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

December 31, 2018

The last experience study was performed in 2017 and the next experience study is scheduled to be conducted in 2020. The Schedule of Employers' Net Pension Liability presents multi-year trend information about whether the plan fiduciary net positions are increasing or decreasing over time relative to the total pension liability. These schedules are presented in the Required

Supplementary Information section. The total pension liability as of December 31, 2018, is based on the results of an actuarial valuation date of January 1, 2018, and rolled-forward using accepted actuarial procedures.

A summary of the actuarial assumptions, as of the latest actuarial valuation, is as shown in the table on page 299.

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

NET PENSION LIABILITY BY DIVISION

Year Ended December 31, 2018 System	(1) Total Pension Liability	(2) Plan Fiduciary Net Position	(3) Employers Net Pension Liability/ (Asset)	(4) Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	(5) Projected Covered Payroll	(6) Net Pension Liability/ (Asset) as a Percentage of Covered Payroll
Noncontributory Retirement System						
Local Government	\$ 5,661,492,405	4,925,120,031	736,372,374	87.0%	\$ 804,890,981	91.5%
State and School	23,461,454,081	19,740,936,936	3,720,517,145	84.1	2,525,657,176	147.3
Total	29,122,946,486	24,666,056,967	4,456,889,519	84.7	3,330,548,157	133.8
Contributory Retirement System						
Local Government	459,222,849	418,642,569	40,580,280	91.2	18,276,267	222.0
State and School	824,785,364	753,784,969	71,000,395	91.4	21,002,798	338.1
Total	1,284,008,213	1,172,427,538	111,580,675	91.3	39,279,065	284.1
Public Safety Retirement System						
State of Utah	1,423,493,301	1,184,118,188	239,375,113	83.2	107,406,875	222.9
Other Division A (with Social Security)	1,679,707,073	1,422,448,570	257,258,503	84.7	138,269,182	186.1
Salt Lake City	392,051,728	289,023,677	103,028,051	73.7	29,357,367	350.9
Ogden	86,132,897	63,869,244	22,263,653	74.2	4,940,024	450.7
Provo	65,904,906	50,793,158	15,111,748	77.1	4,698,726	321.6
Logan	35,456,823	28,646,987	6,809,836	80.8	2,078,757	327.6
Bountiful	27,932,215	20,402,504	7,529,711	73.0	1,675,338	449.4
Other Division B (without Social Security)	547,564,034	468,764,439	78,799,595	85.6	60,050,030	131.2
Total	4,258,242,977	3,528,066,767	730,176,210	82.9	348,476,299	209.5
Firefighters Retirement System						
Division A (with Social Security)	229,603,428	216,618,700	12,984,728	94.3	29,680,466	43.7
Division B (without Social Security)	1,031,688,546	991,273,345	40,415,201	96.1	83,906,696	48.2
Total	1,261,291,974	1,207,892,045	53,399,929	95.8	113,587,162	47.0
Judges Retirement System	244,206,713	195,568,170	48,638,543	80.1	18,801,879	258.7
Governors and Legislators Retirement Plan	13,177,511	10,537,154	2,640,357	80.0	638,820	413.3
Tier 2 Public Employees Retirement System	467,462,324	424,634,465	42,827,859	90.8	1,171,542,690	3.7
Tier 2 Public Safety and Firefighter Retirement System	56,840,023	54,334,460	2,505,563	95.6	123,438,710	2.0
Grand Total	\$ 36,708,176,221	31,259,517,566	5,448,658,655	85.2%	\$ 5,146,312,782	105.9%