% 38.18 39.84 41.92 41.92 41.92	_ _ _ _	33.05% 38.54 39.97 42.16 42.16 42.16	Member E	28.64% 32.20 32.20 34.04 34.04 34.04	Member — — — — —	32.70% 36.97 37.45 38.94 38.94 38.94
Retirement System Noncontributory	2011 2012 2013 2014 2015 2016 2017	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.67 - 46.67	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.68	o — — — —	31.91% 38.18 39.84 41.92 41.92 41.92 41.92	_ _ _ _	33.05% 38.54 39.97 42.16 42.16 42.16 42.16	Member E	28.64% 32.20 32.20 34.04 34.04 34.04 34.04	Member — — — — — — — — — —	32.70% 36.97 37.45 38.94 38.94 38.94 38.94
Retirement System Noncontributory	2011 2012 2013 2014 2015 2016 2017 2018	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.67 - 46.67 - 46.67	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.68 48.68 48.72	— — — — — — — — — — — — — — — — — — —	31.91% 38.18 39.84 41.92 41.92 41.92 41.92 41.92 41.97	_ _ _ _	33.05% 38.54 39.97 42.16 42.16 42.16 42.16 42.23	Member E	28.64% 32.20 32.20 34.04 34.04 34.04 34.04 32.28	Member	32.70% 36.97 37.45 38.94 38.94 38.94 38.94 38.94 38.97
Retirement System Noncontributory	2011 2012 2013 2014 2015 2016 2017 2018 2019	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.67 - 46.71 - 46.71	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.68 48.72 48.72		31.91% 38.18 39.84 41.92 41.92 41.92 41.92 41.97 41.97	_ _ _ _	33.05% 38.54 39.97 42.16 42.16 42.16 42.16 42.23 42.23	Member E	28.64% 32.20 32.20 34.04 34.04 34.04 34.04 32.28 32.28	Member	32.70% 36.97 37.45 38.94 38.94 38.94 38.94 38.97 38.97
Retirement System Noncontributory	2011 2012 2013 2014 2015 2016 2017 2018	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.67 - 46.67 - 46.67	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.68 48.68 48.72	— — — — — — — — — — — — — — — — — — —	31.91% 38.18 39.84 41.92 41.92 41.92 41.92 41.92 41.97	_ _ _ _	33.05% 38.54 39.97 42.16 42.16 42.16 42.16 42.23	Member E	28.64% 32.20 32.20 34.04 34.04 34.04 34.04 32.28	Member	32.70% 36.97 37.45 38.94 38.94 38.94 38.94 38.94 38.97
Retirement System Noncontributory Division B	2011 2012 2013 2014 2015 2016 2017 2018 2019	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.67 - 46.71 - 46.71	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.68 48.72 48.72		31.91% 38.18 39.84 41.92 41.92 41.92 41.92 41.97 41.97		33.05% 38.54 39.97 42.16 42.16 42.16 42.16 42.23 42.23	Member E	28.64% 32.20 32.20 34.04 34.04 34.04 34.04 32.28 32.28	Member	32.70% 36.97 37.45 38.94 38.94 38.94 38.94 38.97 38.97
Retirement System Noncontributory Division B Public Safety	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.67 - 46.71 - 46.71	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.68 48.72 48.72		31.91% 38.18 39.84 41.92 41.92 41.92 41.97 41.97 41.97		33.05% 38.54 39.97 42.16 42.16 42.16 42.16 42.23 42.23	Member E	28.64% 32.20 32.20 34.04 34.04 34.04 32.28 32.28 32.28 19.48%	Member — — — — — — — — — — — — — — — — — — —	32.70% 36.97 37.45 38.94 38.94 38.94 38.97 38.97 38.97
Retirement System Noncontributory Division B Public Safety Retirement	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.67 - 46.71 - 46.71	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.68 48.72 48.72	11.139	31.91% 38.18 39.84 41.92 41.92 41.92 41.97 41.97 41.97 421.36% 27.95		33.05% 38.54 39.97 42.16 42.16 42.16 42.16 42.23 42.23	Member E	28.64% 32.20 32.20 34.04 34.04 34.04 32.28 32.28 32.28 19.48% 22.29	Member — — — — — — — — — — — — — — — — — — —	32.70% 36.97 37.45 38.94 38.94 38.94 38.97 38.97 38.97
Retirement System Noncontributory Division B Public Safety Retirement System	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2011 2012 2013	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.67 - 46.71 - 46.71	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.68 48.72 48.72	11.139	31.91% 38.18 39.84 41.92 41.92 41.92 41.97 41.97 41.97 6 21.36% 27.95 29.76		33.05% 38.54 39.97 42.16 42.16 42.16 42.23 42.23 42.23	Member E	28.64% 32.20 32.20 34.04 34.04 34.04 32.28 32.28 32.28 19.48% 22.29 22.29	Member — — — — — — — — — — — — — — — — — — —	32.70% 36.97 37.45 38.94 38.94 38.94 38.97 38.97 38.97 38.97
Retirement System Noncontributory Division B Public Safety Retirement System Contributory	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2011 2012 2013 2014	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.71 - 46.71 - 46.71	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.72 48.72 	11.139 11.13 11.13	31.91% 38.18 39.84 41.92 41.92 41.92 41.97 41.97 41.97 6 21.36% 27.95 29.76 31.80	- - - - - - - - - - - - - - - - - - -	33.05% 38.54 39.97 42.16 42.16 42.16 42.23 42.23 42.23	Member E	28.64% 32.20 32.20 34.04 34.04 34.04 32.28 32.28 32.28 19.48% 22.29 22.29 22.29	Member — — — — — — — — — — — — — — — — — — —	32.70% 36.97 37.45 38.94 38.94 38.94 38.97 38.97 38.97 32.22% 27.29 27.49 28.95
Retirement System Noncontributory Division B Public Safety Retirement System	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2011 2012 2013 2014 2015	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.71 - 46.71 - 46.71	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.72 48.72 	11.139 11.13 11.13 11.13	31.91% 38.18 39.84 41.92 41.92 41.92 41.97 41.97 41.97 6 21.36% 27.95 29.76 31.80 31.80	- - - - - - - - - - - - - - - - - - -	33.05% 38.54 39.97 42.16 42.16 42.16 42.23 42.23	Member E	28.64% 32.20 32.20 34.04 34.04 34.04 32.28 32.28 32.28 22.29 22.29 22.29 22.29	Member — — — — — — — — — — — — — — — — — — —	32.70% 36.97 37.45 38.94 38.94 38.94 38.97 38.97 38.97 38.97 38.97 % 23.22% 27.29 27.49 28.95 28.95
Retirement System Noncontributory Division B Public Safety Retirement System Contributory	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2011 2012 2013 2014 2015 2016	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.71 - 46.71 - 46.71	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.72 48.72 	11.139 11.13 11.13 11.13 11.13	31.91% 38.18 39.84 41.92 41.92 41.92 41.97 41.97 41.97 6 21.36% 27.95 29.76 31.80 31.80 31.80	- - - - - - - - - -	33.05% 38.54 39.97 42.16 42.16 42.16 42.23 42.23	Member E	28.64% 32.20 32.20 34.04 34.04 34.04 32.28 32.28 32.28 22.29 22.29 22.29 22.29 22.29	10.50 10.50 10.50 10.50 10.50	32.70% 36.97 37.45 38.94 38.94 38.94 38.97 38.97 38.97 27.29 27.49 28.95 28.95
Retirement System Noncontributory Division B Public Safety Retirement System Contributory	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2011 2012 2013 2014 2015 2016 2017	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.71 - 46.71 - 46.71	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.72 48.72 	11.139 11.13 11.13 11.13 11.13 11.13	31.91% 38.18 39.84 41.92 41.92 41.92 41.97 41.97 41.97 6 21.36% 27.95 29.76 31.80 31.80 31.80 31.80	- - - - - - - - - - - - - - - - - - -	33.05% 38.54 39.97 42.16 42.16 42.16 42.23 42.23	10.50% 10.50 10.50 10.50 10.50 10.50 10.50	28.64% 32.20 32.20 34.04 34.04 34.04 32.28 32.28 32.28 19.48% 22.29 22.29 22.29 22.29 22.29 22.29	10.50 10.50 10.50 10.50 10.50 10.50	32.70% 36.97 37.45 38.94 38.94 38.94 38.97 38.97 38.97 % 23.22% 27.29 27.49 28.95 28.95 28.95
Retirement System Noncontributory Division B Public Safety Retirement System Contributory	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2011 2012 2013 2014 2015 2016 2017 2018	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.67 - 46.71 - 46.71	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.72 48.72	11.139 11.13 11.13 11.13 11.13 11.13 11.13	31.91% 38.18 39.84 41.92 41.92 41.92 41.97 41.97 41.97 6 21.36% 27.95 29.76 31.80 31.80 31.80*	- - - - - - - - - - - - - - - - - - -	33.05% 38.54 39.97 42.16 42.16 42.16 42.23 42.23	10.50% 10.50 10.50 10.50 10.50 10.50 10.50 10.50 10.50	28.64% 32.20 32.20 34.04 34.04 34.04 32.28 32.28 32.28 19.48% 22.29 22.29 22.29 22.29 22.29 22.29 22.29 22.29 22.29	10.50 10.50 10.50 10.50 10.50 10.50 10.50	32.70% 36.97 37.45 38.94 38.94 38.94 38.97 38.97 38.97 % 23.22% 27.29 27.49 28.95 28.95 28.95 28.95
Retirement System Noncontributory Division B Public Safety Retirement System Contributory	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2011 2012 2013 2014 2015 2016 2017	Member Employer - 36.71 - 41.95 - 44.83 - 46.67 - 46.67 - 46.71 - 46.71 - 46.71	Member E	36.13% 42.21 44.98 48.68 48.68 48.68 48.72 48.72 	11.139 11.13 11.13 11.13 11.13 11.13	31.91% 38.18 39.84 41.92 41.92 41.92 41.97 41.97 41.97 6 21.36% 27.95 29.76 31.80 31.80 31.80 31.80	- - - - - - - - - - - - - - - - - - -	33.05% 38.54 39.97 42.16 42.16 42.16 42.23 42.23	10.50% 10.50 10.50 10.50 10.50 10.50 10.50	28.64% 32.20 32.20 34.04 34.04 34.04 32.28 32.28 32.28 19.48% 22.29 22.29 22.29 22.29 22.29 22.29	10.50 10.50 10.50 10.50 10.50 10.50	32.70% 36.97 37.45 38.94 38.94 38.94 38.97 38.97 38.97 % 23.22% 27.29 27.49 28.95 28.95 28.95 28.95 28.98

2.5% COLA

4.0% COLA

^{*}No active participants in the system.

Member and Employer Contribution Rates (Continued)

As of December 31

			Contributory	Noncontributory			
System	Year	Member	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		
	2018	_	17.30	18.87	15.54		
	2019	_	17.42	18.99	15.66		
	2020	0.00%	17.56	19.13	15.80		

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	Member	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
	2018	_	29.80	38.23	23.09	24.25
	2019	_	29.84	38.27	23.13	24.29
	2020	2.27%	32.54	40.97	25.83	26.99
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
	2018	_	_	_	23.11	24.27
	2019	_	_	_	23.15	24.31
	2020	2.27%	_	_	25.85	27.01

^{*}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)

As of December 31

Tier 2 Public Safety and Firefighter Contributory Retirement System (Continued)*			Salt Lake City	Ogden	Logan	Provo	2.5% COLA Other Division B (without Soc Sec)	4.% COLA Other Division B (without Soc Sec)
netirement bystem (commuta)	Year	Member	Employer	Employer	Employer	Employer	Employer	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
	2018	_	35.54	37.64	30.71	30.95	21.00	27.28
	2019	_	35.58	37.68	30.75	30.99	21.04	27.32
	2020	2.27%	38.28	40.38	33.45	33.69	23.74	30.02
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
	2018	_	_	_	_	_	21.11	27.28
	2019	_	_	_	_	_	21.15	27.32
	2020	2.27%	_	_	_		23.85	30.02
Firefighters			Other (with Socia	Division A I Security) (w	Other Division B ith Social Security)			
rirelighters	Year	Membe	er	Employer	Employer			
	2011		_	10.64%	10.649	6		
	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			
	2018		_	11.34	11.34			
	2019		_	11.38	11.38			
	2020	2.	.27%	14.08	14.08			

^{*}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)

	(dollars in	thousands)		Based on Actuarial Va	lue 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 Retirement System	1/01/12 1/01/13 1/01/14 1/01/15 1/01/16 1/01/17 1/01/18 1/01/19 1/01/20 12/31/20	\$ 16,805,952 16,969,392 18,601,513 20,240,645 21,528,737 22,908,184 24,430,088 25,410,465 26,670,524 28,637,430	21,260,843 22,200,896 22,981,585 23,868,225 25,476,579 27,078,436 28,119,177 29,342,665 30,750,997 31,763,859	4,454,891 5,231,504 4,380,072 3,627,580 3,947,842 4,170,252 3,689,089 3,932,200 4,080,473 3,126,429	79.0% 76.4 80.9 84.8 84.5 84.6 86.9 86.6 86.7 90.2	\$ 3,900,106 3,794,929 3,705,771 3,570,912 3,458,286 3,406,567 3,337,061 3,260,398 3,240,185 3,306,383	114.2% 137.9 118.2 101.6 114.2 122.4 110.5 120.6 125.9 94.6
Contributory Retirement System	1/01/12 1/01/13 1/01/14 1/01/15 1/01/16 1/01/17 1/01/18 1/01/19 1/01/20 12/31/20	\$ 1,135,251 1,133,433 1,165,002 1,198,862 1,209,069 1,227,072 1,228,311 1,222,340 1,230,688 1,251,437	1,269,042 1,280,836 1,285,851 1,295,581 1,282,510 1,292,854 1,282,052 1,272,024 1,275,564 1,272,690	133,791 147,403 120,849 96,719 73,441 65,782 53,741 49,684 44,876 21,253	89.5% 88.5 90.6 92.5 94.3 94.9 95.8 96.1 96.5 98.3	\$ 110,103 103,074 98,023 90,623 82,426 53,615 45,177 33,750 30,241 30,748	121.5% 143.0 123.3 106.7 89.1 122.7 119.0 147.2 148.4 69.1
Public Safety Retirement System	1/01/12 1/01/13 1/01/14 1/01/15 1/01/16 1/01/17 1/01/18 1/01/19 1/01/20 12/31/20	\$ 2,222,202 2,283,911 2,530,709 2,781,314 2,988,371 3,217,221 3,462,919 3,635,825 3,847,316 4,155,875	2,948,481 3,093,227 3,191,506 3,344,059 3,622,965 3,908,793 4,086,551 4,290,311 4,522,407 4,694,184	726,279 809,316 660,797 562,745 634,594 691,572 623,632 654,486 675,091 538,309	75.4% 73.8 79.3 83.2 82.5 82.3 84.7 84.7 85.1 88.5	\$ 374,293 366,471 365,998 360,750 355,172 352,408 350,782 332,724 332,001 338,920	194.0% 220.8 180.5 156.0 178.7 196.2 177.8 196.7 203.3 158.8
Firefighters Retirement System	1/01/12 1/01/13 1/01/14 1/01/15 1/01/16 1/01/17 1/01/18 1/01/19 1/01/20 12/31/20	\$ 810,764 824,060 903,627 988,806 1,060,312 1,130,198 1,195,358 1,244,696 1,343,400 1,457,692	903,399 944,791 963,574 1,006,646 1,076,963 1,152,602 1,206,602 1,260,882 1,330,808 1,388,497	92,635 120,731 59,947 17,840 16,651 22,404 11,244 16,186 (12,592) (69,195)	89.7% 87.2 93.8 98.2 98.5 98.1 99.1 98.7 100.9 105.0	\$ 110,751 110,608 110,741 111,305 111,133 112,322 112,953 110,823 112,075 114,458	83.6% 109.2 54.1 16.0 15.0 19.9 10.0 14.6 (11.2) (60.5)
Judges Retirement System	1/01/12 1/01/13 1/01/14 1/01/15 1/01/16 1/01/17 1/01/18 1/01/19 1/01/20 12/31/20	\$ 130,561 131,217 145,121 156,956 166,298 177,782 192,037 201,325 212,550 229,290	167,982 174,923 185,113 192,445 203,540 223,971 238,433 251,328 262,996 271,116	37,421 43,706 39,992 35,489 37,242 46,189 46,396 50,003 50,446 41,826	77.7% 75.0 78.4 81.6 81.7 79.4 80.5 80.1 80.8 84.6	\$ 14,981 14,885 15,195 16,072 15,832 16,755 18,661 19,288 19,757 20,071	249.8% 293.6 263.2 220.8 235.2 275.7 248.6 259.2 255.3 208.4

 ${\it See accompanying notes to required supplementary information.}$

Schedules of Funding Progress (Concluded)

(dollars in thousands)

	(dollars i	n thousands)		Based on Actuarial Va	lue 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)
Governors and	1/01/12	\$ 9,565	12,029	2,464	79.5%	\$ 910	270.8%
Legislators	1/01/12	9.077	11,925	2,848	76.1	910	313.0
Retirement Plan	1/01/13	9,457	12,186	2,729	77.6	390	699.7
netirement iun	1/01/15	9,908	12,700	2,315	81.1	928	249.5
	1/01/16	10.173	12,684	2,513	80.2	943	266.3
	1/01/17	10,470	13,144	2,674	79.7	799	334.7
	1/01/17	10,856	13,249	2,393	81.9	722	331.4
	1/01/19	10,852	13,174	2,322	82.4	639	363.4
	1/01/19	10,832	13,410	2,484	81.5	757	328.1
	12/31/20	11,287	13,330	2,043	84.7	757 757	269.9
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
	1/01/18	318,754	336,419	17,655	94.7	996,965	1.8
	1/01/19	438,366	473,597	35,231	92.6	1,267,301	2.8
	1/01/20	594,273	649,960	55,687	91.4	1,493,445	3.7
	12/31/20	790,633	846,868	56,235	93.4	1,609,102	3.5
Tier 2 Public Safety	1/01/12	\$ 90	101	11	89.1%	\$ 855	1.3%
and Firefighter	1/01/13	1,161	1,042	(119)	111.4	10,237	(1.2)
Contributory	1/01/14	3,822	3,269	(553)	116.9	20,215	(2.7)
Retirement	1/01/15	8,666	7,432	(1,234)	116.6	35,019	(3.5)
System	1/01/16	15,618	14,774	(844)	105.7	53,276	(1.6)
	1/01/17	25,388	25,809	421	98.4	74,834	0.6
	1/01/18	38,872	39,603	731	98.2	98,113	0.7
	1/01/19	56,073	60,934	4,861	92.0	145,332	3.3
	1/01/20	79,067	92,397	13,330	85.6	175,713	7.6
	12/31/20	114,579	129,253	14,674	88.6	188,667	7.8
All	1/01/12	\$ 21,117,218	26,564,932	5,447,714	79.5%	\$ 4,548,820	119.8%
Retirement	1/01/13	21,370,069	27,724,395	6,354,326	77.1	4,604,893	138.0
Systems	1/01/14	23,405,492	28,665,412	5,259,920	81.7	4,669,560	112.6
	1/01/15	25,473,901	29,808,235	4,334,334	85.5	4,678,491	92.6
	1/01/16	27,124,096	31,835,886	4,711,790	85.2	4,714,628	99.9
	1/01/17	28,916,200	33,926,814	5,010,614	85.2	4,839,496	103.5
	1/01/18	30,877,196	35,322,086	4,444,890	87.4	4,960,434	89.6
	1/01/19	32,219,942	36,964,915	4,744,973	87.2	5,170,255	91.8
	1/01/20	33,988,744	20 000 520	4 000 705	07.4	E 404 174	00.0
	1/01/20	33,300,7 44	38,898,539	4,909,795	87.4	5,404,174	90.9

See accompanying notes to required supplementary information.

Solvency Tests

				Actuarial A	Accrued Liabilities					
		(1) Active Members	(2) Retired and	(3) Active Member (Employer	(4) Total Actuarial Accrued	Actuarial Value	Lia	ortion of A abilities Co	vered by	Assets
System	Date	Contributions	Beneficiaries	Financed Portion)	Liabilities	of Assets	(1)	(2)	(3)	(4)
Noncontributory	1/01/12	\$ 539,951	9,875,383	10,845,509	21,260,843	16,805,952	100%	100%	59%	79%
Retirement	1/01/13	498,575	10,075,732	11,626,589	22,200,896	16,969,392	100	100	55	76
System	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
	1/01/18	292,923	13,900,793	13,925,461	28,119,177	24,430,088	100	100	74	87
	1/01/19	266,074	15,190,793	13,885,798	29,342,665	25,410,465	100	100	72	87
	1/01/19	225,507	16,348,197	14,177,294	30,750,998	26,670,522	100	100	71	87
	12/31/20	191,285	17,084,710	13,075,821	30,351,815	28,637,429	100	100	87	94
	12/31/20	191,203	17,004,710	13,073,621	30,331,613	20,037,429	100	100	07	94
Contributory	1/01/12	\$ 308,962	630,747	329,333	1,269,042	1,135,251	100%	100%	59%	89%
Retirement	1/01/13	294,317	669,744	316,775	1,280,836	1,133,433	100	100	53	88
System	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
	1/01/16	236,592	838,922	206,996	1,282,510	1,209,069	100	100	65	94
	1/01/17	206,024	898,668	188,162	1,292,854	1,227,072	100	100	65	95
	1/01/18	188,260	928,948	164,844	1,282,052	1,228,311	100	100	67	96
	1/01/19	173,556	955,061	143,407	1,272,024	1,222,340	100	100	65	96
	1/01/20	154,287	990,382	130,895	1,275,564	1,230,688	100	100	66	96
	12/31/20	138,879	1,010,991	120,241	1,270,111	1,251,437	100	100	84	99
Public Safety	1/01/12	\$ 77,231	1,501,102	1,370,148	2,948,481	2,222,202	100%	100%	47%	75%
Retirement	1/01/13	74,661	1,593,128	1,425,438	3,093,227	2,283,911	100	100	43	74
System	1/01/14	74,012	1,682,390	1,435,104	3,191,506	2,530,709	100	100	54	79
Jystein .	1/01/15	70,992	1,769,909	1,503,158	3,344,059	2,781,314	100	100	63	83
	1/01/15	66,232	1,937,777	1,618,956	3,622,965	2,988,371	100	100	61	82
	1/01/10	61,343	2,093,058	1,754,392	3,908,793	3,217,221	100	100	61	82
	1/01/17	59,056	2,093,038	1,636,935	3,898,049	3,217,221	100	100	62	84
	1/01/19	54,584	2,394,289	1,841,438	4,290,311	3,635,825	100	100	64	85
	1/01/20	48,125	2,402,198	1,890,172	4,340,495	3,847,316	100	100	74	89
	12/31/20	44,744	2,769,204	1,646,467	4,460,415	4,155,875	100	100	82	93
Firefighters	1/01/12	\$116,966	516,105	270,328	903,399	810,764	100%	100%	66%	90%
Retirement	1/01/13	127,442	532,366	284,983	944,791	824,060	100	100	58	87
System	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
	1/01/17	171,328	669,170	358,441	1,206,602	1,195,358	100	100	97	99
	1/01/18	187,393	700,755	372,734	1,260,882	1,193,336	100	100	96	99
	1/01/19	194,693	742,312	372,734	1,260,862	1,343,400	100	100	100	101
		-								
	12/31/20	202,896	782,042	331,682	1,316,620	1,457,692	100	100	100	111

Solvency Tests (Concluded)

				Actuarial Ac	crued Liabilities					
		(1) Active Members	(2) Retired and	(3) Active Member (Employer	(4) Total Actuarial Accrued	Actuarial Value			ctuarial A overed by	
System	Date	Contributions	Beneficiaries	Financed Portion)	Liabilities	of Assets	(1)	(2)	(3)	(4)
Judges	1/01/12	\$ 4,376	97,460	66,146	167,982	130,561	100%	100%	47%	78%
Retirement	1/01/13	4,102	98,499	72,322	174,923	131,217	100	100	40	75
System	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	100	46	79
	1/01/18	2,524	152,585	83,324	238,433	192,037	100	100	44	81
	1/01/19	1,329	168,711	81,288	251,328	201,325	100	100	38	80
	1/01/20	1,268	172,812	88,916	262,996	212,550	100	100	43	81
	12/31/20	1,247	179,036	78,898	259,181	229,290	100	100	62	88
Utah	1/01/12	\$ 107	6,482	5,440	12,029	9,565	100%	100%	55%	 80%
Governors	1/01/13	104	6,396	5,425	11,925	9,077	10070	100	48	76
and	1/01/14	94	7,037	5,055	12,186	9,457	100	100	46	78
Legislators	1/01/15	62	7,201	4,960	12,223	9,908	100	100	37	81
Retirement	1/01/16	66	7,619	4,999	12,684	10,173	100	100	50	80
Plan	1/01/17	46	8,254	4,844	13,144	10,470	100	100	45	80
riaii	1/01/17	27	8,537	4,685	13,144	10,856	100	100	49	82
	1/01/19	27	8,517	4,630	13,174	10,852	100	100	50	82
	1/01/19	32	8,884	4,494	13,174	10,832	100	100	45	81
	12/31/20	24	8,942	4,494	13,410	11,287	100	100	57	86
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	1/01/13	_	_	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	1/01/15	_	12	145,859	145,871	145,518	100	100	100	100
System	1/01/10		181	231,024	231,205	219,885	100	100	95	95
System	1/01/18	_	651	335,768	336,419	318,755	100	100	95	95
	1/01/19	_	2,065	471,532	473,597	438,366	100	100	93	93
	1/01/19		3,914	646,046	649,960	594,273	100	100	93 91	93 91
	12/31/20	_	6,203	627,871	634,074	790,633	100	100	100	125
Tier 2	1/01/12	\$ —		101	101	90	100%	100%	100%	—— 89%
Public	1/01/12	-	_	1,042	1,042	1,161	100 / 0	10070	10070	100
Safety and	1/01/13	_		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	1/01/13	_		7, 4 32 14,774	14,774	15,618	100	100	100	106
Retirement	1/01/10	_	_	25,809	25,809	25,388	100	100	98	98
System									98	98 98
System	1/01/18	 56	_	39,603 60,979	39,603	38,872 56,072	100	100		
	1/01/19	56 57	720	60,878	60,934	56,073 70,067	100	100	92 96	92 96
	1/01/20	57 2.430	238	92,102	92,397	79,067	100	100	86	86 126
	12/31/20	2,430	450	87,907	90,787	114,579	100	100	100	126

Schedules of Active Member Valuation Data

Year Ended December 31

		Number of			Activ	e Members	Inflation
System	Year	Participating Employers	Active Members	Projected Annual Payroll	Average Pay	Percent Increase	Increase (CPI)
Noncontributory	2011	430	87,901	\$ 3,900,106,000	43,308	3.47%	3.20%
Retirement	2012	436	82,259	3,794,929,000	44,828	3.51	2.10
System	2013	439	76,845	3,675,331,000	46,294	3.27	1.50
·	2014	437	71,827	3,570,912,000	47,994	3.67	1.60
	2015	451	68,273	3,458,286,000	50,002	4.18	0.10
	2016	453	63,214	3,406,567,000	51,984	3.96	1.30
	2017	457	59,578	3,375,321,000	54,845	5.50	2.10
	2018	463	56,299	3,330,548,000	57,971	5.70	1.90
	2019	469	53,134	3,328,313,273	61,056	5.32	2.30
	2020	469	51,161	3,306,382,726	64,446	5.55	1.45
Contributory	2011	159	2,137	\$ 110,103,000	48,806	2.49%	3.20%
Retirement	2012	159	1,937	103,074,000	50,504	3.48	2.10
System	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
	2018	159	519	39,279,000	64,824	4.11	1.90
	2019	158	450	34,317,406	67,202	3.67	2.30
	2020	158	379	30,748,203	69,493	3.41	1.45
Public Safety	2011	130	7,619	\$ 374,293,000	47,329	0.92%	3.20%
Retirement	2012	130	7,313	366,471,000	48,416	2.30	2.10
System	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
	2018	134	5,305	348,476,000	62,721	4.81	1.90
	2019	134	4,982	339,705,097	66,640	6.25	2.30
	2020	134	4,596	338,919,654	69,418	4.17	1.45
Firefighters	2011	57	1,932	\$ 110,751,000	55,240	0.91%	3.20%
Retirement	2012	57	1,884	110,608,000	56,507	2.29	2.10
System	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	62	1,602	112,954,000	69,242	3.17	2.10
	2018	62	1,540	113,587,000	71,914	3.86	1.90
	2019	63	1,490	113,329,452	75,218	4.59	2.30
	2020	63	1,427	114,457,761	78,711	4.64	1.45

Schedules of Active Member Valuation Data (Concluded)

Year Ended December 31

		Number of				Activ	ve Members	Inflation
System	Year	Participating Employers	Active Members		Projected Annual Payroll	Average Pay	Percent Increase	Increase (CPI)
Judges	2011	1	111	\$	14,918,000	132,615	(0.80)%	3.20%
Retirement	2012	1	111		14,885,000	132,644	0.02	2.10
System	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
	2018	1	116		18,802,000	166,280	2.42	1.90
	2019	1	116		19,595,556	170,318	2.43	2.30
	2020	1	119		20,071,272	172,055	1.02	1.45
Utah Governors	2011	1	115	\$	910,000	7,913	8.70%	3.20%
and Legislators	2012	1	113		910,000	8,053	1.77	2.10
Retirement Plan	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
	2018	1	52		639,000	12,285	0.00	1.90
	2019	1	47		638,820	12,285	0.00	2.30
	2020	1	41		757,311	12,285	0.00	1.45
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
	2018	476	30,291	1	,171,543,000	41,840	6.66	1.90
	2019	481	33,686	1	,380,488,281	44,337	5.97	2.30
	2020	481	35,895		,609,101,826	47,050	6.12	1.45
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
	2018	151	3,301		123,439,000	44,030	4.97	1.90
	2019	152	3,767		156,778,405	46,645	5.94	2.30
	2020	152	4,301		188,667,334	48,773	4.56	1.45

Schedules of Retirants and Beneficiaries

			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
Noncontributory	2011	2,629	\$ 92,161,000	552	\$ 42,268,000	38,216	\$	843,697,000	6.29%	\$ 20,618
Retirement	2012	2,745	99,170,000	505	42,739,000	40,456		900,128,000	6.69	20,841
System	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
	2018	3,445	149,257,000	939	77,080,000	56,404		1,320,214,000	5.78	22,921
	2019	3,237	140,086,000	992	63,317,000	58,649		1,396,983,000	5.81	23,392
	2020	3,491	170,934,000	1,114	79,290,000	61,026		1,488,627,000	6.56	23,902
Contributory	2011	177	\$ 8,271,000	389	\$ 7,461,000	4,552	\$	68,375,000	1.20%	\$ 13,777
Retirement	2012	184	9,403,000	366	6,928,000	4,370		70,850,000	3.62	14,863
System	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
	2018	110	7,241,000	235	5,207,000	3,917		86,795,000	2.40	21,028
	2019	81	5,429,000	208	4,062,000	3,790		88,162,000	1.57	22,332
	2020	80	4,435,000	191	2,707,000	3,679		89,890,000	1.96	23,401
Public Safety	2011	157	\$ 11,329,000	44	\$ 6,591,000	4,125	\$	120,569,000	4.09%	\$ 27,182
Retirement	2012	195	13,695,000	28	5,725,000	4,292		128,539,000	6.61	27,693
System	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
	2018	372	26,373,000	43	10,829,000	5,967		188,414,000	8.99	30,193
	2019	325	24,410,000	39	10,901,000	6,253		201,923,000	7.17	30,975
	2020	331	25,411,000	33	12,045,000	6,551		215,289,000	6.62	31,477
Firefighters	2011	32	\$ 3,171,000	8	\$ 2,897,000	1,173	\$	41,404,000	0.67%	\$ 31,874
Retirement	2012	35	4,114,000	4	1,843,000	1,204		43,675,000	5.48	32,584
System	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
	2018	61	5,365,000	20	2,718,000	1,464		57,440,000	4.83	37,777
	2019	58	5,600,000	23	3,193,000	1,499		59,847,000	4.19	38,915
	2020	61	5,709,000	17	2,714,000	1,543		62,842,000	5.00	39,681
				.,		.,5 .5		02/0 :2/000		

Schedules of Retirants and Beneficiaries (Concluded)

Year Ended December 31

			Added to Rolls	Ren	noved from Rolls		Rolls End of Year	% Increase in Annual	Average Annual
System	Year	Number	Allowances	Number	Allowances	Number	Allowances	Allowances	Allowances
Judges	2011	5	\$ 629,000	4	\$ 991,000	116	\$ 8,648,000	(4.02)%	\$ 72,696
Retirement	2012	4	783,000	3	296,000	117	9,135,000	5.63	74,705
System	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
	2018	10	2,560,000	3	70,000	155	16,111,000	18.28	92,753
	2019	3	760,000	5	1,525,000	153	15,346,000	(4.75)	96,164
	2020	5	1,217,000	3	700,000	155	15,863,000	3.37	99,180
Utah Governors	2011	7	\$ 56,000	7	\$ 47,000	220	\$ 799,000	1.14%	\$ 3,151
and Legislators	2012	8	52,000	4	37,000	224	814,000	1.88	3,160
Retirement Plan	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
	2018	7	57,000	10	52,000	250	978,000	0.51	3,860
	2019	10	77,000	12	43,000	248	1,012,000	3.48	3,993
	2020	10	70,000	9	59,000	249	1,023,000	1.09	3,969
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
	2018	38	219,000	_	(56,000)	64	692,000	65.95	2,505
	2019	47	271,000	(2)	(2,000)	113	965,000	39.45	2,664
	2020	71	417,000	(9)	(15,000)	193	1,397,000	44.77	2,917
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	_
	2018	_	_	_	61,000	_	— — — — — — — — — — — — — — — — — — —	(100.00)	_
	2019	1	25,000	_	(65,000)	1	90,000		\$ 12,494
	2020	3	41,000	_	55,000	4	76,000	(15.56)	8,360

Utah Retirement Systems

Defined Benefit Systems Summary of Plan Provisions

As of January 1, 2020



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 65
60	20	\dots 3% each year before age 65
62	10	\dots 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.

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.

Summary of Plan Provisions (Continued)



Noncontributory Retirement System (Concluded)

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 12-31-2020)

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 6.95% 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	20	. 3% each year before age 65
62	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.

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.

Cost-of-Living Allowance

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

^{*} 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.

Summary of Plan Provisions (Continued)

Contributory 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 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 12-31-2020)

Member contribution rate is 6%* of covered salary. Employer rate for State and School (Level A) is 17.70% 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 6.95% 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

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' eligible 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. Specific employers have provided an enhanced cost-of-living (COLA) benefit to their Public Safety retirees that raise the maximum COLA from 2.5 to 4% based on the CPI. Eligible after one year.

Summary of Plan Provisions (Continued)

Public Safety Retirement System (Concluded)

Death Benefits

Division A (with Social Security coverage) Non-Retired Member (Active)

If the member dies in the line of duty, the spouse at the time of death, will receive a lump-sum payment equal to six months of the member's final average salary plus a monthly benefit of 30% of the final average monthly salary. If the member's death is not in the line of duty and has fewer than 10 years of public safety service credit, the beneficiary(ies) will receive a \$1,000 lump-sum payment or a refund of member contributions, whichever is greater. If the member has 10 or more years, but less than 20, the spouse will receive a \$500 lump-sum payment, plus a monthly benefit of 2% of the member's final average monthly salary for each year of service, up to 30% of the final average monthly salary. If the member dies and has 20 or more years of public safety service credit, they will be considered retired. The spouse, at the time of death, will receive 65% of the member's monthly benefit.

Division B (without Social Security coverage) Non-Retired Member (Active)

If the member dies in the line of duty, the spouse, at the time of death, will receive a lump-sum-payment equal to six months of the member's final average salary, plus a monthly benefit of 37.5% of the final average monthly salary. Each unmarried child under age 18 or dependent unmarried child who is mentally or physically disabled will receive \$50 per month, if the member has two or more years of public safety service credit. Total monthly payments cannot exceed 75% of the final average monthly salary. If the member's death is not in the line of duty and has fewer than two years of public safety service credit, the spouse, at the time of death, will receive a refund of member contributions plus 50% of the last 12 months' salary. If the member has two or more years, the spouse, at the

time of death, will receive a lump-sum payment of \$1,500 plus a monthly benefit of 37.5% of the member's final average monthly salary. Each unmarried child under age 18 or dependent unmarried child who is mentally or physically disabled will receive \$50 per month, if the member has two or more years of public safety service credit. Total monthly payments to the beneficiary(ies) cannot exceed 75% of the final average monthly salary. If the member dies and has 20 or more years of public safety service credit, the spouse at the time of death, will receive 65% of the member's monthly benefit or a monthly benefit of 37.5% of the final average monthly salary, whichever is greater.

Both Divisions

Non-Retired Member (Active)

If the member dies and leaves no spouse or minor children, the beneficiary(ies) will receive a 100% refund of member contributions or \$500, whichever is greater.

Non-Retired Member (Inactive)

If the member is inactive with less than 20 years of public safety service credit, the spouse, at the time of death, or if the member dies leaving no spouse or minor children, the beneficiary(ies) will receive a refund of member contributions or \$500 whichever is greater. If the member is inactive with 20 or more years of public safety service credit when the member dies, the spouse, at the time of death, will receive a benefit of 50% of the amount payable to the member had they retired on the first of the month, following the month, in which the member's death occurred.

Retired Member

After the member's death, the spouse, at the time of death, will receive a monthly benefit equal to 65% of the member's monthly benefit. If they elected a smaller monthly benefit at the time of retirement, the spouse will receive 75% of the monthly benefit.

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 12-31-2020)

Noncontributory Option

Employer rates for Division A are: State units 41.35%; Bountiful 50.38%; 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 46.71%; Ogden 48.72%; Provo 42.23%; Logan 41.97%; other law enforcement units with a 2.5% COLA 32.28% and units with a 4.0% COLA 38.97% 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 with a 2.5% COLA are 22.79% and units with a 4.0% COLA are 24.37% of covered salary. Employer rates for Division B are other law enforcement units with a 2.5% COLA 22.81% and units with a 4.0% COLA 28.98% of salary.

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

Interest

Up to 6.95% 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

For surviving spouse benefits, a member must have been married for at least six months prior to death.

Division A (with Social Security coverage) Non-Retired Member (Active)

If the member dies in the line of duty and has less than 20 years of firefighter service credit, the spouse at the time of death, will receive a lump-sum payment equal to six months of the member's final average salary plus a monthly benefit of 30% of the final average monthly salary. If the member's death is not in the line of duty and has less than 10 years of firefighter service credit, the beneficiary(ies) will receive a \$1,000 lump-sum payment or a refund

Summary of Plan Provisions (Continued)

Firefighters Retirement System (Concluded)

of member contributions, whichever is greater. If the member has 10 or more, but less than 20 years of firefighter service credit, the spouse will receive a \$500 lump-sum payment, plus a monthly benefit of 2% of the member's final average monthly salary for each year of service, up to 30% of the final average monthly salary. If the member dies and has 20 or more years of firefighter service credit, they will be considered retired and the spouse, at the time of death, will receive the death benefit payable as a retired member.

Division B (without Social Security coverage) Non-Retired Member (Active)

If the member dies in the line of duty and the member has less than 20 years of firefighter service credit, the spouse, at the time of death, will receive a lump-sum payment equal to six months of the member's final average salary, plus a monthly benefit of 37.5% of the final average monthly salary. Each unmarried child under age 21 or dependent unmarried child who is mentally or physically disabled will receive \$75 per month, if the member has five or more years of firefighter service credit.

Total monthly payments to the beneficiary(ies) cannot exceed 75% of the final average monthly salary. If the member's death is in the line of duty and has 20 or more years of firefighter service credit, the member will be considered retired and the spouse at the time of death, will receive the death benefit payable as a retired member. If the member's death is not in the line of duty and has less than five years of firefighter service credit, the spouse, at the time of

death, will receive a refund of member contributions plus 50% of the most recent 12 months' salary. If the member has five or more years of firefighter service credit, the spouse, at the time of death, will receive a lump-sum payment of \$1,500 plus a monthly benefit of 37.5% of the member's final average monthly salary. Each unmarried child under age 21 or dependent unmarried child who is mentally or physically disabled will receive \$75 per month, if the member has five or more years of firefighter service credit. Total monthly benefits to the beneficiaries cannot exceed 75% of the final average monthly salary.

Both Divisions Non-Retired Member (Active)

If the member dies and leaves no spouse or minor children, the beneficiary(ies) will be paid a 100% refund of member contributions or \$500, whichever is greater.

Non-Retired Member (Inactive)

If the member is inactive with less than 20 years of firefighter service credit, the spouse, at the time of death, or if the member dies leaving no spouse or minor children, the beneficiary(ies) will receive a refund of member contributions or \$500 whichever is greater. If the member is inactive with 20 or more years of firefighter service credit when the member dies, the spouse, at the time of death, will receive a benefit of 50% of the amount payable to the member had they retired on the first of the month, following the month, in which the member's death occurred.

Retired Member

After the member's death, the spouse, at the time of death, will receive 75% of the member's monthly benefit.

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 12-31-2020)

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 4.61% and in Division B is 7.24% of covered salary. A fire insurance premium tax equal to 11.06% 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.

Summary of Plan Provisions (Continued)



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		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, beginning one year after retirement.

Death Benefits

For surviving spouse benefits, a member must have been married for at least six months prior to death.

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 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 12-31-2020)

Employer rate includes 44.31% of covered salary and 7.60% from court fees.

Interest

Up to 6.95% on member accounts.

^{*}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)



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 for Governors

Age	Years of Service	Allowance Reduction
65	1 Term	None
62	10 years	3% each year before age 65

Service Retirement for Legislators

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 12-31-20 is \$1,440.

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 12-31-20 is \$31.20.

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 12-31-2020)

There was a 2019-20 appropriation payable by June 30, 2019, to the Utah **Governors and Legislators Retirement** Plan of \$361,437.

Summary of Plan Provisions (Continued)



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 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	20	Full actuarial
		before age 65
62	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.

Summary of Plan Provisions (Continued)

Tier 2 Public Employees Contributory Retirement System (Concluded)

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(b), 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 12-31-2020)

Member contribution rate is 0% of covered salary. Rates 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.	25	.None
60	20	.Full actuarial
		before age 65
62	10	.Full actuarial
		before age 65
65	4	.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**

- 1) Number of years of service before 7-1-2020 x 1.50% x FAS.*
- 2) Number of years of after before 6-30-2020 x 2.0% x FAS.*

Plan 1 allowance = total of 1 and 2. *FAS (Final Average Salary) = 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 upon death, he or she will be considered to have retired with an option one selection, calculated without an actuarial reduction, and his or her spouse 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(b), 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 12-31-2020)

Member contribution rate is 2.27% of covered salary. Public Safety rates range from a low of 23.74% to a high of 40.97% of salary. The Firefighter rate is 14.08% of salary.

*Includes 401(k) portion of the contribution rate.

Utah Retirement Systems

Changes in Plan Provisions



2020 Legislation

The following retirement-related bills were passed by the 2020 Utah Legislature:

Public Safety and Firefighter Retirement System

S.B. 56: Public Safety and Firefighter Tier II Retirement Enhancements

Requires that if a participating employer elects to "pick up" required employee contributions for Public Safety and Firefighter Tier II Hybrid System members, the employer is required to pay the same amount as an additional non-elective contribution to its Defined Contribution Plan employees. It also amends the line-of-duty death benefits to the surviving spouse of an active member of the Tier II Public Safety and Firefighter Retirement System. I

H.B. 173: Firefighter Retirement Amendments

Provides that a person employed as a firefighter service employee for the Department of Natural Resources, Division of Forestry, Fire, and State Lands on or after July 1, 2021, is eligible to earn service credit in the New Public Safety and Firefighter Tier II Contributory Retirement System.

H.B. 225: Phased Retirement Amendments

Creates an additional Phased Retirement option that allows public safety and firefighter service employees to participate in a phased retirement agreement of continuing to work on a ¾ time basis and receiving ¼ retirement allowance.

General

S.B. 217: State Retirement **Amendments**

This applies to compensated part-time appointed or elected board members of public agencies who met certain conditions and limitations: 1) allowing them to retire without terminating their service as a part-time appointed or elected board member of a participating employer; and 2) excluding them from certain postretirement reemployment restrictions. The legislation also imposes minimum age requirements on retirees who are not required to cease service before retiring.

H.B. 22: Retirement Systems Amendments

The annual administrative and technical amendments to Title 49 recommended to the Legislature by URS. The changes in this bill include: Allowing an employer to may make an elective retirement related contribution in an amount up to the normal cost rate for working retirees who were reemployed prior to July 1, 2010, in the URS defined contribution 457 plans; allowing payments from a URS defined contribution plan to be used to pay federally tax-advantaged health insurance premiums for eligible retired firefighters and public safety officers; and allowing, but not requiring, an employer to elect to make all of its exchange employees eligible for retirement participation.

Utah Retirement Systems

Defined Contribution Savings Plans Summary of Plan Provisions



Defined Contribution Savings Plans

Introduction

The 401(k), 457(b), 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(b) 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. Tier 2 Public Employees and Tier 2 Public Safety and Firefighter Retirement Systems participants may 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(b) 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 2020 to an annual maximum of \$19,500. Employer contributions and employee deferrals combined could not exceed the lesser of \$57,000 or 100% of compensation.

457(b) — Limited to an annual maximum of \$19,500 or 100% of includable compensation.

Roth and Traditional IRA — Limited to an annual maximum of \$6,000 into all IRAs owned by the participant.

Coordination of Deferrals

401(k) — Deferrals to the 401(k) and 403(b) plans must be coordinated.

457(b) — Contributions to the 457(b) 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 \$6,500 for participants 50 or older during the year.

457(b) — An additional \$6,500 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

Defined Benefit Contribution Savings Plans

Summary of Plan Provisions (Continued)

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, a qualified birth or adoption, or hardship caused by immediate and heavy financial needs. (Hardships and birth or adoption, from employee deferrals only.)

457(b) — Allowable upon termination of employment, age 591/2, retirement, death, a qualified birth or adoption, or severe unforeseeable financial emergencies.

Roth and Traditional IRA -

Allowable at any time, but with possible tax penalties if withdrawn prior to age 59½.

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(b) — 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(b) — Fully vested.

Roth and Traditional IRA — Fully vested.

Loans

401(k) and 457(b) — Available up to 50% of member account balance, to a maximum of \$50,000 during a 12month 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.

2020 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 short-term 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 cross-section 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.

Defined Benefit Contribution Savings Plans

Summary of Plan Provisions (Concluded)

Target Date Fund Asset Allocation

Asset Classes	Target Date 2065	Target Date 2060	Target Date 2055	Target Date 2050	Target Date 2045	Target Date 2040	Target Date 2035	Target Date 2030	Target Date 2025	Target Date 2020	Target Date 2015	Target Date Retired
URS Large Cap Stock Index Fund	42%	42%	42%	42%	42%	38%	35%	34%	30%	26%	24%	20%
URS International Stock Fund	35	35	35	35	35	33	28	21	15	10	7	6
URS Small Cap Stock Fund	11	11	11	11	10	9	8	6	4	2	1	1
Private Real Estate	6	6	6	6	6	8	10	10	10	8	5	4
URS Income Fund	_	_	_	_	_	_	_	_	6	8	10	11
URS Bond Fund	4	4	4	4	4	7	12	17	19	25	29	31
International Bonds	2	2	2	2	3	5	7	10	11	13	14	16
Global Inflation-Linked Bonds	_	_	_	_	_	_	_	2	5	8	10	11
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

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 increased diversification within the Target Date Funds and also added long-term inflation protection.

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.

*The Real Assets and International Bonds asset classes were exclusive to the URS Target Date Funds and are not available as a standalone 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.

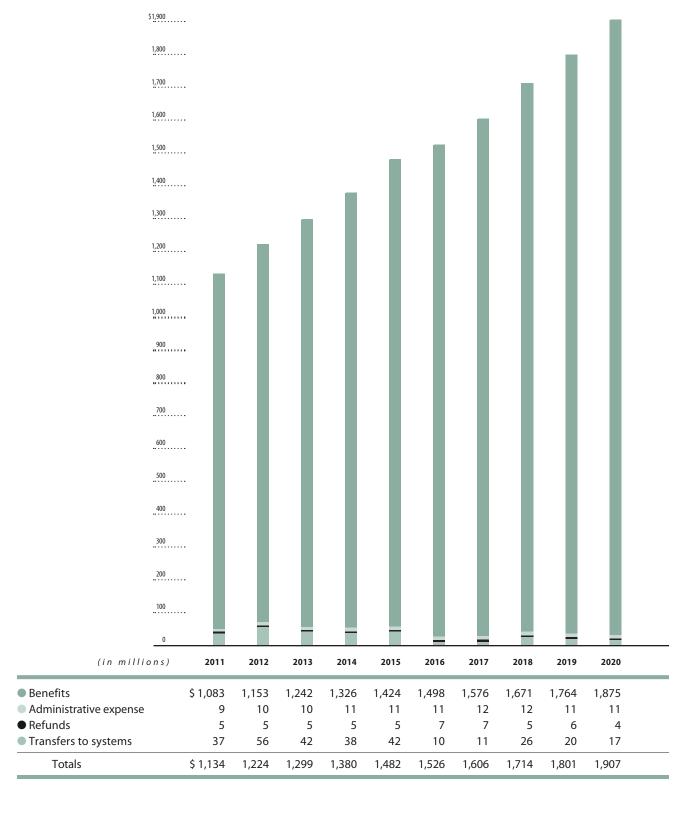
The Utah State Retirement Board adopted changes to the target date funds' asset allocations. The chart above represents the new allocations implemented during December 2020. The 2010 fund was mapped to the Target Date Retirement Fund and a new fund 2065 Target Date Fund was established.

The historical rates of returns for each investment fund are found on pages 159 and 160.

Utah Retirement Systems

Deductions by Type

(in millions)



Utah Retirement Systems

Statistical

2020 Annual Comprehensive Financial Report

206 Schedules of Changes in Fund Balance — Defined Benefit Systems

These schedules allow readers to view changes in net assets and benefits over a 10-year period

210 Schedules of Changes in Fund Balance — Defined Contribution Plans

These schedules allow readers to view changes in net assets and refunds over a 10-year period.

212 Schedules of Benefit Deductions by Type

These schedules provide readers with information regarding the type

/// of benefit deductions for the last 10 years.

214 Schedules of Retired Members by Type of Benefit Option

These schedules provide readers with information regarding the benefit option retired members chose

216 Schedules of Average Benefit Payments

These schedules provide readers with information regarding benefit payments by years of service.

220 Schedules of Active Members by Age and Gender

These schedules provide readers with information regarding members by age and gender

221 Schedules of Retirees by Age and Gender

These schedules provide readers with information regarding retirees by age and gender.

222 Schedules of Principal Participating Employers

These schedules provide readers with information regarding the largest participating employers

228 Schedule of Utah Retirement Office Employees

This schedule provides readers with information regarding the number of Utah Retirement Systems' employees.

228 Schedule of Participating Employers

This schedule provides readers with information regarding the participating employer: and the systems in which they participate.

235 Utah Retirement Systems — a Highlight History

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	(dollars ir	thousands)			Total Employer Contributions	Contributions		
System	Year	Beginning Net Position	Member Contributions	Employer Contributions	Court Fees/ Fire Insurance Tax	as a Percent of Covered Payroll	Net Investment Income	
Noncontributory	2011	\$15,802,205	12,879	610,270	_	15.65%	\$ 401,105	
Retirement	2012	15,935,472	15,014	644,907	_	16.99	2,000,995	
System	2013	17,629,437	14,208	710,933	_	19.18	2,588,981	
5,5 14	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	
	2018	25,205,127	14,602	858,444	_	25.77	(92,207)	
	2019	24,666,059	11,730	888,078	_	26.68	3,499,188	
	2020	27,635,923	16,385	912,525	_	27.60	3,430,989	
Contributory	2011	\$ 1,007,248	7,300	11,125	_	10.10%	\$ 26,009	
Retirement	2012	1,013,050	6,962	11,705	_	11.36	131,169	
System	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	
	2018	1,283,466	2,455	6,027	_	15.34	(4,513)	
	2019	1,172,429	1,950	5,433	_	15.83	163,935	
	2020	1,262,292	1,728	4,759	_	15.48	154,367	_
Public Safety	2011	\$ 2,058,019	1,070	110,829	_	29.61%	\$ 52,655	
Retirement	2012	2,103,751	1,155	117,975	_	32.19	266,753	
System	2013	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	
	2018	3,576,517	895	147,101	_	42.21	(13,134)	
	2019	3,528,069	856	150,467	_	44.29	502,657	
	2020	3,984,186	557	150,512		44.41	496,725	
Firefighters	2011	\$ 756,260	17,328	316	12,689	11.74%	\$ 19,218	
Retirement	2012	765,524	17,503	1,264	16,057	15.66	96,255	
System	2013	853,778	18,325	3,494	11,285	13.35	125,685	
	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	
	2018	1,234,407	18,305	7,021	8,747	13.88	(4,509)	
	2019	1,207,889	18,701	7,443	41,859	43.50	174,141	
	2020	1,391,553	18,729	7,490	20,279	24.26	173,818	
Judges	2011	\$ 123,037	_	3,588	1,815	36.22%	\$ 3,114	
Retirement	2012	123,235	_	4,232	1,666	39.62	15,485	
System	2013	136,127	_	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	
	2018	198,483	_	8,091	1,518	51.11	(730)	
	2019	195,570	_	8,500	1,536	51.21	27,775	
	2020	220,293	_	8,646	1,410	50.10	27,391	

Transfers from Systems	Total Additions	Benefit Payments	Refunds	Administrative & Actuarial Expense	Transfers to Systems	Total Deductions	Changes in Net Position	Ending Net Position
5,5145				<u> </u>	<u> </u>			
_	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	_	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
_	2,631,850	1,184,317	4,366	8,856	8,005	1,205,544	1,426,306	22,618,743
_	3,858,822	1,248,037	4,635	9,579	10,187	1,272,438	2,586,384	25,205,127
13,035	793,874	1,320,214	2,766	9,962	_	1,332,942	(539,068)	24,666,059
_	4,398,996	1,396,983	3,127	9,411	19,611	1,429,132	2,969,864	27,635,923
_	4,359,899	1,488,627	2,338	9,805	16,980	1,517,750	2,842,149	30,478,072
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
_	3,969	86,795	1,471	454	26,286	115,006	(111,037)	1,172,429
9,775	181,093	88,162	2,660	408	· —	91,230	89,863	1,262,292
4,542	165,396	89,890	1,753	406	_	92,049	73,347	1,335,639
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
6,982	141,844	188,414	428	1,450	_	190,292	(48,448)	3,528,069
5,512	659,492	201,923	76	1,376	_	203,375	456,117	3,984,186
7,364	655,158	215,289	96	1,442	_	216,827	438,331	4,422,517
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
1,917	31,481	57,440	132	427	_	57,999	(26,518)	1,207,889
2,027	244,171	59,847	255	405	_	60,507	183,664	1,391,553
2,751	223,067	62,842	159	425	_	63,426	159,641	1,551,194
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
4,403	13,282	16,111	_	84	_	16,195	(2,913)	195,570
2,339	40,150	15,346	_	81	_	15,427	24,723	220,293
2,340	39,787	15,863	_	84	_	15,947	23,840	244,133
							Continu	d on mass 200

Continued on page 208.

Schedules of Changes in Net Position — Defined Benefit Systems (Concluded)

Year Ended December 31

(dollars in thousands)

	(4 5 7 7 4		n enousun		Total Employer Contributions Court Fees/			Net	
System	Year		Beginning Net Position	Member Contributions	Employer Contributions	Fire Insurance Tax	as a Percent of Covered Payroll	Investment Income	
Utah Governors	2011	\$	9,337	_	153	_	26.94%	\$ 231	
and Legislators	2012		8,933	_	214	_	46.22	1,100	
Retirement Plan	2013		9,445	_	252	_	64.62	1,346	
	2014		10,166	_	411	_	44.29	717	
	2015		10,366	_	421	_	44.50	181	
	2016		10,039	_	421	_	52.69	849	
	2017		10,352	_	404	_	55.96	1,353	
	2018		11,220	_	392	_	61.35	(41)	
	2019		10,537	_	384	_	60.09	1,481	
	2020		11,344	_	369	_	48.75	1,396	
Tier 2	2011	\$	_	_	2,790	_	7.58%	\$ 9	
Public Employees	2012		2,799	_	14,208	_	6.97	922	
Contributory	2013		17,933	_	25,743	_	7.29	4,017	
Retirement	2014		47,690	_	37,299	_	7.57	4,320	
System	2015		89,291	_	49,645	_	7.64	1,963	
-, -, -, -, -, -, -, -, -, -, -, -, -, -	2016		140,539	_	63,062	_	7.67	14,059	
	2017		217,293	_	79,175	_	7.94	33,249	
	2018		329,218	_	97,680	_	8.34	(1,454)	
	2019		424,633	_	119,839	_	8.68	68,228	
	2020		611,583		138,466		8.61	84,040	
Tier 2	2011	\$	_	_	89	_	10.41%	\$ _	
Public Safety	2012		89	_	1,031	_	10.07	56	
and Firefighter	2013		1,171	_	2,451	_	12.12	316	
Contributory	2014		3,935	_	4,365	_	12.46	404	
Retirement	2015		8,705	_	6,221	_	10.38	199	
System	2016		15,089	_	8,488	_	11.34	1,591	
•	2017		25,135	_	11,126	_	11.34	3,989	
	2018		40,180	55	14,295	_	11.58	(180)	
	2019		54,336		18,197	_	11.61	8,958	
	2020		81,381	2,343	25,020		13.26	11,645	
All Retirement	2011		9,756,106	38,577	739,160	14,504	16.57%	\$ 502,341	
Systems	2012		9,952,853	40,634	795,536	17,723	17.66	2,512,735	
	2013		22,150,599	40,167	889,481	12,783	19.32	3,260,548	
	2014		25,096,072	38,500	974,178	15,640	21.16	1,786,431	
	2015		26,569,124	40,871	1,035,724	18,871	22.37	461,772	
	2016		26,686,840	39,287	1,073,225	12,039	22.19	2,248,696	
	2017		28,544,316	39,213	1,112,998	2,700	22.32	3,773,910	
	2018		31,878,618	36,312	1,139,051	10,265	22.33	(116,768)	
	2019		31,259,522	33,237	1,198,341	43,395	23.11	4,446,363	
	2020	3	35,198,555	39,742	1,247,787	21,689	22.63	4,380,371	

Transfers from Systems	Total Additions	Benefit Payments	Ad Refunds	lministrative & Actuarial Expense	Transfers to Systems	Total Deductions	Changes in Net Position	Ending Net Position
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
_	351	978	_	5	51	1,034	(683)	10,537
_	1,865	1,012	_	4	42	1,058	807	11,344
_	1,765	1,023	10	4	17	1,054	711	12,055
_	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
_	96,226	692	_	119	_	811	95,415	424,633
_	188,067	965	_	152	_	1,117	186,950	611,583
_	222,506	1,397	_	207	_	1,604	220,902	832,485
_	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
_	14,170	_	_	14	_	14	14,156	54,336
_	27,155	90	_	20	_	110	27,045	81,381
	39,008	76		29		105	38,903	120,284
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
26,337	1,095,197	1,670,644	4,797	12,515	26,337	1,714,293	(619,096)	31,259,522
19,653	5,740,989	1,764,328	6,118	11,857	19,653	1,801,956	3,939,033	35,198,555
16,997	5,706,586	1,875,007	4,356	12,402	16,997	1,908,762	3,797,824	38,996,379

Schedules of Changes in Net Position — Defined Contribution Plans

Year Ended December 31

(in thousands)

	(in thousands)					
System	Year	Beginning Net Position	Contributions	Net Investment Income / (Loss)	Total Additions	
401(k) Plan	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	\$ 2,886,677 2,881,007 3,212,874 3,746,281 3,956,751 3,980,405 4,338,973 5,002,908 4,834,083 5,722,840	210,592 218,888 230,086 255,044 271,097 290,632 295,804 317,548 324,333 358,220	(14,864) 313,374 532,216 213,230 10,658 332,672 630,516 (202,398) 892,949 870,766	195,728 532,262 762,302 468,274 281,755 623,304 926,320 115,150 1,217,282 1,228,986	
457(b) Plan	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	\$ 316,874 321,356 360,381 424,568 450,974 454,357 494,419 569,390 544,157 645,453	26,441 24,501 25,696 26,711 26,968 27,326 31,475 32,589 34,919 36,554	(2,422) 35,065 60,421 23,342 259 39,252 72,210 (24,212) 101,538 101,250	24,019 59,566 86,117 50,053 27,227 66,578 103,685 8,377 136,457 137,804	
Roth IRA Plan	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	\$ 20,571 24,400 33,750 47,763 58,842 69,714 89,165 119,297 131,791 180,338	6,619 7,685 9,113 11,664 14,073 16,585 19,669 25,280 28,682 34,833	(508) 3,256 6,870 2,816 (308) 7,200 15,389 (7,353) 27,655 32,668	6,111 10,941 15,983 14,480 13,765 23,785 35,058 17,927 56,337 67,501	
Traditional IRA Plan	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	\$ 26,251 30,013 38,595 49,852 59,822 68,986 81,533 102,409 119,905 164,427	7,346 9,799 11,213 14,930 17,206 16,182 20,593 30,108 40,674 16,598	(55) 2,811 5,050 2,645 211 4,825 9,465 (2,287) 17,942 21,450	7,291 12,610 16,263 17,575 17,417 21,007 30,058 27,821 58,616 38,048	
HRA Plan*	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	\$ 6,275 9,113 11,469 16,184 19,880 23,274 — —	4,264 4,092 6,750 6,393 6,318 6,796 — —	17 22 30 24 35 36 — —	4,281 4,114 6,780 6,417 6,353 6,832 — — —	
All Defined Contribution Plans	2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	\$ 3,256,648 3,265,889 3,657,069 4,284,648 4,546,269 4,596,736 5,004,090 5,794,004 5,629,936 6,713,058	255,262 264,965 282,858 314,742 335,662 357,521 367,541 405,525 428,608 446,205	(17,832) 354,528 604,587 242,058 10,857 383,985 727,580 (236,250) 1,040,084 1,026,134	237,430 619,493 887,445 556,800 346,519 741,506 1,095,121 169,275 1,468,692 1,472,339	

Refunds	Administrative	Total	Changes in	Ending
	Expenses	Deductions	Net Position	Net Position
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
276,023	7,952	283,975	(168,825)	4,834,083
321,069	7,456	328,525	888,757	5,722,840
305,565	7,112	312,686	916,300	6,639,149
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
32,708	901	33,609	(25,233)	544,157
34,328	833	35,161	101,296	645,453
31,259	778	32,039	105,765	751,220
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
5,230	206	5,436	12,494	131,791
7,569	221	7,790	48,547	180,338
8,803	238	9,038	58,463	238,798
3,469	60	3,529	3,762	30,013
3,967	61	4,028	8,582	38,595
4,940	66	5,006	11,257	49,852
7,514	91	7,605	9,970	59,822
8,148	105	8,253	9,164	68,986
8,332	128	8,460	12,547	81,533
9,035	147	9,182	20,876	102,409
10,156	169	10,325	17,496	119,905
13,893	201	14,094	44,522	164,427
13,424	234	13,655	24,393	188,817
1,426 1,736 2,041 2,690 2,924 30,075	17 22 24 31 35 31	1,443 1,758 2,065 2,721 2,959 30,106	2,838 2,356 4,715 3,696 3,394 (23,274)	9,113 11,469 16,184 19,880 23,274
		_	=	=
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
324,117	9,228	333,345	(164,068)	5,629,936
376,859	8,711	385,570	1,083,122	6,713,058
359,051	8,362	367,418	1,104,921	7,817,984

Schedules of Benefit Deductions by Type

	(in tho	usands)				
System	Year	Service and Disability Benefits	Cost-of- Living Benefits	Supplemental Benefits	Total Benefits	
Noncontributory	2011	\$ 709,359	134,337	_	843,696	
Retirement	2012	753,155	146,978		900,133	
System	2013	812,550	162,134	_	974,684	
	2014	871,999	171,799	_	1,043,798	
	2015	943,591	180,056	_	1,123,647	
	2016	1,001,451	182,866	_	1,184,317	
	2017	1,063,894	184,143	_	1,248,037	
	2018	1,125,160	195,054	_	1,320,214	
	2019	1,184,852	212,131	_	1,396,983	
	2020	1,260,170	228,457	_	1,488,627	
Contributory	2011	\$ 52,933	15,160	282	68,375	
Retirement	2012	55,884	14,746	225	70,855	
System	2013	59,203	14,778	177	74,158	
	2014	62,560	14,328	127	77,015	
	2015	67,510	13,785	95	81,390	
	2016	70,137	13,232	78	83,447	
	2017	72,073	12,624	64	84,761	
	2018	74,106	12,638	51	86,795	
	2019	75,044	13,083	35	88,162	
	2020	76,228	13,638	24	89,890	
Public Safety	2011	\$ 99,685	20,482	403	120,570	
Retirement	2012	105,780	22,372	380	128,532	
System	2013	112,470	24,662	354	137,486	
	2014	118,030	26,407	326	144,763	
	2015	127,285	27,807	295	155,387	
	2016	135,697	28,547	264	164,508	
	2017	143,774	28,854	242	172,870	
	2018	157,682	30,517	215	188,414	
	2019	168,702	33,026	195	201,923	
	2020	179,491	35,627	171	215,289	
Firefighters	2011	\$ 32,716	8,313	377	41,406	
Retirement	2012	34,445	8,871	344	43,660	
System	2013	34,951	9,485	311	44,747	
	2014	37,597	9,844	269	47,710	
	2015	39,340	10,095	236	49,671	
	2016	41,687	10,195	220	52,102	
	2017	44,331	10,258	204	54,793	
	2018	46,547	10,700	193	57,440	
	2019	48,331	11,350	166	59,847	
	2020	50,671	12,023	148	62,842	

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	2011	\$ 6,974	1,675	_	8,649
Retirement	2012	7,364	1,771	_	9,135
System	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
	2018	13,805	2,306	_	16,111
	2019	12,850	2,496	_	15,346
	2020	13,174	2,689	_	15,863
Utah Governors	2011	\$ 639	162	_	801
and Legislators	2012	647	168	_	815
Retirement Plan	2013	718	174	_	892
	2014	734	175	_	909
	2015	731	173	_	904
	2016	773	168	_	941
	2017	808	165	_	973
	2018	814	164	_	978
	2019	848	164	_	1,012
	2020	857	166		1,023
Tier 2	2011	_	_	_	_
Public Employees	2012	_	_	_	_
Contributory	2013	_	_	_	_
Retirement	2014	_	_	_	_
System	2015	\$ 333	_	_	333
	2016	316	_	_	316
	2017	417	_	_	417
	2018	691	1	_	692
	2019	962	3	_	965
	2020	1,389	8		1,397
Tier 2	2011	_	_	_	_
Public Safety	2012	_		_	_
and Firefighter	2013	_		_	_
Contributory	2014	. —	_	_	_
Retirement	2015	\$ 30	_	_	30
System	2016	28		_	28
	2017	61	_	_	61
	2018	_	_	_	_
	2019	90	_	_	90
	2020	76	_	_	76

Schedules of Retired Members by Type of Benefit Option

Year Ended December 31, 2020

	Amount of	Number of Retirees by Benef								it Option
System	Monthly Benefit	1	2	3	4	5	6	7	8	9
Noncontributory	\$ 1-1,000	10,891	598	3,899	422	3,806	910	_	_	_
Retirement	1,001-2,000	5,595	668	2,733	469	3,448	1,099	_	_	_
System	2,001-3,000	3,496	690	2,427	309	3,151	866	_	_	_
	3,001-4,000	2,743	717	2,185	251	2,617	679	_	_	_
	4,001-5,000	1,156	306	1,111	148	935	263	_	_	_
	Over 5,000	597	150	892	101	526	172	_	_	_
Contributory	\$ 1-1,000	391	185	182	30	214	78	_	_	_
Retirement	1,001-2,000	274	159	215	30	213	53	_	_	_
System	2,001-3,000	206	163	198	28	222	45	_	_	_
•	3,001-4,000	126	92	94	17	133	26	_	_	_
	4,001-5,000	47	35	48	8	40	20	_	_	_
	Over 5,000	23	21	41	4	10	8	_	_	_
Public Safety	\$ 1-1,000	_	_	2	_	_	_	_	538	153
Retirement	1,001-2,000	_	_	2	_	_	_	_	895	306
System	2,001-3,000	_	_	2	_	_	_	_	1,661	894
	3,001-4,000	_	_	_	_	_	_	_	789	429
	4,001-5,000	_	_	_	_	_	_	_	336	186
	Over 5,000	_	_	_	_	_	_	_	216	142
Firefighters	\$ 1-1,000	_	_	_	_	_	_	_	_	56
Retirement	1,001-2,000	_	_	1	_	_	_	_	_	201
System	2,001-3,000	_	_	_	_	_	_	_	_	417
	3,001-4,000	_	_	_	_	_	_	_	_	429
	4,001-5,000	_	_	_	_	_	_	_	_	262
	Over 5,000	_	_	_	_	_	_	_	_	177

- 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- Refund of reserves for members whose monthly benefit would be \$25 or less.
- 8- 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.
- 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 retiree's death.

Schedules of Retired Members by Type of Benefit Option (Concluded)

Year Ended December 31, 2020

	Amount of						Nu	ımber of Retii	rees 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	_	_	_	_	_	_	_	3	1
System	2,001-3,000	_	_	_	_	_	_	_	3	1
	3,001-4,000	_	_	_	_	_	_	_	5	1
	4,001-5,000	_	_	_	_	_	_	_	3	3
	Over 5,000	_	_	_	_	_	_	_	66	69
Utah	\$ 1-1,000	_	_	3	239	_	_	_	_	_
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	100	_	47	2	38	5	_	_	_
Employees	1,001-2,000	1	_	_	_	_	_	_	_	_
Retirement	2,001-3,000	_	_	_	_	_	_	_	_	_
System	3,001-4,000	_	_	_	_	_	_	_	_	_
	4,001-5,000	_	_	_	_	_	_	_	_	_
	Over 5,000	_	_	_	_	_	_		_	_
Tier 2 Public	\$ 1-1,000	1	_	1	_	_	_	_	1	_
Public Safety	1,001-2,000	_	_	_	_	_	_	_	1	_
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.

Schedules of Average Benefit Payments

						Υ	ears of Credit	ed Service
System			4-10	11-15	16-20	21-25	26-30	31+
Noncontributory	2015	Average Monthly Benefit	\$ 376	811	1,294	1,742	2,692	3,736
Retirement		Monthly Final Average Salary	\$ 2,587	3,275	3,675	4,148	4,907	5,530
System		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
	2018	Average Monthly Benefit	\$ 399	851	1,321	1,829	2,728	3,738
		Monthly Final Average Salary	\$ 2,674	3,567	3,919	4,428	5,148	5,862
		Number of Active Retired	759	447	485	490	734	530
	2019	Average Monthly Benefit	\$ 391	985	1,470	1,929	2,891	3,965
		Monthly Final Average Salary	\$ 2,549	3,715	4,254	4,575	5,430	6,137
		Number of Active Retired	654	453	466	477	645	542
	2020	Average Monthly Benefit	\$ 379	977	1,527	1,983	3,085	4,278
		Monthly Final Average Salary	\$ 2,534	3,787	4,494	4,669	5,522	6,451
		Number of Active Retired	616	454	490	488	768	675
	2015	Average Monthly Benefit	\$ 482	699	1,208	1,612	2,311	3,297
Contributory		Monthly Final Average Salary	\$ 3,043	3,010	3,801	3,855	4,228	4,801
Retirement		Number of Active Retired	5	9	6	11	71	85
System	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
	2018	Average Monthly Benefit	\$ 270	424	1,348	2,280	3,263	3,097
		Monthly Final Average Salary	\$ 2,267	1,942	4,049	5,001	5,459	4,924
		Number of Active Retired	7	4	4	3	6	86
	2019	Average Monthly Benefit	\$ 449	535	1,007	673	4,085	4,160
		Monthly Final Average Salary	\$ 1,946	1,674	3,227	1,529	4,578	5,672
		Number of Active Retired	5	5	3	2	6	60
	2020	Average Monthly Benefit	\$ 585	763	1,366	1,295	2,514	4,169
		Monthly Final Average Salary	\$ 2,795	3,018	3,282	3,006	4,919	6,023
		Number of Active Retired	4	10	6	2	3	55

Schedules of Average Benefit Payments (Continued)

December 31

						Y	ears of Credit	ed Service
System			4-10	11-15	16-20	21-25	26-30	31+
Public Safety	2015	Average Monthly Benefit	\$ 586	2,070	2,358	2,768	3,683	3,900
Retirement		Monthly Final Average Salary	\$ 2,796	4,799	4,557	4,919	5,368	5,373
System		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
	2018	Average Monthly Benefit	\$ 602	1,537	2,541	3,043	3,708	5,255
		Monthly Final Average Salary	\$ 3,075	4,251	5,241	5,706	5,983	6,971
		Number of Active Retired	14	18	143	114	56	27
	2019	Average Monthly Benefit	\$ 663	1,350	2,465	3,324	4,186	7,074
		Monthly Final Average Salary	\$ 2,860	4,155	5,112	6,003	6,084	6,868
		Number of Active Retired	16	16	124	105	44	20
	2020	Average Monthly Benefit	\$ 510	1,297	2,705	3,338	3,889	5,351
		Monthly Final Average Salary	\$ 3,170	3,487	5,302	5,725	6,379	6,397
		Number of Active Retired	14	10	130	91	58	28
	2015	Average Monthly Benefit	\$ 807	1,697	2,407	2,635	5,034	4,238
Firefighters		Monthly Final Average Salary	\$ 1,239	4,780	4,870	5,025	6,771	5,484
Retirement		Number of Active Retired	6	2	12	10	11	14
System	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
	2018	Average Monthly Benefit	\$ 1,590	4,064	2,863	4,009	3,890	5,815
		Monthly Final Average Salary	\$ 3,871	5,786	5,662	7,341	6,982	7,755
		Number of Active Retired	2	2	24	14	12	7
	2019	Average Monthly Benefit	\$ 2,142	2,458	3,003	4,144	5,011	4,949
		Monthly Final Average Salary	\$ 4,283	6,603	6,692	6,436	7,211	7,471
		Number of Active Retired	1	2	16	21	9	9
	2020	Average Monthly Benefit	\$ 1,125	1,450	3,549	4,588	4,228	4,302
		Monthly Final Average Salary	\$ 4,832	6,107	6,434	6,531	7,234	7,526
		Number of Active Retired	2	3	17	16	19	4

Continued on page 218.

Schedules of Average Benefit Payments (Continued)

December 31

						Y	ears of Credi	ed Service
System			4-10	11-15	16-20	21-25	26-30	31-
Judges	2015	Average Monthly Benefit	\$ 3,747	4,162	7,807	_	8,884	12,033
Retirement		Monthly Final Average Salary	\$ 9,556	7,570	11,635	_	11,252	11,690
System		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
	2018	Average Monthly Benefit	\$ _	_	7,697	8,980	_	12,221
		Monthly Final Average Salary	\$ _	_	13,233	13,429	_	13,287
		Number of Active Retired	_	_	2	2	_	6
	2019	Average Monthly Benefit	\$ _	_	_	8,853	_	11,407
		Monthly Final Average Salary	\$ _	_	_	13,553	_	13,719
		Number of Active Retired	_	_	_	1	_	2
	2020	Average Monthly Benefit	\$ _	8,611	10,108	9,372	_	13,241
		Monthly Final Average Salary	\$ _	13,888	14,115	14,069	_	13,935
		Number of Active Retired	_	1	1	2	_	1
Utah Governors	2015	Average Monthly Benefit	\$ 223	347	319	_	_	_
and Legislators		Monthly Final Average Salary	\$ _	_	_	_	_	_
Retirement		Number of Active Retired	7	4	1	_	_	_
Plan	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
	2018	Average Monthly Benefit	\$ 263	311	_	734	_	
		Monthly Final Average Salary	\$ _	_	_	_	_	_
		Number of Active Retired	5	1	_	1	_	_
	2019	Average Monthly Benefit	\$ 232	377	546	_	_	_
		Monthly Final Average Salary	\$ _	_	_	_	_	_
		Number of Active Retired	5	4	1	_	_	_
	2020	Average Monthly Benefit	\$ 204	505	_	_	771	
		Monthly Final Average Salary	\$ _	_	_	_	_	_
		Number of Active Retired	8	1	_	_	1	_

Schedules of Average Benefit Payments (Continued)

						Ye	ars of Credited	Service
System			4-10	11-15	16-20	21-25	26-30	31-
Tier 2	2015	Average Monthly Benefit	\$ 72	_	_	_	_	_
Public Employees		Monthly Final Average Salary	\$ 1,479	_	_	_	_	_
Contributory		Number of Active Retired	1	_	_	_	_	_
Retirement System	2016	Average Monthly Benefit	\$ 138	_	_	_	_	
Jysteili		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	_	_	_	_	_
	2018	Average Monthly Benefit	\$ 240	_	_	_	_	_
		Monthly Final Average Salary	\$ 2,829	_	_	_	_	_
		Number of Active Retired	38	_	_	_	_	_
	2019	Average Monthly Benefit	\$ 259	_	_	_	_	_
		Monthly Final Average Salary	\$ 3,075	_	_	_	_	_
		Number of Active Retired	47	_	_	_	_	_
	2020	Average Monthly Benefit	\$ 276	_	_	_	_	
		Monthly Final Average Salary	\$ 3,069	_	_	_	_	_
		Number of Active Retired	71	_	_	_	_	_
Tier 2	2015	Average Monthly Benefit	\$ —				_	
Public Safety		Monthly Final Average Salary	\$ —	_	_	_	_	_
and Firefighter		Number of Active Retired	_	_	_	_	_	_
Contributory Retirement	2016	Average Monthly Benefit	\$ —	_	_	_	_	
System		Monthly Final Average Salary	\$ —	_	_	_	_	_
Jysteili		Number of Active Retired	_	_	_	_	_	_
	2017	Average Monthly Benefit	\$ —	_	_	_	_	
		Monthly Final Average Salary	\$ —	_	_	_	_	_
		Number of Active Retired	_	_	_	_	_	_
	2018	Average Monthly Benefit	\$ —	_	_	_	_	
		Monthly Final Average Salary	\$ —	_	_	_	_	_
		Number of Active Retired	_	_	_	_	_	_
	2019	Average Monthly Benefit	\$ 1,041	_	_	_	_	
		Monthly Final Average Salary	\$ 3,075	_	_	_	_	_
		Number of Active Retired	47	_	_	_	_	_
	2020	Average Monthly Benefit	\$ 576	_	_	_	_	
		Monthly Final Average Salary	\$ 4,550	_	_	_	_	_
		Number of Active Retired	3	_	_	_	_	_

Schedules of Active Members by Age and Gender

System	Ages	Male	Female	Total	System	Ages	Male	Female	Total
Noncontributory	Under 20	_	_		Utah Governors	Under 20	_	_	_
Retirement	20 to 29	32	25	57	and Legislators	20 to 29	_	_	_
System	30 to 39	2,504	3,994	6,498	Retirement Plan	30 to 39	_	1	1
-,	40 to 49	6,638	9,996	16,634		40 to 49	5	3	8
	50 to 54	3,296	5,525	8,821		50 to 54	6	2	8
	55 to 59	3,070	5,719	8,789		55 to 59	5	_	5
	60 to 69	3,274	6,411	9,685		60 to 69	11	2	13
	70 and Older	291	386	9,063 677		70 and Older	6	_	6
	70 and Older	291	300	0//		70 and Older	0		
	Total	19,105	32,056	51,161		Total	33	8	41
Contributory	Under 20	_	_	_	Tier 2	Under 20	118	109	227
Retirement	20 to 29	1	_	1	Public Employees	20 to 29	3,391	6,569	9,960
System	30 to 39	4	8	12	Contributory	30 to 39	4,924	6,442	11,366
•	40 to 49	7	15	22	Retirement	40 to 49	2,623	5,431	8,054
	50 to 54	13	21	34	System	50 to 54	808	1,818	2,626
	55 to 59	43	62	105	•	55 to 59	674	1,178	1,852
	60 to 69	95	89	184		60 to 69	805	837	1,642
	70 and Older	7	14	21		70 and Older	126	42	168
	Total	170	209	379		Total	13,469	22,426	35,895
	Total	170	207			Total	13,103	22,120	33,033
Public Safety	Under 20	_	_	_	Tier 2	Under 20	4	3	7
Retirement	20 to 29	2	1	3	Public Safety	20 to 29	1,727	264	1,991
System	30 to 39	1,068	129	1,197	and Firefighter	30 to 39	1,639	185	1,824
	40 to 49	2,049	238	2,287	Contributory	40 to 49	341	60	401
	50 to 54	510	79	589	Retirement	50 to 54	39	7	46
	55 to 59	279	49	328	System	55 to 59	21	4	25
	60 to 69	159	30	189	•	60 to 69	7	_	7
	70 and Older	3	_	3		70 and Older	_	_	_
	Total	4,070	526	4,596		Total	3,778	523	4,301
Firefighters	Under 20	_	_		Tier 2	Under 20	6	3	9
Retirement	20 to 29	4	_	4	Public Employees	20 to 29	583	1,472	2,055
System	30 to 39	275	9	284	DC Only Plan	30 to 39	1,279	1,614	2,893
,	40 to 49	742	17	759	2 C, 1 Iu	40 to 49	633	1,224	1,857
	50 to 54	196	8	204		50 to 54	189	432	621
	55 to 59	121	1	122		55 to 59	153	281	434
	60 to 69	52	1	53		60 to 69	195	236	431
	70 and Older	1		1		70 and Older	40	12	52
	Total	1,391	36	1,427		Total	3,078	5,274	8,352
	10101	1,351		1,127		Total	3,070	3,2,1	0,552
Judges	Under 20	_	_	_	Tier 2	Under 20	_	_	_
Retirement	20 to 29	_	_	_	Public Safety	20 to 29	189	33	222
System	30 to 39	_	1	1	and Firefighter	30 to 39	232	24	256
•	40 to 49	20	10	30	DC Only Plan	40 to 49	76	9	85
	50 to 54	16	14	30	•	50 to 54	11	3	14
	55 to 59	16	5	21		55 to 59	8	2	10
	60 to 69	28	4	32		60 to 69	3	_	3
	70 and Older	5		5		70 and Older	_	_	_
	Total	85	34	119		Total	519	71	590
	Total		J F	117		Total	J.J	, 1	370

Schedules of Retirees by Age and Gender

Year Ended December 31, 2020

System	Ages	Male	Female	Total	System	Ages	Male	Female	Total
Noncontributory	Under 55	167	262	429	Judges	Under 55	_	1	1
Retirement	55 to 59	602	898	1,500	Retirement	55 to 59	_	1	1
System	60 to 64	1,903	3,576	5,479	System	60 to 64	4	5	9
•	65 to 69	4,677	9,975	14,652	•	65 to 69	24	10	34
	70 to 74	5,279	10,486	15,765		70 to 74	25	8	33
	75 to 79	3,845	6,895	10,740		75 to 79	24	10	34
	80 to 84	2,424	4,391	6,815		80 to 84	9	4	13
	85 to 89	1,443	2,513	3,956		85 to 89	8	8	16
	90 to 94	518	947	1,465		90 to 94	5	7	12
	95 to 100	63	160	223		95 to 100	1	1	2
	Over 100	_	2	2		Over 100	_	_	_
	Total	20,921	40,105	61,026		Total	100	55	155
Contributory	Under 55	10	11	21	Utah Governors	Under 55	_	1	1
Retirement	55 to 59	70	65	135	and Legislators	55 to 59	1	_	1
System	60 to 64	187	222	409	Retirement Plan	60 to 64	1	4	5
-,	65 to 69	324	412	736		65 to 69	30	8	38
	70 to 74	308	464	772		70 to 74	41	18	59
	75 to 79	181	383	564		75 to 79	19	15	34
	80 to 84	124	278	402		80 to 84	29	13	42
	85 to 89	59	199	258		85 to 89	21	19	40
	90 to 94	57	172	229		90 to 94	5	16	21
	95 to 100	24	115	139		95 to 100	5	2	7
	Over 100	3	11	4		Over 100	_	1	1
	Total	1,347	2,332	3,679		Total	152	97	249
Public Safety	Under 55	1,067	305	1,372	Tier 2	Under 55	_	_	
Retirement	55 to 59	598	174	772	Public Employees	55 to 59	_	_	_
System	60 to 64	664	127	891	Contributory	60 to 64	_	_	_
•	65 to 69	846	270	1,116	Retirement	65 to 69	72	65	139
	70 to 74	822	249	1,071	System	70 to 74	26	9	35
	75 to 79	458	189	647	•	75 to 79	11	4	15
	80 to 84	241	142	383		80 to 84	1	2	3
	85 to 89	118	103	221		85 to 89	_	_	_
	90 to 94	31	36	67		90 to 94	_	1	1
	95 to 100	3	8	11		95 to 100	_	_	_
	Over 100	_	_	_		Over 100	_	_	_
	Total	4,848	1,703	6,551		Total	110	83	193
Firefighters	Under 55	185	48	233	Tier 2	Under 55	_	2	2
Retirement	55 to 59	103	37	140	Public Safety	55 to 59	_	_	_
System	60 to 64	176	40	216	and Firefighter	60 to 64	_	_	_
•	65 to 69	248	43	291	Contributory	65 to 69	2	_	2
	70 to 74	224	51	275	Retirement	70 to 74	_	_	_
	75 to 79	146	40	186	System	75 to 79	_	_	_
	80 to 84	78	35	113		80 to 84	_	_	_
	85 to 89	25	28	53		85 to 89	_	_	_
	90 to 94	11	23	34		90 to 94	_	_	_
	95 to 100		2	2		95 to 100	_	_	_
	Over 100	_	_	_		Over 100	_	_	_
	Total	1,196	347	1,543		Total	2	2	4

Schedules of Principal Participating Employers

Year Ended December 31

			2020			2019			2018			2017
			Percent of Total			Percent of Total			Percent of Total			Percent of Total
System/ Employer	Active Members		Active Member	Active Members	Rank	Active Member	Active Members	Rank	Active Members	Active Members	Rank	Active Members
Noncontributory Retirement System												
State of Utah	8,690	1	16.99%	9,009	1	16.96%	9,587	1	17.03%	10,277	1	17.25%
Davis School District	3,131	2	6.12	3,255	2	6.13	3,453	2	6.13	3,668	2	6.16
Alpine School District	3,112	3	6.08	3,064	4	5.77	3,155	4	5.60	3,305	4	5.55
Granite School District	2,967	4	5.80	3,083	3	5.80	3,283	3	5.83	3,460	3	5.81
Jordan School District	2,124	5	4.15	2,158	5	4.06	2,243	5	3.98	2,329	5	3.91
Weber County School District	1,728	6	3.38	1,809	6	3.40	1,891	6	3.36	2,006	6	3.37
Salt Lake County	1,628	7	3.18	1,741	7	3.28	1,842	7	3.27	1,962	7	3.29
Nebo School District	1,512		2.96	1,502	8	2.83	1,546	8	2.75	1,614	9	2.71
Washington School District	1,404	9	2.74	.,5 0 _	_		.,5 .0	_			_	
Salt Lake School District	1,329	10	2.60	1,394	10	2.62	1,479	10	2.63	_	_	_
Canyons School District	1,525	_	2.00	1,395	9	2.63	1,777	_	2.05	1,588	10	2.67
Jniversity of Utah	_	_	_	رور،	_	2.03	1,518	9	2.70	1,620	8	2.72
Other	23,536	_	46.00	24,724	_	— 46.53	26,302	J	46.72	27,749	O	46.58
701CI	۷۵,۵۵٥		40.00	24,724		1 0.33	20,302		40.72	27,749		-10.30
Total Noncontributory System												
active members	51,161		100.00%	53,134		100.00%	56,299		100.00%	59,578		100.00%
ontributory Retirement System												
ODI Vantage	52	1	13.72%	58	2	12.89%	61	2	11.75%	65	2	10.47%
tate of Utah	48	2	12.66	60	1	13.33	76	1	14.64	101	1	16.26
alt Lake City Corp.	21	3	5.54		5	5.33	27	6	5.20		3	5.80
				24						36		
alt Lake County	18	4	4.75	19	7	4.22	21	7	4.05	23	7	3.70
ranite School District	17	5	4.49	21	6	4.67	28	5	5.39	34	5	5.48
uchesne County	13	6	3.43	13	8	2.89	15	9	2.89	16	10	2.58
alt Lake School District	12	7	3.17	12	9	2.67	_	_	_	17	9	2.74
mery Co Care & Rehab Center	11	8	2.90	_	_	_		_			_	
Pavis School District	11	9	2.90	_	_	_	16	8	3.08	18	8	2.90
Prem City	10	10	2.64	12	10	2.67	14	10	2.70	_	_	_
outh Jordan City	_	_	_	_	_	_	_	_	_	_	_	_
Jintah County	_	_	_	_	_	_	_	_	_	_	_	_
Jniversity of Utah	_	_	_	30	3	6.67	31	3	5.97	36	4	5.80
Jniversity of Utah Hospital	_	_	_	26	4	5.78	30	4	5.78	33	6	5.31
Other	166		43.80	175		38.89	200		38.54	242	_	38.97
Fotal Contributory System active members	379		100.00%	450		100.00%	519		100.00%	621		100.00%
active members	379		100.0070	430		100.0070	719		100.00 70			100.0070
Public Safety Retirement System												
State of Utah	1,410		30.68%		1	31.05%		1	31.63%	1,789	1	31.36%
alt Lake City Corp.	324		7.05	359	2	7.21	381	2	7.18	400	2	7.01
alt Lake County	282		6.14	309	3	6.20	344	3	6.48	371	3	6.50
Inified Police Department	245		5.33	266	4	5.34	297	4	5.60	337	4	5.91
Itah County	191	5	4.16	203	5	4.07	203	5	3.83	220	5	3.86
Veber County Corp.	132	6	2.87	143	6	2.87	160	6	3.02	185	6	3.24
Pavis County .	101	7	2.20	105	7	2.11	111	7	2.09	135	7	2.37
Vest Valley City	80		1.74	85	8	1.71	103	8	1.94	118	8	2.07
Vashington County	76		1.65	81	9	1.63	84	9	1.58	87	9	1.53
St. George City	71	10	1.54	76	10	1.53	75	10	1.41	_	_	_
Ogden City Corp.		_		_	_		_	_		_	_	_
West Jordan City	_	_	_	_	_	_	_	_	_	80	10	1.40
Other	1,684		36.64	1,808		36.29	1,869		35.23	1,982	10	34.75
	1,004			1,000			1,009		33.23	1,702		J 1.7 J
otal Public Safety System active members	4,596	_	100.00%	4,982		100.00%	5,305		100.00%	5,704		100.00%
ACTIVE THEITIDE13	7,330		100.0070	7,702		100.0070	2,203		100.0070	J,7 U4		100.0070

		2016			2015			2014			2013			2012			2011
Active		Percent of Total Active	Active		Percent of Total Active	Active		Percent of Total Active	Active		Percent of Total Active	Active		Percent of Total Active	Active		Percent of Total Active
Members	Rank		Members	Rank		Members	Rank		Members	Rank		Members	Rank		Members	Rank	
10.000	1	17 240/	11 700	1	17 270/	12.550	1	17 470/	12 510	1	17 500/	14450	1	17 [70/	15 272	1	17 200/
10,898 3,904	1 2	17.24% 6.18	4,090	1	17.27% 5.99	12,550 4,338	1	17.47% 6.04	-	1	17.58% 6.02	14,450 4,871	1	17.57% 5.92	15,273 5,113	1	17.38% 5.82
3,458	4	5.47	3,711	4	5.44	3,938	4	5.48	4,624 4,280	4	5.57	4,659	4	5.66	5,095	4	5.80
3,740	3	5.92	4,044	3	5.92	4,337	3	6.04	4,702	2	6.12	5,012	2	6.09	5,400	2	6.14
2,424	5	3.83	2,635	5	3.86	2,747	5	3.82	2,943	5	3.83	3,099	5	3.77	3,239	6	3.68
2,130	6	3.37	2,286	6	3.35	2,360	6	3.29	2,503	6	3.26	2,660	6	3.23	2,784	8	3.17
2,079	7	3.29	2,194	7	3.21	2,352	7	3.27	2,476	7	3.22	2,605	8	3.17	2,813	7	3.20
1,753	9	2.77	1,868	9	2.74	1,941	10	2.70	_	_	_	_	_	_	_	_	_
1.604	_	_	_	_	_		_		_	_			_	2.05	2.520	_	_
1,684	10	2.66	1 000	_	2.75	1,977	9	2.75	2,144	9	2.79	2,343	9	2.85	2,520	9	2.87
1,774	8	2.81	1,880 1,864	8 10	2.75 2.73	2,039	8	2.84	2,076 2,290	10 8	2.70 2.98	2,281 2,646	10 7	2.77 3.22	2,460 3,895	10 5	2.80 4.43
29,370	0	46.46	31,913	10	46.74	33,248	0	46.29	35,297	_	45.93	37,633	,	45.75	39,309	,	44.72
 25,570		10.10	31,213		10.71	33,240		10.27	33,271		73.73	37,033		73.73	37,307		
63,214		100.00%	68,273		100.00%	71,827		100.00%	76,845		100.00%	82,259		100.00%	87,901		100.00%
68	2	9.21%	70	2	7.42%	70	5	4.66%	76	6	4.39%	85	6	4.39%	94	7	4.40%
117	1	15.85	152	1	16.13	186	1	12.38	237	1	13.68	269	1	13.89	293	1	13.71
44 26	3 7	5.96 3.52	53 37	4 7	5.62 3.92	73 45	4 10	4.86 2.99	84 47	4 10	4.85 2.71	93 52	4 10	4.80 2.68	104 59	5 9	4.87 2.76
39	5	5.28	53	4	5.62	43 67	8	4.46	81	5	4.67	91	5	4.70	102	6	4.77
17	10	2.30	24	10	2.55	68	6	4.52	73	8	4.21	77	8	3.98	82	8	3.84
20	9	2.71	25	9	2.65	_	_		_	_		_	_	_	55	10	2.57
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
23	8	3.12	30	8	3.18	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	153	_			_	_		_	_	106	_	_
_	_	_	_	_	_	153	2	10.18 9.05	167	2	9.64	177 158	2	9.14	196 168	2	9.17
44	3	5.96	60	3	6.36	136 68	6	9.03 4.52	146 75	3 7	8.42 4.33	84	3 7	8.16 4.34	153	4	7.86 7.16
38	6	5.1	42	6	4.45	47	9	3.13	50	9	2.89	56	9	2.89		_	7.10 —
302		40.92	397		42.10	590		39.25	697	_	40.22%	795		41.04	831		38.89
738		100.00%	943		100.00%	1,503		100.00%	1,733		100.00%	1,937		100.00%	2,137		100.00%
1,881	1	31.18%	2,006	1	31.35%	2,076	1	31.12%	2,211	1	31.50%	2,317	1	31.68%	2,390	1	31.37%
424	2	7.03	412	2	6.44	423	3	6.34	432	3	6.15	452	3	6.18	463	3	6.08
381	3	6.32	397	3	6.20	424	2	6.35	459	2	6.54	494	2	6.76	540	2	7.09
355	4	5.89	359	4	5.61	365	4	5.47	378	4	5.39	377	4	5.16	329	4	4.32
232	5	3.85	236	5	3.69	239	5	3.58	237	5	3.38	239	5	3.27	236	6	3.10
194 145	6 7	3.22	211 163	6 7	3.30 2.55	221 179	6 7	3.31 2.68	228 193	6 7	3.25 2.75	237 201	6 7	3.24 2.75	249 208	5	3.27 2.73
127	8	2.40 2.11	145	8	2.55	169	8	2.53	162	8	2.73	172	8	2.75	177	7 8	2.73
96	9	1.59	109	9	1.70	113	9	1.69	120	9	1.71	172	9	2.33 1.76	129	9	1.69
_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_	_
_	_	_	97	10	1.52	110	10	1.65	116	10	1.65	122	10	1.67	127	10	1.67
89	10	1.48	_	_		_	_		_	_			_			_	_
 2,108		34.95	2,264		35.38	2,353		35.27	2,483	_	35.38%	2,573		35.18	2,771		36.37
															_		
6,032		100.00%	6,399		100.00%	6,672		100.00%	7,019		100.00%	7,313		100.00%	7,619		100.00%

Continued on page 224.

Year Ended December 31

			2020			2019			2018			2017	
			Percent			Percent			Percent			Percent	
System/ Employer	Active Members	Rank	of Total Active Member	Active Members	Rank	of Total Active Member	Active Members	Rank	of Total Active Members	Active Members	Rank	of Total Active Members	
Firefighters Retirement System													
Unified Fire Authority	309	1	21.65%	321	1	21.54%	334	1	21.69%	354	1	22.10%	
Salt Lake City Corp.	253	2	17.73	262	2	17.58	268	2	17.40	273	2	17.04	
West Valley City	71	3	4.98	73	3	4.90	76	3	4.94	79	3	4.93	
Provo City	50	4	3.50	57	4	3.83	59	5	3.83	60	6	3.75	
West Jordan City	50	5	3.50	55	6	3.69	58	6	3.77	62	5	3.87	
Ogden City Corp.	48	6	3.36	55	5	3.69	67	4	4.35	72	4	4.49	
Park City Fire Service	45	7	3.15	47	7	3.15	50	7	3.25	56	7	3.50	
South Davis Metro Fire Agency	44	8	3.08	45	8	3.02	47	8	3.05	48	9	3.00	
Weber Fire District	44	9	3.08	45	10	3.02		_	J.05		_	J.00	
Sandy City	43	10	3.00	45	9	3.02	46	9	2.99	<u> </u>	8	3.18	
Orem City	43	10	3.01	43	9	3.02	45	10	2.99	31	0	3.10	
	_	_	_	_	_	_	45	10	2.92	47	10	2.93	
Murray City Other	470		32.94	485	_	 32.55%	490	_	31.82%	500	10	2.93 31.21	
Other	4/0		32.94	400		32.33%	490		31.02%			31.21	
Total Firefighters System													
active members	1,427		100.00%	1,490		100.00%	1,540		100.00%	1,602		100.00%	
Judges Retirement System													
State of Utah	119	1	100.00%	116	1	100.00%	116	1	100.00%	114	1	100.00%	
Utah Governors and Legislators Retirement Plan													
State of Utah	41	1	100.00%	47	1	100.00%	52	1	100.00%	52 	1	100.00%	
Tier 2 Public Employees Contributory Retirement System													
State of Utah	6,427	1	17.91%	6,034	1	17.91%	5,474	1	18.07%	4,951	1	18.23%	
Davis School District	2,065	2	5.75	1,829	3	5.43	1,605	3	5.30	1,426	3	5.25	
Alpine School District	2,041	3	5.69	1,933	2	5.74	1,729	2	5.71	1,524	2	5.61	
Granite School District	1,913	4	5.33	1,754	4	5.21	1,599	4	5.28	1,408	4	5.19	
Jordan School District	1,856	5	5.17	1,663	5	4.94	1,456	5	4.81	1,205	5	4.44	
Canyons School District	1,322	6	3.68	1,246	6	3.70	1,128	6	3.72	1,003	6	3.69	
Salt Lake County	1,057	7	2.94	1,160	7	3.44	992	7	3.27	870	8	3.20	
Nebo School District	975	8	2.72	932	8	2.77	852	8	2.81	836	9	3.08	
Washington School District	914	9	2.55	794	10	2.36	684	10	2.26	635	10	2.34	
Weber County School District	879	10	2.45	808	9	2.40	_	_		_	_		
Provo School District	_	_		_	_		_	_	_	_	_	_	
Salt Lake City District	_	_	_	_	_	_		_	_	_	_	_	
University of Utah	_	_	_	_	_	_	713	9	2.35	887	7	3.27	
Other	16,446	_	_	15,533		46.11	14,059		46.41%		•	45.69	
Total Tier 2 Public Employees	,						-,						
System active members	35,895		100.00%	33,686		100.00%	30,291		100.00%	27,152		100.00%	

Additional information will be added when it becomes available.

			2016			2015			2014			2013			2012			2011
-	Active Members	Rank	Percent of Total Active Members															
	380	1	22.85%	386	1	22.25%	395	1	22.10%	398	1	21.57%	404	1	21.44%	404	1	20.91%
	274	2	16.48	295	2	17.00	302	2	16.90	309	2	16.75	309	2	16.40	314	2	16.25
	80	4	4.81	80	4	4.61	87	4	4.87	89	4	4.82	92	4	4.88	96	4	4.97
	63	6	3.79	67	5	3.86	70	5	3.92	72	5	3.90	74	5	3.93	78	5	4.04
	64	5	3.85	66	6	3.80	66	7	3.69	68	8	3.69	72	6	3.82	73	7	3.78
	82	3	4.93	85	3	4.90	90	3	5.04	102	3	5.53	109	3	5.79	110	3	5.69
	63	6	3.79	65	7	3.75	68	6	3.81	71	6	3.85	72	6	3.82	74	6	3.83
	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_	
	51	9	3.07	53	9	3.05	_	_	_	_	_	_	56	10	2.97		_	
	57	8	3.43	59	8	3.40	64	8	3.58	69	7	3.74	69	8	3.66	70	8	3.62
	49	10	2.95	52	10	3.00	56	9	3.13	62	9	3.36	67	9	3.56	68	9	3.52
		_			_		51	10	2.85	55	10	2.98		_		56	10	2.90
	500		30.07	527		30.37	538		30.11	550		29.81	560		29.75	589		30.49
	1,663		100.00%	1,735		100.00%	1,787		100.00%	1,845		100.00%	1,884		100.00%	1,932		100.00%
	115	1	100.00%	112	1	100.00%	114	1	100.00%	112	1	100.00%	111	1	100.00%	111	1	100.00%
	61	1	100.00%	93	1	100.00%	105	1	100.00%	99	1	100.00%	113	1	100.00%	115	1	100.00%
	4,345	1	17.83%	3,642	1	16.72%	2,772	1	16.09%		1	15.84%	1,523	1	14.71%	600	1	12.56%
	1,263	4	5.18	980	5	4.50	778	5	4.52	591	7	4.31	463	5	4.47	235	6	4.92
	1,361	2	5.58	1,232	3	5.66	1,090	3	6.33	1,080	2	7.87	1,072	2	10.35	574	2	12.02
	1,302	3	5.34	1,028	4	4.72	829	4	4.81	664	4	4.84	638	4	6.16	336	3	7.03
	1,095	6	4.49	962	6	4.42	755	6	4.38	661	5	4.82	417	6	4.03	238	5	4.98
	858	7	3.52	781	7	3.59	614	7	3.56	593	6	4.32	387	7	3.74	177	8	3.71
	786	8	3.23	655	8	3.01	484	9	2.81	378	9	2.76	227	_	216	165	_	2.45
	692	9	2.84	624	9	2.87	549 360	8	3.19	403	8	2.94	327	8	3.16	165	9	3.45
	494	10	2.03	_	_	_	360	10	2.09	_	_	_	_	_	_	_	_	_
	474	_	2.03	_	_	_	_	_	_	_	_	_	310	9	2.99	186	7	3.89
	_		_	479	10	2.20	_	_		363	10	2.65	302	10	2.92	165	10	3.45
	1,181	5	4.85	1,458	2	6.69	1,223	2	7.10	944	3	6.88	738	3	7.13	323	4	6.76
	10,995	,	45.11	9,937	_	45.63	7,771	_	45.11	5,868	,	42.78	4,179	,	40.34	1,778		37.22
	. 0,223			-,,,,,,									-,,,,			,,,,		
	24 272		100 000/	21 770		100 000/	17 225		100 000/	12 710		100.000/	10.256		100.000/	4 777		100.000/
	24,372		100.00%	21,//8		100.00%	17,225		100.00%	13,/18		100.00%	10,356		100.00%	4,777		100.00%

Continued on page 226.

Schedules of Principal Participating Employers (Concluded)

Year Ended December 31

			2020			2019			2018			2017	
System/ Employer	Active Members		Percent of Total Active Member	Active Members	Rank	Percent of Total Active	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	976	-	22.69%	835	1	22.17%	821	1	24.87%	705	1	26.12%	
Salt Lake County	319		7.42	254	2	6.74	218	2	6.60	203	2	7.52	
Salt Lake City Corp.	214	3	4.98	195	3	5.18	161	3	4.88	116	3	4.30	
West Valley City	152	4	3.53	151	4	4.01	125	4	3.79	88	4	3.26	
Ogden City Corp.	129	5	3.00	115	5	3.05	92	5	2.79	76	5	2.82	
Unified Fire Authority	99	6	2.30	71	10	1.88	77	7	2.33	49	9	1.82	
Davis County	90	7	2.09	_	_	_	79	6	2.39	51	8	1.89	
Weber County Corp.	89	8	2.07	83	6	2.20	64	8	1.94	56	7	2.07	
Sandy City ,	88	9	2.05	72	8	1.91	61	10	1.85	58	6	2.15	
City of West Jordan	87	10	2.02	_	_	_	_	_	_	_	_	_	
Utah County	_	_	_	72	9	1.91	_	_	_	_	_	_	
West Jordan City	_	_	_	_	_	_	63	9	1.91	_	_	_	
Cache County ´	_	_	_	_	_	_	_	_	_	_	_	_	
Duchesne County	_	_	_	_	_	_	_	_	_	_	_	_	
Grand County (_	_	_	_	_	_	_	_	_	_	_	_	
Iron County	_	_	_	_	_	_	_	_	_	_	_	_	
Layton City	_	_	_	_	_	_	_	_	_	_	_	_	
Murray City	_	_	_	_	_	_	_	_	_	_	_	_	
Park City Fire Service	_	_	_	_	_	_	_	_	_	_	_	_	
South Jordan City	_	_	_	_	_	_	_	_	_	46	10	1.70	
St. George City	_	_	_	_	_	_	_	_	_	_	_		
Unified Police Department	_	_	_	73	7	1.94	_	_	_	_	_	_	
Other	2,058		47.85%	1,846	•	49.00	1,540		46.65	1,251		46.35	
Total Tier 2 Public Safety and													
Firefighter System active members	4,301		100.00%	3,767		100.00%	3,301		100.00%	2,699		100.00%	
			2020			2019			2018				
System/ Employer	Active Members		Percent of Total Active	Active Members	Rank	Percent of Total Active	Active Members	Rank	Percent of Total Active				

System/			Percent			Percent			Percent
Employer	Active Members	Rank	of Total Active Member	Active Members	Rank	of Total Active Member	Active Members	Rank	of Total Active Member
Tier 2 Public Employees DC Only Plan									
•									
State of Utah	1,952	1	23.37%	,	1	22.84%	,	1	23.25%
Alpine School District	450	2	5.39	347	3	4.93	278	3	4.65
Jordan School District	445	3	5.33	357	2	5.07	302	2	5.05
Davis School District	427	4	5.11	336	4	4.78	245	6	4.10
Granite School District	364	5	4.36	312	5	4.43	272	4	4.55
Canyons School District	320	6	3.83	288	6	4.09	248	5	4.15
Salt Lake County	304	7	3.64	275	7	3.91	231	7	3.86
Salt Lake City Corp.	229	8	2.74	186	8	2.64	164	9	2.74
Salt Lake School District	194	9	2.32	158	9	2.25	140	10	2.34
Washington School District	177	10	2.12	_	_	_	_	_	_
Nebo School District	_	_	_	148	10	2.10	_	_	_
University of Utah	_	_	_	_	_	_	188	8	3.14
Other	3,490		41.79	3,022		42.95	2,520		42.15
Total Tier 2 Public Employees									
DC Only Plan active members	8,352		100.00%	7,036		100.00%	5,978		100.00%

Additional information will be added when it becomes available.

		2015					-				2012						
Active Members	Rank	Percent of Total Active Members	Active Members	Rank	Percent of Total Active Members	Active Members	Rank	Percent of Total Active Members	Active Members	Rank	Percent of Total Active Members	Active Members	Rank	Percent of Total Active Members	Active Members	Rank	Percent of Total Active Members
626 176	1 2	27.95% 7.86	523 132	1 2	28.67% 7.24	371 122	1 2	27.87% 9.17	274 93	1 2	30.96% 10.51	144 46	1 2	30.19% 9.64	3 17	9	3.03% 17.17
95 68	3 4	4.24 3.04	58 32	3 7	3.18 1.75	51 22	3 7	3.83 1.65	38	3	4.29	34	3	7.13	6	3	6.06 4.04
54 53	5 6	2.41 2.37	29 44	9 4	1.59 2.41	21 40	9 4	1.58 3.01	11 13	9 7	1.24 1.47	_	_	_	4	7 —	4.04
48 41	7 9	2.14 1.83	43 39	5 6	2.36 2.14	31 22	5 7	2.33 1.65	22 15	4 6	2.49 1.69	12 —	4	2.52 —	4	5 —	4.04
46 —	8	2.05	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_		_		_	_		_	_		7 —	8	1.47	5 —	<u>4</u>	5.05 —
=	_	_	31	8	1.70 —	26 —	6	1.95 —	22 	4 —	2.49 —	8	6 6 —	1.68 1.68	_ _ 3	 10	3.03
_	_	_	_	_	_	_	_	_	11	9	1.24	_ 6	_ 9	— 1.26	_ _		
_	_	_	_	_	_	_	_	_	 12	 8	— 1.36	9	5 —	1.89 —	 8	_	— 8.08
35 —	10 —	1.56 —	_	_	_	_	_	_	_	_	_	_	_	_	 4	_ 6	4.04
 998		44.55	29 864	9	1.59 47.37	605	10	1.50 45.45	374		42.26	197		41.28	41		41.41
2,240		100.00%	1,824		100.00%	1,331		100.00%	885		100.00%	477		100.00%	99		100.00%
								2020			2019			2018			
System/ Employe	r					Active Members	Rank	Percent of Total Active Member	Active Members	Rank	Percent of Total Active Member	Active Members	Rank	Percent of Total Active Member			
Tier P DC Or		Safety a	nd Fire	fight	er												
State o	of Uta					153 42	1 2	25.93% 7.12	143 40	1	27.19% 7.60	112 36	1 2	26.73% 8.59			
Salt La West \ Ogder	ke Co ⁄alley	ounty City				34 26 20	3 4 5	5.76 4.41 3.39	30 21 18	3 4 5	5.70 3.99 3.42	26 17 19	3 5 4	6.21 4.06 4.53			
Davis (City of	Coun Sout	ty h Salt Lak				16 15	6 7	2.71 2.54	13 —	8	2.47 —	_	_	_			
Cache	Cour	e Service nty Authority				14 14 13	8 9 10	2.37 2.37 2.20	12 — 12	9 — 10	2.28 — 2.28	10 11	8 6	2.39 2.63			
Logan	City	Corp.				_	_	_	15 —	7 —	2.85	11 10	7 10	2.63 2.39			
			tment						15	6	2 85	10	9	2 3 9			
Unified Other	d Poli	ce Depart		F:£	-1-4	243	_	41.19	15 207	6	2.85 39.35	10 157	9	2.39 37.47			

Additional information will be added when it becomes available.

Schedule of Utah Retirement Office Employees

Year	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Number of employees	182	185	172	171	176	169	162	168	163	161

Schedules of Participating Employers

N / Public Employees Retirement System — Noncontributory • C / Public Employees Retirement System — Contributory PS / Public Safety Retirement System • F / Firefighters Retirement System • T / Tier 2 Retirement Systems **D** / 457(b) Plan • **K** / 401(k) Plan

Employer	N	C PS	F	Т	D	K	Employer	N	С	PS	F	T	D	K
School Districts							High School Activity Association	Ν	C			Т		K
and Education Employers							Intech Collegiate High School	Ν				Т		Κ
Academy for Math, Engineering							Iron School District	Ν	C			Τ	D	Κ
and Science Charter School (AMES)	N			Т	D	K	Itineris High School	Ν				Τ		Κ
Active Re-Entry Incorporated				Т		K	Jordan School District	Ν	C			Τ	D	Κ
Alpine School District		C		Т	D	K	Jordan Uniserv	Ν				Τ	D	Κ
Alpine Unisery				Т	D	K	Juab School District	Ν	C			Τ	D	Κ
American Leadership Academy				Т		K	Kane School District		C			Т	D	K
Beaver School District				Т	D	K	Liberty Academy Charter School	Ν				Т		K
Bonneville Uniserv				Т	D	K	Logan School District	Ν	C			Τ	D	Κ
Box Elder School District		C		Т	D	K	Master Academy, Inc	Ν				Т		K
Bridgerland Applied							Millard School District	Ν	C			Т	D	K
Technology Center	Ν			Т	D	K	Monticello Academy	Ν				Т	D	K
Cache School District	Ν	C		Т	D	K	Morgan School District	Ν				Т	D	K
Canyons School District	Ν			Т	D	K	Mountainland Applied							
Carbon School District	Ν	C		Т	D	K	Technology Center					-	D	
Color Country Uniserv	Ν			Т	D	K	Murray School District					Т	_	
Daggett School District	Ν	C		Т	D	K	Nebo School District		C			T	_	
Davis Applied Technology College	Ν			Т	D	K	Noah Webster Academy, Inc		_			T	_	
Davis School District	Ν	C		Т	D	K	North Sanpete School District					T		
Davis Uniserv	Ν			Т	D	K	North Summit School District	N	C			T	D	K
Dixie Applied Technology College	Ν			Т		K	Northern Utah Academy							
Dixie State University	Ν	C PS		Т	D	K	of Math, Engineering and Science Charter School (NUAMES)	N				Т	D	K
Duchesne School District	Ν	C		Т	D	K	Ogden School District		C			T		
East Hollywood High School	Ν			Т	D	K	Ogden-Weber Applied		_			•		
Educators Mutual Insurance		C		Т	D	K	Technical Center	Ν	C			Т	D	Κ
Emery School District	Ν	C		Т	D	K	Ogden Weber/NEA/UEA Uniserv	Ν				Т	D	Κ
Fast Forward Charter High School	Ν			Т		K	Park City School District		C			Т	D	Κ
Garfield School District	Ν	C		Т		K	Piute School District					Т		Κ
Grand School District	Ν	C		Τ	D	K	Provo School District	Ν	C			Т	D	Κ
Granite School District	Ν	C		Τ	D	K	Recreation and Habilitation Services	Ν				Т		Κ
Granite Uniserv	Ν			Т	D	K	Rich School District	Ν	C			Т	D	Κ
High Desert Uniserv	Ν			Т	D	K	Salt Lake Arts Academy	Ν				Т	D	Κ

Employer N	1 (C PS F	т	D	к	Employer N C PS F T D K
Salt Lake Community College N	1 (C	Т	D	K	Utah Safety Council N T K
Salt Lake School District N		C	Т	D	K	Utah State Fair Corporation N T K
San Juan School District N		C	Т	D	K	Workers Compensation Fund N C T D K
Sevier School District N	1	C	Т	D	K	'
Snow College N		C	Т	D	Κ	Counties and County Organizations
Soldier Hollow Charter School N			Т		K	Beaver CountyN PS T D K
South Sanpete School District N		C	Т	D	Κ	Box Elder County
South Summit School District N	I		Т	D	Κ	Cache County
Southern Utah University N		C PS	Т	D	K	Carbon County
Southwest Applied Technology Center N			Т		K	Daggett County
Southwest Educational						Davis County N PS T D K
Development Center N	1		Τ		K	Duchesne County
Space Dynamics Lab/USU N	I		Т	D	K	Emery County
Success Academy N			Т		Κ	Garfield County
Summit Academy Charter School N			Т	D	K	Grand County
Summit Academy High School N	J		Т		K	Iron County
Tintic School District N		C	Т	D	Κ	Juab County
Tooele Applied Technology College N			Т		Κ	•
Tooele School District N		С	Т	D	Κ	
Tuacahn High School N	I		Т		K	,
Uintah Basin Applied						Millard County
Technology Center N	1 (C	Τ	D	Κ	Morgan County
Uintah School District N	1 (C	Т	D	Κ	Piute County
University of Utah N	1 (C PS	Т		Κ	Rich County C PS T K
University of Utah Hospital N	1 (C			Κ	Salt Lake County
Utah County Academy of Sciences N			Т		K	San Juan County
Utah Education Association N		C	Т	D	K	Sanpete County
Utah School Boards Association N	I		Т		Κ	Sevier County
Utah School Boards Risk						Summit County
Man Mut Ins Assn N	1		Τ	D	K	Tooele County
Utah School Employee Association N	1		Τ	D	K	Uintah County
Utah State University N	1 (C PS	Т	D	K	Unified Fire Authority N PS F T D K
Utah Uniserv N	1 (C	Τ	D	K	Utah County
Utah Valley University N	1 (C	Т	D	K	Wasatch County N PS T D K
Wasatch School District N	1 (C	Τ	D	Κ	Wasatch Co. Fire District N F T K
Wasatch Uniserv N	1		Т	D	Κ	Washington County N PS T D K
Washington School District N	1 (C	Т	D	Κ	Wayne County N PS T K
Wayne School District N	I		Т	D	Κ	Weber County N C PS T D K
Weber County School District N	1 (C	Т	D	Κ	Weber Fire District N C F T D K
Weber State University N	1 (C	Т	D	Κ	
Woodland Peaks Unisery N	I		Т		Κ	Cities and Towns
						Alpine City N T D K
State and Other Employers						Alta Town N T K
Heber Valley Historic Railroad N	J		Т		K	American Fork City N PS F T K
State of Utah (also participates in	•		•			Annabella Town N T K
the Judges Retirement System and						Apple Valley Town N T K
the Utah Governors and Legislators						Aurora City N T K
Retirement Plan) N		C PS F	Т	D	K	Ballard City N T D K
Utah Communications Authority N	l		Т	D	K	Beaver City N T D K
Utah Dairy Council N			Т		K	Bicknell Town N T
Utah Housing Corporation N		C	Т	D	K	Big Water Municipal Corp N PS T K
Utah Retirement Systems N	1		Т	D	K	Blanding City N PS T K

Employer	N	С	PS	F	т	D	К	Employer	N	C F	S	F	Т	D K
Bluffdale City	. N	C	PS		Т	D	K	Holden Town	N				Т	
Bountiful City	. N	C	PS	F	Τ	D	Κ	Holladay City	Ν				T [K
Brian Head Town	. N	C	PS		Τ	D	Κ	Hooper City	Ν				Т	K
Brigham City	. N	C	PS	F	Τ	D	Κ	Huntington City	Ν				T C	K
Castle Dale City	. N				Τ		Κ	Hurricane City	Ν	Р	S	F	T [K
Cedar City	. N		PS	F	Τ	D	Κ	Hyde Park City	Ν				Т	K
Cedar Hills City	. N				Τ	D	Κ	Hyrum City	Ν				T C	K
Centerfield City	. N		PS		Τ	D	Κ	lvins City		Р	S	F	T C	K
Centerville City	. N	C	PS		Τ	D	Κ	Kamas City	Ν	Р	S		T C	K
Central Valley					Т	D	Κ	Kanab City	Ν	Р	S	F	T C	K
Clearfield City			PS	F	Τ	D	Κ	Kaysville City	Ν	СР	S		Т	Κ
Cleveland Town	. N				Τ		Κ	LaVerkin City		СР	S		Т	Κ
Clinton City		C	PS	F	Т	D	Κ	Layton City	Ν	СР	S	F	T C	K
Coalville City					Т		Κ	Lehi City		СР	S	F	T C	K
Corinne City		C			Т			Levan Town					Т	
Cottonwood Heights City			PS		Т	D	Κ	Lewiston City					Т	Κ
Daniel Town					Т		Κ	Lindon City		Р	S		T C	K
Delta City	. N	C			Т		Κ	Logan City		СР	S	F	T C) K
Draper City					Т	D	Κ	Manila Town		C			Т	Κ
Duchesne City					Т		Κ	Manti City					Т	Κ
Eagle Mountain City				F	Т	D	Κ	Mantua City		Р	S		Т	Κ
East Carbon City			PS		Т		Κ	Mapleton City			S	F	T C	
Elk Ridge Town					Т		Κ	Marriott/Slaterville City					T	K
Elwood					Т	D	Κ	Mayfield Town					Т	Κ
Emery Town		C			Т		Κ	Meadow Town					T	K
Enoch City		_	PS		Т		Κ	Mendon City					T	K
Enterprise City					Т		Κ	Midvale City		СР	S	F	T C	
Ephraim City			PS		-	D		Midway City		C			T C	
Escalante Town			PS			D		Milford City		P	ς		T	K
Eureka City						D		Millcreek City		•	_		ТС	
Fairview City			PS			D	Κ	Millville City						K
Farmington City			PS	F	Т		K	Minersville Town					T	K
Farr West City				•	Т	_	K	Moab City		СР	ς		Т С	
Ferron City					T	_	K	Mona City		٠.	,		T	K
Fillmore City					-	D		Monroe City					T	K
Fountain Green City			PS		Ť		1	Monticello City		Р	ς			K
Francis Town			1 5		T		K	Morgan City	N		,		T	K
Fruit Heights City						D		Moroni City	N	Р	ς		T	K
Garden City					T	D	K	Mt Pleasant City		C P			T	K
Garland City		c	PS		т	D		Murray City		C P			T [
Genola Town		_	1 3		T	D	K	Myton City		CI	J		T	K
Goshen Town					T		K	Naples City		СР	ς			K
Grantsville City			PS		Т	D		Nephi City		Р) K
•			F 3		_	D	K			г	3			
Green River City			DC		T	Ь		Nibley City		C D	c			K
Gunnison City		_	PS			D		North Orden City		C P) K
Harrisville City		C	PS			D		North Colt Lake City		C P			T T r	K
Heber City			PS		_	D	K	North Salt Lake City	IN	P	3		T [
Helper City			PS		T		K	Oakley City	N.I	C	c		T [
Herriman City			PS			D	K	Ogden City		C P	2) K
Highland City					T		K	Orangeville City					T T	K
Hinckley Town	. N				Т		K	Orderville Town	N				T	K

Employer	N	c	PS	F	Т	D	К	Employer N	ı c	PS	F	Т	D K	(
Orem City	. N	C	PS	F	Т	D	K	Wellington City N	ı	PS		Т	K	(
Panguitch City	. N				Τ	D	Κ	Wellsville City N	l			Т	K	(
Paragonah Town		C			Τ			Wendover City N	l	PS		Т	D K	(
Park City	. N	C	PS		Т		Κ	West Bountiful CityN		PS		Т	D K	(
Parowan City		C	PS		Т	D	Κ	West Haven City N				Т	D K	(
Payson City			PS	F	Т	D	Κ	West Jordan City N		PS	F	Т	D K	(
Perry City			PS		Т	D	Κ	West Point City				Т	D K	(
Plain City					Т	D	Κ	West Valley City N		PS	F	Т	D K	(
Pleasant Grove City			PS	F	Т		Κ	Willard City N		PS	•	T		-
Pleasant View City			PS		Т			Woods Cross City N		PS			D K	
Price City			PS	F		D		Woods Cross City				•		
Providence City						D	K	Other Government Entities						
Provo City		C	PS	F								_	D 1/	,
Randolph Town		·		·	T			Ash Creek Special Service District	1			1	D K	•
Redmond Town					Т			Ashley Valley Sewer Management Board	ı			т	D K	
Richfield City		C	PS			D	Κ	Ashley Valley Improvement District				T	K	
Richmond City		_	1 5		Ť		K	Bear Lake Special Service District				T	K	
Riverdale City		c	PS	F	T		K	Bear River Association of Governments N				-	D K	
Riverton City		C	1 3	F	T		K	Bear River Health Department N					D K	
Roosevelt City			PS		T		K	Bear River Mental Health N		-			D K	
Roy City			PS		T		K	Bear River Water District				T	и К	-
			PS	Г		D	K	Beaver Housing Authority N				T	K	
Salem City			PS			D		- · ·					D K	
Salina CitySalt Lake City			PS	г				Beaver Valley Hospital N Benchland Water Company N				T	א ט K	
•						D		Big Plains Water and Sewer	I			1	ľ	
Sandy City			PS PS		T	D		Special Service District	ı			Т	D K	(
Santa Clara City			PS	Г			K	Bona Vista Water Improvement N				T		
Santaquin City			PS	г	T		K	Bountiful Irrigation District N				Т	D K	(
Saratoga Springs Town					T	D		Box Elder County Mosquito District				Т	K	
Smithfield City			PS PS		T	Ь	K K	Cache Metro Planning Organization				Т	K	
South Orden City					T			Carbon County Recreation and				-		-
South Ogden City			PS		T	D D	K	Transportation Special Service District N	I			Т	K	(
South Salt Lake City			PS	Г	T		K	Castle Valley Special Service District	IC	-		Т	D K	
South Weber City			חכ		-		K	Cedar City Housing Authority				Т	D K	(
Spanish Fork City			PS		T		K	Cedar Mountain Fire Protection District N	I		F	Т	K	
Spring City			PS		T		K	Central Iron County						
Springdale Town			PS	_		D	K	Water Conservancy District				Т	K	
Springville City			PS	F	Ė		K	Central Davis Sewer District N	i			Т	D K	(
St. George City		C	PS			D		Central Utah Counseling Center N				Т	D K	(
Stockton Town		_	20		T		K	Central Utah Public Health N	i			Т	D K	(
Sunset City				_		D		Central Utah Water District N	1			Т	D K	(
Syracuse City			PS	F			K	Central Wasatch Commission N	ĺ			Т	D K	(
Taylorsville City			PS			D		Central Weber Sewer District N	l C	-		Т	D K	(
Tooele City		C	PS			D		Children's Aid Society—Utah N	1			Т	K	(
Toquerville City						D		Cottonwood Heights P&R Services N	1			Т	D K	(
Torrey Town					Т		K	Cottonwood Improvement District N	1			Т	D K	(
Tremonton City		C	PS			D	K	Council on Aging — Golden Age Center						
Uintah City					Т		K	Special Service District N	ĺ			Т	D K	(
Vernal City		C	PS		Т	D	K	Davis & Weber Counties Canal Company	C	-		Τ	D K	(
Vineyard Town					Τ		K	Davis Behavioral Health N				Т	D K	(
Washington City				F	Т	D	K	Davis County Housing Authority N		-		Τ	K	(
Washington Terrace City	. N		PS	F	Τ	D	K	Davis County Mosquito Abatement N	i			Т	K	(

Employer	N	c	PS	F	Т	D	K	Employer	N	c	PS	F	Т	D	К
Davis County Solid Waste Management	N				Т	D	K	Mountain Green Sewer							
DDI Advantage		C			Т		Κ	Improvement District	Ν				Τ	D	Κ
Duchesne County Mosquito District		C			Т			Mountain Regional Water							
Duchesne County Water								Special Service District	Ν				Τ		K
Conservancy District	Ν				Т	D	K	Mountainland Association							
East Duchesne Culinary								of Governments		C			Τ	D	K
Water Imp District	N				Т		K	Mt. Olympus Improvement District					Τ		K
Emery County Care and		_			_	_	1/	Nebo Credit Union		_			T		K
Rehabilitation Center		C			Τ	D	K	North Davis County Sewer District		C		_	T		K
Emery County Recreation Special Service District	N				Т		K	North Davis Fire District				F	T	_	K
Emery Water Conservancy District					T		K	North East Counseling Center	N				T	D	K
Five-County Association	IN				'		IX	North Emery Water Users	N.I				_		1/
of Governments	N	C			Т	D	K	Special Service District					T		K
Four Corners Regional Care Center					T			North Fork Special Service District			DC		T	_	K
Fox Hollow Golf Course		•			T	_	K	North Park Police Agency	IN		PS		ı	D	K
Garden City Fire District				F	Т		K	North Pointe Solid Waste Special Service District	N				т	D	K
Grand County EMS Special					•			North Tooele County Fire Protection	IN				'	U	IX
Service District	Ν				Т		Κ	Service District	Ν			F	Т	D	K
Grand County Water Sewer/Service	Ν				Т		Κ	North View Fire District				F	Т		Κ
Granger-Hunter Improvement District	Ν				Т	D	K	Northern Utah Environmental							
Greater Salt Lake Municipal								Resource Agency	Ν				Т	D	K
Services District					Т			Oquirrh Recreation and Parks District	Ν				Т	D	K
Gunnison Valley Fire Department			PS		Т	D	K	Park City Fire Service District	Ν			F	Т	D	K
Gunnison Valley Hospital		C			Т	D	K	Powder Mountain Water and Sewer	Ν				Τ		K
Heber Light & Power					Т	D	K	Price River Water Improvement	Ν				Τ	D	K
Heber Valley Special District					Т			Provo Housing Authority	Ν				Τ		K
Hooper Water Improvement District					Т	D	K	Provo River Water Users	Ν				Τ	D	K
Housing Authority of Carbon County					Т		K	Roosevelt City Housing Authority	Ν				Τ		
Housing Authority of Ogden City					Т		K	Roy Water Conservancy District	Ν				Τ	D	K
Housing Authority of Salt Lake City		C			Т	D	K	Salt Lake County Service Area 3	;N				Τ		K
Housing Connect	N				Т		K	Salt Lake City Library	Ν				Τ	D	K
Hurricane Valley Fire Spec.				_	_		1/	Salt Lake City Mosquito Abatement					Τ		K
Service District				F	Τ		K	Salt Lake City Sub. Sanitation #1	N				Τ		K
Impact Mitigation Special Service District	N				Т		K	San Juan Mental Health/Substance					_		
Jordan River Commission					T	ח		Abuse District					T		K
Jordan Valley Water	14					0	11	Sandy Suburban Improvement District		_				D	
Conservancy District	Ν	C			Т	D	Κ	Six-County Association of Governments		C				D	
Jordanelle Special Service District					Т			Six-County Infrastructure Coalition	N				Т		K
Kane Water Conservancy District					Т		Κ	Snyderville Basin Special Reclamation District	NI	_			т	D	ĸ
Kearns Improvement District		C			Т	D	Κ	Snyderville Basin Water	IN	C			'	U	IX
Leeds Area Special Service District				F	Т			Reclamation District	N	C			Т	D	K
Lone Peak Safety District			PS	F	Т	D	Κ	Solid Waste Management		·			·	_	
Maesar Water Improvement District					Т		Κ	Special Service District #1	Ν				Τ		Κ
Magna Mosquito Abatement	Ν				Т		Κ	Solitude Improvement District	Ν				Τ		Κ
Metro Water District—SLC/Sandy					Т	D	Κ	South Davis County Sewer							
Midvalley Improvement District	Ν				Т		Κ	Improvement District	Ν	C			Т	D	K
Military Installation								South Davis County Water						_	
Development Authority	Ν				Τ		K	Improvement District				_		D	
Millard County Care and					_			South Davis Metro Fire Agency				F		D	
Rehabilitation, Inc				_	T		K	South Davis Recreation Center						D	
Moab Valley Fire Protection	N			F	Т		K	South Ogden Conservancy District	N				Τ	D	K

Employer	N	С	PS	F	т	D	К	Employer N C PS F	Т	D	K
South Utah Valley Animal								Utah Counties Indemnity Pool N	Т		K
Services Special Service District	Ν				Τ		K	Utah County Housing Authority N C	Т	D	Κ
South Utah Valley					_		.,	Utah Local Governments Trust N	Т	D	Κ
Electric Service District					T		K	Utah Lake Commission N	Т		Κ
South Utah Valley Solid Waste					T		K	Utah Lake Distributing Company N			Κ
South Valley Sewer District	N	C			Τ	D	K	Utah League of Cities & Towns C	Т		Κ
South Valley Water Reclamation Facility	NI				Т		K	Utah Municipal Power Agency N	Т		Κ
Southeastern Utah Assoc.	IN				'		K	Utah Public Employees Association N C	Т	D	Κ
of Governments	N	C			Т	D	K	Utah Telecommunication Open			
Southeastern Utah Health					T		K	Infrastructure Agency (UTOPIA) N	Τ	D	K
Southern Salt Lake Valley		_			•			Utah Valley Dispatch			
Mosquito Abatement	Ν				Т	D	K		T		K
Southern Utah Valley Power System					Т	D	K	Utah Zoological Society N C	T		K
Southwest Behavioral Health Center					Т	D	K	Valley Emergency	_		.,
Southwest Mosquito Abatement										D	
and Control District	Ν				Т		K	· · · · · · · · · · · · · · · · · · ·	I	D	K
Southwest Utah								Wasatch Front Waste	_	_	V
Public Health Department		C			Т	D	K	· · · · · · · · · · · · · · · · · · ·	ı	D	ĸ
St. George Housing Authority					Т		K	Wasatch Integrated Waste Management N	т	D	K
Stansbury Park Improvement District	Ν				Т	D	K	Wasatch Mental Health	'	D	IX
Stansbury Service Agency							K		Т	D	K
Statewide Association of									-	D	
Public Attorneys					Τ		K	-	T	_	K
Summit Country Service Area 3						D		- ,	Т		K
Summit Mosquito Abatement District	N				Τ		K	Weber Area Dispatch 911 &	•		
Taylor West Weber Water	N.I						1/	Emergency Services District N	Т	D	Κ
Improvement District					_		K		Т	D	Κ
Taylorsville – Bennion Improvement					T	D		•		D	
Timber Lakes Special Service District		_			T		K		Т	D	Κ
Timpanogos Special Service District		C			T		K		T		Κ
Tooele County Housing	IN				Τ	D	K	Western Kane County			
Tooele Valley Mosquito Abatement District	N				Т		K		Т		Κ
Trans-Jordan Cities					T	D		· · · · · · · · · · · · · · · · · · ·	Т	D	Κ
Tricounty Health Department					T			, ,			
Tridell-Lapoint Water District					T	U	K				
Uintah Animal Control and	IN				'		K	Total Participating Employers			
Shelter Special Service District	N				т		K	Noncontributory			
Uintah Basin Assistance Council					T		K	Contributory			58
Uintah Basin Association of Government					•	D		Public Safety		13	
Uintah County Care Center					T			Firefighters			63 1
Uintah County Mosquito Abatement					T	_	K	JudgesGovernor and Legislators			1
Uintah Fire Suppression	14				•		11	Tier 2 Public Employees		48	85
Special Service District				F	Т		K	Tier 2 Public Safety and Firefighter			52
Uintah Highlands Improvement District	Ν				Т		Κ	457(b) Plan			99
Uintah Recreation District					Т	D	Κ	401(k) Plan		47	76
Uintah Transportation	•					_ '					
Special Service District	Ν				Т		K				
Uintah Water Conservancy District					Т		K				
Unified Police Department			PS		Т	D	K				
Upper Country Water District						D					
Utah Association of Counties					Т		K				

Employer

Inactive Units

American Fork Hospital Bay Area Refuse Disposal

Bear River City Bingham City

Bonneville Uniserv **Box Elder County Nursing Home**

Canyonlands Care Center Carbon County Hospital Carbon Nursing Home Cedar City Library

Central Utah Ed Serv Children's Aid Society Circleville Town

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 Care Center

Golden Hours Homemaker **Grand County Cemetery** MTCE District

Grand County Road Special Services District

Hiawatha Town Holden Town **IW** Allen Hospital Juab County Hospital Kanosh Town Corporation

Leeds Area Special Service District

Leeds Town

Liberty Academy Charter

Marysvale Town Master Academy Inc Meadow 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

Reg 2 Law Enforcement Plan Agency

S L City Credit Union Salt Lake County Fair

Salt Lake School Credit Union

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 Association of Prosecutors

Sugarhouse Park Authority **Summit Employment**

Summit Mosquito Abatement District

Summit Park Water Speical Service District

Sunnyside City

Thomas Edison Charter

Timpanogos Academy

Tooele Council on Aging Tooele Valley Hospital

Trail Incorporated

Twin Creeks Special Service District

U of U Research Institute USH Patients Fund **Uintah Basin Counseling** Uintah Basin District Health **Uintah Basin Medical Center Uintah County Council on Aging**

Uintah County Hospital

USU Community Credit Union

USU Credit Union

UT Association of Secondary School Principals

UT County Council of Governments UT Partnership for Education Economics Utah College of Applied Technology

Utah Dairy Commission Utah Industries for the Blind **Utah Local Governments Trust**

Utah Risk Management Mutual Association

Utah Technical Finance Corporation

Utah Uniserv

Valley Mental Health Wasatch County Hospital Wasatch County Special Service

District Area 1

Washington County A.R.C. Weber County Hospital

Weber Economic Development

Corporation

Weber River Water Quality Council

West Millard Hospital West Millard Recreation

For financial reporting purposes, this group is comprised of participating employers that previously made contributions to retirement systems and plans but did not make any such contributions during the year covered by this report.

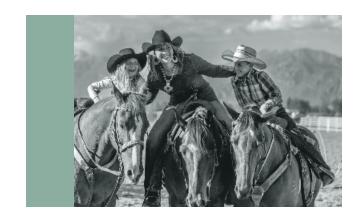
Utah Retirement Systems



- 1907 The Legislature authorizes the organization of local teacher retirement associations.
- Salt Lake City institutes the first teacher retirement commission. Ogden follows in 1933 and Provo in 1934.
- 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.
- 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.
- First statewide teachers retirement system. Seven member board hires Ray L. Lillywhite as the first executive secretary.
- 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."
- 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.
- 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.
- The Utah State Public Employees Association is formed 1959 with the intent to produce a comprehensive plan for a statewide public employee retirement system.
- 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.

A Highlight History 1907-2020 (Continued)



- Members gain a salary deferral program. 1971
- 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.
- 1979 Board gains custody of the retirement fund and greater investment authority.
- 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 full-time investment manager.
- 1984 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 3,000 employees take advantage of its 6-month window.
- 1989 The U.S. Supreme Court rules that if federal retirement benefits are taxable, then state-provided 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.
- Members with 25 years of service in the Public Employees Noncontributory System may buy future service credit to permit immediate retirement.
- 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.
- Judges Noncontributory Retirement System is created.

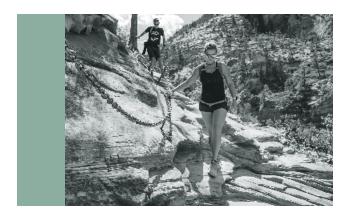
The URS DC video receives a Telly Award — the commercial equivalent of an "Oscar" for motion pictures; URS' publication for retirees, Cycles, places second worldwide among corporate and institutional newsletters.

Legislature affirms the Board's authority to define provisions and terms of the retirement code.

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.

A Highlight History 1907-2020 (Continued)





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.

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(b) earnings.

2002 The Olympic Winter Games are staged in Salt Lake City. URS adopts telecommuting.

> 457(b) 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(b), 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(b) 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.

Retirement Systems' assets reached \$23.9 billion. 2007

> 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(b) Plan is an eligible deferred compensation plan as defined in IRC Section 457(b).

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 1907-2020 (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.
- Robert V. Newman retires. Daniel D. Andersen becomes executive director.
- URS received a No-Action Letter from the Utah Division 2014 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.
- 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.
- 2018 The University of Utah's Kem C. Gardner Policy Institute conducted a study demonstrating how URS pension payments bolstered the Utah economy in 2018. According to the study the economic activity generated by URS pension payments in 2018 supported almost 9,000 Utah jobs, \$360 million in wages, and \$59 million in state and local tax revenue. In 2018, URS paid more than \$1.5 billion in pension benefits to more than 60,000 Utahns, an amount so large, it was equivalent to 1.1 percent of the state's total personal income.
- 2019 URS publicly unveiled a major, multiyear project to replace the recordkeeping and information system that runs most of its business operations. AUREUS (Advanced Utah Retirement End User System) will improve processes for members, employers, and URS employees.
- Five days after the World Health Organization declared the COVID-19 outbreak a global pandemic, URS closed its Salt Lake City and St. George offices to visitors on March 16. URS adapted to an environment of social distancing and remained fully operational, continuing to provide its full range of customer service. Live member and employer education and URS Board and Membership Counsel meetings were conducted virtually via teleconferencing. By the end of the year, URS offices remained closed to visitors, with most employees telecommuting, and plans for a safe reopening in 2021 in the works.

GASB 68 Schedules of Employer Allocation and Pension Reporting Section

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Utah Retirement Systems

Independent Auditor's Report for Agent Plans



INDEPENDENT AUDITOR'S REPORT

To the Utah State Retirement Board **Utah State Retirement Systems** Salt Lake City, Utah

REPORT ON THE SCHEDULE

We have audited the fiduciary net position as of December 31, 2020, and the changes in fiduciary net position for the year then ended, including the accompanying Schedule of Changes in Fiduciary Net Position by Employer - Pension Trust Fund by Division (the Schedule) of the Public Safety Retirement System of Utah Retirements 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.

Auditor's 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. 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,

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Independent Auditor's Report for Agent Plans (Concluded)

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, 2020, 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, 2020, and our report thereon, dated April 30, 2021, expressed an unmodified opinion on those financial statements.

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.

Esde Saelly LLP Salt Lake City, Utah April 30, 2021

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Public Safety Retirement System

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

Year Ended December 31, 2020 With Comparative Totals for Year Ended December 31, 2019

(in thousands)

	Salt Lake City	Ogden	Provo	
Additions:				
Contributions:				
Member	\$ 89	_	_	
Employer	15,608	2,711	2,420	
Total contributions	15,697	2,711	2,420	
Investment income:				
Net appreciation (depreciation) in fair value of investments	35,496	7,639	6,256	
Interest, dividends, and other investment income	5,724	1,232	1,009	
Total income (loss) from investment activity	41,220	8,871	7,265	
Less investment expenses	723	156	127	
Net income (loss) from investment activity	40,497	8,715	7,138	
Income from security lending activity	53	11	9	
Less security lending expense	7	1	1	
Net income from security lending activity	46	10	8	
Net investment income (loss)	40,543	8,725	7,146	
Transfers from (to) affiliated systems	1,175	284	19	
Total additions	57,415	11,720	9,585	
Deductions:				
Retirement benefits	16,989	4,072	2,776	
Cost-of-living benefits	4,532	1,045	663	
Supplemental retirement benefits	28	2	4	
Refunds	_	_	_	
Administrative expenses	130	28	22	
Total deductions	21,679	5,147	3,465	
Increase (decrease) from operations	35,736	6,573	6,120	
Net position restricted for pensions beginning of year	325,192	70,396	57,381	
Net position restricted for pensions end of year	\$ 360,928	76,969	63,501	

		Cost Sharing Plans	(
Total All Divisions		Other Division B	Other Division A		Agent Plans	
2020 2019	2020	(without — Social Security)	(with Social Security)	State of Utah Public Safety	Bountiful	Logan
			<u> </u>	· ·		
557 856		82	367	19	_	_
0,512 150,467	150,512	22,680	56,308	48,698	1,032	1,055
151,323	151,069	22,762	56,675	48,717	1,032	1,055
4,881 426,532	434,881	60,056	174,204	145,321	2,472	3,437
	70,131	9,685	28,093	23,435	399	554
5,012 509,749	505,012	69,741	202,297	168,756	2,871	3,991
8,855 7,721	8,855	1,223	3,547	2,959	50	70
06,157 502,028	496,157	68,518	198,750	165,797	2,821	3,921
649 725	649	90	260	217	4	5
81 96	81	11	33	27		1
568 629	568	79	227	190	4	4
6,725 502,657	496,725	68,597	198,977	165,987	2,825	3,925
7,364 5,512	7,364	7,422	(6,607)	5,523	(666)	214
55,158 659,492	655,158	98,781	249,045	220,227	3,191	5,194
	179,491	22,941	64,654	65,288	1,298	1,473
	35,627	2,772	12,431	13,518	315	351
171 195		_	60	77	_	_
96 76		53	43	476	_	
1,442 1,376	1,442	199	566	476	9	12
6,827 203,375	216,827	25,965	77,754	79,359	1,622	1,836
88,331 456,117	438,331	72,816	171,291	140,868	1,569	3,358
34,186 3,528,069	3,984,186	545,214	1,597,146	1,334,449	22,831	31,577
22,517 3,984,186	4,422,517	618,030	1,768,437	1,475,317	24,400	34,935

Utah Retirement Systems

Independent Auditor's Report for Cost Sharing Plans



INDEPENDENT AUDITOR'S REPORT

To the Utah State Retirement Board **Utah State Retirement Systems** Salt Lake City, Utah

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, 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) including in the accompanying schedules of employer allocations and pension amounts of the Noncontributory Retirement System, Contributory 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 (URS or the System), a component unit of the State of Utah, administered by the Utah State Retirement Board, as of and for the year ended December 31, 2020, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of the Schedules in accordance with accounting principles generally accepted in the United States of America; this includes 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.

Auditor's Responsibility

Our responsibility is to express opinions 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. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the employer allocations and specified column totals included in the schedule of employer allocations and pension amounts are free from material misstatement.

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Independent Auditor's Report for Cost Sharing Plans (Concluded)

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and specified column totals included in the schedule 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 schedule of employer allocations and the specified column totals included in the schedule of employer allocations and the specified column totals included in the schedules of employer allocations, 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 schedule 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 System'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 schedule of employer allocations and specified column totals included in the schedule 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 opinions.

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, 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 URS, a component unit of the State of Utah, administered by the Utah State Retirement board as of and for the year ended December 31, 2020, 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, 2020, and our report thereon, dated April 30, 2021, expressed an unmodified opinion on those financial statements.

Restrictions on Use

Our report is intended solely for the information and use of the 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.

Esde Sailly LLP Salt Lake City, Utah April 30, 2021

Noncontributory Retirement System Local Government Division

Schedule of Employer Allocations and Pension Amounts

At December 31, 2020

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	
4 Corners Comm Behavior Health Alpine City American Fork City Annabella Town Ash Creek SS District	\$ 385,229 139,995 797,392 13,668 187,098	0.2097992% 0.0762425 0.4342667 0.0074435 0.1018955	\$ 107,615 39,108 222,754 3,818 52,267	1,865,724 678,017 3,861,893 66,194 906,147	(1,358,034) (493,519) (2,811,016) (48,182) (659,571)	144,373 52,466 298,840 5,122 70,119	_ _ _ _	
Ashley Valley Improv Dist Ashley Valley Sewer Mgmt Board Ballard City Bear Lake SSD Bear River Assn of Govts	125,513 76,950 35,007 33,060 202,959	0.0683557 0.0419077 0.0190654 0.0180045 0.1105331	35,063 21,496 9,779 9,235 56,697	607,881 372,681 169,547 160,112 982,960	(442,468) (271,269) (123,411) (116,543) (715,483)	47,039 28,839 13,120 12,390 76,063		
Bear River Health Dept Bear River Mental Health Bear River Water District Beaver City Beaver County	769,736 593,845 31,282 180,818 320,822	0.4192055 0.3234135 0.0170362 0.0984753 0.1747225	215,028 165,893 8,739 50,512 89,623	3,727,955 2,876,086 151,501 875,732 1,553,791	(2,713,524) (2,093,461) (110,276) (637,432) (1,130,982)	288,476 222,557 11,723 67,766 120,235		
Beaver Housing Authority Beaver Valley Hospital Benchland Water Company Bicknell Town Big Cottonwood Canyon Imp Dist	22,732 821,422 73,243 5,931 3,999	0.0123801 0.4473540 0.0398888 0.0032303 0.0021779	6,350 229,467 20,461 1,657 1,117	110,095 3,978,277 354,727 28,727 19,368	(80,137) (2,895,730) (258,201) (20,910) (14,098)	8,519 307,846 27,449 2,223 1,499		
Big Plains Water & Sewer SSD Blanding City Bluffdale City Bona Vista Water Improve Bountiful Irrigation District	8,313 145,715 273,309 78,088 72,137	0.0045272 0.0793577 0.1488468 0.0425275 0.0392862	2,322 40,706 76,350 21,814 20,152	40,260 705,721 1,323,681 378,193 349,368	(29,305) (513,684) (963,488) (275,281) (254,300)	3,115 54,610 102,429 29,265 27,035	_ _ _ _	
Box Elder Co Mosq Dist Box Elder County Brigham City Cache County Cache Metro Planning Org	47,447 822,199 732,553 1,102,117 16,470	0.0258403 0.4477770 0.3989548 0.6002228 0.0089698	13,255 229,684 204,641 307,880 4,601	229,795 3,982,039 3,547,867 5,337,725 79,768	(167,265) (2,898,468) (2,582,441) (3,885,252) (58,062)	17,782 308,137 274,540 413,043 6,173	_ _ _ _	
Cache Water District Carbon County Carbon County Rec/Trans SSD Castle Dale City Castle Valley SSD	4,493 617,859 4,443 15,606 84,202	0.0024471 0.3364914 0.0024195 0.0084994 0.0458571	1,255 172,601 1,241 4,360 23,522	21,762 2,992,386 21,516 75,584 407,803	(15,840) (2,178,114) (15,661) (55,017) (296,834)	1,684 231,556 1,665 5,849 31,557	_ _ _ _	
Cedar City Cedar City Housing Auth Cedar Mtn Fire Protection Dist Centerfield City Centerville City	762,629 34,146 4,131 12,145 315,217	0.4153345 0.0185963 0.0022497 0.0066144 0.1716701	213,043 9,539 1,154 3,393 88,057	3,693,530 165,375 20,006 58,821 1,526,646	(2,688,467) (120,374) (14,562) (42,815) (1,111,223)	285,812 12,797 1,548 4,552 118,135	_ _ _ _	
Central Davis Sewer Dist Central Iron Co Water Conserv Central UT Public Health Central Utah 911 Central Utah Counseling Center	186,454 28,193 261,133 339,028 445,262	0.1015446 0.0153542 0.1422152 0.1846377 0.2424939	52,087 7,876 72,948 94,709 124,385	903,027 136,543 1,264,706 1,641,966 2,156,475	(657,300) (99,388) (920,561) (1,195,163) (1,569,667)	69,878 10,566 97,865 127,058 166,872	_ _ _ _	
Central Utah Water Dist Central Valley Town Central Wasatch Commission Central Weber Sewer Dist City of Aurora	1,453,783 8,512 21,023 288,168 16,961	0.7917434 0.0046359 0.0114491 0.1569391 0.0092374	406,119 2,378 5,873 80,501 4,738	7,040,899 41,227 101,816 1,395,645 82,147	(5,124,968) (30,008) (74,110) (1,015,869) (59,794)	544,837 3,190 7,879 107,997 6,357	_ _ _ _	
City of Bountiful City of Cedar Hills City of Draper City of Duchesne City of Enterprise	1,464,332 177,882 1,122,567 31,440 75,525	0.7974886 0.0968759 0.6113605 0.0171225 0.0411318	409,066 49,692 313,593 8,783 21,098	7,091,991 861,508 5,436,771 152,269 365,781	(5,162,157) (627,079) (3,957,347) (110,834) (266,247)	548,791 66,665 420,707 11,783 28,305		

	Deferred Outflows	s of Resources				Deferred Inflov	ws of Resources			nse Excluding That Attributable yer-Paid Member Contributions		
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	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	
_	574	144,947	_	785,811	14,077	86,374	886,262	105,211	(34,158)	_	71,053	
_	4,272	56,738	_	285,569	5,116	12,138	302,823	38,234	(10,694)	_	27,540	
	1,701	298,840 6,823	_	1,626,562 27,880	29,137 499	66,309 7,330	1,722,008 35,709	217,777 3,733	(37,751) (1,573)	_	180,026 2,160	
_	15,789	85,908	_	381,653	6,837	7,550	388,490	51,099	26,369	_	77,468	
		47,039	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	256,029	4,586	38,091	298,706	34,279	(28,450)		5,829	
_	3,332	32,171	_	156,967	2,812	2,960	162,739	21,016	688	_	21,704	
_	2,052	15,172	_	71,410	1,279	254	72,943	9,561	233	_	9,794	
_	13,141	25,531 76,063		67,437 414,006	1,208 7,416	39,872	68,645 461,294	9,029 55,430	8,676 (37,000)		17,705 18,430	
- -	-	·····	~~~~~	~~~			~~~~~	~~~	~~~~~			
	_	288,476 222,557	_	1,570,150 1,211,357	28,127 21,700	45,710 40,962	1,643,987 1,274,019	210,224 162,186	(36,341) (40,908)	_	173,883 121,278	
_	497	12,220	_	63,810	1,143	1,897	66,850	8,543	(1,772)	_	6,771	
_	3,291	71,057	_	368,843	6,607	3,907	379,357	49,384	(5,422)	_	43,962	
	2,255	122,490		654,430	11,723	31,905	698,058	87,620	(25,417)		62,203	
_	4,677	13,196	_	46,370	831	778	47,979	6,208	3,454	_	9,662	
_	68,035 830	375,881 28,279	_	1,675,581 149,405	30,016	14,913	1,720,510	224,340 20,004	51,305 3,231	_	275,645	
_	030	2,223	_	12,099	2,676 217	3,721 432	155,802 12,748	1,620	(398)	_	23,235 1,222	
_	_	1,499	_	8,157	146	11,656	19,959	1,092	(6,319)	_	(5,227)	
_	5,850	8,965		16,957	304	627	17,888	2,270	5,815		8,085	
_	1,994	56,604	_	297,237	5,325	12,579	315,141	39,797	(5,444)	_	34,353	
_	11,955	114,384	_	557,511	9,987	3,587	571,085	74,644	36,623	_	111,267	
_	11,762	41,027 27,035	_	159,288 147,148	2,853 2,636	18,598 20,938	180,739 170,722	21,327 19,701	(14,816) (15,491)	_	6,511 4,210	
	2,806	20,588		96,786	1,734	<u>-</u> -	98,520	12,958	2,883		15,841	
_	7,263	315,400	_	1,677,166	30,044	10,262	1,717,472	224,553	13,918	_	238,471	
_	1,450	275,990	_	1,494,300	26,768	78,403	1,599,471	200,069	(26,390)	_	173,679	
_	47,158	460,201	_	2,248,157	40,272	23,330	2,311,759	301,002	26,204	_	327,206	
	87	6,260		33,597	602	233	34,432	4,498	306		4,804	
_	8,397	10,081 231,556	_	9,166	164	196,225	9,330 1,479,143	1,227 168,745	3,771	_	4,998	
_	_	1,665	_	1,260,341 9,062	22,577 162	7,924	1,479,143	1,213	(180,338) (3,481)	_	(11,593) (2,268)	
_	664	6,513	_	31,835	570	9,310	41,715	4,262	(3,359)	_	903	
-	5,426	36,983		171,759	3,077	7,687	182,523	22,997	(6,966)		16,031	
_	27,611	313,423	_	1,555,651	27,867	12,725	1,596,243	208,283	1,061	_	209,344	
_	3,725	16,522	_	69,653	1,248	2 010	70,901	9,326	2,684	_	12,010	
	4,638	6,186 4,552	_	8,426 24,774	151 444	2,018 570	10,595 25,788	1,128 3,317	2,932 (4,388)	_	4,060 (1,071)	
_	70	118,205	_	642,997	11,518	13,923	668,438	86,090	(39,658)	_	46,432	
	8,986	78,864		380,339	6,813	752	387,904	50,923	(747)		50,176	
_	3,421	13,987	_	57,510	1,030	4,181	62,721	7,700	1,767	_	9,467	
_	70.750	97,865	_	532,672	9,542	11,328	553,542	71,319	(18,767)	_	52,552	
	78,759 —	205,817 166,872	_	691,567 908,270	12,388 16,270	4,340 76,156	708,295 1,000,696	92,593 121,607	31,854 (47,632)	_	124,447 73,975	
	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~		510,286	
	149,779 15,907	694,616 19,097	_	2,965,505 17,364	53,123 311	_	3,018,628 17,675	397,046 2,325	113,240 7,143	_	9,468	
<del>_</del>	18,225	26,104	_	42,883	768	_	43,651	5,742	15,374	_	21,116	
_	3,394	111,391	_	587,821	10,530	7,348	605,699	78,702	379	_	79,081	
	4,967	11,324		34,599	620		35,219	4,632	2,531		7,163	
_		548,791	_	2,987,024	53,508	67,670	3,108,202	399,927	(87,470)	_	312,457	
_ _	1,358 49,400	68,023 470,107	_	362,852 2,289,874	6,500 41,020	13,466 109,467	382,818 2,440,361	48,582 306,587	(18,937) (3,268)	_	29,645 303,319	
_	49,400	11,783	_	64,133	1,149	21,578	86,860	8,587	(15,888)	_	(7,301)	
_	8,095	36,400	_	154,061	2,760		156,821	20,627	7,058	_	27,685	

#### **Noncontributory Retirement System Local Government Division**

#### Schedule of Employer Allocations and Pension Amounts (Continued)

At December 31, 2020

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	
City of Green River City of Harrisville City of Helper City of Holladay City of Kanab	\$ 59,089 89,973 38,865 191,374 82,364	0.0321802% 0.0489999 0.0211664 0.1042243 0.0448562	\$ 16,507 25,134 10,857 53,461 23,009	286,175 435,751 188,231 926,857 398,902	(208,303) (317,177) (137,010) (674,646) (290,355)	22,145 33,719 14,566 71,722 30,868	_ _ _ _	
City of Milford City of Moab City of Monticello City of Naples City of North Salt Lake	50,539 521,693 68,483 54,528 479,052	0.0275239 0.2841189 0.0372963 0.0296962 0.2608962	14,118 145,737 19,131 15,232 133,825	244,767 2,526,643 331,672 264,086 2,320,125	(178,163) (1,839,106) (241,420) (192,224) (1,688,785)	18,941 195,516 25,665 20,435 179,535		
City of Orem City of Riverton City of Santa Clara City of Saratoga Springs City of South Jordan	2,125,653 954,799 275,485 629,837 1,933,531	1.1576503 0.5199924 0.1500318 0.3430151 1.0530184	593,808 266,726 76,958 175,947 540,138	10,294,875 4,624,243 1,334,219 3,050,401 9,364,393	(7,493,490) (3,365,919) (971,158) (2,220,342) (6,816,205)	796,636 357,832 103,244 236,045 724,633	_ _ _ _	
City of South Salt Lake City of St George City of Taylorsville City of Uintah City of Washington Terrace	871,004 4,076,308 383,929 25,933 140,862	0.4743569 2.2199944 0.2090913 0.0141232 0.0767150	243,318 1,138,730 107,252 7,244 39,350	4,218,411 19,742,201 1,859,429 125,596 682,219	(3,070,520) (14,370,060) (1,353,451) (91,420) (496,577)	326,428 1,527,687 143,886 9,719 52,791	_ _ _ _	
City of Wendover City of West Haven City of West Jordan City of Woodland Hills Clearfield City	36,570 129,445 2,181,960 52,904 593,664	0.0199164 0.0704971 1.1883152 0.0288118 0.3233147	10,216 36,161 609,538 14,779 165,842	177,115 626,924 10,567,575 256,221 2,875,207	(128,919) (456,329) (7,691,984) (186,499) (2,092,821)	13,705 48,512 817,738 19,827 222,489	_ _ _ _	
Cleveland Town Clinton City Coalville City Cottonwood Heights City Cottonwood Heights P&R Srv	2,009 315,197 54,345 329,483 178,381	0.0010942 0.1716594 0.0295966 0.1794397 0.0971481	561 88,051 15,181 92,042 49,831	9,731 1,526,551 263,200 1,595,740 863,929	(7,083) (1,111,154) (191,579) (1,161,516) (628,841)	753 118,127 20,367 123,481 66,852	_ _ _ _	
Cottonwood Imp District Council On Aging Golden Age SS Daggett County Davis Behavioral Health Inc Davis Co Housing Authority	332,704 35,800 110,753 1,571,600 67,919	0.1811937 0.0194968 0.0603169 0.8559080 0.0369892	92,942 10,001 30,939 439,032 18,973	1,611,338 173,383 536,392 7,611,509 328,941	(1,172,870) (126,203) (390,432) (5,540,307) (239,432)	124,688 13,417 41,507 588,992 25,454	_ _ _ _ _	
Davis Co Mosquito Abate Davis County Delta City Duchesne Co Water Conserv Dist Duchesne County	47,061 5,086,606 98,540 33,344 635,029	0.0256297 2.7702122 0.0536659 0.0181596 0.3458424	13,147 1,420,960 27,528 9,315 177,397	227,923 24,635,235 477,246 161,492 3,075,544	(165,901) (17,931,629) (347,380) (117,547) (2,238,644)	17,637 1,906,318 36,930 12,497 237,991	_ _ _ _ _	
E Duchesne Cul Water Imp Dist Eagle Mountain City East Carbon City Elk Ridge City Elwood Town	13,485 515,922 37,078 35,194 3,340	0.0073438 0.2809756 0.0201930 0.0191668 0.0018188	3,767 144,124 10,358 9,831 933	65,308 2,498,689 179,574 170,449 16,174	(47,537) (1,818,760) (130,710) (124,067) (11,773)	5,054 193,353 13,896 13,190 1,252	_ _ _ _	
Emery County Emery County Recreation SSD Emery Water Conserv Dist Enoch City Ephraim City	467,960 2,934 44,406 78,074 226,311	0.2548554 0.0015977 0.0241839 0.0425199 0.1232511	130,726 820 12,405 21,810 63,221	2,266,405 14,208 215,065 378,125 1,096,060	(1,649,683) (10,342) (156,543) (275,232) (797,806)	175,378 1,099 16,642 29,260 84,815	_ _ _ _	
Escalante City Eureka City Corporation Fairview City Farmington City Farr West City	39,405 17,009 45,836 456,198 78,455	0.0214605 0.0092634 0.0249628 0.2484495 0.0427270	11,008 4,752 12,804 127,440 21,917	190,846 82,379 221,992 2,209,438 379,967	(138,914) (59,962) (161,585) (1,608,218) (276,573)	14,768 6,375 17,178 170,970 29,403		
Ferron City Fillmore City Five-County Assn of Govts Fountain Green City Fox Hollow Golf Course	18,106 72,752 277,641 17,059 28,061	0.0098607 0.0396213 0.1512056 0.0092904 0.0152825	5,058 20,323 77,560 4,765 7,839	87,690 352,348 1,344,657 82,619 135,906	(63,828) (256,469) (978,756) (60,137) (98,924)	6,786 27,265 104,052 6,393 10,517		

	Deferred Outflow	s of Resources				Deferred Inflo	ws of Resources		hat Attributable er Contributions		
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	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
_ _ _ _	1,551 — 2,827	22,145 35,270 14,566 74,549 30,868	_ _ _ _	120,532 183,531 79,280 390,376 168,011	2,159 3,288 1,420 6,993 3,010	6,145 34,995 9,159 5,470 12,255	128,836 221,814 89,859 402,839 183,276	16,138 24,573 10,615 52,267 22,495	3,106 (14,353) (7,595) (11,094) (10,413)	_ _ _ _	19,244 10,220 3,020 41,173 12,082
	1,959 49,941 3,824 5,291 23,257	20,900 245,457 29,489 25,726 202,792		103,092 1,064,178 139,695 111,228 977,197	1,847 19,063 2,502 1,992 17,505	107,349 5,077 18,000	104,939 1,190,590 147,274 131,220 994,702	13,803 142,481 18,703 14,892 130,835	3,981 75,822 (7,926) 7,604 8,813		17,784 218,303 10,777 22,496 139,648
	24,530 34,862 10,705 78,502 66,815	821,166 392,694 113,949 314,547 791,448		4,336,023 1,947,651 561,950 1,284,776 3,944,120	77,673 34,889 10,066 23,015 70,653	76,143 1,006 12,546 — 7,537	4,489,839 1,983,546 584,562 1,307,791 4,022,310	580,542 260,767 75,238 172,016 528,071	(29,365) (26,187) 15,048 71,972 282,312		551,177 234,580 90,286 243,988 810,383
	21,419 107,648 79,881 7,649	347,847 1,635,335 223,767 17,368 52,791		1,776,722 8,315,073 783,159 52,899 287,339	31,827 148,952 14,029 948 5,147	938 59,791 2,681 — 44,627	1,809,487 8,523,816 799,869 53,847 337,113	237,882 1,113,290 104,856 7,083 38,471	(3,664) 56,452 24,019 8,056 (20,642)		234,218 1,169,742 128,875 15,139 17,829
	16,076 41,676 17,297 23,830	13,705 64,588 859,414 37,124 246,319		74,598 264,050 4,450,879 107,916 1,210,987	1,336 4,730 79,731 1,933 21,693	12,497 — 308,453 — 12,159	88,431 268,780 4,839,063 109,849 1,244,839	9,988 35,353 595,920 14,449 162,137	(113) 14,960 (81,850) 25,578 16,807		9,875 50,313 514,070 40,027 178,944
	568 10,205 7,583 4,451 18,632	1,321 128,332 27,950 127,932 85,484		4,098 642,957 110,855 672,098 363,872	73 11,518 1,986 12,040 6,518	562 ————————————————————————————————————	4,733 654,475 112,841 697,263 372,745	549 86,084 14,842 89,986 48,718	(305) 7,977 5,326 1,344 7,660		244 94,061 20,168 91,330 56,378
	24,015 178,225 13,927	124,688 13,417 65,522 767,217 39,381		678,668 73,026 225,919 3,205,836 138,544	12,157 1,308 4,047 57,428 2,482	51,555 20,901 5,007 75,639 9,333	742,380 95,235 234,973 3,338,903 150,359	90,866 9,777 30,248 429,223 18,549	(51,147) (17,332) (16,417) 73,474 2,012		39,719 (7,555) 13,831 502,697 20,561
	3,843 420,759 5,831 5,913 58,378	21,480 2,327,077 42,761 18,410 296,369		95,997 10,375,934 201,008 68,017 1,295,366	1,720 185,869 3,601 1,218 23,205	20,928 14,458 18,294 470	97,717 10,582,731 219,067 87,529 1,319,041	12,853 1,389,215 26,913 9,107 173,434	4,100 189,266 (6,325) 617 110,035		16,953 1,578,481 20,588 9,724 283,469
	1,299 59,959 77 16,311 6,241	6,353 253,312 13,973 29,501 7,493		27,506 1,052,405 75,634 71,790 6,812	493 18,852 1,355 1,286 122	6,011 —	27,999 1,071,257 83,000 73,076 6,934	3,683 140,905 10,126 9,612 912	1,018 25,531 (16,836) 10,552 2,802		4,701 166,436 (6,710) 20,164 3,714
	12,329 177 2,077 1,137 32,547	187,707 1,276 18,719 30,397 117,362		954,571 5,984 90,582 159,260 461,642	17,100 107 1,623 2,853 8,270	42,593 160 5,887 6,425	1,014,264 6,251 98,092 168,538 469,912	127,806 801 12,128 21,323 61,808	(43,778) (653) (830) (2,962) 31,822		84,028 148 11,298 18,361 93,630
	5,893 3,506 2,496 28,117 5,225	20,661 9,881 19,674 199,087 34,628		80,381 34,696 93,499 930,577 160,036	1,440 622 1,675 16,670 2,867	3,722 6,145 48,119 36	81,821 39,040 101,319 995,366 162,939	10,762 4,645 12,518 124,593 21,427	3,436 (1,001) (12,232) 143 9,421		14,198 3,644 286 124,736 30,848
	1,983 1,131 2,389 — 1,995	8,769 28,396 106,441 6,393 12,512		36,934 148,403 566,346 34,798 57,241	662 2,658 10,145 623 1,025	4,665 1,330 20,122 763 3,193	42,261 152,391 596,613 36,184 61,459	4,945 19,869 75,827 4,659 7,664	(7,861) 2,026 (7,677) (2,628) 661		(2,916) 21,895 68,150 2,031 8,325

#### **Noncontributory Retirement System Local Government Division**

#### Schedule of Employer Allocations and Pension Amounts (Continued)

At December 31, 2020

Danticlastics Frankry	Employer Contributions	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 Francis City Fruit Heights City Garfield County Genola Town Grand County	\$ 34,839 57,966 333,010 20,006 721,634	0.0189734% 0.0315691 0.1813604 0.0108955 0.3930086	\$ 9,732 16,193 93,027 5,589 201,591	(5.95) 168,729 280,741 1,612,821 96,893 3,494,988	(7.95) (122,815) (204,347) (1,173,949) (70,527) (2,543,951)	13,057 21,724 124,803 7,498 270,448	Investments	
Grand County EMS SSD Grand Water/Sewer Service Granger-Hunter Imp Dist Grantsville City Greater Salt Lake Municipal SD	56,128 58,703 638,389 188,959 358,549	0.0305681 0.0319703 0.3476725 0.1029087 0.1952693	15,680 16,399 178,336 52,786 100,162	271,839 284,309 3,091,819 915,157 1,736,511	(197,868) (206,944) (2,250,490) (666,130) (1,263,981)	21,035 22,000 239,250 70,816 134,374		
Gunnison City Gunnison Valley Hospital Gunnison Valley Police Dept Heber City Heber Light & Power	40,273 952,533 10,387 502,712 512,313	0.0219328 0.5187580 0.0056569 0.2737815 0.2790103	11,250 266,093 2,902 140,434 143,116	195,046 4,613,266 50,306 2,434,713 2,481,212	(141,971) (3,357,929) (36,617) (1,772,192) (1,806,038)	15,093 356,983 3,893 188,402 192,001		
Heber Valley SSD Herriman City Highland City Hinckley Town Hooper City	40,035 1,070,573 216,185 11,525 52,067	0.0218034 0.5830439 0.1177363 0.0062764 0.0283559	11,184 299,068 60,392 3,219 14,545	193,896 5,184,954 1,047,018 55,815 252,166	(141,134) (3,774,053) (762,109) (40,627) (183,548)	15,004 401,221 81,020 4,319 19,513	_ _ _ _	
Hooper Water Improv Dist Housing Auth of Carbon Co Housing Authority of SLC Housing Authority Ogden City Housing Connect	98,182 54,067 556,282 123,424 579,745	0.0534710 0.0294452 0.3029560 0.0672177 0.3157342	27,428 15,104 155,399 34,479 161,954	475,513 261,853 2,694,159 597,761 2,807,794	(346,119) (190,599) (1,961,039) (435,101) (2,043,753)	36,796 20,263 208,479 46,256 217,272	_ _ _ _	
Huntington City Hurricane City Hurricane Valley Fire SSD Hyde Park City Hyrum City	32,437 650,416 18,982 90,779 293,744	0.0176655 0.3542227 0.0103378 0.0494389 0.1599756	9,061 181,696 5,303 25,359 82,058	157,098 3,150,069 91,933 439,655 1,422,648	(114,349) (2,292,889) (66,917) (320,019) (1,035,525)	12,156 243,758 7,114 34,021 110,087	_ _ _ _	
Impact Mitigation SSD Iron County Ivins City Jordan River Commission Jordan Valley Water Conserv	20,724 739,710 241,594 25,664 1,435,435	0.0112866 0.4028528 0.1315743 0.0139769 0.7817511	5,789 206,640 67,490 7,169 400,994	100,371 3,582,532 1,170,078 124,295 6,952,039	(73,058) (2,607,673) (851,683) (90,473) (5,060,288)	7,767 277,223 90,543 9,618 537,961	_ _ _ _	
Jordanelle SSD Juab County Juab Special Service Fire Dist Kamas City Kane County	301,821 319,196 13,470 44,341 480,727	0.1643743 0.1738368 0.0073357 0.0241484 0.2618083	84,315 89,168 3,763 12,387 134,293	1,461,765 1,545,914 65,236 214,749 2,328,236	(1,063,998) (1,125,248) (47,484) (156,313) (1,694,689)	113,114 119,626 5,048 16,618 180,163	_ _ _ _	
Kane County Water Conserv Dist Kaysville City Kearns Improvement Dist Laverkin City Layton City	78,406 729,605 281,122 111,817 1,250,218	0.0427008 0.3973498 0.1531014 0.0608963 0.6808799	21,903 203,818 78,532 31,236 349,252	379,734 3,533,594 1,361,516 541,545 6,055,001	(276,403) (2,572,052) (991,028) (394,183) (4,407,347)	29,385 273,436 105,357 41,906 468,547	- - - -	
Lehi City Lewiston City Lindon City Logan City Lone Peak PS District	1,821,613 34,598 373,853 2,368,783 45,560	0.9920669 0.0188423 0.2036039 1.2900610 0.0248124	508,873 9,665 104,437 661,727 12,727	8,822,357 167,563 1,810,630 11,472,391 220,654	(6,421,665) (121,967) (1,317,931) (8,350,586) (160,611)	682,690 12,966 140,110 887,754 17,075	_ _ _ _	
Maeser Water Improve Dist Magna Mosquito Abatement Manti City Mapleton City Marriott-Slaterville City	63,939 21,866 91,163 249,943 48,786	0.0348217 0.0119083 0.0496482 0.1361211 0.0265694	17,862 6,108 25,467 69,822 13,629	309,666 105,899 441,517 1,210,512 236,279	(225,401) (77,083) (321,374) (881,114) (171,984)	23,963 8,195 34,165 93,672 18,284		
Mayfield Town Mendon City Metro Water Dist SLC/Sandy Midvale City Midvalley Improvement District	8,400 9,613 759,849 641,428 113,978	0.0045747 0.0052352 0.4138208 0.3493276 0.0620734	2,347 2,685 212,266 179,185 31,840	40,682 46,556 3,680,069 3,106,537 552,013	(29,612) (33,888) (2,678,669) (2,261,203) (401,802)	3,148 3,603 284,770 240,389 42,716	_ _ _ _ _	

That Attributable per Contributions				s of Resources	Deferred Inflo			s of Resources	Deferred Outflow		
Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions	Proportionate Share of Nonemployer Contributions	et Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	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 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
18,281 3,677 57,722 7,054 176,817	=	8,766 (12,154) (33,227) 1,590 (20,270)	9,515 15,831 90,949 5,464 197,087	72,339 146,897 718,950 41,541 1,598,533	26,536 27,489 — 100,135	1,273 2,118 12,169 731 26,369	71,066 118,243 679,292 40,810 1,472,029	_ _ _ _	23,726 21,724 127,750 9,217 270,448	10,669 — 2,947 1,719 —	= = =
58,968 31,513 81,498 45,012 391,266		43,639 15,480 (92,854) (6,595) 293,342	15,329 16,033 174,352 51,607 97,924	116,545 121,891 1,440,599 420,464 744,491	115,052 28,111	2,051 2,145 23,327 6,905 13,102	114,494 119,746 1,302,220 385,448 731,389		88,388 41,781 239,553 101,049 722,740	67,353 19,781 303 30,233 588,366	
3,003 228,876 8,898 233,016 114,103		(7,996) (31,272) 6,061 95,719 (25,816)	10,999 260,148 2,837 137,297 139,919	97,090 2,068,525 25,894 1,092,427 1,118,943	13,468 90,691 4,326 48,598 55,179	1,472 34,806 380 18,370 18,720	82,150 1,943,028 21,188 1,025,459 1,045,044		16,335 364,320 5,064 351,652 192,001	1,242 7,337 1,171 163,250	
10,592 456,914 34,388 2,154 8,656		(342) 164,527 (24,655) (994) (5,564)	10,934 292,387 59,043 3,148 14,220	83,373 2,222,933 483,919 26,514 114,608	245 — 35,033 2,585 6,497	1,463 39,120 7,900 421 1,903	81,665 2,183,813 440,986 23,508 106,208		19,596 606,707 81,020 5,401 20,724	4,592 205,486 — 1,082 1,211	
37,614 14,246 136,042 19,596 173,100		10,799 (520) (15,885) (14,113) 14,765	26,815 14,766 151,927 33,709 158,335	203,866 112,797 1,188,223 267,058 1,212,392	533 33,163 10,782 8,614	3,588 1,976 20,327 4,510 21,184	200,278 110,288 1,134,733 251,766 1,182,594		49,144 37,050 213,437 48,527 269,642	12,348 16,787 4,958 2,271 52,370	
5,066 184,880 9,455 29,566 110,138		(3,793) 7,243 4,271 4,773 29,913	8,859 177,637 5,184 24,793 80,225	71,632 1,354,932 39,415 190,822 614,841	4,280 4,411 — 2,330 4,912	1,185 23,767 694 3,317 10,734	66,167 1,326,754 38,721 185,175 599,195		12,299 256,563 10,133 39,032 176,427	143 12,805 3,019 5,011 66,340	
(2,930) 114,003 34,731 13,396 252,780		(8,590) (88,021) (31,251) 6,387 (139,255)	5,660 202,024 65,982 7,009 392,035	50,237 1,632,604 521,527 53,289 3,203,362	7,206 96,674 19,882 — 222,832	757 27,030 8,828 938 52,452	42,274 1,508,900 492,817 52,351 2,928,078		9,173 277,223 94,476 21,081 537,961	1,406 — 3,933 11,463	
107,044 97,379 13,998 10,800 137,580		24,613 10,203 10,319 (1,310) 6,288	82,431 87,176 3,679 12,110 131,292	628,652 692,948 27,968 92,890 1,032,471	1,953 30,172 — 821 34,292	11,029 11,664 492 1,620 17,566	615,670 651,112 27,476 90,449 980,613	_ _ _ _ _	162,156 141,546 21,239 19,035 215,646	49,042 21,920 16,191 2,417 35,483	
19,192 225,481 29,552 100,329 261,976		(2,222) 26,217 (47,226) 69,791 (79,474)	21,414 199,264 76,778 30,538 341,450	165,489 1,514,949 654,576 235,554 2,661,024	2,687 — 70,857 3,379 65,079	2,865 26,660 10,272 4,086 45,684	159,937 1,488,289 573,447 228,089 2,550,261	_ _ _ _ _	36,025 336,984 107,735 53,165 480,953	6,640 63,548 2,378 11,259 12,406	
658,386 4,960 119,572 565,594 22,010		160,881 (4,489) 17,468 (81,350) 9,567	497,505 9,449 102,104 646,944 12,443	3,782,387 73,307 789,808 4,976,616 94,601	1,468 13,541 58,086	66,563 1,264 13,661 86,558 1,665	3,715,824 70,575 762,606 4,831,972 92,936		823,114 15,543 163,581 916,371 22,624	140,424 2,577 23,471 28,617 5,549	
18,057 11,497 17,878 54,619 26,037		595 5,525 (7,020) (13,643) 12,713	17,462 5,972 24,898 68,262 13,324	132,856 45,402 195,491 524,606 101,300	94 — 6,201 5,626 —	2,336 799 3,331 9,133 1,783	130,426 44,603 185,959 509,847 99,517		26,065 12,071 38,349 98,913 36,485	2,102 3,876 4,184 5,241 18,201	
2,875 2,180 196,481 151,958 35,175		581 (445) (11,043) (23,224) 4,046	2,294 2,625 207,524 175,182 31,129	20,411 21,617 1,589,124 1,375,807 250,564	2,969 1,657 11,377 43,949 13,901	307 351 27,766 23,438 4,165	17,135 19,609 1,549,981 1,308,420 232,498		4,085 3,667 299,194 257,437 48,008	937 64 14,424 17,048 5,292	

## 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	
Midway City Military Installation Devel Millard Co Care & Rehab Inc Millard County Millard County	\$ 137,705 64,736 247,257 656,851 321,710	0.0749951% 0.0352559 0.1346582 0.3577269 0.1752062		666,924 313,527 1,197,503 3,181,232 1,558,092	(485,445) (228,212) (871,645) (2,315,572) (1,134,113)	51,608 24,261 92,665 246,169 120,568		
Millville City Minersville Town Moab Valley Fire Protection Mona City Monroe City	22,300 20,004 13,037 11,723 70,710	0.0121447 0.0108943 0.0071003 0.0063847 0.0385093	6,230 5,588 3,642 3,275 19,753	108,002 96,882 63,142 56,779 342,460	(78,613) (70,519) (45,960) (41,328) (249,271)	8,357 7,497 4,886 4,394 26,500		
Morgan City Corporation Morgan County Moroni City Mount Pleasant City Mountain Green Sewer Imp Dist	163,544 238,762 20,383 114,020 13,392	0.0890674 0.1300322 0.0111006 0.0620966 0.0072935	45,686 66,699 5,694 31,852 3,741	792,068 1,156,364 98,717 552,219 64,860	(576,535) (841,701) (71,854) (401,952) (47,211)	61,292 89,482 7,639 42,732 5,019	_ _ _ _	
Mountain Regional Water SSD Mountainland Assn of Govt Mt Olympus Improvement Dist Murray City Myton City	276,433 488,846 307,387 2,609,935 14,162	0.1505482 0.2662302 0.1674057 1.4213945 0.0077130	77,223 136,561 85,870 729,094 3,956	1,338,811 2,367,560 1,488,723 12,640,327 68,591	(974,501) (1,723,312) (1,083,620) (9,200,710) (49,926)	103,600 183,206 115,200 978,131 5,308	_ _ _ _ _	
N Tooele Co Fire Protection SD N UT Environmental Rsrc Agcy Nebo Credit Union Nephi City Nibley City Corporation	155 94,079 162,219 273,554 109,887	0.0000847 0.0512361 0.0883459 0.1489800 0.0598456	43 26,281 45,316 76,418 30,697	753 455,638 785,652 1,324,865 532,201	(548) (331,652) (571,864) (964,350) (387,382)	58 35,258 60,795 102,520 41,183	_ _ _ _ _	
North Davis Co Sewer Dist North Davis Fire District North Emery Water Users SSD North Fork SSD North Logan City	498,578 12,109 7,124 28,549 103,430	0.2715299 0.0065948 0.0038795 0.0155479 0.0563291	139,279 3,383 1,990 7,975 28,894	2,414,690 58,647 34,500 138,266 500,929	(1,757,618) (42,688) (25,112) (100,642) (364,619)	186,853 4,538 2,670 10,699 38,763		
North Ogden City North Park Police Agency North Pointe Solid Waste North View Fire District Northeastern Counseling Ctr	366,206 12,713 182,432 2,612 387,398	0.1994393 0.0069235 0.0993544 0.0014227 0.2109805	102,301 3,551 50,963 730 108,221	1,773,595 61,570 883,549 12,652 1,876,230	(1,290,974) (44,816) (643,123) (9,209) (1,365,680)	137,244 4,764 68,371 979 145,186		
Ogden City Corp Oquirrh Rec and Parks District Orangeville City Orderville Town Panguitch City Corporation	2,457,360 131,632 17,542 18,805 46,071	1.3383007 0.0716877 0.0095538 0.0102413 0.0250907	686,472 36,772 4,901 5,253 12,870	11,901,382 637,512 84,961 91,075 223,129	(8,662,843) (464,036) (61,842) (66,292) (162,413)	920,950 49,332 6,574 7,048 17,266		
Park City Park City Fire Service Parowan City Payson City Perry City	1,944,529 84,455 162,461 792,497 77,210	1.0590082 0.0459951 0.0884780 0.4316012 0.0420495	543,211 23,593 45,384 221,387 21,569	9,417,660 409,030 786,826 3,838,189 373,942	(6,854,978) (297,727) (572,720) (2,793,762) (272,187)	728,755 31,651 60,886 297,006 28,936		
Piute County Plain City Pleasant Grove City Pleasant View City Powder Mountain Water & Sewer	81,387 54,828 563,120 129,095 31,657	0.0443242 0.0298601 0.3066804 0.0703061 0.0172409	22,736 15,317 157,309 36,063 8,844	394,171 265,543 2,727,280 625,226 153,322	(286,911) (193,285) (1,985,147) (455,093) (111,601)	30,502 20,548 211,042 48,381 11,864		
Price City Price River Water Improve Providence City Provo City Corp Provo Housing Authority	407,009 229,547 119,784 3,823,702 133,906	0.2216608 0.1250136 0.0652356 2.0824231 0.0729264	113,699 64,125 33,462 1,068,164 37,407	1,971,209 1,111,734 580,134 18,518,792 648,528	(1,434,814) (809,215) (422,271) (13,479,559) (472,054)	152,536 86,028 44,892 1,433,017 50,184	_ _ _ _	
Provo Reser Water Users Provo River Water Users Recreation & Habilitation Srvs Redmond Town Rich County	4,876 164,106 9,152 17,635 111,676	0.0026556 0.0893739 0.0049840 0.0096042 0.0608195	1,362 45,844 2,557 4,926 31,197	23,616 794,794 44,322 85,409 540,862	(17,190) (578,519) (32,262) (62,168) (393,686)	1,827 61,503 3,430 6,609 41,853		

That Attributable per Contributions				Deferred Inflows of Resources						Deferred Outflows of Resources			
Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions	Proportionate Share of Nonemployer Contributions	et Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	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 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		
45,169 33,750 87,427 96,524 315,203		7,560 16,070 19,898 (82,870) 227,340	37,609 17,680 67,529 179,394 87,863	289,581 146,260 513,402 1,464,342 667,997	3,652 11,842 — 100,460	5,032 2,366 9,035 24,002 11,756	280,897 132,052 504,367 1,339,880 656,241	_ _ _	80,258 85,309 121,750 246,169 343,547	28,650 61,048 29,085 — 222,979	= = = =		
(1,996) (1,155) 13,162 12,966 5,115		(8,086) (6,618) 9,601 9,764 (14,197)	6,090 5,463 3,561 3,202 19,312	56,312 66,306 27,070 24,342 184,619	10,009 24,770 — — 37,797	815 731 476 428 2,584	45,488 40,805 26,594 23,914 144,238		10,711 11,491 16,892 25,510 29,538	2,354 3,994 12,006 21,116 3,038			
52,841 33,420 7,831 32,900 14,391		8,175 (31,789) 2,264 1,760 10,733	44,666 65,209 5,567 31,140 3,658	353,666 533,515 42,323 245,765 27,807	14,085 37,749 — 9,014	5,976 8,725 745 4,166 489	333,605 487,041 41,578 232,585 27,318		104,838 95,204 12,649 53,983 24,568	43,546 5,722 5,010 11,251 19,549			
40,712 196,522 76,301 689,096 1,206		(34,785) 63,012 (7,650) (23,709) (2,662)	75,497 133,510 83,951 712,805 3,868	625,227 1,015,038 653,367 5,486,792 35,176	51,242 — 15,111 67,535 5,769	10,101 17,863 11,232 95,370 518	563,884 997,175 627,024 5,323,887 28,889		103,600 270,763 116,365 1,039,398 5,308	87,557 1,165 61,267			
135 87,520 63,491 60,499 30,684		93 61,826 19,187 (14,212) 672	42 25,694 44,304 74,711 30,012	641 195,901 336,831 598,467 240,872	318 556 — 30,461 12,703	6 3,438 5,928 9,996 4,015	317 191,907 330,903 558,010 224,154		349 63,219 87,807 102,520 45,258	291 27,961 27,012 — 4,075			
125,372 4,086 620 13,236 (37,339)		(10,796) 779 (1,326) 5,439 (65,587)	136,168 3,307 1,946 7,797 28,248	1,046,940 25,198 15,337 59,278 265,212	11,696 55 546 — 50,450	18,219 442 260 1,043 3,779	1,017,025 24,701 14,531 58,235 210,983		188,498 4,919 5,783 20,384 38,763	1,645 381 3,113 9,685			
147,947 6,373 46,829 (4,198) 101,080		47,932 2,901 (2,996) (4,911) (4,723)	100,015 3,472 49,825 713 105,803	760,389 32,954 397,468 13,297 821,605		13,382 465 6,666 95 14,156	747,007 25,932 372,136 5,329 790,235		189,730 5,010 78,282 1,647 185,071	52,486 246 9,911 668 39,885			
578,645 10,671 2,531 8,039 17,783		(92,490) (25,279) (2,260) 2,903 5,200	671,135 35,950 4,791 5,136 12,583	5,300,678 321,581 40,767 39,046 95,661	198,228 48,262 4,342 —	89,794 4,810 641 687 1,683	5,012,656 268,509 35,784 38,359 93,978		920,950 49,332 6,695 11,038 21,011	— 121 3,990 3,745			
384,623 29,463 16,460 201,951 22,651		(146,452) 6,397 (27,910) (14,490) 1,564	531,075 23,066 44,370 216,441 21,087	4,557,669 175,362 375,558 1,655,296 164,103	520,059 — 38,224 9,758 3,784	71,055 3,086 5,936 28,959 2,821	3,966,555 172,276 331,398 1,616,579 157,498	_ _ _ _ _	754,919 41,904 60,886 298,621 36,557	26,164 10,253 — 1,615 7,621			
13,912 14,842 127,760 23,417 33,052		(8,316) (132) (26,035) (11,840) 24,406	22,228 14,974 153,795 35,257 8,646	181,500 129,475 1,204,407 290,496 65,733	12,508 15,630 35,147 22,445	2,974 2,003 20,577 4,717 1,157	166,018 111,842 1,148,683 263,334 64,576		30,502 22,484 211,722 48,381 47,604	1,936 680 — 35,740			
32,604 22,920 52,596 885,470 41,254		(78,555) (39,772) 19,881 (158,830) 4,683	111,159 62,692 32,715 1,044,300 36,571	930,834 513,556 248,719 8,063,767 279,205	85,723 36,925 — 124,251 1,163	14,872 8,388 4,377 139,722 4,893	830,239 468,243 244,342 7,799,794 273,149		152,536 86,028 82,912 1,459,648 68,754	38,020 26,631 18,570			
5,155 39,370 1,307 4,597 68,423		3,823 (5,450) (1,192) (219) 37,923	1,332 44,820 2,499 4,816 30,500	10,125 352,313 19,811 37,727 235,281	11,563 809 1,110 3,398	178 5,997 334 644 4,081	9,947 334,753 18,668 35,973 227,802		8,024 75,632 3,430 6,670 48,804	6,197 14,129 — 61 6,951			

## 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	
Richfield City Richmond City Riverdale City Roosevelt City Roosevelt City Housing	\$ 189,735 49,939 317,932 220,394 7,643	0.1033314% 0.0271972 0.1731488 0.1200285 0.0041623	\$ 53,003 13,951 88,815 61,568 2,135	918,916 241,862 1,539,796 1,067,402 37,015	(668,866) (176,048) (1,120,795) (776,946) (26,943)	71,107 18,716 119,152 82,597 2,864		
Roy City Roy Water Conserv Dist S Utah Valley Electric Svc Dst S Utah Valley Solid Waste Salem City	596,690 92,240 196,031 163,884 306,596	0.3249628 0.0502347 0.1067605 0.0892525 0.1669750	166,687 25,768 54,762 45,781 85,649	2,889,863 446,732 949,411 793,714 1,484,893	(2,103,490) (325,170) (691,062) (577,733) (1,080,832)	223,623 34,569 73,467 61,419 114,904		
Salina City Salt Lake City Corp Salt Lake City Public Library Salt Lake Co Serv Area 3 Salt Lake County	61,291 18,241,795 991,375 29,796 24,610,108	0.0333797 9.9346482 0.5399119 0.0162272 13.4028892	17,122 5,095,905 276,944 8,324 6,874,912	296,843 88,347,888 4,801,386 144,307 119,190,635	(216,067) (64,307,142) (3,494,859) (105,039) (86,757,125)	22,970 6,836,516 371,540 11,167 9,223,182	_ _ _ _	
San Juan County San Juan Mental Health Sandy City Sandy Suburban Imp Dist Sanpete County	679,038 126,061 2,615,835 228,771 369,290	0.3698105 0.0686538 1.4246075 0.1245906 0.2011186	189,692 35,215 730,742 63,908 103,162	3,288,690 610,532 12,668,900 1,107,972 1,788,529	(2,393,789) (444,397) (9,221,508) (806,477) (1,301,844)	254,485 47,244 980,342 85,737 138,400	= = =	
Santaquin City Sevier County Six-County Assoc of Govt SLC Mosquito Abatement Smithfield City Corp	252,479 462,123 169,421 88,942 241,255	0.1375022 0.2516764 0.0922684 0.0484388 0.1313894	70,531 129,096 47,328 24,846 67,395	1,222,794 2,238,134 820,534 430,762 1,168,434	(890,054) (1,629,105) (597,255) (313,545) (850,486)	94,622 173,191 63,494 33,333 90,415		
Snyder Basin Special Rec Dist Snyderville Basin W R D So Davis Metro Fire Agency So Davis Recreation Center So SL Valley Mosq Abate	182,297 575,658 23,401 112,744 45,044	0.0992805 0.3135087 0.0127446 0.0614016 0.0245313	50,925 160,812 6,537 31,496 12,583	882,892 2,788,003 113,337 546,039 218,155	(642,644) (2,029,347) (82,496) (397,454) (158,792)	68,320 215,741 8,770 42,253 16,881		
So Utah Valley Animal Svcs SSD So Utah Valley Power Systems Solid Waste SSD #1 South Davis Sewer Dist South Davis Water Dist	17,487 18,237 47,848 365,920 59,576	0.0095235 0.0099319 0.0260584 0.1992835 0.0324458	4,885 5,094 13,366 102,221 16,643	84,692 88,323 231,735 1,772,209 288,537	(61,646) (64,289) (168,676) (1,289,965) (210,022)	6,554 6,835 17,932 137,137 22,328		
South Ogden City South Ogden Conserv Dist South Valley Sewer District South Valley Water Reclamation South Weber City	372,000 229,106 580,290 531,310 80,941	0.2025944 0.1247730 0.3160313 0.2893563 0.0440812	103,919 64,001 162,106 148,423 22,611	1,801,653 1,109,595 2,810,437 2,573,218 392,010	(1,311,397) (807,658) (2,045,676) (1,873,008) (285,338)	139,415 85,862 217,477 199,120 30,334		
Southeastern Utah AoG Southeastern Utah Health Spanish Fork City Spring City Springville City	151,853 191,088 1,677,653 33,276 1,311,393	0.0827004 0.1040680 0.9136654 0.0181223 0.7141967	42,421 53,381 468,658 9,296 366,342	735,447 925,467 8,125,140 161,160 6,351,284	(535,321) (673,634) (5,914,171) (117,306) (4,623,007)	56,910 71,614 628,738 12,471 491,474		
St George Housing Auth Stansbury Park Improv Dist Stansbury Service Agency Statewide Assoc Public Attys Summit County	26,538 73,854 25,123 12,929 2,167,982	0.0144530 0.0402215 0.0136824 0.0070413 1.1807030	7,414 20,631 7,018 3,612 605,633	128,529 357,686 121,676 62,618 10,499,880	(93,555) (260,354) (88,566) (45,578) (7,642,710)	9,946 27,678 9,416 4,845 812,499		
Summit County Service Area 3 Sunset City Sw Behavioral Health Center Sw Mosquito Abatement/Control Sw UT Public Health Dept	537 85,220 1,116,457 27,268 380,275	0.0002925 0.0464115 0.6080327 0.0148506 0.2071013	150 23,806 311,886 7,618 106,231	2,601 412,733 5,407,177 132,065 1,841,732	(1,893) (300,422) (3,935,806) (96,128) (1,340,570)	201 31,938 418,417 10,219 142,517		
Syracuse City Corp Taylor West Weber Wtr Imp Dist Taylorsville-Bennion Imp Timberlakes Water SSD Timpanogos SSD	393,735 19,775 372,759 38,087 374,356	0.2144315 0.0107697 0.2030078 0.0207426 0.2038778	109,991 5,524 104,131 10,640 104,578	1,906,919 95,774 1,805,329 184,462 1,813,066	(1,388,019) (69,712) (1,314,073) (134,267) (1,319,704)	147,561 7,411 139,700 14,274 140,298		

	Deferred Outflows	s of Resources	Pension Expense Excluding That ources Deferred Inflows of Resources to Employer-Paid Member Co								
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	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
_ _ _	6,014 — 310	71,107 24,730 119,152 82,597 3,174	= = =	387,032 101,868 648,535 449,571 15,590	6,933 1,825 11,618 8,053 279	25,650 — 38,385 35,006 70	419,615 103,693 698,538 492,630 15,939	51,819 13,639 86,831 60,192 2,087	(17,101) (203) (24,295) (32,138) (34)	= =	34,718 13,436 62,536 28,054 2,053
	15,293 42,947 11,728 2,765	223,623 49,862 116,414 73,147 117,669		1,217,160 188,156 399,875 334,299 625,411	21,804 3,371 7,163 5,988 11,203	88,239 — 4,733 8,669	1,327,203 191,527 407,038 345,020 645,283	162,963 25,192 53,539 44,759 83,735	(36,674) 7,999 31,511 (37,286) 7,157		126,289 33,191 85,050 7,473 90,892
=	8,252 —— 172,479 5,854 338,567	31,222 6,836,516 544,019 17,021 9,561,749	= = = =	125,025 37,210,600 2,022,260 60,780 50,201,038	2,240 666,573 36,226 1,089 899,280	1,197 647,450 — 8,074 643,671	128,462 38,524,623 2,058,486 69,943 51,743,989	16,739 4,982,058 270,757 8,138 6,721,327	(3,817) (832,772) 80,594 (2,900) (447,796)		12,922 4,149,286 351,351 5,238 6,273,531
= = =	23,775 31,209	254,485 47,244 980,342 109,512 169,609	= = = =	1,385,139 257,145 5,335,921 466,659 753,297	24,813 4,606 95,585 8,360 13,494	109,913 15,224 208,378 1,885 13,730	1,519,865 276,975 5,639,884 476,904 780,521	185,454 34,429 714,417 62,480 100,858	(85,016) (17,624) (141,123) 7,038 (4,930)	_ _ _ _	100,438 16,805 573,294 69,518 95,928
	40,088 36,584 11,785 3,759 17,278	134,710 209,775 75,279 37,092 107,693		515,020 942,663 345,595 181,429 492,124	9,226 16,886 6,191 3,250 8,816	14,954 2,806 1,663	524,246 959,549 366,740 187,485 502,603	68,955 126,211 46,271 24,291 65,890	21,340 (17,853) (9,328) (30) 2,658		90,295 108,358 36,943 24,261 68,548
	16,017 17,813 5,459 27,780 4,904	84,337 233,554 14,229 70,033 21,785		371,859 1,174,259 47,735 229,982 91,883	6,661 21,035 855 4,120 1,646	752 4,462 —	378,520 1,196,046 53,052 234,102 93,529	49,787 157,219 6,391 30,792 12,302	52,763 30,510 2,932 15,884 4,521		102,550 187,729 9,323 46,676 16,823
	970 1,054 30,063 34,068 4,522	7,524 7,889 47,995 171,205 26,850		35,671 37,200 97,603 746,424 121,527	639 666 1,748 13,371 2,177	2,123 — — 13,240	36,310 39,989 99,351 759,795 136,944	4,776 4,981 13,068 99,937 16,271	1,440 (58) 9,256 19,438 (7,559)		6,216 4,923 22,324 119,375 8,712
	31,086 10,376 21,781 42,128 4,836	170,501 96,238 239,258 241,248 35,170		758,825 467,342 1,183,707 1,083,795 165,108	13,593 8,372 21,204 19,415 2,958	2,752 2,341 8,947 16,815 4,061	775,170 478,055 1,213,858 1,120,025 172,127	101,598 62,572 158,484 145,107 22,106	16,317 (6,372) 27,184 8,365 (10,252)		117,915 56,200 185,668 153,472 11,854
	28,762 48,378 137,136 5,401 3,401	85,672 119,992 765,874 17,872 494,875		309,757 389,791 3,422,168 67,878 2,675,051	5,549 6,983 61,303 1,216 47,920	684 1,062 — 1,703 144,214	315,990 397,836 3,483,471 70,797 2,867,185	41,473 52,188 458,188 9,088 358,158	14,485 3,250 138,199 7,629 (131,468)		55,958 55,438 596,387 16,717 226,690
	322 58,426 20,581 15,824 158,193	10,268 86,104 29,997 20,669 970,692		54,134 150,651 51,248 26,373 4,422,368	970 2,699 918 472 79,220	4,463 — 4,634 — 89,150	59,567 153,350 56,800 26,845 4,590,738	7,248 20,170 6,861 3,531 592,103	(1,112) 53,071 17,660 10,081 34,422		6,136 73,241 24,521 13,612 626,525
	1,004 1,051 13,105 2,777 9,332	1,205 32,989 431,522 12,996 151,849		1,096 173,836 2,277,409 55,623 775,706	20 3,114 40,796 996 13,896	3,730 82,110  10,963	1,116 180,680 2,400,315 56,619 800,565	147 23,275 304,918 7,447 103,858	451 (6,007) (20,293) 3,351 (16,040)		598 17,268 284,625 10,798 87,818
	68,177 348 32,163 6,084 35,407	215,738 7,759 171,863 20,358 175,705		803,161 40,338 760,373 77,692 763,632	14,387 723 13,621 1,392 13,679	7,218 15,430 36,049 15,432 21,749	824,766 56,491 810,043 94,516 799,060	107,534 5,401 101,805 10,402 102,241	28,324 (5,356) (10,894) (1,193) (12,508)		135,858 45 90,911 9,209 89,733

## 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	
Tooele City Tooele County Tooele County Housing Tooele Valley Mosquito Abtmnt Toquerville City	\$ 739,443 1,536,050 40,599 5,156 18,675	0.4027072% 0.8365469 0.0221105 0.0028079 0.0101708	\$ 206,566 429,101 11,341 1,440 5,217	3,581,237 7,439,333 196,627 24,970 90,448	(2,606,730) (5,414,982) (143,122) (18,176) (65,836)	277,122 575,669 15,215 1,932 6,999	_ _ _ _	
Torrey Town Town of Alta Town of Apple Valley Town of Brian Head Town of Daniel	3,261 81,872 3,423 96,016 12,589	0.0017761 0.0445883 0.0018641 0.0522912 0.0068562	911 22,871 956 26,822 3,517	15,795 396,520 16,577 465,021 60,972	(11,497) (288,621) (12,066) (338,482) (44,380)	1,222 30,683 1,283 35,984 4,718		
Town of Garden City Town of Goshen Town of Levan Town of Manila Town of Mantua	44,524 6,338 26,524 5,487 20,746	0.0242484 0.0034520 0.0144452 0.0029881 0.0112983	12,438 1,771 7,410 1,533 5,795	215,639 30,698 128,460 26,573 100,475	(156,960) (22,345) (93,504) (19,342) (73,134)	16,687 2,375 9,940 2,056 7,775		
Town of Randolph Town of Springdale Trans-Jordan Cities Tremonton City Tridell-Lapoint Water	9,655 148,232 272,975 239,960 8,177	0.0052582 0.0807285 0.1486644 0.1306842 0.0044531	2,697 41,409 76,256 67,034 2,284	46,761 717,911 1,322,058 1,162,162 39,601	(34,036) (522,557) (962,307) (845,921) (28,825)	3,618 55,553 102,303 89,930 3,064	_ _ _ _	
Uintah Animal Control/Shelter Uintah Basin Assn of Govt Uintah Basin Asst Council Uintah Co Care Center SSD Uintah County	40,626 204,161 8,325 340,105 1,348,385	0.0221255 0.1111882 0.0045340 0.1852244 0.7343429	11,349 57,033 2,326 95,010 376,676	196,760 988,786 40,320 1,647,183 6,530,442	(143,219) (719,723) (29,349) (1,198,961) (4,753,414)	15,226 76,514 3,120 127,462 505,337		
Uintah Fire Suppression SSD Uintah Highlands Improv Dist Uintah Mosquito Abate District Uintah Recreation District Uintah Transportation SSD	6,922 22,347 31,794 171,805 12,010	0.0037700 0.0121701 0.0173154 0.0935665 0.0065407	1,934 6,243 8,882 47,994 3,355	33,526 108,228 153,984 832,078 58,166	(24,403) (78,777) (112,083) (605,658) (42,338)	2,594 8,375 11,916 64,388 4,501		
Uintah Water Conserv Dist Unified Fire Authority Unified Police Department Upper Country Water Dist UT Municipal Power Agency	82,197 582,723 733,904 24,387 409,540	0.0447655 0.3173565 0.3996906 0.0132816 0.2230393	22,962 162,786 205,018 6,813 114,406	398,095 2,822,221 3,554,411 118,112 1,983,467	(289,768) (2,054,254) (2,587,204) (85,972) (1,443,737)	30,805 218,388 275,047 9,140 153,484	_ _ _ _	
UT Public Employees Assn Utah Association of Counties Utah Co Housing Authority Utah Counties Indemnity Pool Utah County	31,011 94,455 117,771 83,001 6,077,646	0.0168889 0.0514411 0.0641393 0.0452032 3.3099415	8,663 26,386 32,900 23,187 1,697,810	150,191 457,461 570,385 401,988 29,434,997	(109,322) (332,979) (415,175) (292,601) (21,425,306)	11,622 35,399 44,137 31,107 2,277,732	_ _ _ _	
Utah Lake Commission Utah Lake Distributing Co Utah Local Governments Trust Utah Zoological Society Utopia	2,858 4,867 256,939 634,953 592,157	0.0015565 0.0026505 0.1399316 0.3458014 0.3224939	798 1,360 71,777 177,376 165,421	13,842 23,571 1,244,399 3,075,179 2,867,908	(10,075) (17,157) (905,780) (2,238,378) (2,087,508)	1,071 1,824 96,294 237,963 221,924	_ _ _ _	
Valley Emergency Comm Ctr Vernal City Vineyard Town Wasatch Behavioral Health Wasatch County	1,051,226 322,491 189,114 2,819,218 1,404,046	0.5725075 0.1756317 0.1029930 1.5353720 0.7646563	293,664 90,089 52,830 787,558 392,225	5,091,255 1,561,876 915,907 13,653,918 6,800,016	(3,705,851) (1,136,867) (666,675) (9,938,488) (4,949,633)	393,970 120,861 70,875 1,056,564 526,197	_ _ _ _	
Wasatch County Fire District Wasatch Front Regional Council Wasatch Front Waste/Recycling Wasatch Integrated Waste Mgmt Washington City	13,341 351,783 566,003 314,840 924,784	0.0072658 0.1915841 0.3082501 0.1714648 0.5036460	3,727 98,272 158,115 87,952 258,342	64,614 1,703,739 2,741,239 1,524,820 4,478,876	(47,032) (1,240,127) (1,995,308) (1,109,894) (3,260,109)	5,000 131,838 212,122 117,993 346,583		
Washington Co Solid Waste Washington Co Wat Con Dist Washington County Waste Management Serv Dist #5 Wayne County	111,389 372,577 1,897,901 23,405 123,104	0.0606637 0.2029089 1.0336143 0.0127465 0.0670433	31,117 104,081 530,185 6,538 34,389	539,477 1,804,450 9,191,834 113,353 596,210	(392,677) (1,313,433) (6,690,602) (82,508) (433,972)	41,746 139,632 711,280 8,771 46,136	_ _ _ _ _	

That Attributable per Contributions		Pension Expense E  Deferred Inflows of Resources to Employer-P						s of Resources	Deferred Outflow		
Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions	Proportionate Share of Nonemployer Contributions	et Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions		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
219,943 428,352 5,032 2,392 16,580	_ _ _ _	17,992 8,838 (6,056) 984 11,480	201,951 419,514 11,088 1,408 5,100	1,535,375 3,208,919 97,441 10,705 42,041	19,472 13,141 — 3,264	27,020 56,129 1,484 188 682	1,508,355 3,133,318 82,816 10,517 38,095	_ _ _ _	338,448 605,392 15,258 3,278 9,468	61,326 29,723 43 1,346 2,469	_ _ _ _
1,267 17,909 (4,238) 36,326 10,174		376 (4,451) (5,173) 10,103 6,736	891 22,360 935 26,223 3,438	6,937 178,428 13,657 201,983 26,140	166 8,429 6,550 2,615	119 2,992 125 3,509 460	6,652 167,007 6,982 195,859 25,680		1,483 37,024 1,283 41,895 9,694	261 6,341 — 5,911 4,976	
18,178 2,657 7,656 4,109 10,371		6,018 926 412 2,611 4,705	12,160 1,731 7,244 1,498 5,666	92,700 15,466 55,097 11,848 43,076	250 2,304 23 456	1,627 232 969 200 758	90,823 12,930 54,105 11,192 42,318	_ _ _ _	23,380 4,130 10,735 3,183 14,336	6,693 1,755 795 1,127 6,561	_ _ _ _
2,242 59,337 52,224 66,791 2,278		(395) 18,853 (22,329) 1,255 45	2,637 40,484 74,553 65,536 2,233	20,588 310,742 601,200 499,901 17,418	540 2,953 34,397 1,650 440	353 5,417 9,975 8,768 299	19,695 302,372 556,828 489,483 16,679		4,044 78,473 102,684 95,931 4,274	426 22,920 381 6,001 1,210	
(489) 66,811 43 (7,007) 377,972		(11,585) 11,052 (2,231) (99,894) 9,711	11,096 55,759 2,274 92,887 368,261	100,206 424,312 17,286 823,507 3,013,833	15,849 392 — 117,314 214,053	1,485 7,460 304 12,428 49,271	82,872 416,460 16,982 693,765 2,750,509		16,669 114,287 4,473 127,462 529,404	1,443 37,773 1,353 — 24,067	
2,110 14,629 6,834 16,469 (10,154)		219 8,526 (1,849) (30,453) (13,434)	1,891 6,103 8,683 46,922 3,280	14,374 46,401 68,967 378,231 50,598	2,950 21,496 25,661	253 817 1,162 6,278 439	14,121 45,584 64,855 350,457 24,498		4,025 22,327 11,916 64,388 4,501	1,431 13,952 — —	
8,117 225,999 (102,177) 9,180 198,505		(14,332) 66,850 (302,615) 2,520 86,655	22,449 159,149 200,438 6,660 111,850	191,847 1,229,445 2,008,091 50,745 889,504	21,172 19,481 484,217 107 39,137	3,004 21,293 26,818 891 14,965	167,671 1,188,671 1,497,056 49,747 835,402		31,617 329,801 275,047 14,760 276,495	812 111,413 — 5,620 123,011	
1,505 (4,267) (11,374) 29,122 1,696,744		(6,964) (30,064) (43,539) 6,453 36,864	8,469 25,797 32,165 22,669 1,659,880	71,062 212,727 299,967 172,343 12,911,178	6,671 16,601 55,428 — 291,584	1,133 3,451 4,303 3,033 222,083	63,258 192,675 240,236 169,310 12,397,511		14,284 39,524 45,646 43,217 2,720,505	2,662 4,125 1,509 12,110 442,773	
1,095 5,139 68,281 3,000 296,261		314 3,810 (1,892) (170,414) 134,536	781 1,329 70,173 173,414 161,725	5,934 10,106 537,484 1,640,429 1,229,551	3,976 322,015	104 178 9,389 23,202 21,638	5,830 9,928 524,119 1,295,212 1,207,913		1,371 7,946 104,579 237,963 410,310	300 6,122 8,285 — 188,386	
471,815 2,671 132,806 1,020,288 365,917		184,712 (85,405) 81,157 250,325 (17,545)	287,103 88,076 51,649 769,963 383,462	2,299,768 770,559 392,674 5,878,049 2,995,092	117,007 100,940 — 24,238 79,738	38,413 11,784 6,910 103,017 51,305	2,144,348 657,835 385,764 5,750,794 2,864,049		761,058 120,861 136,868 1,527,419 542,736	367,088 — 65,993 470,855 16,539	
4,403 102,542 165,687 (121,837) 315,963		759 6,466 11,105 (207,824) 63,393	3,644 96,076 154,582 85,987 252,570	37,297 778,365 1,196,724 753,454 1,920,218	9,595 47,926 21,480 99,721	488 12,854 20,682 11,505 33,793	27,214 717,585 1,154,562 642,228 1,886,425		23,434 162,202 291,565 177,014 373,946	18,434 30,364 79,443 59,021 27,363	
29,834 175,162 438,986 3,188 37,951		(588) 73,407 (79,354) (3,204) 4,330	30,422 101,755 518,340 6,392 33,621	235,516 793,477 3,989,089 54,825 257,103	4,228 19,860 48,297 6,228 1,492	4,070 13,614 69,351 855 4,498	227,218 760,003 3,871,441 47,742 251,113		46,678 179,819 756,286 9,098 68,127	4,932 40,187 45,006 327 21,991	

## Schedule of Employer Allocations and Pension Amounts (Concluded)

At December 31, 2020

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	
Weber Area Dispatch 911 Weber Basin Water Conserv Weber Co Mosquito Abate Weber County Corp Weber Fire District	\$ 467,337 1,000,227 81,149 3,683,206 20,529	0.2545159% 0.5447330 0.0441946 2.0059076 0.0111802	\$ 130,552 279,417 22,669 1,028,916 5,735	2,263,386 4,844,259 393,018 17,838,347 99,424	(1,647,486) (3,526,066) (286,072) (12,984,273) (72,370)	175,145 374,857 30,412 1,380,363 7,694	= = =	
Weber Human Services Wellington City Wellsville City Corp West Bountiful City West Kane County SSD #1	1,828,472 14,966 56,311 98,312 38,939	0.9958025 0.0081504 0.0306676 0.0535417 0.0212068	510,790 4,181 15,731 27,464 10,878	8,855,578 72,481 272,724 476,141 188,590	(6,445,846) (52,758) (198,512) (346,576) (137,272)	685,260 5,609 21,104 36,845 14,593	_ _ _ _ _	
West Point City West Valley City White City Water Imp Dist Willard City Corp Woods Cross City	126,079 3,037,863 77,427 53,410 197,129	0.0686638 1.6544478 0.0421676 0.0290874 0.1073582	35,221 848,637 21,630 14,920 55,069	610,621 14,712,848 374,992 258,672 954,726	(444,462) (10,709,268) (272,952) (188,283) (694,931)	47,251 1,138,506 29,018 20,016 73,878	_ _ _ _ _	
Grand Total	\$ 183,617,928	100.0000000%	\$ 51,294,272	889,290,556	(647,301,652)	68,814,881	_	
Units without a proportionate share for 2020 but had a proportionate share in a prior year								
Canyonlands Care Center Grand Co Cemetery Mtce Dist Seven County Infrastructure Six-Co Economic Develop	\$  	0.0000000% 0.0000000 0.0000000 0.0000000	\$ — — — —	_ _ _ _	_ _ _ _	_ _ _	_ _ _	
Summit Mosquito Abatement Dist Sunnyside City Valley Mental Health		0.000000 0.000000 0.000000	=	=				
Grand Total	\$183,617,928	100.0000000%	\$ 51,294,272	889,290,556	(647,301,652)	68,814,881		

	Deferred Outflows of Resources					Pension Deferred Inflows of Resources to E						
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	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	
_	_	175,145	_	953,299	17,077	73,135	1,043,511	127,635	(63,370)	_	64,265	
_	49,249	424,106	_	2,040,318	36,549	24,755	2,101,622	273,174	13,175	_	286,349	
_	1,730	32,142	_	165,533	2,965	12,076	180,574	22,163	(18,695)	_	3,468	
_		1,380,363	_	7,513,203	134,588	275,724	7,923,515	1,005,929	(131,810)		874,119	
	6,524	14,218		41,876	750	3,356	45,982	5,607	8,564		14,171	
<del>_</del>	4,188	689,448	_	3,729,816	66,814	67,040	3,863,670	499,378	(60,285)	_	439,093	
_	2,720	8,329	_	30,528	547	7,122	38,197	4,087	(2,090)	_	1,997	
_	4,862	25,966	_	114,867	2,058	13,031	129,956	15,379	(4,493)	_	10,886	
_	593	37,438	_	200,542	3,592	34,021	238,155	26,850	(2,278)	_	24,572	
	4,569	19,162		79,431	1,423		80,854	10,635	3,819		14,454	
_	3,383	50,634	_	257,183	4,607	13,166	274,956	34,434	(12,277)		22,157	
_	15,909	1,154,415	_	6,196,797	111,006	126,601	6,434,404	829,678	(84,374)	_	745,304	
_	3,442	32,460	_	157,940	2,829	10,661	171,430	21,146	(3,943)	_	17,203	
_	14,228	34,244	_	108,948	1,952	275	111,175	14,587	8,214	_	22,801	
	23,026	96,904		402,114	7,203	13,212	422,529	53,838	25,380		79,218	
	9,149,142	77,964,023		374,553,776	6,709,576	10,693,651	391,957,003	50,148,313	(1,423,821)		48,724,492	
_	_	_	_	_	_	_	_	_	. —		. —	
_	1,330	1,330	_	_	_	21,103	21,103	_	(11,240)	_	(11,240)	
<u> </u>	_	_	_	_	_	1,251	1,251	_	(20,817)	_	(20,817)	
		<del>-</del>		<del>-</del>		1,231	1,231		~~~~		~~~~~~	
_	_	_	_	_	_	_	_	_	(1,584)	_	(1,584)	
_	_	_	_	_	<del></del>	_	_	_	(304,296)	_	(304,296)	
_	9,150,472	77,965,353	_	374,553,776	6,709,576	10,716,005	391,979,357	50,148,313	(1,761,759)	_	48,386,554	

#### **Noncontributory Retirement System State and School Division**

# 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	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	
Active Re Entry Inc Alpine School District Alpine Uniserv American Leadership Academy Ames Charter School	\$ 85,052 57,172,626 27,381 980,438 395,027	0.0126318% 8.4912246 0.0040665 0.1456137 0.0586691	\$ 168,397 113,198,369 54,211 1,941,208 782,131	539,844 362,888,364 173,789 6,223,074 2,507,334	(142,183) (95,576,572) (45,772) (1,639,017) (660,375)	18,468 12,414,618 5,945 212,895 85,777	_ _ _ _	
Beaver School District Box Elder School District Cache County School District Canyons School District Carbon School District	1,453,942 10,384,932 14,349,234 28,669,078 2,975,351	0.2159381 1.5423604 2.1311347 4.2579044 0.4418964	2,878,718 20,561,543 28,410,622 56,763,053 5,891,017	9,228,519 65,915,656 91,078,027 181,969,508 18,885,269	(2,430,583) (17,360,690) (23,987,889) (47,926,645) (4,973,952)	315,713 2,255,012 3,115,831 6,225,281 646,076		
Color Country Uniserv Daggett School District Davis School District Davis Technical College Davis Uniserv	21,158 331,202 55,858,154 989,617 14,160	0.0031424 0.0491898 8.2960004 0.1469770 0.0021030	41,892 655,760 110,595,792 1,959,382 28,036	134,296 2,102,218 354,545,093 6,281,337 89,876	(35,371) (553,677) (93,379,144) (1,654,362) (23,671)	4,594 71,918 12,129,190 214,888 3,075		
Duchesne School District East Hollywood High School Educators Mutual Insurance Emery School District Fast Forward Charter HS	4,048,795 227,051 1,420,489 2,475,341 205,794	0.6013232 0.0337213 0.2109698 0.3676353 0.0305643	8,016,371 449,546 2,812,484 4,901,026 407,459	25,698,672 1,441,143 9,016,189 15,711,582 1,306,223	(6,768,448) (379,564) (2,374,660) (4,138,075) (344,029)	879,166 49,302 308,449 537,502 44,687		
Garfield School District Grand School District Granite School District Granite Uniserv Heber Valley Historic Railroad	980,655 1,734,975 59,137,661 57,013 75,043	0.1456459 0.2576768 8.7830697 0.0084676 0.0111453	1,941,637 3,435,146 117,089,020 112,883 148,580	6,224,450 11,012,300 375,360,910 361,879 476,315	(1,639,379) (2,900,390) (98,861,559) (95,311) (125,451)	212,942 376,737 12,841,311 12,380 16,295		
High Desert Uniserv High School Activities Assn Intech Collegiate High School Iron School District Itineris High School	9,971 129,383 120,320 7,452,347 285,563	0.0014809 0.0192158 0.0178698 1.1068156 0.0424116	19,742 256,170 238,226 14,755,200 565,398	63,289 821,223 763,699 47,301,835 1,812,539	(16,669) (216,292) (201,141) (12,458,231) (477,382)	2,165 28,095 26,127 1,618,223 62,008		
Jordan School District Jordan Uniserv Juab School District Kane School District Logan School District	43,414,201 42,911 2,036,161 1,348,703 4,315,452	6.4478363 0.0063731 0.3024087 0.2003081 0.6409268	85,957,513 84,961 4,031,476 2,670,351 8,544,335	275,560,343 272,366 12,924,001 8,560,541 27,391,206	(72,576,351) (71,735) (3,403,889) (2,254,653) (7,214,223)	9,427,077 9,318 442,137 292,861 937,069		
Millard School District Monticello Academy Morgan School District Murray School District Nebo School District	3,217,008 326,000 2,111,812 5,929,639 25,809,536	0.4777869 0.0484171 0.3136443 0.8806644 3.8332080	6,369,481 645,459 4,181,261 11,740,329 51,101,333	20,419,117 2,069,195 13,404,176 37,636,840 163,819,313	(5,377,933) (544,979) (3,530,356) (9,912,691) (43,146,295)	698,550 70,788 458,565 1,287,578 5,604,352		
Noah Webster Academy Inc North Sanpete School Dist North Summit School District Nuames Charter School Ogden School District	226,510 2,196,334 1,271,851 792,702 9,565,600	0.0336411 0.3261975 0.1888941 0.1177313 1.4206739	448,477 4,348,610 2,518,188 1,569,502 18,939,314	1,437,715 13,940,660 8,072,743 5,031,467 60,715,156	(378,662) (3,671,654) (2,126,177) (1,325,174) (15,990,996)	49,185 476,918 276,173 172,129 2,077,100	_ _ _ _	
Ogden-Weber Tech College Park City School District Piute School District Provo School District Rich School District	625,153 6,957,643 388,375 11,289,362 711,361	0.0928472 1.0333426 0.0576810 1.6766854 0.1056507	1,237,766 13,775,716 768,958 22,352,259 1,408,453	3,967,999 44,161,829 2,465,105 71,656,286 4,515,180	(1,045,081) (11,631,225) (649,253) (18,872,642) (1,189,196)	135,748 1,510,801 84,333 2,451,403 154,467		
Salt Lake Arts Academy Salt Lake School District San Juan School District Sevier School District Soldier Hollow Charter School	360,635 26,071,226 3,633,511 4,085,349 178,858	0.0535612 3.8720739 0.5396456 0.6067522 0.0265639	714,036 51,619,462 7,194,133 8,088,746 354,129	2,289,038 165,480,320 23,062,764 25,930,690 1,135,258	(602,881) (43,583,767) (6,074,209) (6,829,556) (299,001)	78,309 5,661,176 788,990 887,104 38,838		

	Deferred Outflow	s of Resources	Pension Expense Exe Deferred Inflows of Resources to Employer-Pa							hat Attributable er Contributions	
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
15,884 10,677,643 5,114 183,108	37,263 6,278,328 9,738 117,603	71,615 29,370,589 20,797 513,606	_ _ _ _	169,504 113,942,204 54,568 1,953,964	_ _ _ _	13,817 — 54,697	183,321 113,942,204 54,568 2,008,661	40,390 27,150,245 13,002 465,592	10,552 4,649,784 5,728 16,899	_ _ _ _	50,942 31,800,029 18,730 482,491
73,776 271,540 1,939,505 2,679,884 5,354,279 555,681	5,819 115,069 1,353,529 1,100,827 2,155,831 70,740	702,322 5,548,046 6,896,542 13,735,391 1,272,497		787,270 2,897,634 20,696,655 28,597,310 57,136,047 5,929,728		35,576 ————————————————————————————————————	822,846 2,897,634 20,696,655 28,597,310 57,742,163 6,041,112	187,591 690,451 4,931,616 6,814,191 13,614,426 1,412,941	4,861 34,656 1,203,781 1,350,279 740,702 (80,097)		725,107 6,135,397 8,164,470 14,355,128 1,332,844
3,952 61,856 10,432,150 184,822 2,645	3,475 12,537 4,111,725 214,617 230	12,021 146,311 26,673,065 614,327 5,950		42,167 660,069 111,322,526 1,972,258 28,220		47,266 2,672,066 27,712	42,167 707,335 113,994,592 1,999,970 28,220	10,048 157,282 26,526,026 469,951 6,724	10,831 (20,423) 1,058,687 109,472 (1,244)		20,879 136,859 27,584,713 579,423 5,480
756,159 42,404 265,293 462,298 38,434	312,694 14,388 1,949 2,440 3,477	1,948,019 106,094 575,691 1,002,240 86,598		8,069,047 452,500 2,830,966 4,933,231 410,137		30,129 216,413 249,424 15,682	8,069,047 482,629 3,047,379 5,182,655 425,819	1,922,699 107,822 674,565 1,175,495 97,728	105,268 30,739 (197,146) (257,160) 12,374		2,027,967 138,561 477,419 918,335 110,102
183,148 324,026 11,044,636 10,648 14,015	124,327 1,346,397 502 39,313	396,090 825,090 25,232,344 23,530 69,623		1,954,396 3,457,718 117,858,420 113,625 149,557		182,147 163,556 736,317 17,601	2,136,543 3,621,274 118,594,737 131,226 149,557	465,695 823,908 28,083,404 27,075 35,637	(141,547) 55,175 2,016,717 (4,150) 20,725		324,148 879,083 30,100,121 22,925 56,362
1,862 24,164 22,471 1,391,811 53,332	778 4,795 7,680 653,750 67,097	4,805 57,054 56,278 3,663,784 182,437		19,872 257,853 239,792 14,852,158 569,114		171 5,503 16,194 624,571 5,309	20,043 263,356 255,986 15,476,729 574,423	4,735 61,442 57,138 3,538,985 135,609	4,960 (6,666) 6,100 259,085 26,454		9,695 54,776 63,238 3,798,070 162,063
8,108,099 8,014 380,276 251,886 805,960	8,635,256 4,657 94,101 32,297 67,104	26,170,432 21,989 916,514 577,044 1,810,133		86,522,347 85,519 4,057,968 2,687,898 8,600,481		3,523 — 36,528 685,239	86,522,347 89,042 4,057,968 2,724,426 9,285,720	20,616,618 20,378 966,936 640,475 2,049,330	6,108,212 (7,886) 168,694 (3,524) (391,160)		26,724,830 12,492 1,135,630 636,951 1,658,170
600,813 60,884 394,405 1,107,428 4,820,227	137,930 614,912 773,232 1,438,855	1,299,363 269,602 1,467,882 3,168,238 11,863,434		6,411,336 649,700 4,208,736 11,817,476 51,437,123		404,606 40,103 — — 124,749	6,815,942 689,803 4,208,736 11,817,476 51,561,872	1,527,699 154,811 1,002,861 2,815,878 12,256,481	(268,436) (17,107) 402,930 682,840 1,088,927		1,259,263 137,704 1,405,791 3,498,718 13,345,408
42,303 410,191 237,533 148,046 1,786,485	41,242 34,167 72,821 515,642	132,730 921,276 586,527 835,817 3,863,585		451,424 4,377,185 2,534,736 1,579,815 19,063,766		5,576 54,615 — 1,234,258	451,424 4,382,761 2,589,351 1,579,815 20,298,024	107,566 1,042,999 603,979 376,440 4,542,530	21,052 14,808 118,387 374,710 (1,345,766)		128,618 1,057,807 722,366 751,150 3,196,764
116,755 1,299,420 72,533 2,108,418 132,855	247,759 — 58,715 6,104	252,503 3,057,980 156,866 4,618,536 293,426		1,245,900 13,866,237 774,011 22,499,137 1,417,708		348,197 515,457 84,694 947,491 95,660	1,594,097 14,381,694 858,705 23,446,628 1,513,368	296,874 3,304,059 184,432 5,361,114 337,813	(272,951) 255,120 (70,876) (434,526) (12,620)		23,923 3,559,179 113,556 4,926,588 325,193
67,353 4,869,100 678,600 762,986 33,404	161,017 — 9,464 33,831 40,674	306,679 10,530,276 1,477,054 1,683,921 112,916		718,728 51,958,658 7,241,406 8,141,898 356,456		1,764,872 661,461 325,549	718,728 53,723,530 7,902,867 8,467,447 356,456	171,259 12,380,753 1,725,488 1,940,058 84,937	105,885 (1,405,721) (367,566) (159,064) 21,645		277,144 10,975,032 1,357,922 1,780,994 106,582

## **Noncontributory Retirement System State and School Division**

## Schedule of Employer Allocations and Pension Amounts (Concluded)

At December 31, 2020

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	
South Sanpete School Dist South Summit School District Southern Utah University Southwest Educ Development Ctr Southwest Technical College	\$ 2,961,073 1,663,069 2,852,526 82,687 379,183	0.4397758% 0.2469974 0.4236545 0.0122807 0.0563159	\$ 5,862,747 3,292,776 5,647,831 163,717 750,760	18,794,641 10,555,896 18,105,667 524,839 2,406,765	(4,950,083) (2,780,184) (4,768,623) (138,231) (633,887)	642,975 361,123 619,405 17,955 82,337	= = =	
State of Utah Success Academy Summit Academy High School Summit Academy Inc Tintic School District	160,806,024 270,651 283,599 1,182,288 377,717	23.8827593 0.0401968 0.0421199 0.1755923 0.0560981	318,386,284 535,872 561,510 2,340,859 747,856	1,020,674,387 1,717,885 1,800,073 7,504,265 2,397,457	(268,822,506) (452,452) (474,098) (1,976,453) (631,436)	34,917,857 58,770 61,582 256,725 82,018	_ _ _ _	
Tooele School District Tooele Technical College Tuacahn High School Uintah Basin Technical College Uintah School District	12,065,963 311,707 256,047 702,737 5,950,591	1.7920254 0.0462945 0.0380279 0.1043698 0.8837762	23,889,882 617,162 506,958 1,391,377 11,781,813	76,585,557 1,978,482 1,625,193 4,460,439 37,769,829	(20,170,900) (521,087) (428,039) (1,174,778) (9,947,717)	2,620,036 67,685 55,599 152,594 1,292,127	= = =	
UT School Board Risk Mgmt Utah Co Academy of Sciences Utah Communications Authority Utah Education Association Utah Housing Corporation	184,185 320,146 496,898 343,315 1,197,486	0.0273549 0.0475478 0.0737988 0.0509889 0.1778494	364,674 633,870 983,828 679,744 2,370,949	1,169,063 2,032,044 3,153,930 2,179,106 7,600,727	(307,905) (535,194) (830,674) (573,927) (2,001,859)	39,994 69,517 107,898 74,548 260,025	_ _ _ _	
Utah Retirement Systems Utah Safety Council Utah School Boards Association Utah School Employees Assn Utah State Fair Corp	5,998,031 82,664 162,121 65,278 106,084	0.8908220 0.0122771 0.0240781 0.0096950 0.0157555	11,875,743 163,669 320,990 129,246 210,040	38,070,944 524,685 1,029,023 414,334 673,341	(10,027,024) (138,190) (271,021) (109,126) (177,343)	1,302,429 17,950 35,203 14,175 23,035		
Wasatch School District Wasatch Uniserv Washington School District Wayne School District Weber County School District	6,958,542 32,618 23,880,281 552,217 27,918,313	1.0334761 0.0048443 3.5466769 0.0820147 4.1464015	13,777,496 64,580 47,281,524 1,093,356 55,276,584	44,167,534 207,030 151,573,871 3,505,052 177,204,223	(11,632,728) (54,527) (39,921,123) (923,151) (46,671,577)	1,510,997 7,083 5,185,429 119,910 6,062,258		
Woodland Peaks Uniserv Workers' Compensation Fund	39,485 5,857,092	0.0058643 0.8698897	78,178 11,596,689	250,622 37,176,363	(66,008) (9,791,412)	8,574 1,271,825	_	
Grand Total	\$ 673,314,260	100.0000000%	\$ 1,333,121,831	4,273,687,027	(1,125,592,326)	146,205,277		
Units without a proportionate share for 2020 but had a proportionate share in a prior year								
Bridgerland Technical College Liberty Academy Charter Ogden Weber/NEA/UEA Uniserv Provo City Corp	\$  	0.000000% 0.0000000 0.0000000 0.0000000	\$ — — — —	=	_ _ _	_ _ _	_ _ _	
Uintah Fire Suppression SSD USU Space Dynamics Lab Utah Dairy Commission White City Water Imp Dist		0.000000 0.000000 0.000000 0.000000		_ _ _ _	_ _ _ _			
Grand Total	\$ 673,314,260	100.0000000%	\$ 1,333,121,831	4,273,687,027	(1,125,592,326)	146,205,277		

	Deferred Outflow	ws of Resources				Deferred Inflo	ws of Resources				hat Attributable er Contributions
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	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
553,014 310,597 532,742 15,443 70,817	45,264 123,508 156,876 — 61,586	1,241,253 795,228 1,309,023 33,398 214,740	=	5,901,272 3,314,413 5,684,943 164,792 755,693	=	420,564 16,189 876 21,585 14,465	6,321,836 3,330,602 5,685,819 186,377 770,158	1,406,160 789,761 1,354,613 39,267 180,067	(158,725) 149,960 164,629 (11,552) 24,388	_ _ _ _	1,247,435 939,721 1,519,242 27,715 204,455
30,032,368 50,547 52,965 220,806 70,543	107,051 101,913 175,897	64,950,225 216,368 216,460 653,428 152,561		320,478,419 539,394 565,199 2,356,241 752,770		19,580,506 ————————————————————————————————————	340,058,925 539,394 565,199 2,356,241 771,555	76,363,868 128,527 134,676 561,447 179,371	(18,493,930) 85,940 67,122 341,685 (16,607)		57,869,938 214,467 201,798 903,132 162,764
2,253,457 58,215 47,820 131,244 1,111,341	1,847,319 104,181 50,892 55,592 1,191,469	6,720,812 230,081 154,311 339,430 3,594,937		24,046,864 621,218 510,289 1,400,519 11,859,233		17,717 	24,046,864 621,218 528,006 1,400,519 11,916,710	5,729,907 148,024 121,592 333,717 2,825,828	1,468,679 80,327 (16,648) 34,353 315,479		7,198,586 228,351 104,944 368,070 3,141,307
34,399 59,791 92,801 64,118 223,644	5,914 108,554 24,749 61,225 104,283	80,307 237,862 225,448 199,891 587,952		367,070 638,035 990,293 684,211 2,386,529		50,411 47,415 108,733 7,551 58,737	417,481 685,450 1,099,026 691,762 2,445,266	87,466 152,032 235,968 163,034 568,664	(6,773) 75,335 70,193 7,493 41,239		80,693 227,367 306,161 170,527 609,903
1,120,201 15,438 30,278 12,191 19,812	7,910 1,536	2,422,630 33,388 73,391 27,902 42,847		11,953,779 164,744 323,100 130,095 211,420		505,807 7,670 50,524 38,966 14,587	12,459,586 172,414 373,624 169,061 226,007	2,848,357 39,255 76,988 30,999 50,377	(40,365) (11,884) 19,079 (22,133) (11,243)		2,807,992 27,371 96,067 8,866 39,134
1,299,587 6,092 4,459,916 103,133 5,214,065	1,316,260 12,468 877,108 39,933 985,243	4,126,844 25,643 10,522,453 262,976 12,261,566		13,868,028 65,005 47,592,214 1,100,540 55,639,810		4,176 118,320	13,868,028 65,005 47,592,214 1,104,716 55,758,130	3,304,486 15,489 11,340,313 262,238 13,257,901	1,062,916 18,671 804,623 1,304 578,836		4,367,402 34,160 12,144,936 263,542 13,836,737
7,374 1,093,879	11,137	27,085 2,365,704	_	78,692 11,672,892	_	2,858,180	78,692 14,531,072	18,751 2,781,427	7,458 (1,236,780)	_	26,209 1,544,647
125,749,152	38,764,567	310,718,996	_	1,341,881,875	_	37,183,469	1,379,065,344	319,744,751	1,024,473	_	320,769,224
= = =			_ _ _ _	_ _ _ _	_ _ _ _	3,197,858 52,032 71,320	3,197,858 52,032 71,320	_ _ _ _	(1,476,332) (85,948) (28,462)	_ _ _ _	(1,476,332) (85,948) (28,462)
=	289 22,548 —	289 22,548 —				767 1,151,367 117,259	767 1,151,367 117,259		(44) (687,025) (120,280)		(44) (687,025) (120,280)
125,749,152	38,787,939	310,742,368	_	1,341,881,875	_	41,774,071	1,383,655,946	319,744,751	(1,373,618)	_	318,371,133

### **Noncontributory Retirement System Higher Education Division**

# Schedule of Employer Allocations and Pension Amounts

At December 31, 2020

		Employer	Net Pension	Net Pension Liability/(Asset)	Net Pension Liability/(Asset)	Differences Between Expected	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	
Bridgerland Technical College	\$ 996,003	1.9639043%		3,488,178	(6,442,116)	641,260	_	
Dixie State University Dixie Technical College	1,228,502 191,647	2.4223427 0.3778869	(2,389,124) (372,705)	4,302,431 671,182	(7,945,913) (1,239,567)	790,950 123,389	_	
Mountainland Technical College	345,636	0.6815207	(672,175)	1,210,479	(2,235,565)	222,532	_	
Salt Lake Community College	3,896,787	7.6836284	(7,578,259)	13,647,236	(25,204,298)	2,508,881	_	
Snow College	1,046,678	2.0638234	(2,035,521)	3,665,649	(6,769,877)	673,886	_	
University of Utah	17,638,509	34.7793557	(34,302,407)	61,773,171	(114,085,325)	11,356,258	_	
University of Utah Hospital	7,857,104	15.4925228	(15,280,066)	27,516,963	(50,819,500)	5,058,664		
USU Space Dynamics Lab	831,948	1.6404220	(1,617,926)	2,913,627	(5,381,010)	535,635	<del>_</del>	
Utah State University	8,300,186	16.3661868	(16,141,749)	29,068,717	(53,685,345)	5,343,935	_	
Utah Valley University	4,858,506	9.5799320	(9,448,557)	17,015,346	(31,424,666)	3,128,068	_	
Weber State University	3,523,951	6.9484743	(6,853,186)	12,341,496	(22,792,801)	2,268,836	_	
Grand Total	\$ 50,715,457	100.0000000%	\$ (98,628,647)	177,614,475	(328,025,983)	32,652,294	_	

	Deferred Outflow	s of Resources				Deferred Inflo	ws of Resources	Pension Expense Excluding That Attributable to Employer-Paid Member Contributions				
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	
58,033 71,580	799,952 119,538	1,499,245 982,068	29,407 36,272	2,606,608 3,215,074	_	_	2,636,015 3,251,346	(587,697) (724,884)	783,499 129,116	_	195,802 (595,768)	
11,166	80,291	214,846	5,658	501,553	_	_	507,211	(113,082)	150,605	_	37,523	
20,139	7,297	249,968	10,205	904,554		11,848	926,607	(203,945)	3,330		(200,615)	
227,050	186,167	2,922,098	115,054	10,198,158	_	54,892	10,368,104	(2,299,320)	(49,069)	_	(2,348,389)	
60,986	121,830	856,702	30,904	2,739,226		_	2,770,130	(617,598)	153,405	_	(464,193)	
1,027,722	_	12,383,980	520,786	46,161,183	_	2,602,130	49,284,099	(10,407,699)	(6,133,213)	_	(16,540,912)	
457,801		5,516,465	231,984	20,562,577		454,909	21,249,470	(4,636,127)	(955,964)		(5,592,091)	
48,474	693,228	1,277,337	24,564	2,177,263	_	_	2,201,827	(490,895)	1,316,175	_	825,280	
483,618	_	5,827,553	245,066	21,722,154	_	379,868	22,347,088	(4,897,570)	(977,253)	_	(5,874,823)	
283,085	17,968	3,429,121	143,449	12,715,043	_	118,652	12,977,144	(2,866,788)	(371,796)	_	(3,238,584)	
205,326	91,141	2,565,303	104,046	9,222,419	_	119,197	9,445,662	(2,079,326)	(206,379)	_	(2,285,705)	
2,954,980	2,117,413	37,724,687	1,497,395	132,725,812	_	3,741,496	137,964,703	(29,924,931)	(6,157,546)	_	(36,082,477)	

# Schedule of Employer Allocations and Pension Amounts

At December 31, 2020						2111	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	
Box Elder County Carbon County Centerville City City of Naples City of Orem	\$ 9,263 6,776 29,614 7,243 112,037	0.3883391% 0.2840702 1.2415378 0.3036476 4.6970700	\$ (69,599) (50,912) (222,511) (54,420) (841,818)	103,516 75,722 330,945 80,940 1,252,053	(215,765) (157,832) (689,811) (168,710) (2,609,739)	_ _ _ _	_ _ _ _	
City of St George City of West Jordan Clinton City Corinne City Davis & Weber County Canal Co	17,972 1,939 9,063 25,297 88,892	0.7534547 0.0812730 0.3799442 1.0605820 3.7267432	(135,036) (14,566) (68,094) (190,080) (667,914)	200,841 21,664 101,278 282,709 993,402	(418,627) (45,156) (211,101) (589,270) (2,070,616)			
Davis Co Housing Authority DDI Vantage Duchesne County Emery Co Care & Rehab Ctr Emery Town	25,293 572,333 106,288 101,273 4,511	1.0604089 23.9947120 4.4560574 4.2458111 0.1891273	(190,048) (4,300,378) (798,623) (760,942) (33,896)	282,663 6,396,041 1,187,809 1,131,765 50,414	(589,174) (13,331,705) (2,475,830) (2,359,015) (105,081)			
Five-County Assn of Govts Garfield County Garland City Grand County Honeyville City	12,557 9,721 29,731 5,672 7,958	0.5264545 0.4075531 1.2464442 0.2377969 0.3336420	(94,352) (73,042) (223,390) (42,618) (59,796)	140,332 108,638 332,253 63,387 88,936	(292,503) (226,441) (692,537) (132,122) (185,375)			
Iron County Jordan Valley Water Conserv Juab County Kearns Improvement Dist Layton City	7,621 21,364 6,971 37,510 27,772	0.3195219 0.8956644 0.2922484 1.5725743 1.1643219	(57,265) (160,523) (52,377) (281,840) (208,672)	85,172 238,749 77,902 419,186 310,362	(177,530) (497,640) (162,376) (873,738) (646,909)			
Logan City Mountainland Assn of Govt Murray City North Davis Co Sewer Dist Oakley City	14,557 19,757 46,049 13,460 19,590	0.6102979 0.8282805 1.9305677 0.5642833 0.8213135	(109,379) (148,446) (346,000) (101,132) (147,197)	162,681 220,787 514,613 150,416 218,930	(339,088) (460,201) (1,072,643) (313,521) (456,330)			
Ogden City Corp Park City Provo City Corp Provo Housing Authority Salt Lake City Corp	63,998 77,397 36,596 22,770 248,816	2.6830907 3.2448058 1.5342633 0.9546235 10.4314551	(480,869) (581,540) (274,974) (171,089) (1,869,545)	715,206 864,937 408,974 254,465 2,780,613	(1,490,752) (1,802,847) (852,452) (530,398) (5,795,821)			
Salt Lake County Sandy City South Davis Sewer Dist Town of Manila Town of Paragonah	189,909 77,620 51,376 7,437 7,169	7.9618296 3.2541910 2.1539158 0.3118099 0.3005402	(1,426,934) (583,222) (386,029) (55,883) (53,863)	2,122,309 867,439 574,149 83,116 80,112	(4,423,673) (1,808,061) (1,196,737) (173,245) (166,983)			
Utah County Utah League Cities/Towns Vernal City Weber County Corp Weber River Water Users	55,402 88,143 13,270 14,990 8,608	2.3226879 3.6953347 0.5563504 0.6284377 0.3608782	(416,277) (662,285) (99,710) (112,630) (64,677)	619,137 985,030 148,301 167,517 96,196	(1,290,509) (2,053,165) (309,114) (349,166) (200,508)			
West Valley City Western Uintah Basin Mad	14,466 9,197	0.6064828 0.3855604	(108,695) (69,101)	161,664 102,775	(336,968) (214,221)	_		~~~~~
Grand Total	\$ 2,385,245	100.0000000%	\$ (17,922,189)	26,656,046	(55,561,006)	_		
Units without a proportionate share for 2020 but had a proportionate share in a prior year								
Castle Valley SSD Kaysville City Roy City Tooele County Woods Cross City	\$   	0.0000000% 0.0000000 0.0000000 0.0000000 0.0000000	\$   	_ _ _ _	_ _ _ _	_ _ _ _	_ _ _ _	
Grand Total	\$ 2,385,245		\$ (17,922,189)	26,656,046	(55,561,006)	_	_	

_	Deferred Outflows	s of Resources				Deferred Inflo	ws of Resources	<u> </u>			
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	Proportionate Share of	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions
_	_	_	_	118,072	_	_	118,072	(31,200)	7,657	_	(23,543)
_	_	_	_	86,369 377,480	_	_	86,369 377,480	(22,822) (99,746)	3,557 29,793	_	(19,265) (69,953)
_	_	_	_	92,322	_	_	92,322	(24,395)	9,258	_	(15,137)
				1,428,109			1,428,109	(377,367)	(119,610)		(496,977)
_	_	_	_	229,082	_	_	229,082	(60,533)	23,314	_	(37,219)
	_	_	_	24,710 115,519	_	_	24,710 115,519	(6,530) (30,525)	(65,048) (45,667)	_	(71,578) (76,192)
_	_	_	_	322,462	_	_	322,462	(85,208)	70,044	_	(15,164)
				1,133,088			1,133,088	(299,410)	50,665		(248,745)
_	_	_	_	322,409 7,295,412	_	_	322,409 7,295,412	(85,194) (1,927,761)	(28,062) 172,192	_	(113,256) (1,755,569)
_	_	_	_	1,354,831	_	_	1,354,831	(358,004)	90,037	_	(267,967)
_	_	_	_	1,290,907 57,503	_	_	1,290,907 57,503	(341,113) (15,195)	187,938 (7,273)	_	(153,175) (22,468)
<u>-</u>	~~~~~~		·····	160,065	·····		160,065	(42,296)	14,183		(28,113)
_	_	_	_	123,913	_	_	123,913	(32,743)	9,427	_	(23,316)
	_	_	_	378,972 72,300	_	_	378,972 72,300	(100,141) (19,105)	65,420 (69,905)	_	(34,721) (89,010)
_	_	_	_	101,441	_	_	101,441	(26,805)	(11,334)	_	(38,139)
_		_	_	97,148	_	_	97,148	(25,671)	6,550	_	(19,121)
_	_	_	_	272,320 88,856	_	_	272,320 88,856	(71,959) (23,480)	(316) (1,546)	_	(72,275) (25,026)
_	_	_	_	478,129	_	_	478,129	(126,342)	45,027	_	(81,315)
_				354,003			354,003	(93,543)	5,434		(88,109)
_	_	_	_	185,556	_	_	185,556	(49,032)	15,516 22,882	_	(33,516)
	_	_	_	251,832 586,975	_	_	251,832 586,975	(66,545) (155,104)	(93,323)	_	(43,663) (248,427)
_	_	_	_	171,566	_	_	171,566	(45,335)	13,812	_	(31,523)
		<del>-</del>	<del>-</del>	249,714	<del>-</del>		249,714	(65,985)	(8,280)		(74,265)
_	_	_	_	815,773 986,559	_	_	815,773 986,559	(215,562) (260,691)	18,999 (264,018)	_	(196,563) (524,709)
_		_	_	466,481	_	_	466,481	(123,264)	(39,212)	_	(162,476)
_	_	_	_	290,246 3,171,605	_	_	290,246 3,171,605	(76,695) (838,074)	34,785 (115,606)	_	(41,910) (953,680)
<u>-</u>	~~~~~~		·····	2,420,734	·····		2,420,734	(639,662)	103,870		(535,792)
_	_	_	_	989,412	_	_	989,412	(261,445)	85,705	_	(175,740)
	_	_	_	654,882 94,803	_	_	654,882 94,803	(173,048) (25,051)	62,000 (4,962)	_	(111,048) (30,013)
_	_	_	_	91,377	_	_	91,377	(24,146)	5,840	_	(18,306)
				706,196	_		706,196	(186,607)	(122,635)		(309,242)
_	_	_	_	1,123,539 169,154	_	_	1,123,539 169,154	(296,887) (44,698)	165,174 (85,412)	_	(131,713) (130,110)
	_	_	_	191,072	_	_	191,072	(50,489)	15,606	_	(34,883)
_	_	_	_	109,722	_	_	109,722	(28,993)	(801)	_	(29,794)
_	_	_	_	184,397	_	_	184,397	(48,725)	(37,078)	_	(85,803)
			_	117,227	_	_	117,227	(30,976)	6,974	_	(24,002)
_				30,404,244			30,404,244	(8,034,102)	221,571		(7,812,531)
_	_	_	_	_	_	_	_	_	(34,756) (24,097)	_	(34,756) (24,097)
	_	_	_	_	_	_	_	_	(59,220)	_	(59,220)
_	_	_	_	_	_	_	_	_	(29,426) (86,080)	_	(29,426) (86,080)
_							30 404 244				
				30,404,244			30,404,244	(8,034,102)	(12,008)		(8,046,110)

### **Contributory Retirement System State and School Division**

# Schedule of Employer Allocations and Pension Amounts

At December 31, 2020

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	
Alpine School District	\$ 99,317	5.8181180%	\$ (1,383,774)	2,100,577	(4,370,475)	_	_	
Box Elder School District	19,656	1.1514826	(273,867)	415,732	(864,975)	_	_	
Cache County School District Davis School District	37,380 149,854	2.1897595 8.7786054	(520,810) (2,087,893)	790,592 3,169,433	(1,644,912) (6,594,345)	_	_	
Duchesne School District	15,573	0.9122582	(2,067,693)	329,362	(685,273)	_	_	
Educators Mutual Insurance	8,069	0.4726751	(112,420)	170,655	(355,066)	_	_	~~~~~
Emery School District Granite School District	15,151 231,565	0.8875522 13.5653655	(211,094) (3,226,370)	320,442 4,897,648	(666,715) (10,190,081)	_	_	
Iron School District	7.124	0.4173124	(99,253)	150.667	(313,478)	_	_	
Jordan School District	51,667	3.0266952	(719,866)	1,092,760	(2,273,604)	_	_	
Millard School District	18,000	1.0544418	(250,787)	380,696	(792,079)	_	_	~~~~~~
Murray School District Provo School District	11,660 24,778	0.6830471 1.4515114	(162,455) (345,226)	246,608 524,055	(513,094) (1,090,352)	_	_	
Salt Lake School District	154,603	9.0568044	(2,154,059)	3,269,874	(6,803,323)	_	_	
San Juan School District	2,674	0.1566291	(37,252)	56,549	(117,657)	_	_	
Southern Utah University	5,887	0.3448931	(82,029)	124,520	(259,078)		<del>-</del>	~~~~~~
State of Utah Uintah School District	603,911 23,755	35.3778363 1.3915887	(8,414,224) (330,974)	12,772,839 502,420	(26,575,252) (1,045,339)	_	_	
Utah Housing Corporation	108,722	6.3690803	(1,514,814)	2,299,497	(4,784,349)	_	_	
Washington School District	26,013	1.5238650	(362,434)	550,177	(1,144,702)	_	_	
Workers' Compensation Fund	91,676	5.3704787	(1,277,308)	1,938,961	(4,034,216)	_	_	
Grand Total	\$ 1,707,033	100.0000000%	\$ (23,783,879)	36,104,064	(75,118,365)	_	_	
Units without a proportionate share for 2020 but had a proportionate share in a prior year								
Kane School District	\$ —	0.0000000%	\$ —	_			_	
North Sanpete School Dist	_	0.0000000	_	_	_	_	_	
Ogden-Weber Tech College Park City School District	_	0.0000000 0.0000000	_	_	_	_	_	
Tooele School District		0.0000000		_			_	~~~~~
Juab School District	_	0.0000000	_	_	_	_	_	
Weber County School District Carbon School District	_	0.0000000 0.0000000	_	_	_	_	_	
Nebo School District		0.0000000						~~~~~~
Sevier School District	_	0.0000000	_	_	_	_	_	
Logan School District		0.0000000	_	_				
Grand Total	\$ 1,707,033	100.0000000%	\$ (23,783,879)	36,104,064	(75,118,365)			

	Deferred Outflow	s of Resources				Deferred Inflov	vs of Resources			ense Excluding T oyer-Paid Memb	hat Attributable er Contributions
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	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
_	_		_	2,724,923	_	_	2,724,923	(569,169)	95,666	_	(473,503)
_	_	_	_	539,298	_	_	539,298	(112,646)	69,494	_	(43,152)
_	_	_	_	1,025,577	_	_	1,025,577	(214,217)	127,383	_	(86,834)
_		_	_	4,111,471	_	_	4,111,471	(858,784)	49,553	_	(809,231)
	<del>-</del>			427,257			427,257	(89,243)	34,149		(55,094)
_	_		_	221,378		_	221,378	(46,240)	(273,073)	_	(319,313)
_	_	_	_	415,686	_	_	415,686	(86,826)	64,899	_	(21,927)
_	_	_	_	6,353,357	_	_	6,353,357	(1,327,058)	(223,433)	_	(1,550,491)
_	_	_	_	195,449	_	_	195,449	(40,824)	(62,310)	_	(103,134)
				1,417,557			1,417,557	(296,092)	(11,682)		(307,774)
_	_	_	_	493,849	_	_	493,849	(103,153)	(120,334)	_	(223,487)
_	_	_	_	319,906	_	_	319,906	(66,820)	43,965	_	(22,855)
_	_	_	_	679,817	_	_	679,817	(141,997)	61,919	_	(80,078)
_	_	_	_	4,241,766	_	_	4,241,766	(885,999)	408,690	_	(477,309)
				73,357			73,357	(15,323)	2,939		(12,384)
_	_	_	_	161,531	_	_	161,531	(33,740)	17,543	_	(16,197)
_	_	_	_	16,569,258	_	_	16,569,258	(3,460,906)	(688,053)	_	(4,148,959)
_	_	_	_	651,752	_	_	651,752	(136,135)	119,461	_	(16,674)
_	_	_	_	2,982,967	_	_	2,982,967	(623,068) (149,075)	436,347	_	(186,721)
				713,704			713,704	(149,073)	90,627		(58,448)
_	_	_	_	2,515,271	_	_	2,515,271	(525,377)	209,822	_	(315,555)
	_	_	_	46,835,131	_	_	46,835,131	(9,782,692)	453,572	_	(9,329,120)
_	_	_	_	_	_	_	_	_	_	_	_
_	_	_		_	_	_	_	_	_	_	_
_		_	_	_		_			_		
		<del>-</del>	<del>-</del>	~~~~~~~				~~~~~			
_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_		_	_	_
_	_	_	_	_	_	_	_	_	_	_	_
_		_	_	_	_	_	_	_	(221 002)	_	(221.002)
		_							(321,983)		(321,983)
_		_		46,835,131		_	46,835,131	(9,782,692)	131,589	_	(9,651,103)

### **Contributory Retirement System Higher Education Division**

# Schedule of Employer Allocations and Pension Amounts

At December 31, 2020

Participating Employer	Co	Employer ontributions	Employer Allocation Percentage		Net Pension iability/(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	
Dixie State University	\$	8,788	1.1166748%	\$	(237,214)	(69,515)	(380,210)	_	_	
Salt Lake Community College		49,125	6.2421262 35.6796737		(1,326,010)	(388,583)	(2,125,347)	_	_	
University of Utah University of Utah Hospital		280,798 303,420	38.5541719		(7,579,407) (8,190,036)	(2,221,123) (2,400,066)	(12,148,373) (13,127,094)	_	_	
Utah State University	~~~	33,482	4.2543835	~~	(903,756)	(264,843)	(1,448,551)	_		~~~~~~~~~~~
Utah Valley University		80,571	10.2377312		(2,174,794)	(637,317)	(3,485,788)	_	_	
Weber State University		30,813	3.9152387		(831,711)	(243,731)	(1,333,078)	_	_	
Grand Total	\$	786,997	100.0000000%	\$	(21,242,928)	(6,225,178)	(34,048,441)	_	_	
Units without a proportionate share for 2020 but had a proportionate share in a prior year										
Snow College	\$	_	0.0000000%	\$	_	_	_	_	_	
Grand Total	\$	786,997	100.0000000%	\$	(21,242,928)	(6,225,178)	(34,048,441)	_	_	

	Deferred Outflow	s of Resources				Deferred Inflow	s of Resources	Pension Expense Excluding That Attributable to Employer-Paid Member Contributions					
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	Proportionate Share of Nonemployer Contributions	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions		
_	_	_	_	85,976	_	_	85,976	(101,349)	(6,367)	_	(107,716)		
_	_	_	_	480,599		_	480,599	(566,532)	(32,486)	_	(599,018)		
_	_	_	_	2,747,080	_	_	2,747,080	(3,238,268)	(21,400)	_	(3,259,668)		
				2,968,398			2,968,398	(3,499,156)	12,742		(3,486,414)		
_	_	_	_	327,557	_	_	327,557	(386,126)	83,278	_	(302,848)		
_	_	_	_	788,232	_	_	788,232	(929,171)	(47,144)	_	(976,315)		
_	_	_	_	301,445	_	_	301,445	(355,345)	(14,683)	_	(370,028)		
_	_	_	_	7,699,287	_	_	7,699,287	(9,075,947)	(26,060)	_	(9,102,007)		
_	_	_	_	_	_	_	_	_	25,661	_	25,661		
	_	_	_	7,699,287	_	_	7,699,287	(9,075,947)	(399)	_	(9,076,346)		

## **Public Safety Retirement System Other Division A with Social Security**

# 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	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	
American Fork City Beaver County Big Water Municipal Corp Blanding City Box Elder County	\$ 511,874 913,839 6,110 56,737 1,236,974	0.9077804% 1.6206451 0.0108358 0.1006203 2.1937075	\$ 753,677 1,345,526 8,996 83,539 1,821,307	3,181,910 5,680,611 37,981 352,690 7,689,283	(1,218,044) (2,174,553) (14,539) (135,011) (2,943,479)	138,722 247,657 1,656 15,376 335,230	_ _ _ _	
Brigham City Cache County Carbon County Cedar City Centerville City	464,053 1,578,603 631,424 497,297 385,341	0.8229740 2.7995684 1.1197962 0.8819298 0.6833816	683,267 2,324,317 929,701 732,215 567,372	2,884,651 9,812,918 3,925,058 3,091,300 2,395,358	(1,104,252) (3,756,412) (1,502,523) (1,183,358) (916,950)	125,762 427,814 171,121 134,771 104,430		
City of Draper City of Harrisville City of Helper City of Kanab City of Moab	743,292 127,550 39,187 80,851 179,600	1.3181890 0.2262038 0.0694964 0.1433854 0.3185107	1,094,415 187,804 57,699 119,044 264,441	4,620,455 792,879 243,596 502,588 1,116,429	(1,768,723) (303,516) (93,249) (192,392) (427,372)	201,438 34,567 10,620 21,911 48,673	_ _ _ _ _	
City of Monticello City of Naples City of North Salt Lake City of South Jordan City of South Salt Lake	16,644 63,395 432,054 986,761 1,115,611	0.0295181 0.1124277 0.7662250 1.7499676 1.9784769	24,507 93,342 636,152 1,452,895 1,642,613	103,465 394,076 2,685,737 6,133,906 6,934,866	(39,607) (150,854) (1,028,107) (2,348,076) (2,654,686)	4,511 17,181 117,090 267,420 302,339	_ _ _ _	
City of St George City of Taylorsville Clearfield City Clinton City Daggett County	2,124,978 2,117 411,627 270,731 30,823	3.7685359 0.0037544 0.7299981 0.4801264 0.0546625	3,128,794 3,117 606,075 398,621 45,383	13,209,299 13,160 2,558,756 1,682,917 191,600	(5,056,556) (5,038) (979,499) (644,225) (73,345)	575,886 574 111,554 73,370 8,353	_ _ _ _ _	
Davis County Duchesne County East Carbon City Emery County Enoch City	3,218,156 495,048 29,001 475,093 58,454	5.7072288 0.8779421 0.0514318 0.8425515 0.1036646	4,738,377 728,904 42,701 699,521 86,067	20,004,716 3,077,322 180,276 2,953,273 363,360	(7,657,861) (1,178,007) (69,010) (1,130,521) (139,095)	872,145 134,162 7,860 128,754 15,841		
Ephraim City Fairview City Farmington City Fountain Green City Garfield County	140,717 23,503 289,292 12,948 454,249	0.2495534 0.0416820 0.5130437 0.0229621 0.8055872	207,190 34,606 425,950 19,064 668,832	874,723 146,102 1,798,297 80,486 2,823,707	(334,846) (55,928) (688,393) (30,810) (1,080,923)	38,135 6,370 78,400 3,509 123,105		
Garland City Grand County Grantsville City Heber City Hurricane City	37,965 346,034 182,307 365,109 432,977	0.0673287 0.6136733 0.3233125 0.6475021 0.7678608	55,899 509,497 268,427 537,583 637,510	235,997 2,151,019 1,133,260 2,269,595 2,691,470	(90,340) (823,416) (433,815) (868,807) (1,030,302)	10,289 93,778 49,407 98,947 117,340		
Iron County Ivins City Juab County Kamas City Kane County	967,604 148,164 279,769 46,511 596,581	1.7159945 0.2627614 0.4961551 0.0824841 1.0580053	1,424,689 218,155 411,928 68,482 878,400	6,014,825 921,019 1,739,100 289,119 3,708,471	(2,302,492) (352,569) (665,732) (110,676) (1,419,613)	262,228 40,154 75,820 12,605 161,678		
Kaysville City Laverkin City Layton City Lehi City Lindon City	502,851 87,667 1,179,704 879,144 275,100	0.8917801 0.1554736 2.0921422 1.5591159 0.4878757	740,393 129,081 1,736,983 1,294,442 405,055	3,125,827 544,959 7,333,281 5,464,941 1,710,079	(1,196,575) (208,612) (2,807,200) (2,091,995) (654,623)	136,277 23,759 319,709 238,255 74,554		
Mapleton City Millard County Morgan County Moroni City Mount Pleasant City	131,459 641,419 214,909 10,566 86,360	0.2331352 1.1375229 0.3811295 0.0187383 0.1531557	193,558 944,418 316,429 15,557 127,156	817,175 3,987,193 1,335,918 65,681 536,834	(312,817) (1,526,309) (511,393) (25,143) (205,502)	35,626 173,830 58,242 2,863 23,404		

	Deferred Outflow	s of Resources				Deferred Inflo	ws of Resources				
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	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
_	1,207	139,929	729	973,912	21,436	96,797	1,092,874	210,885	(63,088)	_	147,797
_	71,911 242	319,568 1,898	1,302 9	1,738,708 11,625	38,269 256	395	1,778,279 12,285	376,490 2,517	80,013 1,825	_	456,503 4,342
_	1,110 329,074	16,486 664,304	81 1,762	107,950 2,353,518	2,376 51,801	51,672	162,079	23,375 509,618	(30,454) 194,276	_	(7,079) 703,894
	~~~~		~~~	~~~~~~		1,496	2,408,577		~~~		~~~··~
	18,367	144,129 427,814	661 2,249	882,927 3,003,516	19,433 66,107	44,153 216,102	947,174 3,287,974	191,184 650,365	(35,872) (175,132)	_	155,312 475,233
_	_	171,121 134,771	900 708	1,201,373 946,178	26,442 20,825	42,664 58,311	1,271,379 1,026,022	260,139 204,880	(106,429) (86,890)	_	153,710
	27,851	134,771	549	733,166	16,137	30,311	749,852	158,756	32,134	_	117,990 190,890
	91,845	293,283	1,059	1,414,219	31,127		1,446,405	306,227	128,272		434,499
_	42,454	77,021 10,620	182 56	242,683 74,559	5,341 1,641	46,196	248,206 122,452	52,549 16,145	40,085 (40,144)	_	92,634 (23,999)
_	3,615	25,526	115	153,831	3,386	25,877	183,209	33,310	(14,322)	_	18,988
	2,631	51,304	256	341,714	7,521	95,868	445,359	73,993	(35,974)		38,019
_	876 2,546	5,387 19,727	24 90	31,668 120,618	697 2,655	40,474 17,766	72,863 141,129	6,857 26,118	(24,671) (9,905)	_	(17,814) 16,213
_	16,298	133,388	615	822,044	18,093	— —	840,752	178,001	54,347	_	232,348
_	46,047 135,461	313,467 437,800	1,406 1,589	1,877,452 2,122,608	41,322 46,718	_	1,920,180 2,170,915	406,533 459,618	103,054 141,702	_	509,587 601,320
	103,062	678,948	3,027	4,043,072	88,987	13,145	4,148,231	875,464	161,675	<u>-</u>	1,037,139
_	4,815	5,389	3	4,028	89	·—	4,120	872	3,093	_	3,965
	8,578 71,688	120,132 145,058	586 386	783,178 515,103	17,238 11,337	56,707	857,709 526,826	169,585 111,538	(26,337) 62,988	_	143,248 174,526
_	71,000	8,353	44	58,645	1,291	21,223	81,203	12,699	(67,875)	_	(55,176)
	334,409	1,206,554	4,585	6,122,998	134,766	136,606	6,398,955	1,325,840	(192,373)		1,133,467
	22,104 352	156,266 8,212	705 41	941,900 55,179	20,731 1,214	4,764 79	968,100 56,513	203,954 11,948	(6,819) 74	_	197,135 12,022
_	_	128,754	677	903,931	19,895	48,690	973,193	195,732	(100,094)	_	95,638
	10,271	26,112	83	111,217	2,448	15,619	129,367	24,082	5,579		29,661
_	31,518 4,094	69,653 10,464	200 33	267,733 44,719	5,893 984	1,151	273,826 46,887	57,973 9,683	63,054 22,648	_	121,027 32,331
_	7,074	85,474	412	550,419	12,115	13,119	576,065	119,185	18,997	_	138,182
_	23,398	3,509 146,503	18 647	24,635 864,274	542 19,023	590 29,971	25,785 913,915	5,334 187,145	(609) 17,631	_	4,725 204,776
·····	13,708	23,997	54	72,234	1,590	128	74,006	15,641	6,974	<u>-</u>	22,615
_	34,006	127,784	493	658,379	14,491	28,260	701,623	142,562	40,804	_	183,366
_	8,926 140,292	58,333 239,239	260 520	346,866 694,672	7,634 15,290	25,526 58,925	380,286 769,407	75,108 150,420	18,757 33,846	_	93,865 184,266
_	43,708	161,048	617	823,799	18,132		842,548	178,381	99,529	_	277,910
	6,821	269,049	1,378	1,841,004	40,520	66,752	1,949,654	398,641	15,573	_	414,214
	25,851	40,154 101,671	211 399	281,903 532,300	6,205 11,716	28,330 1,357	316,649 545,772	61,042 115,261	(64,799) 13,615	_	(3,757) 128,876
_	2,439	15,044	66	88,493	1,948	_	90,507	19,162	8,990	_	28,152
	61,468	223,146	850	1,135,081	24,983	6,047	1,166,961	245,784	103,462		349,246
	61,083 15,545	197,360 39,304	716 125	956,746 166,800	21,058 3,671	43,927	1,022,447 170,596	207,168 36,118	(11,475) 34,534	_	195,693 70,652
_	_	319,709	1,681	2,244,554	49,402	248,880	2,544,517	486,023	(235,743)	_	250,280
_	124,171 913	362,426 75,467	1,252 392	1,672,697 523,417	36,816 11,520	70,443	1,710,765 605,772	362,196 113,338	140,006 (65,229)	_	502,202 48,109
	2,980	38,606	187	250,119	5,505	7,140	262,951	54,159	8,321		62,480
_	·—	173,830	914	1,220,391	26,861	149,921	1,398,087	264,257	(182,847)	_	81,410
_	166,465 6,862	224,707 9,725	306 15	408,895 20,103	9,000 442	546 10,875	418,747 31,435	88,540 4,353	108,417 9,700	_	196,957 14,053
	4,142	27,546	123	164,313	3,617		168,053	35,579	7,291		42,870

Public Safety Retirement System Other Division A with Social Security

Schedule of Employer Allocations and Pension Amounts (Concluded)

At December 31, 2020

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	
Murray City Nephi City North Ogden City North Park Police Agency	\$ 1,516,800 119,935 309,548 117,193 777,858	2.6899647% 0.2126986 0.5489677 0.2078359 1.3794893	\$ 2,233,320 176,591 455,776 172,554	9,428,740 745,541 1,924,216 728,497	(3,609,348) (285,395) (736,595) (278,871)	411,065 32,503 83,890 31,760	_ _ _	
Park City Parowan City Payson City Perry City Piute County Pleasant Grove City	72,896 386,767 95,401 49,191 367,514	0.1292780 0.6859107 0.1691887 0.0872380 0.6517659	1,145,309 107,332 569,471 140,467 72,429 541,123	4,835,322 453,139 2,404,223 593,032 305,783 2,284,540	(1,850,975) (173,463) (920,343) (227,014) (117,054) (874,528)	210,805 19,756 104,817 25,854 13,331 99,599		
Pleasant View City Price City Rich County Richfield City Riverdale City	167,139 219,614 82,302 188,653 419,975	0.2964125 0.3894729 0.1459586 0.3345665 0.7448037	246,094 323,356 121,181 277,771 618,367	1,038,971 1,365,162 511,607 1,172,707 2,610,652	(397,721) (522,588) (195,845) (448,916) (999,365)	45,296 59,517 22,305 51,126 113,817		
Roosevelt City Roy City Salem City Salina City Salt Lake County	169,504 646,562 171,565 43,143 8,385,653	0.3006059 1.1466431 0.3042607 0.0765114 14.8715099	249,575 951,990 252,610 63,523 12,346,940	1,053,670 4,019,161 1,066,481 268,184 52,126,934	(403,348) (1,538,546) (408,252) (102,662) (19,954,337)	45,937 175,223 46,495 11,692 2,272,574		
San Juan County Sanpete County Santaquin City Sevier County Smithfield City Corp	365,012 547,499 190,353 686,394 115,526	0.6473296 0.9709604 0.3375815 1.2172826 0.2048798	537,440 806,131 280,274 1,010,638 170,100	2,268,990 3,403,366 1,183,275 4,266,763 718,135	(868,576) (1,302,818) (452,961) (1,633,329) (274,904)	98,921 148,376 51,587 186,018 31,309	_ _ _ _ _	
South Ogden City Spanish Fork City Springville City Stockton Town Summit County	412,260 716,934 399,091 17,871 1,854,260	0.7311213 1.2714446 0.7077670 0.0316925 3.2884316	607,007 1,055,606 587,617 26,312 2,730,192	2,562,693 4,456,609 2,480,832 111,087 11,526,459	(981,006) (1,706,002) (949,669) (42,524) (4,412,360)	111,726 194,295 108,157 4,843 502,519	_ _ _ _ _	
Sunset City Syracuse City Corp Tooele City Tooele County Town of Brian Head	97,808 393,103 511,652 897,377 103,501	0.1734576 0.6971481 0.9073879 1.5914508 0.1835541	144,012 578,801 753,351 1,321,288 152,394	607,996 2,443,611 3,180,534 5,578,280 643,385	(232,742) (935,421) (1,217,517) (2,135,381) (246,290)	26,507 106,534 138,662 243,196 28,050		
Town of Springdale Tremonton City Uintah County Unified Fire Authority Vernal City	195,750 184,594 856,434 60,615 286,765	0.3471517 0.3273681 1.5188406 0.1074971 0.5085624	288,220 271,795 1,261,004 89,249 422,229	1,216,820 1,147,476 5,323,770 376,794 1,782,590	(465,802) (439,257) (2,037,954) (144,238) (682,380)	53,050 50,026 232,100 16,427 77,716	_ _ _ _ _	
Wasatch County Washington City Washington County Wayne County Weber County Corp	1,091,958 311,403 2,203,382 74,408 3,798,679	1.9365295 0.5522559 3.9075814 0.1319590 6.7367544	1,607,787 458,506 3,244,235 109,558 5,593,132	6,787,834 1,935,742 13,696,674 462,537 23,613,361	(2,598,402) (741,007) (5,243,125) (177,060) (9,039,260)	295,929 84,393 597,134 20,165 1,029,471		
Wellington City West Bountiful City Willard City Corp	22,759 128,993 39,636	0.0403622 0.2287618 0.0702927	33,510 189,927 58,360	141,476 801,845 246,387	(54,157) (306,949) (94,318)	6,168 34,958 10,742	_ _ _	
Grand Total	\$ 56,387,369	100.0000000%	\$ 83,024,127	350,515,397	(134,178,266)	15,281,413		
Units without a proportionate share for 2020 but had a proportionate share in a prior year Centerfield City Gunnison City Escalante City North Logan City	\$ — — —	0.0000000% 0.0000000 0.0000000 0.0000000	\$ <u>-</u>	Ē	_ _ _	_ _ _ _	_ _ _	
Grand Total	\$ 56,387,369	100.0000000%	\$ 83,024,127	350,515,397	(134,178,266)	15,281,413		

	Deferred Outflow	s of Resources	s Deferred Inflows of Resource					Resources Pension Expense Excluding That Attr to Employer-Paid Member Contr			
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
= = =	129,583 575 50,687 30,607 2,754	540,648 33,078 134,577 62,367 213,559	2,161 171 441 167 1,108	2,885,928 228,194 588,960 222,977 1,479,985	63,519 5,023 12,963 4,908 32,574	151,067 46,870 — 47,852 3,504	3,102,675 280,258 602,364 275,904 1,517,171	624,903 49,412 127,530 48,282 320,468	142,210 (28,659) 44,726 28,969 (2,608)	_ _ _ _	767,113 20,753 172,256 77,251 317,860
	21,226 143,912 464 2,271 18,922	40,982 248,729 26,318 15,602 118,521	104 551 136 70 524	138,696 735,879 181,514 93,593 699,247	3,053 16,197 3,995 2,060 15,390	6,426 — 9,354 3,300 11,991	148,279 752,627 194,999 99,023 727,152	30,032 159,343 39,304 20,266 151,411	7,391 108,174 3,456 (10) (24,986)		37,423 267,517 42,760 20,256 126,425
	47,729 1,857 6,926 — 9,629	93,025 61,374 29,231 51,126 123,446	238 313 117 269 598	318,006 417,846 156,592 358,940 799,062	6,999 9,197 3,447 7,900 17,587	153,622 21,799 10,448 8,458	325,243 580,978 181,955 377,557 825,705	68,859 90,478 33,907 77,723 173,025	48,699 (89,449) (20,623) (11,556) 12,849		117,558 1,029 13,284 66,167 185,874
=	731 — 10,321 5,814 14,433	46,668 175,223 56,816 17,506 2,287,007	241 921 244 61 11,948	322,505 1,230,176 326,426 82,085 15,954,890	7,098 27,076 7,185 1,807 351,163	20,382 76,781 8,423 146 498,778	350,226 1,334,954 342,278 84,099 16,816,779	69,833 266,375 70,682 17,774 3,454,786	(12,506) (60,204) 1,252 6,619 (238,900)		57,327 206,171 71,934 24,393 3,215,886
_ _ _ _	11,603 207,437 4,974 5,279 16,362	110,524 355,813 56,561 191,297 47,671	520 780 271 978 165	694,487 1,041,694 362,174 1,305,961 219,805	15,286 22,928 7,971 28,744 4,838	4,816 1,750 60,131 1,114	715,109 1,067,152 430,547 1,336,797 224,808	150,380 225,563 78,423 282,786 47,595	22,552 122,488 (23,148) 6,572 26,575	_ _ _ _	172,932 348,051 55,275 289,358 74,170
	54,364 79,289 3,640 12,884	111,726 248,659 187,446 8,483 515,403	587 1,021 569 25 2,642	784,383 1,364,069 759,328 34,001 3,527,992	17,264 30,023 16,713 748 77,651	41,413 — 13,105 487 117,609	843,647 1,395,113 789,715 35,261 3,725,894	169,846 295,368 164,421 7,362 763,932	(65,591) 57,121 19,301 4,929 14,042	_ _ _ _ _	104,255 352,489 183,722 12,291 777,974
	1,528 5,973 23,431 14,836 1,362	28,035 112,507 162,093 258,032 29,412	139 560 729 1,278 147	186,094 747,935 973,491 1,707,387 196,926	4,096 16,462 21,426 37,579 4,334	758 5,916 1,027 53,825 1,355	191,087 770,873 996,673 1,800,069 202,762	40,296 161,954 210,794 369,708 42,641	7,206 46,379 15,833 (7,778) 3,997		47,502 208,333 226,627 361,930 46,638
	12,213 42,684 38,368 2,956	65,263 92,710 270,468 19,383 77,716	279 263 1,220 86 409	372,442 351,217 1,629,488 115,328 545,611	8,197 7,730 35,865 2,538 12,009	1,483 1,480 158,056	380,918 359,210 1,668,056 119,432 716,085	80,646 76,051 352,840 24,973 118,144	65,287 72,930 (1,796) 5,271 (141,628)		145,933 148,981 351,044 30,244 (23,484)
	410,892 118,710 134,285 21,083	706,821 203,103 731,419 41,248 1,029,471	1,556 444 3,139 106 5,412	2,077,605 592,488 4,192,247 141,572 7,227,524	45,728 13,041 92,271 3,116 159,077		2,124,889 605,973 4,287,657 144,948 7,925,320	449,873 128,294 907,766 30,655 1,565,008	349,926 119,192 102,827 17,704 (922,852)		799,799 247,486 1,010,593 48,359 642,156
	8,954 2,296 —	15,122 37,254 10,742	32 184 56	43,303 245,427 75,413	953 5,402 1,660	411 22,272 2,613	44,699 273,285 79,742	9,376 53,143 16,330	3,684 393 (1,859)		13,060 53,536 14,471
_	3,866,122	19,147,535	80,328	107,284,959	2,361,328	3,928,773	113,655,388	23,230,888	38,586	_	23,269,474
=	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	297 945 —	297 945 —	<u>-</u> -	(8,590) (25,057)	_ _ _	(8,590) (25,057) —
_ 	3,866,122	19,147,535	80,328	107,284,959	2,361,328	3,930,015	113,656,630	23,230,888	(5,476)		23,225,412

Public Safety Retirement System State of Utah

Schedule of Employer Allocations and Pension Amounts

At December 31, 2020

Participating Employer	Coi	Employer ntributions	Employer Allocation Percentage	Net Pension ability/(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	
Dixie State University Snow College Southern Utah University	\$	125,339 30,024 80,224	0.2507219% 0.0600593 0.1604764	\$ 162,389 38,900 103,938	676,407 162,030 432,939	(260,054) (62,295) (166,450)	23,599 5,653 15,105	=	
State of Utah University of Utah Utah State University		48,403,600 1,169,345 182,509	96.8245488 2.3391093 0.3650843	 62,711,932 1,515,009 236,460	261,216,894 6,310,537 984,938	(100,428,589) (2,426,177) (378,674)	9,113,719 220,171 34,364		~~~~~
Grand Total	\$ 4	19,991,041	100.0000000%	\$ 64,768,628	269,783,745	(103,722,239)	9,412,611		

Net 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

At December 31, 2020				Net Pension	Net Pension	Differences Between	Projected and Actual Investment	
Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95 Discount)	Liability/(Asset) 1.00 Decrease (5.95)	Liability/(Asset) 1.00 Increase (7.95)	Expected and Actual Experience	Earnings on Pension Plan Investments	
Salt Lake City Corp	\$ 15,608,224	100.0000000%	\$ 59,354,942	115,335,508	13,382,007	2,337,674	_	

Public Safety Retirement System Ogden City

Schedule of Employer Allocations and Pension Amounts

At December 31, 2020 Participating Employer	Employer Contributions	Employer Allocation Percentage	Net Pension Liability/(Asset) (6.95 Discount)	Net Pension Liability/(Asset) 1.00 Decrease (5.95)	Differences Net Pension Liability/(Asset) 1.00 Increase (7.95)	and Actual Between Expected and Actual Experience	Investment Earnings on Pension Plan Investments	

Public Safety Retirement System Provo City

Schedule of Employer Allocations and Pension Amounts

At December 31, 2020 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
Provo City Corp	\$ 2,420,178	100.0000000%	\$ 8,625,453	18,389,489	647,654	1,555,103	_

	Deferred Outflow	vs of Resources				Deferred Inflo	ws of Resources			oense Excluding 1 loyer-Paid Memb	
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	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
828 198	68,428 16,095	92,855 21,946	_	223,966 53,650	_	_	223,966 53,650	15,583 3,733	65,286 4,997	_	80,869 8,730
530	· <u> </u>	15,635		143,351		7,350	150,701	9,974	(20,708)		(10,734)
319,585 7,721 1,205	378,664 465,737 52,326	9,811,968 693,629 87,895	=	86,491,749 2,089,487 326,124	=	20,508 — 3,032	86,512,257 2,089,487 329,156	6,017,848 145,381 22,691	515,062 507,940 21,129	_	6,532,910 653,321 43,820
330,067	981,250	10,723,928	_	89,328,327	_	30,890	89,359,217	6,215,210	1,093,707	_	7,308,917
	Deferred Outflow	vs of Resources				Deferred Inflo	ws of Resources			oense Excluding 1 loyer-Paid Memb	
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	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
_	_	2,337,674	_	21,848,343	157,471	_	22,005,814	6,868,825	_	_	6,868,825
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	ws of Resources Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	to Emp let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions		
Assumptions	— Contributions	nesources	593,210	4,720,988	17,465	Contributions	5,331,663	(967,593)	Contributions —	Contributions	(967,593)
	Deferred Outflow	vs of Resources	_				ws of Resources		to Emp let Amortization of Deferred Amounts from	pense Excluding 1 loyer-Paid Memb	
	Changes in Proportion and Differences Between Employer Contributions	Total	Differences Between	Net Difference Between Projected and Actual Investment		Changes in Proportion and Differences Between Employer Contributions and	Total	Proportionate Share of Allocable	Changes in Proportion and Differences Between Employer Contributions and	Proportionate	Total Employer Net Pension Expense Excluding That

Public Safety Retirement System Logan City

Schedule of Employer Allocations and Pension Amounts

At December 31, 2020

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	
Logan City	\$ 1,055,269	100.0000000%	\$ 3,260,891	8,440,892	(946,716)	539,062	_	

Difference

Net Difference

Public Safety Retirement System Bountiful City

Schedule of Employer Allocations and Pension Amounts

At December 31, 2020

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	
City of Bountiful	\$ 1,031,851	100.0000000%	\$ 5,282,030	9,062,545	2,157,619	45,092	_	

Public Safety Retirement System Other Division B without Social Security

Schedule of Employer Allocations and Pension Amounts

At December 31, 2020

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	\$ 1,606,176	7.0891923%	. , ,	9,317,705	(2,966,613)	2,888,087	_	
City of Riverton	624,689	2.7571947	991,300	3,623,929	(1,153,803)	1,123,262	_	
City of Saratoga Springs	453,134	2.0000007	719,065	2,628,708	(836,940)	814,786	_	
City of Wendover City of West Jordan	20,494 1,857,875	0.0904532 8.2001174	32,521	118,887	(37,852)	36,850	_	
City of West Jordan	1,037,073	0.2001174	2,948,207	10,777,853	(3,431,502)	3,340,670		
Cottonwood Heights City	440,829	1.9456920	699,539	2,557,327	(814,213)	792,661	_	
Gunnison Valley Police Dept	59,313	0.2617909	94,122	344,086	(109,552)	106,652	_	
Herriman City	833,338	3.6781080	1,322,398	4,834,334	(1,539,177)	1,498,435	_	
Lone Peak PS District	358,152	1.5807792	568,341	2,077,703	(661,508)	643,998	_	
Sandy City	1,716,984	7.5782657	2,724,631	9,960,520	(3,171,276)	3,087,332	_	
Town of Mantua	12,542	0.0553547	19,902	72,756	(23,164)	22,551	_	
Unified Police Department	6,676,830	29.4695725	10,595,263	38,733,434	(12,332,127)	12,005,695		
Utah County .	4,928,130	21.7513224	7,820,302	28,588,927	(9,102,273)	8,861,335	_	
West Valley City	2,816,799	12.4325266	4,469,894	16,340,735	(5,202,638)	5,064,923	_	
Woods Cross City	251,405	1.1096297	398,948	1,458,446	(464,347)	452,055	_	
Grand Total	\$ 22,656,691	100.0000000%	\$ 35,953,226	131,435,350	(41,846,985)	40,739,292	_	

	Deferred Outflow	s of Resources				Deferred Inflov	vs of Resources		hat Attributable er Contributions		
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
_	_	539,062	33,695	2,118,840	52,352	_	2,204,887	(7,313)	_	_	(7,313)

	Deferred Outflows	s of Resources				Deferred Inflov	vs of Resources	Pension Expense Excluding That Attril to Employer-Paid Member Contri				
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	
21,454	_	66,546	4,554	1,538,251	_	_	1,542,805	1,121,322	_	_	1,121,322	

	Deferred Outflow	s of Resources	s Deferred Inflows of Resources					Pension Expense Excluding That Attributable to Employer-Paid Member Contributions				
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	
272,000 105,789 76,736 3,471 314,624	3,177 364,388 49,985 10,049 7,218	3,163,264 1,593,439 941,507 50,370 3,662,512	_ _ _ _	2,605,688 1,013,428 735,116 33,247 3,014,017	122,568 47,670 34,579 1,564 141,775	50,342 — — — 154,835	2,778,598 1,061,098 769,695 34,811 3,310,627	1,925,424 748,854 543,200 24,567 2,227,151	(42,115) 165,523 26,808 4,987 (11,621)		1,883,309 914,377 570,008 29,554 2,215,530	
74,653 10,044 141,122 60,652 290,764	2,872 19,982 314,829 7,905 28,475	870,186 136,678 1,954,386 712,555 3,406,571		715,154 96,223 1,351,917 581,028 2,785,451	33,640 4,526 63,592 27,331 131,024	53,527 18,563 14,606 22,801 29,422	802,321 119,312 1,430,115 631,160 2,945,897	528,450 71,102 998,974 429,339 2,058,256	(11,780) 10,867 174,601 (8,289) (32,046)		516,670 81,969 1,173,575 421,050 2,026,210	
2,124 1,130,694 834,559 477,014 42,575	7,142 56,198 161,153 14,901 29,087	31,817 13,192,587 9,857,047 5,556,838 523,717		20,346 10,831,771 7,994,868 4,569,672 407,853	957 509,511 376,067 214,951 19,185	5,458 593,320 22,424 172,644 1,787	26,761 11,934,602 8,393,359 4,957,267 428,825	15,034 8,003,932 5,907,656 3,376,673 301,375	3,164 (261,416) 103,661 (170,303) 10,888		18,198 7,742,516 6,011,317 3,206,370 312,263	
3,836,821	1,077,361	45,653,474		36,755,779	1,728,940	1,139,730	39,624,449	27,159,987	(37,069)		27,122,918	

Firefighter Retirement System Other Division A with Social Security

Schedule of Employer Allocations and Pension Amounts

At December 31, 2020

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	
American Fork City Brigham City	\$ 41,840 23,027	2.7819512% 1.5310920	\$ (777,889) (428,124)	353,402 194,501	(1,692,868) (931,698)	119,736 65,899	_	
Cache County	12,061	0.8019125	(224,231)	101,870	(487,978)	34,515	_	
Cedar City Cedar Mtn Fire Protection Dist	25,951 1,611	1.7254805 0.1071445	(482,479) (29,960)	219,194 13,611	(1,049,986) (65,199)	74,265 4,612	<u> </u>	
City of Draper	100,371	6.6736984	(1,866,100)	847,786	(4,061,068)	287,238	_	
City of Kanab City of Santa Clara	3,673 6,057	0.2442196 0.4027346	(68,289) (112,613)	31,024 51,161	(148,612) (245,071)	10,511 17,334	_	
City of South Jordan	113,700	7.5599320	(2,113,908)	960,367	(4,600,357)	325,381	_	
City of South Salt Lake	122,868	8.1695007	(2,284,356)	1,037,803	(4,971,291)	351,617		
City of St George	83,822 15,325	5.5733560 1.0189310	(1,558,422) (284,914)	708,005 129,439	(3,391,489) (620,038)	239,879 43,855	_	
Clinton City Farmington City	17,790	1.1828682	(330,754)	150,264	(719,797)	50,911	_	
Hurricane Valley Fire SSD	24,735	1.6446242	(459,870)	208,923	(1,000,784)	70,785	_	
Kaysville City	10,331	0.6868830	(192,066)	87,257	(417,981)	29,564		
Layton City	125,803	8.3646750	(2,338,931)	1,062,597	(5,090,058)	360,018	_	
Lehi City Moab Valley Fire Protection	80,119 4,633	5.3271683 0.3080789	(1,489,583) (86,145)	676,731 39,136	(3,241,679) (187,472)	229,283 13,260	_	
Murray City	159,469	10.6031677	(2,964,857)	1,346,964	(6,452,222)	456,360	_	
N Tooele Co Fire Protection SD	5,232	0.3478787	(97,274)	44,192	(211,691)	14,973	_	
North Davis Fire District	44,587	2.9645782	(828,955)	376,602	(1,804,000)	127,596	_	
North Fork SSD North Logan City	3,617 4,035	0.2404988 0.2683084	(67,248) (75,024)	30,551 34,084	(146,348) (163,271)	10,351 11,548	_	
North View Fire District	30,839	2.0504951	(573,359)	260,482	(1,247,764)	88,254	_	
Payson City	4,465	0.2968693	(83,011)	37,712	(180,650)	12,777	_	
Pleasant Grove City	20,579	1.3682898	(382,601)	173,819	(832,629)	58,892	_	
Price City Riverdale City	3,723 19,990	0.2475541 1.3291396	(69,221) (371,654)	31,448 168,846	(150,641) (808,806)	10,655 57,207	_	
Roy City	40,757	2.7099349	(757,752)	344,253	(1,649,045)	116,636	_	
Smithfield City Corp	9,316	0.6194551	(173,212)	78,692	(376,950)	26,662	_	
So Davis Metro Fire Agency	154,640	10.2820492	(2,875,067)	1,306,168	(6,256,815)	442,542	_	
South Ogden City Springville City	35,437 7,791	2.3562083 0.5180401	(658,843) (144,854)	299,318 65,809	(1,433,796) (315,237)	101,412 22,297	_	
State of Utah	43,473	2.8905612	(808,259)	367,199	(1,758,959)	124,411	_	
Syracuse City Corp	31,356	2.0848939	(582,978)	264,852	(1,268,696)	89,734		
Uintah Fire Suppression SSD	5,130	0.3410721	(95,371)	43,328	(207,549)	14,680	_	~~~~~~~
Wasatch County Fire District Washington City	54,578 11,247	3.6289103 0.7478446	(1,014,716) (209,112)	460,994 95,002	(2,208,258) (455,077)	156,189 32,187	_	
Grand Total	\$ 1,503,978	100.0000000%	. , ,	12,703,386	(60,851,830)	4,304,026	_	
Units without a proportionate share for 2020 but had a proportionate share in a prior year								
City of Washington Terrace	\$ —	0.0000000%	\$ —	_	_	_	_	
Hurricane City	_	0.0000000	_	_	_	_	_	
lvins City Leeds Area SS District	_	0.0000000 0.0000000		_	_	_	_	
Morgan County	_	0.0000000	_	_	_	_	_	
Grand Total	\$ 1,503,978	100.0000000%	\$ (27,962,002)	12,703,386	(60,851,830)	4,304,026		

	Deferred Outflow	rs of Resources				Deferred Inflo	ws of Resources			Pension Expense Excluding That Attributable to Employer-Paid Member Contributions			
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	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		
120,667	1,490	241,893	31,359	468,567	13,884	32,973	546,783	(47,498)	(9,114)	(157,998)	(214,610)		
66,411	11,497	143,807	17,259	257,884	7,642	18,214	300,999	(26,141)	(5,435)	(86,957)	(118,533)		
34,783	696	69,994	9,039	135,067	4,002	8,383	156,491	(13,691)	(1,590)	(45,544)	(60,825)		
74,843	3,612	152,720	19,450	290,625	8,612	10,338	329,025	(29,460)	(1,759)	(97,997)	(129,216)		
4,647	87	9,346	1,208	18,046	535	5,763	25,552	(1,829)	(1,205)	(6,085)	(9,119)		
289,473	666	577,377	75,229	1,124,059	33,308	130,425	1,363,021	(113,943)	(46,147)	(379,026)	(539,116)		
10,593	256	21,360	2,753	41,134	1,219	3,112	48,218	(4,170)	(525)	(13,870)	(18,565)		
17,469	283	35,086	4,540	67,833	2,010	5,627	80,010	(6,876)	(2,274)	(22,873)	(32,023)		
327,913	21,571	674,865	85,219	1,273,328	37,731	104	1,396,382	(129,074)	7,367	(429,358)	(551,065)		
354,353	41,928	747,898	92,090	1,375,999	40,773	62,675	1,571,537	(139,482)	3,022	(463,978)	(600,438)		
241,745	9,744	491,368	62,825	938,727	27,816	12,683	1,042,051	(95,157)	(209)	(316,533)	(411,899)		
44,196	9,556	97,607	11,486	171,620	5,085	676	188,867	(17,397)	3,065	(57,869)	(72,201)		
51,307	—	102,218	13,334	199,232	5,904	7,245	225,715	(20,196)	(2,669)	(67,180)	(90,045)		
71,336	6,669	148,790	18,539	277,006	8,208	10,535	314,288	(28,079)	(3,388)	(93,405)	(124,872)		
29,794	5,068	64,426	7,743	115,693	3,428	10,425	137,289	(11,727)	(3,582)	(39,011)	(54,320)		
362,819	51,360	774,197	94,290	1,408,872	41,747	1,200	1,546,109	(142,814)	16,846	(475,063)	(601,031)		
231,067	6,015	466,365	60,050	897,261	26,587	10,474	994,372	(90,953)	(1,139)	(302,551)	(394,643)		
13,363	914	27,537	3,473	51,890	1,538	1,859	58,760	(5,260)	(272)	(17,497)	(23,029)		
459,913	49,650	965,923	119,521	1,785,903	52,918	9,522	1,967,864	(181,035)	8,531	(602,195)	(774,699)		
15,089	1,140	31,202	3,921	58,594	1,736	7,709	71,960	(5,940)	(1,086)	(19,757)	(26,783)		
128,589	7,628	263,813	33,418	499,327	14,796	14,269	561,810	(50,616)	550	(168,370)	(218,436)		
10,432	1,240	22,023	2,711	40,508	1,200	4,538	48,957	(4,106)	(1,381)	(13,659)	(19,146)		
11,638	23,208	46,394	3,024	45,192	1,339	2,213	51,768	(4,581)	4,137	(15,238)	(15,682)		
88,940	329	177,523	23,114	345,367	10,234	12,528	391,243	(35,009)	(3,704)	(116,456)	(155,169)		
12,877	441	26,095	3,346	50,002	1,482	95	54,925	(5,069)	145	(16,860)	(21,784)		
59,350	18,580	136,822	15,424	230,463	6,829	263	252,979	(23,361)	6,616	(77,711)	(94,456)		
10,738	311	21,704	2,791	41,696	1,236	229	45,952	(4,227)	68	(14,060)	(18,219)		
57,652	8,132	122,991	14,983	223,869	6,634	6,422	251,908	(22,693)	1,779	(75,487)	(96,401)		
117,544	61,622	295,802	30,548	456,438	13,525	—	500,511	(46,268)	16,525	(153,908)	(183,651)		
26,869	4,801	58,332	6,983	104,336	3,092	5,904	120,315	(10,576)	1,079	(35,181)	(44,678)		
445,985	21,036	909,563	115,904	1,731,818	51,317	3,310	1,902,349	(175,550)	7,555	(583,958)	(751,953)		
102,201	2,037	205,650	26,560	396,859	11,760	13,051	448,230	(40,229)	(2,059)	(133,818)	(176,106)		
22,470	984	45,751	5,840	87,254	2,585	5,830	101,509	(8,845)	(1,037)	(29,422)	(39,304)		
125,378	81,780	331,569	32,584	486,861	14,427	10,552	544,424	(49,352)	13,133	(164,166)	(200,385)		
90,433	666	180,833	23,502	351,161	10,405	7,220	392,288	(35,596)	(1,694)	(118,409)	(155,699)		
14,794	5,303	34,777	3,845	57,447	1,702	209	63,203	(5,823)	1,243	(19,371)	(23,951)		
157,404	795	314,388	40,907	611,222	18,112	28,449	698,690	(61,958)	(7,887)	(206,100)	(275,945)		
32,438	6,931	71,556	8,430	125,960	3,732	18,281	156,403	(12,768)	(1,004)	(42,473)	(56,245)		
4,337,513	468,022	9,109,561	1,127,242	16,843,120	499,090	483,303	18,952,755	(1,707,349)	(7,499)	(5,679,394)	(7,394,242)		
	4,236 3,132 4,580 2,449 551	4,236 3,132 4,580 2,449 551	_ _ _ _	_ _ _ _	= = =	348 — — 5,058	348 — — 5,058	_ _ _	828 2,101 2,148 1,291 (1,823)	_ _ _ _	828 2,101 2,148 1,291 (1,823)		
4,337,513	482,971	9,124,510	1,127,242	16,843,120	499,090	488,709	18,958,161	(1,707,349)	(2,955)	(5,679,394)	(7,389,698)		

Firefighters Retirement System Other Division B without Social Security

Schedule of Employer Allocations and Pension Amounts

At December 31, 2020

Participating Employer	Co	Employer ontributions	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	\$	220,137	3.6834896%	\$ (4,962,948)	651,564	(9,571,650)	166,271	_	
City of Saratoga Springs		35,617	0.5959690	(802,979)	105,420	(1,548,642)	26,902	_	
City of West Jordan		322,338	5.3935911	(7,267,052)	954,060	(14,015,396)	243,465	_	
Logan City		153,217	2.5637478	(3,454,264)	453,496	(6,661,970)	115,727	_	
Lone Peak PS District		39,205	0.6560031	(883,865)	116,039	(1,704,642)	29,612	_	
Ogden City Corp	~~~	261,440	4.3746098	(5,894,128)	773,815	(11,367,545)	197,468	_	
Park City Fire Service		277,754	4.6475925	(6,261,931)	822,102	(12,076,898)	209,791	_	
Provo City Corp		275,879	4.6162168	(6,219,657)	816,552	(11,995,368)	208,374	_	
Salt Lake City Corp		1,576,351	26.3766714	(35,538,594)	4,665,711	(68,540,513)	1,190,633	_	
Sandy City		289,957	4.8517722	(6,537,033)	858,219	(12,607,465)	219,007		
Unified Fire Authority	~~~	1,887,024	31.5750705	(42,542,654)	5,585,246	(82,048,698)	1,425,286	_	
Weber Fire District		204,306	3.4186048	(4,606,055)	604,709	(8,883,340)	154,315	_	
West Valley City		433,083	7.2466614	(9,763,785)	1,281,846	(18,830,651)	327,112	_	
Grand Total	\$	5,976,309	100.0000000%	\$ (134,734,945)	17,688,779	(259,852,778)	4,513,963	_	
Units without a proportionate share for 2020 but had a proportionate share in a prior year									
Bluffdale City	\$	_	0.0000000%	\$ —	_	_	_	_	
Grand Total	\$	5,976,309	100.0000000%	\$ (134,734,945)	17,688,779	(259,852,778)	4,513,963	_	

Net Difference

Net Difference

Net Difference

Columns may not add to total due to rounding.

Judges Retirement System

Schedule of Employer Allocations and Pension Amounts

At December 31, 2020

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	\$ 8,646,311	100.0000000%	\$ 26,982,813	57,467,045	1,123,890	6,420,419	_	

Utah Governors and Legislators Retirement Plan

Schedule of Employer Allocations and Pension Amounts

Participating Employer	Employer ributions	Employer Allocation Percentage	Lia	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	Projected and Actual Investment Earnings on Pension Plan Investments	
State of Utah	\$ 369,226	100.0000000%	\$	1,274,862	2,544,959	192,036	_	_	

	Deferred Outflow	s of Resources	Resources Deferred Inflows of Resources to Employer-Paid Member Contri				er Contributions				
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	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
542,760 87,816 794,743 377,767 96,662		755,857 116,283 1,105,715 494,331 128,833	172,655 27,935 252,812 120,170 30,749	2,828,567 457,647 4,141,761 1,968,713 503,748	_ _ _ _	2,086 10,805 — 24,785 497	3,003,308 496,387 4,394,573 2,113,668 534,994	(825,940) (133,633) (1,209,393) (574,863) (147,094)	9,184 (1,012) 30,701 (9,256) 1,593	(537,801) (87,013) (787,482) (374,315) (95,779)	(1,354,557 (221,658 (1,966,174 (958,434 (241,280
644,596 684,820 680,197 3,886,588 714,906	23,343 77,469 60,391	1,004,428 917,954 966,040 5,137,612 935,348	205,050 217,845 216,375 1,236,346 227,416	3,359,281 3,568,906 3,544,812 20,254,756 3,725,696		12,718 4,780 2,886 3,401 56,283	3,577,049 3,791,531 3,764,073 21,494,503 4,009,395	(980,909) (1,042,119) (1,035,084) (5,914,381) (1,087,902)	39,765 2,691 20,866 16,424 (15,400)	(638,707) (678,563) (673,982) (3,851,078) (708,374)	(1,579,851) (1,717,991) (1,688,200) (9,749,035) (1,811,676)
4,652,568 503,730 1,067,791	6,028 2,980 5,201	6,083,882 661,025 1,400,104	1,480,009 160,239 339,671	24,246,627 2,625,161 5,564,741		283,425 27,879 39,721	26,010,061 2,813,279 5,944,133	(7,080,005) (766,546) (1,624,902)	(79,259) (5,783) (16,648)	(4,610,062) (499,127) (1,058,036)	(11,769,326 (1,271,456 (2,699,586
14,734,944	458,505	19,707,412	4,687,272	76,790,416		469,266	81,946,954	(22,422,771)	(6,134)	(14,600,319)	(37,029,224
 	<u> </u>	19,707,412	4,687,272	76,790,416		469,266	<u>—</u> 81,946,954	(22,422,771)	(6,134)	(14,600,319)	(37,029,224
	Deferred Outflow	or of Decouvers				Deferred Infla	us of Decouvers				hat Attributable
	Deferred Outflow	rs of Resources				Deferred Inflow	s of Resources	N	to Empl		That Attributable er Contributions
Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate	Total Deferred Outflows of Resources	Differences Between Expected and Actual	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	rs of Resources Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Gross Pension Expense	to Empl let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions	oyer-Paid Memb Proportionate Share of Nonemployer	
	Changes in Proportion and Differences Between Employer Contributions and Proportionate	Total Deferred Outflows of	Between Expected and Actual	Difference Between Projected and Actual Investment Earnings on Pension Plan		Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	Total Deferred Inflows of	Proportionate Share of Allocable Plan Gross Pension	to Empl let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	oyer-Paid Memb Proportionate Share of Nonemployer	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member
Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate	Total Deferred Outflows of Resources 9,008,560	Between Expected and Actual	Difference Between Projected and Actual Investment Earnings on Pension Plan Investments		Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	Total Deferred Inflows of Resources 14,714,288	Proportionate Share of Allocable Plan Gross Pension Expense 9,565,754	to Empl let Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Proportionate Share of Nonemployer Contributions (1,410,494)	Total Employer Net Pension Expense Excluding That Attributable to Employer-Paid Member Contributions

Pension Expense Excluding That Attributable

Tier 2 Public Employees Contributory Retirement System

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	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	
4 Corners Comm Behavior Health Active Re Entry Inc Alpine City Alpine School District American Fork City	\$ 165,021 10,558 26,242 8,418,551 103,869	0.1131508% 0.0072393 0.0179933 5.7723772 0.0712204	\$ 16,274 1,041 2,588 830,228 10,243	273,847 17,520 43,547 13,970,262 172,367	(180,762) (11,565) (28,745) (9,221,550) (113,777)	14,981 958 2,382 764,244 9,429	= =	
American Leadership Academy Ames Charter School Ash Creek SS District Ashley Valley Improv Dist Ballard City	216,477 26,104 17,500 21,795 2,008	0.1484324 0.0178986 0.0119993 0.0149445 0.0013769	21,349 2,574 1,726 2,149 198	359,235 43,318 29,041 36,169 3,332	(237,125) (28,594) (19,169) (23,874) (2,200)	19,652 2,370 1,589 1,979 182		
Bear Lake SSD Bear River Assn of Govts Bear River Health Dept Bear River Mental Health Bear River Water District	3,089 57,526 168,540 198,298 21,823	0.0021182 0.0394442 0.1155634 0.1359675 0.0149637	305 5,673 16,621 19,556 2,152	5,126 95,463 279,686 329,067 36,215	(3,384) (63,013) (184,616) (217,212) (23,905)	280 5,222 15,300 18,002 1,981	_ _ _ _	
Beaver City Beaver County Beaver Housing Authority Beaver School District Beaver Valley Hospital	34,420 98,792 1,310 157,416 118,979	0.0236009 0.0677389 0.0008981 0.1079360 0.0815805	3,394 9,743 129 15,524 11,734	57,119 163,941 2,174 261,226 197,440	(37,703) (108,215) (1,435) (172,431) (130,327)	3,125 8,968 119 14,290 10,801	_ _ _ _	
Benchland Water Company Big Cottonwood Canyon Imp Dist Blanding City Bluffdale City Bona Vista Water Improve	12,916 5,518 25,875 102,487 11,862	0.0088563 0.0037835 0.0177415 0.0702729 0.0081332	1,274 544 2,552 10,107 1,170	21,434 9,157 42,938 170,074 19,684	(14,148) (6,044) (28,343) (112,263) (12,993)	1,173 501 2,349 9,304 1,077	_ _ _ _	
Bountiful Irrigation District Box Elder Co Mosq Dist Box Elder County Box Elder School District Bridgerland Technical College	12,941 5,563 148,917 1,280,301 49,600	0.0088734 0.0038142 0.1021081 0.8778684 0.0340092	1,276 549 14,686 126,262 4,891	21,475 9,231 247,121 2,124,610 82,309	(14,176) (6,093) (163,121) (1,402,422) (54,331)	1,175 505 13,519 116,227 4,503		
Brigham City Cache County Cache County School District Canyons School District Carbon County	176,832 242,703 1,999,508 5,575,092 170,160	0.1212487 0.1664151 1.3710094 3.8226924 0.1166744	17,439 23,935 197,189 549,809 16,781	293,445 402,757 3,318,106 9,251,650 282,374	(193,699) (265,853) (2,190,230) (6,106,869) (186,391)	16,053 22,033 181,517 506,112 15,447	_ _ _ _ _	
Carbon School District Castle Dale City Castle Valley SSD Cedar City Cedar City Housing Auth	455,815 6,056 17,419 162,572 6,995	0.3125404 0.0041527 0.0119440 0.1114716 0.0047965	44,952 597 1,718 16,033 690	756,408 10,050 28,907 269,783 11,608	(499,293) (6,634) (19,081) (178,079) (7,663)	41,379 550 1,581 14,758 635		
Cedar Mtn Fire Protection Dist Centerville City Central Davis Sewer Dist Central Iron Co Water Conserv Central UT Public Health	5,710 52,057 22,531 20,916 73,817	0.0039153 0.0356942 0.0154488 0.0143412 0.0506144	563 5,134 2,222 2,063 7,280	9,476 86,387 37,389 34,708 122,497	(6,255) (57,023) (24,680) (22,911) (80,858)	518 4,726 2,045 1,899 6,701	_ _ _ _	
Central Utah 911 Central Utah Counseling Center Central Utah Water Dist Central Valley Town Central Wasatch Commission	71,930 125,259 232,344 3,312 6,867	0.0493203 0.0858869 0.1593123 0.0022711 0.0047087	7,094 12,353 22,914 327 677	119,365 207,863 385,566 5,496 11,396	(78,791) (137,207) (254,506) (3,628) (7,522)	6,530 11,371 21,092 301 623		
Central Weber Sewer Dist City of Aurora City of Bountiful City of Cedar Hills City of Draper	97,030 3,358 291,335 35,448 272,215	0.0665309 0.0023023 0.1997604 0.0243057 0.1866508	9,569 331 28,731 3,496 26,846	161,018 5,572 483,459 58,824 451,731	(106,285) (3,678) (319,123) (38,829) (298,180)	8,808 305 26,448 3,218 24,712		

	Deferred Outflow	s of Resources	Pension Expense Excluding es Deferred Inflows of Resources to Employer-Paid Mem								
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	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
20,585 1,317 3,273 1,050,139 12,957	26,136 2,478 3,624 1,248,559 13,601	61,702 4,753 9,279 3,062,942 35,987	7,452 477 1,185 380,164 4,691	47,570 3,043 7,565 2,426,764 29,942	592 38 94 30,202 373	109 —	55,614 3,667 8,844 2,837,130 35,006	156,507 10,013 24,888 7,984,187 98,510	2,865 222 424 139,855 1,633	_ _ _	159,372 10,235 25,312 8,124,042
27,004 3,256 2,183 2,719 250	30,660 5,287 3,341 3,121 194	77,316 10,913 7,113 7,819 626	9,776 1,179 790 984 91	62,402 7,525 5,045 6,283 579	777 94 63 78 7	135 — 94	72,955 8,933 5,898 7,439 677	205,307 24,757 16,597 20,671 1,904	3,524 518 333 347 26		208,831 25,275 16,930 21,018 1,930
385 7,176 21,024 24,736 2,722	756 9,624 22,315 32,022 3,673	1,421 22,022 58,639 74,760 8,376	140 2,598 7,611 8,955 985	891 16,583 48,584 57,162 6,291	11 206 605 711 78		1,042 19,387 56,800 66,828 7,354	2,930 54,558 159,844 188,066 20,697	70 1,029 2,665 3,474 399		3,000 55,587 162,509 191,540 21,096
4,294 12,323 163 19,636 14,842	4,310 15,058 326 24,601 16,467	11,729 36,349 608 58,527 42,110	1,554 4,461 59 7,109 5,373	9,922 28,478 378 45,377 34,297	123 354 5 565 427		11,599 33,293 442 53,051 40,097	32,644 93,695 1,242 149,294 112,840	526 1,683 30 2,689 1,898		33,170 95,378 1,272 151,983 114,738
1,611 688 3,228 12,784 1,480	2,282 1,288 3,829 13,340 2,201	5,066 2,477 9,406 35,428 4,758	583 249 1,168 4,628 536	3,723 1,591 7,459 29,543 3,419	46 20 93 368 43		4,352 1,860 8,720 34,539 3,998	12,250 5,233 24,540 97,199 11,250	238 125 431 1,597 233		12,488 5,358 24,971 98,796 11,483
1,614 694 18,576 159,706 6,187	2,242 685 23,662 199,953 6,355	5,031 1,884 55,757 475,886 17,045	584 251 6,725 57,816 2,240	3,730 1,604 42,927 369,064 14,298	46 20 534 4,593 178		4,360 1,875 50,186 431,473 16,874	12,273 5,276 141,233 1,214,242 47,041	237 82 2,577 21,947 787		12,510 5,358 143,810 1,236,189 47,828
22,058 30,275 249,421 695,443 21,226	28,875 39,065 316,011 827,825 23,256	66,986 91,373 746,949 2,029,380 59,929	7,985 10,960 90,294 251,760 7,684	50,974 69,963 576,386 1,607,097 49,051	634 871 7,173 20,001 610		59,593 81,794 673,853 1,878,858 57,345	167,708 230,181 1,896,341 5,287,439 161,381	3,107 4,207 34,477 92,263 2,743		170,815 234,388 1,930,818 5,379,702 164,124
56,859 755 2,173 20,279 873	67,969 1,111 3,385 24,586 834	166,207 2,416 7,139 59,623 2,342	20,584 273 787 7,341 316	131,395 1,746 5,021 46,864 2,016	1,635 22 62 583 25		153,614 2,089 5,870 54,788 2,357	432,297 5,744 16,521 154,184 6,634	7,610 109 343 2,756 103		439,907 5,853 16,864 156,940 6,737
712 6,494 2,811 2,609 9,208	1,160 9,129 4,099 3,248 11,600	2,390 20,349 8,955 7,756 27,509	258 2,351 1,017 945 3,333	1,646 15,006 6,495 6,029 21,279	20 187 81 75 265	403 —	1,924 17,544 7,996 7,049 24,877	5,416 49,371 21,368 19,836 70,008	115 948 385 355 1,259		5,531 50,319 21,753 20,191 71,267
8,973 15,625 28,983 413 857	9,850 22,278 33,943 825 1,826	25,353 49,274 84,018 1,539 3,306	3,248 5,656 10,492 150 310	20,735 36,108 66,976 955 1,980	258 449 834 12 25		24,241 42,213 78,302 1,117 3,066	68,218 118,796 220,356 3,141 6,513	1,136 2,297 3,900 75 120		69,354 121,093 224,256 3,216 6,633
12,104 419 36,341 4,422 33,956	13,986 836 40,397 6,332 41,497	34,898 1,560 103,186 13,972 100,165	4,382 152 13,156 1,601 12,293	27,970 968 83,981 10,218 78,470	348 12 1,045 127 977		32,700 1,195 98,182 11,946 91,740	92,024 3,184 276,303 33,619 258,170	1,580 65 4,698 665 4,624		93,604 3,249 281,001 34,284 262,794

Tier 2 Public Employees Contributory Retirement System

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	
City of Duchesne City of Enterprise City of Green River City of Harrisville City of Helper	\$ 10,700 4,855 15,984 15,058 8,005	0.0073365% 0.0033289 0.0109597 0.0103251 0.0054890	\$ 1,055 479 1,576 1,485 789	17,756 8,057 26,525 24,989 13,284	(11,720) (5,318) (17,508) (16,495) (8,769)	971 441 1,451 1,367 727	= = =	
City of Holladay City of Kanab City of Milford City of Moab City of Monticello	19,151 52,680 13,352 162,282 18,485	0.0131314 0.0361210 0.0091553 0.1112728 0.0126745	1,889 5,195 1,317 16,004 1,823	31,781 87,420 22,158 269,302 30,675	(20,978) (57,704) (14,626) (177,762) (20,248)	1,739 4,782 1,212 14,732 1,678		
City of Naples City of North Salt Lake City of Orem City of Riverton City of Santa Clara	12,813 75,606 371,557 220,061 46,518	0.0087857 0.0518412 0.2547670 0.1508901 0.0318964	1,264 7,456 36,643 21,702 4,588	21,263 125,466 616,585 365,183 77,195	(14,035) (82,818) (406,998) (241,052) (50,955)	1,163 6,864 33,730 19,977 4,223		
City of Saratoga Springs City of South Jordan City of South Salt Lake City of St George City of Taylorsville	209,788 351,459 227,921 961,535 60,233	0.1438459 0.2409862 0.1562796 0.6592988 0.0413001	20,689 34,661 22,477 94,825 5,940	348,135 583,233 378,227 1,595,630 99,954	(229,798) (384,983) (249,661) (1,053,250) (65,978)	19,045 31,906 20,691 87,289 5,468		
City of Washington Terrace City of Wendover City of West Haven City of West Jordan City of Woodland Hills	30,223 13,556 35,426 453,930 7,285	0.0207228 0.0092952 0.0242904 0.3112478 0.0049955	2,981 1,337 3,494 44,766 718	50,153 22,496 58,787 753,279 12,090	(33,105) (14,849) (38,805) (497,228) (7,980)	2,744 1,231 3,216 41,208 661	_ _ _ _	
Clearfield City Cleveland Town Clinton City Coalville City Color Country Uniserv	132,481 2,772 35,982 13,360 1,930	0.0908389 0.0019004 0.0246722 0.0091606 0.0013235	13,065 273 3,549 1,318 190	219,848 4,599 59,711 22,170 3,203	(145,118) (3,036) (39,415) (14,634) (2,114)	12,027 252 3,267 1,213 175	_ _ _ _	
Cottonwood Heights City Cottonwood Heights P&R Srv Cottonwood Imp District Council On Aging Golden Age SS Daggett County	107,484 31,603 31,984 11,249 19,815	0.0736989 0.0216696 0.0219308 0.0077129 0.0135864	10,600 3,117 3,154 1,109 1,954	178,366 52,445 53,077 18,667 32,882	(117,736) (34,618) (35,035) (12,322) (21,705)	9,757 2,869 2,904 1,021 1,799	_ _ _ _	
Daggett School District Davis & Weber County Canal Co Davis Behavioral Health Inc Davis Co Housing Authority Davis Co Mosquito Abate	42,679 9,746 487,748 13,557 3,332	0.0292638 0.0066828 0.3344358 0.0092954 0.0022848	4,209 961 48,101 1,337 329	70,824 16,174 809,399 22,497 5,530	(46,750) (10,676) (534,271) (14,850) (3,650)	3,874 885 44,278 1,231 302	_ _ _ _ _	
Davis County Davis School District Davis Technical College DDI Vantage Delta City	887,485 7,810,327 142,144 176,804 20,845	0.6085252 5.3553339 0.0974641 0.1212298 0.0142931	87,523 770,246 14,018 17,436 2,056	1,472,748 12,960,937 235,882 293,399 34,592	(972,138) (8,555,310) (155,702) (193,668) (22,834)	80,567 709,028 12,904 16,050 1,892	_ _ _ _ _	
Dixie State University Dixie Technical College Duchesne Co Water Conserv Dist Duchesne County Duchesne School District	98,862 5,575 4,146 149,569 795,171	0.0677871 0.0038225 0.0028431 0.1025555 0.5452274	9,750 550 409 14,750 78,419	164,058 9,251 6,881 248,204 1,319,555	(108,292) (6,107) (4,542) (163,836) (871,018)	8,975 506 376 13,578 72,186		
Eagle Mountain City East Carbon City East Hollywood High School Educators Mutual Insurance Elk Ridge City	174,332 9,185 46,019 26,276 20,049	0.1195348 0.0062977 0.0315539 0.0180169 0.0137468	17,192 906 4,538 2,591 1,977	289,297 15,242 76,367 43,604 33,270	(190,961) (10,061) (50,408) (28,783) (21,961)	15,826 834 4,178 2,385 1,820		
Elwood Town Emery Co Care & Rehab Ctr Emery County Emery County Recreation SSD Emery School District	4,643 40,088 71,305 4,049 267,639	0.0031836 0.0274875 0.0488916 0.0027765 0.1835127	458 3,953 7,032 399 26,394	7,705 66,525 118,327 6,720 444,136	(5,086) (43,912) (78,106) (4,436) (293,167)	421 3,639 6,473 368 24,296		

	Deferred Outflows	s of Resources	Pension Expense Excluding That Attributces Deferred Inflows of Resources to Employer-Paid Member Contribut								
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	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
1,335 606 1,994 1,878 999	1,645 1,032 2,269 2,650 932	3,951 2,079 5,714 5,895 2,658	483 219 722 680 362	3,084 1,400 4,608 4,341 2,308	38 17 57 54 29		3,605 1,817 5,387 5,452 2,950	10,148 4,604 15,159 14,281 7,592	184 85 258 259 101		10,332 4,689 15,417 14,540 7,693
2,389 6,571 1,666 20,243 2,306	2,267 8,571 1,679 25,255 2,538	6,395 19,924 4,557 60,230 6,522	865 2,379 603 7,328 835	5,521 15,186 3,849 46,780 5,328	69 189 48 582 66	586 — — — — — 211	7,041 17,754 4,500 54,690 6,440	18,163 49,962 12,663 153,909 17,531	239 930 201 2,754 283		18,402 50,892 12,864 156,663 17,814
1,598 9,431 46,348 27,451 5,803	1,882 11,204 51,413 34,493 6,828	4,643 27,499 131,491 81,921 16,854	579 3,414 16,779 9,938 2,101	3,694 21,795 107,107 63,436 13,410	46 271 1,333 789 167	_ _ _ _	4,319 25,480 125,219 74,163 15,678	12,152 71,705 352,386 208,707 44,118	226 1,244 5,969 3,778 774	_ _ _ _	12,378 72,949 358,355 212,485 44,892
26,169 43,841 28,431 119,943 7,514	33,623 49,729 31,571 138,926 7,766	78,837 125,476 80,693 346,158 20,748	9,474 15,871 10,292 43,421 2,720	60,474 101,313 65,701 277,176 17,363	753 1,261 818 3,450 216	_ _ _ _ _	70,701 118,445 76,811 324,047 20,299	198,964 333,325 216,161 911,923 57,125	3,669 5,734 3,632 15,772 922		202,633 339,059 219,793 927,695 58,047
3,770 1,691 4,419 56,624 909	5,613 2,714 5,965 61,577 1,075	12,127 5,636 13,600 159,409 2,645	1,365 612 1,600 20,499 329	8,712 3,908 10,212 130,852 2,100	108 49 127 1,629 26	 1,927 	10,185 6,496 11,939 152,980 2,455	28,663 12,857 33,598 430,509 6,910	573 137 636 7,235 119		29,236 12,994 34,234 437,744 7,029
16,526 346 4,488 1,667 241	17,217 424 4,674 1,882 231	45,770 1,022 12,429 4,762 647	5,983 125 1,625 603 87	38,190 799 10,372 3,851 556	475 10 129 48 7	124 	44,648 1,058 12,126 4,544 650	125,646 2,629 34,126 12,671 1,831	2,062 40 554 216 30		127,708 2,669 34,680 12,887 1,861
13,408 3,942 3,990 1,403 2,472	16,643 4,587 4,632 1,921 2,681	39,808 11,398 11,526 4,345 6,952	4,854 1,427 1,444 508 895	30,984 9,110 9,220 3,243 5,712	386 113 115 40 71		36,224 10,650 10,779 3,791 6,678	101,938 29,973 30,334 10,668 18,792	1,839 518 520 204 315		103,777 30,491 30,854 10,872 19,107
5,324 1,216 60,842 1,691 416	5,854 2,361 75,309 1,784 600	15,052 4,462 180,429 4,706 1,318	1,927 440 22,026 612 150	12,303 2,810 140,600 3,908 961	153 35 1,750 49 12	1,070 — 32 97	14,383 4,355 164,376 4,601 1,220	40,477 9,243 462,582 12,857 3,160	674 148 8,262 209 53		41,151 9,391 470,844 13,066 3,213
110,706 974,268 17,731 22,055 2,600	143,744 1,210,596 24,722 20,269 2,648	335,017 2,893,892 55,357 58,374 7,140	40,077 352,698 6,419 7,984 941	255,830 2,251,435 40,975 50,966 6,009	3,184 28,020 510 634 75		299,091 2,632,153 47,904 59,584 7,025	841,695 7,407,345 134,810 167,682 19,770	15,521 132,875 2,584 2,554 324		857,216 7,540,220 137,394 170,236 20,094
12,332 695 517 18,657 99,190	14,430 1,069 806 19,723 118,324	35,737 2,270 1,699 51,958 289,700	4,464 252 187 6,754 35,908	28,498 1,607 1,195 43,115 229,219	355 20 15 537 2,853		33,317 1,879 1,397 52,660 267,980	93,761 5,287 3,932 141,852 754,143	1,644 109 82 2,158 13,277		95,405 5,396 4,014 144,010 767,420
21,746 1,146 5,740 3,278 2,501	28,217 1,150 6,111 2,126 2,370	65,789 3,130 16,029 7,789 6,691	7,872 415 2,078 1,187 905	50,254 2,648 13,266 7,574 5,779	625 33 165 94 72	 1,469 601 45	58,751 3,096 16,978 9,456 6,801	165,337 8,711 43,644 24,920 19,014	3,060 137 636 267 303		168,397 8,848 44,280 25,187 19,317
579 5,001 8,895 505 33,386	1,157 6,487 10,477 410 41,671	2,157 15,127 25,845 1,283 99,353	210 1,810 3,220 183 12,086	1,338 11,556 20,555 1,167 77,151	17 144 256 15 960	57 - 41 -	1,565 13,567 24,031 1,406 90,197	4,403 38,020 67,625 3,840 253,830	105 690 1,202 53 4,573		4,508 38,710 68,827 3,893 258,403

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	
Emery Town Emery Water Conserv Dist Enoch City Ephraim City Eureka City Corporation	\$ 2,120 12,998 28,319 47,306 2,451	0.0014538% 0.0089121 0.0194177 0.0324363 0.0016809		3,518 21,569 46,995 78,502 4,068	(2,322) (14,237) (31,020) (51,818) (2,685)	192 1,180 2,571 4,294 223		
Fairview City Farmington City Farr West City Fast Forward Charter HS Ferron City	5,962 78,185 12,799 43,279 8,491	0.0040881 0.0536094 0.0087761 0.0296755 0.0058218	588 7,711 1,262 4,268 837	9,894 129,745 21,240 71,820 14,090	(6,531) (85,643) (14,020) (47,408) (9,301)	541 7,098 1,162 3,929 771	_ _ _ _	
Fillmore City Five-County Assn of Govts Fox Hollow Golf Course Francis City Fruit Heights City	10,976 88,870 4,340 2,143 11,882	0.0075260 0.0609361 0.0029757 0.0014692 0.0081469	1,082 8,764 428 211 1,172	18,214 147,477 7,202 3,556 19,717	(12,023) (97,347) (4,754) (2,347) (13,015)	996 8,068 394 195 1,079	_ _ _ _	
Garfield County Garfield School District Garland City Grand County Grand County EMS SSD	52,457 138,027 10,500 193,180 38,561	0.0359684 0.0946416 0.0071993 0.1324587 0.0264400	5,173 13,612 1,035 19,051 3,803	87,050 229,051 17,424 320,576 63,990	(57,461) (151,193) (11,501) (211,607) (42,239)	4,762 12,530 953 17,537 3,501	_ _ _ _ _	
Grand School District Grand Water/Sewer Service Granger-Hunter Imp Dist Granite School District Granite Uniserv	368,032 15,227 148,808 8,029,236 3,184	0.2523497 0.0104406 0.1020340 5.5054341 0.0021835	36,295 1,502 14,675 791,834 314	610,735 25,268 246,942 13,324,209 5,284	(403,136) (16,679) (163,002) (8,795,100) (3,488)	33,410 1,382 13,509 728,901 289		
Grantsville City Greater Salt Lake Municipal SD Gunnison City Gunnison Valley Hospital Heber City	65,067 87,242 7,692 152,589 137,113	0.0446148 0.0598196 0.0052740 0.1046264 0.0940144	6,417 8,604 759 15,048 13,522	107,976 144,775 12,764 253,216 227,533	(71,274) (95,564) (8,425) (167,144) (150,191)	5,907 7,920 698 13,852 12,447		
Heber Light & Power Heber Valley Historic Railroad Herriman City High Desert Uniserv High School Activities Assn	90,931 21,263 251,741 1,930 7,233	0.0623490 0.0145792 0.1726118 0.0013235 0.0049592	8,968 2,097 24,826 190 713	150,897 35,284 417,754 3,203 12,002	(99,604) (23,291) (275,753) (2,114) (7,922)	8,255 1,930 22,853 175 657		
Highland City Hinckley Town Hooper City Hooper Water Improv Dist Housing Auth of Carbon Co	38,039 4,864 29,443 10,381 11,850	0.0260823 0.0033354 0.0201886 0.0071181 0.0081253	3,751 480 2,904 1,024 1,169	63,124 8,072 48,860 17,227 19,665	(41,667) (5,328) (32,252) (11,371) (12,980)	3,453 442 2,673 942 1,076		
Housing Authority of SLC Housing Authority Ogden City Housing Connect Hurricane City Hurricane Valley Fire SSD	170,621 25,654 273,417 134,460 3,047	0.1169901 0.0175902 0.1874751 0.0921959 0.0020895	16,826 2,530 26,964 13,260 301	283,139 42,572 453,726 223,132 5,057	(186,895) (28,101) (299,497) (147,286) (3,338)	15,489 2,329 24,821 12,206 277		
Hyde Park City Hyrum City Intech Collegiate High School Iron County Iron School District	5,421 29,736 37,573 219,309 935,463	0.0037171 0.0203890 0.0257631 0.1503742 0.6414221	535 2,933 3,705 21,628 92,254	8,996 49,345 62,352 363,934 1,552,365	(5,938) (32,572) (41,157) (240,227) (1,024,692)	492 2,699 3,411 19,909 84,922		
Itineris High School Ivins City Jordan River Commission Jordan School District Jordan Uniserv	48,004 70,467 2,825 7,862,302 2,887	0.0329154 0.0483175 0.0019368 5.3909722 0.0019794	4,734 6,949 279 775,372 285	79,662 116,938 4,687 13,047,189 4,791	(52,583) (77,189) (3,094) (8,612,244) (3,162)	4,358 6,397 256 713,747 262		
Jordan Valley Water Conserv Jordanelle SSD Juab County Juab School District Juab Special Service Fire Dist	226,384 69,233 60,779 267,043 7,502	0.1552252 0.0474715 0.0416747 0.1831042 0.0051441	22,326 6,828 5,994 26,335 740	375,675 114,890 100,861 443,147 12,450	(247,977) (75,837) (66,577) (292,515) (8,218)	20,551 6,285 5,518 24,242 681		

Pension Expense Excluding That Attributable to Employer-Paid Member Contributions **Deferred Outflows of Resources Deferred Inflows of Resources** Net Amortization Amounts from Changes in Changes in Changes in Proportion and Net Proportion and Proportion and Total Differences Difference Differences . Differences Employer Between Between Between Between Net Pension Projected Proportionate Employer Employe **Employer** Expense Differences Contributions and Actual Contributions Share of Contributions **Excluding That** Allocable Attributable to Total Total Proportionate Proportionate Proportionate Deferred Proportionate **Employer-Paid** Deferred Share of Expected Earnings on Plan Gross Changes of Share of Contributions Outflows of and Actual Pension Plan Changes of Share of Contributions Inflows of Pension Share of Contributions Nonemployer Contributions Assumptions Resources Experience Investments Assumptions Resources Expense Contributions 984 715 2,011 2,059 264 528 1,621 1,612 4,413 587 3,747 47 302 4,683 12,327 173 12,500 1,279 9,544 27,329 3,533 4,260 10,364 8,163 102 26,858 471 5,901 7,626 17,821 2,136 13,637 170 15,943 44,865 827 45,692 306 590 1,119 111 707 9 827 2,325 55 2,380 744 1,050 2,335 269 1,719 21 2,009 5,655 114 5,769 9,753 280 75,259 8,452 25,303 3,531 22,538 26,349 74,151 1,108 1,597 2,673 5,432 4,314 12,403 578 3.690 46 12.139 264 5.399 5.379 14.707 1.954 12.476 155 155 14.740 41.046 634 41.680 1.409 383 2.448 30 91 2,952 8,053 148 1.059 3,239 8,201 1.369 1,315 3,680 496 3.164 39 218 3,917 10.410 148 10.558 11,086 84,285 85,751 13,132 32,286 4,013 319 1,466 25,618 29,950 541 693 1,628 196 1,251 16 1,463 4,116 74 4,190 267 480 942 97 618 8 298 1.021 2.032 25 2.057 43 1,482 1,978 4,539 537 3,425 457 4,462 11,269 183 11,452 6,544 8,130 19,436 2.369 15.121 188 17,678 49,750 894 50,644 130,906 2,517 17,218 24,216 53,964 6,233 39,788 495 46,516 133,423 1,310 1,618 3,881 474 3,027 38 3,539 9,958 182 10,140 24,098 28,751 70,386 8,724 55,687 693 65,104 183,213 3,260 186,473 4,810 8,962 17,273 1,741 11,116 138 12,995 36,571 873 37,444 45,909 51,305 130,624 16,620 106,090 1,320 124,030 349,043 5,919 354,962 1,899 2,530 5,811 688 4,389 55 963 6,095 14,441 212 14,653 21,501 53,573 6,720 42,896 534 141,131 2,443 143,574 18,563 50,150 1,001,575 1,207,106 2,937,582 362,584 2,314,538 28,806 2,705,928 7,614,959 134,615 7,749,574 397 793 1,479 144 918 11 1,073 3,020 72 3,092 8,117 10,671 24,695 2,938 18,756 233 21,927 61,710 1,150 62,860 10,883 21,403 40,206 3,940 25,149 313 29,402 82,741 1,975 84,716 959 1,244 2,217 7,295 132 7,427 2.901 347 28 2.592 19,034 22,523 55,409 6.891 43,986 547 51,424 144,716 2,501 147,217 2,307 21,412 50,963 6,192 39,525 492 130,038 2.170 132,208 17,104 48,516 4,106 11,343 13,991 33,589 26,212 326 30,644 86,239 1,561 87,800 2,652 6,129 2,657 960 76 20.166 330 20,496 7.239 7.165 31,402 41,353 95,608 11,368 72,568 903 84,839 238,752 4,460 243,212 241 229 645 87 556 6 656 1,831 29 1,860 902 1,104 327 2,085 2,663 26 10 2,448 6,859 120 6,979 36,076 4,745 6,766 14,964 1,718 10.965 136 258 13,077 670 36,746 607 935 1,984 220 1,402 17 558 2,197 4,613 57 4,670 3,673 4,400 10,746 1,330 8,487 106 9,923 27,924 494 28,418 1,295 1,806 4,043 469 2.993 37 3,499 9,846 190 10,036 1,478 2,162 4,716 535 3,416 43 3,994 11,239 222 11,461 21,283 26,298 63,070 7,705 49,184 612 3,986 61,487 161,817 2,584 164,401 3,200 3,930 9,459 1,158 7,395 92 8,645 24,330 447 24,777 34,106 42,535 101,462 12,347 981 259,310 4,685 263,995 78,816 92,144 16,773 21,970 50,949 6,072 38,760 482 45,314 127,523 2,368 129,891 380 578 1,235 138 878 11 92 1,119 2,890 56 2,946 1,048 2,216 19 229 2,056 98 5,239 676 245 1,563 5,141 11,511 8,572 107 28,731 3,709 5,103 1,343 10,022 28,201 530 4,687 5,293 13,391 1,697 10,831 135 12.663 35,635 618 36,253 27,357 32,497 79,763 9,904 63,219 787 73,910 207,993 3,613 211,606 116,691 148,563 350,176 42,244 269,660 3.356 315,260 887,197 16,151 903,348 5,988 8,469 18,815 2,168 13,838 172 16,178 45.528 897 46,425 8,790 3,182 20,313 66,831 68,038 10,857 26,044 253 23,748 1,207 352 820 1,428 128 814 10 153 1,105 2,679 64 2.743 980,752 1,273,202 355,045 28,207 137,450 2,967,701 2,266,417 2,649,669 7,456,639 7.594.089 176 360 552 1,174 130 832 10 1,148 2,738 44 2,782 3,976 85,486 65,258 218,679 28.239 36,696 10,223 812 76,293 214,703 11,874 8,636 26,795 3,126 19,957 248 23,331 65,661 1,269 66,930 7,582 10,554 23,654 2,745 17,520 218 20,483 57,643 1,090 58,733 33,311 41,688 99,241 12,059 76,979 958 89,996 253,264 4,579 257,843 936 1,868 3,485 339 2,163 27 2,529 7,115 170 7,285

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	
Kamas City Kane County Kane County Water Conserv Dist Kane School District Kaysville City	\$ 7,991 177,962 19,633 204,446 93,905	0.0054792% 0.1220241 0.0134616 0.1401831 0.0643880	\$ 788 17,550 1,936 20,162 9,261	13,261 295,322 32,580 339,270 155,831	(8,753) (194,937) (21,505) (223,947) (102,862)	725 16,156 1,782 18,560 8,525	_ _ _ _	
Kearns Improvement Dist Laverkin City Layton City Lehi City Lewiston City	31,089 14,616 308,232 411,084 15,862	0.0213166 0.0100221 0.2113464 0.2818694 0.0108762	3,066 1,441 30,397 40,541 1,564	51,590 24,255 511,499 682,178 26,322	(34,054) (16,011) (337,632) (450,295) (17,375)	2,822 1,327 27,982 37,319 1,440		
Lindon City Logan City Logan School District Manti City Mapleton City	57,322 433,951 702,707 24,371 40,128	0.0393039 0.2975487 0.4818278 0.0167103 0.0275147	5,653 42,796 69,300 2,403 3,957	95,123 720,125 1,166,116 40,442 66,591	(62,789) (475,343) (769,735) (26,695) (43,956)	5,204 39,394 63,792 2,212 3,643		
Marriott-Slaterville City Mayfield Town Metro Water Dist SLC/Sandy Midvale City Midvalley Improvement District	10,293 1,429 79,436 192,551 11,453	0.0070578 0.0009795 0.0544670 0.1320274 0.0078533	1,015 141 7,834 18,989 1,130	17,081 2,371 131,821 319,532 19,006	(11,275) (1,565) (87,013) (210,918) (12,546)	934 130 7,211 17,480 1,040	_ _ _ _	
Midway City Military Installation Devel Millard Co Care & Rehab Inc Millard County Millard School District	30,030 16,957 92,535 127,585 374,035	0.0205908 0.0116269 0.0634487 0.0874816 0.2564657	2,962 1,672 9,126 12,582 36,887	49,834 28,139 153,558 211,722 620,696	(32,894) (18,574) (101,361) (139,755) (409,712)	2,726 1,539 8,400 11,582 33,955	_ _ _ _	
Millcreek City Millville City Minersville Town Mona City Monroe City	75,514 2,851 2,523 6,649 8,564	0.0517776 0.0019549 0.0017299 0.0045593 0.0058723	7,447 281 249 656 845	125,312 4,731 4,187 11,034 14,212	(82,716) (3,123) (2,764) (7,284) (9,381)	6,855 259 229 604 777	_ _ _ _	
Monticello Academy Morgan City Corporation Morgan County Morgan School District Moroni City	130,228 22,635 35,300 372,793 3,889	0.0892936 0.0155201 0.0242042 0.2556142 0.0026665	12,843 2,232 3,481 36,764 384	216,108 37,562 58,579 618,635 6,453	(142,649) (24,794) (38,667) (408,352) (4,260)	11,822 2,055 3,205 33,842 353	_ _ _ _ _	
Mount Pleasant City Mountain Regional Water SSD Mountainland Assn of Govt Mt Olympus Improvement Dist Murray City	32,853 44,038 84,485 40,602 390,629	0.0225263 0.0301956 0.0579289 0.0278394 0.2678439	3,240 4,343 8,332 4,004 38,523	54,518 73,079 140,199 67,377 648,234	(35,986) (48,238) (92,543) (44,474) (427,889)	2,982 3,998 7,670 3,686 35,462	_ _ _ _ _	
Murray School District Myton City N Tooele Co Fire Protection SD N UT Environmental Rsrc Agcy Nebo Credit Union	807,407 2,682 216 10,260 35,350	0.5536172 0.0018391 0.0001482 0.0070351 0.0242384	79,626 265 21 1,012 3,486	1,339,860 4,451 359 17,026 58,662	(884,420) (2,938) (237) (11,239) (38,722)	73,297 243 20 931 3,209	_ _ _ _	
Nebo School District Nephi City Nibley City Corporation Noah Webster Academy Inc North Davis Co Sewer Dist	3,693,599 75,587 35,746 62,091 46,227	2.5326027 0.0518280 0.0245101 0.0425740 0.0316967	364,259 7,454 3,525 6,123 4,559	6,129,385 125,434 59,319 103,037 76,712	(4,045,911) (82,797) (39,156) (68,013) (50,636)	335,308 6,862 3,245 5,637 4,197	_ _ _ _ _	
North Emery Water Users SSD North Logan City North Ogden City North Park Police Agency North Pointe Solid Waste	9,833 64,702 94,691 6,116 47,344	0.0067420 0.0443642 0.0649270 0.0041938 0.0324628	970 6,381 9,338 603 4,669	16,317 107,370 157,136 10,150 78,566	(10,771) (70,873) (103,723) (6,700) (51,860)	893 5,874 8,596 555 4,298		
North Sanpete School Dist North Summit School District North View Fire District Northeastern Counseling Ctr Nuames Charter School	238,340 109,152 122 118,592 115,077	0.1634233 0.0748429 0.0000838 0.0813155 0.0789055	23,505 10,764 12 11,695 11,349	395,516 181,134 203 196,799 190,966	(261,074) (119,564) (134) (129,904) (126,054)	21,637 9,909 11 10,766 10,447		

Pension Expense Excluding That Attributable to Employer-Paid Member Contributions **Deferred Outflows of Resources Deferred Inflows of Resources** Net Amortization Amounts from Changes in Changes in Changes in Proportion and Net Proportion and Proportion and Total Differences Difference Differences . Differences Employer Net Pension Between Between Between Between Projected Proportionate Employer Employe Contributions Differences and Actual Contributions Share of Contributions **Excluding That** Allocable Attributable to Total Total Proportionate Proportionate Proportionate Deferred Proportionate **Employer-Paid** Deferred Share of Expected Earnings on Plan Gross Changes of Share of Contributions Outflows of and Actual Pension Plan Changes of Assumptions Share of Contributions Inflows of Pension Share of Contributions Nonemployer Contributions Assumptions Resources Experience Investments Resources Expense Contributions 1,457 997 3,179 29 2,694 7,579 7,730 361 2,304 22,199 22,907 8,036 51,300 638 59,974 168,780 2,743 171,523 61,262 2,449 70 307 18,927 2,606 6,837 887 5,659 6,616 18,620 25,503 29,560 73,623 9,232 58,934 733 68,899 193,897 3,371 197,268 11,714 12,902 33,141 4,241 27,069 337 31,647 89,060 1,517 90,577 3,878 4,675 11,375 1,404 8,962 112 735 11,213 29,485 463 29,948 1,823 2,149 5,299 660 4,213 52 4,925 13,862 240 14,102 38,449 44,807 111,238 13,919 88,852 1,106 103,877 292,328 5,081 297,409 51,279 64.344 152,942 18,564 118.501 1,475 138,540 389.874 7.023 396.897 1,979 4,572 57 5,345 15,300 2,239 5,658 716 15,044 256 7.150 10,197 22,551 2.589 16,524 206 19,319 54,364 1,079 55,443 54,132 63,281 418,736 19,596 125,092 1,557 146,245 7.175 156,807 411,561 87,656 104,383 255,831 31,733 202,565 2,521 236,819 666,450 11,816 678,266 3,040 3.593 8.845 1,101 7.025 87 8.213 23.113 392 23,505 5,006 6,440 15,089 1,812 11,567 144 13,523 38,058 709 38,767 1,284 2,133 465 2,967 37 9,762 209 9.971 4,351 3,469 178 356 664 65 412 5 482 1,355 32 1,387 9,909 13,528 30,648 3,587 22,898 285 26,770 75,337 1,438 76,775 24,019 28,635 70,134 8,695 55,506 691 64,892 182,617 3,175 185,792 1,429 1,838 4,307 517 3,302 41 3,860 10,862 201 11,063 3,746 3,854 10,326 1,356 8,657 108 99 10,220 28,481 464 28,945 2,115 4,116 7,770 766 4,888 61 5,715 16,082 384 16,466 13,245 33,188 4,179 26,674 332 87,760 1,484 89,244 11,543 31,185 15,915 21,020 48,517 5,761 36,778 458 42,997 121,002 2,261 123,263 46,657 54,852 135,464 16,891 107,821 1,342 126,054 354,736 6,179 360,915 9,420 271 1,485 14,567 30,842 3,410 21,768 25,449 71,617 73,102 228 2,753 356 659 1,274 129 822 10 1,189 2,704 49 315 1,077 114 727 9 54 2,393 49 2,442 533 904 829 1,630 3,063 300 1,917 24 2,241 6,306 151 6,457 3,537 387 2.469 31 170 1.068 1,692 2,887 8,122 8.292 16,245 19,816 47,883 5,881 37,540 467 43,888 123,508 2,178 125,686 2,823 3.935 8,813 1,022 6.525 81 417 21.884 7,628 21,467 4,403 1,594 33,479 4.474 12.082 10.176 127 11,897 533 34.012 46,503 60,104 140,449 16,835 107,463 1,337 125,635 353,558 6.523 360,081 108 485 422 1,260 176 1,121 14 1,419 3,688 48 3,736 9,470 31,767 4.098 5,641 12,721 1,484 118 11,072 31,158 609 5,493 6,667 16,158 1,989 12,695 158 14,842 41,766 738 42,504 10,539 14,754 32,963 3,815 24,354 303 28,472 80,126 1,566 81,692 5,065 5,766 14,517 1,833 11,704 146 13,683 38,507 659 39,166 48,727 57,874 142,063 17,640 112,604 1,401 131,645 370,474 6,499 376,973 100,717 125,270 299,284 36,461 232,746 2,897 272,104 765,747 13,752 779,499 335 310 888 121 773 10 1 905 2,544 38 2,582 205 27 54 101 10 62 73 210 1,280 1,984 4,195 463 2,958 37 3,458 9,731 204 9,935 4,410 6,218 13,837 1,596 10,190 127 11,913 33,526 659 34,185 460,743 521,486 1,317,537 166,795 1,064,731 1,244,777 3,503,024 59,697 3,562,721 13,251 271 9,429 11,900 28,191 3,413 21,789 25,473 71,687 1,305 72,992 4,459 5,005 12,709 1,614 10,304 128 12,046 33,902 575 34,477 7,745 6.762 20,144 2,804 17,899 223 677 21,603 58,887 804 59,691 5,766 7,294 17,257 2,088 13,326 166 15,580 43,842 811 44,653 1,227 1,463 3,583 2.834 35 95 3,408 9,325 154 9,479 444 62,508 8,071 10,594 24,539 2,922 21,805 1,145 18,651 232 61,363 11,812 13,492 33,900 4,276 27,296 340 31,912 89.805 1,547 91,352 133 763 1,390 2.708 276 1,763 22 2.061 5,801 5,934 5,906 170 45,700 7,141 17,345 2,138 13,648 15,956 44,902 798 29.731 86,903 3,995 230.037 35.535 10,763 68.705 855 80,323 226,042 17,589 13,616 41,114 4,929 31,465 392 36,786 103,521 1,898 105,419 15 610 636 35 632 673 116 119 14,793 18,598 44,157 5,355 34,186 425 39,966 112,473 2.045 114,518 14,355 19,781 44,583 5,197 33,173 413 38,783 109,140 2,108 111,248

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	
Oakley City Ogden City Corp Ogden School District Ogden-Weber Tech College Oquirrh Rec and Parks District	\$ 10,165 647,017 1,901,955 33,634 20,457	0.0069696% 0.4436422 1.3041199 0.0230617 0.0140267	\$ 1,002 63,808 187,569 3,317 2,017	16,868 1,073,699 3,156,221 55,814 33,947	(11,134) (708,732) (2,083,372) (36,842) (22,408)	923 58,737 172,661 3,053 1,857	_ _ _ _	
Orangeville City Orderville Town Panguitch City Corporation Park City Park City Fire Service	2,191 2,204 11,740 894,536 16,091	0.0015024 0.0015115 0.0080496 0.6133599 0.0110332	216 217 1,158 88,218 1,587	3,636 3,658 19,482 1,484,449 26,702	(2,400) (2,415) (12,859) (979,861) (17,626)	199 200 1,066 81,207 1,461		
Park City School District Parowan City Payson City Perry City Piute County	1,221,638 15,394 142,811 16,406 9,145	0.8376449 0.0105551 0.0979215 0.0112492 0.0062703	120,477 1,518 14,084 1,618 902	2,027,262 25,545 236,989 27,225 15,175	(1,338,163) (16,862) (156,433) (17,971) (10,017)	110,901 1,397 12,964 1,489 830		
Piute School District Plain City Pleasant Grove City Pleasant View City Powder Mountain Water & Sewer	49,782 10,782 109,447 24,319 16,162	0.0341343 0.0073927 0.0750450 0.0166750 0.0110817	4,909 1,063 10,794 2,398 1,594	82,612 17,892 181,623 40,357 26,820	(54,531) (11,810) (119,887) (26,639) (17,703)	4,519 979 9,936 2,208 1,467	_ _ _ _	
Price City Price River Water Improve Providence City Provo City Corp Provo Housing Authority	56,502 33,357 19,409 877,144 19,390	0.0387419 0.0228722 0.0133081 0.6014344 0.0132952	5,572 3,290 1,914 86,503 1,912	93,763 55,355 32,208 1,455,587 32,177	(61,891) (36,539) (21,260) (960,810) (21,239)	5,129 3,028 1,762 79,628 1,760	_ _ _ _	
Provo River Water Users Provo School District Rich County Rich School District Richfield City	25,863 1,933,217 23,476 66,149 16,803	0.0177334 1.3255556 0.0160969 0.0453566 0.0115212	2,551 190,652 2,315 6,524 1,657	42,918 3,208,099 38,958 109,772 27,884	(28,330) (2,117,616) (25,715) (72,459) (18,405)	2,348 175,499 2,131 6,005 1,525	_ _ _ _	
Richmond City Riverdale City Roosevelt City Roy City S Utah Valley Electric Svc Dst	17,303 47,026 31,729 92,613 41,695	0.0118645 0.0322443 0.0217555 0.0635023 0.0285894	1,706 4,638 3,129 9,133 4,112	28,714 78,037 52,652 153,688 69,192	(18,954) (51,511) (34,755) (101,447) (45,672)	1,571 4,269 2,880 8,407 3,785	_ _ _ _	
S Utah Valley Solid Waste Salem City Salina City Salt Lake Arts Academy Salt Lake City Corp	34,903 61,316 6,814 55,286 4,182,240	0.0239321 0.0420430 0.0046723 0.0379083 2.8676507	3,442 6,047 672 5,452 412,448	57,920 101,752 11,308 91,745 6,940,266	(38,232) (67,165) (7,464) (60,560) (4,581,160)	3,169 5,566 619 5,019 379,667	_ _ _ _	
Salt Lake City Public Library Salt Lake Co Serv Area 3 Salt Lake Community College Salt Lake County Salt Lake School District	218,287 5,104 393,180 4,817,532 3,143,689	0.1496735 0.0034996 0.2695928 3.3032537 2.1555442	21,527 503 38,775 475,100 310,027	362,239 8,470 652,466 7,994,509 5,216,831	(239,108) (5,591) (430,683) (5,277,049) (3,443,548)	19,816 463 35,693 437,340 285,387	_ _ _ _	
San Juan County San Juan Mental Health San Juan School District Sandy City Sandy Suburban Imp Dist	118,893 29,485 547,653 523,698 5,110	0.0815217 0.0202172 0.3755108 0.3590855 0.0035039	11,725 2,908 54,009 51,646 504	197,298 48,930 908,808 869,056 8,480	(130,233) (32,298) (599,890) (573,650) (5,598)	10,793 2,677 49,716 47,542 464	_ _ _ _	
Sanpete County Santaquin City Sevier County Sevier School District Six-County Assoc of Govt	77,132 43,726 82,723 423,776 31,788	0.0528872 0.0299816 0.0567210 0.2905718 0.0217964	7,607 4,312 8,158 41,792 3,135	127,997 72,561 137,276 703,240 52,751	(84,489) (47,897) (90,614) (464,197) (34,820)	7,002 3,969 7,510 38,471 2,886		~~~~
SLC Mosquito Abatement Smithfield City Corp Snow College Snyder Basin Special Rec Dist Snyder ville Basin W R D	28,724 35,345 43,160 76,694 43,555	0.0196954 0.0242348 0.0295934 0.0525867 0.0298642	2,833 3,486 4,256 7,563 4,295	47,667 58,653 71,622 127,270 72,277	(31,464) (38,716) (47,276) (84,009) (47,709)	2,608 3,209 3,918 6,962 3,954	= = = = =	

Pension Expense Excluding That Attributable to Employer-Paid Member Contributions **Deferred Outflows of Resources Deferred Inflows of Resources** Net Amortization Amounts from Changes in Changes in Changes in Proportion and Net Proportion and Proportion and Total Differences Difference Differences . Differences Employer Between Between Between Between Net Pension Projected Proportionate Employer Employe Contributions Differences and Actual Contributions Share of Contributions **Excluding That** Allocable Attributable to Total Total Proportionate Proportionate Deferred Proportionate Proportionate **Employer-Paid** Deferred Share of Expected Earnings on Plan Gross Changes of Share of and Actual Pension Plan Changes of Share of Contributions Inflows of Pension Nonemployer Contributions Contributions Contributions Assumptions Resources Experience Investments Assumptions Resources Expense Contributions 3,724 459 2,930 125 3,550 9,640 9,802 1,533 80,710 94,095 233,542 29,218 186,512 2,321 218,051 613,633 10,665 624,298 237,252 677,530 30,770 1,834,591 267,617 85,888 548,265 6,823 640,976 1,803,821 4,195 5,320 12,568 1,519 9,695 121 11,335 31,898 576 32,474 2,552 4,033 8,442 924 5,897 73 122 7,016 19,401 389 19,790 273 724 1,196 99 632 8 347 1,086 2,078 42 2,120 275 339 814 100 635 743 2,091 37 2,128 8 1,464 1,328 3,858 3,384 42 3,956 11,134 11,310 530 176 111.585 124.502 317.294 40.395 257.863 3.209 301.467 848.382 14.557 862,939 2,007 2,252 727 437 15,496 5,720 4.638 58 5,860 235 15,261 4,383 1,158,606 1,179,161 152,388 185,323 448,612 55,167 352.154 411,704 20,555 1,920 768 4,437 14,600 3,324 6,641 695 55 5,955 285 14.885 17,814 21,439 52,217 6,449 41,167 512 48,128 135,442 2,409 137,851 2.047 2.863 6,399 741 4.729 59 256 5.785 15.560 291 15.851 1,141 1,275 3,246 413 2,636 33 3,082 8,673 150 8,823 6,210 7.040 17,769 2,248 14.350 179 7 16,784 47,214 812 48.026 1,345 2,051 4,375 487 3,108 39 368 4,002 10,225 176 10,401 13,653 16,339 39,928 4,942 31,550 393 239 37,124 103,800 1,865 105,665 3,034 3,821 9,063 1,098 7,010 87 69 8,264 23,064 413 23,477 2,016 3,862 7,345 730 4,659 58 5,447 15,328 366 15,694 7,048 8,104 20,281 2,552 16,287 203 19,042 53,587 929 54,516 4,161 4,746 11,935 1,506 9,616 120 11,242 31,636 532 32,168 2,657 70 325 18,407 2,421 6,840 876 5,595 6,866 286 18,693 109,416 117,330 306,374 39,610 252,849 3,147 295,606 831,887 13,773 845,660 2,419 2,458 6,637 876 5,589 70 1,257 7,792 18,390 206 18,596 93 3,226 4,465 10,039 1,168 7,455 31 8,747 24,528 454 24,982 241,152 258,188 674,839 87,300 557,277 6,936 651,513 1,833,471 30,316 1,863,787 2,928 7,911 329 22,594 2.603 7.662 1.060 6.767 84 22,265 8,251 9,710 23,966 2.987 237 22,292 1,071 63,807 19,068 62,736 20 2.096 2,910 759 60 5,683 15.936 294 6,531 4.844 16,230 2,158 2,368 6.097 781 4,988 62 25 5.856 16,411 274 16,685 13,556 829 5.866 7,872 18,007 2.124 169 15,849 44,599 45,428 3,958 2,089 12,782 4.637 11.475 1,433 9.146 114 30.092 366 30,458 11,439 31,399 4,182 26,697 332 31,211 87,835 1,393 89,228 5,201 7,099 16,085 1,883 12,019 150 14,052 39,544 751 40,295 4,354 11,894 33,786 6,968 14.491 1,576 10.061 125 132 33.102 684 11,035 7,649 24,250 2,769 17,675 220 20,664 58,153 1,141 59,294 850 1,105 2,574 308 1,964 24 211 2,507 6,463 106 6,569 6,896 7,837 19,752 2,497 15,937 198 18,632 52,434 888 53,322 521,697 627,074 1,528,438 188,861 1,205,588 15,004 1,409,453 3,966,453 70,085 4,036,538 27,229 32,371 79,416 9,857 62,924 783 73,564 207,024 3,616 210,640 637 1,225 2,325 230 1,471 18 1,719 4,841 116 4,957 49,046 35,858 120,597 17,755 113,339 1,411 2,601 135,106 372,893 5,015 377,908 600,944 683,874 1,722,158 217,550 1,388,720 17,283 1,623,553 4,568,966 78,146 4,647,112 392,147 447,300 1,124,834 141,963 906,212 11,278 1,059,453 2,981,487 51,097 3,032,584 14,831 18,201 43,825 427 1,084 112,758 1,948 114,706 5,369 34,273 41,153 10,749 485 3,678 4,394 1,331 8,500 106 23 9,960 27,964 28,449 68,315 77,828 195,859 24.731 157,868 1,965 184,564 519,396 8,907 528,303 65.327 188,551 23,649 150,963 1,879 176,491 496,677 8,667 505,344 75,682 637 595 231 1,473 18 4.846 75 4.921 1.696 1,722 9,621 10,167 26,790 3,483 22,234 277 25,994 73,152 1,194 74,346 1,975 41,470 42,228 5.454 7.006 16,429 12,605 157 14,737 758 10.319 11.731 29,560 3.736 23.846 297 27,879 78,455 1,343 79,798 52,862 67,689 159,022 19,137 122,159 142,816 401,911 7,371 409,282 3,965 6,381 13,232 1,435 9,163 114 10,712 30,148 642 30,790 3,583 9,680 468 27.710 3,994 10,185 1,297 8,280 103 27,242 5,405 1,596 660 4,409 13,023 10,189 127 12,572 33,521 565 34,086 5,384 5,377 14,679 1,949 12,441 155 929 15,474 40,933 641 41,574 9,567 10,282 26,811 3,463 22,108 275 1,636 27,482 72,736 1,045 73,781 5,433 6,321 15,708 1,967 12,555 156 14,678 41,307 721 42,028

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	
So Davis Recreation Center So Davis Recreation Center So St. Valley Mosq Abate So Utah Valley Animal Svcs SSD Soldier Hollow Charter School	\$ 3,963 32,233 9,991 5,806 57,682	0.0027173% 0.0221015 0.0068503 0.0039811 0.0395509		6,576 53,490 16,579 9,635 95,721	(4,341) (35,308) (10,944) (6,360) (63,184)	360 2,926 907 527 5,236		
Solid Waste SSD #1 South Davis Sewer Dist South Davis Water Dist South Ogden City South Ogden Conserv Dist	20,751 87,225 4,286 42,744 54,819	0.0142285 0.0598078 0.0029389 0.0293082 0.0375881	2,046 8,602 423 4,215 5,406	34,436 144,746 7,113 70,931 90,970	(22,730) (95,545) (4,695) (46,821) (60,048)	1,884 7,918 389 3,880 4,977		
South Sanpete School Dist South Summit School District South Valley Sewer District South Valley Water Reclamation South Weber City	334,728 166,151 112,517 66,700 31,390	0.2295142 0.1139252 0.0771498 0.0457341 0.0215236	33,011 16,386 11,096 6,578 3,096	555,468 275,721 186,717 110,685 52,091	(366,656) (181,999) (123,249) (73,062) (34,385)	30,387 15,083 10,214 6,055 2,850	_ _ _ _	
Southeastern Utah AoG Southeastern Utah Health Southern Utah University Southwest Educ Development Ctr Southwest Technical College	48,183 86,838 522,321 17,617 125,611	0.0330380 0.0595428 0.3581416 0.0120796 0.0861278	4,752 8,564 51,511 1,737 12,388	79,958 144,105 866,772 29,235 208,446	(52,779) (95,121) (572,142) (19,298) (137,592)	4,374 7,883 47,417 1,599 11,403	_ _ _ _	
Spanish Fork City Spring City Springville City St George Housing Auth Stansbury Park Improv Dist	332,046 1,192 264,820 5,351 3,963	0.2276754 0.0008176 0.1815803 0.0036688 0.0027174	32,746 118 26,116 528 391	551,018 1,979 439,459 8,879 6,577	(363,718) (1,306) (290,080) (5,861) (4,341)	30,143 108 24,041 486 360	_ _ _ _	
Stansbury Service Agency State of Utah Success Academy Summit Academy High School Summit Academy Inc	31,418 25,596,681 51,356 109,131 450,147	0.0215426 17.5509658 0.0352138 0.0748284 0.3086537	3,098 2,524,319 5,065 10,762 44,393	52,137 42,476,708 85,224 181,099 747,001	(34,415) (28,038,203) (56,255) (119,541) (493,084)	2,852 2,323,696 4,662 9,907 40,865	_ _ _ _ _	
Summit County Summit County Service Area 3 Sunset City Sw Behavioral Health Center Sw Mosquito Abatement/Control	349,679 747 15,431 248,440 10,288	0.2397653 0.0005120 0.0105808 0.1703487 0.0070542	34,485 74 1,522 24,501 1,015	580,278 1,239 25,608 412,277 17,073	(383,032) (818) (16,903) (272,137) (11,269)	31,744 68 1,401 22,554 934	_ _ _ _	
Sw UT Public Health Dept Syracuse City Corp Taylor West Weber Wtr Imp Dist Taylorsville-Bennion Imp Timberlakes Water SSD	113,651 105,639 13,053 56,347 18,943	0.0779277 0.0724342 0.0089501 0.0386360 0.0129888	11,208 10,418 1,287 5,557 1,868	188,600 175,305 21,661 93,507 31,435	(124,492) (115,716) (14,298) (61,722) (20,750)	10,317 9,590 1,185 5,115 1,720	_ _ _ _	
Timpanogos SSD Tintic School District Tooele City Tooele County Tooele County Housing	78,747 27,107 158,391 374,957 14,001	0.0539945 0.0185867 0.1086048 0.2570980 0.0096000	7,766 2,673 15,620 36,978 1,381	130,677 44,983 262,844 622,227 23,234	(86,258) (29,693) (173,500) (410,722) (15,336)	7,149 2,461 14,379 34,039 1,271	_ _ _ _	
Tooele School District Tooele Technical College Toquerville City Torrey Town Town of Alta	1,696,009 30,378 20,599 3,246 9,601	1.1629086 0.0208295 0.0141243 0.0022256 0.0065831	167,259 2,996 2,031 320 947	2,814,462 50,411 34,184 5,386 15,932	(1,857,782) (33,276) (22,564) (3,555) (10,517)	153,965 2,758 1,870 295 872	_ _ _ _	
Town of Apple Valley Town of Brian Head Town of Garden City Town of Goshen Town of Manila	719 10,269 13,588 7,350 6,365	0.0004931 0.0070413 0.0093167 0.0050395 0.0043646	71 1,013 1,340 725 628	1,193 17,041 22,548 12,197 10,563	(788) (11,249) (14,884) (8,051) (6,973)	65 932 1,234 667 578		
Town of Mantua Town of Paragonah Town of Springdale Trans-Jordan Cities Tremonton City	4,713 2,864 35,895 70,916 35,681	0.0032316 0.0019636 0.0246122 0.0486255 0.0244658	465 282 3,540 6,994 3,519	7,821 4,752 59,566 117,683 59,212	(5,163) (3,137) (39,319) (77,681) (39,085)	428 260 3,259 6,438 3,239	_ _ _ _ _	

Pension Expense Excluding That Attributable to Employer-Paid Member Contributions **Deferred Outflows of Resources Deferred Inflows of Resources** Net Amortization Amounts from Changes in Changes in Changes in Proportion and Net Proportion and Proportion and Total Differences Difference Differences . Differences Employer Between Between Between Between Net Pension Projected Proportionate Employer Employe **Employer** Expense Differences Contributions and Actual Contributions Share of Contributions **Excluding That** Allocable Attributable to Total Total Proportionate Proportionate Proportionate Deferred Proportionate **Employer-Paid** Deferred Share of Expected Earnings on Plan Gross Changes of Share of Contributions Outflows of and Actual Pension Plan Changes of Assumptions Share of Contributions Inflows of Pension Share of Contributions Nonemployer Contributions Assumptions Resources Experience Investments Resources Expense Contributions 1,588 179 1,335 3,758 3,833 1,142 4,021 5,570 12,517 1,456 9,292 116 10,864 30,570 586 31,156 738 1,246 1,664 3,817 451 2,880 36 4,105 9,475 131 9,606 724 774 2,025 262 1,674 21 1,957 5,507 90 5,597 7,195 9,600 22,031 2,605 16,628 207 19,440 54,706 1,042 55,748 2,589 3,899 8,372 937 5,982 74 1,389 8,382 19,680 325 20,005 10,881 17,547 36,346 3,939 25,144 313 29,396 82,724 1,746 84,470 1,236 38 958 1,882 194 1,483 92 535 15 4.065 4.157 5.332 6.861 16.073 1,930 12.321 153 230 14.634 40.538 733 41,271 197 18,475 51,991 885 52,876 6,838 7,756 19,571 2,476 15,802 1,201 5,773 41.754 51.765 123,906 15,116 96,490 112,807 317,457 323,230 24,044 2,742 59,853 47,895 55,994 157,578 160,320 20.726 7,503 596 1,770 5,081 14.035 15,449 39,698 32,435 404 268 38,188 106,711 108,481 8.320 8.063 22,438 3.012 19.227 239 448 22,926 63,258 954 64.212 3,916 4,534 11,300 1,418 9,049 113 10,580 29,771 510 30,281 932 6.010 9,109 19,493 2.176 13.889 173 9 16.247 45,697 46,629 10,832 16,378 35,093 3,921 25,032 312 29,265 82,358 1,662 84,020 65,155 82,819 195,391 23,587 150,566 1,874 176,027 495,371 8,993 504,364 2,198 1,840 5,637 796 5,078 63 342 6,279 16,708 230 16,938 15,669 21,287 48,359 5,672 36,209 451 42,332 119,130 2,249 121,379 41,420 48,960 120,523 14,995 95,717 1,191 111,903 314,914 5,503 320,417 149 272 529 344 405 807 1,131 (3) 1,128 33,034 37,946 95,021 11,959 76,338 950 89,247 251,157 4,300 255,457 667 1,022 2,175 242 1,542 19 1,803 5,075 102 5,177 494 918 1,772 179 1,142 14 1,335 3,759 90 3,849 3,919 5,975 12,746 113 319 10,908 29,797 590 1,419 9,057 30,387 3,192,959 9,118,171 3,601,516 1,155,880 7,378,593 91,832 8,626,305 24,275,998 413,062 24,689,060 6,406 8,502 19,570 2,319 14,804 184 17,307 48,707 917 49,624 13,613 14,310 37,830 4,928 31,459 392 36,779 103,501 1,703 105,204 62,971 159,988 20,328 1,615 151,704 7.274 56,152 129,761 426,921 434,195 1,255 5,640 43,619 49,744 125,107 15,791 100,800 117,846 337.277 331,637 93 186 17 347 34 215 252 708 725 5,711 4 448 14,899 1.925 2,385 697 55 5,200 14.635 264 30,991 31,196 84,741 11,219 71,616 891 83,726 235,621 3,837 239,458 37 459 1,283 1,445 3,662 465 2,966 3,927 9,757 9,890 107,787 109,800 14,177 18,631 43,125 5.132 32.762 408 38,302 2,013 101,958 13,178 15,988 38,756 4,770 30,452 379 35,601 100,189 1,769 1,628 2,279 5,092 589 3,763 47 4,399 12,380 243 12,623 7,029 8,761 20,905 2,545 16,243 202 18,990 53,440 955 54,395 2,363 3,299 7,382 855 5,461 68 6,384 17,966 352 18,318 9,823 10,635 27,607 3,556 22,700 283 26,539 74,684 1,251 75,935 3,381 4,568 10,410 1,224 7,814 97 9,135 25,709 480 26,189 19,758 23,013 57,150 7,153 45,659 568 53,380 150,219 2,589 152,808 46,773 53,110 133,922 16,932 108,087 1,345 126,364 355,611 6,108 361,719 1,746 1,472 4,489 632 4,036 50 298 5,016 13,278 187 13,465 261,218 626,745 488,898 6,085 571,571 1,608,502 1,637,237 211,562 76,588 28,735 10,234 3,789 3,687 1,372 8,757 109 10,238 28,811 437 29,248 2,570 3,283 7,723 930 5,938 74 6,942 19,536 355 19,891 405 1.013 147 936 12 1,095 3.078 39 3,117 313 1,198 1.610 3.680 434 2,768 34 9.106 172 9,278 3,236 90 1,192 1,347 32 207 3 1,497 1,739 (5) 682 677 1,281 3,830 2,960 37 9,915 1.617 464 3.461 9.739 176 3,917 1,695 1.448 4,377 614 49 4,580 12.887 189 13,076 512 917 1,239 2.823 332 2.119 26 2.989 6.970 95 7.065 794 23 100 1,054 2,426 287 1,835 177 2,322 6,037 6,137 17 4,470 97 588 1,118 2,134 213 1,359 58 1,647 4,567 357 440 1,057 129 826 10 965 2,716 48 2,764 4,478 5,287 13,024 1,621 10,347 129 12,097 34,043 601 34,644 8,846 10,670 25,954 3,202 20,443 254 23,899 67,257 1,183 68,440 4,451 5,582 13,272 1,611 10,286 128 12,025 33,840 619 34,459

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	
Tridell-Lapoint Water Tuacahn High School Uintah Animal Control/Shelter Uintah Basin Assn of Govt Uintah Basin Asst Council	\$ 9,931 59,582 4,652 96,884 2,680	0.0068096% 0.0408541 0.0031898 0.0664305 0.0018374	\$ 979 5,876 459 9,555 264	16,481 98,875 7,720 160,775 4,447	(10,879) (65,266) (5,096) (106,125) (2,935)	902 5,409 422 8,795 243	_ _ _ _	
Uintah Basin Technical College Uintah Co Care Center SSD Uintah County Uintah Recreation District Uintah School District	181,834 103,215 334,382 28,430 971,649	0.1246786 0.0707721 0.2292772 0.0194940 0.6662339	17,932 10,179 32,976 2,804 95,823	301,746 171,282 554,895 47,179 1,612,414	(199,178) (113,061) (366,277) (31,142) (1,064,329)	16,507 9,370 30,356 2,581 88,207		
Uintah Transportation SSD Uintah Water Conserv Dist Unified Fire Authority Unified Police Department University of Utah	7,466 7,711 103,810 125,574 2,110,722	0.0051196 0.0052870 0.0711800 0.0861029 1.4472663	736 760 10,238 12,384 208,157	12,390 12,796 172,269 208,386 3,502,663	(8,179) (8,446) (113,712) (137,552) (2,312,052)	678 700 9,424 11,400 191,613	_ _ _ _	
University of Utah Hospital USU Space Dynamics Lab UT Municipal Power Agency UT Public Employees Assn UT School Board Risk Mgmt	23,835 35,060 34,856 1,763 27,764	0.0163428 0.0240394 0.0238997 0.0012091 0.0190369	2,351 3,458 3,437 174 2,738	39,553 58,180 57,842 2,926 46,073	(26,108) (38,404) (38,181) (1,932) (30,412)	2,164 3,183 3,164 160 2,520	_ _ _ _	
Utah Association of Counties Utah Co Academy of Sciences Utah Co Housing Authority Utah Communications Authority Utah Counties Indemnity Pool	32,310 72,586 41,380 50,309 4,292	0.0221541 0.0497706 0.0283732 0.0344957 0.0029427	3,186 7,158 4,081 4,961 423	53,617 120,454 68,669 83,486 7,122	(35,392) (79,510) (45,327) (55,108) (4,701)	2,933 6,589 3,757 4,567 390	_ _ _ _	
Utah County Utah Education Association Utah Housing Corporation Utah League Cities/Towns Utah Local Governments Trust	1,218,913 16,288 246,301 9,038 40,264	0.8357761 0.0111684 0.1688820 0.0061973 0.0276083	120,208 1,606 24,290 891 3,971	2,022,739 27,030 408,727 14,999 66,817	(1,335,178) (17,842) (269,794) (9,900) (44,105)	110,654 1,479 22,359 821 3,655	_ _ _ _	
Utah Retirement Systems Utah Safety Council Utah School Boards Association Utah School Employees Assn Utah State Fair Corp	742,368 22,649 26,284 1,657 25,107	0.5090223 0.0155295 0.0180222 0.0011363 0.0172151	73,212 2,234 2,592 163 2,476	1,231,932 37,584 43,617 2,750 41,664	(813,179) (24,809) (28,791) (1,815) (27,502)	67,393 2,056 2,386 150 2,279	_ _ _ _ _	
Utah State University Utah Valley University Utah Zoological Society Utopia Valley Emergency Comm Ctr	666,558 500,442 214,399 244,054 358,064	0.4570412 0.3431398 0.1470076 0.1673416 0.2455151	65,735 49,353 21,144 24,068 35,312	1,106,128 830,464 355,787 404,999 594,194	(730,137) (548,176) (234,849) (267,333) (392,218)	60,511 45,431 19,463 22,155 32,505	_ _ _ _ _	
Vernal City Vineyard Town Wasatch Behavioral Health Wasatch County Wasatch County Fire District	56,718 84,356 533,294 347,024 14,882	0.0388900 0.0578405 0.3656656 0.2379451 0.0102040	5,593 8,319 52,593 34,223 1,468	94,121 139,985 884,981 575,873 24,696	(62,128) (92,402) (584,162) (380,125) (16,301)	5,149 7,658 48,413 31,503 1,351	_ _ _ _	
Wasatch Front Regional Council Wasatch Front Waste/Recycling Wasatch Integrated Waste Mgmt Wasatch School District Washington City	60,893 210,373 88,863 1,132,749 185,546	0.0417529 0.1442470 0.0609311 0.7766960 0.1272242	6,005 20,747 8,764 111,710 18,298	101,050 349,105 147,465 1,879,754 307,907	(66,702) (230,439) (97,339) (1,240,796) (203,245)	5,528 19,098 8,067 102,832 16,844	_ _ _ _	
Washington Co Solid Waste Washington Co Wat Con Dist Washington County Washington School District Waste Management Serv Dist #5	25,719 80,526 348,950 3,467,332 3,364	0.0176351 0.0552145 0.2392658 2.3774578 0.0023063	2,536 7,941 34,413 341,944 332	42,680 133,630 579,069 5,753,905 5,582	(28,173) (88,207) (382,234) (3,798,062) (3,684)	2,335 7,310 31,678 314,768 305		
Wayne County Wayne School District Weber Area Dispatch 911 Weber Basin Water Conserv Weber Co Mosquito Abate	28,668 64,669 145,057 116,810 7,441	0.0196569 0.0443420 0.0994620 0.0800933 0.0051020	2,827 6,378 14,305 11,520 734	47,573 107,316 240,717 193,841 12,348	(31,403) (70,838) (158,894) (127,952) (8,151)	2,603 5,871 13,168 10,604 675		

Pension Expense Excluding That Attributable to Employer-Paid Member Contributions **Deferred Outflows of Resources Deferred Inflows of Resources** Net Amortization Amounts from Changes in Changes in Changes in Proportion and Net Proportion and Proportion and Total Differences Difference . Differences Differences Employer Between Between Between Between Net Pension Projected Proportionate Employer Employe Differences Contributions and Actual Contributions Share of Contributions **Excluding That** Allocable Attributable to Total Total Proportionate Proportionate Proportionate Deferred Proportionate **Employer-Paid** Deferred Share of Expected Earnings on Plan Gross Changes of Share of Contributions Outflows of and Actual Changes of Assumptions Share of Contributions Inflows of Pension Share of Contributions Nonemployer Contributions Assumptions Resources Experience Investments Resources Expense Contributions 1,239 3,001 448 9,419 9,543 860 2,863 3,347 7,432 7,237 20,078 2,691 17,175 214 20,080 56,508 879 57,387 731 17 371 580 1,733 210 1,341 1,939 4,412 53 4,465 12,085 15,101 35,981 4,375 27,928 348 32,651 91,885 1,645 93,530 334 453 1,030 121 772 10 459 1,362 2,541 21 2,562 22,682 24,809 63,998 8,211 52,416 652 61,279 172,452 2,910 175,362 12,875 13,859 36,104 4,661 29,753 370 34,784 97,890 1,629 99,519 1,200 41,711 41,176 113,243 15,100 317,130 5,077 322,207 96,390 112,690 3.546 3.320 9.447 1.284 8.195 102 24 9.605 26.964 440 27.404 121,205 132,472 341,884 43,878 280,091 3,486 327,455 921,516 15,481 936,997 5,911 3,395 931 2,334 3.943 337 2.152 27 7,081 (4) 7,077 2,093 7,491 962 3.755 28 2.939 7,313 178 348 2.223 340 12,949 17,588 39,961 4.688 29,925 372 34,985 98,454 1,861 100,315 15.664 20.396 47,460 5.671 36.199 451 13.574 55.895 119.095 1,294 120,389 263,294 222,521 677,428 95,316 608,445 7,572 125,700 837,033 2,001,817 22,441 2,024,258 2,973 5,385 10,522 1,076 6.871 86 8.033 22,605 509 23,114 4,373 4,209 11,765 1,583 10,106 126 11,815 33,251 547 33,798 4,348 8,342 15,854 1,574 10,048 125 6,241 17,988 33,057 373 33,430 220 984 1,364 80 508 1,335 1,929 1,672 (9) 1,663 3,463 4,346 10,329 1,254 8,003 100 9,357 26,331 482 26,813 4,030 6,614 13,577 1,459 9,314 116 52 10,941 30,643 647 31,290 9,055 13,025 28,669 3,278 20,924 260 24,462 68,841 1,357 70,198 14,940 11,928 148 1,877 39,245 39,811 5,162 6,021 1,869 15,822 566 6,276 9,661 20,504 2,272 14,502 180 656 17,610 47,713 922 48,635 535 565 1,490 194 1,237 15 17 1,463 4,070 65 4,135 410,785 21,025 152,048 190,684 453,386 55,044 351,368 4,373 1,156,022 1,177,047 2,704 2,032 3,338 6,849 736 4,695 58 8,193 15,448 198 15,646 30,724 35,290 88,373 71,000 884 233,593 3,996 237,589 11,122 83.006 1,127 3,598 2,605 32 115 3,160 8.734 1,650 408 8,572 162 5.023 14,251 1,818 11,607 144 38,187 38,863 5.573 61 13,630 676 92,604 102,262 262,259 33,524 213,998 2,663 250,185 704,065 11,918 715,983 2,825 3,179 6,529 759 21,784 8.060 21,480 304 1,023 81 8.392 94 3,279 3,358 9.023 1,187 7,577 8.858 24,928 390 25,318 1,105 207 738 1.095 75 478 6 1.664 1,572 (11)1,561 7,237 24,230 3,132 5,068 10,479 1,134 90 1,209 9,670 23,811 419 83,147 2,391 63.686 207,344 30.100 192.145 6,301 230,937 632,166 8.595 640,761 62,426 53,586 161,443 22,599 144,259 1,795 5,418 174,071 474,621 6,983 481,604 26,744 26,565 72,772 9,682 61,803 769 2,625 74,879 203,337 3,110 206,447 30,444 41,417 94,016 11,021 70,352 876 82,249 231,462 4,404 235,866 44,665 55,554 132,724 16,169 103,217 1,285 120,671 339,589 6,192 345,781 7,075 7,949 20,173 2,561 16,350 203 19,114 53,792 897 54,689 10,523 13,360 31,541 3,809 24,317 303 28,429 80,003 1,457 81,460 66,524 83,345 198,282 153,729 1,913 179,724 9,148 514,926 24,082 505,778 43,288 50,671 125,462 15,671 100,034 1,245 116,950 329,119 5.799 334,918 1,856 3,399 6,606 4,290 53 5,015 14,114 319 14,433 7,596 8,615 21,739 218 405 20,926 948 58,699 2,750 17,553 57,751 199,518 3,473 26,242 30,935 76,275 9,500 60,643 755 70,898 202,991 11,085 16,251 35,403 4,013 25,616 319 2,200 32,148 84,278 1,538 85,816 141,300 174,376 418,508 51,153 326,531 4,064 381,748 1,074,304 19,243 1,093,547 23,145 30,095 70,084 8,379 53,486 666 175,973 3,239 179,212 62,531 3,208 4,291 9,834 7,414 92 24,392 460 24,852 1.161 8.667 10,045 12,864 30,219 289 1,393 3.636 23,213 27,138 76,371 77.764 43,528 49,668 124.874 15,758 100.590 1.252 117,600 330 946 5.638 336,584 432,519 529,356 1,276,643 156,578 999,507 12,439 1,168,524 3,288,432 58,560 3,346,992 970 420 803 1,528 152 12 1,134 3,190 76 3,266 1,295 3,576 488 27,677 4,333 10,512 103 9,662 27,189 8,264 9,937 8,067 23,875 2,920 18,642 232 21,794 61,333 1,105 62,438 18,095 21,532 52,795 6,550 41,815 520 48,885 137,573 2,410 139,983 14,571 17,401 42,576 5,275 33,672 419 39,366 110,783 1,958 112,741 928 1,366 2,969 336 2,145 27 2,508 7,057 140 7,197

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	
Weber County Corp Weber County School District Weber Human Services Weber State University Wellington City	\$ 1,025,227 3,257,162 530,554 306,374 7,323	0.7029713% 2.2333495 0.3637870 0.2100725 0.0050211	\$ 101,107 321,218 52,323 30,214 722	1,701,326 5,405,135 880,434 508,416 12,152	(1,123,018) (3,567,844) (581,161) (335,597) (8,021)	93,071 295,688 48,164 27,813 665		
Wellsville City Corp West Bountiful City West Kane County SSD #1 West Point City West Valley City	11,643 34,544 16,565 40,289 556,248	0.0079833 0.0236861 0.0113584 0.0276249 0.3814046	1,148 3,407 1,634 3,973 54,857	19,321 57,325 27,490 66,858 923,072	(12,754) (37,839) (18,145) (44,132) (609,306)	1,057 3,136 1,504 3,657 50,497		
White City Water Imp Dist Willard City Corp Woods Cross City Workers' Compensation Fund	14,087 4,423 14,274 732,955	0.0096588 0.0030330 0.0097872 0.5025677	1,389 436 1,408 72,283	23,376 7,340 23,687 1,216,310	(15,430) (4,845) (15,635) (802,867)	1,279 402 1,296 66,538	=	
Grand Total	\$145,842,014	100.0000000%	\$ 14,382,778	242,019,219	(159,753,073)	13,239,669		
Units without a proportionate share for 2020 but had a proportionate share in a prior year								
Alpine Uniserv Big Plains Water & Sewer SSD Canyonlands Care Center Centerfield City City of Uintah	\$ — — — —	0.0000000% 0.0000000 0.0000000 0.0000000 0.0000000	\$ 	_ _ _ _	_ _ _ _	_ _ _ _	_ _ _ _	
Grand Co Cemetery Mtce Dist Huntington City Liberty Academy Charter Lone Peak PS District Maeser Water Improve Dist		0.0000000 0.0000000 0.0000000 0.0000000 0.000000						
Mendon City Moab Mosquito Abatement Distri Mountain Green Sewer Imp Dist North Davis Fire District North Fork SSD		0.0000000 0.0000000 0.0000000 0.0000000 0.000000						
Ogden Weber/NEA/UEA Uniserv Recreation & Habilitation Srvs Uintah Fire Suppression SSD Uintah Highlands Improv Dist Utah Dairy Commission		0.0000000 0.0000000 0.0000000 0.0000000 0.000000						
Utah Lake Commission Valley Mental Health Weber Fire District		0.0000000 0.0000000 0.0000000						·····
Grand Total	\$ 145,842,014	100.0000000%	\$ 14,382,778	242,019,219	(159,753,073)	13,239,669	_	

	Deferred Outflows of Resources				Deferred Inflows of Resources					ense Excluding T oyer-Paid Memb	hat Attributable er Contributions
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	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
127,888 406,302 66,182 38,217 913	138,031 520,122 78,813 31,867 771	358,990 1,222,112 193,159 97,897 2,349	46,297 147,087 23,959 13,835 331	295,536 938,922 152,940 88,317 2,111	3,678 11,685 1,903 1,099 26	_ _ _ _	345,511 1,097,694 178,802 103,251 2,468	972,330 3,089,105 503,180 290,566 6,945	16,374 56,587 8,916 4,234 105	_ _ _ _	988,704 3,145,692 512,096 294,800 7,050
1,452 4,309 2,066 5,026 69,387	1,952 4,749 2,614 5,073 78,875	4,461 12,194 6,184 13,756 198,759	526 1,560 748 1,819 25,119	3,356 9,958 4,775 11,614 160,346	42 124 59 145 1,996		3,924 11,642 5,582 13,578 187,461	11,042 32,762 15,711 38,210 527,548	205 557 282 610 9,032		11,247 33,319 15,993 38,820 536,580
1,757 552 1,781 91,430	2,570 683 2,059 84,812	5,606 1,637 5,136 242,780	636 200 645 33,099	4,061 1,275 4,115 211,284	51 16 51 2,630	143 74 11,451	4,748 1,634 4,885 258,464	13,360 4,195 13,537 695,137	269 64 229 9,721		13,629 4,259 13,766 704,858
18,192,488	21,460,168	52,892,325	6,585,924	42,040,978	523,223	233,571	49,383,696	138,317,143	2,401,606		140,718,749
_ _ _ _ _	115 284 — 137 332	115 284 — 137 332	_ _ _ _	_ _ _ _	<u>-</u> - - -	108 436 349 239 513	108 436 349 239 513	_ _ _ _	4 (12) (61) (7) (12)	_ _ _ _	4 (12) (61) (7) (12)
	583 4 4,591 73	583 4 4,591 73				1,350 31 7,740 90 55	1,350 31 7,740 90 55		(45) (4) (133) (1) (9)		(45) (4) (133) (1) (9)
	187 229 249 57 414	187 229 249 57 414				431 347 270 87 758	431 347 270 87 758		(18) (9) (0) (2) (23)		(18) (9) (0) (2) (23)
	186 82 58 588 403	186 82 58 588 403				329 88 89 1,178 833	329 88 89 1,178 833		(9) 3 (2) (36) (25)		(9) 3 (2) (36) (25)
	297 4,560 1,251	297 4,560 1,251		_ _ _ _		414 10,185 1,592	414 10,185 1,592	_ _ _ _	(4) (663) (16)	_ _ _ _	(4) (663) (16)
18,192,488	21,474,847	52,907,004	6,585,924	42,040,978	523,223	261,083	49,411,208	138,317,143	2,400,523		140,717,666

Tier 2 Public Safety and Firefighter Contributory Retirement System

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	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	
American Fork City Beaver County Big Water Municipal Corp Blanding City Bluffdale City	\$ 304,752 135,655 6,620 13,079 2,728	1.1994706% 0.5339220 0.0260540 0.0514765 0.0107381	\$ 107,586 47,890 2,337 4,617 963	507,232 225,785 11,018 21,768 4,541	(211,158) (93,993) (4,587) (9,062) (1,890)	55,629 24,762 1,208 2,387 498	_ _ _ _	
Box Elder County Brigham City Cache County Carbon County Cedar City	187,560 124,781 302,437 92,273 128,387	0.7382153 0.4911265 1.1903583 0.3631767 0.5053176	66,214 44,051 106,769 32,575 45,324	312,177 207,688 503,379 153,580 213,689	(129,957) (86,459) (209,553) (63,934) (88,957)	34,237 22,778 55,207 16,843 23,436		
Cedar Mtn Fire Protection Dist Centerville City City of Bountiful City of Draper City of Harrisville	44,068 20,323 70,621 209,026 19,138	0.1734484 0.0799884 0.2779554 0.8227057 0.0753268	15,557 7,175 24,931 73,792 6,756	73,348 33,826 117,542 347,906 31,854	(30,534) (14,081) (48,932) (144,831) (13,261)	8,044 3,710 12,891 38,156 3,494		
City of Helper City of Kanab City of Moab City of Monticello City of Naples	14,396 17,994 71,081 3,170 12,722	0.0566597 0.0708230 0.2797661 0.0124770 0.0500734	5,082 6,352 25,094 1,119 4,491	23,960 29,950 118,308 5,276 21,175	(9,975) (12,468) (49,251) (2,196) (8,815)	2,628 3,285 12,975 579 2,322		
City of North Salt Lake City of Orem City of Riverton City of Santa Clara City of Saratoga Springs	42,627 427,690 69,878 28,640 176,788	0.1677735 1.6833421 0.2750341 0.1127254 0.6958170	15,048 150,987 24,669 10,111 62,411	70,948 711,852 116,307 47,669 294,247	(29,535) (296,339) (48,418) (19,844) (122,493)	7,781 78,070 12,756 5,228 32,271		
City of South Jordan City of South Salt Lake City of St George City of Wendover City of West Jordan	365,027 308,120 384,416 9,390 554,475	1.4367073 1.2127292 1.5130208 0.0369598 2.1823537	128,865 108,775 135,710 3,315 195,745	607,555 512,839 639,827 15,630 922,874	(252,921) (213,492) (266,356) (6,506) (384,187)	66,632 56,244 70,171 1,714 101,214		
Clearfield City Clinton City Cottonwood Heights City Davis County Dixie State University	89,665 76,909 112,067 548,645 23,000	0.3529126 0.3027069 0.4410832 2.1594065 0.0905248	31,654 27,151 39,563 193,687 8,120	149,240 128,009 186,525 913,170 38,281	(62,128) (53,289) (77,649) (380,147) (15,936)	16,367 14,039 20,457 100,149 4,198		
Duchesne County East Carbon City Emery County Enoch City Ephraim City	117,593 9,911 83,025 19,863 6,996	0.4628337 0.0390102 0.3267782 0.0781778 0.0275357	41,514 3,499 29,310 7,012 2,470	195,723 16,497 138,188 33,060 11,644	(81,478) (6,867) (57,527) (13,763) (4,847)	21,465 1,809 15,155 3,626 1,277		
Farmington City Garfield County Garland City Grand County Grant County Grantsville City	84,651 71,940 6,173 94,696 40,011	0.3331782 0.2831463 0.0242971 0.3727115 0.1574773	29,884 25,397 2,179 33,430 14,125	140,894 119,737 10,275 157,612 66,594	(58,653) (49,846) (4,277) (65,613) (27,723)	15,452 13,132 1,127 17,286 7,304		
Gunnison Valley Police Dept Heber City Herriman City Hurricane City Hurricane Valley Fire SSD	5,602 74,473 42,883 44,154 129,136	0.0220498 0.2931178 0.1687831 0.1737854 0.5082650	1,978 26,291 15,139 15,588 45,589	9,324 123,954 71,375 73,490 214,935	(3,882) (51,601) (29,713) (30,594) (89,476)	1,023 13,594 7,828 8,060 23,572		
Iron County Ivins City Juab County Kane County Kaysville City	189,439 41,423 81,437 66,896 136,907	0.7456097 0.1630381 0.3205269 0.2632958 0.5388504	66,877 14,624 28,750 23,616 48,332	315,304 68,946 135,545 111,343 227,869	(131,259) (28,702) (56,426) (46,351) (94,860)	34,580 7,561 14,865 12,211 24,991		

	Deferred Outflow	s of Resources	Deferred Inflows of Resources to Emp								hat Attributable er Contributions
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
25,002 11,129 543 1,073	34,616 11,897 943 965	115,247 47,788 2,694 4,425	34 15 1 1	68,756 30,605 1,493 2,951	11,527 5,131 250 495	891 358 607	80,317 36,642 2,102 4,054	326,293 145,243 7,087 14,003	2,363 767 42 23	_ _ _	328,656 146,010 7,129 14,026
224 15,387 10,237 24,812 7,570 10,533	980 16,166 14,772 29,934 6,029 5,174	1,702 65,790 47,787 109,953 30,442 39,143	21 14 34 10 14	42,316 28,152 68,233 20,818 28,966	7,094 4,720 11,439 3,490 4,856	3,880 886 1,139 3,926 623 2,067	4,599 50,317 34,025 83,632 24,941 35,903	2,921 200,817 133,601 323,814 98,795 137,462	1,012 854 1,920 356 183		2,732 201,829 134,455 325,734 99,151 137,645
3,615 1,667 5,794 17,148 1,570	9,245 1,651 3,218 5,964 2,174	20,904 7,028 21,903 61,268 7,238	5 2 8 24 2	9,942 4,585 15,933 47,159 4,318	1,667 769 2,671 7,906 724	878 813 1,197 9,129 722	12,492 6,169 19,809 64,218 5,766	47,183 21,759 75,612 223,801 20,491	536 48 125 (198) 109		47,719 21,807 75,737 223,603 20,600
1,181 1,476 5,831 260 1,044	1,400 2,245 2,839 1,588 1,625	5,209 7,006 21,645 2,427 4,991	2 2 8 —	3,248 4,060 16,037 715 2,870	544 681 2,688 120 481	1,429 656 820 2,611 1,845	5,223 5,399 19,553 3,446 5,197	15,413 19,266 76,105 3,394 13,621	(7) 98 131 (56)	_ _ _ _	15,406 19,364 76,236 3,338 13,621
3,497 35,087 5,733 2,350 14,504	3,936 25,676 7,648 1,036 11,452	15,214 138,833 26,137 8,614 58,227	5 48 8 3 20	9,617 96,492 15,765 6,462 39,885	1,612 16,176 2,643 1,083 6,687	1,648 1,723 3,271 3,365 955	12,882 114,439 21,687 10,913 47,547	45,640 457,921 74,818 30,665 189,284	161 1,579 265 (153) 708		45,801 459,500 75,083 30,512 189,992
29,947 25,278 31,537 770 45,489	20,701 14,821 30,854 — 33,288	117,280 96,343 132,562 2,484 179,991	41 35 43 1 62	82,354 69,516 86,729 2,119 125,096	13,806 11,654 14,540 355 20,972	8,361 7,406 — 2,194 —	104,562 88,611 101,312 4,669 146,130	390,828 329,899 411,588 10,054 593,667	822 438 2,105 (142) 2,323		391,650 330,337 413,693 9,912 595,990
7,356 6,310 9,194 45,011 1,887	8,916 7,957 6,417 51,485 2,827	32,639 28,306 36,068 196,645 8,912	10 9 13 62 3	20,229 17,352 25,284 123,781 5,189	3,391 2,909 4,239 20,751 870	2,206 2,531 1,781 — 114	25,836 22,801 31,317 144,594 6,176	96,003 82,346 119,988 587,425 24,626	436 413 336 3,568 179		96,439 82,759 120,324 590,993 24,805
9,647 813 6,811 1,630 574	22,111 1,170 4,408 1,430 2,469	53,223 3,792 26,374 6,686 4,320	13 1 9 2 1	26,530 2,236 18,731 4,481 1,578	4,448 375 3,140 751 265	1,228 1,874 2,280 310	30,991 3,840 23,754 7,514 2,154	125,905 10,612 88,894 21,267 7,491	1,551 (8) 164 (58) 151		127,456 10,604 89,058 21,209 7,642
6,945 5,902 506 7,769 3,282	5,129 12,101 545 9,068 3,140	27,526 31,135 2,178 34,123 13,726	10 8 1 11 5	19,098 16,230 1,393 21,364 9,027	3,202 2,721 233 3,582 1,513	933 — 581 5,939 4,746	23,243 18,959 2,208 30,896 15,291	90,635 77,024 6,610 101,389 42,839	298 807 (5) 233 (76)		90,933 77,831 6,605 101,622 42,763
460 6,110 3,518 3,622 10,594	370 11,232 — 1,548 2,712	1,853 30,936 11,346 13,230 36,878	1 8 5 5 15	1,264 16,802 9,675 9,962 29,135	212 2,817 1,622 1,670 4,884	667 — 3,757 2,715 6,528	2,144 19,627 15,059 14,352 40,562	5,998 79,737 45,914 47,275 138,264	(21) 765 (249) (59) (288)		5,977 80,502 45,665 47,216 137,976
15,541 3,398 6,681 5,488 11,232	15,821 1,253 10,435 5,199 10,619	65,942 12,212 31,981 22,898 46,842	21 5 9 8 15	42,739 9,346 18,373 15,093 30,888	7,165 1,567 3,080 2,530 5,178	1,955 1,324 210 2,576	49,925 12,873 22,786 17,841 38,657	202,829 44,351 87,193 71,625 146,584	1,103 (32) 653 336 511		203,932 44,319 87,846 71,961 147,095

Tier 2 Public Safety and Firefighter Contributory Retirement System

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	
Layton City Lehi City Lindon City Logan City Lone Peak PS District	\$ 414,712 410,603 27,365 268,342 105,940	1.6322632% 1.6160907 0.1077048 1.0561670 0.4169702		690,252 683,413 45,546 446,632 176,328	(287,347) (284,500) (18,961) (185,930) (73,404)	75,701 74,951 4,995 48,983 19,338		
Mapleton City Millard County Moab Valley Fire Protection Morgan County Mount Pleasant City	46,302 145,358 11,173 29,572 600	0.1822407 0.5721136 0.0439770 0.1163925 0.0023598	16,346 51,316 3,945 10,440 212	77,066 241,936 18,597 49,220 998	(32,082) (100,716) (7,742) (20,490) (415)	8,452 26,534 2,040 5,398 109		
Murray City N Tooele Co Fire Protection SD Nephi City North Davis Fire District North Fork SSD	352,134 18,735 28,403 62,560 4,319	1.3859616 0.0737386 0.1117913 0.2462298 0.0169972	124,313 6,614 10,027 22,085 1,525	586,096 31,183 47,274 104,126 7,188	(243,988) (12,981) (19,680) (43,347) (2,992)	64,278 3,420 5,185 11,420 788	_ _ _ _	
North Logan City North Ogden City North Park Police Agency North View Fire District Ogden City Corp	2,808 58,871 33,944 80,472 681,479	0.0110529 0.2317115 0.1336010 0.3167301 2.6822299	991 20,783 11,983 28,409 240,582	4,674 97,986 56,497 133,939 1,134,262	(1,946) (40,791) (23,519) (55,758) (472,186)	513 10,746 6,196 14,689 124,397	_ _ _ _	
Park City Park City Fire Service Parowan City Payson City Perry City	29,927 164,399 13,842 61,614 17,641	0.1177901 0.6470564 0.0544789 0.2425054 0.0694341	10,565 58,037 4,886 21,751 6,228	49,811 273,627 23,038 102,551 29,362	(20,736) (113,909) (9,591) (42,691) (12,223)	5,463 30,009 2,527 11,247 3,220	_ _ _ _	
Pleasant Grove City Pleasant View City Price City Provo City Corp Rich County	121,325 7,787 32,176 411,000 15,977	0.4775238 0.0306499 0.1266428 1.6176506 0.0628854	42,831 2,749 11,359 145,095 5,640	201,935 12,961 53,555 684,073 26,593	(84,064) (5,396) (22,294) (284,775) (11,070)	22,147 1,421 5,873 75,024 2,917	_ _ _ _ _	
Richfield City Riverdale City Roosevelt City Roy City Salem City	26,097 63,577 26,636 189,177 17,312	0.1027152 0.2502317 0.1048352 0.7445820 0.0681389	9,213 22,444 9,403 66,785 6,112	43,436 105,818 44,333 314,869 28,815	(18,082) (44,051) (18,455) (131,078) (11,995)	4,764 11,605 4,862 34,532 3,160	_ _ _ _ _	
Salt Lake City Corp Salt Lake County San Juan County Sandy City Sanpete County	1,459,619 1,784,122 89,439 530,527 61,008	5.7449042 7.0221136 0.3520208 2.0880969 0.2401222	515,287 629,846 31,574 187,291 21,538	2,429,407 2,969,514 148,863 883,015 101,543	(1,011,346) (1,236,189) (61,971) (367,593) (42,272)	266,438 325,673 16,326 96,842 11,136	_ _ _ _ _	
Santaquin City Sevier County Smithfield City Corp So Davis Metro Fire Agency South Ogden City	27,160 86,091 55,850 257,511 92,091	0.1068969 0.3388434 0.2198195 1.0135357 0.3624619	9,588 30,392 19,717 90,909 32,511	45,205 143,290 92,957 428,604 153,278	(18,818) (59,651) (38,698) (178,425) (63,809)	4,958 15,715 10,195 47,006 16,810	_ _ _ _	
Southern Utah University Spanish Fork City Springville City State of Utah Summit County	14,799 88,083 108,577 5,302,894 192,755	0.0582480 0.3466855 0.4273484 20.8716251 0.7586620	5,225 31,096 38,331 1,872,076 68,048	24,632 146,606 180,717 8,826,200 320,823	(10,254) (61,031) (75,231) (3,674,291) (133,557)	2,701 16,079 19,820 967,986 35,185	_ _ _ _	
Sunset City Syracuse City Corp Tooele City Tooele County Town of Brian Head	7,651 76,426 157,345 130,506 5,597	0.0301129 0.3008054 0.6192932 0.5136592 0.0220288	2,701 26,981 55,547 46,072 1,976	12,734 127,205 261,887 217,216 9,316	(5,301) (52,954) (109,022) (90,426) (3,878)	1,397 13,951 28,722 23,823 1,022		
Town of Mantua Tremonton City Uintah County Unified Fire Authority Unified Police Department	3,520 18,668 229,809 631,963 539,820	0.0138543 0.0734754 0.9045054 2.4873380 2.1246744	1,243 6,590 81,129 223,101 190,572	5,859 31,071 382,498 1,051,846 898,483	(2,439) (12,935) (159,231) (437,877) (374,033)	643 3,408 41,949 115,358 98,539	_ _ _ _ _	

	Deferred Outflow	s of Resources									
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	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
34,023 33,686 2,245 22,015 8,691	35,167 15,849 1,149 18,537 12,324	144,891 124,486 8,389 89,535 40,353	47 46 3 30 12	93,564 92,637 6,174 60,541 23,901	15,686 15,530 1,035 10,149 4,007	1,965 1,688 1,780 — 908	111,262 109,901 8,992 70,720 28,828	444,026 439,626 29,299 287,310 113,429	2,167 914 (46) 1,299 791	_ _ _ _	446,193 440,540 29,253 288,609 114,220
3,799 11,925 917 2,426 49	5,735 12,060 841 3,776 159	17,986 50,519 3,798 11,600 317	5 16 1 3	10,446 32,794 2,521 6,672 135	1,751 5,498 423 1,118 23	 576 1,121 	12,202 38,308 3,521 8,914 158	49,575 155,632 11,963 31,662 642	383 815 21 171 10		49,958 156,447 11,984 31,833 652
28,889 1,537 2,330 5,132 354	30,214 4,397 2,979 4,552 1,143	123,381 9,354 10,494 21,104 2,285	40 2 3 7	79,445 4,227 6,408 14,114 974	13,319 709 1,074 2,366 163	1,103 321 138 599	93,907 5,259 7,623 17,086 1,137	377,024 20,059 30,411 66,982 4,624	2,050 284 192 261 72		379,074 20,343 30,603 67,243 4,696
230 4,830 2,785 6,602 55,908	1,349 4,702 5,818 10,692 43,757	2,092 20,278 14,799 31,983 224,062	— 7 4 9 77	634 13,282 7,658 18,155 153,750	106 2,227 1,284 3,044 25,775	2,387 817 1,730 —	3,127 16,333 10,676 21,208 179,602	3,007 63,033 36,344 86,160 729,649	(53) 289 249 719 3,059		2,954 63,322 36,593 86,879 732,708
2,455 13,487 1,136 5,055 1,447	11,579 20,455 2,059 5,103 1,093	19,497 63,951 5,722 21,405 5,760	3 19 2 7 2	6,752 37,090 3,123 13,901 3,980	1,132 6,218 524 2,330 667	122 2,314 303 511 800	8,009 45,641 3,952 16,749 5,449	32,043 176,019 14,820 65,969 18,888	812 1,302 121 300 23		32,855 177,321 14,941 66,269 18,911
9,953 639 2,640 33,718 1,311	6,767 961 4,452 33,145 3,021	38,867 3,021 12,965 141,887 7,249	14 1 4 46 2	27,372 1,757 7,259 92,726 3,605	4,589 295 1,217 15,545 604	3,170 2,188 924 — 210	35,145 4,241 9,404 108,317 4,421	129,901 8,338 34,451 440,050 17,107	203 (76) 226 2,203 190		130,104 8,262 34,677 442,253 17,297
2,141 5,216 2,185 15,520 1,420	2,016 1,454 3,150 19,128 4,568	8,921 18,275 10,197 69,180 9,148	3 7 3 21 2	5,888 14,344 6,009 42,681 3,906	987 2,405 1,007 7,155 655	540 2,275 311 1,651 997	7,418 19,031 7,330 51,508 5,560	27,942 68,071 28,518 202,549 18,536	94 (59) 199 1,235 238		28,036 68,012 28,717 203,784 18,774
119,746 146,369 7,338 43,524 5,005	98,907 232,516 9,606 37,373 3,148	485,091 704,558 33,270 177,739 19,289	164 201 10 60 7	329,307 402,518 20,178 119,693 13,764	55,207 67,480 3,383 20,066 2,307		384,678 470,199 23,571 141,949 17,740	1,562,790 1,910,230 95,760 568,026 65,321	6,655 15,967 637 2,359 113		1,569,445 1,926,197 96,397 570,385 65,434
2,228 7,063 4,582 21,126 7,555	2,293 8,149 1,514 17,203 10,029	9,479 30,927 16,291 85,335 34,394	3 10 6 29 10	6,127 19,423 12,600 58,097 20,777	1,027 3,256 2,112 9,740 3,483	1,339 — 2,992 6,082 —	8,496 22,689 17,710 73,948 24,270	29,079 92,176 59,798 275,713 98,601	53 572 (114) 820 660		29,132 92,748 59,684 276,533 99,261
1,214 7,226 8,908 435,046 15,814	244 3,659 12,065 476,776 12,982	4,159 26,964 40,793 1,879,808 63,981	2 10 12 596 22	3,339 19,873 24,496 1,196,391 43,488	560 3,332 4,107 200,572 7,291	1,390 1,819 915 — 4,050	5,291 25,034 29,530 1,397,559 54,851	15,845 94,309 116,252 5,677,714 206,379	(78) 122 805 33,122 559		15,767 94,431 117,057 5,710,836 206,938
628 6,270 12,909 10,707 459	3,120 10,373 9,831 9,907 515	5,145 30,594 51,462 44,437 1,996	1 9 18 15	1,726 17,243 35,499 29,444 1,263	289 2,891 5,951 4,936 212	48 — 3,109 2,536 649	2,064 20,143 44,577 36,931 2,125	8,192 81,828 168,467 139,731 5,993	212 723 483 468 (11)		8,404 82,551 168,950 140,199 5,982
289 1,532 18,853 51,846 44,287	932 3,150 24,018 72,183 22,750	1,864 8,090 84,820 239,387 165,576	2 26 71 61	794 4,212 51,848 142,578 121,790	133 706 8,692 23,903 20,417		927 5,448 60,566 166,552 144,941	3,769 19,988 246,053 676,632 577,976	59 176 1,710 4,845 1,386		3,828 20,164 247,763 681,477 579,362

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	
University of Utah Utah County Utah State University Vernal City Wasatch County	\$ 84,335 530,645 21,560 31,996 126,153	0.3319353% 2.0885617 0.0848581 0.1259325 0.4965263	\$ 29,773 187,333 7,611 11,295 44,536	140,369 883,212 35,885 53,254 209,971	(58,435) (367,675) (14,939) (22,169) (87,410)	15,395 96,864 3,936 5,841 23,028	_ _ _ _	
Wasatch County Fire District Washington City Washington County Wayne County Weber County Corp	86,294 157,483 324,049 3,334 494,862	0.3396448 0.6198370 1.2754241 0.0131226 1.9477252	30,464 55,596 114,399 1,177 174,700	143,629 262,117 539,352 5,549 823,655	(59,792) (109,118) (224,529) (2,310) (342,882)	15,752 28,747 59,152 609 90,332		
Weber Fire District West Bountiful City West Valley City Willard City Corp Woods Cross City	204,704 34,083 992,331 578 35,414	0.8056914 0.1341477 3.9057101 0.0022766 0.1393873	72,266 12,032 350,321 204 12,502	340,711 56,728 1,651,648 963 58,944	(141,836) (23,616) (687,570) (401) (24,538)	37,367 6,222 181,140 106 6,465		
Grand Total	\$ 25,407,195	100.0000000%	\$ 8,969,463	42,288,030	(17,604,229)	4,637,820	_	
Units without a proportionate share for 2020 but had a proportionate share in a prior year								
Daggett County Garden City Fire District Laverkin City Salina City	\$ — — —	0.0000000% 0.0000000 0.0000000 0.0000000	\$ 	_ _ _	_ _ _ _	_ _ _	_ _ _ _	
Stockton Town Town of Springdale Wellington City		0.000000 0.000000 0.000000						
Grand Total	\$ 25,407,195	100.0000000%	\$ 8,969,463	42,288,030	(17,604,229)	4,637,820		

	Deferred Outflow	s of Resources	Deferred Inflows of Resources					Pension Expense Excluding That Attrib s to Employer-Paid Member Contrib			
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	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
6,919 43,534 1,769 2,625 10,350	5,077 22,461 1,288 910 8,192	27,391 162,859 6,993 9,376 41,570	9 60 2 4 14	19,027 119,720 4,864 7,219 28,462	3,190 20,070 815 1,210 4,771	3,258 2,086 850 1,184 841	25,484 141,936 6,531 9,617 34,088	90,297 568,153 23,084 34,257 135,070	153 1,326 22 (27) 490	_ _ _ _	90,450 569,479 23,106 34,230 135,560
7,080 12,920 26,585 274 40,598	8,630 8,572 26,551 1,261 40,057	31,462 50,239 112,288 2,144 170,987	10 18 36 — 56	19,469 35,530 73,109 752 111,647	3,264 5,956 12,256 126 18,717	2,407 103 2,147 398 4,057	25,150 41,607 87,548 1,276 134,477	92,394 168,615 346,954 3,570 529,841	375 611 1,614 55 2,381		92,769 169,226 348,568 3,625 532,222
16,794 2,796 81,410 47 2,905	14,674 4,141 43,836 153 4,260	68,835 13,159 306,386 306 13,630	23 4 112 - 4	46,183 7,690 223,881 130 7,990	7,742 1,289 37,533 22 1,339	11,819 1,759 2,676 — 2,229	65,767 10,742 264,202 152 11,562	219,173 36,492 1,062,473 619 37,918	245 158 2,744 10 120		219,418 36,650 1,065,217 629 38,038
2,084,395	2,108,660	8,830,875	2,860	5,732,154	960,969	206,836	6,902,819	27,203,060	130,166	_	27,333,226
_ _ _	5,628 924 788 937	5,628 924 788 937	_ _ _ _	_ _ _ _	_ _ _ _	2,998 — 407 457	2,998 — 407 457	_ _ _	181 74 24 29	_ _ _ _	181 74 24 29
	1,001 560 1,037	1,001 560 1,037		=		510 — 482	510 — 482		33 42 34	_ _ _	33 42 34
2,084,395	2,119,535	8,841,750	2,860	5,732,154	960,969	211,690	6,907,673	27,203,060	130,583	_	27,333,643

Utah Retirement Systems

Schedule of Employer Allocations and Pension Amounts

At December 31, 2020

					Net	Net Difference Between Projected		
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)	Differences Between Expected and Actual Experience	and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	
Noncontributory Retirement System	\$ 907,647,645	1,285,787,456	5,340,592,058	(2,100,919,961)	247,672,452	_	128,704,132	
Contributory Retirement System	4,879,275	(62,948,996)	56,534,932	(164,727,812)	_	_	_	
Public Safety Retirement System	151,861,206	271,666,916	926,006,408	(262,641,887)	69,910,247	_	4,188,342	
Firefighters Retirement System	7,480,287	(162,696,947)	30,392,165	(320,704,608)	8,817,989	_	19,072,457	
Judges Retirement System	8,646,311	26,982,813	57,467,045	1,123,890	6,420,419	_	2,588,141	~~~~~~~
Utah Governors and Legislators Retirement Plan	369,226	1,274,862	2,544,959	192,036	_	_	_	
Tier 2 Public Employees Contributory Retirement System	145,842,014	14,382,778	242,019,219	(159,753,073)	13,239,669	_	18,192,488	
Tier 2 Public Safety & Firefighters								
Contributory Retirement System	25,407,195	8,969,463	42,288,030	(17,604,229)	4,637,820	_	2,084,395	
Grand Total	\$ 1,252,133,159	1,383,418,345	6,697,844,816	(3,025,035,644)	350,698,596	_	174,829,955	

Columns may not add to total due to rounding.

Deferred Outflows of Resources Deferred Inflows of Resources					ows of Resources	Pension Expense Excluding That Attributa s 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
50,055,824	426,432,408	1,497,395	1,849,161,463	6,709,576	56,231,573	1,913,600,007	339,968,133	(9,292,923)	_	330,675,210
_	_	_	84,938,662	_	_	84,938,662	(26,892,741)	119,182	_	(26,773,559)
5,924,733	80,023,322	821,760	267,436,981	4,371,047	5,100,635	277,730,423	65,111,632	1,051,162	_	66,162,794
941,476	28,831,922	5,814,514	93,633,536	499,090	957,974	100,905,114	(24,130,120)	(9,089)	(20,279,713)	(44,418,922)
 _	9,008,560	_	14,714,288	_	_	14,714,288	9,565,754	_	(1,410,494)	8,155,260
_	_	_	774,452	_	_	774,452	290,967	_	_	290,967
21,474,847	52,907,004	6,585,924	42,040,978	523,223	261,083	49,411,208	138,317,143	2,400,523	_	140,717,666
2,119,535	8,841,750	2,860	5,732,154	960,969	211,690	6,907,673	27,203,060	130,583	_	27,333,643
80,516,416	606,044,967	14,722,453	2,358,432,514	13,063,905	62,762,954	2,448,981,826	529,433,828	(5,600,562)	(21,690,207)	502,143,059

Utah Retirement Systems

Notes to the Public Safety System Schedule of Changes in Fiduciary Net Position – Pension Trust Fund by Division and Schedules of Employer Allocations and Pension Amounts Financial Statements

December 31, 2020



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 188 through 203.

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, costsharing, public employee retirement systems;
- ii) the Public Safety Retirement System is a mixed agent and cost-sharing, multipleemployer 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 multipleemployer, 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.

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 on page 309.

The Utah Governors and Legislators Retirement Plan provides the following benefits. Former governors at age 65 receive \$1,440 per month per term. Legislators receive a benefit at age 65 with four or more years of service at the rate of \$31.20 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'

December 31, 2020



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*
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 to June 2020; 2.0% per year July 2020 to present

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

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.

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.

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

December 31, 2020



Contribution Rates

December 31, 3020	Contribution Rates as a Percent of Covered Payroll				
System	Member	Employer	Other		
Noncontributory Retirement System	_	18.47-22.19%	_		
Contributory Retirement System	6.00%	14.46-17.70	_		
Public Safety Retirement System:Noncontributory	_	32.28-50.38	_		
Contributory	10.50-12.29	22.79-28.98	_		
Firefighters Retirement System:Division A	15.05	4.61	11.06%		
Division B	16.71	7.24	11.06		
Judges Retirement System:Noncontributory	_	44.31	7.60		
Governors and Legislators Retirement Plan	_	\$ 361,437	_		
Tier 2 Public Employees Contributory Retirement System	_	15.80-19.13%	_		
Tier 2 Public Safety and Firefighter Contributory Retirement System	2.17	14.08-40.97	_		

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.

December 31, 2020



Participating Membership by System

Farticipating Membe	asinp by System					Utah Governors		
	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	473	158	134	63	1	1	485	152
Members:								
Active	51,161	379	4,596	1,427	119	41	35,895	4,301
Terminated vested	48,611	1,036	4,846	449	8	81	4,121	260
Retirees and beneficiari	es:							
Service benefits	55,659	3,152	5,737	1,304	125	181	191	2
Beneficiary benefits	5,367	527	814	239	30	68	2	2

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.

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, 2020, participating members by System are included in the table above.

December 31, 2020





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.

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, 2020, to December 31, 2020. The components of the current-year pension liability/(asset) of the employers as of December 31, 2020, were as shown in the schedule on page 313.

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 2020 for the period ending December 31, 2019 based upon actual plan experience. In accordance with board policy, the experience study reviews economic and demographic assumptions every three years. Given the impact of the Covid-19 pandemic had on investment markets, the board decided to delay an analysis of the investment return assumption until next year. 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, 2020, is based on the results of an actuarial valuation date of January 1, 2020, and rolled-forward using accepted actuarial procedures.

December 31, 2020

Net Pension Liability by Division Year Ended December 31, 2020 (in tho System	Per	(1) Total nsion bility	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	(4) Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	(5) Projected Covered Employee Payroll	(6) Net Pension Liability/ (Asset) as a Percentage of Covered Employee Payroll
Noncontributory Retirement System							
Local Government	\$ 6,251,484,	073	6,200,189,801	51,294,272	99.2%	\$ 796,350,452	6.4%
State and School	23,413,554,	893	22,080,433,062	1,333,121,831	94.3	2,301,546,398	57.9
Higher Education	2,098,818,	820	2,197,447,467	(98,628,647)	104.7	208,485,876	(47.3)
Total	31,763,857,	786	30,478,070,330	1,285,787,456	96.0	3,306,382,726	38.9
Contributory Retirement System							
Local Government	461,163,	066	479,085,255	(17,922,189)	103.9	15,374,638	
State and School	649,560,	070	673,343,949	(23,783,879)	103.7	10,445,210	(227.7)
Higher Education	161,968,	078	183,211,006	(21,242,928)	113.1	4,928,355	(431.0)
Total	1,272,691,	214	1,335,640,210	(62,948,996)	104.9	30,748,203	(204.7)
Public Safety Retirement System							
State of Utah	1,540,083,	838	1,475,315,210	64,768,628	95.8	102,301,586	63.3
Other Division A (with Social Security)	1,851,460,	519	1,768,436,392	83,024,127	95.5	135,602,186	61.2
Salt Lake City	420,284,	438	360,929,496	59,354,942	85.9	28,519,448	208.1
Ogden	88,366,	097	76,968,478	11,397,619	87.1	3,975,418	286.7
Provo	72,127,	218	63,501,765	8,625,453	88.0	4,416,521	195.3
Logan	38,197,		34,936,957	3,260,891	91.5	1,926,073	
Bountiful	29,681,	296	24,399,266	5,282,030	82.2	1,779,688	296.8
Other Division B (without Social Security) 653,981,	806	618,028,580	35,953,226	94.5	60,398,734	59.5
Total	4,694,183,	060	4,422,516,144	271,666,916	94.2	338,919,654	80.2
Firefighters Retirement System							
Division A (with Social Security)	266,899,	636	294,861,638	(27,962,002)	110.5	31,969,912	(87.5)
Division B (without Social Security)	1,121,598,	236	1,256,333,181	(134,734,945)	112.0	82,487,849	(163.3)
Total	1,388,497,	872	1,551,194,819	(162,696,947)	111.7	114,457,761	(142.1)
Judges Retirement System	271,114,	299	244,131,486	26,982,813	90.0	20,071,272	
Governors and Legislators Retirement Plan	13,331,	756	12,056,894	1,274,862	90.4	757,311	168.3
Tier 2 Public Employees Retirement System Tier 2 Public Safety and	846,864,	633	832,481,855	14,382,778	98.3	1,609,101,826	0.9
Firefighter Retirement System	129,253,	878	120,284,415	8,969,463	93.1	188,667,334	4.8
Grand Total	\$ 40,379,794,	498	38,996,376,153	1,383,418,345	96.6%	\$5,609,106,087	24.7%

A summary of the actuarial assumptions, as of the latest actuarial valuation, is as shown in the top table on page 314.

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, 2020, are summarized in the bottom table on page 314.

December 31, 2020

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	1/1/20	1/1/20	1/1/20	1/1/20	1/1/20	1/1/20	1/1/20	1/1/20	
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	3.25-9.25%	3.25-9.25%	3.25-7.25%	3.25-8.50%	3.25%	None	3.25-9.25%	3.25-8.50%	
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)	Male retirees: 110% of 2020 PR UTAH Retiree Mortality Table for males, projected with 80% of the ultimate rates from the MP-2019 mortality improvement scale using a base year of 2020. Female retirees: 110% of 2020 PR UTAH Retiree Mortality Table for females, projected with 80% of the ultimate rates from the MP-2019 mortality improvement scale using a base year of 2020.								
Mortality: (Educators)	of the ultim Female ret	nate rates froi irees: 90% of	m the MP-201 2020 PR UTA	Retiree Mortal 9 mortality im H Retiree Mor 9 mortality in	provement setality Table fo	cale using a ba	ase year of 20 ojected with 8	80%	

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.

Taxaat Allocations		Expected Re	eturn Arithmetic Basis
Target Allocations Asset Class	Target Asset Allocation	Real Return Arithmetic Basis	Long-term Expected Portfolio Real Rate of Return*
Equity securities	37%	6.30%	2.33%
Debt securities	20	0.00	0.00
Real assets	15	6.19	0.93
Private equity	12	9.50	1.14
Absolute return	16	2.75	0.44
Cash and cash equivalents	0	0.00	0.00
Totals	100%		4.84%
Inflation			2.50%
Expected arithmetic	nominal return		7.34%

^{*}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.

December 31, 2020

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 below 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.

Changes in Discount Rate

Year Ended December 31, 2020

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			
Local Government	\$ 889,290,556	51,294,272	(647,301,652)
State and School	4,273,687,027	1,333,121,831	(1,125,592,326)
Higher Education	177,614,475	(98,628,647)	(328,025,983)
Total	5,340,592,058	1,285,787,456	(2,100,919,961)
Contributory Retirement System			
Local Government	26,656,046	(17,922,189)	(55,561,006)
State and School	36,104,064	(23,783,879)	(75,118,365)
Higher Education	(6,225,178)	(21,242,928)	(34,048,441)
Total	56,534,932	(62,948,996)	(164,727,812)
Public Safety Retirement System			
State of Utah	269,783,745	64,768,628	(103,722,239)
Other Division A (with Social Security)	350,515,397	83,024,127	(134,178,266)
Salt Lake City	115,335,508	59,354,942	13,382,007
Ogden	23,043,482	11,397,619	1,865,039
Provo	18,389,489	8,625,453	647,654
Logan	8,440,892	3,260,891	(946,716)
Bountiful	9,062,545	5,282,030	2,157,619
Other Division B (without Social Security)	131,435,350	35,953,226	(41,846,985)
Total	926,006,408	271,666,916	(262,641,887)
Firefighters Retirement System			
Division A (with Social Security)	12,703,386	(27,962,002)	(60,851,830)
Division B (without Social Security)	17,688,779	(134,734,945)	(259,852,778)
Total	30,392,165	(162,696,947)	(320,704,608)
Judges Retirement System	57,467,045	26,982,813	1,123,890
Governors and Legislators Retirement Plan	2,544,959	1,274,862	192,036
Tier 2 Public Employees Retirement System	242,019,219	14,382,778	(159,753,073)
Tier 2 Public Safety and Firefighter Retirement System	42,288,030	8,969,463	(17,604,229)
Grand Total	\$ 6,697,844,816	1,383,418,345	(3,025,035,644)

December 31, 2020





Note 3

Deferred Outflows of Resources and Deferred Infows 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, 2020, are shown in the left table on page 317.

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 2020 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 payroll growth assumption from 3.00% to 2.90%, update post and pre-retirement mortality tables based on URS experience and modified retirement and termination rates by employee type and gender. The experience study also modified rates of salary increases for individuals which results in a slight decrease, but changes vary by employee type and there was no adjustment to wage inflation assumption.

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 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 net deferred outflow and inflows of the difference between expected and actual experience for the year ended

December 31, 2020

Differences Between Expected and Actual Experience

December 31, 2020		
System	Deferred Outflows	Deferred Inflows
Noncontributory Retirement System	n	
Local Government	\$ 68,814,881	_
State and School	146,205,277	_
Higher Education	32,652,294	1,497,395
Total	247,672,452	1,497,395
Contributory Retirement System		
Local Government	_	_
State and School	_	_
Higher Education	_	_
Total	_	_
Public Safety Retirement System		
State of Utah	9,412,611	_
Other Division A		
(with Social Security)	15,281,413	80,328
Salt Lake City	2,337,674	· —
Ogden	· · · —	593,210
Provo	1,555,103	109,973
Logan	539,062	33,695
Bountiful	45,092	4,554
Other Division B		
(without Social Security)	40,739,292	_
Total	69,910,247	821,760
Firefighters Retirement System		
Other Division A		
(with Social Security)	4,304,026	1,127,242
Other Division B	.,,	.,,
(without Social Security)	4,513,963	4,687,272
Total	8,817,989	5,814,514
Judges Retirement System	6,420,419	_
Utah Governors and Legislators		
Retirement Plan	_	_
Tier 2 Public Employees		
Retirement System	13,239,669	6,585,924
Tier 2 Public Safety and Firefighter	• •	
Retirement System	4,637,820	2,860
Grand Total	\$ 350,698,596	14,722,453

Changes in Assumptions

Changes in Assumptions		
December 31, 2020		
System	Deferred Outflows	Deferred Inflows
Noncontributory Retirement System		
Local Government	\$ —	6,709,576
State and School	125,749,152	
Higher Education	2,954,980	_
Total	128,704,132	6,709,576
Contributory Retirement System		
Local Government	_	_
State and School	_	_
Higher Education	_	_
Total	_	_
Public Safety Retirement System		
State of Utah	330,067	_
Other Division A		
(with Social Security)	_	2,361,328
Salt Lake City	_	157,471
Ogden	_	17,465
Provo	_	53,491
Logan	_	52,352
Bountiful	21,454	· —
Other Division B	•	
(without Social Security)	3,836,821	1,728,940
Total	4,188,342	4,371,047
Firefighters Retirement System		
Other Division A		
(with Social Security)	4,337,513	499,090
Other Division B		
(without Social Security)	14,734,944	
Total	19,072,457	499,090
Judges Retirement System	2,588,141	_
Utah Governors and Legislators		
Retirement Plan	_	_
Tier 2 Public Employees		
Retirement System	18,192,488	523,223
Tier 2 Public Safety and Firefighter		
Retirement System	2,084,395	960,969
Grand Total	\$ 174,829,955	13,063,905

December 31, 2020

Net Difference Between Projected and **Actual Investment Earnings on Plan Investments**

December 31, 2020

System	Deferred Outflows	Deferred Inflows
Noncontributory Retirement Syst	tem	
Local Government	\$ —	374,553,776
State and School	_	1,341,881,875
Higher Education	_	132,725,812
Total	_	1,849,161,463
Contributory Retirement System		
Local Government	_	30,404,244
State and School	_	46,835,131
Higher Education	_	7,699,287
Total	_	84,938,662
Public Safety Retirement System		
State of Utah	_	89,328,327
Other Division A (with Social S	Security) —	107,284,959
Salt Lake City	_	21,848,343
Ogden	_	4,720,988
Provo	_	3,841,494
Logan	_	2,118,840
Bountiful	_	1,538,251
Other Division B (without Soci	al Security) —	36,755,779
Total	_	267,436,981
Firefighters Retirement System		
Other Division A (with Social S	Security) —	16,843,120
Other Division B (without Soci	al Security) —	76,790,416
Total	_	93,633,536
Judges Retirement System	_	14,714,288
Utah Governors and Legislators		
Retirement Plan	_	774,452
Tier 2 Public Employees Retireme Tier 2 Public Safety and Firefighte		42,040,978
Retirement System	_	5,732,154
Grand Total	\$ —	2,358,432,514

Proportionate Share of Gross Pension Expense

December 31, 2020

System	
Noncontributory Retirement System	
Local Government	\$ 50,148,313
State and School	319,744,751
Higher Education	(29,924,931)
Total	339,968,133
Contributory Retirement System	
Local Government	(8,034,102)
State and School	(9,782,692)
Higher Education	(9,075,947)
Total	(26,892,741)
Public Safety Retirement System	
State of Utah	6,215,210
Other Division A (with Social Security)	23,230,888
Salt Lake City	6,868,825
Ogden	(967,593)
Provo	1,490,306
Logan	(7,313)
Bountiful	1,121,322
Other Division B (without Social Security)	27,159,987
Total	65,111,632
Firefighters Retirement System	
Other Division A (with Social Security)	(1,707,349)
Other Division B (without Social Security)	(22,422,771)
Total	(24,130,120)
Judges Retirement System	9,565,754
Utah Governors and Legislators	
Retirement Plan	290,967
Tier 2 Public Employees Retirement System	138,317,143
Tier 2 Public Safety and Firefighter	
Retirement System	27,203,060
Grand Total	\$ 529,433,828

December 31, 2020

December 31, 2020, is a deferred inflow of \$2,358,432,514 as illustrated in the left table on page 318.

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.

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, 2020, is as shown in the right table on page 318.

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, 2019), 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 above 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 and receives budget appropriations. 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 \$20,279,713 in calendar year 2020 and 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 \$1,410,494 in court fees in calendar year 2020 and was used to offset gross pension plan expense.

Net Amortization of Deferred Amounts from **Changes in Proportion** and Differences Between **Employer Contributions** and Proportionate Share of Contributions

Year Ended December 31, 2020

Cost Sharing Retirement System	Average Remaining Service Lives			
Noncontributory Retireme	ent System			
Local Government	3.23			
State and School	3.31			
Higher Education	2.02			
Contributory Retirement S	System			
Local Government	0.53			
State and School	0.18			
Higher Education	0.44			
Public Safety Retirement S	System			
State of Utah	2.42			
Other Division A				
(with Social Security)	2.56			
Other Division B				
(without Social Securi	ty) 3.56			
Firefighters Retirement Sy	stem			
Other Division A				
(with Social Security)	5.70			
Other Division B				
(without Social Securi	ty) 4.37			
Tier 2 Public Employees				
Retirement System	12.00			
Tier 2 Public Safety and				
Firefighter Retirement Sy	stem 16.86			

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.

Aggregation of Funds with a Net Pension Asset

(Employer's Collective Net Pension Asset for All Participating Retirement Systems)

Schedule of Employer Allocations and Pension Amounts

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	
Alpine School District American Fork City Box Elder County Box Elder School District Bridgerland Technical College	N/A N/A N/A N/A N/A	\$ (1,383,774) (777,889) (69,599) (273,867) (1,936,972)	2,100,577 353,402 103,516 415,732 3,488,178	(4,370,475) (1,692,868) (215,765) (864,975) (6,442,116)	119,736 — — 641,260	_ _ _ _	120,667 — — 58,033	
Brigham City Cache County Cache County School District Carbon County Cedar City	N/A N/A N/A N/A N/A	(428,124) (224,231) (520,810) (50,912) (482,479)	194,501 101,870 790,592 75,722 219,194	(931,698) (487,978) (1,644,912) (157,832) (1,049,986)	65,899 34,515 — — 74,265		66,411 34,783 — 74,843	
Cedar Mtn Fire Protection Dist Centerville City City of Draper City of Kanab City of Naples	N/A N/A N/A N/A N/A	(29,960) (222,511) (1,866,100) (68,289) (54,420)	13,611 330,945 847,786 31,024 80,940	(65,199) (689,811) (4,061,068) (148,612) (168,710)	4,612 — 287,238 10,511 —		4,647 —— 289,473 10,593 ——	
City of Orem City of Santa Clara City of Saratoga Springs City of South Jordan City of South Salt Lake	N/A N/A N/A N/A N/A	(5,804,766) (112,613) (802,979) (2,113,908) (2,284,356)	1,903,617 51,161 105,420 960,367 1,037,803	(12,181,389) (245,071) (1,548,642) (4,600,357) (4,971,291)	166,271 17,334 26,902 325,381 351,617		542,760 17,469 87,816 327,913 354,353	
City of St George City of West Jordan Clinton City Corinne City Davis & Weber County Canal Co	N/A N/A N/A N/A N/A	(1,693,458) (7,281,618) (353,008) (190,080) (667,914)	908,846 975,724 230,717 282,709 993,402	(3,810,116) (14,060,552) (831,139) (589,270) (2,070,616)	239,879 243,465 43,855 —		241,745 794,743 44,196 —	
Davis Co Housing Authority Davis School District DDI Vantage Dixie State University Dixie Technical College	N/A N/A N/A N/A N/A	(190,048) (2,087,893) (4,300,378) (2,626,338) (372,705)	282,663 3,169,433 6,396,041 4,232,916 671,182	(589,174) (6,594,345) (13,331,705) (8,326,123) (1,239,567)	790,950 123,389	_ _ _ _ _	71,580 11,166	
Duchesne County Duchesne School District Educators Mutual Insurance Emery Co Care & Rehab Ctr Emery School District	N/A N/A N/A N/A N/A	(798,623) (216,970) (112,420) (760,942) (211,094)	1,187,809 329,362 170,655 1,131,765 320,442	(2,475,830) (685,273) (355,066) (2,359,015) (666,715)	_ _ _ _	_ _ _ _ _ _	_ _ _ _ _ _	
Emery Town Farmington City Five-County Assn of Govts Garfield County Garland City	N/A N/A N/A N/A N/A	(33,896) (330,754) (94,352) (73,042) (223,390)	50,414 150,264 140,332 108,638 332,253	(105,081) (719,797) (292,503) (226,441) (692,537)	50,911 — —		51,307 — — —	
Grand County Granite School District Honeyville City Hurricane Valley Fire SSD Iron County	N/A N/A N/A N/A N/A	(42,618) (3,226,370) (59,796) (459,870) (57,265)	63,387 4,897,648 88,936 208,923 85,172	(132,122) (10,190,081) (185,375) (1,000,784) (177,530)	70,785	_ _ _ _ _	71,336	
Iron School District Jordan School District Jordan Valley Water Conserv Juab County Kaysville City	N/A N/A N/A N/A N/A	(99,253) (719,866) (160,523) (52,377) (192,066)	150,667 1,092,760 238,749 77,902 87,257	(313,478) (2,273,604) (497,640) (162,376) (417,981)	29,564			
Kearns Improvement Dist Layton City Lehi City Logan City Lone Peak PS District	N/A N/A N/A N/A N/A	(281,840) (2,547,603) (1,489,583) (3,563,643) (883,865)	419,186 1,372,959 676,731 616,177 116,039	(873,738) (5,736,967) (3,241,679) (7,001,058) (1,704,642)	360,018 229,283 115,727 29,612		362,819 231,067 377,767 96,662	

Deferred Outfl	ows of Resources	Deferred Inflows of Resources					Pension Expense Excluding That Attributab rces 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	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
1,490 — — 799,952	241,893 — — 1,499,245	31,359 — — 29,407	2,724,923 468,567 118,072 539,298 2,606,608	13,884 — —	32,973	2,724,923 546,783 118,072 539,298 2,636,015	(569,169) (47,498) (31,200) (112,646) (587,697)	95,666 (9,114) 7,657 69,494 783,499	(157,998)	(473,503) (214,610) (23,543) (43,152) 195,802
11,497 696 — 3,612	143,807 69,994 — — 152,720	17,259 9,039 — — 19,450	257,884 135,067 1,025,577 86,369 290,625	7,642 4,002 — 8,612	18,214 8,383 — — 10,338	300,999 156,491 1,025,577 86,369 329,025	(26,141) (13,691) (214,217) (22,822) (29,460)	(5,435) (1,590) 127,383 3,557 (1,759)	(86,957) (45,544) — (97,997)	(118,533) (60,825) (86,834) (19,265) (129,216)
87 666 256	9,346 — 577,377 21,360 —	1,208 — 75,229 2,753 —	18,046 377,480 1,124,059 41,134 92,322	535 — 33,308 1,219 —	5,763 — 130,425 3,112 —	25,552 377,480 1,363,021 48,218 92,322	(1,829) (99,746) (113,943) (4,170) (24,395)	(1,205) 29,793 (46,147) (525) 9,258	(6,085) — (379,026) (13,870) —	(9,119) (69,953) (539,116) (18,565) (15,137)
46,826 283 1,565 21,571 41,928	755,857 35,086 116,283 674,865 747,898	172,655 4,540 27,935 85,219 92,090	4,256,676 67,833 457,647 1,273,328 1,375,999	2,010 — 37,731 40,773	2,086 5,627 10,805 104 62,675	4,431,417 80,010 496,387 1,396,382 1,571,537	(1,203,307) (6,876) (133,633) (129,074) (139,482)	(110,426) (2,274) (1,012) 7,367 3,022	(537,801) (22,873) (87,013) (429,358) (463,978)	(1,851,534) (32,023) (221,658) (551,065) (600,438)
9,744 67,507 9,556 — —	491,368 1,105,715 97,607	62,825 252,812 11,486	1,167,809 4,166,471 287,139 322,462 1,133,088	27,816 — 5,085 —	12,683 — 676 —	1,271,133 4,419,283 304,386 322,462 1,133,088	(155,690) (1,215,923) (47,922) (85,208) (299,410)	23,105 (34,347) (42,602) 70,044 50,665	(316,533) (787,482) (57,869) —	(449,118) (2,037,752) (148,393) (15,164) (248,745)
 	982,068 214,846	36,272 5,658	322,409 4,111,471 7,295,412 3,301,050 501,553			322,409 4,111,471 7,295,412 3,337,322 507,211	(85,194) (858,784) (1,927,761) (826,233) (113,082)	(28,062) 49,553 172,192 122,749 150,605		(113,256) (809,231) (1,755,569) (703,484) 37,523
			1,354,831 427,257 221,378 1,290,907 415,686			1,354,831 427,257 221,378 1,290,907 415,686	(358,004) (89,243) (46,240) (341,113) (86,826)	90,037 34,149 (273,073) 187,938 64,899		(267,967) (55,094) (319,313) (153,175) (21,927)
	102,218 ————————————————————————————————————	13,334 — —	57,503 199,232 160,065 123,913 378,972	5,904 — — —	7,245 — —	57,503 225,715 160,065 123,913 378,972	(15,195) (20,196) (42,296) (32,743) (100,141)	(7,273) (2,669) 14,183 9,427 65,420	(67,180) ————————————————————————————————————	(22,468) (90,045) (28,113) (23,316) (34,721)
6,669	148,790	18,539	72,300 6,353,357 101,441 277,006 97,148	8,208 —	10,535	72,300 6,353,357 101,441 314,288 97,148	(19,105) (1,327,058) (26,805) (28,079) (25,671)	(69,905) (223,433) (11,334) (3,388) 6,550	(93,405)	(89,010) (1,550,491) (38,139) (124,872) (19,121)
	64,426	7,743	195,449 1,417,557 272,320 88,856 115,693		10,425	195,449 1,417,557 272,320 88,856 137,289	(40,824) (296,092) (71,959) (23,480) (11,727)	(62,310) (11,682) (316) (1,546) (27,679)	(39,011)	(103,134) (307,774) (72,275) (25,026) (78,417)
51,360 6,015 837 2,559	774,197 466,365 494,331 128,833	94,290 60,050 120,170 30,749	478,129 1,762,875 897,261 2,154,269 503,748	41,747 26,587 —	1,200 10,474 24,785 497	478,129 1,900,112 994,372 2,299,224 534,994	(126,342) (236,357) (90,953) (623,895) (147,094)	45,027 22,280 (1,139) 6,260 1,593	(475,063) (302,551) (374,315) (95,779)	(81,315) (689,140) (394,643) (991,950) (241,280)

Aggregation of Funds with a Net Pension Asset

(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	
Millard School District Moab Valley Fire Protection Mountainland Assn of Govt Mountainland Technical College Murray City	N/A N/A N/A N/A	\$ (250,787) (86,145) (148,446) (672,175) (3,310,857)	380,696 39,136 220,787 1,210,479 1,861,577	(792,079) (187,472) (460,201) (2,235,565) (7,524,865)	13,260 — 222,532 456,360		13,363 — 20,139 459,913	
Murray School District N Tooele Co Fire Protection SD North Davis Co Sewer Dist North Davis Fire District North Fork SSD	N/A N/A N/A N/A N/A	(162,455) (97,274) (101,132) (828,955) (67,248)	246,608 44,192 150,416 376,602 30,551	(513,094) (211,691) (313,521) (1,804,000) (146,348)	14,973 — 127,596 10,351	_ _ _ _ _	15,089 — 128,589 10,432	
North Logan City North View Fire District Oakley City Ogden City Corp Park City	N/A N/A N/A N/A N/A	(75,024) (573,359) (147,197) (6,374,997) (581,540)	34,084 260,482 218,930 1,489,021 864,937	(163,271) (1,247,764) (456,330) (12,858,297) (1,802,847)	11,548 88,254 — 197,468 —		11,638 88,940 — 644,596	
Park City Fire Service Payson City Pleasant Grove City Price City Provo City Corp	N/A N/A N/A N/A N/A	(6,261,931) (83,011) (382,601) (69,221) (6,494,631)	822,102 37,712 173,819 31,448 1,225,526	(12,076,898) (180,650) (832,629) (150,641) (12,847,820)	209,791 12,777 58,892 10,655 208,374	_ _ _ _ _	684,820 12,877 59,350 10,738 680,197	
Provo Housing Authority Provo School District Riverdale City Roy City Salt Lake City Corp	N/A N/A N/A N/A N/A	(171,089) (345,226) (371,654) (757,752) (37,408,139)	254,465 524,055 168,846 344,253 7,446,324	(530,398) (1,090,352) (808,806) (1,649,045) (74,336,334)	57,207 116,636 1,190,633		57,652 117,544 3,886,588	
Salt Lake Community College Salt Lake County Salt Lake School District San Juan School District Sandy City	N/A N/A N/A N/A N/A	(8,904,269) (1,426,934) (2,154,059) (37,252) (7,120,255)	13,258,653 2,122,309 3,269,874 56,549 1,725,658	(27,329,645) (4,423,673) (6,803,323) (117,657) (14,415,526)	2,508,881 — — — 219,007	_ _ _ _ _	227,050 — — — — 714,906	
Smithfield City Corp Snow College So Davis Metro Fire Agency South Davis Sewer Dist South Ogden City	N/A N/A N/A N/A N/A	(173,212) (2,035,521) (2,875,067) (386,029) (658,843)	78,692 3,665,649 1,306,168 574,149 299,318	(376,950) (6,769,877) (6,256,815) (1,196,737) (1,433,796)	26,662 673,886 442,542 — 101,412		26,869 60,986 445,985 — 102,201	
Southern Utah University Springville City State of Utah Syracuse City Corp Town of Manila	N/A N/A N/A N/A N/A	(82,029) (144,854) (9,222,483) (582,978) (55,883)	124,520 65,809 13,140,038 264,852 83,116	(259,078) (315,237) (28,334,211) (1,268,696) (173,245)	22,297 124,411 89,734	_ _ _ _ _	22,470 125,378 90,433	
Town of Paragonah Uintah Fire Suppression SSD Uintah School District Unified Fire Authority University of Utah	N/A N/A N/A N/A N/A	(53,863) (95,371) (330,974) (42,542,654) (41,881,814)	80,112 43,328 502,420 5,585,246 59,552,048	(166,983) (207,549) (1,045,339) (82,048,698) (126,233,698)	14,680 — 1,425,286 11,356,258	_ _ _ _ _	14,794 — 4,652,568 1,027,722	
University of Utah Hospital USU Space Dynamics Lab Utah County Utah Housing Corporation Utah League Cities/Towns	N/A N/A N/A N/A N/A	(23,470,102) (1,617,926) (416,277) (1,514,814) (662,285)	25,116,897 2,913,627 619,137 2,299,497 985,030	(63,946,594) (5,381,010) (1,290,509) (4,784,349) (2,053,165)	5,058,664 535,635 — —		457,801 48,474 — —	
Utah State University Utah Valley University Vernal City Wasatch County Fire District Washington City	N/A N/A N/A N/A N/A	(17,045,505) (11,623,351) (99,710) (1,014,716) (209,112)	28,803,874 16,378,029 148,301 460,994 95,002	(55,133,896) (34,910,454) (309,114) (2,208,258) (455,077)	5,343,935 3,128,068 — 156,189 32,187		483,618 283,085 — 157,404 32,438	~~~~
Washington School District Weber County Corp Weber Fire District Weber River Water Users Weber State University	N/A N/A N/A N/A N/A	(362,434) (112,630) (4,606,055) (64,677) (7,684,897)	550,177 167,517 604,709 96,196 12,097,765	(1,144,702) (349,166) (8,883,340) (200,508) (24,125,879)	154,315 		503,730 — 205,326	

Deferred Outflo	ows of Resources				Deferred Inflo	Pension Expense Excluding That Attributable ws of Resources 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	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
914 7,297	27,537 — 249,968	3,473 — 10,205	493,849 51,890 251,832 904,554	1,538	1,859 — 11,848	493,849 58,760 251,832 926,607	(103,153) (5,260) (66,545) (203,945)	(120,334) (272) 22,882 3,330	(17,497)	(223,487) (23,029) (43,663) (200,615)
49,650 ————————————————————————————————————	965,923 ————————————————————————————————————	119,521 — 3,921 — 33,418 2,711	2,372,878 319,906 58,594 171,566 499,327 40,508	52,918 — 1,736 — 14,796 1,200	9,522 7,709 — 14,269 4,538	2,554,839 319,906 71,960 171,566 561,810 48,957	(336,139) (66,820) (5,940) (45,335) (50,616) (4,106)	(84,792) 43,965 (1,086) 13,812 550 (1,381)	(602,195) ————————————————————————————————————	(1,023,126) (22,855) (26,783) (31,523) (218,436) (19,146)
23,208 329 162,364	46,394 177,523 — 1,004,428	3,024 23,114 — 205,050	45,192 345,367 249,714 4,175,054 986,559	1,339 10,234 — —	2,213 12,528 — 12,718	51,768 391,243 249,714 4,392,822 986,559	(4,581) (35,009) (65,985) (1,196,471) (260,691)	4,137 (3,704) (8,280) 58,764 (264,018)	(15,238) (116,456) — (638,707)	(15,682) (155,169) (74,265) (1,776,414) (524,709)
23,343 441 18,580 311 77,469	917,954 26,095 136,822 21,704 966,040	217,845 3,346 15,424 2,791 216,375	3,568,906 50,002 230,463 41,696 4,011,293	1,482 6,829 1,236	4,780 95 263 229 2,886	3,791,531 54,925 252,979 45,952 4,230,554	(1,042,119) (5,069) (23,361) (4,227) (1,158,348)	2,691 145 6,616 68 (18,346)	(678,563) (16,860) (77,711) (14,060) (673,982)	(1,717,991) (21,784) (94,456) (18,219) (1,850,676)
8,132 61,622 60,391	122,991 295,802 5,137,612	14,983 30,548 1,236,346	290,246 679,817 223,869 456,438 23,426,361	 6,634 13,525 	6,422 	290,246 679,817 251,908 500,511 24,666,108	(76,695) (141,997) (22,693) (46,268) (6,752,455)	34,785 61,919 1,779 (42,695) (99,182)	(75,487) (153,908) (3,851,078)	(41,910) (80,078) (96,401) (242,871) (10,702,715)
186,167 — — — — 1,435	2,922,098 ————————————————————————————————————	115,054 ————————————————————————————————————	10,678,757 2,420,734 4,241,766 73,357 4,715,108		54,892 — — — 56,283	10,848,703 2,420,734 4,241,766 73,357 4,998,807	(2,865,852) (639,662) (885,999) (15,323) (1,349,347)	(81,555) 103,870 408,690 2,939 70,305	(708,374)	(2,947,407) (535,792) (477,309) (12,384) (1,987,416)
4,801 121,830 21,036 — 2,037	58,332 856,702 909,563 205,650	6,983 30,904 115,904 — 26,560	104,336 2,739,226 1,731,818 654,882 396,859	3,092 — 51,317 — 11,760	5,904 — 3,310 — 13,051	120,315 2,770,130 1,902,349 654,882 448,230	(10,576) (617,598) (175,550) (173,048) (40,229)	1,079 179,066 7,555 62,000 (2,059)	(35,181) — (583,958) — (133,818)	(44,678) (438,532) (751,953) (111,048) (176,106)
984 81,780 666	45,751 331,569 180,833	5,840 32,584 23,502	161,531 87,254 17,056,119 351,161 94,803	2,585 14,427 10,405	5,830 10,552 7,220	161,531 101,509 17,113,682 392,288 94,803	(33,740) (8,845) (3,510,258) (35,596) (25,051)	17,543 (1,037) (674,920) (1,694) (4,962)	(29,422) (164,166) (118,409)	(16,197) (39,304) (4,349,344) (155,699) (30,013)
5,303 — 6,028	34,777 6,083,882 12,383,980	3,845 — 1,480,009 520,786	91,377 57,447 651,752 24,246,627 48,908,263	1,702 — —	209 283,425 2,602,130	91,377 63,203 651,752 26,010,061 52,031,179	(24,146) (5,823) (136,135) (7,080,005) (13,645,967)	5,840 1,243 119,461 (79,259) (6,154,613)	(19,371) ————————————————————————————————————	(18,306) (23,951) (16,674) (11,769,326) (19,800,580)
693,228 — — —	5,516,465 1,277,337 —————————————————————————————————	231,984 24,564 —	23,530,975 2,177,263 706,196 2,982,967 1,123,539		454,909 — — —	24,217,868 2,201,827 706,196 2,982,967 1,123,539	(8,135,283) (490,895) (186,607) (623,068) (296,887)	(943,222) 1,316,175 (122,635) 436,347 165,174		(9,078,505) 825,280 (309,242) (186,721) (131,713)
77,968 795 6,931	5,827,553 3,429,121 314,388 71,556	245,066 143,449 — 40,907 8,430	22,049,711 13,503,275 169,154 611,222 125,960	18,112 3,732	379,868 118,652 — 28,449 18,281	22,674,645 13,765,376 169,154 698,690 156,403	(5,283,696) (3,795,959) (44,698) (61,958) (12,768)	(893,975) (418,940) (85,412) (7,887) (1,004)	(206,100) (42,473)	(6,177,671) (4,214,899) (130,110) (275,945) (56,245)
	661,025 — 2,565,303	160,239 — 104,046	713,704 191,072 2,625,161 109,722 9,523,864		27,879 — 119,197	713,704 191,072 2,813,279 109,722 9,747,107	(149,075) (50,489) (766,546) (28,993) (2,434,671)	90,627 15,606 (5,783) (801) (221,062)	(499,127) ————————————————————————————————————	(58,448) (34,883) (1,271,456) (29,794) (2,655,733)

Aggregation of Funds with a Net Pension Asset

(Employer's Collective Net Pension Asset for All Participating Retirement Systems)

Schedule of Employer Allocations and Pension Amounts (Concluded)

At December 31, 2020

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	
West Valley City Western Uintah Basin Mad	N/A N/A	\$ (9,872,480)	1,443,510 102,775	(19,167,619)	327,112	_	1,067,791	
Workers' Compensation Fund	N/A N/A	(69,101) (1,277,308)	1,938,961	(214,221) (4,034,216)	_	_	_	
Grand Total	N/A	\$ (324,274,590)	264,541,572	(813,458,403)	41,470,283	_	22,027,437	
Units without a proportionate share for 2020 but had a proportionate share in a prior year								
Castle Valley SSD	N/A	\$ —	_	_	_	_	_	
City of Washington Terrace Hurricane City	N/A N/A	_	_	_	_	_	_	
lvins City	N/A N/A	_	_	_	_	_	_	
Leeds Area SS District	N/A	_	_	_	_	_	_	
Logan School District	N/A	_	_	_	_		_	~~~~~~
Morgan County	N/A	_	_	_	_		_	
Tooele County Woods Cross City	N/A N/A	_	_	_	_	_	_	
Grand Total	N/A	\$ (324,274,590)	264,541,572	(813,458,403)	41,470,283	_	22,027,437	

Columns may not add to total due to rounding.

Defe	Pension Expense Excluding That Attributable Deferred Outflows of Resources Deferred Inflows of Resources to Employer-Paid Member Contributions										
Pro Dif I E Contr Propo	nanges in oportion and fferences Between imployer ributions and ortionate Share of ributions	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
	5,201 —	1,400,104	339,671	5,749,138 117,227 2,515,271		39,721 — —	6,128,530 117,227 2,515,271	(1,673,627) (30,976) (525,377)	(53,726) 6,974 209,822	(1,058,036) — —	(2,785,389) (24,002) (315,555)
3,	,043,940	66,541,660	7,311,909	311,298,010	499,090	4,694,065	323,803,074	(80,947,792)	(5,579,751)	(20,279,713)	(106,807,256)
	4,236 3,132 4,580 2,449	4,236 3,132 4,580 2,449	_ _ _ _	_ _ _ _	_ _ _ _	348 — —	348 — —	_ _ _ _	(34,756) 828 2,101 2,148 1,291	_ _ _ _	(34,756) 828 2,101 2,148 1,291
~~~~~		 551 				5,058 —	5,058 —		(321,983) (1,823) (29,426) (86,080)		(321,983) (1,823) (29,426) (86,080)
3,	,058,889	66,556,609	7,311,909	311,298,010	499,090	4,699,471	323,808,480	(80,947,792)	(6,047,453)	(20,279,713)	(107,274,958)

**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

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	
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	\$ 123,889 169,438 41,696 114,028,597 54,211	2,139,571 557,364 721,564 376,858,626 173,789	(1,538,796) (153,748) (522,264) (104,798,122) (45,772)	159,354 19,426 54,848 13,178,862 5,945	=	20,585 17,201 3,273 11,727,782 5,114	
American Fork City American Leadership Academy Ames Charter School Annabella Town Ash Creek SS District	N/A N/A N/A N/A N/A	1,094,260 1,962,557 784,705 3,818 53,993	7,723,402 6,582,309 2,550,652 66,194 935,188	(4,353,995) (1,876,142) (688,969) (48,182) (678,740)	502,620 232,547 88,147 5,122 71,708		37,959 210,112 77,032 — 2,183	
Ashley Valley Improv Dist Ashley Valley Sewer Mgmt Board Ballard City Bear Lake SSD Bear River Assn of Govts	N/A N/A N/A N/A N/A	37,212 21,496 9,977 9,540 62,370	644,050 372,681 172,879 165,238 1,078,423	(466,342) (271,269) (125,611) (119,927) (778,496)	49,018 28,839 13,302 12,670 81,285		2,719 — 250 385 7,176	
Bear River Health Dept Bear River Mental Health Bear River Water District Beaver City Beaver County	N/A N/A N/A N/A N/A	231,649 185,449 10,891 53,906 1,492,782	4,007,641 3,205,153 187,716 932,851 7,624,128	(2,898,140) (2,310,673) (134,181) (675,135) (3,507,743)	303,776 240,559 13,704 70,891 401,622		21,024 24,736 2,722 4,294 23,452	
Beaver Housing Authority Beaver School District Beaver Valley Hospital Benchland Water Company Bicknell Town	N/A N/A N/A N/A N/A	6,479 2,894,242 241,201 21,735 1,657	112,269 9,489,745 4,175,717 376,161 28,727	(81,572) (2,603,014) (3,026,057) (272,349) (20,910)	8,638 330,003 318,647 28,622 2,223		163 291,176 14,842 1,611	
Big Cottonwood Canyon Imp Dist Big Plains Water & Sewer SSD Big Water Municipal Corp Blanding City Bluffdale City	N/A N/A N/A N/A N/A	1,661 2,322 11,333 131,414 87,420	28,525 40,260 48,999 1,123,117 1,498,296	(20,142) (29,305) (19,126) (686,100) (1,077,641)	2,000 3,115 2,864 74,722 112,231		688 — 543 4,301 13,008	
Bona Vista Water Improve Bountiful Irrigation District Box Elder Co Mosq Dist Box Elder County Box Elder School District	N/A N/A N/A N/A N/A	22,984 21,428 13,804 2,131,891 20,687,805	397,877 370,843 239,026 12,230,620 68,040,266	(288,274) (268,476) (173,358) (6,135,025) (18,763,112)	30,342 28,210 18,287 691,123 2,371,239		1,480 1,614 694 33,963 2,099,211	
Bridgerland Technical College Brigham City Cache County Cache County School District Cache Metro Planning Org	N/A N/A N/A N/A N/A	4,891 949,398 2,762,901 28,607,811 4,601	82,309 6,933,651 16,056,779 94,396,133 79,768	(54,331) (3,966,851) (8,117,070) (26,178,119) (58,062)	4,503 439,133 918,097 3,297,348 6,173		6,187 32,295 55,087 2,929,305	
Cache Water District Canyons School District Carbon County Carbon County Rec/Trans SSD Carbon School District	N/A N/A N/A N/A N/A	1,255 57,312,862 1,151,658 1,241 5,935,969	21,762 191,221,158 7,353,398 21,516 19,641,677	(15,840) (54,033,514) (3,930,962) (15,661) (5,473,245)	1,684 6,731,393 434,967 1,665 687,455	_ _ _ _	6,049,722 28,796 — 612,540	
Castle Dale City Castle Valley SSD Cedar City Cedar City Housing Auth Cedar Mtn Fire Protection Dist	N/A N/A N/A N/A N/A	4,957 25,240 1,006,615 10,229 17,274	85,634 436,710 7,268,302 176,983 102,830	(61,651) (315,915) (4,138,861) (128,037) (51,351)	6,399 33,138 458,777 13,432 10,110		755 2,173 30,812 873 4,327	
Centerfield City Centerville City Central Davis Sewer Dist Central Iron Co Water Conserv Central UT Public Health	N/A N/A N/A N/A N/A	3,393 667,738 54,309 9,939 80,228	58,821 4,042,217 940,416 171,251 1,387,203	(42,815) (2,099,277) (681,980) (122,299) (1,001,419)	4,552 231,001 71,923 12,465 104,566		8,161 2,811 2,609 9,208	

Deferred Outfl	ows of Resources				Deferred Inflo	Pension Expense Excluding That Attribut to Employer-Paid Member Contribut				
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
26,710 39,741 7,896 7,526,887 9,853	206,649 76,368 66,017 32,433,531 20,912	7,452 477 1,185 380,164	833,381 172,547 293,134 116,368,968 54,568	14,669 38 5,210 30,202	86,374 13,926 12,138 — 108	941,876 186,988 311,667 116,779,334 54,676	261,718 50,403 63,122 35,134,432 13,002	(31,293) 10,775 (10,270) 4,789,639 5,733		230,425 61,178 52,852 39,924,071 18,735
49,424 148,263 11,106 1,701 19,130	590,003 590,922 176,285 6,823 93,021	5,454 9,776 1,179 — 790	2,699,172 2,016,366 794,795 27,880 386,698	62,473 777 94 499 6,900	163,106 54,697 35,711 7,330	2,930,205 2,081,616 831,779 35,709 394,388	853,465 670,899 212,348 3,733 67,696	(96,842) 20,423 5,378 (1,573) 26,702		756,623 691,322 217,726 2,160 94,398
3,121 3,332 2,246 13,897 9,624	54,858 32,171 15,798 26,952 98,085	984 — 91 140 2,598	262,312 156,967 71,989 68,328 430,589	4,664 2,812 1,286 1,219 7,622	38,184 2,960 254 — 39,872	306,144 162,739 73,620 69,687 480,681	54,950 21,016 11,465 11,959 109,988	(28,103) 688 259 8,746 (35,971)		26,847 21,704 11,724 20,705 74,017
22,315 32,022 4,170 7,601 101,121	347,115 297,317 20,596 82,786 526,195	7,611 8,955 985 1,554 5,778	1,618,734 1,268,519 70,101 378,765 2,452,221	28,732 22,411 1,221 6,730 55,477	45,710 40,962 1,897 3,907 32,796	1,700,787 1,340,847 74,204 390,956 2,546,272	370,068 350,252 29,240 82,028 703,048	(33,675) (37,433) (1,373) (4,897) 57,045	_ _ _ _	336,393 312,819 27,867 77,131 760,093
5,003 139,670 84,502 3,113	13,804 760,849 417,991 33,346 2,223	59 7,109 5,373 583	46,748 2,943,011 1,709,878 153,128 12,099	836 565 30,443 2,722 217	778 — 14,913 3,721 432	48,421 2,950,685 1,760,607 160,154 12,748	7,450 839,745 337,180 32,254 1,620	3,484 37,345 53,202 3,469 (398)		10,934 877,090 390,382 35,723 1,222
1,288 6,134 1,185 7,899 26,275	3,976 9,249 4,592 86,922 151,514	249 — 10 1,250 4,628	9,748 16,957 13,118 415,597 587,670	166 304 506 8,289 10,458	11,656 1,063 753 64,858 7,467	21,819 18,324 14,387 489,994 610,223	6,325 2,270 9,604 101,715 174,764	(6,194) 5,803 1,867 (35,444) 38,031		131 8,073 11,471 66,271 212,795
13,963 2,242 3,491 376,165 1,553,481	45,785 32,066 22,472 1,101,251 6,023,931	536 584 251 8,508 57,816	162,707 150,878 98,390 4,115,927 21,065,719	2,896 2,682 1,754 89,473 4,593	18,598 20,938 — 12,644	184,737 175,082 100,395 4,226,552 21,128,128	32,577 31,974 18,234 1,076,221 6,145,858	(14,583) (15,254) 2,965 211,783 1,225,728		17,994 16,720 21,199 1,288,004 7,371,586
6,355 63,465 116,157 1,416,838 87	17,045 534,893 1,089,341 7,643,491 6,260	2,240 8,660 13,243 90,294	14,298 2,456,353 5,389,869 29,173,696 33,597	178 51,555 118,689 7,173 602	3,198,016 123,695 243,357 — 233	3,214,732 2,640,263 5,765,158 29,271,163 34,432	47,041 692,562 1,505,362 8,710,532 4,498	(1,475,546) (58,301) (142,801) 1,384,756 306		(1,428,505) 634,261 1,362,561 10,095,288 4,804
8,397 2,983,657 29,285 — 138,709	10,081 15,764,772 493,048 1,665 1,438,704	251,760 8,594 — 20,584	9,166 58,743,144 2,531,583 9,062 6,061,123	164 20,001 53,119 162 1,635	606,116 239,512 7,924 111,384	9,330 59,621,021 2,832,808 17,148 6,194,726	1,227 18,901,865 689,060 1,213 1,845,238	3,771 832,964 (283,668) (3,481) (72,487)		4,998 19,734,829 405,392 (2,268) 1,772,751
1,776 8,810 57,371 4,559 15,043	8,930 44,121 546,960 18,864 29,480	273 787 8,063 316 263	33,581 176,780 2,577,659 71,669 20,014	592 3,139 54,131 1,273 1,838	9,359 7,687 73,103 — 2,896	43,805 188,393 2,712,956 73,258 25,011	10,006 39,518 704,809 15,960 53,727	(3,250) (6,623) (82,890) 2,787 3,583		6,756 32,895 621,919 18,747 57,310
137 38,702 13,086 6,668 11,600	4,689 277,864 87,820 21,742 125,374	2,902 1,017 945 3,333	24,774 1,395,754 386,834 63,539 553,951	444 28,611 6,894 1,105 9,807	1,106 14,737 1,155 4,181 11,328	26,324 1,442,004 395,900 69,770 578,419	3,317 315,976 72,291 27,536 141,327	(12,986) (6,528) (362) 2,123 (17,508)		(9,669) 309,448 71,929 29,659 123,819

(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	
Central Utah 911 Central Utah Counseling Center Central Utah Water Dist Central Valley Town Central Wasatch Commission	N/A N/A N/A N/A	\$ 101,803 136,738 429,033 2,705 6,550	1,761,331 2,364,338 7,426,465 46,723 113,212	(1,273,954) (1,706,874) (5,379,474) (33,636) (81,632)	133,588 178,243 565,929 3,491 8,502	_ _ _ _	8,973 15,625 28,983 413 857	
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	90,070 5,069 5,744,758 53,188 1,508,646	1,556,663 87,719 16,755,537 920,332 10,856,863	(1,122,154) (63,472) (3,372,593) (665,908) (6,169,081)	116,805 6,662 633,222 69,883 685,013		12,104 419 63,589 4,422 51,104	
City of Duchesne City of Enterprise City of Green River City of Harrisville City of Helper	N/A N/A N/A N/A N/A	9,838 21,577 18,083 221,179 74,427	170,025 373,838 312,700 1,285,473 469,071	(122,554) (271,565) (225,811) (650,449) (249,003)	12,754 28,746 23,596 73,147 28,541		1,335 606 1,994 3,448 2,180	~~~~~
City of Holladay City of Kanab City of Milford City of Moab City of Monticello	N/A N/A N/A N/A N/A	55,350 153,600 15,435 451,276 46,580	958,638 1,018,860 266,925 4,030,682 471,088	(695,624) (552,919) (192,789) (2,493,491) (303,471)	73,461 60,846 20,153 271,896 32,433		2,389 8,047 1,666 26,074 2,566	~~~~~
City of Naples City of North Salt Lake City of Orem City of Riverton City of Santa Clara	N/A N/A N/A N/A N/A	114,329 792,481 3,330,231 1,304,397 91,657	700,600 5,202,276 20,941,017 8,729,662 1,459,083	(365,928) (2,829,245) (11,163,440) (4,809,192) (1,041,957)	41,101 311,270 3,796,523 1,513,827 112,695		2,642 12,928 353,435 138,973 8,153	~~~~~
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	978,112 2,156,559 2,017,183 4,498,059 116,309	6,321,491 16,689,087 12,044,343 35,186,957 1,972,543	(3,409,573) (9,802,185) (6,188,359) (20,746,222) (1,424,467)	1,102,147 1,090,591 705,702 2,261,033 149,928		117,409 73,788 53,709 151,480 7,514	
City of Uintah City of Washington Terrace City of Wendover City of West Haven City of West Jordan	N/A N/A N/A N/A N/A	7,244 42,331 47,389 39,655 3,798,256	125,596 732,372 334,128 685,711 23,021,581	(91,420) (529,682) (188,126) (495,134) (12,004,901)	9,719 55,535 53,500 51,728 4,300,830		3,770 5,932 4,419 416,737	
City of Woodland Hills Clearfield City Cleveland Town Clinton City Coalville City	N/A N/A N/A N/A N/A	15,497 816,636 834 517,372 16,499	268,311 5,803,051 14,330 3,397,188 285,370	(194,479) (3,279,566) (10,119) (1,848,083) (206,213)	20,488 362,437 1,005 208,803 21,580		909 23,882 346 10,798 1,667	
Color Country Uniserv Cottonwood Heights City Cottonwood Heights P&R Srv Cottonwood Imp District Council On Aging Golden Age SS	N/A N/A N/A N/A N/A	42,082 841,744 52,948 96,096 11,110	137,499 4,517,958 916,374 1,664,415 192,050	(37,485) (2,171,114) (663,459) (1,207,905) (138,525)	4,769 946,356 69,721 127,592 14,438		4,193 97,255 3,942 3,990 1,403	
Daggett County Daggett School District Davis & Weber County Canal Co Davis Behavioral Health Inc Davis Co Housing Authority	N/A N/A N/A N/A N/A	78,276 659,969 961 487,133 20,310	760,874 2,173,042 16,174 8,420,908 351,438	(485,482) (600,427) (10,676) (6,074,578) (254,282)	51,659 75,792 885 633,270 26,685		2,472 67,180 1,216 60,842 1,691	
Davis Co Mosquito Abate Davis County Davis School District Davis Technical College Davis Uniserv	N/A N/A N/A N/A N/A	13,476 6,440,547 111,366,038 1,973,400 28,036	233,453 47,025,869 367,506,030 6,517,219 89,876	(169,551) (26,941,775) (101,934,454) (1,810,064) (23,671)	17,939 2,959,179 12,838,218 227,792 3,075		416 155,717 11,406,418 202,553 2,645	
DDI Vantage Delta City Dixie State University Dixie Technical College Duchesne Co Water Conserv Dist	N/A N/A N/A N/A	17,436 29,584 180,259 550 9,724	293,399 511,838 878,746 9,251 168,373	(193,668) (370,214) (384,282) (6,107) (122,089)	16,050 38,822 36,772 506 12,873	_ _ _ _	22,055 2,600 15,047 695 517	

Deferred Outfl	ows of Resources	rces Deferred Inflows of Reso					Pension Expense Excluding That Attributable ows of Resources 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	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
88,609 22,278 183,722 16,732 20,051	231,170 216,146 778,634 20,636 29,410	3,248 5,656 10,492 150 310	712,302 944,378 3,032,481 18,319 44,863	12,646 16,719 53,957 323 793	4,340 76,156 — — 751	732,536 1,042,909 3,096,930 18,792 46,717	160,811 240,403 617,402 5,466 12,255	32,990 (45,335) 117,139 7,218 15,494	_ _ _ _	193,801 195,068 734,541 12,684 27,749
17,380 5,803 43,615 7,690 188,706	146,289 12,884 740,426 81,995 924,823	4,382 152 17,718 1,601 13,376	615,791 35,567 4,625,189 373,070 3,829,722	10,878 632 57,224 6,627 81,030	7,348 63 68,867 13,466 118,596	638,399 36,414 4,768,998 394,764 4,042,724	170,726 7,816 1,873,164 82,201 1,094,785	1,959 2,596 (82,648) (18,271) 129,431		172,685 10,412 1,790,516 63,930 1,224,216
1,645 9,128 2,269 48,829 2,332	15,734 38,480 27,859 125,424 33,053	483 219 722 864 420	67,217 155,461 125,140 434,873 159,395	1,187 2,777 2,216 9,407 3,634	21,578 181 6,145 36,094 57,035	90,465 158,638 134,223 481,238 220,484	18,735 25,231 31,297 111,894 49,765	(15,704) 7,143 3,364 26,100 (47,644)	=	3,031 32,374 34,661 137,994 2,121
5,094 14,432 3,637 80,666 8,826	80,944 83,325 25,456 378,636 43,825	865 2,496 603 7,592 859	395,897 341,088 106,941 1,468,709 177,406	7,062 7,266 1,895 29,854 3,385	6,057 38,788 — 204,038 48,372	409,881 389,638 109,439 1,710,193 230,022	70,430 125,033 26,466 446,488 46,485	(10,856) (23,708) 4,182 42,734 (32,370)		59,574 101,325 30,648 489,222 14,115
11,345 54,695 104,795 441,392 18,569	55,088 378,893 4,254,753 2,094,192 139,417	670 4,034 16,827 9,946 2,104	238,410 1,830,653 7,145,310 3,040,280 581,822	5,174 37,481 217,750 85,991 11,316	37,610 1,648 128,207 4,277 15,911	281,864 1,873,816 7,508,094 3,140,494 611,153	66,783 426,181 3,316,273 1,293,146 150,021	(2,076) 64,565 (63,932) 143,378 15,669	=	64,707 490,746 3,252,341 1,436,524 165,690
173,562 183,293 203,271 380,490 92,462	1,393,118 1,347,672 962,682 2,793,003 249,904	9,494 17,318 11,916 46,491 2,723	2,120,251 6,005,239 4,034,547 12,722,050 804,550	65,034 127,042 91,017 255,929 14,334	955 15,898 8,344 72,936 2,681	2,195,734 6,165,497 4,145,824 13,097,406 824,288	1,103,464 1,658,757 1,243,560 3,312,265 162,853	103,157 391,922 142,108 236,004 28,034		1,206,621 2,050,679 1,385,668 3,548,269 190,887
7,981 5,613 12,762 22,041 143,760	17,700 64,918 72,194 78,188 4,861,327	1,365 613 1,600 20,561	52,899 296,051 113,872 274,262 7,720,844	948 5,255 3,304 4,857 244,107	513 44,627 16,618 — 463,288	54,360 347,298 134,407 280,719 8,448,800	7,083 67,134 57,466 68,951 3,847,247	8,044 (20,069) 4,869 15,596 (83,913)		15,127 47,065 62,335 84,547 3,763,334
18,372 58,541 992 94,524 9,465	39,769 444,860 2,343 314,125 32,712	329 6,579 125 2,020 603	110,016 2,052,584 4,897 1,185,784 114,706	1,959 42,797 83 25,893 2,034	71,072 687 2,531 42	112,304 2,173,032 5,792 1,216,228 117,385	21,359 553,371 3,178 314,094 27,513	25,697 (7,033) (265) 71,932 5,542		47,056 546,338 2,913 386,026 33,055
3,706 30,383 23,219 4,632 1,921	12,668 1,073,994 96,882 136,214 17,762	87 4,867 1,427 1,444 508	42,723 1,443,520 372,982 687,888 76,269	7 50,305 6,631 12,272 1,348	68,434 2,355 51,555 20,901	42,817 1,567,126 383,395 753,159 99,026	11,879 840,362 78,691 121,200 20,445	10,861 (8,261) 8,178 (50,628) (17,129)		22,740 832,101 86,869 70,572 3,316
32,324 18,391 2,361 253,533 15,710	86,455 161,363 4,462 947,645 44,086	939 1,927 440 22,026 612	290,276 672,372 2,810 3,346,436 142,452	5,409 153 35 59,178 2,531	29,228 47,266 1,070 75,639 9,365	325,852 721,718 4,355 3,503,279 154,960	61,739 197,759 9,243 891,805 31,406	(83,796) (19,748) 148 81,737 2,220		(22,057) 178,011 9,391 973,542 33,626
4,442 950,397 5,322,320 239,338 230	22,797 4,065,293 29,566,956 669,683 5,950	150 44,724 352,698 6,419	96,958 16,878,543 113,573,961 2,013,233 28,220	1,732 344,570 28,020 510	97 157,534 2,672,066 27,712	98,937 17,425,371 116,626,745 2,047,874 28,220	16,013 4,144,175 33,933,371 604,761 6,724	4,153 15,982 1,191,562 112,056 (1,244)		20,166 4,160,157 35,124,933 716,817 5,480
20,269 8,479 85,685 1,069 6,719	58,374 49,901 137,504 2,270 20,109	7,984 941 4,467 252 187	50,966 207,017 257,653 1,607 69,212	634 3,676 1,225 20 1,233	14,458 114 — 18,294	59,584 226,092 263,459 1,879 88,926	167,682 46,683 133,970 5,287 13,039	2,554 (6,002) 67,110 109 698		170,236 40,681 201,080 5,396 13,737

(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	
Duchesne County Duchesne School District E Duchesne Cul Water Imp Dist Eagle Mountain City East Carbon City	N/A N/A N/A N/A	\$ 962,565 8,094,790 3,767 161,316 57,464	6,596,793 27,018,227 65,308 2,787,986 391,589	(3,661,965) (7,639,466) (47,537) (2,009,721) (216,648)	407,196 951,352 5,054 209,179 24,399	_ _ _ _	28,304 855,349 — 21,746 1,959	
East Hollywood High School Educators Mutual Insurance Elk Ridge City Elwood Town Emery Co Care & Rehab Ctr	N/A N/A N/A N/A N/A	454,084 2,815,075 11,808 1,391 3,953	1,517,510 9,059,793 203,719 23,879 66,525	(429,972) (2,403,443) (146,028) (16,859) (43,912)	53,480 310,834 15,010 1,673 3,639		48,144 268,571 2,501 579 5,001	~~~~~
Emery County Emery County Recreation SSD Emery School District Emery Town Emery Water Conserv Dist	N/A N/A N/A N/A N/A	866,589 1,219 4,927,420 209 13,687	5,476,193 20,928 16,155,718 3,518 236,634	(2,915,837) (14,778) (4,431,242) (2,322) (170,780)	325,760 1,467 561,798 192 17,822		15,706 505 495,684 264 1,621	·····
Enoch City Ephraim City Escalante City Eureka City Corporation Fairview City	N/A N/A N/A N/A N/A	117,682 277,546 11,008 4,994 47,998	821,540 2,060,929 190,846 86,447 377,988	(459,110) (1,189,317) (138,914) (62,647) (224,044)	51,298 128,521 14,768 6,598 24,089		5,163 6,475 — 306 744	
Farmington City Farr West City Fast forward Charter HS Ferron City Fillmore City	N/A N/A N/A N/A N/A	590,985 23,179 411,727 5,895 21,405	4,278,374 401,207 1,378,043 101,780 370,562	(2,440,907) (290,593) (391,437) (73,129) (268,492)	271,920 30,565 48,616 7,557 28,261	_ _ _ _	16,698 1,597 43,833 1,059 1,369	
Five-County Assn of Govts Fountain Green City Fox Hollow Golf Course Francis City Fruit Heights City	N/A N/A N/A N/A N/A	86,324 23,829 8,267 9,943 17,365	1,492,134 163,105 143,108 172,285 300,458	(1,076,103) (90,947) (103,678) (125,162) (217,362)	112,120 9,902 10,911 13,252 22,803	_ _ _ _	11,086 — 541 267 1,482	
Garfield County Garfield School District Garland City Genola Town Grand County	N/A N/A N/A N/A N/A	792,429 1,955,249 59,113 5,589 763,569	4,643,315 6,453,501 263,696 96,893 6,124,195	(2,362,179) (1,790,572) (106,118) (70,527) (3,644,587)	265,802 225,472 12,369 7,498 399,049	_ _ _ _	12,446 200,366 1,816 — 31,867	
Grand County Ems SSD Grand School District Grand Water/Sewer Service Granger-Hunter Imp Dist Granite School District	N/A N/A N/A N/A N/A	19,483 3,471,441 17,901 193,011 117,880,854	335,829 11,623,035 309,577 3,338,761 388,685,119	(240,107) (3,303,526) (223,623) (2,413,492) (107,656,659)	24,536 410,147 23,382 252,759 13,570,212	_ _ _ _	4,810 369,935 1,899 18,563 12,046,211	
Granite Uniserv Grantsville City Greater Salt Lake Municipal SD Gunnison City Gunnison Valley Hospital	N/A N/A N/A N/A N/A	113,197 341,755 108,766 12,009 281,141	367,163 2,222,987 1,881,286 207,810 4,866,482	(98,799) (1,198,942) (1,359,545) (150,396) (3,525,073)	12,669 133,434 142,294 15,791 370,835	_ _ _ _	11,045 11,399 10,883 959 19,034	
Gunnison Valley Police Dept Heber City Heber Light & Power Heber Valley Historic Railroad Heber Valley SSD	N/A N/A N/A N/A N/A	99,002 717,830 152,084 150,677 11,184	403,716 5,055,795 2,632,109 511,599 193,896	(150,051) (2,842,791) (1,905,642) (148,742) (141,134)	111,568 313,390 200,256 18,225 15,004	_ _ _ _	10,504 23,214 11,343 16,667	
Herriman City High Desert Uniserv High School Activities Assn Highland City Hinckley Town	N/A N/A N/A N/A N/A	1,661,431 19,932 256,883 64,143 3,699	10,508,417 66,492 833,225 1,110,142 63,887	(5,618,696) (18,783) (224,214) (803,776) (45,955)	1,930,337 2,340 28,752 84,473 4,761		176,042 2,103 25,066 4,745 607	
Hooper City Hooper Water Improv Dist Housing Auth of Carbon Co Housing Authority of SLC Housing Authority Ogden City	N/A N/A N/A N/A N/A	17,449 28,452 16,273 172,225 37,009	301,026 492,740 281,518 2,977,298 640,333	(215,800) (357,490) (203,579) (2,147,934) (463,202)	22,186 37,738 21,339 223,968 48,585	_ _ _ _ _	3,673 1,295 1,478 21,283 3,200	

Deferred Outflo	ows 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	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
122,316 431,018 1,299 88,176 2,749	557,816 2,237,719 6,353 319,101 29,107	7,472 35,908 — 7,872 457	2,306,911 8,298,266 27,506 1,102,659 135,697	48,921 2,853 493 19,477 2,977	7,487 — — 7,319	2,370,791 8,337,027 27,999 1,130,008 146,450	645,145 2,676,842 3,683 306,242 41,397	106,926 118,545 1,018 28,590 (16,634)		752,071 2,795,387 4,701 334,832 24,763
20,499	122,123	2,078	465,766	165	31,598	499,607	151,466	31,376		182,842
4,075	583,480	1,187	2,838,540	94	217,014	3,056,835	699,485	(196,879)		502,606
18,681	36,192	905	77,569	1,358	45	79,877	28,626	10,854		39,480
7,398	9,650	210	8,150	139	—	8,499	5,315	2,907		8,222
6,487	15,127	1,810	11,556	144	57	13,567	38,020	690		38,710
27,214	368,680	3,906	1,897,788	40,391	93,156	2,035,241	480,057	(142,505)		337,552
587	2,559	183	7,151	122	200	7,656	4,641	(600)		4,041
44,112	1,101,594	12,086	5,010,382	960	249,424	5,272,852	1,429,325	(252,588)		1,176,737
528	984	96	611	8	—	715	2,011	48		2,059
3,689	23,132	587	94,329	1,670	6,188	102,774	24,455	(657)		23,798
17,098	73,559	1,364	283,121	6,154	24,323	314,962	93,530	3,031		96,561
74,160	209,156	2,337	744,590	14,598	310	761,835	172,137	95,855		267,992
5,893	20,661	—	80,381	1,440	—	81,821	10,762	3,436		14,198
4,096	11,000	111	35,403	631	3,722	39,867	6,970	(946)		6,024
7,640	32,473	302	139,937	2,680	7,295	150,214	27,856	10,530		38,386
48,772	337,390	3,953	1,522,632	32,267	62,171	1,621,023	408,564	20,546		429,110
7,899	40,061	578	163,726	2,913	36	167,253	33,566	9,684		43,250
8,856	101,305	1,954	422,613	155	15,837	440,559	138,774	13,007		151,781
3,392	12,008	383	39,382	692	4,757	45,214	12,998	(7,712)		5,286
2,446	32,076	496	151,567	2,697	1,549	156,309	30,279	2,174		32,453
15,521	138,727	4,013	591,964	10,464	20,122	626,563	160,112	(6,211)		153,901
—	9,902	18	59,433	1,165	1,353	61,969	9,993	(3,237)		6,756
2,688	14,140	196	58,492	1,041	3,193	62,922	11,780	735		12,515
11,149	24,668	97	71,684	1,281	298	73,360	11,547	8,791		20,338
1,978	26,263	537	121,668	2,161	26,994	151,360	27,100	(11,971)		15,129
46,576	324,824	3,024	1,574,917	34,101	57,460	1,669,502	404,868	(13,894)		390,974
24,216	450,054	6,233	1,994,184	495	182,147	2,183,059	596,601	(139,030)		457,571
15,871	30,056	529	76,654	1,861	709	79,753	32,209	7,150		39,359
1,719	9,217	—	40,810	731	—	41,541	5,464	1,590		7,054
71,825	502,741	9,228	2,207,459	45,135	134,335	2,396,157	624,251	24,027		648,278
76,315 175,632 22,311 21,804 2,553,503	105,661 955,714 47,592 293,126 28,169,926	1,741 16,620 688 6,720 362,584	125,610 3,563,808 124,135 1,345,116 120,172,958	2,189 1,320 2,200 23,861 28,806	163,556 963 115,052 736,317	129,540 3,745,304 127,986 1,490,749 121,300,665	51,900 1,172,951 30,474 315,483 35,698,363	44,512 61,095 15,692 (90,411) 2,151,333		96,412 1,234,046 46,166 225,072 37,849,696
1,295	25,009	144	114,543	11	17,601	132,299	30,095	(4,078)		26,017
52,969	197,802	3,203	760,097	16,285	58,383	837,968	231,264	13,236		244,500
609,769	762,946	3,940	756,538	13,415	—	773,893	180,665	295,317		475,982
2,486	19,236	347	84,367	1,500	14,412	100,626	18,294	(32,921)		(14,627)
29,859	419,728	6,891	1,987,014	35,353	90,691	2,119,949	404,864	(28,771)		376,093
21,523 336,186 13,991 41,970 4,592	143,595 672,790 225,590 76,862 19,596	1 6,720 4,106 960	118,675 1,776,458 1,071,256 155,686 81,665	5,118 36,969 19,046 76 1,463	23,556 109,830 55,179 — 245	147,350 1,929,977 1,149,587 156,722 83,373	79,937 497,492 226,158 55,803 10,934	16,907 132,501 (24,255) 21,054 (342)		96,844 629,993 201,903 76,857 10,592
561,668	2,668,047	11,373	3,617,973	105,237	18,363	3,752,946	1,576,027	343,339		1,919,366
1,007	5,450	87	20,428	7	177	20,699	6,566	4,989		11,555
5,899	59,717	327	259,938	26	5,513	265,804	68,301	(6,547)		61,754
6,766	95,984	1,718	451,951	8,036	35,292	496,997	95,119	(23,986)		71,133
2,017	7,385	220	24,910	438	3,143	28,711	7,761	(937)		6,824
5,611	31,470	1,330	114,695	2,009	6,497	124,531	42,144	(5,070)		37,074
14,155	53,188	469	203,271	3,625	—	207,365	36,661	10,989		47,650
18,949	41,766	535	113,704	2,019	533	116,791	26,005	(298)		25,707
31,256	276,507	7,705	1,183,917	20,939	37,149	1,249,710	313,744	(13,301)		300,443
6,201	57,986	1,158	259,161	4,602	10,782	275,703	58,039	(13,666)		44,373

(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	
Housing Connect Huntington City Hurricane City Hurricane Valley Fire SSD Hyde Park City	N/A N/A N/A N/A	\$ 188,918 9,061 848,054 51,193 25,894	3,261,520 157,098 6,138,161 311,925 448,651	(2,343,250) (114,349) (3,501,071) (159,731) (325,957)	242,093 12,156 381,364 30,963 34,513		34,106 — 20,395 10,974 676	
Hyrum City Impact Mitigation SSD Intech Collegiate High School Iron County Iron School District	N/A N/A N/A N/A N/A	84,991 5,789 241,931 1,719,834 14,847,454	1,471,993 100,371 826,051 10,276,595 48,854,200	(1,068,097) (73,058) (242,298) (5,281,651) (13,482,923)	112,786 7,767 29,538 593,940 1,703,145		3,709 — 27,158 42,898 1,508,502	~~~~~
Itineris High School Ivins City Jordan River Commission Jordan School District Jordan Uniserv	N/A N/A N/A N/A N/A	570,132 307,218 7,448 86,732,885 85,246	1,892,201 2,276,981 128,982 288,607,532 277,157	(529,965) (1,310,143) (93,567) (81,188,595) (74,897)	66,366 144,655 9,874 10,140,824 9,580		59,320 12,188 352 9,088,851 8,374	~~~~
Jordan Valley Water Conserv Jordanelle SSD Juab County Juab School District Juab Special Service Fire Dist	N/A N/A N/A N/A N/A	423,320 91,143 535,840 4,057,811 4,503	7,327,714 1,576,655 3,521,420 13,367,148 77,686	(5,308,265) (1,139,835) (1,913,983) (3,696,404) (55,702)	558,512 119,399 215,829 466,379 5,729		28,239 8,636 14,263 413,587 936	
Kamas City Kane County Kane County Water Conserv Dist Kane School District Kaysville City	N/A N/A N/A N/A N/A	81,657 1,053,859 23,839 2,690,513 1,001,804	517,129 6,443,372 412,314 8,899,811 7,043,121	(275,742) (3,355,590) (297,908) (2,478,600) (3,966,349)	29,948 370,208 31,167 311,421 443,229		997 27,687 2,449 277,389 22,946	
Kearns Improvement Dist Laverkin City Layton City Lehi City Lewiston City	N/A N/A N/A N/A N/A	81,598 161,758 2,263,037 1,988,811 11,229	1,413,106 1,110,759 14,590,033 15,652,889 193,885	(1,025,082) (618,806) (7,839,526) (9,248,455) (139,342)	108,179 66,992 891,939 1,033,215 14,406	_ _ _ _	3,878 1,823 72,472 84,965 1,979	
Lindon City Logan City Logan School District Lone Peak PS District Maeser Water Improve Dist	N/A N/A N/A N/A N/A	524,806 4,060,147 8,613,635 618,468 17,862	3,661,378 21,080,040 28,557,322 2,474,685 309,666	(2,054,304) (9,958,575) (7,983,958) (895,523) (225,401)	224,863 1,515,193 1,000,861 680,411 23,963	_ _ _ _	9,395 76,147 893,616 69,343 —	
Magna Mosquito Abatement Manti City Mapleton City Marriott-Slaterville City Mayfield Town	N/A N/A N/A N/A N/A	6,108 27,870 283,683 14,644 2,488	105,899 481,959 2,171,344 253,360 43,053	(77,083) (348,069) (1,269,969) (183,259) (31,177)	8,195 36,377 141,393 19,218 3,278	_ _ _ _	3,040 8,805 1,284 178	
Mendon City Metro Water Dist SLC/Sandy Midvale City Midvalley Improvement District Midway City	N/A N/A N/A N/A N/A	2,685 220,100 198,174 32,970 41,430	46,556 3,811,890 3,426,069 571,019 716,758	(33,888) (2,765,682) (2,472,121) (414,348) (518,339)	3,603 291,981 257,869 43,756 54,334	_ _ _ _	9,909 24,019 1,429 3,746	
Military Installation Devel Millard Co Care & Rehab Inc Millard County Millard School District Millcreek City	N/A N/A N/A N/A N/A	19,756 78,198 1,191,809 6,406,368 97,318	341,666 1,351,061 7,622,083 21,039,813 1,683,404	(246,786) (973,006) (4,082,352) (5,787,645) (1,216,829)	25,800 101,065 458,115 732,505 127,423	_ _ _ _	2,115 11,543 27,840 647,470 9,420	
Millville City Minersville Town Moab Valley Fire Protection Mona City Monroe City	N/A N/A N/A N/A N/A	6,511 5,837 7,587 3,931 20,598	112,733 101,069 81,739 67,813 356,672	(81,736) (73,283) (53,702) (48,612) (258,652)	8,616 7,726 6,926 4,998 27,277		356 315 917 829 1,068	
Monticello Academy Morgan City Corporation Morgan County Morgan School District Moroni City	N/A N/A N/A N/A N/A	658,302 47,918 397,049 4,218,025 21,635	2,285,303 829,630 2,600,081 14,022,811 170,851	(687,628) (601,329) (1,412,251) (3,938,708) (101,257)	82,610 63,347 156,327 492,407 10,855	_ _ _ _	77,129 2,823 6,829 440,908 485	

Deferred Outflo	ows of Resources				Deferred Inflo	Pension Expense Excluding That Attributable flows of Resources 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	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
94,905 147 80,032 6,309 6,059	371,104 12,303 481,791 48,246 41,248	12,347 — 6,694 153 245	1,261,410 66,167 2,199,275 68,734 186,738	22,165 1,185 44,051 5,589 3,336	8,614 4,311 7,126 6,620 2,558	1,304,536 71,663 2,257,146 81,096 192,877	417,645 8,859 530,816 146,338 29,934	19,451 (3,797) 109,081 4,039 4,871	_ _ _ _	437,096 5,062 639,897 150,377 34,805
71,443 1,406 12,973 55,139 802,313	187,938 9,173 69,669 691,977 4,013,960	1,343 — 1,697 11,303 42,244	607,767 42,274 250,623 3,455,862 15,121,818	10,841 757 135 75,502 3,356	4,912 7,206 16,194 163,426 624,571	624,863 50,237 268,649 3,706,093 15,791,989	108,426 5,660 92,773 1,011,487 4,426,182	30,443 (8,590) 6,718 (67,733) 275,236		138,869 (2,930) 99,491 943,754 4,701,418
75,565 16,042 12,283 9,908,458 5,209	201,251 172,885 22,509 29,138,133 23,163	2,168 3,398 128 355,045 130	582,952 804,379 53,165 88,788,764 86,351	172 16,853 948 28,207 10	5,309 50,168 153 — 3,699	590,601 874,798 54,394 89,172,016 90,190	181,137 238,206 9,688 28,073,257 23,116	27,351 (94,875) 6,450 6,245,662 (7,842)		208,488 143,331 16,138 34,318,919 15,274
36,696 60,916 68,760 135,789 18,059	623,447 188,951 298,852 1,015,755 24,724	10,223 3,126 3,153 12,059 339	2,993,336 635,627 1,219,305 4,134,947 29,639	53,264 11,277 26,678 958 519	222,832 1,953 32,853 —	3,279,655 651,983 1,281,989 4,147,964 30,497	606,738 148,092 347,273 1,220,200 10,794	(135,280) 25,882 25,560 173,273 10,489		471,458 173,974 372,833 1,393,473 21,283
6,314 125,057 9,246 61,857 148,151	37,259 522,952 42,862 650,667 614,326	427 8,894 887 9,232 4,972	181,246 2,182,087 165,596 2,746,832 2,502,992	3,597 45,717 2,935 733 53,233	821 40,549 2,687 36,528 46,503	186,091 2,277,247 172,105 2,793,325 2,607,700	38,851 617,481 40,034 834,372 642,076	7,831 112,829 (1,915) (153) 16,769		46,682 730,310 38,119 834,219 658,845
7,053 29,741 92,380 344,788 4,816	119,110 98,556 1,056,791 1,462,968 21,201	1,404 785 15,647 19,862 716	582,409 399,102 4,977,231 5,599,659 75,147	10,384 7,809 111,878 120,384 1,321	71,592 3,786 315,924 1,688 1,468	665,789 411,482 5,420,680 5,741,593 78,652	106,263 80,518 1,563,827 1,689,201 24,493	(46,764) 104,589 (307,969) 308,825 (4,233)	=	59,499 185,107 1,255,858 1,998,026 20,260
35,730 110,435 171,486 25,850 2,102	269,988 1,701,775 2,065,963 775,604 26,065	2,984 53,321 31,733 12	1,308,721 7,136,445 8,803,046 697,865 130,426	26,422 150,616 2,521 33,003 2,336	85,763 58,086 685,239 23,799 150	1,423,890 7,398,468 9,522,539 754,679 132,912	299,105 1,338,502 2,715,780 555,211 17,462	(46,728) (72,876) (379,344) 2,068 586	=	252,377 1,265,626 2,336,436 557,279 18,048
3,876 7,777 20,395 20,334 1,293	12,071 47,194 170,593 40,836 4,749	1,101 2,004 465 65	44,603 192,984 781,979 102,484 17,547	799 3,418 16,533 1,820 312	6,201 12,766 — 2,969	45,402 203,704 813,282 104,769 20,893	5,972 48,011 210,054 23,086 3,649	5,525 (6,627) (4,229) 12,921 613		11,497 41,384 205,825 36,007 4,262
251 27,952 45,684 7,130 32,504	3,854 329,842 327,572 52,315 90,584	3,587 8,695 517 1,356	19,609 1,572,879 1,363,926 235,800 289,554	351 28,051 24,129 4,206 5,140	2,088 11,377 43,949 13,901 3,750	22,048 1,615,894 1,440,699 254,424 299,800	2,625 282,861 357,799 41,991 66,090	(463) (9,605) (20,049) 4,247 8,024		2,162 273,256 337,750 46,238 74,114
65,164 42,330 33,081 54,852 237,545	93,079 154,938 519,036 1,434,827 374,388	766 4,179 6,691 16,891 3,410	136,940 531,041 2,629,843 6,519,157 678,009	2,427 9,367 56,819 1,342 12,027	11,842 — 250,382 404,606	151,975 544,587 2,943,735 6,941,996 693,446	33,762 155,289 720,285 1,882,435 159,480	16,454 21,383 (262,641) (262,257) 228,826		50,216 176,672 457,644 1,620,178 388,306
3,013 4,527 12,847 22,746 4,730	11,985 12,568 20,690 28,573 33,075	129 114 1 300 387	46,310 41,532 29,115 25,831 146,707	825 740 899 452 2,615	10,237 24,824 576 — 37,797	57,501 67,210 30,591 26,583 187,506	8,794 7,856 15,524 9,508 27,434	(8,037) (6,569) 9,623 9,915 (14,027)		757 1,287 25,147 19,423 13,407
157,746 47,481 180,437 675,017 12,294	317,485 113,651 343,593 1,608,332 23,634	5,881 1,022 1,903 16,835 191	687,240 340,130 912,784 4,316,199 62,802	467 6,057 18,970 1,337 1,201	40,103 14,085 39,416 — 10,983	733,691 361,294 973,073 4,334,371 75,177	278,319 66,133 218,890 1,356,419 13,608	(14,930) 8,592 77,332 409,452 12,012		263,389 74,725 296,222 1,765,871 25,620

(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	
Mount Pleasant City Mountain Green Sewer Imp Dist Mountain Regional Water SSD Mountainland Assn of Govt Mt Olympus Improvement Dist	N/A N/A N/A N/A	\$ 162,460 3,741 81,566 144,893 89,874	1,144,569 64,860 1,411,890 2,507,759 1,556,100	(643,855) (47,211) (1,022,739) (1,815,855) (1,128,094)	69,227 5,019 107,598 190,876 118,886		4,147 — 5,493 10,539 5,065	
Murray City Murray School District Myton City N Tooele Co Fire Protection SD N UT Environmental Rsrc Agcy	N/A N/A N/A N/A N/A	3,125,250 11,819,955 4,221 6,678 27,293	23,303,397 38,976,700 73,042 32,295 472,664	(13,481,935) (10,797,111) (52,864) (13,766) (342,891)	1,488,936 1,360,875 5,551 3,498 36,189		77,616 1,208,145 335 1,564 1,280	~~~~~
Nebo Credit Union Nebo School District Nephi City Nibley City Corporation Noah Webster Academy Inc	N/A N/A N/A N/A N/A	48,802 51,465,592 270,490 34,222 454,600	844,314 169,948,698 2,243,114 591,520 1,540,752	(610,586) (47,192,206) (1,352,222) (426,538) (446,675)	64,004 5,939,660 147,070 44,428 54,822		4,410 5,280,970 11,759 4,459 50,048	~~~~~
North Davis Co Sewer Dist North Davis Fire District North Emery Water Users SSD North Fork SSD North Logan City	N/A N/A N/A N/A N/A	143,838 25,468 2,960 9,500 36,266	2,491,402 162,773 50,817 145,454 612,973	(1,808,254) (86,035) (35,883) (103,634) (437,438)	191,050 15,958 3,563 11,487 45,150		5,766 5,132 1,227 354 8,301	
North Ogden City North Park Police Agency North Pointe Solid Waste North Sanpete School Dist North Summit School District	N/A N/A N/A N/A N/A	588,198 188,691 55,632 4,372,115 2,528,952	3,952,933 856,714 962,115 14,336,176 8,253,877	(2,172,083) (353,906) (694,983) (3,932,728) (2,245,741)	240,476 43,275 72,669 498,555 286,082		16,642 3,548 5,906 439,922 251,149	
North View Fire District Northeastern Counseling Ctr Nuames Charter School Oakley City Ogden City Corp	N/A N/A N/A N/A N/A	29,151 119,916 1,580,851 1,002 12,388,481	146,794 2,073,029 5,222,433 16,868 37,152,825	(65,101) (1,495,584) (1,451,228) (11,134) (7,978,722)	15,679 155,952 182,576 923 1,104,084	_ _ _ _	6,617 14,793 162,401 1,268 136,618	
Ogden School District Ogden-Weber Tech College Oquirrh Rec And Parks District Orangeville City Orderville Town	N/A N/A N/A N/A N/A	19,126,883 1,241,083 38,789 5,117 5,470	63,871,377 4,023,813 671,459 88,597 94,733	(18,074,368) (1,081,923) (486,444) (64,242) (68,707)	2,249,761 138,801 51,189 6,773 7,248	_ _ _ _	2,023,737 120,950 2,552 273 275	
Panguitch City Corporation Park City Park City Fire Service Park City School District Parowan City	N/A N/A N/A N/A N/A	14,028 1,787,303 83,217 13,896,193 159,120	242,611 15,787,242 709,359 46,189,091 1,288,548	(175,272) (9,706,550) (429,262) (12,969,388) (772,636)	18,332 1,026,230 63,121 1,621,702 84,566		1,464 114,040 15,494 1,451,808 3,056	
Payson City Perry City Piute County Piute School District Plain City	N/A N/A N/A N/A	826,693 169,882 96,067 773,867 16,380	6,581,952 1,023,561 715,129 2,547,717 283,435	(3,913,229) (529,395) (413,982) (703,784) (205,095)	426,034 59,499 44,663 88,852 21,527	_ _ _ _	22,869 3,494 1,141 78,743 1,345	
Pleasant Grove City Pleasant View City Powder Mountain Water & Sewer Price City Price River Water Improve	N/A N/A N/A N/A	752,057 287,304 10,438 453,986 67,415	5,395,378 1,717,515 180,142 3,483,689 1,167,089	(3,063,626) (884,849) (129,304) (2,041,587) (845,754)	342,724 97,306 13,331 223,055 89,056	_ _ _ _	23,606 3,673 2,016 9,688 4,161	
Providence City Provo City Corp Provo Housing Authority Provo Reser Water Users Provo River Water Users	N/A N/A N/A N/A N/A	35,376 9,925,215 39,319 1,362 48,395	612,342 39,047,941 680,705 23,616 837,712	(443,531) (14,077,490) (493,293) (17,190) (606,849)	46,654 3,142,772 51,944 1,827 63,851		2,421 143,134 2,419 — 3,226	
Provo School District Recreation & Habilitation Srvs Redmond Town Rich County Rich School District	N/A N/A N/A N/A N/A	22,542,911 2,557 4,926 160,333 1,414,977	74,864,385 44,322 85,409 1,118,020 4,624,952	(20,990,258) (32,262) (62,168) (626,316) (1,261,655)	2,626,902 3,430 6,609 69,206 160,472	_ _ _ _	2,349,570 — 4,239 141,106	

Deferred Outfl	ows of Resources						Expense Excluding 1 mployer-Paid Memb			
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
21,193 19,797 6,667 102,311 6,930	94,567 24,816 119,758 303,726 130,881	1,607 — 1,989 3,815 1,833	406,503 27,318 576,579 1,021,529 638,728	7,924 489 10,259 18,166 11,378	9,014 270 51,242 — 15,111	425,048 28,077 640,069 1,043,510 667,050	98,519 3,658 117,263 213,636 122,458	9,670 10,733 (34,047) 64,579 (6,990)	_ _ _ _	108,189 14,391 83,216 278,215 115,468
278,937	1,845,489	19,841	8,401,864	173,609	219,705	8,815,019	2,085,206	127,051		2,212,257
898,501	3,467,521	36,461	12,050,222	2,897	—	12,089,580	3,581,625	696,592		4,278,217
310	6,196	121	29,662	528	5,770	36,081	6,412	(2,624)		3,788
4,741	9,803	12	4,606	716	639	5,973	20,306	382		20,688
29,945	67,414	463	194,865	3,475	556	199,359	35,425	62,030		97,455
33,230 1,960,341 15,454 9,080 48,003	101,644 13,180,971 174,283 57,967 152,873	1,596 166,795 3,587 1,614 2,804	341,093 52,501,854 814,401 234,458 469,323	6,055 13,251 16,364 4,143 223	124,749 77,469 12,703 677	348,744 52,806,649 911,821 252,918 473,027	77,830 15,759,505 226,221 63,914 166,453	19,847 1,148,624 (41,374) 1,248 21,855	=	97,677 16,908,129 184,847 65,162 188,308
8,939	205,755	2,088	1,030,351	18,385	11,696	1,062,520	180,010	(9,985)		170,025
4,991	26,081	7	38,815	2,808	742	42,372	70,289	1,038		71,327
4,576	9,366	444	17,365	295	641	18,745	11,271	(1,172)		10,099
11,242	23,083		59,209	1,206	758	61,173	12,421	5,488		17,909
11,943	65,394	2,922	230,268	4,117	52,837	290,144	92,618	(74,909)		17,709
121,367	378,485	4,724	1,376,545	28,912	817	1,410,998	380,383	94,494	=	474,877
38,061	84,884	447	258,330	6,679	56,139	321,595	93,899	32,251		126,150
17,052	95,627	2,138	385,784	6,836	18,666	413,424	94,727	(2,198)		92,529
69,703	1,008,180	10,763	4,445,890	855	5,576	4,463,084	1,269,041	18,803		1,287,844
90,410	627,641	4,929	2,566,201	392	54,615	2,626,137	707,500	120,285		827,785
11,969	34,265	15	23,519	3,139	8,505	35,178	86,989	(4,190)		82,799
58,483	229,228	5,355	824,421	14,581	17,214	861,571	218,276	(2,678)		215,598
535,424	880,401	5,197	1,612,988	413	—	1,618,598	485,580	376,818		862,398
1,533	3,724	459	2,930	36	125	3,550	9,640	162		9,802
137,852	1,378,554	622,505	10,073,906	135,355	198,228	11,029,994	1,046,824	(78,765)		968,059
267,617 5,320 4,033 845 4,329	4,541,115 265,071 57,774 7,891 11,852	85,888 1,519 924 99 100	19,612,031 1,255,595 274,406 36,416 38,994	6,823 121 4,883 649 695	1,234,258 348,197 48,384 4,688	20,939,000 1,605,432 328,597 41,852 39,789	6,346,351 328,772 55,351 6,869 7,227	(1,314,997) (272,375) (24,890) (2,217) 2,940		5,031,354 56,397 30,461 4,652 10,167
5,073 164,999 32,960 433,082 26,609	24,869 1,305,269 111,575 3,506,592 114,231	530 41,506 746 55,167 801	97,362 5,711,155 214,004 14,218,391 477,654	1,725 107,970 9,362 4,383 9,568	523,686 2,751 515,457 45,721	99,617 6,384,317 226,863 14,793,398 533,744	23,717 1,731,968 214,346 4,462,665 103,822	5,376 (133,691) 7,934 275,675 (20,113)		29,093 1,598,277 222,280 4,738,340 83,709
172,069	620,972	7,007	2,407,526	47,998	10,270	2,472,801	577,195	96,393		673,588
12,042	75,035	879	347,721	7,542	14,194	370,336	94,839	5,335		100,174
3,546	49,350	483	262,247	5,067	15,809	283,606	51,167	(8,175)		42,992
7,040	174,635	2,248	788,361	179	84,701	875,489	231,646	(70,064)		161,582
3,987	26,859	487	114,950	2,042	15,997	133,476	25,199	45		25,244
42,708 52,511 39,603 14,412 4,746	409,038 153,490 54,950 247,155 97,963	5,480 1,337 730 2,869 1,506	1,906,852 590,107 69,235 1,271,631 477,859	40,949 12,098 1,215 25,489 8,508	50,547 24,702 ————————————————————————————————————	2,003,828 628,244 71,180 1,540,257 524,798	538,907 135,518 23,974 289,675 94,328	(48,953) 37,195 24,772 (166,850) (39,240)		489,954 172,713 48,746 122,825 55,088
40,677	89,752	876	249,937	4,447	325	255,585	51,122	20,166		71,288
177,107	3,463,013	149,629	11,986,863	211,905	124,251	12,472,648	3,806,543	(142,854)		3,663,689
21,028	75,391	876	278,738	4,963	2,420	286,997	54,961	4,889		59,850
6,197	8,024	—	9,947	178	—	10,125	1,332	3,823		5,155
18,594	85,671	1,168	342,208	6,090	11,594	361,060	69,348	(4,996)		64,352
316,903	5,293,375	87,300	23,056,414	6,936	947,491	24,098,141	7,194,585	(404,209)		6,790,376
82	3,512	—	18,668	334	897	19,899	2,499	(1,189)		1,310
61	6,670	—	35,973	644	1,110	37,727	4,816	(219)		4,597
19,501	92,946	1,179	394,766	8,216	25,407	429,568	103,779	17,818		121,597
15,814	317,392	2,987	1,436,776	237	95,660	1,535,660	400,549	(11,549)		389,000

(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	
Richfield City Richmond City Riverdale City Roosevelt City Roosevelt City Housing	N/A N/A N/A N/A	\$ 341,644 15,657 734,264 323,675 2,135	2,162,943 270,576 4,334,303 2,218,057 37,015	(1,154,269) (195,002) (2,215,722) (1,233,504) (26,943)	128,522 20,287 248,843 136,276 2,864		4,237 2,158 11,082 6,143	
Roy City Roy Water Conserv Dist S Utah Valley Electric Svc Dst S Utah Valley Solid Waste Salem City	N/A N/A N/A N/A N/A	1,194,595 25,768 58,874 49,223 350,418	7,377,581 446,732 1,018,603 851,634 2,681,941	(3,874,561) (325,170) (736,734) (615,965) (1,568,244)	441,785 34,569 77,252 64,588 170,125		27,073 — 5,201 4,354 9,069	
Salina City Salt Lake Arts Academy Salt Lake City Corp Salt Lake City Public Library Salt Lake Co Serv Area 3	N/A N/A N/A N/A N/A	81,317 719,488 65,378,582 298,471 8,827	576,335 2,380,783 213,053,069 5,163,625 152,777	(326,193) (663,441) (56,517,641) (3,733,967) (110,630)	35,281 83,328 9,820,295 391,356 11,630		850 74,249 641,443 27,229 637	
Salt Lake Community College Salt Lake County Salt Lake School District San Juan County San Juan Mental Health	N/A N/A N/A N/A N/A	38,775 20,326,798 51,929,489 770,431 38,123	652,466 182,281,592 170,697,151 5,903,841 659,462	(430,683) (113,224,700) (47,027,315) (3,454,569) (476,695)	35,693 12,258,769 5,946,563 380,525 49,921		49,046 747,313 5,261,247 22,169 3,678	
San Juan School District Sandy City Sandy Suburban Imp Dist Sanpete County Santaquin City	N/A N/A N/A N/A	7,248,142 3,694,310 64,412 938,438 364,705	23,971,572 24,381,491 1,116,452 5,421,435 2,523,835	(6,674,099) (13,334,027) (812,075) (2,731,423) (1,409,730)	838,706 4,212,058 86,201 304,914 155,136	_ _ _ _	746,915 399,615 637 14,626 7,682	
Sevier County Sevier School District Six-County Assoc of Govt SLC Mosquito Abatement Smithfield City Corp	N/A N/A N/A N/A	1,178,284 8,130,538 50,463 27,679 260,698	6,785,463 26,633,930 873,285 478,429 2,038,179	(3,412,699) (7,293,753) (632,075) (345,009) (1,202,804)	382,434 925,575 66,380 35,941 135,128	_ _ _ _	17,382 815,848 3,965 3,583 8,991	
Snow College Snyder Basin Special Rec Dist Snyderville Basin W R D So Davis Metro Fire Agency So Davis Recreation Center	N/A N/A N/A N/A	43,156 58,488 165,107 97,837 34,675	233,652 1,010,162 2,860,280 548,517 599,529	(109,571) (726,653) (2,077,056) (265,262) (432,762)	9,571 75,282 219,695 56,136 45,179	_ _ _ _	5,582 9,567 5,433 21,620 4,021	
So SL Valley Mosq Abate So Utah Valley Animal Svcs SSD So Utah Valley Power Systems Soldier Hollow Charter School Solid Waste SSD #1	N/A N/A N/A N/A	13,568 5,458 5,094 359,818 15,412	234,734 94,327 88,323 1,230,979 266,171	(169,736) (68,006) (64,289) (362,185) (191,406)	17,788 7,081 6,835 44,074 19,816		1,246 724 — 40,599 2,589	
South Davis Sewer Dist South Davis Water Dist South Ogden City South Ogden Conserv Dist South Sanpete School Dist	N/A N/A N/A N/A	110,823 17,066 747,652 69,407 5,895,758	1,916,955 295,650 4,588,555 1,200,565 19,350,109	(1,385,510) (214,717) (2,403,033) (867,706) (5,316,739)	145,055 22,717 271,831 90,839 673,362	_ _ _ _	10,881 535 12,887 6,838 594,768	
South Summit School District South Valley Sewer District South Valley Water Reclamation South Weber City Southeastern Utah AoG	N/A N/A N/A N/A N/A	3,309,162 173,202 155,001 25,707 47,173	10,831,617 2,997,154 2,683,903 444,101 815,405	(2,962,183) (2,168,925) (1,946,070) (319,723) (588,100)	376,206 227,691 205,175 33,184 61,284	_ _ _ _	331,323 14,035 8,320 3,916 6,010	
Southeastern Utah Health Southern Utah University Southwest Educ Development Ctr Southwest Technical College Spanish Fork City	N/A N/A N/A N/A N/A	61,945 5,808,505 165,454 763,148 1,588,106	1,069,572 19,430,010 554,074 2,615,211 13,279,373	(768,755) (5,517,469) (157,529) (771,479) (8,044,922)	79,497 684,628 19,554 93,740 869,255		10,832 599,641 17,641 86,486 48,646	
Spring City Springville City St George Housing Auth Stansbury Park Improv Dist Stansbury Service Agency	N/A N/A N/A N/A N/A	9,414 1,018,406 7,942 21,022 10,116	163,139 9,452,292 137,408 364,263 173,813	(118,612) (5,937,987) (99,416) (264,695) (122,981)	12,579 643,492 10,432 28,038 12,268	_ _ _ _	149 41,942 667 494 3,919	

Deferred Outflo	ows of Resources						Expense Excluding That Attributable mployer-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	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
4,926 8,382 18,955 8,518 310	137,685 30,827 278,880 150,937 3,174	1,031 781 2,729 1,677	756,704 106,856 1,475,497 787,231 15,590	15,880 1,887 31,779 16,272 279	36,657 25 49,118 57,788 70	810,272 109,549 1,559,123 862,968 15,939	173,420 30,050 372,526 188,635 2,087	(28,269) 71 (10,676) (44,079) (34)	_ _ _ _	145,151 30,121 361,850 144,556 2,053
30,567 15,293 50,047 18,696 28,688	499,425 49,862 132,500 87,638 207,882	5,124 ————————————————————————————————————	2,516,714 188,156 411,894 344,360 973,418	56,367 3,371 7,313 6,113 19,263	166,671 — 4,865 18,089	2,744,876 191,527 421,090 356,914 1,013,785	719,722 25,192 93,083 77,861 231,106	(94,249) 7,999 32,262 (36,603) 9,788	=	625,473 33,191 125,345 41,258 240,894
16,108 168,855 725,981 204,850 7,079	52,239 326,432 11,187,719 623,435 19,346	369 2,497 189,025 9,857 230	209,074 734,665 60,593,838 2,085,184 62,251	4,071 198 894,255 37,009 1,107	2,011 — 647,450 — 8,074	215,525 737,360 62,324,568 2,132,050 71,662	40,976 223,693 17,380,126 477,781 12,979	2,938 106,773 (756,031) 84,209 (2,784)		43,914 330,466 16,624,095 561,990 10,195
35,858 1,269,390 447,300 39,411 4,394	120,597 14,275,472 11,655,110 442,105 57,993	17,755 229,699 141,963 5,899 1,331	113,339 67,947,166 52,864,870 2,134,077 265,645	1,411 1,335,206 11,278 43,909 4,712	2,601 1,142,449 1,764,872 115,813 15,247	135,106 70,654,520 54,782,983 2,299,698 286,935	372,893 16,655,309 15,362,240 544,352 62,393	5,015 (592,583) (1,354,625) (59,879) (17,138)		377,908 16,062,726 14,007,615 484,473 45,255
87,291 141,530 24,369 251,960 54,360	1,672,912 4,753,203 111,207 571,500 217,178	24,731 23,709 231 4,270 2,249	7,399,274 8,392,028 468,132 1,830,989 895,926	1,965 248,554 8,378 39,006 18,381	661,461 239,930 1,885 17,141 61,470	8,087,431 8,904,221 478,626 1,891,406 978,026	2,244,884 3,837,376 67,326 464,894 217,927	(358,659) (162,143) 7,112 118,864 (997)	= = =	1,886,225 3,675,233 74,438 583,758 216,930
61,743 101,520 18,167 7,753 40,558	461,559 1,842,943 88,512 47,277 184,677	4,724 19,137 1,435 1,297 1,767	2,291,893 8,264,057 354,758 189,709 734,718	49,183 1,520 6,305 3,353 15,893	1,114 325,549 14,954 2,806 5,315	2,346,914 8,610,263 377,452 197,165 757,693	579,628 2,341,969 76,419 51,533 206,804	(9,367) (151,693) (8,685) 438 29,684	_ _ _ _	570,261 2,190,276 67,734 51,971 236,488
21,472 26,299 24,134 23,395 33,350	36,625 111,148 249,262 101,151 82,550	1,949 3,463 1,967 208 1,456	66,091 393,967 1,186,814 106,974 239,274	155 6,936 21,191 10,609 4,236	929 1,636 752 10,544	69,124 406,002 1,210,724 128,335 244,966	44,666 122,523 198,526 285,862 61,362	5,638 53,807 31,231 3,827 16,470		50,304 176,330 229,757 289,689 77,832
6,567 1,744 1,054 50,275 33,962	25,601 9,549 7,889 134,948 56,367	451 262 — 2,605 937	94,763 37,345 37,200 373,084 103,585	1,682 660 666 207 1,822	738 — 2,123 — 1,389	97,634 38,267 39,989 375,896 107,733	21,777 10,283 4,981 139,643 32,748	4,653 1,530 (58) 22,687 9,581		26,430 11,813 4,923 162,330 42,329
51,614 5,481 47,976 18,133 97,029	207,550 28,733 332,694 115,810 1,365,159	3,939 194 2,527 2,476 15,116	771,568 122,763 1,576,306 483,144 5,997,762	13,684 2,192 34,493 8,569 1,201	13,278 44,395 2,341 420,564	789,191 138,427 1,657,721 496,530 6,434,643	182,661 20,336 410,583 114,563 1,723,617	21,184 (7,467) (47,880) (5,487) (152,953)		203,845 12,869 362,703 109,076 1,570,664
147,552 37,230 50,191 9,370 37,872	855,081 278,956 263,686 46,470 105,166	7,503 5,081 3,012 1,418 2,176	3,362,308 1,216,142 1,103,022 174,157 323,646	596 21,608 19,654 3,071 5,722	16,189 9,215 17,263 4,061 693	3,386,596 1,252,046 1,142,951 182,707 332,237	947,339 265,195 208,365 51,877 87,170	152,702 28,954 9,319 (9,743) 15,417		1,100,041 294,149 217,684 42,134 102,587
64,755 239,939 1,840 82,873 244,120	155,084 1,524,208 39,035 263,099 1,162,021	3,921 23,589 796 5,672 16,026	414,823 5,982,199 169,870 791,902 4,901,827	7,295 2,434 63 451 95,849	1,062 9,616 21,927 14,465 1,819	427,101 6,017,838 192,656 812,490 5,015,521	134,546 1,875,803 55,975 299,197 1,162,779	4,912 152,836 (11,322) 26,637 200,945		139,458 2,028,639 44,653 325,834 1,363,724
5,674 132,701 1,344 59,344 26,557	18,402 818,135 12,443 87,876 42,744	54 12,540 242 179 1,419	68,222 3,535,213 55,676 151,793 60,305	1,220 69,690 989 2,713 1,031	2,108 158,234 4,463 — 4,953	71,604 3,775,677 61,370 154,685 67,708	10,219 889,988 12,323 23,929 36,658	7,626 (107,062) (1,010) 53,161 18,249		17,845 782,926 11,313 77,090 54,907

(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	
State of Utah Statewide Assoc Public Attys Stockton Town Success Academy Summit Academy High School	N/A N/A N/A N/A	\$ 413,752,286 3,612 26,312 540,937 572,272	1,393,206,193 62,618 111,087 1,803,109 1,981,172	(399,647,663) (45,578) (42,524) (508,707) (593,639)	53,743,677 4,845 4,843 63,432 71,489	_ _ _ _	36,568,099 — — 56,953 66,578	
Summit Academy Inc Summit County Summit County Service Area 3 Sunset City SW Behavioral Health Center	N/A N/A N/A N/A N/A	2,385,252 3,438,358 224 172,041 336,387	8,251,266 22,927,440 3,840 1,059,071 5,819,454	(2,469,537) (12,571,659) (2,711) (555,368) (4,207,943)	297,590 1,381,947 269 61,243 440,971		276,958 59,433 93 2,553 30,991	
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 N/A	8,633 117,439 726,191 6,811 109,688	149,138 2,030,332 4,653,040 117,435 1,898,836	(107,397) (1,465,062) (2,492,110) (84,010) (1,375,795)	11,153 152,834 277,636 8,596 144,815		1,283 14,177 19,448 1,628 7,029	
Timberlakes Water SSD Timpanogos SSD Tintic School District Tooele City Tooele County	N/A N/A N/A N/A N/A	12,508 112,344 750,529 1,031,084 1,833,439	215,897 1,943,743 2,442,440 7,286,502 13,857,056	(155,017) (1,405,962) (661,129) (4,106,769) (8,051,511)	15,994 147,447 84,479 458,885 876,727		2,363 9,823 73,924 32,667 57,480	
Tooele County Housing Tooele School District Tooele Technical College Tooele Valley Mosquito Abtmnt Toquerville City	N/A N/A N/A N/A N/A	12,722 24,057,141 620,158 1,440 7,248	219,861 79,400,019 2,028,893 24,970 124,632	(158,458) (22,028,682) (554,363) (18,176) (88,400)	16,486 2,774,001 70,443 1,932 8,869	_ _ _ _	1,746 2,465,019 62,004 — 2,570	
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	1,231 23,818 1,027 182,205 3,517	21,181 412,452 17,770 1,134,763 60,972	(15,052) (299,138) (12,854) (599,899) (44,380)	1,517 31,555 1,348 65,988 4,718	_ _ _ _	405 1,198 90 1,740	
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	13,778 2,496 7,410 2,161 27,405	238,187 42,895 128,460 37,136 186,911	(171,844) (30,396) (93,504) (26,315) (103,900)	17,921 3,042 9,940 2,634 31,397	_ _ _ _	1,695 917 — 794 3,001	
Town of Paragonah Town of Randolph Town of Springdale Trans-Jordan Cities Tremonton City	N/A N/A N/A N/A N/A	282 2,697 333,169 83,250 348,938	4,752 46,761 1,994,297 1,439,741 2,399,921	(3,137) (34,036) (1,027,678) (1,039,988) (1,337,198)	260 3,618 111,862 108,741 146,603	_ _ _ _ _	357 	
Tridell-Lapoint Water Tuacahn High School Uintah Animal Control/Shelter Uintah Basin Assn of Govt Uintah Basin Asst Council	N/A N/A N/A N/A	3,263 512,834 11,808 66,588 2,590	56,082 1,724,068 204,480 1,149,561 44,767	(39,704) (493,305) (148,315) (825,848) (32,284)	3,966 61,008 15,648 85,309 3,363	_ _ _ _	1,239 55,252 580 12,085 334	
Uintah Basin Technical College 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	1,409,309 105,189 1,751,785 1,934 6,243	4,762,185 1,818,465 12,791,605 33,526 108,228	(1,373,956) (1,312,022) (7,316,876) (24,403) (78,777)	169,101 136,832 809,742 2,594 8,375	_ _ _ _	153,926 12,875 60,564 —	
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 N/A	8,882 50,798 11,877,636 4,091 23,722	153,984 879,257 39,382,243 70,556 410,891	(112,083) (636,800) (11,012,046) (50,517) (298,214)	11,916 66,969 1,380,334 5,179 31,505		3,546 1,232,546 931 962	
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 N/A	485,374 11,003,237 1,752,939 2,351 6,813	4,423,130 43,394,714 9,953,569 39,553 118,112	(2,750,081) (15,430,916) (4,796,664) (26,108) (85,972)	359,597 12,390,681 427,179 2,164 9,140	_ _ _ _	64,795 1,190,645 277,934 2,973	

Deferred Outfl	ows of Resources								oense Excluding That Attributable loyer-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	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	
4,456,955 15,824 4,640 115,553 116,223	94,768,731 20,669 9,483 235,938 254,290	1,156,476 — 25 2,319 4,928	431,033,892 26,373 34,001 554,198 596,658	292,404 472 748 184 392	19,601,014 — 997 —	452,083,786 26,845 35,771 556,701 601,978	122,192,149 3,531 7,362 177,234 238,177	(17,532,685) 10,081 4,961 86,857 68,826	(1,410,494) — — —	103,248,970 13,612 12,323 264,091 307,003	
238,868 233,802 1,190 8,085 44,301	813,416 1,675,182 1,552 71,881 516,263	20,328 18,455 34 837 11,219	2,486,002 8,094,648 1,311 366,104 2,349,025	1,615 165,417 23 7,554 41,687	210,809 	2,507,945 8,489,329 1,368 379,031 2,484,041	988,368 1,894,051 855 86,398 540,539	348,959 54,664 468 1,675 (16,456)		1,337,327 1,948,715 1,323 88,073 524,083	
4,222 27,962 100,511 2,627 40,923	16,658 194,973 397,595 12,851 192,767	465 5,132 5,339 589 2,545	58,589 808,468 1,598,791 44,101 776,616	1,033 14,304 34,119 770 13,823	459 10,963 13,134 15,430 36,049	60,546 838,867 1,651,383 60,890 829,033	17,204 211,645 451,505 17,781 155,245	3,483 (14,027) 77,194 (5,114) (9,939)		20,687 197,618 528,699 12,667 145,306	
9,384 46,042 4,568 117,602 107,576	27,741 203,312 162,971 609,154 1,041,783	855 3,556 1,224 7,900 18,225	83,153 786,332 760,584 2,563,004 4,978,236	1,460 13,962 97 54,965 99,989	15,432 21,749 18,785 4,136 75,833	100,900 825,599 780,690 2,630,005 5,172,283	28,368 176,925 205,080 731,431 1,284,564	(842) (11,257) (16,128) 36,898 7,635		27,526 165,668 188,952 768,329 1,292,199	
1,515 2,108,537 107,869 1,346 5,752	19,747 7,347,557 240,316 3,278 17,191	632 76,588 1,372 — 930	86,852 24,535,762 629,975 10,517 44,033	1,534 6,085 109 188 756	13,439 — — — — 3,264	102,457 24,618,435 631,456 10,705 48,983	24,366 7,338,409 176,835 1,408 24,636	(5,869) 1,497,414 80,764 984 11,836		18,497 8,835,823 257,599 2,392 36,472	
575 7,950 1,192 9,405 4,976	2,497 40,703 2,630 77,133 9,694	147 434 32 612	7,588 169,775 7,189 397,008 25,680	131 3,026 128 8,092 460	166 8,429 8,047 4,619	8,032 181,664 15,396 410,331 26,140	3,969 31,466 1,617 84,596 3,438	416 (4,279) (5,178) 14,264 6,736	_ _ _	4,385 27,187 (3,561) 98,860 10,174	
8,141 2,994 795 2,181 15,753	27,757 6,953 10,735 5,609 50,151	614 332 — 287 213	94,740 15,049 54,105 13,027 64,817	1,676 258 969 223 1,865	250 2,816 23 633 5,516	97,280 18,455 55,097 14,170 72,411	25,047 8,701 7,244 7,535 28,939	6,206 1,021 412 2,711 8,024	= = =	31,253 9,722 7,656 10,246 36,963	
440 426 40,980 11,050 57,416	1,057 4,044 157,320 128,637 210,002	129 — 1,900 3,202 1,876	826 19,695 685,161 577,271 855,198	10 353 13,743 10,229 17,332	540 2,953 34,397 2,178	965 20,588 703,757 625,099 876,584	2,716 2,637 155,173 141,810 195,415	48 (395) 84,783 (21,146) 74,979	_ _ _ _	2,764 2,242 239,956 120,664 270,394	
2,070 58,129 2,174 52,874 1,806	7,275 174,389 18,402 150,268 5,503	448 2,691 210 4,375 121	19,542 527,464 84,213 444,388 17,754	335 214 1,502 7,808 314	440 17,717 16,220 392 459	20,765 548,086 102,145 456,963 18,648	11,652 178,100 15,508 147,644 4,815	168 (15,770) (11,532) 12,696 (2,210)	= = = =	11,820 162,330 3,976 160,340 2,605	
80,401 13,859 127,628 1,778 14,540	403,428 163,566 997,934 4,372 22,915	8,211 4,661 16,346 —	1,452,935 723,518 4,528,235 14,121 45,584	652 12,798 95,028 253 817	117,314 215,537 855 1,178	1,461,798 858,291 4,855,146 15,229 47,579	506,169 190,777 1,284,284 1,891 6,103	37,263 (98,265) 14,702 173 8,490		543,432 92,512 1,298,986 2,064 14,593	
3,320 1,323,941 2,334 2,904	11,916 73,835 3,936,821 8,444 35,371	1,284 43,878 337 348	64,855 358,652 12,139,324 26,650 169,894	1,162 6,380 3,486 466 3,032	2,950 21,520 57,477 29,057 21,512	68,967 387,836 12,244,165 56,510 194,786	8,683 73,886 3,747,344 10,361 29,762	(1,849) (30,013) 330,959 (13,438) (14,154)		6,834 43,873 4,078,303 (3,077) 15,608	
204,141 99,344 693,335 5,385 5,620	628,533 13,680,670 1,398,448 10,522 14,760	4,845 5,732 95,325 1,076	1,476,502 12,486,816 2,716,959 6,871 49,747	48,106 557,197 10,762 86 891	20,961 1,093,784 128,958 — 107	1,550,414 14,143,529 2,952,004 8,033 50,745	959,208 8,901,441 2,237,495 22,605 6,660	78,826 (561,351) 530,534 509 2,520		1,038,034 8,340,090 2,768,029 23,114 9,180	

(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	
USU Space Dynamics Lab UT Municipal Power Agency UT Public Employees Assn UT School Board Risk Mgmt Utah Association of Counties	N/A N/A N/A N/A	\$ 3,458 117,843 8,837 367,412 29,572	58,180 2,041,309 153,117 1,215,136 511,078	(38,404) (1,481,918) (111,254) (338,317) (368,371)	3,183 156,648 11,782 42,514 38,332	_ _ _ _	4,373 4,348 220 37,862 4,030	
Utah Co Academy of Sciences Utah Co Housing Authority Utah Communications Authority Utah Counties Indemnity Pool Utah County	N/A N/A N/A N/A N/A	641,028 36,981 988,789 23,610 9,825,653	2,152,498 639,054 3,237,416 409,110 60,929,875	(614,704) (460,502) (885,782) (297,302) (32,230,432)	76,106 47,894 112,465 31,497 11,346,585		68,846 5,162 99,077 535 1,030,141	
Utah Education Association Utah Housing Corporation Utah Lake Commission Utah Lake Distributing Co Utah League Cities/Towns	N/A N/A N/A N/A N/A	681,350 2,395,239 798 1,360 891	2,206,136 8,009,454 13,842 23,571 14,999	(591,769) (2,271,653) (10,075) (17,157) (9,900)	76,027 282,384 1,071 1,824 821		66,150 254,368 — — 1,127	~~~~~
Utah Local Governments Trust Utah Retirement Systems Utah Safety Council Utah School Boards Association Utah School Employees Assn	N/A N/A N/A N/A N/A	75,748 11,948,955 165,903 323,582 129,409	1,311,216 39,302,876 562,269 1,072,640 417,084	(949,885) (10,840,203) (162,999) (299,812) (110,941)	99,949 1,369,822 20,006 37,589 14,325		5,023 1,212,805 18,263 33,557 12,398	
Utah State Fair Corp Utah State University Utah Valley University Utah Zoological Society Utopia	N/A N/A N/A N/A N/A	212,516 309,806 49,353 198,520 189,489	715,005 2,126,951 830,464 3,430,966 3,272,907	(204,845) (1,123,750) (548,176) (2,473,227) (2,354,841)	25,314 98,811 45,431 257,426 244,079		22,944 86,121 62,426 26,744 30,444	
Valley Emergency Comm Ctr Vernal City Vineyard Town Wasatch Behavioral Health Wasatch County	N/A N/A N/A N/A N/A	328,976 529,206 61,149 840,151 2,078,771	5,685,449 3,491,841 1,055,892 14,538,899 14,373,694	(4,098,069) (1,903,544) (759,077) (10,522,650) (8,015,570)	426,475 209,567 78,533 1,104,977 876,657	_ _ _ _	44,665 9,700 10,523 66,524 53,638	
Wasatch County Fire District Wasatch Front Regional Council Wasatch Front Waste/Recycling Wasatch Integrated Waste Mgmt Wasatch School District	N/A N/A N/A N/A N/A	35,659 104,277 178,862 96,716 13,889,206	232,939 1,804,789 3,090,344 1,672,285 46,047,288	(123,125) (1,306,829) (2,225,747) (1,207,233) (12,873,524)	22,103 137,366 231,220 126,060 1,613,829	_ _ _ _	8,936 7,596 26,242 11,085 1,440,887	
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	64,580 790,742 33,653 112,022 3,923,232	207,030 6,984,642 582,157 1,938,080 24,006,929	(54,527) (4,313,479) (420,850) (1,401,640) (12,540,490)	7,083 476,567 44,081 146,942 1,399,244	_ _ _ _	6,092 36,065 3,208 10,045 70,113	
Washington School District Waste Management Serv Dist #5 Wayne County Wayne School District Weber Area Dispatch 911	N/A N/A N/A N/A N/A	47,623,468 6,870 147,951 1,099,734 144,857	157,327,776 118,935 1,111,869 3,612,368 2,504,103	(43,719,185) (86,192) (644,745) (993,989) (1,806,380)	5,500,197 9,076 69,513 125,781 188,313	_ _ _ _	4,892,435 420 3,850 111,200 18,095	
Weber Basin Water Conserv Weber Co Mosquito Abate Weber County Corp Weber County School District Weber Fire District	N/A N/A N/A N/A N/A	290,937 23,403 6,897,855 55,597,802 78,001	5,038,100 405,366 43,976,689 182,609,358 440,135	(3,654,018) (294,223) (23,489,433) (50,239,421) (214,206)	385,461 31,087 2,593,237 6,357,946 45,061	_ _ _ _	14,571 928 168,486 5,620,367 16,794	
Weber Human Services Weber State University Wellington City Wellsville City Corp West Bountiful City	N/A N/A N/A N/A N/A	563,113 30,214 38,413 16,879 232,830	9,736,012 508,416 226,109 292,045 1,392,039	(7,027,007) (335,597) (114,936) (211,266) (714,980)	733,424 27,813 12,442 22,161 81,161	_ _ _ _	66,182 38,217 913 1,452 7,105	
West Kane County SSD #1 West Point City West Valley City White City Water Imp Dist Willard City Corp	N/A N/A N/A N/A N/A	12,512 39,194 5,723,709 23,019 73,920	216,080 677,479 33,628,303 398,368 513,362	(155,417) (488,594) (17,208,782) (288,382) (287,847)	16,097 50,908 6,435,066 30,297 31,266	_ _ _ _	2,066 5,026 627,811 1,757 599	

Deferred Outfl	ows of Resources	Pension Expense Excluding T  Deferred Inflows of Resources to Employer-Paid Memb								
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
26,757 131,352 3,647 10,260 10,739	34,313 292,348 15,649 90,636 53,101	1,583 1,574 80 1,254 1,459	10,106 845,450 63,766 375,073 201,989	126 15,090 1,139 100 3,567	1,151,367 45,378 8,006 50,411 16,654	1,163,182 907,492 72,991 426,838 223,669	33,251 144,907 10,141 113,797 56,440	(686,478) 87,028 (6,974) (6,292) (29,418)	_ _ _ _	(653,227) 231,935 3,167 107,505 27,022
121,579 7,529 34,410 12,675 817,071	266,531 60,585 245,952 44,707 13,193,797	3,278 1,869 2,272 194 55,104	658,959 252,164 1,004,795 170,547 20,863,467	260 4,451 180 3,048 622,593	47,415 57,304 109,388 17 316,095	709,912 315,788 1,116,635 173,806 21,857,259	220,873 71,410 283,681 26,739 9,291,711	76,692 (42,973) 71,115 6,518 162,876		297,565 28,437 354,796 33,257 9,454,587
64,563 139,572 597 6,122 1,650	206,740 676,324 1,668 7,946 3,598	736 11,122 — 408	688,906 2,457,529 5,830 9,928 2,605	58 884 104 178 32	10,255 58,737 414 — 115	699,955 2,528,272 6,348 10,106 3,160	178,482 802,257 781 1,329 8,572	7,692 45,235 310 3,810 162	=	186,174 847,492 1,091 5,139 8,734
13,858 102,262 3,179 11,268 2,274	118,830 2,684,889 41,448 82,414 28,997	1,818 33,524 1,023 1,187 75	535,726 12,167,777 171,273 330,677 130,573	9,533 2,663 81 94 6	4,037 505,807 8,429 50,524 40,071	551,114 12,709,771 180,806 382,482 170,725	108,360 3,552,422 60,735 101,916 32,571	(1,216) (28,447) (11,581) 19,470 (22,143)		107,144 3,523,975 49,154 121,386 10,428
5,068 117,300 53,586 26,565 229,803	53,326 302,232 161,443 310,735 504,326	1,134 30,102 22,599 9,682 11,021	218,657 523,133 144,259 1,357,015 1,278,265	90 3,206 1,795 23,971 22,514	15,796 10,183 5,418 324,640	235,677 566,624 174,071 1,715,308 1,311,800	74,188 677,941 474,621 376,751 393,187	(10,824) 29,747 6,983 (167,304) 138,940		63,364 707,688 481,604 209,447 532,127
422,642 8,858 79,353 554,200 486,294	893,782 228,125 168,409 1,725,701 1,416,589	16,169 2,974 3,809 24,082 17,241	2,247,565 1,227,015 410,081 5,904,523 5,070,150	39,698 25,206 7,213 104,930 103,049	117,007 260,181 — 24,238 80,579	2,420,439 1,515,376 421,103 6,057,773 5,271,019	626,692 294,269 131,652 1,275,741 1,297,524	190,904 (226,164) 82,614 259,473 338,670	=	817,596 68,105 214,266 1,535,214 1,636,194
30,462 38,980 110,378 75,271 1,490,636	61,501 183,942 367,840 212,416 4,545,352	682 2,750 9,500 4,013 51,153	50,973 735,138 1,215,205 667,844 14,194,559	3,805 13,072 21,437 11,824 4,064	12,001 48,331 21,480 101,921	67,461 799,291 1,267,622 785,602 14,249,776	110,152 153,827 354,100 170,265 4,378,790	1,454 7,414 14,577 (206,286) 1,082,159	= = =	111,606 161,241 368,677 (36,021) 5,460,949
12,468 184,740 9,224 53,051 255,510	25,643 697,372 56,513 210,038 1,724,867	8,841 1,161 3,636 18,933	65,005 2,567,929 234,632 783,216 8,237,387	53,456 4,162 13,903 175,130	103 4,228 19,860 50,444	65,005 2,630,329 244,183 820,615 8,481,894	15,489 725,452 54,814 178,126 2,104,006	18,671 186,435 (129) 74,801 30,724	_ _ _ _	34,160 911,887 54,685 252,927 2,134,730
1,406,464 1,130 48,667 49,871 21,532	11,799,096 10,626 122,030 286,852 227,940	156,578 152 1,401 2,920 6,550	48,591,721 48,712 401,701 1,119,182 995,114	12,439 867 7,843 232 17,597	6,228 2,044 4,176 73,135	48,760,738 55,959 412,989 1,126,510 1,092,396	14,628,745 9,582 95,035 323,571 265,208	863,184 (3,128) 22,578 2,409 (60,959)		15,491,929 6,454 117,613 325,980 204,249
66,650 3,096 178,088 1,505,365 22,449	466,682 35,111 2,939,811 13,483,678 84,304	5,275 336 51,765 147,087 23	2,073,990 167,678 15,147,910 56,578,732 88,059	36,968 2,992 316,060 11,685 8,492	24,755 12,076 813,088 118,320 16,767	2,140,988 183,082 16,328,823 56,855,824 113,341	383,957 29,220 4,073,108 16,347,006 224,780	15,132 (18,555) (1,035,907) 635,424 8,793		399,089 10,665 3,037,201 16,982,430 233,573
83,002 31,867 13,481 6,813 11,779	882,608 97,897 26,836 30,426 100,045	23,959 13,835 363 526 1,748	3,882,756 88,317 75,942 118,223 463,617	68,717 1,099 1,526 2,100 10,407	67,040 	4,042,472 103,251 85,846 133,880 533,824	1,002,558 290,566 20,408 26,421 149,247	(51,370) 4,234 1,733 (4,288) (1,170)		951,188 294,800 22,141 22,133 148,077
7,183 8,456 153,522 6,012 15,065	25,346 64,390 7,216,399 38,066 46,930	748 1,819 25,231 636 256	84,206 268,797 11,150,696 162,001 185,766	1,482 4,752 365,486 2,880 3,650	13,166 301,922 10,661 3,031	86,436 288,534 11,843,335 176,178 192,703	26,346 72,644 5,796,372 34,506 35,731	4,102 (11,667) (242,900) (3,674) 6,429		30,448 60,977 5,553,472 30,832 42,160

(Employer's Collective Net Pension Liability for All Participating Retirement Systems)

Schedule of Employer Allocations and Pension Amounts (Concluded)

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	
			250 (22	(66,000)	•		•	
Woodland Peaks Uniserv Woods Cross City	N/A N/A	\$ 78,178 467,927	250,622 2,495,803	(66,008) (1,199,451)	8,574 533,694	_	7,374 47,261	
Workers' Compensation Fund	N/A	11,668,972	38,392,673	(10,594,279)	1,338,363	_	1,185,309	
Grand Total	N/A	\$ 1,707,692,935	6,433,303,244	(2,211,577,241)	309,228,313	_	152,802,518	
Units without a proportionate share for 2020 but had a proportionate share in a prior year Canyonlands Care Center Garden City Fire District Grand Co Cemetery Mtce Dist	N/A N/A N/A	\$ <u>_</u>	=	= =	_ _ _	_ _ _	_ _ _	
Liberty Academy Charter	N/A	<u> </u>	<del>-</del>		_	_		
Moab Mosquito Abatement Distri	N/A	_	_	_	_	_	_	
Ogden Weber/NEA/UEA Uniserv	N/A	_	_	_	_	_	_	
Seven County Infrastructure Six-Co Economic Develop	N/A N/A	_	_	_	_	_	_	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	N/A	~~~~~~			~~~~~			
Summit Mosquito Abatement Dist Utah Dairy Commission	N/A N/A	_	_	_	_	_	_	
Valley Mental Health	N/A N/A	_	_	_	_	_	_	
Grand Total	N/A	\$ 1,707,692,935	6,433,303,244	(2,211,577,241)	309,228,313	_	152,802,518	

Deferred Outflo	ows of Resources				Deferred Infl	lows 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	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	
11,137 58,431 84,812	27,085 639,386 2,608,484	649 33,099	78,692 822,072 11,884,176	27,778 2,630	17,301 2,869,631	78,692 867,800 14,789,536	18,751 406,668 3,476,564	7,458 36,618 (1,227,059)	_ _ _	26,209 443,286 2,249,505	
77,444,186	539,475,017	7,410,544	2,047,134,504	12,564,815	57,779,386	2,124,889,249	610,381,620	1,020,389	(1,410,494)	609,991,515	
924 1,913 4,591	924 1,913 4,591	_ _ _	= =	_ _ _	349 22,453 59,772	349 — 22,453 59,772	_ _ _	(61) 74 (11,285) (86,081)	=	(61) 74 (11,285) (86,081)	
229	229	_	_	_	347	347	_	(9)	_	(9)	
721	721 —	_	_	_	71,649	71,649	_	(28,470)	_	(28,470)	
_	<u> </u>	_	_	_	1,251	1,251	_	(20,817)	_	(20,817)	
403 4,560	403 4,560	=			118,092 10,185	118,092 10,185		(1,584) (120,305) (304,959)		(1,584) (120,305) (304,959)	
77,457,527	539,488,358	7,410,544	2,047,134,504	12,564,815	58,063,484	2,125,173,347	610,381,620	446,891	(1,410,494)	609,418,017	

Systems and Plans Statistical Highlights

Defined Benefit Systems

	Noncontributory	Contributory	Public Safety	Firefighters	Judges	Utah Governors and Legislators	Tier 2 Public Employees		Tier 2 Defined Contribution Only	Averages and Totals All Systems
Membership Informat	tion									
Total Membership	160,798	5,094	15,993	3,419	282	371	40,209	4,565	10,365	241,096
Active	51,161	379	4,596	1,427	119	41	35,895	4,301	8,942	106,861
Terminated vested	48,611	1,036	4,846	449	8	81	4,121	260	1,423	60,835
Retired	61,026	3,679	6,551	1,543	155	249	193	4		73,400
Total 2020 Active Members	51,161	379	4,596	1,427	119	41	35,895	4,301	8,942	106,861
Average age	50.8	59.3	44.8	45.5	55.3	57.8	37.9	31.3	38.2	44.3
Average years of service	17.7	31.1	17.4	17.6	14.8	14.7	3.7	3.8	4.3	11.3
Average annual salary	\$ 64,446	69,493	69,418	78,711	172,055	N/A	47,050	48,773	54,197	57,637
2020 Retirees										
Number	3,491	80	331	61	5	10	71	3	N/A	4,052
Average age	64.3	65.3	53.0	52.7	63.0	67.4	67.4	52.7	N/A	63.2
Average years of service	22.1	30.5	22.9	24.1	24.0	9.2	6.2	3.9	N/A	22.0
Final average annual salary		61,964	66,932	80,915	168,183	N/A	36,824	54,595	N/A	57,342
Average annual benefit	\$ 26,265	38,642	38,326	46,798	121,691	3,489	3,316	6,907	N/A	27,451
Average annual benefit —all retirees	\$ 23,902	23,401	31,477	39,681	99,180	3,969	2,917	8,360	N/A	24,910
Investment income Pension benefits Net assets at fair value	3,430,989 1,488,627 \$ 30,478,072	154,367 89,890	496,725 215,289 4,422,517	173,818 62,842 1,551,194	27,391 15,863 244,133	1,396 1,023 12,055	84,040 1,397	11,645 76 120,284	N/A N/A	4,380,371 1,875,007 38,996,379
Actuarial Information (G/ Employers' Net Pension Lia	ASB 67)				277,133	12,033	032,403	120,204	IV/A	30,990,379
					271 116	12 220	046.060	120 252		40.370.703
Plan fiduciary net	\$ 31,763,859				-	13,330	•	129,253		40,379,797
Employers net pension	\$ 30,478,072						•	120,284		38,996,379
liability/(asset) Percentage of the total	\$ 1,285,787	(62,949)	271,667	(162,697)	26,983	1,275	14,383	8,969	N/A	1,383,418
pension liability	96.0	104.9	94.2	111.7	90.0	90.4	98.3	93.1	N/A	96.6
Actuarial Information (Fu	ınding)									
Funding Progress	(dollars in th	nousands)								
Actuarial value of assets	\$ 28,637,430	1.251.437	4.155.875	1.457.692	229.290	11.287	790.633	114.579	N/A	36,648,223
	\$ 31,763,859					13,330	,	129,253		40,379,797
	\$ 3,126,429	21,253	538,309	(69,195)	41,826	2,043	56,235	14,674	N/A	3,731,574
Funded ratios	90.2	98.3	88.5	105.0	84.6		93.4	88.6	N/A	90.8
Defined Benefit Investmen	t Results	1 Year	3 Yea	r 5 Y	'ear	10 Year				
Total Fund Returns		12.96%	8.89%	6 9.79		 3.82%	• • • • • • • • • • • • • • • • • • • •			
Total i unu netums		12.9070	0.03%	υ 3./ 3	2/U C	0. 0∠70				

Systems and Plans Statistical Highlights (Concluded)

Year Ended December 31, 2020

Defined Contribution Plans

		401(k)	457(b)	Roth IRA	Traditional IRA	
Membership Information Number of Active Employees Eligible to Participate		109,875	106,189	237,533	237,533	
Employee contributions (excluding employer contributions):						
Number of employees contributing		41,910	8,471	10,698	686	
Percent of eligible employees contributing		38.1	8.0	4.5	0.3	
Average percent of salary deferred by employees		5.8	6.6	N/A	N/A	
Total participants		188,356	19,040	15,382	2,825	
Average participant account balance	\$	35,248	39,455	15,525	66,838	
Financial Information						
Changes in Fiduciary Net Position						
	(in	thousands)			Total
Contributions	\$	358,220	36,554	34,833	16,598	446,205
Net investment income (loss)		870,766	101,250	32,668	21,450	1,026,134
Refunds		305,565	31,259	8,803	13,424	359,051
Plan net position	\$6	5,639,149	751,220	238,798	188,817	7,817,984









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