



Unit 9, Professional Engineers 2016 Salary Survey

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Overview

This salary survey report is prepared by the Department of Human Resources 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 2016 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	5.8%
Journey Level	6.5%
First Level Supervisor	6.5%

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 PEGG 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 PEGG.

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 and universities.

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 and incumbent counts for two fictitious survey 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 Variations

There are two unique variations 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 variation 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 variations for the survey methodology.

Survey Results

Salary Lags for Entry, Journey, and First Level Supervisors

Based on the survey data, the results are displayed in the table below for the state's three surveyed benchmark job classifications.

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	5.8%	6.5%	6.5%

*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.

Considerations

Pursuant to legislation (Chapter 322, Statutes of 2015) and the MOU, the Department is required to jointly complete a salary survey with PEGC comparing three state classifications to similar classifications at 18 public jurisdictions and 10 UC campuses. The MOU states that salary increases based on the survey results will not be provided during the term of this contract. Therefore, this report does not reflect the actual cost of increasing Unit 9 salaries, and it also does not take into consideration the total impact that such increases would have on the related supervisory and managerial classifications.

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 2016 Unit 9 Salary Survey**

Organization	Entry Level	Min	Max
STATE OF CALIFORNIA	Transportation Engineer A/B	\$4,760	\$6,819
Alameda County	Junior Engineer	\$5,892	\$6,807
Contra Costa County	Engineer - Entry	\$5,438	\$6,464
Fresno County	Engineer II	\$5,050	\$6,458
Los Angeles County	C.E Assistant Sr. C.E. Assistant	\$5,479 \$5,479	\$6,448 \$6,807
Orange County	Junior Civil Engineer	\$5,748	\$6,578
Riverside County	Junior Engineer Assistant Engineer	\$4,664 \$5,214	\$7,357 \$8,228
Sacramento County	Asst. Civil Eng. Lvl 2	\$5,812	\$7,416
San Bernardino County	A/E Project Manager I	\$4,583	\$6,302
San Diego County	Assistant Engineer	\$5,105	\$6,588
Santa Clara County	Assistant Civil Engineer	\$6,810	\$8,280
SF City/County	Junior Engineer Assistant Engineer	\$6,262 \$7,070	\$7,612 \$8,593
City of Fresno	Engineer I	\$4,119	\$4,972
City of Los Angeles	Civil Engineer Associate I	\$5,410	\$7,700
City of Oakland	Assistant Engineer, Lvl 1	\$5,470	\$6,715
City of Riverside	Assistant Engineer	\$5,703	\$6,933
City of Sacramento	Junior Engineer Assistant Civil Engineer	\$4,289 \$5,231	\$6,035 \$7,361
City of San Diego	Junior Engineer Assistant Engineer	\$4,181 \$4,839	\$5,063 \$5,830
City of San Jose	Engineer I	\$5,907	\$7,474
University of California, Berkeley	Engineer, Assistant	\$0	\$0
University of California, Davis	Engineer, Assistant	\$4,149	\$7,468
University of California, Irvine	Engineer, Assistant	\$4,102	\$7,053
University of California, Los Angeles	Engineer, Assistant	\$4,158	\$8,218
University of California, Merced	Engineer, Assistant	\$0	\$0
University of California, Riverside	Engineer, Assistant	\$3,679	\$7,543
University of California, San Diego	Engineer, Assistant	\$3,509	\$6,270
University of California, Santa Cruz	Engineer, Assistant	\$4,167	\$7,500
University of California, Santa Barbara	Engineer, Assistant	\$4,181	\$7,537
University of California, San Francisco	Engineer, Assistant	\$4,883	\$9,133

**List of Surveyed Organizations and Journey Level
Classifications for 2016 Unit 9 Salary Survey**

Organization	Journey Level	Min	Max
STATE OF CALIFORNIA	Transportation Engineer D	\$7,125	\$8,915
Alameda County	Associate Civil Engineer	\$8,044	\$9,776
Contra Costa County	Engineer - Project	\$7,480	\$8,675
Fresno County	Senior Engineer	\$6,287	\$8,044
Los Angeles County	Assoc. Civil Engineer Civil Engineer	\$7,257 \$8,089	\$9,016 \$10,049
Orange County	Civil Engineer	\$7,939	\$9,097
Riverside County	Associate Civil Engineer	\$6,113	\$9,647
Sacramento County	Associate Civil Engineer	\$7,409	\$9,008
San Bernardino County	A/E Project Manager II	\$5,306	\$7,303
San Diego County	Civil Engineer	\$6,448	\$7,920
Santa Clara County	Associate Civil Engineer	\$8,121	\$9,871
SF City/County	Associate Engineer	\$8,231	\$10,004
City of Fresno	Professional Engineer	\$5,936	\$7,194
City of Los Angeles	Civil Engineer	\$7,324	\$10,421
City of Oakland	Civil Engineer	\$7,387	\$9,070
City of Riverside	Associate Engineer	\$6,589	\$8,829
City of Sacramento	Associate Civil Engineer	\$6,349	\$8,934
City of San Diego	Associate Engineer	\$6,407	\$7,737
City of San Jose	Associate Engineer	\$7,143	\$9,043
University of California, Berkeley	Engineer, Associate	\$0	\$0
University of California, Davis	Engineer, Associate	\$5,020	\$9,032
University of California, Irvine	Engineer, Associate	\$4,969	\$8,543
University of California, Los Angeles	Engineer, Associate	\$5,031	\$9,919
University of California, Merced	Engineer, Associate	\$0	\$0
University of California, Riverside	Engineer, Associate	\$4,451	\$9,128
University of California, San Diego	Engineer, Associate	\$4,227	\$7,896
University of California, Santa Cruz	Engineer, Associate	\$5,142	\$9,258
University of California, Santa Barbara	Engineer, Associate	\$5,058	\$9,097
University of California, San Francisco	Engineer, Associate	\$5,933	\$11,075

List of Surveyed Organizations and First Level Supervisor Classifications for 2016 Unit 9 Salary Survey

Organization	First Level Supervisor	Min	Max
STATE OF CALIFORNIA	Sr. Transportation Engineer, Caltrans	\$8,390	\$10,501
Alameda County	Supervising Civil Engineer	\$9,187	\$11,171
Contra Costa County	Associate Civil Engineer	\$6,616	\$8,681
Fresno County	Supervising Engineer	\$6,916	\$8,846
Los Angeles County	Senior Civil Engineer	\$9,016	\$11,201
Orange County	Senior Civil Engineer	\$9,097	\$10,430
Riverside County	Senior Civil Engineer	\$6,984	\$11,024
Sacramento County	Senior Civil Engineer	\$9,090	\$10,021
San Bernardino County	A/E Project Manager III	\$5,850	\$8,057
San Diego County	Senior Civil Engineer	\$7,453	\$9,164
Santa Clara County	Senior Civil Engineer	\$9,510	\$11,589
SF City/County	Senior Engineer	\$11,028	\$13,405
City of Fresno	Supervising Professional Engineer	\$6,739	\$8,172
City of Los Angeles	Senior Civil Engineer	\$8,610	\$12,253
City of Oakland	Civil Engineer, Supervisor	\$9,080	\$11,149
City of Riverside	Principal Engineer	\$8,137	\$12,021
City of Sacramento	Supervising Engineer	\$8,839	\$11,598
City of San Diego	Senior Civil Engineer	\$7,384	\$8,929
City of San Jose	Senior Engineer	\$8,583	\$10,858
University of California, Berkeley	Engineer, Senior	\$0	\$0
University of California, Davis	Engineer, Senior	\$5,518	\$9,932
University of California, Irvine	Engineer, Senior	\$5,464	\$9,442
University of California, Los Angeles	Engineer, Senior	\$5,537	\$10,929
University of California, Merced	Engineer, Senior	\$4,709	\$8,817
University of California, Riverside	Engineer, Senior	\$4,899	\$10,270
University of California, San Diego	Engineer, Senior	\$5,161	\$10,048
University of California, Santa Cruz	Engineer, Senior	\$5,742	\$10,333
University of California, Santa Barbara	Engineer, Senior	\$5,567	\$10,024
University of California, San Francisco	Engineer, Senior	\$6,508	\$12,175

Department of Human Resources
Computation of Weighted Average Salary and Lag for 2016 Unit 9 Salary Survey
 April 18, 2016

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	\$6,807	0	\$0	\$9,776	9	\$87,984	\$11,171	4	\$44,685
Contra Costa County	\$6,464	8	\$51,713	\$8,675	2	\$17,349	\$8,681	6	\$52,083
Fresno County	\$6,458	4	\$25,832	\$8,044	9	\$72,396	\$8,846	2	\$17,692
Los Angeles County	\$6,807	121	\$823,614	\$10,049	345	\$3,466,905	\$11,201	97	\$1,086,497
Orange County	\$6,578	5	\$32,890	\$9,097	35	\$318,395	\$10,430	24	\$250,320
Riverside County	\$8,228	17	\$139,868	\$9,647	22	\$212,241	\$11,024	13	\$143,310
Sacramento County	\$7,416	92	\$682,265	\$9,008	103	\$927,824	\$10,021	55	\$551,137
San Bernardino County	\$6,302	3	\$18,907	\$7,303	3	\$21,908	\$8,057	2	\$16,113
San Diego County	\$6,588	13	\$85,649	\$7,920	42	\$332,623	\$9,164	23	\$210,775
Santa Clara County	\$8,280	8	\$66,241	\$9,871	21	\$207,287	\$11,589	7	\$81,126
SF City/County	\$8,593	238	\$2,045,134	\$10,004	293	\$2,931,026	\$13,405	121	\$1,622,026
City of Fresno	\$4,972	0	\$0	\$7,194	12	\$86,328	\$8,172	3	\$24,516
City of Los Angeles	\$7,700	69	\$531,266	\$10,421	64	\$666,933	\$12,253	41	\$502,376
City of Oakland	\$6,715	0	\$0	\$9,070	18	\$163,260	\$11,149	5	\$55,745
City of Riverside	\$6,933	1	\$6,933	\$8,829	4	\$35,316	\$12,021	2	\$24,042
City of Sacramento	\$7,361	12	\$88,327	\$8,934	23	\$205,476	\$11,598	9	\$104,378
City of San Diego	\$5,830	250	\$1,457,500	\$7,737	88	\$680,874	\$8,929	58	\$517,859
City of San Jose	\$7,474	0	\$0	\$9,043	103	\$931,408	\$10,858	32	\$347,443
UC - Berkeley	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0
UC - Davis	\$7,468	1	\$7,468	\$9,032	6	\$54,193	\$9,932	2	\$19,864
UC - Irvine	\$7,053	0	\$0	\$8,543	0	\$0	\$9,442	1	\$9,442
UC - Los Angeles	\$8,218	9	\$73,958	\$9,919	4	\$39,677	\$10,929	1	\$10,929
UC - Merced	\$0	0	\$0	\$0	0	\$0	\$8,817	0	\$0
UC - Riverside	\$7,543	0	\$0	\$9,128	0	\$0	\$10,270	0	\$0
UC - San Diego	\$6,270	2	\$12,540	\$7,896	4	\$31,585	\$10,048	1	\$10,048
UC - Santa Cruz	\$7,500	4	\$30,000	\$9,258	0	\$0	\$10,333	7	\$72,333
UC - Santa Barbara	\$7,537	2	\$15,074	\$9,097	3	\$27,292	\$10,024	2	\$20,048
UC - San Francisco	\$9,133	2	\$18,267	\$11,075	2	\$22,150	\$12,175	0	\$0
		861	\$6,213,445		1,215	\$11,540,428		518	\$5,794,788
Weighted Average			\$7,217			\$9,498			\$11,187
State of California			\$6,819			\$8,915			\$10,501
State Lag - \$\$\$			\$398			\$583			\$686
State Lag - %			5.8%			6.5%			6.5%