

# Quality of Life Research for Cal Poly Construction Management Graduates in the Bay Area and Los Angeles County

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Construction Management Graduates from Cal Poly San Luis Obispo graduate at an impeccable 97.5% per year. On average over 78% of graduates relocate to the Bay Area or Los Angeles County, but how are graduates basing their decision on where to relocate? Sociology professor, Mark Schneider, developed an accurate way to measure the satisfaction of residents within a given city. Through subjective and objective social indicators, Schneider is able to gauge total life satisfaction. Analyzing data from interviews with recent graduates, economic data from local, state and federal governments, and personal knowledge from living in each area – an immense amount of data has been consolidated to aid the decision Construction Management majors make in their last months at Cal Poly. Los Angeles County has issues with traffic congestion, homelessness and lack of affordable housing. The Bay Area is facing newer problems with labor shortages, traffic congestion in urban areas, and rent burden. Los Angeles County has made measures in the past 3 years to begin mitigating their problems. The Bay is slightly behind with traffic congestion and rent burden in areas graduates prefer to live (San Francisco). With all social indicators set at equal weights, Los Angeles County is preferable to students graduating in 2019.

Keywords: Bay Area, Los Angeles County, Quality of Life, Career

## Introduction & Background

California Polytechnic State University San Luis Obispo (Cal Poly) is located along the central coast of California about 230 miles south of San Francisco and 190 miles north of Los Angeles. Due to this unique location, between California's two major economic powerhouses, Cal Poly graduates are often conflicted in which city to kick-off their career. Specifically, Construction Management major graduates, who according to the on-campus career services department have a 97.5% full-time employment rate in the 2016-2017 class, struggle with the choice of relocating between the Bay Area and Los Angeles County.

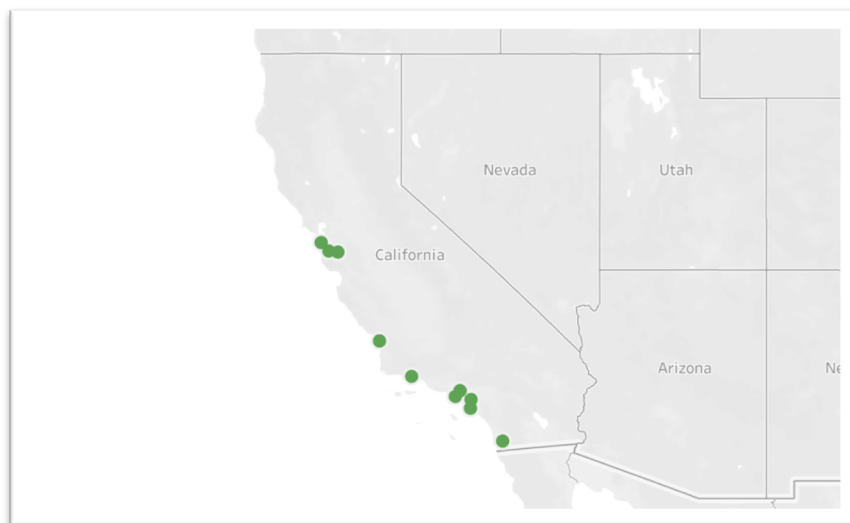


Figure 1: Locations of Cal Poly Construction Management Graduates from 2016-2017  
*Source: Cal Poly Career Services Department*

The decision Construction Management majors make to decide between north or south is not a new hurdle. According to Cal Poly’s Career Services Department, a 2010-2011 study identifies 74% of Construction Management graduates moving to either the Bay Area or Los Angeles county. Below is collected percentages of responses regarding recent graduate relocations for Construction Management from 2005 through 2011:

Year	Bay Area	Los Angeles County	Combined %
2005-2006	20	12	93%
2006-2007	33	16	82%
2007-2008	15	10	72%
2009-2010	25	15	59%
2010-2011	14	9	74%
2011-2012	24	14	86%
2012-2013	17	10	82%
2013-2014	21	7	85%
2014-2015	14	5	76%
2015-2016	24	13	80%
Average	20.7	11.1	78.9%

Table 1. Survey Responses from Cal Poly Construction Management Graduates by Year

Source: Cal Poly Career Services Department

This data strongly suggests that the majority of graduates tend to move to either the Bay Area or Los Angeles County. However, the consolidation and discovery of specific data relating to the construction industry is not readily available to future graduates who are unaware of the post-collegiate career choices they will face.

## Literature Review

### *The Quality of Life in Large American Cities: Objective and Subjective Social Indicators by Mark Schneider*

Sociology Professor from State University of New York at Stony Brook, Mark Schneider, conducted research into how quality of life can be measured. He discovered that social indicators allow for a more detailed evaluation of social conditions than previously discovered. Referencing the United States Department of Health, Education and Welfare, Schneider concluded that, “normative statements can be made stating whether the conditions of life in society have improved or worsened, or, in other words, whether ‘things have gotten better, or people are ‘better off.’”

#### *Subjective Social Indicators*

People gauge their quality of life on personal preferences – items such as aspirations, expectations, happiness, and satisfaction. These deciding factors may be weighted differently, person by person, and are referred to as Subjective Social Indicators (Schneider 499). These are hard factors to measure and are subject to an immense amount of disagreement. Qualitative data is helpful in analyzing the most relevant aspects of quality of life in each given area. Examining an industry professional’s work-life will paint the most accurate depiction of one’s future in each area. Interviews, articles, anecdotes and first-hand experiences will be the most efficient and reliable route to achieve qualitative data. Through interviews, data, such as average commute times, weekend trips, general attitude towards work-life balance and other information that can aid the general measure of total life satisfaction will divulge the most accurate data.

#### *Objective Social Indicators*

On the contrary, and to less skepticism, and Objective Social Indicators are easily measured and widely considered as accurate collections of data. These include:

1.	Income, wealth and employment
2.	Environment (housing)
3.	Health (physical and mental)
4.	Education
5.	Social disorganization (crime, social pathologies such as alcoholism, drug usage)
6.	Alienation and Participation

Table 2. Objective Social Indicators

Source: "The Quality of Life in Large American Cities: Objective and Subjective Social Indicators" Mark Schneider

For the purposes of this research we will utilize lines one, two and three from *Table 2* to broadly guide our quantitative data from the Bay Area and Los Angeles County. Quantitative data provides the most accurate information to analyze long-term plans. Industry trends, unemployment rate, per capita income, public transportation, medical care, diversity, political tendencies, crime rates, amount of new structures each year, top rated contractors and other miscellaneous statistical data are all important indicators of a successful industry and a successful city to excel in.

## Methodology

In order to gather the necessary data, it is important to obtain a wide variety of information that will be relevant to any and all graduates. Qualitative data and quantitative data are of equal importance because each individual may place more importance on one aspect of data over the other.

The objectives of this research are as follows:

- Aid the process of relocation for future Cal Poly Construction Management Graduates
- Obtain and consolidate economic data of construction in the Bay Area and Los Angeles County
- Provide detailed and relevant qualitative data from industry professionals
- Highlight quantitative strengths and weaknesses between each area
- Provide recommendations regarding the predominant fields of construction in each area

Although the objectives stated above are objectives of this research, the primary goal is to answer the following question: Where would a Construction Management graduate, working in the construction industry, experience a better quality of life, in the Bay Area or Los Angeles County?

## Results

### *Interview Data*

Upon conducting interviews, a large amount of qualitative and quantitative data was gathered from 8 Construction Management graduates. These 8 interviews were conducted over the phone and were completed with Cal Poly Alumni only. This was tailored to Cal Poly Alumni because they are experiencing first-hand the types of data that is relevant to job-seeking students, currently. It is also due to the tight-knit community Cal Poly Construction Management students operate in and the incentive for Alumni who want to give back to their alma-mater.

### *Quantitative Interview Data*

This quantitative data from interviews is justly simple because it provides a primary purpose of informing future graduates what they can expect to see as Project Engineers for Contractors in California. The data will examine actual commute times and types of projects recent graduates are working on.

Interviewee	Location	Company	Morning Commute	Afternoon Commute	Project	Type
Matt Montijo	Santa Monica, Ca	Morley Builders	30 mins	30-60 mins	FLOR 401 Lofts	Residential tower
George Healy	Oakland, CA	Carmel Partners	45 mins	60 mins	385 14 <sup>th</sup> Street	Commercial mid-rise
Jackson Walker	San Francisco, CA	Build Group	30 mins	30 min	1699 Market St.	Mixed-use
Zach Pollard	San Francisco, CA	Webcor Builders	10 mins	10 – 30 mins	245 Van Ness	Mixed-use & parking
Gabe Zagorski	Oakland, Ca	Pacific Structures	20 mins	40 mins	MacArthur Transit Village	Transit/Commercial
Ben Jodis	Bay Area	Webcor Builders	20 mins	20 mins	245 Van Ness	Mixed-use & parking
Mikey Foley	West Hollywood, Ca	Clark Construction	40 mins	80 mins	West Coast Headquarters	Commercial
Jack Molnar	Mar Vista, Ca	Gilbane	15 mins	15-45 mins	Wilshire La Jolla	Residential tower & parking structure

Table 3. Data Table from Interview Questions  
*Source:* Trevor Colbert

Throughout the duration of interviews, it was evident that commute times in the Bay Area are shorter than those in Los Angeles County. Although this is accurate data, it is important to consider the variables that affect this data. Every interviewee, when asked about commute time, said that commutes could be 10 minutes for one project and 60 minutes for their next project and it is the nature of our work. However, interviewee Ben Jodis believes that his company purposely places employees close to home whenever applicable. Mikey Foley and George Healy’s commute time are outliers for their respective location, this is due to the fact that they chose a cheaper living location relative to their first project site, which also provides a brief look at the cost of living in San Francisco itself.

For privacy reasons compensation is not included in the table above. However, the compensation ranges from \$78,000 - \$84,000 in the Bay Area and \$74,000 - \$80,000 in Los Angeles County. These numbers are solely based on interviewees responses. When asked about the compensation difference, Zach Pollard said that due to the high cost of living in San Francisco it is equitable per area. Additionally, there is no substantial numerical difference in bonuses, but only in bonus structure by each individual construction firm.

### *Qualitative Interview Data*

A primary question asked during interviews was, “What kind of activities do you do over the weekend? And what kind of activities do you think are most appealing about where you work/live?” The responses varied even within similar locations. Bay Area local, George Healy, says that he loves his location because he is able to sail in the San Francisco Bay. Gabe Zagorski, an avid mountain biker, enjoys the various biking/hiking trails through Marin County and the Peninsula down to San Jose. Matt Montijo, originally from San Diego, and Jack Molnar, Newport Beach, both enjoy the warm beach days to surf and exploring the various nightlife in Downtown Los Angeles and Santa Monica. In conclusion, each area has pros and cons to non-work activities and is dependent on what one’s individual’s hobbies are.

### *Quantitative Data*

The following data is collected from various sources and explores relevant construction industry data discussed in *Table 2*.

## Economic Trends & Forecasts

By mid 2018, United States commercial construction spending exceeded its previous peak in 2008 by 4% (MGAC). The American Institute of Architects (AIA) Architectural Billing Index (ABI) predicts that this will continue to grow through 2019. According to MGAC, the Western US region specifically, is showing the most promising indicators of growth compared to the Midwest, South and Northeast.

*Los Angeles County.* Los Angeles itself is projected to grow 3.0% in 2019 according to the Los Angeles County Economic Development Corporation (LAEDC). According to the same study, a key point regarding construction forecasts states that, “Major investment in transit will continue to support strong economic growth...”

<b>Employment Growth by Sector</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019f</b>	<b>2020f</b>
<b>Construction, Natural Resources, Mining</b>	3,600	7,400	7,400	3,600	4,600	4,800	4,800
<b>Manufacturing</b>	-4,600	-3,400	-7,400	-9,900	0	-3,700	-2,900
<b>Transportation, Trade and Utilities</b>	16,800	17,500	12,800	10,400	-2,200	400	0
<b>Information</b>	1,700	8,600	21,900	-14,700	3,700	2,800	2,900
<b>Financial Activities</b>	-1,900	4,300	4,300	1,500	1,000	1,000	1,100
<b>Professional &amp; Business Services</b>	6,800	2,100	9,600	10,600	15,000	12,000	12,800
<b>Education &amp; Health</b>	18,400	20,400	26,700	27,300	18,400	24,100	22,900
<b>Leisure &amp; Hospitality</b>	25,100	22,500	23,500	14,200	22,000	19,600	20,000
<b>Other Services</b>	4,800	12,400	8,300	9,200	-1,300	300	100
<b>Government</b>	4,800	12,400	8,300	9,200	-2,200	-400	-1,000

Table 5. Los Angeles County Employment Growth by Sector  
*Source:* Los Angeles County Economic Development Corporation

The construction industry throughout LA sees a steady continuation in 2018 through 2020. The construction sector is in the top three sectors for least variation of employment growth – meaning the industry itself is recognized as stable for the area. Engineer News-Record (ENR) calculates a Construction Industry Cost Index that shows pricing in the 20 largest US cities per month. Two major indexes by ENR are the Construction Cost Index (CCI) and the Building Cost Index (BCI). The CCI is evaluated by, “200 hours of common labor at the 20-city average of common labor rates, plus 25 cwt of standard structural steel shapes at the mill price prior to 1996 and the fabricated 20-city price from 1996, plus 1.128 tons of portland cement at the 20-city price, plus 1,088 board-ft of 2 x 4 lumber at the 20-city price.” The CCI is an accurate cost index of construction costs to gauge industry costs. The BCI is calculated by, “68.38 hours of skilled labor at the 20-city average of bricklayers, carpenters and structural ironworker’s rates, plus 25 cwt of standard structural steel shapes at the mill price prior to 1996 and the fabricated 20-city price from 1996, plus 1.128 tons of portland cement at the 20-city price, plus 1,088 board-ft of 2 x 4 lumber at the 20-city price.” These two indexes project an accurate portrayal of the construction material costs that affect the industry and are good forecasters on the future of economic tendencies.

ENR Cost Indexes in Los Angeles (2019)					
Year	Month	BCI	% CHG	CCI	% CHG
2019	March	6277.68	+0.1	11943.60	+0.1
2019	February	6361.93	+1.5	12027.85	+0.8
2019	January	6345.43	+1.2	12011.35	+0.6

Table 6. ENR Cost Indexes in Los Angeles  
*Source: Engineering News Record*

*Bay Area.* The Bay Area tends to be slightly ahead of Los Angeles economic trends. Sources say this is primarily due to the tech industry leading the Bay since the late 90’s and through the Great Recession of 2008, to the forefront of innovation and jobs in the United States. Unemployment rates saw an all-time low in mid-2018 but are on a slight increase in early 2019 (Bureau of Labor Statistics).

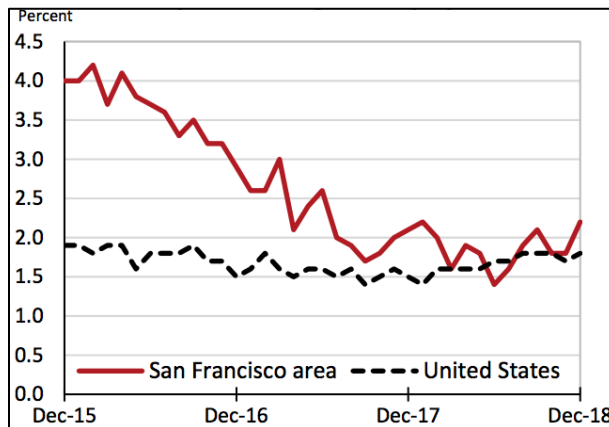


Figure 2. 12-month Percent (%) Changes in Employment Bay Area  
*Source: United States Bureau of Labor Statistics, Current*

Additionally, construction costs are starting to rise. The increase is due primarily to labor costs rather than material. Contractors are faced with a limited supply of skilled workers and have begun to hire from outside the area (SFCED).

ENR Cost Indexes in San Francisco (2019)					
Year	Month	BCI	% CHG	CCI	%CHG
2019	March	6954.89	+0.5	12048.19	+0.3
2019	February	7038.07	+1.7	12131.37	+1.0
2019	January	7021.57	+1.4	12114.87	+0.8

Table 7. ENR Cost Indexes in San Francisco and Los Angeles  
*Source: Engineering News Record*

## Analysis

### *Bay Area*

The Bay Area’s population and labor force have slowed in recent months, due to the majority of new jobs being filled by existing Bay residents. However, despite the decrease of immigration, household growth continues to increase. According to the San Francisco Center for Economic Development, financing for new residential construction is less readily available than in the previous decade. The housing market experiences extreme fluctuation by region. Due to over-crowding, housing demand exceeds supply in areas like San Francisco, East Bay and South Bay – resulting in a high rise in prices the past decade. On the contrary, areas like Solano County and eastern Contra Costa are facing higher levels of foreclosure in recent years and, therefore, lower prices.

As mentioned above, construction costs are rising from a lack of skilled labor and is resulting in increased commute times because the radius of skilled workers commuting into the major cities. Urban areas are dealing with the highest influx of traffic and the major transit highways are experiencing an onset of comparable challenges.

Despite the forecasts of the Bay Area, the data for Construction Management jobs proves to be at a steady level. Recent graduates are experiencing high levels of satisfaction and will continue to do so while the Bay is leading California's economy into the next decade.

### *Los Angeles County*

Los Angeles County, like the Bay Area, is seeing its fair share of problems. The largest issues Los Angeles County is facing are its rent burden rate, housing crisis, homelessness, and traffic congestion. A report from the Los Angeles County Economic Development Corporation (LAEDC), records that 57% of renters are rent burdened, meaning that renting households spend one-third or more of their income on rental costs. Of that 57%, half are severely burdened, spending half or more of their income on rental costs. Additionally, the likelihood of buying a home is slim. The California Association of Realtors recorded that in the fourth quarter of 2018 only 24% of households could afford a home. Experts believe that the housing crisis and rent burden is the beginning of the homelessness rate. However, since 2017, there has been a 4% decrease. The decrease shows a promising future for one of LA's largest issues.

Unlike the Bay Area, Los Angeles traffic congestion has been a problem for the past two decades. However, transit-oriented development has already begun in 2016 with Measure M, which approved a ½ cent sales tax on top of an already ½ cent sales tax to improve any and all transit related issues. Although the traffic in Los Angeles is a large problem, solutions have been passed lawfully to mitigate them. Also, with financing pumping into local governments, construction transit projects will be arising for many years.

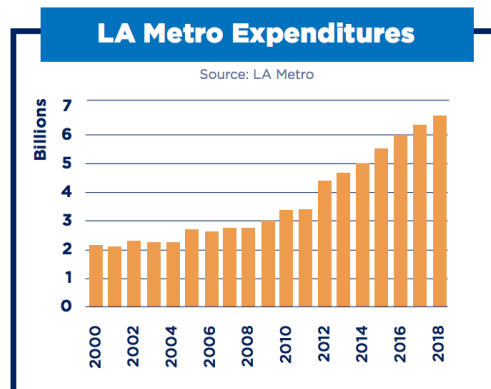


Figure 4. LA Metro Expenditures

Source: Los Angeles County Economic Development Corporation

### **Conclusion**

As said in any forecast, it is impossible to make a perfect estimation into the future. But, it is possible to make an educated guess. In conclusion, it seems that Los Angeles County will benefit Cal Poly Construction Management graduates if all sectors of social indicators are set at an equal level. However, this is not always the case. Los Angeles County has passed bills in local, state and federal government that will help to mitigate what economists would consider its largest problems – housing, rent burden, homelessness, and transit. The Bay is beginning to see issues in transit, despite its already advanced network of public transit like the BART. Housing rent levels in the predominant areas graduates reside are severely burdened, more-so than Los Angeles County. Additionally, key uncertainties in the Bay, like, large tech companies that drive not only California's economy, but the United States economy are planning to expand, Apple is opening offices in San Diego and Austin, which will relocate large amounts of high earning individuals from the Bay. Amazon's attempts to open east coast lactations will also take a

large amount of circulated financing. Large tech companies leaving will also take Venture Capitalists, and in turn slow down building. Construction Management jobs in Los Angeles County will see an influx with the relocation of large tech companies.

A common theme from interviews show that graduates tend to relocate where they are initially from. This has many pros being by family and incurring a better quality of outside-work life. Another example of subjective social indicators was with interviewee George Healy, stating that a large reason he moved back to San Francisco was to save money living with parents and the ability to sail on weekends. If George had relocated to Los Angeles County, he would not save rent money and would have far less opportunities to pursue his hobby in sailing.

Despite the analysis in the paper, graduates are encouraged to take all factors into consideration and weight subjective and objective social indicators to their own preference.

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