

2020

LAEDC

# INDUSTRY CLUSTERS

*in Los Angeles County*

Los Angeles  
County  
Economic  
Development  
Corporation

Institute for  
Applied  
Economics

# LOS ANGELES INDUSTRY CLUSTERS

## What are clusters?

As defined by Professor Michael E. Porter and his Cluster Mapping Project, clusters are regional concentrations of particular industries in a particular location, consisting of companies, suppliers, government institutions and more. The geographic clustering of industries enables firms to compete and collaborate, leading to the development of specialized infrastructure and labor while promoting innovation.

LAEDC examines clusters in Los Angeles County to understand our regional strengths and weaknesses, and use this insight to build more informed economic development strategies while comparing our performance against that of other regions. This report presents a description of our private sector economy through the lens of clusters and regional competitiveness.

With the rise of COVID-19 and its resulting impact on employment and wages in the county, this report should serve as a baseline of the pre-pandemic economy and its component clusters, which can inform more in-depth economic research and strategic planning in the future and during our recovery.

To prepare this report, we took certain steps:

- We focused on the largest traded clusters and local clusters by employment, with the assumption that size matters.
- We broke those clusters down into their sub-clusters by employment, and showed employment patterns from 2007 to 2019 to gauge how the cluster has developed and how it responds to the business cycle.
- We determined the average wages paid in each cluster, and compared them to the average wage across all industries in L.A. County. We then examined the top performing industries in the cluster by average wages, to highlight the standouts of the county.
- We finally calculated the location quotient for each cluster to show regional concentration. We identify a location quotient higher than 1.1 as being concentrated in Los Angeles County vis-a-vis the nation, and a source of regional competitive advantage.

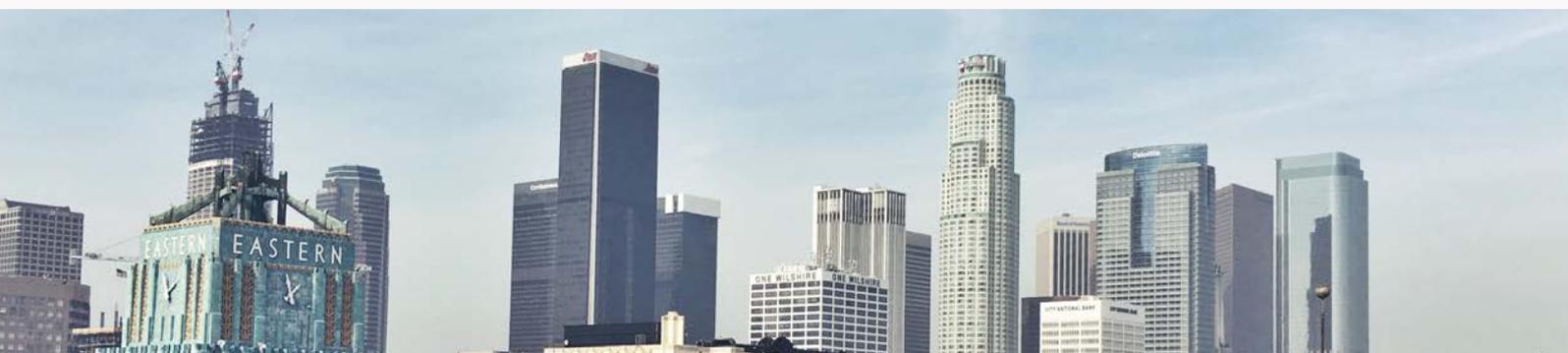
It is important to note that these clusters reflect only private sector employment and are based on estimates of available data.



# OVERVIEW

There are two types of clusters: **local** and **traded**. Local clusters consist of industries that serve the local population and exist regardless of a market's specific competitive advantages. Traded clusters, in contrast, are groups of industries are wealth generating, selling goods and services in markets beyond the region and are often concentrated in locations that provide them with the most advantages.

L.A. COUNTY CLUSTERS	EMPLOYMENT	AVERAGE WAGE	LQ
<b>TRADED</b>			
Business Services	235,564	\$111,647	0.8
Distribution and ECommerce	205,380	\$68,025	1.1
Video Production and Distribution	111,805	\$136,211	13.1
Hospitality and Tourism	90,531	\$56,298	0.9
Education and Knowledge Creation	88,651	\$81,678	1.5
Transportation and Logistics	83,586	\$77,86	1.4
Marketing, Design and Publishing	67,885	\$125,093	1.4
Aerospace Vehicles and Defense	55,631	\$121,121	2.6
Financial Services	45,613	\$194,651	0.7
Performing Arts	40,463	\$200,171	3.4
Food Processing and Manufacturing	31,494	\$59,517	0.8
IT and Analytical Instruments	31,471	\$123,868	0.7
Apparel	26,097	\$48,624	6.2
Water Transportation	18,405	\$108,210	1.9
Communications Equipment	12,802	\$138,431	1.4
Biopharmaceuticals	8,832	\$71,951	0.9
Medical Devices	7,374	\$85,006	0.8
Textile Manufacturing	6,688	\$48,573	1.1
<b>LOCAL</b>			
Health Services	463,872	\$62,885	0.9
Hospitality Establishments	433,392	\$25,458	1.0
Commercial Services	313,808	\$63,028	1.1
Community and Civic Organizations	298,074	\$23,977	2.3
<b>AGGREGATIONS</b>			
Trade	307,372	\$73,106	1.2
Entertainment	155,920	\$152,189	7.5
Fashion	39,925	\$48,423	3.1
Biomedical	16,206	\$77,891	0.8



# AGGREGATIONS

Aggregations are groupings of related clusters that have economic linkages and synergies. We examine these aggregations as larger sources of regional economic strength, as they are major drivers of local business and trade. These important aggregated industry groups for Los Angeles County are also covered in this report.

## TRADE

DISTRIBUTION  
AND ECOMMERCE  
TRANSPORTATION  
AND LOGISTICS  
WATER  
TRANSPORTATION

## BIOMEDICAL

BIOPHARMACEUTICALS  
MEDICAL DEVICES

## ENTERTAINMENT

VIDEO PRODUCTION  
AND DISTRIBUTION  
MUSIC AND  
SOUND RECORDING  
PERFORMING  
ARTS

## FASHION

APPAREL  
FOOTWEAR<sup>\*</sup>  
LEATHER<sup>\*</sup>  
JEWELRY<sup>\*</sup>  
TEXTILE  
MANUFACTURING

<sup>\*</sup>Will not be covered in depth due to employment below 4,000 in 2019.



# LAYOUT

We introduce our aggregations and clusters in order of greatest employment. For aggregations, we break down component clusters immediately following. Traded clusters are highlighted first, then local.

# TRADE

## TRADE IN L.A. COUNTY INCLUDES DISTRIBUTION & ECOMMERCE, TRANSPORTATION AND LOGISTICS AND WATER TRANSPORTATION.

AT-A-GLANCE  
2019

# OF  
EMPLOYEES  
307,372

AVERAGE  
WAGE  
\$73,106

LOCATION  
QUOTIENT  
1.18

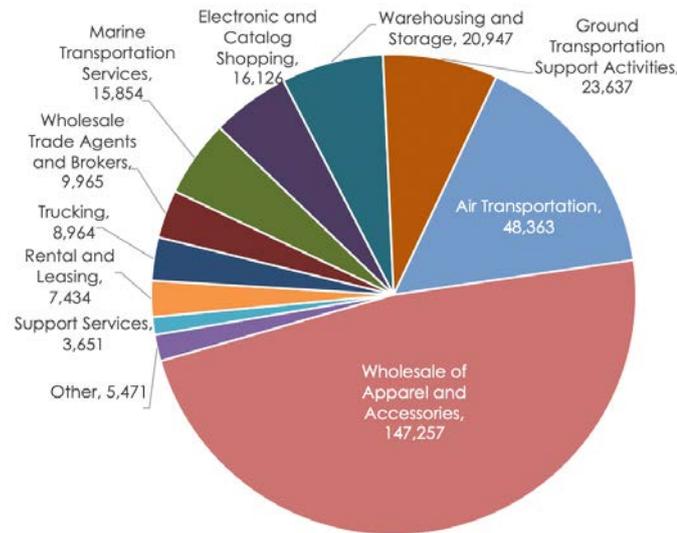
Trade is slightly more concentrated in L.A. County than in the nation. Marine Cargo Handling has an LQ of 7.12 here.

### TOP PAYING INDUSTRIES



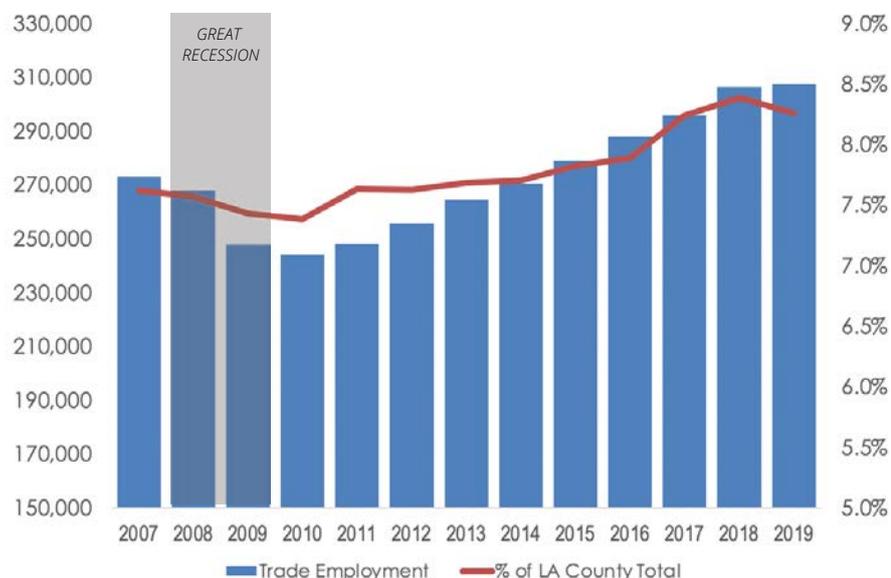
\*Includes aircraft charter services and aviation clubs.

Although the average trade wage is **slightly higher than** the county average, there are high paying industries involving air transportation and marine cargo shipping.



There is a wide variety of subclusters that comprise this cluster group, with wholesale of apparel and accessories accounting for **nearly half of employment.**

Employment in trade, which had fallen after 2007, has been rising consistently for a decade to reach over 300,000 in 2019. This amounts to **8% of county employment.**



# TRADE: DISTRIBUTION & ECOMMERCE

## AT-A-GLANCE 2019

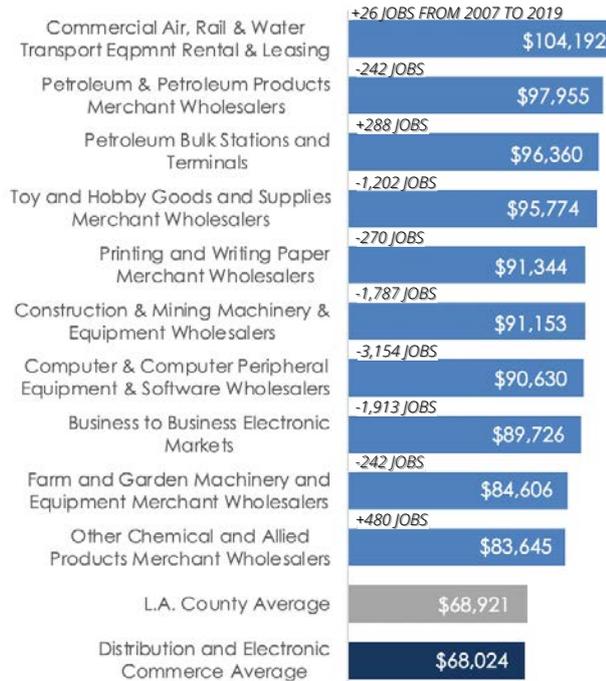
# OF  
EMPLOYEES  
**205,380**

AVERAGE  
WAGE  
**\$68,025**

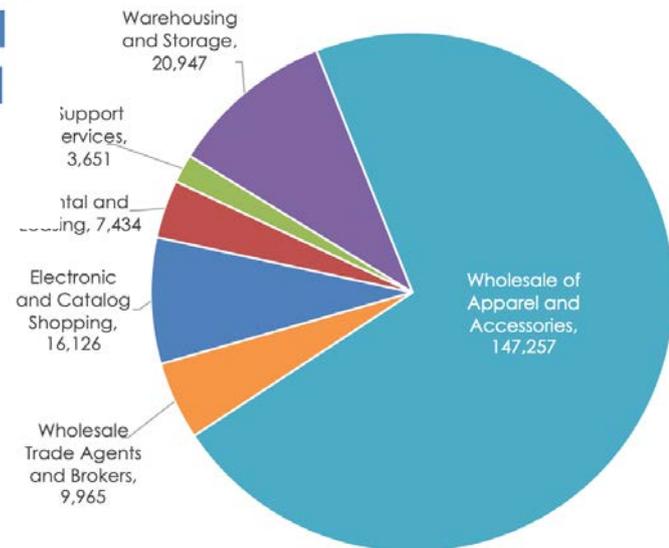
LOCATION  
QUOTIENT  
**1.06**

## A COMBINATION OF WHOLESALE, ELECTRONIC SHOPPING AND WAREHOUSING CREATES L.A. COUNTY'S SECOND LARGEST TRADED CLUSTER.

### TOP PAYING INDUSTRIES

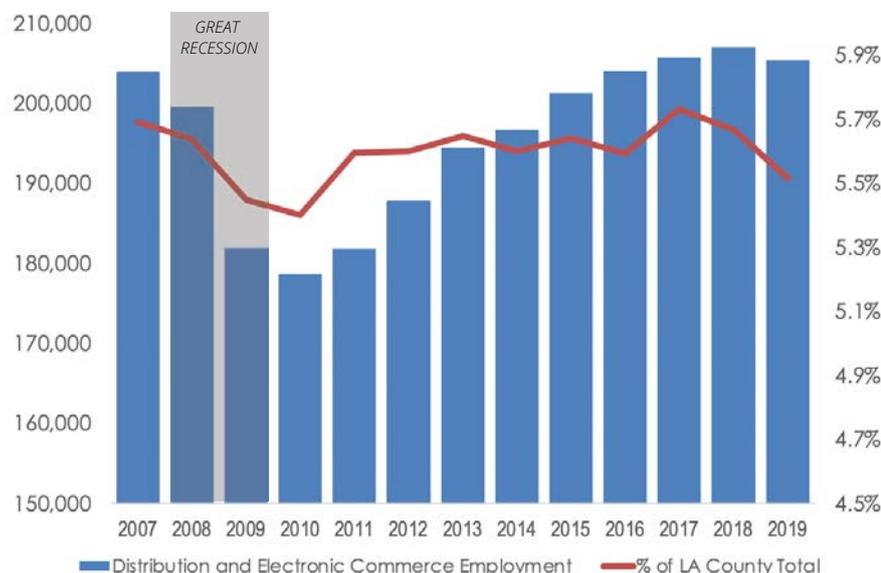


The cluster's average wage is slightly below the average for L.A. County. Industries related to **petroleum products and terminals** have relatively higher wages, as do **transportation and construction equipment** industries.



Most of the cluster's employment is located in **wholesale of apparel and accessories**, with warehousing and electronic shipping also becoming more prominent.

Cluster employment has **remained steady above 200,000** for the past five years, though its percentage of total employment in the county has declined slightly.



# TRADE: TRANSPORTATION & LOGISTICS

AT-A-GLANCE  
2019

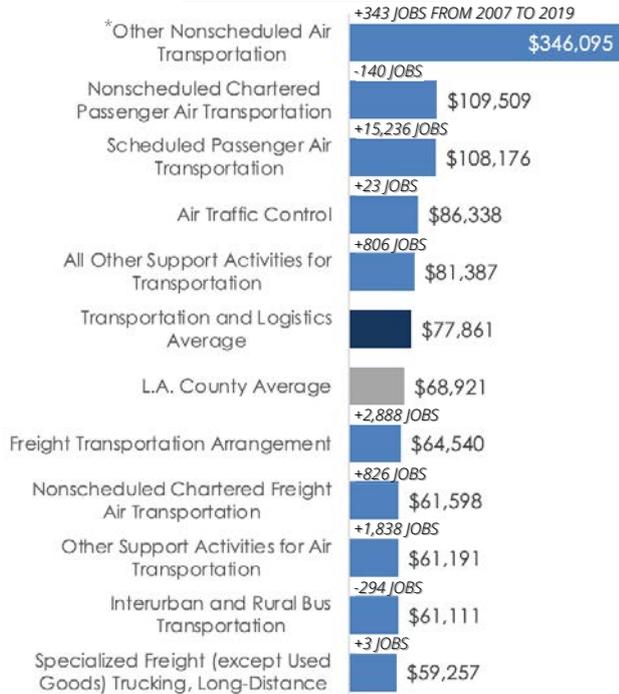
# OF  
EMPLOYEES  
83,586

AVERAGE  
WAGE  
\$77,861

LOCATION  
QUOTIENT  
1.44

TRANSPORTATION INCLUDES AIR, BUS, TRUCKING AND GROUND SUPPORT, AND IS L.A. COUNTY'S SIXTH LARGEST TRADED CLUSTER.

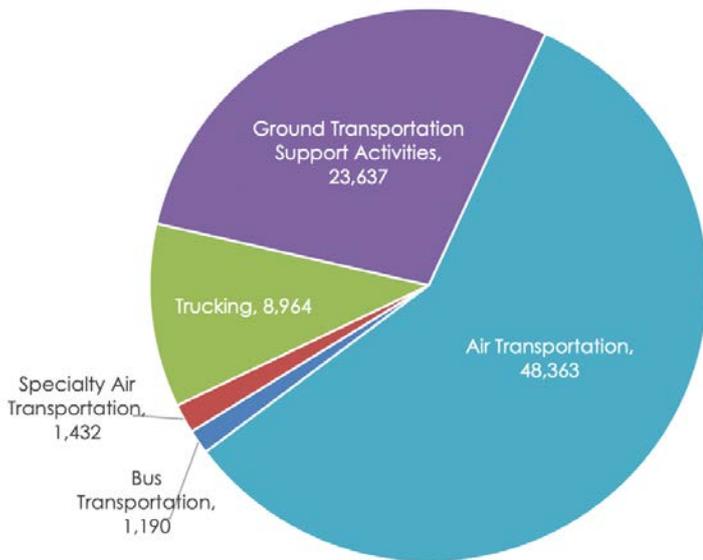
## TOP PAYING INDUSTRIES



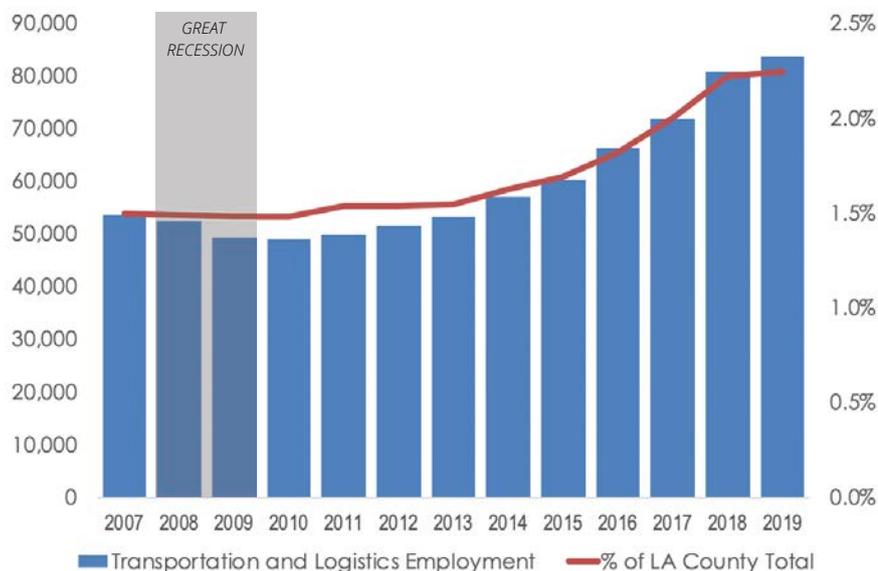
\*Includes aircraft charter services and aviation clubs.

**Air transportation holds the most jobs** in the transportation cluster, while trucking and ground support make up most of the remaining. Bus transportation is a smaller but essential component of employment as well.

The top performing industries by pay in this cluster all relate to **air transport**, whether public or private. Most of the freight, trucking and urban transportation jobs fall **below the cluster and county average wage**.



The cluster has seen **consistent growth in employment** since 2010, with nearly **35,000 added jobs** throughout the decade. Much of this stems from job growth in airport operations and scheduled flights.



# TRADE: WATER TRANSPORTATION

AT-A-GLANCE  
2019

# OF  
EMPLOYEES  
18,405

AVERAGE  
WAGE  
\$108,210

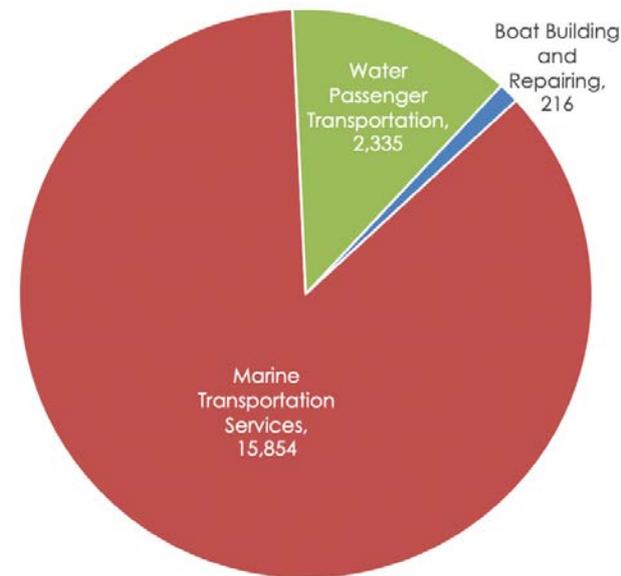
LOCATION  
QUOTIENT  
1.89

AN IMPORTANT COMPONENT OF TRADE, WATER TRANSPORTATION FOCUSES ON PORTS AND SHIPPING, EMPLOYING 18,405 IN L.A. COUNTY.

## TOP PAYING INDUSTRIES

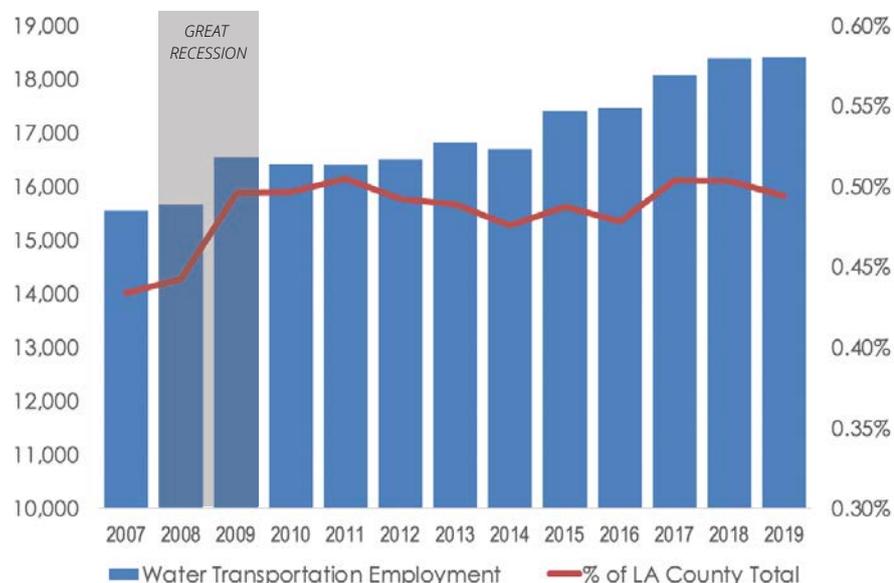


The average wage in this cluster is **well above the county average**, as both port and harbor operations and marine cargo handling and shipping are top performers. Passenger transportation pays at or below average wages.



Marine transportation services for cargo dominate the cluster's workforce; marine cargo handling accounts for **nearly 14,000** of these workers.

Cluster employment has grown steadily, **increasing by about 2,000 jobs** over the past twelve years. It accounts for just 0.5% of total employment in the county.



# BUSINESS SERVICES

AT-A-GLANCE  
2019

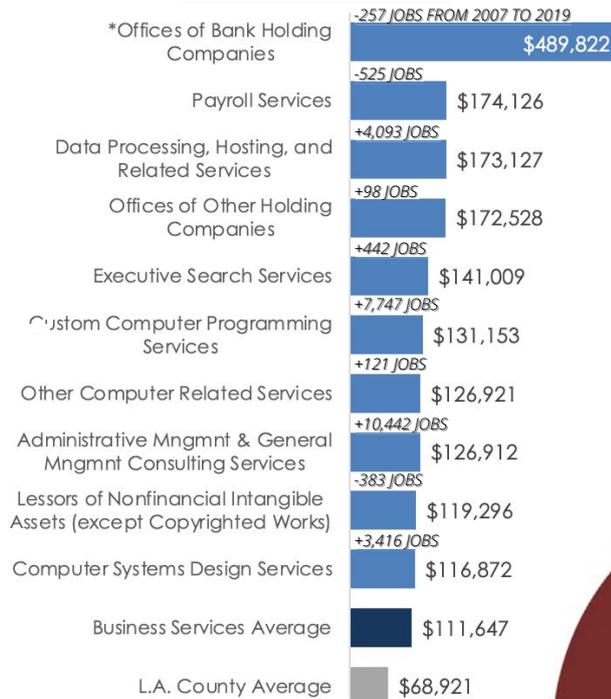
# OF  
EMPLOYEES  
235,564

AVERAGE  
WAGE  
\$111,647

LOCATION  
QUOTIENT  
0.79

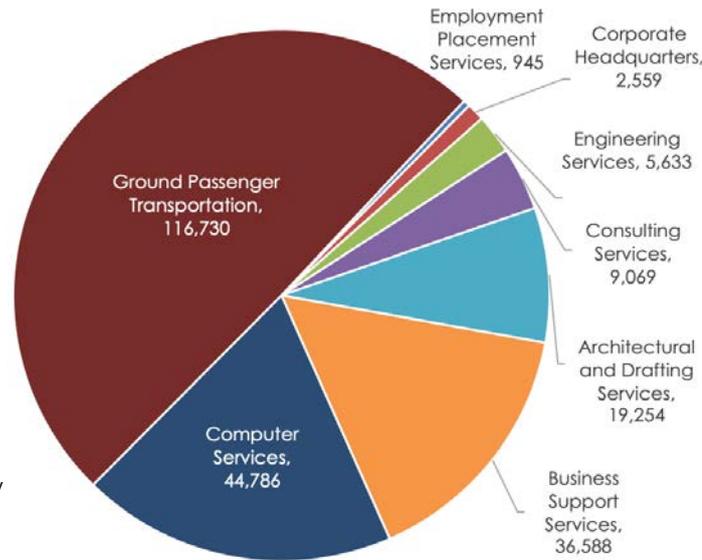
**BUSINESS SERVICES IS THE LARGEST TRADED INDUSTRY CLUSTER IN L.A. COUNTY, WITH 235,564 EMPLOYEES IN 2019.**

## TOP PAYING INDUSTRIES



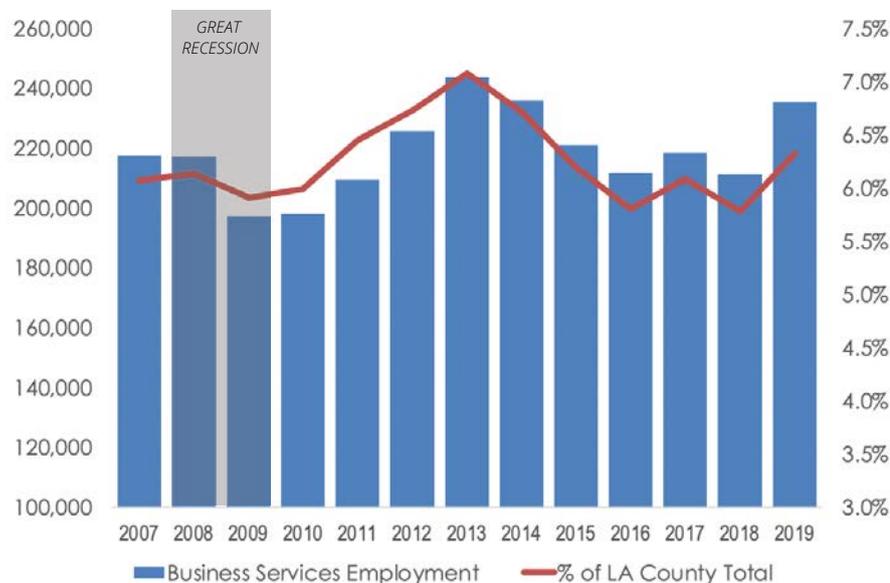
\*Includes companies engaged in holding the securities of other firms to maintain a controlling interest.

Of the cluster's top performing industries, **bank holding companies** have by far the highest average wage. All of the top industries are well above the average wage in Los Angeles County, most in **computer-related** services.



**About half** of the cluster's employment is in **passenger transportation**, with the majority of the remaining in computer and business support.

While employment in the cluster is slightly down from its peak in 2013, it still made up **6.35%** of the **total employment** in Los Angeles County in 2019.



# ENTERTAINMENT

## AT-A-GLANCE 2019

# OF  
EMPLOYEES  
**155,920**

AVERAGE  
WAGE  
**\$152,189**

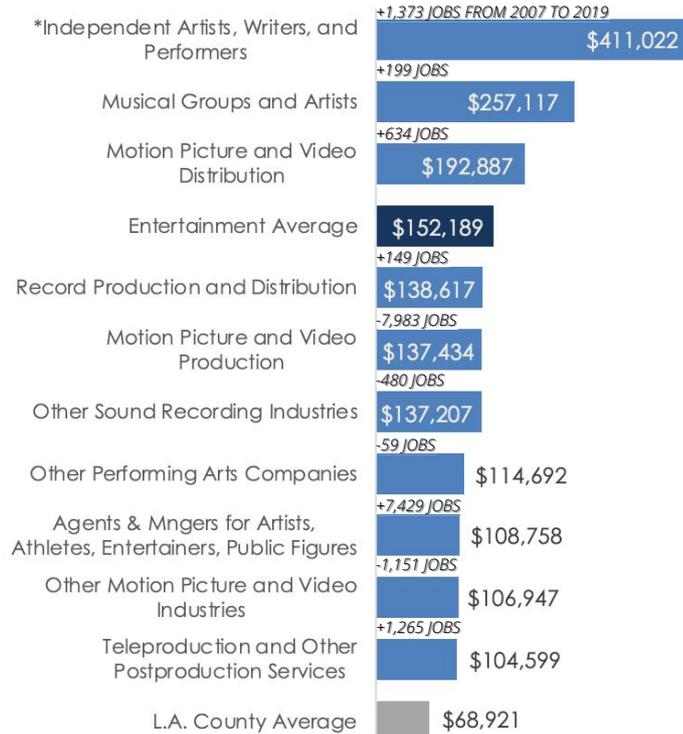
LOCATION  
QUOTIENT  
**7.52**

Unsurprisingly, the entertainment group is extremely strong here, with a 7.52 LQ. All of the industries within Sound Recording have a location quotient around 7.



## ENTERTAINMENT COMBINES THE MUSIC AND SOUND RECORDING, PERFORMING ARTS AND VIDEO PRODUCTION CLUSTERS IN L.A. COUNTY.

### TOP PAYING INDUSTRIES

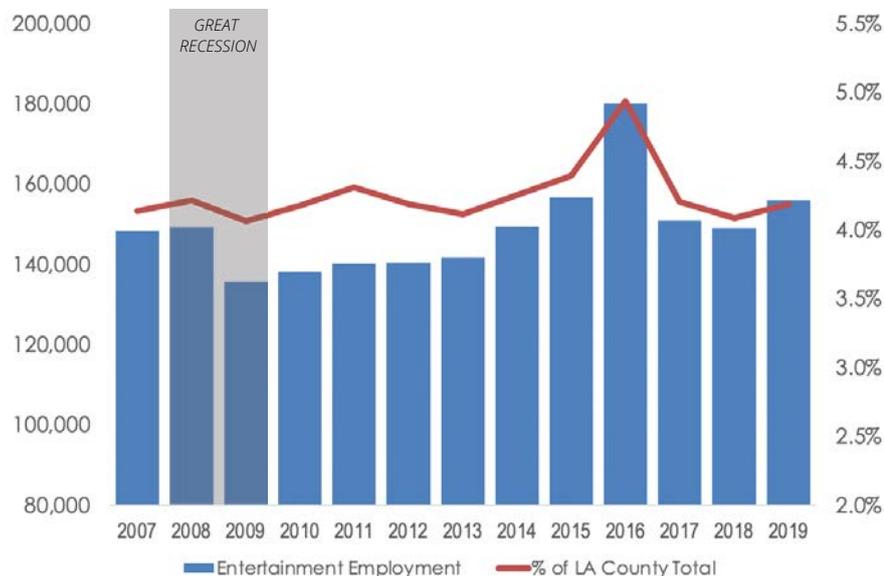
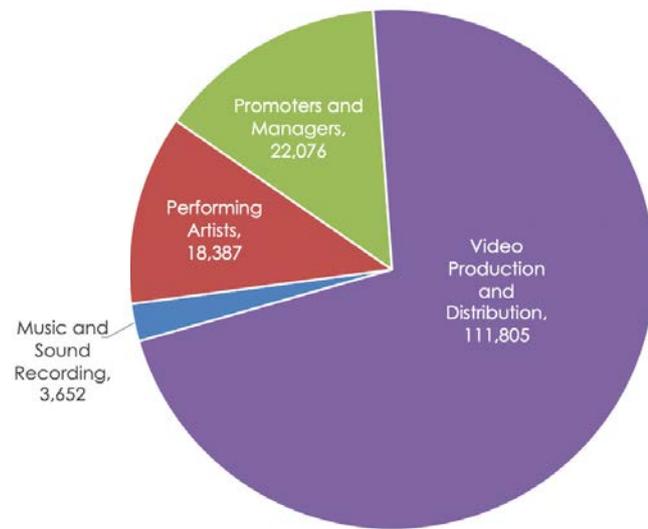


\*Includes actors, producers, journalists, dancers, etc.

**Video production and distribution** dominates employment in this cluster group, with over 100,000 in motion picture and video production alone.

Outside of 2016, a year of anomalously high video production numbers, the group's employment has been **relatively steady** just below 5% of total county employment.

Entertainment wages are driven by high performers such as artists and musical groups, as well as the lucrative film industry. There are also well-paying professions in the sound recording and production industry.



# ENTERTAINMENT: VIDEO PRODUCTION & DISTRIBUTION

AT-A-GLANCE  
2019

# OF  
EMPLOYEES  
111,805

AVERAGE  
WAGE  
\$136,211

LOCATION  
QUOTIENT  
13.10

With 42% of national jobs in this cluster, the 13.10 location quotient shows L.A. County's dominance over the rest of the nation. Teleproduction and Post-Production have an industry LQ of 16.4.

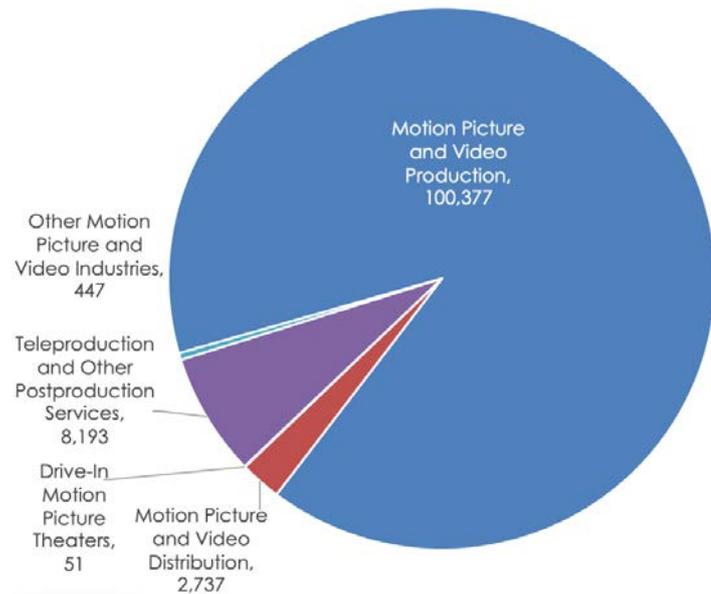
A STAPLE OF INDUSTRY IN L.A. COUNTY, VIDEO PRODUCTION AND DISTRIBUTION EMPLOYED 111,805 IN 2019 WITH HIGH AVERAGE WAGES.

## TOP PAYING INDUSTRIES

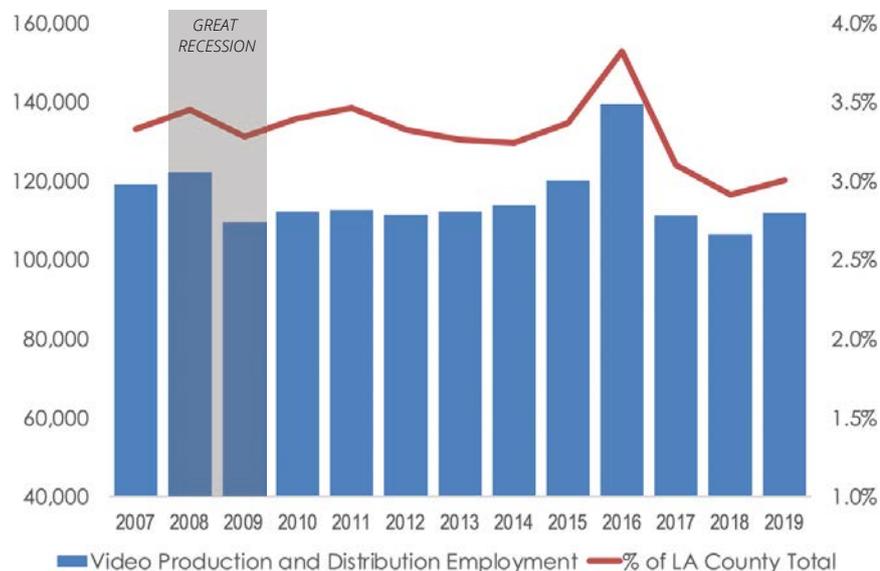


The average wage in this cluster is **well over the county average**, due to well-paying jobs in distribution and production of motion pictures. At the other end are low-wage jobs in the theaters themselves, creating a **wide disparity in pay** for the cluster.

Video production and post-production dominate employment with **over 100,000 jobs alone**, while distribution is a far smaller yet essential component of the cluster.



Cluster employment has been consistent besides a spike in 2016. Since 2007 there have been **between 100,000 and 120,000 workers** employed in the cluster annually.



# ENTERTAINMENT: PERFORMING ARTS

## AT-A-GLANCE 2019

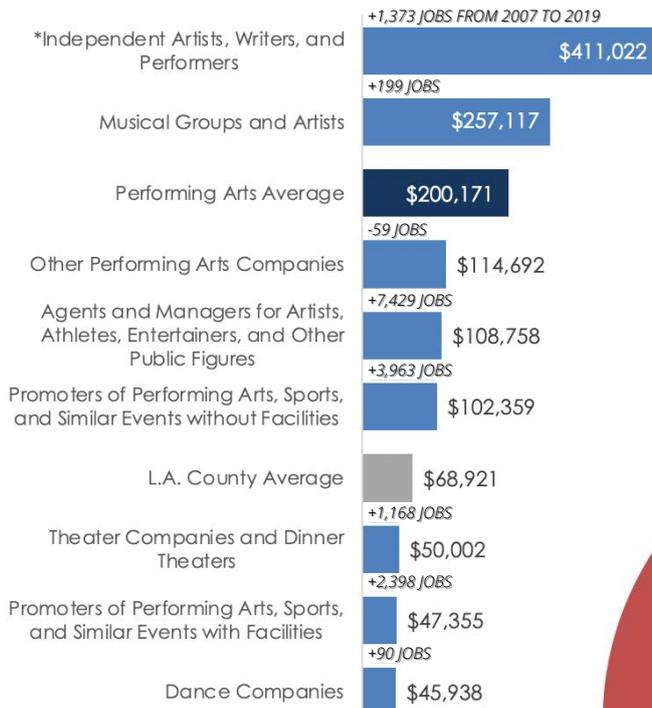
# OF  
EMPLOYEES  
**40,463**

AVERAGE  
WAGE  
**\$200,171**

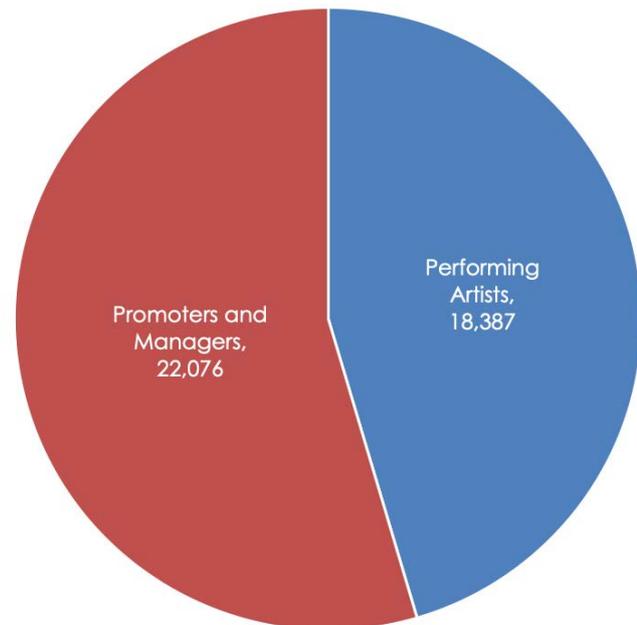
LOCATION  
QUOTIENT  
**3.43**

**DRIVEN BY ARTISTS AND WRITERS, THIS LUCRATIVE CLUSTER IN L.A. COUNTY INCLUDES PERFORMERS, AGENTS & DANCE COMPANIES.**

### TOP PAYING INDUSTRIES



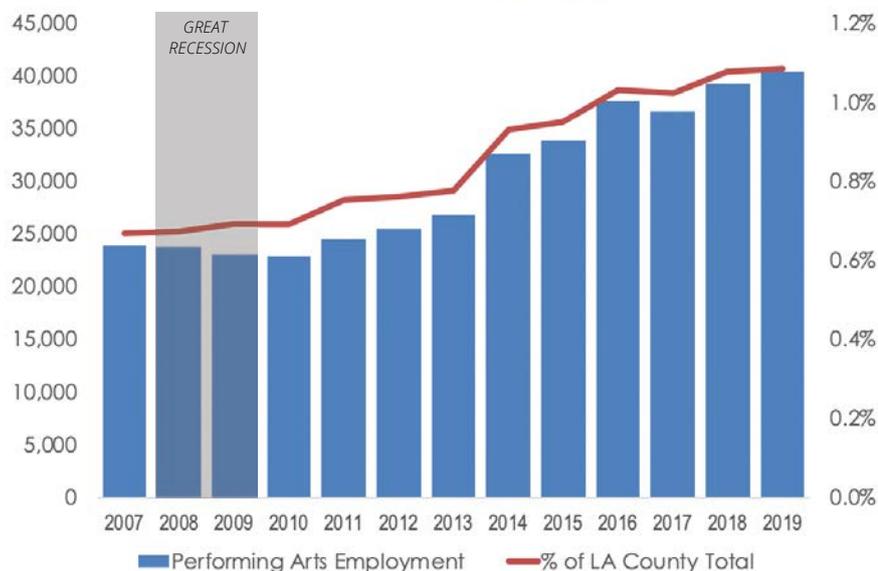
The highest pay is enjoyed by the independent artists, writers and performers which Los Angeles has become known for. However, significantly smaller wages at the lower end creates **income disparities** within this cluster.



\*Includes actors, producers, journalists, dancers, etc.

Promoters and managers are more numerous than the artists themselves in this cluster. Agents and managers for public figures number **over 13,000** in L.A. County.

The performing arts cluster is at its **highest employment** in well over a decade, reaching **40,000 employees** in 2019. Musical groups and theater companies have contributed to this increase in jobs.



# ENTERTAINMENT: MUSIC & SOUND RECORDING

AT-A-GLANCE  
2019

# OF  
EMPLOYEES  
3,652

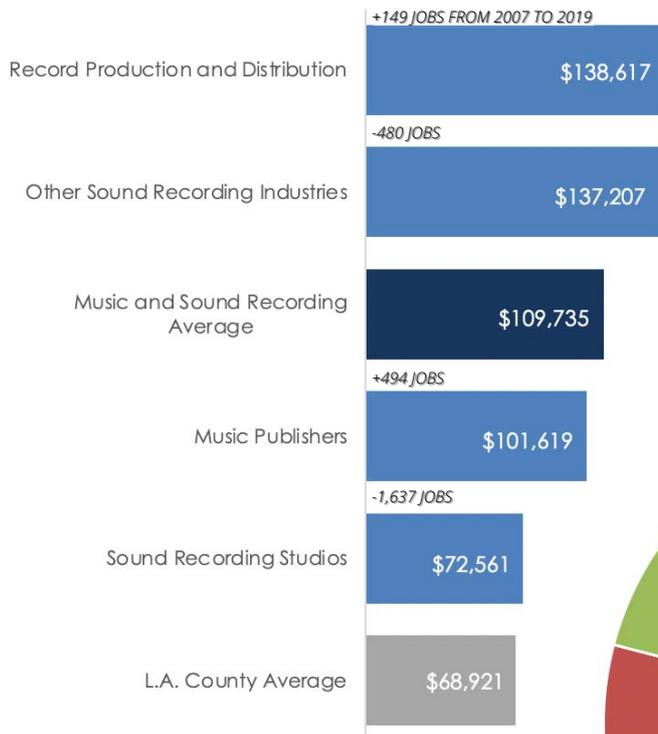
AVERAGE  
WAGE  
\$109,735

LOCATION  
QUOTIENT  
5.98

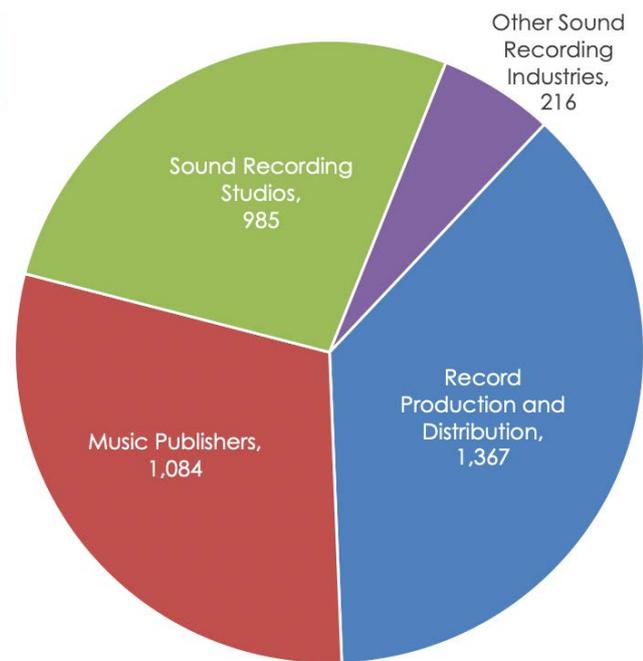
Music and Sound Recording is very strong in the county, though it has decreased from a 7.10 LQ in 2007. Music Publishers is the strongest industry at 7.32.

AN ESSENTIAL COMPONENT OF L.A. COUNTY ENTERTAINMENT, THIS CLUSTER HAS LOW EMPLOYMENT BUT A HIGH CONCENTRATION.

### TOP PAYING INDUSTRIES

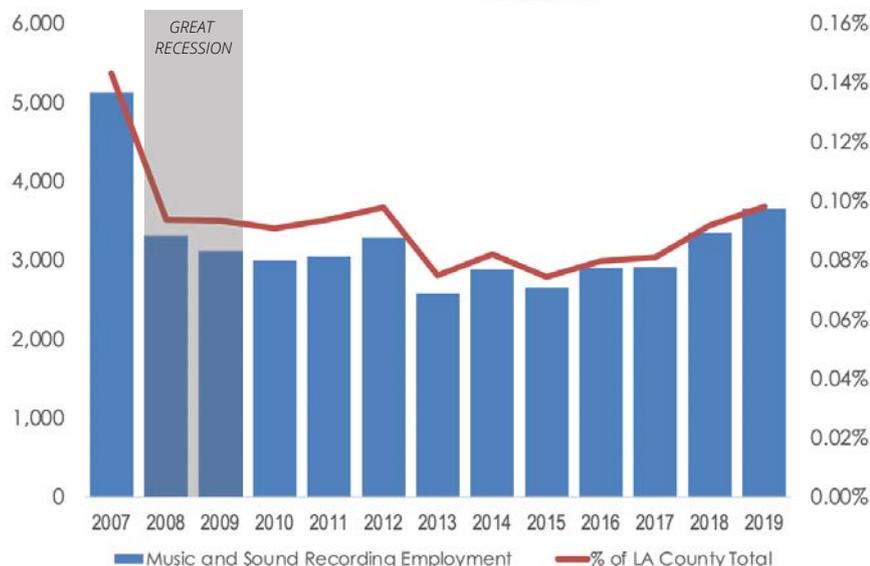


Record production and distribution pays quite well, and is a major reason for the cluster's average wage rising close to \$110,000.



The workforce is **split three ways** between record production, music publishers and sound recording studios.

Employment has **dropped from a high** of 5,000 in 2007, and now lies at just over 3,500. This is a result of drastically reduced employment in sound recording studios.



# HOSPITALITY & TOURISM

## AT-A-GLANCE 2019

# OF  
EMPLOYEES  
**90,531**

AVERAGE  
WAGE  
**\$56,298**

LOCATION  
QUOTIENT  
**0.86**

ATTRACTING TOURISTS TO L.A. COUNTY FROM AROUND THE GLOBE, THIS TRADED INDUSTRY CLUSTER HELD OVER 90,000 JOBS IN 2019.

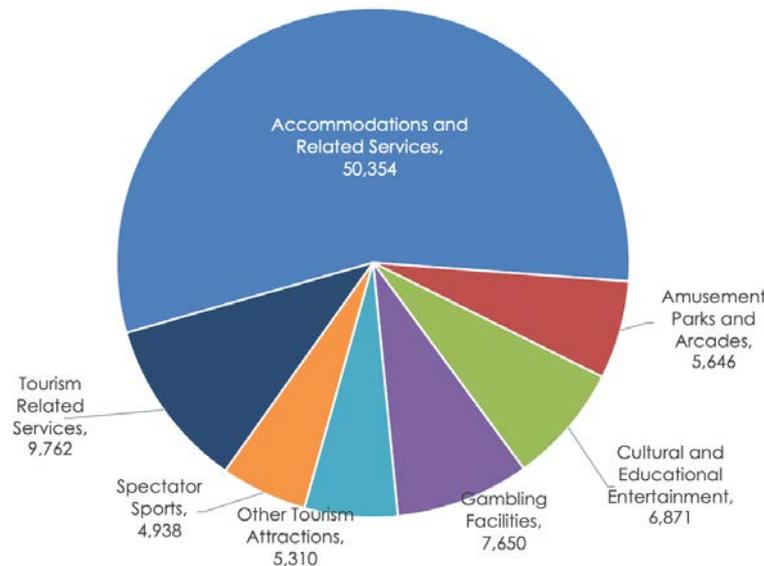
### TOP PAYING INDUSTRIES



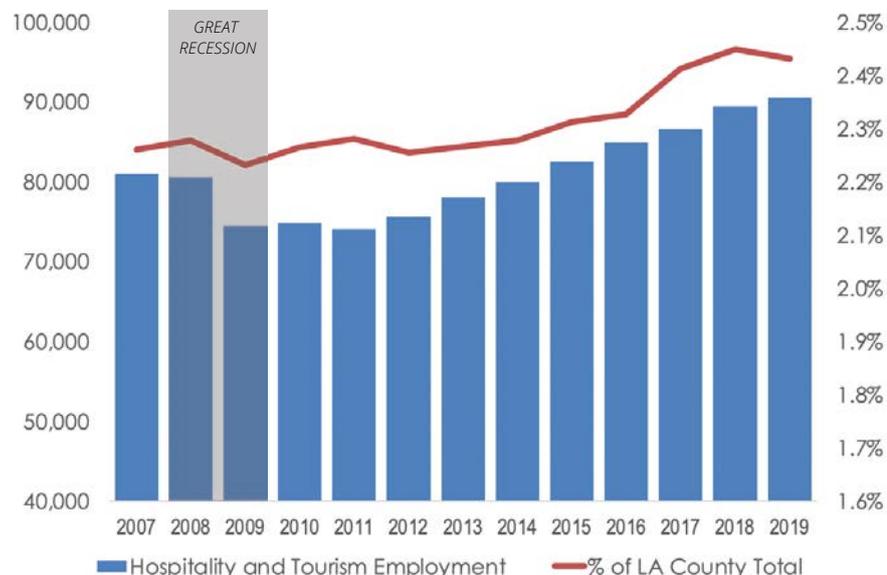
The average pay for sports teams and clubs is extremely high, but most industries in the cluster fall around or below the average county wage. The cluster's average wage is **around \$12,500 below** that of the county.

The cluster's LQ of 0.86 shows that it is slightly less concentrated in this county than the national average, although Casinos have an individually strong location quotient of 2.81.

Accommodations accounts for **more than half of cluster employment**. Although sports teams enjoy very high average pay, they only represent 5% of jobs in the cluster.



Employment in this cluster has witnessed **modest growth** throughout the past decade, and currently lies at about 2.43% of the total in L.A. County. This growth has been driven by increasing employment in **hotels and motels**.



# EDUCATION & KNOWLEDGE CREATION

AT-A-GLANCE  
2019

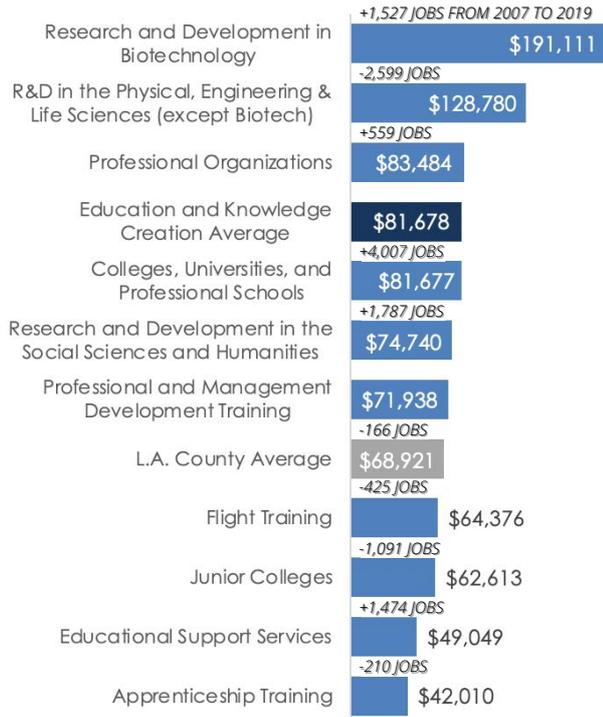
# OF  
EMPLOYEES  
88,651

AVERAGE  
WAGE  
\$81,678

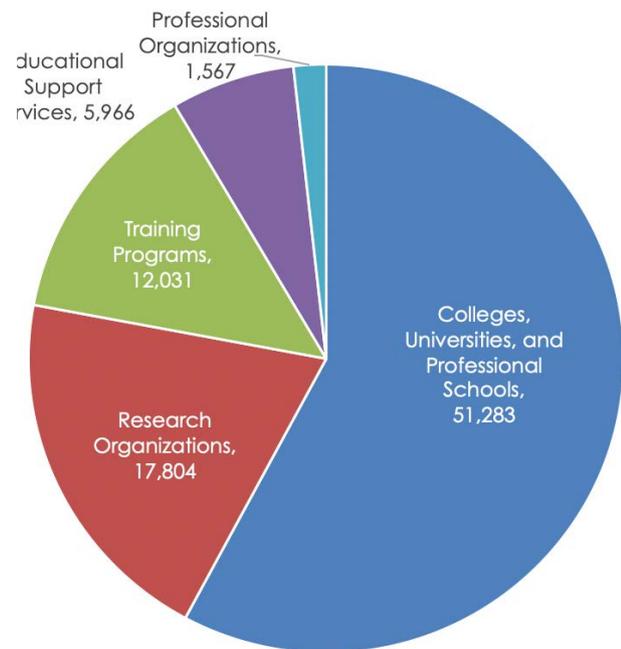
LOCATION  
QUOTIENT  
1.46

A COMBINATION OF SCHOOLS AND RESEARCH, THIS CLUSTER EMPLOYED 88,651 IN L.A. COUNTY ACROSS MANY ESTEEMED INSTITUTIONS.

## TOP PAYING INDUSTRIES



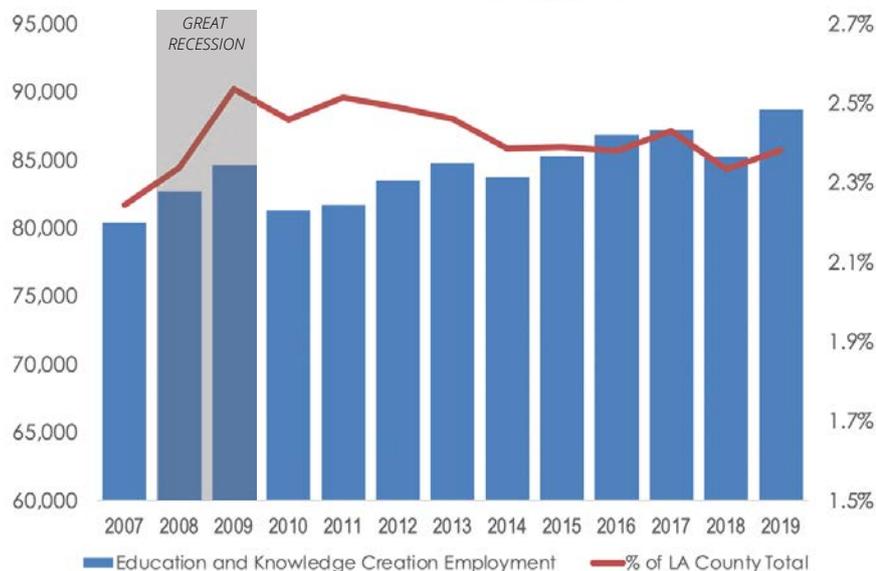
There is a **notable range of incomes** within this cluster. Research and development industries are top performers, while training programs and apprenticeships earn below average wages.



Colleges and universities account for **most of the employment** in the cluster. Research organizations are also prominent, with close to 18,000 employees.

A 1.46 LQ indicates that the cluster is more concentrated in this county than nationally. Colleges and Universities have an LQ of 1.33, but R&D industries in the sciences are below 1.

Total jobs in the cluster have consistently been **around 80,000**; growth is currently occurring in college and university employment, which numbered **over 50,000** for the first time in 2019.



# MARKETING, DESIGN AND PUBLISHING

AT-A-GLANCE  
2019

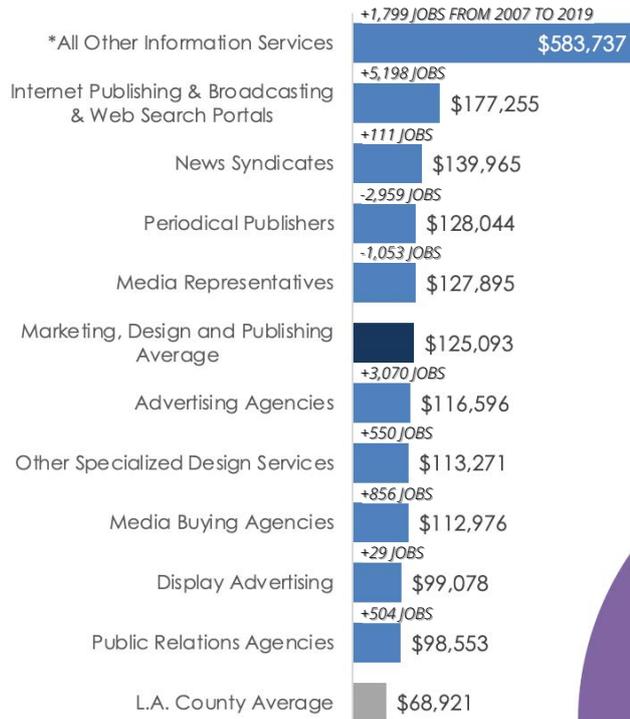
# OF  
EMPLOYEES  
67,885

AVERAGE  
WAGE  
\$125,093

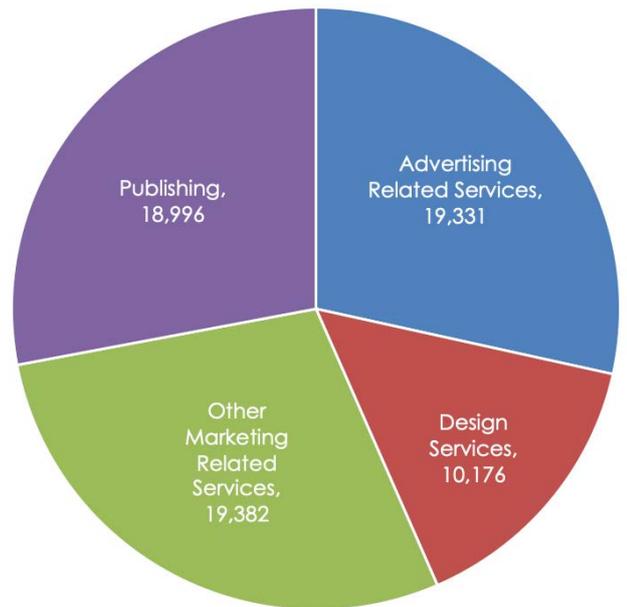
LOCATION  
QUOTIENT  
1.41

WITH SALARIES EXTREMELY HIGH AT THE TOP, MARKETING, DESIGN AND PUBLISHING HAS AN AVERAGE WAGE OF \$125,093 IN L.A. COUNTY.

## TOP PAYING INDUSTRIES



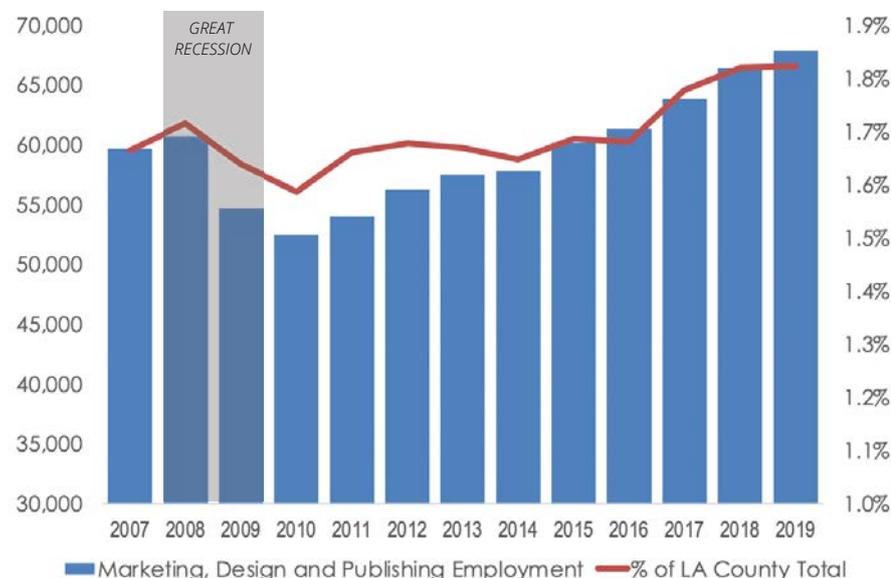
The high end of incomes in this cluster are **well above average** county wages, with information services driven up by the salaries of top executives at companies like Google. Several **industries in media have substantial wages** as well, particularly news agencies.



\*This industry encompasses companies like Facebook, LinkedIn, Yelp and more.

Cluster employment is split between publishing, advertising, design and marketing services. Within these groupings, **internet publishing and advertising** are the largest industries.

Employment in this industry has been **growing since 2009**, and its percentage of total L.A. County jobs has jumped from **1.7% to nearly 1.85%** in the past four years.



This cluster is another strength for L.A. County with a 1.41 LQ. Graphic Design, Advertising Agencies and Media Representatives are all industries with an LQ above 2.



# AEROSPACE VEHICLES & DEFENSE

## AT-A-GLANCE 2019

# OF EMPLOYEES  
**55,631**

AVERAGE WAGE  
**\$121,121**

LOCATION QUOTIENT  
**2.59**

This cluster has a very strong location quotient of 2.59. The Guided Missile and Space Vehicle Manufacturing industry in particular is quite concentrated with a 4.58 LQ in L.A. County.

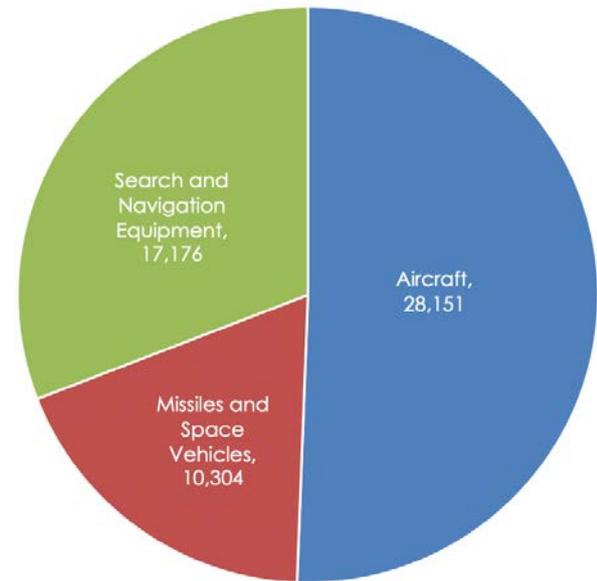
HOME TO THE JET PROPULSION LABORATORY, L.A. COUNTY RETAINS A LARGE AEROSPACE AND DEFENSE CLUSTER WITH 55,631 WORKERS.

### TOP PAYING INDUSTRIES

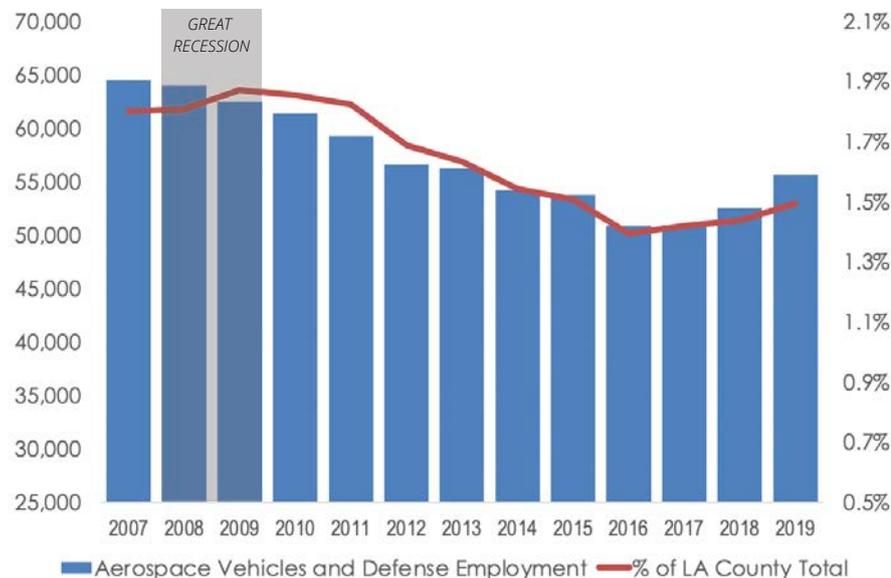


The aerospace cluster has high average wages in its space, missile, aircraft and propulsion segments that attract engineers from across the country. The pay for these industries is high, and the cluster average wage is **over \$50,000 above** that of the county.

The aircraft segment represents half of this cluster's employment. **Aircraft systems and instruments manufacturing** is the largest individual industry.



Cluster employment had been declining, with 2017 having around **10,000 less jobs** than there were in 2007. A recent increase has brought it back to **about 2%** of total county employment.



# FINANCIAL SERVICES

## AT-A-GLANCE 2019

# OF  
EMPLOYEES  
**45,623**

AVERAGE  
WAGE  
**\$194,651**

LOCATION  
QUOTIENT  
**0.72**

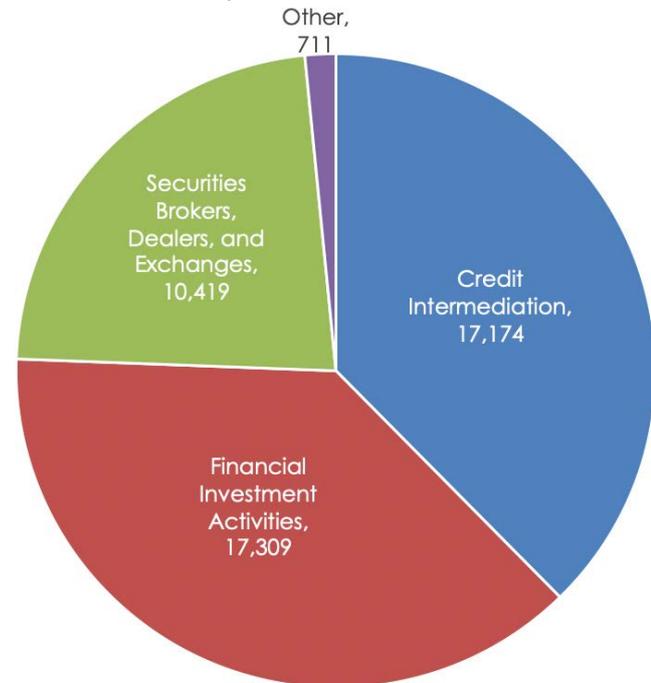
The Financial Services cluster in the county is weaker than national averages, with an LQ of only 0.72. The most concentrated industry is Open-End Investment Funds at 3.21.

ONE OF THE HIGHEST PAYING CLUSTERS IN L.A. COUNTY, FINANCIAL SERVICES EMPLOYED OVER 45,000 IN 2019 BUT JOBS ARE DECLINING.

### TOP PAYING INDUSTRIES

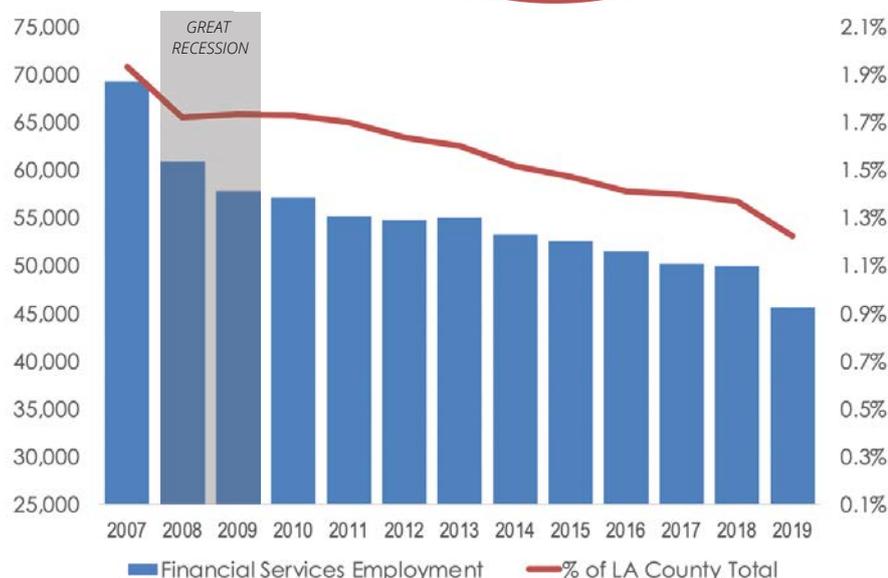


Investment banking, securities and portfolio management are high-paying industries, as the financial services cluster boasts average wages **close to \$200,000** annually.



The top segments are split between **financial investment and credit intermediation**, while securities brokers and exchanges makes up a majority of the remaining employment.

Financial services has been **declining in jobs steadily**, losing over 20,000 workers since 2007 in L.A. County. It has decreased from 2% of county employment to **around 1.25%**.



# FASHION

## AT-A-GLANCE 2019

# OF  
EMPLOYEES  
**39,925**

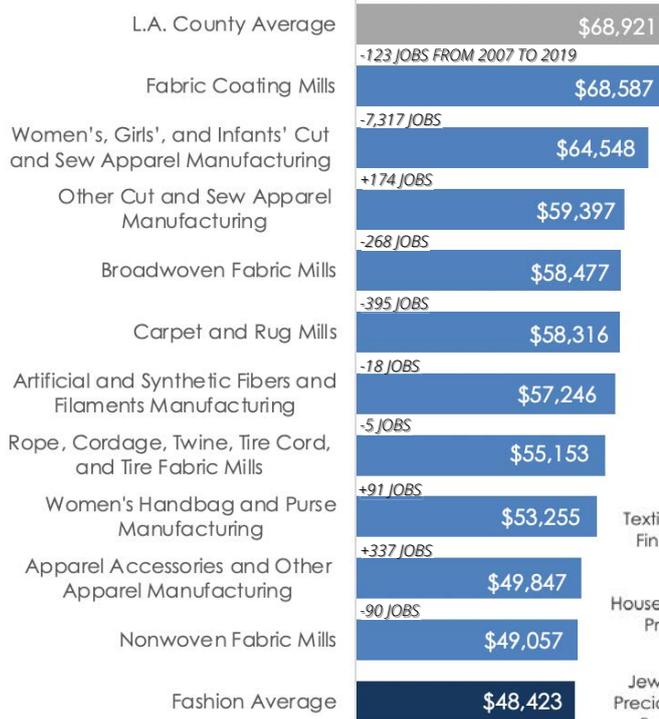
AVERAGE  
WAGE  
**\$48,423**

LOCATION  
QUOTIENT  
**3.07**

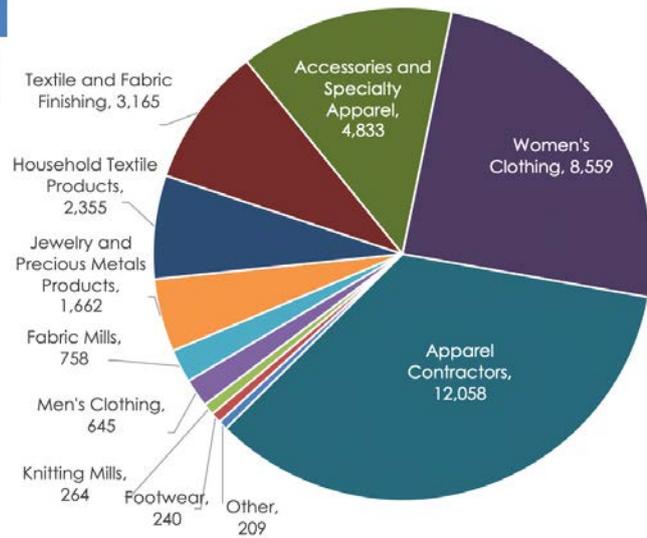
Fashion has historically had a large presence in Los Angeles County, but while it remains strong compared to the rest of the nation, its concentration is decreasing.

A COMBINATION OF APPAREL, LEATHER, TEXTILE MANUFACTURING, JEWELRY AND FOOTWEAR, AND A STAPLE OF L.A. COUNTY.

### TOP PAYING INDUSTRIES

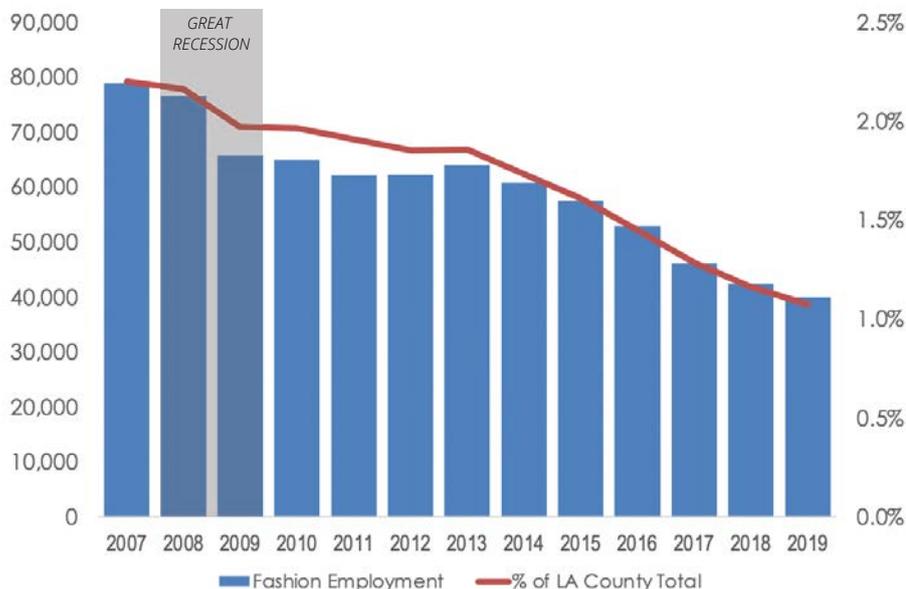


The fashion sector is not all that high-paying, as all of the top industries come in well below the average L.A. County wage and the entire group's average wage is **just \$48,423**.



**Apparel industries** are where most of the group's employment lies, with textile manufacturing contributing around 7,000 jobs as well.

It is clear that fashion employment has been **rapidly dropping** over the past twelve years, from 80,000 jobs in 2007 to just above 30,000 in 2019. These declines are seen across all of fashion's component clusters.



# FASHION: APPAREL

## AT-A-GLANCE 2019

# OF  
EMPLOYEES  
**26,097**

AVERAGE  
WAGE  
**\$48,625**

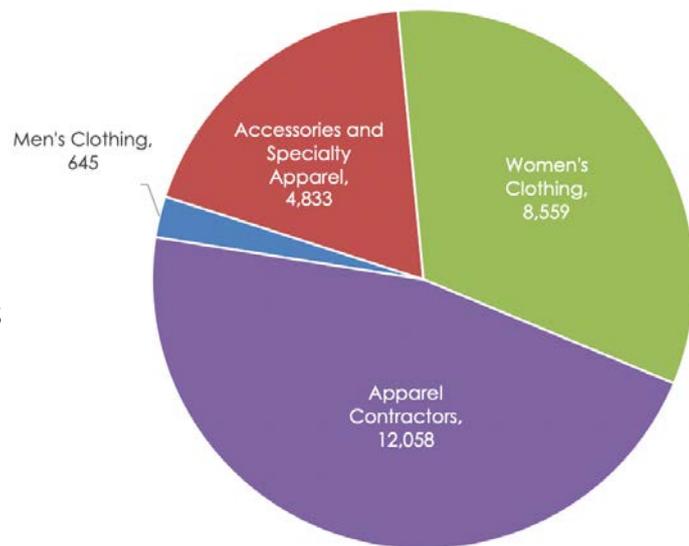
LOCATION  
QUOTIENT  
**6.21**

AN IMPORTANT L.A. COUNTY CLUSTER IN THE EARLY 2000s, APPAREL HAS WITNESSED A SIGNIFICANT DECLINE OVER THE PAST DECADE.

### TOP PAYING INDUSTRIES

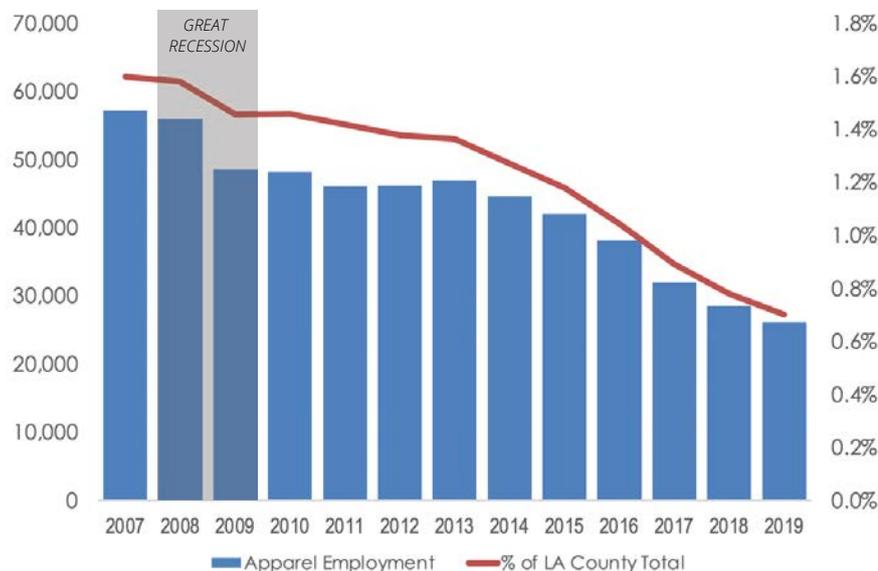


The average cluster wage in apparel is far below county averages. Cut and sew manufacturing provides between roughly \$40,000 and \$65,000 per year, while cut and sew apparel manufacturing has even lower wages at \$35,646.



Apparel contractors dominate this industry's employment at nearly **50%**, while women's clothing makes up most of the rest. Men's clothing is a small sector in the county.

From 2007 to 2019, the apparel cluster has **lost over half its workers**, going from 57,000 to 26,000. It makes up less than 0.7% of county employment currently.



# FASHION: TEXTILE MANUFACTURING

AT-A-GLANCE  
2019

# OF  
EMPLOYEES  
6,688

AVERAGE  
WAGE  
\$48,573

LOCATION  
QUOTIENT  
1.05

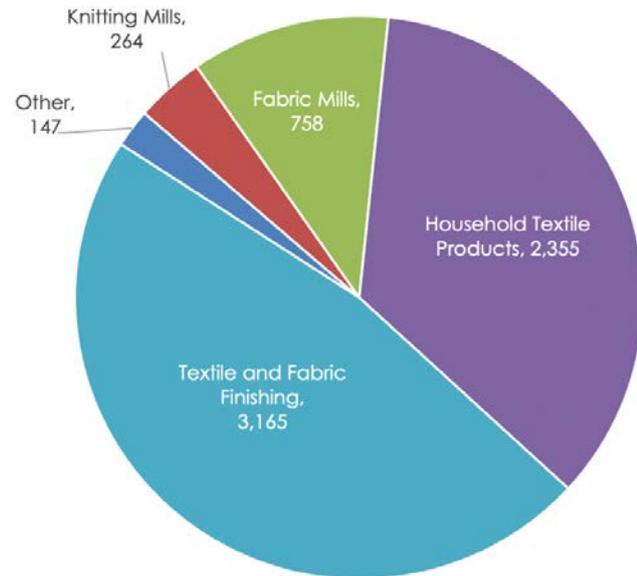
Textiles has a concentration similar to the national average. It has dropped from 1.82 in 2007, seeing a decline of 0.77.

ANOTHER CLUSTER IN L.A. COUNTY THAT LOST HALF OF ITS EMPLOYMENT OVER THE PAST DECADE IS TEXTILE MANUFACTURING.

## TOP PAYING INDUSTRIES

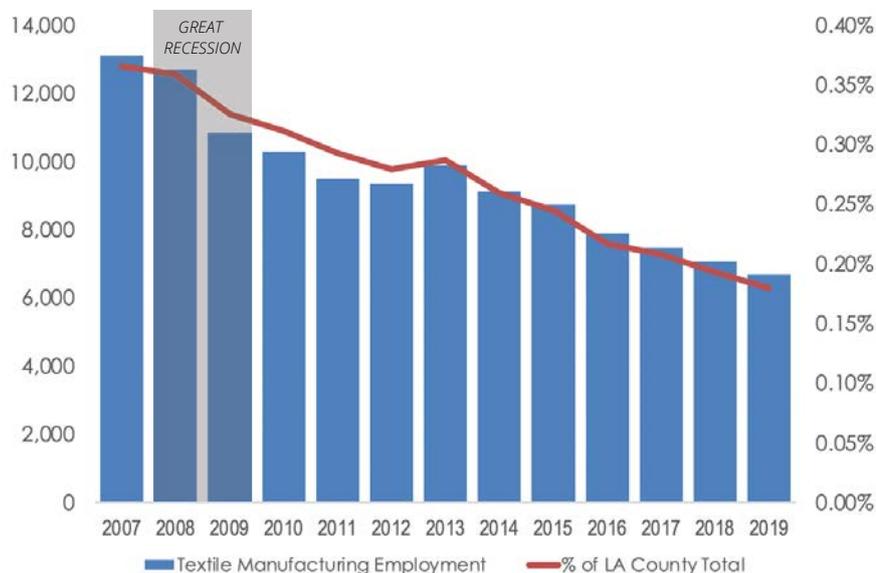


While some fabric mills have wages in the high fifty and sixty thousands, as a whole the textile manufacturing cluster averages **less than \$50,000 per year in wages**. Most milling jobs make in the forty thousands annually.



Half of the workers in this cluster are in **textile and fabric finishing**, with another 30% in household textile products.

It is readily apparent that textile manufacturing jobs are leaving the county, as there are **just below 7,000 workers** now compared to the 13,000 workers present twelve years prior.



# FOOD PROCESSING & MANUFACTURING

## AT-A-GLANCE 2019

# OF  
EMPLOYEES  
**31,494**

AVERAGE  
WAGE  
**\$59,517**

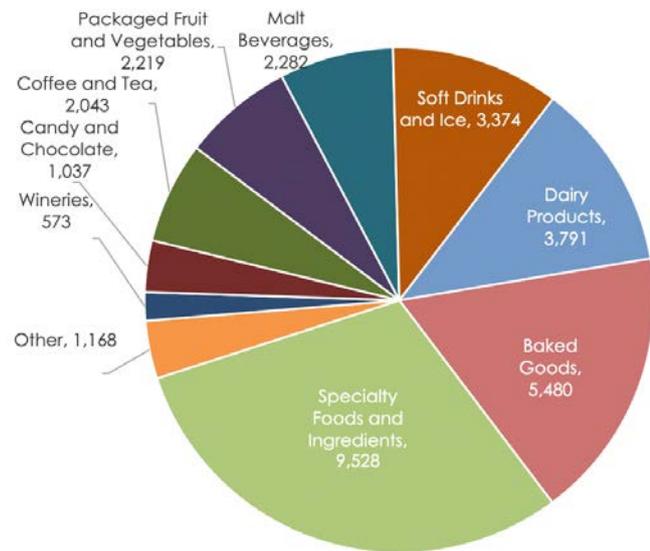
LOCATION  
QUOTIENT  
**0.83**

THIS LARGE TRADED INDUSTRY CLUSTER HELD 31,494 JOBS IN LOS ANGELES COUNTY IN 2019, WITH AVERAGE WAGES AROUND \$60,000.

### TOP PAYING INDUSTRIES

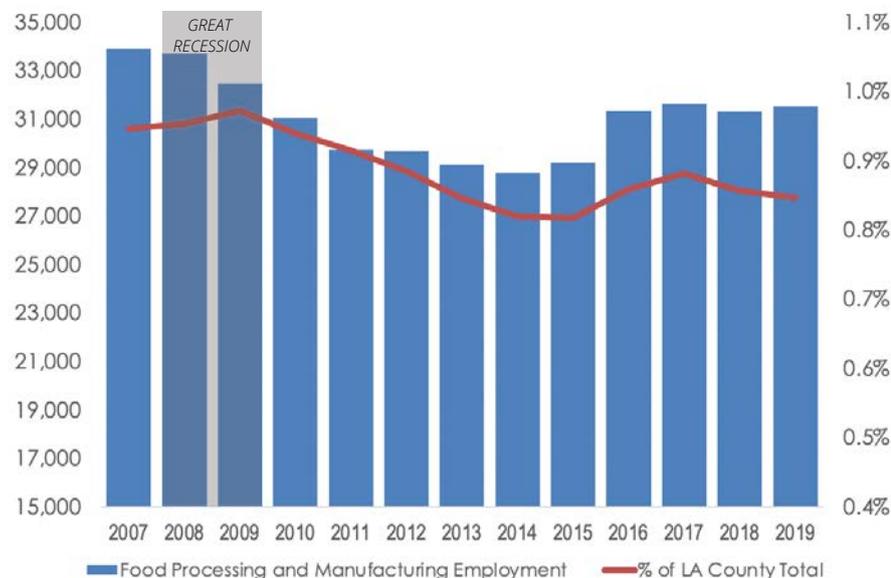


Average cluster wages are **moderately below** average county wages. Of about forty industries that make up this cluster, **only nine** are higher than the L.A. County average.



There are **many segments** that make up this cluster. The largest ones are specialty foods and ingredients, baked goods and dairy products.

Employment in the food processing industry fell slightly after 2008 before rising once again in the past four years. It has stayed **consistent above 31,000** since 2016.



# INFOTECH & ANALYTICAL INSTRUMENTS

AT-A-GLANCE  
2019

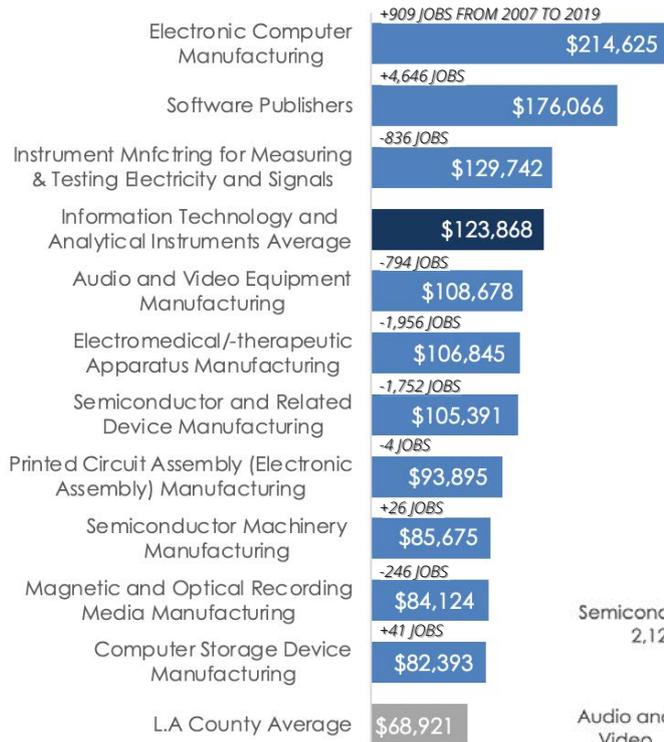
# OF  
EMPLOYEES  
31,471

AVERAGE  
WAGE  
\$123,868

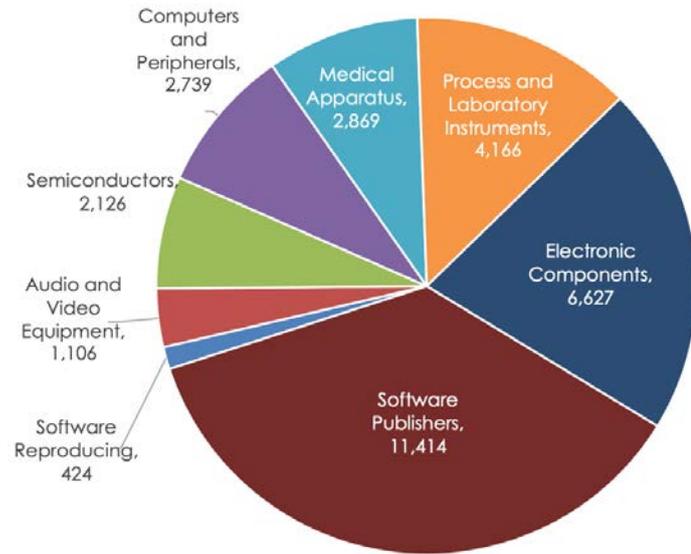
LOCATION  
QUOTIENT  
0.73

FOCUSED AROUND THE PRODUCTION OF ELECTRONIC DEVICES AND INSTRUMENTS, THIS CLUSTER EMPLOYED 31,471 IN L.A. COUNTY.

## TOP PAYING INDUSTRIES

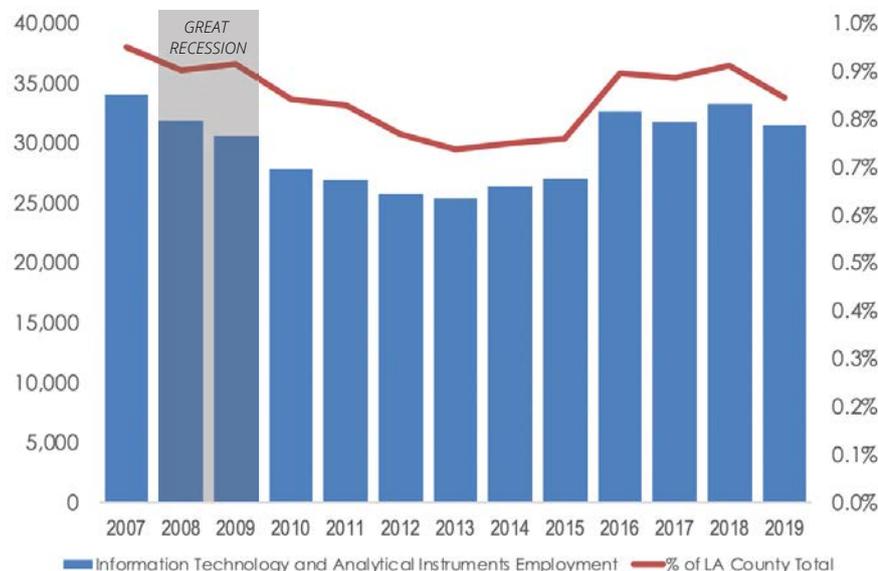


The average cluster wage is **much higher** than county wages, with software publishing and computer manufacturing paying the most. Some high-paying industries focus on medical devices, though most are intended to supply computers.



Software publishers are the largest segment of this cluster. Its employment has grown by **nearly 5,000 jobs** since 2007.

IT and Analytical Instruments saw employment dip at the beginning of last decade, but it has **increased in the past four years to around 1%** of total county employment.



# BIOMEDICAL

## AT-A-GLANCE 2019

# OF  
EMPLOYEES  
**16,206**

AVERAGE  
WAGE  
**\$77,891**

LOCATION  
QUOTIENT  
**0.83**

Biomedical has a below-average concentration in L.A. County. Medicinal and Botanical Manufacturing is the strongest industry at 1.48.

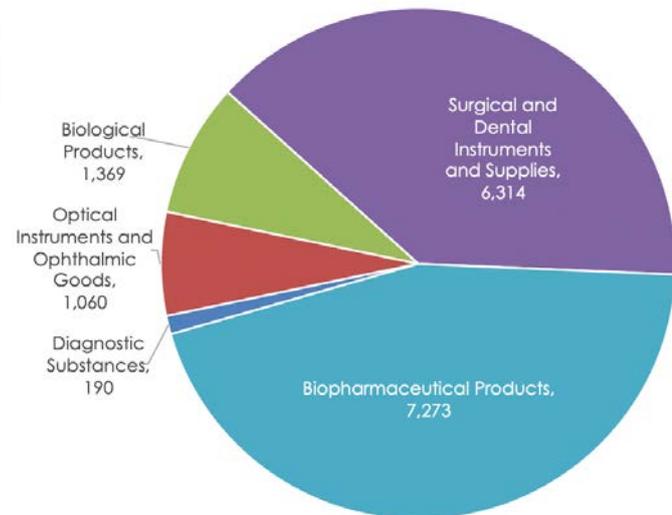
A COMBINATION OF BIOPHARMACEUTICALS AND MEDICAL DEVICES MANUFACTURING, THIS GROUP EMPLOYED 16,206 IN L.A. COUNTY.

### TOP PAYING INDUSTRIES

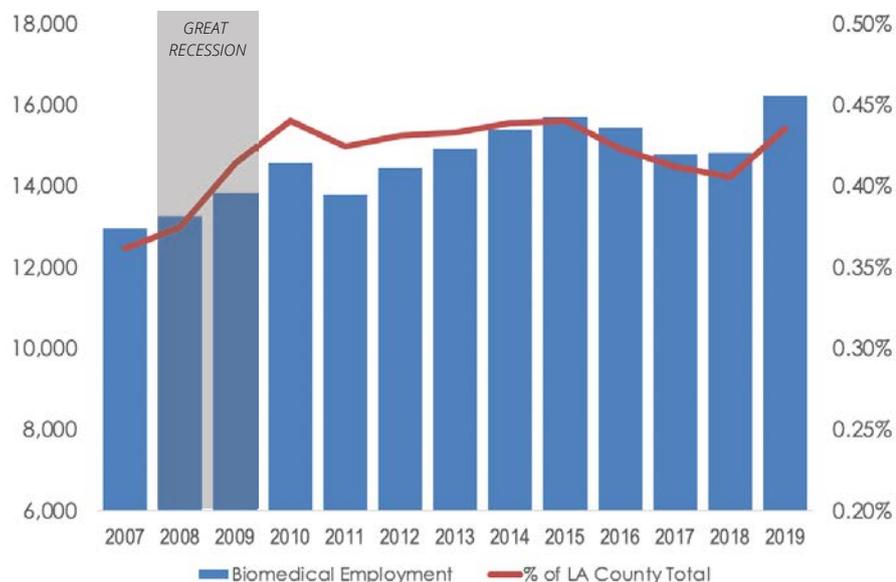


The average wages for biomedical are **moderately above** the L.A. County average, with just one component industry averaging over \$100,000 annually.

**Biopharmaceutical products manufacturing** is the largest employer within this group, with surgical and dental instruments following.



Employment has seen growth in this group over the past decade and a half, reaching **16,000** for the first time in 2019. This was the **first positive year** after three straight years of job losses.



# BIOMEDICAL: BIOPHARMACEUTICALS

AT-A-GLANCE  
2019

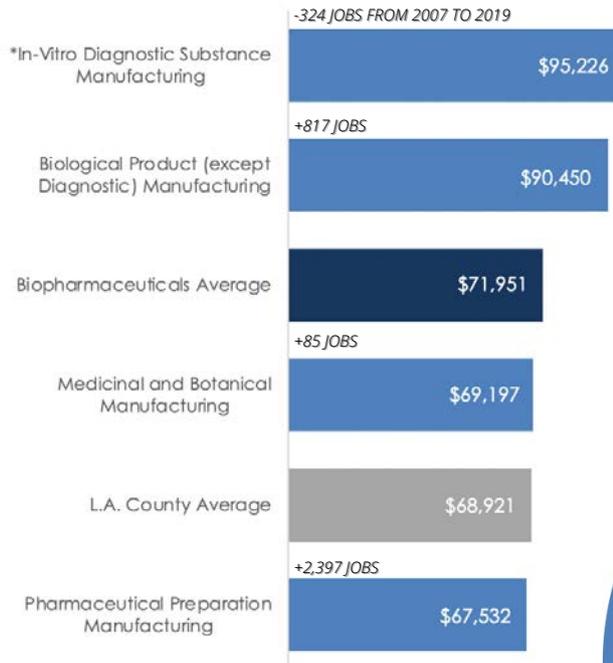
# OF  
EMPLOYEES  
8,832

AVERAGE  
WAGE  
\$71,951

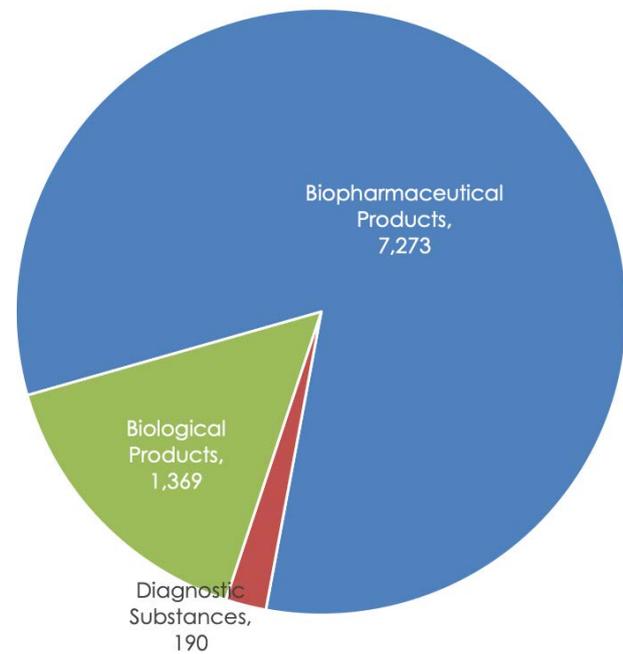
LOCATION  
QUOTIENT  
0.90

THE LARGEST COMPONENT CLUSTER OF THE BIOMEDICAL AGGREGATION, WHICH HAD 8,832 WORKERS IN L.A. COUNTY IN 2019.

## TOP PAYING INDUSTRIES



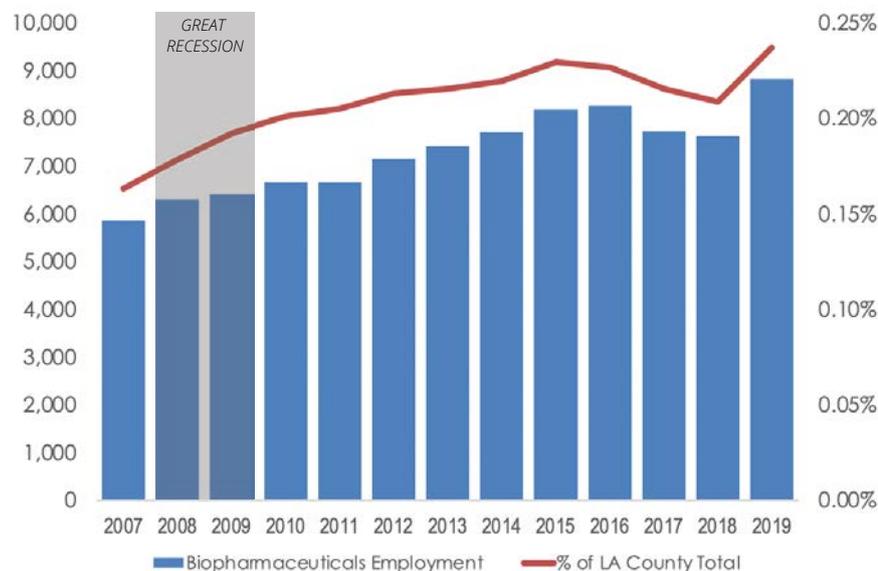
Average wages in this cluster are **near the county average**, with all component industries making above \$67,000 annually on average.



\*This industry manufactures chemical and biological substances used for diagnostic tests in test tubes, petri dishes and more.

The **production of biopharmaceutical products** is responsible for the majority of workers here, as pharmaceutical preparation manufacturing employs nearly 6,000.

Employment has been increasing over time, save for a drop in 2017 and 2018. Though it accounts for less than 0.25% of county employment, the cluster has **added 2,000 workers** over the last decade.



Although there are stronger clusters for biopharmaceuticals elsewhere in the county, the LQ has grown from 0.6 to 0.9 over the past twelve years.



# BIOMEDICAL: MEDICAL DEVICES

AT-A-GLANCE  
2019

# OF  
EMPLOYEES  
7,374

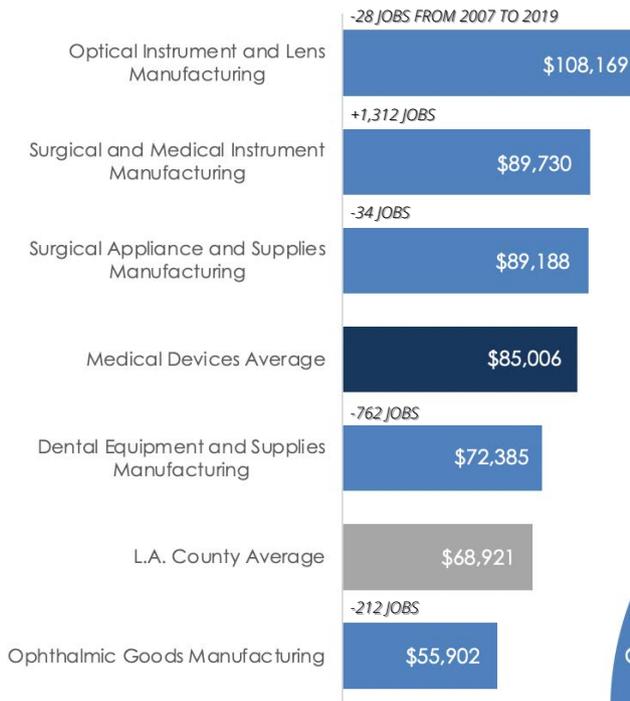
AVERAGE  
WAGE  
\$85,006

LOCATION  
QUOTIENT  
0.76

There is poor concentration of this cluster in L.A. County, as the highest LQ among component industries is just 1.2. Cluster LQ has remained the same for the past decade.

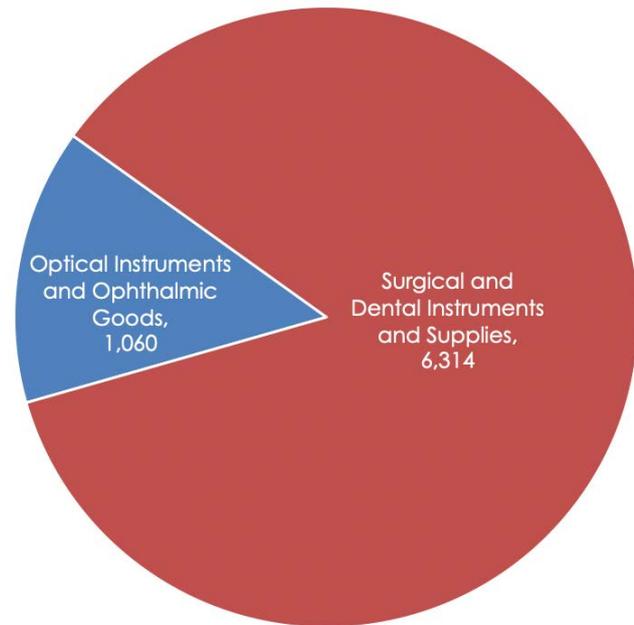
A SMALLER COMPONENT CLUSTER OF THE BIOMEDICAL AGGREGATION, MEDICAL DEVICES HAS ABOVE-AVERAGE WAGES IN L.A. COUNTY.

## TOP PAYING INDUSTRIES

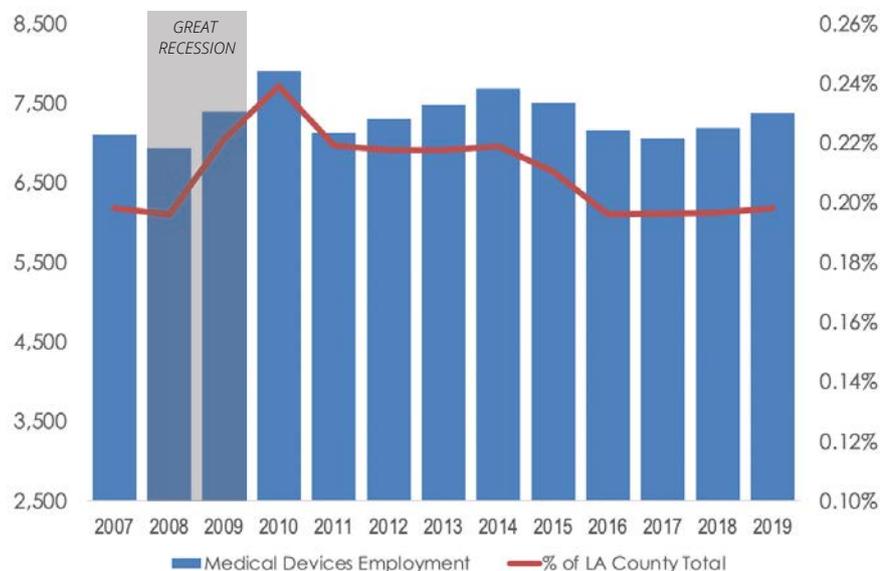


Though the cluster average is about **\$16,000 above the average county wage**, there is a fair amount of disparity as wages range from \$55,902 to \$108,619 among the industries in this cluster.

Most of the employment in this cluster is concentrated in **surgical and medical instrument and appliances manufacturing**.



Medical Devices employment has been fairly consistent, staying **around 7,000** over the past decade outside of a spike in 2010. Its contribution to total employment in the county has fallen as a result.



# COMMUNICATIONS EQUIPMENT & SERVICES

AT-A-GLANCE  
2019

# OF  
EMPLOYEES  
12,802

AVERAGE  
WAGE  
\$138,431

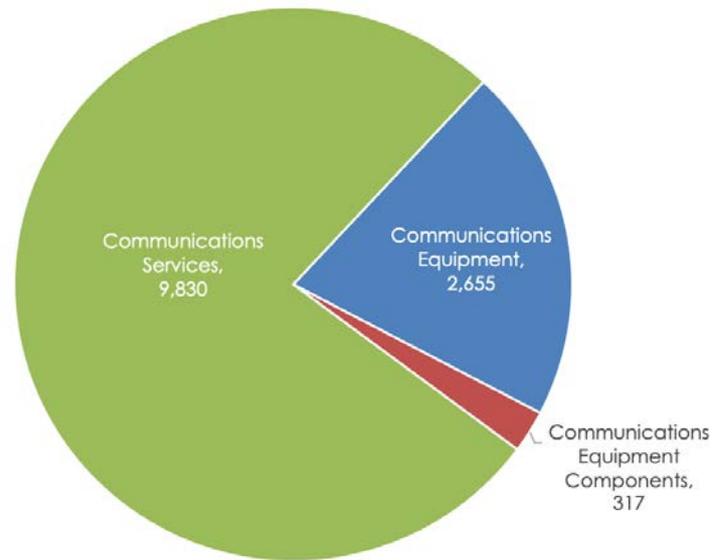
LOCATION  
QUOTIENT  
1.35

THIS CLUSTER HAS WITNESSED MODERATE GROWTH IN L.A. COUNTY LOCATION QUOTIENT EVEN AS EMPLOYMENT FALLS NATIONALLY.

## TOP PAYING INDUSTRIES



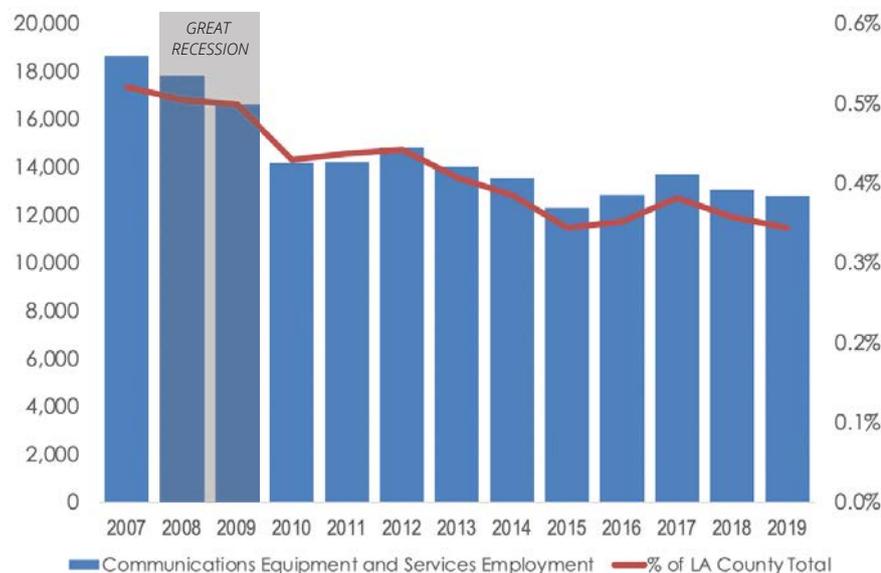
There is a **fair amount of disparity** in average wages among this cluster's component industries, ranging from \$182,090 to \$71,149.



**Communications services**, which combines cable and subscription programming and wireless telecommunications carriers, makes up most of the workforce.

Despite declining employment, this cluster is doing better in L.A. County than nationally, as its LQ has risen from 1.16 to 1.35 since 2007.

Employment in this cluster has been decreasing for years, as **close to 6,000 jobs have been lost** since 2007.



# LOCAL HEALTH SERVICES

AT-A-GLANCE  
2019

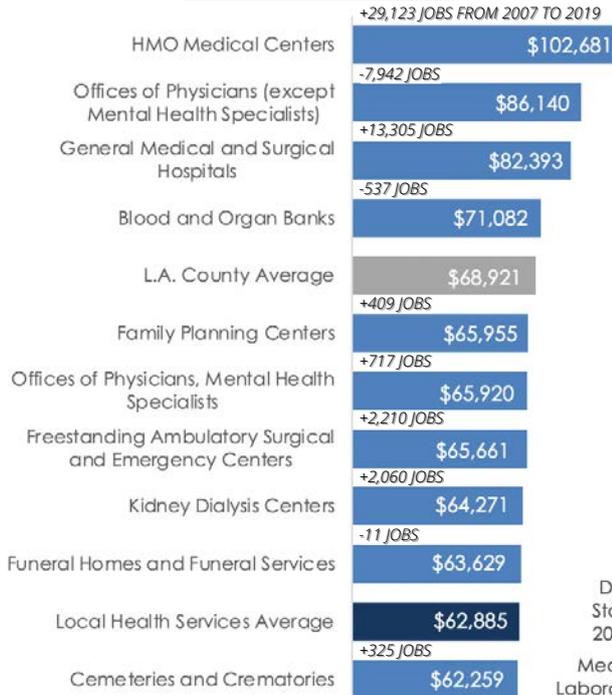
# OF  
EMPLOYEES  
463,872

AVERAGE  
WAGE  
\$62,885

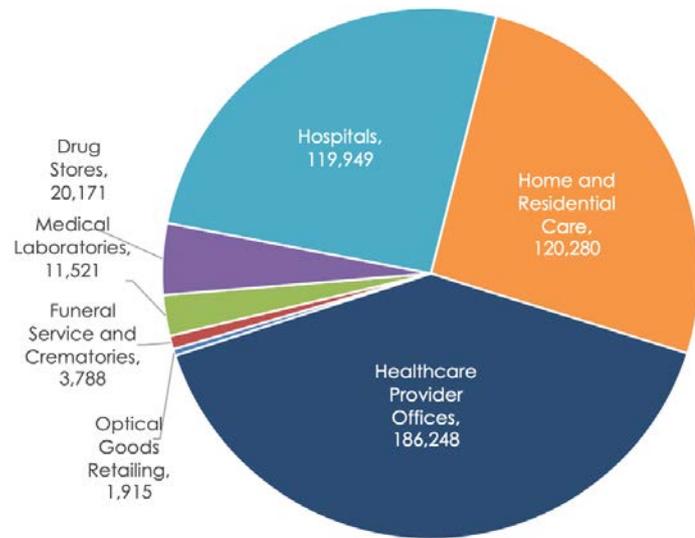
LOCATION  
QUOTIENT  
0.85

THE LARGEST LOCAL CLUSTER IN L.A. COUNTY, HEALTH SERVICES INCLUDES HOSPITALS, LABORATORIES AND HEALTHCARE PROVIDERS.

## TOP PAYING INDUSTRIES

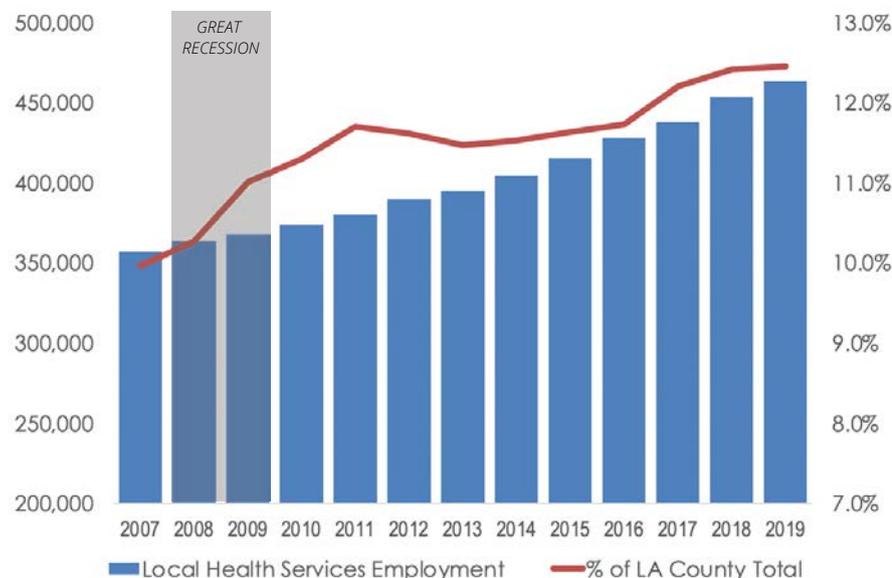


The **average cluster wage is below the county's** by about \$6,000, and only four industries are above the L.A. average. These include HMO medical centers, physicians offices and general medical hospitals.



Healthcare provider offices employ **over 186,000** in the county, and **hospitals another 120,000**. A quarter of workers are in home and residential care, which includes diagnostic imaging centers, psychiatric hospitals, and home health services.

Healthcare's local employment has been steadily increasing over time, **adding nearly 100,000 jobs** in the county from 2007 to 2019. As an essential industry, this trend is likely to continue.



# LOCAL HOSPITALITY ESTABLISHMENTS

## AT-A-GLANCE 2019

# OF  
EMPLOYEES  
**433,392**

AVERAGE  
WAGE  
**\$25,458**

LOCATION  
QUOTIENT  
**1.01**

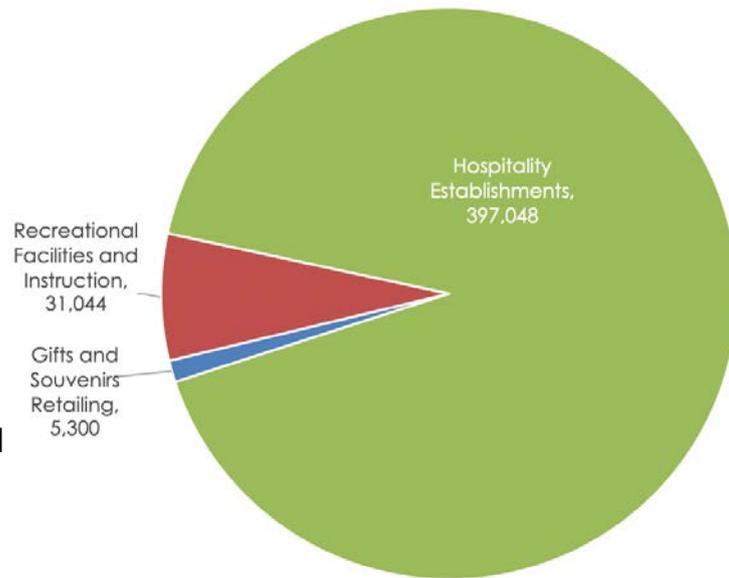
The employment concentration in Hospitality Establishments is about the same as the national average, as the 1.01 LQ shows. The LQ for Restaurants lies at 1.08.

HOSPITALITY ESTABLISHMENTS EMPLOY OVER 433,000 IN L.A. COUNTY, BUT HAVE SOME OF THE LOWEST WAGES OF ANY CLUSTER.

### TOP PAYING INDUSTRIES

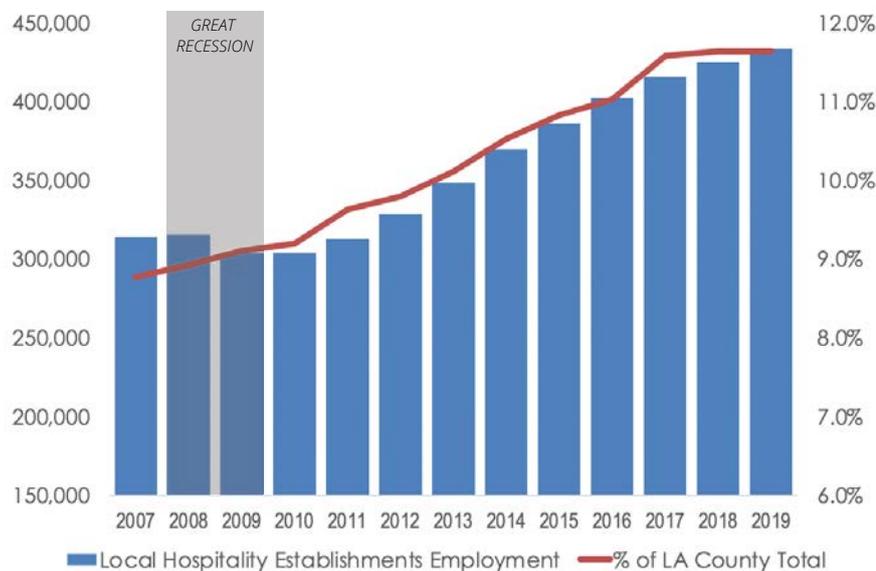


The industries within this cluster have **extremely low wages**, with the L.A. County average wage over two times that of the local hospitality establishments average.



Despite the low wages, there are 400,000 working in hospitality establishments. **Full and limited service restaurants** accounted for about 330,000 of these jobs.

Local hospitality has been increasing in employment steadily in a similar manner to health services, with around **100,000 new jobs added** over the past twelve years. It makes up 12% of total county employment.



# LOCAL COMMERCIAL SERVICES

## AT-A-GLANCE 2019

# OF  
EMPLOYEES  
**313,808**

AVERAGE  
WAGE  
**\$63,028**

LOCATION  
QUOTIENT  
**1.09**

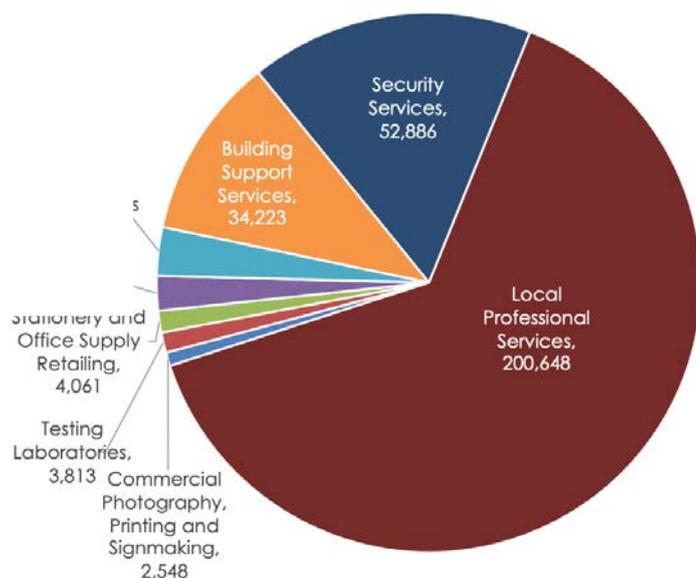
The cluster is slightly stronger than the national average, with a 1.09 LQ. Lawyers are a strong profession at a location quotient of 1.58.

## COMMERCIAL SERVICES IN L.A. COUNTY INCLUDE LAWYERS AND ACCOUNTANTS, BUILDING SUPPORT, INSPECTORS & SECURITY.

### TOP PAYING INDUSTRIES



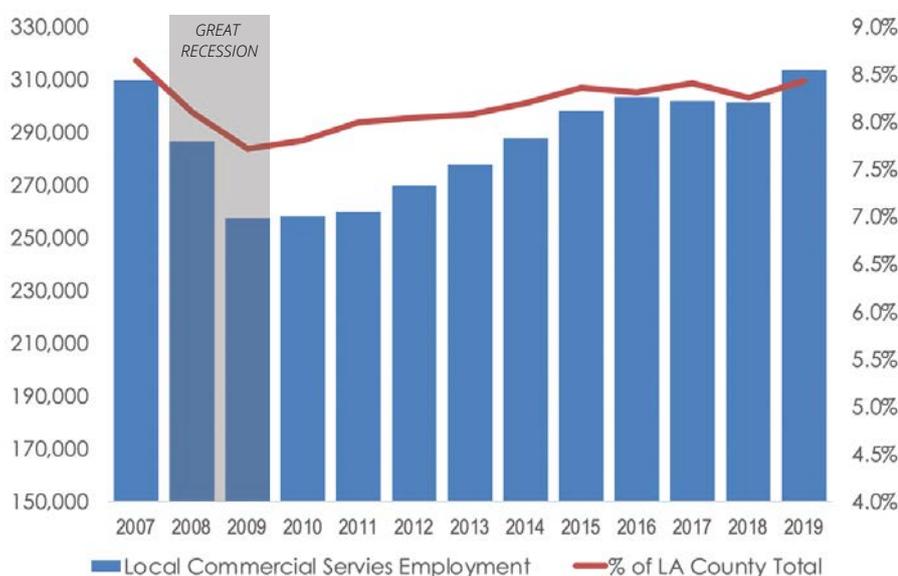
There are **notable income disparities** within this cluster; lawyers and accountants are compensated well, but lower-end jobs in security, inspection and repair are well below the county average.



There are over 200,000 working in professional services, half of which comes from **temporary help and office administration**.

Security and support accounts for another thirty percent of the total.

Employment in local commercial services appears to have **leveled off around 300,000** in the past few years after rising from 250,000 in 2009; it accounts for **9%** of employment in L.A. County.



# LOCAL COMMUNITY & CIVIC ORGANIZATIONS

AT-A-GLANCE  
2019

# OF  
EMPLOYEES  
298,074

AVERAGE  
WAGE  
\$23,977

LOCATION  
QUOTIENT  
2.28

This is a strength for L.A. County, as it is well above national averages with a 2.28 LQ. The notable concentration is driven by Services for the Elderly and Disabled at an LQ of 3.86.

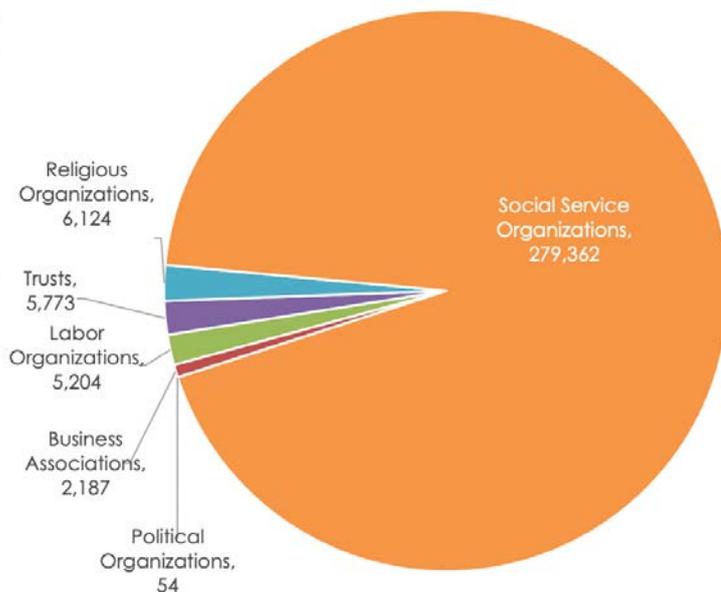
THE FOURTH LARGEST LOCAL CLUSTER, LOCAL COMMUNITY AND CIVIC ORGANIZATIONS HAD 298,074 EMPLOYEES IN L.A. COUNTY IN 2019.

## TOP PAYING INDUSTRIES

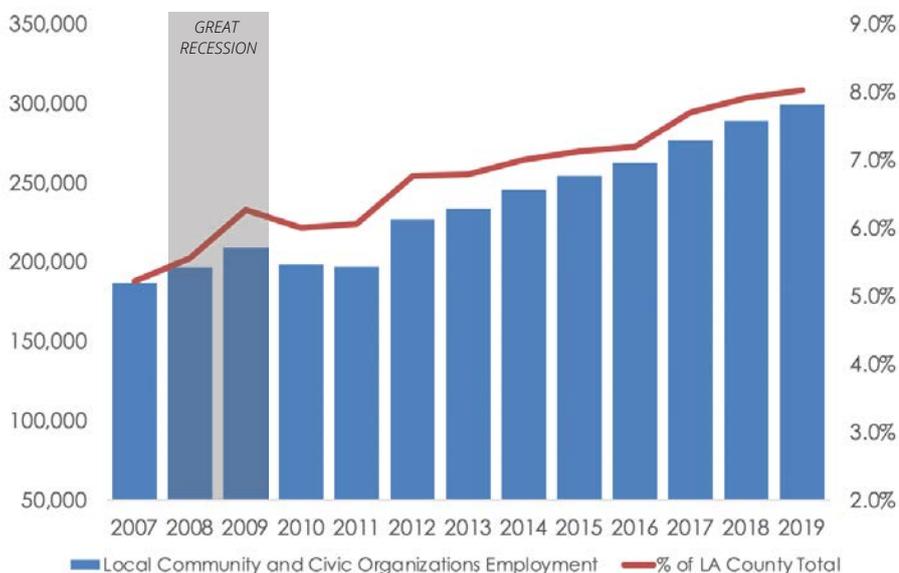


While there are a fair amount of decently-paying industries within this cluster, the average is very low due to the **high amount of low-paying jobs** performing services for the elderly and disabled.

Of the **280,000 in social service organizations**, 220,000 of these support the elderly and disabled. Another 10,000 are in civic and social organizations.



Employment has **risen consistently** over the course of the last decade and a half, from about 180,000 in 2007 to nearly 300,000 in 2019. The cluster **accounted for 8%** of Los Angeles County workers in 2019.



**LOS ANGELES COUNTY ECONOMIC DEVELOPMENT CORPORATION**  
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**LAEDC.ORG**

