



Unit 9, Professional Engineers 2018 Salary Survey

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Overview

This salary survey report is prepared by the Department of Human Resources (Department) as required by the Memorandum of Understanding (MOU) between the state and the Professional Engineers in California Government (PECG).

The Department and PECG jointly completed the 2018 Unit 9 salary survey. Although the current MOU requires this survey to be completed, it also states that salary increases for Unit 9 employees as a result of a lag in the survey, “shall not be provided during the term of this MOU.”

The survey results indicate that the state lags behind in maximum base pay for its engineers. The table below illustrates the lag for each working level.

Table 1: Survey Results

Level of Work	State Lag
Entry Level	2.2%
Journey Level	5.9%
First Level Supervisor	5.3%

Methodology

Memorandum of Understanding Survey Requirement

This salary survey was initiated and completed based on the requirements outlined in Article 3.1 of the MOU effective July 2, 2003 through July 2, 2008. Over time the Department and PECG agreed to a detailed methodology. By the terms of the current MOU¹ (effective July 2, 2015 through June 30, 2018), the surveyed agencies and benchmark comparisons may only be changed upon mutual agreement between the Department and PECG.

MOU, Article 3.1, requires the Department to:

- Annually survey the 18 public agencies and 10 University of California campuses used in the December 2002 survey.
- Calculate the salary lead or lag based on the weighted average of maximum salaries of employees in the surveyed organizations' previously agreed upon classifications.²

State of California's Benchmark Job Classifications

For this survey, the required three benchmarks for the state are:

- Entry Level — Transportation Engineer (Civil) Range A/B
- Journey Level — Transportation Engineer (Civil) Range D
- First Level Supervisor — Senior Transportation Engineer, Caltrans

¹ Attachment 1 displays Article 3.1 in the current MOU (effective July 2, 2015 through June 30, 2018).

² Attachment 2 displays the surveyed organizations, their surveyed job classifications, and the minimum and maximum salaries of those job classifications.

Survey Lag Calculation

The agreed upon methodology requires a comparison to be made between the State of California's maximum salary to the weighted average maximum salary for the surveyed organizations.

There are two parts to the survey lag calculation. The first part weights the maximum salary of each surveyed organization (excluding state employee counts) by the total number of engineers in the comparable classification(s) in each organization. This is done separately for the entry level, journey level, and first level supervisor categories, resulting in a separate weighted average salary for each level.

The second part of the lag computation compares the weighted average salary for the surveyed organizations with the maximum salary of the state benchmark engineer classification. The percentage difference is the survey lag. A separate lag is computed for entry, journey, and first level supervisors.

To illustrate how the lag is calculated the table below uses fictitious salary, incumbent counts, and organizations.

Table 2: Simplified Illustration of Salary Lag Calculation

Surveyed Organization	Entry Level Maximum Salary A	No. of Engineers in Survey Class B	Product = A x B
Organization A	\$5,346	132	\$705,672
Organization B	\$6,268	26	\$162,968
Total		158	\$826,640
Weighted Average Salary	\$5,232 ¹		
State of California Salary	\$5,000		
State Salary Lag	\$232		
State Salary Lag Percent	4.6% ²		

Notes:

1. Calculation is \$826,640/158
2. Calculation is \$5,232 less 5,000 divided by \$5,000, rounded to one decimal

Lag Calculation Anomalies

There are two unique anomalies affecting the lag calculation.

The first is a few of the surveyed organizations use two classifications for either entry or journey level. Five surveyed organizations used two classifications for the entry level, and one surveyed organization used two classifications for the journey level.

For those organizations using two classifications for a single level, the Department combined the incumbent counts for the two classifications, and then weighted the survey using the higher-salaried classification by the combined incumbent count.

The second anomaly affecting the lag calculation is the additional pay that the City of San Diego provides their engineers for possessing a state certification as a Registered Engineer.

The City of San Diego pays an additional 15 percent of salary to its employees in the journey and first level supervisor classifications for possessing state certification as a Registered Civil Engineer. To compute the survey's salary lag, 15 percent of pay was added to the maximum salary, and then was weighted by an incumbent count.

PECG and the Department agreed on the application of the two anomalies for the survey methodology.

Survey Results

Salary Lag for Entry, Journey, and First Level Supervisors

The survey results for the state's three benchmark job classifications are displayed below.

Table 3: Display of Survey's Lags*

Level of Work	Entry Level	Journey Level	First Level Supervisor
State Benchmark Classification	Transportation Engineer (Civil) Range A/B	Transportation Engineer (Civil) Range D	Senior Transportation Engineer, Caltrans
Lag for State	2.2%	5.9%	5.3%

*Attachment 3 provides the detail on the lag computations.

As agreed upon in the current MOU, rank and file civil service job classifications in Unit 9 are not automatically entitled to salary increases to compensate for any salary disparity (or "lag") between Unit 9 salaries and benchmark comparisons used in this survey.

Salary Survey Text from
Unit 9 Memorandum of Understanding
(2015-2018)

ARTICLE 3
SALARIES AND COMPENSATION
3.1 Salary Parity for Unit 9

The State and PEGC will continue to complete the salary survey of Unit 9. This survey will include the Professional Engineer Benchmarks that utilize the California public agencies and the University of California included in the department's survey dated December 2002, and the local agency classifications and salary range matches contained therein. The salary survey for those classifications and agencies shall be current data. The agencies and classifications included in the survey shall only be changed upon agreement between CalHR and PEGC.

Salary Methodology:

A. All steps in each salary range shall be increased by the same percentage. The salary for intermediate classifications in ranges between the Entry and Supervisory levels shall be based on prorating or interpolating the salaries.

B. All salary increases shall be rounded to the nearest dollar. In no event shall salaries be reduced as a result of this provision. CalHR and PEGC may negotiate salaries above the minimum level on any general, regional, specialty, classification, department, or other basis they choose to agree upon.

C. Salaries for Unit 9 employees shall be increased as appropriate to correspond to the timing of the salaries received by local agency employees included in the survey.

By mutual agreement CalHR and PEGC can meet to discuss benchmarks and methodologies.

Beginning with the January 2016 salary survey, the calculation of the salary lead or lag for Unit 9 employees shall be based on the weighted average salaries of employees in the classifications in the surveyed agencies as of January 1.

Notwithstanding the above provisions, salary increases pursuant to this section shall not be provided during the term of this MOU.

The most current version of the salary survey will be posted on the CalHR website.

**List of Surveyed Organizations and Entry Level
Classifications for 2018 Unit 9 Salary Survey**

Organization	Entry Level	Min	Max
STATE OF CALIFORNIA	Transportation Engineer A/B	\$5,098	\$7,303
Alameda County	Junior Engineer	\$6,068	\$7,011
Contra Costa County	Engineer - Entry	\$5,827	\$6,926
Fresno County	Engineer II	\$5,332	\$6,820
Los Angeles County	C.E Assistant Sr. C.E. Assistant	\$5,756.27 \$5,756.27	\$6,773.45 \$7,150.82
Orange County	Junior Civil Engineer	\$6,039	\$6,911
Riverside County	Junior Engineer Assistant Engineer	\$4,664.00 \$5,214.00	\$7,357.00 \$8,228.00
Sacramento County	Asst. Civil Eng. Lvl 2	\$6,165	\$7,867
San Bernardino County	A/E Project Manager I	\$4,720	\$6,491
San Diego County	Assistant Engineer	\$5,432	\$7,015
Santa Clara County	Assistant Civil Engineer	\$7,242	\$8,806
SF City/County	Junior Engineer Assistant Engineer	\$6,656.00 \$7,518.33	\$8,092.50 \$9,136.83
City of Fresno	Engineer I	\$4,501	\$5,410
City of Los Angeles	Civil Engineer Associate I	\$5,519	\$8,070
City of Oakland	Assistant Engineer, Lvl 1	\$5,689	\$6,983
City of Riverside	Assistant Engineer	\$5,931	\$7,210
City of Sacramento	Junior Engineer Assistant Civil Engineer	\$4,461.87 \$5,442.37	\$6,278.30 \$7,657.96
City of San Diego	Junior Engineer Assistant Engineer	\$4,181 \$4,839	\$5,063 \$5,830
City of San Jose	Engineer I	\$6,266	\$7,928
University of California, Berkeley	Engineer, Assistant	\$0	\$0
University of California, Davis	Engineer, Assistant	\$4,317	\$8,008
University of California, Irvine	Engineer, Assistant	\$4,102	\$7,053
University of California, Los Angeles	Engineer, Assistant	\$4,400	\$8,733
University of California, Merced	Engineer, Assistant	\$0	\$0
University of California, Riverside	Engineer, Assistant	\$0	\$0
University of California, San Diego	Engineer, Assistant	\$4,100	\$6,833
University of California, Santa Cruz	Engineer, Assistant	\$4,167	\$7,500
University of California, Santa Barbara	Engineer, Assistant	\$4,372	\$7,880
University of California, San Francisco	Engineer, Assistant	\$4,883	\$9,417

**List of Surveyed Organizations and Journey Level
Classifications for 2018 Unit 9 Salary Survey**

Organization	Journey Level	Min	Max
STATE OF CALIFORNIA	Transportation Engineer D	\$7,631	\$9,548
Alameda County	Associate Civil Engineer	\$8,285	\$10,069
Contra Costa County	Engineer - Project	\$8,015	\$9,295
Fresno County	Senior Engineer	\$6,606	\$8,447
Los Angeles County	Assoc. Civil Engineer Civil Engineer	\$7,624.00 \$8,497.00	\$9,471.00 \$10,557.00
Orange County	Civil Engineer	\$8,341	\$9,556
Riverside County	Associate Civil Engineer	\$6,113	\$9,647
Sacramento County	Associate Civil Engineer	\$7,861	\$9,556
San Bernardino County	A/E Project Manager II	\$5,562	\$7,656
San Diego County	Civil Engineer	\$6,866	\$8,433
Santa Clara County	Associate Civil Engineer	\$8,636	\$10,497
SF City/County	Associate Engineer	\$8,751	\$10,636
City of Fresno	Professional Engineer	\$6,085	\$7,374
City of Los Angeles	Civil Engineer	\$7,470	\$10,922
City of Oakland	Civil Engineer	\$7,683	\$9,433
City of Riverside	Associate Engineer	\$6,853	\$9,182
City of Sacramento	Associate Civil Engineer	\$6,606	\$9,295
City of San Diego	Associate Engineer	\$6,407	\$7,737
City of San Jose	Associate Engineer	\$7,578	\$9,594
University of California, Berkeley	Engineer, Associate	\$0	\$0
University of California, Davis	Engineer, Associate	\$5,217	\$9,684
University of California, Irvine	Engineer, Associate	\$4,969	\$8,543
University of California, Los Angeles	Engineer, Associate	\$5,325	\$10,533
University of California, Merced	Engineer, Associate	\$0	\$0
University of California, Riverside	Engineer, Associate	\$0	\$0
University of California, San Diego	Engineer, Associate	\$4,875	\$8,667
University of California, Santa Cruz	Engineer, Associate	\$5,142	\$9,258
University of California, Santa Barbara	Engineer, Associate	\$5,288	\$9,511
University of California, San Francisco	Engineer, Associate	\$5,933	\$11,417

List of Surveyed Organizations and First Level Supervisor Classifications for 2018 Unit 9 Salary Survey

Organization	First Level Supervisor	Min	Max
STATE OF CALIFORNIA	Sr. Transportation Engineer, Caltrans	\$8,986	\$11,247
Alameda County	Supervising Civil Engineer	\$9,462	\$11,506
Contra Costa County	Associate Civil Engineer	\$7,087	\$9,531
Fresno County	Supervising Engineer	\$7,267	\$9,295
Los Angeles County	Senior Civil Engineer	\$9,471	\$11,766
Orange County	Senior Civil Engineer	\$9,556	\$10,956
Riverside County	Senior Civil Engineer	\$6,984	\$11,024
Sacramento County	Senior Civil Engineer	\$9,641	\$10,630
San Bernardino County	A/E Project Manager III	\$6,131	\$8,445
San Diego County	Senior Civil Engineer	\$7,959	\$9,786
Santa Clara County	Senior Civil Engineer	\$10,114	\$12,325
SF City/County	Senior Engineer	\$11,728	\$14,255
City of Fresno	Supervising Professional Engineer	\$6,908	\$8,377
City of Los Angeles	Senior Civil Engineer	\$8,787	\$12,843
City of Oakland	Civil Engineer, Supervisor	\$9,443	\$11,595
City of Riverside	Principal Engineer	\$8,462	\$12,502
City of Sacramento	Supervising Engineer	\$9,196	\$12,066
City of San Diego	Senior Civil Engineer	\$7,384	\$8,929
City of San Jose	Senior Engineer	\$9,107	\$11,520
University of California, Berkeley	Engineer, Senior	\$0	\$0
University of California, Davis	Engineer, Senior	\$5,733	\$10,655
University of California, Irvine	Engineer, Senior	\$5,464	\$9,442
University of California, Los Angeles	Engineer, Senior	\$5,867	\$11,608
University of California, Merced	Engineer, Senior	\$0	\$0
University of California, Riverside	Engineer, Senior	\$0	\$0
University of California, San Diego	Engineer, Senior	\$5,867	\$11,133
University of California, Santa Cruz	Engineer, Senior	\$5,742	\$10,333
University of California, Santa Barbara	Engineer, Senior	\$5,821	\$10,480
University of California, San Francisco	Engineer, Senior	\$6,508	\$12,500

Department of Human Resources
Computation of Weighted Average Salary and Lag for 2018 Unit 9 Salary Survey

April 4, 2018

A	Entry Level			Journey Level			First Level Supervisor		
	B	C	D	E	F	G	H	I	J
Jurisdiction	Salary Maximum	# of Inc.	Cal. Of Weighted Avg. Max = B*C	Salary Maximum	# of Inc.	Cal. Of Weighted Avg. Max = E*F	Salary Maximum	# of Inc.	Cal. Of Weighted Avg. Max = H*I
Alameda County	\$7,011	2	\$14,022.66	\$10,069	11	\$110,758	\$11,506	5	\$57,529
Contra Costa County	\$6,926	6	\$41,558	\$9,295	1	\$9,295	\$9,531	5	\$47,655
Fresno County	\$6,820	3	\$20,460	\$8,447	8	\$67,576	\$9,295	3	\$27,885
Los Angeles County	\$7,151	155	\$1,108,377	\$10,557	414	\$4,370,598	\$11,766	109	\$1,282,494
Orange County	\$6,911	0	\$0	\$9,556	32	\$305,788	\$10,956	17	\$186,259
Riverside County	\$8,228	26	\$213,928	\$9,647	20	\$192,940	\$11,024	17	\$187,408
Sacramento County	\$7,867	95	\$747,318	\$9,556	99	\$946,052	\$10,630	58	\$616,521
San Bernardino County	\$6,491	1	\$6,491	\$7,656	4	\$30,625	\$8,445	3	\$25,334
San Diego County	\$7,015	26	\$182,385	\$8,433	40	\$337,307	\$9,786	23	\$225,087
Santa Clara County	\$8,806	7	\$61,639	\$10,497	18	\$188,947	\$12,325	7	\$86,275
SF City/County	\$9,137	278	\$2,540,039	\$10,636	326	\$3,467,390	\$14,255	130	\$1,853,085
City of Fresno	\$5,410	0	\$0	\$7,374	15	\$110,610	\$8,377	2	\$16,754
City of Los Angeles	\$8,070	99	\$798,938	\$10,922	199	\$2,173,478	\$12,843	39	\$500,874
City of Oakland	\$6,983	0	\$0	\$9,433	22	\$207,521	\$11,595	5	\$57,975
City of Riverside	\$7,210	2	\$14,420	\$9,182	6	\$55,092	\$12,502	11	\$137,522
City of Sacramento	\$7,658	13	\$99,553	\$9,295	26	\$241,661	\$12,066	11	\$132,728
City of San Diego	\$5,830	327	\$1,906,410	\$7,737	86	\$665,399	\$8,929	53	\$473,216
City of San Jose	\$7,928	0	\$0	\$9,594	104	\$997,776	\$11,520	40	\$460,789
UC - Berkeley	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0
UC - Davis	\$8,008	0	\$0	\$9,684	2	\$19,368	\$10,655	0	\$0
UC - Irvine	\$7,053	1	\$7,053	\$8,543	1	\$8,543	\$9,442	0	\$0
UC - Los Angeles	\$8,733	5	\$43,667	\$10,533	5	\$52,667	\$11,608	2	\$23,217
UC - Merced	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0
UC - Riverside	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0
UC - San Diego	\$6,833	1	\$6,833	\$8,667	0	\$0	\$11,133	0	\$0
UC - Santa Cruz	\$7,500	2	\$15,000	\$9,258	0	\$0	\$10,333	0	\$0
UC - Santa Barbara	\$7,880	2	\$15,760	\$9,511	4	\$38,044	\$10,480	1	\$10,480
UC - San Francisco	\$9,417	0	\$0	\$11,417	0	\$0	\$12,500	0	\$0
		1,051	\$7,843,852		1,443	\$14,597,435		541	\$6,409,087
Weighted Average			\$7,463			\$10,116			\$11,847
State of California			\$7,303			\$9,548			\$11,247
State Lag - \$\$\$			\$160			\$568			\$600
State Lag - %			2.2%			5.9%			5.3%