



RON GALPERIN
LA CONTROLLER

CITY OF LOS ANGELES OFFICE OF THE CONTROLLER

Economic Development and Land Use Report

August 2020

Prepared By:





EXECUTIVE SUMMARY

This study assesses changes in the City of Los Angeles' economy over the past 10 years and considers how these changes shape the City's economic outlook. Measures to contain the novel coronavirus have led to a significant downturn in the City, but the broader long-term trends underlying the City's economy should remain in place. Industries that had strong growth leading into the current slowdown should continue to grow once the crisis subsides.

This report identifies growing and shrinking industries in the City (Part 1) and discusses how the changing economy is reflected in some neighborhoods (Part 2). Further, the report analyzes the intersection between land use and economic development with recommendations for how the City can best nurture and foster the growth of emerging industries. The report's key findings:

The City's Economy

The City of Los Angeles is home to some of the world's most revered industries, from motion pictures to advanced aerospace technologies. yet below the surface lies a diverse and dynamic economy.

- Prior to the outbreak of the novel coronavirus, the Los Angeles economy had recovered from the Great Recession. Private sector employment grew over 17%, and private sector wages increased over 20% by 2018. As of 2018 (the last year for which complete data are available), Los Angeles had 46,600 private businesses employing 1.46 million workers with an average annual salary of about \$68,000.
- In 2018, the Health Care Industry accounted for the largest share of jobs in Los Angeles, roughly 290,000, or 20% of the City's private sector total. Health Care was followed by Leisure and Hospitality, with 14% of the workforce, and the Retail, and Professional, Scientific, Technical, and Management Services sectors, which each accounted for about 10% of the City's private workforce. Together the four sectors accounted for roughly 54% of private employment in the City.

Emerging and Declining Sectors

At any given time, job opportunities emerge in some sectors of the economy while disappearing from other sectors. As a dynamic economy that has experienced long-term growth, Los Angeles has adapted to industrial change, transitioning from a focus on the manufacture of goods to the provision of services.

- Over the past 10 years, considerable employment growth has occurred in the Health Care, Leisure and Hospitality, and Transportation and Warehousing sectors, where employment has grown 42%, 37%, and 27% respectively.
- The City's Manufacturing sector has contracted considerably. In 2008, just before the city's employment trough during the Great Recession, manufacturing employers accounted for about 127,000 jobs. By 2018, the sector had shed about 38,000 jobs, a decline of 31%.

Land Use and Centers of Activity

As an industry grows or declines, job losses and job gains occur in different ways across different parts of the City. Downtown is job-rich, for example, but Hancock Park has relatively few jobs. The primary reason is the zoning code, which mandates what activities can and cannot occur on City land.

- The City has 23 employment centers. Collectively they account for about 61% of private sector jobs and 54% of business establishments.
- The largest concentration of employment is in Downtown, with close to a quarter of a million jobs in 2018, or 17% of private sector employment. Other major concentrations are around Los Angeles International Airport, where about 100,000 people are employed, and West L.A., which covers the Century City area, with close to 100,000 workers.
- Manufacturing areas, many of which are in the San Fernando Valley, have experienced little growth. This is because job losses in Manufacturing have not been offset by other growth in these communities.

Policy Context and Recommendations

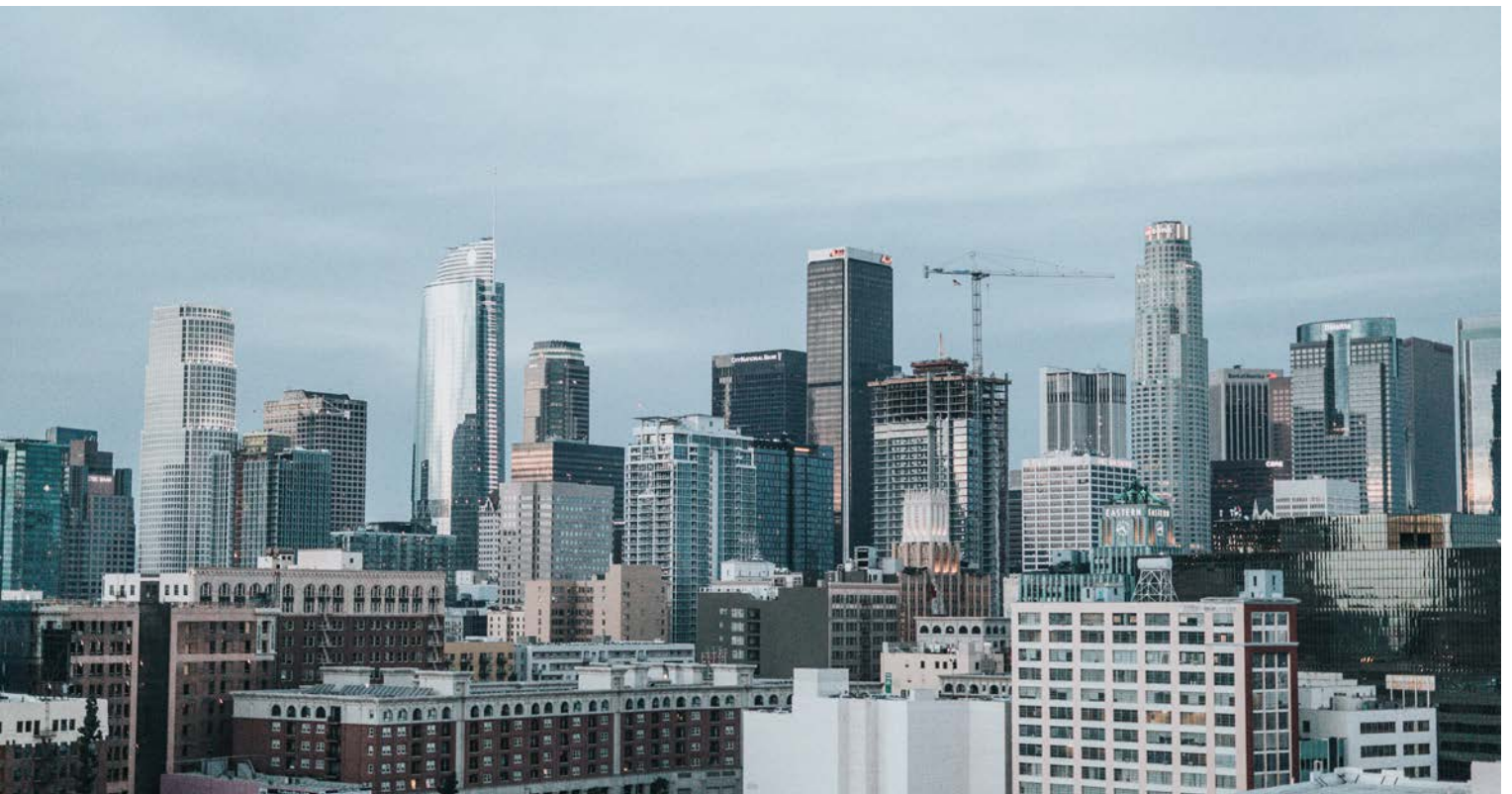
In August 2019, the City Controller proposed creating the Los Angeles Municipal Development Corp. (LAMDC) to manage the City's real estate portfolio and expand the use of economic development financing tools to promote growth. Based on the proposal, the LAMDC could have several responsibilities, including managing City-owned land, developing City financing incentives and services, and negotiating real estate agreements. With the flexibility and scope of these responsibilities, the LAMDC would be well-positioned to lead or support land use and industry cluster development. This report addresses the potential role the LAMDC could take in supporting the City's Comprehensive Economic Development Strategy (CEDS) and provides broader economic development recommendations.

- The LAMDC would supplement the Department of City Planning (DCP) and Economic and Workforce Development Department's (EWDD) current work and lead programs addressing land use and industry cluster development:
 - **Asset Management:** As the primary manager of the City's real estate portfolio, the LAMDC would oversee CEDS Action Item 2.6 (Enhance Implementation of Asset-Management Functions), which is currently assigned to four entities.
 - **Real Estate Development Support:** The LAMDC board would comprise real estate and finance experts who can help the City both identify real estate opportunities based on regional or industry cluster needs and assist in the structuring of financial tools and incentives to begin projects.
 - **Business and Industry Development:** With the EWDD focused on fostering growth at the business level, the LAMDC can promote growth at the industry level, particularly with respect to CEDS action items that address industry-focused initiatives and support for core industries.
- The LAMDC could also support efforts in three areas:
 - **Strategic Planning and Policy:** Working with the Mayor's Office, City Council, and DCP, the LAMDC could help drive citywide policy. Because the LAMDC is not actively involved in zoning, it cannot oversee Action Items such as 2.D (Revisit and Update Industrial Land Preservation Policies), which requires the DCP to develop "incentive zoning systems in largely industrial areas that support the creation of higher-intensity job uses." Still, it could advise the DCP on opportunities based on available City land and help design incentives appropriate for target industries.
 - **Small Business:** Although the EWDD is better suited to address small-business needs, the LADMC could support the department when spatial considerations are involved. One example could be Action 2.C (Create a Commercial Affordability Toolkit), in which the EWDD explores "an affordable commercial space program for small and underrepresented businesses and nonprofits to incentivize their retention in their neighborhoods."
 - **Workforce Development:** Given its higher-level industry focus, the LAMDC could identify workforce skills needs across several sectors and work with the EWDD to develop both broad-based and targeted job training. initiatives

As the City contemplates what form the LAMDC will ultimately take, it should consider other development opportunities not directly identified by the CEDS. Agencies such as the EWDD and the Los Angeles Development Fund could, in the short to medium term, assume the role and responsibilities that may later be transferred to the LAMDC across a range of issues, potentially including:

- **Declining Sectors:** The CEDS notes that Los Angeles has a diversified manufacturing sector with 90,000 workers but which is shedding jobs. Although efforts to prop up maturing legacy industries rarely work over the long term, the City can identify and invest in manufacturing subsectors that are growing (such as advanced manufacturing) while filtering existing workers toward more lucrative occupations that leverage their skills.
- **Emerging Sectors:** Numerous fledgling sectors would benefit from a lighter regulatory touch as they grow. The emerging cannabis industry, for example, operates in a restrictive environment that limits licenses and taxes unlicensed businesses at a rate higher than any other jurisdiction in the state.
- **Program Assessment:** The Office of the Controller reports on City finances and regularly audits program implementation. As agencies and departments continue working toward the CEDS' goals, the Office is positioned to help with program financing, funding, and assessment.

Los Angeles is one of the country's great economic development success stories. But the life cycle of industries means that some of the City's one-time industrial strengths have become less important to its economy. But as some windows close, others open. As such, there is an opportunity to leverage the City's development infrastructure and assets around a common vision for the economy of tomorrow. The LAMDC would not only complement work currently underway but also provide Los Angeles with a broader capacity to encourage growth. By building on best practices and realizing the LAMDC's full potential, the City would be better able to foster expansion.



INTRODUCTION

National, state, and local economies are continually evolving as some industries grow and others decline. Until the end of the 18th century, the agricultural economy accounted for most national employment and output. Throughout the 19th century, the Industrial Revolution introduced widespread technological improvements that displaced many agricultural workers but created millions of jobs in the textile, heavy goods, and machinery sectors. In the 20th century, the importance of the manufacturing sector peaked and was followed by the expansion of the service economy, which ranges from local services like retail and restaurants to advanced global services like information technology and biotechnology. The City of Los Angeles is at another inflection point. As dominant sectors such as manufacturing contract, others like health care grow steadily, and new ones like retail cannabis emerge.

The City's Comprehensive Economic Development Strategy acknowledges such changes and defines long-term goals toward equitable growth. The strategy includes a five-year implementation plan with specific targets and actions. But there are land-based opportunities the City has yet to pursue that can further strengthen its ability to shape development. Given that land is the one factor of production over which local jurisdictions exercise the most control, the City must continually assess how land is allocated and amend these allocations to adapt to the needs of industry.¹ The land needed for mass industrial activities at the height of Los Angeles' manufacturing era, for instance, is no longer as important as sectors such as Health Care and Professional Services play larger roles in the economy. Anticipating the needs of growing and emerging industries in a sprawling metropolis like Los Angeles is directly tied to how well public sector stakeholders understand the relationship between land use and economic development and how effectively they leverage such assets.

This study assesses changes in the City's economy over the past 10 years and what such changes mean for the future. It identifies growing and shrinking industries in the City (Part 1), considers how these industries are geographically dispersed and/or clustered (Part 2), and analyzes the intersection of land use and economic development with recommendations for how the City can best foster growth (Part 3).

The analysis and recommendations in this study predate the novel coronavirus pandemic and resulting recession. But the broader trends and long-term implications hold true. Industries deemed to have had strong growth in prior years may well be adversely affected over the short to medium term, but sectors such as Transportation and Warehousing, Health Care, and Professional Services will continue to grow again in the City (albeit at a modified trajectory), just as sectors such as Manufacturing will continue to contract. Indeed, the same insights that inform longer-term economic development strategies must be incorporated into recovery efforts. The effects of the pandemic notwithstanding, the City will emerge more resilient and more determined to provide Angelenos with a brighter economic future. This study provides some insight into how the City may do so.

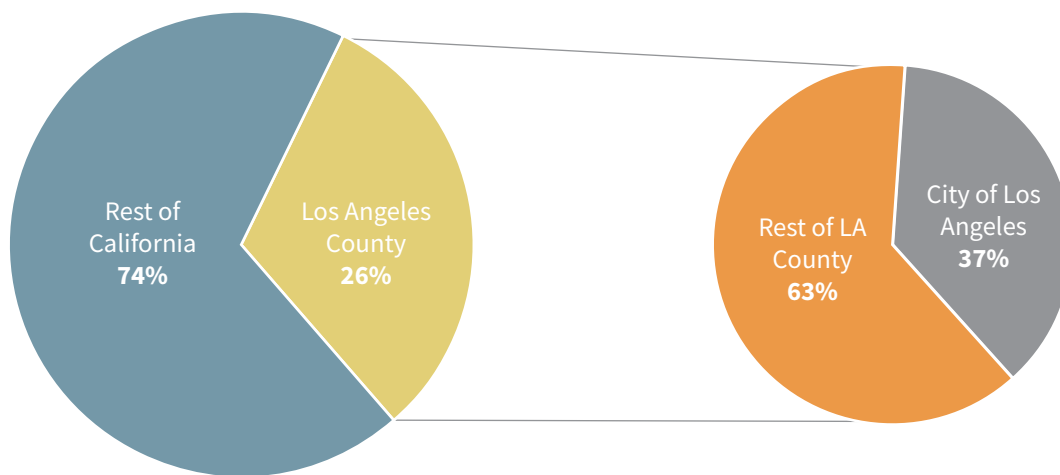
¹ In the core models of economics, economic activity, or production, comprises land, upon which production occurs; labor, which produces goods and services; and capital, which is the machinery, tools, and buildings used in production. Of these factors of production, land is the only one that cities control, and as such, land regulation is one of the primary instruments cities can use to shape development.



PART 1: INDUSTRY ANALYSIS

With a population of roughly 4 million, the City of Los Angeles is the largest in California and the second-largest (behind New York) in the nation. The City in 2018 was also home to 1.4 million private sector jobs.² By land area, it ranks eighth among cities in the contiguous U.S. states and 12th overall, measuring 503 square miles. About 14% of its land area is devoted to commercial and industrial activity, and roughly 64% of industrial land is dedicated to light/heavy industrial and manufacturing.³ The City's private sector jobs account for 37% of total private employment in Los Angeles County, which itself accounts for about 26% of all private employment in the State. Los Angeles, therefore, accounts for nearly 10% of all private sector jobs in the State's economy.

FIGURE 1: SHARE OF PRIVATE EMPLOYMENT IN CALIFORNIA, LOS ANGELES COUNTY, AND LOS ANGELES



Sources: California Employment Development Department, Bureau of Labor Statistics. Analysis by Beacon Economics

² 2018 is the most recent year for which complete annual data are available.

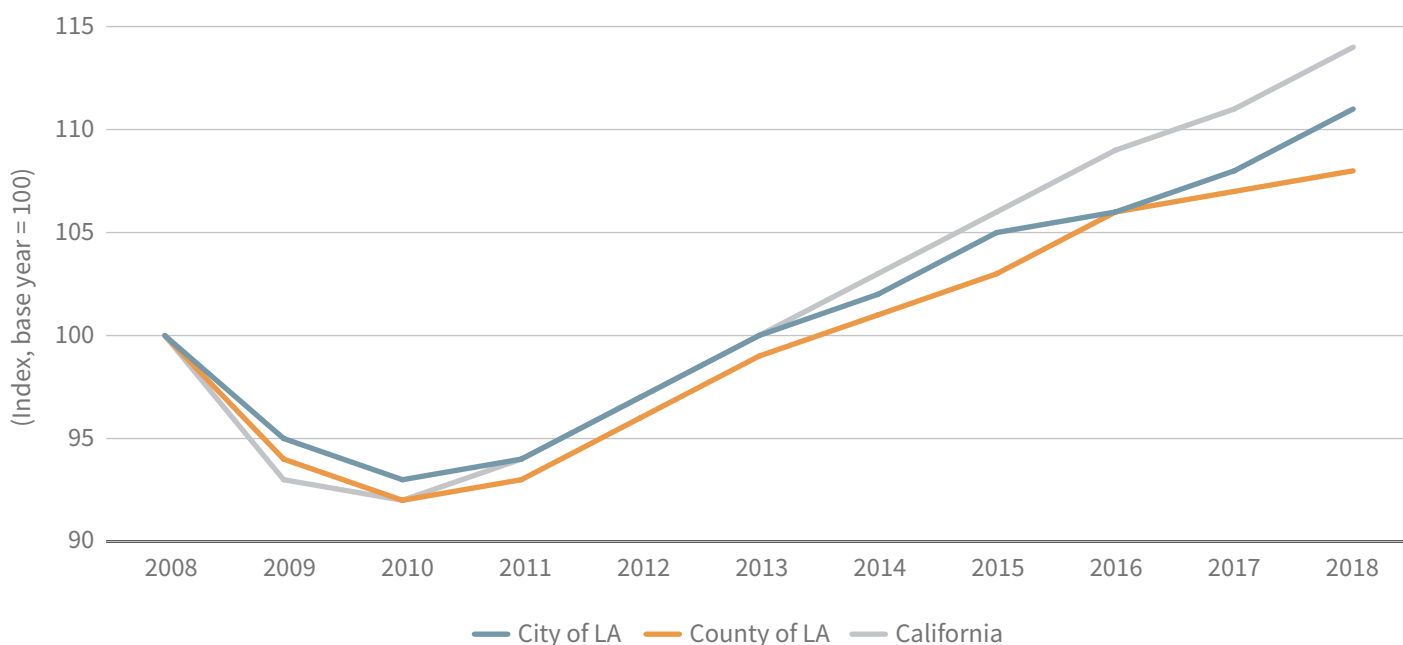
³ Unless otherwise specified, all City-level employment and wage data are drawn from the California EDD. County and State data are drawn from the Bureau of Labor Statistics Quarterly Census of Employment and Wages.

BROAD TRENDS

Employment

Before the coronavirus outbreak, the Los Angeles economy had recovered well from the depths of the Great Recession in 2010. Private sector employment grew over 17% and private sector wages over 25%. Although employment has been growing faster in the State than in the City, a densely populated city wouldn't be expected to have the same kind of development opportunities and room for growth as the relatively high-growth, less-developed parts of the State.

FIGURE 2: INDEXED EMPLOYMENT GROWTH FOR LOS ANGELES, LOS ANGELES COUNTY, AND CALIFORNIA (2008-18)



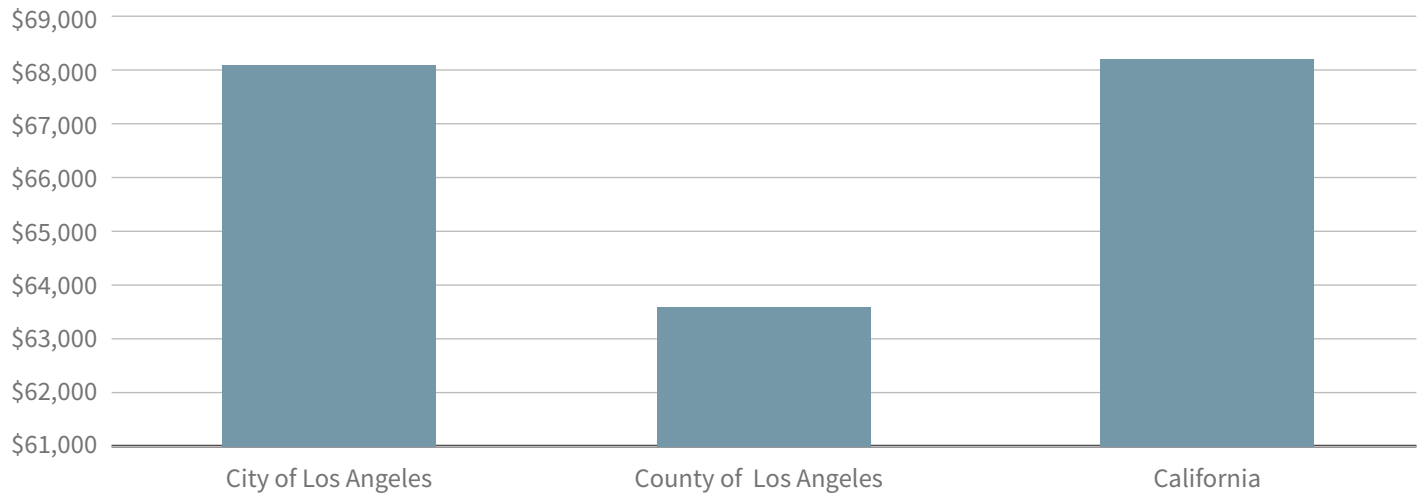
Source: California EDD, Bureau of Labor Statistics; Analysis by Beacon Economics



Wages

Jobs in the City of Los Angeles are relatively well-paying. In 2018, private employers paid an average annual salary of \$68,093. This was in line with the statewide average of \$68,203 and about 10% higher than in Los Angeles County.

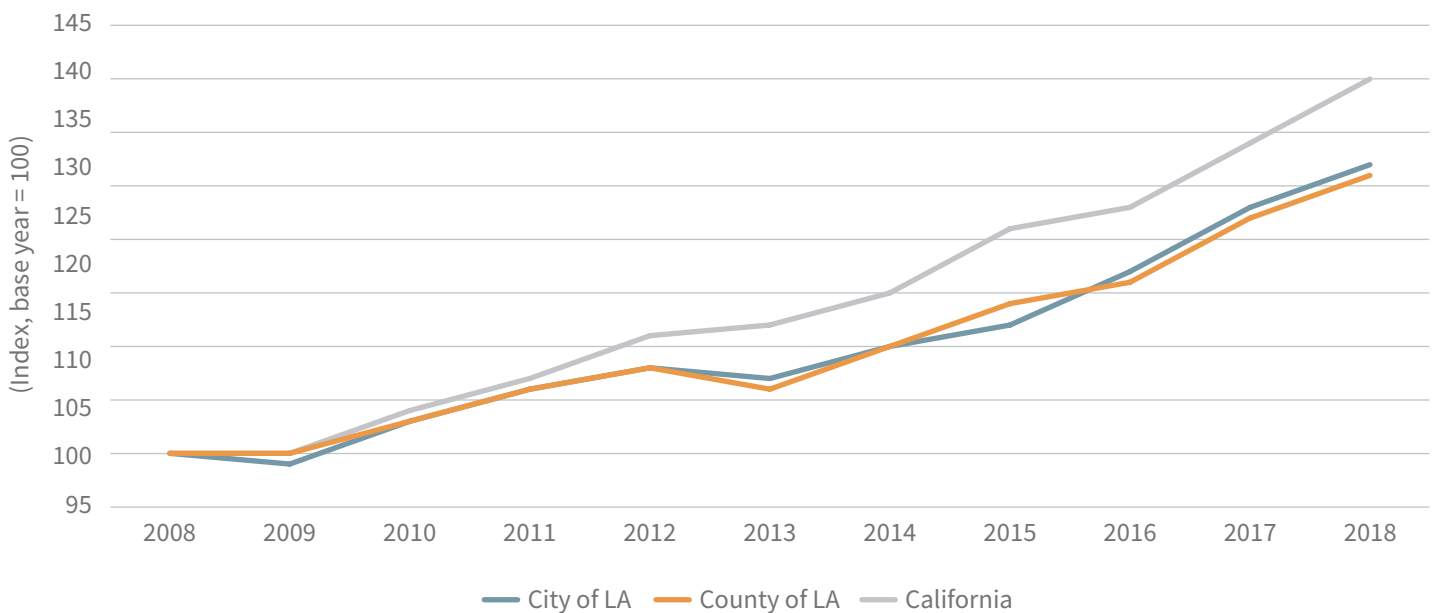
FIGURE 3: AVERAGE ANNUAL WAGES (2018)



Source: California EDD, Bureau of Labor Statistics; Analysis by Beacon Economics

Wages in the City grew about 27% from the 2008 financial crisis to 2018. This is slightly higher than in the County (26%), but less than in the rest of the State. The State's wage growth has been skewed by the tech boom in the Bay Area, where average wages exceed \$90,000 per year.

FIGURE 4: RELATIVE WAGE GROWTH IN LOS ANGELES, LOS ANGELES COUNTY, AND CALIFORNIA (2008-2018)

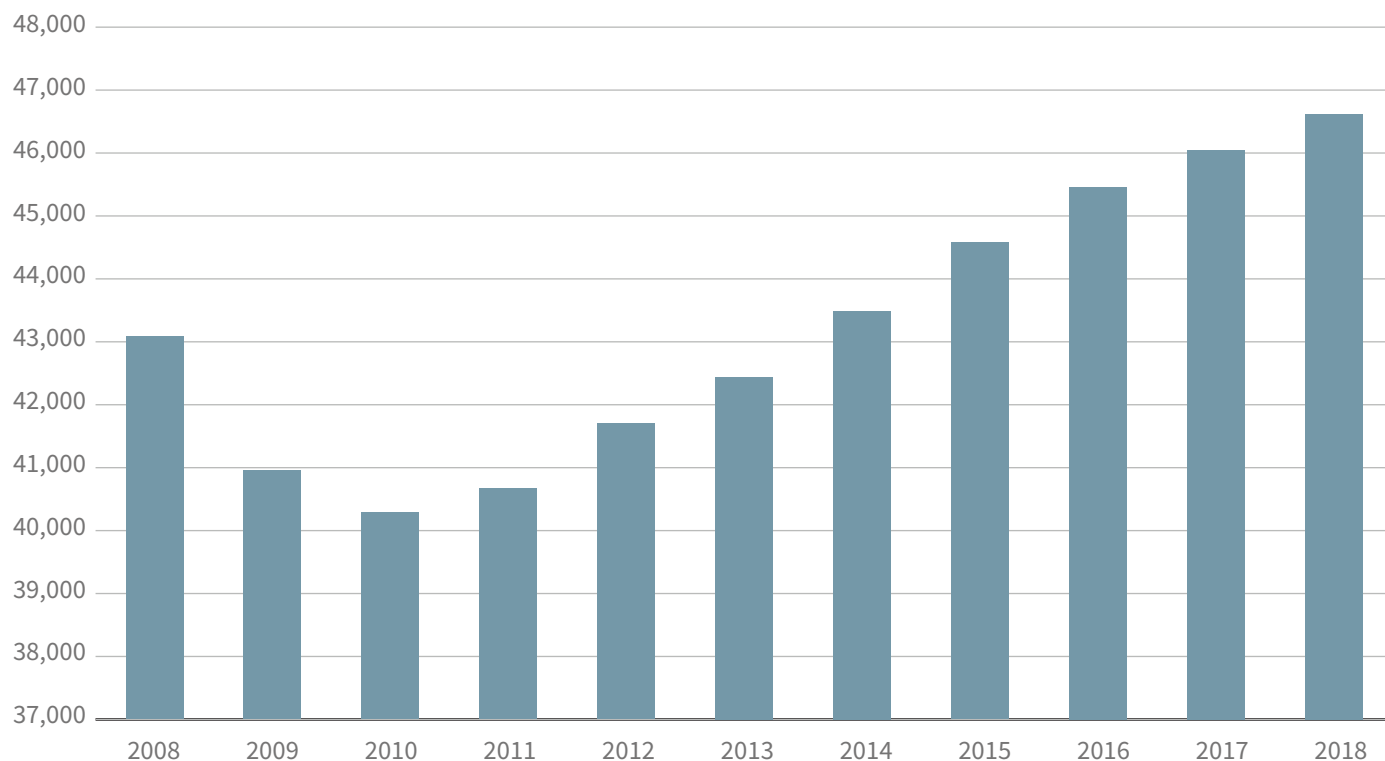


Source: California EDD, Bureau of Labor Statistics; Analysis by Beacon Economics

Establishments

Business formation is the lifeblood of any economy because new establishments are the primary source of new jobs. Establishment formation grew steadily in Los Angeles from 2010 to 2018. There were over 6,000 more business establishments in the City in 2018 than in 2010.

FIGURE 5: NUMBER OF BUSINESS ESTABLISHMENTS IN LOS ANGELES (2008-18)



Source: California EDD; Analysis by Beacon Economics

CORE INDUSTRIES

Relative to the State, the City's biggest strength is in scheduled air transportation.⁴ This is due to Los Angeles International Airport (LAX), which accounts for a higher concentration of air transportation jobs in Los Angeles than in the overall State economy. Other than sectors related to air transportation, the City's most notable relative strengths are in certain Manufacturing subsectors (mostly related to textiles) and the Entertainment Industry.

FIGURE 6: MOST SPECIALIZED INDUSTRIES IN LOS ANGELES (2018)

Industry	Employment	Average Annual Wage (\$)	Location Quotient
Scheduled air transportation	24,668	99,002	4.99
Sound recording industries	1,747	88,028	4.63
Cut and sew apparel manufacturing	14,886	45,865	4.30
Nonscheduled air transportation	1,946	111,387	4.28
Independent artists, writers, and performers	6,102	386,286	4.27
Radio and television broadcasting	11,929	142,757	4.03
Support activities for air transportation	10,943	37,656	3.64
Apparel and piece goods merchant wholesalers	14,137	52,863	3.62
Junior colleges	744	53,868	3.08
Textile and fabric finishing mills	1,364	50,004	3.03
Promoters of performing arts and sports	5,166	63,200	3.02
Agents and managers for public figures	3,940	169,980	2.92
Other personal services	13,054	30,709	2.67
Footwear manufacturing	126	30,733	2.66
Performing arts companies	3,845	65,930	2.63
Soap, cleaning compound, and toiletry mfg.	2,952	67,099	2.57
Legal services	33,985	129,147	2.50
Seafood product preparation and packaging	246	54,318	2.35
Colleges and universities	27,399	88,057	2.29
Museums, historical sites, zoos, and parks	4,103	49,593	2.16
Total Employment for Top 20 Subsectors	183,282		

Source: California EDD; Analysis by Beacon Economics

⁴ One way of measuring this difference is to compare location quotients. A location quotient measures the relative strengths of economies — or degrees of specialization — in two places. To calculate the City's location quotient for each industry, work out its share of total City employment. Second, calculate each industry's share of the State's total employment. Each industry's share of total City employment is then divided by the State's share for each industry. If a location quotient is 1.00, an industry accounts for the same share of workers in Los Angeles as in the State. If the location quotient is greater than 1, an industry accounts for a higher share of total jobs in Los Angeles than in the State, and if the number is less than 1, the opposite is true.

Los Angeles may be most associated with Hollywood’s glitz and glamor, but below the surface lies a diverse economy. This diversity is an asset that shields the City’s economy from a downturn in any one sector. To illustrate this, consider that since the period leading to the Great Recession, the industries that make up the City’s economy have fared differently. Significant employment growth has occurred in Health Care, Leisure and Hospitality, and Transportation and Warehousing, where employment has grown 42%, 37%, and 27%, respectively.

In 2018, the Health Care Industry accounted for the largest share of jobs in Los Angeles, employing about 290,000 workers (or 20% of the City’s total private workforce), followed by the Leisure and Hospitality (14%), Retail (10%), and Professional Scientific, Technical, and Management Services (10%). Together the four sectors account for roughly 54% of private employment in the City.

By contrast, the City’s Manufacturing sector has contracted considerably. In 2008, Manufacturing accounted for about 127,000 jobs, or 7.6% of the City’s employment. By 2018, the sector had shed about 38,000 jobs, a decline of 31%. Similarly, the number of Manufacturing establishments in the City fell from 3,700 to 2,700 over the period, which is only the latest decline in a much longer-term trend. This is especially striking because it occurred amid a growing economy overall.

FIGURE 7: EMPLOYMENT BY MAJOR INDUSTRIES IN LOS ANGELES (2018)

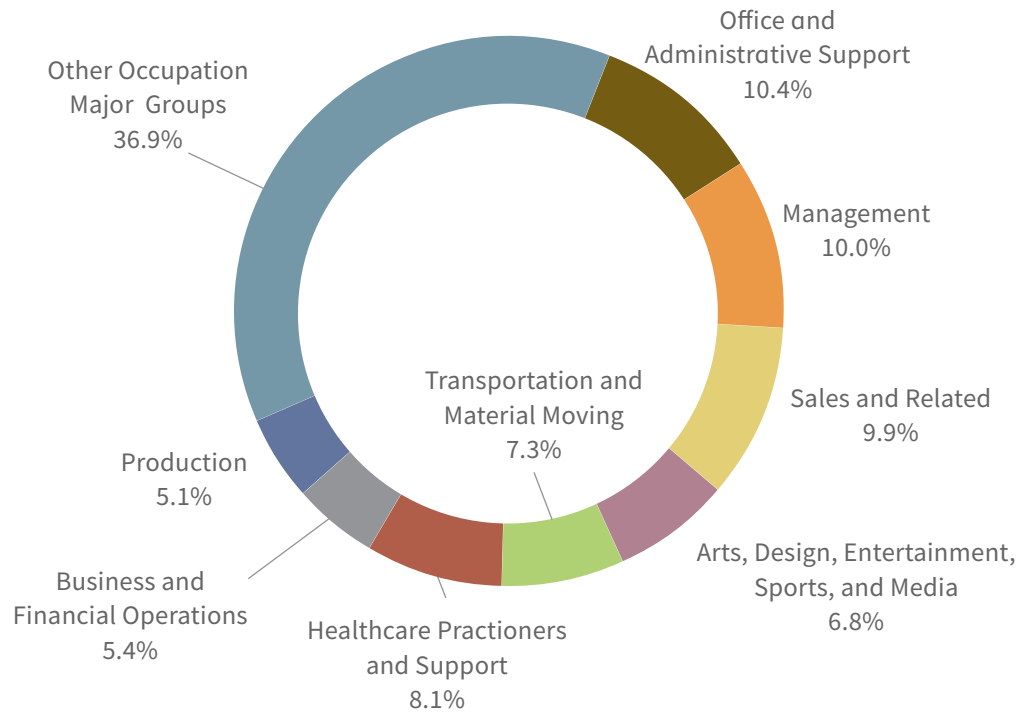
Industry	Employment	Share of Total	Average Annual Wage (\$)
Administrative Support	94,714	6%	47,838
Education	52,114	4%	72,938
Financial Services and Real Estate	101,367	7%	123,828
Health Care	289,814	20%	46,221
Information	66,067	5%	156,295
Leisure and Hospitality	212,152	14%	47,027
Manufacturing	85,137	6%	62,748
Non-Residential Construction	51,022	3%	62,526
Other Services	69,376	5%	41,114
Professional, Scientific, Technical and Management Services	152,043	10%	118,299
Retail Trade	143,215	10%	38,295
Transportation/Warehouse/Utilities	79,578	5%	73,647
Wholesale Trade	67,189	5%	65,081
Overall	1,463,787		68,093

Source: California EDD; Analysis by Beacon Economics

Each of these industries is made up of workers who perform a variety of functions and tasks. Not every employee of a tech company writes code, and in fact many tech workers have very little to do with core tech activities but focus on human resources and business services, such as sales and marketing.

Occupation data provide a complementary snapshot of the City’s industry base. Jobs are divided among various occupations. The five largest major occupational groups make up over 40% of the City’s workforce, and 10 occupational groups make up almost three-fourths of the City’s workforce. Office and Administrative Support (10.4%) has the largest share of occupations, followed by Sales and Related Occupations (10.1%) and Management positions (9.4%).

FIGURE 8: OCCUPATIONAL COMPOSITION OF EMPLOYMENT IN LOS ANGELES (2018)



Source: American Community Survey Public Use Microdata Samples; Analysis by Beacon Economics

In 2018 the City had 46,626 business establishments. Leisure and Hospitality had the highest share of establishments, (16%), followed by Retail Trade (13%), Health Care (12%), and Professional Scientific, Technical, and Management Services (12%). The Transportation and Warehousing sector accounted for some of the largest firms with an average of 76 employees per establishment, followed by Education (68) and Health Care (49). These numbers suggest that industries use land differently. Transportation and Warehousing is concentrated in a relatively small number of large establishments, suggesting that it is a land-intensive industry on a per-establishment basis. Leisure and Hospitality employment, by contrast, is distributed across a large number of smaller establishments that are less land-intensive.

FIGURE 9: ESTABLISHMENTS BY MAJOR INDUSTRIES IN LOS ANGELES (2018)

Industry	Employment	Share of Total	Average Establishment Size
Administrative Support	2,263	5%	42
Education	765	2%	68
Financial Services and Real Estate	4,174	9%	24
Health Care	5,787	12%	50
Information	1,456	3%	45
Leisure and Hospitality	7,641	16%	28
Manufacturing	2,617	6%	33
Non-Residential Construction	2,551	5%	20
Other Services	3,319	7%	21
Professional, Scientific, Technical and Management Services	5,472	12%	28
Retail Trade	5,994	13%	24
Transportation/Warehouse/Utilities	1,052	2%	76
Wholesale Trade	3,537	8%	19
Overall	46,626		31

Source: California EDD; Analysis by Beacon Economics

INDUSTRY TRENDS

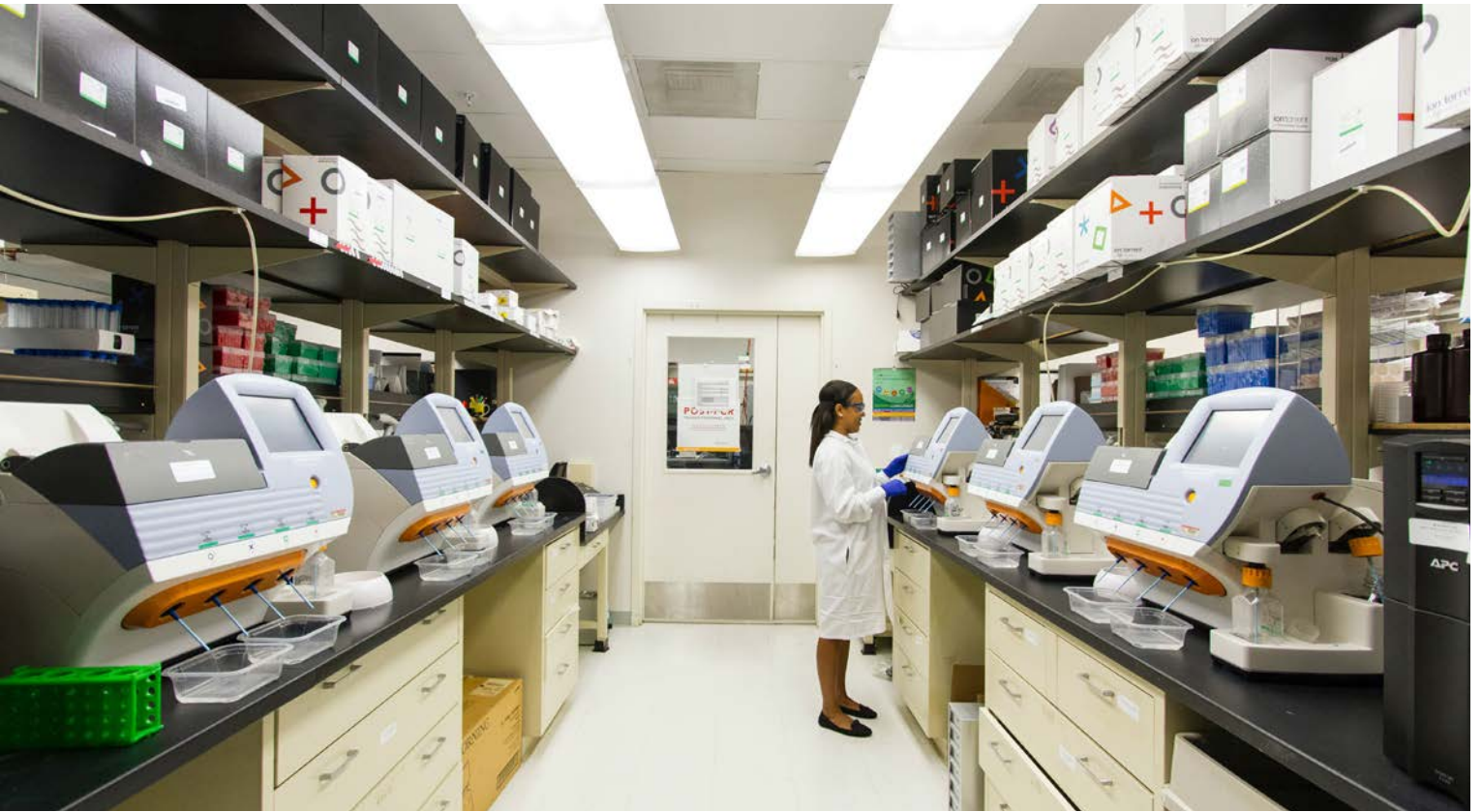
From 2008 to 2018, Health Care was the fastest-growing sector in the City, adding roughly 94,500 jobs (a growth rate of nearly 50%). This increase can be attributed to secular trends, such as an aging population, the increasing number of residents who have health insurance because of the Affordable Care Act, and the improving economy at the time.

The Leisure and Hospitality and Transportation and Warehousing sectors grew by 38% (61,000 workers) and 34% (21,500 workers), respectively. Growth in these sectors can also be attributed to the strong national economy. As an economy grows, consumers feel more confident and are likely to spend more at restaurants. This confidence also translates into more travel, which boosts demand for the City's hotels and its attractions. Likewise, economic growth also increases demand for goods, which increases trade flows and demand for local transportation and warehousing services. Conversely, the Manufacturing sector lost 34% of its jobs (close to 42,000), and the Wholesale Trade and Financial Services sectors lost 8,800 and 4,600 jobs, respectively.

FIGURE 10: ESTABLISHMENT, EMPLOYMENT AND WAGE CHANGE BY MAJOR INDUSTRY IN LOS ANGELES (2008-2018)

Industry	Establishments	Employment	Average Annual Wage (\$)
Administrative Support	67	3,579	9,463
Education	144	5,860	29,155
Financial Services and Real Estate	244	-4,638	29,892
Health Care	1,068	94,536	7,327
Information	65	359	48,844
Leisure and Hospitality	2,046	60,983	9,344
Manufacturing	-1,076	-41,645	14,435
Non-Residential Construction	96	334	8,582
Other Services	373	5,300	8,117
Professional, Scientific, Technical and Management Services	530	5,686	30,465
Retail Trade	303	4,355	7,842
Transportation/Warehouse/Utilities	31	21,520	27,598
Wholesale Trade	-348	-8,820	14,696
Total	3,541	147,408	14,613

Source: California EDD; Analysis by Beacon Economics



From 2017 to 2018, Health Care added over 12,200 jobs, and Transportation and Warehousing added over 10,500. Together they accounted for about two-thirds of the job growth in the City that year. Over that period, over 3,000 Manufacturing jobs were lost. If these trends continue, we should expect significant demand for land for Transportation and Warehousing and Health Care activities but excess supply of Manufacturing space.

FIGURE 11: ESTABLISHMENT, EMPLOYMENT AND WAGE CHANGE BY MAJOR INDUSTRY IN LOS ANGELES (2017-2018)

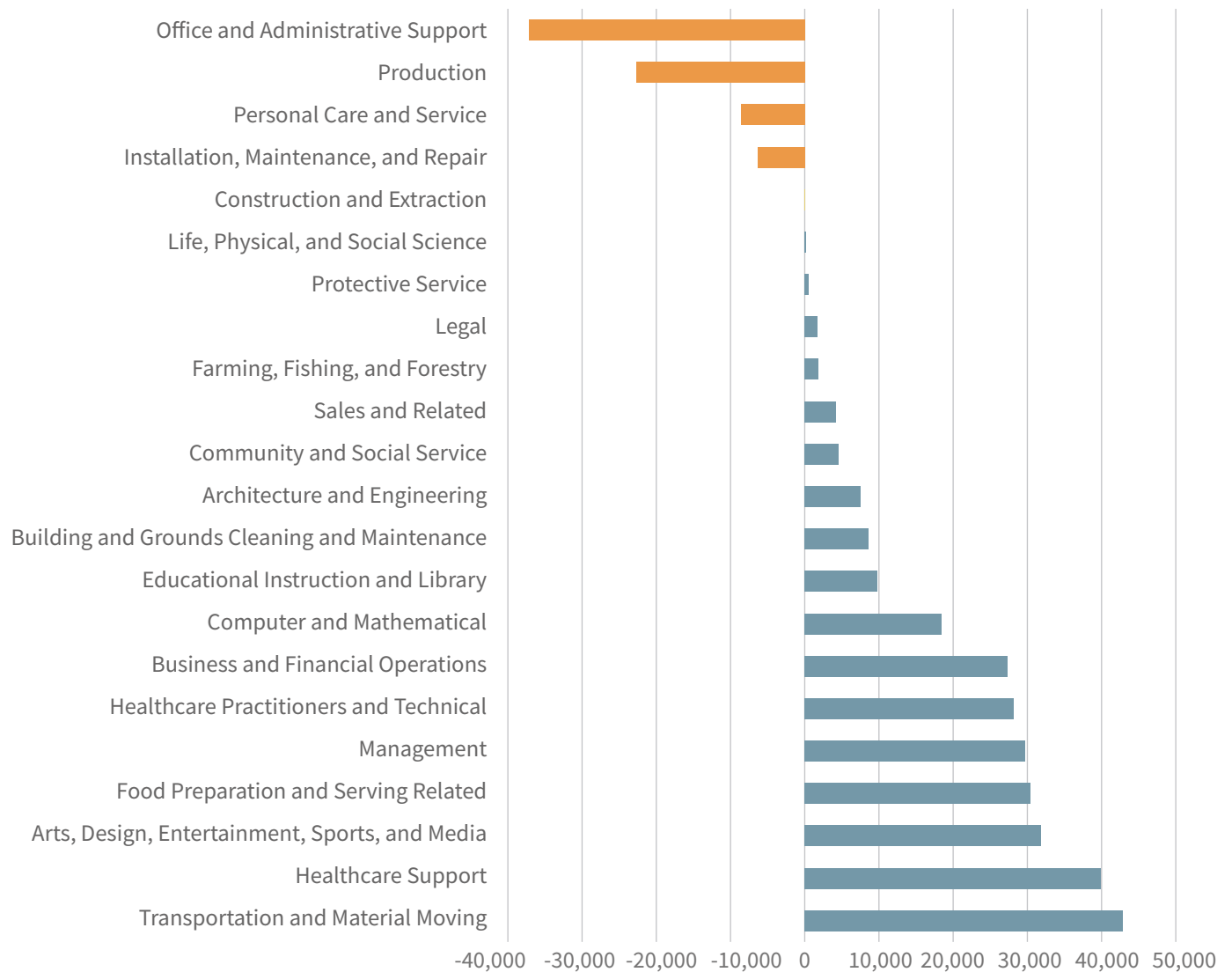
Industry	Establishments	Employment	Average Annual Wages (\$)
Administrative Support	35	486	3,527
Education	24	2,362	4,075
Financial Services and Real Estate	24	1,755	-148
Health Care	123	12,233	732
Information	28	1,873	-1,908
Leisure and Hospitality	254	5,563	2,648
Manufacturing	-91	-3,310	2,715
Non-Residential Construction	95	1,768	3,133
Other Services	4	1,587	1,588
Professional, Scientific, Technical and Management Services	107	1,974	5,521
Retail Trade	8	190	1,574
Transportation/Warehouse/Utilities	18	10,576	8,075
Wholesale Trade	-53	-400	1,562
Total	576	36,657	2,357

Source: California EDD; Analysis by Beacon Economics

As we would expect given the strength of the Health Care sector, over the last 10 years Health Care occupations — Health Care Practitioners and Technical (42% job growth) and Health Care Support (120%) — have been the fastest-growing occupations, while Logistics occupations also increased.

Jobs have declined in four occupations: Office and Administrative Support (-15%), Personal Care and Service (-11%), Production (-17%), and Installation, Maintenance, and Repair (-14%). These declines reflect the fall of the Manufacturing sector and the automation and outsourcing of back-office functions.

FIGURE 12: 10-YEAR CHANGE IN OCCUPATIONAL COMPOSITION IN LOS ANGELES (2008-18)



Source: American Community Survey Public Use Microdata Samples; Analysis by Beacon Economics



A CLOSER LOOK AT CORE INDUSTRIES

Health Care

Since 2008, Health Care has added more jobs than any other sector in the City. The table on the next page reveals that within Health Care, the Individual and Family services subsector added the most jobs (41,000, a 77% increase). Hospitals added the second-highest number in the sector, about 17,000. Together these subsectors accounted for about 70% of Health Care employment growth in the City. Individual and family services are relatively pervasive throughout the City to enhance access to vulnerable populations. Hospitals, by contrast, are in fewer locations, consuming large amounts of land. We would expect employment growth trends in the industry to continue. This will place continued demand on land.

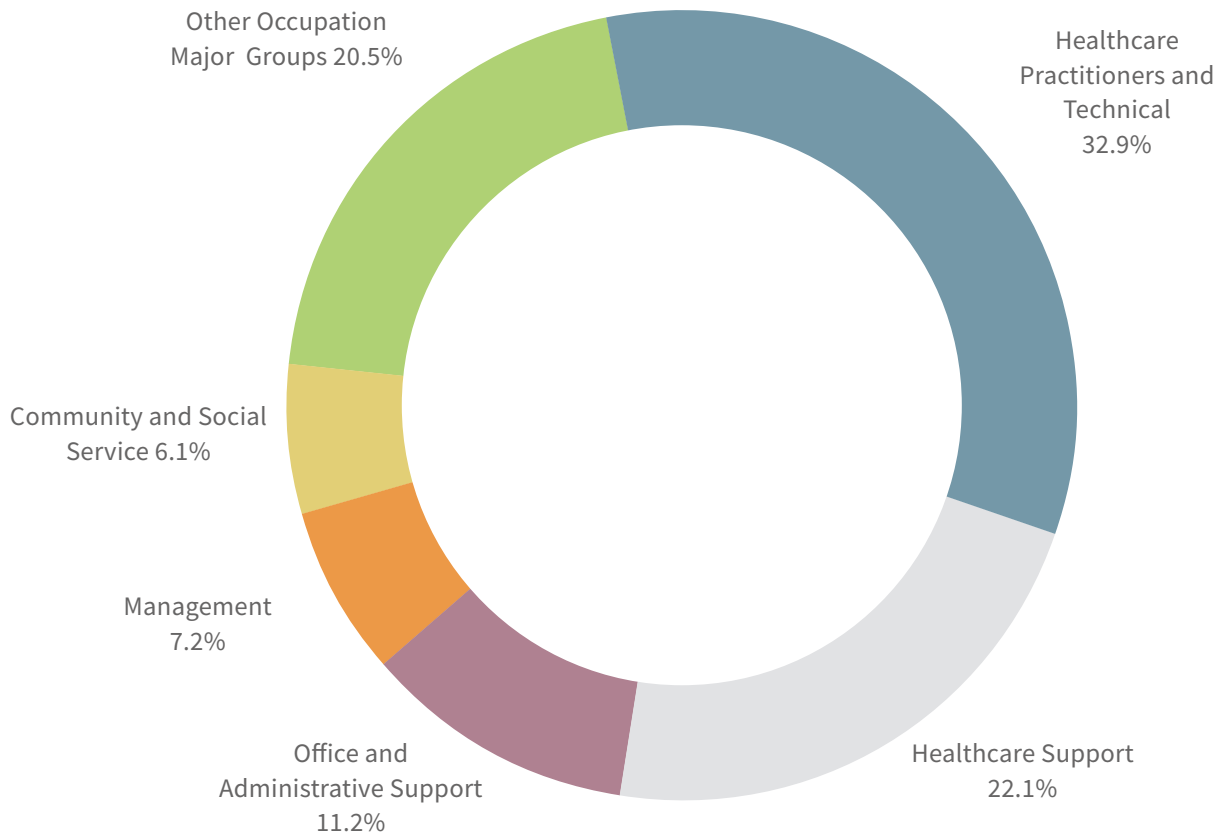
FIGURE 13: KEY CHARACTERISTICS OF THE HEALTH CARE SECTOR (2018)

Industry	Number of Establishments	Employment	Average Annual Wage (\$)	Change in Establishments 2008-2018	Change in Employment 2008-2018	Change in Wages 2008-2018
Individual and family services	645	108,112	17,497	26%	77%	12%
General medical and surgical hospitals	37	46,023	88,459	8%	57%	40%
Outpatient care centers	458	26,709	82,920	77%	47%	35%
Offices of physicians	1,251	21,188	81,664	0%	12%	15%
Nursing care facilities, skilled nursing	206	18,564	38,725	58%	21%	25%
Offices of other health practitioners	514	11,091	39,798	36%	82%	14%
Offices of dentists	1,083	10,736	45,287	17%	18%	13%
Home health care services	390	10,265	35,904	85%	28%	8%
Child day care services	411	7,196	29,986	9%	17%	26%
Continuing care, assisted living facilities	195	7,190	36,375	55%	64%	30%
Residential mental health facilities	249	7,045	34,109	34%	60%	11%
Emergency and other relief services	100	3,600	47,597	21%	49%	37%
Medical and diagnostic laboratories	99	3,582	63,801	-8%	-24%	20%
Vocational rehabilitation services	60	3,416	29,650	28%	18%	8%
Other ambulatory health care services	37	2,305	51,769	0%	62%	-4%
Other residential care facilities	39	1,528	39,014	-24%	38%	26%
Total	5,774	288,547	46,164	23%	49%	19%

Source: California EDD; Analysis by Beacon Economics

In the Health Care sector, Health Care Practitioner occupations account for one third of total jobs, followed by Health Care Support (22.1%) and Office and Administrative Support (11.2%). The growth of the Health Care sector has created demand for workers with specialized, sector-specific skills.

FIGURE 14: HEALTH CARE OCCUPATIONAL COMPOSITION (2018)



Source: American Community Survey Public Use Microdata Samples; Analysis by Beacon Economics

Leisure and Hospitality

As described above, Leisure and Hospitality had the second-highest job growth in the City from 2008 to 2018. Within Leisure and Hospitality, the largest growth was in the Restaurant subsector, where 18,593 jobs were added to full-service restaurants and 18,470 jobs to limited-services restaurants. Restaurants accounted for about 60% of the employment growth in the Leisure and Hospitality sector, divided evenly throughout its other subsectors. The growth of restaurants does not put a particular strain on the demand for land in the City because restaurants tend to be relatively small in physical dimensions and in employment levels per restaurant. Although this sector is among the hardest hit by the coronavirus outbreak, its long-term growth potential and land use needs remain largely unchanged.

FIGURE 15: KEY CHARACTERISTICS OF THE LEISURE AND HOSPITALITY SECTOR (2018)

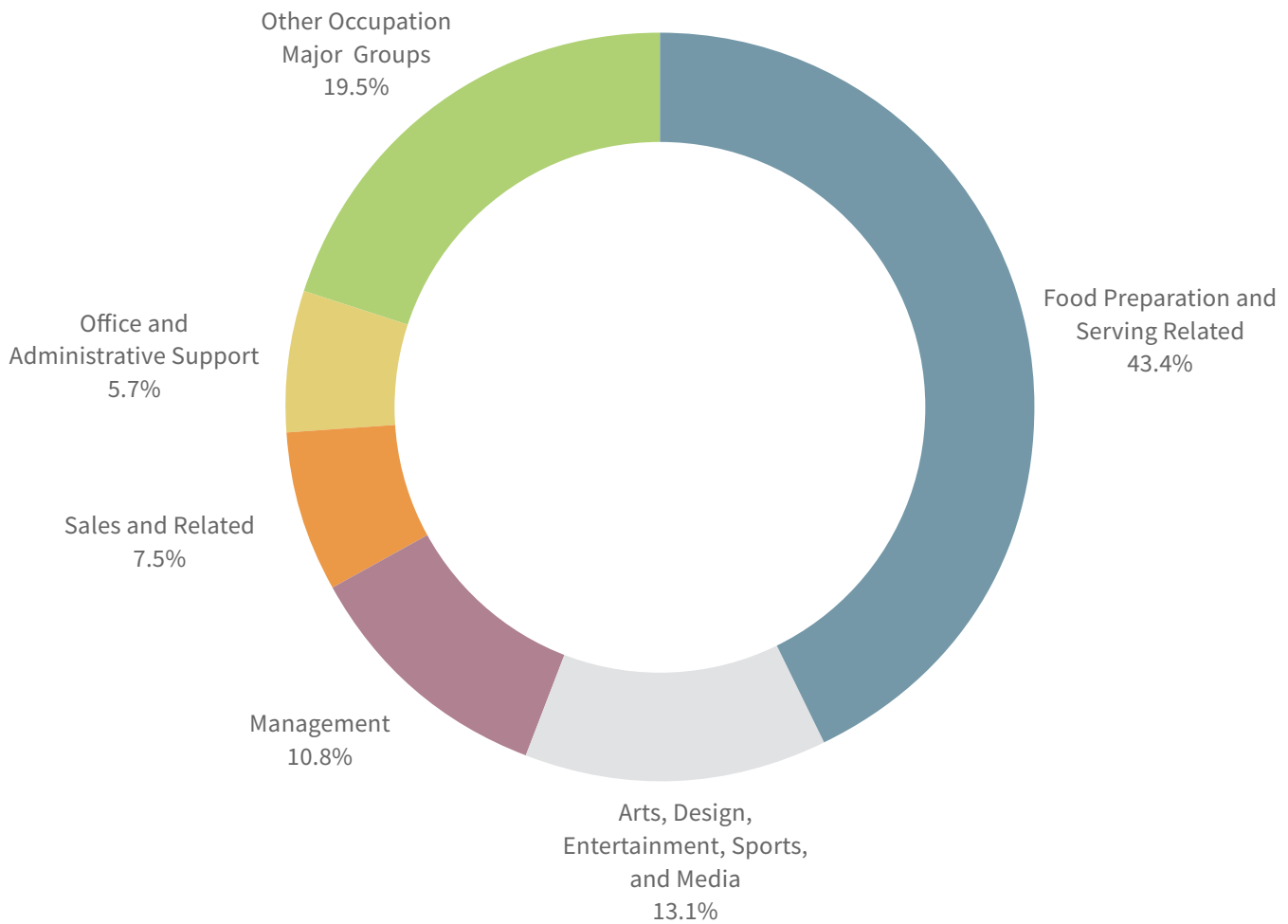
Industry	Number of Establishments	Employment	Average Annual Wage (\$)	Change in Establishments 2008-2018	Change in Employment 2008-2018	Change in Wages 2008-2018
Full-service restaurants	2,490	69,176	27,938	34%	39%	35%
Limited-service eating places	3,302	67,938	22,023	45%	42%	39%
Traveler accommodation	290	18,893	42,694	19%	21%	40%
Special food services	251	11,580	32,539	26%	38%	23%
Drinking places, alcoholic beverages	270	4,818	24,730	38%	54%	49%
RV parks and recreational camps	13	160	27,689	108%	280%	-30%
Rooming and boarding houses	14	120	39,050	-27%	-24%	60%
Total	6,629	172,684	27,452	38%	38%	35%

Source: California EDD; Analysis by Beacon Economics

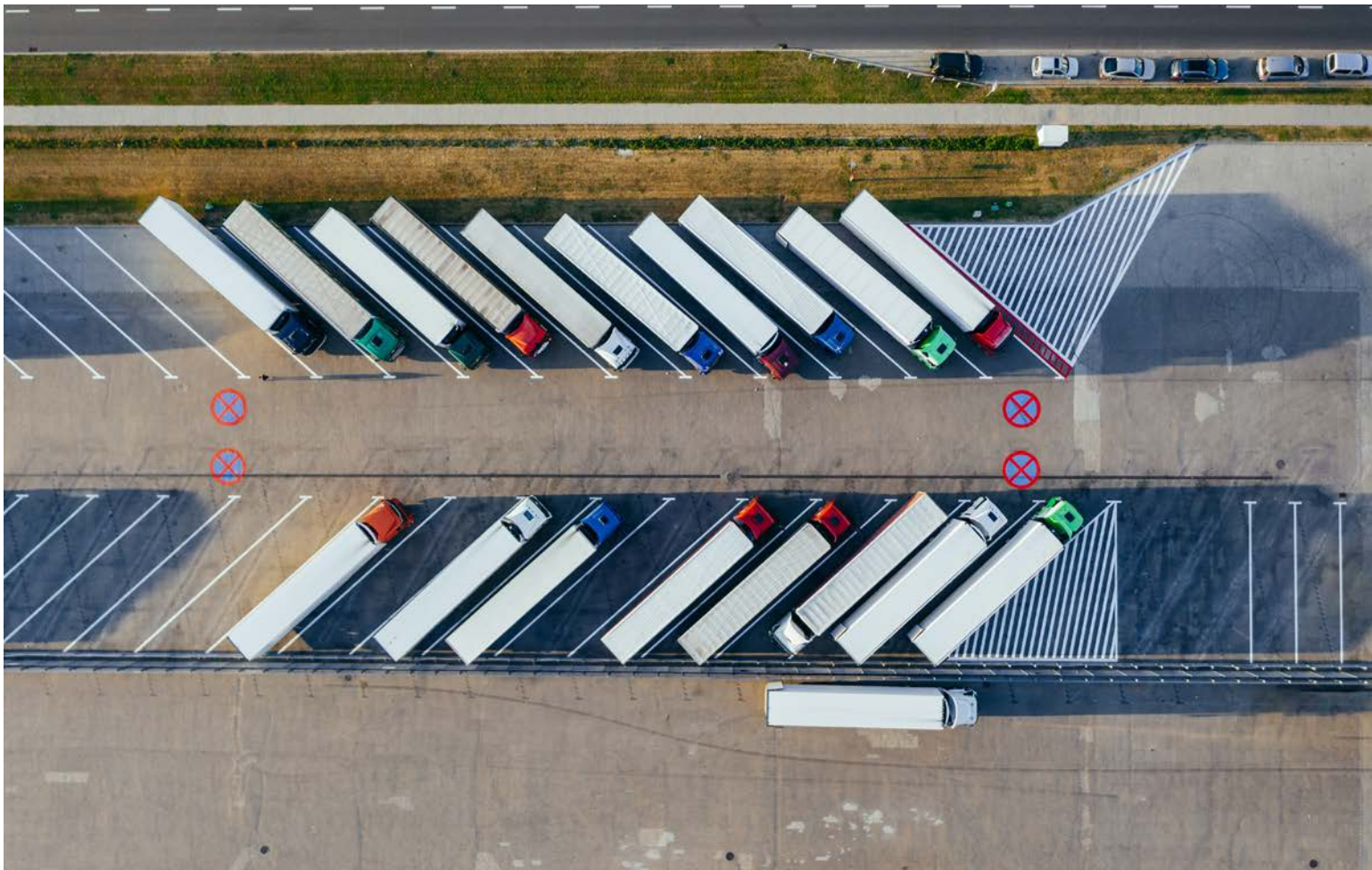


As would be expected given the strong performance of the Restaurant subsector, the largest share of occupations for Leisure and Hospitality is in Food Preparation and Serving-Related jobs (43%). Arts, Design, Entertainment, Sports, and Media (13%) account for the second-largest share of occupations in the industry, followed by Management occupations (11%).

FIGURE 16: LEISURE AND HOSPITALITY OCCUPATIONAL COMPOSITION (2018)



Source: American Community Survey Public Use Microdata Samples; Analysis by Beacon Economics



Transportation and Warehousing

Much of the growth in the Transportation and Warehousing sector was concentrated in air transportation activities, which, along with support activities for air transportation, grew by 50% (with 40,000 new jobs) between 2008 and 2018. These jobs are related to the economic activity taking place at or around LAX. Other growth in Transportation and Warehousing includes Freight Transportation and Local Delivery Services subsectors. Together, these subsectors accounted for about 20,000 jobs added, more than a quarter of the total.

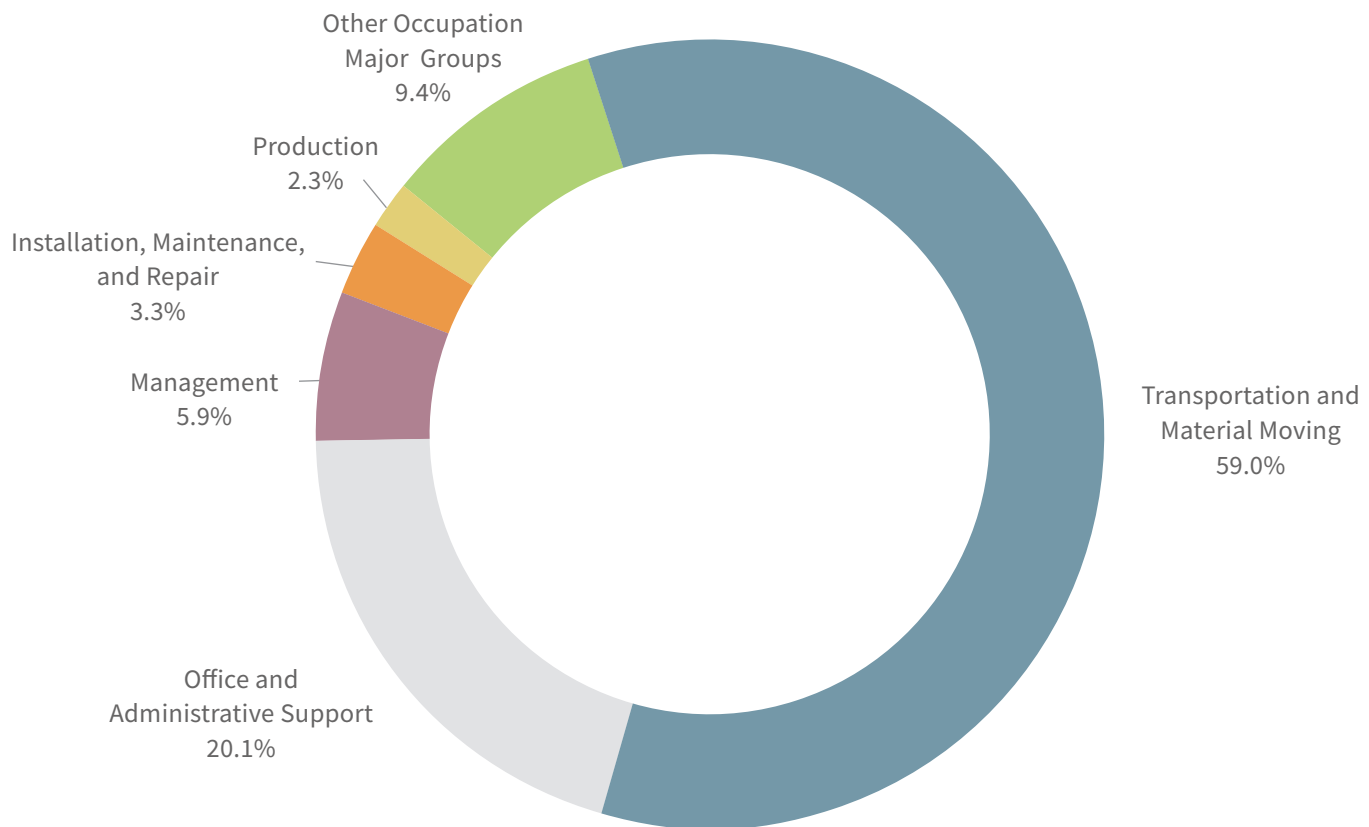
FIGURE 17: KEY CHARACTERISTICS OF THE TRANSPORTATION AND WAREHOUSING SECTOR (2018)

Industry	Number of Establishments	Employment	Average Annual Wage (\$)	Change in Establishments 2008-2018	Change in Employment 2008-2018	Change in Wages 2008-2018
Scheduled air transportation	54	28,594	107,121	6%	101%	90%
Support activities for air transportation	73	10,982	39,069	24%	40%	30%
Couriers and express delivery services	57	10,173	56,569	-4%	8%	23%
Warehousing and storage	67	3,770	35,801	-13%	48%	-16%
Freight transportation arrangement	158	3,724	61,808	-3%	-22%	22%
General freight trucking	144	3,601	49,729	25%	25%	24%
Nonscheduled air transportation	30	2,131	110,432	-4%	97%	74%
Specialized freight trucking	98	2,093	42,972	-8%	10%	23%
Local messengers and local delivery	73	1,721	33,029	11%	-12%	58%
Support activities for road transportation	75	1,634	41,357	-6%	15%	6%
Other ground passenger transportation	38	1,507	37,240	4%	4%	16%
Support activities for water transportation	22	1,137	86,253	13%	40%	29%
School and employee bus transportation	10	1,076	34,161	-30%	-17%	39%
Sea, coastal, and Great Lakes transportation	16	1,014	65,898	5%	27%	1%
Taxi and limousine service	37	792	36,836	-26%	-38%	18%
Urban transit systems	7	722	42,450	26%	75%	89%
Charter bus industry	9	247	31,489	0%	8%	15%
Other support activities for transportation	15	217	52,297	13%	-16%	27%
Power generation and supply	7	217	178,965	26%	208%	34%
Water, sewage and other systems	7	106	116,518	93%	124%	169%
Other pipeline transportation	2	26	101,614	-44%	-50%	58%
Total	998	75,480	72,227	2%	38%	62%

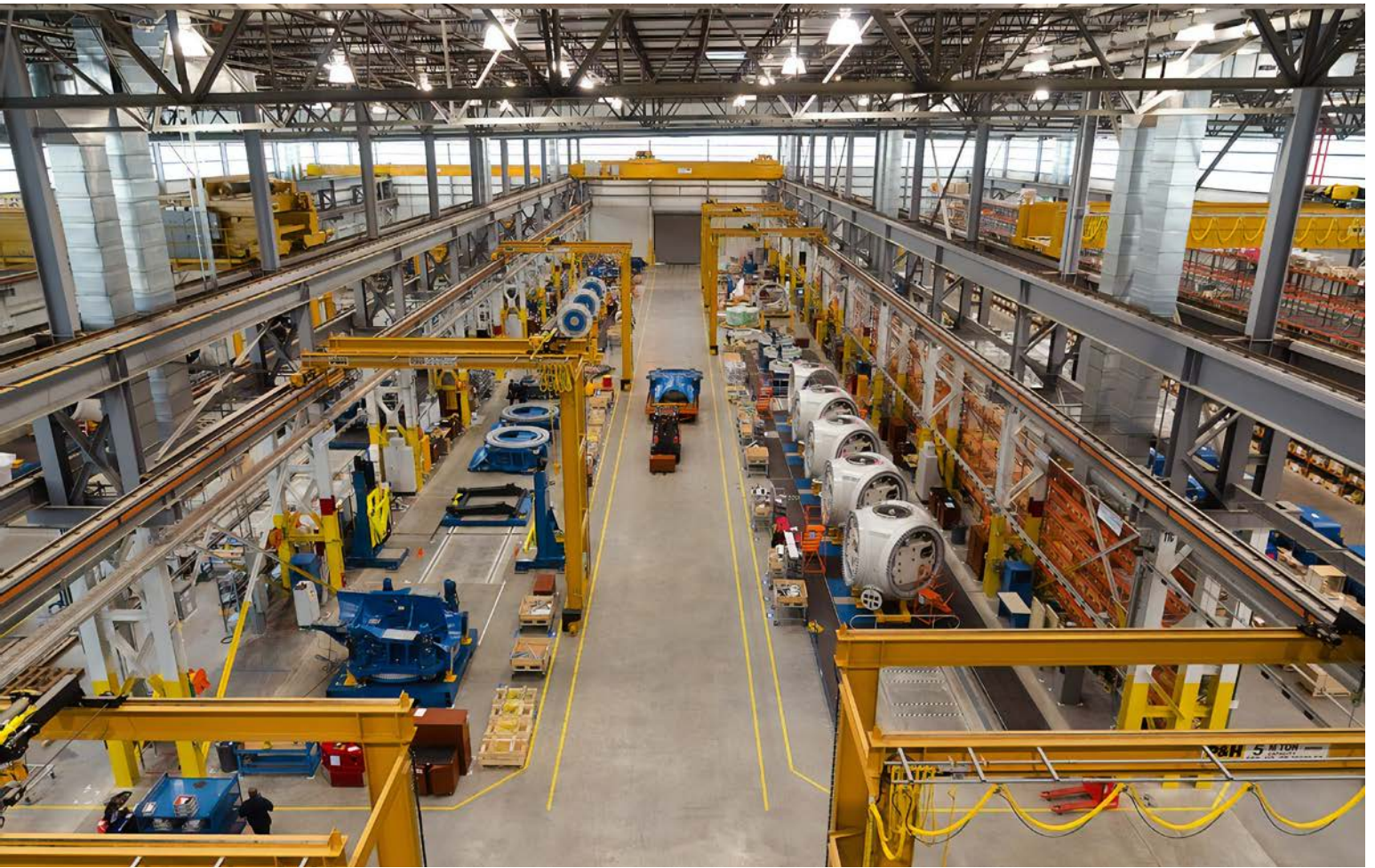
Source: California EDD; Analysis by Beacon Economics

Nearly 6 of 10 (59%) jobs in the sector are in Transportation and Material-moving occupations, and 20% are in Office and Administrative Support occupations.

FIGURE 18: TRANSPORTATION AND WAREHOUSING OCCUPATIONAL COMPOSITION (2018)



Source: American Community Survey Public Use Microdata Samples; Analysis by Beacon Economics



Manufacturing

As noted, the City's Manufacturing sector has sustained significant job losses. Most have occurred in Apparel Manufacturing, where nearly 15,000 jobs have been lost since 2008. Significant job losses also occurred in Electronic instrument Manufacturing, Aerospace Manufacturing, Manufacture of Semiconductors, and Printing and Related Activities.

Unfortunately, there is little the City can do to buck this trend. The combination of globalization and automation means that many of these jobs will not return to Los Angeles. As such, much of the land formerly used for manufacturing must be repurposed for other sectors of the economy. Because the Manufacturing sector is concentrated in particular sections of the City, the job losses will be felt more keenly in some communities than in others and have land use implications. The industry consumes land in a particular way, and manufacturing buildings tend to be single story and land-consuming. Los Angeles will have to think creatively about repurposing these sites for new productive uses.

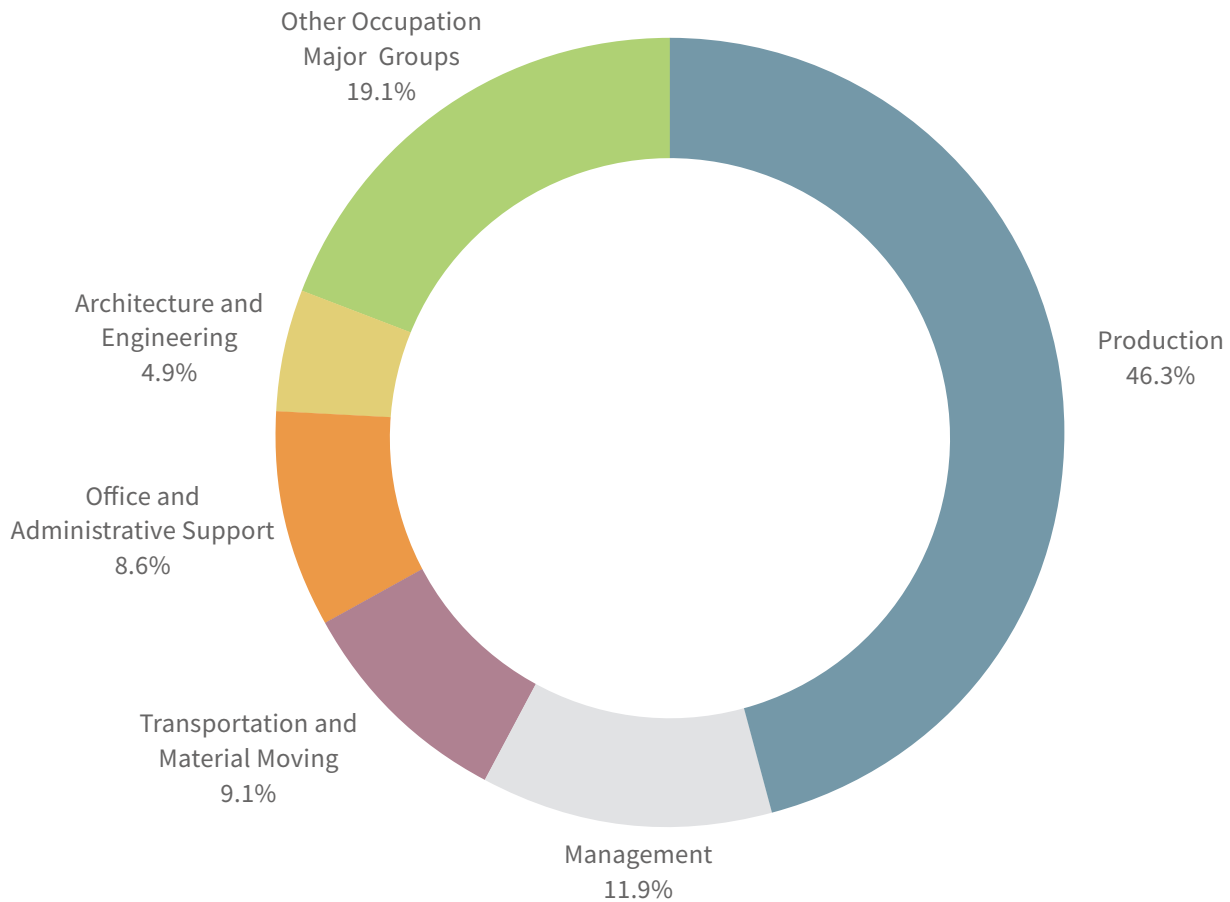
FIGURE 19: KEY CHARACTERISTICS OF THE MANUFACTURING SECTOR (2018)

Industry	Number of Establishments	Employment	Average Annual Wage (\$)	Change in Establishments 2008-2018	Change in Employment 2008-2018	Change in Wages 2008-2018
Apparel manufacturing	620	14,495	46,828	-46%	-53%	62%
Fabricated metal product manufacturing	356	10,456	62,417	-20%	-21%	24%
Computer and electronic product manufacturing	158	9,144	79,974	-21%	-42%	8%
Food manufacturing	258	8,336	47,022	-5%	-24%	19%
Chemical manufacturing	116	7,382	73,300	11%	9%	20%
Miscellaneous manufacturing	209	6,484	66,643	-21%	-20%	33%
Transportation equipment manufacturing	80	5,432	86,018	-30%	-31%	5%
Printing and related support activities	174	3,716	51,398	-36%	-37%	17%
Furniture and related product manufacturing	121	3,171	40,163	-38%	-36%	18%
Beverage and tobacco product manufacturing	40	2,714	69,442	96%	19%	2%
Plastics and rubber products manufacturing	59	2,203	42,024	-17%	-26%	11%
Machinery manufacturing	105	1,963	54,441	-14%	-35%	21%
Electrical equipment and appliance mfg.	60	1,918	109,201	-12%	1%	105%
Nonmetallic mineral product manufacturing	59	1,877	53,314	-30%	-29%	35%
Textile mills	56	1,620	49,205	-46%	-48%	52%
Petroleum and coal products manufacturing	8	1,426	152,774	-27%	-9%	40%
Textile product mills	39	903	47,850	-51%	-54%	57%
Primary metal manufacturing	24	662	59,258	-21%	2%	27%
Wood product manufacturing	40	493	42,585	-22%	-55%	31%
Leather and allied product manufacturing	24	382	37,086	3%	-41%	-30%
Paper manufacturing	15	367	63,283	-38%	-61%	30%
Overall	2,617	85,141	62,827	-29%	-33%	30%

Source: California EDD; Analysis by Beacon Economics

Forty-six percent of all jobs in the Manufacturing sector are Production-related. A further 12% of occupations are found in Management positions, and 9% are in the Movement of goods.

FIGURE 20: MANUFACTURING OCCUPATIONAL COMPOSITION (2018)



Source: American Community Survey Public Use Microdata Samples; Analysis by Beacon Economics



PART 2: LAND USE ANALYSIS

A city's economy and land use have an inextricable relationship. Of all assets at a city's disposal, land is the most direct means by which local governments can influence economic activity. In Los Angeles, land is primarily zoned for residential and open space activities, which together account for about two-thirds of the City's land. Only 14% is zoned for either commercial or manufacturing activities. Commercial activities account for 5% of the City's land and typically include retail, theatres, hotels, broadcasting studios, service stations, garages, auto sellers, and some light manufacturing. Manufacturing, which accounts for 9% of the City's zoned land, covers a range of activities, but about 50% of its land is devoted to heavy industrial, such as the production of durable goods.

Although commercial activities are pervasive, manufacturing is far more concentrated in certain areas. Commercial activities occur along major arterials where retail establishments tend to be concentrated as well as in concentrated business districts, such as Downtown and Hollywood. Manufacturing, by contrast, is in specific parts of the City such as on the edges of Downtown, near the ports in Southern Los Angeles, and along two primary corridors in the San Fernando Valley. Historically these activities have been sited to maximize access to interregional and international transportation networks. Much of the City land set aside for commercial and industrial activities is devoted to heavy manufacturing, which has declined due to slowing production of electronic instruments, aerospace products, and semiconductors, along with printing and related activities.

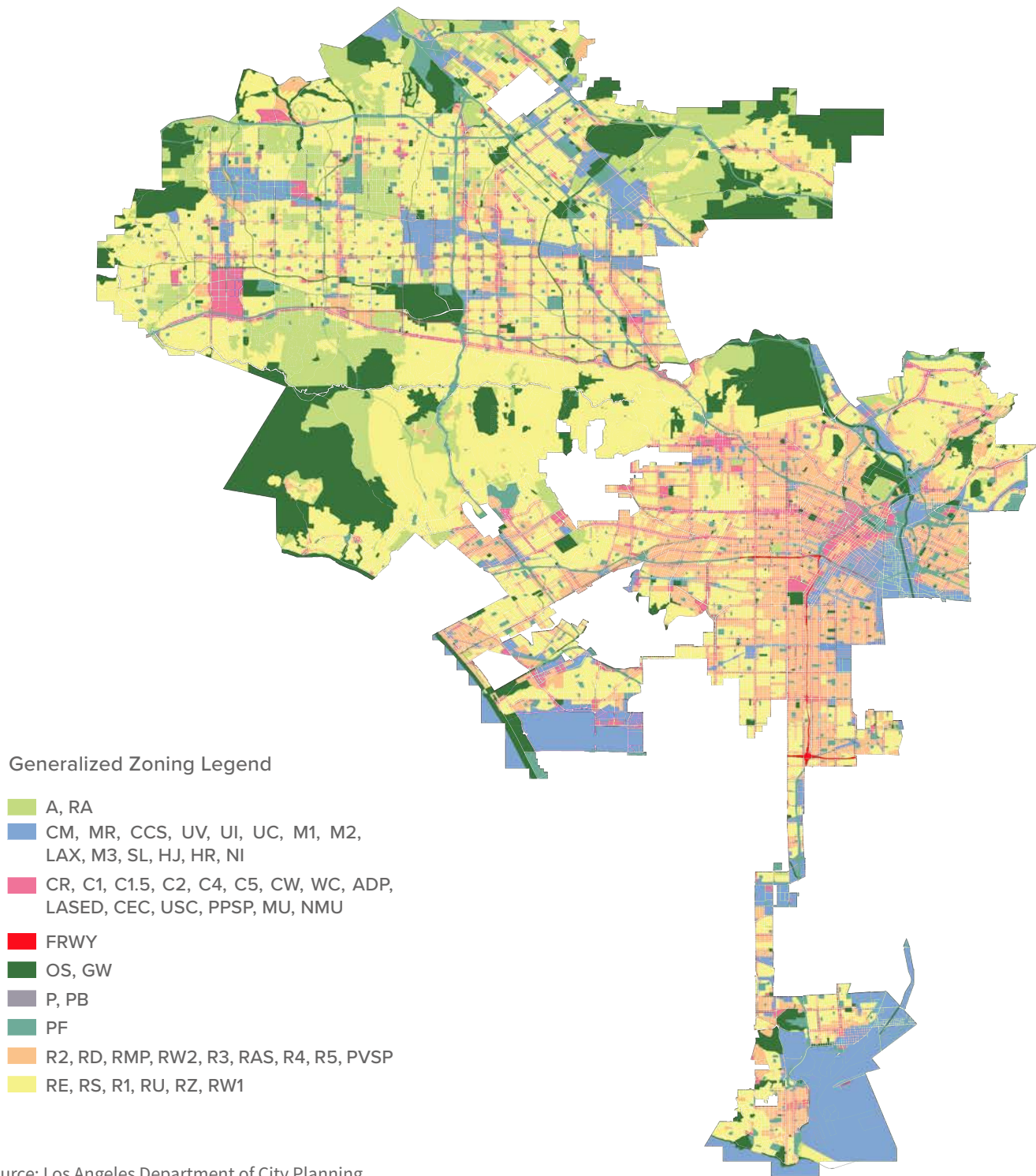
FIGURE 21: LAND USE BY CATEGORY IN LOS ANGELES

Land Use	Percent	Land Area (Sq.Mi.)
Agriculture	12	60
Commercial	5	26
Limited Commercial	0.4	2
Commercial	4	22
Commercial Manufacturing	0.4	2
Manufacturing	9	45
Restricted Industrial	1	3
Limited Industrial	1	5
Restricted Light Industrial	1	3
Light Industrial	3	13
Heavy Industrial	4	21
Open Space/Public Facilities/Submerged Lands	23	116
Residential and Transit-Oriented Development	31	157
Single-Family Residential	18	90
Multifamily Residential without commercial uses	8	41
Multifamily Residential with commercial uses	5	26
Residential Estate	17	86
Specific Plan Zone	1	4
Other ⁵	2	10
Total	100	503

Source: Los Angeles Department of City Planning; Analysis by Beacon Economics

⁵ Other includes airport, freeway, parking, USC University Park Campus.

FIGURE 22: LOS ANGELES LAND USE DISTRIBUTION



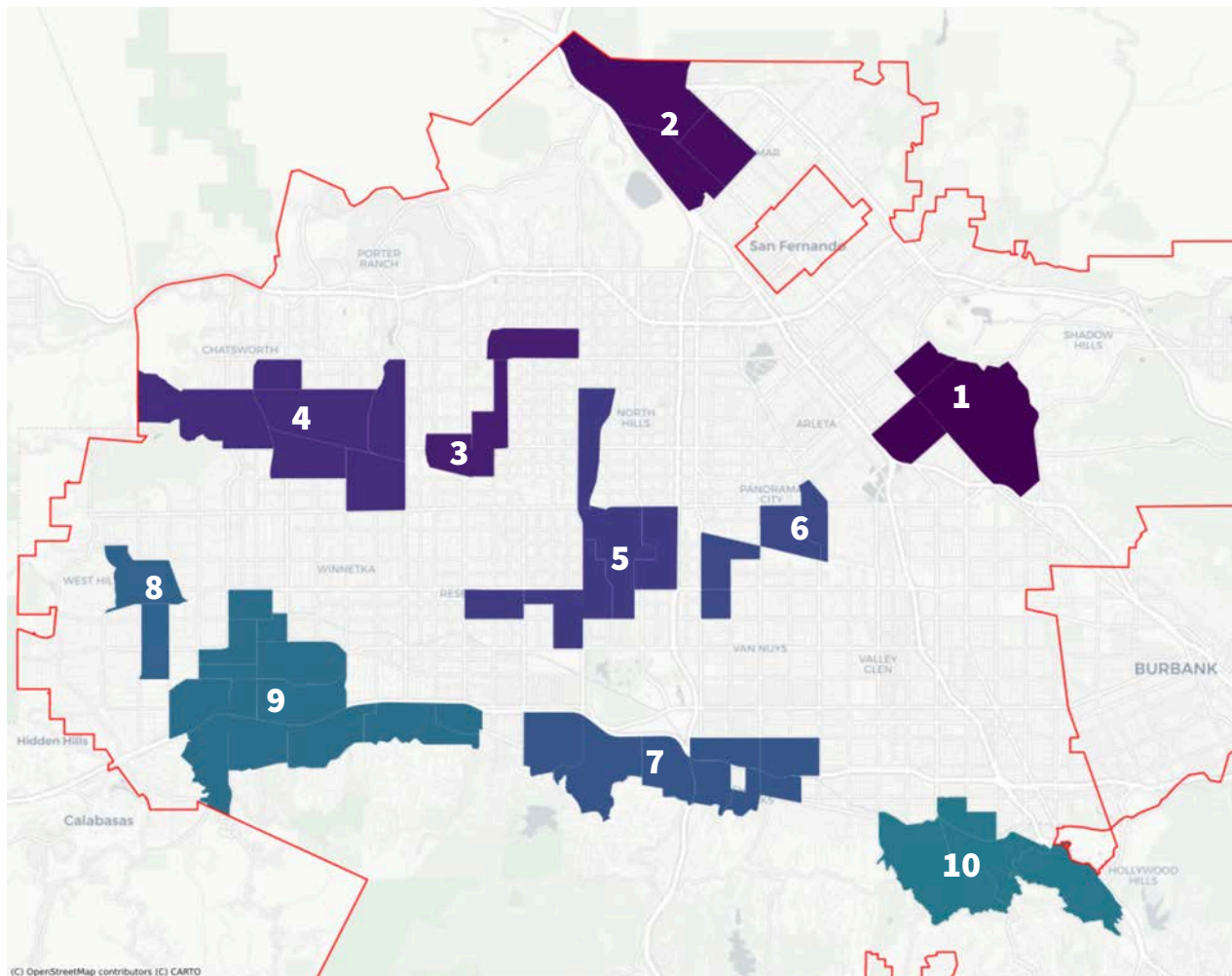
Source: Los Angeles Department of City Planning

INDUSTRY LOCATION ANALYSIS

As an industry grows or shrinks, job losses and gains will be unevenly distributed across the City. The primary reason for this geographic variation is the City's zoning code, which mandates what activities can occur on any given parcel throughout the City. Since Economic activity is permitted in only some areas, neighborhoods like Downtown are job-rich, while other areas like Hancock Park are relatively job-poor. *(Note: there might be an extra space between "zoning code" and "which")*

But even beyond the zoning code, economic activity varies across the City. The land surrounding LAX and the Port of Los Angeles Complex is largely devoted to the transportation activities found at these sites, as well as warehousing located for access to major transportation hubs. At the same time, some parts of the City are rich in entertainment jobs, and others have many Manufacturing jobs. This report identifies major job centers (also referred to as clusters, islands, and concentrations) in the City and the contribution that each makes to the economy.

FIGURE 23: NORTHERN CLUSTERS, LOS ANGELES (2018)



- | | |
|----------------|-------------------|
| 1. Sun Valley | 6. Van Nuys |
| 2. Sylmar | 7. Encino |
| 3. Northridge | 8. West Hills |
| 4. Chatsworth | 9. Woodland Hills |
| 5. Lake Balboa | 10. Studio City |

FIGURE 24: CENTRAL CLUSTERS, LOS ANGELES (2018)

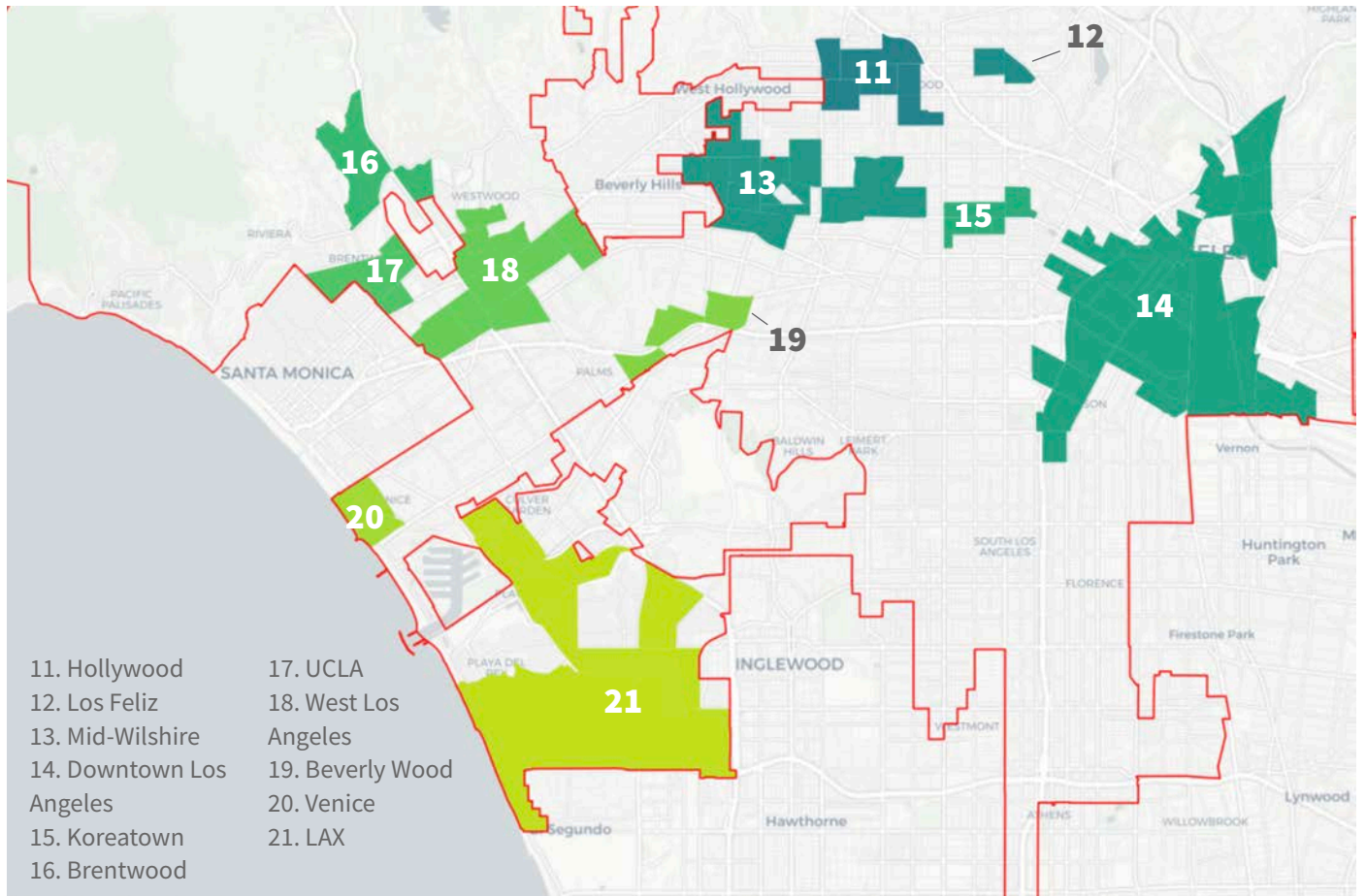
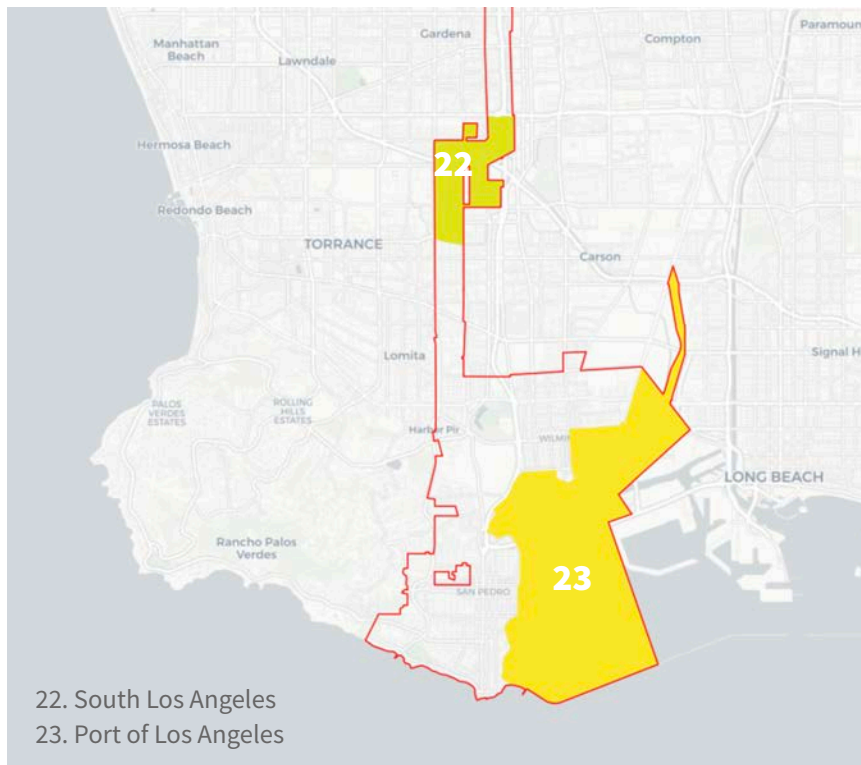


FIGURE 25: SOUTHERN CLUSTERS, LOS ANGELES (2018)



The key economic features of each cluster is displayed here. Collectively these economic centers account for about 61% of the City's private sector jobs and 54% of the City's total business establishments. Moreover, jobs in these clusters have wages \$15,000 higher than the citywide average.

FIGURE 26: KEY CHARACTERISTICS OF MAJOR CLUSTERS (2018)

	Employment	Workers Per Establishment	Establishment Size	Annual Average Wage (\$)
Downtown	244,394	6,635	37	84,874
LAX	100,482	1,417	71	81,347
West LA	90,921	2,905	31	135,839
Woodland Hills	72,701	2,318	31	69,941
Mid-Wilshire	70,432	1,922	37	73,433
Encino	43,299	1,937	22	81,444
Chatsworth	43,175	1,304	33	56,748
Hollywood	37,285	906	41	82,798
Koreatown	27,001	1,134	24	51,589
Lake Balboa	26,466	782	34	54,703
South LA	18,750	393	48	67,006
Los Feliz	15,629	155	101	85,740
UCLA	13,765	667	21	108,593
Van Nuys	13,174	323	41	59,848
Studio City	12,146	510	24	59,904
Sylmar	11,253	202	56	77,877
Sun Valley	11,213	411	27	57,666
Northridge	8,856	293	30	46,442
Beverly Wood	7,587	170	45	62,219
Venice	7,541	275	27	185,951
Port Complex	7,192	214	34	77,980
Brentwood	5,296	49	108	98,872
West Hills	4,908	166	30	48,437
Total/Average	893,466	25,088	35	83,010

Source: California EDD; Analysis by Beacon Economics

The City's largest concentration of employment is Downtown, where there were close to a quarter of a million jobs in 2018, which accounts for 17% of the City's private sector employment. Other major concentrations are around LAX, with about 100,000 workers, and West Los Angeles with close to 100,000 workers. Centers vary in size, and each makes a different contribution to the City's industrial base; consequently, their jobs vary in wages. Jobs in Venice, for example, have an average annual salary of \$185,000, while those in Northridge average about \$46,500 a year.

The City's 23-clusters collectively added 119,000 jobs from 2008 to 2018. Given that the City added 46,000 jobs over this period, job gains in these centers offset significant losses elsewhere in the City. That said, jobs in these economic centers grew at various rates. Downtown added close to 40,000 jobs, but losses occurred in other areas such as Brentwood, which had the greatest contraction in employment.

FIGURE 27: EMPLOYMENT CHANGE BY MAJOR CLUSTERS (2008-18)

Zone Name	Employment Change (2008 to 2018)
Downtown	39,332
LAX	25,522
West LA	13,966
Mid-Wilshire	12,773
Hollywood	10,322
Woodland Hills	6,538
Venice	3,943
South LA	3,738
Studio City	3,000
Los Feliz	2,668
Lake Balboa	2,277
Beverly Wood	2,216
Encino	2,059
Van Nuys	1,527
Northridge	815
West Hills	137
Port Complex	-266
Koreatown	-548
UCLA	-709
Sun Valley	-1,331
Sylmar	-1,761
Chatsworth	-2,239
Brentwood	-5,026
Total	118,953

Source: California EDD; Analysis by Beacon Economics

To see the role that each center plays in the City's economy, the largest geographic centers are analyzed individually, while some of the smaller centers are grouped by industry cluster. The two major groupings of the nine subcenters:

By Geography

- Downtown
- Port Complex
- LAX
- West Los Angeles
- Woodland Hills

By Industry

- Health Care Centers
- Leisure and Hospitality Centers
- Professional Services and Information Centers
- Manufacturing Centers

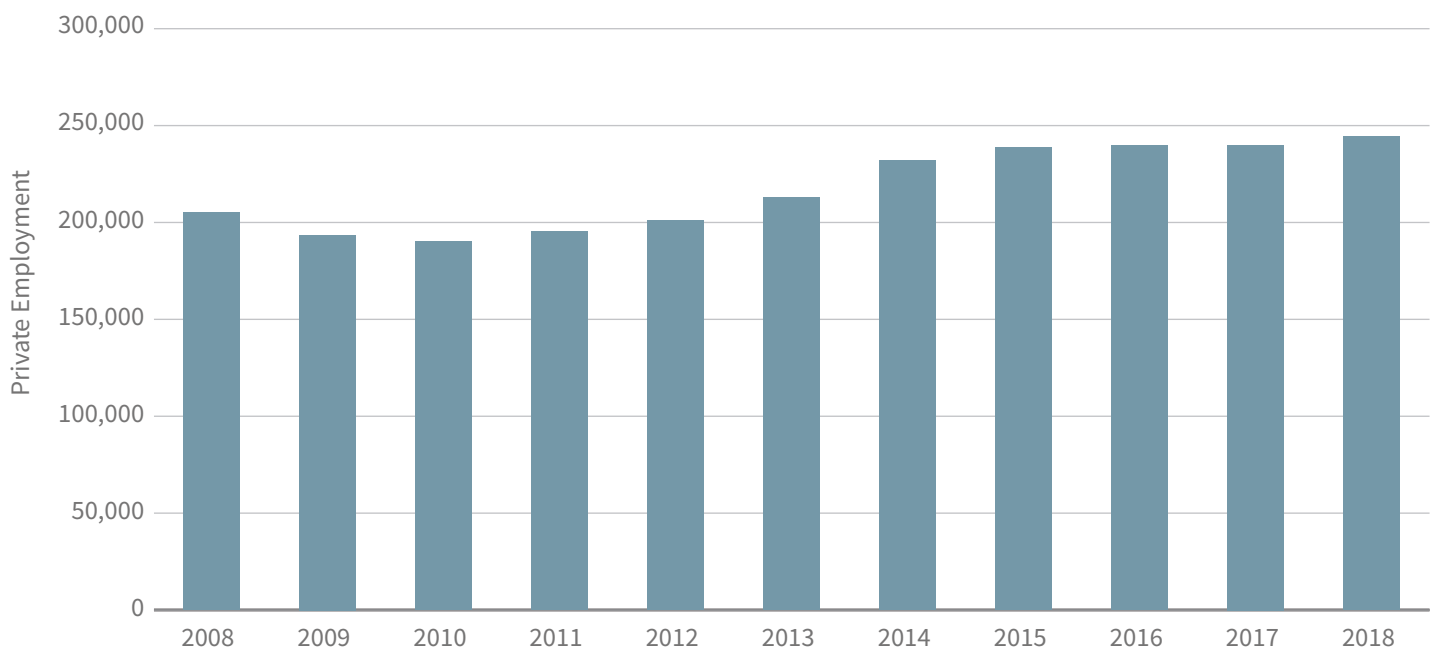


CENTERS BY GEOGRAPHY

Downtown

This is the City's largest center of economic activity, accounting for 17%, or close to a quarter of a million private sector jobs. From 2008 to 2018, 39,000 jobs were added, or 85% of the private sector jobs added in the City over the period.

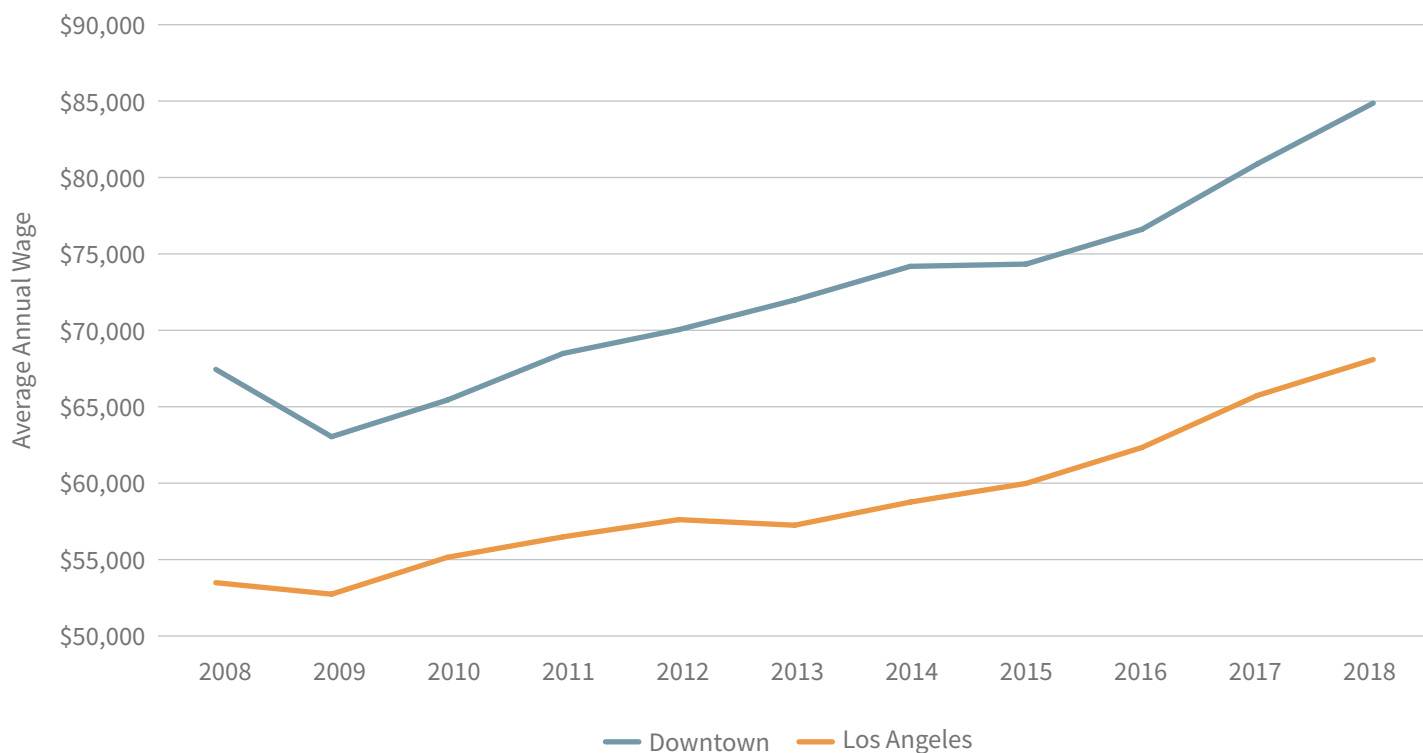
FIGURE 28: EMPLOYMENT CHANGE IN DOWNTOWN (2008-18)



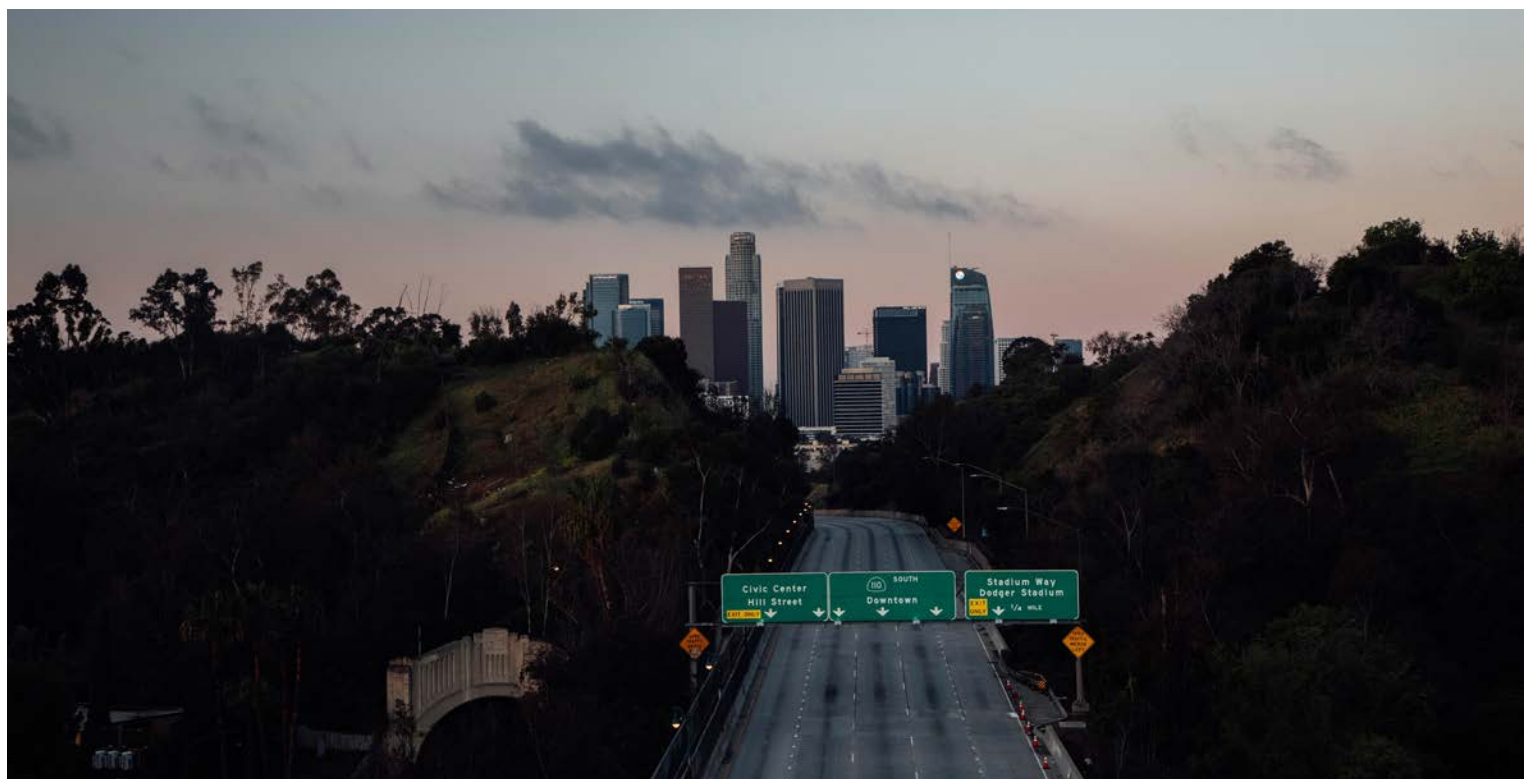
Source: California EDD; Analysis by Beacon Economics

In addition, Downtown is a source of high-paying jobs relative to the rest of the City. In 2018, the annual average wage paid by employers was roughly \$85,000 per year, about \$17,000 more than the City average.

FIGURE 29: WAGE CHANGE IN DOWNTOWN AND LOS ANGELES (2008-18)



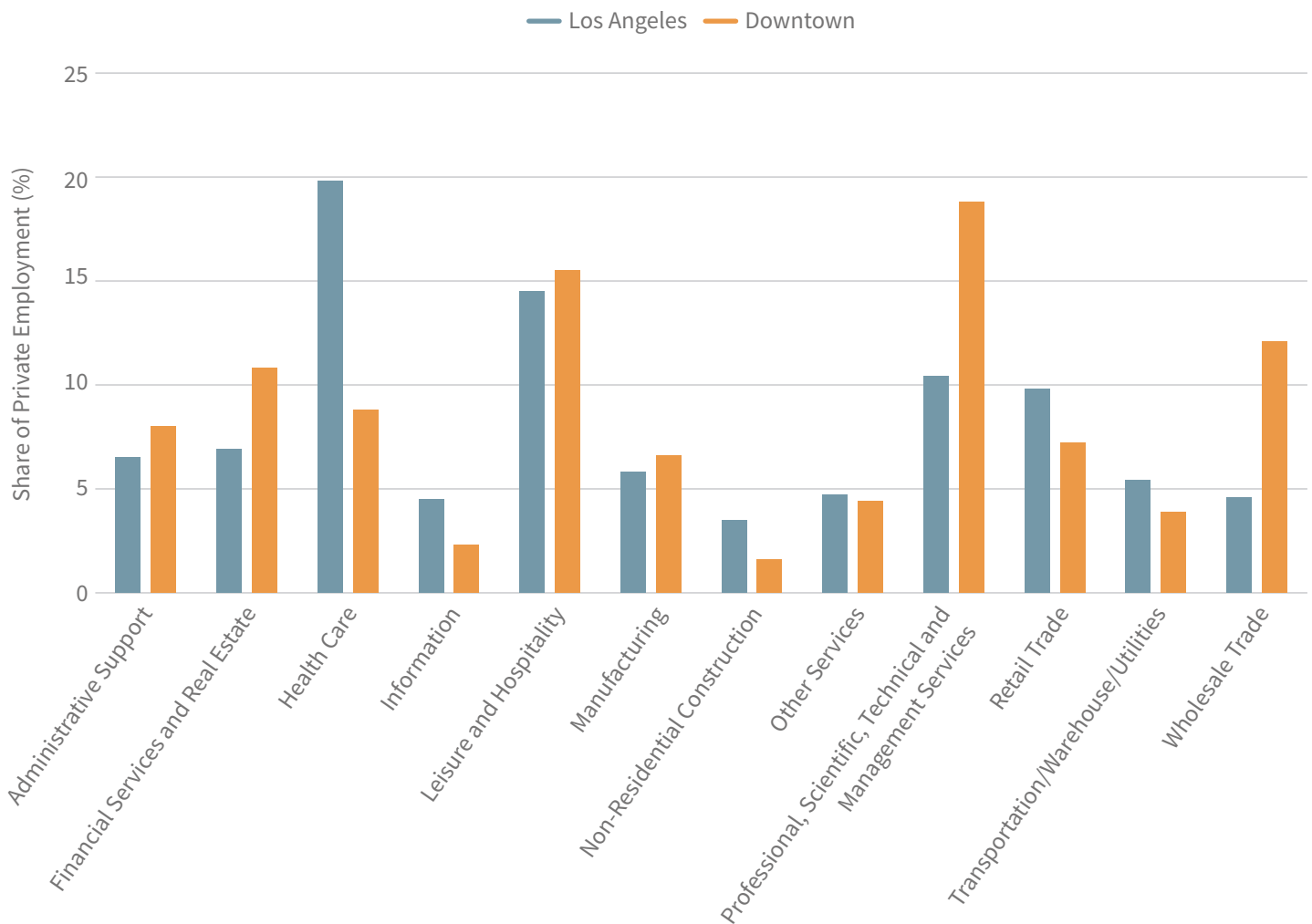
Source: California EDD; Analysis by Beacon Economics



The strength of the Downtown economy is in three primary areas. Compared with the rest of the City, it has a core strength in the Professional, Scientific, Technology, and Management Services sector, which accounts for 17% of Downtown employment, compared with 10% for the City as a whole. Downtown also has a strength in Financial Services and Real Estate, which make up 10% of its jobs compared with 7% for the City. Downtown's relative strength in these first two sectors is not surprising since they are both information-oriented, white-collar service-sector jobs that typically thrive in dense, urban environments.

Downtown is also strong in Wholesale Trade, which accounts for 10% of its jobs, compared with 4.5% for the City. This strength stems from Downtown's legacy as a major transportation hub where traders could easily ship goods to and from other regions. By contrast, the Downtown economy is relatively weak in Health Care, Information, and Retail.

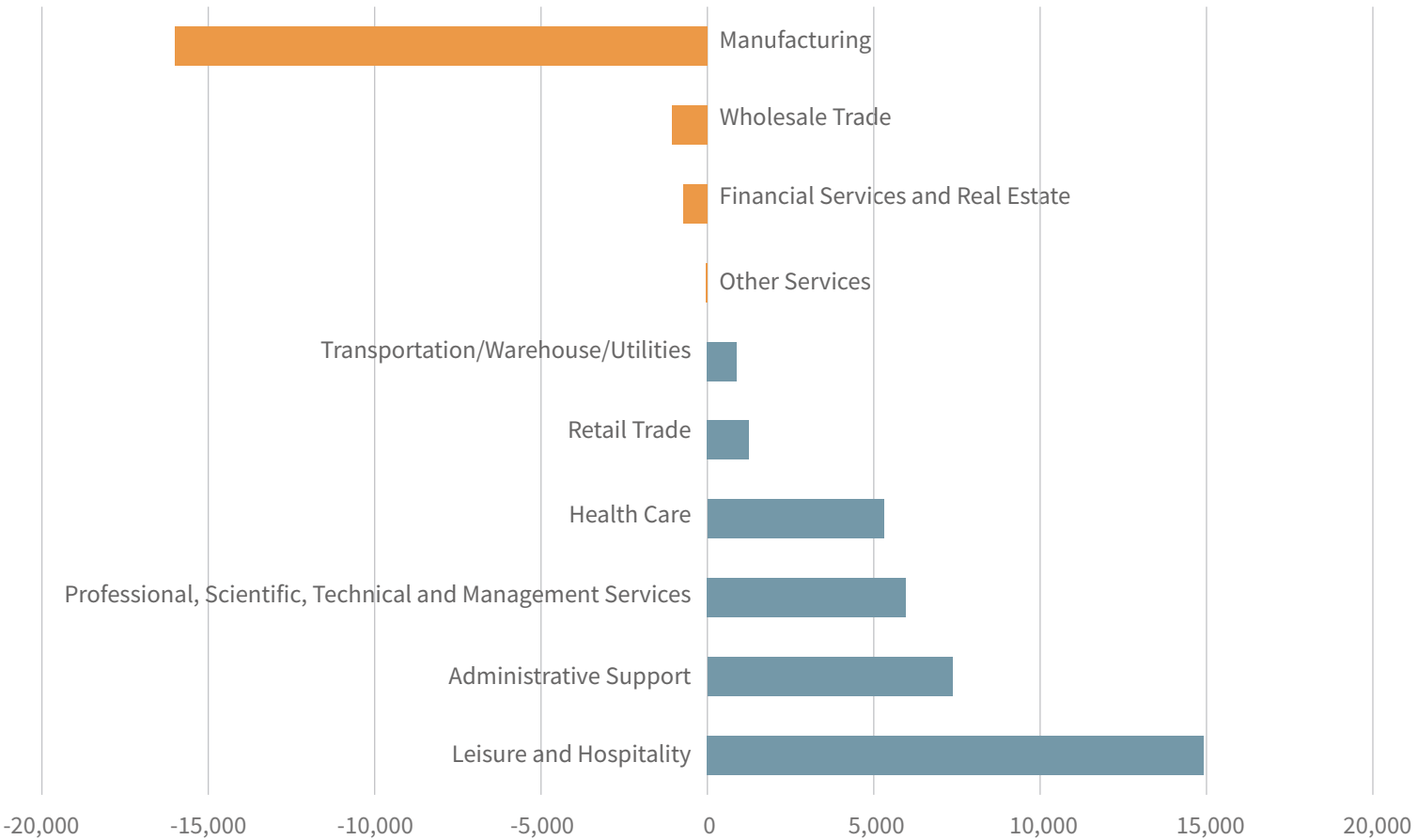
FIGURE 30: EMPLOYMENT SHARE IN DOWNTOWN AND LOS ANGELES BY MAJOR INDUSTRY (2008-18)



Source: California EDD; Analysis by Beacon Economics

From 2008 to 2018, Downtown’s biggest job growth was in Leisure and Hospitality, Administrative Support, and Professional, Scientific, Technology, and Management Services, while significant job losses occurred in Downtown’s Manufacturing sector. Growth in Leisure and Hospitality has been primarily driven by the L.A. Live complex.

FIGURE 31: EMPLOYMENT CHANGE IN DOWNTOWN BY MAJOR INDUSTRY (2008-18)



Source: California EDD; Analysis by Beacon Economics

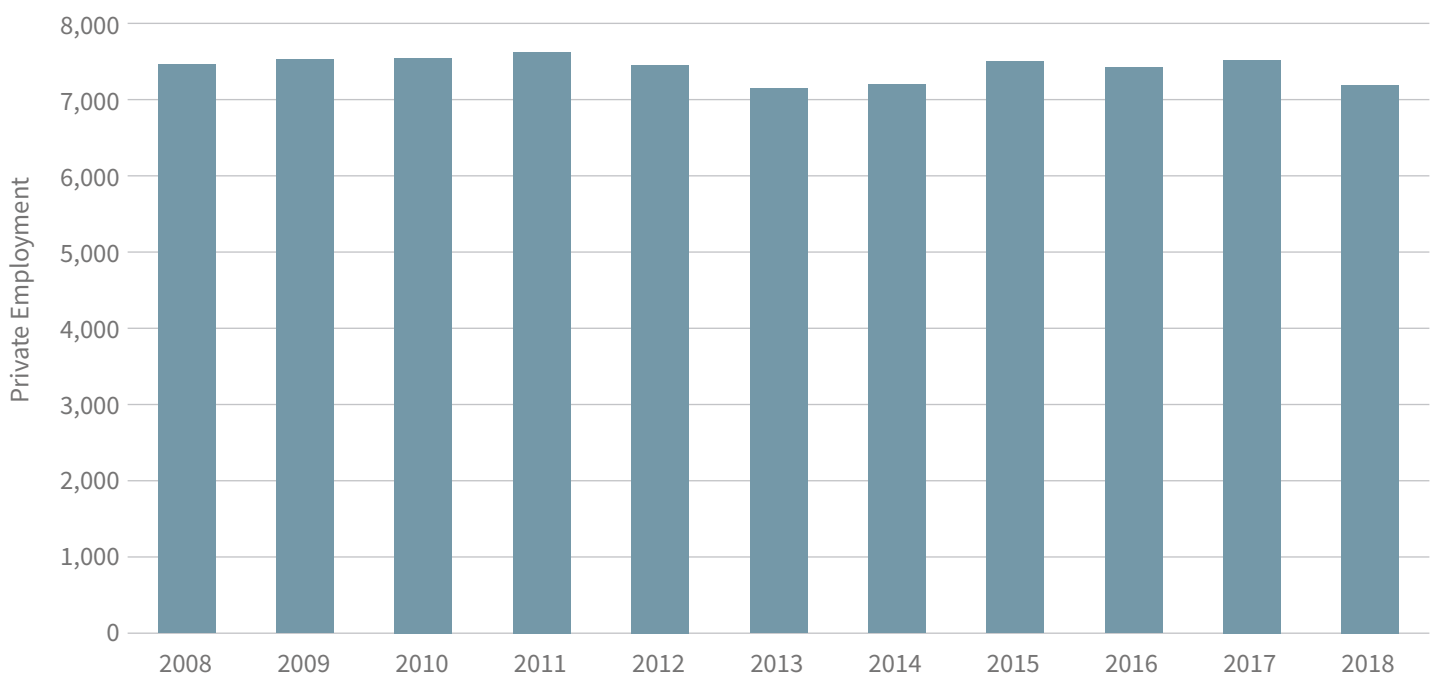
Overall, the Downtown economy has transitioned from one oriented toward old industry activities, such as those found in Manufacturing, to those in the new economy, such as Professional, Scientific, Technology, and Management Services. This means that much of the land devoted to Manufacturing can be repurposed to other activities because demand will continue to be strong in Information-oriented sectors. It also means that as the jobs of the new economy grow in the City, Downtown will attract a disproportionate share. Because of its unique urban environment in the City, Downtown will be a major recipient of any City efforts to nurture information-orientated, knowledge-sector jobs.



The Port of Los Angeles

Jobs in the Port Complex have remained relatively flat even as global trade and the volume of goods have increased. This is primarily due to automation improvements, which means that the Port's capacity has grown without the addition of a significant number of workers.

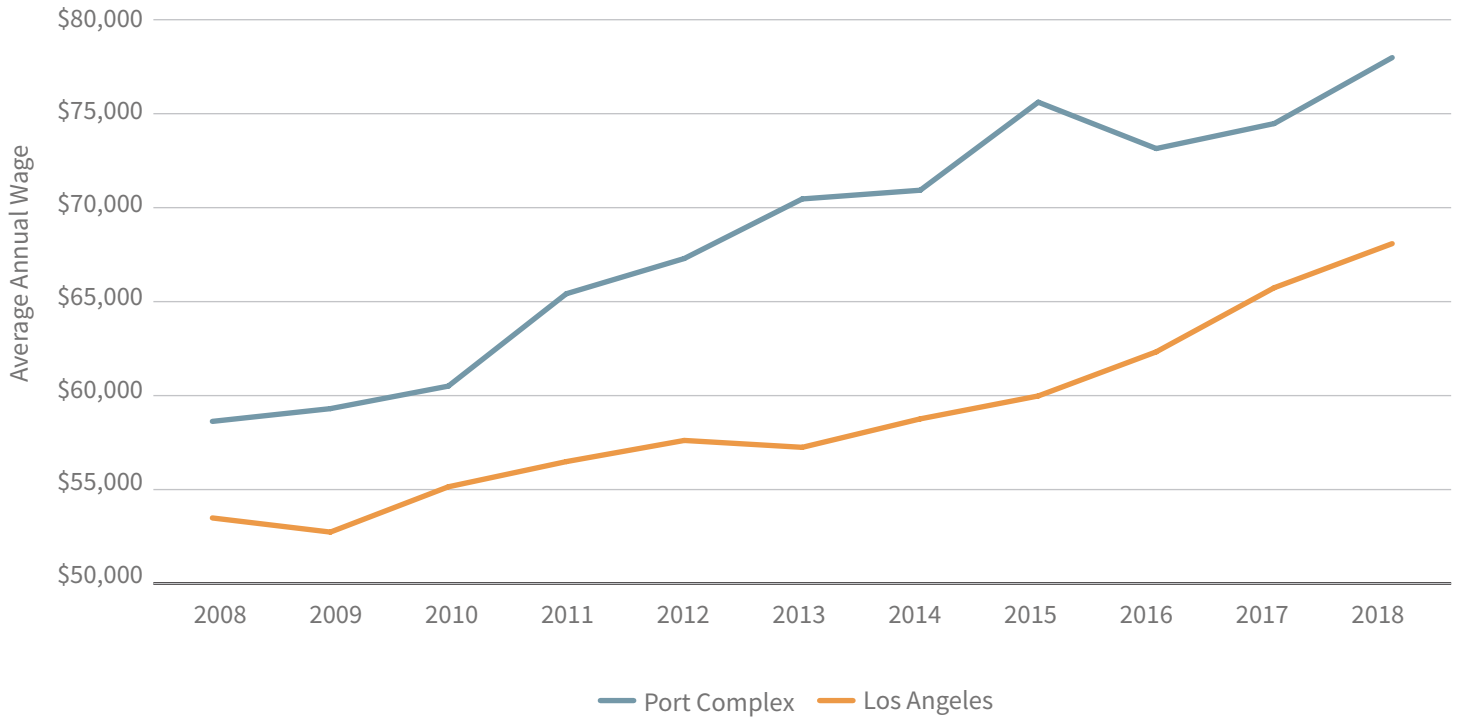
FIGURE 32: EMPLOYMENT CHANGE IN THE PORT COMPLEX (2008-18)



Source: California EDD; Analysis by Beacon Economics

The Port pays high wages relative to the rest of the City. In 2018, employers paid \$78,000 per year on average, roughly \$10,000 more than in the rest of the City.

FIGURE 33: WAGE CHANGE IN PORT COMPLEX AND LOS ANGELES (2008-18)

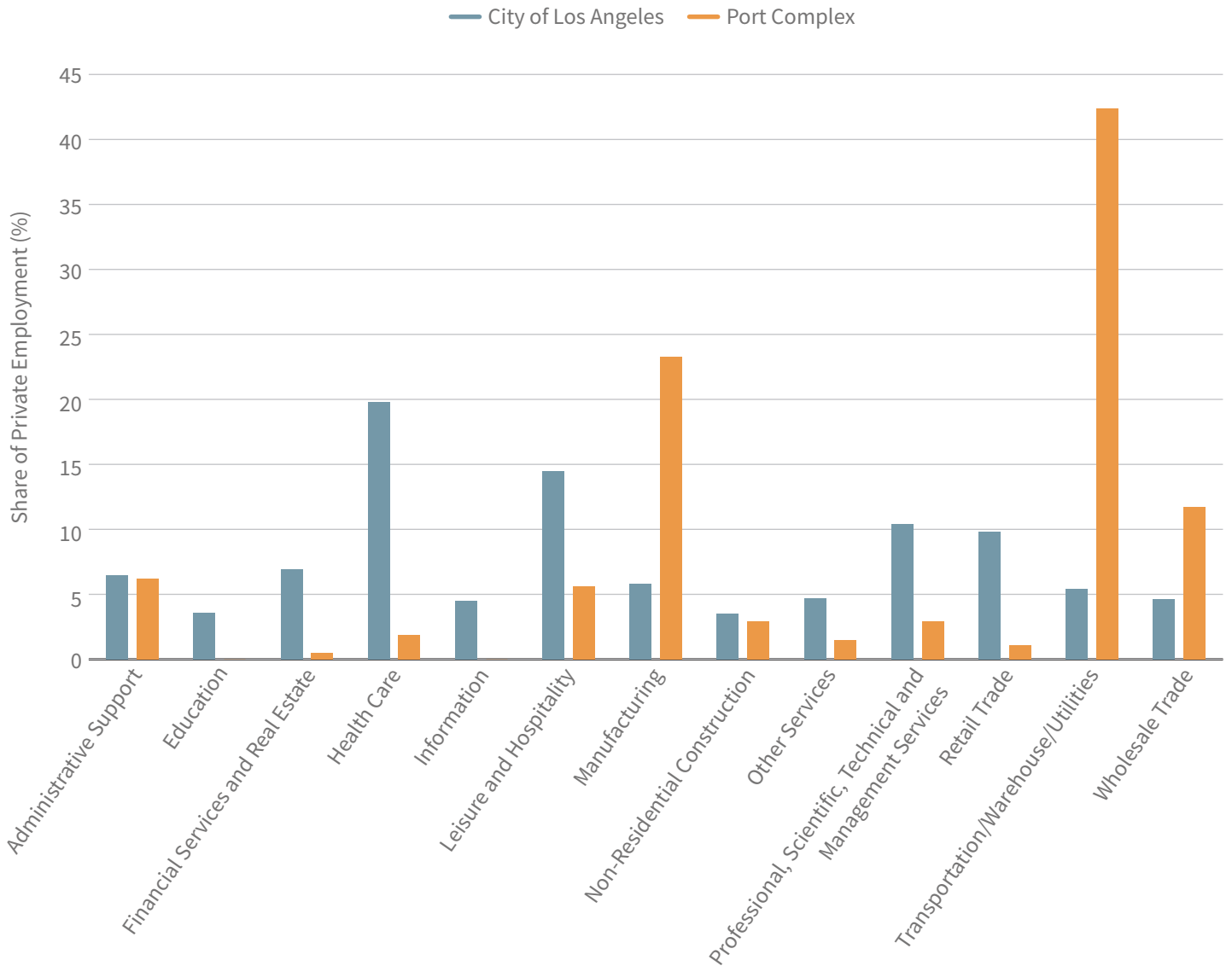


Source: California EDD; Analysis by Beacon Economics



Three-quarters of Port jobs are in three sectors: Transportation and Warehousing (42%), Manufacturing (23%), and Wholesale Trade (11.5%). This is not surprising given that the land in the area is dedicated to heavy industries related to the Logistics and Import and Export sectors. The Port is relatively weak in the Health Care, Leisure and Hospitality, and Retail sectors. This is because the area surrounding the port is sparsely populated and so lacks the type of services that cater to population centers.

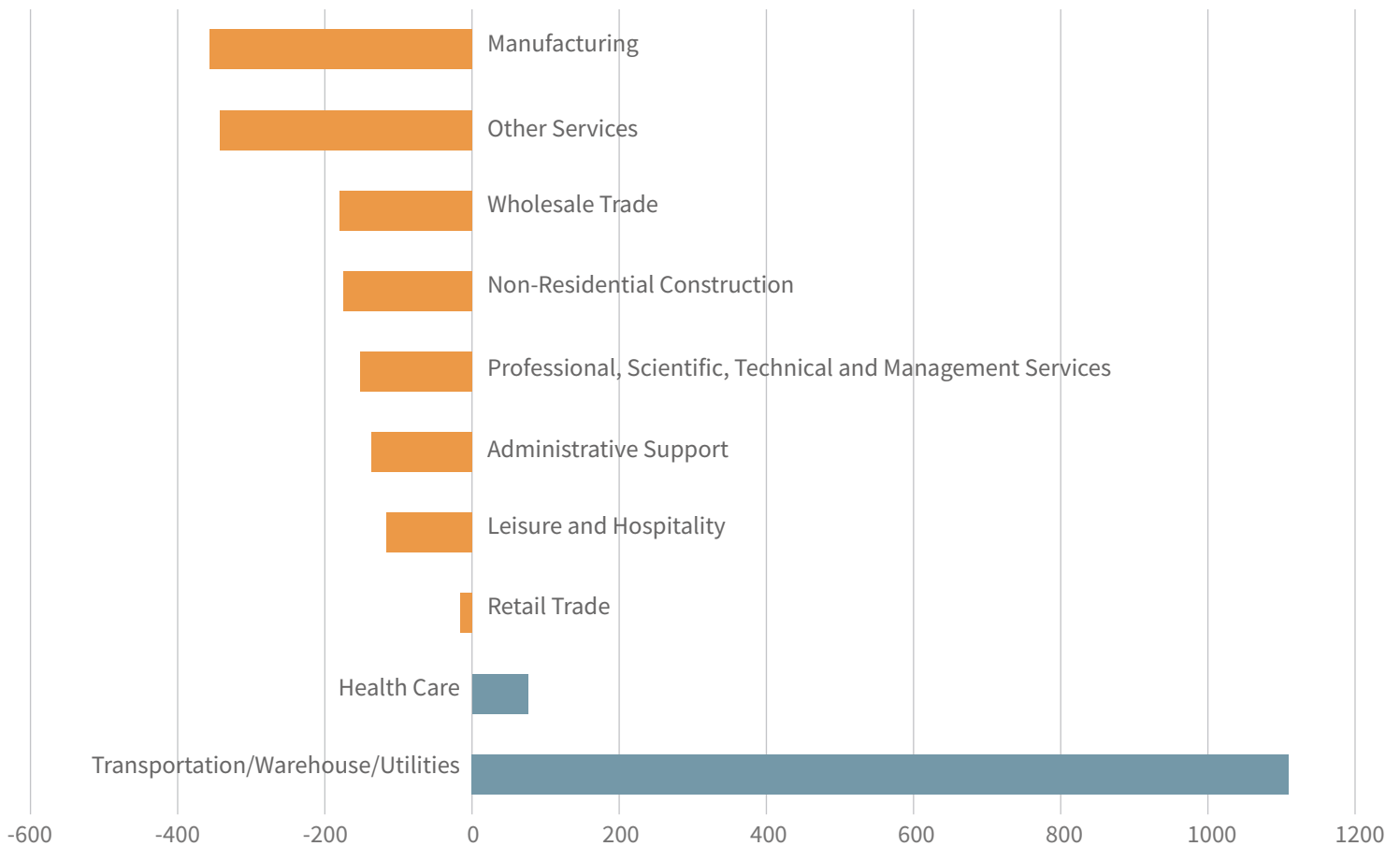
FIGURE 34: EMPLOYMENT SHARE IN PORT COMPLEX AND LOS ANGELES BY MAJOR INDUSTRY (2008-18)



Source: California EDD; Analysis by Beacon Economics

Most job gains in the Port have been in Transportation and Warehousing. The decline in employment in other sectors has been relatively minor aside from the notable and recurring exception of Manufacturing.

FIGURE 35: EMPLOYMENT CHANGE IN THE PORT COMPLEX BY MAJOR INDUSTRY (2008-2018)



Source: California EDD; Analysis by Beacon Economics

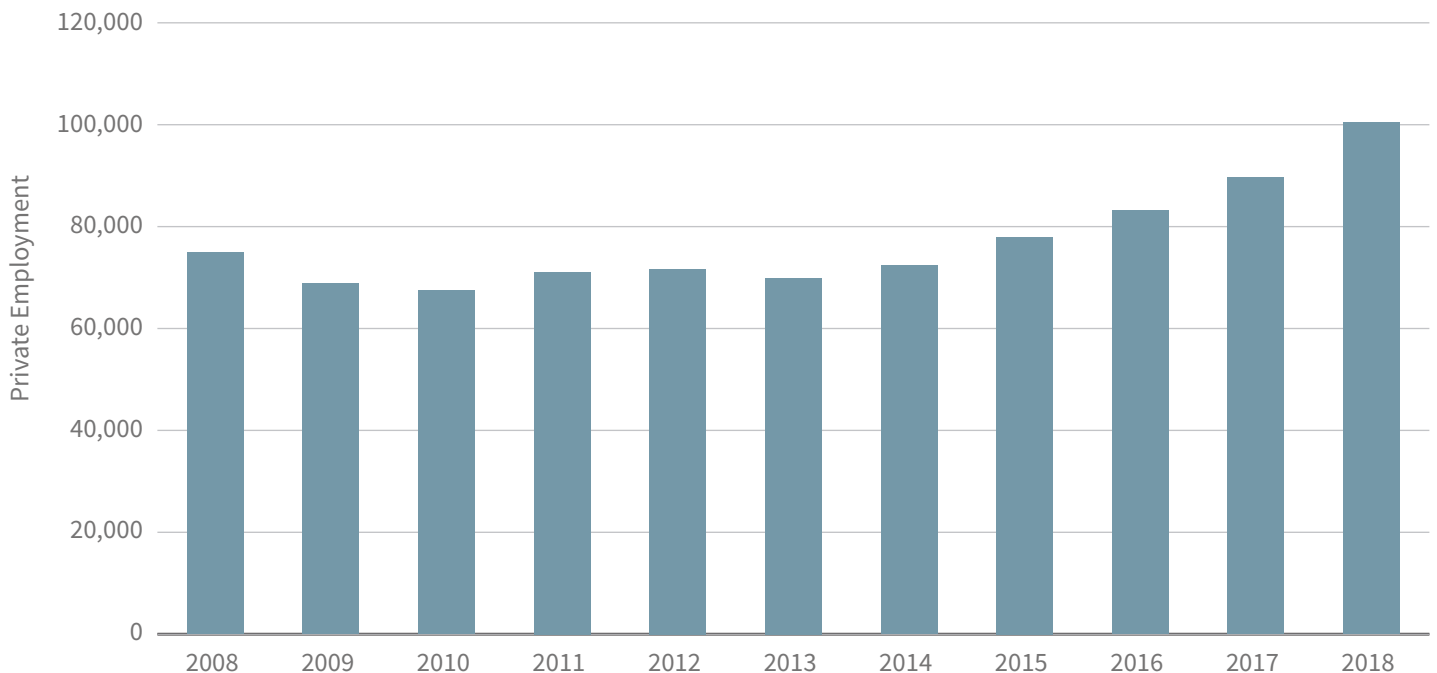
As mentioned, each activity center in the City makes a different contribution to the industry base, and the land surrounding the Port will continue to be devoted to servicing activities conducted at the Port. As long as international trade remains vibrant, there is little reason to believe that demand for land in the area will change.



Los Angeles International Airport

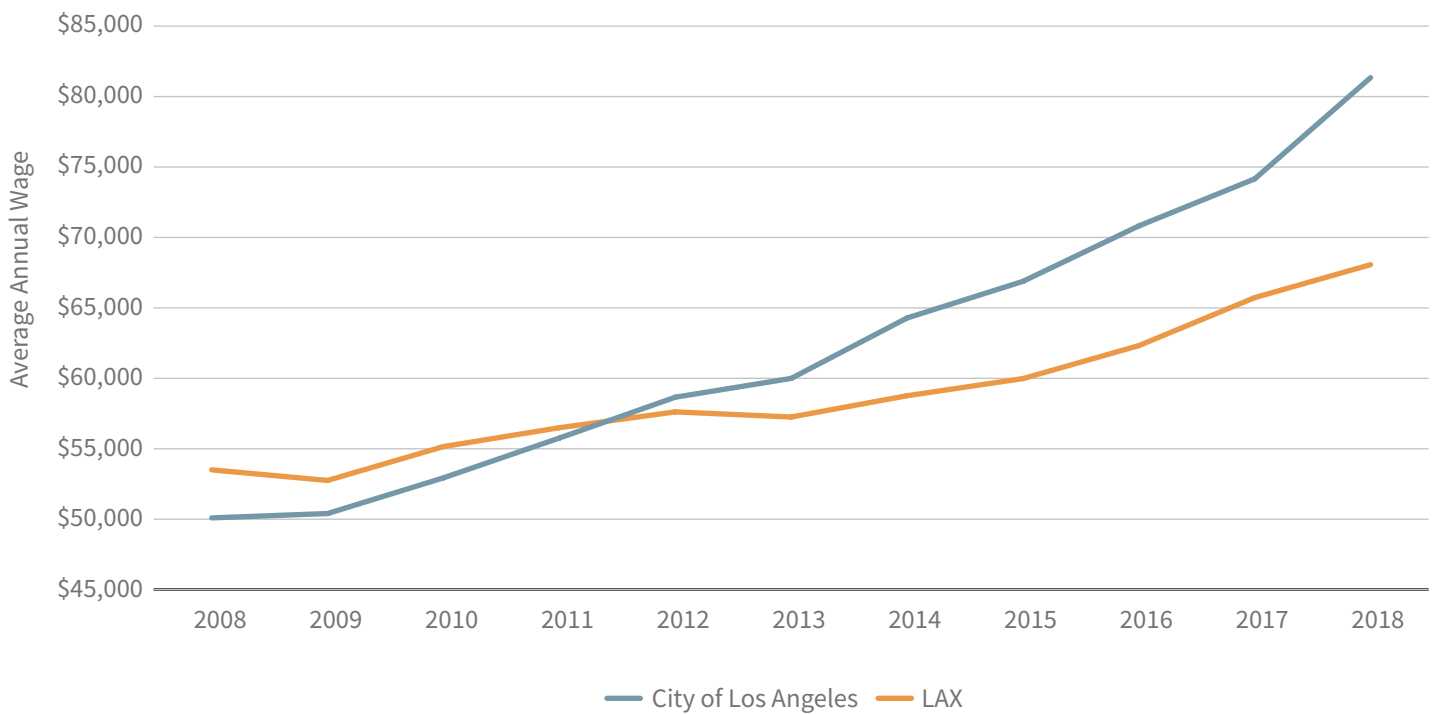
The area surrounding LAX had some of the fastest employment growth, nearly 25,000 jobs, in the City from 2008 to 2018, second only to Downtown. The LAX region is the second-largest employment center in the City, accounting for about 100,000 private sector jobs in 2018, and pays annual wages \$13,000 higher than the citywide average.

FIGURE 36: EMPLOYMENT CHANGE AT LAX (2008-18)

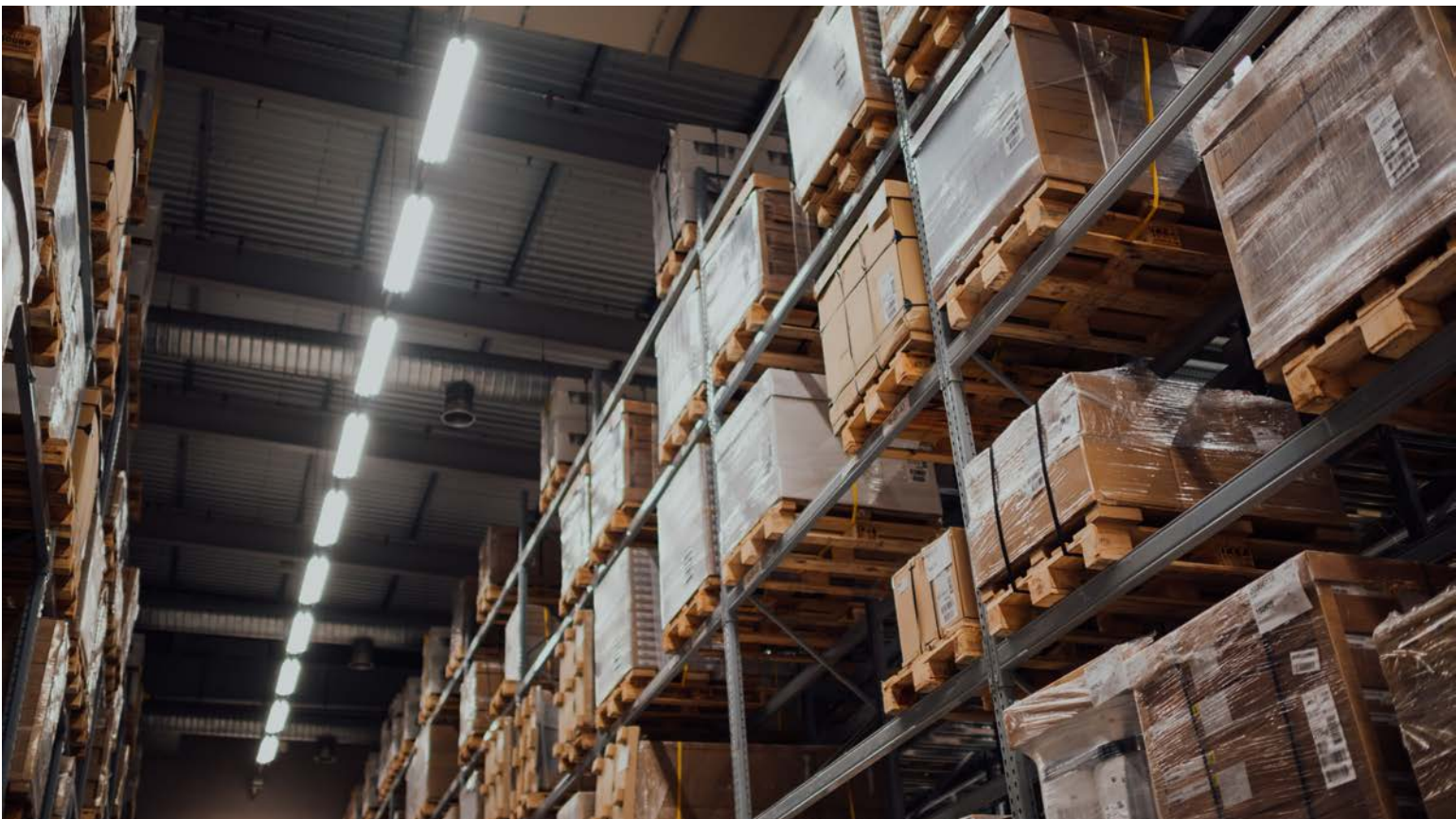


Source: California EDD; Analysis by Beacon Economics

FIGURE 37: WAGE CHANGE IN LAX AND LOS ANGELES (2008-18)

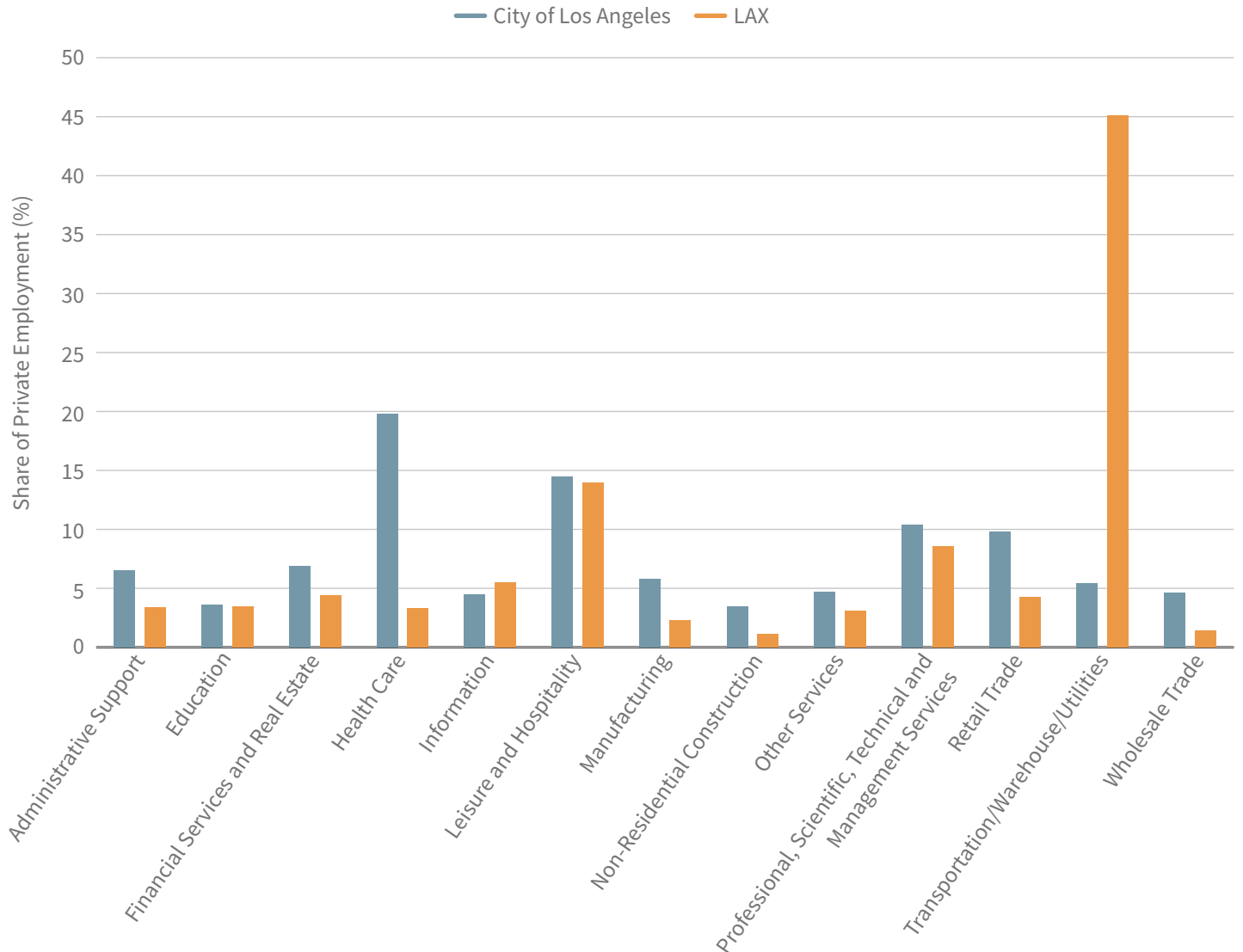


Source: California EDD; Analysis by Beacon Economics



The center's major strength is in Transportation and Warehousing, accounting for 45% of the jobs in the region, compared to 5.4% for the City as a whole. Leisure and Hospitality is the second-largest sector, accounting for about 15% of jobs, roughly in line with the City average. The presence of Leisure and Hospitality, again, is directly related to the airport. Most other sectors are smaller contributors to the center than is the case for the City's economy.

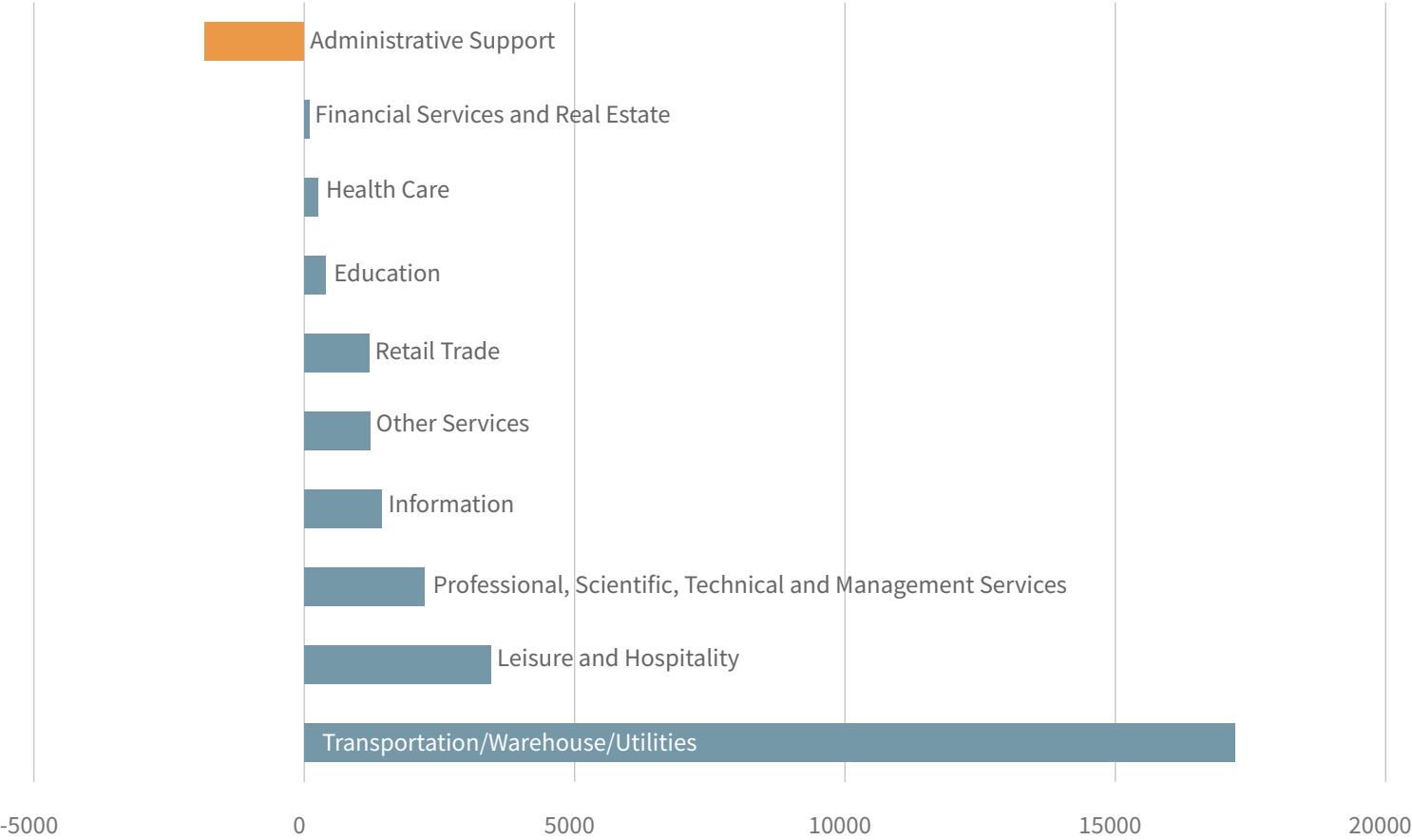
FIGURE 38: EMPLOYMENT SHARE IN LAX AND LOS ANGELES BY MAJOR INDUSTRY (2008-18)



Source: California EDD; Analysis by Beacon Economics

Most of the center’s employment growth was in the Transportation and Warehousing sector, where over 17,000 jobs were added over the period. This trend will continue as e-commerce consumes a larger share of retail sales.

FIGURE 39: EMPLOYMENT CHANGE AT LAX BY MAJOR INDUSTRY (2008-18)



Source: California EDD; Analysis by Beacon Economics

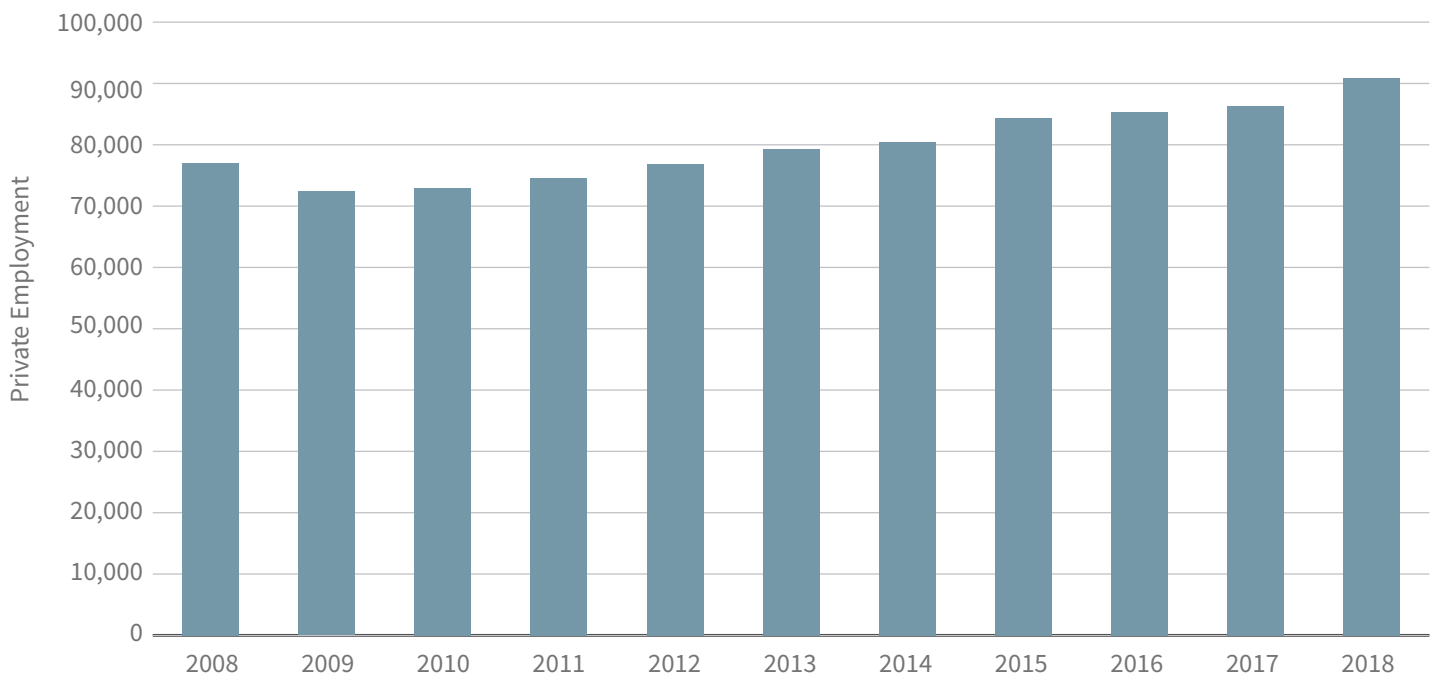
Overall, there’s little scope for change in land use in the LAX region. Land use will continue to support and service the airport, and its patterns will remain stable for the foreseeable future.



West Los Angeles

West Los Angeles is the City's third-largest job center, with about 91,000 workers in 2018. The cluster includes Century City, known for its skyscrapers and the recently renovated Westfield mall. West Los Angeles' annual job growth has exceeded the City average.

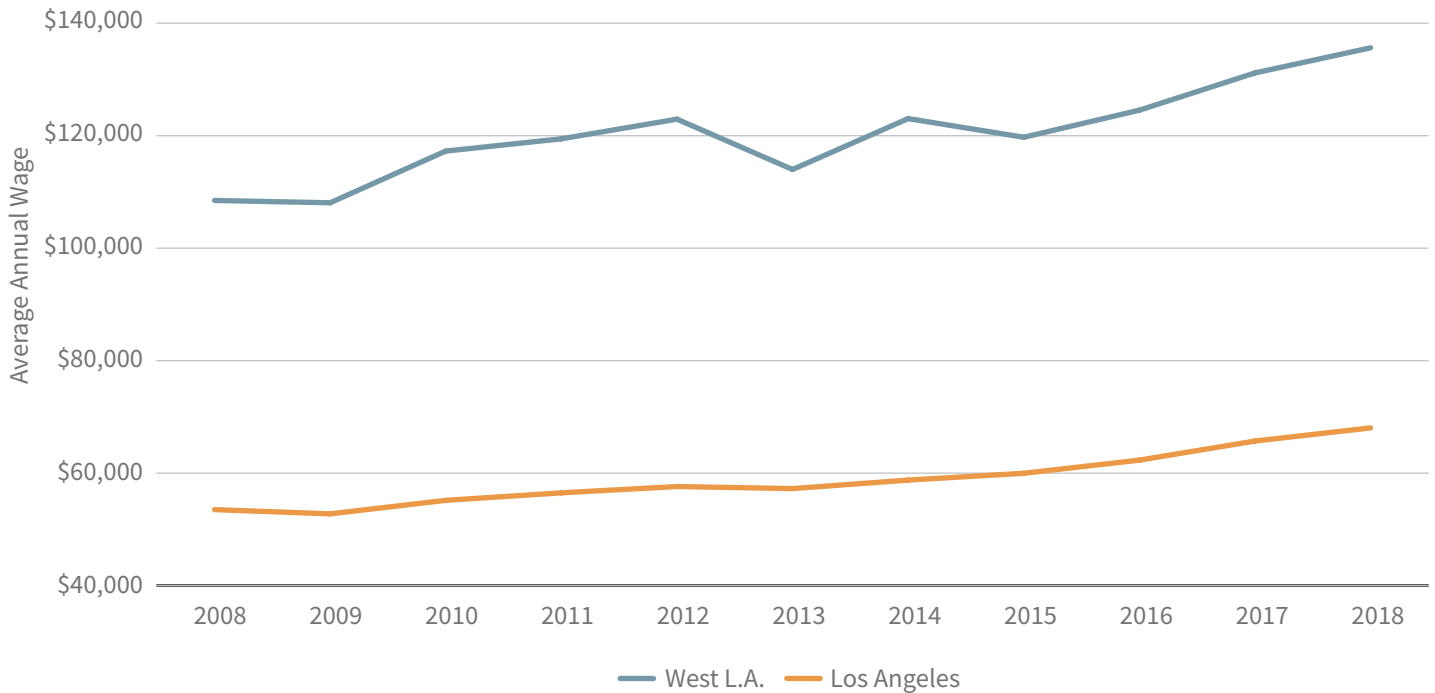
FIGURE 40: EMPLOYMENT CHANGE IN WEST LOS ANGELES (2008-18)



Source: California EDD; Analysis by Beacon Economics

West Los Angeles' economy is particularly impressive because of its high-paying jobs. In 2018, the average job in West Los Angeles paid \$136,000, about double the citywide average. The wages are driven by the center's concentration in three primary sectors. Financial Services (12.5%), Information (15.4%), and Professional, Scientific, Technical, and Management Services (24.2%) account for half the jobs and are some of the high-paying sectors of the economy. Compared with the rest of the City, the center has far fewer jobs in Health Care and Manufacturing.

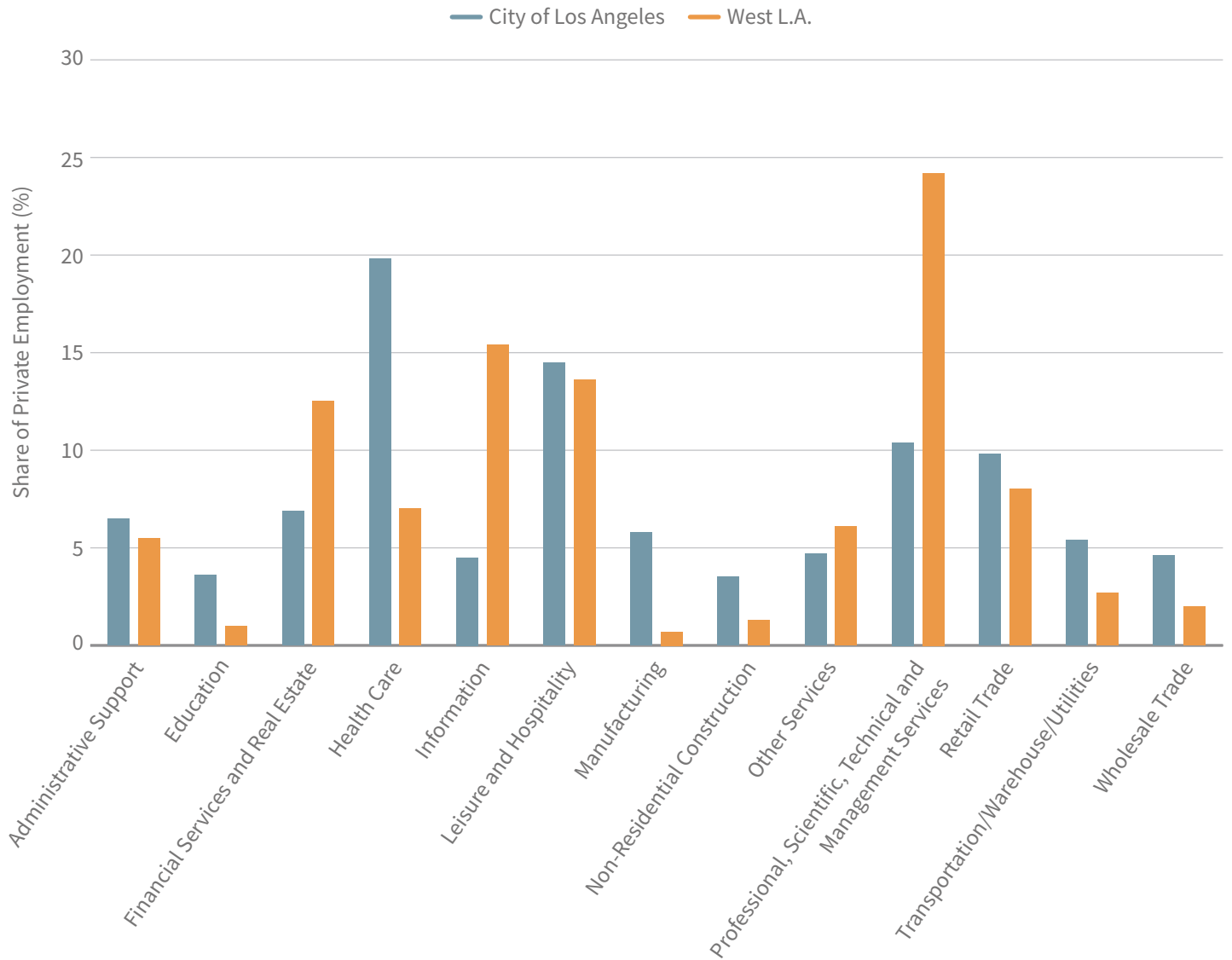
FIGURE 41: WAGE CHANGE IN WEST LOS ANGELES AND LOS ANGELES (2008-18)



Source: California EDD; Analysis by Beacon Economics



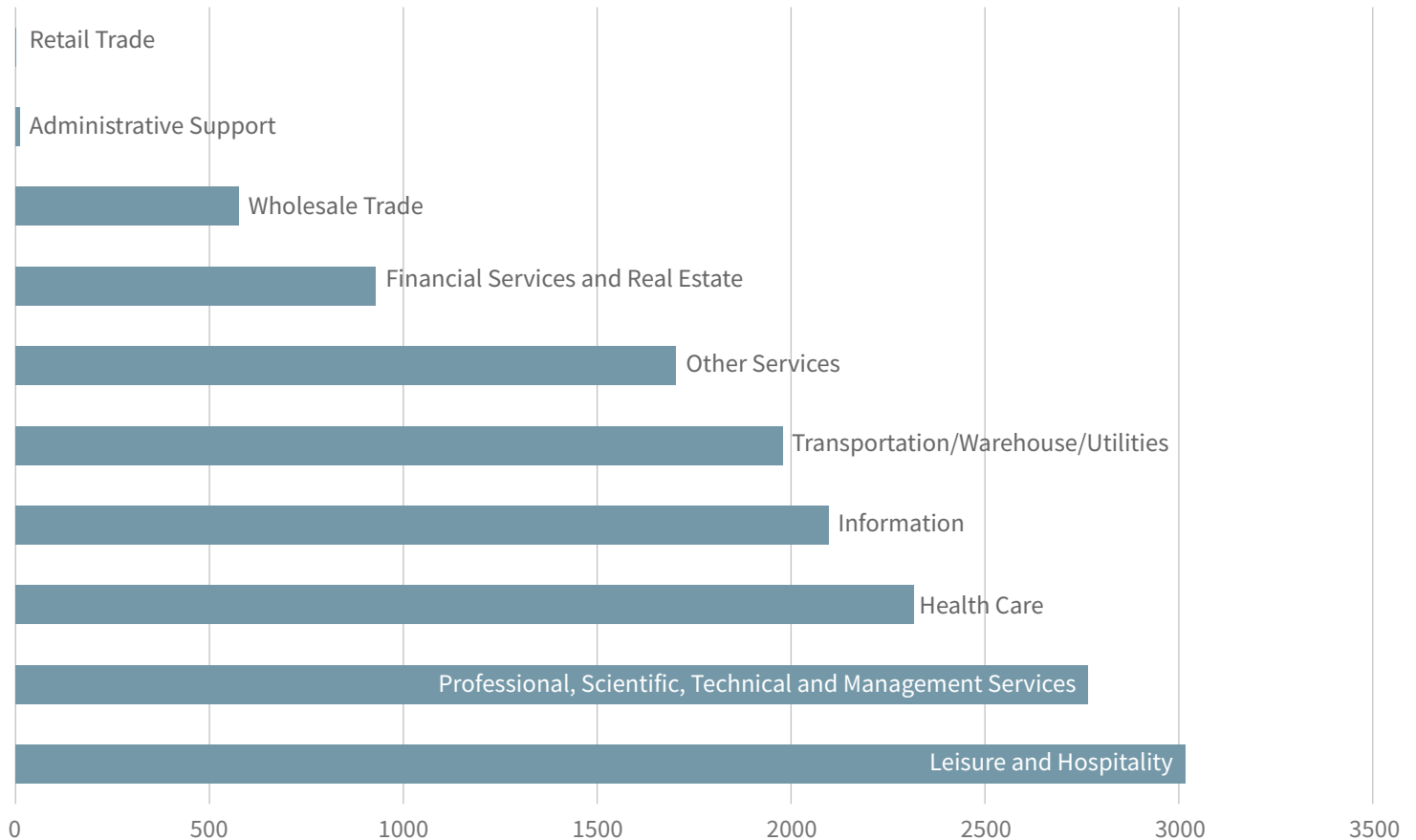
FIGURE 42: EMPLOYMENT SHARE IN WEST LOS ANGELES AND LOS ANGELES BY MAJOR INDUSTRY (2008-18)



Source: California EDD; Analysis by Beacon Economics

Job growth in the cluster has been broad-based, with the most gains concentrated in Leisure and Hospitality; Professional, Scientific, Technical, and Management Services; and Health Care.

FIGURE 43: EMPLOYMENT CHANGE IN WEST LOS ANGELES BY MAJOR INDUSTRY (2008-18)



Source: California EDD; Analysis by Beacon Economics

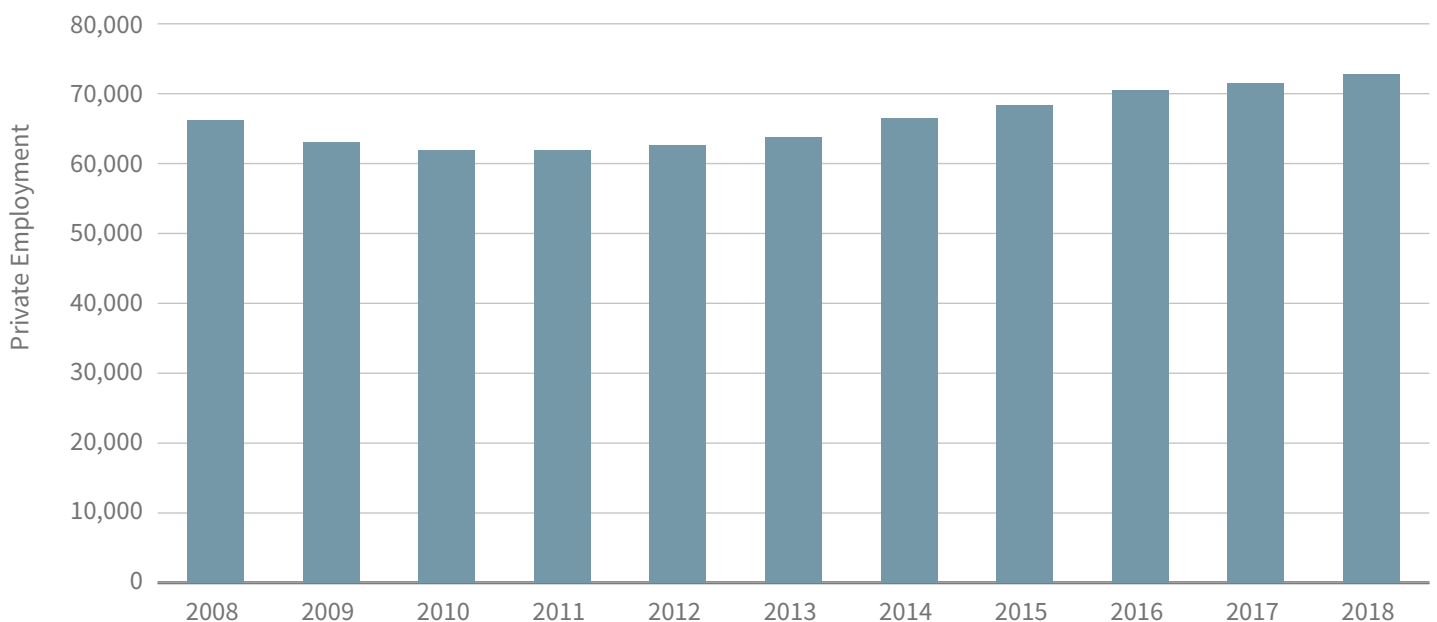
West Los Angeles is also prominent in expanding sectors of the economy. There is almost no heavy industry, which means there will be little need to repurpose land in the region. This part of the City will continue to grow along with the knowledge economy.



Woodland Hills

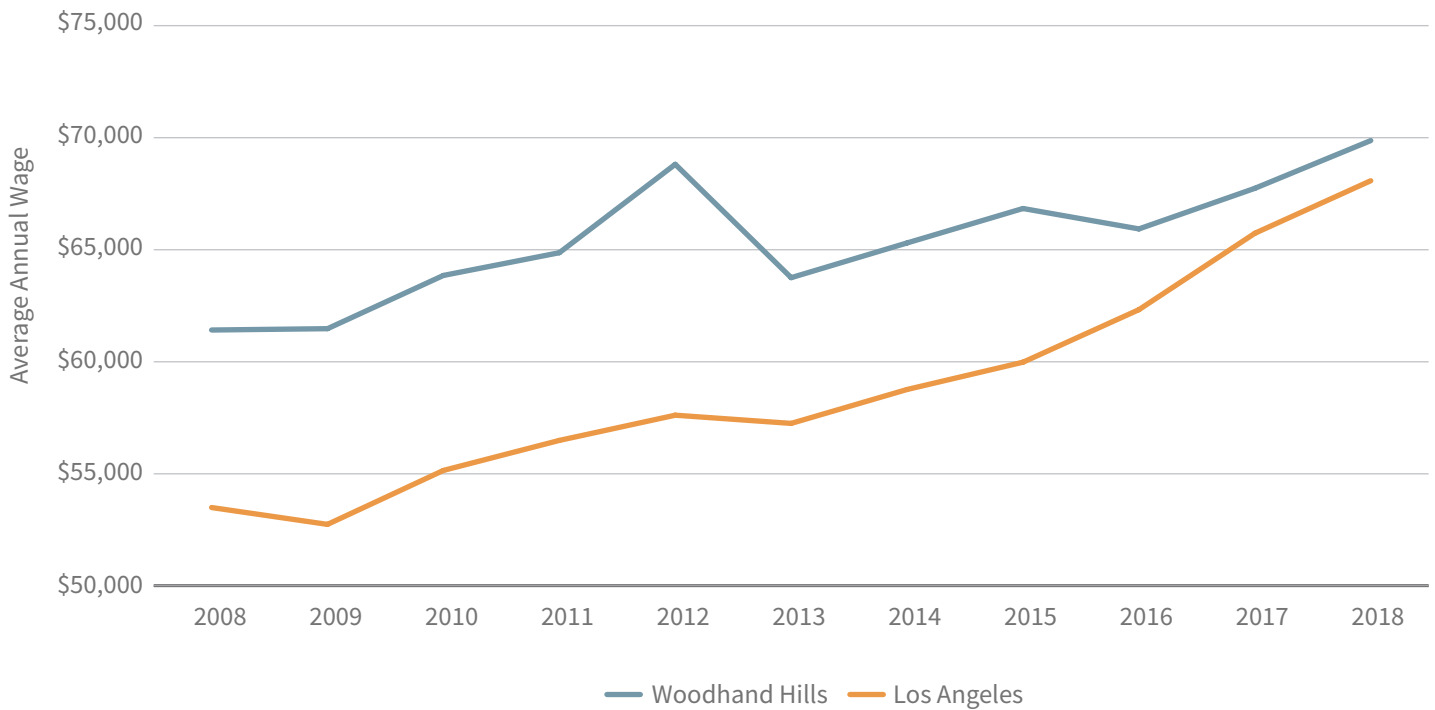
Woodland Hills, the City's fourth-largest employment center, had steady job growth over the 10-year period. Its wages are slightly higher than the City's average. The center's core strength is in the Financial Services sector (20% of jobs), Professional, Scientific, Technical, and Management services Sector (13%), and Administrative Support (13%). It has very little land devoted to heavy industry.

FIGURE 44: EMPLOYMENT CHANGE IN WOODLAND HILLS (2008-18)



Source: California EDD; Analysis by Beacon Economics

FIGURE 45: WAGE CHANGE IN WOODLAND HILLS AND LOS ANGELES

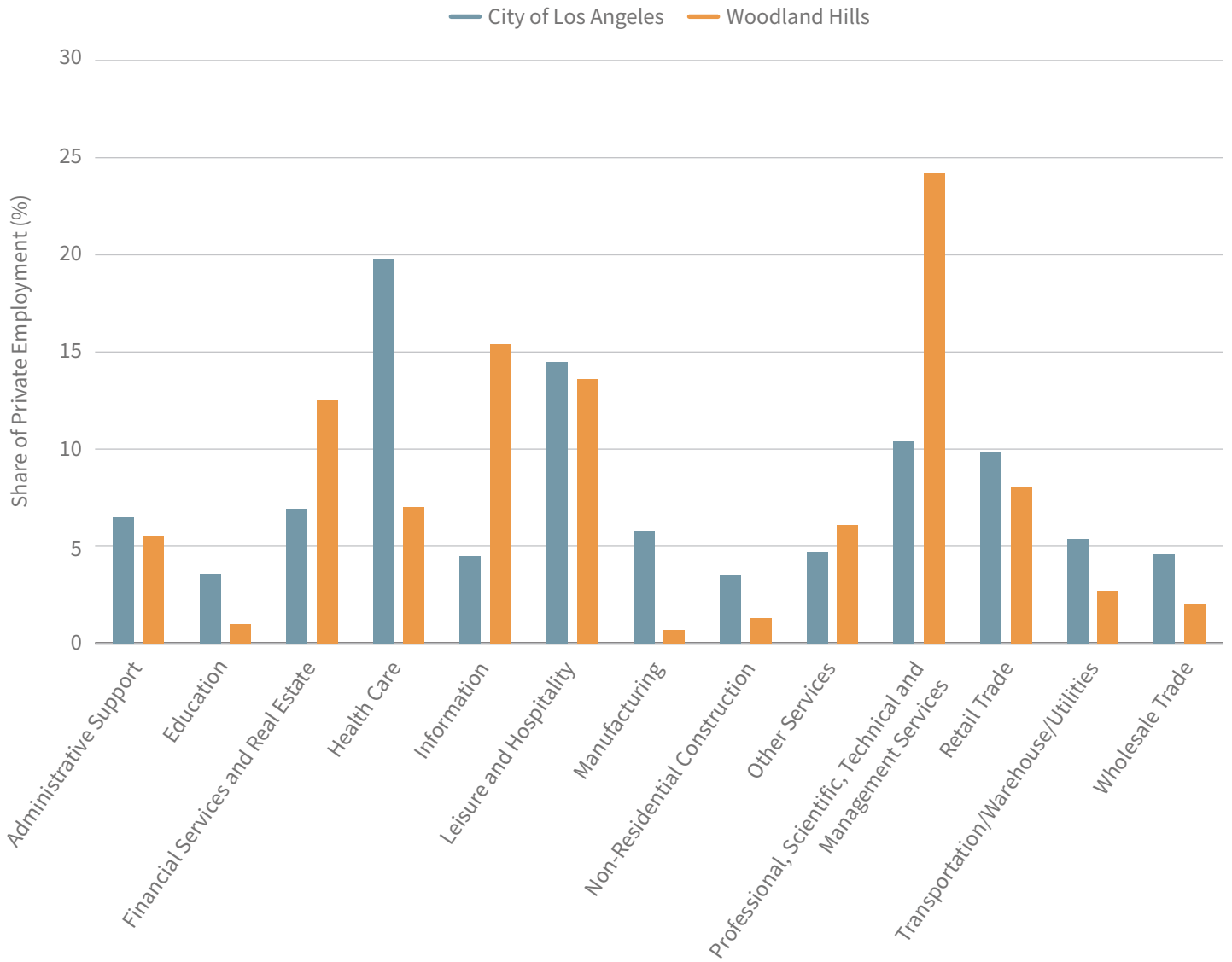


Source: California EDD; Analysis by Beacon Economics



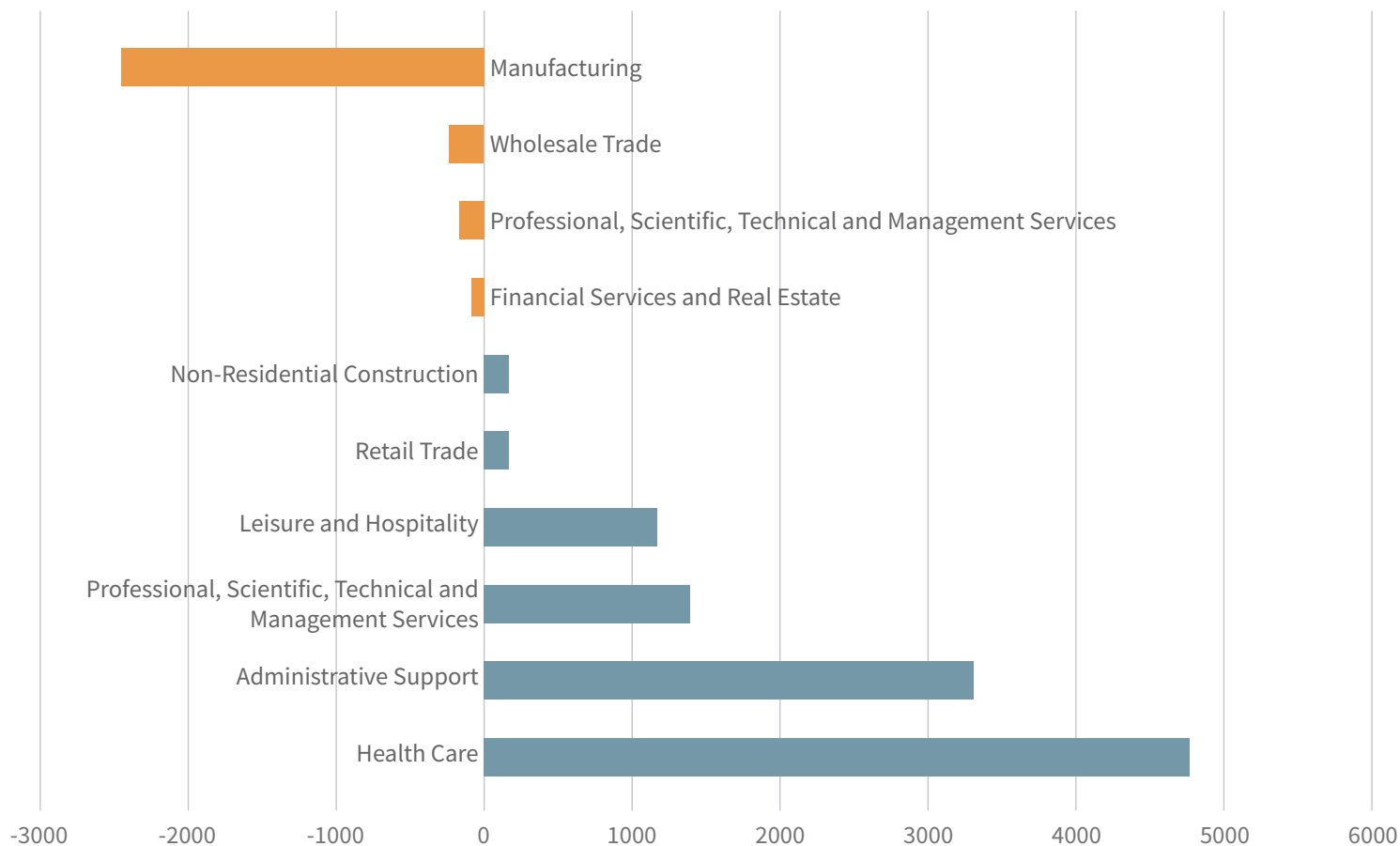
Despite the center's core strengths, the largest job gains occurred in the Health Care and Administrative Support sectors. Losses occurred in Manufacturing.

FIGURE 46: EMPLOYMENT SHARE IN WOODLAND HILLS AND LOS ANGELES BY MAJOR INDUSTRY (2018)



Source: California EDD; Analysis by Beacon Economics

FIGURE 47: EMPLOYMENT CHANGE IN WOODLAND HILLS BY MAJOR INDUSTRY (2008-18)



Source: California EDD; Analysis by Beacon Economics

Land use patterns in Woodland Hills should remain stable because its industries are concentrated in secure sectors of the economy.

CLUSTERS BY INDUSTRY

Health Care Clusters

In the Van Nuys, West Hills, Los Feliz, and Mid-Wilshire clusters, employment is much more concentrated in the Health Care sector than it is in the rest of the City. Each of these clusters is home to major hospitals and medical centers. Health Care is the City's largest and fastest-growing sector. As the industry expands, employment growth in these clusters should continue and land use patterns should remain relatively stable. Furthermore, as other sectors downsize in the clusters, this land could be reoriented toward the Health Care Industry.

Manufacturing Centers

The economies of Sun Valley, Sylmar, Chatsworth, Lake Balboa, and South Los Angeles disproportionately specialize in Manufacturing. As such, they had almost no job growth (700) from 2008 to 2018. This means that, for these neighborhoods, gains in other sectors of the economy have been offset by Manufacturing losses. Manufacturing job losses in these communities provide opportunities to repurpose land for other activities, such as Transportation and Warehousing. This is detailed in the following chapter.

Professional Services and Information Clusters

The Hollywood, Koreatown, UCLA, Encino, and Venice clusters disproportionately specialize in Professional Services and Information. As such, they have relatively high-paying jobs. Furthermore, each of these clusters had above-average employment growth between 2008 and 2018. Such neighborhoods will be key beneficiaries if the City nurtures and attracts the knowledge sectors of the economy.

Leisure and Hospitality Centers

The Studio City, Brentwood, Venice, and Northridge clusters are home to a disproportionate share of jobs in the Leisure and Hospitality sector. As described at the outset, Leisure and Hospitality is one of the fastest growing in the City. As such, land use patterns in these communities will probably remain stable.



PART 3: POLICY ANALYSIS AND RECOMMENDATIONS

This chapter examines local economic development policymaking to understand which policies have succeeded and which have had less favorable outcomes. It pays particular attention to efforts to develop clusters of activity within regions and draws from best practices and real-world examples to provide policy recommendations, which support the use of the proposed Los Angeles Municipal Development Corporation (LAMDC) as the best vehicle to provide support to further industry and economic growth.

To determine what types of policies to pursue, it is important to establish how each industry contributes to a city's economy. Industries can be broadly divided into two categories. The first, often referred to as non-traded industries, primarily serve local populations. These goods and services are mainly consumed by a region's residents and not shipped, or "traded," to other places. Traded industries' goods and services are produced locally but mostly consumed outside of the region.

These two types of industry play different roles in a region's economic vitality. For example, the wages paid to a movie production crew effectively come from revenue generated by consumers outside the region. These wages are then spent in the region, generating revenue in the local services, or non-traded, sectors.

Average wages are driven by differences in the wages paid by the traded sector of the economy, which differs from one place to another. Bay Area wages, for instance, are higher than those in Visalia because its traded sector comprises tech businesses rather than agriculture ones. Cities typically target traded industries with their economic development policies in efforts to boost incomes locally. No state or regional economy targets hair salons, for example, as part of long-term economic development strategies.

COMMON ECONOMIC DEVELOPMENT STRATEGIES

In the United States, cities annually devote from \$7 to \$16 per resident (or a total of about \$3 billion to \$6 billion) to their economic development agencies. This is a small fraction of total economic development funds, however, because at least \$20 billion a year is spent on tax incentives to attract local businesses. In targeting specific sectors of the economy, local development strategies typically fall into three categories: targeted workforce development, business attraction, and cluster development.

Targeted Workforce Development

Industry-specific training and certification programs have been demonstrated to boost employment outcomes. But the programs are less successful if, for example, a city without a tech presence trains its residents as coders. The most likely outcome is that the residents will move to locations that need their new skills.

Business Attraction Policies

Business attraction policies encourage firms to locate in a certain place. Starting in the 1920s, for example, Southern states attempted woo out-of-state firms through tax exemptions, subsidized financing, marketing strategies, and publicly funded site and infrastructure improvements. A more recent example is the competition among local governments nationwide to incentivize Amazon to site “HQ2” in their jurisdictions. Billions of dollars were offered by governments to become Amazon’s second home.

For the most part, such efforts are ineffective and wasteful. Policies such as tax incentives are rooted in the idea that a particular firm will locate in a certain place to cut costs. But some of the most successful clusters in the U.S. — Silicon Valley, Hollywood, and Wall Street, for example — are in the country’s most expensive locations. Apple is not in Silicon Valley because it is cheap, and the same is true for the Walt Disney Co. in Southern California and JPMorgan Chase & Co. in New York. All else being equal, each of these companies would rather pay less for real estate. But the cost savings for each of these companies from moving to a cheaper location would be offset by the losses from leaving regions where they can readily access industry-specific workers and suppliers.

Cluster Policies

These cover a range of efforts targeted at developing particular sectors of the economy. These can include the workforce development and business attraction strategies described above, but are typically wider in scope. For decades, a global race has been underway by local governments to become the next Silicon Valley or Hollywood, with policies that seek to reverse-engineer what are thought to be the components of those ecosystems. This might include pursuing incentives for firms to locate in a given place, developing the labor force for a particular sector, supporting the local R&D and innovation system, (which may encourage entrepreneurship and firm formation in a particular area), and stimulating demand for the products of a targeted industry through public procurement and private tax credits.

Cluster policies have not had much success in attracting new industries. For the most part, the great U.S. clusters, including Hollywood, Silicon Valley, and Wall Street, did not emerge through the efforts of local governments. Two of Los Angeles’ most iconic clusters, Hollywood and the Aerospace Industry, for example, emerged from the minds of pioneers like Howard Hughes and the Warner Bros. rather than through cluster policies.

Rather than trying to re-create a cluster found in another region, cluster policies can be much more successful when they encourage burgeoning and established local industries. In the Los Angeles context, the Logistics Industry is a good example. The Ports of Los Angeles and Long Beach lacked a natural deep bay that could accommodate large trawlers. In addition to adapting local infrastructure for a modern logistics complex, the bay was dredged to facilitate creation of a major port complex. In summary, the most fruitful development strategies require nurturing a City’s existing economy rather than trying to replicate the success of other regions. For Los Angeles this means identifying emerging industries and supporting its developed industries.

CASE STUDIES

Los Angeles has demonstrated great success in expanding industries already established in the region. In addition to the public sector's role in the development of the Logistics Industry, the City also has a long history of supporting the Entertainment Industry through permitting, streamlining, and tax assistance. The City can draw lessons from the success of other regions that have succeeded in cluster development.

Model Clusters

Memphis, Tenn., Logistics Cluster

Memphis, Tenn., is one of the biggest Logistics clusters in the United States. Many high-profile multinational corporations, such as FedEx, chose Memphis at their base of operations. Asked why FedEx based its operations there, the chairman cited the lack of natural disasters and seasonal disturbances. Its central location, plus robust transportation infrastructure, and cheaper comparative real estate for factories and warehousing, made it a particularly attractive location.

Memphis' transport runway, built in 2000, accommodates and transfers nonstop loads of commercial cargo. The central location for deliveries and transport runway has secured the city as one of the nation's most efficient Logistics hubs. Its central location means that goods can be transported at the most efficient cost because no mileage is wasted.

The appeal of Memphis as a Logistics hub has attracted other industries, including Biotech, to agglomerate there, taking advantage of the speed that medical equipment can be delivered from Memphis to other states. The supply chains between the Logistics and Biotech industries have strengthened the cluster and illustrate how interdependence between firms and industries can strengthen clusters. The efficiency of Memphis as a Logistics cluster has given rise to a host of industries, including Pharmaceuticals, Telecommunications, Floristry, and Information Technology, that depend on quick and efficient supply chains.

San Diego Life Sciences and Biotechnology Cluster

The Life Sciences and Biotechnology clusters in San Diego have been decades in the making. At the end of the 19th century, people with respiratory problems moved to the region from more polluted cities. During this time the City invested heavily in hospitals and health research clinics. In the first half of the 20th century, the Scripps Institution of Oceanography, the Salk Institute, the University of California San Diego (UCSD), a military base, and aircraft development centers were developed.

The City of San Diego used zoning laws to facilitate the integration of research institutes, UCSD, and related businesses. The City also donated public land to UCSD to create research facilities near campus with the idea of attracting academics. The cluster took shape as UCSD, the Scripps Research Institute (TSRI), and military aircraft facilities collaborating in engineering and science to develop military technologies. An increase in federal funding at the time also enabled a partnership among the National Institutes of Health (NIH), UCSD, the Salk Institute, and TSRI. This greatly enhanced the region's research capabilities, which in turn attracted other similar firms, institutes, and professionals.

From 1960 on, many new firms and research institutes were established, including the La Jolla Cancer Research Center in 1976 (now the Sanford-Burnham Presbyterian Medical Discovery Institute) and the La Jolla Institute for Immunology in 1988. Through these years the NIH was instrumental in providing funding and grants to the research institutes and universities in the region. In 1971 the University of California worked with the City to develop a Life Sciences cluster around the university. The creation of the cluster proved a success, with new companies formed by former academics at UCSD through venture capital funding. By the early 2000s, San Diego had become one of the nation's biggest Biotechnology and Life Sciences hubs. Life Sciences and Biotech industries flourish near areas of knowledge, and San Diego and UCSD provided a perfect ecosystem for these fields by facilitating the creation of research institutes, an educated workforce, entrepreneurial incentives, and funding.

Model Agencies

New York City Economic Development Corp.

Founded in 1991, the New York City Economic Development Corp. (NYCEDC) promotes economic growth by investing in infrastructure to support community development, leverage City assets to promote innovation, and drive sustainable and resilient growth to make it easier for businesses to start, grow, and thrive in New York City. Its mission has four focus areas: (1) Investing in neighborhoods to address longstanding needs; (2) Building a more sustainable City to meet the challenges of climate change; (3) Creating workforce development opportunities to help New York compete with 21st century industries; and (4) Aiding the growth of startups and established companies to ensure New York City's competitive edge.

The NYCEDC's 27 board members set the organization's strategies. In 2016 the NYCEDC carried out 46 land sales totaling \$536 million and collected rent on 89 leases totaling \$126 million. NYCEDC 554 Financial Assistance Investment Projects have led to 5.9% of total private employment in the City and \$36.1 billion in private investments. It focuses on strategic clusters of industries already present in the City (Fashion, Technology, Life Sciences, Manufacturing and the Arts). Its programs and initiatives tailored to these sectors include:

- Bio & Health Tech Entrepreneurship Lab NYC, a six-month program for STEM graduate students interested in forming ventures in Life Sciences and Health Care technology
- Cyber NYC, a public-private investment vehicle (with \$100 million in funding) that seeks to expand the City's cybersecurity workforce
- The Fashion Manufacturing Initiative, which promotes the local Apparel Industry through grants, programs, collaborations, and a searchable production database
- The IDA Life Sciences Program, which provides Life Sciences companies with tax benefits (real estate tax reductions, sales tax exemptions, and mortgage recording tax reduction) to support job creation and promote growth of the industry

Philadelphia Industrial Development Corp.

Founded in 1958, the Philadelphia Industry Development Corp. (PIDC) is a nonprofit partnership between the City and the Greater Philadelphia Chamber of Commerce. Its mission is to spur investment, support business growth, and foster development that creates jobs, revitalize neighborhoods, and drive regional growth. It is governed by a 30-member board appointed by the mayor and the Chamber of Commerce president.

The PIDC has overseen roughly 6,300 transactions, including \$11.8 billion in financing that has leveraged over \$21 billion in total investment and assisted in creating and retaining jobs. In 2016 the PIDC facilitated the investment of over \$1 billion in capital and over 23 acres of land sales citywide. In 2017 it provided \$1.9 billion in financing, engaged in 74 acres of land sales, offered \$12 million in loans to small businesses, and administered \$34 million in grant funds leveraging more than \$205 million in total project investments. The PIDC primarily targets manufacturing and industry, commercial small business, and nonprofits and community investment. Current projects:

- Industrial Land Management, which focuses on the City's industrial land inventory, acquisition, and improvement across 18 industrial parks
- University City Expansion, a partnership with the University of Pennsylvania and the Children's Hospital of Philadelphia to convert the former Civic Center and Philadelphia General Hospital complex into a 2.75-million-square-foot campus of hospitals, health care facilities, and research centers
- StartupPHL, which provides support and grants to startups and early-stage business development in the region

Lessons

In designing policies around clusters, agencies should take a localized approach to proven success stories. Clusters should be identified and prioritized instead of trying to synthetically create a cluster. A region should draw on its resources, strengthening and centralizing them by linking already fragmented clusters and agglomerations of firms. A region's employment base should also be considered. For instance, a Biotechnology cluster that may be feasible in San Diego may not work in the High Desert, which lacks the employment base to support it.

A region should be able to meet the needs to expand and facilitate the cluster. Government agencies should act as intermediaries between public and private entities in cluster formation. An alignment between industry, public institutions, universities, and their goals and priorities are required, given the dynamic and ever-evolving nature of clusters. Openness and levels of trust are key to the growth of a cluster at all levels, including information sharing, transparency in funding, and using financial instruments and public assets. Clear common goals set out by government should be realistically and financially doable within reasonable periods (short and long term). Establishing and empowering an agency whose primary function is to oversee such tasks could be a first step.

RECOMMENDATIONS

This section discusses how to translate the analysis of the City of Los Angeles' land use patterns and awareness of successful development interventions nationwide into a series of recommendations. Upon request by the Office of the Controller, these recommendations will be placed in the context of the current CEDS and focus on actions that the proposed LAMDC or City agencies could take. The LAMDC is not only uniquely positioned to supplement the Department of City Planning (DCP) and Economic and Workforce Development Department's (EWDD) current work in this area, but it can also lead programs addressing land use and industry cluster development.

The CEDS provides policy guidance to stakeholders directly or indirectly involved in driving the City's economic development, and it has 15 action items in a five-year implementation plan. Although created by EWDD, the strategy tasks other agencies with specific actions in support of these goals:

1. Strengthen Los Angeles' position as a world-class city
2. Ensure growth is equitably distributed
3. Increase the resilience of core industries
4. Catalyze emerging and growing industries
5. Support the City's small businesses
6. Create financial and economic security for disadvantaged Angelenos
7. Develop world-class infrastructure to enable economic growth
8. Enhance the delivery of economic development

Because the LAMDC is still in the proposal stage, it does not appear in the CEDS as a lead or supporting agency for any tasks. Yet it has the potential to serve more functions than other City offices, departments, and agencies, depending on how expansively its mandate is defined (see Figure 48).

Although conceived as “a nonprofit corporation that would streamline the City’s current fragmented approach to the management of its real estate assets,”⁶ the LAMDC could act alongside the EWDD in creating and implementing development strategies. As the CEDS notes, “coordinated asset-management strategies that maximize the benefit of underused property to catalyze industry growth and/or neighborhood revitalization” will prove key to the City’s economic development. The LAMDC could also be a coordinating body, serving as a bridge not only between the DCP, EWDD, General Services, and other departments in terms of reallocating City-owned parcels for development, but also between public and private sectors. By marrying a spatial planning mindset with a robust real estate portfolio and combining an economic development mandate and private sector expertise, the LAMDC provides the City with a unique platform to innovate and experiment. Potential roles are described below.

A Leadership Role

- **Asset Management:** As the primary manager of the City’s real estate portfolio, the LAMDC would be best positioned to oversee CEDS Action Item 2.6 (Enhance Implementation of Asset-Management Functions), which is currently assigned to four different entities. Per the strategy, one of the key purposes of this action item is to “review surplus properties over a certain size to assess municipal needs, determine economic development potential, and identify the best uses.” Such a strategic posture allows for the reuse of underused or vacant lands for purposes that may not always be recognized by private developers on a parcel-by-parcel basis. Soliciting foreign investment (through leased land offers or attractive development opportunities) in key areas via the EB-5 Investors Program can foster job growth and fiscal revenue that can be used with other development approaches.
- **Real Estate Development Support:** The LAMDC Board will comprise real estate and finance experts who can help the City identify opportunities for real estate development based on regional or industry cluster needs and help structure financial tools and incentives to start the projects. One could be workforce housing near industry clusters. Such housing, for households whose wages are too high to qualify for traditional subsidized housing, could attract talent to employment cores that otherwise lack adequate labor. The LAMDC could help structure new bonds or leverage tools such as Freddie Mac’s non-LIHTC Forward loans.
- **Business and Industry Development:** With the EWDD focused on fostering growth at the business level, the LAMDC can promote growth at the industry level, particularly with respect to the following CEDS action items:
 - 2.A: Develop Transformative, Industry-Focused, and Place-Based Initiatives
 - 2.E: Integrate Physical Planning Efforts and Economic Development Objectives
 - 4.B: Streamline Services and Support for Core Industries

As the City’s real estate asset manager, the LAMDC can repurpose parcels as needed for a variety of place-based projects, including the establishment of short- to medium-term incubators, accommodation for new anchor institutions, and the provision of land for in-demand support services for surrounding industries (which in turn may attract new businesses). The LAMDC’s in-house expertise enables it to identify potential public-private partnerships, help “close the gap” with developers who need assistance in finishing projects, and use the DCP’s commercial and industrial land use policies into beneficial developments. Furthermore, much in the way that the EWDD oversees microloan and small-business loan programs, the LAMDC can administrate Section 108 loans to help finance major projects (such as revitalization zones and enterprise zones) in underserved communities.

⁶ From the Aug. 12, 2019, White Paper “Real Estate Asset Management: Los Angeles Municipal Development Corporation.” Retrieved from <https://lacontroller.org/audits-and-reports/real-estate-asset-management/>

FIGURE 48: CORE ECONOMIC DEVELOPMENT SERVICES BY RELEVANT ENTITIES AND PROPOSED LAMDC ROLE

City Government									
Mayor's Office	●					●		●	
City Council	●								
Appointed Office									
City Legislative Analyst	●	●			●				
City Administrative Officer	●	●	●		●				
Finance						●		●	
City Departments									
EWDD	●	●			●		●	●	●
Housing and Community Investment		●			●				
Housing Authority									
City Planning	●	●	●				●		
Buildings and Safety		●							
General Services					●				
Public Works			●		●				
Proposed Entity									
LAMDC	●	●			●		●	●	

● Direct Provision ● Indirect Provision

Source: : City of Los Angeles Citywide Comprehensive Development Strategy; Analysis by Beacon Economics

A Supporting Role

- **Strategic Planning and Policy:** Working with the Mayor’s Office, City Council, and DCP, the LAMDC can help support Citywide policy. Because the LAMDC is not actively involved in zoning, it cannot lead on Action Items such as 2.D (Revisit and Update Industrial Land Preservation Policies), which requires the DCP to develop “incentive zoning systems in largely industrial areas that support the creation of higher-intensity job uses.” Still, it can advise the DCP on opportunities based on available City land and visibility of industry cluster development and advise on designing incentives for target industries.
- **Small Business:** As mentioned, the EWDD is better suited to address small-business needs, but the LADMC can support the department when spatial considerations are involved. An example could be Action 2.C (Create a Commercial Affordability Toolkit), which requires the EWDD to explore “an affordable commercial space program for small and underrepresented businesses and nonprofits to incentivize their retention in their neighborhoods.” As a conduit between local industry representatives and the DCP, the LAMDC can help identify zoning incentives and advise on the creation of specific ordinances that would allow existing small businesses to stay in place.
- **Workforce Development:** Given its higher-level industry focus, the LAMDC can identify workforce skill needs across several sectors and work with the EWDD to develop broad-based and targeted occupational training programs. The LAMDC’s most valuable contribution may be leveraging its real estate earnings to help fund workforce development programs underway through public, private, and nonprofit channels.

As the City contemplates what form the LAMDC will ultimately take, it should consider other development opportunities not directly identified by the CEDS. Potential areas of interest to explore include:

- **Declining Sectors:** The CEDS notes that Los Angeles has a diversified Manufacturing sector with 90,000 workers but which is shedding jobs year over year. Although propping up maturing legacy industries rarely succeeds in the long term, the City can identify and invest in manufacturing subsectors that are growing (such as Advanced Manufacturing) while nudging existing Manufacturing workers toward jobs that leverage their skills. Targeted workforce development to areas with high concentrations of Manufacturing workers and employer incentive programs that encourage apprenticeships may provide some relief amid continued job losses.
- **Emerging Sectors:** Los Angeles has many fledgling sectors that would benefit from a light regulatory touch as they find their footing. In the emerging cannabis industry, for example, licenses are limited, and businesses lacking them are taxed at a rate higher than any other jurisdiction in the State. Although there is merit in seeking to prevent problems, many entrepreneurs may be forced out of the market through well-meaning but ill-suited regulations. This is especially important in light of the so-called gig economy, which may foster innovations that lead to burgeoning new sectors.
- **Program Assessment:** The Office of the Controller manages the City’s payroll and spending and audits program implementation. As agencies and departments work on CEDS projects, the Office is positioned to help with financing and evaluate initiatives. Cataloging what works and what doesn’t as the City embarks on new approaches to economic development will be critical as implementation continues and certain programs are renewed. Transparent and consistent reporting will also improve accountability to City stakeholders and the public.



CONCLUSION

Los Angeles is one of the country's great economic development success stories and home to some of the nation's most iconic industries. But the life cycle of industries means that some of the City's historical industrial strengths have become less important to its economy. But as some windows close, others open. As such, there is an opportunity to create an organization that can leverage the City's development infrastructure and assets around a common vision for the economy of tomorrow. The establishment of the LAMDC will not only complement work now underway but also provide Los Angeles with a broader capacity to foster growth. By building on best practices and enabling the LAMDC's full potential, the City will be better equipped to achieve new growth and prosperity.

APPENDIX: METHODOLOGY

Industry Analysis

Industry data contained in this report are derived from establishment-level payroll data furnished by the California EDD. The agency collects employment and wage data for every establishment enrolled in the State's Unemployment Insurance program. Entities such as nonprofit organizations that employ fewer than four workers; railroad workers; and workers in school systems owned and operated by religious institutions are omitted from the data. Each record typically represents an individual establishment. In some instances, large firms with several establishments in a region report payroll information for all establishments as one record.

To this end, Beacon Economics considers only single-establishment employers and firms that report each establishment separately when analyzing employment by size. To link individual establishments from one quarter to the next, Beacon Economics developed a method of cleaning, processing, and linking the raw data provided by the EDD. This process amends, adds, or deletes data items so there will not be a one-to-one relationship between the raw EDD data and the post-process data.

Industries are defined according to the North American Industrial Classification System, the standard used by Federal statistical agencies to classify businesses for collecting, analyzing, and publishing data related to the U.S. economy.

Occupational Analysis

Beacon Economics used the American Community Survey (ACS) Public Use Microdata Samples (PUMS) published by the Census Bureau to conduct the industry profile analysis. The ACS PUMS files are untabulated records about individuals or housing units. The Census Bureau produces the PUMS files so that data users can create custom tables.

Beacon Economics has evaluated other potential data sources. Separately, the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW) and the Occupational Employment Statistics (OES) may be the most suitable for basic industry-oriented and occupation-oriented analyses, respectively. Overall, Beacon Economics deems the ACS PUMS the best statistical base for the purposes of this study. Beacon Economics uses both the QCEW and the OES for checks on the ACS PUMS estimates.

Employment by industry and occupation can be calculated only by using ACS PUMS. Incidentally, employment estimates from ACS PUMS are higher than the estimates from the QCEW and the OES because the sampling frame is businesses instead of households. This means both the QCEW and the OES exclude several types of workers, whereas the ACS PUMS does not. Specifically, the QCEW employment data excludes proprietors, the unincorporated self-employed, nonprofit workers, unpaid family members, and certain farm and domestic workers. The employment count also excludes workers who earned no wages during the entire applicable pay period because of work stoppages, temporary layoffs, illness, or unpaid vacations.

For occupational analysis, the analysis is performed in terms of place of work — individuals who work in the City of Los Angeles but might or might not live in the City. For demographic analysis, the portion pertaining to the City's workforce is also analyzed in terms of place of work, and the portion pertaining to the City's resident is analyzed in terms of place of residence.

Land Use Analysis

This study defines centers of economic activity using census tracts as building blocks, identifying contiguous census tracts that meet minimum employment thresholds. To do this, we identify each census tract that has a minimum of 1,500 jobs. We then group contiguous census tracts that meet these criteria. For example, if two neighboring tracts each have at least 1,500 jobs within their boundaries but do not border other tracts that have such a job count, they would count as one cluster. We use this process to identify clusters of activity in the City. A 1,500-job threshold was used to ensure that we detect major job clusters, removing from the analysis tracts that are home to few, or a relatively small, number of jobs. A similar number of clusters was identified using different employment thresholds (such as 1,000). The 1,500-job threshold provided the most pronounced and clearly identifiable clusters of employment activity in the City. Through the process described above, 23 centers of employment activity were identified in Los Angeles.



ABOUT BEACON ECONOMICS, LLC

Founded in 2007, Beacon Economics, an LLC and certified Small Business Enterprise with the state of California, is an independent research and consulting firm dedicated to delivering accurate, insightful, and objectively based economic analysis. Leveraging unique proprietary models, vast databases, and sophisticated data processing, the company's specialized practice areas include sustainable growth and development, real estate market analysis, economic forecasting, industry analysis, economic policy analysis, and economic impact studies. Beacon Economics equips its clients with the data and analysis required to understand the significance of on-the-ground realities and to make informed business and policy decisions.

PROJECT ADVISORS

CHRIS THORNBERG, PHD

Founding Partner
Chris@BeaconEcon.com

ADAM FOWLER

Director of Research
Adam@BeaconEcon.com

PROJECT TEAM

TANER OSMAN, PHD

Manager, Regional and Sub-Regional Analysis
Taner@BeaconEcon.com

UDAY RAM

Manager, Sustainable Growth and Development
Uday@BeaconEcon.com

HOYU CHONG

Practice Lead, Sustainable Growth and Development
Hoyu@BeaconEcon.com

JAMES MCKEEVER

Research Associate, Regional and Sub-Regional Analysis
James@BeaconEcon.com

CONTACT INFORMATION

For further information about this report, or to learn more about Beacon Economics' practice areas, please contact:

SHERIF HANNA

Managing Partner
Sherif@BeaconEcon.com

VICTORIA PIKE BOND

Director of Communications
Victoria@BeaconEcon.com

RICK SMITH

Director of Business Development
Rick@BeaconEcon.com

Or visit our website at www.BeaconEcon.com



CITY OF LOS ANGELES OFFICE OF THE CONTROLLER

Economic Development and Land Use Report

RON  **GALPERIN**
LA CONTROLLER