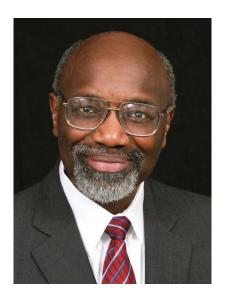
CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS





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MESSAGE FROM THE UNIVERSITY PRESIDENT



Greetings.

We are pleased to present you with your personal copy of the 2017-18 South Bay Economic Forecast prepared by Beacon Economics. This comprehensive report provides data and analysis on key industries that make up our dynamic South Bay region and serves as important contextual information for the continued development and success of our community.

CSU Dominguez Hills developed an economic forecast specifically focused on the South Bay in recognition of the importance and economic power of the South Bay and the critical role higher education plays in creating an educated workforce.

As the report makes clear, few regions in the state, or across the nation, share the strengths of the South Bay. With a combined total of nearly 1.1 million people living in the incorporated and unincorporated areas, were it a county in its own right, the South Bay would be the tenth largest county in California. Additionally, the report tells a story of transition and of economic diversification, with growth in tech start-ups, creative industries, medical device manufacturers, and pharmaceutical companies joining the long dominant industries of our economy such as aerospace, petroleum and refining, and the automotive industry.

As the President of CSU Dominguez Hills, the type of data provided in this report is invaluable. The universities and community colleges of the South Bay are among the region's most valuable assets, critical to the success of its businesses. CSU Dominguez Hills works closely with business and industry leaders to develop academic programs and degrees that provide our graduates with the knowledge and skills necessary to succeed in their chosen field. Doing so is an ongoing emphasis, and CSU Dominguez Hills remains committed to continuing to grow and enhance these partnerships. The economic diversification within our region is a strength but requires additional focus and emphasis across industries and economic sectors to fully bloom.

I am confident you will find Beacon Economics' well-researched and richly detailed report informative and valuable and I look forward to continuing to support the growth and success of our vibrant South Bay region.

Sincerely,

Willie J. Hagan, Ph.D. President, California State University, Dominguez Hills

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ABOUT CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS

From admission to graduation, the journey taken by students at California State University, Dominguez Hills is one of the most transformative in all of higher education. A leader in groundbreaking programs that foster a college-focused culture in the urban communities it serves, CSU Dominguez Hills is a laboratory and national model for student access and success, offering a proven path to professional opportunity and social equity for underserved students and all students who aspire to succeed and thrive in a complex and global society.

The university has a reputation for smaller class sizes, faculty who are both passionate scholars and teachers, and a focused dedication to student success. With 45 undergraduate degrees, 23 graduate degrees, and a wide array of certificate, credential and online programs, CSU Dominguez Hills offers an excellent selection of academic programs reflecting today's most in-demand and relevant fields.

As a center for cultural life in the South Bay region, the University Theatre offers plays, concerts, and dance performances, and the University Art Gallery is a major exhibition space for the area. Signature buildings on campus include the beautiful Loker Student Union and stunning Library South wing. "Toros" Athletics sponsors 10 intercollegiate championship-winning teams. On campus is the StubHub Center, a multi-purpose sports complex that hosts world-class soccer, tennis, track and field, and cycling. The university is also in close proximity to downtown Los Angeles and Southern California's cultural and recreational attractions.

Established in 1960, CSU Dominguez Hills enrolls close to 15,000 students and graduates 3,000 into the workforce each year. With over 100,000 alumni, 65 percent living within 25 miles of the university, the annual impact CSUDH has on the regional economy is huge – at around \$330 million. Being a valued member of the broader community is one of the university's highest priorities. The university's partnerships with local businesses, residents, civic organizations, and legislators promote the beneficial exchange of knowledge and resources, and enhance our ability to serve the economic, public policy, and social needs of our region.

With an ethnically and culturally diverse campus population that reflects the changing face of America, the vast diversity of thought and experience students find here enriches learning and serves as a valuable foundation as they pursue their professional goals.

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ABOUT CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS

CSU Dominguez Hills Economics Institute

The College of Business Administration and Public Policy's Economics Institute to offer the South Bay region with innovative and forward-thinking economics education and research.

Certificate Programs

The College of Extended and International Education offers professional certifications in such high-demand fields as global logistics, health care safety, and human resources management

COLLEGE OF BUSINESS ADMINISTRATION AND PUBLIC POLICY

The mission of the College of Business and Public Policy (CBAPP) is to educate the leaders who shape the future. The CBAPP faculty fulfills this mission by providing a multidisciplinary, interactive student-centered education that calls upon the contributions of a full range of academic disciplines while challenging students to apply their academic work to a variety of management settings. This excellent learning environment demands a high standard of faculty scholarship and research.

Each of our faculty has significant industry and practical experience. Through research, applied research, and consulting, faculty stay on the leading edge of scholarship and practice. We are proud of our faculty, their academic preparation, and the quality of their experience. We believe our faculty's blend of education and work experience offers our students a rich learning experience unique in Los Angeles and the South Bay.

NOTE:

All proceeds from the South Bay Economic Forecast will benefit the CSU Dominguez Hills College of Business Administration and Public Policy.

COLLEGE OF EXTENDED AND INTERNATIONAL EDUCATION

The College of Extended and International Education expands CSU Dominguez Hills' resources to best serve the community. The college offers academic, career, and professional development learning opportunities online, on site, and on campus. Professional coursework includes degree and certificate programs designed to help individuals enhance their professional standing, change careers, or enter the job market. Academic programs include traditional degree and credential programs, often delivered via distance learning technologies. The Center for Training and Development offers customized training for organizations.

For information, call 877-GO-HILLS or visit the web site at <u>www.csudh.edu/ee</u>.



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GEOGRAPHICAL SCOPE

In this report, the South Bay region of Los Angeles County includes the following incorporated cities and communities:

- Avalon
- Carson
- El Segundo
- Gardena
- Hawthorne
- Hermosa Beach
- Inglewood
- Lawndale
- Lomita
- Manhattan Beach
- Palos Verdes Estates
- Rancho Palos Verdes
- Redondo Beach
- Rolling Hills
- Rolling Hills Estates
- Torrance
- Harbor City/Harbor Gateway
- San Pedro
- Wilmington
- Lennox
- Rancho Dominguez
- View Park/Windsor Hills

THE ECONOMIC ENVIRONMENT

U.S. Overview

The U.S. is now into the eighth year of the current economic expansion, making it one of the longest on record. The last few years have been characterized by steady, if unremarkable, growth, during which the labor market recovered from the Great Recession ever so slowly. The economy reached full employment earlier this year, and wage gains to workers have ticked up a bit, but have not ignited inflation. The first half of this year has been more of the same: GDP has been growing modestly in the mid-two percent range, the labor market continued to rack up solid gains, inflation is low, and the sectors of the economy are generally moving forward. So, are we due for a recession?

The short answer is, No. Economic cycles do not follow a fixed timeline, growing for so many years and then fizzling out to an ensuing recession. Rather, an expansion such as the present one can continue for some time until a sustained shock or imbalance emerges and spells its doom. As of now, there are no imbalances that raise concerns, and the usual precursors to a recession are largely absent: a spike in energy prices, sustained increases in interest rates, escalating inflation that may signal imbalances in the economy. Rather, this expansion holds potential to continue for quite some time. Here's why.

The mainstay of the U.S. economy is the consumer sector. Inflation-adjusted consumer expenditures have grown by just under 3% year-over-year in recent quarters as more people are working and paychecks are rising. With oil at \$50 per barrel, expenditures on fuel are less of a burden so households have more to spend elsewhere. There is every indication that this will continue for some time. Moreover, although vehicle sales may be edging back from last year's record sales figure, it appears that the housing market is accelerating, as measured in terms of home sale as well as construction. This bodes well for the rest of the year likely 2018 as well.

Other private sector components of the economy are moving forward at varying rates. Business investment spending has climbed by a modest 2.5% year-over-year so far this year as businesses have ramped up spending in structures, equipment, and intellectual property. Moreover, residential investment is on the rise as housing starts through the first half of 2017 have advanced to their highest levels in years. As for trade, U.S. exports have risen by 3.2% through the first half of the year, reflecting improved economic prospects for our trading partners. Meanwhile, while strength in the domestic economy has driven imports up by 4.0%. As for the public sector, government spending was essentially flat in the first part of 2017, mainly as a result of a slight decrease in spending at the state/local level along a decline in spending on national defense.

On the policy front, the Federal Reserve Bank (the Fed) has indicated that it will take its cues from the financial markets and the economy as it seeks to raise the federal funds rate, a benchmark for short term lending. At the same time, it has announced that it may begin to reduce its bond holdings in the near future, a move that may apply upward pressure to long-term yields. Although rates are still at near historic lows, it remains to be seen whether market rates themselves will respond much to moves by the Fed, as its ability to move market rates has eroded with increasing globalization of the financial system.

As for macroeconomic policy, there were expectations that the Trump Administration would achieve some policy successes quite readily, given that the Republican party controlled the House, the Senate, and the Presidency. The new President promised to revamp trade deals, seek changes to immigration policy, repeal the Affordable Care Act, and reform the tax code. To date, President Trump has pulled out of the Trans-Pacific Partnership, implemented a travel ban,

and has announced the end of Deferred Action for Childhood Arrivals (DACA). While each of these policy changes have been disruptive, divisions within the Republican ranks have prevented the Administration from making rapid, wholesale changes elsewhere, notably in health care and tax reform.

Seeing that the situation in Washington D.C. is not terribly different than the recent past, Main Street has seen fit to move forward, to make the decisions that will enable its businesses to proceed in the months and quarters ahead. As such, despite the changing of the guard in D.C. and barring any surprises, this means that the U.S. economy should stay on track with GDP growth of in the low-2% range this year and next, continued low inflation, and full employment.

CATEGORY	2015	2016	2017-Q1	2017-Q2
Gross Domestic Product (Growth Rate In %)	2.9	1.5	1.2	3
Contribution To Gdp Rate By (In %)				
Consumer Expenditures	2.5	1.9	1.3	2.3
Fixed Investment	0.9	-0.3	-0.2	0.6
Net Exports	-0.7	-0.2	0.2	0.2
Government	0.3	0.1	-0.1	-0.1
Source: U.S. BEA				

U.S. GROSS DOMESTIC PRODUCT (GDP), CONTRIBUTIONS TO GROWTH

California Overview

For four years, the California economy was among the fastest growing of the states, both in terms of job gains and growth in economic activity. While much of the credit for this growth trajectory has been attributed to high tech, it was made possible in part by enormous slack in the statewide labor market which was recovering from recession-era double-digit unemployment rates. At times during those four years, rates of job growth in California were more than double those of the U.S., and gross state product easily grew at a faster rate than U.S. GDP.

Starting in the third quarter of 2016, job growth in the state and across its regions downshifted. Instead of growing by 2.5% to 3.5% year-over-year, the growth rate slipped below the two percent threshold and steadied just above 1.5%. By early 2017, California saw its unemployment rate hit a 16-year low, as slack in the labor force was wrung out and the state found itself effectively at full employment. Job gains continued in most industries, to be sure, but the pace of growth was much slower than in recent years.

With the economy at full employment labor shortages have emerged in at least some parts of the economy. One could argue that shortages among many well-paying occupations may be due to a lack of qualified workers anywhere, not just in California. But employers and official data suggest that there are labor shortages among unskilled occupations in food services along with skilled and semi-skilled occupations in manufacturing, construction, even auto repair. How so? So many headlines tell the story: California once again finds itself facing a housing affordability issue that ultimately can only be addressed by increasing supply, a tall order indeed. But until it does so in earnest, growth of the statewide economy will be constrained.

That is not to say that the economy will stop growing. In fact, the state has continued to experience steady but somewhat slower job growth through the first several months of the year. Wage and salary jobs rose by 1.7% year-over-year in July, adding 276,300 jobs year-to-year, second only to Texas. In the private sector, Health Care made the largest contribution, followed by Construction, and Leisure and Hospitality, with nearly all of the latter gains occurring in Accommodation

and Food Services. Professional, Scientific, and Technical Services, the source of so much job growth in recent years, was essentially flat, as was Retail Trade. The Government sector saw a significant gain mostly due to hiring by local governments. Otherwise, job losses occurred only in Mining and Logging and in Manufacturing, where nearly all of the decline came in the Durable Goods Manufacturing sector.

INDUSTRY	JUL-16	JUL-17	YTY	YTY %
Total Nonfarm	16,507,800	16,784,100	276,300	1.7%
Mining and Logging	24,400	23,000	-1,400	-5.7%
Construction	775,800	826,800	51,000	6.6%
Manufacturing	1,307,700	1,293,600	-14,100	-1.1%
Wholesale Trade	722,500	735,900	13,400	1.9%
Retail Trade	1,684,200	1,684,000	-200	0.0%
Transportation, Warehousing & Utilities	587,900	595,500	7,600	1.3%
Information	523,800	529,000	5,200	1.0%
Finance & Insurance	545,500	548,600	3,100	0.6%
Real Estate & Rental & Leasing	278,100	282,400	4,300	1.5%
Professional, Scientific & Technical Services	1,229,000	1,228,900	-100	0.0%
Management of Companies & Enterprises	225,900	230,700	4,800	2.1%
Administrative & Support & Waste Services	1,089,200	1,099,600	10,400	1.0%
Educational Services	354,200	367,600	13,400	3.8%
Health Care & Social Assistance	2,189,300	2,248,800	59,500	2.7%
Leisure & Hospitality	1,896,800	1,949,400	52,600	2.8%
Other Services	559,400	577,300	17,900	3.2%
Government	2,514,100	2,563,000	48,900	1.9%

JOBS BY MAJOR INDUSTRY, CALIFORNIA

With the slowdown in job growth there was a similar slowdown in economic growth. California's gross state product edged up fractionally from the first quarter of 2016 to the same quarter this year. Similarly, taxable sales growth slowed considerably, advancing by just 2.7% year-to-year in the first quarter of this year compared to a 6.7% increase in the final quarter of last year.

The picture for California housing continues to be mixed. The statewide median price has yet to match its pre-recession peak, but most coastal areas such as Los Angeles County have either surpassed the previous peak or will do so soon. In general, prices have advanced modestly despite less than normal circumstances that have limited sales activity. On the demand side, strong demographics, job and income growth, and low interest rates should be driving sales. However, would-be buyers face impediments in the form of limited inventories, high underwriting standards, and large down payment requirements. On the supply side, existing home sales have fallen below expectations, given the strength of the economy, while new home construction has been relatively weak since the recession. Meanwhile, with the homeownership rate at its lowest level in decades, high demand for rental units has driven rents up and rental vacancy rates down.

Like the nation as a whole, California and its regions should experience continued growth in economic activity and jobs throughout 2017 and into 2018. Most of the job gains will occur in Health Care, Leisure and Hospitality, and Construction. With growing incomes, more households will seemingly be in a position to become homeowners. Moreover, the expectation of higher interest rates should get some would-be buyers off the fence. It remains to be seen how the supply side will respond. Meanwhile, California must deal with issues such as the housing shortage and its resulting affordability

problem, infrastructure needs (as the situation at Lake Oroville has demonstrated), and the challenge of unfunded pension liabilities, which plagues government agencies across the state.

Los Angeles County Overview

Like the statewide economy, Los Angeles County has seen slower growth thus far in 2017 when compared with prior years. And like the state as a whole, the slowdown may be attributed in part to a very tight labor market. Even so, key industries continue to show solid job gains, taxable sales are on the rise, and prices in real estate continue heading north. Perhaps the most remarkable observation is that the County unemployment rate has dropped to record lows that have not been seen in decades.

Los Angeles County continued its steady employment growth, adding 49,700 new jobs from July 2016 to July 2017 (the latest data available), which equates to a 1.1% year-to-year rate of growth. County job growth this year has been considerably lower than the last four years, during which it averaged gains of 2.1%. It was also lower than the state as a whole, which saw a 1.7% increase from July to July. Indeed, job gains have been constrained by a very tight labor market with a 4.4% unemployment rate in July, having hit a record low earlier this year.

Leading the way in terms of job growth was the Health Care industry, which added 17,100 jobs and grew by 2.6% from July 2016 to 2017. Most of these jobs came from hospitals, medical offices, and nursing/residential care facilities. Another industry that helped drive growth in Los Angeles was Leisure and Hospitality, which added 11,600 jobs (a 2.3% increase). Construction rounded out the top three private sector industries with 10,600 jobs added. As for the public sector, Government jobs grew by 11,600 year-to-year, mainly due to gains at the local level. Among those industries that posted payroll decreases, Manufacturing (-4,500) and Transportation and Warehousing (-4,100) saw the largest decreases, but there were smaller declines in Mining, Retail Trade, Administrative Support, Finance and Insurance, and Utilities. Of the industries experiencing job losses, Manufacturing and Mining have seen sustained declines over a protracted period. The decrease in Administrative Support may be due to a slowdown in temporary hiring. As with Manufacturing, decreases in Retail and in Finance and Insurance may be due in part to increased use of automation at establishments.

Taxable sales, a gauge of the spending power and economic health of the region, grew by 2.0% year-to-year in the first quarter of this year. While this fell short of the 2.9% gain for all of last year (2016), spending in the first quarter may have been tempered by uncertainty associated with the new Administration in Washington D.C., and will likely show improvement through the year.

The median home price in Los Angeles County was within a few hundred dollars of its pre-recession peak by the second quarter of this year, and may very well surpass it by yearend. At \$573,300, the median price rose by a solid 6.4% from a year earlier. With higher home prices, affordability constraints, and low supply, have limited sales as reflected in a scant 0.9% increase from the second quarter of 2016 to the second quarter of 2017. Because affordability is low, many local residents rent. This is also a very tight market, with a vacancy rate of just 3.3%, which has contributed to yearly rent hikes exceeding five percent.

Given tautness of the labor market, job growth for all of this year and next will not venture too far north of one percent. As in recent years, industries leading the way with job gains will be Health Care, Leisure and Hospitality, and Construction. Like the state, Los Angeles has a serious shortfall in housing construction, despite a modest increase in permitted units during the first half of this year. In the end, the county's economic growth potential will be constrained by its labor force, and the region's capacity to provide housing that will meet the varied needs of those workers and their families. This is not limited to low income and workforce housing needs, but extends further up the income scale to affordability concerns for moderate and upper middle income households as well.

Region in Transition: Retail Transformation and Consumer Trends

As major retailers and online shopping giants have rapidly expanded distribution networks, consumers have benefitted immeasurably. Onerous weekday errands and the associated hours spent hunting through aisles, flagging down sales associates, and driving across town to compare prices and models are all tasks that consumers are abandoning in ever greater numbers. Meanwhile, dollars are increasingly spent online, and e-commerce sales continue to comprise a larger share of total retail sales: As of January 2017, e-commerce contributed 8.5% of total sales, up from 7.1% just one year prior.

This is not to say that there haven't been costs: between January and July of this year, Retail employment fell by 79,900 on the national scale, based on data from the Bureau of Labor Statistics. While it remains to be seen whether this trend persists, it mirrors a downward trend that hit the South Bay in 2016. That said, not all retailers are contracting, and as the National Retail Foundation points out, the Bureau of Labor Statistics' measure of Retail employment can preclude workers in corporate offices, distribution centers, and otherwise non-customer facing branches. Hence, as some sales are moving away from storefronts, many large retailers are focusing more on back-end processes, with some resulting employment gains in Wholesale Trade, Transportation and Warehousing, and other related sectors.

Overall, however, economic growth is translating to increased consumer spending. Based on mid-2016 data provided by the Bureau of Labor Statistics, the average American household spends \$56,258 annually, 2.3% more than it did in 2015. Some of the fastest growing categories of spending for all households include health care and rent, mirroring increasing health insurance adoption, as well as the trend of rising housing costs in many areas. However, for both life cycle and structural reasons, consumption trends differ between generational cohorts.

According to a recent Wells Fargo analysis, the fastest growing category of expenditures for Millennials has been food away from home. At 6.2% of household incomes, Millennial-headed households already spend a greater share of their incomes on dining out than any other generation. Still, Millennial-headed households have reason to object to claims that they're spending too much on avocado toasts to save for down-payments, given the fact that per person spending on dining out in the average Millennial household came out to \$1,121 in 2016—below spending levels in every cohort but the Greatest Generation.

Household level data from the Bureau of Labor Statistics doesn't favor the stereotype of the "experiential Millennial," either. In 2016, the average Millennial household spent \$2,277—or 4.8% of average household income—on Entertainment. This represented a smaller share of total income than any other cohort, as well as a smaller absolute amount spent per person. Note, however, that Millennial-headed households represent a shrinking share of American Millennials as a whole. As will be discussed in the Spotlight: Generational Lifestyle Trends section, living with parents has become the most common living arrangement for young adults for the first time in 130 years.

CATEGORY	MILLENNIALS (1981-NOW)	GENERATION X (1965 TO 1980)	BABY BOOMERS (1946 TO 1964)	SILENT GENERATION (1929 TO 1945)	GREATEST GENERATION (1928 OR EARLIER)
Housing	35.0%	32.8%	30.7%	35.7%	47.2%
Clothing	3.6%	3.6%	3.2%	2.0%	0.8%
Eating Out	6.1%	5.8%	4.9%	4.6%	3.7%
Food at Home	6.9%	7.3%	7.1%	7.5%	8.6%
Entertainment	4.6%	4.8%	5.5%	5.4%	3.0%
All Other Spending	43.6%	45.7%	48.6%	44.8%	36.6%
Total Spending	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Bureau of Labor Statistics

SOUTH BAY ECONOMY AND OUTLOOK

Overview

Despite a slower pace of job creation through 2016, the South Bay has remained an engine of growth in Los Angeles County. Employment in the South Bay has reached a record high, many industries are adding to their ranks, and wages are climbing. While declining taxable sales in the area suggest slowing business expansion, the Ports of Los Angeles and Long Beach are poised for a record year in container activity and the broader transportation and logistics sector is humming with activity. At the same time, real estate markets continue to advance with higher home prices in the midst of tight supplies.

Local establishments employed almost 555,000 workers in 2016, representing an annual gain of 1.1%. This fell behind County-wide job creation, which rose 2.5% last year. However, with the local unemployment rate at 4.5% in the South Bay, the region is at or near full employment and faces a tighter labor market than the County. In fact, the California Employment Development Department reported unemployment rates below 3% in six of the 16 South Bay cities it provides estimates for. It is likely that employment growth moving forward will continue to be constrained, given tight labor conditions and limited new housing stock. A tighter labor pool also appears to be leading employers, in the aggregate, to increase wages to attract new workers.

Still, it is worth noting that within the South Bay, a few inland cities have less tight labor markets: Carson (6.9%), Inglewood (6.9%), and Gardena (5.3%) all had higher unemployment rates than the broader region and county in 2016, due in part to low educational attainment levels and the mix of jobs held by workers in the area.

	LOS	ANGELES COUN	NTY	SOUTH BAY REGION				
INDUSTRY	EST.	EMPLT.	A.A.W. (\$)	EST.	EMPLT.	A.A.W. (\$)	LQ	
Natural Resources	480	8,900	74,000	60	1,500	67,100	1.3	
Construction	13,630	132,500	61,000	1,540	17,400	63,600	1.0	
Manufacturing	12,250	355,600	68,200	1,390	75,700	107,100	1.7	
Wholesale Trade	19,650	223,400	62,100	1,990	26,500	74,500	0.9	
Retail Trade	26,900	416,800	34,500	3,030	51,900	34,000	1.0	
Transportation/Utilities	6,280	162,100	58,900	1,620	57,600	63,000	2.8	
Information	9,420	227,500	106,000	590	11,500	122,000	0.4	
Financial Activities	24,980	217,800	99,100	2,800	24,300	82,300	0.9	
Professional/Business Services	46,990	596,900	73,700	5,120	83,100	66,400	1.1	
Educational Services	3,200	98,000	56,700	390	8,600	47,500	0.7	
Health Care	213,990	650,700	43,600	18,970	65,300	45,900	0.8	
Leisure and Hospitality	32,000	506,200	36,500	3,070	67,000	28,500	1.0	
Other Services and Unclassified	26,630	146,800	36,800	4,600	18,500	35,500	1.0	
Government	6,190	562,000	69,300	730	46,100	63,600	0.6	
Total	466,350	4,344,600	59,900	45,890	555,000	62,200	N/A	

ESTABLISHMENT COUNT, EMPLOYMENT, AND ANNUAL AVERAGE WAGE (AAW) BY INDUSTRY, 2016

Source: California Employment Development Department

Spotlight: Generational Lifestyle Trends

Understanding demographic trends is essential to predicting a vast array of outcomes—hence the fascination economists, marketers, and politicians all have with generational differences. However, making sweeping statements about generational traits has at times added to the noise, rather than greater understanding, of differences across generations. Claims that millennials are spendthrifts who can't save up for mortgages because they're spending all their money on avocado toasts¹ coexist with claims that millennials are scarred by the recession.² Millennials are social media addicted narcissists,³ Baby Boomers are excessive sociopaths,⁴ and GenXers are neither fish nor fowl.⁵ Many of these claims treat differences as lasting and intrinsic to distinct generational subcultures (cohort effects)—but as Pew Research explains, generational research isn't quite so straightforward. Differences can also be explained by life cycle effects (which shift over an individual's lifetime), and period effects (which impact all generations, regardless of age in an enduring way).

While we can't possibly weigh in on all, or even most claims that have been put forward, we can describe how some of these trends have been bearing out locally. Based on an analysis of 2015 U.S. Census data, Beacon Economics found that Millennials in the South Bay are making different life decisions than the same age cohort (18 to 34 years) ten years prior. To start, Millennials seem to be putting off marriage, and 22.5% were married in 2015—compared to 31.4% of the same age cohort in 2005. This trend has been mirrored in the State and County, which both saw even larger declines in marriage rates.

However, homeownership trends in the South Bay contrast with those in the State and County, where all age cohorts are renting at higher rates than they did ten years prior. By contrast, this is only true of Generation X and Millennials in the South Bay. Older generations on the South Bay have higher levels of economic independence. The result is that South Bay retirees own their homes at exceptionally high rates: as of 2015, 100% of the Greatest Generation, 87% of the Silent Generation, and 80.3% of Baby Boomers in the South Bay own their homes. This would be supported by a rough correlation between age and the degree to which personal income⁶ has risen in the last decade. Whereas South Bay Millennials saw virtually no change in nominal median income, the Silent Generation of 2015 makes 65.7% more than the same age cohort did in 2005. On the other hand, South Bay Millennial headed households have seen the largest decline in homeownership rates: 29% owned their homes in 2015, a 5-percentage point decline compared to homeownership rates for that age cohort ten years prior.

However, Millennial heads of households are a less than representative sample of the generation. In 2014, adults aged 18 to 34 were more likely to be living in their parents' home than they were to be living with a partner or spouse in their own household for the first time in 130 years, according to Richard Fry. The share of all American young adults living with their parents was 35% in 2014—up nearly 10-percentage points from 2000. This has also been a function of fewer young adults cohabiting or living with spouses, a trend that has been declining since peaking in the 1960s.

¹ http://money.cnn.com/2017/05/15/news/millennials-home-buying-avocado-toast/index.html

² https://www.forbes.com/sites/maggiemcgrath/2015/06/22/millennials-the-money-conscious-generation/#e2d37d75dc3c

³ http://www.npr.org/2016/07/12/485087469/me-me-me-the-rise-of-narcissism-in-the-age-of-the-selfie

⁴ https://www.washingtonpost.com/opinions/if-americas-messed-up-blame-it-on-the-boomers/2017/03/09/a6ccce16-eef8-11e6-b4ff-ac2cf509efe5_story.html?utm_term=. aabe15b43269

⁵ http://www.pewresearch.org/fact-tank/2014/06/05/generation-x-americas-neglected-middle-child/

⁶ This refers to median income, irrespective of working status

Spotlight: Generational Lifestyle Trends

South Bay Millennials over 25 years of age are about as educated as Millennials in the State, and close to 34% have completed a bachelor's degree or higher. However, costs of living, and little difference in wages have made millennials in the South Bay substantially more dependent on older generations. South Bay Millennials who were employed brought in a median income of \$24,200 in 2015, a mere \$200 over what they made in 2005. While Millennials in the South Bay once made more than their counterparts in the County and State, they have since fallen behind. By contrast, every other cohort in the region has seen strong income gains over the last decade.

South Bay Millennials are far more likely to live with their parents than in any other type of arrangement. The share of Millennials living with their parents in the South Bay came in at 43% in 2015, compared to 37.7% in the County, and 34.4% in the state in 2015. At a distant second, the next most common living arrangement for South Bay millennials was living with their own children (even more so than childless cohabiting). However, as with many demographic characteristics in the South Bay, the degree to which this is true varies by community. Millennials live with their parents at the highest rates in Carson (61.7%), and at the lowest rate in the cities of Redondo Beach, Hermosa Beach, and Manhattan Beach (20.7%).⁸

Since the ability (and willingness) to rely on a familial network is not universal for all young adults, Millennials have been leaving Los Angeles County at a higher rate than any other generation. This is notable, but on the national scale, Millennials are reportedly moving less than previous generations did at the same age.⁹ In 2015, the Census Bureau indicates that nearly 156,000 Millennials left the County over the last year. More than half of these remained within California, relocating at the highest rates to Orange County (19%), San Bernardino County (17%), and Riverside County (9%). Those who had moved out of state reported living in Arizona (14%), Texas (12%), and Nevada (8%) at the highest rates.

¹ http://www.pewsocialtrends.org/2016/05/24/for-first-time-in-modern-era-living-with-parents-edges-out-other-living-arrangements-for-18-to-34-year-olds/

⁸ These figures represent public use microdata (PUMA) statistics for the area, as provided by the Census Bureau.

⁹ https://www.economist.com/news/united-states/21719501-would-turn-conventional-wisdom-renting-better-labour-mobility-its

Overall gains in the South Bay belie mixed industry performance, in terms of payroll expansion. However, the region's most concentrated industries appear to be leading much of recent growth. One measure of an industry's relative strength in a region is its location quotient (LQ), which measures the concentration of a given industry's jobs in the region when compared to the County as a whole. The Transportation and Utilities sector in the South Bay had an LQ of 2.8 in 2016, meaning that the region's concentration of jobs is 2.8 times that of the County. This industry will continue to buoy the overall economy, along with Manufacturing (with an LQ of 1.7), which has a relatively greater presence in the region than in the County as a whole.

One of fastest growing industries in both the South Bay and Los Angeles County has been Construction (+5.8% year to year), due to strong permitting activity in the South Bay and adjacent areas for several years running. However, permit levels have slowed more recently, in conjunction with a decline in architectural and engineering employment, can be viewed as a leading indicator for construction employment itself. Therefore, it is likely that Construction employment will lose steam moving forward. On the other hand, the local Manufacturing sector in the South Bay as a whole (+5.7% year to year) has been a strong driver of job creation. This comes in contrast to contraction in county-wide Manufacturing of 1.7%. Strengthening port activity has also been a boon to the local economy, which, in tandem with e-commerce, has bolstered gains in the Logistics sector (+5.7% year to year).

On the other hand, some sectors have not been faring as well in the face of changing consumption trends. Local Wholesale (-4.7% year to year) and Retail (-0.9% year to year) sectors have been adversely impacted by the rising convenience of online shopping. Other sectors to post significant losses between 2015 and 2016 included Educational Services (-1.6 year to year) and Professional and Business Services (-6.7% year to year). Private educational services employment continued to track downwards over the last year, due in part to declines in private school enrollment among residents.

Locally, the Professional and Business sector was also roiled by the loss of many jobs in the Architecture and Engineering subsector. This came even as the sector in the broader county posted modest job gains of 1.6%. On the other hand, the Professional, Scientific, and Technology subsector pushed through the year with healthy gains, and so far into 2017, venture capital investment in the region has already hit historic highs. The recent acquisition by Gilead Sciences of Kite Pharma, which has manufacturing offices in El Segundo, for \$11 billion was the fourth largest deal in Healthcare this year, based on PitchBook data, and signals larger players taking interest in the region.

Exciting new developments in the South Bay, including the highly-anticipated Inglewood Stadium and a regional fashion outlet mall planned for construction in Carson, are expected to stimulate further growth in the local economy. The local public sector may also play an important role in the economic development of the region, and recent initiatives by the South Bay Workforce Investment Board represents steps taken in the right direction. Specifically, as the region capitalizes on Silicon Beach's expansion, critical infrastructure, such as high-capacity fiber optic connectivity, will be increasingly vital to growth.¹⁰ Innovation in the South Bay will further be supported by major research universities in Southern California, who have established centers in the area and have been joining forces with venture capitalists and corporations to promote tech sector growth.¹¹

 $^{^{10}\,\}underline{http://www.dailybreeze.com/technology/20170805/why-fiber-optics-is-key-to-future-silicon-beach-tech-expansion}$

¹¹ <u>https://news.usc.edu/126747/usc-joins-coalition-to-shape-socal-into-the-next-global-tech-hub/</u>

Income and Wages

As labor conditions have tightened in the South Bay, employers have responded with wage hikes in most industries. On average, employees in the region made \$62,200 in annual wages over the course of 2016. This represents a 2.7% gain over last year, and real income gains of 1.4%. South Bay workers are disproportionately employed in high skill industries, and as such, the average South Bay worker makes 3.9% more than the average Los Angeles County worker, although compensation varies substantially from industry to industry.

Information and Manufacturing workers make the highest wages in the region, and make substantially more than their counterparts in the county. Due to the high concentration of aerospace firms, payrolls in the South Bay Manufacturing sector are higher than in the county in large part, but rapid growth in the computer peripherals and product manufacturing subsector has been a primary driver of wage and employment gains over the last year. Between 2015 and 2016, average annual wages in the broader sector rose 16.7%. On the other hand, South Bay industries that tend to be part time and low wage often pay less per worker than in the county: the average worker in Leisure and Hospitality, for instance, made \$28,535 in 2016, compared to \$36,526 in the County. There may be several reasons for this differential, among them the possibility that the average South Bay worker in Leisure and Hospitality makes less per hour than in the County, may work fewer hours over the course of the year, or both.

Business Establishments

Business creation has been strong over the past 10 years, with a net increase of 16,348 firms operating in the South Bay between 2007 and 2016. As of 2016, a total of 45,892 private and public sector establishments were operating in the South Bay. However, over the last year, consolidation in the Health Care and Social Assistance sector led to a slight region-wide decline in business creation of 320 firms. Wholesale Trade and Professional, Scientific, and Technical Services sectors also contributed to net firm losses. Still, most sectors continued to see new entrants: The Other Services sector (+327), Accommodation and Food Services (+75), and Transportation and Warehousing (+32) all realized net increases.

Over the most recent yearlong period, the Healthcare sector has seen significant firm losses, with 836 establishments exiting the South Bay in the last year. Firm losses have likely been due to industrywide consolidation, in addition to tightening labor conditions leading to better employment opportunities for what were previously sole proprietors or independent contractors. Meanwhile, business creation in the Other Services sector has continued on an upward trajectory of growth. This sector includes a whole array of personal services ranging from nail salons to car repair facilities, along with the nonprofit sector. A total of 4,598 firms were operating in this sector as of 2016, representing a 327 firm increase since the year prior.

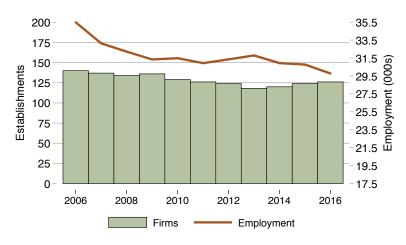
South Bay Outlook

Looking at the balance of this year through to the end of next year, the outlook for the region is good. While job gains are expected to slow further, job creation will occur in many industries, with local strength coming from key industries that are well represented in the region. With local labor markets at or close to full employment, and little anticipated growth in the South Bay housing base, greater worker bargaining power is expected to push wages higher, and payrolls are forecast to increase at robust pace. In turn, local spending as reflected in taxable sales will see solid gains through next year.

MAJOR INDUSTRIES

Aerospace and Defense

A number of forces have continued to contribute to employment declines in the South Bay's aerospace sector: declining commercial aircraft production, increasing sector concentration outside of Southern California, automation, and budget cuts. Those declines continued through 2016, and the 29,800 workers in the local industry represented a 3.2% decline from 2015 levels, and a 16.1% decline over the most recent ten-year period. Still, the South Bay is home to the lion's share of the County's aerospace workforce of approximately 36,000 workers. Even with fewer jobs, the sector pays well: The average Aerospace worker was paid \$125,040 in 2016, up 0.9% year to year.



AEROSPACE INDUSTRY - SOUTH BAY, 2006 to 2016

Despite recent losses, there are reasons to think that the outlook for the South Bay Aerospace sector remains bright moving forward. International demand for civil and defense exports has been on the rise, and international sales reached a record \$146 billion in 2016. According to the Aerospace Industry Association, civil aerospace exports were showing signs of deceleration in 2016, however.¹² This is consistent with industrial production data provided by the Board of Governors of the Federal Reserve System, which indicates that average monthly production

of aerospace products and parts declined by 3.9% through the first half of 2017.

Looking out over the longer term, the South Bay will continue to benefit from Boeing's satellite operations in El Segundo, as well as the presence of Northrop Grumman and other major Aerospace/Defense firms elsewhere in the region. Moreover, the region's many aerospace subcontractors stand to benefit from growth in commercial aircraft production in the coming years. Boeing's 2017 forecast predicts that the global commercial jet fleet will double in size by 2036, fueled by the expansion of the global middle class, especially in Asian Pacific markets.¹³ This represents 41,030 deliveries, and a market value of \$6.1 trillion. Airbus's forecast is also optimistic, albeit more modestly so. The 2017 Global Market Forecast projects 34,900 new aircraft by 2036, a market value of \$5.3 trillion.¹⁴ These projections bode well for the aerospace subcontractors in the South Bay.

Furthermore, there is reason to believe that federal defense spending will rise in the upcoming fiscal year, despite upper limits on defense spending imposed by the Budget Control Act of 2011. The Trump administration's proposed budget for the 2017-18 fiscal year calls for \$574.5 billion in base budget and \$64.6 billion in overseas contingency operations spending, exceeding the Obama administration budget by 3%. While defense budget increases would undoubtedly

Sources: California Employment Development Department

¹² http://www.cnbc.com/2017/02/14/us-aerospace-defense-sector-fires-off-146-billion-in-exports.html

¹³ <u>http://www.boeing.com/commercial/market/current-market-outlook-2017/</u>

¹⁴ <u>http://www.aircraft.airbus.com/market/global-market-forecast-2017-2036/</u>

benefit aerospace contractors with a presence in the South Bay, consumer oriented ventures and products have continued to show promise, and could also provide momentum for revival. Given the strong concentration of research universities and talent in the area, it is no surprise that private space exploration firms including SpaceX, Virgin Galactic, and Vulcan Aerospace have all located to South Bay in recent years. With federal defense spending and new ventures likely to offset slackening demand for new commercial aircraft in the near term, the outlook for aerospace in the South Bay remains positive.

Manufacturing

Non-aerospace manufacturing comprises 57% of South Bay Manufacturing jobs, most of which involve the production of transportation equipment and motor vehicles. Manufacturing employment experienced a turnaround from ongoing job losses in recent years with a 5.7% increase in 2016. Average non-aerospace wages rose 41.4% to \$95,500 in 2016, due in large part to strong employment growth in the Computer and Electronic Product Manufacturing subsector, which added 4,600 jobs over the course of the year. Positions in this subsector are the highest paid in the local industry, with average annual wages estimated to be \$179,200 in 2016.

Across Manufacturing subsectors, the picture was mixed in 2016: Aside from Aerospace and Defense, other subsectors that posted employment losses included Transportation Equipment Manufacturing (-939 year to year) and Fabricated Metal Product Manufacturing (-326 year to year). Despite the ongoing exodus of Toyota, the region remains home to American Honda. Moreover, electric and autonomous vehicles have been spurring an automobile manufacturing renaissance in the Bay Area. As Tesla, Faraday Futures, and other California automobile manufacturers ramp up production, parts contractors in the Los Angeles region will likely be positively impacted.

Entertainment, Sports Management, and the Arts

The impending moves of the Rams and Chargers to the planned Inglewood Stadium are expected to raise the profile of the South Bay's Entertainment, Sports Management, and the Arts sector. The stadium will join Carson's StubHub Center and Inglewood's Forum as major venues for sporting events in the region. These moves have already propelled huge gains for Inglewood real estate values. Furthermore, the planned use of these regional venues in the 2028 Olympic Games will ensure that the South Bay will see its share of games-related job creation and investment, leading up to and during the summer of 2028.

SUBINDUSTRY	2015	2016	CHANGE	% CHANGE
Entertainment and Digital Media	2,580	2,184	-396	-15.3%
Sports Management	1,877	2,013	136	7.2%
Arts/Creative	775	841	66	8.5%
TOTAL CLUSTER	7,247	7,054	-193	-2.7%

EMPLOYMENT BY INDUSTRY SECTOR

Source: California Employment Development Department

Overall, employment in this industry cluster decreased by 193 jobs or 2.7% from 2015 to 2016. Employers in the Sports Management subsector and the Arts/Creative subsector ramped up employment through 2016, but job cuts in the larger Entertainment and Digital Media subsector more than offset those gains.

Still, workers in the South Bay's Entertainment and Digital Media subsector saw substantial pay hikes in 2016 of 5.0%, and were paid an average annual wage of \$133,500, slightly more than the sector as a whole. On the other hand, The Arts/ Creative sector saw wages edge up slightly to \$85,600, while the Sports Management sector saw the average annual wage fall from \$140,500 to \$132,000. This indicates that recent hires are likely paid lower than average sector wages.

Spotlight: Public and Private Infrastructure

The recent decision to award Los Angeles with the 2028 Summer Olympic Games, while a detour from initial efforts to win the 2024 games, is expected to be a boost for the local economy. Based on a commissioned analysis by Beacon Economics, the hypothetical impacts of the 2024 Games were ball parked to be between \$10.6 billion and \$11.2 billion in economic output, approximately \$5 billion in labor income, and between \$0.15 billion and \$0.17 billion in local tax revenue.

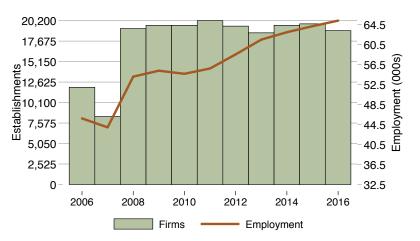
LA 2024 officials were mindful of planned and existing infrastructure over the course of the bidding process, given the rampant cost overruns and fiscal disaster that have become associated with hosting the Olympics in recent memory. The Organizing Committee of Olympic Games anticipates minimal infrastructure will be built exclusively for the games. Rather the Games will almost entirely rely upon existing infrastructure and venues that will be in place at the time of the games, resulting in minimal capital outlays and no stranded infrastructure. Indeed, only one permanent new facility will be built at the StubHub Center for cycling events. The opening ceremony is planned to begin at Memorial Coliseum and conclude at Inglewood's planned stadium, which is set for completion in 2020.

Not only does the region already have a large number of sports venues, it also has experience in handling both high tourist volumes and simultaneously hosting major events. A planned expansion at the LAX is already expected to be completed by 2019, which, in tandem with better public transport between the airport and major attractions, will ease the movement of tourists and athletes in and out of the city. In all, logistical aspects relating to the Olympics are expected to go smoothly and cause little disruption to the general economy.

Health Care

The Health Care sector has been a mainstay of the South Bay economy, adding jobs at a rate that is surpassed only by the public sector. Over the course of 2016, Health Care expansion in the South Bay lagged the County (+3.7% year to year) and State (+3.5% year to year), expanding at a 1.7% rate and adding 1,100 jobs. Overall job gains have occurred even as small and independent operators have been struggling to get by in the face of structural healthcare shifts introduced by the Affordable Care Act.

In looking at subsectors, Hospitals saw 7.8% employment growth, accounting for 84% of all jobs added in the sector in the last year. On the other hand, the Social Assistance subsector saw employment levels drop by 2.6% last year. It should be noted that average annual wages in the Social Assistance subsector are the lowest in the Health Care field, at \$19,700, while wages paid by Hospitals are the highest, at \$67,400.



HEALTH CARE AND SOCIAL ASSISTANCE INDUSTRY - SOUTH BAY, 2006 to 2016

Sources: California Employment Development Department

Rapid coverage expansion and the aging population have been primary drivers of Health Care sector growth since the introduction of the Affordable Care Act. However, drawn out political infighting and uncertainty—and particularly, the current administration's refusal to guarantee cost-sharing reductions—are causing many insurers to raise rates. Covered California, which covers 551,510 people in Southern California,¹⁵ has not been exempt and announced planned rate hikes of 12.5% next year. Reportedly, Anthem Blue Cross will no longer be providing Covered California plans in Southern California as well.¹⁶

Education

Recent research performed by the Equality of Opportunity Project validates the role of public universities in California as major contributors to economic mobility, as gauged by the share of alumni that rose from the bottom quartile of households to the highest quartile by individual incomes between the early 2000s and 2014. California State University, Dominguez Hills ranked 10th of 168 state institutions in terms of its mobility rate. In 2014, Cal State Dominguez Hills alumni were making a median income of \$40,300, and had achieved a 5.6% mobility rate—outperforming many major research universities in California, including the University of Southern California and UCLA.

¹⁵ http://www.dailynews.com/government-and-politics/20170718/southern-california-patients-uneasy-about-future-of-health-care-after-senate-bill-fails

¹⁶ http://www.ocregister.com/2017/08/01/covered-california-rates-for-2018-to-rise-by-12-5-percent-statewide/

EDUCATIONAL SERVICE INDUSTRY - SOUTH BAY, 2006 to 2016



Sources: California Employment Development Department

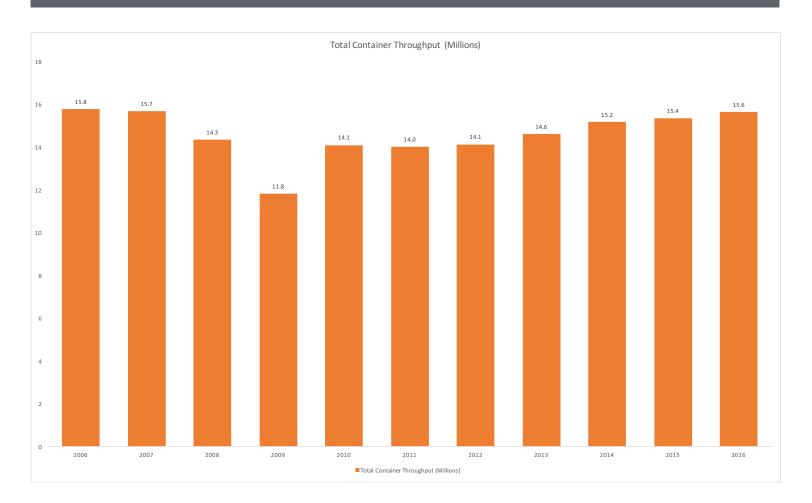
On the whole, Educational Services employment has been declining in the South Bay as enrollment in private schools has been trending downwards. Between 2014 and 2015, South Bay cities saw private school enrollment fall from 33,400 in 2014 to 32,500 in 2015. In the same time frame, public schools in the area have seen little change in enrollment. This is in line with falling birth rates following the movement of Baby Boomers out of peak childbearing years. The California Department of Finance is also predicting a decline in the Los Angeles County population aged 5 to 19 years in the next few years, so enrollment is likely to continue falling in the foreseeable future. The 1.6% drop in sector employment between 2015 and 2016 was modest compared to 9.5% declines the year before.

International Trade/Goods Movement

With some of the most prominent points of entry and exit for goods in the United States in its vicinity, the South Bay economy benefits greatly from growth in the nation's trade activity. Higher household incomes in the U.S. have led to more spending and heightened demand for imports in recent years, while demand for U.S. exports has seen noteworthy improvement as a result of recent growth in the global economy.

The local Transportation and Warehousing industry in the South Bay had a great year in 2016 as employment and wages posted strong increases. From 2015 to 2016, payroll jobs in the sector increased by 5.7% as total wages jumped 12.5%. This rate of growth was on par with the County overall where Transportation and Warehousing employment increased by 5.9% over the period. The latest payroll numbers for Los Angeles County show job levels to be holding steady as employment in the sector edged up 0.5% for the first seven months of the year compared to the same time period a year prior. While employment numbers for the South Bay are net yet available for 2017, they are likely tracking the overall county numbers closely.

The strong employment and wage gains in 2016 came as little surprise as port activity was robust. Container traffic at the combined ports of Los Angeles and Long Beach was on the rise as the total container throughput (the sum of inbound, outbound, and empty containers) increased 1.8% from 2015 to 2016. The number of loaded containers at the Port of Long Beach was down 3.5%, but this was more than offset by a 9.5% increase at the Port of Los Angeles.

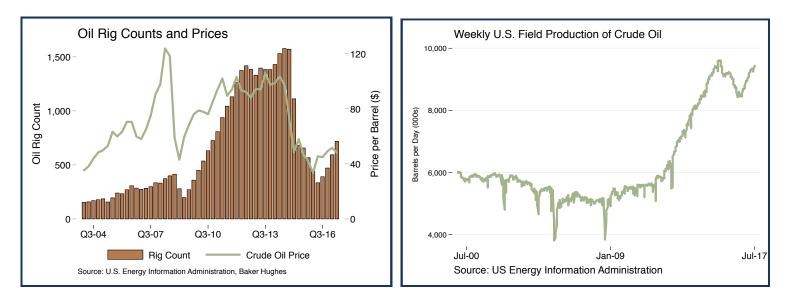


Trade flows through Los Angeles International Airport also trended favorably in 2016 as the total value of imports and exports were 1.4% higher than 2015 values. The value of imported goods declined by 1.1%, but the value of exported goods increased by 4.1%.

As good as 2016 was for the region, the latest trade statistics for 2017 point towards another good year for South Bay logistics operations. Total loaded container traffic passing through the ports of Los Angeles and Long Beach were up 5.2% for the first half of 2017 compared to the same time period a year prior, and the total value of exports and imports passing through LAX was 13.7% higher over the same time period. Indeed, the twin ports are on track for a record-setting year of container activity. Employment in the Wholesale Trade industry in Los Angeles County, another barometer for goods movement in the region, is also showing signs of continued growth as employment levels for the first seven months of the year were 1.5% higher than the same year-to-date period in 2016.

Energy/Oil Sector

The current glut of oil production continues to exert downward pressure on prices, while domestic production continues to expand. The United States has nearly doubled domestic output in the last 10 years and there is still plenty of new oil that could be produced. Meanwhile, there are substantial reserves elsewhere around the globe, such that the Energy Information Administration (EIA) "expects crude oil production to reach an average of 9.9 million barrels per day, which would surpass the previous record of 9.6 million set in 1970."¹⁷ With this in mind, it appears that a price of \$50 per barrel of oil is the approximate upper bound for now, and a price of \$100 won't be hit anytime soon.



The South Bay is home to some of the state's largest refineries, in terms of total refining capacity. Oil refineries play a key role in the energy market, by converting crude oil into fuel that can be used as gasoline for cars, jet fuel for airplanes, diesel for trucks and trains, and many other uses. The region also has a much smaller workforce in the energy extraction sector. Taken together, the Energy/Oil industry cluster might not be one of the region's largest employers, employing just 4,000 workers; but it does pay some of the highest wages, with an average annual wage of \$132,900, more than double the average wage across all industries in 2016.

Employment data for Energy/Oil in the South Bay shows that the industry has experienced a 1.0% contraction in job counts from 2015 to 2016, following sharper declines in 2014 and 2015. This pattern largely mimics the county and national trend. Part of the decline in overall employment is attributable to consolidation in the industry. For example, in 2013, the Tesoro Refinery bought the neighboring BP West Coast Products LLC Carson Refinery for \$2.5 billion and has since integrated staff and some operations.¹⁸ Employment in Energy/Oil peaked in 2008, but is currently trending 12.5% below its pre-recession peak.

¹⁸ Daily Breeze (2015, January 18). Tesoro seeks to bring Carson, Wilmington refineries together. Retrieved August 5, 2017, from http://www.dailybreeze.com/business/20150118/tesoro-seeks-to-bring-carson-wilmington-refineries-together

¹⁷ Society of Petroleum Engineers (2017, July 20). US Daily Oil Production to Break Record in 2018. Retrieved August 5, 2017, from https://www.spe.org/en/ipt/jpt-article-detail/?art=3231

Where do we go from here? The Tesoro Refinery, which is located in Carson, has had plans to merge two South Bay oil refineries, making it the largest single West Coast oil refinery. City officials in Carson have negotiated a \$45 million agreement with Tesoro Corp. to reduce pollution impacts from the merger.¹⁹ Earlier in July, after a contentious dispute along the way, Tesoro Corp. received the greenlight to consolidate its two South Bay plants. Carson has officially signed off on the Los Angeles Refinery and Integration and Compliance Project (LARIC). The merger will connect Wilmington and Carson refineries, expanding oil-storage capacity, while also adding additional pipelines under major streets. The LARIC would also increase the output capacity of the Carson plant to over 400,000 barrels a day.²⁰

While the industry is relatively capital intensive, the \$460 million investment will provide a significant source of construction jobs and additional jobs down the supply chain as the project commences. By all appearances, the outlook for the industry is steady in the absence of any major shock to the industry or the economy. An improving global economy, energy exploration, and hydraulic fracking all imply that the price of oil be low over the foreseeable future, but the demand for product coming out of local suppliers will remain strong, given the ongoing strength of the economy and the fact that there is limited refining capacity to serve all of California.

Professional, Scientific, and Technical Services

As one of the top paying industries in the South Bay, the Professional, Scientific, and Technical Services industry is an important part of the local economy. The latest employment statistics for the region point to a decline in company payrolls, but this seems more to do with cyclical factors as opposed to structural issues with the local industry. From 2015 to 2016, employment in this industry declined by 4,758 jobs, or 12.9%. However, this was due entirely to a 5,385 decline in jobs in the Architectural, Engineering, and Related Services subsector, which was partially offset by gains in other subsectors.

The decrease in employment has coincided with a decline in construction activity, the primary driver of demand for architectural services. From 2015 to 2016, the total value of nonresidential permits in the incorporated cities of the South Bay declined by 13.8%, with the County overall seeing a decrease of nearly 7%. The residential side of the market did not fare well either as the number of single family units permitted was 1.4% lower, and the number of multifamily units permitted dropped by 35.8%. The pull back in construction activity is not entirely unexpected as permitting activity has returned to pre-recession levels, suggesting the region may have seen the cyclical peak of activity.

Outside of the sectors tied to construction activity, the Professional, Scientific, and Technical Services industry in the South Bay has grown at a healthy pace, led by the Computer Systems Design and Related Services subsector which saw a 4.9% increase in payroll employment. After netting out the Architectural, Engineering, and Related Services subsector, Professional, Scientific, and Technical Services Industry employment increased at a 2.3% rate from 2015 to 2016, which was on par with the 2.4% growth seen countywide.

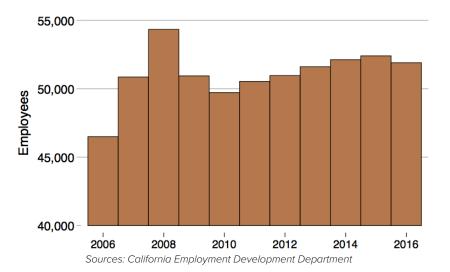
¹⁹ Daily Breeze (2017, March 15). \$45 million deal sweetens Carson on Tesoro's South Bay refinery expansion project. Retrieved August 5, 2017, from

http://www.dailybreeze.com/government-and-politics/20170704/45-million-deal-sweetens-carson-on-tesoros-south-bay-refinery-expansion-project

²⁰ Long Beach Post (2017, March 29). Unanswered Questions Surround Tesoro Merger That Would Make It Largest Refinery on West Coast. Retrieved August 5, 2017, from <u>https://lbpost.com/business/trade-transportation/2000010652-unanswered-questions-surround-merger-that-would-make-tesoro-largest-refinery-on-west-coast</u>

Retail Trade

The Retail industry in the South Bay, much like the County as a whole as well as the state and nation, has been in a period of transformation as online retailers compete with traditional brick and mortar establishments. The effects of this transition can readily be seen in the region's employment statistics, which show the Retail industry in the South Bay has moved sideways at best for the last several years.



SOUTH BAY RETAIL EMPLOYMENT, 2006 to 2016

Total retail employment in the South Bay declined by 0.9% from 2015 to 2016, and while that may not be a severe decline, it does come on top of two consecutive years of slowing employment growth (1.0% growth from 2013 to 2014, 0.5% growth from 2014 to 2015). Los Angeles County overall experienced a similarly sluggish performance in retail employment in 2016 with a meager gain of 0.7%, but the pace of job creation has slowed for consecutive years as well (1.8% from 2013 to 2014, 1.5% from 2014 to 2015).

The most recent spending data suggest that

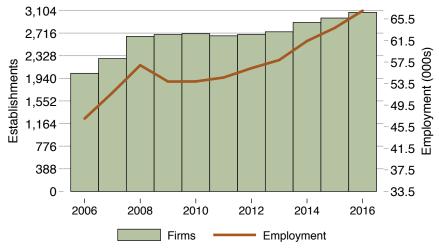
this trend has not reversed in the first part of 2017. In the first quarter, taxable sales in the incorporated cities in the South Bay were 3.6% lower than the same time a year prior. Employment statistics at the County level also show a sector facing challenges. For the first seven months of the year, Retail employment in Los Angeles County was down 0.2% compared to the same time period in 2016.

As discussed in our section on the Retail Transformation and Consumer Trends, technology has greatly benefited consumers, but it comes at a cost as efficiency gains can put people out of work. Self-checkout stands at grocery stores, for example, have had an impact on employment in the region. The Food and Beverage Store sector in the South Bay lost 671 jobs from 2015 to 2016, a 5.6% decline.

Even so, the South Bay remains home to a dynamic Retail industry. Numerous shopping centers serve the region's residents, among them the South Bay Galleria, the Del Amo Fashion Mall, The Point, the Promenade on the Peninsula, and the South Bay Pavilion. These facilities and others continue to make changes and improvements to better align the shopping experiences they offer with the tastes of today's retail consumer. Beyond this, new facilities are planned in the near future. In the City of Carson, for example, a high-end retail development is being planned on a 157-acre site facing the 405 freeway and Del Amo Boulevard. The Santa Monica based Macerich Real Estate Company is designing the Fashion Outlets of Los Angeles on a portion of the site. Online retailers have been successful in attracting consumers for a wide range of products, but many consumers may prefer on site shopping for high end merchandise.

Tourism and Hospitality

The broader County brought in a record 47.3 million visitors in 2016, with the greatest number of international tourists hailing from Mexico, China, and Canada, according to the Los Angeles Times.²¹ VisitCA estimates total traveler spending in LA County to have been \$26.9 billion in 2016, close to a \$1 billion increase over the previous year. So far into 2017, little momentum has been lost: the Los Angeles International Airport reports 5.2% growth in passenger volumes through the first half of the year, with 10.7% growth in international travel.



LEISURE AND HOSPITALITY INDUSTRY - SOUTH BAY, 2006 to 2016

The Leisure & Hospitality sector has long been one of the County's largest employers, and accounts for approximately 12% of nonfarm employment in both Los Angeles County and the South Bay. With sector-wide job growth of 5.0% in the South Bay, it is clear that the local tourism sector has been thriving the same as the County. Primary areas of growth in the South Bay included the Food Services and Drinking Places, which added 2,000 jobs between 2015 and 2016, and the Amusement, Gambling, and Recreation subsector, which added 1,000 jobs in that time frame. Employers in both subsectors, which tend to employ part time and low wage workers, also increased annual wages substantially: 6.8% year to year, and 7.9% year to year, respectively.

South Bay hotels face the highest occupancy rates in the Los Angeles metro area, at 87.5% in 2016, compared to the 83.7% metro average. This is in no small part due to the relative affordability of average daily rates in the region, with respect to nearby areas. In 2016, average rates in the South Bay came in at \$155.89–32% lower than the overall metro average. Area hotels experienced a 9.7% hike in daily rates since 2015, and as local hotel operators saw revenues rise in the double digits for the third year in a row, planned hotel construction in El Segundo and Redondo Beach accelerated.

²¹ http://www.latimes.com/business/la-fi-tourism-numbers-20170111-story.html

Sources: CA Employment Development Department

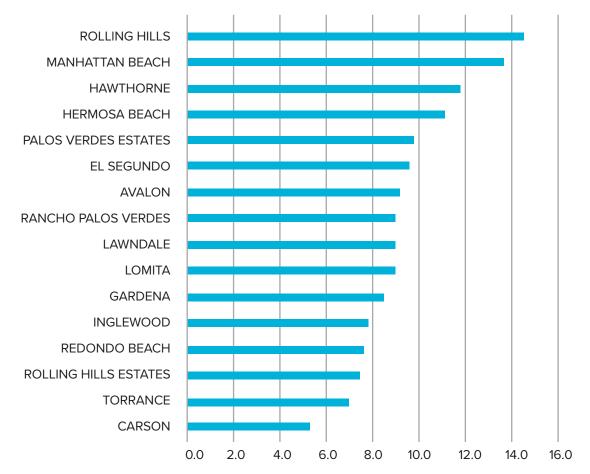
Real Estate and Construction

Residential Real Estate

Elevated demand for housing across California has carried over into 2016. As demand for housing keeps going up across the state, potential homeowners face the problem of limited supply for housing. The situation is true for both existing and new homes, as prices for both continue to increase. With home prices outpacing growth in income, affordability has worsened, which has caused higher priced regions to stagnate or even decline in prices.

As a result of sustained growth in the demand for housing, most cities in the South Bay area have experienced increases in their median home price. However, the median home price in the South Bay area has actually dropped 1.8% between 2015 and 2016, because of significant decreases in higher priced areas in the Palos Verdes Peninsula, causing a change in the mix of sales that makes up the area median price. At the same time, more affordable cities, such as Inglewood and Carson, continued to see price increases, as demand in those areas has remained strong.

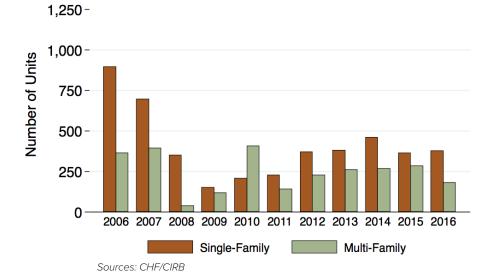
The rate of home price appreciation in the South Bay area has slowed over the past year. The majority of cities experienced price gains, led by Harbor City with an increase of 14.7%. Meanwhile, the median price in Rolling Hills fell by 25.4%, mainly because the city has relatively few sales with home prices that vary greatly from property to property. El Segundo continued to grow, with a 13% increase in home prices from 2015 to 2016.



HOME PRICE TO INCOME RATIO BY CITY

While cities in the South Bay generally have higher prices than other parts of Los Angeles County, those areas within the region that have relatively more modest home prices will continue to see demand grow and experience price appreciation, as potential homebuyers look for more affordable areas. Recent trends imply that the median price in the South Bay is expected to go up, as the mix of sales in the area stabilizes.

Residential building permits fell over the past two years, making an already tight market even worse. Between 2015 and 2016, the number of residential building permits decreased from 645 to 559 in the South Bay, a 13.3% drop. However, the single-family market saw a 4.1% increase in permits issued, a recent trend in the South Bay and across California in general. At the same time, multifamily permits have declined significantly from 2015 to 2016, falling by almost 36%, indicating a slowdown in construction of multi-family housing in the region.



RESIDENTIAL BUILDING PERMITS - SOUTH BAY, 2006 to 2016

Future developments within the South Bay area will provide some relief to the pent-up demand facing the housing market right now. The long-awaited renovation and expansion of the South Gate Galleria in Redondo Beach is reported to have up to 300 housing units nearby when completed. More housing is to be developed in and around Redondo Beach as a result of this expansion. Home prices in Redondo Beach, which already lie above the South Bay average, are expected to increase in the neighboring area because of this expansion. Other areas where considerable developments are taking place include Torrance, where developers aim to increase the number of residential units in some of the less densely populated areas to accommodate the high demand.

Nonresidential Real Estate

The nonresidential market in the South Bay remains strong and is adapting to market pressures and demands. The second quarter of 2017 had slowly increasing rental rates, when compared to the second quarter of 2016, while the picture was mixed for vacancy rates. New construction has also appeared to reach a peak after having extremely rapid growth over the last few years. Office vacancy rates remained steady at 13% over the last year.

OFFICE REAL ESTATE

Office vacancy rates in the South Bay are typically higher than the county as a whole. In the second quarter of this year, the South Bay office vacancy rates stood at 15.7%, up slightly from the previous quarter but down 1.8% from the year prior. Having decreased by 5.1% in the past five years, the declining trend in office vacancy rates shows how fast this market is filling. Los Angeles County is experiencing similar changes, except not as severe as the South Bay. LA County Vacancy

rates are 14.0%, which is a 2.8% decrease from five years ago.

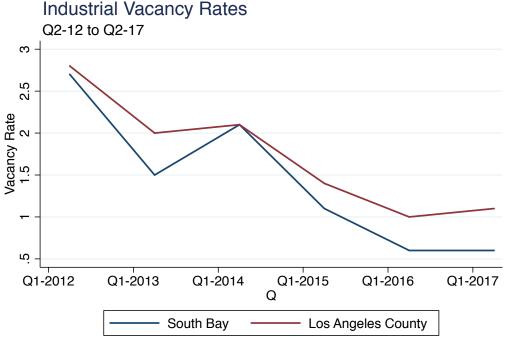
With vacancy rates falling, lease rates have been on the rise. Asking rents in the South Bay rose 4.0% year-to-year in the second quarter, somewhat lower than the county-level increase of 5.3% over the same period. Even so, the South Bay has seen an impressive string of yearly increases in asking rents, as sign of continued demand for space in the area.

Recently, many companies have been taking a lower cost approach to their operations. Companies that support the option to work from home have placed less emphasis on the importance of having a physical office presence. Many of the largest companies in the South Bay offer work from home careers such as: Disney, DirecTV, Qualcomm, Health Net, and many others. Going further, some offices have reduced the footprint per worker and, in some cases, have eliminated assigned space for individual employees, instead moving toward more flexible arrangements that are dictated by who is in the office on any given day.

INDUSTRIAL REAL ESTATE

Industrial real estate vacancy rates have remained at 0.6%, unchanged since last year in the South Bay and Los Angeles County saw a negligible change as well. In turn, asking rents have escalated in recent years in response to scarcity of space across the South Bay region. According to REIS, absorption of industrial space in the South Bay decreased by 75% from the second quarter of 2016 to the same period this year 2017. Toyota's USA headquarters in Torrance has moved operations to Plano, Texas and the 2 million square-foot space of industrial and office real estate is now on the market. Due to increased e-commerce sales, many companies are vying for light industrial real estate. Best Buy recently leased a 470,000 sq. ft. space in Compton, Simplehuman USA leased 219,000 sq. ft. in Long Beach and Capital Logistics leased a 176,000 sq. ft. industrial space in Carson.

INDUSTRIAL VACANCY RATES, Q2-12 to Q2-17



The second guarter of 2017 experienced a decrease in vacancy rates for Flex/R&D for the South Bay. Vacancy rates were

Sources: CBRE

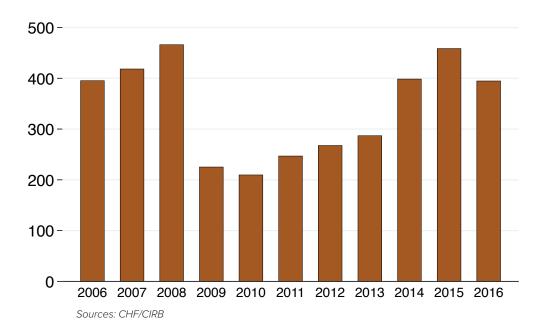
2%, which is 0.6 percentage points lower than a year earlier, and a continuation of a downward trend since the second quarter of 2014. Flex/R&D properties have experienced large growth for a variety of reasons. Space is versatile and can be used by many departments, without 'Common Area Maintenance' charges and on average, flex space is much cheaper than conventional office space.

NEW CONSTRUCTION

Nonresidential real estate development in the South Bay apparently reached a cyclical peak in 2015. Permit value, indicating new construction, was down 13.9% in 2016 from 2015. El Segundo experienced the biggest decline at 32.8%, followed by Torrance with a 15.9%

Last year's decline comes on the heels of a surge in South Bay construction since the end of the recession. In 2015 alone, the region saw a 15.1% increase, and the 3 prior years all had sizable increases in permit value. Building on post-recession gains, some South Bay cities have continued their ascent, with increases in permits that were heavily tilted toward remodeling, additions, and repairs. Hermosa Beach led the charge with a 166.7% increase, followed by Redondo Beach (up 130.5%), and Manhattan Beach (116.4%).

Perhaps the most publicized and anticipated real estate development coming around the corner in the South Bay is the City of Champions Stadium in Inglewood. Having started construction in January 2016 with an expected 2020 opening, the new stadium will be 3,620,000 square feet in size and cost \$2.6 billion. As the future home to both the Rams and Chargers, and a likely venue for the 2028 Olympics, this stadium will have a strong influence over the surrounding area and Inglewood's real estate environment.



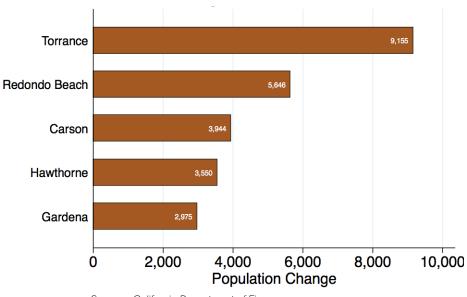
NON-RESIDENTIAL PERMITS VALUES - SOUTH BAY, 2006 to 2016

SOUTH BAY DEMOGRAPHICS

Population

Population gains are slowing in the County, but even more so in the South Bay, which, like so much of the Los Angeles Basin, is built out. Between January 2016 and January 2017, the South Bay population expanded by 0.1% to 768,800, while the rest of the County grew at a slightly faster rate of 0.6%. In the broader County, slow population gains are a result of competing trends: the region has long remained an attractive place for immigrants seeking better economic gains, and perhaps, other opportunities such as greater political freedom. However, constrained housing production has contributed to higher housing costs which has been a deterrent to population growth. At the same time, decreasing fertility rates and an aging population base have contributed to declines in natural increase rates. Since surging between the 1980s and 1990s, the rate of natural increase has generally been winding down, and decreased by 12.8% between 2015 and 2016. However, the County is not unique in this respect. Indeed, at 12.4 births per 1,000 people at the state level, California hit its lowest birthrate in recorded history in 2016.²²

In the South Bay, population in a few communities actually contracted slightly over the last year: Hermosa Beach (-0.5% year to year) and Palos Verdes Estates (-0.1% year to year) both saw net decreases between 2016 and 2017. For the most part, however, the region has remained on a slow growth trajectory, and has increased at an average rate of 0.3% over the last ten years. Since the beginning of the millennium, the greatest contributors to population growth have included Torrance, Redondo Beach, Carson, Hawthorne, and Gardena.



POPULATION CHANGE IN THE SOUTH BAY - FASTEST GROWING CITIES, 2000 to 2017

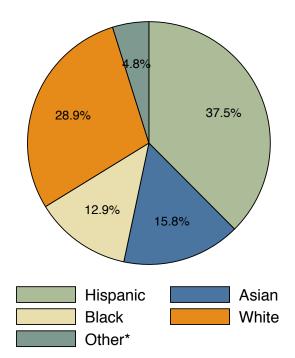
Sources: California Department of Finance

²² http://www.latimes.com/local/california/la-me-In-birth-rate-20161220-story.html

Race/Ethnicity

Given the variety of communities in the region, it should be no surprise that the South Bay is a highly diverse region. As of 2015, Census data indicates that the South Bay is 37.5% Latino/Hispanic, 28.9% White, 15.8% Asian-American, 12.9% African-American, and 4.8% Other.²³ However, diversity for the region as a whole by no means indicates that the all ethnicities are evenly distributed. To the contrary, income disparities between races, among other forces, have resulted in relatively segregated communities.

For instance, Latinos comprise more than 50% of the population in the cities of Avalon, Hawthorne, Inglewood, Lawndale, and Wilmington; whereas Whites comprise a majority in wealthier, coastal cities of El Segundo, Hermosa Beach, and Redondo Beach. While African-Americans and Asian-Americans do not comprise a majority of any South Bay communities, they are also concentrated in distinct areas. African-Americans reside in the highest proportions in the cities of Gardena, Hawthorne, and Inglewood, whereas Asian-Americans favor Torrance, the Rolling Hills Estates, Gardena, and Carson.



POPULATION BY RACE/ETHNICITY - SOUTH BAY, 2015

Sources: American Community Survey *Other category includes people of mixed race

²³ Unlike the Census Bureau, we treated ethnicity (Hispanic/Non-Hispanic) as a racial category. Hence, each descriptor (i.e. "White", "Hispanic", etc.) should here be viewed as mutually exclusive.

Educational Attainment

Differences in worker skills, and hence earnings potential, have also manifested themselves across the South Bay. Inequity between coastal and inland regions of the South Bay are evident in terms of educational attainment, as the region houses both some of the most educated communities in the state and some of the least. Over 75% of Palos Verdes residents over 25 years boast a bachelor's or better, ranking the city 15 out of 482 California cities in terms of post-secondary educational attainment. Many wealthy coastal cities, except Avalon and El Segundo, ranked within the top 50 cities. On the other hand, Hawthorne, Inglewood, and Lawndale fell in the bottom half of California cities.

Educational disparities become even more apparent when looking at high school dropout rates. Only 1% of working age residents in Hermosa Beach have less than a high school degree, placing it 2nd in the state. At the other end of the distribution, 30% of Lawndale's residents have not completed High School, placing the city 399th in the state. Lawndale was joined in the bottom quartile of California cities by Hawthorne and Inglewood. While these differences reflect some qualitative differences in public education, it is important to keep in mind that the strong mix of first generation immigrants in these cities may not have grown up with the same access to education as is available in the United States.

Given different levels of access for their progeny, educational attainment can only go up, and 2015 enrollment rates indicate that residents in the 18 to 24 age cohort are attending post-secondary schools at relatively high rates. While there is still a substantial spread in these rates by city (35.9% to 64.6%), the figures indicate better access to higher education for today's youth than the overall working age population. For instance, Hawthorne (42.1%), Inglewood (42.4%), and Lawndale (41.9%) demonstrate enrollment rates that are catching up with norms in the County (48.3%) and the state (46.6%).

Commuting Patterns

Despite the traffic Los Angeles County is infamous for, living in the South Bay affords proximity to job centers near the LAX, downtown Los Angeles, Long Beach, and West Los Angeles. As such, South Bay residents face better commute times than the County as a whole, and almost all South Bay residents work within the County. In 2015, the population weighted mean commute time for the South Bay came in at 28 minutes, compared to 31 minutes for the County. In almost all cities and communities that comprise the South Bay, a majority of workers face commutes under 25 minutes.

However, the longest average commute times were evident in the Palos Verdes Estates, Rancho Palos Verdes, and Rolling Hills communities, where resident workers reported mean commute times exceeding half an hour. Commute times in the southern-most cities of the South Bay are likely a consequence of poor residential connectivity to major roadways, and it is likely that the average commuter from this region spends a good portion of their drive on residential streets. These cities are also the farthest from job centers in Los Angeles, and report commutes exceeding an hour at relatively high rates. More than 20% of Palos Verdes Estates residents reported commutes exceeding one hour in 2015.

APPENDIX

YEAR	POPULATION*	TOTAL EMPLOYMENT	PAYROLL (\$ MILLIONS)	HOUSING PERMITS	TAXABLE SALES (\$ MILLIONS)
2007	749,583	473,336	24,860	1,088	12,387
2008	749,127	525,348	27,404	388	12,047
2009	749,021	495,762	25,923	266	10,289
2010	749,751	494,948	27,231	614	10,700
2011	753,250	497,136	27,929	369	11,525
2012	758,978	512,605	29,584	597	12,250
2013	761,871	525,465	30,202	641	12,691
2014	765,579	536,465	31,210	726	13,038
2015	768,189	549,228	33,273	645	13,188
2016	768,109	554,996	34,523	559	13,104
2017	768,800	563,054	35,380	463	13,387
2018	770,565	569,986	36,774	582	13,813

TABLE 1: SOUTH BAY ECONOMIC INDICATORS

YEAR	POPULATION GROWTH* (%)	TOTAL EMPLOYMENT GROWTH (%)	PAYROLL GROWTH (%)	HOUSING PERMITS GROWTH (%)	TAXABLE SALES GROWTH (%)
2007	-0.2	8.4	11.7	-13.5	1.5
2008	-0.1	11.0	10.2	-64.3	-2.7
2009	0.0	-5.6	-5.4	-31.4	-14.6
2010	0.1	-0.2	5.0	130.8	4.0
2011	0.5	0.4	2.6	-39.9	7.7
2012	0.8	3.1	5.9	61.8	6.3
2013	0.4	2.5	2.1	7.4	3.6
2014	0.5	2.1	3.3	13.3	2.7
2015	0.3	2.4	6.6	-11.2	1.1
2016	0.0	1.1	3.8	-13.3	-0.6
2017	0.1	1.5	2.5	-17.3	2.2
2018	0.2	1.2	3.9	25.8	3.2

Sources: State of California Department of Finance, California Employment Development Department, CIRB/California Homebuilding Foundation, California Board of Equalization

* Incorporated cities only.

TABLE 2: POPULATION OF THE INCORPORATED CITIES OF THE SOUTH BAY

	2000	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Avalon	3,279	3,594	3,633	3,674	3,728	3,769	3,755	3,718	3,722	3,720	3,717	3,718
Carson	89,730	93,108	92,612	92,198	91,714	91,714	92,521	92,817	93,116	93,430	93,455	93,674
El Segundo	16,033	16,599	16,547	16,581	16,654	16,714	16,709	16,648	16,680	16,714	16,703	16,717
Gardena	57,746	59,095	58,841	58,834	58,829	59,098	59,486	59,804	60,209	60,390	60,534	60,721
Hawthorne	84,112	84,033	84,684	84,465	84,293	84,979	85,558	85,792	86,800	87,591	87,649	87,662
Hermosa Beach	18,566	19,174	19,283	19,312	19,506	19,589	19,702	19,745	19,805	19,780	19,711	19,616
Inglewood	112,580	111,428	110,584	110,164	109,673	110,387	112,413	113,786	114,475	115,003	114,921	114,900
Lawndale	31,711	32,566	32,568	32,684	32,769	32,909	33,093	33,189	33,297	33,390	33,357	33,365
Lomita	20,046	20,354	20,284	20,236	20,256	20,324	20,379	20,322	20,363	20,379	20,363	20,403
Manhattan Beach	33,852	35,051	34,955	35,147	35,135	35,272	35,293	35,245	35,332	35,349	35,329	35,488
Palos Verdes Estates	13,340	13,475	13,425	13,421	13,438	13,497	13,583	13,609	13,654	13,681	13,674	13,663
Rancho Palos Verdes	41,145	41,728	41,633	41,537	41,643	41,846	42,250	42,468	42,658	42,781	42,753	42,884
Redondo Beach	63,261	65,738	65,839	66,162	66,748	67,126	67,740	68,291	68,562	68,848	68,844	68,907
Rolling Hills	1,871	1,876	1,868	1,868	1,860	1,872	1,895	1,909	1,918	1,924	1,922	1,922
Rolling Hills Estates	7,676	7,939	8,045	8,036	8,067	8,094	8,085	8,052	8,065	8,068	8,061	8,059
Torrance	137,946	143,825	144,326	144,702	145,438	146,060	146,516	146,476	146,923	147,141	147,116	147,101
TOTAL	732,894	749,583	749,127	749,021	749,751	753,250	758,978	761,871	765,579	768,189	768,109	768,800

Sources: State of California Department of Finance

CITY OF L.A. COMMUNITIES	CENSUS 2000	CENSUS 2010
HARBOR CITY/HARBOR GATEWAY	26,640	25,457
SAN PEDRO	79,866	80,777
WILMINGTON	53,308	53,815

Source: State of California Department of Finance

CITY OF L.A. COMMUNITIES	CENSUS 2000	CENSUS 2010
LENNOX	28,679	28,210
RANCHO DOMINGUEZ	47,303	49,328
VIEW PARK/WINDSOR HILLS	83,709	84,943

Source: State of California Department of Finance

TABLE 3: ETHNICITY AND RACE IN THE SOUTH BAY

	Hispanic or Latino (%)	White (%)	Black or African American (%)	Asian (%)	Other (%)	Two or More Races (%)
Avalon	69.4	28.6	0.2	O.1	0.3	1.5
Carson	39.4	7.6	20.4	25.5	2.5	4.7
El Segundo	19.0	64.8	1.3	8.4	1.3	5.1
Gardena	37.9	9.2	23.6	25.2	1.3	2.8
Hawthorne	54.7	9.8	23.8	6.5	1.1	4.1
Hermosa Beach	8.5	80.7	1.4	5.2	1.0	3.1
Inglewood	51.1	3.4	41.7	1.3	0.6	1.8
Lawndale	65.8	14.0	7.9	8.5	0.5	3.3
Lomita	34.0	41.8	2.5	16.6	1.2	4.0
Manhattan Beach	9.4	75.3	0.8	9.4	0.7	4.5
Palos Verdes Estates	5.0	69.4	1.3	19.6	0.5	4.2
Rancho Palos Verdes	9.1	54.7	2.8	27.4	1.4	4.6
Redondo Beach	17.2	61.5	2.9	12.4	0.9	5.1
Rolling Hills	5.2	72.4	0.7	18.4	0.5	2.8
Rolling Hills Estates	9.6	54.0	3.5	28.6	0.5	3.9
Torrance	16.8	41.1	2.6	33.9	1.1	4.6
CITY OF LA COMMUNITIES						
Harbor City	42.2	17.9	10.6	23.3	2.4	3.6
San Pedro	47.4	36.0	6.2	5.6	0.9	3.9
Wilmington	90.0	4.4	1.9	2.2	0.9	0.6

Source: U.S. Census Bureau, American Community Survey

TABLE 4: EDUCATIONAL ATTAINMENT IN THE SOUTH BAY

	Less than High School (%)	High School Graduate (%)	Some College or Associates (%)	Bachelor's Degree (%)	Graduate or Professional Degree (%)	High School Degree or Higher (%)	Bachelor's Degree or Higher (%)
Avalon	23.1	31.0	24.9	11.7	9.4	76.9	21.1
Carson	20.4	22.1	33.1	18.0	6.4	79.6	24.4
El Segundo	4.4	13.0	33.3	32.1	17.2	95.6	49.3
Gardena	18.2	27.0	31.6	17.6	5.5	81.8	23.2
Hawthorne	26.2	24.5	30.2	14.1	4.9	73.8	19.0
Hermosa Beach	1.0	8.7	19.4	45.5	25.5	99.0	71.0
Inglewood	27.5	20.6	33.7	12.2	6.0	72.5	18.2
Lawndale	30.0	24.8	29.6	11.8	3.8	70.0	15.6
Lomita	13.2	26.2	32.5	19.3	8.8	86.8	28.1
Manhattan Beach	2.2	6.4	17.9	42.3	31.3	97.8	73.6
Palos Verdes Estates	1.4	6.4	17.1	40.3	34.8	98.6	75.1
Rancho Palos Verdes	2.4	10.1	22.5	33.8	31.1	97.6	64.9
Redondo Beach	4.2	11.1	27.9	35.0	21.9	95.8	56.9
Rolling Hills	3.5	5.3	20.9	27.0	43.3	96.5	70.3
Rolling Hills Estates	2.0	9.5	22.4	35.5	30.6	98.0	66.1
Torrance	6.5	17.4	30.2	30.4	15.4	93.5	45.9
CITY OF LA COMMUNITI	ES						
Harbor City	19.0	23.3	29.0	21.2	7.4	81.0	28.6
San Pedro	19.4	22.3	32.9	17.8	7.6	80.6	25.4
Wilmington	43.4	29.1	20.5	5.6	1.4	56.6	7.0

Source: U.S. Census Bureau, American Community Survey

TABLE 5: TRAVEL TIME TO WORK IN THE SOUTH BAY

	Workers 16 Years and Over	Mean Travel Time to Work Minutes	<10 Minutes	10-24 Minutes	25-34 Minutes	35-59 Minutes	60+ Minutes
Avalon	1,790	8.6	57.2	38.7	3.3	0.9	0.0
Carson	40,685	26.9	11.5	45.6	19.8	13.8	9.3
El Segundo	9,209	22.9	25.9	40.1	12.7	15.5	5.8
Gardena	26,582	27.0	9.0	43.4	25.5	14.6	7.5
Hawthorne	39,714	27.8	9.7	44.3	20.5	14.9	10.6
Hermosa Beach	11,186	31.7	15.7	35.4	16.2	20.5	12.2
Inglewood	47,559	30.1	11.2	37.2	23.3	17.5	10.8
Lawndale	15,586	24.7	12.4	48.2	20.4	11.4	7.6
Lomita	10,725	25.7	14.3	44.7	17.8	15.7	7.7
Manhattan Beach	16,790	29.2	20.7	30.9	15.2	23.6	9.5
Palos Verdes Estates	5,394	35.4	18.2	29.1	15.0	17.1	20.6
Rancho Palos Verdes	17,608	32.1	14.5	32.3	21.8	19.2	12.1
Redondo Beach	36,567	28.1	17.3	39.6	16.7	15.6	10.7
Rolling Hills	696	34.9	17.7	29.3	14.4	21.0	17.7
Rolling Hills Estates	3,263	29.1	14.2	40.9	16.4	19.3	9.3
Torrance	69,560	27.1	14.1	43.1	19.0	14.4	9.4
CITY OF LA COMMUNITI	ES						
Harbor City	20,234	27.4	9.5	42.6	24.0	15.4	8.5
San Pedro	36,588	27.6	13.8	40.9	20.9	15.3	9.0
Wilmington	23,826	24.7	9.9	50.6	22.0	10.0	7.5

Source: U.S. Census Bureau, American Community Survey

TABLE 6: HOUSING STOCK OF THE SOUTH BAY, 2015

	TOTAL POPULATION	In Households	Group Quarters	Total	Single Detached	Single Attached	Two to Four	Five or More	Mobile Homes	Total Occupied	Vacancy Rate (%)	Persons per Household
Avalon	3,717	3,710	7	2,291	604	138	859	690	0	1,443	0.4	2.57
Carson	93,455	92,044	1,411	26,148	18,302	2,398	688	2,304	2,456	25,426	0	3.62
El Segundo	16,703	16,627	76	7,427	3,176	354	782	3,100	15	6,978	0.1	2.38
Gardena	60,534	59,740	794	21,721	9,757	1,478	2,569	6,672	1,245	20,782	0	2.88
Hawthorne	87,649	87,110	539	30,540	8,959	1,310	4,070	16,054	147	29,096	0.1	2.99
Hermosa Beach	19,711	19,696	15	10,084	4,358	794	2,299	2,416	217	9,477	0.1	2.08
Inglewood	114,921	113,419	1,502	38,650	14,755	2,314	5,509	15,863	209	37,469	0	3.03
Lawndale	33,357	33,182	175	10,156	5,317	1,422	899	2,273	245	9,677	0.1	3.43
Lomita	20,363	20,196	167	8,453	4,171	776	466	2,419	621	7,966	0.1	2.54
Manhattan Beach	35,329	35,301	28	14,920	10,339	1,174	2,417	976	14	13,863	0.1	2.55
Palos Verdes Estates	13,674	13,657	17	5,300	4,894	67	30	297	12	5,063	0.1	2.7
Rancho Palos Verdes	42,753	42,413	340	16,237	12,534	1,024	301	2,353	25	15,691	0	2.7
Redondo Beach	68,844	68,413	431	30,677	12,093	4,291	4,652	9,382	259	29,389	0	2.33
Rolling Hills	1,922	1,922	0	719	718	0	0	1	0	673	0.1	2.86
Rolling Hills Estates	8,061	8,061	0	3,101	2,324	669	35	37	36	2,911	0.1	2.77
Torrance	147,116	145,970	1,146	58,520	30,693	3,648	3,666	19,378	1,135	55,635	0.1	2.62
INCORPORATED CITY TOTAL	9,127,340	8,964,571	162,769	3,192,347	1,502,565	211,953	268,429	1,161,571	47,829	3,010,102	0.1	2.98
COUNTY TOTAL	10,182,961	10,002,457	180,504	3,504,131	1,722,891	230,228	286,298	1,206,417	58,297	3,304,363	0.1	3.03
South Bay Share (%)	7.5	7.6	3.7	8.1	8.3	9.5	10.2	7	11.4	8.2	-	-

Source: State of California Department of Finance

CITY OF L.A. COMMUNITIES	CENSUS 2010 POPULATION	IN HOUSEHOLDS	GROUP QUARTERS	VACANCY RATE (%)	PERSONS PER HOUSEHOLD
HARBOR CITY/HARBOR GATEWAY	25,457	25,353	104	4.6	2.9
SAN PEDRO	80,777	78,184	2593		2.6
WILMINGTON	53,815	53,640	175	4.3	3.8

Source: State of California Department of Finance

TABLE 7: EMPLOYMENT BY MAJOR INDUSTRY IN THE SOUTH BAY in 2000s

INDUSTRY	2008	2009	2010	2011	2012	2013	2014	2015	2016
Natural Resources	2.8	2.4	2.3	2.3	2.3	1.8	1.5	1.5	1.5
Construction	20.5	15.6	13.0	13.3	14.9	16.0	16.8	16.4	17.4
Manufacturing	85.8	79.4	76.4	73.0	72.9	72.6	71.6	71.7	75.7
Wholesale Trade	30.4	27.8	27.8	27.4	27.8	28.0	27.8	27.9	26.5
Retail Trade	54.3	50.9	49.7	50.5	51.0	51.6	52.1	52.4	51.9
Transportation/Utilities	52.0	48.2	48.3	49.2	49.6	50.0	51.2	54.5	57.6
Information	11.5	11.3	11.1	12.0	10.9	11.4	11.3	11.9	11.5
Financial Activities	22.4	21.0	20.4	20.7	21.5	22.8	23.8	24.0	24.3
Professional/Business Services	78.5	73.2	71.7	75.3	80.3	84.2	85.1	89.1	83.1
Educational Services	7.9	8.4	8.3	8.1	8.7	9.3	9.7	8.8	8.6
Health Care	54.1	55.3	54.6	55.7	58.5	61.5	63.0	64.2	65.3
Leisure and Hospitality	56.9	53.9	53.9	54.6	56.4	57.9	61.4	63.8	67.0
Other Services and Unclassified	15.6	16.0	15.8	16.1	16.9	17.3	18.5	18.6	18.5
Government	32.6	32.3	41.6	39.0	40.9	41.1	42.6	44.7	46.1
TOTAL	525.3	495.8	494.9	497.1	512.6	525.5	536.5	549.2	555.0

Source: California Employment Development Department

INDUSTRY	2008	2009	2010	2011	2012	2013	2014	2015	2016
Natural Resources		-12.8	-3.3	-3.8	0.0	-18.3	-20.1	1.8	2.1
Construction		-24.2	-16.4	2.1	12.2	7.4	4.7	-2.1	5.8
Manufacturing		-7.5	-3.8	-4.5	-0.1	-0.4	-1.4	0.1	5.7
Wholesale Trade		-8.3	-0.1	-1.5	1.6	0.6	-0.6	0.1	-4.7
Retail Trade		-6.3	-2.4	1.6	0.8	1.3	1.0	0.5	-0.9
Transportation/Utilities		-7.3	0.2	1.9	0.8	0.8	2.5	6.3	5.7
Information		-1.0	-2.0	7.8	-8.8	4.0	-0.6	4.8	-3.0
Financial Activities		-6.6	-2.9	1.4	3.9	6.4	4.4	0.6	1.4
Professional/Business Services		-6.7	-2.0	5.0	6.6	4.8	1.1	4.6	-6.7
Educational Services		7.4	-2.1	-2.2	7.9	6.0	4.6	-9.5	-1.6
Health Care		2.2	-1.1	2.0	5.1	5.0	2.4	1.9	1.7
Leisure and Hospitality		-5.3	0.1	1.3	3.2	2.7	6.1	4.0	5.0
Other Services and Unclassified		2.2	-1.1	2.0	5.1	2.3	7.1	0.4	-0.7
Government		-1.0	28.6	-6.2	4.8	0.5	3.8	4.9	3.1
TOTAL		-5.6	-0.2	0.4	3.1	2.5	2.1	2.4	1.1

Source: California Employment Development Department

INDUSTRY	South Bay	L.A. County	Difference SB to L.A.C. (%)
Natural Resources	67,091	74,014	-9.4%
Construction	63,573	61,029	4.2%
Manufacturing	107,117	68,176	57.1%
Wholesale Trade	74,526	62,139	19.9%
Retail Trade	34,027	34,529	-1.5%
Transportation/Utilities	62,994	58,930	6.9%
Information	122,048	106,044	15.1%
Financial Activities	82,317	99,082	-16.9%
Professional/Business Services	66,444	73,655	-9.8%
Educational Services	47,535	56,731	-16.2%
Health Care	45,939	43,555	5.5%
Leisure and Hospitality	28,535	36,526	-21.9%
Other Services and Unclassified	35,476	36,819	-3.6%
Government	63,639	69,289	-8.2%
TOTAL	62,205	59,852	3.9%

Source: California Employment Development Department

TABLE 9: ESTABLISHMENTS BY MAJOR INDUSTRY, 2016

INDUSTRY	South Bay	L.A. County	Difference SB to L.A.C. (%)
Natural Resources	57	482	11.8%
Construction	1,542	13,628	11.3%
Manufacturing	1,391	12,245	11.4%
Wholesale Trade	1,989	19,654	10.1%
Retail Trade	3,030	26,898	11.3%
Transportation/Utilities	1,617	6,282	25.7%
Information	593	9,421	6.3%
Financial Activities	2,804	24,982	11.2%
Professional/Business Services	5,120	46,993	10.9%
Educational Services	385	3,205	12.0%
Health Care	18,965	213,993	8.9%
Leisure and Hospitality	3,071	32,005	9.6%
Other Services and Unclassified	4,598	26,632	17.3%
Government	731	6,186	11.8%
TOTAL	45,892	466,349	9.8%

Source: California Employment Development Department

TABLE 10: UNEMPLOYMENT RATES OF INCORPORATED CITIES IN THE SOUTH BAY

	2012 (%)	2013 (%)	2014 (%)	2015 (%)	2016 (%)	2016 1-Yr. Change (p.p.)
Avalon	9.2	8.2	6.9	5.6	4.4	3
Carson	13.8	12.4	10.6	8.6	6.8	44
El Segundo	6.2	5.5	4.6	3.7	2.9	21
Gardena	10.9	9.7	8.2	6.7	5.2	40
Hawthorne	9.8	8.7	7.4	6	4.7	287
Hermosa Beach	4.7	4.2	3.5	2.8	2.2	31
Inglewood	14.1	12.7	10.8	8.8	6.9	4
Lawndale	10.4	9.3	7.9	6.4	5	4
Lomita	7.9	7	5.9	4.8	3.7	7
Manhattan Beach	4.6	4.1	3.4	2.7	2.1	87
Palos Verdes Estates	1.8	1.6	1.4	1.1	0.8	8
Rancho Palos Verdes	5.4	4.8	4	3.2	2.5	7
Redondo Beach	6.8	6.1	5.1	4.1	3.2	61
Rolling Hills	6.2	5.6	4.7	3.8	3	2
Rolling Hills Estates	5.3	4.7	4	3.2	2.5	2
Torrance	7.7	6.8	5.8	4.7	3.6	33

Source: California Employment Development Department

TABLE 11: NUMBER OF RESIDENTIAL BUILDING PERMITS ISSUED IN THE SOUTH BAY

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Avalon	0	1	1	0	0	1	1	3	0	2	1
Carson	80	51	6	91	101	68	27	44	28	39	108
El Segundo	19	19	21	З	4	11	17	21	3	12	5
Gardena	37	98	8	16	4	23	102	40	29	3	23
Hawthorne	57	161	12	9	117	59	115	287	331	131	0
Hermosa Beach	80	41	51	7	10	27	26	31	61	58	63
Inglewood	48	50	21	30	162	4	112	4	3	25	19
Lawndale	20	52	2	5	4	3	8	4	3	2	2
Lomita	31	6	5	2	19	15	2	7	16	19	22
Manhattan Beach	177	146	82	31	45	54	70	87	96	106	124
Palos Verdes Estates	21	23	17	5	14	17	13	8	8	11	13
Rancho Palos Verdes	13	19	13	9	38	15	6	7	5	70	15
Redondo Beach	291	153	86	34	45	58	67	61	109	144	126
Rolling Hills	4	7	4	0	4	0	1	2	3	3	3
Rolling Hills Estates	0	42	5	0	2	1	2	2	7	11	0
Torrance	380	219	54	24	45	13	28	33	24	9	35
INCORPORATED CITY TOTAL	1258	1088	388	266	614	369	597	641	726	645	559

Source: CIRB, California Homebuilding Foundation

TABLE 12: MEDIAN PRICE OF HOMES SOLD BY COMMUNITY (\$000s)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	IH17
Avalon	750.0	675.0	690.0	508.0	410.0	435.0	450.0	435.0	513.0	582.6	564.4	590.3
Carson	505.0	506.0	360.0	288.0	300.0	380.0	275.0	325.0	365.0	407.8	437.6	445.1
El Segundo	768.0	787.5	718.5	658.5	688.0	657.5	652.5	732.5	781.0	879.5	995.4	859.0
Gardena	497.0	490.0	380.0	300.0	300.0	284.0	290.0	348.0	379.0	405.9	456.4	476.2
Hawthorne	535.0	549.0	420.0	325.0	369.3	335.0	336.0	443.8	510.0	509.2	540.0	581.5
Hermosa Beach	1,100.0	1,199.5	1,149.0	982.0	930.0	995.0	957.0	1,093.0	1,195.5	1,422.8	1,463.7	1,445.0
Inglewood	500.0	450.0	325.0	244.0	231.0	230.0	230.0	260.0	310.0	347.5	385.4	423.3
Lawndale	507.0	477.5	375.0	293.0	303.5	307.5	319.5	342.5	404.0	434.6	447.1	505.8
Lomita	554.0	555.0	485.0	435.0	408.0	400.0	395.0	440.0	490.0	483.3	528.4	587.9
Manhattan Beach	1,550.0	1,682.0	1,570.0	1,358.5	1,412.5	1,341.0	1,379.5	1,600.0	1,900.0	1,988.4	1,992.4	2,144.5
Palos Verdes Estates	1,615.0	1,550.0	1,572.5	1,345.0	1,490.0	1,371.8	1,394.5	1,495.0	1,635.0	1,666.7	1,751.5	1,898.1
Rancho Palos Verdes	1,057.0	1,028.5	1,000.0	868.5	860.0	840.0	865.0	949.5	1,028.0	1,067.7	1,100.4	1,144.0
Redondo Beach	770.0	789.0	716.0	646.0	649.5	635.0	630.0	749.0	779.5	844.2	918.4	977.7
Rolling Hills	2,367.5	3,100.0	N/A	2,398.8	1,712.5	2,775.0	2,083.8	2,025.0	3,000.0	3,614.6	2,695.7	3,108.8
Rolling Hills Estates	910.0	1,050.0	1,100.0	805.0	777.5	700.0	897.0	989.0	1,045.0	1,130.0	1,006.7	965.0
San Pedro	544.0	515.0	435.0	387.0	390.0	335.0	330.0	410.1	447.0	466.7	514.7	523.0
Torrance	600.0	600.0	519.0	469.5	490.0	448.0	450.3	529.0	543.0	580.9	622.9	657.5
Wilmington	470.0	447.5	325.0	250.0	250.0	235.0	233.5	270.0	326.0	342.0	366.9	387.9

Source: DataQuick

TABLE 13: ANNUAL PERCENT CHANGE OF MEDIAN PRICE OF HOMES SOLD BY COMMUNITY

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	IH17
Avalon	54.6	-10.0	2.2	-26.4	-19.3	6.1	3.4	-3.3	17.9	13.6	-3.1	4.6
Carson	14.8	0.2	-28.9	-20.0	4.2	26.7	-27.6	18.2	12.3	11.7	7.3	1.7
El Segundo	2.4	2.5	-8.8	-8.4	4.5	-4.4	-0.8	12.3	6.6	12.6	13.2	-13.7
Gardena	10.7	-1.4	-22.4	-21.1	0.0	-5.3	2.1	20.0	8.9	7.1	12.4	4.3
Hawthorne	9.2	2.6	-23.5	-22.6	13.6	-9.3	0.3	32.1	14.9	-0.2	6.0	7.7
Hermosa Beach	10	9.0	-4.2	-14.5	-5.3	7.0	-3.8	14.2	9.4	19.0	2.9	-1.3
Inglewood	26.6	-10.0	-27.8	-24.9	-5.3	-0.4	0.0	13.0	19.2	12.1	10.9	9.8
Lawndale	10.9	-5.8	-21.5	-21.9	3.6	1.3	3.9	7.2	18.0	7.6	2.9	13.1
Lomita	0.9	0.2	-12.6	-10.3	-6.2	-2.0	-1.3	11.4	11.4	-1.4	9.3	11.3
Manhattan Beach	1.9	8.5	-6.7	-13.5	4.0	-5.1	2.9	16.0	18.8	4.7	0.2	7.6
Palos Verdes Estates	0.9	-4.0	1.5	-14.5	10.8	-7.9	1.7	7.2	9.4	1.9	5.1	8.4
Rancho Palos Verdes	5.2	-2.7	-2.8	-13.2	-1.0	-2.3	3.0	9.8	8.3	3.9	3.1	4.0
Redondo Beach	1.4	2.5	-9.3	-9.8	0.5	-2.2	-0.8	18.9	4.1	8.3	8.8	6.5
Rolling Hills	-19.6	30.9	N/A	N/A	-28.6	62.0	-24.9	-2.8	48.1	20.5	-25.4	15.3
Rolling Hills Estates	-4.7	15.4	4.8	-26.8	-3.4	-10.0	28.1	10.3	5.7	8.1	-10.9	-4.1
San Pedro	4.7	-5.3	-15.5	-11.0	0.8	-14.1	-1.5	24.3	9.0	4.4	10.3	1.6
Torrance	1.7	0.0	-13.5	-9.5	4.4	-8.6	0.5	17.5	2.6	7.0	7.2	5.5
Wilmington	23.7	-4.8	-27.4	-23.1	0.0	-6.0	-0.6	15.6	20.7	4.9	7.3	5.7

Source: DataQuick

TABLE 14: ANNUAL NUMBER OF HOMES SOLD BY COMMUNITY

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	IH17
Avalon	34	23	9	28	108	22	35	39	28	37	28	17
Carson	1,171	588	472	778	741	661	751	714	597	680	689	321
El Segundo	197	132	120	142	122	105	143	162	131	155	164	66
Gardena	778	416	390	484	443	510	587	591	457	488	557	315
Harbor City	311	155	133	168	164	194	216	192	164	192	198	82
Hawthorne	646	524	372	370	424	431	507	554	627	526	442	226
Hermosa Beach	257	268	180	196	200	173	242	259	239	247	223	114
Inglewood	1,212	537	355	572	594	626	681	528	438	435	413	240
Lawndale	246	155	123	130	141	147	153	171	123	139	140	79
Lomita	192	154	104	116	112	112	150	118	147	164	176	98
Manhattan Beach	561	505	373	399	438	455	516	528	495	421	428	252
Palos Verdes Estates	166	191	114	147	195	189	202	227	201	217	198	127
Rancho Palos Verdes	443	440	336	392	398	456	490	587	494	554	589	266
Redondo Beach	1,117	1,090	814	906	873	778	911	1,034	1,021	1,041	1,020	478
Rolling Hills	12	10	-	12	20	24	20	32	28	34	28	12
Rolling Hills Estates	154	138	88	135	145	109	164	165	137	157	160	88
San Pedro	692	628	438	537	490	548	630	692	594	737	699	383
Torrance	2,035	1,564	1,277	1,407	1,227	1,215	1,385	1,448	1,345	1,475	1,569	749
Wilmington	297	151	139	185	178	202	209	194	147	154	191	92

Source: DataQuick

TABLE 15: VALUE OF NONRESIDENTIAL BUILDING PERMITS ISSUED IN THE SOUTH BAY in \$ MILLIONS

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	IH17
Avalon	0.3	0.2	0.1	0.1	0.1	0.3	0.1	0.0	0.7	0.2	0.2	4.6
Carson	47.5	34.1	64.6	53.0	23.4	57.4	80.4	27.1	57.1	31.8	19.5	1.7
El Segundo	118.3	140.4	192.0	73.8	38.9	53.2	48.9	47.6	106.2	209.4	140.8	-13.7
Gardena	13.9	12.6	15.6	4.3	14.4	8.3	9.5	8.9	6.1	8.4	6.5	4.3
Hawthorne	14.2	38.4	21.6	7.0	10.2	16.2	9.5	15.5	15.2	26.8	17.6	7.7
Hermosa Beach	7.6	3.3	6.1	3.4	3.3	5.5	2.1	2.5	5.0	3.4	9.0	-1.3
Inglewood	22.4	17.8	28.9	15.4	15.0	16.3	9.7	67.8	18.0	29.8	44.6	9.8
Lawndale	3.6	1.8	1.0	1.8	1.4	1.0	1.5	2.9	2.1	1.3	0.9	13.1
Lomita	2.0	1.7	10.6	0.6	3.7	0.5	1.1	1.4	2.5	1.7	0.8	11.3
Manhattan Beach	7.0	9.5	11.7	12.6	7.0	18.2	11.4	12.6	17.7	10.2	22.1	7.6
Palos Verdes Estates	1.4	1.2	1.5	0.5	0.8	0.5	1.5	2.6	0.0	1.2	0.4	8.4
Rancho Palos Verdes	3.0	63.4	6.4	5.4	2.4	5.8	1.2	2.4	0.8	1.2	0.8	4.0
Redondo Beach	31.9	29.6	19.7	12.6	36.0	18.8	31.6	43.4	23.9	13.3	30.6	6.5
Rolling Hills	0.6	0.5	0.3	0.4	0.3	0.0	0.8	0.0	2.1	0.2	0.5	15.3
Rolling Hills Estates	1.1	1.2	1.5	0.9	1.0	1.5	3.2	3.5	1.1	0.7	0.1	-4.1
Torrance	120.5	62.5	84.5	33.3	51.7	43.2	54.9	48.5	140.0	119.1	100.1	1.6
INCORPORATED CITY TOTAL	395.2	418.3	466.1	225.2	209.6	246.8	267.5	286.8	398.5	458.5	394.6	2.98

Source: CIRB, California Homebuilding Foundation

TABLE 16: NONRESIDENTIAL VACANCY RATES

		Office Vaca	ncy Rates (%)	Industrial Va	cancy Rates (%)
YEAR	QUARTER	SOUTH BAY	LOS ANGELES COUNTY	SOUTH BAY	LOS ANGELES COUNTY
2008	Q1	14.6	11.3	2.7	1.7
2008	Q2	14.5	11.1	3.0	2.0
2008	Q3	15.0	11.6	2.6	2.1
2008	Q4	16.0	12.6	2.7	2.4
2009	Q1	16.4	13.8	3.1	2.3
2009	Q2	17.5	14.7	3.6	3.2
2009	Q3	17.9	15.5	3.2	3.4
2009	Q4	18.0	15.9	3.0	3.3
2010	Q1	18.1	16.5	3.4	3.5
2010	Q2	18.6	16.9	3.9	3.5
2010	Q3	20.8	17.6	3.7	3.3
2010	Q4	20.6	17.6	3.3	3.2
2011	Q1	20.7	17.4	3.1	3.0
2011	Q2	21.4	17.6	3.0	3.0
2011	Q3	21.9	17.4	3.1	3.1
2011	Q4	20.9	17.2	3.4	3.1
2012	Q1	21.3	17.2	3.0	2.9
2012	Q2	20.8	16.8	2.7	2.8
2012	Q3	20.4	16.5	2.1	2.6
2012	Q4	20.3	16.8	2.0	2.3
2013	Q1	21.7	16.8	2.1	2.1
2013	Q2	21.9	16.5	1.5	2.0
2013	Q3	21.6	16.6	2.3	2.0
2013	Q4	20.8	16.5	2.3	2.1
2014	Q1	21.1	16.2	2.2	2.2
2014	Q2	21.3	16.4	2.1	2.1
2014	Q3	21.3	16.0	1.8	1.9
2014	Q4	20.4	15.6	1.6	1.7
2015	Q1	20.0	15.5	1.5	1.6
2015	Q2	19.2	15.3	1.1	1.4
2015	Q3	19.3	15.6	0.8	1.2
2015	Q4	18.9	15.0	0.9	1.2
2016	Q1	18.7	14.8	0.9	1.1
2016	Q2	17.5	14.0	0.6	1.0
2016	Q3	17.2	13.9	0.5	0.9
2016	Q4	15.6	12.8	0.8	1.1
2017	Q1	15.4	14.1	0.6	1.0

Source: CBRE

TABLE 17: TOTAL TAXABLE SALES IN THE SOUTH BAY, Annual Averages in \$ Millions

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Avalon	63.7	61.7	55.2	55.7	61.9	68.0	69.8	79.1	83.1	84.9
Carson	1,853.0	1,821.0	1,429.0	1,471.2	1,677.6	1,914.7	1,999.5	1,929.5	2,042.9	1,676.1
El Segundo	1,087.8	1,158.9	954.2	1,003.3	1,037.7	909.9	944.5	997.3	939.7	1,011.9
Gardena	826.0	776.2	657.7	653.7	714.5	787.6	825.6	878.6	941.2	983.9
Hawthorne	987.8	976.3	898.0	942.0	1,046.8	1,137.2	1,176.6	1,266.4	1,311.9	1,290.6
Hermosa Beach	217.4	221.7	193.5	193.2	207.9	226.1	231.3	242.1	241.5	241.8
Inglewood	992.1	980.6	853.1	899.0	972.8	1,047.2	1,119.2	1,177.7	1,169.4	1,230.0
Lawndale	256.7	243.0	193.9	204.6	220.1	226.2	228.2	237.8	250.8	244.6
Lomita	148.3	142.1	125.7	135.7	144.9	157.8	159.0	160.3	153.1	143.8
Manhattan Beach	739.4	719.8	663.1	738.7	821.5	869.1	881.4	873.8	813.8	794.4
Palos Verdes Estates	23.4	22.3	17.7	17.6	17.1	17.6	21.0	23.3	22.6	20.1
Rancho Palos Verdes	108.4	108.5	121.2	153.9	163.7	175.0	183.7	195.0	200.0	214.1
Redondo Beach	895.6	832.2	732.3	774.5	852.4	897.5	925.2	980.5	979.1	911.9
Rolling Hills	1.3	1.0	0.2	0.2	0.3	0.3	0.3	0.5	0.9	0.7
Rolling Hills Estates	145.7	129.7	111.8	108.3	106.5	106.5	108.1	107.8	102.9	101.9
Torrance	4,040.0	3,851.8	3,282.6	3,348.4	3,479.8	3,709.5	3,817.3	3,888.5	3,935.0	4,152.9
TOTAL INCORPORATED CITIES	12,386.5	12,046.7	10,289.2	10,700.1	11,525.4	12,250.2	12,690.8	13,038.3	13,187.6	13,103.6

Source: California State Board of Equalization

TABLE 18: SOUTH BAY HOTEL OCCUPANCY AND ROOM RATES

YEAR	Annual Room Supply	Annual Occupied Rooms	Occupancy Rate (%)	Average Daily Rate (\$)	Annual % Change	RevPar (\$)	Annual % Change		
SOUTH BAY									
2012	2,208,980	1,659,828	75.1	132.9	4.5	99.8	6.4		
2013	2,208,980	1,732,503	78.4	138.1	3.9	108.4	8.6		
2014	2,242,195	1,861,246	83.0	140.7	1.8	116.7	7.7		
2015	2,325,415	1,986,602	85.4	146.5	4.2	125.1	7.2		
2016E	2,340,380	2,016,939	86.2	161.7	10.3	139.2	11.2		
2017F	2,340,380	2,026,067	86.6	160.1	-1.0	138.5	-0.5		
LOS ANGELES INTERNATIONAL AIRPORT									
2012	3,903,675	3,335,690	85.5	104.9	5.8	89.7	7.6		
2013	3,951,490	3,453,602	87.4	109.9	4.7	96.0	7.1		
2014	3,994,013	3,575,041	89.5	122.4	11.4	109.6	14.1		
2015	3,868,453	3,417,391	88.3	139.4	13.9	123.0	12.3		
2016E	4,060,199	3,582,314	88.2	152.6	9.5	134.6	9.4		
2017F	4,060,199	3,503,546	86.3	153.3	0.5	132.3	-1.7		
TOTAL SOUTH BAY REGIO	N								
2012	6,112,655	4,995,262	81.7	115.0	5.3	93.3	7.1		
2013	6,160,470	5,186,500	84.2	120.0	4.3	100.5	7.6		
2014	6,236,208	5,436,103	87.2	129.0	7.5	112.1	11.6		
2015	6,193,868	5,403,530	87.2	142.1	10.1	123.8	10.4		
2016E	6,400,579	5,599,227	87.5	155.9	9.7	136.3	10.1		
2017F	6,400,579	5,529,460	86.4	155.8	-0.1	134.5	-1.3		

Source: California Employment Development Department

TABLE 19: MILLENNIAL LIVING ARRANGEMENTS IN THE SOUTH BAY

LOCATION	Cohabiting without Children (%)	Living Alone (%)	Living with Children (%)	Living with Nonrelative (%)	Living with Parents (%)	Other (%)
Carson	14.4	1.1	9.0	2.9	61.7	11.0
Gardena/Lawndale/W.Athens	12.7	2.7	24.7	6.5	47.2	6.3
Hawthorne	15.7	8.7	25.4	2.8	37.5	10.0
Palos Verdes Peninsula	12.7	6.1	19.6	3.6	54.4	3.7
Redondo/Manhattan/Hermosa	26.5	11.7	12.5	5.5	20.7	23.0
S.LA/San Pedro	15.3	4.6	22.6	6.0	39.5	12.0
Torrance	18.9	3.7	19.6	1.0	46.0	10.8
South Bay	16.5	5.3	19.8	4.3	43.0	11.1
Los Angeles County	17.4	6.4	17.1	5.4	37.7	16.0
State	18.4	6.0	20.6	5.9	34.4	14.7

Source: U.S. Census Bureau, Public Use Microdata Sample

TABLE 20: WAGE INCOME BY GENERATION IN THE SOUTH BAY

GENERATION	2005	2015	10-YR. CHG.	10-YR. % CHG.
Millennial	24,000	24,200	200	0.8%
Generation X	39,000	49,000	10,000	25.6%
Baby Boomers	41,000	54,000	13,000	31.7%
Silent	37,000	61,300	24,300	65.7%
Greatest	24,000	60,000	36,000	150.0%

Source: U.S. Census Bureau, Public Use Microdata Sample

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