

## Notes to the Schedules of Employer Allocations and Pension Amounts (Continued)

December 31, 2021

## 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	1/1/21	1/1/21	1/1/21	1/1/21	1/1/21	1/1/21	1/1/21	1/1/21
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 Percent of Payroll	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 13-Year Closed Period	Open Group 20-Year Open Period	Open Group 20-Year Open Period
Actuarial assumptions: Investment rate of return	6.85%	6.85%	6.85%	6.85%	6.85%	6.85%	6.85%	6.85%
Projected salary increases**	3.25-9.25%	3.25-9.25%	3.25-6.75%	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)	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 16-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.

## Target Allocations

Asset Class	Target Asset Allocation	Expected Return Arithmetic Basis	
		Real Return Arithmetic Basis	Long-term Expected Portfolio Real Rate of Return*
Equity securities	37 %	6.58 %	2.43 %
Debt securities	20	(0.28)	(0.06)
Real assets	15	5.77	0.87
Private equity	12	9.85	1.18
Absolute return	16	2.91	0.47
Cash and cash equivalents	0	(1.01)	0.00
Totals	100 %		4.89 %
Inflation			2.50
Expected arithmetic nominal return			7.39 %

\*The total URS Defined Benefit long-term expected rate of return is 6.85%, which is comprised of a 2.50% inflation assumption and a 4.35% net real rate of return.

A summary of the actuarial assumptions, as of the latest actuarial valuation, is as shown above.

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, 2021, are summarized at left.