

CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS



2016-17
SOUTH BAY
ECONOMIC FORECAST
AND INDUSTRY OUTLOOK

A Region in Transition: Game Changers

October 2016

Message from the University President



Greetings.

We are pleased to present you with your personal copy of the *2016-17 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,

A handwritten signature in black ink that reads "W. J. Hagan". The signature is written in a cursive, flowing style.

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

About the University

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 46 undergraduate degrees, 22 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.

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 multi-disciplinary, 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 www.csudh.edu/ee.

CSU Dominguez Hills Economics Institute

The College of Business Administration and Public Policy has created the 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

Beacon Economics

Beacon Economics LLC is one of California's leading economic research and consulting firms, specializing in economic and revenue forecasting, economic impact analysis, economic policy analysis, regional economic analysis, real estate market and industry analysis, and EB-5 Visa analysis.

The firm's internationally recognized forecasters were among the first and most accurate predictors of the U.S. mortgage market meltdown that began in 2007 – and among a relatively small handful of researchers who correctly calculated the depth and breadth of the financial and economic crisis that followed. Known for delivering independent and rigorous analysis,

Beacon Economics provides economic trend and data analysis that strengthens strategic decision making about investment, revenue, and policy. Clients range from the State of California to Fortune 500 companies to major cities and universities. Learn more at www.BeaconEcon.com.

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Table of Contents

Geographic Scope	2
The Economic Environment	3
U.S. Overview	3
California Overview	4
Los Angeles County Overview	6
South Bay Economy and Outlook	8
Overview	8
Income and Wages	10
Business Establishments	10
Major Industries	11
Aerospace and Defense.....	11
Manufacturing.....	12
Entertainment, Sports Management, and the Arts.....	12
Health Care	13
Higher Education.....	13
International Trade/Goods Movement.....	14
Oil Extraction and Refining.....	15
Professional, Scientific, and Technical Services.....	16
Real Estate and Construction	18
Retail Trade.....	23
Tourism and Hospitality.....	24
South Bay Demographics	25
Population	25
Race/Ethnicity	25
Educational Attainment	26
Commuting Patterns	27
Appendix.....	28

Geographical Scope

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

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

The Economic Environment

U.S. Overview

U.S. economic output has slowed to a crawl over the last three quarters—averaging less than a 1% pace of growth compared to 3% in the previous 6 quarters. Despite these disappointing results, prognosticators of the economy have, for the most part, not reduced their growth outlook for the nation by much. Most are still looking for rates in the 2% to 2.5% range.

The reason for the relative optimism is that the headwinds that have slowed the U.S. economy in recent months have come largely from external sources—the global commodity glut, the slowing of the Chinese economy, political turmoil in the Middle East and Europe, and wild gyrations in equity markets driven by fears over all these issues. These problems have stalled U.S. exports and industrial production, and led to a decline in business investment—in particular a big runoff of business inventories.

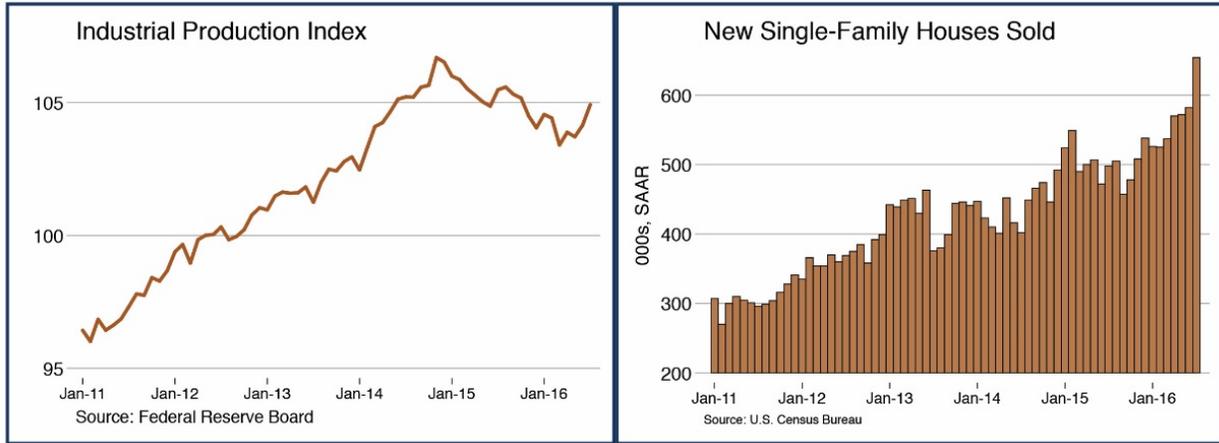
U.S. Gross Domestic Product, Contributions to Growth

Category	2015 Avg. (%)	2016-Q1 (%)	2016-Q2 (%)
Gross Domestic Product	1.88	0.8	1.2
Personal consumption	1.73	1.11	2.83
Fixed investment	0.55	-0.15	-0.52
Change in inventories	-0.11	-0.41	-1.16
Net exports	-0.68	0.01	0.23
Government	0.39	0.28	-0.16

In contrast, domestic demand has remained quite strong. Consumer spending added almost 3% to growth in the 2nd quarter, more than enough to offset declines in business investment. Consumers are also increasing their spending for the right reason—they are earning more. The U.S. labor markets continue to expand, adding 275,000 jobs per month in June and July after a weak spring. The Construction, Healthcare, Professional Services, and Hospitality sectors have all been growing at a faster than average rate.

Also helping is weak inflation driven by low commodity prices and low unemployment rates that have finally shifted the economic balance towards labor to some small degree. Median real wages for a full time worker have grown 4% over the past two years, still modest but better than the previous 8 years when real earnings didn't grow at all.

More importantly, there are a number of indicators that suggest the pullback in business spending is ending and that overall investment trends will begin to turn positive again soon. In April, the Institute for Supply Management PMI for Manufacturing climbed above 50, and in June the Industrial Production Index also started rising again with the best pace of growth since late 2014. Inventory to sales ratios are currently the lowest they have been since 2003—suggesting that businesses will need to start stocking up soon.



The housing market has also shown stronger signs of life recently. Sales of new and existing homes, while still far below long run sustainable levels, have hit post-Great Recession highs in recent months. While tight credit remains a major impediment to full recovery, the improved financial situation of the average American household combined with ongoing low interest rates will lead to a faster pace of construction in the second half of the year.

As positive as all these signs are, the United States is unlikely to return to an average pace of growth within the next year or more. While the nation has muscled through the turbulence so far, the global outlook remains poor. The Chinese economy is still weak despite various policy measures put into place over the last year. Europe is growing again, but they are dealing with issues surrounding deflation and the Brexit. And the commodity glut - while good for American consumers- continues to hurt growth prospects for many developing economies. As such, the overall outlook for U.S. growth remains much as it did last year at this time.

The only major change in expectations is in regard to interest rates and Federal Reserve policy. Given the recent weak U.S. growth data and the decline in interest rates driven by nervous investors seeking safety in U.S. markets following the Brexit, there is a mounting realization that low interest rates are going to be with us for some time.

California Overview

California has stayed on course with a solid economic performance through the first three quarters of 2016 despite slower growth nationally. The state outdistanced the U.S. in terms of economic growth and job creation, although the pace of growth in 2016 in both California and the U.S. has been somewhat slower than last year. Through the first seven months of this year, nonfarm jobs grew at 2.7%, compared to 1.8% nationally. The unemployment rate dropped below 6% late last year, moving sideways in the mid-5% range for most of the summer as sustained job growth and wage gains have drawn more people into the labor force.

Virtually every industry in the state continues to add jobs and the unemployment rate is lower than a year ago. Leisure and Hospitality and Health Care and Social Assistance led the way with the largest absolute job gains in the state, with significant contributions from Professional, Scientific, and Technical Services, Construction, and Retail Trade. Just two

industries lost jobs, with combined losses of 9,000 on a job base of 16.5 million, illustrating the breadth of job gains throughout the private sector of the economy. Government also was among those industries with the largest absolute gains, with most of the increase occurring in state and local government. Last but not least, California's farm employment is on track to hit its highest level in over a dozen years, despite the state's prolonged drought.

Job Gains Continue in California

Industry	July 2016 (000s)	1-Yr. Chg. (000s)	1-Yr. Chg. (%)
Total Nonfarm	16,489.0	374.6	2.3
NR/Construction	786.3	25.5	3.4
Manufacturing	1,293.1	-5.0	-0.4
Wholesale Trade	741.8	20.2	2.8
Retail Trade	1,695.2	25.7	1.5
Logistics	564.8	7.6	1.4
Information	493.4	8.6	1.8
Financial Activities	813.0	12.1	1.5
Prof Sci Tech	1,266.0	50.1	4.1
Management	236.2	5.1	2.2
Admin Support	1,082.0	22.6	2.1
Education	376.1	23.7	6.7
Health Care	2,186.5	63.3	3.0
Leisure and Hospitality	1,896.3	65.9	3.6
Other Services	551.6	4.6	0.8
Government	2,507.1	44.6	1.8

Continued increases in taxable sales are symptomatic of strength among businesses and households in the private sector, while also boding well for the state and local government sector. Meanwhile, economic growth continues to spread inland from coastal counties, with many parts of the state hitting new records for employment and unemployment rates that have declined to their lowest in several years. All in all, the statewide economy is poised for continued growth over the next several quarters, outpacing the most other states around the U.S.

The picture for housing has been mixed since the recession, with prices advancing modestly despite many hurdles that have limited sales activity. Outside of the Bay Area, home prices have yet to surpass their pre-recession peaks. Demand for homes has been sustained by low interest rates, but has also been impeded by limited inventories, high underwriting standards, and large down payment requirements. On the supply side, existing homes for sale have been well below long run averages, while new home construction has struggled to advance since the recession. Meanwhile, with the homeownership rate at its lowest in over thirty years, rental units have been in high demand, driving rents up and vacancy rates down.

Looking through the rest of 2016 and into 2017, the state's economic engine will chug along. Businesses and households exercised greater caution in this expansion compared to previous cycles, but California's economy has consistently outperformed all but a few states around the nation. The Tech sector continues to impress, not just in the Silicon Valley/Bay Area but elsewhere in the state. Economic growth nationally will continue to drive the state's tourism and goods movement industries, while health care and retail activity will see further gains as households across the state benefit from job growth and wage gains.

The state continues to face nagging policy problems, not the least of which is housing. Rising home prices and rents mean that the state is not producing enough housing. This is not a low-income problem, but one that extends to middle-income households as well. In many parts of the state, rent as a share of renter income exceeds the 30% threshold that is considered to be the norm. Meanwhile, in the market for owner-occupied homes, a household must earn at least \$100,000 annually in order to afford the payment on a median priced home in California. This has ramifications for employers who increasingly find it difficult to hire and retain qualified employees. Solutions will be hard to come by, but must include reducing permitting and regulatory burdens associated with construction costs, and possibly, tax reform.

Los Angeles County Overview

The growth rate of the Los Angeles County economy has lagged the state in recent years due to economic growth shifting from the coast to more inland areas, as well as a result from a slower rate of population growth. However, as the largest county in the state, its absolute gains are by far the largest. Most of the industries across the county have added jobs over the past year, while job losses have been modest relative to the county's total job base. Housing shortages and affordability have been chronic problems for the county, causing the projected growth of the local economy to have a lower trajectory over the long run. The region's economic growth is thus more dependent on local investments and technological advancement, while other areas benefit from higher rates of population growth. In the short-term, the county's economic indicators have been growing and are continuing to show signs of a healthy economy.

The County's unemployment rate reached 4.9% in August 2016 on a seasonally adjusted basis, a drastic improvement from the 6.9% estimate in August 2015. To place the 4.9% figure in historical context, apart from a brief six-month period in mid-2006, the current unemployment rate is at its lowest level since before 1990 (unemployment rates for the County before 1990 are not compatible with the current series). Furthermore, the County's unemployment rate prior to the Great Recession averaged 5.7% from 2003 to 2007. And while the current remarkably low unemployment rate bodes well for local residents, it also demonstrates a recent tightening of labor supply that places the county's growth potential back in line with long-term trends.

Nonfarm jobs, which are based on the number of workers employed by establishments operating out of Los Angeles County, grew by a modest 1.8% over the year, while the state's job counts grew by 2.3%. Even so, the county's increase of 76,100 jobs corresponds to one-fifth of the state's job gain over that period. Real Estate (3.5%) and Administrative Support (3.3%) have been two of the fastest growing industries in the County measures by percentage growth, while Education and Health Care (23,400 jobs) and Leisure and

Hospitality (14,700 jobs) added the most jobs. Furthermore, job growth has been widespread among industries with predominantly high-wage, mid-wage, and low-wage workers.

Spending in Los Angeles County has closely mirrored the state. Taxable sales in both areas grew by 3.0% from the 2014-15 fiscal year to the 2015-16 fiscal year. The impact from the drastic drop in oil prices has been universal for consumers. Spending at fuel and service stations declined in Los Angeles County and California by 14.7% and 13.7%, respectively, over the same period, based on tax receipts data provided by HdL Companies. Building and construction spending has grown robustly in both Los Angeles County and California (9.4% and 8.2% respectively), while spending at restaurants and hotels in both areas (6.6% and 6.5%) also demonstrated strong growth.

The real estate markets in the County are showing high rates of appreciation. The median price of single-family homes sold grew by 6.7% year-over-year in the second quarter of 2016, after growing by 7.2% the year before. The tight supply of homes for sale in the County helped pushed home price appreciation higher than the state, where the median price grew by 5.9% and 5.1% respectively over the same periods. Lower levels of affordability will deter potential migration into the county, the primary reason why our long-term outlook for the local economy contains a low ceiling. On the commercial side, meanwhile, business expansion and job growth has raised the demand for offices, mainly on the west side, and industrial properties, mainly in the San Gabriel Valley and South Los Angeles, as vacancy rates continued to improve.

Overall, the regional economy continues to grow at a solid pace. Real gross metropolitan product, the region's equivalent of the nation's real gross domestic product, grew by 3.9% in 2015 in the Los Angeles MSA (which includes Orange County), compared to 4.1% in California and 2.6% in the United States. Local businesses and workers continue to be major contributors to technological advancement and innovation. Indeed, during the 2015-16 fiscal year, the Los Angeles MSA accounted for 8.5% of total venture capital funding in the United States, while the combined counties account for just 4.1% of total employment. In other words, venture capital investments per worker are more than twice as great in the Los Angeles Metropolitan Area than they are in the entire United States. Since investments help improve worker productivity, there is a large reason to be optimistic about the local economy.

South Bay Economy and Outlook

The South Bay region of Los Angeles County is home to some of the most desirable beach communities in Southern California. Essentially built out, the region's population has grown more slowly than the County as a whole, but its cities have some of the lowest unemployment rates in the state as a result of the region's economic vitality. Both the Los Angeles International Airport (LAX) and the Port of Los Angeles are located within the region along with a number of firms and industries that are significant nationally if not globally. This section of the *2016-17 South Bay Economic Forecast and Industry Outlook* offers an in-depth look at the region's demographics, its economy, and recent industry trends.

Overview

For the fifth consecutive year, establishments in the South Bay continued to add jobs at a faster rate than the County. Total employment grew by 2.4% in the South Bay in 2015 while Los Angeles County employment grew by 2.0%. Employment counts grew in most industries outside of Education, Services and Construction. In total, South Bay establishments provided 12,700 net new jobs in 2015, 15% of net new jobs in LA County.

Employment by Industry in the South Bay, 2015

Industry	Employment 2015	Annual Change	Growth Since (%)	
			2010	2014
Transportation/Utilities	54,465	+3,229	+12.8	+6.3
Government	44,679	+2,079	+7.5	+4.9
Information	11,851	+545	+6.6	+4.8
Professional/Business Services	89,053	+3,928	+24.2	+4.6
Leisure and Hospitality	63,839	+2,441	+18.4	+4.0
Health Care	64,165	+1,204	+17.4	+1.9
Natural Resources	1,500	+27	-36.0	+1.8
Financial Activities	23,998	+152	+17.8	+0.6
Retail Trade	52,397	+279	+5.4	+0.5
Other Services and Unclassified	18,588	+65	+17.9	+0.4
Manufacturing	71,679	+69	-6.2	+0.1
Wholesale Trade	27,851	+18	+0.1	+0.1
Construction	16,413	-350	+26.0	-2.1
Educational Services	8,751	-922	+5.8	-9.5
Total	549,228	+12,763	+11.0	+2.4

Source: California Employment Development Department.

Game Changers: Blurring Traditional Industry Lines

Tech is no longer just tech. It shows up in a variety of industries and blurs traditional industry lines. One example is the automotive industry, in which car companies are scrambling to harness artificial intelligence and other fast-evolving tech developments to arrive at an autonomous vehicle for the mass market.

This is not a new story in the South Bay where Honda pushes the envelope in the design and manufacture of cars, motorcycles, and other consumer products from its headquarters in Torrance. Toyota, the hybrid vehicle trendsetter for years with the Prius, has also called the South Bay home for several decades, although it is now in the process of moving to Texas. But a new chapter of the story is being written, with Faraday Future setting up shop in Gardena and promising to build a new generation of electric cars that will use the best of automotive and energy storage technology. Speaking of ground transportation, one cannot overlook Hyperloop, which has set up a test track in Hawthorne on the grounds of SpaceX, itself leading the charge when it comes to the private commercialization of space travel. Not to be overlooked is the concentration of aerospace firms in El Segundo and elsewhere in the South Bay, all striving for new solutions in aviation and space travel as well as navigation and cybersecurity, with applications both commercially and in defense.

The Los Angeles Rams will soon call the South Bay their home with a new stadium in Inglewood. The Rams and the rest of the NFL are more than a league of sports teams. They are a media giant that connects with followers through a variety of platforms, blurring the lines between sports, traditional and new media.

Changes are occurring faster than ever in the economy as a whole, in industries, and even at home. It should be no surprise that the South Bay is a region in transition, one that often leads the way in our changing world. So if the past is any indication of the future, the South Bay will have a front-row seat on game-changing events in technology, aerospace, entertainment, and many other industries for decades to come.

Professional and Business services accounted for the lion's share of new jobs. South Bay establishments in this industry added over 3,900 jobs in 2015, with a 4.5% yearly growth rate that far exceeded the County (0.2%). Transportation, Warehousing, and Utilities also provided a hefty share of new jobs. Employment counts in the industry were 3,200 jobs higher in 2015 than in 2014 in the South Bay, whereas Los Angeles County establishments added a total of 7,000 jobs in this industry. Leisure and Hospitality establishments also provided a substantial amount of new jobs. Over 2,400 jobs were added in this industry in the South Bay, albeit only 11.4% of net new jobs in Los Angeles County.

Private Education services establishments in the South Bay uncharacteristically shed over 900 jobs in 2015. Construction establishments, meanwhile, cut employment levels by 350 jobs, despite the fastest growing industry for the County as a whole last year.

Moving forward, with an unemployment rate that is already at or below the natural rate of unemployment, South Bay's employment growth will be hindered by its lack of available workers from within the local area and the aforementioned barriers to commuting into the South Bay for other Los Angeles County residents.

Income and Wages

Tightening in the local supply of labor helps place pressure on local businesses to provide higher wages. Prior to 2015, recent growth in payrolls in both the South Bay and throughout Los Angeles County had been modest; however, both areas experienced a bump in payrolls during 2015. South Bay's total payrolls grew by a 6.6% in 2015 while the County's payrolls grew by 5.9%.

On a per worker basis, the average annual wage in 2015 reached \$60,600 in the South Bay, more than \$2,400 more than the previous years. Many of the South Bay's industries with above-average wages, including Professional and Business services and Information, increased job counts – so at least some of the wage growth is associated with hiring new workers at above-average wages. Indeed, the average wage in the Information industry grew by 12.6% in 2015 and the industry continues to provide the highest average annual wages among all major industries (\$121,900).

Employment in the Leisure and Hospitality continued to yield the lowest average annual wages in the South Bay, primarily because of the amount of part-time and seasonal workers generally employed in this industry. However, the average wage in Leisure and Hospitality grew by 10.2% in 2015. Outside of the Wholesale Trade, Educational services, and Natural Resources industries, all other industries in the South Bay demonstrated solid rates of growth in average annual wages.

Business Establishments

The South Bay remains an attractive location to start many types of businesses. The number of establishments operating in the South Bay grew by 817 in 2015, on top of the 1,238 business establishments added in 2014. More than half of the increase in the establishment count came from the Health Care and Other Services Industries, which tend to be smaller operations employing 3.2 and 4.4 workers per establishment, respectively.

Due to a limited amount of available space in the South Bay, very few establishments in the Transportation and Utilities industry began operating in 2015. The number of establishments in the industry grew by only 10 over the year, to 1,585 establishments. Nevertheless, over 26% of the County's establishments in the Transportation and Utilities are based in the South Bay, due to the area's proximity to the Port of Los Angeles and the Port of Long Beach.

The Financial Activities industry had 2,773 establishments open for business in 2015, 99 more establishments than in 2014. Financial Activities, which includes Real Estate services, also contains many small and nimble operations that can be benefiting from the prosperous real estate markets.

Major Industries

The industry composition of the South Bay continues to evolve. Aerospace, defense and petroleum refining may not employ as many people as in previous years, but they continue to be the mainstays of the regional economy. Each of these industries has transformed from being mainly goods-producing to primarily service-producing. At the same time, there are more local serving sectors, such as health care, education, and real estate. The South Bay has also developed a robust leisure and hospitality industry that attracts travelers from around the world, as well as many tech start-ups that are inspired by entrepreneurship.

Aerospace and Defense

While not as large as before the cold war, many businesses continue to operate in the South Bay's aerospace and defense industry. Aerospace and Defense businesses with operations around the world are based or have major operations in the South Bay, such as the Aerospace Corporation, Triumph Aerostructures, Robinson Helicopter, Northrop-Grumman, Boeing, Lockheed Martin, Raytheon, and Space X. However, there are also many companies with smaller and more specific operations supplying parts and support for the larger businesses in the industry.

Employment in the South Bay's Aerospace and Defense industry fell to 30,800 in 2015, down 0.5% over the year and down 13.3% over the last ten years. Yet as employment levels continued to shrink, average payrolls continued to grow. The average wage in the South Bay's Aerospace and Defense grew by 5.1% in 2015 after growing by 2.7% in 2014.

Recently, Boeing and Airbus released forecasts for the world's civil transport aircraft needs for the next two decades. The Boeing forecast calls for over 39,000 commercial aircraft, valued at \$5.9 trillion, compared to Airbus' forecast for 33,000 new aircraft valued at \$5.2 trillion. This bodes well for the South Bay aerospace industry, despite the fact that commercial jetliners are no longer manufactured in the region. A large number of subcontractors affiliated with Boeing and Airbus produce aircraft parts in the region, so the forecast for a new wave of replacement aircraft bodes well for the long-term prospects of the industry in the South Bay. Combined with a current backlog in aircraft production, aircraft production is poised to be a major driver of aerospace employment in the South Bay for the foreseeable future.

The combination of federal defense spending and private space exploration ventures will further bolster the stature of the South Bay aerospace industry. The region is renowned for its role in the development and manufacturing of unmanned aircraft systems, a rapidly growing segment with international and domestic applications. Federal funds related to cyber security, intelligence, and surveillance and defense are also expected to continue to flow into the South Bay. Nascent public-private partnerships in space operations and exploration, such as joint ventures between SpaceX and NASA, is another rapidly growing component of the local aerospace industry. Taken together, all segments of the regions aerospace industry, new and old, remain on solid footing. The continued growth of this industry will be to the benefit of the South Bay's diverse workforce, providing a wide array of employment opportunities across the wage spectrum.

Manufacturing

Aside from Aerospace Manufacturing, the rest of the Manufacturing sector in the South Bay has added jobs over the last ten years. While employment in Non-Aerospace Manufacturing grew by just 0.6% in 2015, job counts are 11.0% from where they were in 2006. Recent hiring trends in the Non-Aerospace Manufacturing industry varied by sub-industry.

Food and Chemical Manufacturing establishments provided 300 and 200 net new jobs in 2015. Local businesses in the Food Manufacturing industry include Nissin Foods, Old County Baking Company, and Oppenheimer Group, while local Chemical Manufacturing businesses include Standard Homeopathic (parent company to Hylands, Inc.) and Avery Dennison.

Small job gains in the Apparel sub-industry were offset by job losses at textile establishments. The combined Apparel and Textile sub-industries, however, have decreased employment counts by 20% since 2006 and there is little reason to expect these sub-industries to expand in the South Bay.

Entertainment, Sports Management, and the Arts

Entertainment, Sports Management, and the Arts remain a unique part of the South Bay economy. Many of the County's residents visit the South Bay to watch the LA Galaxy play their home games at the StubHub Center in Carson, or to the Toyota Sport Center in El Segundo to watch the Lakers and Kings practice. The region also plays host to various musicians who perform at venues such as the renovated Forum in Inglewood in addition to a variety of other performing arts centers. In addition to the Forum, the South Bay contains various performing venues and museums, and is also home to various media outlets, including DirectTV.

Employment within Entertainment, Sports Management, and the Arts in the South Bay grew by 9.8% in 2015, providing 500 more jobs than in 2014. Establishments in this industry continue to pay superior wages, with the annual average wage in the South Bay reaching \$125,700 in 2015, up 14.3% over the year.

The outlook for this industry is expected to grow tremendously. Plans for the new Rams stadium in Inglewood are starting to materialize and the stadium is expected to begin operating in 2019 and host the Super Bowl in 2021. At the same time, the Port of Los Angeles is transforming the old Ports O'Call into a new destination for locals and tourists. Dubbed San Pedro Public Market, it is scheduled to open in 2020.

Sports, Entertainment & Hospitality Management at CSUDH

CSUDH offers a business administration bachelor's degree with a concentration in sports, entertainment and hospitality management, which prepares graduates for careers in sales, marketing, management, operations with sports teams or sports and entertainment venues, as well as travel, tourism and entertainment departments in city governments or the private sector.

Health Care

A primary component of the South Bay's economy is the Health Care and Social Services industry¹, which accounted for 11.7% of total employment in 2015. In fact, the Health Care industry was the second largest in terms of employment, falling behind manufacturing. The Health Care industry has provided a solid foundation for the rest of the South Bay's economy, as establishments engaged in this industry have increased payrolls by nearly 44% since 2010. The region's largest health care facilities include the Harbor UCLA Medical Center, the Kaiser Permanente South Bay Medical Center, and Providence Little Company of Mary Hospital. The expansion of this industry has been vital in providing a relatively thick supply of jobs, as the variety of jobs associated with this industry span a wide range of skill levels. Accordingly, local residents from highly diverse backgrounds have greater access to job opportunities than at any other point during the economic recovery.

Graduates of CSUDH's College of Health, Human Services, and Nursing are employed as clinicians, technicians, nurses, and administrators in many health care facilities within the South Bay.

Employment growth in the Health Care industry has provided a significant source of jobs for local residents. The average annual wage paid to workers in this industry was \$43,000 in 2015, a 5.7% increase over the prior year. Not all jobs are created equal, however. The Health Care industry includes both well-paying jobs aligned with relatively low-wage subsectors. For example, in the Hospital subsector, the average annual wage paid to workers was over \$67,000. By comparison, the average annual wage paid to workers in the Social Assistance subsector was a little over \$17,000. However, many of the workers employed in the Social Assistance subsector are part-time home health care workers. The Social Assistance subsector, with nearly 23,000 jobs, is the largest subsector in the South Bay's Health Care industry.

The outlook for the Health Care industry remains positive because the Health Care industry is largely recession-proof. What's more, demographic trends including an aging population and increased life expectancy will continue to drive employment in the Health Care industry. Employment in the Health Care industry is expected to grow, as the shift in demographics and political pressures to increase the number of individuals with access to affordable health care continues on its current trajectory.

Higher Education

Many high education institutions are based in the South Bay, including California State University, Dominguez Hills, El Camino Community College, Los Angeles Harbor College, and Marymount California University. These and other institutions provide high quality jobs to both local residents, as well as workers that commute into the South Bay.

¹ This industry will be referred to as "Health Care" throughout the remainder of this report.

Simultaneously, local higher education institutions also help develop career pathways to thousands of local students.

Many other private education establishments also operate in the South Bay. Some establishments provide support to the higher education institutions, while others provide training or lessons of some form. Collectively, in 2015, employment at private education establishments was estimated at 8,800 jobs – a 9.5% decline from the previous year.

International Trade/Goods Movement

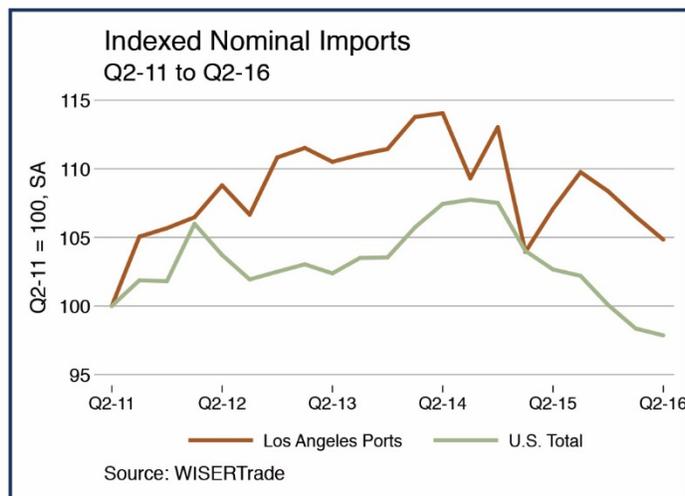
The Port of Los Angeles, located in San Pedro, is the largest port in the United States. Together with its neighbor, the Port of Long Beach (the second largest in the nation), the twin San Pedro ports make up the largest complex in the western hemisphere. Between one-third and 40% of inbound containers pass through this important link in the U.S. and global supply chain in a given year. Also located in the South Bay region, Los Angeles International Airport (LAX) is one of the largest cargo airports in the nation.

Recent gains in this sector stem from an acceleration of activity through the Los Angeles region's ports during the first half of 2016. In that time, the number of containers passing through the ports increased by 1.7% over 2015, putting the facilities on track for their third best year on record. Outbound containers grew by 1.5% and inbound containers rose by 1.0%. Similarly, the combined price-adjusted or real value of imports coming through the ports and Los Angeles International Airport saw a 6% increase during the first six months of last year. The increase in real exports occurred even though nominal imports were flat compared to import prices that declined by 5.7% during the same time period. The local increase in real imports of goods was all the more outstanding when compared with the national picture, which showed that real imports increased by 0.2% during the same period.

More than a quarter of establishments in the County's Transportation and Utilities industry are based in the South Bay and employ 54,500 workers. Recent trends in inbound cargo shipments have been fueled by robust consumer spending throughout the nation.

This year, CSUDH entered into a key partnership with the Port of Los Angeles and LA Harbor College to ensure both a seamless educational pathway for global logistics majors and the integration of new and emerging trends in port logistics into the curricula.

The Memorandum of Understanding also creates opportunities for students to gain real-world insights, via internships and guest lectures from Port officials.



With import demand on the rise, demand for logistics services has been strong. In many cases, goods are moved from ports to distribution centers in the South Bay, which are well positioned to handle cargo immediately after arriving to the ports. Employment in the South Bay's Transportation and Utilities industry grew by 6.3% in 2015, outpacing the 5.4% growth for the countywide industry.

The robust logistics sector has been a boon to the industrial property segment of the real estate market in the South Bay as vacancy rates and rents are both trending at post-recession records. As of the second quarter of 2016, the vacancy rate stood at 0.6% according to CBRE, the lowest in over 10 years, on par with the rates observed in the County of Los Angeles.

While the long-term trend for this sector locally is expected to be positive, there are concerns about the shipping industry as a whole. There is an air of uncertainty surrounding the health of the shipping industry. As shipping firms have introduced newer and larger ships to their fleet, they have created significant global shipping overcapacity relative to the global demand for their services. This issue was a major factor in the recent bankruptcy of Hanjin Shipping Co., a majority stakeholder in the Port of Long Beach's largest terminal. Shipping companies have responded to the situation by, among other things, entering into alliances with one another to eliminate redundant capacity along similar routes. However, there may be a consolidation of companies over the longer-term as companies compete with one another through size than through pricing.

Oil Extraction and Refining

The current glut of oil production continues to weigh down on oil producers both local and abroad. Despite the gradual decline in production from the drop in oil prices over the last couple of years, California remains one of the largest producers of crude oil in the nation. However, California refineries increasingly rely on imports to meet energy demands. Despite the drop in oil prices over the last couple of years, the South Bay's oil industry remains relatively unscathed. A veritable "Who's Who" of oil companies have operated in the South Bay in recent years: Chevron, ExxonMobil, Tesoro, Valero, and ConocoPhillips.

While the oil industry may have seen a “crude awakening,” the number of oil and energy establishments in the South Bay remained virtually unchanged. The South Bay shed a minor two establishments from 2014 to 2015. At the close of 2015, there were 29 establishments. Altogether, the 29 establishments employed 4,050 workers, down nearly a hundred workers from 2014. Despite a decline in employment, total industry payrolls increased 5.6% to nearly \$552 million. The oil industry is a relatively capital intensive industry; however, many of the jobs within the industry are engineering related (petroleum engineering, for example). In essence, oil refineries are the source many high-paying occupations, despite the industry being less labor-intensive.

A change to the landscape of the South Bay’s oil production could come sooner than later. The Torrance refinery, which accounts for 10% of California’s refined capacity and 20% of the capacity in Southern California, was sold to a New Jersey oil refinery company in mid-2016. An explosion at the refinery brought production to a screeching halt. A recent hearing from the South Coast Air Quality Management District approved an agreement allowing the refinery to restart operations. Where do oil prices go from here? The energy market is shaped by a number of uncertainties but the Energy Information Administration projects that crude oil prices will remain stable over the next couple of years. As long as production and inventory levels continue to outpace demand, gasoline prices are unlikely to return to the levels seen in years ago.

Many high-cost producers have borne the brunt of declining energy prices, including North Dakota, Oklahoma, and Texas to name a few. Lower energy prices provide more benefits than costs because economic activity in the South Bay is not dependent on oil production. Predicting oil prices can be tricky, however, with the U.S. Energy Information Administration’s projections of stable prices on the horizon, the oil industry in the South Bay has weathered the storm of falling energy prices over the last couple of years and should be safe from any major hurdles in the near term.

Professional, Scientific, and Technical Services

One of the more promising developments in the South Bay has been the Professional, Scientific, and Technical Services industry. This industry, which currently ranks as the fourth-largest private industry in terms of employment, has played a key role in bringing a large number of high-wage jobs in South Bay. In fact, the average wage paid to workers in this industry was nearly \$119,000, a 5.1% increase over the average annual wage in the previous year. The highest paying industry in the South Bay was the Management of Companies and Enterprises industry. However, the Professional, Scientific, and Technical Services industry employed nearly 4.4 times that of the Management of Companies and Enterprises industry.

Looking at the top-level trends in employment, the Professional, Scientific, and Technical Services industry grew at a modest 0.4% from 2014 to 2015. Job losses and gains in this industry were not distributed evenly, however. One of the hardest hit subsectors of this industry were the Architectural, Engineering, and Related Services and the Advertising, Public Relations, and Related Services subsectors, which shed a collective 750 payrolls. These losses were offset by gains in other subsectors including Computer Systems Design and Related Services and Management, Scientific, and Technical Consulting Services, which added nearly 900 payrolls over that same period. Overall, the South Bay

experienced a net increase in employment in the Professional, Scientific, and Technical Services industry, albeit a minor one. Sometimes it pays to be the tortoise.

While the Professional, Scientific, and Technical Services industry may not have been a significant source of job growth in 2015, it did provide many of the top-tier wages that set the stage for growth in other sectors of the South Bay economy. Looking forward, this industry will play an important role in the South Bay economy by providing a crucial source of high-paying wages that improve household finances for those residents employed in the industry.

Minimum Wage – Facts and Impact

The statewide minimum wage is \$10.00/hour as of January 1, 2016, already well above the federal minimum wage of \$7.25 per hour. Earlier in 2016, California lawmakers passed legislation that will gradually increase the statewide minimum wage to \$15 per hour by the year 2022. How will the increase in the minimum wage affect the local economy? There will be winners and losers.

Some workers will continue to be employed at the higher wage and will benefit to the extent that they do not suffer offsetting decreases in hours worked or reduction in other benefits.

Other workers will be laid off. In a tight labor market, they may be able to find work elsewhere, but there is a more abundant supply of low-wage and entry-level workers compared to other categories of workers, so they may not readily find another job.

Retail stores, restaurants and hotels, apparel manufacturers, and social assistance firms will most likely bear the brunt of a higher minimum wage, as these industries employ large numbers of unskilled and entry-level workers. In order to remain competitive, firms in these industries may respond in a number of ways: cut jobs, cut hours per worker, increase use of full-time skilled workers, and introduce labor-saving automation. Firms with larger profit margins will be able to absorb more of the increase with fewer impacts on hiring. While one might expect firms to leave California, that is not an option for firms in most of the industries cited above to the extent that they provide services that cannot readily be moved.

Will a higher minimum wage have the intended effect? As it turns out, there is often a difference between the intended outcome and the actual outcome.

Elected officials may choose to increase the minimum wage to achieve a number of goals. One goal may be to raise the standard of living for low-income households, especially those in poverty. However, few households in poverty have minimum wage workers so the minimum wage hike will not necessarily raise households out of poverty. Another goal may be to reduce unemployment among target unskilled workers and young workers, particularly groups such as African-American teens whose unemployment rate is several times higher than the headline rate. But as mentioned above, firms may respond to a hike in the minimum wage by cutting jobs to unskilled and entry-level workers, making a difficult situation even worse.

So what can be done? There are additional options to consider. For example, the best way to address poverty is through the federal income tax credit. This is not a policy lever over which local elected officials have control, but they could engage in education campaigns to inform their constituents of this option. As for the goal of reducing teen employment, one could add to the minimum wage law a measure that provides for a “training wage” that would be lower than the minimum wage itself, and would enable firms to higher younger and other entry-level workers at a lower wage for a limited period of time. This would allow the firm time to evaluate the potential of that individual for long-term employment while enabling the worker to get much-needed experience at the workplace.

Real Estate and Construction

Residential Real Estate

The recovery of the housing market across California gained momentum over 2015 and the first half of 2016, boosted primarily by strong demand. In fact, demand for housing is now stronger than it has been at any other point of the current economic expansion, due in large part to the improved state of household finances and historically low interest rates. However, demand has been growing in the face of significant supply constraints and tight credit market conditions. The confluence of these factors has yielded mixed results during the current recovery, though there are signs that housing market has reached a turning point.

The South Bay housing market has indeed picked up steam over the last two years. Home sales in the region grew considerably in most South Bay cities between 2014 and 2015, and are on pace for another strong year through the first half of 2016. This serves as a testament to demand for housing across the South Bay; the region's population continues to grow, as have local household incomes. Moreover, households that lost their homes to foreclosures during the years of the housing crisis are beginning to exit the five- to seven-year waiting period needed to qualify once again for mortgages originating with government-sponsored lenders Fannie Mae and Freddie Mac. Accordingly, many households in the region could regain access to a major source of mortgage lending.

**Home Price and Income Comparison
South Bay, 2011-2014**

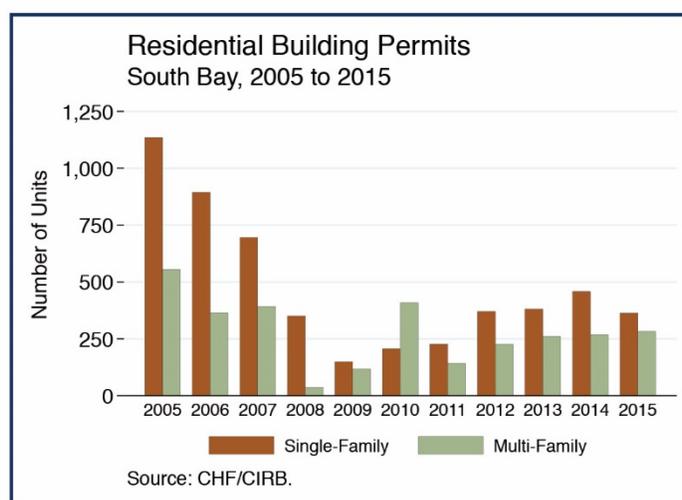
City	Home Price (\$000s)	Household Income (\$000s)	Price to Income Ratio
Avalon	442.9	54.2	8.2
Carson	332.8	71.4	4.7
El Segundo	718.1	84.0	8.5
Gardena	325.7	47.9	6.8
Hawthorne	415.4	44.4	9.4
Hermosa Beach	1,060.7	105.0	10.1
Inglewood	252.9	42.2	6.0
Lawndale	340.0	48.4	7.0
Lomita	436.6	57.2	7.6
Manhattan Beach	1,561.5	142.1	11.0
Palos Verdes Estates	1,507.4	171.3	8.8
Rancho Palos Verdes	930.8	120.7	7.7
Redondo Beach	707.4	103.1	6.9
Rolling Hills	2,396.3	218.6	11.0
Rolling Hills Estates	909.0	136.5	6.7
Torrance	502.8	78.3	6.4

Source: DataQuick/Corelogic; American Community Survey.

At the same time, the pace of price appreciation across the South Bay has moderated a great deal. Prices grew at a pace of less than 7% in most South Bay cities, particularly in those that have already surpassed their pre-recession peak. In particular, the housing markets in the region's most affluent cities (Hermosa Beach, Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, and Rolling Hills Estates) appear to have plateaued over the past year. This indicates that these high-end housing markets, which were among the first to reach a full recovery, have reached a saturation point. Prices have reached extreme levels and are unlikely to continue their upward trend for much longer. The story is different in more affordable South Bay locales, such as Carson and Inglewood, where strong price appreciation has carried into 2016. This indicates that the persistent price growth observed closer to the coast has served to jumpstart the housing market recovery in inland areas that were left behind over the last few years.

Though the housing markets in most South Bay cities were markedly improved in 2015 and the first half of 2016, impediments to a full recovery remain. A growing number of potential homebuyers have been priced out of owning a home, especially in the region's in-demand coastal communities. However, many potential homebuyers that can afford to own a home face other obstacles. Many of these potential homebuyers would be challenged to make the down payment on the median-priced home in the region, while lending standards remain tight relative to historical norms. In all, these impediments to home ownership have pushed a growing number of households into the region's rental market.

The growing number of households that have turned to the region's rental market for their immediate housing needs have made the broader Los Angeles area one of the most overheated rental markets in the nation. Apartment rents have continued to soar, increasing by 5.2% in Los Angeles County from the second quarter of 2015 to the second quarter of 2016. The rental market also remains extremely tight, with vacancy rates hovering in the low- to mid- 3% range. The demand for rentals has clearly strained the already low supply of available housing, as the increase in new renter households in the region has overwhelmed the pace at which new units are being added to the housing stock. This has, in turn, strained the already low supply of housing in the Los Angeles area and has greatly limited housing options for many local households.



Despite persistently tight conditions in both segments of the South Bay's housing market, developers have responded cautiously in the aftermath of the Great Recession. In fact, residential construction activity in the South bay slowed down in 2015, with only 645 units permitted for construction compared to 726 during the previous year. Moreover, the pace of residential construction is less than half of the levels prior to the recession. This decline occurs at a time when multi-family housing construction, especially in mix-use developments, is surging elsewhere in Los Angeles County. Developers elsewhere in the County are working around a lack of developable land by shifting towards large, multi-family in-fill projects, whereas this type of construction activity in the South Bay may be hindered by restrictions on coastal development and local resistance to higher density housing. Nonetheless, the slow response of construction to growing demand for housing in the South Bay has exacerbated the already tight supply of housing.

The local housing market will continue its slow recovery as long as supply constraints continue to linger. Demand for housing in the South Bay is on solid footing and is poised to strengthen further over the next year - household finances continue to improve at a steady clip, while interest rates will remain at historically low levels for the foreseeable future. That being said, growing demand in the context of significant supply constraints will only serve to perpetuate the trend of potential homebuyers instead turning to the region's rental market. This will continue to drive rent increases across the region and raises concerns regarding the affordability of housing in the region. Clearly, the direction of the South Bay housing market over the next year hinges on the pace by which new units are added to the region's housing stock.

Nonresidential Real Estate

Industrial Space

The close proximity of the Ports of Los Angeles and Long Beach, coupled with a large population base, has made Los Angeles County a major hub for the movement of consumer goods. The strong trade and transportation infrastructure along with the large presence of industrial space, facilitate the region's role in the movement of these types of goods. This is a vital source of employment for local residents, offering positions across a diverse array of skill and wage levels. Furthermore, local business and consumers rely on the efficient movement of goods throughout the region, all of which is made possible by the region's sturdy industrial base.

With consumer spending growing across Los Angeles County, the South Bay's industrial real estate market has continued to tighten. To this end, the industrial vacancy rate has declined further to a paltry 0.6% at the midway point of 2016 according to CBRE. By comparison, the industrial vacancy rate in Los Angeles County as a whole declined to 1.0% in the second quarter of 2016 while the rate in the San Gabriel Valley, another transportation hub in the region, matched that of the South Bay at 0.6%.

The tightening of the region's industrial real estate market can be attributed to surging demand for Warehouse and Distribution space. Over 3.7 million square feet of industrial space has been absorbed since the start of 2015, according to REIS. The market has tightened to such an extent that new deals for this type of real estate are hard to come by. Even more, the pace of industrial construction has fallen off after a quick recovery.

Industrial construction reached a post-recession high in 2012 and remained strong through 2014. However, this type of construction activity tapered off in 2015 and is only looking a little stronger through the first half of 2016. This has contributed to increases in industrial rent, which grew 3.1% between the second quarter of 2015 and the second quarter of 2016.



The forward outlook for industrial space in the South Bay remains positive, particularly in the context of Warehouse and Distribution space. Despite international trade concerns, which can be attributed in part to a turbulent political environment and uncertainty regarding global economic growth, domestic demand for consumer goods has been a primary driver of economic growth across the nation. Strong domestic consumer demand will ultimately maintain the pace of goods movements through major hubs like the South Bay. With the factors underpinning the demand for industrial space remaining intact, forward trends in industrial rents and vacancy rates will ultimately depend on new developments.

Office Space

Modern trends in technology and workplace organization have significantly changed the structure of the market for office space across the nation. This trend also holds true throughout Los Angeles County, where companies have been quick to reduce their real estate footprint and save on rent. Many companies have also embraced the switch to more open floor settings, opting for the flexibility of creative space. Additionally, workers have also been granted unprecedented flexibility in their ability to work remotely. The way office space has been utilized has clearly been transformed over the past several years, providing employers with the option of further reducing the office space utilized per employee.

To this end, the market for office real estate has yet to fully recover from the Great Recession. The office vacancy rate in the South Bay has continued to trend down, declining 1.7 percentage points between the second quarter of 2015 and the second quarter of 2016 to 17.1%. This remains elevated to the levels observed in the region prior to the recession. Although a similar trend can be observed elsewhere in Los Angeles County overall, there are a few key submarkets where the market for office space is tighter than it was prior to

the recession. These submarkets, namely Century City, Santa Monica, and Downtown Los Angeles, have are heavily concentrated in office-based employment. As demand for office space in these office hubs picked up during the economic recovery, the amount of office space available for rent fell considerably faster than the South Bay, where office-based employment is not nearly as concentrated. For instance, the office vacancy rate in the West Los Angeles submarket stood at 9.5% in the second quarter. By comparison, the vacancy rate in Downtown LA was 16.5%.



Following a trend in the broader Los Angeles area, the pace of office construction has picked up in the South Bay over the last several years, particularly in the Cities of El Segundo and Torrance. The growing cluster of tech startups and other office-based support services in these cities been the primary driver of office construction the last two years, meeting the growing demand for office space that meets the flexible needs of today's workforce. Growing office construction in conjunction with declining vacancy rates is a testament to demand for office space in the South Bay in the face of broader trend away from conventional offices.

Although relationship between office-based employment growth and office space is not as strong as it once was, steady employment growth in office-based industries like Professional, Scientific, Technical, and Management will continue to drive demand for office space in the South Bay. Developers have responded to this structural shift in office demand, bringing a new wave of office space into the region. That being said, current trends indicate that stronger employment growth in office-based industries is needed in order for the South Bay office market to return to historical norms.

New Construction

Non-Residential construction in the South Bay has increased every year since bottoming out in 2010. To this end, total non-residential construction, which includes new construction and alterations and additions, in the South Bay surged 15% to \$458.5 million between 2014 and 2015. In fact, non-residential construction activity is just \$7.1 million short of the pre-recession peak reached in 2008.

A super-majority (75%) of the non-residential construction in the South Bay was for alterations and additions to existing structures. This indicates that businesses in the area are more confident in their near-term economic outlook, as many are undertaking renovations delayed by the economic downturn. Growing non-residential construction also reflect resurgent tourist activity throughout the South Bay. To this end, hotel construction bounced back in 2015 after a steep drop during the prior year, increasing 342.2% to \$27.3 million during this time period.

Retail Trade

The South Bay's Retail Trade industry supports the local economy and provides tax revenues for many of the area's municipalities. Major shopping centers include the South Bay Galleria and the Del Amo Fashion Center. Overall, REIS, Inc. estimates that the South Bay (excluding El Segundo, Carson, San Pedro, and Wilmington) contained 3.0 million occupied square feet of retail stores in the second quarter of 2016 with an average asking price of \$33.25 per square foot per year, 13.4% greater than the Los Angeles County average.

Consumer spending in the South Bay has experienced little change over the last three years. Taxable sales for all incorporated cities in the South Bay declined by 1.3% in 2015 after growing by 1.4% in 2014. Through the first half of 2016, taxable sales have only grown by 0.4% year-over-year. Low fuel prices have limited growth in taxable sales throughout the state, and go a long ways toward explaining flat or declining taxable sales in recent quarters. Beyond that, many cities in the region are effectively at full-employment at this point in the business cycle, meaning that income gains come more from pay increases and longer hours worked, and less from increases in payroll jobs. This means smaller increases in the regional household income, resulting in slower growth in taxable sales. By comparison, taxable sales in Los Angeles County as a whole advanced by 4.2% in 2015, mainly because of both population and job gains in the County's inland areas where there is room to grow.

Within the South Bay, the City of Carson stands out for having the largest decline in consumer spending. Taxable sales in Carson declined by 25.5% in 2015. Other cities experiencing major declines in taxable sales include El Segundo (-7.3%) and Manhattan Beach (-6.1%). Meanwhile, some of the cities with the largest growth in taxable sales include Gardena (7.3%) and Lawndale (6.6%).

With spending and population only growing moderately, new jobs at retail stores have also been limited. Employment in the South Bay's Retail Trade industry grew by 0.5% in 2015 after growing by 1.0% in 2014. The growth in online shopping and self-checkout registers further reduces the need to add new workers at retail stores. Over the next few years, we don't expect retail trade employment to grow by more than 1% per year.

Tourism and Hospitality

Aside from being a wonderful area to live and work, the South Bay remains an excellent place to visit. A popular destination for domestic and international travelers alike, the area continues to have a thriving leisure and hospitality industry. With an abundance of resorts, hotels, restaurants and outdoor activities, the South Bay is capable of accommodating and entertaining its guests every month of the year.

Los Angeles is one of the most bustling tourist destinations in the world. In 2015, a stunning 45.6 million travelers visited the area - a record number, up 3.2% from the previous year. Of these visitors, almost 7 million came from abroad, especially China and South Korea. Nearly \$21 billion in spending is attributed to these visitors². This spending ultimately leads to economic growth, especially in the leisure and hospitality industry.

Tourism spending is best understood through local hotel performance metrics. In 2015, the South Bay had an average hotel occupancy rate of 86.3%, the highest this rate has been post-recession. Additionally, average daily room rates jumped from \$127 to \$140, making up a 10.7% increase. Revenue per available room (RevPar) had the largest gain of all - a whopping 12.4% rise, going from \$108 to \$121 per room. Clearly, travel accommodations are doing exceedingly well in the South Bay.

In 2015, nearly 64,000 people were employed in the leisure and hospitality industry, a 4% increase from the previous year. Increased local consumer spending can be attributed not just to tourism, but also to a better state of local household finances. This leads to spending in the leisure and hospitality industry. Benefiting the most from this growth was the food service sector, providing over 2,000 new jobs. Performing arts and spectator sports enjoyed a 10% annual growth rate, the largest out of any other subsector. Average wages across the entire industry also increased by 10%, amounting to about \$27,200 per worker.

Increased tourism to Los Angeles is a sign of both domestic and international economic growth. As economies continue to recover from the low points of the recession, more spending will take place in all industries, especially leisure and hospitality.

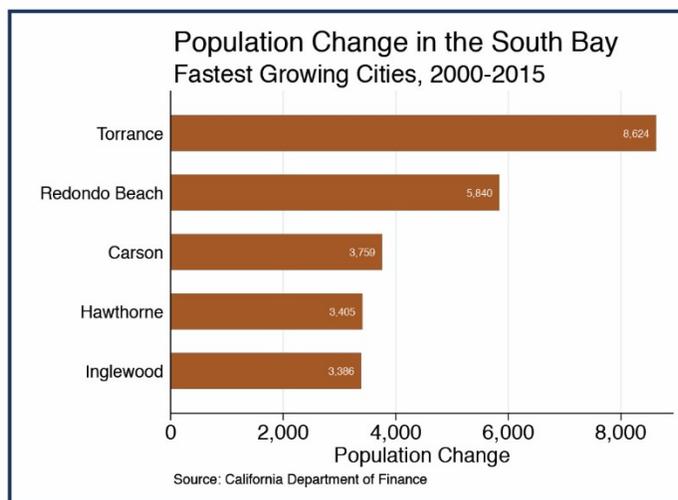
² <http://www.latimes.com/business/la-fi-tourism-2015-20160502-story.html>

South Bay Demographics

Population

Over 765,000 residents within 16 incorporated cities called the South Bay home in 2015. An additional 160,049 people live in parts of the City of Los Angeles, with another 162,481 residents located in unincorporated areas of the South Bay, bringing the region's combined population to just under 1.1 million. By comparison, the population in the South Bay falls between Contra Costa and Fresno counties.

The population of the South Bay grew modestly over the last year, increasing by 0.34%. Population growth in the South Bay has lagged behind the broader Los Angeles region and state overall. The population in Los Angeles County grew 0.6% between 2014 and 2015, while it increased at a rate of 0.9% in California overall during this time period. The incorporated cities in the South Bay with the largest populations in 2015 were Torrance (146,394), Inglewood (115,340), Carson (93,162), Hawthorne (86,727), and Redondo Beach (68,786).



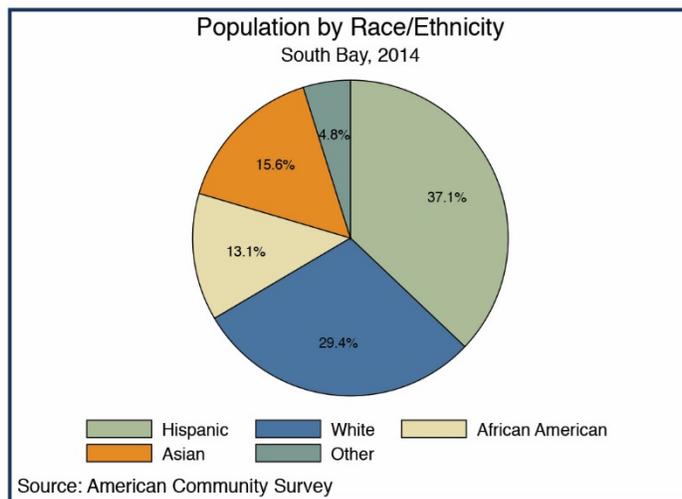
Looking over the longer-term, the fastest growing cities in the South Bay were Torrance and Redondo Beach, adding 8,624 and 5,840 residents, respectively, between 2000 and 2015. Populations in Carson, Hawthorne, and Inglewood have also grown considerably during this period, though much of this growth has occurred over the past few years. As it stands, all sixteen incorporated cities in the region have surpassed their pre-recession population peaks. (See Table 2 in the Appendix for additional detail.)

Race/Ethnicity

The South Bay's population reflects a diverse composition of race and ethnicities. Hispanics/Latinos remain the largest ethnic group in the region, accounting for over 37% of the total population in the South Bay. Moreover, Hispanics represent a majority of the population in Avalon (72.2%), Lawndale (65.6%), Hawthorne (53.6%), and Inglewood (50.7%). Hispanics also constitute a large proportion of the population in the South Bay

communities within the City of Los Angeles, namely Wilmington (89.5%), San Pedro (46.5%), and Harbor City (42.8%).

The population of whites also represent a sizable chunk of the population in the South Bay, though this concentration is primarily confined to just half of the incorporated cities that make up the region. A large majority of the population in the beach cities are white, lead by Hermosa Beach (80.4%) and Manhattan Beach (77.6%).



The balance of the population in the South Bay includes growing Asian and African American communities. The Asian population represents 15.6% of the region's total population, similar to the 13.1% constituted by the region's African American population. While the Asian population is spread out across the South Bay, with Asians representing at least one-quarter of the population in six cities, the Black or African American concentration is concentrated in Inglewood, Hawthorne, Gardena, and Carson. The remaining 5% of the population in the South Bay includes Native Americans, Hawaiians/Pacific Islanders, as well as residents who identify as "other" or as more than one race. (See Table 3 in the Appendix for additional detail.)

Educational Attainment

Residents in the South Bay offer a diverse array of skillsets and education levels, providing the region's employers with a rich supply of labor. This is a testament to the relatively high levels of education throughout the area, which can be attributed to the large number of distinguished educational institutions throughout the broader Los Angeles Area. The South Bay region, in particular, is home to a number of top-notch school districts and higher education institutions.

CSUDH has more than 100,000 alumni, 65 percent of whom live within a 25-mile radius of campus.

The proximity to high quality education opportunities has greatly benefited South Bay residents. At least 70% of the population 25 years and older in all 16 incorporated cities in the region has a high school diploma or higher. Even more, the proportion of residents with a high school diploma exceeds the County average (77.5%) in 12 cities in the South Bay.

This trend also holds true for higher education, as the proportion of the population with a bachelor's degree or higher exceeds the County average in 9 incorporated cities of the South Bay. The highest concentrations of college-education residents in the South Bay are located in the Palos Verdes Peninsula (e.g. Palos Verdes Estates, Rolling Hills) and the Beach cities.

There are pockets within the South Bay where levels of educational attainment continue to languish. More specifically, there is a significant shortfall of college-educated residents in the South Bay further from the coast. The percentage of residents 25 years and older with a bachelor's degree in Wilmington, Lawndale, Inglewood, and Inglewood fall woefully short of the average in Los Angeles County (30.3%). The low levels of higher education in these sub-regions have greatly limited the employment opportunities for residents in these cities and communities. Moreover, the wages paid lower-skilled labor have languished in comparison to the wage prospects of residents with a college- or graduate-level education. This trend has crimped local incomes and will persist unless policymakers and residents alike make a concerted effort to adapt to the region's growing need for a diverse and skilled workforce. (See Table 4 in the Appendix for additional detail.)

Commuting Patterns

A large majority of the workforce across Los Angeles County is derived from within the County's borders. This trend appears to hold true for many residents located in the South Bay, where commute times are by-and-large lower than the 30-minute commute faced by the average County resident. A majority of residents in most South Bay cities face a commute to work of less than 25 minutes. Only a small portion of residents face a more onerous commute, as less than 10% of the region's commuters spend more than an hour traveling to work. While these figures may be obfuscated by the mode of transportation used by the region's workforce – public transportation is typically slower than driving oneself to work – the data reflect the general trend of residents in the South Bay working fairly close to home.

Residents in the southern-most cities in the South Bay face significantly longer commutes to work than residents elsewhere in the region. The mean commute time for workers in Palos Verdes Estates, Rancho Palos Verdes, and Rolling Hills is considerably longer than the regional average. This reflects the disproportionate number of workers facing a commute time of greater than 35 minutes. These figures reflect the fact that many of these commuters work in the job centers located further north in the South Bay. Moreover, the relative lack of freeway access in the southern sub-region has contributed to longer commute times as commuters are forced to pile on to a limited number of major arteries to travel to work. (See Table 5 in the Appendix for additional detail.)

Appendix

Table 1: South Bay Economic Indicators

Year	Population*	Total Employment	Payroll of Workers (\$M)	Housing Permits (Units)*	Taxable Sales (\$M)
2006	751,194	.	.	1,258	12,205
2007	749,583	.	.	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	758,928	512,605	29,584	597	12,250
2013	761,829	525,465	30,202	641	12,691
2014	765,562	536,465	31,210	726	13,038
2015	768,233	549,228	33,273	645	12,696
2016	772,030	558,155	34,611	566	13,018
2017	773,576	568,263	36,020	748	13,555

Year	Population Growth (%)*	Total Employment Growth (%)	Payroll of Workers Growth (%)	Housing Permits Growth (%)*	Taxable Sales Growth (%)
2007	-0.2	.	.	-13.5	1.5
2008	-0.1	.	.	-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	-2.6
2016	0.5	1.6	4.0	-12.3	2.5
2017	0.2	1.8	4.1	32.2	4.1

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

City	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Avalon	3,279	3,551	3,557	3,594	3,633	3,674	3,728	3,769	3,746	3,678	3,678	3,672
Carson	89,730	94,236	93,549	93,108	92,612	92,198	91,714	91,714	92,524	92,855	93,162	93,489
El Segundo	16,033	16,649	16,600	16,599	16,547	16,581	16,654	16,714	16,687	16,549	16,571	16,596
Gardena	57,746	59,277	59,235	59,095	58,841	58,834	58,829	59,098	59,473	59,763	60,165	60,346
Hawthorne	84,112	85,030	84,380	84,033	84,684	84,465	84,293	84,979	85,538	85,724	86,727	87,517
Hermosa Beach	18,566	19,340	19,217	19,174	19,283	19,312	19,506	19,589	19,699	19,736	19,795	19,771
Inglewood	112,580	112,417	111,777	111,428	110,584	110,164	109,673	110,387	112,578	114,558	115,340	115,966
Lawndale	31,711	32,672	32,569	32,566	32,568	32,684	32,769	32,909	33,086	33,166	33,272	33,365
Lomita	20,046	20,595	20,456	20,354	20,284	20,236	20,256	20,324	20,351	20,200	20,227	20,232
Manhattan Beach	33,852	35,667	35,278	35,051	34,955	35,147	35,135	35,272	35,259	35,097	35,169	35,172
Palos Verdes Estates	13,340	13,745	13,556	13,475	13,425	13,421	13,438	13,497	13,577	13,586	13,630	13,655
Rancho Palos Verdes	41,145	42,457	41,931	41,728	41,633	41,537	41,643	41,846	42,258	42,514	42,711	42,842
Redondo Beach	63,261	65,931	65,782	65,738	65,839	66,162	66,748	67,126	67,781	68,490	68,786	69,101
Rolling Hills	1,871	1,912	1,889	1,876	1,868	1,868	1,860	1,872	1,897	1,916	1,926	1,933
Rolling Hills Estates	7,676	8,058	7,973	7,939	8,045	8,036	8,067	8,094	8,073	8,001	8,009	8,006
Torrance	137,946	143,738	143,445	143,825	144,326	144,702	145,438	146,060	146,401	145,996	146,394	146,570
Total	732,894	755,275	751,194	749,583	749,127	749,021	749,751	753,250	758,928	761,829	765,562	768,233

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

Sources: State of California Department of Finance

Unincorporated Areas	Census 2000	Census 2010
Lennox	28,679	28,210
Rancho Dominguez	47,303	49,328
View Park/Windsor Hills	83,709	84,943

Sources: State of California Department of Finance

Table 3: Ethnicity and Race in the South Bay

City	Hispanic or Latino (%)	White (%)	Black or African American (%)	American Indian and Alaska Native (%)	Asian (%)	Native Hawaiian and Other Pacific Islander (%)	Other (%)	Two or More Races (%)
Avalon	72.2	25.7	0.3	0.3	0.1	0.0	0.0	1.5
Carson	39.6	7.2	20.4	0.1	25.5	2.1	0.1	4.8
El Segundo	17.8	68.0	1.3	0.2	6.2	1.2	0.1	5.2
Gardena	36.0	9.5	24.3	0.2	25.7	0.7	0.7	2.9
Hawthorne	53.6	9.7	25.3	0.0	6.1	0.6	0.4	4.2
Hermosa Beach	8.6	80.4	1.3	0.5	5.7	0.0	0.4	3.1
Inglewood	50.7	3.3	42.1	0.1	1.2	0.4	0.3	1.9
Lawndale	65.6	14.0	7.4	0.1	9.0	0.3	0.2	3.4
Lomita	36.6	38.6	2.5	0.2	15.4	0.4	0.0	6.2
Manhattan Beach	8.3	77.6	0.6	0.3	9.0	0.0	0.2	4.0
Palos Verdes Estates	5.0	69.1	1.7	0.1	19.8	0.1	0.1	4.0
Rancho Palos Verdes	7.8	56.3	2.6	0.2	27.9	0.2	0.5	4.5
Redondo Beach	17.9	61.8	3.0	0.2	12.0	0.1	0.4	4.5
Rolling Hills	3.8	69.2	0.6	0.2	21.1	0.0	0.3	4.7
Rolling Hills Estates	5.2	60.5	3.9	0.4	26.3	0.0	0.5	3.2
Torrance	16.3	42.0	2.7	0.2	33.6	0.3	0.4	4.5
City of LA Communities								
Harbor City/Harbor Gateway	42.8	18.9	9.6	0.1	22.0	2.4	0.1	4.1
San Pedro	46.5	37.7	5.5	0.3	5.5	0.4	0.2	4.0
Wilmington	89.5	4.5	2.2	0.3	2.2	0.7	0.0	0.5

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

Table 4: Educational Attainment in the South Bay

City	< 9th Grade (%)	Grade 9-12, No Diploma (%)	High School Graduate (%)	Some College, No Degree (%)	Associate's Degree (%)	Bachelor's Degree (%)	Graduate or Professional Degree (%)	High School Degree or Higher (%)	Bachelor's Degree or Higher (%)
Avalon	13.8	10.7	32.2	19.8	5.0	10.3	8.3	75.5	18.6
Carson	10.7	9.1	22.4	24.0	9.5	17.9	6.4	80.2	24.2
El Segundo	2.0	2.1	16.7	24.6	9.6	28.5	16.6	95.9	45.0
Gardena	10.4	8.2	27.3	22.7	7.8	17.8	5.9	81.4	23.7
Hawthorne	14.0	11.3	24.8	23.4	7.5	14.1	5.0	74.7	19.1
Hermosa Beach	0.3	0.4	8.7	13.8	5.7	47.4	23.7	99.3	71.1
Inglewood	16.7	11.8	20.7	26.6	6.8	11.4	6.0	71.5	17.4
Lawndale	18.2	11.8	25.4	22.7	6.1	11.7	4.2	70.0	15.8
Lomita	7.3	8.0	24.9	22.3	10.1	18.9	8.6	84.7	27.5
Manhattan Beach	0.6	1.3	7.0	12.0	4.9	42.7	31.5	98.0	74.2
Palos Verdes Estates	0.5	1.3	6.5	10.5	5.5	38.9	36.8	98.2	75.7
Rancho Palos Verdes	1.2	1.3	9.4	16.1	7.2	33.7	31.1	97.5	64.8
Redondo Beach	1.6	2.8	11.1	19.8	7.8	34.9	22.0	95.6	56.8
Rolling Hills	1.0	0.9	5.9	13.8	6.7	26.7	45.1	98.1	71.8
Rolling Hills Estates	0.9	1.7	7.1	16.4	5.6	37.8	30.5	97.4	68.3
Torrance	3.0	4.0	17.5	21.1	9.0	30.1	15.3	93.0	45.3
City of LA Communities									
Harbor City/Harbor Gateway	10.1	8.6	24.1	21.3	7.5	20.4	8.0	81.3	28.4
San Pedro	9.9	10.1	22.0	23.8	8.7	17.8	7.7	80.0	25.5
Wilmington	25.7	17.6	29.1	16.6	4.4	5.6	1.0	56.7	6.5

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

Table 5: Travel Time to Work in the South Bay

City	Workers 16 Years and Over	Mean Travel Time to Work Minutes	<10 Minutes	10-24 Minutes	25-34 Minutes	35-59 Minutes	60+
Avalon	1,831	8.7	61.6	34.2	3.0	0.8	0.4
Carson	39,411	26.2	11.6	45.7	21.8	13.1	7.7
El Segundo	8,873	22.8	23.4	43.4	14.1	12.7	6.5
Gardena	26,302	27.0	9.6	42.4	24.6	15.8	7.6
Hawthorne	38,923	28.5	10.5	43.8	19.8	14.5	11.4
Hermosa Beach	11,443	29.9	16.7	37.3	14.8	20.5	10.6
Inglewood	46,755	29.0	10.9	39.4	22.9	17.3	9.5
Lawndale	15,139	24.3	11.5	50.4	20.9	10.9	6.2
Lomita	10,616	25.1	15.3	46.4	16.9	13.2	8.2
Manhattan Beach	17,095	28.4	21.7	30.6	16.4	22.9	8.3
Palos Verdes Estates	5,438	34.7	17.8	28.5	17.2	18.2	18.4
Rancho Palos Verdes	17,560	31.6	13.2	32.1	23.7	19.9	11.1
Redondo Beach	36,443	27.5	17.8	40.7	16.1	15.2	10.1
Rolling Hills	691	31.7	14.3	35.2	16.5	20.7	13.3
Rolling Hills Estates	3,262	28.9	15.7	37.8	18.8	18.9	8.8
Torrance	69,264	26.4	14.6	43.5	19.0	13.9	9.0
City of LA Communities							
Harbor City/Harbor Gateway	20,507	26.8	11.0	42.9	23.6	14.6	7.8
San Pedro	35,957	26.2	15.4	42.7	19.7	14.4	7.8
Wilmington	23,125	24.5	10.5	50.3	22.6	9.2	7.4

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

Table 6: Housing Stock of the South Bay, 2015

City	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	3,678	3,671	7	2,290	604	137	859	690	0	1,430	37.6	2.57
Carson	93,162	91,775	1,387	26,099	18,293	2,398	688	2,264	2,456	25,397	2.7	3.61
El Segundo	16,571	16,495	76	7,413	3,168	354	776	3,100	15	6,935	6.4	2.38
Gardena	60,165	59,371	794	21,629	9,740	1,440	2,569	6,635	1,245	20,690	4.3	2.87
Hawthorne	86,727	86,188	539	30,278	8,793	1,310	4,062	15,966	147	28,839	4.8	2.99
Hermosa Beach	19,795	19,780	15	10,145	4,371	785	2,356	2,416	217	9,534	6.0	2.08
Inglewood	115,340	113,838	1,502	38,635	14,754	2,313	5,496	15,863	209	37,673	2.5	3.02
Lawndale	33,272	33,097	175	10,150	5,308	1,422	899	2,273	248	9,670	4.7	3.42
Lomita	20,227	20,060	167	8,449	4,167	776	466	2,419	621	7,926	6.2	2.53
Manhattan Beach	35,169	35,141	28	14,923	10,338	1,171	2,424	976	14	13,824	7.4	2.54
Palos Verdes Estates	13,630	13,613	17	5,297	4,891	67	30	297	12	5,054	4.6	2.69
Rancho Palos Verdes	42,711	42,371	340	16,229	12,526	1,024	301	2,353	25	15,704	3.2	2.70
Redondo Beach	68,786	68,355	431	30,622	12,097	4,254	4,630	9,382	259	29,416	3.9	2.32
Rolling Hills	1,926	1,926	0	719	718	0	0	1	0	675	6.1	2.85
Rolling Hills Estates	8,009	8,009	0	3,101	2,324	669	35	37	36	2,896	6.6	2.77
Torrance	146,394	145,248	1,146	58,466	30,693	3,648	3,656	19,334	1,135	55,457	5.1	2.62
Incorporated City Total	765,562	758,938	6,624	284,445	142,785	21,768	29,247	84,006	6,639	271,120	4.7	2.80
County Total	10,093,053	9,911,648	181,405	3,474,152	1,720,724	229,493	284,728	1,180,907	58,300	3,278,408	5.6	3.02
SB % of County	7.6	7.7	3.7	8.2	8.3	9.5	10.3	7.1	11.4	8.3	-	-

Sources: 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	2,593		2.6
Wilmington	53,815	53,640	175	4.3	3.8

Sources: State of California Department of Finance

Table 7: Employment by Major Industry in the South Bay in 000s

Industry	2008	2009	2010	2011	2012	2013	2014	2015
Natural Resources	2.8	2.4	2.3	2.3	2.3	1.8	1.5	1.5
Construction	20.5	15.6	13.0	13.3	14.9	16.0	16.8	16.4
Manufacturing	85.8	79.4	76.4	73.0	72.9	72.6	71.6	71.7
Wholesale Trade	30.4	27.8	27.8	27.4	27.8	28.0	27.8	27.9
Retail Trade	54.3	50.9	49.7	50.5	51.0	51.6	52.1	52.4
Transportation/Utilities	52.0	48.2	48.3	49.2	49.6	50.0	51.2	54.5
Information	11.5	11.3	11.1	12.0	10.9	11.4	11.3	11.9
Financial Activities	22.4	21.0	20.4	20.7	21.5	22.8	23.8	24.0
Professional/Business Services	78.5	73.2	71.7	75.3	80.3	84.2	85.1	89.1
Educational Services	7.9	8.4	8.3	8.1	8.7	9.3	9.7	8.8
Health Care	54.1	55.3	54.7	55.7	58.6	61.5	63.0	64.2
Leisure and Hospitality	56.9	53.9	53.9	54.6	56.4	57.9	61.4	63.8
Other Services and Unclassified	15.6	15.9	15.8	16.1	16.9	17.3	18.5	18.6
Government	32.6	32.3	41.6	39.0	40.9	41.1	42.6	44.7
Total	525.3	495.8	494.9	497.1	512.6	525.5	536.5	549.2

Sources: California Employment Development Department

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

Sources: California Employment Development Department

Table 8: Average Annual Wages by Major Industry, 2015 in \$000s

Industry	South Bay	L.A. County	Difference SB to L.A.C. (%)
Natural Resources	73.3	76.5	-4.2
Construction	60.9	59.5	2.3
Manufacturing	91.7	63.4	44.6
Wholesale Trade	73.5	61.7	19.2
Retail Trade	34.2	34.4	-0.5
Transportation/Utilities	59.3	57.3	3.5
Information	121.9	110.8	10.0
Financial Activities	78.3	97.6	-19.8
Professional/Business Services	77.1	73.4	5.0
Educational Services	46.1	55.2	-16.5
Health Care	43.1	42.1	2.4
Leisure and Hospitality	27.1	35.4	-23.4
Other Services and Unclassified	33.9	36.2	-6.1
Government	62.7	67.9	-7.7
Total	60.6	58.7	3.1

Sources: California Employment Development Department

Table 9: Establishments by Major Industry, 2015

Industry	South Bay	L.A. County	SB Share of L.A.C. (%)
Natural Resources	57	485	11.8
Construction	1,526	13,339	11.4
Manufacturing	1,368	12,273	11.1
Wholesale Trade	2,015	20,027	10.1
Retail Trade	3,022	26,641	11.3
Transportation/Utilities	1,584	6,013	26.3
Information	596	9,578	6.2
Financial Activities	2,773	24,553	11.3
Professional/Business Services	5,135	47,143	10.9
Educational Services	388	3,182	12.2
Health Care	19,801	206,582	9.6
Leisure and Hospitality	2,974	31,315	9.5
Other Services and Unclassified	4,271	27,462	15.6
Government	694	5,914	11.7
Total	46,202	451,888	10.2

Sources: California Employment Development Department

Table 10: Unemployment Rates of Incorporated Cities in the South Bay

City	2012 (%)	2013 (%)	2014 (%)	2015 (%)	2015 1-Yr. Change (p.p.)
Avalon	9.2	8.2	6.9	5.6	-1.3
Carson	13.8	12.4	10.6	8.6	-2.0
El Segundo	6.2	5.5	4.6	3.7	-0.9
Gardena	10.9	9.7	8.2	6.7	-1.5
Hawthorne	9.8	8.7	7.4	6.0	-1.4
Hermosa Beach	4.7	4.2	3.5	2.8	-0.7
Inglewood	14.1	12.7	10.8	8.8	-2.0
Lawndale	10.4	9.3	7.9	6.4	-1.5
Lomita	7.9	7.0	5.9	4.8	-1.1
Manhattan Beach	4.6	4.1	3.4	2.7	-0.7
Palos Verdes Estates	1.8	1.6	1.4	1.1	-0.3
Rancho Palos Verdes	5.4	4.8	4.0	3.2	-0.8
Redondo Beach	6.8	6.1	5.1	4.1	-1.0
Rolling Hills	6.2	5.6	4.7	3.8	-0.9
Rolling Hills Estates	5.3	4.7	4.0	3.2	-0.8
Torrance	7.7	6.8	5.8	4.7	-1.1

Sources: State of California Employment Development Department

Table 11: Number of Residential Building Permits Issued in the South Bay

City	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Avalon	3	0	1	1	0	0	1	1	3	0	2
Carson	29	80	51	6	91	101	68	27	44	28	39
El Segundo	18	19	19	21	3	4	11	17	21	3	12
Gardena	60	37	98	8	16	4	23	102	40	29	3
Hawthorne	75	57	161	12	9	117	59	115	287	331	131
Hermosa Beach	82	80	41	51	7	10	27	26	31	61	58
Inglewood	383	48	50	21	30	162	4	112	4	3	25
Lawndale	94	20	52	2	5	4	3	8	4	3	2
Lomita	10	31	6	5	2	19	15	2	7	16	19
Manhattan Beach	173	177	146	82	31	45	54	70	87	96	106
Palos Verdes Estates	14	21	23	17	5	14	17	13	8	8	11
Rancho Palos Verdes	12	13	19	13	9	38	15	6	7	5	70
Redondo Beach	416	291	153	86	34	45	58	67	61	109	144
Rolling Hills	6	4	7	4	0	4	0	1	2	3	3
Rolling Hills Estates	1	0	42	5	0	2	1	2	2	7	11
Torrance	314	380	219	54	24	45	13	28	33	24	9
Incorporated Cities Total	1690	1258	1088	388	266	614	369	597	641	726	645

Sources: CIRB, California Homebuilding Foundation

Table 12: Median Price of Homes Sold by Community (\$000s)

City	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	1H16
Avalon	485.0	750.0	675.0	690.0	508.0	410.0	435.0	450.0	435.0	513.0	575.0	564.5
Carson	440.0	505.0	506.0	360.0	288.0	300.0	380.0	275.0	325.0	365.0	402.8	431.0
El Segundo	750.0	768.0	787.5	718.5	658.5	688.0	657.5	652.5	732.5	781.0	835.0	1,050.0
Gardena	449.0	497.0	490.0	380.0	300.0	300.0	284.0	290.0	348.0	379.0	410.0	440.0
Hawthorne	490.0	535.0	549.0	420.0	325.0	369.2	335.0	336.0	443.8	510.0	505.0	505.0
Hermosa Beach	1,000.0	1,100.0	1,199.5	1,149.0	982.0	930.0	995.0	957.0	1,093.0	1,195.5	1,437.5	1,337.5
Inglewood	395.0	500.0	450.0	325.0	244.0	231.0	230.0	230.0	260.0	310.0	357.0	360.0
Lawndale	457.0	507.0	477.5	375.0	293.0	303.5	307.5	319.5	342.5	404.0	435.0	441.2
Lomita	549.0	554.0	555.0	485.0	435.0	408.0	400.0	395.0	440.0	490.0	509.0	500.0
Manhattan Beach	1,521.0	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	1,950.0	2,050.0
Palos Verdes Estates	1,600.0	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	1,650.0	1,599.0
Rancho Palos Verdes	1,005.0	1,057.0	1,028.5	1,000.0	868.5	860.0	840.0	865.0	949.5	1,028.0	1,087.5	1,060.8
Redondo Beach	759.0	770.0	789.0	716.0	646.0	649.5	635.0	630.0	749.0	779.5	845.0	905.0
Rolling Hills	2,945.0	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	3,500.0	2,750.0
Rolling Hills Estates	955.0	910.0	1,050.0	1,100.0	805.0	777.5	700.0	897.0	989.0	1,045.0	1,125.0	1,150.0
San Pedro	519.5	544.0	515.0	435.0	387.0	390.0	335.0	330.0	410.1	447.0	475.0	495.0
Torrance	590.0	600.0	600.0	519.0	469.5	490.0	448.0	450.2	529.0	543.0	580.0	607.8
Wilmington	380.0	470.0	447.5	325.0	250.0	250.0	235.0	233.5	270.0	326.0	355.0	371.0

Source: DataQuick

Table 13: Annual Percent Change of Median Price of Homes Sold by Community

City	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	1H16
Avalon	-4.9	+54.6	-10.0	+2.2	-26.4	-19.3	+6.1	+3.4	-3.3	+17.9	+12.1	-1.8
Carson	+20.5	+14.8	+0.2	-28.9	-20.0	+4.2	+26.7	-27.6	+18.2	+12.3	+10.3	+7.0
El Segundo	+16.3	+2.4	+2.5	-8.8	-8.4	+4.5	-4.4	-0.8	+12.3	+6.6	+6.9	+25.7
Gardena	+24.7	+10.7	-1.4	-22.4	-21.1	0.0	-5.3	+2.1	+20.0	+8.9	+8.2	+7.3
Hawthorne	+29.3	+9.2	+2.6	-23.5	-22.6	+13.6	-9.3	+0.3	+32.1	+14.9	-1.0	0.0
Hermosa Beach	+7.5	+10.0	+9.0	-4.2	-14.5	-5.3	+7.0	-3.8	+14.2	+9.4	+20.2	-7.0
Inglewood	+24.2	+26.6	-10.0	-27.8	-24.9	-5.3	-0.4	0.0	+13.0	+19.2	+15.2	+0.8
Lawndale	+27.1	+10.9	-5.8	-21.5	-21.9	+3.6	+1.3	+3.9	+7.2	+18.0	+7.7	+1.4
Lomita	+18.1	+0.9	+0.2	-12.6	-10.3	-6.2	-2.0	-1.2	+11.4	+11.4	+3.9	-1.8
Manhattan Beach	+13.5	+1.9	+8.5	-6.7	-13.5	+4.0	-5.1	+2.9	+16.0	+18.8	+2.6	+5.1
Palos Verdes Estates	+23.1	+0.9	-4.0	+1.5	-14.5	+10.8	-7.9	+1.7	+7.2	+9.4	+0.9	-3.1
Rancho Palos Verdes	+14.9	+5.2	-2.7	-2.8	-13.2	-1.0	-2.3	+3.0	+9.8	+8.3	+5.8	-2.5
Redondo Beach	+15.0	+1.4	+2.5	-9.3	-9.8	+0.5	-2.2	-0.8	+18.9	+4.1	+8.4	+7.1
Rolling Hills	+48.2	-19.6	+30.9	N/A	N/A	-28.6	+62.0	-24.9	-2.8	+48.1	+16.7	-21.4
Rolling Hills Estates	+27.3	-4.7	+15.4	+4.8	-26.8	-3.4	-10.0	+28.1	+10.3	+5.7	+7.7	+2.2
San Pedro	+17.4	+4.7	-5.3	-15.5	-11.0	+0.8	-14.1	-1.5	+24.3	+9.0	+6.3	+4.2
Torrance	+18.0	+1.7	0.0	-13.5	-9.5	+4.4	-8.6	+0.5	+17.5	+2.6	+6.8	+4.8
Wilmington	+18.8	+23.7	-4.8	-27.4	-23.1	0.0	-6.0	-0.6	+15.6	+20.7	+8.9	+4.5

Source: DataQuick

Table 14: Annual Number of Homes Sold by Community

City	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	1H16
Avalon	49	34	23	9	28	108	22	35	39	28	37	18
Carson	1,222	1,171	588	472	778	741	661	751	714	597	680	380
El Segundo	176	197	132	120	142	122	105	143	162	131	155	91
Gardena	990	778	416	390	484	443	510	587	591	457	487	295
Harbor City	451	311	155	133	168	164	194	216	192	164	192	110
Hawthorne	600	646	524	372	370	424	431	507	554	627	526	255
Hermosa Beach	345	257	268	180	196	200	173	242	259	239	248	136
Inglewood	1,111	1,212	537	355	572	594	626	681	528	438	435	221
Lawndale	286	246	155	123	130	141	147	153	171	123	139	84
Lomita	227	192	154	104	116	112	112	150	118	147	164	107
Manhattan Beach	615	561	505	373	399	438	455	516	528	495	421	242
Palos Verdes Estates	239	166	191	114	147	195	189	202	227	201	217	125
Rancho Palos Verdes	581	443	440	336	392	398	456	490	587	494	554	348
Redondo Beach	1,461	1,117	1,090	814	906	873	778	911	1,034	1,021	1,041	602
Rolling Hills	34	12	10	0	12	20	24	20	32	28	34	19
Rolling Hills Estates	179	154	138	88	135	145	109	164	165	137	157	98
San Pedro	874	692	628	438	537	490	548	630	692	594	737	412
Torrance	2,161	2,035	1,564	1,277	1,407	1,227	1,215	1,385	1,448	1,345	1,475	902
Wilmington	332	297	151	139	185	178	202	209	194	147	154	113

Source: DataQuick

Table 15: Value of Nonresidential Building Permits Issued in the South Bay in \$millions

City	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Avalon	0.3	0.3	0.2	0.1	0.1	0.1	0.3	0.1	0.0	0.7	0.2
Carson	77.6	47.5	34.1	64.6	53.0	23.4	57.4	80.4	27.1	57.1	31.8
El Segundo	57.9	118.3	140.4	192.0	73.8	38.9	53.2	48.9	47.6	106.2	209.4
Gardena	10.1	13.9	12.6	15.6	4.3	14.4	8.3	9.5	8.9	6.1	8.4
Hawthorne	17.5	14.2	38.4	21.6	7.0	10.2	16.2	9.5	15.5	15.2	26.8
Hermosa Beach	5.7	7.6	3.3	6.1	3.4	3.3	5.5	2.1	2.5	5.0	3.4
Inglewood	31.6	22.4	17.8	28.9	15.4	15.0	16.3	9.7	67.8	18.0	29.8
Lawndale	2.4	3.6	1.8	1.0	1.8	1.4	1.0	1.5	2.9	2.1	1.3
Lomita	1.9	2.0	1.7	10.6	0.6	3.7	0.5	1.1	1.4	2.5	1.7
Manhattan Beach	9.8	7.0	9.5	11.7	12.6	7.0	18.2	11.4	12.6	17.7	10.2
Palos Verdes Estates	1.0	1.4	1.2	1.5	0.5	0.8	0.5	1.5	2.6	0.0	1.2
Rancho Palos Verdes	4.2	3.0	63.4	6.4	5.4	2.4	5.8	1.2	2.4	0.8	1.2
Redondo Beach	26.5	31.9	29.6	19.7	12.6	36.0	18.8	31.6	43.4	23.9	13.3
Rolling Hills	0.4	0.6	0.5	0.3	0.4	0.3	0.0	0.8	0.0	2.1	0.2
Rolling Hills Estates	3.0	1.1	1.2	1.5	0.9	1.0	1.5	3.2	3.5	1.1	0.7
Torrance	92.1	120.5	62.5	84.5	33.3	51.7	43.2	54.9	48.5	140.0	119.1
Incorporated Cities Total	342.1	395.2	418.3	466.1	225.2	209.6	246.8	267.5	286.8	398.5	458.5

Sources: CIRB, California Homebuilding Foundation

Table 16: Nonresidential Vacancy Rates

Year	Quarter	Office Vacancy Rates (%)		Industrial Vacancy Rates (%)	
		South Bay	Los Angeles County	South Bay	Los Angeles County
2007	Q1	16.5	10.0	2.7	1.4
2007	Q2	14.6	9.3	2.8	1.7
2007	Q3	15.4	9.6	2.5	1.6
2007	Q4	15.1	10.6	2.5	1.5
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

Sources: CBRE

Table 17: Total Taxable Sales in the South Bay

Annual averages in \$millions

City	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Avalon	63.7	63.7	61.7	55.2	55.7	61.9	68.0	69.8	78.7	81.8
Carson	1,821.0	1,853.0	1,821.0	1,429.0	1,471.2	1,677.6	1,914.7	1,999.5	1,732.9	1,436.9
El Segundo	924.5	1,087.8	1,158.9	954.2	1,003.3	1,037.7	909.9	944.5	994.7	924.6
Gardena	823.2	826.0	776.2	657.7	653.7	714.5	787.6	825.6	868.9	935.1
Hawthorne	1,032.8	987.8	976.3	898.0	942.0	1,046.8	1,137.2	1,176.6	1,271.5	1,366.0
Hermosa Beach	219.8	217.4	221.7	193.5	193.2	207.9	226.1	231.3	244.3	241.8
Inglewood	1,024.1	992.1	980.6	853.1	899.0	972.8	1,047.2	1,119.2	1,174.3	1,221.2
Lawndale	262.6	256.7	243.0	193.9	204.6	220.1	226.2	228.2	240.4	254.0
Lomita	148.3	148.3	142.1	125.7	135.7	144.9	157.8	159.0	160.4	153.2
Manhattan Beach	732.4	739.4	719.8	663.1	738.7	821.5	869.1	881.4	875.3	821.8
Palos Verdes Estates	25.4	23.4	22.3	17.7	17.6	17.1	17.6	21.0	23.1	23.3
Rancho Palos Verdes	103.2	108.4	108.5	121.2	153.9	163.7	175.0	183.7	198.4	200.0
Redondo Beach	906.9	895.6	832.2	732.3	774.5	852.4	897.5	925.2	980.3	978.2
Rolling Hills	1.1	1.3	1.0	0.2	0.2	0.3	0.3	0.3	0.7	0.6
Rolling Hills Estates	143.5	145.7	129.7	111.8	108.3	106.5	106.5	108.1	107.9	103.5
Torrance	3,972.8	4,040.0	3,851.8	3,282.6	3,348.4	3,479.8	3,709.5	3,817.3	3,922.6	3,963.4
Total Incorporated Cities	12,205.3	12,386.5	12,046.7	10,289.2	10,700.1	11,525.4	12,250.2	12,690.8	12,874.7	12,705.3

Sources: 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							
2011	2,185,255	1,633,336	74.7	125.18	4.6	93.56	8.8
2012	2,208,980	1,688,286	76.4	131.11	4.7	100.21	7.1
2013	2,208,980	1,748,141	79.1	138.13	5.4	109.31	9.1
2014	2,242,195	1,856,816	82.8	145.10	5.0	120.16	9.9
2015E	2,325,415	1,957,699	84.2	156.07	7.6	131.39	9.3
2016F	2,340,380	1,996,853	85.3	166.21	6.5	141.82	7.9
Los Angeles International Airport							
2011	3,903,675	3,217,190	82.4	96.32	6.9	79.38	12.8
2012	3,903,675	3,271,035	83.8	101.32	5.2	84.90	7.0
2013	3,951,490	3,402,993	86.1	107.17	5.8	92.30	8.7
2014	3,994,013	3,441,475	86.2	117.32	9.5	101.09	9.5
2015E	3,868,453	3,387,846	87.6	131.67	12.2	115.31	14.1
2016F	4,060,199	3,540,299	87.2	142.20	8.0	124.00	7.5
Total South Bay Region							
2011	6,088,930	4,850,526	79.7	106.04	5.8	84.47	11.1
2012	6,112,655	4,959,321	81.1	111.46	5.1	90.43	7.1
2013	6,160,470	5,151,134	83.6	117.68	5.6	98.40	8.8
2014	6,236,208	5,298,291	85.0	127.06	8.0	107.95	9.7
2015E	6,193,868	5,345,545	86.3	140.61	10.7	121.35	12.4
2016F	6,400,579	5,537,152	86.5	150.86	7.3	130.51	7.5

Sources: PKF Consulting