



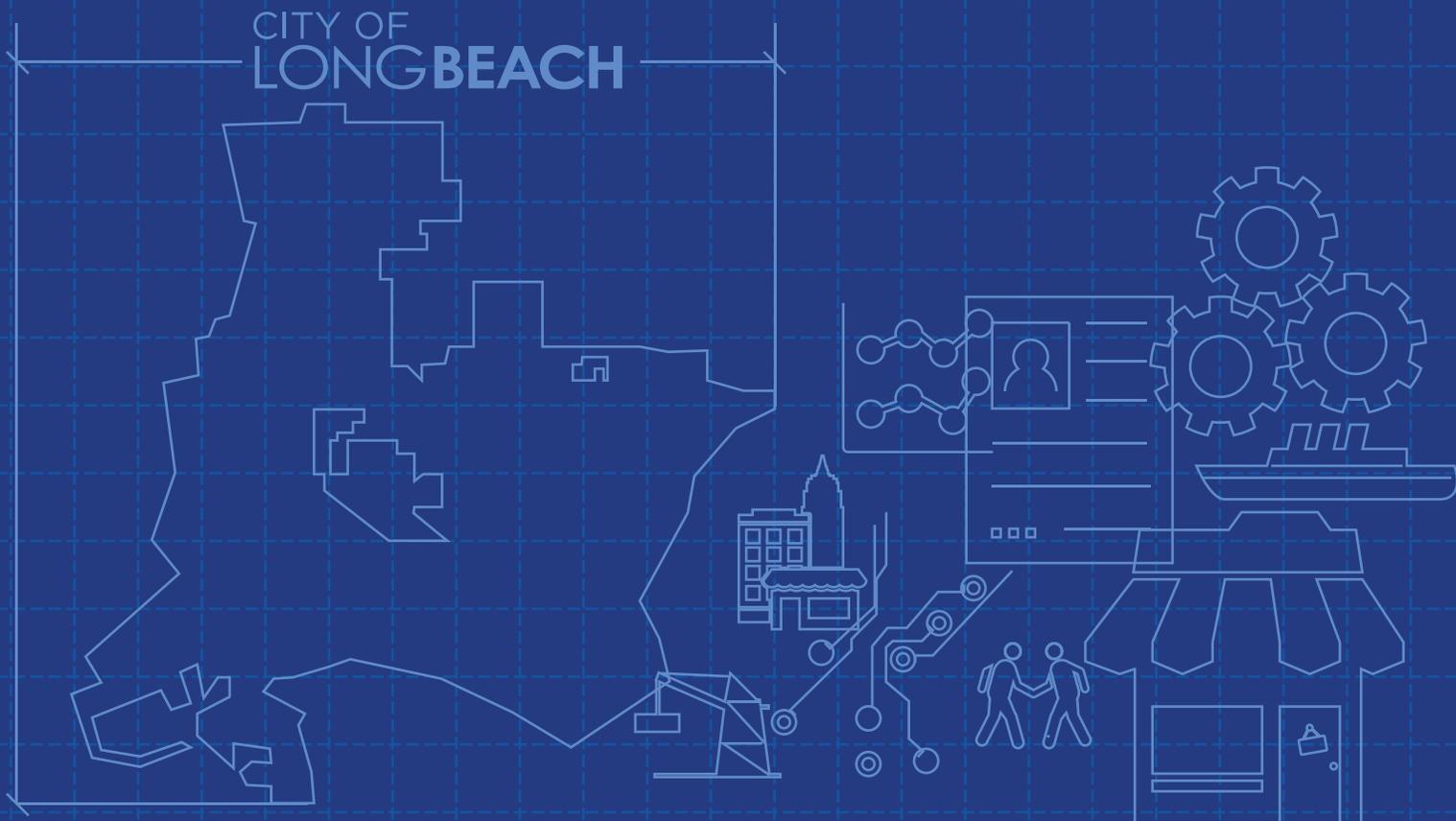
BEACONECONOMICS

Economic Development Support Analysis Part 1: Economic Overview

Submitted to:
The City of Long Beach
333 West Ocean Boulevard
Long Beach, CA 90802

Submitted by:
Beacon Economics, LLC
5777 West Century Boulevard, Suite 895
Los Angeles, CA 90045

October 18, 2016



This publication was prepared by:

Beacon Economics

Christopher Thornberg
Founding Partner
5777 W. Century Blvd., Suite 895
Los Angeles, California 90045
310.571.3399
Chris@BeaconEcon.com

Robert Kleinhenz
Economist & Executive Director of Research
5777 W. Century Blvd., Suite 895
Los Angeles, California 90045
424.646.4652
Robert@BeaconEcon.com

Alan Hooper
Senior Research Associate
Beacon Economics, LLC
Alan@BeaconEcon.com

Justin Niakamal
Research Associate
Beacon Economics, LLC
Justin@BeaconEcon.com

For further information about this publication please contact:

Rick Smith
Director of Business Development
Beacon Economics, LLC
858.997.1834
Rick@BeaconEcon.com

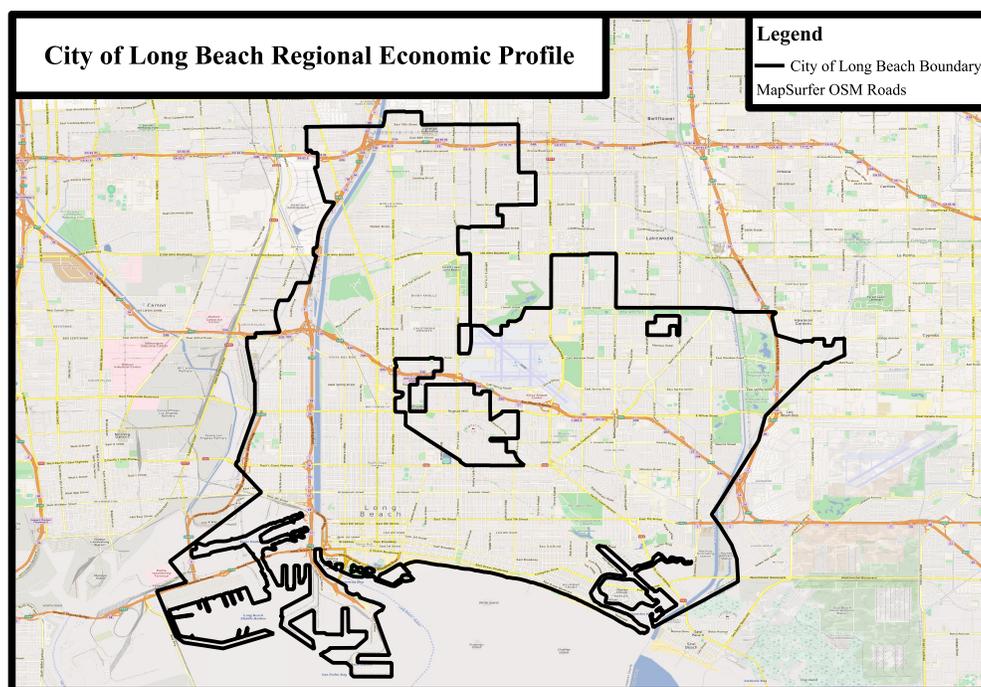
Or visit our website at www.BeaconEcon.com.

Reproduction of this document or any portion therein is prohibited without the expressed written permission of Beacon Economics. Copyright ©2016 by Beacon Economics LLC.

INTRODUCTION

The City of Long Beach charged Beacon Economics with developing a report that would facilitate a more focused dialogue about economic conditions within the City. The goal of this report is to provide timely quantitative indicators for the City of Long Beach. The report provides essential background information on the City’s economy, its workforce, and its residents, that may serve as a reference as the City undertakes strategic economic and policy decisions that will help shape the future of the City. Moreover, it contains metrics that can be used to establish economic development, workforce, and other goals, and track progress toward those goals.

This report begins with a broad summary of economic conditions at the national, state and regional levels. The remaining analysis delves deeper into the economic and demographic composition of Long Beach, providing key comparisons with trends observed in the broader Los Angeles area. In particular, this report will cover the state of the City’s labor markets, followed by a deeper dive into several of the City’s key employment industries —Health Care, Tourism, Tech Services, and Goods Movement. It concludes with a specific analysis of the City’s demographic composition.



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

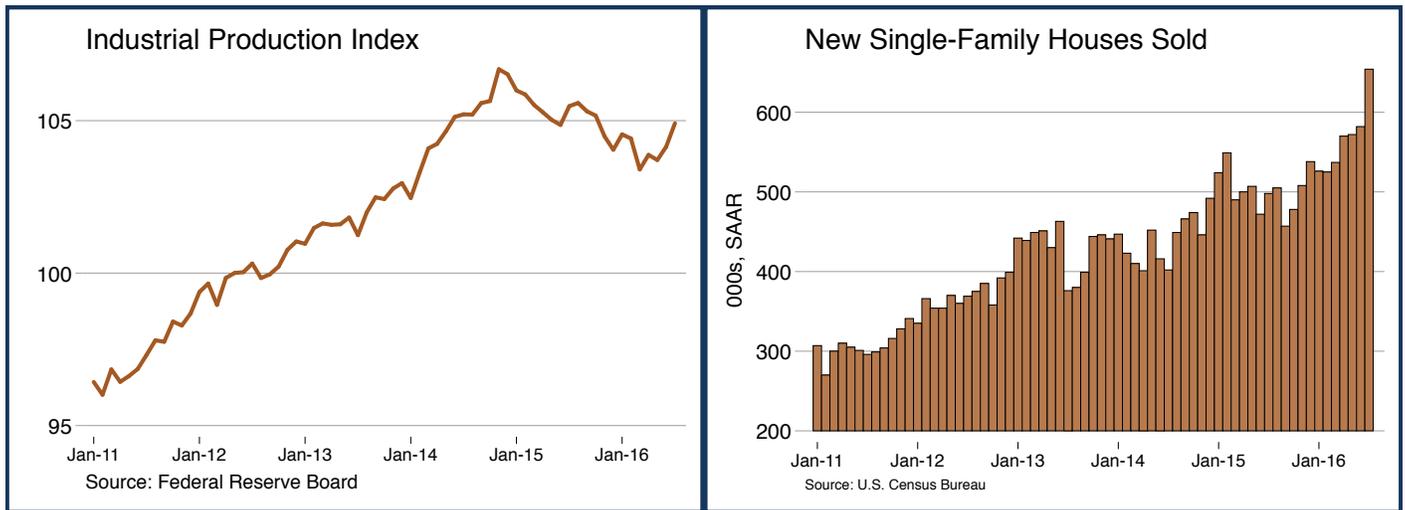
In contrast, domestic demand has remained quite strong. Consumer spending added almost 3% to growth in the 2nd quarter, more than enough to offset declines in business investment. Consumers are also increasing their spending for the right reason—they are earning more. The U.S. labor markets continue 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 business spending pullback 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 also 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 most populated 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 ceiling 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 states 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 sizable rates of appreciation. The median price of single-family home 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 Westside, and industrial properties, mainly in the San Gabriel Valley and South Los Angeles, as vacancy rates continued to improve.

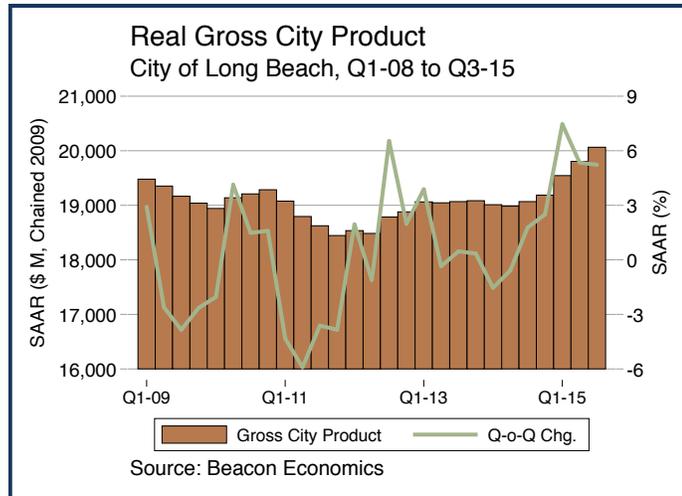
Overall, the regional economy continues to grow at a solid pace. Real gross metropolitan product, the region's equivalent of the nation's real gross domestic product, grew by 3.9% in 2015 in the Los Angeles MSA (which includes Orange County), compared to 4.1% in California and 2.6% in the United States. 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.

LONG BEACH ECONOMY: RECENT PERFORMANCE AND NEAR-TERM OUTLOOK

It was a remarkable year for the City of Long Beach economy in 2015. Gross city product (GCP), an estimate of value of goods and services produced in the City, grew by 4.1% during the first three quarters of 2015 relative to the same period in 2014.¹ Underlying this growth has been broad-based employment growth across nearly all of the City's industries. In particular, the City's flourishing Health Care, Tourism, Tech

¹The GCP is calculated by Beacon Economics using gross state product in California and local employment and wage data. Gross state product is measured by the U.S. Bureau of Economic Analysis. Employment and wage information is collected by the California Employment Development Department and estimated by Beacon Economics. GCP measures production from local firms and can sometimes capture growth in the economy that is not captured by employment growth. For example, Manufacturing production in the state has been increasing over the last two decades even as job counts in the industry have been cut in half. Prior to 2015, Long Beach GCP had been flat for two consecutive years. Growth picked up a great deal at the start of 2015 as GCP, finally surpassing the City's pre-recession peak.

Services, and Goods Movement industries have been vital in helping Long Beach’s economy to continue to thrive. To this end, total private employment increased 4.2% between the third quarter of 2014 and the third quarter of 2015. Wages, too, have grown at a solid clip, serving to bolster the state of local household finances. This has, in turn, been a major boost in demand for local goods and services.



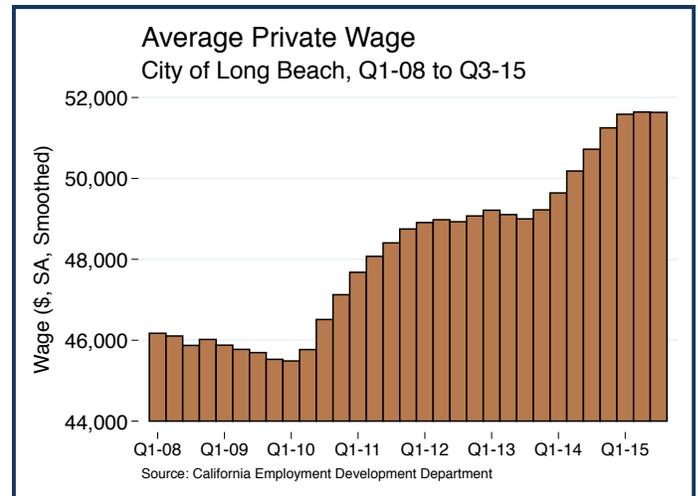
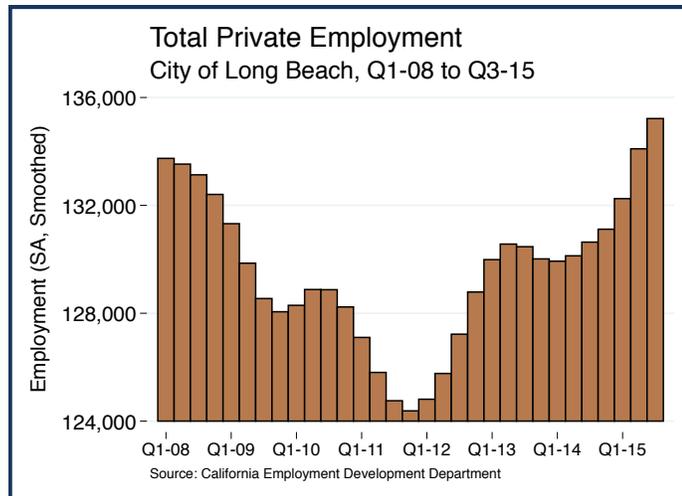
Consumer spending in the City of Long Beach remains on solid footing despite recent volatility. In fact, taxable sales collected in the City, which was not affected as adversely by the Great Recession as in neighboring regions, recovered well before many regions in the State. Since peaking in the middle of 2012, top-level consumer spending has been steady, mainly by plummeting consumer expenditures at the gas pump and relatively sluggish population growth juxtaposed against growing expenditures at restaurants and retail stores. The fall in gas prices dragged down overall spending levels in the City starting in the second half of 2014, with this trend persisting well into 2016. Nonetheless, consumer spending remains 50% higher than it was at the turn of the century, roughly keeping pace with other Southern California cities like South Gate, Inglewood, and Los Angeles over this longer time period.

The outlook for the City’s residential real estate market continues to improve. Demand for housing has been bolstered by the improved state of local household finances in recent years, while supply constraints are not nearly as severe as they are elsewhere in California. Price appreciation has moderated, while overall sales activity has grown solidly over the past two years. Recent residential construction trends, however, are indicative of a built-out urban core with limited room for additional development. A glut of rental units came online in the first half of 2016, while the region’s single-family housing stock continues to dwindle. Meanwhile, a growing proportion of Long Beach residents have moved into the region’s rental market. Ultimately, the lack of residential construction activity constrains the City’s population growth, with a shortage of new owner-occupied housing driving potential homebuyers into the rental market.

A few headwinds on the horizon could impede further growth in the City of Long Beach. Housing supply constraints, while not severe, have lingered in the City for much of the economic recovery and may continue to drive affordability down. While trade flows have been stable in 2016, a cloudy global outlook driven by a tumultuous political environment and lower international growth may adversely affect the

amount of trade flowing through the vital Port of Long Beach. These issues, however, do not obfuscate the broad-based economic growth observed in the City of Long Beach in recent years. The fundamentals underlying the local economy remain on solid footing. Steady-growth in wages continues to improve local household finances, and thus local consumer spending activity, while the housing market continues to head in the right direction.

LONG BEACH LABOR MARKET AND INDUSTRIES



The impacts of the Great Recession on the local employment environment hit the City of Long Beach with a lag. Total private employment at establishments located in the City bottomed out at the end of 2011, more than two years after the recession officially ended. Since that time, nearly 11,000 jobs have been added back in the City during the economic recovery, with employment surpassing the pre-recession peak around the second quarter of 2014, while wages paid to workers employed in the City of Long Beach have increased almost continuously since the trough of the recession. At the same time, the unemployment rate in Long Beach plunged 7.9 percentage points during the economic recovery to 5.7% in July 2016, following the trends observed in the broader Los Angeles area during this time period. Underpinning the broad recovery observed in the City has been a strong rebound in the region’s core employment base, coupled with strong consumer spending on retail goods and leisure services.

Annual Unemployment Rate (%)

Year	Long Beach	Los Angeles County
2010	13.6	12.5
2011	13.3	12.2
2012	11.9	10.9
2013	10.6	9.7
2014	9.0	8.2
2015	7.4	6.7
2016 YTD*	5.7	5.2

Source: California EDD.

*Through July 2016.

More recently, a resurgence in the movement of goods emanating from the Port of Long Beach and continued gains in office-based employment have fueled the sharp increase in employment and wages observed in Long Beach over the past year. In fact, total private employment has increased 4.2% between the third quarter of 2014 and the third quarter of 2015, reaching 136,300 jobs, more than double the pace of growth observed in Los Angeles County (1.9%), while the average annual wage in the City grew 1.8% to \$51,600 during this time period. Even more, these gains have been fueled by an uptick in new companies entering the City with more new establishments opening up shop in the City, on net, through the first three quarters of 2015 than in all of 2014. Taken together, the City of Long Beach has cultivated a robust employment environment in the aftermath of the recession, providing an array of new jobs across all education and skill levels.

Total Private Employment in Long Beach by Industry, Q3-15

Industry	Private Employment (000s)	1-Year Growth			Location Quotient*
		Long Beach (000s)	Long Beach (%)	County Total (%)	
Education/Health	31.8	+0.4	+1.3	+1.8	1.2
Leisure and Hospitality	20.3	+0.4	+2.1	+4.2	1.1
Prof, Sci, Tech, and Mgmt	14.6	+1.4	+10.8	-1.2	1.2
Retail Trade	13.6	+0.6	+4.7	+0.9	0.9
Transport/Warehouse	12.0	+1.6	+15.0	+4.2	2.1
Admin Support	9.6	+0.2	+1.7	-1.3	1.0
Manufacturing	8.8	-0.8	-8.4	-0.9	0.7
Other Svcs.	7.5	+1.0	+15.7	+6.9	1.2
Fin. Svcs. and Real Estate	6.5	+0.2	+3.8	+2.3	0.8
NR/Construction	5.1	+0.4	+9.3	+5.0	1.0
Wholesale Trade	4.9	+0.3	+5.6	+1.1	0.6
Information	1.6	-0.2	-12.6	+5.3	0.2
Total Private	136.3	+5.5	+4.2	+1.9	-

Source: California Employment Development Department.

*Measures the concentration of an industry in the City of Long Beach relative to the concentration of the industry in Los Angeles County.

The City's private employment base is rooted in three key segments of the local economy —Education and Health Care, consumer spending-driven industries, and office-based employment. Similar to many cities in Los Angeles County, the Education and Health Care industry tops the list, accounting for nearly one-quarter of employment in the City of Long Beach. Establishments engaged in this industry continue to expand their presence in Long Beach, sustaining a surge in Health Care employment, in particular, that can be traced back to the early stages of the Affordable Care Act's implementation.

The wages paid to workers employed in the Health Care sector, while lower than the wages paid to workers in the region's trade- and office-based industries, hint at the dichotomous nature of the Health Care sector overall. The sector is an important source of jobs in any region, as the types of jobs offered are catered to individuals across a broad range of skill sets and work experience. The Health Care sector includes well paying and higher skilled jobs for those employed in Hospitals and Ambulatory Health Care Services,

juxtaposed against low-wage, and often part-time, positions offered by establishments engaged in Social Assistance and Nursing and Residential Care. Clearly, continued employment growth in this sector has contributed greatly to providing a thick supply of jobs across a wide spectrum of skill levels.

Total Private Wages in Long Beach by Industry, Q3-15

Industry	Avg. Annual Wage (\$)	1-Year Growth		Relative Wage (%)*
		Long Beach (%)	County Total (%)	
Transport/Warehouse	88.5	+1.8	+0.7	50.8
Manufacturing	86.6	-1.4	+3.6	38.1
Wholesale Trade	75.7	-0.2	+2.8	24.5
Prof, Sci, Tech, and Mgmt	75.6	-1.2	+5.9	-26.0
Fin. Svcs. and Real Estate	73.3	+3.9	+2.5	-24.6
NR/Construction	68.9	+4.5	+0.2	16.4
Information	65.1	-11.8	+2.2	-39.5
Education/Health	41.9	+2.2	+2.2	-3.4
Admin Support	37.7	+8.8	+4.7	-1.7
Other Svcs.	32.6	+1.4	+2.8	-12.9
Retail Trade	29.1	+3.2	+3.3	-15.1
Leisure and Hospitality	21.3	+3.4	+2.0	-40.0
Total Private	51.6	+1.8	+2.9	-9.3

Source: California Employment Development Department.

*Measures the wage of an industry in the City of Long Beach relative to the wage of the industry in Los Angeles County.

The wages paid to workers employed in the Health Care sector, while lower than the wages paid to workers in the region's trade- and office-based industries, hint at the dichotomous nature of the Health Care sector overall. The sector is an important source of jobs in any region, as the types of jobs offered are catered to individuals across a broad range of skill sets and work experience. The Health Care sector includes well paying and higher skilled jobs for those employed in Hospitals and Ambulatory Health Care Services, juxtaposed against low-wage, and often part-time, positions offered by establishments engaged in Social Assistance and Nursing and Residential Care. Clearly, continued employment growth in this sector has contributed greatly to providing a thick supply of jobs across a wide spectrum of skill levels.

The continued growth of consumer spending, at least when lower gas prices are accounted for, has also driven employment and wage gains in the City of Long Beach. Unique to the region given the presence of a major port, this trend has positive implications from a supply chain and logistics perspective. For starters, the City has fostered a booming Transportation and Warehousing industry in addition to a sizable Wholesale Trade presence. Both industries have added a substantial number of jobs, particularly between 2014 and 2015 when consumer spending in Los Angeles County really started to gain traction. Indeed, employment in the City's Transportation and Warehousing industry surged 15% between the third quarter of 2014 and the third quarter of 2015, compared to 4.2% in Los Angeles County. Even more, workers employed in these industries remain amongst the highest-paid workers in the City, while also earn 51% more than the average worker employed in the industry across Los Angeles County.

Fastest Growing Subsectors in the City of Long Beach, Q3-15

Subsector	Employment		Avg. Annual Wage	
	Level (000s)	YoY Growth (%)	Level (\$000s)	YoY Growth (%)
Mgmt of Companies	5.2	+29.3	74.2	-11.0
Support Activities for Transportation	8.0	+17.3	91.6	-6.7
General Merchandise Stores	2.3	+16.8	18.8	-0.3
Specialty Trade Contractors	2.9	+11.2	59.3	-1.4
Membership Associations and Orgs.	2.9	+9.7	29.3	-2.4
Durable Goods Wholesalers	3.4	+6.7	72.7	-1.8
Nursing and Residential Care	4.6	+6.4	28.4	-0.5
Food Svcs. and Drinking Places	15.8	+3.0	18.4	+3.7

Source: California Employment Development Department.

Growing consumer spending, derived from local households and tourist activity, has also been a factor in spurring substantial growth in consumer-facing industries. To this end, the City's Leisure and Hospitality industry has added the third-most jobs since the trough of the recession, and ranks as the second largest industry in terms of private employment. Similarly, establishments engaged in Retail Trade have expanded payrolls at a considerably faster rate (4.7%) than the industry average in Los Angeles County (0.9%) over the past year, serving as a testament to the improved state of household finances in the City. The wages paid to workers employed in these two sectors have also grown sizably during the economic recovery, serving to bolster the pay of some of the lowest paid workers in the City. This indicates that the positive economic trends observed throughout the City continue to spread to all segments of the local economy.

Rounding out the private employment base in the City of Long Beach are several office-based industries. The Professional, Scientific, Technical, and Management industry, for instance, is a major source of high-wage jobs in the City of Long Beach, as is the budding presence of the Financial Services and Real Estate industry. These industries, in conjunction with the volatile Administrative Support industry, account for 23% of total private employment in the City of Long Beach. The Administrative Support industry contributed to the slowdown in private employment observed between the third quarter of 2013 and the second quarter of 2014, as several large establishments shed jobs. However, this downward trend may be illuminating the growing number of workers that are finding more permanent employment opportunities, as hiring in the other office-based industries has accelerated over the past year, fueled by the rapid expansion of payrolls at existing establishments and an influx of new companies opening up shop within the City.

Overall, establishments throughout the City of Long Beach have regained their footing after a tumultuous economic recovery. Private employment and wages alike have continued to trend upwards since the depths of the Great Recession, despite a transitory exodus of jobs from larger companies nearly three years ago. Hurdles to continued growth have popped up in recent years, most recently the bankruptcy of

Hanjin Shipping Co., a majority stakeholder in the Port of Long Beach's largest terminal.² The shutdown of Boeing's C-17 program at the end of 2015 has also reverberated throughout the local economy, and continues the longer-term trend of Boeing reducing its employment footprint in Southern California. However, the broad-based pattern of growth that has emerged in the last two years bodes well for the future of the local economy. Local household finances continue to improve at a respectable rate, serving to support further gains in consumer-driven industries. Meanwhile, the region's largest sector —Health Care —is largely recession-proof. Taken together, the outlook of the local economy remains positive.

IN DEPTH: LEADING INDUSTRIES IN LONG BEACH

The Long Beach economy has changed dramatically over the last two decades. It was once a Navy town, with both a U.S. Navy station and a naval shipyard. These facilities closed over twenty years ago and made way for expansion at the Port of Long Beach. More recently, Boeing shut down its Long Beach operations after delivering the last C-17 cargo plane in 2015. But the local footprint of the aerospace industry has been shrinking for years, as is evident in the area around the Long Beach Airport where hangars have been put to new uses and office buildings have sprung up. Today, the lion's share of the City's jobs may be found in a handful of leading industries: Health Care, Tourism and Hospitality, Tech Services, and Goods Movement. This section looks at these four sectors in greater detail.

Health Care

Health care is one of the largest industries in practically every urban area, but this is especially true in Long Beach. An extremely robust part of the city's economy, health care has seen huge gains in employment and wages despite the last recession. This growth can generally be attributed to an ageing population and an increase in the number of consumers entering the market for health care as a result of the Affordable Care Act, but has been magnified in the city of Long Beach by recent growth in its large hospitals that serve the Long Beach/South Bay region and parts of Orange County. Additionally, with a few high-priced investments on its horizon, the health care industry in Long Beach looks primed for a thriving future.

The health care industry is seeing a big jump in demand. Baby boomers are getting older, and more and more Americans are becoming insured through the Affordable Care Act. These factors have resulted in more jobs for local communities and Long Beach, in particular. Since the official end of the recession in 2009, the Health and Education sectors have contributed more than 2,500 new jobs to the Long Beach economy, the second-largest contribution of jobs in the City during the economic recovery. This translates to a 1.3% growth rate over the past year, slightly lower than the county's rate of 1.8%.

Despite the recent increase in labor demand, wage growth for health care employees has remained modest (2.2%), although for good reasons. Growth in low-paying jobs relative to high-wage jobs results in a lower average wage and a slower growth rate when compared to other industries. However all wages, including

²<http://www.presstelegram.com/business/20160831/why-big-ships-are-being-turned-away-from-ports-of-los-angeles-and-long-beach>

those of health care workers, are above pre-recession levels and have been for some time. As more health care jobs get created in the near future, a steady growth in wages should be anticipated.

The increasing presence of the sector has been influencing higher educational institutions in the area, with high wage careers in health care projected to take off. Recently, California State University Long Beach established a program (BUILD) that would prepare underrepresented students for doctoral programs in the biomedical and behavioral sciences.³ As the industry continues to face pressure to consolidate and streamline processes, venture capitalists have been homing in on medical technologies. For instance, the recent establishment of Summation Health Ventures, a venture capital fund co-operated by Cedars-Sinai Health System and MemorialCare Health System, is part of a larger trend in which traditional hospitals have begun to foster startup environment by specifically targeting entrepreneurs fueling health care innovation.⁴ It remains to be seen whether a substantive “health tech” cluster will emerge in Long Beach, but at the very least, traditional health care appears to be set for steady growth.

Tourism

Each year, people from all across the world travel to Long Beach for its warm weather, wide beaches, and its close proximity to a variety of big-city attractions. Accordingly, tourism and convention activity is a major driver of economic growth in the City, supporting thousands of jobs in the region’s tourism-related industries (e.g. Leisure and Hospitality). What’s more, this sector has experienced tremendous growth recently, a trend that will continue into the near future. As the number of visitors continues to go up year after year, so will the amount of jobs and wages that are tied to tourism. This, in turn, helps to drive consumer spending, which ultimately sets the stage for growth in other segments of the local economy.

Tourists have a plethora of options when it comes to entertainment in the City of Long Beach. Having recently undergone a massive renovation, the Convention Center is an excellent place to enjoy a concert, play, or professional conference. There is also the Aquarium of the Pacific, with the Queen Mary just across the boardwalk, while major events like the Long Beach Grand Prix also attract a large number of spectators and supporters to the City. All of these attractions bring visitors from both Los Angeles county and other parts of the world, driving the Long Beach economy through consumer spending.

Of the industries in Long Beach that are powered by consumer spending, Leisure and Hospitality is the largest. In 2015, more than 20,000 people were employed in different leisure and hospitality businesses in tourist-friendly locales like Belmont Shore. Of these jobs, just about three-fourths are rooted in the restaurant sector, making it the prime job-creator of the industry. In fact, 500 new jobs were added to the local economy last year by food services and drinking establishments alone. This comes out to a 3% increase compared to the previous year, helping to make leisure and hospitality the second largest private sector jobs provider in the city.

Behind the backdrop of growing tourism activity, wages in the tourism industry have grown considerably in recent years. Leisure and hospitality wages experienced a 3.4% annual increase in 2015, while food

³<http://web.csulb.edu/sites/newsatthebeach/2014/10/helping-underrepresented-reach-science-dreams/>

⁴ <http://www.modernhealthcare.com/article/20160409/MAGAZINE/304099982>

services and drinking places saw a 3.7% jump over the same time period. Although these are some of the lowest paid jobs in the city, persistent wage growth in these industries has served to bolster incomes on the lower-end of the income distribution. To this end, household finances in the region have continued to improve during a somewhat slow recovery.

Hotel Occupancy and Daily Rate Trends in the City of Long Beach, 2016YTD*

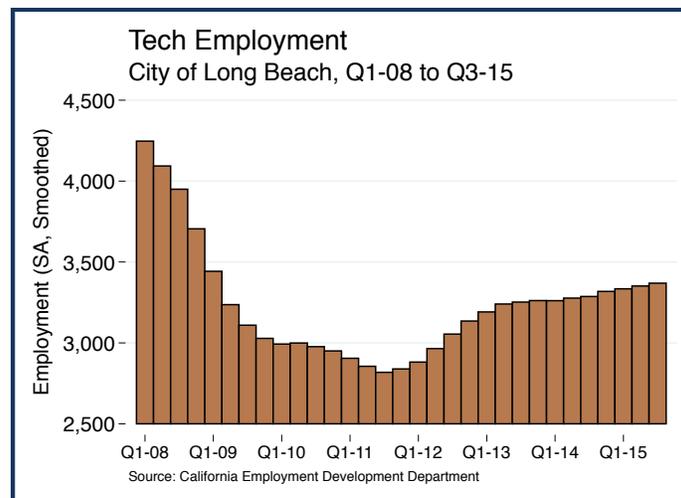
Region	Daily Rate			Occupancy Rate		
	2016YTD (\$)	Growth (%) Since		2016YTD (%)	Growth (p.p.) Since	
		2010	2015YTD		2010	2015YTD
City of Long Beach	170.5	36.4	8.0	80.2	15.8	1.2
Los Angeles County	207.2	42.8	10.2	85.3	13.4	2.2

Source: PKF Consulting.

*Data are year-to-date through July.

Indeed, these trends appear to have some staying power. Tourism in Los Angeles County reached a record high 2015, with over 45 million visitors.⁵ Many of these tourists made their way to Long Beach during their trip, as indicated by trends at local hotels. Through July 2016, the average hotel room in Long Beach rents for \$170.50 per night, up 8% from this time last year. Looking back further, rates are now 36% higher than they were in 2010. Similarly, occupancy rates have been on a steady rise since bottoming out in 2009. Today, occupied rooms hover around 80%, 1.2 percentage points higher than this time last year, and nearly 16 percentage points greater than in 2010.

Tech-Services



The local “Tech Sector,” which is comprised of subsectors within Manufacturing, Professional & Business Services, Retail and Wholesale Trade, and Information, has slowly trended upwards since declining sharply during the Great Recession. Although employment levels remain 20.7% below where they were immediately prior to the recession, growth has accelerated over the last year. For one, increasing e-commerce activity has disproportionately impacted activity at the San Pedro Ports, and the greatest increases in pay-

⁵<http://www.latimes.com/business/la-fi-tourism-2015-20160502-story.html>

roll seen over the last year have been in Electronic Shopping subsector. However, it should be noted that employment in this subsector generally includes more occupations in administrative and office support than software programming and the like, and should be read into with caution.

On the other hand, employment in Telecommunications –which accounts for 27.8% of tech sector jobs locally - has continued to decline statewide. In Long Beach, Telecommunications employment contracted by 11.2% year-over-year as of the third quarter of 2015, even as the tech sector overall has continued on its steady upward path. Still, employment in tech remains well below its pre-recession peak as a result of a handful of companies permanently going out of business.

City of Long Beach Tech Employment and Wages by Industry, Q3-15

Industry Code	Industry Name	Employment	Employment Growth		Avg. Annual Wage (\$)
			5-Year (%)	YoY (%)	
334	Computer and Electronic Mfg.	422	+15.7	+14.9	76,822
4251	Wholesale E-Markets	300	+21.4	+2.9	80,250
45411	Electronic Shopping	303	+233.1	+75.6	74,814
517	Telecommunications	936	-11.6	-11.2	77,655
5414	Specialized Design Svcs.	144	+40.8	+11.5	66,316
54143	Graphic Design Svcs.	309	+47.2	-0.9	77,564
54151	Computer Systems Design	199	-32.1	-16.1	81,149
541512	Computer Sys. Design Svcs.	389	+29.7	+2.7	91,782
Misc.	Other Tech	366	+18.2	+6.7	92,343
Total	Total Tech	3,369	+13.2	+2.5	80,467

Source: California Employment Development Department.

One emerging tech-related trend in the City of Long Beach is the growing number of self-employed freelance workers. A growing percentage of Long Beach residents have identified themselves as self-employed, particularly those engaged in the Professional, Science, and Management field, according to the 2015 American Community Survey. Those who either identified themselves as “self employed in own incorporated business” or “self employed in own not incorporated business” represented 24.4%, or 6,900 of industry workers. This was corroborated by a recent article, in which the City of Long Beach was ranked as the tenth best place for freelancers, based on housing and medical care affordability and income, among other considerations.⁶ In particular, employment has been expanding in Graphic Design Services, a sector in which the majority of workers are freelancers. While no major players have emerged to fully displace losses in the Telecommunications sector, tech sector growth in the City appears to be driven largely by smaller establishments.

Goods Movement

The movement of consumer goods through the twin Los Angeles ports is a vital component of the Long Beach and Southern California economies. Transportation and Warehousing industry is more than twice as concentrated in Long Beach as it is in Los Angeles County overall, with many of the industry’s highest-

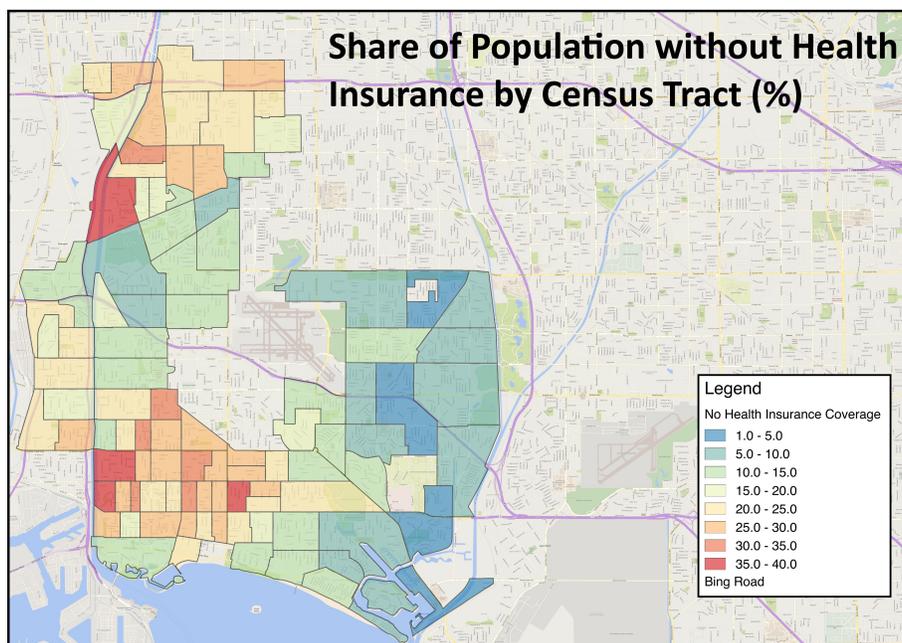
⁶<https://www.nerdwallet.com/blog/utilities/best-places-for-freelancers>

paying jobs located within the City. Additionally, growing consumer spending throughout the nation, which has been one of the pillars of the current economic recovery, has boosted trade-based employment in the City. To this end, employment in Transportation and Warehousing grew 15% between the third quarter of 2014 and the third quarter of 2015, while payrolls at establishments engaged in Wholesale Trade expanded by 5.6% during this time period.

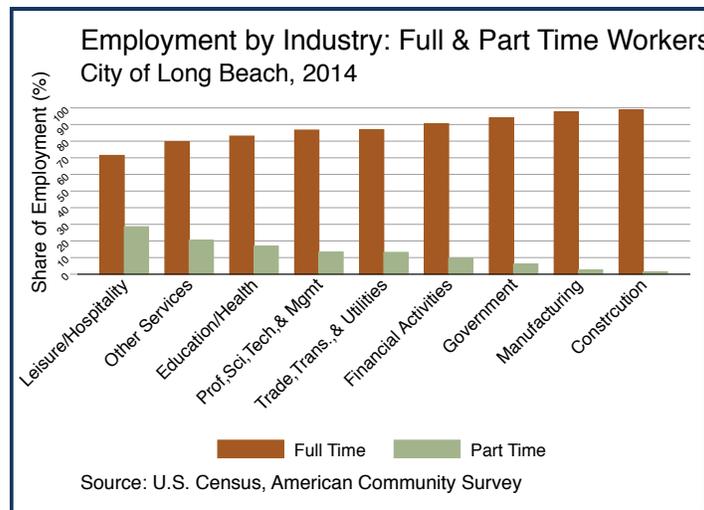
Recent gains in this sector stem from an acceleration of activity through the Los Angeles region’s ports during 2016. Through August, the number of containers passing through the ports increased by 0.9% over 2015, putting the facilities on track for their third best year on record. Outbound containers grew by 2.7% and inbound containers rose by 0.2%. 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 as import prices declined 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.

The robust growth observed in the logistics sector has been a boon to the industrial property segment of the real estate market in Long Beach as vacancy rates and rents indicate that this segment of the market continues to tighten. These trends have largely followed those observed in Los Angeles County, with the vacancy rate falling to 6.4% in the second quarter of 2016 compared to 5.9% in the County. Similarly, the industrial rents have increased 3% in the City, on par with the 3.1% growth observed countywide. As increased consumer spending continues to drive activity through the twin ports, the vacancy rates in the City’s industrial real estate market will further tighten, resulting in solid rent growth.

RESIDENTIAL EMPLOYMENT



While the preceding covers employment by industry trends observed at local establishments, this section delves deeper into labor market conditions faced by Long Beach residents. Similar to labor market conditions faced by local establishments, the labor market for local residents has continued to improve. With its economy growing, wage and salary jobs held by Long Beach residents have grown 2.5% between 2010 and 2014, according to estimates by the American Community Survey. Education and Health Services and Leisure and Hospitality are the two largest industries, measured in terms of residential share. However, the three fastest-growing industries since 2010 have been Construction (+31.7%), Information (+30.4%), and Transportation and Warehousing (+24.1%). This bodes well for Long Beach residents, especially when considering that 98.8% of those employed in these industries work full time. Overall, 86% of Long Beach’s workers were full-time employees, compared to 84.0% for the county as a whole. Although most of the city’s residents are full-time employees, a number of residents were without health insurance, particularly in Long Beach’s lower-income areas (see map above).



Employment by Industry, City of Long Beach 2014

Industry	Employment	Share of Total (%)
Agriculture, Forestry, and Fishing	780	0.4
Construction	12,120	5.5
Manufacturing	22,340	10.1
Wholesale Trade	7,030	3.2
Retail Trade	21,890	9.9
Transport/Warehouse	16,060	7.3
Information	6,550	3.0
Financial Activities	14,950	6.8
Prof, Sci, Tech, Mgmt, and Inf	24,050	10.9
Education/Health	48,510	22.0
Leisure and Hospitality	26,680	12.1
Other Services	12,070	5.5
Government	7,610	3.4
Total Employment	220,640	100.0

Source: U.S. Census Bureau American Community Survey

The array of occupations held by Long Beach residents also shows wide variations in the City's economic base. As a baseline, residents in 2014 who were 16 or older and employed earned a median wage of \$32,460, 6% less than the statewide median wage. A high proportion of residents relative to the rest of the state are employed in Arts, Design, Entertainment, Sports, and Media category, due to the concentration of these activities in the City of Los Angeles and elsewhere in Los Angeles County as well as neighboring Orange County. This occupation has a median wage 8% higher than the median for employment elsewhere in the state. There is also a high concentration of Material Moving and Transportation occupations in Long Beach relative to the state, largely because of the proximity of the Ports of Long Beach and Los Angeles and Long Beach Airport, all of which provide a large number of jobs in these occupations.

Many Long Beach residents work in Sales, Office and Administrative Support, and Management. Together, these occupations employ more than 70,000, nearly 32% of the labor force in Long Beach. Sales and related occupations in Long Beach pay a median wage 13% higher than the median wage in California, while Office and Administrative Support wages are 2% lower than in the State as a whole. Long Beach residents employed in Management make 9% less than the median wage for that occupation in the State, although the median wage for these workers is more than double the median wage across all occupations in the City.

Employment by Occupation, City of Long Beach 2014

Occupation	Employment	Share of Employment	LQ with California	Median Wage (\$)	Relative Wage to California
Arts/Design, Entertainment, Sports, and Media	9,120	4.1	1.49	45,490	8%
Material Moving	8,580	3.9	1.42	21,350	3%
Transportation	10,060	4.6	1.41	31,830	-4%
Health Technologists and Technicians	4,480	2.0	1.25	41,910	3%
Fire Fighting and Prevention	3,410	1.5	1.25	24,430	-9%
Food Preparation and Serving Related	15,570	7.1	1.21	18,280	17%
Business and Financial Operations	12,480	5.7	1.13	54,580	-9%
Installation, Maintenance, and Repair	6,530	3.0	1.11	35,940	-6%
Health Diagnosing and Treating Practitioners	8,360	3.8	1.11	79,410	-2%
Personal Care and Service	11,080	5.0	1.08	13,530	-9%
Healthcare Support Occupations	4,410	2.0	1.06	21,550	-14%
Sales and Related	24,730	11.2	1.03	30,120	13%
Office and Administrative Support	28,450	12.9	1.02	30,080	-2%
Education, Training, and Library	11,950	5.4	1.01	48,210	26%
Production Occupations	10,800	4.9	0.94	23,560	-16%
Construction and Extraction	9,660	4.4	0.93	31,930	0%
Community and Social Service	2,980	1.4	0.88	37,180	-10%
Life, Physical, and Social Science	1,970	0.9	0.85	70,650	16%
Legal Occupations	2,250	1.0	0.83	102,410	12%
Architecture and Engineering	3,560	1.6	0.78	67,260	-22%
Management	17,400	7.9	0.76	66,330	-9%
Building and Grounds Maintenance	6,750	3.1	0.71	20,130	4%
Computer and Mathematical	4,640	2.1	0.66	80,370	-7%
Law Enforcement Workers	1,090	0.5	0.60	72,230	-11%
Farming, Fishing, and Forestry	360	0.2	0.09	12,210	-26%
Total Civilian Employment (16 Years and Over)	220,640	100.0	1.00	32,460	-6%

Source: U.S. Census Bureau American Community Survey

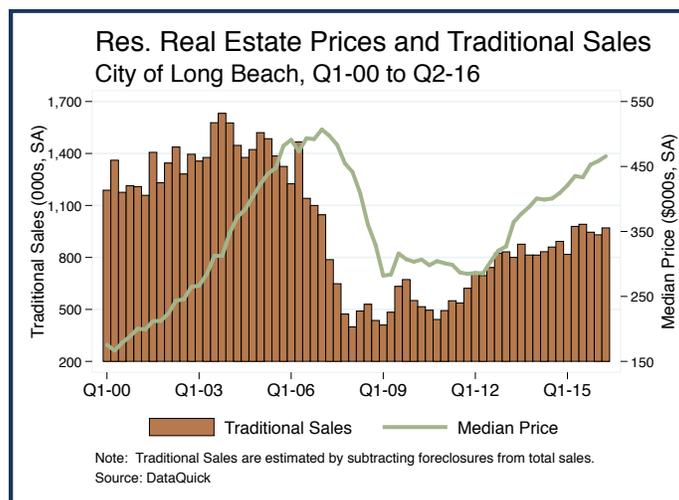
LONG BEACH HOUSING MARKET

Over 470,000 residents call Long Beach home. The City is a collection of unique communities and neighborhoods, some dating back to the early 1900s, with others built decades later in the aftermath of World War II well into the 1960s and 1970s. To this point, over half (56.7%) of the City’s current housing stock was constructed prior to 1960, with only 3.7% of the stock having been built since the turn of the century. The result is a great deal of variety in the housing stock. Even so, the City’s housing market has largely tracked trends that have prevailed in the housing sector regionally and nationally. This section first looks at recent trends in the City’s housing sector, followed by an examination of the long-term forces that have shaped the City’s housing market.

TRENDS ANALYSIS

The most recent trends observed in the City’s housing market are indicative of a return to the traditional homebuyer’s market. The pace of price appreciation moderated over the course of 2014 and 2015, and home prices continue to grow at a solid clip of 7-8% year-over-year midway through 2016. Additionally, the volume of home sales in the City has picked up again over the past year after briefly stagnating in 2014, as demand for housing in one of California’s most affordable coastal cities has been revitalized. To this end, traditional home sales, which net out distressed property sales, are up almost 6% year-to-date to 1,900 sales through the second quarter of 2016.

Although the residential real estate market in the City of Long Beach has stabilized in recent years, the City was not precluded from the unsustainable pace of price appreciation and home sales that characterized the lead-up to the Great Recession. Indeed, the median price for an existing single-family home in the City of Long Beach skyrocketed, growing by 165% between 2000 and 2006, while the median price for an existing condominium more than doubled (229.7%). At the same time, the volume of total home sales reached a peak in 2003 and 2004 and it wasn’t until the end of mid-to-late 2006 before this momentum dissipated entirely.



With the recession in full swing by the second half of 2008, home prices and sales dropped precipitously. To this end, home prices declined nearly 80% when measured from the pre-recession peak to the recession's trough, while the pace of sales activity fell by more than half. The market for existing condominiums was hit particularly hard by the recession, due to the magnitude of the buildup in this segment of the market between 2000 and 2006. The downward spiral of the City's residential housing market persisted through 2010, and it wasn't until the first half of 2012 when activity started to gain momentum behind an upwell of distressed property sales.

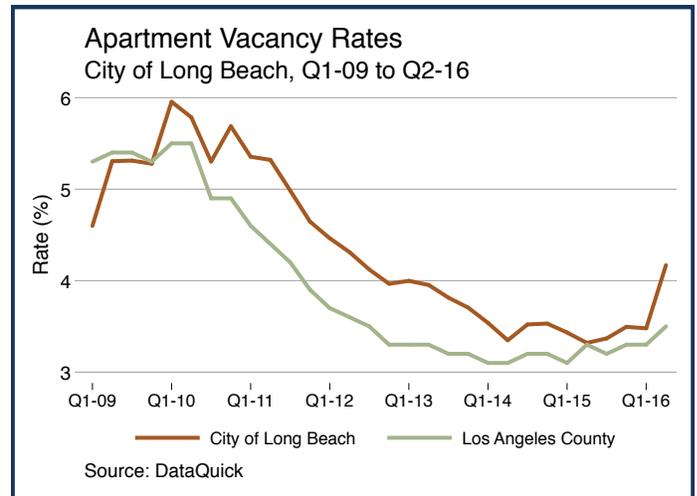
The housing market recovery in the City of Long Beach was slow-to-start, as it took a considerable amount of time for the tremendous number of defaults and foreclosures to be flushed from the system. While most of these distressed property sales occurred early on in the economic recovery (2012-2013), their impact on the housing market is most evident in the rampant price appreciation observed from the first quarter of 2013 all the way through the first quarter of 2014. This time period marked the transition from a market dominated by the sale of distressed properties, which are sold at sizable discounts, back to a traditional homebuyers market where homes are sold at market value. As typical non-discounted home sales began to represent a larger share of the overall housing mix in the City of Long Beach, the rate of price appreciation became exaggerated. In fact, home prices surged by more than 20% year-over-year in four consecutive quarters before cooling off substantially in the second half of 2014.

Underlying the recovery of the traditional homebuyers market has been revitalized demand, particularly for households on the upper-end of the income distribution. The state of local household finances has improved significantly, driven by an increase in employment opportunities throughout the South Bay coupled with solid wage growth. Also underlying this trend, however, have been some of the "side effects" of the Great Recession, which will be discussed in greater detail in the Demographic and Socio-Economic Profile section of this report. The impacts of the Great Recession, which affected households across the income spectrum, arguably hit lower-income earners more severely. There has been some downward economic mobility among these lower-income households as they move to more affordable regions. As a result of lower-income households leaving the region, the proportion of higher-income households in the City has increased over the past decade.

Home Price Trends by Type in the City of Long Beach, 2000 to Q2-16

Category	Median Price (\$000s)	Period Growth (%)			YoY Growth (%)	
		2000-06	2007-10	2011-15	Q2-15	Q2-16
Existing SFR	539.5	+165.0	-35.5	+46.7	+10.5	+5.6
Existing Condo	323.7	+229.7	-42.6	+49.1	+8.8	+8.1
New Home	466.5	+91.8	-17.6	+3.2	-15.2	+49.5

Source: DataQuick.



Housing demand has been further bolstered by record-low interest rates, though strict lending standards have limited credit availability to a certain extent. However, the pool of potential homebuyers will expand in the next few years. Households with foreclosed mortgages originating with government-sponsored lenders Fannie Mae and Freddie Mac had to wait 7 and 5 years, respectively, before becoming eligible for a new loan. The first wave of affected households passed this threshold around 2015, and more of these households should regain access to this major source of mortgage lending through 2017. Taken together, demand for housing in the City of Long Beach will be bolstered by these positive trends over the course of the next year.

While the homebuyer’s market has recovered nicely over the last two years, the rental market is a large segment of the residential real estate market in the City of Long Beach. Similar to the homebuyers market, demand for rental units in the City has been buoyed by growing household incomes. To this end, rents have grown continuously since the start of 2011, with the pace of rent growth picking up for the duration of the recovery. At the same time, vacancy rates have largely trended down, though the recent addition of new multi-family housing units across Los Angeles County has started to place upward pressure on vacancies.

Overall, the trends in the City of Long Beach rental market have tracked those observed in the broader Los Angeles area. Rents grew in the range of 1-3% for much of the recovery across Los Angeles County between 2011 and 2014, before ramping up at the start of 2015. Since then, rents have surged by as much as 6% year-over-year as demand for rental units has taken off. In fact, rents in the City of Long Beach grew by 5.8% to \$1,469 between the second quarter of 2015 and the second quarter of 2016, compared to growth of 5.2% in Los Angeles County.

Further indicating the strength of rental demand in the City has been the long-term trend of falling vacancies. After reaching a peak of 5.7% in the fourth quarter of 2010, the vacancy rate fell almost continuously during the recovery until reaching a 5-year low (3.3%) in the first half of 2015. Since that time, an influx of new multi-family housing units, with 430 units permitted for construction in 2014 and 2015, have come online in the City. As a result, the vacancy rate has ticked up substantially, reaching 4.2% as of the second quarter of 2016. However, the expectation is that many of these units will be quickly absorbed given the

revitalized state of demand for rental units in Long Beach. Furthermore, only 2 multi-family housing units were permitted for construction through the second quarter of 2016, indicating that further increases in the City’s rental vacancy rate are unlikely at this time. With demand expected to continue its upward trajectory, the vacancy rate should continue to trend back down as the new stock is absorbed over time. This should yield further growth in the cost of rent, though at rates roughly in-line with regional average.

STRUCTURAL ANALYSIS

Residential real estate markets across California have undergone a significant structural shift over the past 16 years, driven largely by the addition of nearly 1.4 million new households across the state in conjunction with a tumultuous economic environment. The beginning of this time period is largely characterized by an unsustainable buildup in single-family home ownership, backed by a rapidly growing asset bubble and poor lending practices (e.g. subprime mortgages with limited documentation verifying income). The ensuing collapse of the housing market has been followed by a tepid recovery in homeownership, as many households, particularly those in the state’s urban cores, have encountered significant barriers to owning a home in the context of a significant shortage of housing supply. As a result, a large numbers of potential homebuyers across California have reluctantly shifted into the rental market.

While a similar conclusion can be reached for the City of Long Beach —the number of new renter households in the City has outpaced the formation of new homeowner households over the last 16 years —the factors underlying the structural shift in the City differ significantly from those observed elsewhere in California. The primary source of this difference is that the City’s housing stock has historically tilted towards multi-family units. In fact, multi-family housing units accounted for 53.2% of the Long Beach housing stock in 2000, edging up further to 55.5% in 2015. By comparison, multi-family housing units account for roughly 43% of the housing stock in Los Angeles County and just one-third of all housing units in California.

Moreover, an average of four multi-family housing units have been permitted for construction in the City of Long Beach for every single-family housing permit issued over the past 16 years, which has further entrenched the multi-family stock as the primary source of housing for many Long Beach residents. A

Housing Stock and Tenure Changes City of Long Beach, 2000-2015

Time Period	Homeowner Change		Rental Change	
	Households	Stock	Households	Stock
2000-06	3,386	4,978	-4,548	-1,804
2007-10	-7,632	305	4,092	-104
2011-15	2,698	-6,109	6,576	8,513
Cumulative Change	-1,548	-826	6,120	6,605

Source: American Community Survey.

similar trend has arisen in many of California’s high-density, urban cores (e.g. San Francisco (MSA), San Jose (MSA), and the City of Los Angeles), where a lack of developable land has pushed developers more towards multi-family in-fill projects. Whereas this trend has developed in these regions over the last three years, a concentration on multi-family housing construction has been the historical norm in the City of Long Beach.

The emphasis on multi-family housing in the City of Long Beach, in the context of both housing stock and residential construction trends, begins to make more sense when reconciled with the historically large proportion of renters in the City. To wit, the proportion of renter households in the City has held steady in the 58-61% range between 2000 and 2015, compared to a 50-54% range in the broader Los Angeles area and a range of 41-46% statewide during this time period. The proportion of renters fell slightly in the run-up to the Great Recession, but not by nearly as much as observed in other areas of California, such as the Inland Empire, where the buildup of single-family housing was more severe.



This trend was largely wiped out in the recession’s aftermath, with sizable increases in both the number of rental households and multi-family housing stock during the economic recovery between 2011 and 2015. However, this reflects a return to historical norms, as opposed to the result of persistent supply constraints in the face of resurgent homebuyer demand. Interestingly, there has even been a small uptick in the number of homeowner households in the City of Long Beach between 2011 and 2015, whereas the number of homeowner households has continued to fall in Los Angeles County. This trend has primarily been concentrated in specific high-income areas in Long Beach, namely Belmont Shore and Bluff Park. The growing number of renter households in the City of Long Beach overall mirrors the statewide trend, but without the affordability concerns driven by severe supply constraints that have been observed other regions in California over the last five years. Moreover, the housing supply constraints may not be as pressing in the City of Long Beach given the low rate of population growth relative to other region’s in the State, providing further indication that the residential real estate market in the City is on track for balanced growth.

DEMOGRAPHIC AND SOCIO-ECONOMIC PROFILE OF LONG BEACH

POPULATION

Among California's largest cities, the City of Long Beach ranked seventh in terms of its population in 2016, right behind Sacramento, the state's capital. According to the latest data from the California Department of Finance, Long Beach's population grew 0.66% in 2016, making it the slowest growing of California's ten largest cities. Why? Primarily, it is fairly built out and has little room to grow. It has a much higher population density (9,640) than many of California's other large cities, including Los Angeles (8,590), Oakland (7,580), San Diego (4,280), San Jose (5,900), and Anaheim (7,190), though not San Francisco (18,490). The City of Long Beach is less dense than some of its smaller neighbors, including Compton (10,110) and Inglewood (12,680), but has more people per square mile than some other local cities, including Glendale (6,620), Pomona (6,780), Carson (5,020), and Torrance (7,190).

Population Growth in California's Largest Cities, 2016

City	Population (000s)	1 Yr. Change (%)	5 Yr. Change (%)	10 Yr. Change (%)
Los Angeles	4,030.9	1.27	5.57	6.96
San Diego	1,391.7	0.89	6.08	10.31
San Jose	1,042.1	1.17	8.25	15.17
San Francisco	866.6	1.06	6.22	10.92
Fresno	520.5	0.76	4.37	12.31
Sacramento	485.7	0.74	3.34	8.95
Long Beach	485.0	0.66	4.27	3.72
Oakland	422.9	0.79	7.13	9.45
Bakersfield	379.1	1.19	8.07	20.31
Anaheim	358.1	0.74	4.75	8.73
California	39,255.9	0.90	4.58	8.69

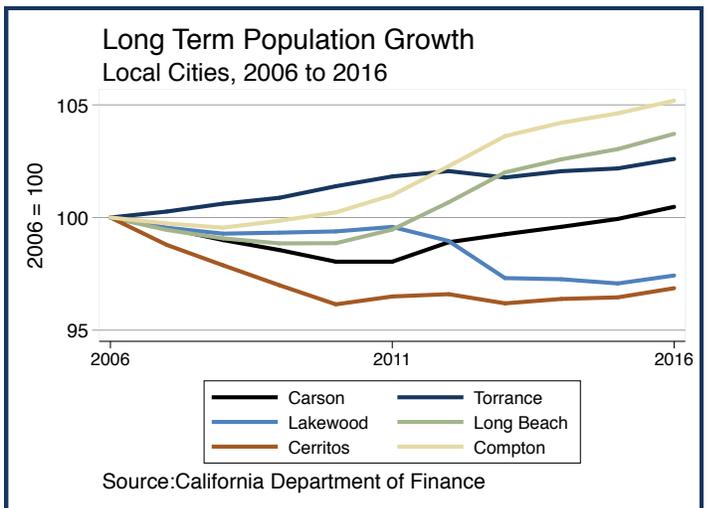
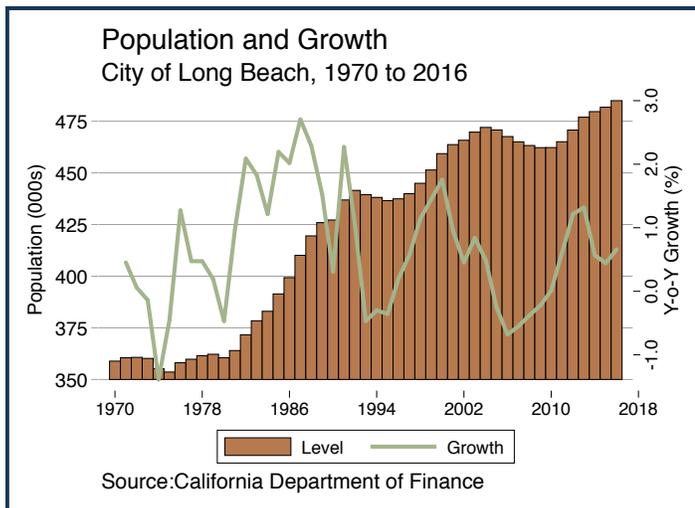
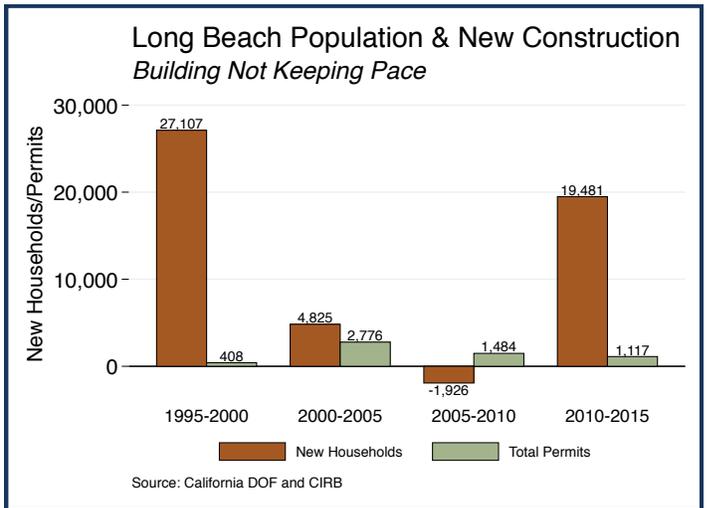
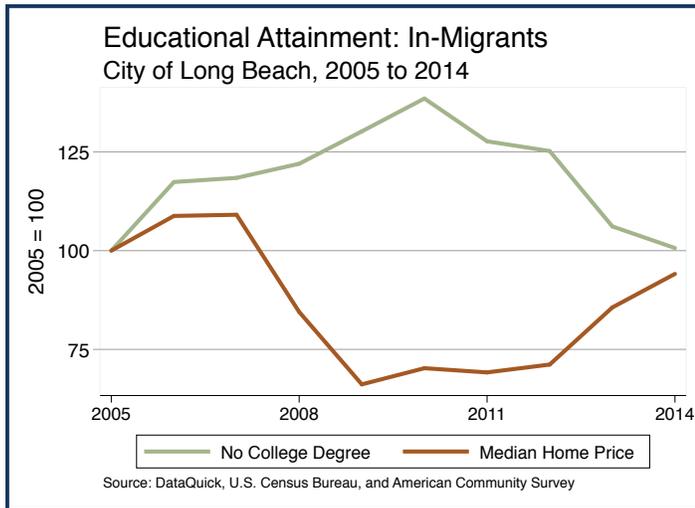
Source: California Department of Finance

Population Growth in L.A. County's Largest Cities, 2016

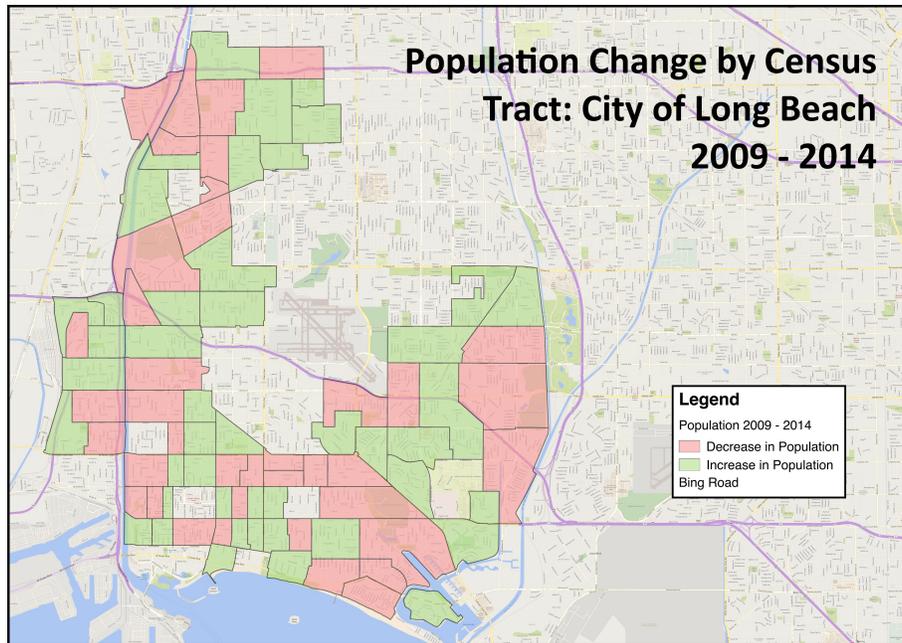
City	Population (000s)	1 Yr. Change (%)	5 Yr. Change (%)	10 Yr. Change (%)
Los Angeles	4,030.90	1.27	5.57	6.96
Long Beach	484.96	0.66	4.27	3.72
Santa Clarita	219.61	1.72	23.81	32.90
Glendale	201.67	1.03	4.60	3.24
Palmdale	160.07	0.60	4.16	15.07
Lancaster	157.09	0.46	-0.45	10.31
Pomona	155.60	0.58	3.76	2.26
Torrance	147.18	0.41	0.76	2.60
Pasadena	141.02	0.89	1.43	3.38
Inglewood	116.65	0.59	5.67	4.36
County Total	10,241.33	0.85	3.71	4.52

Source: California Department of Finance

Among the ten largest cities in Los Angeles County, the City of Long Beach ranked fifth in population growth in the last year, surpassing Palmdale, Pomona, Inglewood, Lancaster, and Torrance. Because of rapid increases in home prices and the Great Recession, Long Beach’s population growth took a hit between 2005 and 2010. However, over the last five years, the city’s population has grown 0.84% each year on average. Over the last ten years, the City’s population has increased 3.72%, a much slower rate than Los Angeles County at 4.52%.



Looking further back, Long Beach ranks tenth among California’s largest cities in terms of population growth over the last ten years and sixth among Los Angeles County cities. Housing prices increased rapidly in the City in the early 2000s. From 2001 to 2006, the median price for a single-family house in Long Beach increased 135% while rents increased as well, prompting many of the lower-income families to leave the area. This has served to slow population growth to a certain extent. Looking at the profile of those migrating to Long Beach tells a similar story. After the Great Recession ran its course and home prices began to slowly pick up, in migration for individuals without a college degree began to slow down. As home prices continue to tick upwards and rents climb higher, this trend could push in-migrants to lower income areas of the City or out of Long Beach altogether.



AGE COMPOSITION

The City of Long Beach has a younger population relative to Los Angeles (city and county), the state, and the country. Over half of Long Beach’s residents fall in the range of 20-54 years old. This age demographic bodes well for the city, as it represents those who are at a prime working age and are a significant driver of spending activity.

Compared to the state and the country, Long Beach has a much smaller elderly population. The senior population across the nation is expected to grow over the next couple of years, both from the aging baby boomer generation and increases in life expectancy. The California Department of Finance projects that the population of residents ages 65 and older will constitute a larger share of overall population in the coming years.

Population by Age: Select Areas, 2014

Share (%) in:	Long Beach	Los Angeles City	Los Angeles County	California	United States
Under 5 Years	7.2	6.4	6.4	6.5	6.2
5 to 19	20.1	18.3	19.2	19.9	19.7
20 to 34	24.5	25.3	23.3	22.3	20.7
35 to 54	28.0	27.7	27.7	26.9	26.4
55 to 64	10.3	10.7	11.3	11.7	12.6
65 and Older	10.0	11.6	12.2	12.9	14.5
Median Age	34.0	35.0	35.8	36.0	37.7

Source: U.S. Census Bureau American Community Survey

This shift in demographics could have a number of implications for the future. With large numbers of baby boomers entering into retirement beginning in 2011, and the youngest turning 65 in 2029, the ag-

ing population will create an increase in demand for health and supportive services. Taking care of an ageing population will require a shift in resources because of the costs associated with senior healthcare needs. This transition could place a larger burden on taxpayers, as one of the larger concerns in the future is how to provide financial support to the retired population. As it stands, Long Beach has a relatively young population and will likely continue to attract a young age demographic through its colleges. The younger population of Long Beach will help counter the shifting of resources that will face the nation as the population ages and the demand for health services for the elderly increases.

RACE AND ETHNICITY

Race and Ethnicity in the City of Long Beach and California, 2014

Race and Ethnicity	Long Beach (Population)	Share in Long Beach (%)	Share in California (%)
Hispanic	200,178	42.3	38.6
White	129,938	27.4	38.3
Asian	66,932	14.1	13.7
Black	58,790	12.4	5.6
Other	17,767	3.8	3.8
Total Population	473,605	100.0	100.0

Source: U.S. Census Bureau American Community Survey

Overall, the ethnic composition of Long Beach is much more diverse than that of the state as a whole. Hispanics account for a much larger share of total population in Long Beach, with the gap between Hispanics and whites quite a bit larger than at the state level. Since 2005, the share of Hispanics has risen 2.6 percentage points while the share of whites declined 3.1 percentage points in the City of Long Beach. The share of Blacks over the same period fell 0.3 percentage points, while the share of Asians was relatively unchanged, increasing 0.1 percentage point. The share of Blacks in Long Beach is more than double that of the state, while the share of Asians increased at a rate between the two.

Although the City of Long Beach is ranked as a diverse city, some of the diversity stems from the high concentration of Hispanics, which is common throughout California. The Hispanic population, however, is not so diverse. In 2014, Mexican-Americans accounted for 35.3% of Long Beach's total population, compared to 32.2% in the state. Of foreign-born residents in Long Beach, 59.5% were from Latin America, compared to 52.1% in the state. Since 2010, the share of foreign-born Asian residents increased 5.1 percentage points in Long Beach and 1.9 percentage points in the state. Of the Asian population (including foreign and native), Long Beach has a much more diverse Asian population than the state. For example, more than one-fourth of Asians in California are Chinese, compared to 6.4% in Long Beach. Among Long Beach's Asian residents, 38.2% identified themselves as "Other Asian" —a category that specifically excludes Filipino, Japanese, Korean, and Vietnamese —compared to 11.6% in the state. This group includes residents of Cambodian, Thai, and Indian descent as well as smaller numbers of Laotians and Hmong.

Income across different races in the City of Long Beach has made leaps and over the last five years. While whites have the highest median income in City, incomes for Blacks, Asians, Hispanic, and other races have been increasing. Moreover, wage growth for Whites, Blacks, Asians, Hispanics, and Other races has out-paced wage growth in Los Angeles (city and county), the state, and the country.

Median Income by Race, Select Areas 2014

	Long Beach		Los Angeles City		Los Angeles County		California		United States	
	Median Income (\$)	5-Year Growth (%)								
White	69,809	5.9	70,772	3.9	73,869	4.1	72,061	3.2	58,847	5.3
Black	39,273	4.2	33,744	-0.2	40,939	0.9	43,476	0.2	35,600	3.4
Asian	59,087	15.7	54,880	3.3	65,727	3.0	77,932	5.9	73,244	7.0
Hispanic	43,869	7.8	38,854	2.4	45,128	2.4	47,206	1.4	42,396	3.5
Other	46,237	18.7	35,615	-3.5	42,332	-1.1	44,969	-2.7	58,847	5.3

Source: U.S. Census Bureau American Community Survey

INCOME

Households in the City of Long Beach had a median household income of \$54,511 in 2014, nearly 12% less than the median household income in California. Long Beach’s household income is 7.8% greater than the median household income in the City of Los Angeles and 2.3% below that of Los Angeles County as a whole.

From 2010 to 2014, the number of persons per household increased 1.7% to 2.78. Over that same period, the median household income in the City of Long Beach increased 6.0%. However, because households vary by size over time, another useful metric to consider is per capita income. In 2014, per capita income in the City of Long Beach was \$27,449, a 9.2% increase over 2010.

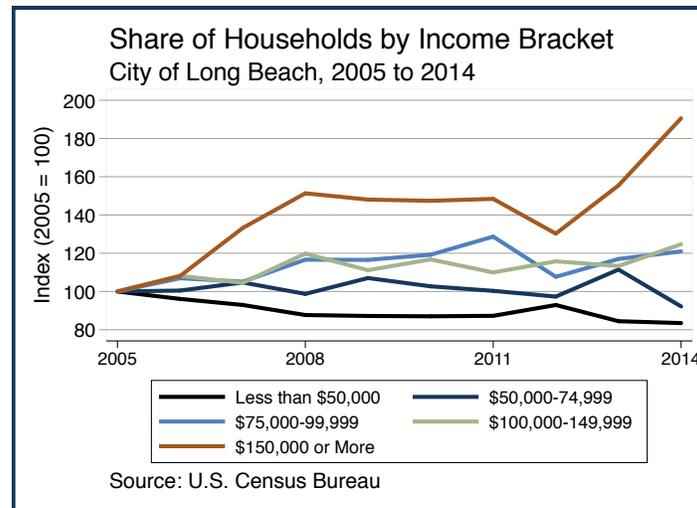
**Median Household Income
Select Cities and Counties in Southern California, 2010-14**

City	2010(\$)	2014(\$)	Change (%)
Torrance	69,288	80,198	15.7
Anaheim	54,157	62,198	14.8
Palmdale	53,048	57,035	7.5
Los Angeles	47,031	50,544	7.5
Santa Clarita	76,384	81,577	6.8
Long Beach	51,426	54,511	6.0
Santa Ana	51,467	50,797	-1.3
Glendale	51,923	51,020	-1.7
Orange County	70,880	76,306	7.7
Los Angeles County	52,684	55,746	5.8
California	57,708	61,933	7.3

Source: U.S. Census Bureau American Community Survey

Growing disparities across households by income brackets show a widening gap between the haves and the have-nots in the City. For example, from 2005 to 2014, the number of households with incomes of less than

\$50,000 declined 17.3% and the number of households with incomes between \$50,000 and \$75,000 declined 8.7%. Over that same period, the number of households with incomes between \$100,000 and \$150,000 increased 23.5%. At the upper end of the bracket, the number of households with incomes of more than \$150,000 increased a whopping 88.7%.



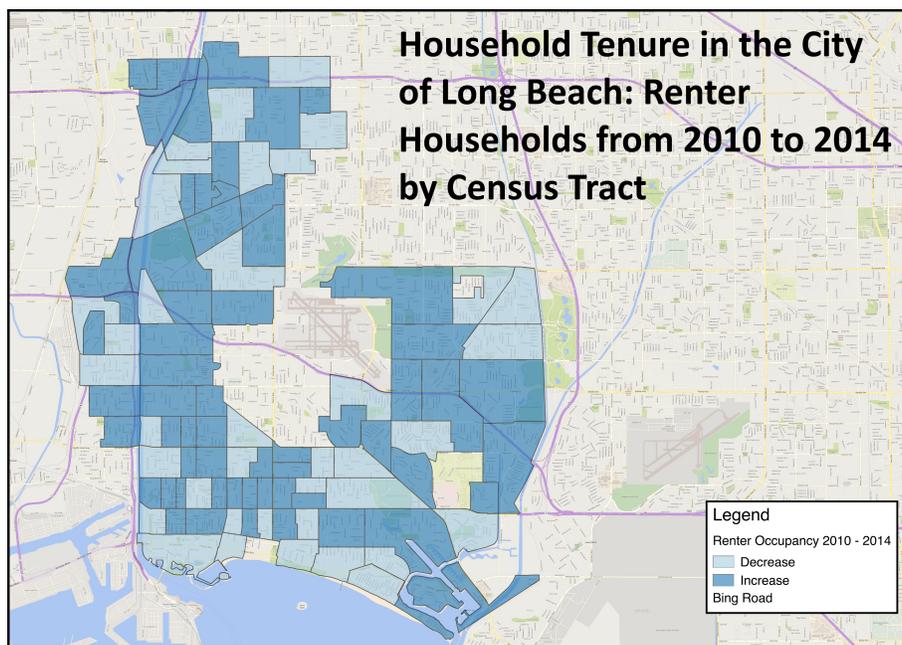
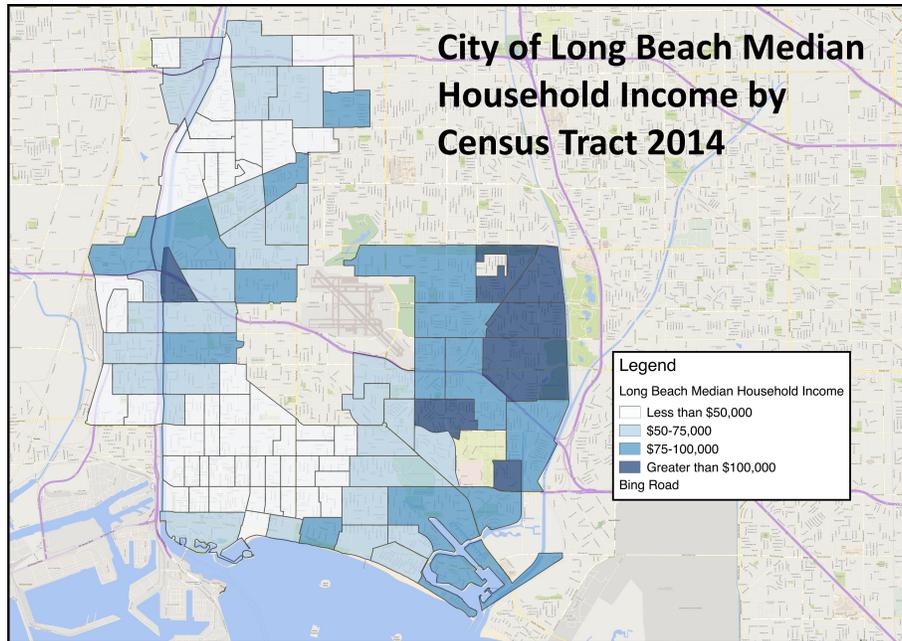
While growing incomes of existing residents may account for some of the shift towards higher-income households, the data also suggest that either lower-income households are moving out, higher-income households are moving in, or some combination of the two is occurring. In fact, in 2005, there were over 91,000 households with incomes below \$50,000. By 2014, however, there were roughly 75,200. During that same time period, the number of households earning over \$150,000 increased to over 19,700, making this income bracket 12.2% of all households in the City of Long Beach. Although the Great Recession affected households across the City, it arguably hit lower-income earners more severely. Moreover, with rising costs of living, especially in rents, lower-income households have fared worse than higher-income households. A study on residential mobility during the last decade found that a large fraction of moves were characterized by downward economic mobility: Many were moving out of their homes to more affordable neighborhoods.⁷

A similar trend is occurring at the state level. California is increasingly importing high-income earners and exporting low-income individuals. Ultimately, the choice of where to live is one of consumption and reflects a variety of factors. High housing costs in Long Beach and the state will make it increasingly difficult for lower-income earners to maintain their quality of life.

Across the City of Long Beach, residents are increasingly becoming renters, except in some of the city’s expensive coastal areas, including Belmont Shore and Bluff Park. However, there is no consistent pattern overall, as some of the wealthier areas of Long Beach had an increase in renters during the years from 2010 to 2014 (the latest data available), as have neighborhoods where the median household income is less than \$50,000. Thus, even in an environment with historically low interest rates, more residents are coming renters, with the exception of some of the higher-income earners. However, it’s worth noting that

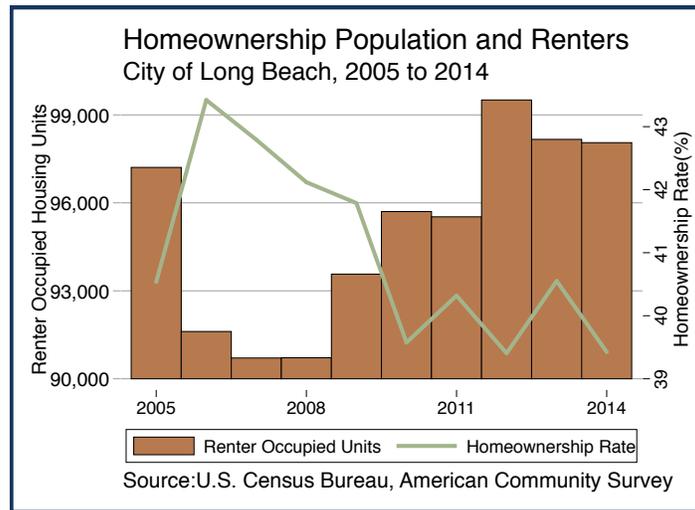
⁷“Great Recession saw more Americans move locally.” UCLA Newsroom. August 1, 2013.

the Great Recession affected people across the income spectrum, contributing to a higher incidence of renting in a wide range of neighborhoods, including low-income, middle-income, and, to a lesser extent, higher-income.



Homeownership peaked in the years leading up to the Great Recession, however, since the fallout in housing that occurred after the collapse of the housing market, homeownership has continued to slowly decline. Consequently, the number of renter occupied housing units has steadily risen over the last couple of years because of the growing costs associated with homeownership. The decline in homeownership is an ongoing trend across the state and the nation, however. Homeownership rates in California are some of

the lowest in the nation. While homeownership is much below that of California (45.1%) and the country, Long Beach had a higher homeownership rate (39%) than the City of Los Angeles (36%).



Tenure by Householder as of 2014, Select Areas

	Long Beach	Los Angeles City	Los Angeles County	California	United States
Share of Owner Occupied Housing Units (%)	100.00	100.00	100.00	100.00	100.00
Moved in 2010 or later	16.80	18.98	17.97	21.29	19.96
Moved in 2000 to 2009	32.69	31.71	32.01	34.67	36.72
Moved in 1990 to 1999	26.44	20.83	22.08	20.83	20.64
Moved in 1980 to 1989	11.41	12.17	12.35	11.24	10.40
Moved in 1970 to 1979	7.45	9.18	9.20	7.39	7.08
Moved in 1969 or earlier	5.22	7.12	6.39	4.57	5.21
Share of Renter Occupied Housing Units (%)	100.00	100.00	100.00	100.00	100.00
Moved in 2010 or later	63.10	58.31	59.13	65.74	70.04
Moved in 2000 to 2009	27.01	27.07	27.27	24.83	21.86
Moved in 1990 to 1999	7.02	10.58	9.57	6.38	4.88
Moved in 1980 to 1989	2.04	2.33	2.51	1.90	1.73
Moved in 1970 to 1979	0.52	1.33	1.19	0.82	0.88
Moved in 1969 or earlier	0.32	0.37	0.32	0.31	0.62

Source: U.S. Census Bureau American Community Survey

EDUCATIONAL ATTAINMENT

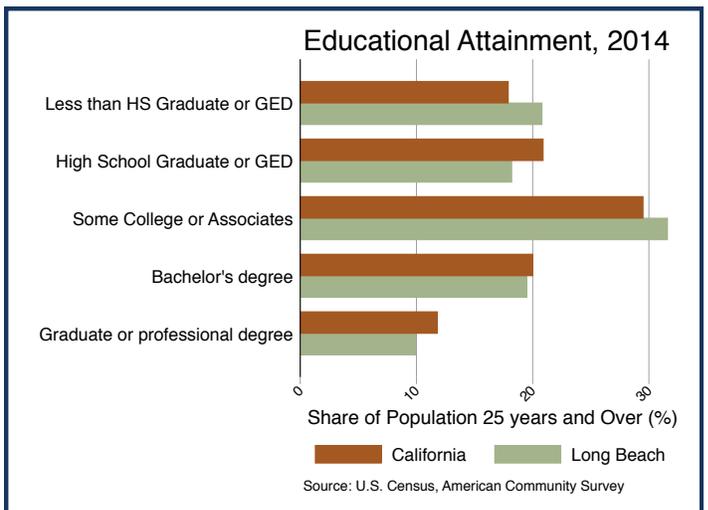
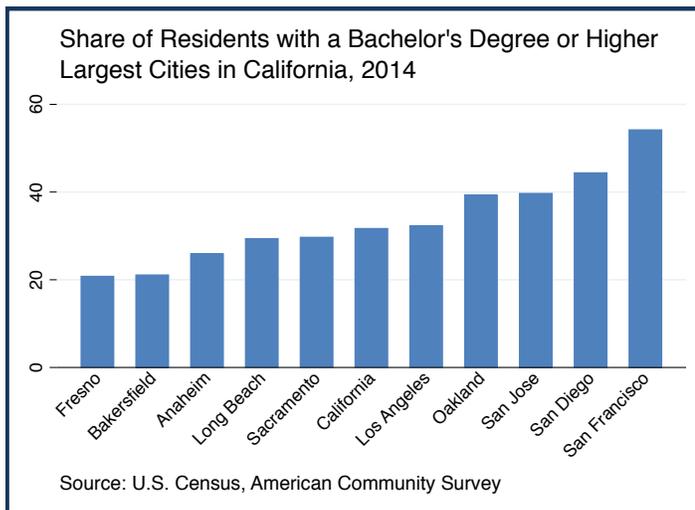
Educational attainment among Long Beach residents is about the same as that of the state. Residents are well educated and have an abundance of vocational training. In 2014, nearly 90,000 residents aged 25 and over had bachelor’s or higher degrees and 96,500 had attended some college, received technical training, or earned associate’s degrees. Relative to the state of California, the City of Long Beach has a larger share of residents with less than high school diplomas or who have some college or technical training or associate’s degrees. Among California’s ten largest cities, the City of Long Beach ranks seventh in terms of

the share of residents with bachelor’s degrees or higher. Although this sounds alarming at first, it is not cause for concern. San Francisco, San Diego, San Jose, and Oakland are at the top of the list because of the growing demand for tech employment and engineering (in the case of San Diego), which requires a number of specialties and skill sets including (but not limited to) research, engineering, and, of course, higher education to accommodate the requirements of employers. Subtracting California’s tech sector, the City of Long Beach remains fairly comparable to the City of Los Angeles and the State of California in terms of the share of residents with bachelor’s or higher degrees.

**Median Earnings by Educational Attainment
City of Long Beach, 2014**

Attainment	Income (\$)	Annual Growth (%)
Less than HS Graduate or GED	20,780	+9.6
High School Graduate or GED	26,680	-3.3
Some College or Associate's Degree	34,795	-0.9
Bachelor's Degree	53,829	-1.7
Graduate or Prof. Degree	79,342	+14.9

Source: U.S. Census Bureau American Community Survey



Long Beach residents with advanced levels of formal education have experienced faster wage growth than those with lower levels, closely reflecting state and national trends. Median annual earnings among residents with graduate or professional degrees rose by 14.9% in 2014 (most recent data available) and have expanded by 13.6% since 2010. Changes in earnings were mixed in 2014, with a 9.6% increase for those with less than a high school diploma and varying decreases in the other categories.

As of 2014, 24,600 residents in the City of Long Beach held degrees in so-called STEM (Science, Technology, Engineering, and Mathematics) fields, accounting for 27.7% of degree holders (ages 25 and over) in the City. This was somewhat lower than Los Angeles County as a whole (31.3%) and well below Orange (34.2%) and San Diego (35.2%) counties. The comparatively smaller share is explained by the top ten degrees among

Long Beach residents. Among the top five degrees held by residents over 25, none is considered a STEM field. Moreover, only two of the top ten degrees are in what are considered STEM fields. The top three degrees for Long Beach residents were business management, political science, and nursing.

Over the last five years, the number of residents with bachelor's degrees has increased 13.7%. Conversely, enrollment in college among residents has fallen. From 2013 to 2014, college enrollment for residents declined 1.2% for undergraduate and 13.9% for graduate students. College enrollment for undergraduates peaked in 2010, with more than 42,300 residents enrolled; however, that number has continued to decline for every year since. A similar trend occurred at the state level. The decrease in attendance at the state and local level is of the result of more than one factor. First, attendance at colleges increased as employment rates fell after the Great Recession. Thus, lower enrollment numbers relative to historical peaks can signal an improving economy because college enrollment is to some degree counter-cyclical. Second, 2010 was a high-water mark for college-aged individuals in the millennial generation.

Educational attainment in the City of Long Beach is also supported by its impressive public education institutions, which include the Long Beach Unified School District, Long Beach City College, and California State University, Long Beach. Some notable highlights:

- The local school district is a national winner of the Broad Prize for Urban Education, America's most prestigious prize for public school systems.⁸
- Scholarships for the district's class of 2015 seniors exceeded \$96 million, a record.⁹
- The city college offers more than 800 courses and holds more national and state titles and bowl appearances than any other California community college.¹⁰
- California State University Long Beach continues to attract record number of applicants, with more than 90,000 applications —more than any other CSU —for fall semester 2016.¹¹

COMMUTING CHARACTERISTICS

Commuting is a notorious cost paid by residents of Southern California. According to data from the United States Census, 77.2% of people in Long Beach's labor force are employed outside the City. In 2014, 76.5% of commuters in the City worked in Los Angeles County and 18.9% of residents commuted to Orange County. Relatively small numbers of Long Beach workers commute to Riverside, San Diego, and San Bernardino counties. The average commute for Long Beach residents was 29.6 minutes, which was 5.3% longer than the average commute in the state but 2% shorter than that of Los Angeles commuters. Among California's largest cities, the residents of Long Beach had the fourth-longest average commute, behind Los Angeles, Oakland, and San Francisco.

⁸<http://www.lbusd.k12.ca.us/District/accolades.cfm>

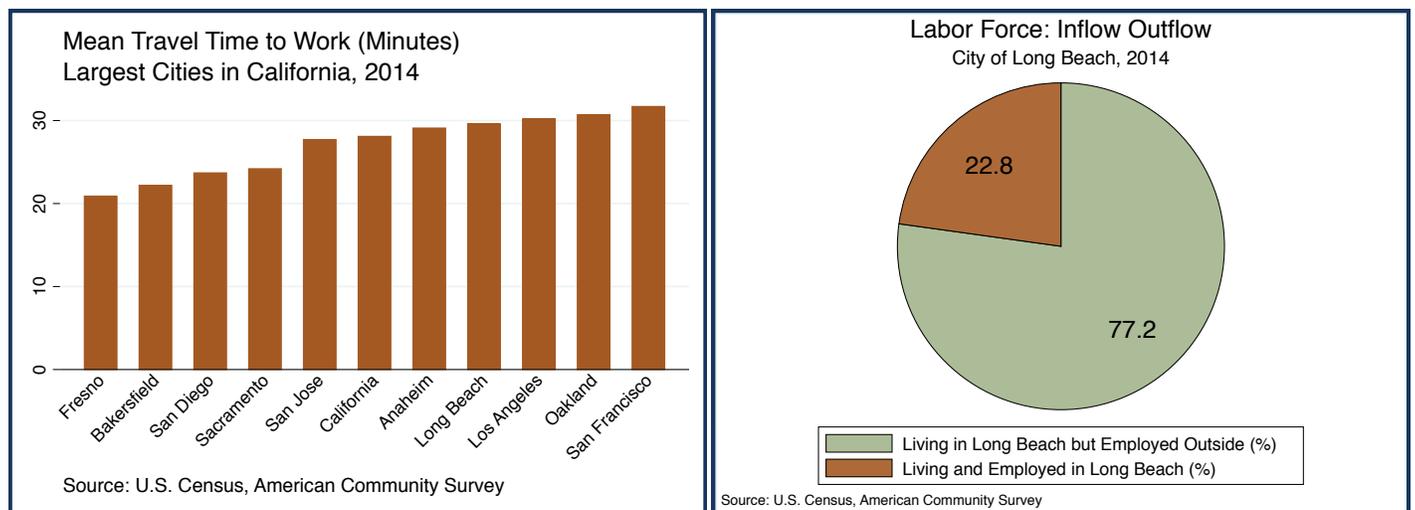
⁹Ibid.

¹⁰<http://www.lbcc.edu/PresidentsOffice/documents/spring2015collegefacts.pdf>

¹¹<http://www.gazettes.com/news/csulb-named-one-of-top-colleges/>

Residents of Long Beach had longer commutes than residents of Anaheim (29.1 minutes), Burbank (25.2 minutes), Glendale (27.4 minutes), and Torrance (29.1 minutes). The Long Beach area is served by the most heavily used roadway in the Los Angeles area, the 405 Freeway. A study released by the American Highway Users Alliance ranked the stretch of the 405 between the 605 and the 22 freeways as the second-worst bottleneck in America.¹² Commute times vary across the City: Residents north of the 405 had an average commute of 28.6 minutes in 2014, residents of Belmont Shore/Alamitos Beach area had the worst commute at 30.3 minutes, residents west of Signal Hill had a commute of 29.2 minutes, and residents in the CSULB area had the shortest average commute, 27.9 minutes.

Who is commuting in Long Beach? Of those who commute within Los Angeles County, 28.1% hold at least bachelor’s degrees, while 34.8% have some college or associate’s degrees. Of Long Beach residents who commute to Orange County, 39.0% have bachelor’s degrees or higher, while 37.3% have some college or associate’s degrees.



¹²<http://www.laweekly.com/news/6-of-the-7-worst-stretches-of-freeway-are-in-la-but-chicago-makes-the-405-look-speedy-6308826>

DATA SOURCES

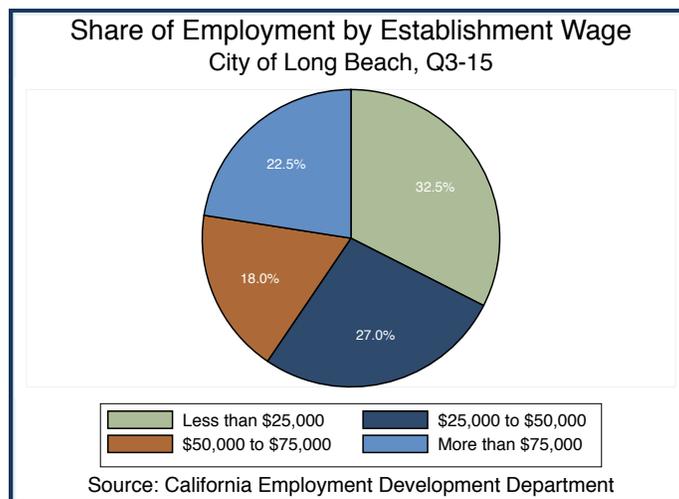
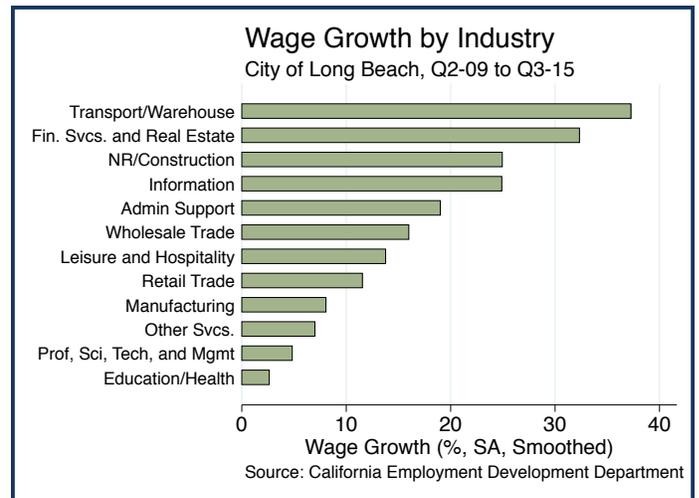
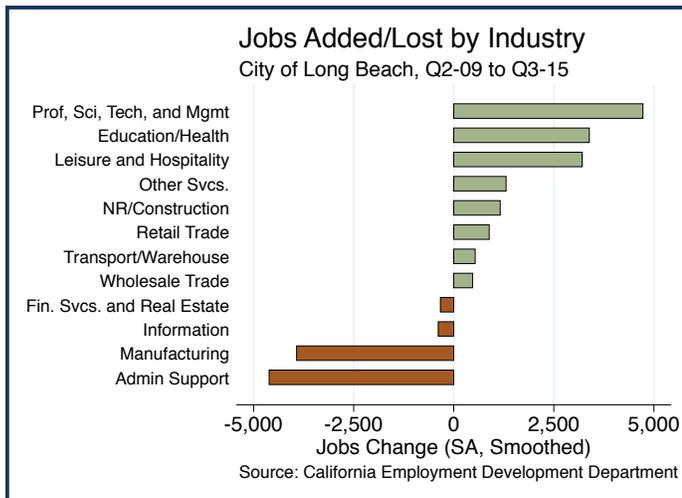
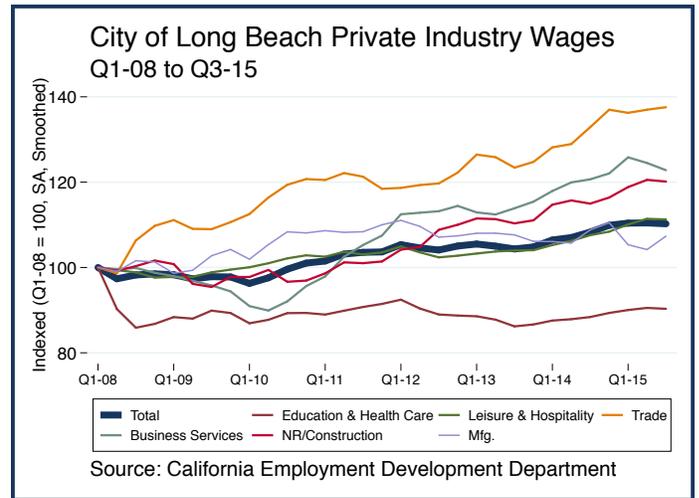
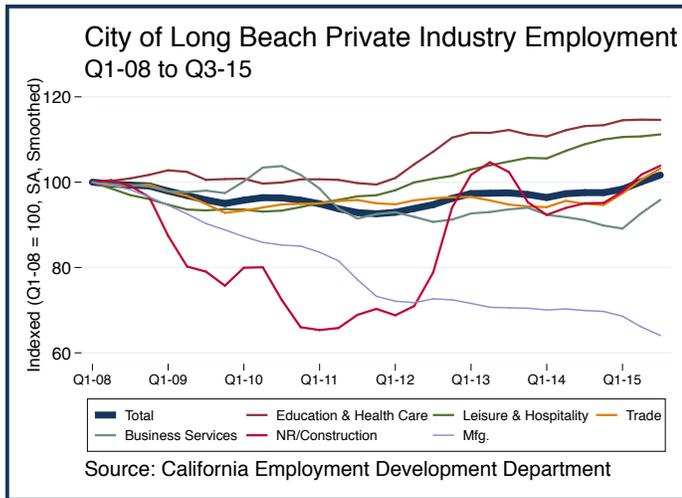
Employment Data

Drawn from the Quarterly Census of Employment and Wages (QCEW, formerly the ES-202), this database contains the number of employers and employees, and the payroll for every establishment in the City of Long Beach for every month of the year. The data, provided by the California Employment Development Department's Labor Market Information Division for every establishment in the City enrolled in the State's Unemployment Insurance program. They are then aggregated into a non-confidential format as presented throughout this report. County employment changes are drawn from the publically available employment by industry report for comparison.

Demographic Data

The American Community Survey (ACS) from the U.S. Census Bureau provides demographic, housing, and labor force statistics by place of residency. The ACS is a sample survey and is issued as an annual replacement to the long-form version of the decennial Census, providing more current figures than those otherwise available.

EMPLOYMENT APPENDIX



Private Employment by Establishment Size, Q3-15

Category	Employment		Share of Total Employment (%)
	Level (000s)	YoY Growth (%)	
Less than 15 Employees	31.4	+12.0	23.1
15 to 24 Employees	11.7	+17.9	8.6
25 to 49 Employees	17.1	+10.7	12.6
50 to 150 Employees	28.1	+2.8	20.7
More than 150 Employees	47.3	-3.7	34.9

Source: California Employment Development Department.

Establishment* Births/Deaths: 2008 to 2015 YTD

Year	Estab. Births	Estab. Deaths	Net Total
2008	441	194	+247
2009	448	923	-475
2010	379	497	-118
2011	398	218	+180
2012	428	479	-51
2013	387	221	+166
2014	372	281	+91
2015	292	195	+97

Source: California Employment Development Department.

*Establishments with 3 or more employees

ABOUT BEACON ECONOMICS

Beacon Economics, LLC is a leading provider of economic research, forecasting, industry analysis, and data services. By delivering independent, rigorous analysis we give our clients the knowledge they need to make the right strategic decisions about investment, growth, revenue, and policy. Learn more at www.BeaconEcon.com.

SERVICES

- Economic, revenue and occupational forecasting
- Economic impact analysis
- Regional economic analysis
- Economic policy analysis
- Real estate market analysis
- Industry and market analysis
- EB-5 Economic analysis
- Public Speaking
- Expert Testimony

CONTACTS

- **Sherif Hanna**
Managing Partner
(424) 646-4656
Sherif@BeaconEcon.com
- **Victoria Pike Bond**
Director of Communications
(415) 457-6030
Victoria@BeaconEcon.com
- **Rick Smith**
Director of Business Development (858) 997-1834
Rick@BeaconEcon.com