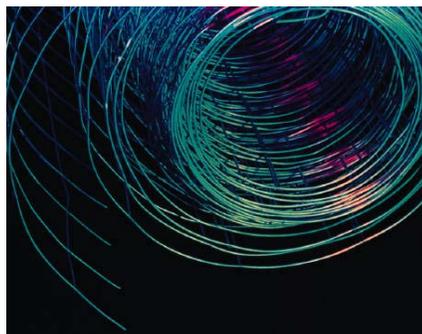


# 2015 ECONOMIC UPDATE *for* LOS ANGELES COUNTY



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INSTITUTE FOR APPLIED ECONOMICS  
Los Angeles County Economic Development Corporation

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The LAEDC Institute for Applied Economics provides objective and unbiased economic and policy research for public and private entities. The Institute focuses on regional industry cluster and sector-based research and analysis, economic and fiscal impact assessments and labor market studies.

Every reasonable effort has been made to ensure that the data contained herein reflect the most accurate and timely information possible and they are believed to be reliable.

The report is provided solely for informational purposes and is not to be construed as providing advice, recommendations, endorsements, representations or warranties of any kind whatsoever.

## Executive Summary

Los Angeles County is on a steady employment growth path, which will continue over the next few years. Recovery from the Great Recession has been somewhat disappointing, but the county has experienced a sustained but moderate increase in employment, which is expected to continue over the next few years.

- ▶ *Education and Health Services:* The education and health services sector is expected to add almost 100,000 new jobs over the next five years, almost all of which will be in health care and social assistance.
- ▶ *Leisure and Hospitality:* The leisure and hospitality sector continues to grow, but most of the projected job growth will be in food services.

## County Employment Situation

The November unemployment rate in Los Angeles County at 5.7 percent (not seasonally adjusted) is 7.5 percentage points below its July 2010 peak of 13.2 percent but still higher than the pre-recession low of 4.3 percent. Nonfarm employment in November 2015 totaled 4.4 million, adding 22,200 jobs from October and 73,200 jobs over the previous year, a year-over-year increase of 1.7 percent. A large majority of industry sectors experienced growth over the period.

As the unemployment rate continues to fall, it is expected that the labor market will tighten and wage growth will finally begin. In general, occupations requiring higher levels of educational attainment are those that will experience the largest wage increase. It remains to be seen if those are the occupations that will be growing most quickly over the next few years.

Several industries are emerging and have the potential to be future drivers:

- ▶ *Digital Media / Digital Tech:* The regional growth of media companies is converging with digital technology and multi-platform delivery of content and services to produce a fast-paced innovative 21<sup>st</sup> century industry in Los Angeles County. As the center of this transformation, Los Angeles will continue to demonstrate competitive strength and enjoy significant growth.
- ▶ *Advanced Transportation and Fuels:* As the automobile capital of the nation, Los Angeles is the recognized center of automotive design and transportation innovation. Additionally, current environment policy is motivating significant investment and research into this industry. This momentum suggests that there is a high growth potential in Los Angeles County.
- ▶ *Biosciences:* Los Angeles is home to some of the leading medical and bioscience research institutions in the nation. The biosciences industry is demonstrating the potential to grow and thrive in the Los Angeles region, motivated in part by partnerships among private, non-profit and public agencies to develop competitive strength and capability here.

## Leading and Emerging Industries

Several industries will add jobs over the next five years and lead in job growth:

- ▶ *Construction:* After suffering severe employment losses through 2011, and with slow recovery in the housing market and financial system, this sector is now expected to grow robustly.
- ▶ *Information:* The information sector, which includes motion picture production, broadcasting, publishing and new media industries, will continue to gain employment.
- ▶ *Professional and Business Services:* This large and diverse sector is forecast to add almost 75,000 new jobs over the next five years, led by growth in administrative and support industries (which includes temporary employment).

## Nexus between Income, Education and Poverty

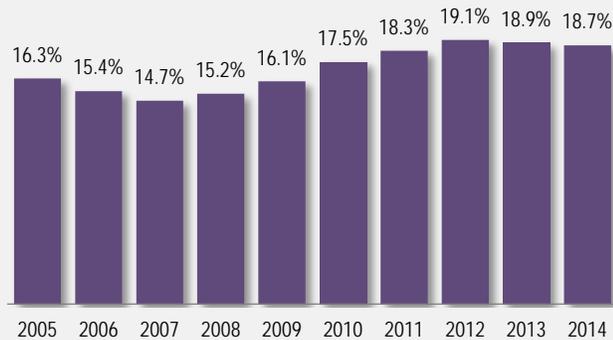
Using the federal poverty threshold, almost 19 percent of individuals in Los Angeles County were living in poverty in 2014. Because poverty is highly correlated with unemployment, poverty rates were negatively impacted by the Great Recession. Since unemployment has been falling, the poverty rate has turned a corner and is declining (Exhibit ES-1).

There are strong correlations between income, educational attainment and the likelihood of being in poverty.

Median household income has declined in inflation-adjusted terms since 1990 and is now 11 percent below its 1990 value. Per capita income has been stagnant over the period, and is still 3 percent below its 2000 level.

Educational attainment is highly correlated with workplace earnings. While overall, approximately 43 percent of the working age population of Los Angeles County has a high school credential or less, levels of educational attainment of younger cohorts is improving. This is a promising trend that will impact the probability of residents staying out of poverty.

**Exhibit ES-1**  
Individual Poverty Rates 2005 to 2014  
Los Angeles County



Source: ACS 2014 1-year estimates

## Addressing Poverty Challenges

Although individual poverty rates are now declining, poverty is still higher than it was fifteen years ago in Los Angeles County. Resolving poverty challenges will require addressing issues related to poverty, including:

- ▶ *Household structure:* Single parent households account for almost half of all households in poverty in Los Angeles in 2014. With young children at home, the earnings outlook for single parents is poor as children need to be tended to, cared for, schooled and supervised.
- ▶ *Health and wellness:* Of all households in poverty, more than one-third do not have children at home. It may be that other family members require full time care that prevents individuals from attaining other full time employment, or some may not be healthy enough themselves to consistently maintain regular employment.
- ▶ *Skills and education:* Higher levels of educational attainment usually results in lower unemployment and higher earnings. The combination of higher rates of unemployment and lower median earnings combine to generate higher levels of poverty for workers with lower levels of education.
- ▶ *Economic development strategies:* Poverty is also influenced by macroeconomic conditions. A robust economy can be facilitated through strategies aimed at ensuring job growth and high wage opportunities for all residents.

Policies that could address each of these challenges individually and together include:

- Providing access to safe and affordable child care and after-school care;
- Providing pre-natal care and universal preschool;
- Increasing access to quality health care;
- Encouraging high school completion;
- Expanding technical education and apprenticeships;
- Investing in targeted education to provide “in-demand” skills for regional businesses; and
- Supporting innovation and spur entrepreneurship.

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# I Economic Overview for Los Angeles County

## Current Employment Situation

The unemployment rate measures the share of the civilian unemployed to the civilian labor force; higher rates indicate a larger share of individuals who desire to work, but who are unable to find employment.

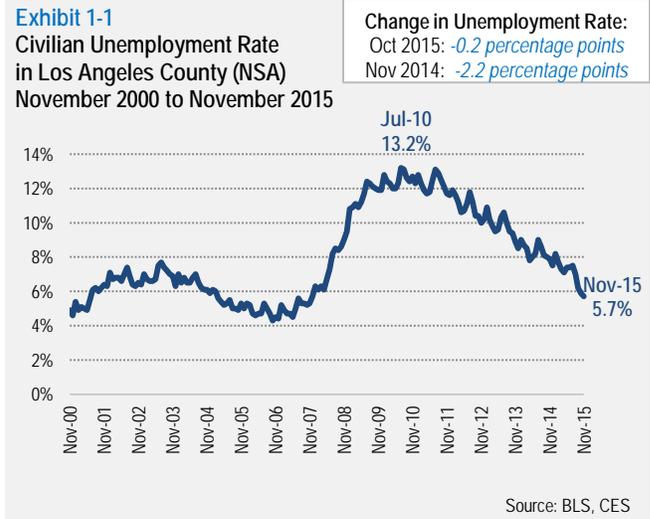
Monthly unemployment rates in Los Angeles County from November 2000 through November 2015 (not seasonally adjusted) are shown in Exhibit 1-1. The November unemployment rate at 5.7% is 7.5 percentage points below its July 2010 peak of 13.2 percent.

On an almost steady decline since its peak in July 2010, the unemployment rate (NSA) in November of 5.9%, was a drop of 0.2 percentage points from the previous month (October 2015) and 2.2 percentage points below the rate a year ago in November 2014 (7.9%). This is still higher than the pre-recession low of 4.3% in October of 2006.

In November 2015, the unemployment rate in the county is the same as in the state as a whole (5.7% NSA), and nearly a whole percentage point higher than that of the nation (which currently stands at 4.8% NSA).

Performance of industry sectors in Los Angeles County in terms of employment for November 2015, the most recent period for which data is available, is presented in Exhibit 1-2.

Nonfarm employment in November 2015 totaled 4.4 million, adding 22,200 jobs from October and 73,200 jobs over the nonfarm employment in November of the previous year, a year-over-year increase of 1.7 percent. A large majority of industry sectors experienced growth over the period.



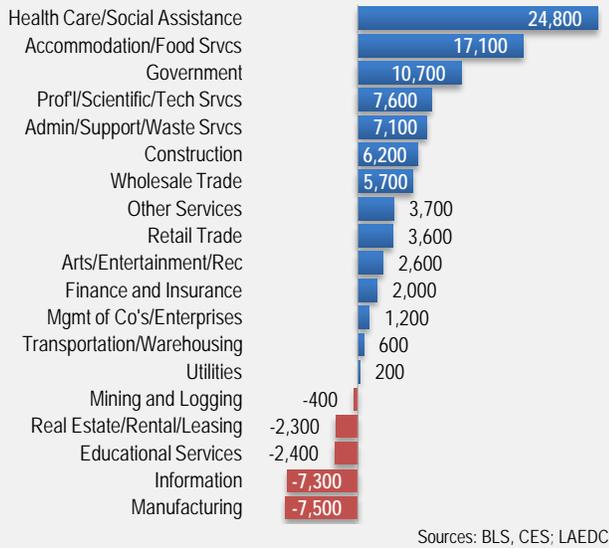
**Exhibit 1-2**  
Industry Employment in Los Angeles County

NAICS	Industry Description	Nov 2015	% Δ from Nov 2014
21	Mining and Logging	4,300	-8.5%
22	Utilities	130,600	5.0%
23	Construction	357,800	-2.1%
31-33	Manufacturing	233,100	2.5%
42	Wholesale Trade	437,300	0.8%
44-45	Retail Trade	12,500	1.6%
48-49	Transportation and Warehousing	154,500	0.4%
51	Information	194,100	-3.6%
52	Finance and Insurance	131,400	-1.7%
53	Real Estate/Rental/Leasing	78,900	2.6%
54	Professional and Technical Services	293,000	2.7%
55	Mgmt of Co's/Enterprises	61,700	2.0%
56	Administrative and Waste Services	278,300	2.6%
61	Educational Services	129,300	-1.8%
62	Health Care and Social Assistance	660,400	3.9%
71	Arts, Entertainment and Recreation	79,900	3.4%
72	Accommodation and Food Services	411,500	4.3%
81	Other Services	157,800	2.4%
92	Government	580,100	1.9%
<b>Total Nonfarm Employment</b>		<b>4,386,500</b>	<b>1.7%</b>

Source: BLS, CES

**Exhibit 1-3**

**Employment Change by Industry Sector  
Los Angeles County, November 2015  
(Y-Y Numerical Change)**



Providing a year over year comparison is one way to account for seasonality that may be present in the varying industries. Industries with peak or down times that change from one month to the next can cause employment to vary significantly when observing data during these “seasons.”

While Exhibit 1-2 displays the year-over-year percentage change, the actual number of jobs added or lost by industry sector is shown in Exhibit 1-3.

Industry sectors with the strongest year-over-year percentage growth in employment in November 2015 were construction, accommodation and food services, and health care and social services.

*Construction* had 6,200 more jobs compared to November 2014, an increase of 5.0 percent.

*Accommodation and food services* employment grew by 4.3 percent (17,100 jobs) over the previous year, with nearly all job growth attributable to the food services industry and its large gain of 17,000 jobs; the remaining 100 jobs were added in accommodation.

*Health care and social services* employment grew by 3.9 percent over November 2014, adding 24,800 jobs; ambulatory health care, hospitals, nursing and residential care facilities, and social services added 14,000 jobs, 4,600 jobs, 5,500 jobs and 700 jobs respectively.

Industry sectors with the largest negative percentage change in employment in November 2015 compared to November 2014 include mining and logging, information and manufacturing.

*Mining and logging* employment fell by 8.5 percent; however, due to the small size of this sector, that translates to a loss of only 400 jobs.

The second largest percentage loss in employment occurred in the *Information industry* sector, whose 3.6 percent fall represented a shedding of 7,300 jobs. The motion picture and sound recording industry alone accounted for the loss of 6,600 of these jobs over the period.

The *manufacturing* industry sector experienced a year-over-year decline of 2.1 percent. In terms of the number of jobs, manufacturing lost the most over the period, shedding 7,500 jobs from November of last year.

## Employment Forecast

Los Angeles County is on a steady employment growth path, which will persist over the next few years. Recovery from the Great Recession has been disappointing. Following significant job losses of 2008 through 2010, anemic job growth in 2011 was followed by less than robust job growth in 2012. The hoped for “V”-shaped recovery did not occur. In its place, the county has experienced a sustained but moderate increase in employment. Year-over-year growth of 2.4 percent occurred in 2014, but this is again expected to slow somewhat over the next few years.

Still, in terms of numbers, there has been job growth over the last few years. Almost 100,000 jobs were added in 2014, and 2015 is expected to see a similar number of jobs added. The jobs lost during the Great Recession have been recovered by the end of 2014, although even this level of employment does not account for population growth and any change in the labor force.

Over the longer term, employment in Los Angeles County is forecast to grow at its population growth rate of approximately 0.5 percent.

Between 2014 and 2019, the economy is expected to add almost 300,000 new jobs in nonfarm industries across the county, an average annual growth rate of 1.3 percent.

As the unemployment rate continues to fall, it is expected that the labor market will tighten and wage growth will finally begin. In general, occupations requiring higher levels of educational attainment are those that will experience the largest wage increase. It remains to be seen if those are the occupations that will be growing most quickly over the next few years.

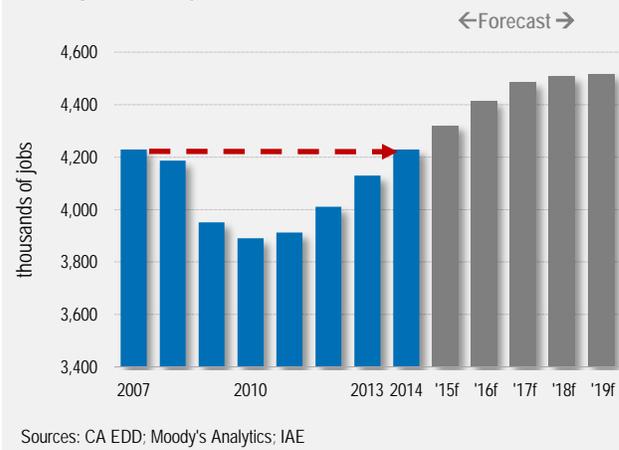
Risks to the region will always include the economic health of our trading partners and of our own nation, as these affect the significant trade and logistics industry in Los Angeles.

Industry sectors that will experience the highest overall growth rate include construction, education and health services, professional and business services and information. Employment losses will continue in most manufacturing industries.

**Exhibit 1-4**  
Change in Nonfarm Employment 2007-2019  
Los Angeles County



**Exhibit 1-5**  
Nonfarm Employment 2007-2019  
Los Angeles County



**Exhibit 1-6**  
**Industry Employment Growth 2014-2019**  
**Los Angeles County**

	Average Annual % Growth	Δ Employment (000s)
<b>Total Nonfarm Payroll Employment</b>	<b>1.3%</b>	<b>288.3</b>
<b>Good Producing Industries:</b>	<b>0.3%</b>	<b>6.9</b>
Natural Resources and Mining	-0.7%	-0.2
Construction	2.7%	17.0
Manufacturing – Durable Goods	-0.3%	-3.3
Manufacturing – Nondurable Goods	-0.8%	-6.5
<b>Service Providing Industries</b>	<b>1.6%</b>	<b>268.1</b>
Wholesale Trade	0.2%	2.2
Retail Trade	0.7%	15.3
Transportation, Warehousing, Utilities	0.4%	3.0
Information	2.3%	23.6
Financial Activities	1.4%	15.4
Professional and Business Services	2.3%	74.2
Educational and Health Services	2.5%	97.7
Leisure and Hospitality	1.5%	36.4
Other Services	0.0%	0.3
<b>Government</b>	<b>0.5%</b>	<b>13.3</b>

Sources: CA EDD; Moody's Analytics; IAE

At the industry level, employment in goods-producing industries is projected to remain relatively flat, growing at an average annual rate of 0.3 percent over the next five years (Exhibit 1-6). The growth of employment in construction will be enough to offset declines in manufacturing employment.

Service-providing industries will together grow at an annual average rate of 1.6 percent from 2014 to 2019, driven in large part by growth in educational and health services, leisure and hospitality and professional and business services.

## Leading Industries

Several industries will add jobs over the next five years and lead in job growth:

### ► Construction

Construction industry employment experienced severe declines through 2011, losing more than 52,000 jobs. The losses finally stopped in 2012, but job growth has been agonizingly slow as the housing market and financial system recover. The average annual growth rate between 2014 and 2019 is projected to be 2.7 percent, adding 17,000 jobs, more than half of which will be specialty trade contractors.

### ► Information

The information sector, which includes motion picture production, broadcasting, publishing and new media industries, will grow at an annual average of 2.3 percent per year, adding 23,600 new jobs in the next five years.

### ► Professional and Business Services

The professional and business services sector is a large, diverse sector which includes professional, scientific and technical services, management of companies and administrative support and waste remediation. Employment in the sector overall is forecast to grow at an average annual rate of 2.3 percent, adding almost 74,200 new jobs between 2014 and 2019, led by growth in administrative and support industries (which includes temporary employment).

### ► Education and Health Services

The education and health services sector is expected to continue to grow at a healthy pace, adding 97,700 new jobs between 2014 and 2019, almost all of which will be mostly in health care and social assistance.

### ► Leisure and Hospitality

The leisure and hospitality sector will show better-than-average growth over the forecast period. The sector is projected to add 36,400 new jobs from 2014 to 2019, most of which will be in food services.

## Emerging Industries

Several industries are emerging and have the potential to be future drivers:

### ► *Digital Media / Digital Tech*

The regional growth of media companies is converging with digital technology and multi-platform delivery of content and services to produce a fast-paced innovative 21<sup>st</sup> century industry in Los Angeles County. This supports a range of industries including arts and entertainment, computer services, sports and media and film production. As the center of this transformation, Los Angeles will continue to demonstrate competitive strength and enjoy significant growth.

### ► *Advanced Transportation and Fuels*

As the automobile capital of the nation, Los Angeles is the recognized center of automotive design and transportation innovation—from electric vehicles and autonomous vehicles to biofuels to battery storage and energy solutions, Los Angeles is developing a leadership position in this field. The industry is emergent and crosses traditional industry definitions. Additionally, the current environment policy is motivating significant investment and research, in innovation in transportation delivery. This momentum suggests that there is a high growth potential in Los Angeles County.

### ► *Biosciences*

Los Angeles is home to some of the leading medical and bioscience research institutions in the nation. The biosciences industry, which encompass medical devices, pharmaceuticals, laboratories and clinics and related research and development, is demonstrating the potential to grow and thrive in the Los Angeles region, motivated in part by partnerships among private, non-profit and public agencies to develop competitive strength and capability here. With such concerted effort and potential funding support identified, this industry sector looks promising and can provide jobs across the occupational scale with a variety of skill levels.

## Industry Wages

Wages across industry sectors vary significantly. The average wage for payroll employment in Los Angeles County in 2014 was \$56,653. Exhibit 1-5 provides the average for each industry sector.

The highest-paying industry sector is mining, paying an average of \$134,217 in wages, followed by finance and insurance, with average wages of \$111,347 and utilities, paying average wages of \$108,565.

The lowest-paying sector was accommodation and food services, with an average annual wage of \$20,857. It should be noted that this industry is characterized by a higher percentage of part time workers than others, yielding lower annual wages since the number of hours worked is lower. Other industries that have high percentages of part time workers include retail industries and administrative services, which includes temporary employment.

**Exhibit 1-5**  
Annual Average Wage by Industry  
Los Angeles County 2014

	Average Annual Wage
<b>Total Payroll Employment</b>	<b>\$ 56,653</b>
<b>Good Producing Industries:</b>	<b>\$ 60,554</b>
Agriculture, Forestry, Fishing and Hunting	33,528
Mining	134,217
Construction	57,451
Manufacturing – Durable Goods	72,164
Manufacturing – Nondurable Goods	47,018
<b>Service Providing Industries</b>	<b>\$ 54,521</b>
Wholesale Trade	59,928
Retail Trade	33,132
Transportation and Warehousing	55,975
Utilities	108,565
Information	104,684
Finance and Insurance	111,347
Real Estate and Rental and Leasing	62,918
Professional and Technical Services	93,936
Management of Companies	107,492
Administrative and Waste Services	36,844
Educational Services	53,304
Health Care and Social Assistance	40,930
Arts, Entertainment and Recreation	100,454
Accommodation and Food Services	20,857
Other Services	34,917
<b>Government</b>	<b>\$ 65,799</b>

Sources: CA EDD; IAE

## Occupational Projections

**Exhibit 1-6**  
Occupational Growth in Los Angeles County 2014-2019

SOC	Occupational Group	New Jobs	Replacement	Total
11-0000	Management occupations	14,295	25,805	40,100
13-0000	Business and financial	17,090	23,515	40,605
15-0000	Computer and mathematical	8,675	7,865	16,540
17-0000	Architecture and engineering	2,095	8,050	10,145
19-0000	Life, physical, social science	3,235	5,595	8,830
21-0000	Community and social services	5,150	8,055	13,205
23-0000	Legal occupations	2,690	3,795	6,485
25-0000	Education, training and library	12,945	25,305	38,250
27-0000	Arts, entertainment, sports	8,535	23,825	32,360
29-0000	Healthcare practitioners	17,770	21,165	38,935
31-0000	Healthcare support	9,775	9,185	18,960
33-0000	Protective services	6,440	13,665	20,105
35-0000	Food preparation and serving	34,160	63,480	97,640
37-0000	Building/grounds maintenance	8,090	13,580	21,670
39-0000	Personal care and service	52,485	18,930	71,415
41-0000	Sales and related	21,750	63,730	85,480
43-0000	Office and administrative	28,390	74,295	102,685
45-0000	Farming, fishing and forestry	110	770	880
47-0000	Construction and extraction	13,825	9,255	23,080
49-0000	Installation, maint / repair	8,795	13,465	22,260
51-0000	Production	2,360	24,490	26,850
53-0000	Transportation/material moving	17,410	35,845	53,255
<b>Total</b>		<b>296,070</b>	<b>493,670</b>	<b>789,740</b>

Source: CA EDD

**Exhibit 1-7**  
Median Wages of Major Occupation Groups  
Los Angeles County 1st Quarter 2015



Source: CA EDD

The growth of industries in the region will precipitate the growth of particular occupations. The overall net growth of an occupation is a consequence of its contribution to industries that are growing and to industries that are declining. This may result in an occupation experiencing no or little growth as workers that had been employed in a failing industry shift to similar roles in industries that are growing, or as workers in certain occupations are replaced with improved technologies or processes.

In addition to the growth and decline of industries, workers within industries leave current positions, either through retirement or through promotion, or for other reasons, leaving positions open and in need of replacement. The Census Bureau estimates replacement needs by industry and occupation through detailed surveys of employers and workers.

Projected new openings are calculated by applying the industry occupational composition to the detailed industry employment forecast. In this analysis, the base employment year is 2014, the most recent year for which complete employment data is available. Projected job openings by major occupational group aggregated across industries in Los Angeles County are presented in Exhibit 1-6.

The highest number of overall openings will occur in the largest occupational groups, such as office and administrative support occupations, food preparation and serving occupations, sales occupations, and healthcare occupations (practitioners, technicians and support). Other occupations that will provide large number of openings are personal care occupations and transportation and material moving occupations.

Exhibit 1-7 presents the annual median wages associated with each major occupational group in Los Angeles County the first quarter of 2015. The annual median wage across all occupations was \$38,834.

Annual median wages vary significantly among the major groups, ranging from \$19,968 in food serving and related occupations up to \$109,574 in legal occupations. Wages within these major groups will vary as well, along with the level of education and on-the-job training required in each.

The exhibit notes that the median wage for all workers in Los Angeles County is \$38,834. This can be compared to the average annual wage of \$56,653 for all workers as shown in Exhibit 1-5 above.

Because the mean is higher than the median, it is clear that the majority of workers earn wages below the average wage. This may be due to a large number of lower paid workers, or to a number of extremely highly-compensated individuals (such as sports figures and movie stars).

Detailed occupations are differentiated according to jobs skills, abilities and work experience required. They are not generally industry specific but are common to several industries. For example, retail salespersons are employed in a wide range of industries.

Exhibit 1-8 presents the top 20 detailed occupations by projected job openings (new jobs and replacement jobs) between 2014 and 2019. These twenty occupations will account for just less than 37 percent of all job openings in all occupations.

The highest number of openings will be found in occupations related to the largest major occupational groups: personal care aides, which are in the personal care and service occupational group; retail salespersons and cashiers, which are in the sales occupational group; waiters and waitresses and combined food preparation and serving workers, which are both in the food preparation and serving occupational group; and laborers and material movers, which are in transportation and material moving occupational group.

Other occupations with many openings expected over the next five years are general office clerks, registered nurses, customer service representatives, general and operations managers, accountants and auditors, stock clerks and order fillers, and janitors and cleaners.

#### Exhibit 1-8

##### Occupational Growth in Los Angeles County 2014-2019 Top 20 Detailed Occupations ( $\Delta$ Employment)

SOC	Detailed Occupation	New Jobs	Replacement	Total
39-9021	Personal care aides	46,400	5,400	51,800
41-2031	Retail salespersons	6,620	20,600	27,220
35-3021	Combined food prep and serving	10,265	14,980	25,245
41-2011	Cashiers	4,605	18,930	23,535
35-3031	Waiters and waitresses	5,385	14,780	20,165
53-7062	Laborers and material movers	5,895	12,230	18,125
43-9061	Office clerks, general	2,985	9,570	12,555
29-1141	Registered nurses	4,865	6,800	11,665
43-4051	Customer service representatives	3,050	7,590	10,640
11-1021	General and operations managers	4,060	6,295	10,355
13-2011	Accountants and auditors	3,360	6,825	10,185
43-5081	Stock clerks and order fillers	1,565	8,375	9,940
37-2011	Janitors / cleaners, not maids	3,400	5,395	8,795
43-1011	First-line supervisors of admins	2,875	5,670	8,545
43-6014	Secretaries and admin assistants- not legal/medl/exec	4,435	3,645	8,080
33-9032	Security guards	4,215	3,800	8,015
35-2021	Food preparation workers	2,475	4,955	7,430
35-2014	Cooks, restaurant	4,050	2,795	6,845
41-1011	First-line supervisors of retail sales workers	1,510	4,480	5,990
31-1014	Nursing assistants	2,965	2,950	5,915
<b>Total</b>		<b>124,980</b>	<b>166,065</b>	<b>291,045</b>

Source: CA EDD

## Education and Skills Requirements

**Exhibit 1-9**  
**Median Wage and Entry Level Requirements for**  
**Top 20 Detailed Occupations 2014-2019**

SOC	Detailed Occupation	Annual Mean Wage	Entry Level Needs		
			Educ	Work Exp	OJT
39-9021	Personal care aides	\$ 21,745	8	None	ST
41-2031	Retail salespersons	28,092	8	None	ST
35-3021	Combined food prep and serving	20,795	8	None	ST
41-2011	Cashiers	22,863	8	None	ST
35-3031	Waiters and waitresses	25,107	8	None	ST
53-7062	Laborers and material movers	28,040	8	None	ST
43-9061	Office clerks, general	32,342	7	None	ST
29-1141	Registered nurses	95,455	4	None	None
43-4051	Customer service representatives	38,705	7	None	ST
11-1021	General and operations managers	129,464	4	1-5 yrs	None
13-2011	Accountants and auditors	77,366	3	None	None
43-5081	Stock clerks and order fillers	25,979	8	None	ST
37-2011	Janitors / cleaners, not maids	27,774	8	None	ST
43-1011	First-line supervisors of admins	59,570	7	1-5 yrs	None
43-6014	Secretaries / admin assistants -not legal/med/exec	39,030	7	None	ST
33-9032	Security guards	27,334	7	None	ST
35-2021	Food preparation workers	21,234	8	None	ST
35-2014	Cooks, restaurant	24,402	8	<1 yr	MT
41-1011	First-line supervisors of retail sales workers	44,868	7	1-5 yrs	None
31-1014	Nursing assistants	30,083	5	None	None

ST=short term; MT=moderate-term; I/R=internship/residency  
 Source: CA EDD

Many of the detailed occupations that will provide the most job openings in the next five years as shown in Exhibit 1-8 require lower levels of education and training. The expected openings for these job market participants are especially important to understand given the capabilities of the local labor supply.

The education and work experience needed for an entry level position in each of the top twenty occupations is shown in Exhibit 1-9. Additionally, the level of on-the-job training required to gain proficiency for each occupation is also shown.

Entry level education requirements are as follows: 3=Bachelor’s degree; 4=Associate’s degree; 5=Post-secondary non-degree award; 6=Some college, no degree; 7=High school diploma or equivalent; and 8=Less than high school. Short-term on-the-job training is training of less than one month. Moderate on-the-job training is training from 1 to 12 months.

Most occupations in the exhibit require a high school diploma or less and no work experience. The median wages shown for each occupation reflect the degree of preparation and skills levels needed, as most of them are below the average wage paid to workers in Los Angeles County.

Notice that occupations with the highest number of openings require very little in the way of educational attainment or work experience. At the same time, these are also typically occupations with annual wages below the median, hence they will not on their own be sufficient to sustain a household.

It should be noted that this analysis has assumed that the occupational composition of each industry will not materially change over the next five years, and that the entry level education and experience requirements of occupations remain the same. It is certainly possible that many industries will experience some shifts in the occupations of their employees, and that firms may expect new hires to have higher levels of education and experience than those currently specified. ❖

## Housing Market

Across the state, the housing market has bounced back in 2015. Median sales prices are rising, sales of homes increased, and new home construction is finally accelerating.

Building permit data is one of the leading indicators of the housing market. All new construction is required to file and obtain permits, making them a good way to predict changes in the market.

Exhibit 1-10 displays the total number of all new housing (residential) permits issued in Los Angeles County from 2003 through 2014.

The lowest point for the number of residential permits issued was reached in 2009. Since then, market activity has increased three-fold, growing at an average annual rate of 28.2 percent, but still remains below pre-recession peak levels in 2004 and 2006.

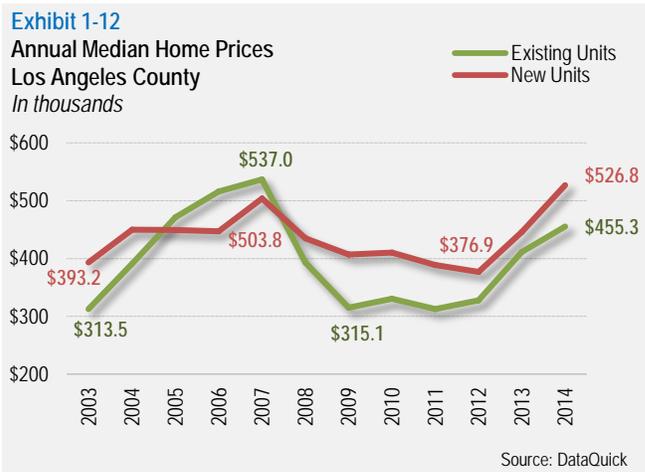
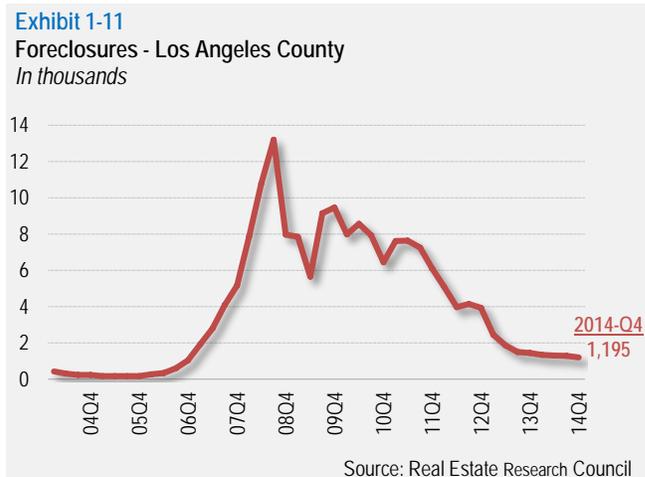
A total number of 18,707 residential permits were issued in 2014, an increase of 15.5 percent over the previous year.

Pricing of homes is a major determinant in the demand for housing. The foreclosure crisis put downward pressure on prices as the market was flooded with distressed properties, as shown in Exhibit 1-11.

Now that the pressure has subsided, home prices continue to rise, with current price levels reaching close to (and in some cases beyond) pre-crisis levels. Exhibit 1-12 shows the median prices of new and existing home sales in Los Angeles County from 2003 through 2014. Currently, the 2014 median sales price of new homes exceeds that of existing homes by 15.7 percent.

The peak median sales price of existing homes was \$537,011 in 2007 and the post-peak trough was \$312,541 in 2011, a decline of 41.8 percent. The current median sales price of existing homes has appreciated 10.7 percent over last year and 45.7 percent over the 2011 trough, but still remains 15.2 percent below its 2007 peak.

The peak median sales price for new homes was \$503,757 in 2007 and the post-peak trough was \$376,873 in 2012, a decline of 25.2 percent. The median sales price of new homes in Los Angeles County in 2014 has appreciated to \$526,793, which is 4.6 percent over the 2007 peak.



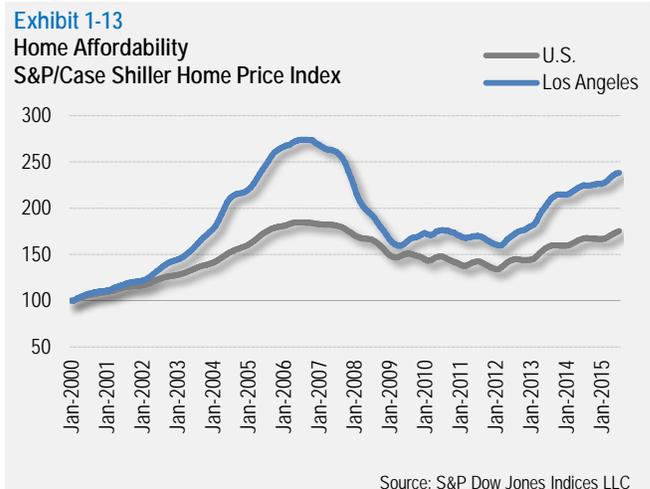
Affordability indices measure how well a family can meet the expense of purchasing a home in the area.

The S&P/Case-Shiller Home Price Index tracks changes in the value of existing single-family housing by measuring the average change in value for a constant quality level. The index utilizes a repeat sales methodology, widely considered an accurate way to measure price changes.

Exhibit 1-13 displays the monthly Case-Shiller Home Price Index in the Los Angeles Metropolitan Statistical Area (MSA) from January 2000 through July 2015, the most recent month for which data is available.

The Case-Shiller Home Price Index in the Los Angeles MSA reached 238.24 in July 2015, an increase of 0.4 percent over the previous month and a 6.1 percent increase from July 2014.

Subsequent to the steep decline in the index during the Great Recession, affordability levels were relatively flat until 2012, but have been rising again, indicating that prices are increasing and housing is becoming less affordable once more. ❖



## II Nexus between Income, Education and Poverty

There are strong correlations between income, educational attainment and the likelihood of being in poverty. Median household income in Los Angeles County is shown in Exhibit 2-1. Two series are presented: nominal median household income and household income adjusted for inflation (shown in 2014 dollars).

Nominal household income has increased steadily since 1990, with an annual average growth of 1.9 percent from 1990 to 2000, and 2.2 percent from 2000 to 2010. The growth rate has slowed since 2010, however, and now is registering 1.4 percent per year.

Moreover, adjusting for inflation shows that real median household incomes have been on a downward trajectory since 1990, eroding the purchasing power of residents in Los Angeles County for more than two decades. The annual average growth rate in real median household incomes fell by 0.45 percent per year from 1990 to 2000, and by 0.53 percent per year from 2000 to 2010. Since 2010, the average annual growth rate in real household income has registered -0.35 percent.

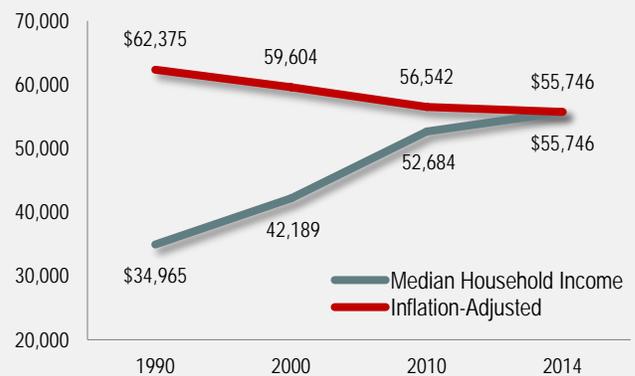
Per capita income in Los Angeles County is shown in Exhibit 2-2, again in both nominal terms and adjusted for inflation (shown in 2014 dollars).

Per capita income in Los Angeles County is estimated at \$28,373 in 2014. As with median household income, the nominal per capita income has seen decadal growth on the order of 2.5 percent per year from 1990 to 2000, 2.2 percent per year from 2000 to 2010 and 2.6 percent per year since 2010.

Real per capita income was flat between 1990 and 2000, and declined between 2000 and 2010. The decline has stopped and real per capita income is marginally higher today than in 2010, but is still 1.5 percent below its 1990 level and 2.9 percent below the level in 2000.

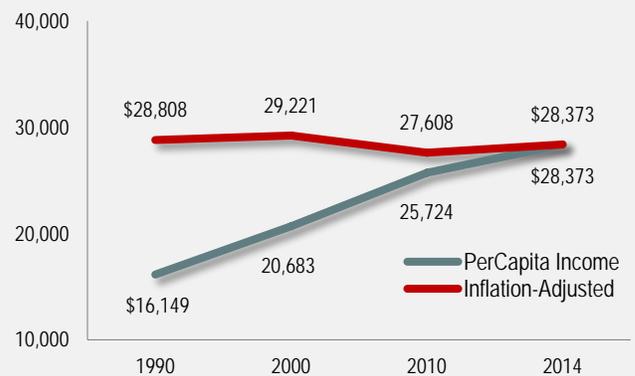
The distribution of household income is shown in Exhibit 2-3. Since the median household income in 2014 was \$55,746, fifty percent of all households earned more than this and fifty percent earned less. More than 12 percent of households earned less than \$15,000, approximately 28 percent earned less than \$30,000 and just over 37 percent earned less than \$40,000.

**Exhibit 2-1**  
Median Household Income  
Nominal and \$2014

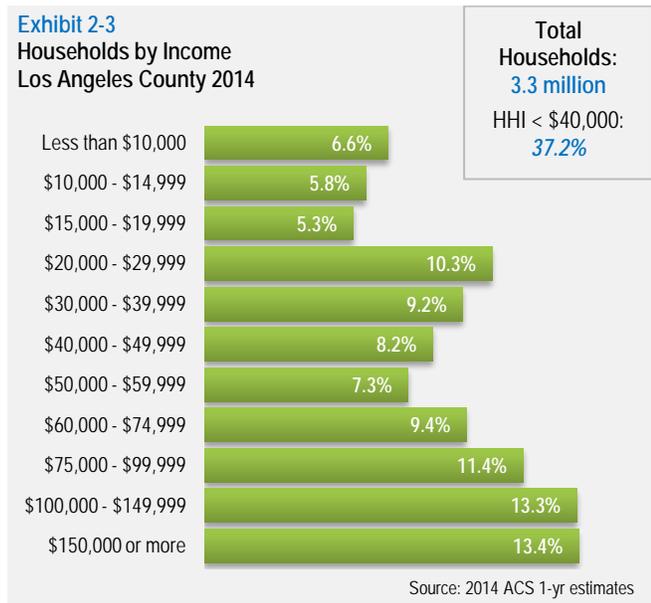


Source: ACS 2014 1-year estimates

**Exhibit 2-2**  
Per Capita Income  
Nominal and \$2014



Source: ACS 2014 1-year estimates

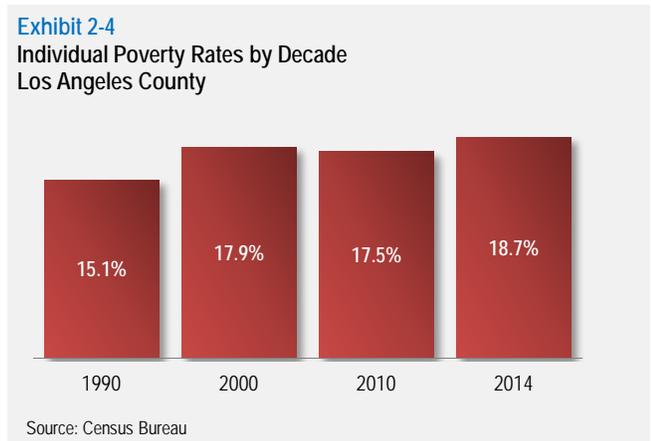


## Poverty in Los Angeles County

Poverty status is determined by the U.S. Census Bureau using an individual's or a family's pre-tax income and comparing it against a threshold of minimum cash needs. These thresholds are updated annually to account for changes in the prices of basic goods. For example, in 2014, the poverty threshold for an individual under 65 years of age was \$12,316. An individual with a cash income of less than this amount would be considered poor.

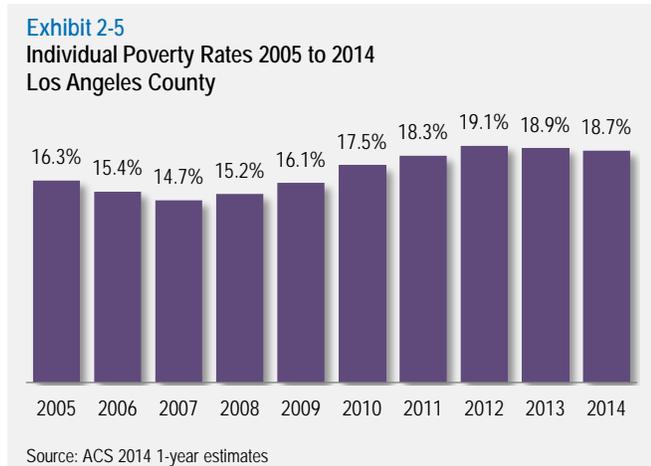
Exhibit 2-4 shows the percentage of individuals in Los Angeles County living in poverty in 1990, 2000, 2010 and 2014.

Using the federal poverty threshold, almost 19 percent of individuals in Los Angeles County were living in poverty in 2014. This rate increased between 1990 and 2000.



By 2005, annual estimates were available from the Census Bureau, which show how poverty rates were impacted by the Great Recession and its slow recovery (Exhibit 2-5).

Poverty is highly correlated with unemployment, rising as unemployment rates rise and falling (with a lag) when unemployment rates fall. Since the unemployment rates in Los Angeles County has been falling since 2010, it appears that poverty rates have turned a corner and are now declining – more than two years later than the unemployment rate.



Although the poverty threshold is updated annually, it does not take into account the wide variation of costs of living across municipalities. Since Los Angeles County is considered to have a relatively high cost of living, the official poverty rate is likely to understate the actual incidence of poverty in the county.

## Educational Attainment and Earnings

The educational attainment levels of the population of Los Angeles County aged 25 years and older are shown in Exhibit 2-6.

The population of residents aged 25 years and older in Los Angeles County numbered 6.8 million in 2014. Just under 23 percent of county residents in this age group have not earned a high school diploma (or equivalent) while 20.8 percent have graduated high school but have no other education. Approximately 30 percent of the residents have a bachelor's degree or higher. Together, this shows a bi-modal distribution of educational attainment, with large proportions at both the low end and the high end of the spectrum.

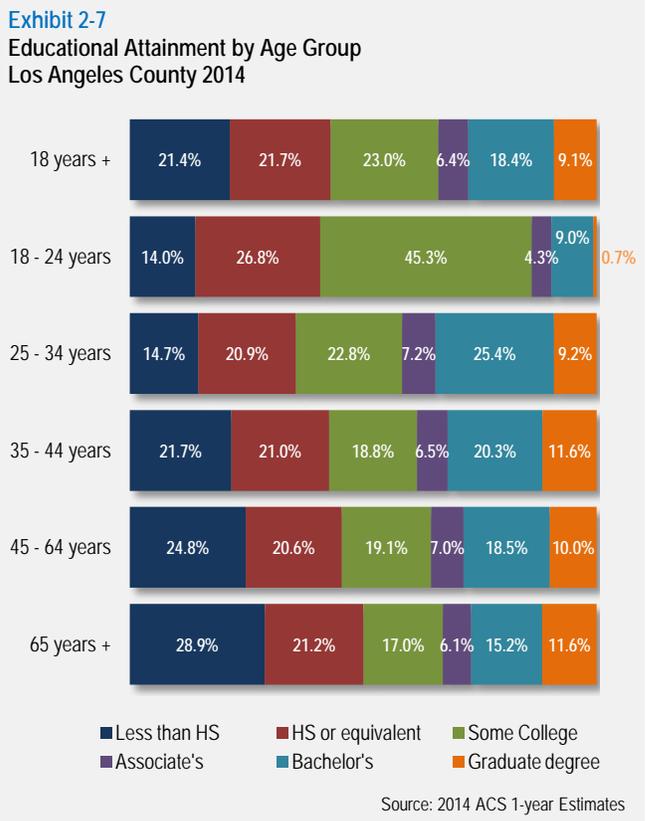
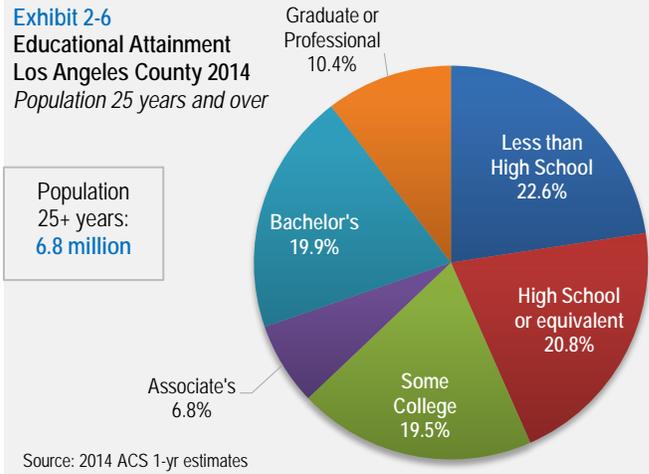
This population is in general assumed to have reached their highest level of educational attainment, although additional credentials are still certainly possible for those of younger ages.

Moreover, the educational attainment of different age groups is showing an encouraging trend as younger cohorts are staying in school longer and are graduating at higher rates (Exhibit 2-7). Residents aged 18 to 24 years are still highly involved in the educational system, with 43.6 percent of county residents in this age group having attained some college education. Completion of a Bachelor's degree was attained by 25.2 percent of those aged 25 to 34 years, while older age groups show lower levels of educational attainment.

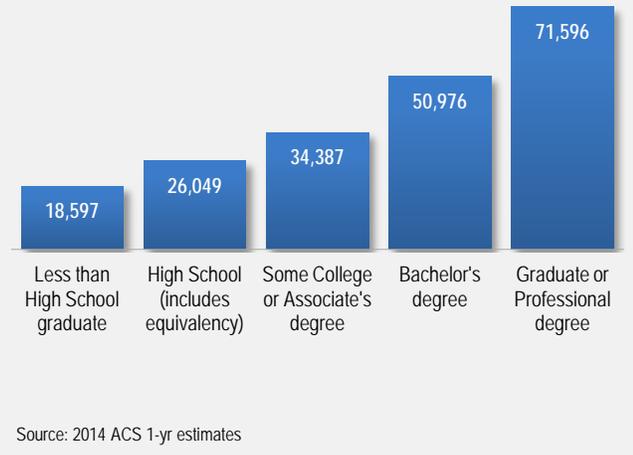
It should be noted, however, that these statistics apply to the resident population and are not reflective of the working population alone.

Wages typically reflect the degree of preparation and skills levels needed for the particular occupation and job held, with lower levels of skills and education typically earning commensurately lower median wages. This is reflected in Exhibit 2-8.

Workers aged 25 years and older in Los Angeles County with less than a high school diploma earned annual median wages of \$18,597, compared to \$26,049 earned by workers with a high school diploma, and \$50,976 for workers with a bachelor's degree. Those with the highest levels of educational attainment earned median annual wages of \$71,596.



**Exhibit 2-8**  
**Median Earnings by Educational Attainment**  
 Los Angeles County 2014  
 Workers 25 and over



Since earnings from employment represent the most significant portion of all income, those that earn lower wages will experience higher rates of poverty. Also, those with lower levels of education are likely to find employment opportunities to be more limited. The relationship between educational attainment and unemployment and poverty is shown in Exhibit 2-9.

Residents aged 25 to 64 years in Los Angeles County with less than a high school diploma experienced an unemployment rate of 8.7 percent in 2014, just lower than residents with a high school diploma (or equivalency). The unemployment rate for residents with some college was 7.5 percent and for those with a bachelor's degree or higher educational attainment was 5.0 percent. Overall, the unemployment rate in Los Angeles County for this cohort in 2014 averaged 7.3 percent.

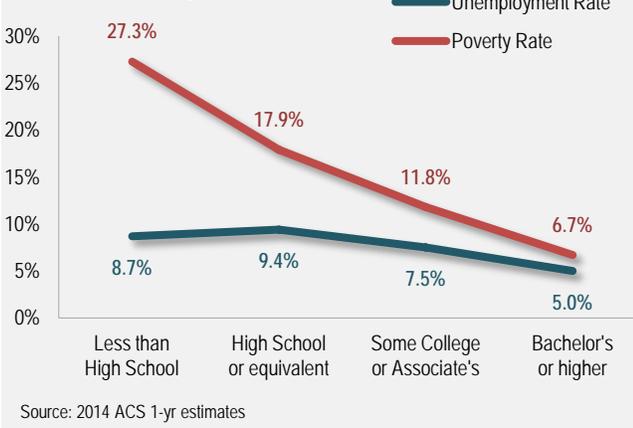
## Educational Attainment and Poverty

Note that although higher levels of education yielded lower rates of unemployment, for those with a high school diploma the unemployment rate is 9.4 percent, comparable to those without a high school diploma at 8.7 percent.

However, the poverty rates among the different groups are strikingly different. The poverty rate among residents without a high school diploma was 27.3 percent, almost 53 percent higher than the poverty rate of those with a high school diploma. This is a clear picture of the lower earning power of those at the lowest rung of educational attainment, and represents the preponderance of "working poor" in Los Angeles County.

For all groups, however, the poverty rate has changed little since last year. The poverty rate for individuals with less than a high school education remained unchanged from 2013 and the rate for those with a high school education increased slightly by 0.3 percentage points. The poverty rates for individuals at the top end of the educational attainment scale, such as those with some college or an associate's degree and those with a bachelor's degree or higher, declined by 0.4 percentage points. ❖

**Exhibit 2-9**  
**Unemployment and Poverty by Education**  
 Los Angeles County 2014  
 Population 25 to 64 years



### III Addressing Poverty Challenges

As the region continues to recover from the Great Recession, challenges yet remain. The individual poverty rate appears to be declining as unemployment rates fall, but poverty is still higher than it was fifteen years ago (Exhibit 3-1).

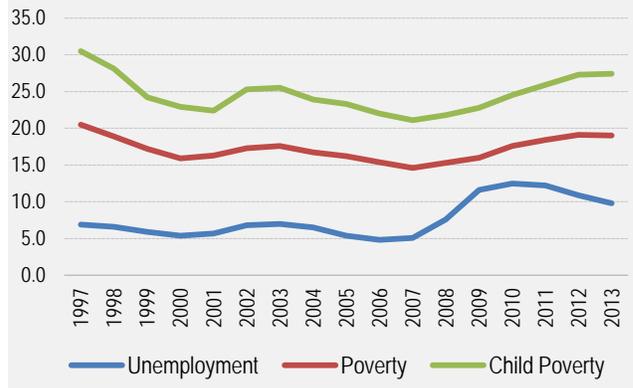
Many counties in Southern California have high rates of poverty and child poverty (Exhibit 3-2); however, Los Angeles County has been an unfortunate leader in this metric, having been surpassed by San Bernardino County only since 2007.

Resolving poverty challenges requires consideration of a number of issues related to poverty and how they can be improved, including: household structure, housing affordability; health and wellness, educational attainment and economic development strategies.

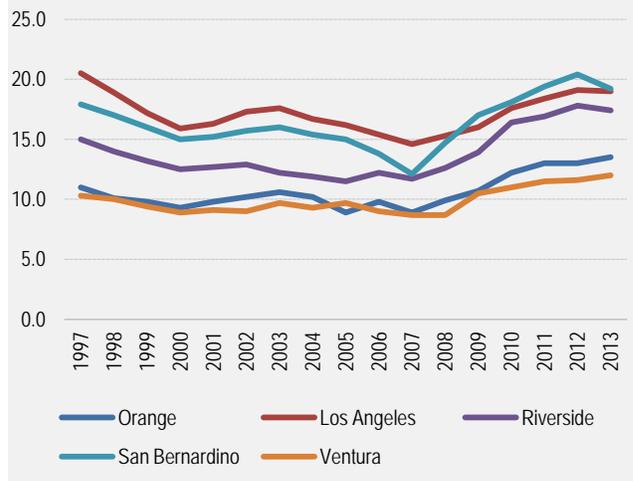
Fundamentally, poverty is a condition of not having sufficient income to provide for oneself (and one's family). For some individuals, income can come from accumulated wealth, but for most others, it is usually earned through wages from work.

To begin, consider two factors that enable individuals to earn sufficient income through working: (1) being available and able to work, and (2) earning sufficient wages for the time spent at work.

**Exhibit 3-1**  
Poverty and Unemployment  
Los Angeles County



**Exhibit 3-2**  
Poverty in Southern California Counties



## Families and Poverty

In 2013, almost 625,000 children under the age of 18, more than 27.4 percent of all children in Los Angeles County, lived in poverty—a decline from the previous year, but still a tragic legacy of the Great Recession.

The child poverty rate is consistently 40 percent or so above the overall poverty rate, so addressing the situation of households and families in which these children live and exist is critical. Children do not have earning potential and must depend on their families for their welfare.

Of the 323,256 households in poverty in Los Angeles in 2014, 45.7 percent were headed by single females, with or without children. Another 12.4 percent were headed by single males. Single parent households (with children) accounted for 46.6 percent. With young children at home, the earnings outlook for single parents is dismal as children need to be tended to, cared for, schooled and supervised.

*To improve the earnings outlook for single parents:*

- ▶ Provide access to safe and affordable child care, and after-school care, to make stable work options more viable for those with young children;
- ▶ Provide prenatal care to ensure all children are borne into health, and universal preschool to provide an enriched environment and jumpstart on education for children whose parents are working—oftentimes at more than one job.

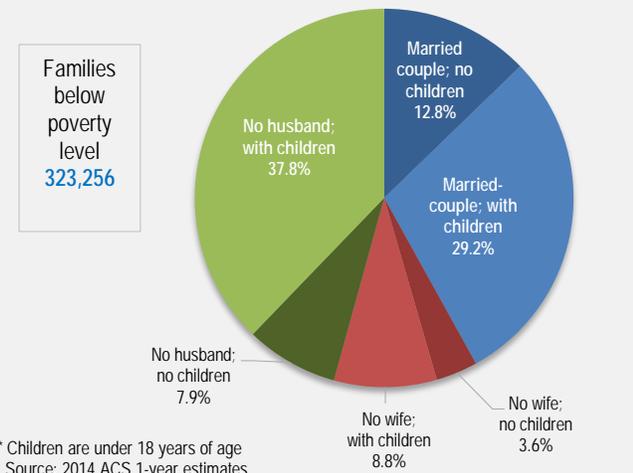
## Health and Wellness

Of all households in poverty, 12.8 percent are married couples with no children and 11.5 percent are other family arrangements with no children. For these households, child care is not an issue. It may be that other family members require full time care and supervision, such as an elderly or disabled family member, that necessitates in home care and prevents individuals from attaining full time employment for wages. It may also be that individuals themselves are not healthy enough to consistently maintain regular employment and earn wages.

*To improve the earnings outlook for these individuals:*

- ▶ Provide adequate compensation for in home care for disabled and/or elderly family members;
- ▶ Increase access to quality healthcare so that all individuals can receive care needed to enhance their health and wellness.

**Exhibit 3-3**  
**Los Angeles County Families and Poverty 2014**  
 Income in the past 12 months below poverty level



## Skills and Education

Educational attainment affects an individual's susceptibility to poverty through its earnings potentials. As shown in Exhibit 2-8, higher levels of educational attainment are associated with higher earnings. A college graduate (with a BA) earned a median income almost twice that of a high school graduate in Los Angeles County in 2014.

Educational attainment is also highly correlated with unemployment (Exhibit 2-9 above). The unemployment rate of an adult with less than high school diploma was 8.7 percent in 2014, compared to 7.5 percent for those with some college and 5.0 percent for those with a BA degree.

The combination of higher rates of unemployment and lower median earnings combine to generate higher levels of poverty for those with less education. Thus, although the unemployment rate for those with less than high school are somewhat lower than those with HS credential, the poverty rates for these two groups are substantially different. More than 27 percent of those without a HS credential are in poverty compared to 17.9 percent of those with a HS credential (admittedly still a high rate). This is a consequence of the lower median earnings of those without a HS credential as they are just as likely to be employed, but in jobs with lower wages.

*To advance educational attainment and workforce readiness of our resident population:*

- ▶ By whatever means, encourage high school completion;
- ▶ Expand technical education, internship and apprenticeship opportunities through partnerships with regional business and industry;
- ▶ Expand access to higher levels of education that are aimed at occupations that are in demand by regional growing industries.

The good news is that the younger cohort is reaching higher levels of educational attainment (Exhibit 2-7 above). More than 43 percent of those aged 18 to 24 years have some college, compared to 23 percent of those aged 25 to 34. This may well have been a result of the Great Recession as students chose to stay in school in the face of poor employment prospects during the downturn, but this investment will surely pay off. The largest cohort of people with less than high school is older residents, who are aging out of the labor force.

## Economic Development

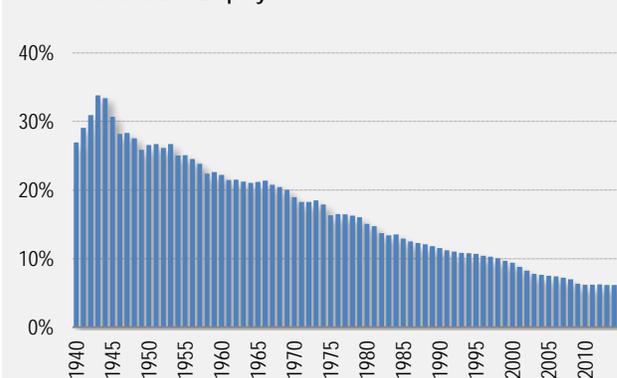
Unemployment (and, by extension, poverty) is not always a function of the characteristics and employability of the individual but is also influenced by macroeconomic conditions of the regional economy. Poverty is highly-correlated with the unemployment rate, dipping when the unemployment rate fall and rising as unemployment rises.

The Great Recession, however, was especially brutal such that although unemployment rates skyrocketed, they have begun to fall while poverty rates have continued to increase from a low of 14.6 percent at the height of the boom to today's 19.1 percent.

The retrenchment of the economy during its recovery has made most industries and businesses more efficient and cost-conscious. The ultimate implication of this for employment is far from clear, but it does seem likely that the economy will continue its transition from production-based employment, such as manufacturing, into service-related employment, with jobs that require in-person contact. This is not a phenomenon specific to Los Angeles County or California, but is widespread across the nation. For example, the employment share in manufacturing production (typically blue-collar jobs) over the past 60 years shows a remarkably clear trend (Exhibit 3-4). The pattern for California for the past twenty years is strikingly similar.

Although some may see a leveling off or a stabilization of manufacturing employment during the past few years amid discussion of an American manufacturing renaissance, it is still too early to say with certainty that this particular leveling off will be more persistent than the previous leveling offs experienced from 1949 to 1953, 1961 to 1967 or 1975 to 1979.

**Exhibit 3-4**  
US Mfg Employment (Production/Nonsupervisory)  
% of Total Nonfarm Employment

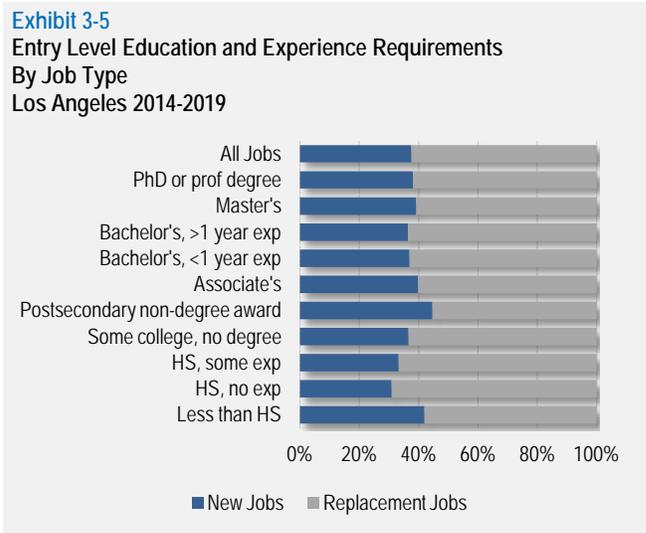


Nonetheless, the structural transition underway will require higher levels of education and technical ability. The changing mix of industries will favor high-skilled labor over low-skilled labor. Of all projected job openings over the next five years (including replacement jobs as workers permanently leave or move into other positions), 38 percent will be new jobs generated through employment growth. The educational composition of these new jobs is more heavily weighted toward entrants with specific knowledge obtained through post-secondary certification and to those with higher degrees, although there will be many new jobs available for those with no skills or educational attainment (Exhibit 3-5). These are of course likely to be jobs with the lowest wages.

In addition to policies targeting the capabilities and needs of individuals, such as safe and affordable child care, universal preschool, high school completion and college-readiness, a holistic solution must also be found in ensuring a robust economy through economic development strategies aimed at ensuring job growth and high wage opportunities, which can only be found through efforts targeted at export-oriented industry clusters in which the region is strong and competitive and to capitalize on regional assets and capabilities where they exist. These strategies must not only aim, to strengthen and facilitate these clusters, but also be laser-focused on keeping them here.

*Cluster-based economic development strategies include:*

- ▶ Investment in targeted education to provide “in-demand” skills for regional businesses, and investing in lifelong human capital;
- ▶ Supporting innovation at local research institutions and universities, and spurring innovation and entrepreneurship;
- ▶ Accelerate infrastructure development processes;
- ▶ Expanding global connectedness through marketing, attraction of FDI and expansion of export opportunities and services;
- ▶ Promoting a legislative, regulatory and policy environment that support key industries. ❖



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