													Assumed	Base	Assumed	Amortization	Valuation	Asset		Trailing Ret	urns	
						RANK						PLAN SPONSOR	Investment	Wage	"Excess"	Period	Asset	Smoothing	5 Year	10 Year 15		Year
2022	<u>2021</u>	<u>2020</u>	2019	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2011</u> 2	010 2	009	Return (a)	Growth (b)	<b>Return</b> (a) - (b)		Corridor	(years)		(market per	ents)	
1	3	4	4	3	4	3	3	3	<u>2</u>	9 9		San Mateo County	6.25%			5 2 - declining; G/L 14 layered	Y: 80-120	5 with offsets	9.3	7.1		SAMCERATra
2	1	2	3	4	5	5	5	4	7	10 1		5 City of San Diego ⁵	6.50%			6-declining and part layered ;G/L layered 15. most level \$\$	Y: 80-120	4	10.52			
<u>3</u>	13	12	11	9	8	11	11	<u>10</u>	22	20 2	2 2	4 Fresno County	6.50%			5 12-declining; G/L 15 layered	Y: 70-130	5	9.75	7.52		
4	2	3	2	2	6	6	6	5	3	4	5 5	CalPERS - Judges System II <sup>1, 3</sup>	6.50%			5 20; G/L 20 layered with some ramping; level \$\$	N/A (market)	N/A				
5	4	5	5	5	2	4	<u>4</u>	<u>23</u>	<u>17</u>	3	7 <u>1</u>	<u>3</u> City of San Jose (Safety) <sup>9</sup>	6.625%	% 3.00%	6 3.625%	5 most G/L 15 layered	Y: 80-120	5				
6	5	9	7	7	16	12	12	31	29	33 3	4 4	City of San Jose (General) <sup>9</sup>	6.625%	% 3.00%	6 3.625%	6 most 18 - declining; most G/L layered 20	Ν	5	9.9	6.5		
7	6	6	8	8	7	8	8	8	5	6 8	3 7	LA Department of Water & Power	7.00%			6 G/L 15 - layered Level \$\$	Ν	5	11.74	9.58		
8	7	18	16	15	29	29	30	32	30	36 2	7 8	Mendocino County	6.75%	% 3.25%	6 3.50%	6 18-declining; G/L 18 layered	Y: 75-125	5 <sup>11</sup>	12.16	9.08		
9	17	16	26	24	13	7	7	6	8	11 3	7 3	Alameda-Contra Costa Transit <sup>4</sup>	6.75%			7-declining; G/L 20 layered	Y: 80-120	5				
10	<u>8</u>	<u>16</u> 17	13	12	31	30	28	29	25		4 2	Sacramento County	6.75%			6 Most 14 - declining; G/L 20 layered	Y: 70-130	7	11.86	8.73		
11	9	7	30	30	<u>30</u>	<u>21</u>	<u>26</u>	20	14	15 (	6 6	University of California <sup>8</sup>	6.75%	% 3.25%	6 3.50%	5 19-declining, G/L 20 layered Level \$\$	N	5	11.63	8.81		
12	10	8	6	6	3	2	2	2	4	5 4	4 4	Contra Costa County	7.00%			2- declining; G/L 18 layered	Ν	5	8.32	7.97		
<u>13</u>	27	28	29	29	23	31	<u>31</u>	<u>21</u>	15	16 1	4 🤇	Merced County	6.75%	<b>%</b> 2.75%		6 12- declining; G/L 24 layered Both with ramping	N/A(market)	N/A	11.9	8.8	6.9	6.5
<u>13</u> <u>14</u> <u>15</u>	25	27	25	26	<u>23</u> 22	<u>22</u>	<u>31</u> 36	36	37	<mark>39</mark> 3	9 <mark>3</mark>	3 Stanislaus County	6.75%	% 2.75%	<b>6</b> 4.00%	5 15 - declining; G/L 20 layered	Y: 80-120	5	10.3	8.4	7.1	6.5
<u>15</u>	26	29	27	27	25	27	25	<u>27</u>	<u>21</u>	<mark>35</mark> 3	5 <u>2</u>	San Luis Obispo County	6.75%	<b>%</b> 2.75%	6 <b>4.00%</b>	5 19- declining; G/L 20 layered	Ν	5	8.6	7.7	6.2	
16	11	10	<u>9</u>	19	18	<u>17</u>	22	22	31	30 2	9 3	San Diego County	7.00%	% 3.25%	6 3.75%	6 4-rolling; G/L 20 layered but not less than 4	Ν	5 <sup>10</sup>	10.05	7.89		
17	12	11	10	11	10	14	14	12	13	14 1	3 1	1 Sonoma County	6.75%	% 3.00%	<b>6</b> 3.75%	5 7-declining; G/L 20 layered	Ν	5	8.63	8.21		
18	14	13	14	13	11	15	15	<u>13</u>	33	32 3	1 3	2 City of Fresno (Safety)	7.00%	% 3.25%	6 3.75%	G/L 15-layered; (100+% FR); surplus over 110%-30	Ν	5	11.6	8.96		
19	15	14	15	14	12	16	16		34	31 3	2 3	<b>3</b> City of Fresno (General) <sup>6</sup>	7.00%	% 3.25%	6 <b>3.75%</b>	G/L 15 layered (100+% FR); surplus over 110%-30	Ν	5	11.6	8.95		
20	16	15	12	10	<u>9</u>	20	20	<u><b>14</b></u> 16	18		0 3	Santa Barbara County	7.00%	% 3.00%		6 most 9-declining; G/L 19 layered and ramped	N/A(market)	N/A	10.2	7.7	6.4	6.5
21	19	20	18	17	21	<u>24</u>	19	<u>15</u>	9	21 2	1 1	4 Marin County <sup>4</sup>	6.75%	% 2.75%	6 4.00%	5 9-declining; G/L 24 layered and ramped	N/A (Market)	N/A	12.1	10.0	7.74	
22	24	24	22	<u>25</u>	14	9	9	7	11	13 1		2 Ventura County	7.00%			6 most G/L 15 - layered	Ň	5	12.29	9.55		
23	29	32	32	32	37	<u>37</u>	29	24	19	19 1	9 2	1 Tulare County	7.00%	% 3.00%	6 4.00%	5 13-declining; G/L 19 layered	Y: 70-130	10	9.4	7.1		
24	18	19	17	16	19	18	17	<u>17</u>	<u>12</u>	34 3	3 3	5 Orange County	7.00%	% <b>3.00%</b>	<b>4.00%</b>	3 13-declining; G/L 20 layered	Ν	5	9.37	7.28		
25	20	21	19	18	15	10	10	9	<u>6</u>	12 1	2 1	San Bernardino County	7.25%			6 1-declining; most G/L layered 20	Ν	5	11.25	8.87		
26	21	23	21	21	20	19	18	<u>18</u> 25	23	22 1	5 1	7 Imperial County	7.00%			5 10- declining; G/L 15 layered	Y: 70-130	5 with offsets	11.02	8.25		
27	22	22	20	20	24	23	21	<u>25</u>	16	17 1	6 1	<b>2</b> Los Angeles Fire & Police	7.00%	% 3.25%	6 3.75%	6 most 16-declining; most G/L 20 layered;	Y: 60-140	7	12.39	9.75		
28	23	25	23	22	28	28	27	28	24	23 1	7 2	Alameda County	7.00%	% 3.25%	6 3.75%	6 12 - declining ; G/L 20 layered	Y: 60-140	5	9.74	8.32		
29	28	31	31	31	33	32	32	30	26	<mark>26</mark> 2	0 2	2 City of Los Angeles	7.00%	% 3.25%	6 3.75%	6 most 21-declining ; G/L 15-layered	Y: 60-140	most 7	11.42	9.09		
30	30	33	33	34	32	34	34	35	36	40 4	0 3	East Bay Municipal Utility	7.00%			6 Pre-2012 layered 30; Otherwise G/L-20 layered	Y: 70-130	5	11.17	9.47		
31	31	26	24	23	27	25	24	<u><b>26</b></u> 37	20	24 2		5 Kern County	7.25%			5 14.5 - declining; G/L 18 layered	Y: 50-150	5	9.87	7.72		
32	32	34	34	33	36	36	37	37	35	29 2	8 2	6 CalSTRS	7.00%	% 3.50%	6 3.50%	5 25 years with some laddered increases of 0.5%	Ν	3	12	11		CalSTRS trail
33	33	35	35	<u>37</u>	26	26	23	<u>19</u>	28			3 San Joaquin County <sup>7</sup>	7.00%			5 12-declining; G/L 15 layered	Y: 80-120	5	7.4		4.4	5.1
34	34	36	37	36	35	35	35	<u>34</u> 11	27	27 2	6 2	7 Los Angeles County	7.00%			6 most 17- declining; G/L 20 layered	Ν	5	10.7	8.6		
35	<u>36</u>	30	28	<u>28</u>	17	13	13	11	10	8	3 3	City & County of San Francisco	7.20%			6 most 5-declining; rolling 20-year if FR > 100%	Ν	5				
36	35	37	36	35	34	33	33	33	32	37 3	8 3	7 CalPERS <sup>3</sup>	7.00%	% 2.75%	6 4.25%	6 pre-2019 G/L 30; G/L 20 level \$\$ with certain ramping	N/A(market)	N/A	6.3	8.5	6.2	5.5

## NOTES:

1: This does not reflect the Judges I system closed in 1994: features include pay-as-you-go funding and a 3% assumed investment return

2: Legal agreement determines contribution level -- pegged to specified funded ratios

3 Ramping up applies only to the investment portion of the gain/loss for first 5 years; not to the non-investment component 4: 50% of "extraordinary" 2008/09 losses amortized over 30 years

5 System has been reopened for non-Police pursuant to overturn of Proposition B

6 Amortization will revert to average future working lifetime, roughly 10 years, in event FR becomes > 100%

7 Extraordinary 2008 actuarial loss amortized over 30 years. Equivalent overall amortization period of all UAL is 14 years.

8 Post-7/1/16 hires have option to elect to be in defined contribution ("DC") plan; to date, roughly 35% have elected DC 7% contribution now (after temporary drop to 6.5% will eventually increase to 9% over time) will be made toward UAL for those in DC plan. Additional state contributions may be required as phased employer rate up to 17% and 8% (approximate) employee rate are significantly below actuarial funding policy rate.

9 Amortization payments increase at less than wage inflation; for San Jose General-2.75%; for San Jose Safety-2.25% 10 Unrecognized losses as of June 30, 2019 combined into one layer of amortization over 4.5 years 11 Net deferred gains as of June 30, 2019 amortized over 4 years Survey and related text will be posted on <u>roederfinancial.com</u> We can be contacted at (619) 300-8500

FR = Funded ratio G/L = actuarial gains/actuarial losses POB = Pension Obligation Bond

Effective with the 2013 survey, the number of entities was reduced from 40 to 37, eliminating three small closed systems. Effective with the 2021 survey, the number of entities reduced to 36 to reflect omission of another closed system. The amortization periods for assumption changes are often longer than for G/L and are not shown here. Often, there is a separate amortization policy applicable to benefit changes.

## California 2022 Funding Assumption Survey Updated May 3, 2022

## Bold indicates change from previous survey.

"Layered" means a new amotization base is created each year. DC = Defined Contribution

RATrailing returns as of 12/31/21

S trailing returns as of 12/31/21