



## **Unit 9, Professional Engineers 2019 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 2019 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**

<b>Level of Work</b>	<b>State Lag</b>
Entry Level	0.2%
Journey Level	2.3%
First Level Supervisor	1.8%

## 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 PEEG agreed to a detailed methodology. By the terms of the current MOU<sup>1</sup> (effective July 1, 2018 through June 30, 2020), the surveyed agencies and benchmark comparisons may only be changed upon mutual agreement between the Department and PEEG.

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.<sup>2</sup>

### 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

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<sup>1</sup> Attachment 1 displays Article 3.1 in the current MOU (effective July 1, 2018 through June 30, 2020).

<sup>2</sup> 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 <sup>1</sup>		
State of California Salary	\$5,000		
State Salary Lag	\$232		
State Salary Lag Percent	4.6% <sup>2</sup>		

**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	0.2%	2.3%	1.8%

\*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  
(2018-2020)

**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 2019 Unit 9 Salary Survey**

<b>Organization</b>	<b>Entry Level</b>	<b>Min</b>	<b>Max</b>
<b>STATE OF CALIFORNIA</b>	<b>Transportation Engineer A/B</b>	<b>\$5,327</b>	<b>\$7,632</b>
Alameda County	Junior Engineer	\$6,531	\$7,547
Contra Costa County	Engineer - Entry	\$6,002	\$7,134
Fresno County	Engineer II	\$5,544	\$7,089
Los Angeles County	C.E Assistant Sr. C.E. Assistant	\$5,871 \$5,871	\$6,908 \$7,293
Orange County	Junior Civil Engineer	\$6,190	\$7,084
Riverside County	Junior Engineer Assistant Engineer	\$4,664 \$5,500	\$7,357 \$8,677
Sacramento County	Asst. Civil Eng. Lvl 2	\$6,165	\$8,183
San Bernardino County	Capital Improvement Project Manager I	\$4,862	\$6,685
San Diego County	Assistant Engineer	\$5,597	\$7,225
Santa Clara County	Assistant Civil Engineer	\$7,459	\$9,070
SF City/County	Junior Engineer Assistant Engineer	\$6,855 \$7,744	\$8,335 \$9,412
City of Fresno	Engineer I	\$4,614	\$5,546
City of Los Angeles	Civil Engineer Associate I	\$5,519	\$8,070
City of Oakland	Assistant Engineer, Lvl 1	\$5,976	\$7,335
City of Riverside	Assistant Engineer	\$6,287	\$7,643
City of Sacramento	Junior Engineer Assistant Civil Engineer	\$4,532 \$5,551	\$6,404 \$7,811
City of San Diego	Junior Engineer Assistant Engineer	\$4,319 \$4,999	\$5,230 \$6,023
City of San Jose	Engineer I	\$6,266	\$7,928
University of California, Berkeley	Engineer, Assistant	N/A	N/A
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	N/A	N/A
University of California, Riverside	Engineer, Assistant	N/A	N/A
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 2019 Unit 9 Salary Survey**

<b>Organization</b>	<b>Journey Level</b>	<b>Min</b>	<b>Max</b>
<b>STATE OF CALIFORNIA</b>	<b>Transportation Engineer D</b>	<b>\$7,974</b>	<b>\$9,978</b>
Alameda County	Associate Civil Engineer	\$8,918	\$10,837
Contra Costa County	Engineer - Project	\$8,255	\$9,574
Fresno County	Senior Engineer	\$7,091	\$8,619
Los Angeles County	Assoc. Civil Engineer Civil Engineer	\$7,777 \$8,667	\$9,660 \$10,768
Orange County	Civil Engineer	\$8,551	\$9,797
Riverside County	Associate Civil Engineer	\$6,113	\$9,647
Sacramento County	Associate Civil Engineer	\$8,178	\$9,941
San Bernardino County	Capital Improvement Project Manager II	\$5,729	\$7,887
San Diego County	Civil Engineer	\$7,072	\$8,686
Santa Clara County	Associate Civil Engineer	\$8,895	\$10,812
SF City/County	Associate Engineer	\$9,013	\$10,955
City of Fresno	Professional Engineer	\$6,177	\$7,485
City of Los Angeles	Civil Engineer	\$7,470	\$10,922
City of Oakland	Civil Engineer	\$8,070	\$9,908
City of Riverside	Associate Engineer	\$7,264	\$9,733
City of Sacramento	Associate Civil Engineer	\$6,738	\$9,480
City of San Diego	Associate Engineer	\$6,618	\$7,993
City of San Jose	Associate Engineer	\$7,578	\$9,594
University of California, Berkeley	Engineer, Associate	N/A	N/A
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	N/A	N/A
University of California, Riverside	Engineer, Associate	N/A	N/A
University of California, San Diego	Engineer, Associate	\$4,875	\$8,667
University of California, Santa Cruz	Engineer, Associate	N/A	N/A
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 2019 Unit 9 Salary Survey**

<b>Organization</b>	<b>First Supervisory Level</b>	<b>Min</b>	<b>Max</b>
STATE OF CALIFORNIA	Sr. Transportation Engineer	\$9,390	\$11,753
Alameda County	Supervising Civil Engineer	\$10,272	\$12,492
Contra Costa County	Associate Civil Engineer	\$7,299	\$9,817
Fresno County	Supervising Engineer	\$7,802	\$9,483
Los Angeles County	Senior Civil Engineer	\$9,660	\$12,001
Orange County	Senior Civil Engineer	\$9,797	\$11,232
Riverside County	Senior Civil Engineer	\$6,984	\$11,024
Sacramento County	Senior Civil Engineer	\$9,930	\$10,948
San Bernardino County	Capital Improvement Project Manager III	\$6,315	\$8,698
San Diego County	Senior Civil Engineer	\$8,199	\$10,079
Santa Clara County	Senior Civil Engineer	\$10,417	\$12,695
SF City/County	Senior Engineer	\$12,079	\$14,681
City of Fresno	Supervising Professional Engineer	\$7,012	\$8,503
City of Los Angeles	Senior Civil Engineer	\$8,787	\$12,843
City of Oakland	Civil Engineer, Supervisor	\$9,919	\$12,179
City of Riverside	Principal Engineer	\$8,885	\$13,127
City of Sacramento	Supervising Engineer	\$9,380	\$12,307
City of San Diego	Senior Civil Engineer	\$7,629	\$9,223
City of San Jose	Senior Engineer	\$9,107	\$11,520
University of California, Berkeley	Engineer, Senior	N/A	N/A
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	N/A	N/A
University of California, Riverside	Engineer, Senior	N/A	N/A
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 2019 Unit 9 Salary Survey**

June 3, 2019

A	Entry Level			Journey Level			First Supervisory Level		
	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	\$7,547	0	\$0.00	\$10,837	11	\$119,205	\$12,492	4	\$49,969
Contra Costa County	\$7,134	5	\$35,671	\$9,574	1	\$9,574	\$9,817	7	\$68,719
Fresno County	\$7,089	7	\$49,623	\$8,619	6	\$51,714	\$9,483	3	\$28,449
Los Angeles County	\$7,293	154	\$1,123,122	\$10,768	416	\$4,479,488	\$12,001	111	\$1,332,101
Orange County	\$7,084	2	\$14,168	\$9,797	27	\$264,514	\$11,232	15	\$168,480
Riverside County	\$8,677	24	\$208,248	\$9,647	20	\$192,940	\$11,024	20	\$220,480
Sacramento County	\$8,183	80	\$654,658	\$9,941	85	\$844,953	\$10,948	51	\$558,352
San Bernardino County	\$6,685	3	\$20,055	\$7,887	4	\$31,548	\$8,698	4	\$34,792
San Diego County	\$7,225	25	\$180,613	\$8,686	42	\$364,801	\$10,079	24	\$241,904
Santa Clara County	\$9,070	8	\$72,557	\$10,812	19	\$205,425	\$12,695	6	\$76,169
SF City/County	\$9,412	264	\$2,484,768	\$10,955	183	\$2,004,704	\$14,681	105	\$1,541,540
City of Fresno	\$5,546	8	\$44,368	\$7,485	11	\$82,335	\$8,503	3	\$25,509
City of Los Angeles	\$8,070	101	\$815,078	\$10,922	114	\$1,245,108	\$12,843	46	\$590,774
City of Oakland	\$7,335	0	\$0	\$9,908	27	\$267,521	\$12,179	6	\$73,076
City of Riverside	\$7,643	3	\$22,929	\$9,733	7	\$68,131	\$13,127	14	\$183,778
City of Sacramento	\$7,811	14	\$109,354	\$9,480	20	\$189,608	\$12,307	11	\$135,382
City of San Diego	\$6,023	310	\$1,867,130	\$7,993	98	\$783,265	\$9,223	61	\$562,603
City of San Jose	\$7,928	0	\$0	\$9,594	117	\$1,122,498	\$11,520	41	\$472,309
UC - Berkeley	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0
UC - Davis	\$8,008	0	\$0	\$9,684	0	\$0	\$10,655	0	\$0
UC - Irvine	\$7,053	0	\$0	\$8,543	1	\$8,543	\$9,442	0	\$0
UC - Los Angeles	\$8,733	6	\$52,400	\$10,533	4	\$42,133	\$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	0	\$0	\$8,667	0	\$0	\$11,133	0	\$0
UC - Santa Cruz	\$7,500	0	\$0	\$0	0	\$0	\$10,333	0	\$0
UC - Santa Barbara	\$7,880	0	\$0	\$9,511	0	\$0	\$10,480	0	\$0
UC - San Francisco	\$9,417	0	\$0	\$11,417	0	\$0	\$12,500	0	\$0
		1,014	\$7,754,743		1,213	\$12,378,007		534	\$6,387,602
Weighted Average			\$7,647.68			\$10,204.46			\$11,961.80
State of California			\$7,632			\$9,978			\$11,753
State Lag - \$\$\$			\$16			\$226			\$209
State Lag - %			0.2%			2.3%			1.8%