

An Equity Profile of the
Los Angeles Region

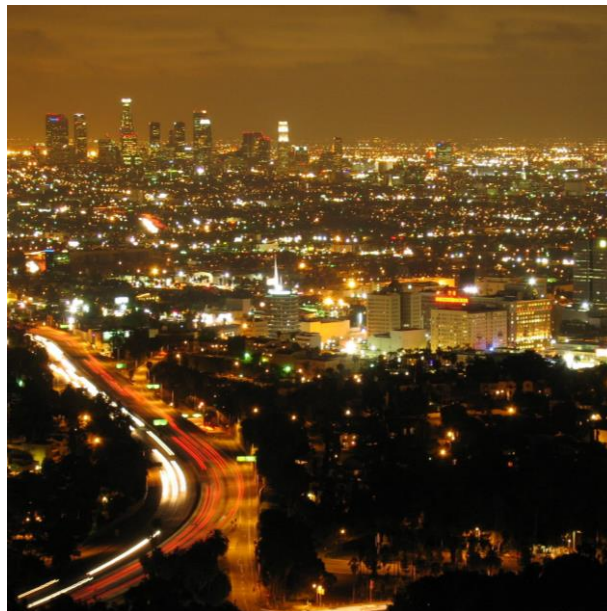


Table of contents

3	Summary
7	Foreword
8	Introduction
14	Demographics
26	Economic vitality
56	Readiness
66	Connectedness
76	Neighborhoods
85	Implications
89	Data and methods

Equity Profiles are products of a partnership between PolicyLink and PERE, the Program for Environmental and Regional Equity at the University of Southern California.

The views expressed in this document are those of PolicyLink and PERE.

Summary

While the nation is projected to become a people-of-color majority by the year 2044, Los Angeles reached that milestone in the 1980s. Since 1980, Los Angeles has experienced dramatic demographic growth and transformation—driven, in part, by an influx of immigrants from Latin American and Asia. Today, demographic shifts—including immigration trends—have slowed.

Los Angeles' diversity is a major asset in the global economy, but inequities and disparities are holding the region back. Los Angeles is the seventh most unequal among the largest 150 metro regions. Since 1990, poverty and working poverty rates in the region have been consistently higher than the national averages. Racial and gender wage gaps persist in the labor market. Closing racial gaps in economic opportunity and outcomes will be key to the region's future.

To build a more equitable Los Angeles, leaders in the private, public, nonprofit, and philanthropic sectors must commit to putting all residents on the path to economic security through equity-focused strategies and policies to grow good jobs, build capabilities, remove barriers, and expand opportunities for the people and places being left behind.

List of figures

Demographics

- 16 1. Race/Ethnicity and Nativity, 2014
- 16 2. Latino and API Populations by Ancestry, 2014
- 17 3. Diversity Score in 2014: Largest 150 Metros Ranked
- 18 4. Racial/Ethnic Composition, 1980 to 2014
- 18 5. Composition of Net Population Growth by Decade, 1980 to 2014
- 19 6. Growth Rates of Major Racial/Ethnic Groups, 2000 to 2014
- 19 7. Net Change in Latino and API Population by Nativity, 2000 to 2014
- 20 8. Percent Change in Population by County, 2000 to 2014
- 21 9. Percent Change in People of Color by Census Block Group, 2000 to 2014
- 22 10. Racial/Ethnic Composition by Census Block Group, 1990 and 2014
- 23 11. Racial/Ethnic Composition, 1980 to 2050
- 24 12. Percent People of Color (POC) by Age Group, 1980 to 2014
- 24 13. Median Age by Race/Ethnicity, 2014
- 25 14. The Racial Generation Gap in 2014: Largest 150 Metros Ranked

Economic vitality

- 28 15. Cumulative Job Growth, 1979 to 2014
- 28 16. Cumulative Growth in Real GRP, 1979 to 2014
- 29 17. Unemployment Rate, 1990 to 2015
- 30 18. Cumulative Growth in Jobs-to-Population Ratio, 1979 to 2014
- 31 19. Labor Force Participation Rate by Race/Ethnicity, 1990 and 2014
- 31 20. Unemployment Rate by Race/Ethnicity, 1990 and 2014
- 32 21. Gini Coefficient, 1979 to 2014
- 33 22. Gini Coefficient in 2014: Largest 150 Metros Ranked
- 34 23. Real Earned Income Growth for Full-Time Wage and Salary Workers Ages 25-64, 1979 to 2014
- 35 24. Median Hourly Wage by Race/Ethnicity, 2000 and 2014
- 36 25. Households by Income Level, 1979 and 2014
- 37 26. Racial Composition of Middle-Class Households and All Households, 1979 and 2014
- 38 27. Poverty Rate, 1980 to 2014
- 38 28. Working Poverty Rate, 1980 to 2014

List of figures

Economic Vitality (continued)

- | | | | |
|----|--|------------------|--|
| 39 | 29. Working Poverty Rate in 2014: Largest 150 Metros Ranked | 50 | 40. Occupation Opportunity Index: Occupations by Opportunity Level for Workers with More Than a High School Degree but Less Than a BA |
| 40 | 30. Poverty Rate by Race/Ethnicity, 2014 | 51 | 41. Occupation Opportunity Index: Occupations by Opportunity Level for Workers with a BA Degree or Higher |
| 40 | 31. Working Poverty Rate by Race/Ethnicity, 2014 | 52 | 42. Opportunity Ranking of Occupations by Race/Ethnicity and Nativity, All Workers |
| 41 | 32. Unemployment Rate by Educational Attainment and Race/Ethnicity, 2014 | 53 | 43. Opportunity Ranking of Occupations by Race/Ethnicity and Nativity, Workers with Low Educational Attainment |
| 41 | 33. Median Hourly Wage by Educational Attainment and Race/Ethnicity, 2014 | 54 | 44. Opportunity Ranking of Occupations by Race/Ethnicity and Nativity, Workers with Middle Educational Attainment |
| 42 | 34. Unemployment Rate by Educational Attainment, Race/Ethnicity, and Gender, 2014 | 55 | 45. Opportunity Ranking of Occupations by Race/Ethnicity and Nativity, Workers with High Educational Attainment |
| 42 | 35. Median Hourly Wage by Educational Attainment, Race/Ethnicity, and Gender, 2014 | Readiness | |
| 43 | 36. Growth in Jobs and Earnings by Industry Wage Level, 1990 to 2012 | 58 | 46. Educational Attainment by Race/Ethnicity and Nativity, 2014 |
| 44 | 37. Industries by Wage-Level Category in 1990 | 59 | 47. Share of Working-Age Population with an Associate's Degree or Higher by Race/Ethnicity and Nativity, 2014 and Projected Share of Jobs that Require an Associate's Degree of Higher, 2020 |
| 46 | 38. Industry Strength Index | 60 | 48. Percent of the Population with an Associate's Degree of Higher in 2014: Largest 150 Metros Ranked |
| 49 | 39. Occupation Opportunity Index: Occupations by Opportunity Level for Workers with a High School Degree or Less | | |

List of figures

Readiness (continued)

- 61 49. Asian or Pacific Islander Immigrants, Percent with an Associate’s Degree or Higher by Ancestry, 2014
- 61 50. Latino Immigrants, Percent with an Associate’s Degree or Higher by Ancestry, 2014
- 62 51. Percent of 16-24-Year-Olds Not Enrolled in School and Without a High School Diploma, 1990 to 2014
- 63 52. Disconnected Youth: 16-24-Year-Olds Not in Work or School, 1980 to 2014
- 64 53. Percent of 16-24-Year-Olds Not in Work or School, 2014: Largest 150 Metros Ranked
- 65 54. Adult Overweight and Obesity Rates by Race/Ethnicity, 2012
- 65 55. Adult Diabetes Rates by Race/Ethnicity, 2012
- 65 56. Adult Asthma Rates by Race/Ethnicity, 2012

Connectedness

- 68 57. Residential Segregation, 1980 to 2014
- 69 58. Residential Segregation, 1990 and 2014, Measured by the Dissimilarity Index
- 70 59. Percent Using Public Transit by Annual Earnings and Race/Ethnicity and Nativity, 2014

- 70 60. Percent of Households without a Vehicle by Race/Ethnicity, 2014
- 71 61. Means of Transportation to Work by Annual Earnings, 2014
- 72 62. Share of Households that are Rent Burdened, 2014: Largest 150 Metros Ranked
- 73 63. Renter Housing Burden by Race/Ethnicity, 2014
- 73 64. Homeowner Housing Burden by Race/Ethnicity, 2014
- 74 65. Low-Wage Jobs and Affordable Rental Housing by County, 2014
- 75 66. Low-Wage Jobs, Affordable Rental Housing, and Jobs-Housing Ratios by County

Neighborhoods

- 78 67. Unemployment Rate by Census Tract, 2014
- 79 68. Linguistic Isolation by Census Tract, 2014
- 80 69. Childhood Opportunity Index by Census Tract, 2014
- 81 70. Percent Population Below the Poverty Level by Census Tract
- 82 71. Percent of Households Without a Vehicle by Census Tract, 2014
- 83 72. Average Travel Time to Work by Census Tract, 2014
- 84 73. Rent Burden by Census Tract, 2014

Foreword

by Fred Ali, Weingart Foundation

Southern California is a place practically built on hopes and dreams. For decades, our region has offered the promise of education, jobs, homes, and healthy lifestyles. People seeking opportunity have journeyed here—from across the country and around the world—hoping for a better future for their families.

But many who saw Southern California as a place of opportunity have been disappointed. Throughout the region, people are struggling daily for the things some take for granted—safe streets, good jobs, access to health care, affordable housing, and a quality education for our families.

In 2016, the Weingart Foundation announced a full commitment to equity—a long-term decision to base all of our policy and program decisions on achieving the goal to advance fairness, inclusion, and opportunity for all Southern Californians—especially those communities hit hardest by persistent poverty.

As part of this commitment, we understand that our strategies need to be guided by *actionable data* that can serve as a basis for dialogue about the challenges and opportunities of creating

equity in Southern California and beyond. It is precisely this type of data—actionable and grounded in communities—that has been the hallmark of work by both PolicyLink and the University of Southern California’s Program for Environmental and Regional Equity (PERE).

The 2017 Equity Profile of the Los Angeles Region—prepared by PolicyLink and PERE—is an invaluable tool for the Weingart Foundation as we develop our grantmaking strategies. The scope of the profile is comprehensive in terms of the indicators it examines, reflecting both our foundation’s broad funding interests as well as the holistic framework the researchers have developed in order to fully assess true inclusion and equity. In addition, parts of the report specifically highlight three geographic areas of special interest to the Foundation: the South Los Angeles Transit Empowerment Zone (SLATE-Z), the Southeast Los Angeles County cities, and the community of Watts and Willowbrook.

The report also represents the beginning of the Southern California Regional Equity Atlas, a joint project of PolicyLink and PERE that will result in the publication of equity reports and analysis on

an annual basis. The Atlas will be an ongoing resource for stakeholders seeking to develop collective strategy, support advocacy, and measure progress.

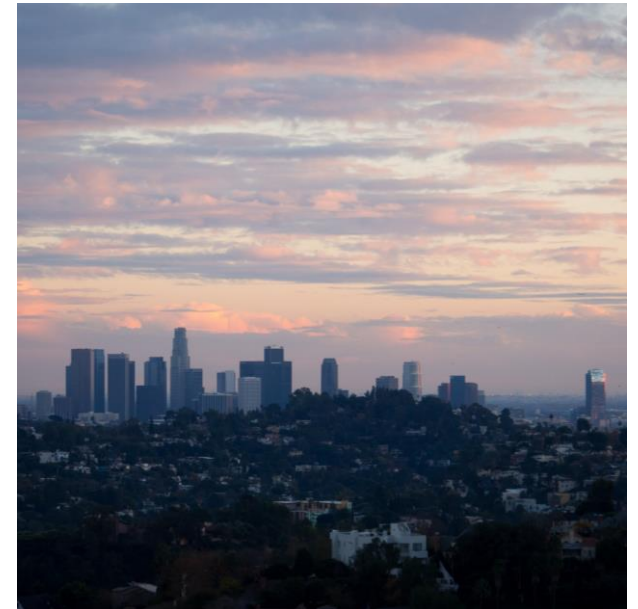
For the Weingart Foundation, advancing equity is both a moral and economic imperative. We are not alone in our commitment, and are encouraged by colleagues and peers who are leading a conversation to advance equity in philanthropy. In order to make further progress, we will need to bring together key stakeholders from all sectors, including community members and nonprofit leaders, government, philanthropy, the business sector, and labor.

As the demographics of the United States shift to look more like Southern California, we are increasingly a bellwether for the nation. Our values demand a total focus on equity, and this moment calls for action. Our shared future rests on our ability to work together to create a region of inclusion and opportunity.

Fred Ali
President and CEO
Weingart Foundation



Introduction



Introduction

Overview

Across the country, regional planning organizations, local governments, community organizations and residents, funders, and policymakers are striving to put plans, policies, and programs in place that build healthier, more vibrant, more sustainable, and more equitable regions.

Equity—ensuring full inclusion of the entire region’s residents in the economic, social, and political life of the region, regardless of race, ethnicity, age, gender, neighborhood of residence, or other characteristic—is an essential element of the plans.

Knowing how a region stands in terms of equity is a critical first step in planning for greater equity. To assist communities with that process, PolicyLink and the Program for Environmental and Regional Equity (PERE) developed an equity indicators framework that communities can use to understand and track the state of equity in their regions.

This document presents an equity analysis of the Los Angeles region. It was developed to help the Weingart Foundation and other funders effectively address equity issues through its grantmaking for a more integrated and sustainable region. PolicyLink, PERE, and the Weingart Foundation also hope this will be a useful tool for advocacy groups, elected officials, planners, and others.

The data in this profile are drawn largely from a regional equity database that includes data for the largest 150 regions in the United States. This database incorporates hundreds of data points from public and private data sources including the U.S. Census Bureau, the U.S. Bureau of Labor Statistics, the Behavioral Risk Factor Surveillance System (BRFSS), and Woods & Poole Economics, Inc. See the "Data and methods" section of this profile for a detailed list of data sources.

Introduction

Defining the region

For the purposes of the equity profile and data analysis, the Los Angeles region is defined as Los Angeles County.

Unless otherwise noted, all data presented in the profile use this regional boundary. Some exceptions due to lack of data availability are noted beneath the relevant figures. Information on data sources and methodology can be found in the “Data and methods” section beginning on page 89.



Introduction

Why equity matters now

The face of America is changing.

Our country's population is rapidly diversifying. Already, more than half of all babies born in the United States are people of color. By 2030, the majority of young workers will be people of color. And by 2044, the United States will be a majority people-of-color nation.

Yet racial and income inequality is high and persistent.

Over the past several decades, long-standing inequities in income, wealth, health, and opportunity have reached unprecedented levels. And while most have been affected by growing inequality, communities of color have felt the greatest pains as the economy has shifted and stagnated.

Strong communities of color are necessary for the nation's economic growth and prosperity.

Equity is an economic imperative as well as a moral one. Research shows that equity and diversity are win-win propositions for nations, regions, communities, and firms. For example:

- More equitable nations and regions experience stronger, more sustained growth.¹
- Regions with less segregation (by race and income) and lower income inequality have more upward mobility.²
- Companies with a diverse workforce achieve a better bottom line.³
- A diverse population better connects to global markets.⁴

The way forward is an equity-driven growth model.

To secure America's prosperity, the nation must implement a new economic model based on equity, fairness, and opportunity.

Metropolitan regions are where this new growth model will be created.

Regions are the key competitive unit in the global economy. Metros are also where strategies are being incubated that foster equitable growth: growing good jobs and new businesses while ensuring that all—including low-income people and people of color—can fully participate and prosper.

Los Angeles has an opportunity to lead.

Los Angeles experienced demographic change and economic shocks before much of the rest of the nation—and it has emerged with a realization that leaving people and communities behind is a recipe for stress not success. Making progress on new commitments to inclusion can inform policy making in the rest of the nation's metros, many of which are playing catch-up to changes experienced here in the last few decades.

¹ Manuel Pastor and Chris Benner, *Equity, Growth, and Community: What the Nation Can Learn from America's Metropolitan Regions* (University of California Press, 2016); Randall Eberts, George Erickcek, and Jack Kleinhenz, "Dashboard Indicators for the Northeast Ohio Economy: Prepared for the Fund for Our Economic Future" (Federal Reserve Bank of Cleveland: April 2006), <https://ideas.repec.org/p/fip/fedcwp/0605.html>.

² Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez, "Where is the Land of Economic Opportunity? The Geography of Intergenerational Mobility in the U.S." <http://obs.rc.fas.harvard.edu/chetty/website/v2/Geography%20Executive%20Summary%20and%20Memo%20January%202014.pdf>

³ Vivian Hunt, Dennis Layton, and Sara Prince, "Diversity Matters," (McKinsey & Company, 2014); Cedric Herring, "Does Diversity Pay?: Race, Gender, and the Business Case for Diversity." *American Sociological Review*, 74, no. 2 (2009): 208-22; Slater, Weigand and Zwirlein. "The Business Case for Commitment to Diversity." *Business Horizons* 51 (2008): 201-209.

⁴ U.S. Census Bureau. "Ownership Characteristics of Classifiable U.S. Exporting Firms: 2007" Survey of Business Owners Special Report, June 2012, <http://www.census.gov/econ/sbo/export07/index.html>.

Introduction

What is an equitable region?

Regions are equitable when all residents—regardless of their race/ethnicity and nativity, gender, or neighborhood of residence—are fully able to participate in the region’s economic vitality, contribute to the region’s readiness for the future, and connect to the region’s assets and resources.

Strong, equitable regions:

- Possess **economic vitality**, providing high-quality jobs to their residents and producing new ideas, products, businesses, and economic activity so the region remains sustainable and competitive.
- Are **ready for the future**, with a skilled, ready workforce, and a healthy population.
- Are **places of connection**, where residents can access the essential ingredients to live healthy and productive lives in their own neighborhoods, reach opportunities located throughout the region (and beyond) via transportation or technology, participate in political processes, and interact with other diverse residents.

Introduction

Equity indicators framework

The indicators in this profile are presented in five sections. The first section describes the region's demographics. The next three sections present indicators of the region's economic vitality, readiness, and connectedness. The fifth section highlights three neighborhoods that are priorities for Weingart. Below are the questions answered within each of the five sections.

Demographics:

Who lives in the region and how is this changing?

- Racial/ethnic diversity
- Demographic change
- Population growth
- Racial generation gap

Economic vitality:

How is the region doing on measures of economic growth and well being?

- Is the region producing good jobs?
- Can all residents access good jobs?
- Is growth widely shared?
- Do all residents have enough income to sustain their families?
- Is race/ethnicity/nativity a barrier to economic success?
- What are the strongest industries and occupations?

Readiness:

How prepared are the region's residents for the 21st century economy?

- Does the workforce have the skills for the jobs of the future?
- Are all youth ready to enter the workforce?
- Are residents healthy?
- Are racial gaps in education and health decreasing?

Connectedness:

Are the region's residents and neighborhoods connected to one another and to the region's assets and opportunities?

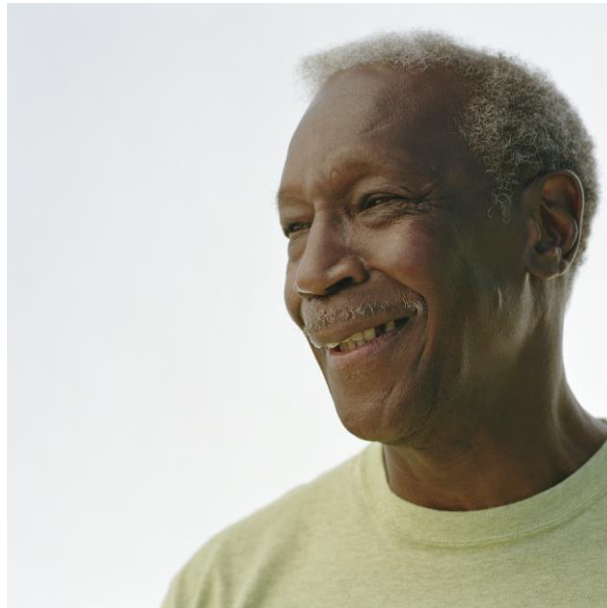
- Do residents have transportation choices?
- Can residents access jobs and opportunities located throughout the region?
- Can all residents access affordable, quality, convenient housing?
- Do neighborhoods reflect the region's diversity? Is segregation decreasing?
- Can all residents access healthy food?

Neighborhoods:

Are the residents of Southeast Los Angeles County, Watts and Willowbrook, and the South Los Angeles Transit Empowerment Zone (SLATE-Z) prepared for and connected to the region's opportunities?

- How are demographics changing?
- How are residents doing on measures of economic opportunity and readiness?
- Are residents connected to opportunities?

Demographics



Demographics

Highlights

Who lives in the region and how is this changing?

- Los Angeles County is the ninth most diverse region.
- The region has experienced dramatic growth and change over the past several decades, with the share of people of color increasing from 47 percent to 73 percent since 1980.
- People of color will continue to drive growth and change in the region, but the pace of racial/ethnic change will be slower for the nation overall.
- There is a large racial generation gap between the region's White senior population and its diverse youth population, but Los Angeles is one of the few regions where this gap is on the decline.
- There is growing diversity in the suburbs with the people-of-color population increasing most rapidly in the San Gabriel and San Fernando Valleys, as well as other inner-ring suburbs in the county.

People of color:

73%

Diversity rank
(out of largest 150 regions):

#9

The year by which Latinos
will become a demographic
majority:

2020

Demographics

One of the most diverse regions

Seventy-three percent of residents in Los Angeles County are people of color. Latinos (48 percent) are the single largest group followed by non-Hispanic Whites (27 percent) and Asians (14 percent).

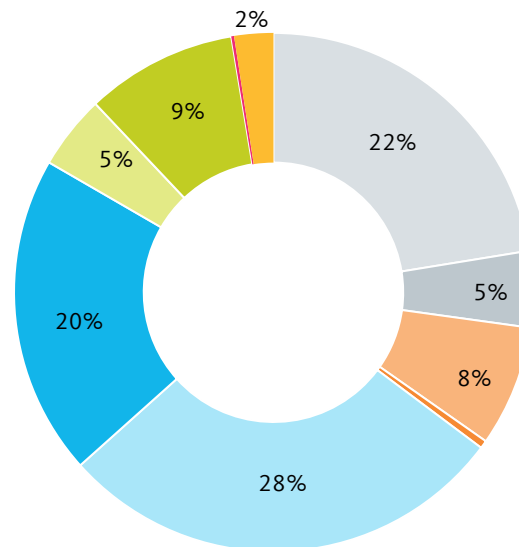
The Latino population is predominately of Mexican ancestry (65 percent) with the second largest group being of Salvadoran ancestry (7 percent).

The Asian American and Pacific Islander population is diverse with Chinese/Taiwanese (26 percent), Filipino (20 percent), and Korean (15 percent) being the largest ethnic groups.

Los Angeles is majority people of color

1. Race/Ethnicity and Nativity, 2014

- White, U.S.-born
- White, immigrant
- Black, U.S.-born
- Black, immigrant
- Latino, U.S.-born
- Latino, immigrant
- Asian or Pacific Islander, U.S.-born
- Asian or Pacific Islander, immigrant
- Native American
- Mixed/other



Source: Integrated Public Use Microdata Series.
 Note: Data represent a 2010 through 2014 average.

The people-of-color population is predominately Mexican and the area has a diverse Asian population

2. Latino and API Populations by Ancestry, 2014

Latino

Ancestry	Population	% Immigrant
Mexican	3,125,469	39%
Salvadoran	356,970	62%
Guatemalan	230,138	64%
Honduran	45,698	64%
Nicaraguan	34,089	69%
Peruvian	30,207	67%
Puerto Rican	28,716	0%
Cuban	28,433	48%
All other Latinos	919,652	34%
Total	4,799,372	42%

Asian or Pacific Islander (API)

Ancestry	Population	% Immigrant
Chinese	363,812	71%
Filipino	286,694	70%
Korean	208,971	74%
Japanese	98,189	35%
Vietnamese	85,344	68%
Indian	67,972	76%
All other Asians	289,924	63%
Total	1,400,906	67%

Source: Integrated Public Use Microdata Series.
 Note: Data represent a 2010 through 2014 average.

Demographics

One of the most diverse regions

(continued)

Los Angeles County is the nation’s ninth most diverse metropolitan region out of the largest 150 regions. Los Angeles has a diversity score of 1.29; only a handful of regions throughout the country are more diverse.

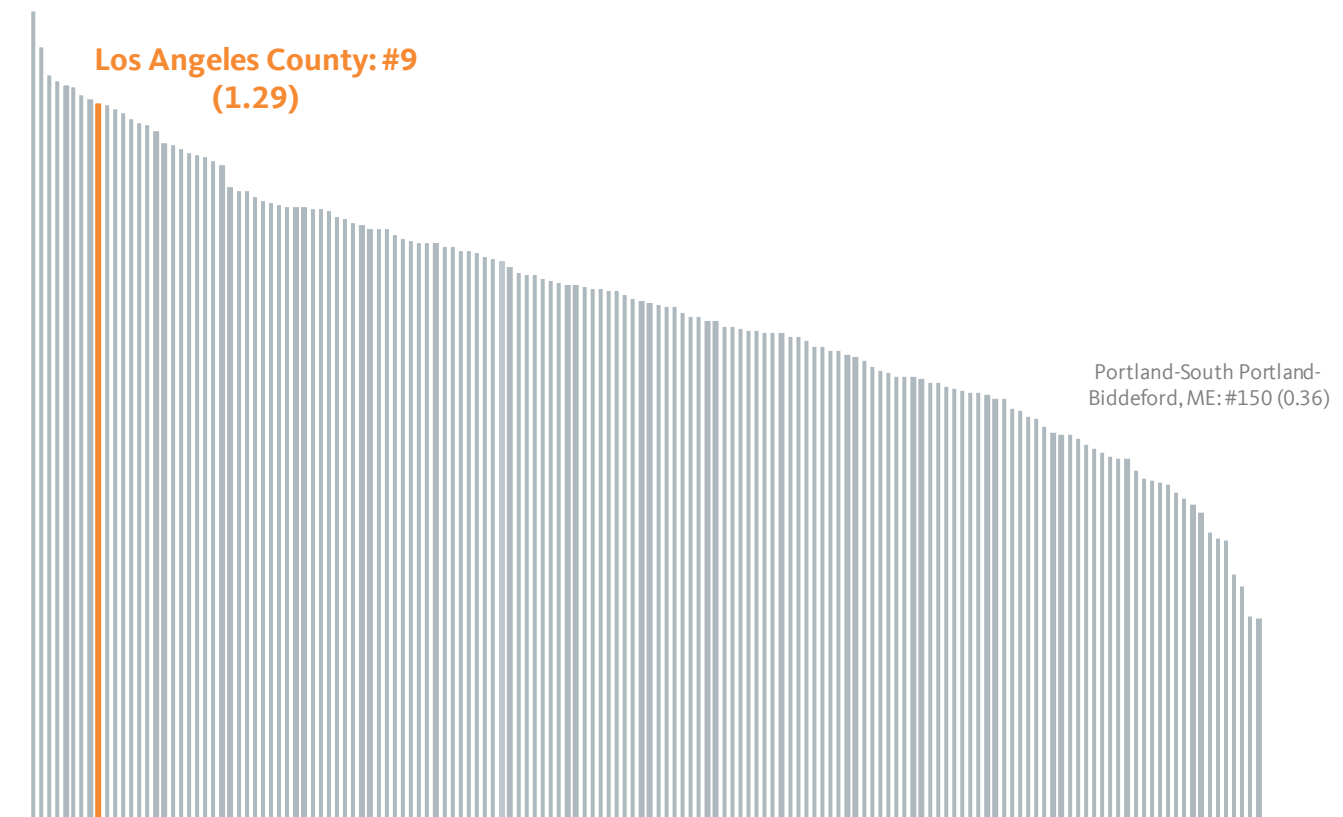
The diversity score is a measure of racial/ethnic diversity a given area. It measures the representation of the six major racial/ethnic groups (White, Black, Latino, API, Native American, and other/mixed race) in the population. The maximum possible diversity score (1.79) would occur if each group were evenly represented in the region—that is, if each group accounted for one-sixth of the total population.

Note that the diversity score describes the region as a whole and does not measure racial segregation, or the extent to which different racial/ethnic groups live in different neighborhoods. Segregation measures can be found on pages 68-69.

Los Angeles is the ninth most diverse region

3. Diversity Score in 2014: Largest 150 Metros Ranked

Vallejo-Fairfield, CA: #1 (1.45)



Source: U.S. Census Bureau.
 Note: Data represent a 2010 through 2014 average.

Demographics

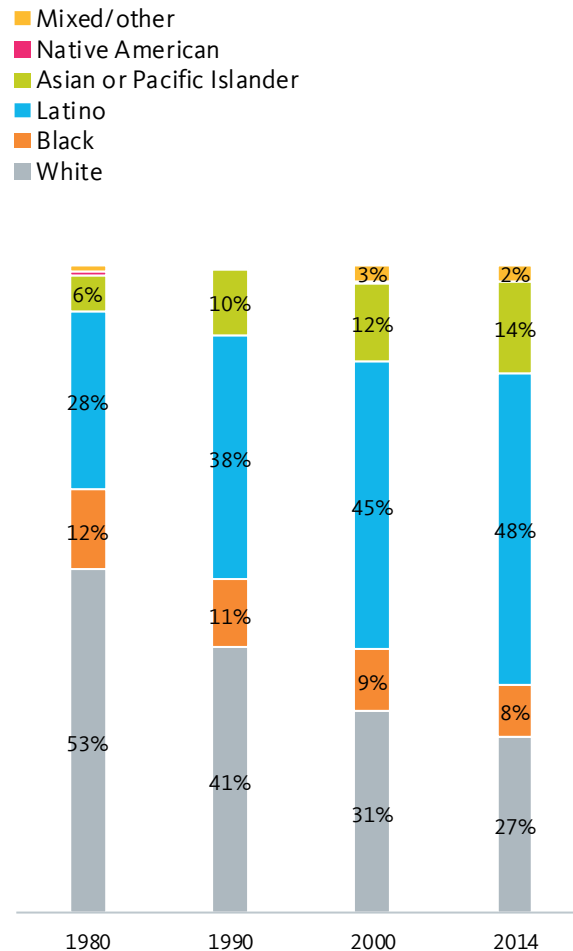
Dramatic growth and change over the past several decades

Los Angeles County has experienced significant population growth since 1980, growing from 7.5 million to 10.0 million residents.

In the same time period, it has become a majority people-of-color region, increasing from 47 percent people of color to 73 percent people of color.

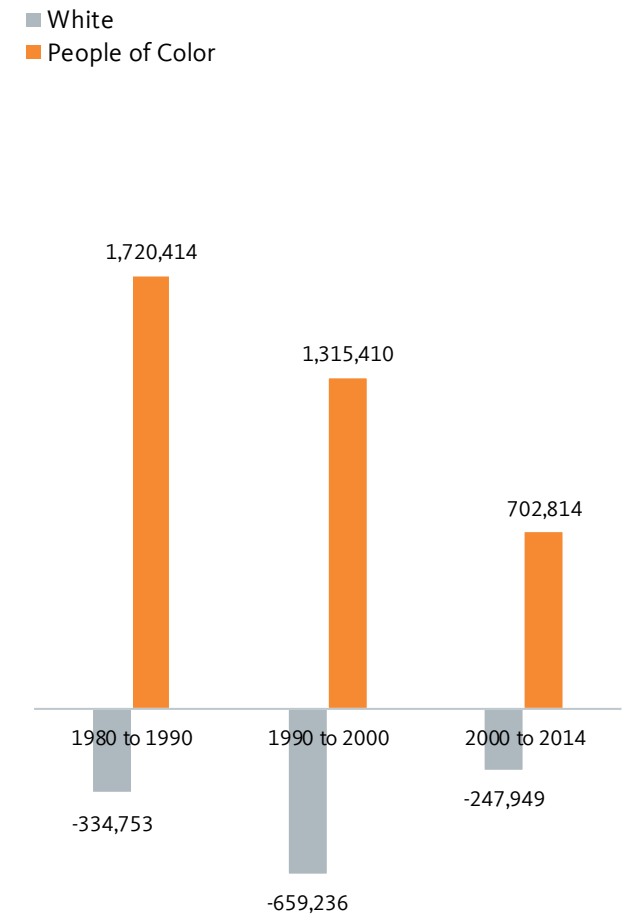
People of color have driven the region's growth over the past three decades, contributing all net population growth, while the White population has experienced a net decrease in each decade.

The population has rapidly diversified
4. Racial/Ethnic Composition, 1980 to 2014



Source: U.S. Census Bureau.
 Note: Data for 2014 represent a 2010 through 2014 average.

People of color have driven the region's growth since 1980
5. Composition of Net Population Growth by Decade, 1980 to 2014



Source: U.S. Census Bureau.
 Note: Data for 2014 represent a 2010 through 2014 average.

Demographics

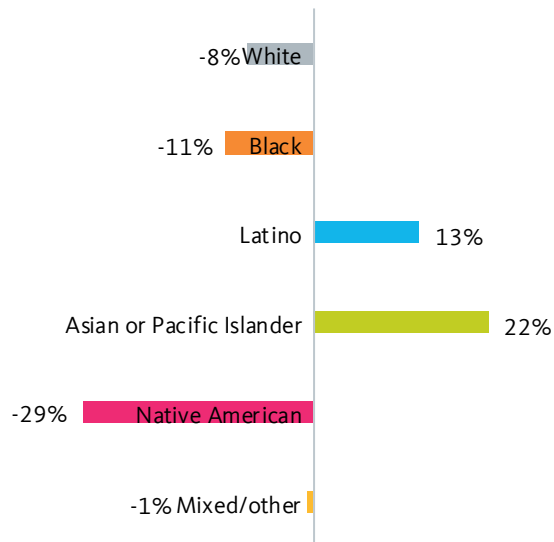
Latinos and Asians are leading the region's growth

Since 2000, Los Angeles' Latino population has grown by 13 percent adding 571,540 residents. In the same period, the Asian population has grown by 22 percent, adding another 246,139 residents. The region's Native American, African American, and non-Hispanic White populations have all decreased.

Immigration has been a driver in the growth of the Asian population: 58 percent of the growth in the Asian population between 2000 and 2014 was from foreign-born APIs. The growth in the Latino population has been due to U.S.-born Latinos. There has been a net loss in the number of foreign-born Latinos in the county.

The Latino and Asian populations experienced the most growth in the past decade, while the Native American population experienced the largest decline

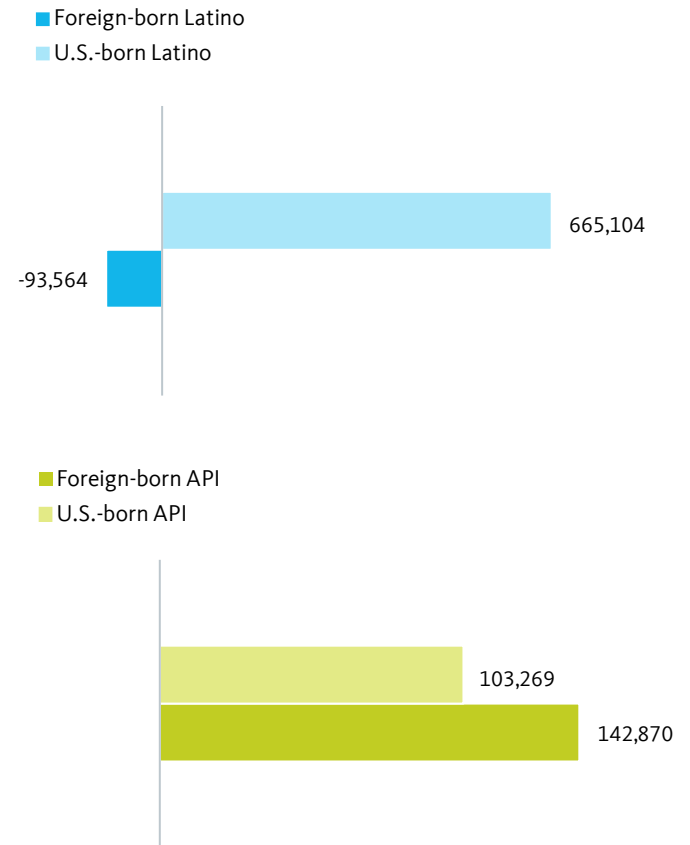
6. Growth Rates of Major Racial/Ethnic Groups, 2000 to 2014



Source: U.S. Census Bureau.
Note: Data for 2014 represent a 2010 through 2014 average.

Latino population growth was solely due to an increase in U.S.-born Latinos, while immigration spurred over half the growth in the Asian population

7. Net Change in Latino and API Population by Nativity, 2000 to 2014



Source: Integrated Public Use Microdata Series.
Note: Data for 2014 represent a 2010 through 2014 average.

Demographics

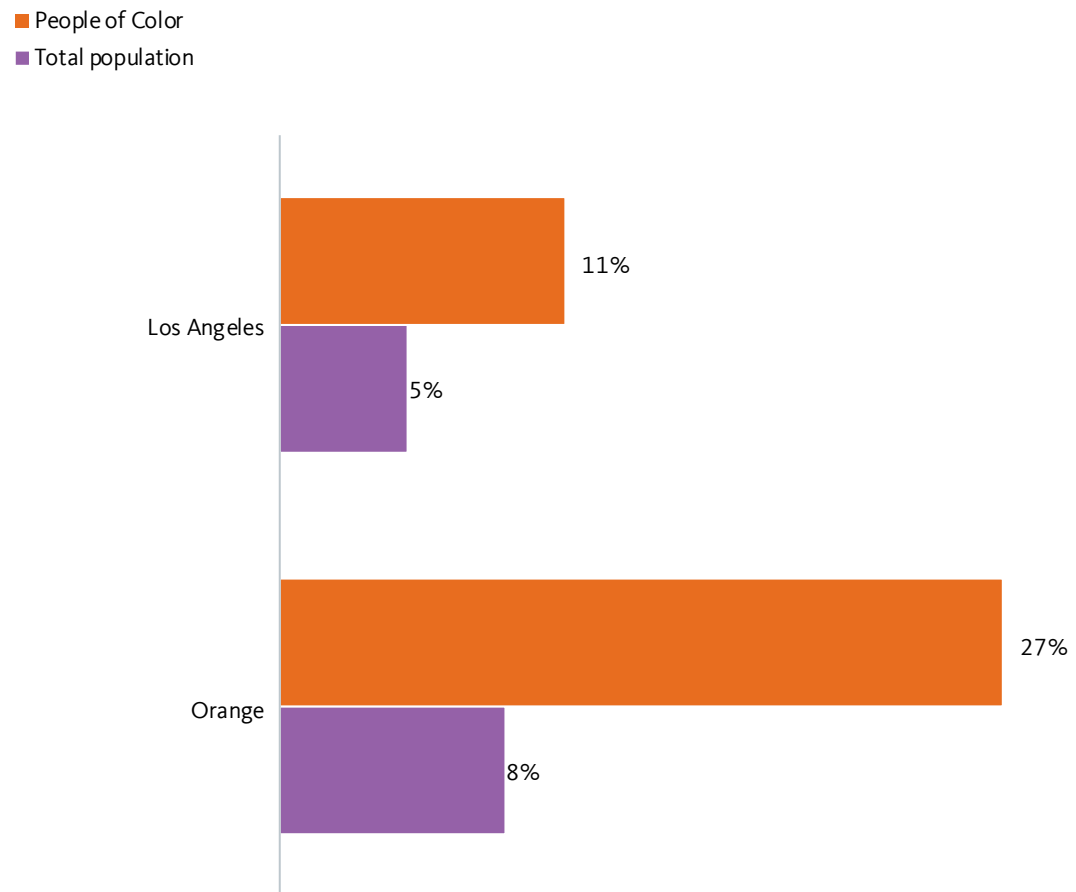
People of color are driving growth throughout the Los Angeles metropolitan area

Both Los Angeles and Orange Counties—the two counties that form the Los Angeles Metropolitan Statistical Area—experienced population growth over the past decade, and in both counties, the people-of-color population grew at a faster rate than the population as a whole.

While the population of color in Los Angeles County grew at double the rate of the population overall, it grew at more than triple the rate of the overall population in Orange County.

The people-of-color population is growing faster than the overall population in both Los Angeles and Orange counties

8. Percent Change in Population by County, 2000 to 2014



Source: U.S. Census Bureau.
 Note: Data for 2014 represent a 2010 through 2014 average.

Demographics

Demographic change varies by neighborhood

Mapping the growth in people of color by census block group illustrates variation in growth and decline in communities of color throughout the region. The map highlights how the population of color has declined or experienced no growth in many neighborhoods in the core of downtown Los Angeles, South Los Angeles, and Northeast Los Angeles.

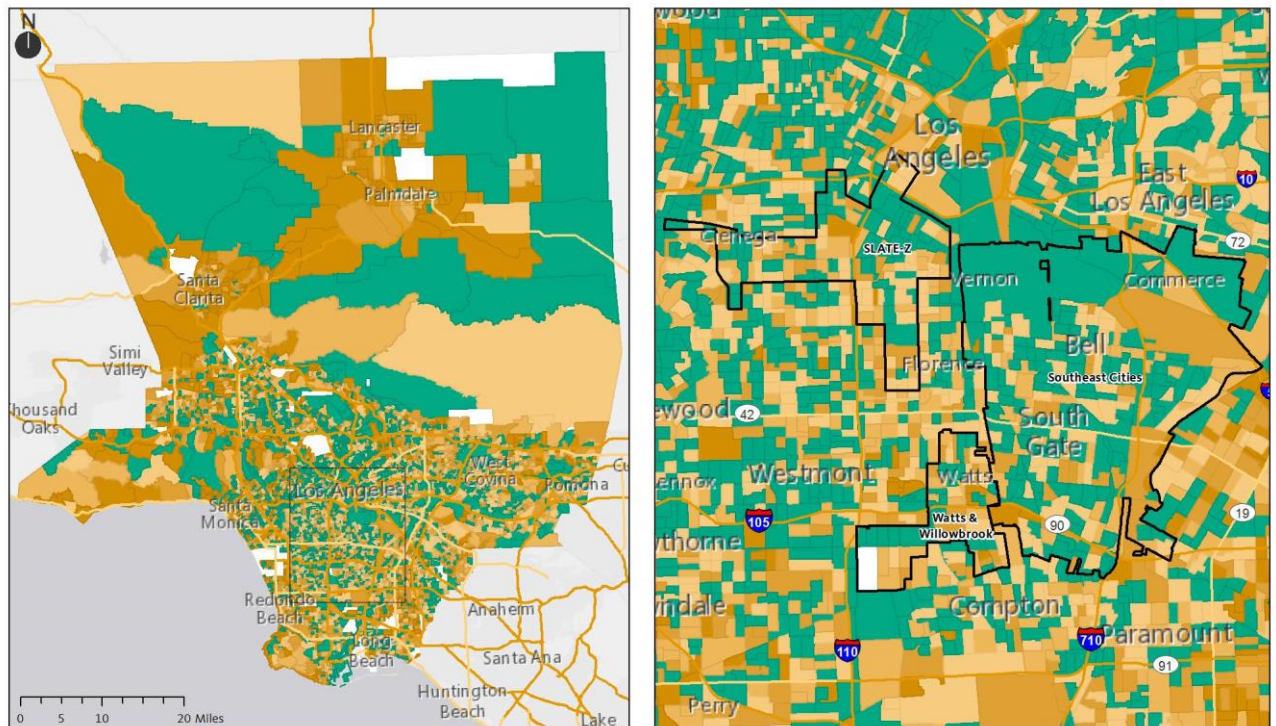
Areas highlighted in the map including the South Los Angeles Transit Empowerment Zone (SLATE-Z) area, the Southeast Los Angeles County cities, and the community of Watts and Willowbrook all include neighborhoods in which the people-of-color population has declined or grown very slowly over the last decade.

The largest increases in the people-of-color population are found in the far-flung outer suburbs of Lancaster, Palmdale, and Santa Clarita, as well in the less remote suburbs of the San Fernando and San Gabriel Valleys, along with other inner-ring suburbs of the county as well.

Significant variation in growth and decline in communities of color by neighborhood

9. Percent Change in People of Color by Census Block Group, 2000 to 2014

- Decline or no population growth
- Less than 14% increase
- 14% to 31% increase
- 31% to 67% increase
- 67% increase or more



Source: U.S. Census Bureau, GeoLytics, Inc.; TomTom, ESRI, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community.
 Note: One should keep in mind when viewing this map and others that display a share or rate that while there is wide variation in the size (land area) of the census block groups in the region, each has a roughly similar number of people. Thus, a large block group on the region's periphery likely contains a similar number of people as a seemingly tiny one in the urban core, so care should be taken not to assign an unwarranted amount of attention to large block groups just because they are large. Data for 2014 represent a 2010 through 2014 average.

Demographics

Suburban areas are becoming more diverse

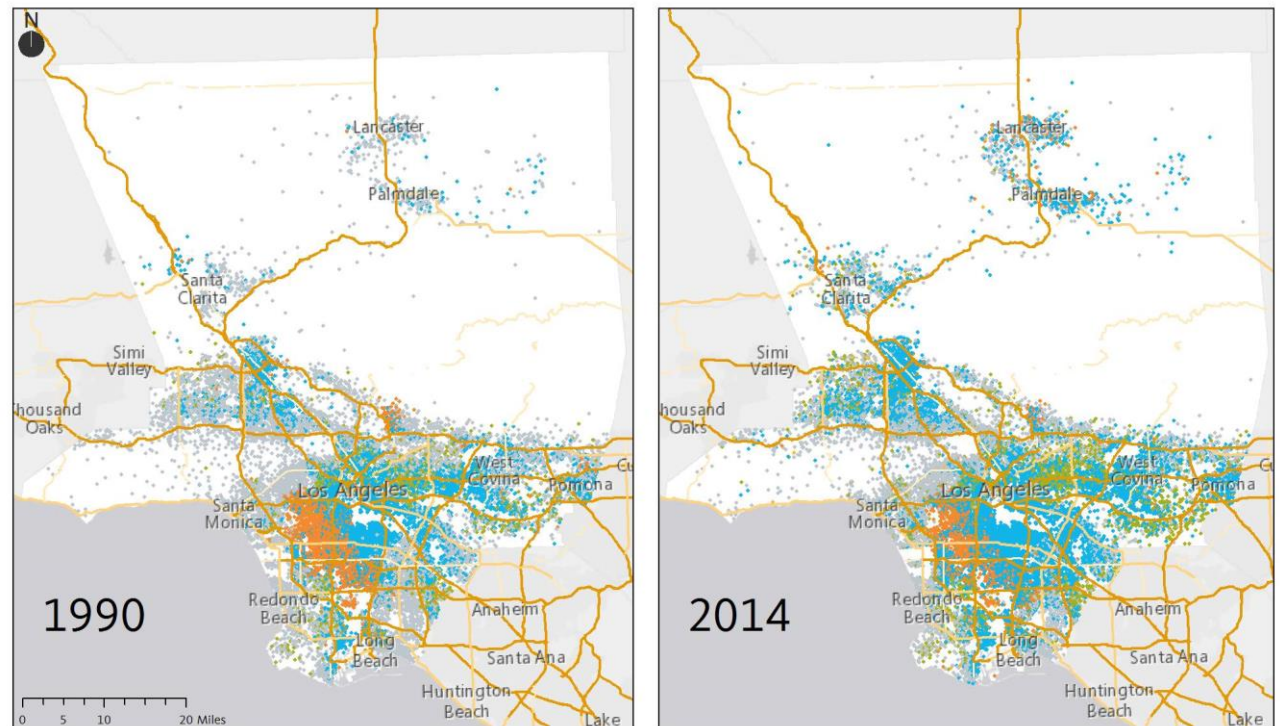
Since 1990, the region’s population has grown by over one million residents. This growth can be seen throughout the region, but is most notable in the outer suburbs of Lancaster, Palmdale, and Santa Clarita, as well in the San Fernando and San Gabriel Valleys.

The Latino and API populations have been the fastest growing groups in the region overall, and their increasing numbers are seen in many parts of the region. Strong increases in the Latino population are seen virtually throughout the whole region with the exception of coastal cities such as Santa Monica and Redondo Beach, as well as the western portion of South Los Angeles in places that are still largely African American such as the City of Inglewood, and the Baldwin Hills and View Park-Windsor Hills areas. The API population has increased most noticeably in the San Gabriel Valley as well as in the southeast portion of the County near Anaheim, including the suburban cities of Lakewood and Cerritos.

Diversity is spreading outwards

10. Racial/Ethnic Composition by Census Block Group, 1990 and 2014

- Race/ethnicity
- 1 Dot = 500
- White
- Black
- Latino
- Asian or Pacific Islander
- Native American
- Mixed/other



Source: U.S. Census Bureau, GeoLytics, Inc.; TomTom, ESRI, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community.
 Note: Data for 2014 represent a 2010 through 2014 average.

Demographics

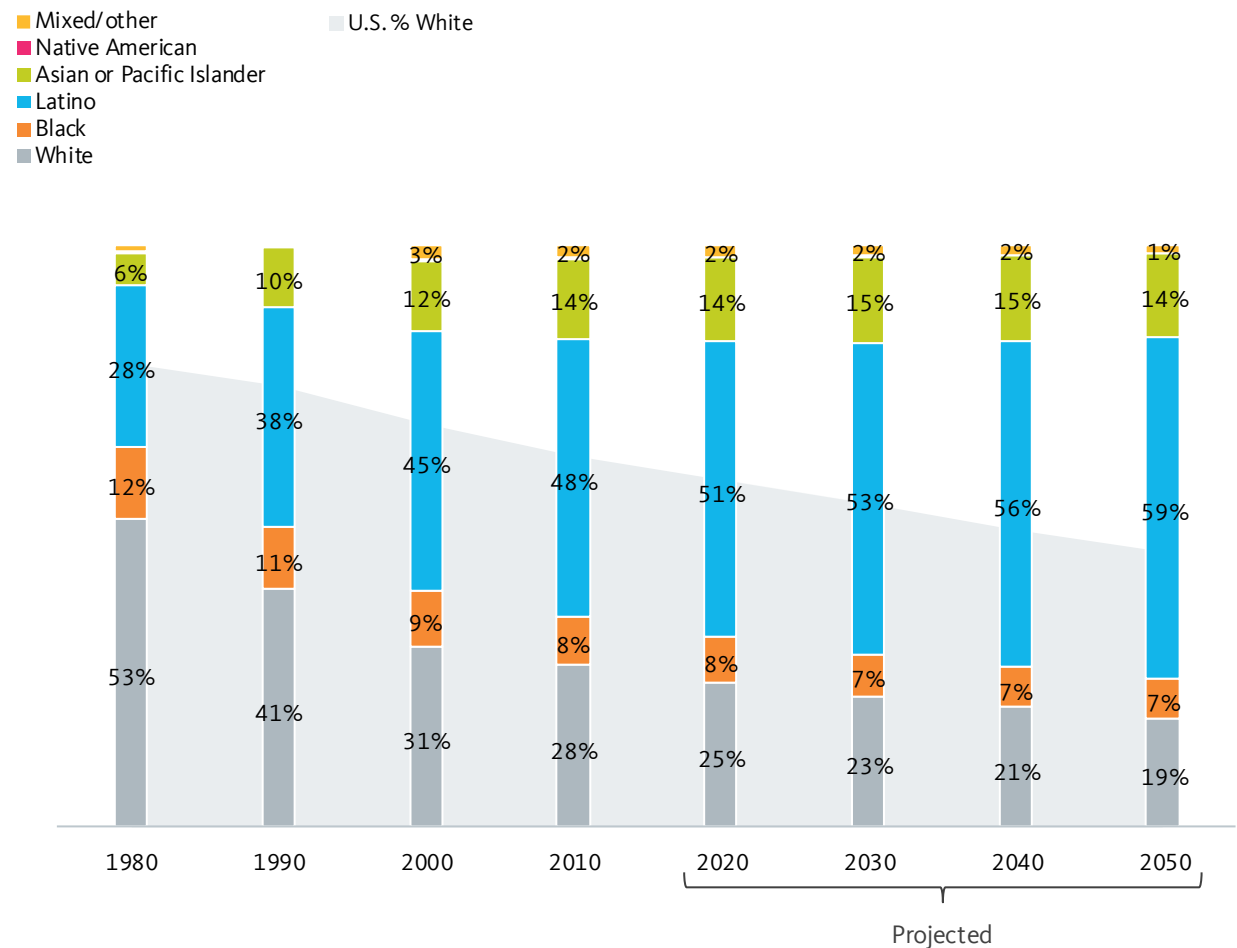
At the forefront of the nation's demographic shift

Los Angeles County has long been more diverse than the nation as a whole. While the country is projected to become majority people of color by the year 2044, Los Angeles passed this milestone in the 1980s. By 2050, 81 percent of the region's residents are projected to be people of color. This would rank the region 11th among the 150 largest metros in terms of the percentage people of color.

Looking forward, the region is projected to change demographically at a much slower pace than the nation overall.

The share of people of color is projected to increase through 2050

11. Racial/Ethnic Composition, 1980 to 2050



Sources: U.S. Census Bureau; Woods & Poole Economics, Inc.

Demographics

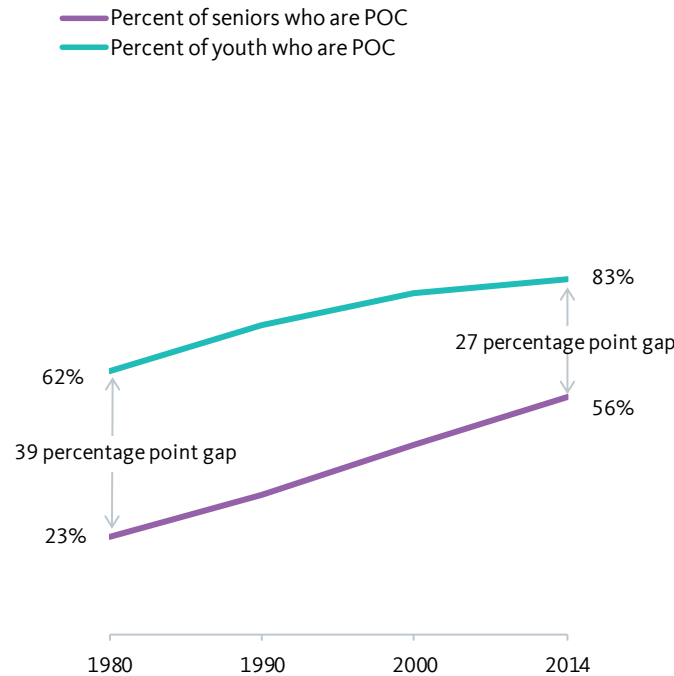
A shrinking racial generation gap

Youth are leading the demographic shift occurring in the region. Today, 83 percent of the Los Angeles County’s youth (under age 18) are people of color, compared with 56 percent of the region’s seniors (over age 64). This 27 percentage point difference between the share of people of color among young and old can be measured as the racial generation gap, and has actually declined since 1980 while it has grown sharply in most other parts of the nation. This reflects the fact that Los Angeles experienced rapid racial/ethnic change much earlier than much of the country.

Examining median age by race/ethnicity reveals how the region’s fast-growing Latino population is much more youthful than its White population. The median age of the Latino population is 29, which is 16 years younger than the median age of 45 for the White population. The region’s other/mixed race population is also younger than average.

The racial generation gap between youth and seniors has declined since 1980

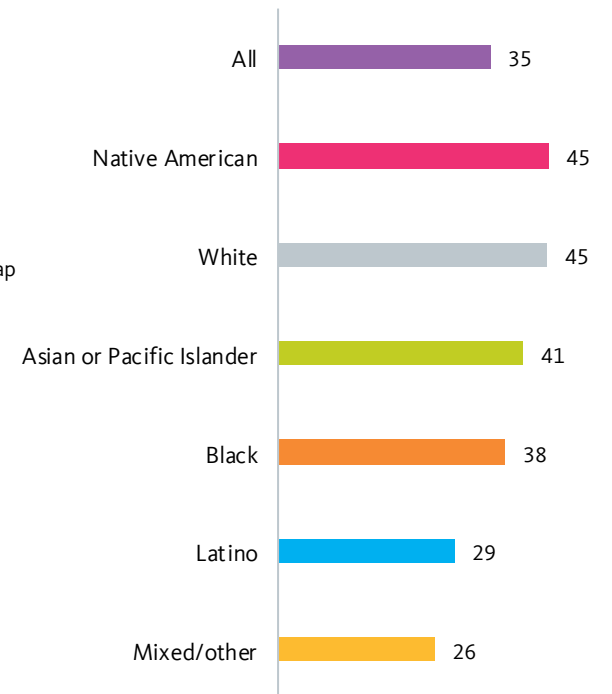
12. Percent People of Color (POC) by Age Group, 1980 to 2014



Source: U.S. Census Bureau.
Note: Data for 2014 represent a 2010 through 2014 average.

The region’s people of mixed racial backgrounds and Latinos are much younger than other groups

13. Median Age by Race/Ethnicity, 2014



Source: Integrated Public Use Microdata Series.
Note: Data represent a 2010 through 2014 average.

Demographics

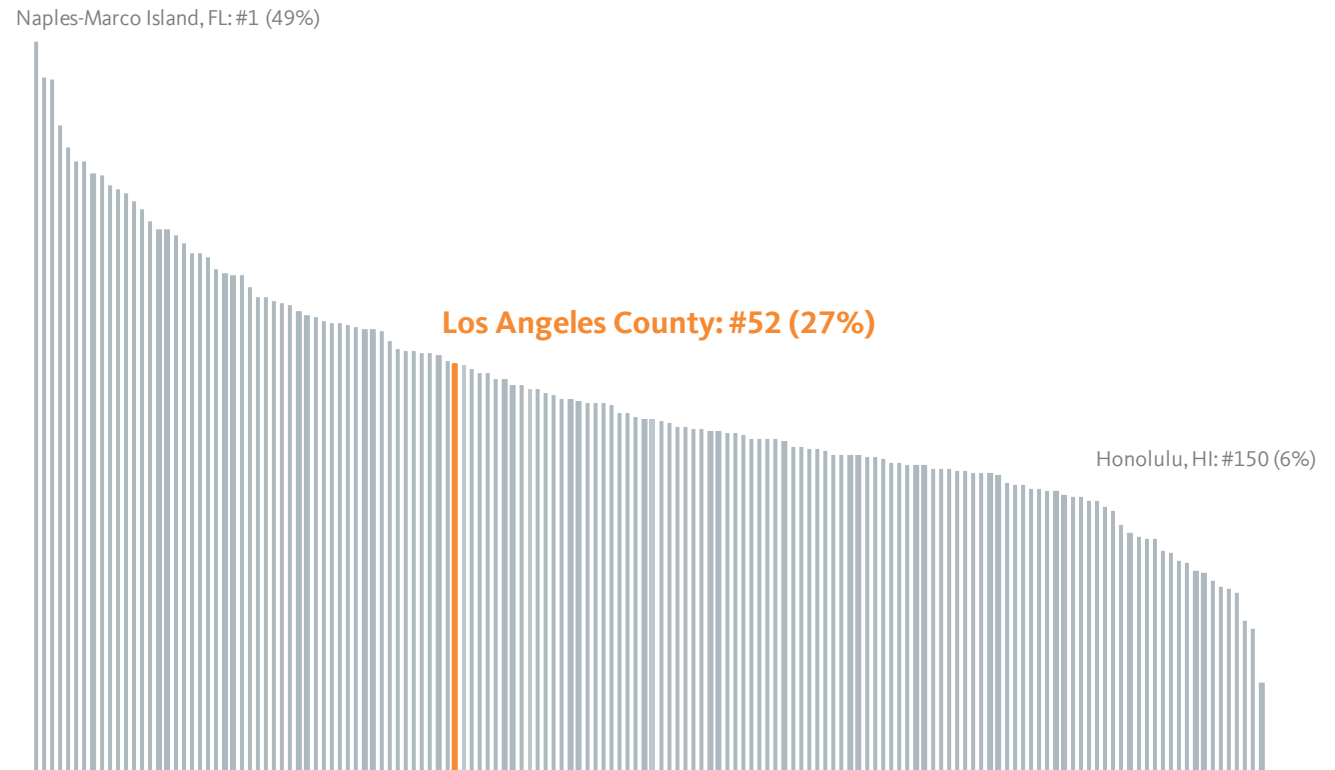
A shrinking racial generation gap

(continued)

Los Angeles County's 27 percentage point racial generation gap is similar to the national average (26 percentage points), ranking the region 52nd among the largest 150 regions on this measure.

Los Angeles County has an average racial generation gap

14. The Racial Generation Gap in 2014: Largest 150 Metros Ranked



Source: U.S. Census Bureau.
Note: Data represent a 2010 through 2014 average.

Economic vitality



Economic vitality

Highlights

How is the region doing on measures of economic growth and well being?

- Los Angeles County's economy was hit by the downturn of the early 1990s and job growth and economic output has lagged the national average since then.
- Income inequality has sharply increased. It is driven, in part, by a widening gap in wages. Since 1979, the highest-paid workers have seen their wages increase significantly, while wages for the lowest-paid workers have declined.
- Since 1990, poverty and working poverty rates in the region have been consistently higher than the national averages. Latinos and African Americans are far more likely to be in poverty or working poor than Whites.
- Although education can be a leveler, racial and gender gaps persist in the labor market. At every level of educational attainment, there are racial and gender wage gaps.

Decline in wages for workers at the 10th percentile since 1979:

-25%

Wage gap between college-educated Whites and people of color:

\$6/hr

Income inequality rank (out of largest 150 regions):

#7

Economic vitality

Weak long-term economic growth

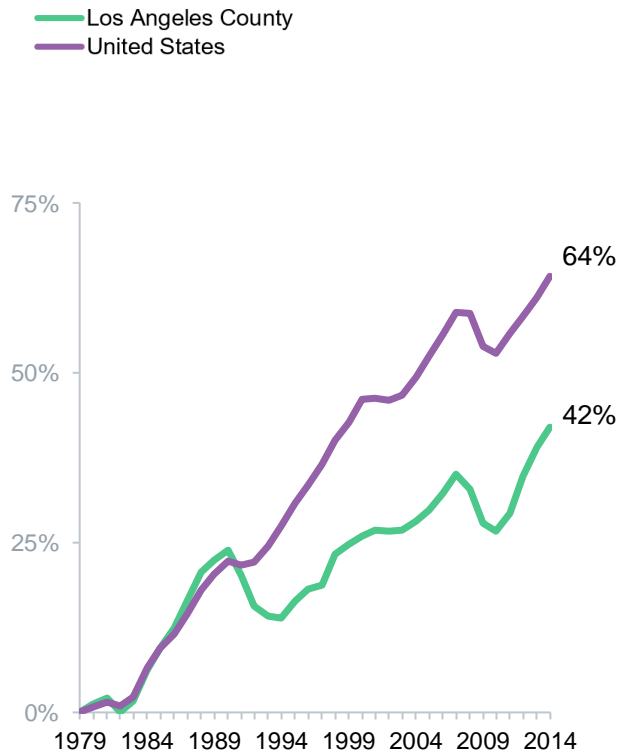
Measures of economic growth include increases in jobs and increases in gross regional product (GRP), the value of all goods and services produced within the region.

By these measures, economic growth in Los Angeles County kept pace with and surpassed the national average in the 1980s. The downturn of the early 1990s hit the region more drastically than the nation as a whole and since then economic growth in Los Angeles County has lagged the national average.

From 1979 to 2014, the number of jobs increased by 64 percent in the U.S. and by only 42 percent in Los Angeles County. Over the same period, real GRP has increased by 93 percent in the U.S. and by only 62 percent in Los Angeles County.

Job growth has fallen behind the national average since the early 1990s

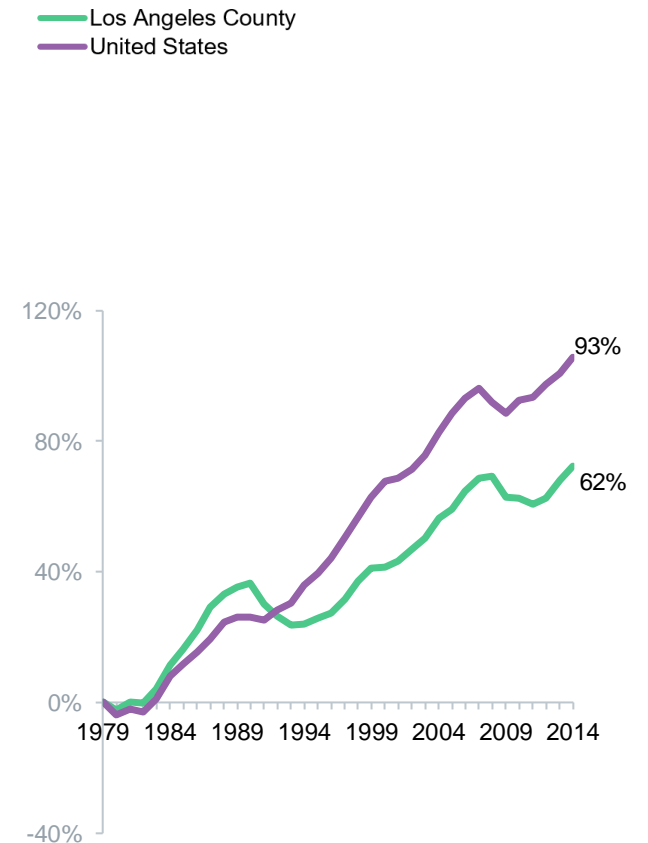
15. Cumulative Job Growth, 1979 to 2014



Source: U.S. Bureau of Economic Analysis.

Gross regional product (GRP) growth has fallen behind the national average since the early 1990s

16. Cumulative Growth in Real GRP, 1979 to 2014



Source: U.S. Bureau of Economic Analysis.

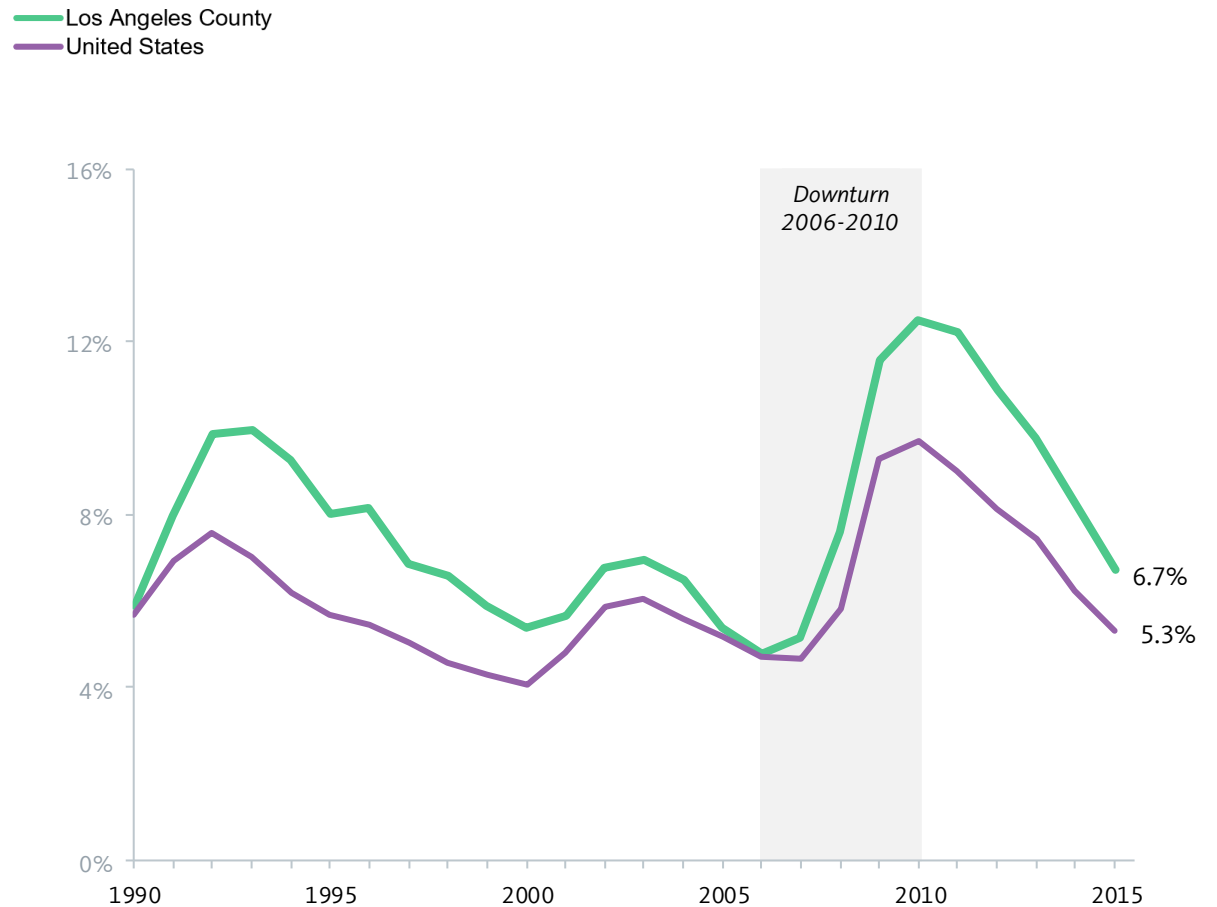
Economic vitality

Economic decline through the downturn

Since the 1990s, the unemployment rate in Los Angeles County has been consistently higher than the national average. During the 2006 to 2010 economic downturn, unemployment increased more sharply than the national average. Since then, unemployment rates have fallen to 6.7 percent in Los Angeles County and 5.3 percent nationally in 2015.

Unemployment has surpassed the national average

17. Unemployment Rate, 1990 to 2015



Source: U.S. Bureau of Labor Statistics. Universe includes the civilian noninstitutional population ages 16 and older.

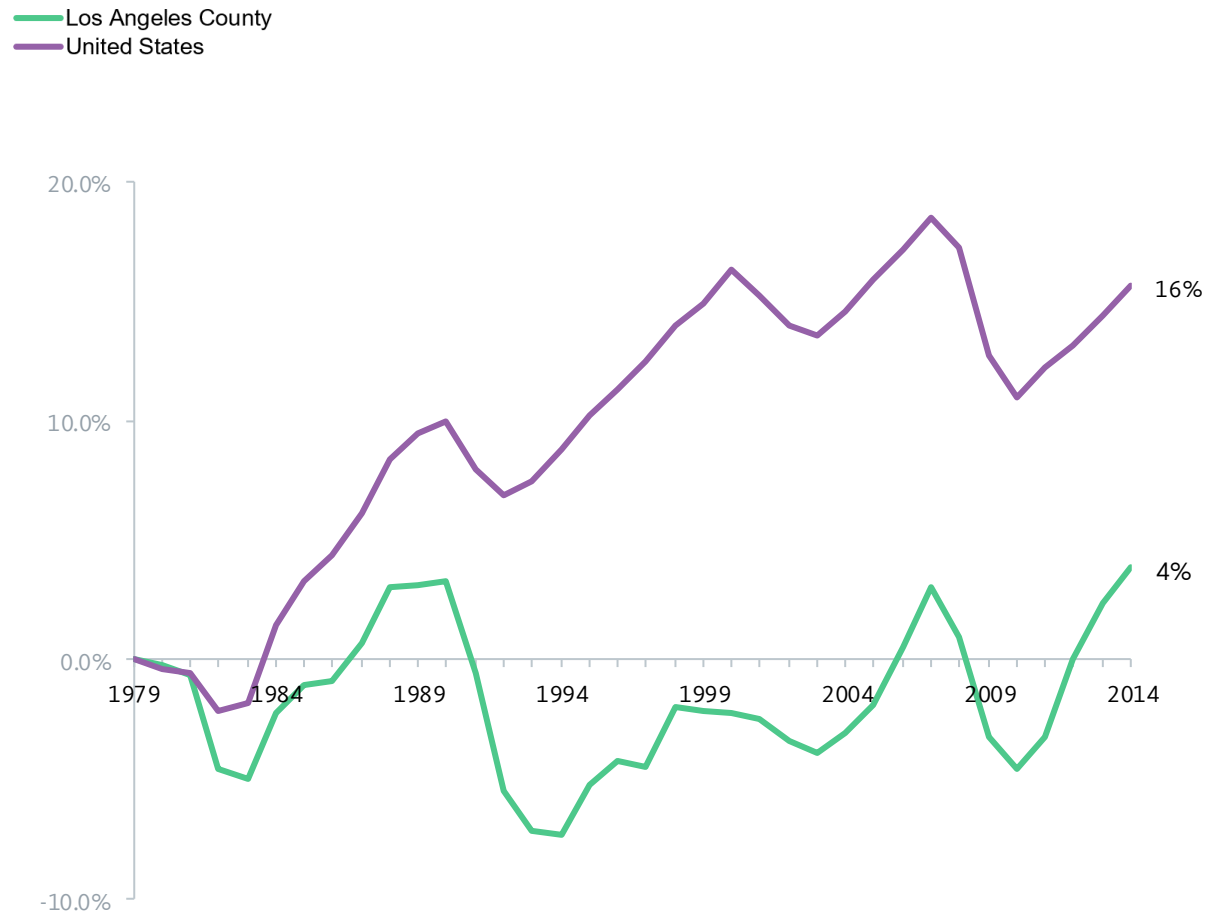
Economic vitality

Job growth is not keeping up with population growth

While overall job growth is essential, the real question is whether jobs are growing at a fast enough pace to keep up with population growth. Since 1979, job growth in Los Angeles County has not kept up with population growth and has lagged the national average. The number of jobs per person in Los Angeles County has increased by only 4 percent since 1979 as compared to an increase of 16 percent for the nation overall.

Job growth relative to population growth has been lower than the national average since 1979

18. Cumulative Growth in Jobs-to-Population Ratio, 1979 to 2014



Source: U.S. Bureau of Economic Analysis.

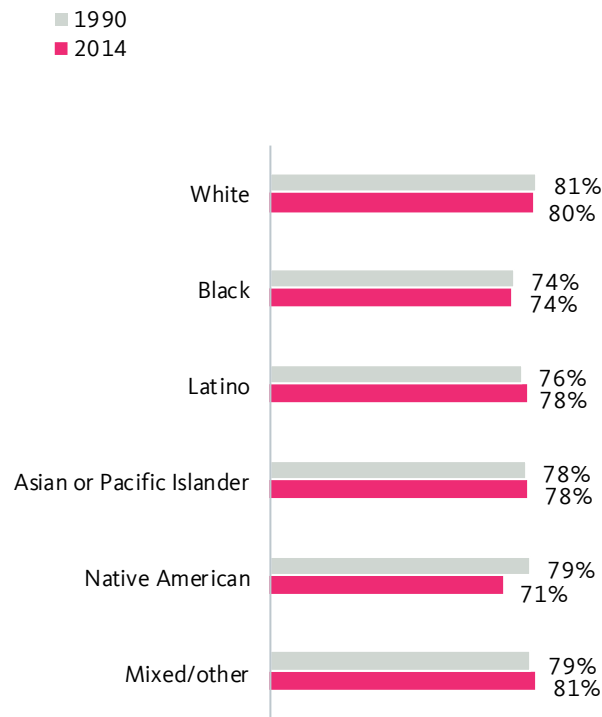
Economic vitality

Unemployment higher for people of color

Another key question is who is getting the region's jobs? Examining unemployment by race over the past two decades, we find that, despite some progress, racial employment gaps persist in Los Angeles County. Blacks and Native Americans have the lowest labor force participation rates as well as the highest unemployment rates. Since 1990, all racial groups have experienced higher unemployment.

African Americans and Native Americans participate in the labor market at lower rates

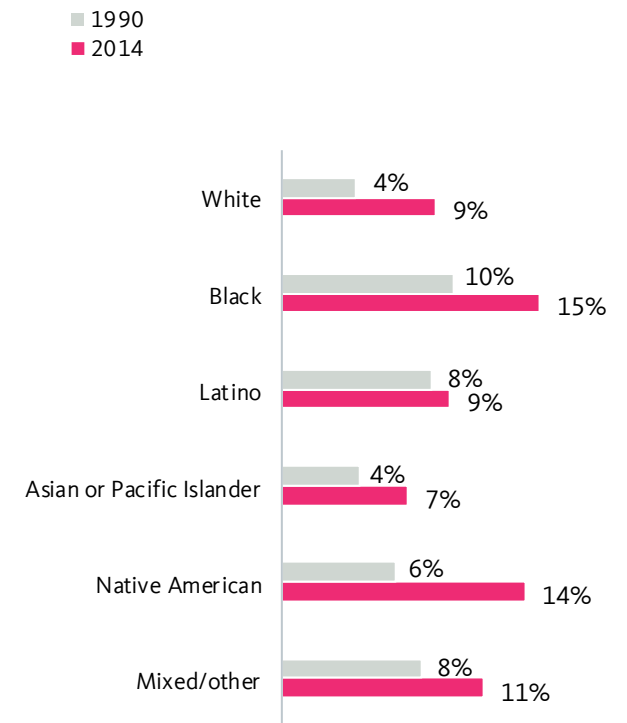
19. Labor Force Participation Rate by Race/Ethnicity, 1990 and 2014



Source: Integrated Public Use Microdata Series. Universe includes the civilian noninstitutional population ages 25 through 64.
 Note: Data for 2014 represent a 2010 through 2014 average.

Most communities of color have higher unemployment rates than Whites

20. Unemployment Rate by Race/Ethnicity, 1990 and 2014



Source: Integrated Public Use Microdata Series. Universe includes the civilian noninstitutional population ages 25 through 64.
 Note: Data for 2014 represent a 2010 through 2014 average.

Economic vitality

Increasing income inequality

Household income inequality has increased in Los Angeles County over the past 30 years. The sharpest increase occurred in the 1990s. It has since leveled off but still remains higher than for the nation as a whole.

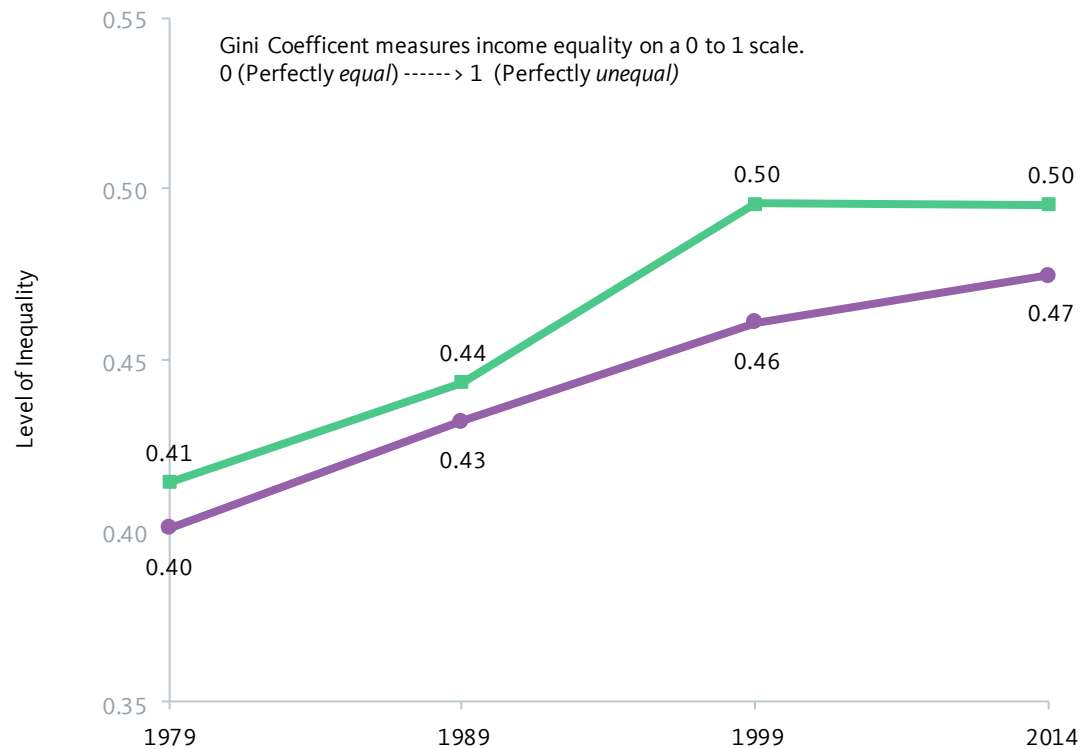
Inequality here is measured by the Gini coefficient, which is the most commonly used measure of inequality. The Gini coefficient measures the extent to which the income distribution deviates from perfect equality, meaning that every household has the same income. The value of the Gini coefficient ranges from zero (perfect equality) to one (complete inequality, one household has all of the income).

In Los Angeles County, the Gini coefficient was 0.41 in 1979 and rose to 0.50 by 2014.

Household income inequality has increased steadily since 1979

21. Gini Coefficient, 1979 to 2014

— Los Angeles County
— United States



Source: Integrated Public Use Microdata Series. Universe includes all households (no group quarters).
Note: Data for 2014 represent a 2010 through 2014 average.

Economic vitality

Increasing income inequality

(continued)

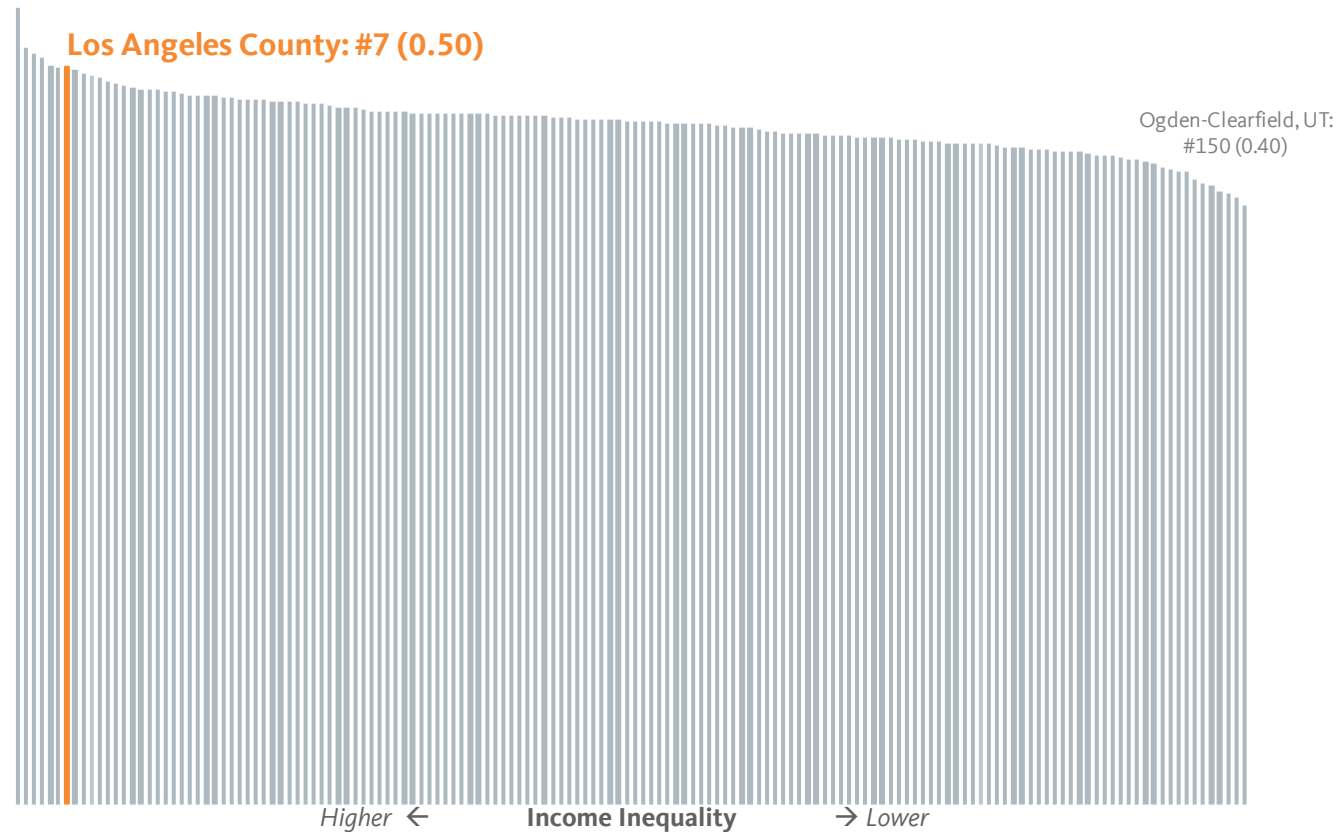
In 1979, Los Angeles County ranked 19th out of the largest 150 regions in terms of income inequality. Today, it ranks 7th between New Orleans, LA (6th) and McAllen, TX (8th).

Compared with other metro regions in California, the level of inequality in Los Angeles County (0.50) is higher than the Bay Area (.48), San Diego (0.47), and San Jose (0.46).

Los Angeles' inequality rank is 7th compared with other regions

22. Gini Coefficient in 2014: Largest 150 Metros Ranked

Bridgeport-Stamford-Norwalk, CT: #1
(0.54)



Source: Integrated Public Use Microdata Series. Universe includes all households (no group quarters).
Note: Data represent a 2010 through 2014 average.

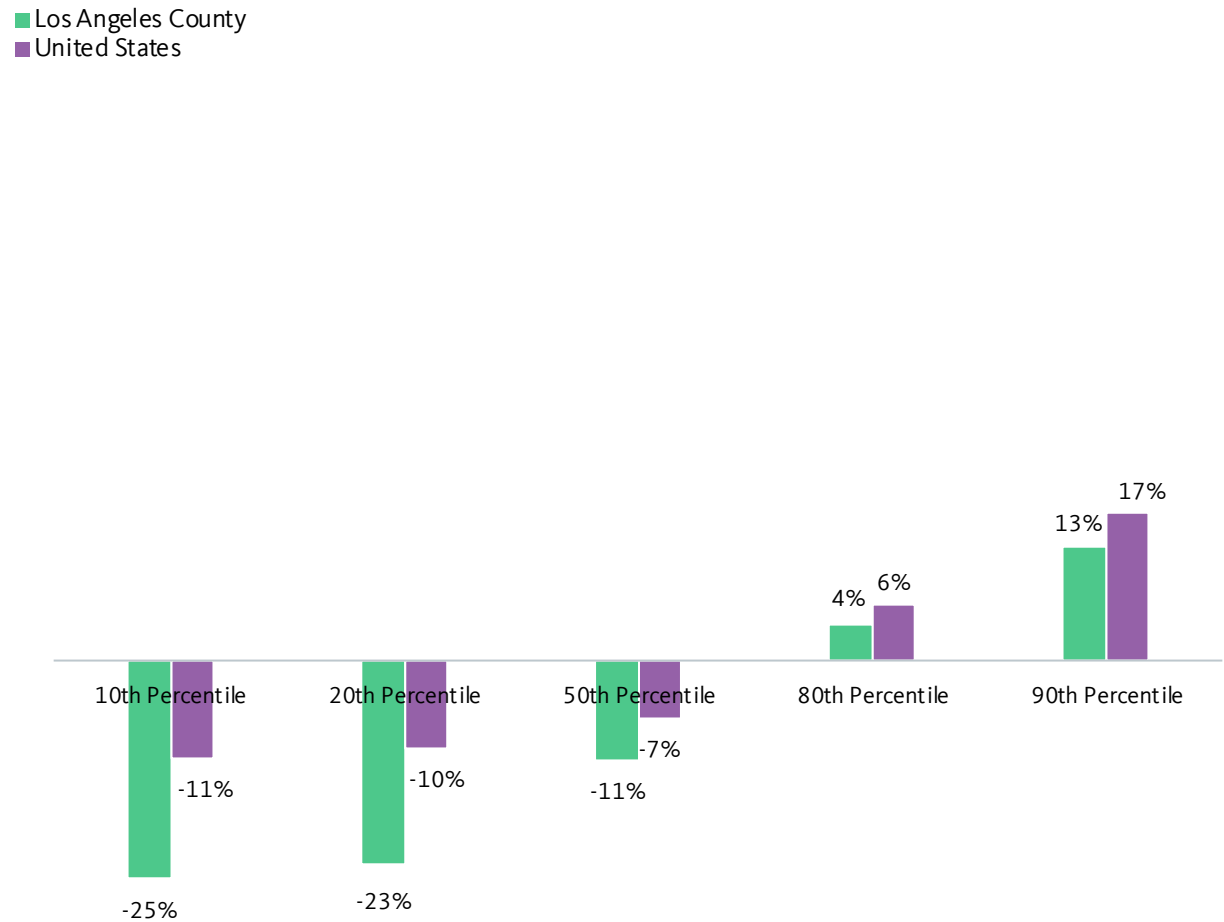
Economic vitality

Declining wages for low-wage workers

A widening gap in wages is one of the drivers of rising income inequality. After adjusting for inflation, wage growth for top earners in Los Angeles has increased by 13 percent between 1979 and 2014. During the same period, wages for the lowest earners fell by 25 percent. Wages for lower-wage workers in Los Angeles fell at a greater rate than their counterparts in the nation overall.

Wages grew only for higher-wage workers and fell for middle- and low-wage workers

23. Real Earned Income Growth for Full-Time Wage and Salary Workers Ages 25-64, 1979 to 2014



Source: Integrated Public Use Microdata Series. Universe includes civilian noninstitutional full-time wage and salary workers ages 25 through 64. Note: Data for 2014 represent a 2010 through 2014 average.

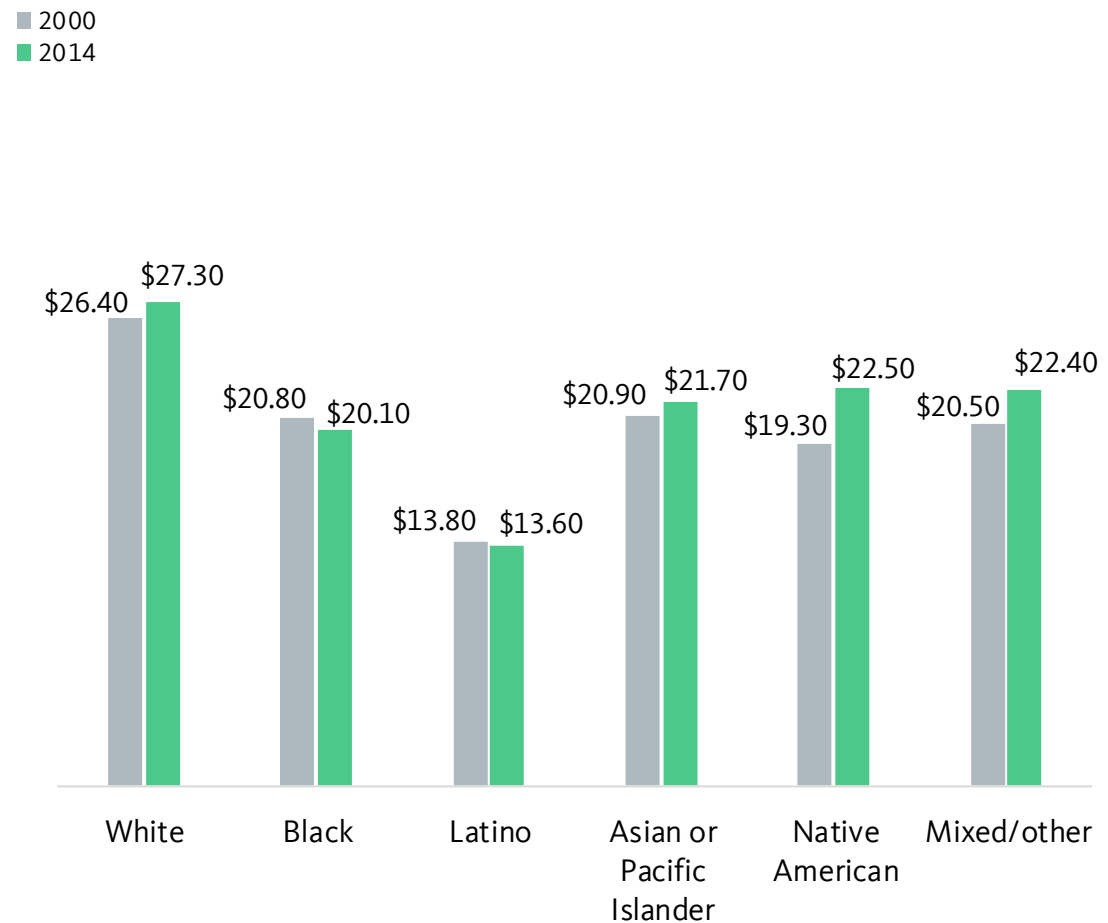
Economic vitality

Uneven wage growth by race/ethnicity

Wage growth for full-time wage and salary workers has been uneven across racial/ethnic groups between 2000 and 2014. African American and Latino workers not only earn the lowest median hourly wages but their wages have declined.

Median hourly wages for Blacks and Latinos have declined since 2000

24. Median Hourly Wage by Race/Ethnicity, 2000 and 2014 (all figures in 2010 dollars)



Source: Integrated Public Use Microdata Series. Universe includes civilian noninstitutional full-time wage and salary workers ages 25 through 64. Note: Data for 2014 represent a 2010 through 2014 average.

Economic vitality

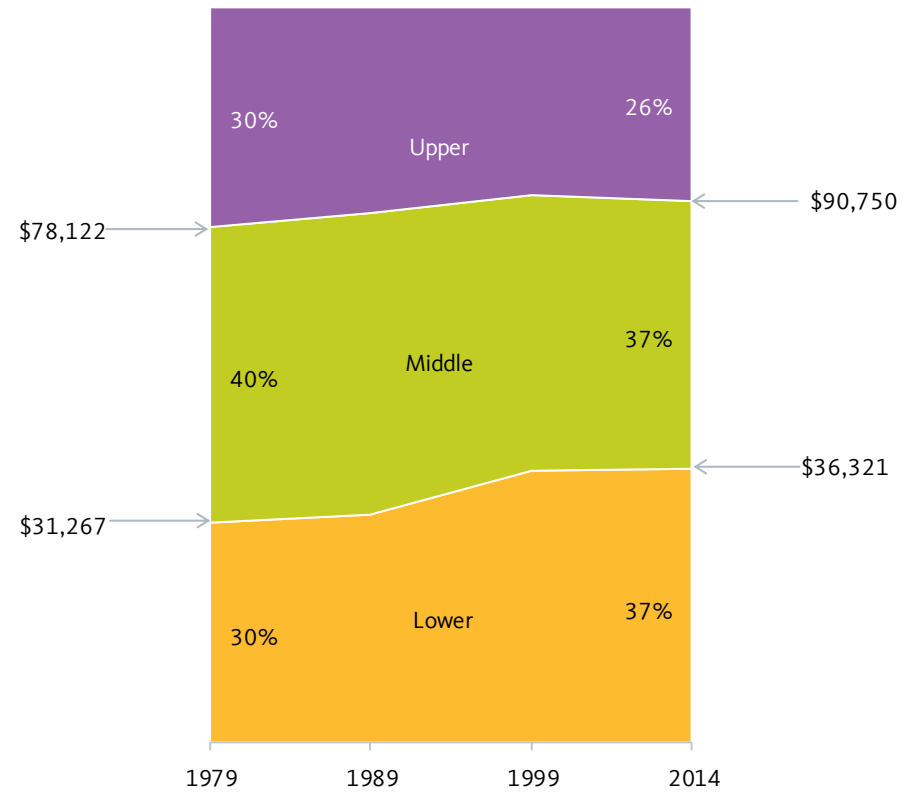
A shrinking middle class

Los Angeles County’s middle class is shrinking: Since 1979, the share of households with middle-class incomes decreased from 40 to 37 percent. The share of upper-income households also declined, from 30 to 26 percent, while the share of lower-income households grew from 30 to 37 percent. Most of the decline in middle-income households occurred between 1989 and 1999, with a slower pace of decline during the 2000s.

In this analysis, middle-income households are defined as having incomes in the middle 40 percent of household income distribution. In 1979, those household incomes ranged from \$31,267 to \$78,122. To assess change in the middle-class and the other income ranges, we calculated what the income range would be today if incomes had increased at the same rate as average household income growth. Today’s middle class incomes would be \$36,321 to \$90,750, and 37 percent of households fall in that income range.

The share of middle-class households declined since 1979

25. Households by Income Level, 1979 and 2014 (all figures in 2010 dollars)



Source: Integrated Public Use Microdata Series. Universe includes all households (no group quarters).
 Note: Data for 2014 represent a 2010 through 2014 average.

Economic vitality

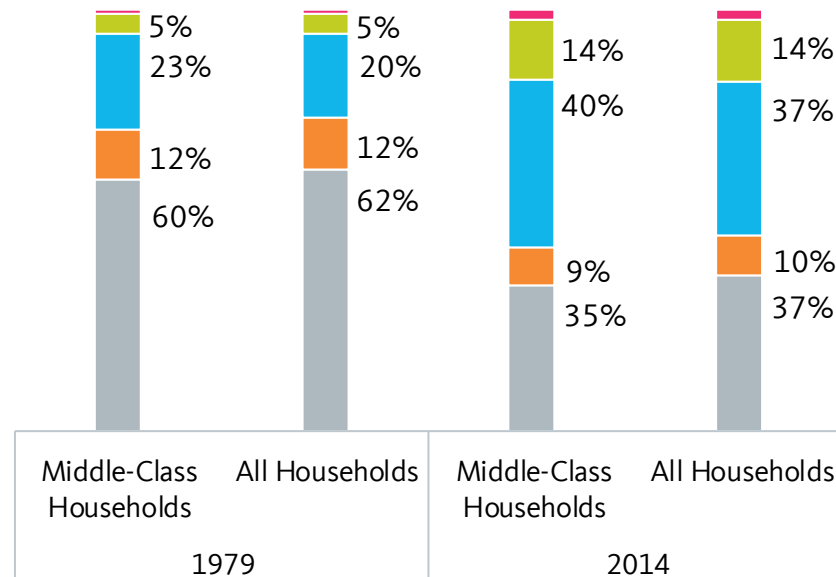
Though the middle class is shrinking, it is relatively diverse

The demographics of the middle class reflect the region’s changing demographics. While the share of households with middle-class incomes has declined since 1979, middle-class households have become more racially and ethnically diverse as the population has become more diverse.

The middle class reflects the region’s racial/ethnic composition

26. Racial Composition of Middle-Class Households and All Households, 1979 and 2014

- Native American and all other
- Asian or Pacific Islander
- Latino
- Black
- White



Source: Integrated Public Use Microdata Series. Universe includes all households (no group quarters).
 Note: Data for 2014 represent a 2010 through 2014 average.

Economic vitality

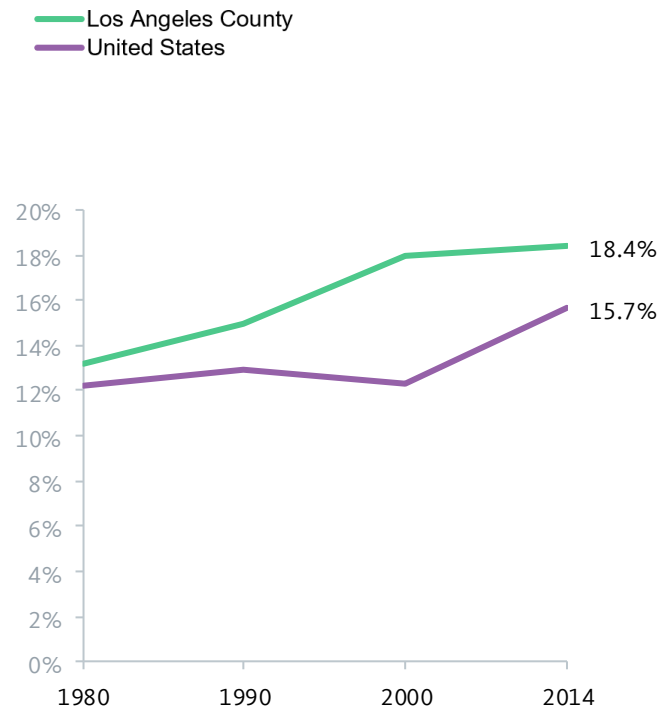
Comparatively high and rising poverty and working poor

Poverty in Los Angeles County has been on the rise over the past 30 years and has been consistently higher than the national average. Between 1990 and 2000, the national average poverty rate declined while it rose sharply in Los Angeles County. Today, nearly one in every five Los Angeles residents (18.4 percent) lives below the poverty line, which is about \$24,600 a year for a family of four.

The share of the working poor, defined as working full time with an income below 150 percent of the poverty level, has also risen and has been consistently above the national average. The working poverty rate in Los Angeles is 7.0 percent compared with 4.7 percent nationally.

Higher than average poverty since 1980

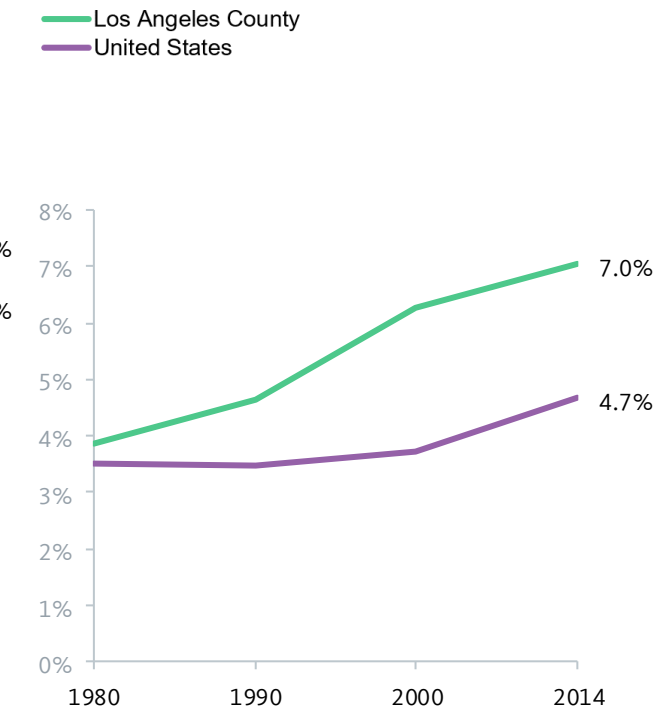
27. Poverty Rate, 1980 to 2014



Source: Integrated Public Use Microdata Series. Universe includes all persons not in group quarters.
 Note: Data for 2014 represent a 2010 through 2014 average.

A rise in working poverty since 1980

28. Working Poverty Rate, 1980 to 2014



Source: Integrated Public Use Microdata Series. Universe includes the civilian noninstitutional population ages 25 through 64 not in group quarters.
 Note: Data for 2014 represent a 2010 through 2014 average.

Economic vitality

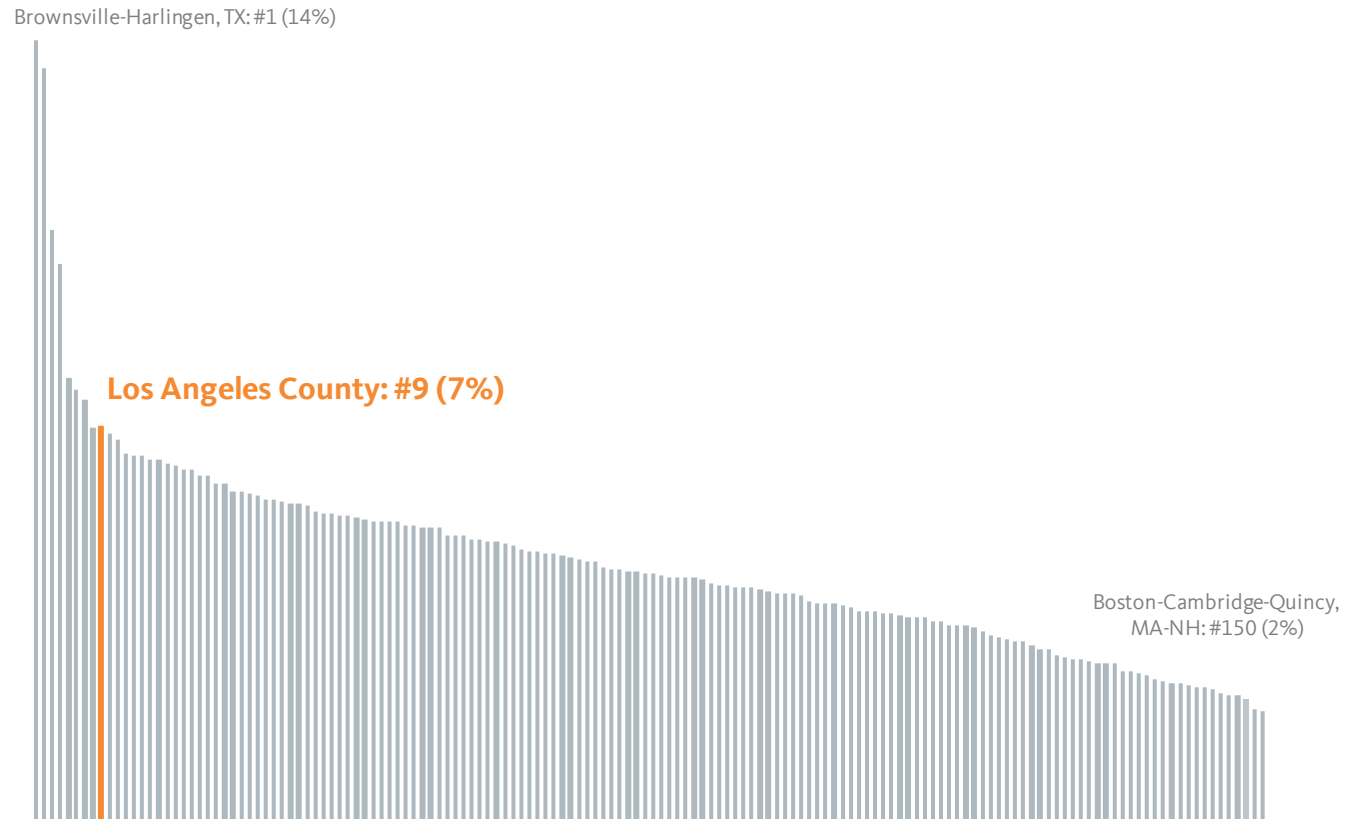
Comparatively high and rising poverty and working poor

(continued)

Los Angeles County has the 9th highest rate of working poor among the largest 150 metros. Compared with other metro regions in California, the working poverty rate in Los Angeles County (7 percent) is higher than in San Diego (4 percent), the Bay Area (3 percent), and San Jose (3 percent), but lower than in Visalia (10 percent), Bakersfield (8 percent), and Fresno (8 percent).

Los Angeles County’s poverty rate of 18 percent places it 29th among the largest 150 metros.

Los Angeles County has the 9th highest working poverty rate
29. Working Poverty Rate in 2014: Largest 150 Metros Ranked



Source: Integrated Public Use Microdata Series. Universe includes the civilian noninstitutional population ages 25 through 64 not in group quarters.
 Note: Data represent a 2010 through 2014 average.

Economic vitality

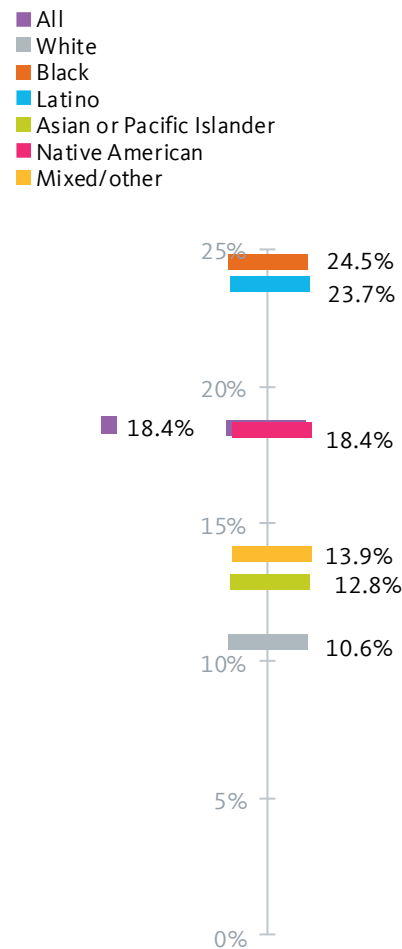
Black and Brown people are more likely to be in poverty or among the working poor

Nearly a quarter of the county’s African Americans (24.5 percent) and Latinos (23.7 percent) live below the poverty level— compared with about one in ten Whites (10.6 percent). Poverty is also higher for Native Americans (18.4 percent), people of other or mixed racial background (13.9 percent) and Asian Americans and Pacific Islanders (12.8 percent) compared with Whites.

Latinos are much more likely to be working poor compared with all other groups. The working poverty rate for Latinos (12.5 percent) is almost three times as high as for African Americans (4.3 percent).

Poverty is highest for African Americans and Latinos

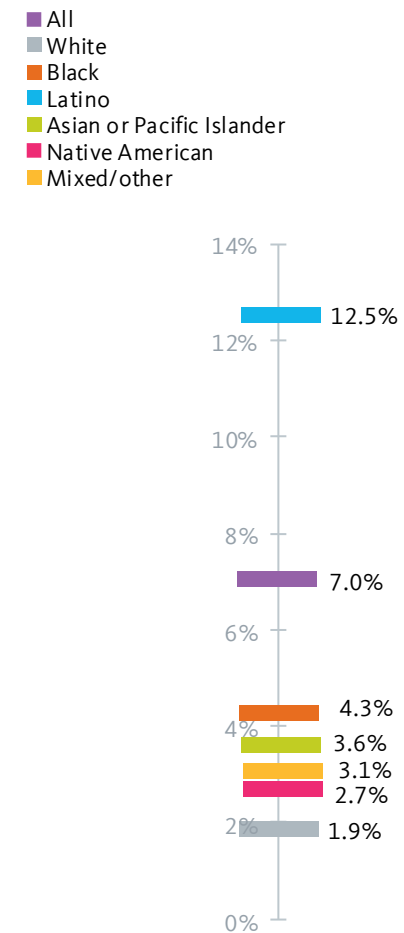
30. Poverty Rate by Race/Ethnicity, 2014



Source: Integrated Public Use Microdata Series. Universe includes all persons not in group quarters.
 Note: Data represent a 2010 through 2014 average.

Latinos have the highest share of working poor

31. Working Poverty Rate by Race/Ethnicity, 2014



Source: Integrated Public Use Microdata Series. Universe includes the civilian noninstitutional population ages 25 through 64 not in group quarters.
 Note: Data represent a 2010 through 2014 average.

Economic vitality

Education can be a leveler, but racial economic gaps persist

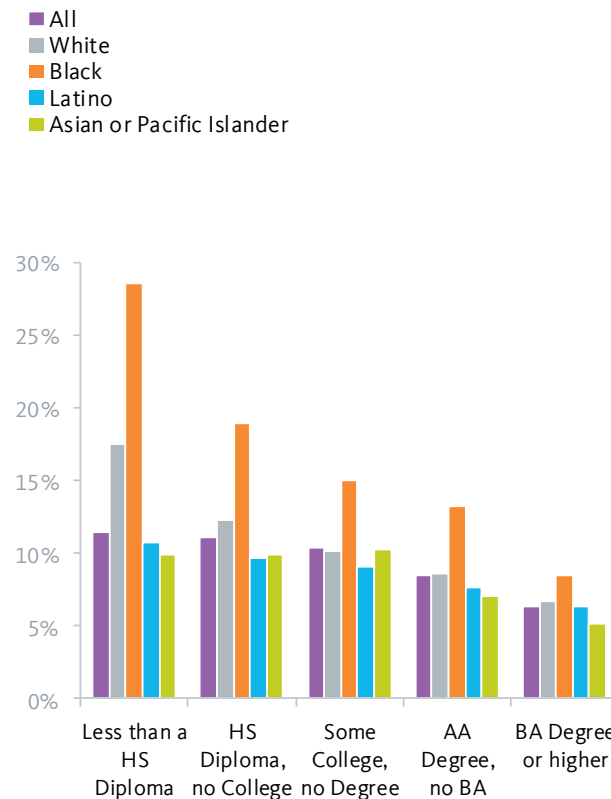
In general, unemployment decreases and wages increase with higher educational attainment.

In Los Angeles County, African Americans face higher rates of joblessness at all education levels. The disparity in joblessness between African Americans and Whites is greatest among those who have less than a high school diploma. The racial gap persists even among college graduates. Interestingly, while a relatively small share of the total White working age population, Whites with a high school diploma or less actually have higher rates of joblessness than all other groups except for African Americans.

Among full-time wage and salary workers, there are racial gaps in median hourly wages at all education levels, with Whites earning substantially higher wages than all other groups. Among college graduates with a BA or higher, Blacks and Asian Americans and Pacific Islanders earn \$6/hour less than their White counterparts while Latinos earn \$9/hour less.

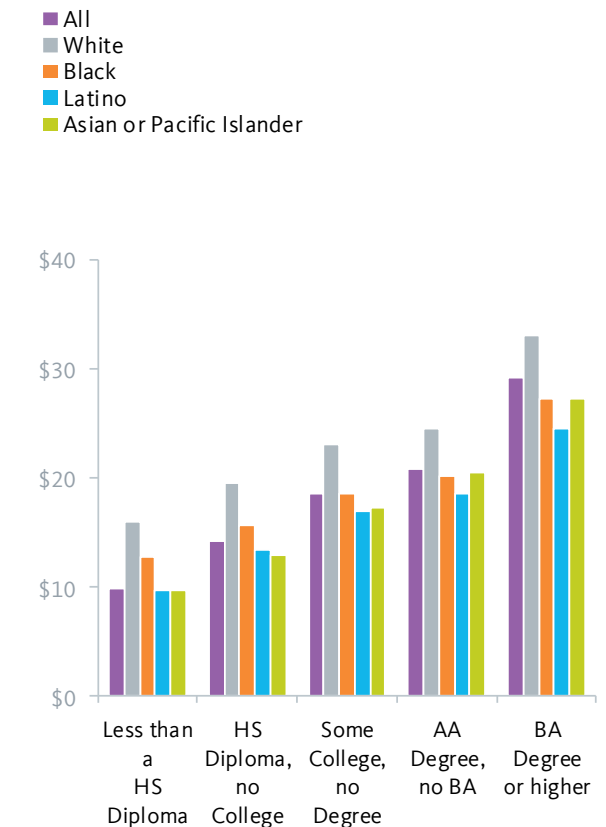
At every education level, all people of color have lower wages than Whites and Blacks have highest unemployment

32. Unemployment Rate by Educational Attainment and Race/Ethnicity, 2014



Source: Integrated Public Use Microdata Series. Universe includes the civilian noninstitutional population ages 25 through 64.
 Note: Data represent a 2010 through 2014 average.

33. Median Hourly Wage by Educational Attainment and Race/Ethnicity, 2014 (in 2010 dollars)



Source: Integrated Public Use Microdata Series. Universe includes civilian noninstitutional full-time wage and salary workers ages 25 through 64.
 Note: Data represent a 2010 through 2014 average.

Economic vitality

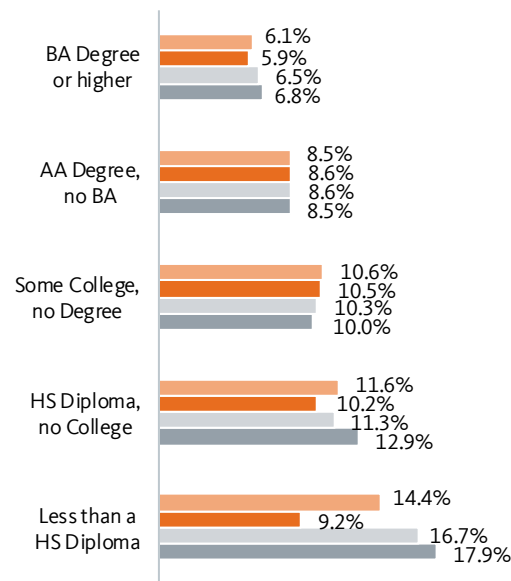
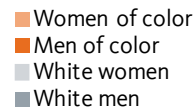
There is also a gender gap in work and pay

While unemployment rates are quite similar by race/ethnicity and gender among those with higher levels of education, among those with a high school diploma or less, men of color actually have the lowest unemployment rates in Los Angeles County while White men and women along with women of color have higher rates. Of course, this finding is largely driven by low unemployment for Latinos and Asian Americans and Pacific Islander men and does not reflect the experience of Black men.

Across the board, women of color have the lowest median hourly wages. College-educated women of color with a BA degree or higher earn \$11 an hour less than their White male counterparts.

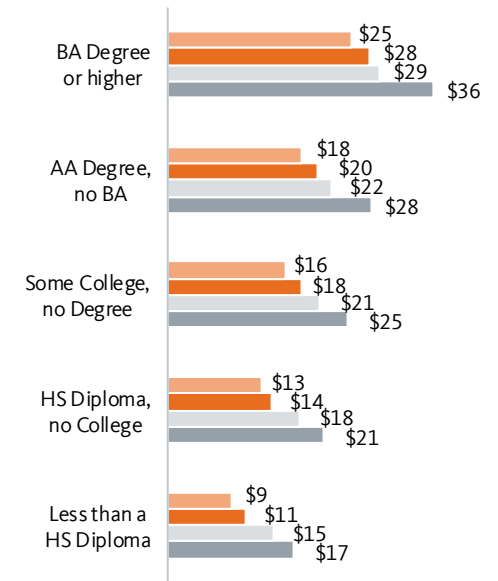
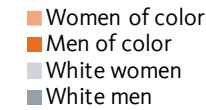
Women of color and White women earn less than their male counterparts at every education level

34. Unemployment Rate by Educational Attainment, Race/Ethnicity and Gender, 2014



Source: Integrated Public Use Microdata Series. Universe includes the civilian noninstitutional population ages 25 through 64.
 Note: Data represent a 2010 through 2014 average.

35. Median Hourly Wage by Educational Attainment, Race/Ethnicity and Gender, 2014



Source: Integrated Public Use Microdata Series. Universe includes civilian noninstitutional full-time wage and salary workers ages 25 through 64.
 Note: Data represent a 2010 through 2014 average.

Economic vitality

The region is losing middle-wage jobs

Similar to the U.S. economy as a whole, Los Angeles County has experienced growth in low-wage jobs (15 percent) and high-wage jobs (6 percent) since 1990. Middle-wage jobs have decreased by 27 percent.

Wages have increased by an inflation-adjusted 38 percent for high-wage workers and by 12 percent for middle-wage workers. Wages for low-wage workers fell by 1 percent.

Low-wage jobs are growing fastest, but high-wage jobs had the most wage growth

36. Growth in Jobs and Earnings by Industry Wage Level, 1990 to 2012

- Low-wage
- Middle-wage
- High-wage



Sources: U.S. Bureau of Labor Statistics; Woods & Poole Economics, Inc. Universe includes all jobs covered by the federal Unemployment Insurance (UI) program.

Economic vitality

Wage growth fast at the top, slow at the bottom

Wage growth in Los Angeles County has been uneven across industry sectors since 1990. High-wage industries like mining, arts and entertainment, and management have experienced significant increases in annual earnings.

Among middle-wage industries, finance/insurance, real estate, and manufacturing experienced the highest increases in annual earnings.

Among the low-wage industries, workers in education services, agriculture, and administrative support have seen increases in earnings. Those in retail trade and other services have experienced a decline in earnings.

A widening wage gap by industry sector

37. Industries by Wage-Level Category in 1990

Wage Category	Industry	Average Annual Earnings	Average Annual Earnings	Percent Change in Earnings	Share of Jobs
		1990 (\$2012)	2012 (\$2012)	1990-2012	2012
High	Mining	\$82,891	\$164,115	98%	18%
	Information	\$74,215	\$101,056	36%	
	Utilities	\$74,210	\$100,422	35%	
	Professional, Scientific, and Technical Services	\$68,579	\$90,183	32%	
	Management of Companies and Enterprises	\$65,648	\$99,073	51%	
	Arts, Entertainment, and Recreation	\$63,909	\$104,378	63%	
Middle	Finance and Insurance	\$62,321	\$102,679	65%	43%
	Wholesale Trade	\$58,672	\$58,540	0%	
	Construction	\$54,361	\$55,764	3%	
	Manufacturing	\$51,905	\$59,729	15%	
	Transportation and Warehousing	\$51,445	\$52,391	2%	
	Health Care and Social Assistance	\$49,979	\$51,782	4%	
	Real Estate and Rental and Leasing	\$48,933	\$58,394	19%	
Low	Retail Trade	\$34,633	\$32,084	-7%	40%
	Administrative and Support and Waste Management and Remediation Services	\$31,389	\$36,981	18%	
	Education Services	\$30,531	\$50,174	64%	
	Other Services (except Public Administration)	\$30,178	\$21,708	-28%	
	Agriculture, Forestry, Fishing and Hunting	\$25,482	\$31,304	23%	
	Accommodation and Food Services	\$19,318	\$20,162	4%	

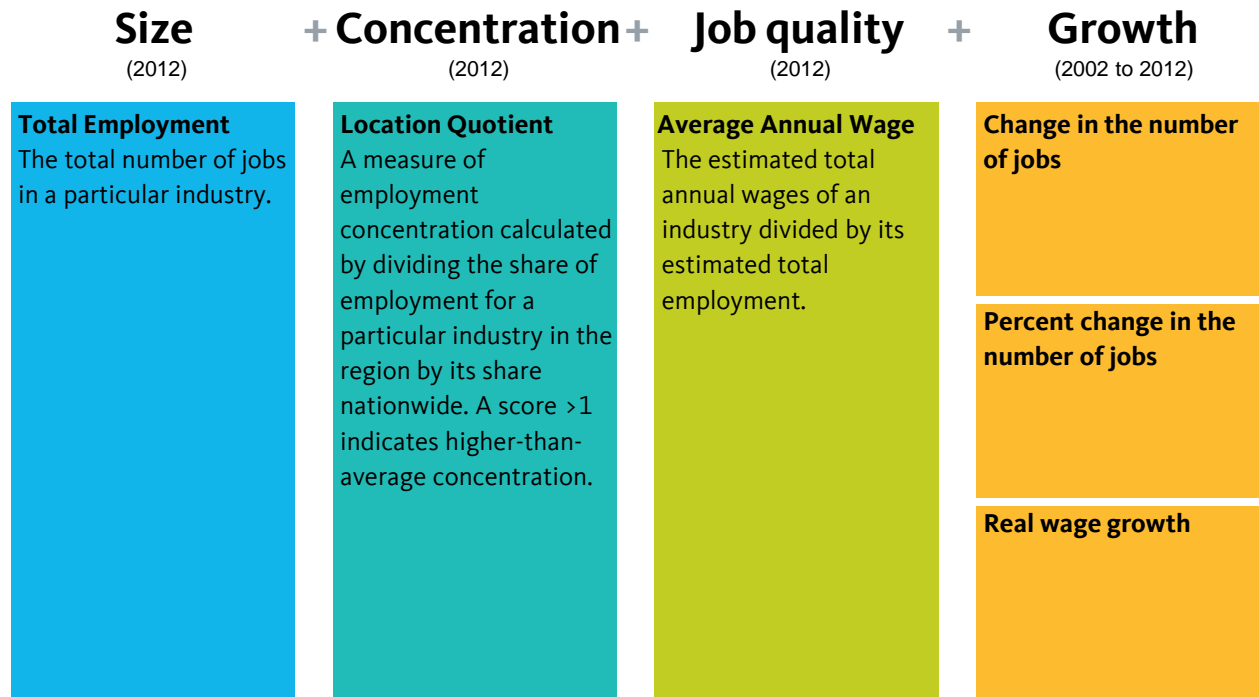
Sources: U.S. Bureau of Labor Statistics; Woods & Poole Economics, Inc. Universe includes all jobs covered by the federal Unemployment Insurance (UI) program.

Economic vitality

Identifying the region’s strong industries

Understanding which industries are strong and competitive in the region is critical for developing effective strategies to attract and grow businesses. To identify strong industries in the region, 19 industry sectors were categorized according to an “**industry strength index**” that measures four characteristics: size, concentration, job quality, and growth. Each characteristic was given an equal weight (25 percent each) in determining the index value. “Growth” was an average of three indicators of growth (change in the number of jobs, percent change in the number of jobs, and wage growth). These characteristics were examined over the last decade to provide a current picture of how the region’s economy is changing.

Industry strength index =



Note: This industry strength index is only meant to provide general guidance on the strength of various industries in the region, and its interpretation should be informed by an examination of individual metrics used in its calculation, which are presented in the table on the next page. Each indicator was normalized as a cross-industry z-score before taking a weighted average to derive the index.

Economic vitality

Information, professional and other services, and health care dominate

According to the industry strength index, the region’s strongest industries are **information, professional services, other services (except public administration), and health care**. Information ranks first due to its high concentration of jobs in the region and high and growing wages, though jobs did decrease by 9 percent over the past

decade. In contrast, professional and other services rank second and third (respectively) due to their large and growing job concentration and, in the former’s case, sustained wage growth. Health care ranks fourth due to its large and growing employment base and moderate but rising wages.

Information, professional and other services, and health care are strong and expanding in the region

38. Industry Strength Index

Industry	Size	Concentration	Job Quality	Growth			Industry Strength Index
	Total employment (2012)	Location Quotient (2012)	Average annual wage (2012)	Change in employment (2002 to 2012)	% Change in employment (2002 to 2012)	Real wage growth (2002 to 2012)	
Information	192,031	2.4	\$101,056	-17,935	-9%	10%	87.6
Professional, Scientific, and Technical Services	267,471	1.1	\$90,183	37,537	16%	11%	50.2
Other Services (except Public Administration)	274,628	2.0	\$21,708	73,075	36%	-17%	43.9
Health Care and Social Assistance	428,211	0.8	\$51,782	71,009	20%	5%	39.7
Mining	4,312	0.2	\$164,115	772	22%	50%	31.9
Arts, Entertainment, and Recreation	71,085	1.2	\$104,378	6,354	10%	12%	23.6
Education Services	101,765	1.3	\$50,174	19,557	24%	18%	7.0
Wholesale Trade	211,286	1.2	\$58,540	-6,454	-3%	3%	3.2
Accommodation and Food Services	342,602	1.0	\$20,162	52,637	18%	-2%	0.8
Finance and Insurance	138,448	0.8	\$102,679	-19,778	-12%	11%	0.5
Retail Trade	397,383	0.9	\$32,084	-1,671	0%	-8%	-6.4
Management of Companies and Enterprises	56,299	0.9	\$99,073	-27,378	-33%	29%	-9.6
Real Estate and Rental and Leasing	72,195	1.2	\$58,394	-1,762	-2%	18%	-9.8
Utilities	12,521	0.8	\$100,422	700	6%	12%	-13.4
Administrative and Support and Waste Management and Remediation Services	244,302	1.0	\$36,981	-9,925	-4%	11%	-13.6
Manufacturing	365,525	1.0	\$59,729	-168,839	-32%	12%	-14.9
Transportation and Warehousing	136,177	1.1	\$52,391	-13,714	-9%	-1%	-27.7
Construction	108,706	0.6	\$55,764	-26,538	-20%	4%	-55.7
Agriculture, Forestry, Fishing and Hunting	5,573	0.2	\$31,304	-2,390	-30%	2%	-116.3

Sources: U.S. Bureau of Labor Statistics; Woods & Poole Economics, Inc. Universe includes all jobs covered by the federal Unemployment Insurance (UI) program.

Economic vitality

Identifying high-opportunity occupations

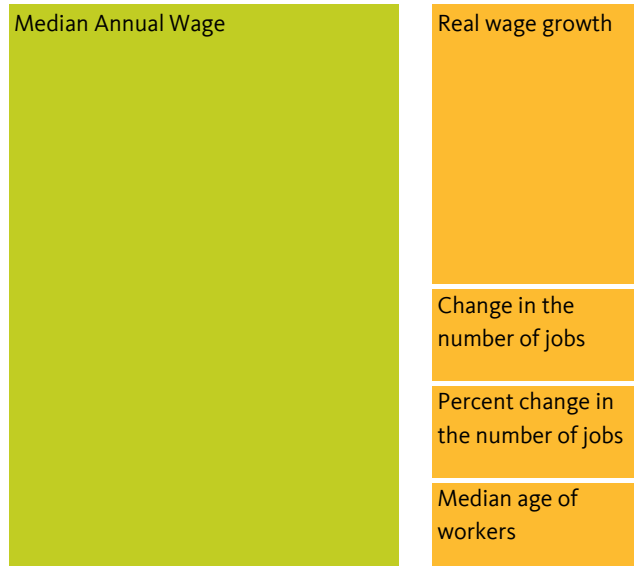
Understanding which occupations are strong and competitive in the region can help leaders develop strategies to connect and prepare workers for good jobs. To identify “high-opportunity” occupations in the region, we developed an “**occupation opportunity index**” based on measures of job quality and growth, including median annual wage, wage growth, job growth (in number and share), and median age of workers. A high median age of workers indicates that there will be replacement job openings as older workers retire.

Job quality, measured by the median annual wage, accounted for two-thirds of the occupation opportunity index, and growth accounted for the other one-third. Within the growth category, half was determined by wage growth and the other half was divided equally between the change in number of jobs, percent change in the number jobs, and median age of workers.

Occupation opportunity index =

Job quality

+ Growth



Note: Each indicator was normalized as a cross-occupation z-score before taking a weighted average to derive the index.

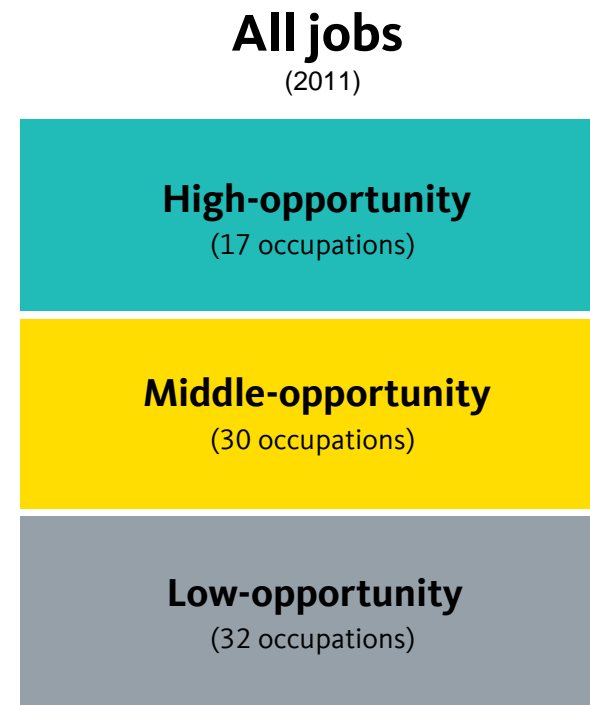
Economic vitality

Identifying high-opportunity occupations

(continued)

Once the occupation opportunity index score was calculated for each occupation, occupations were sorted into three categories (high-, middle-, and low-opportunity). The average index score is zero, so an occupation with a positive value has an above-average score while a negative value represents a below-average score.

Because education level plays such a large role in determining access to jobs, we present the occupational analysis for each of three educational attainment levels: workers with a high school degree or less, workers with more than a high school degree but less than a BA, and workers with a BA or higher.



Note: The occupation opportunity index and the three broad categories drawn from it are only meant to provide general guidance on the level of opportunity associated with various occupations in the region, and its interpretation should be informed by an examination of individual metrics used in its calculation, which are presented in the tables on the following pages.

Economic vitality

High-opportunity occupations for workers with a high school degree or less

Supervisory and construction positions are high-opportunity jobs for workers without postsecondary education

39. Occupation Opportunity Index: Occupations by Opportunity Level for Workers with a High School Degree or Less

Occupation	Employment	Job Quality	Growth			Median Age	Occupation Opportunity Index
	(2011)	Median Annual Wage (2011)	Real Wage Growth (2011)	Change in Employment (2005-11)	% Change in Employment (2005-11)		
High-Opportunity							
Supervisors of Construction and Extraction Workers	11,740	\$72,300	5.7%	-5,550	-32.1%	45	0.55
Other Construction and Related Workers	8,390	\$60,076	12.9%	-2,340	-21.8%	44	0.37
Middle-Opportunity							
Supervisors of Production Workers	21,720	\$52,050	3.6%	-7,490	-25.6%	45	0.03
Supervisors of Transportation and Material Moving Workers	17,050	\$51,274	-1.3%	280	1.7%	41	-0.05
Other Installation, Maintenance, and Repair Occupations	78,740	\$42,209	10.6%	-390	-0.5%	42	-0.10
Supervisors of Building and Grounds Cleaning and Maintenance Workers	8,350	\$41,731	-3.1%	-750	-8.2%	46	-0.27
Construction Trades Workers	113,180	\$48,205	5.8%	-57,190	-33.6%	37	-0.34
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	40,390	\$42,326	-3.2%	-8,730	-17.8%	40	-0.37
Motor Vehicle Operators	113,060	\$32,947	3.7%	-19,520	-14.7%	42	-0.52
Nursing, Psychiatric, and Home Health Aides	64,170	\$24,735	3.9%	12,120	23.3%	44	-0.52
Metal Workers and Plastic Workers	62,830	\$32,492	1.6%	-15,550	-19.8%	43	-0.53
Other Protective Service Workers	77,880	\$26,317	4.9%	-620	-0.8%	38	-0.62
Personal Appearance Workers	15,280	\$23,208	6.5%	700	4.8%	41	-0.63
Woodworkers	6,030	\$25,911	4.0%	-5,230	-46.4%	44	-0.64
Assemblers and Fabricators	60,970	\$25,371	5.1%	-11,780	-16.2%	43	-0.64
Other Production Occupations	98,980	\$27,659	10.4%	-33,650	-25.4%	40	-0.64
Other Personal Care and Service Workers	60,010	\$25,295	-3.2%	7,210	13.7%	43	-0.65
Printing Workers	12,050	\$32,756	-5.6%	-7,060	-36.9%	40	-0.66
Low-Opportunity							
Material Recording, Scheduling, Dispatching, and Distributing Workers	182,520	\$31,562	-2.9%	-15,190	-7.7%	37	-0.68
Animal Care and Service Workers	5,540	\$22,387	3.7%	1,590	40.3%	35	-0.72
Building Cleaning and Pest Control Workers	106,260	\$21,890	0.1%	-1,580	-1.5%	43	-0.74
Supervisors of Food Preparation and Serving Workers	35,680	\$28,353	-10.7%	3,950	12.4%	37	-0.77
Grounds Maintenance Workers	33,690	\$24,127	-0.2%	-6,310	-15.8%	39	-0.78
Food Processing Workers	26,340	\$23,199	-2.2%	420	1.6%	38	-0.79
Helpers, Construction Trades	7,260	\$27,372	-5.8%	-3,320	-31.4%	35	-0.83
Material Moving Workers	181,290	\$24,322	5.5%	-38,080	-17.4%	36	-0.85
Textile, Apparel, and Furnishings Workers	51,320	\$21,265	0.8%	-23,280	-31.2%	41	-0.89
Cooks and Food Preparation Workers	126,620	\$20,477	-3.1%	4,600	3.8%	34	-0.90
Food and Beverage Serving Workers	220,790	\$18,874	-1.4%	12,850	6.2%	27	-0.97
Other Food Preparation and Serving Related Workers	62,430	\$18,757	-1.3%	3,640	6.2%	29	-0.98
Retail Sales Workers	313,930	\$21,407	-4.1%	-11,000	-3.4%	29	-1.03
Other Transportation Workers	17,520	\$21,656	-21.4%	140	0.8%	38	-1.11

Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes all nonfarm wage and salary jobs for which the typical worker is estimated to have a high school degree or less.

Note: Data and analysis reflect the Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area, which includes Los Angeles and Orange counties.

Economic vitality

High-opportunity occupations for workers with more than a high school degree but less than a BA

Fire fighters, law enforcement workers, and plant and system operators are high-opportunity occupations for workers with more than a high school degree but less than a BA

40. Occupation Opportunity Index: Occupations by Opportunity Level for Workers with More Than a High School Degree but Less Than a BA

Occupation	Employment	Job Quality	Growth			Occupation Opportunity Index		
	(2011)	Median Annual Wage (2011)	Real Wage Growth (2011)	Change in Employment (2005-11)	% Change in Employment (2005-11)		Median Age (2010)	
High-Opportunity	Fire Fighting and Prevention Workers	9,930	\$100,200	37.0%	1,590	19.1%	39	1.70
	Law Enforcement Workers	27,580	\$84,108	8.5%	1,960	7.7%	38	0.87
	Plant and System Operators	7,700	\$70,336	12.2%	2,190	39.7%	47	0.74
	Supervisors of Installation, Maintenance, and Repair Workers	13,850	\$68,300	4.5%	-1,030	-6.9%	46	0.50
	Electrical and Electronic Equipment Mechanics, Installers, and Repairers	22,920	\$52,861	21.3%	7,300	46.7%	39	0.37
	Drafters, Engineering Technicians, and Mapping Technicians	25,820	\$56,361	3.7%	-440	-1.7%	43	0.16
	Supervisors of Office and Administrative Support Workers	68,810	\$55,440	3.0%	900	1.3%	43	0.14
Middle-Opportunity	Health Technologists and Technicians	93,920	\$49,674	1.5%	13,490	16.8%	39	-0.01
	Legal Support Workers	16,460	\$53,789	-4.6%	-2,030	-11.0%	40	-0.07
	Occupational Therapy and Physical Therapist Assistants and Aides	5,960	\$43,741	1.0%	2,120	55.2%	35	-0.21
	Supervisors of Sales Workers	50,220	\$46,109	-1.6%	-4,410	-8.1%	41	-0.21
	Secretaries and Administrative Assistants	162,380	\$41,517	-4.4%	1,050	0.7%	42	-0.32
	Life, Physical, and Social Science Technicians	9,380	\$42,866	-3.8%	1,530	19.5%	32	-0.38
	Financial Clerks	146,680	\$36,428	2.0%	-18,000	-10.9%	40	-0.47
	Other Healthcare Support Occupations	67,560	\$31,803	-2.4%	22,690	50.6%	34	-0.49
	Other Education, Training, and Library Occupations	65,090	\$32,349	-1.5%	-8,950	-12.1%	37	-0.62
	Communications Equipment Operators	6,770	\$27,540	2.2%	-1,940	-22.3%	38	-0.66
Low-Opportunity	Other Office and Administrative Support Workers	191,250	\$29,994	5.5%	-42,300	-18.1%	36	-0.73
	Information and Record Clerks	193,530	\$33,266	2.3%	-46,760	-19.5%	32	-0.76
	Entertainment Attendants and Related Workers	25,390	\$20,747	4.8%	3,240	14.6%	32	-0.80

Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes all nonfarm wage and salary jobs for which the typical worker is estimated to have more than a high school degree but less than a BA.

Note: Data and analysis reflect the Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area, which includes Los Angeles and Orange counties.

Economic vitality

High-opportunity occupations for workers with a BA degree or higher

Legal fields, executives, and operations specialties managers are all high-opportunity occupations for workers with a BA degree or higher

41. Occupation Opportunity Index: Occupations by Opportunity Level for Workers with a BA Degree or Higher

Occupation	Employment	Job Quality	Growth			Occupation Opportunity Index	
	(2011)	Median Annual Wage (2011)	Real Wage Growth (2011)	Change in Employment (2005-11)	% Change in Employment (2005-11)		Median Age (2010)
Lawyers, Judges, and Related Workers	31,540	\$150,730	2.7%	4,980	18.8%	45	2.54
Top Executives	103,890	\$121,794	1.7%	5,070	5.1%	46	1.81
Operations Specialties Managers	71,980	\$112,066	9.6%	3,990	5.9%	42	1.63
Entertainers and Performers, Sports and Related Workers	62,380	\$89,597	42.7%	17,720	39.7%	37	1.59
Advertising, Marketing, Promotions, Public Relations, and Sales Managers	37,540	\$113,718	2.2%	1,620	4.5%	39	1.52
Health Diagnosing and Treating Practitioners	154,330	\$99,490	10.3%	23,100	17.6%	45	1.46
Engineers	68,830	\$97,233	9.2%	12,070	21.3%	45	1.35
Other Management Occupations	85,150	\$93,823	16.0%	30	0.0%	44	1.28
Postsecondary Teachers	55,900	\$82,649	3.5%	8,100	16.9%	44	0.88
Computer Occupations	134,380	\$81,901	4.4%	12,800	10.5%	38	0.81
Architects, Surveyors, and Cartographers	5,990	\$81,328	7.3%	-2,230	-27.1%	44	0.81
Social Scientists and Related Workers	11,790	\$78,458	9.2%	-7,150	-37.8%	43	0.72
Physical Scientists	8,820	\$77,037	1.5%	2,350	36.3%	40	0.66
Sales Representatives, Services	67,770	\$58,289	11.2%	42,200	165.0%	41	0.65
Life Scientists	11,400	\$71,764	1.2%	5,430	91.0%	40	0.60
Business Operations Specialists	174,520	\$67,175	5.6%	25,430	17.1%	41	0.55
Financial Specialists	108,980	\$67,022	1.7%	13,910	14.6%	42	0.46
Media and Communication Equipment Workers	21,930	\$63,615	13.4%	5,300	31.9%	36	0.46
Air Transportation Workers	9,020	\$69,467	-13.1%	4,610	104.5%	46	0.43
Art and Design Workers	38,550	\$60,509	10.5%	5,420	16.4%	37	0.33
Media and Communication Workers	30,860	\$59,304	8.6%	5,150	20.0%	38	0.29
Sales Representatives, Wholesale and Manufacturing	75,830	\$60,807	5.4%	-4,070	-5.1%	42	0.27
Preschool, Primary, Secondary, and Special Education School Teachers	133,110	\$62,645	6.4%	-15,120	-10.2%	41	0.26
Librarians, Curators, and Archivists	7,010	\$54,205	3.5%	-1,620	-18.8%	44	0.10
Counselors, Social Workers, and Other Community and Social Service Specialists	61,730	\$47,022	5.9%	16,540	36.6%	39	0.03
Other Teachers and Instructors	47,300	\$46,991	-5.9%	7,640	19.3%	35	-0.25
Other Sales and Related Workers	37,740	\$40,352	-4.0%	3,640	10.7%	45	-0.29

Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes all nonfarm wage and salary jobs for which the typical worker is estimated to have a BA degree or higher.

Note: Data and analysis reflect the Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area, which includes Los Angeles and Orange counties.

Economic vitality

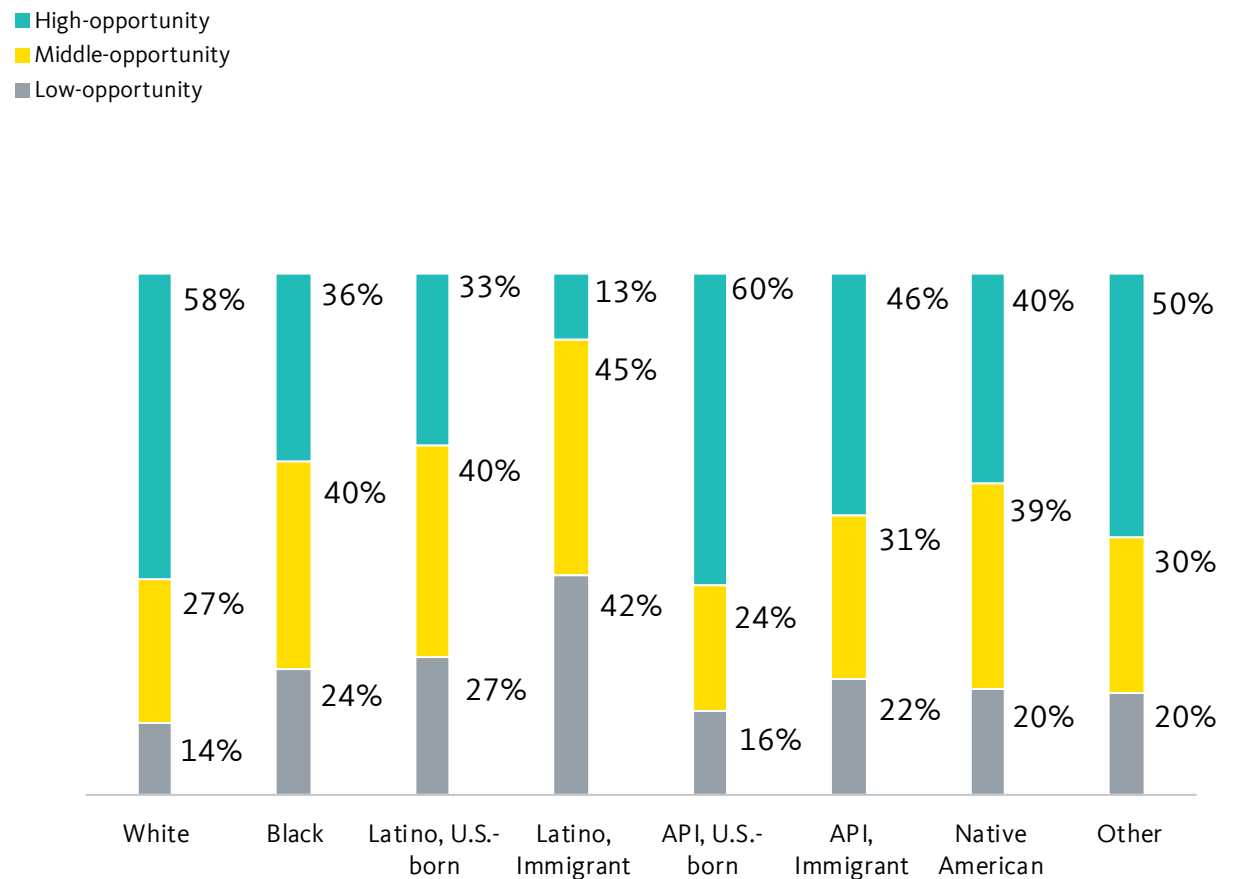
Latinos and African Americans have the least access to high-opportunity jobs

Examining access to high-opportunity jobs by race/ethnicity and nativity, we find that U.S.-born Asians and Whites are most likely to be employed in the region’s high-opportunity occupations. Latinos, both immigrant and U.S.-born, and African Americans are the least likely to be in high-opportunity occupations and most likely to be in low-opportunity occupations.

Differences in education levels play a large role in determining access to high-opportunity jobs, but racial discrimination, work experience, and social networks are also contributing factors. For immigrants, legal status and English language ability are additional factors.

Latinos (both immigrant and U.S.-born) and African Americans are least likely to access high-opportunity jobs

42. Opportunity Ranking of Occupations by Race/Ethnicity and Nativity, All Workers



Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes the employed civilian non institutional population ages 25 through 64. Note: While data on workers is from the Los Angeles County, the opportunity ranking for each worker’s occupation is based on analysis of the Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area, which includes Los Angeles and Orange counties.

Economic vitality

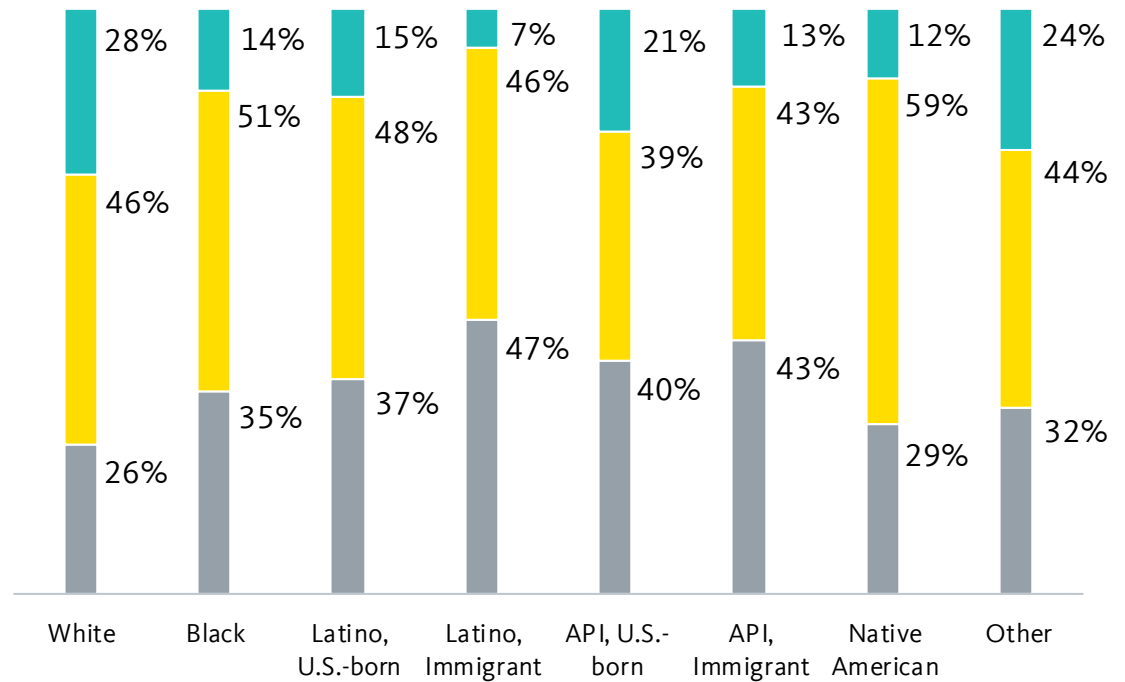
Access to high-opportunity jobs by race for workers with a high school degree or less

Among workers with a high school degree or less, Whites, people of other or mixed racial backgrounds, and U.S.-born Asians are most likely to be in high-opportunity jobs. Latino and Asian immigrants, Blacks, U.S.-born Latinos, and Native Americans are the least likely to be in high-opportunity jobs. Latino and Asian immigrants are most likely to be in low-opportunity jobs.

Of those with lower education levels, Latinos, Asian immigrants, African Americans, and Native Americans are least likely to access high-opportunity jobs

43. Opportunity Ranking of Occupations by Race/Ethnicity and Nativity, Workers with Low Educational Attainment

- High-opportunity
- Middle-opportunity
- Low-opportunity



Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes the employed civilian noninstitutional population ages 25 through 64 with a high school degree or less. Note: While data on workers is from the Los Angeles County, the opportunity ranking for each worker's occupation is based on analysis of the Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area, which includes Los Angeles and Orange counties.

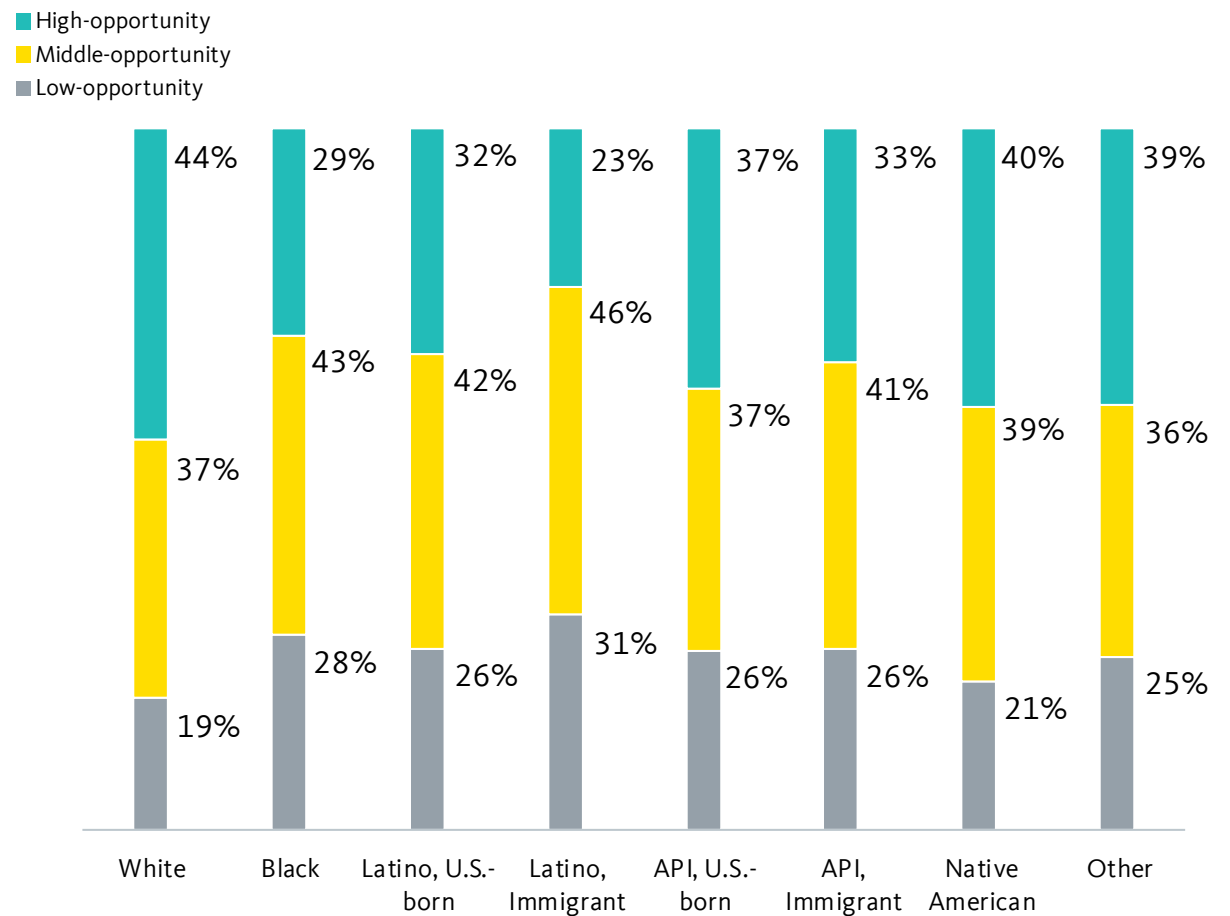
Economic vitality

Access to high-opportunity jobs by race for workers with more than a high school degree but less than a BA

Among workers with middle education levels, Whites, Native Americans, people of other or mixed race backgrounds, and U.S.-born Asians are most likely to be found in high-opportunity jobs. Latino immigrants have the least access to high-opportunity jobs and along with African Americans are most likely to be concentrated in low-opportunity jobs. Both U.S.-born and immigrant Latinos along with African Americans are both most likely to be in middle-opportunity jobs.

Of those with middle education levels, Latino immigrants, African Americans, Asian immigrants, and U.S.-born Latinos are least likely to access high-opportunity jobs

44. Opportunity Ranking of Occupations by Race/Ethnicity and Nativity, Workers with Middle Educational Attainment



Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes the employed civilian non institutional population ages 25 through 64 with more than a high school degree but less than a BA. Note: While data on workers is from the Los Angeles County, the opportunity ranking for each worker's occupation is based on analysis of the Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area, which includes Los Angeles and Orange counties.

Economic vitality

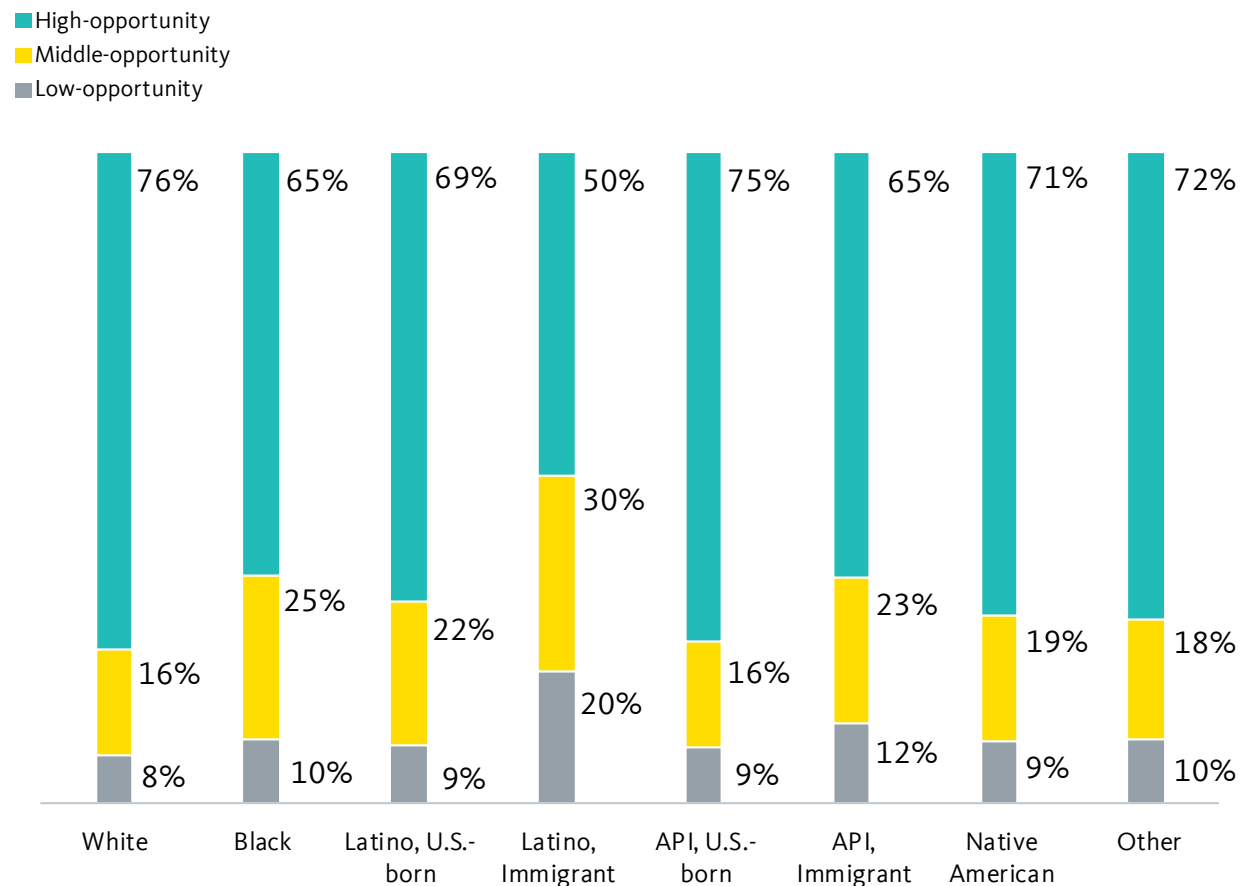
Even among college graduates, Blacks and Latinos have less access to high-opportunity jobs

While the majority of all workers with a BA degree or higher are in high-opportunity jobs, substantial differences between groups by race/ethnicity and nativity persist.

Whites and native-born Asians are most likely to be in high-opportunity occupations, followed by people of other or mixed race background, Native Americans, U.S.-born Latinos, Blacks, and immigrant Asians. Latino immigrants with college degrees have the least access to high-opportunity jobs and the highest representation in both low- and middle-opportunity occupations.

Differences in occupational opportunity by race/ethnicity and nativity persist for college-educated workers

45. Opportunity Ranking of Occupations by Race/Ethnicity and Nativity, Workers with High Educational Attainment



Sources: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes the employed civilian non institutional population ages 25 through 64 with a BA degree or higher. Note: While data on workers is from the Los Angeles County, the opportunity ranking for each worker's occupation is based on analysis of the Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area, which includes Los Angeles and Orange counties.

Readiness



Readiness

Highlights

How prepared are the region's residents for the 21st century economy?

- There are skills and education gaps for people of color, with the share of future jobs requiring at least an associate's degree being higher than the proportion of people with the requisite education level.
- Education levels differ dramatically among immigrant groups. For example, South and East Asian immigrants have high education levels while Pacific Islander, Mexican, and Central American immigrants have very low education levels.
- The pursuit of education and employment has increased for all youth. However, while the number of disconnected youth has been on the decline, youth of color are still far more likely to be disconnected and less likely to finish high school than their White counterparts.
- Communities of color are facing significant health challenges, with over 68 percent of the region's African Americans and Latinos obese or overweight.

Percent of Latino immigrants with at least an associate's degree:

10%

Percent of African-American disconnected youth:

23%

Number of disconnected youth in Los Angeles:

193,000

Readiness

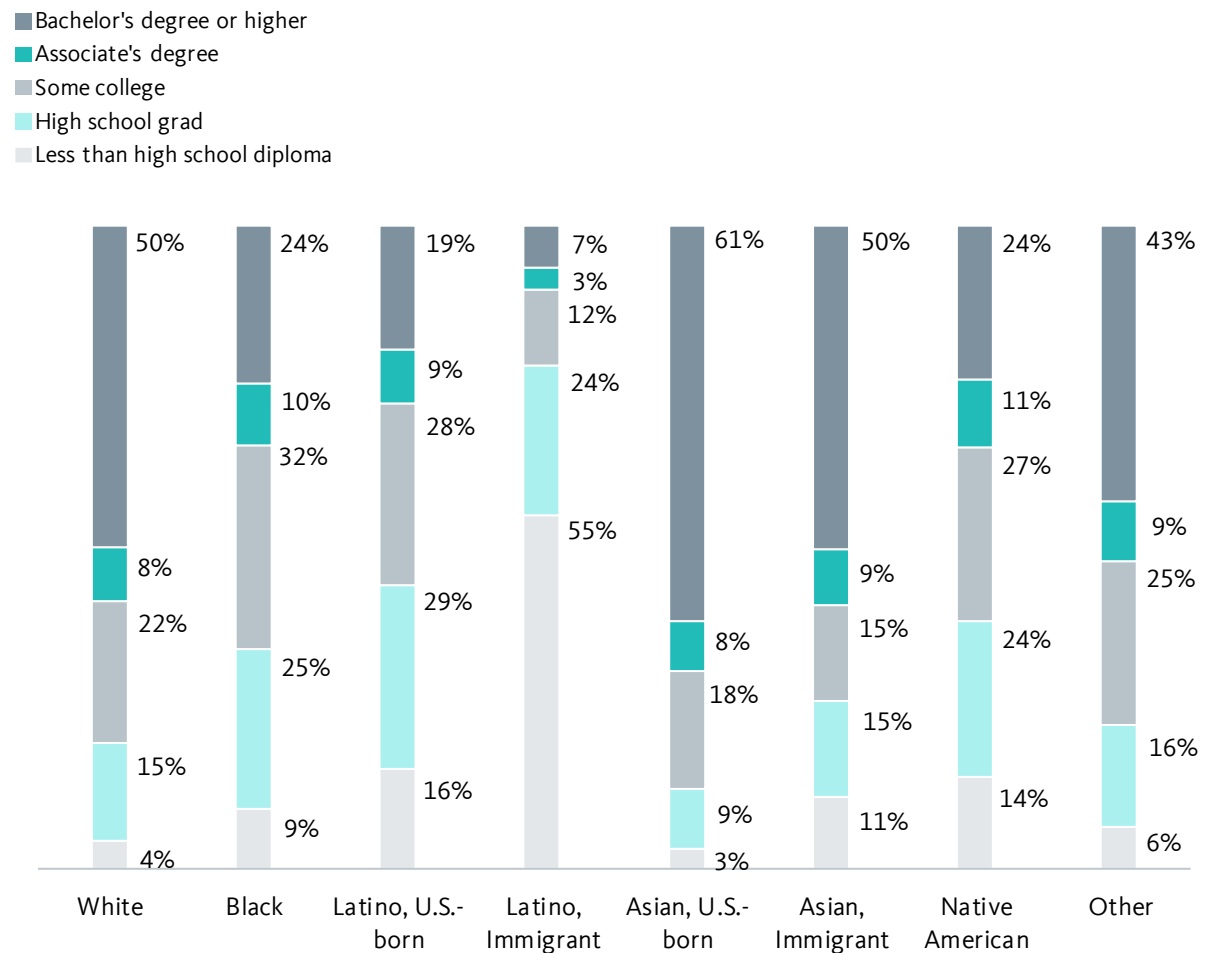
Educational and skills gaps for people of color

There are large differences in educational attainment by race/ethnicity and nativity. Both immigrant and U.S.-born Asians and Whites have the highest education levels. Latinos immigrants have the lowest levels with 55 percent having less than a high school degree.

While not shown in the graph, people of every race/ethnicity and nativity improved their education levels since 2000. Despite this progress, Latinos, who will account for an increasing share of the region’s workforce, are still less prepared for the future economy than their White and Asian American and Pacific Islander counterparts. African Americans and Native Americans lag far behind in educational attainment as well.

There are wide gaps in educational attainment

46. Educational Attainment by Race/Ethnicity and Nativity, 2014



Source: Integrated Public Use Microdata Series. Universe includes all persons ages 25 through 64.
 Note: Data represent a 2010 through 2014 average.

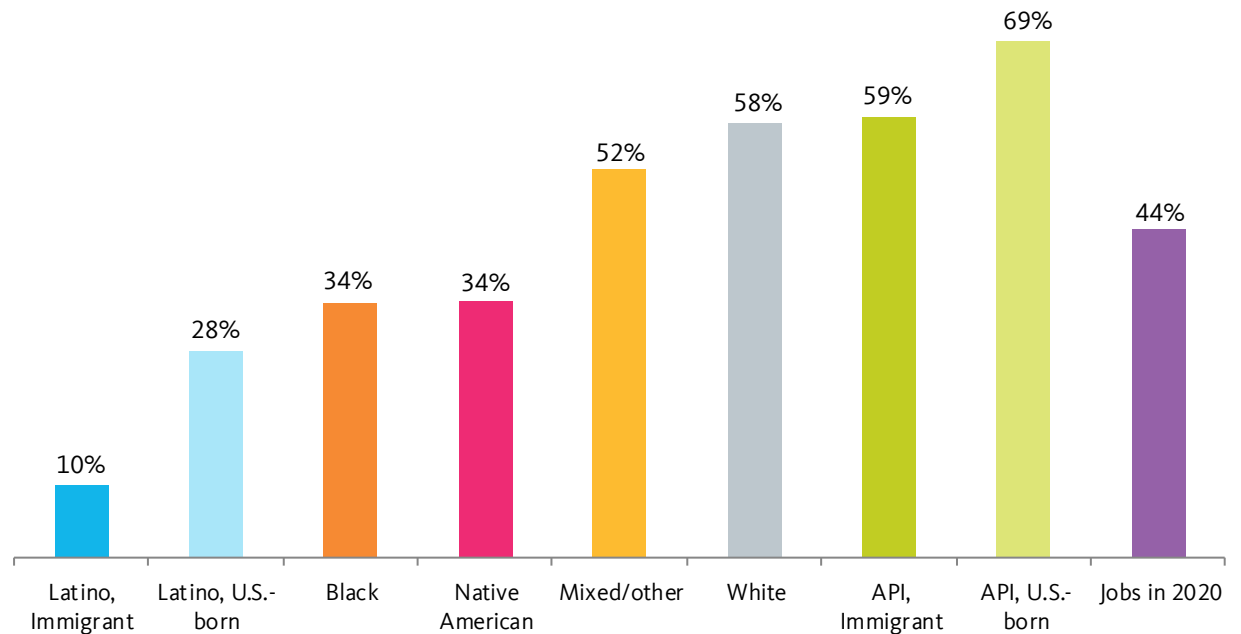
Readiness

Educational and skills gaps for people of color

(continued)

The region will face a skills gap unless education levels increase. By 2020, 44 percent of the state's jobs will require an associate's degree or higher. Only 10 percent of Latino immigrants, 28 percent of U.S.-born Latinos, and 34 percent of Blacks and Native Americans have reached that level of education.

The region will face a skills gap unless education levels increase for Latinos, Native Americans, and Blacks
47. Share of Working-Age Population with an Associate's Degree or Higher by Race/Ethnicity and Nativity, 2014, and Projected Share of Jobs that Require an Associate's Degree or Higher, 2020



Sources: Georgetown Center for Education and the Workforce; Integrated Public Use Microdata Series. Universe for education levels of workers includes all persons ages 25 through 64.

Note: Data on education levels by race/ethnicity and nativity represents a 2010 through 2014 average for Los Angeles County while data on educational requirements for jobs in 2020 are based on statewide projections for California.

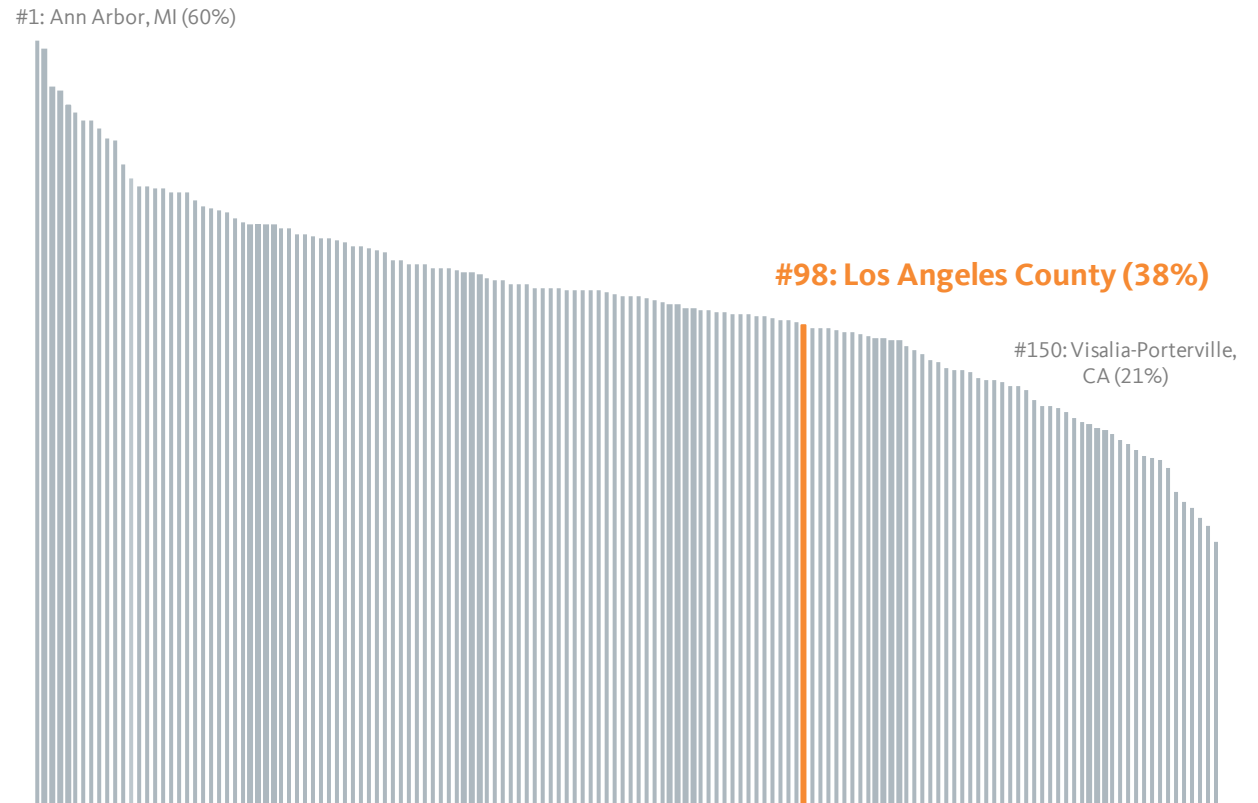
Readiness

Relatively low education levels regionally

Los Angeles County ranks 98th among the largest 150 metro regions on the share of residents with an associate’s degree or higher. The region’s share of residents with an associate’s degree or higher is 38 percent, lower than other California metros like San Jose (56 percent), the Bay Area (54 percent) and San Diego (45 percent), but higher than Riverside (27 percent) and Bakersfield (22 percent).

The region ranks 7th among the 150 metros in the share of residents with less than a high school education at 22 percent, which is a higher share than in the Riverside metro (21 percent) but much lower than Bakersfield (27 percent).

The county is close to the bottom third for residents with an associate's degree or higher among the largest 150 regions
48. Percent of the Population with an Associate's Degree or Higher in 2014: Largest 150 Metros Ranked



Source: Integrated Public Use Microdata Series. Universe includes all persons ages 25 through 64.
 Note: Data represent a 2010 through 2014 average.

Readiness

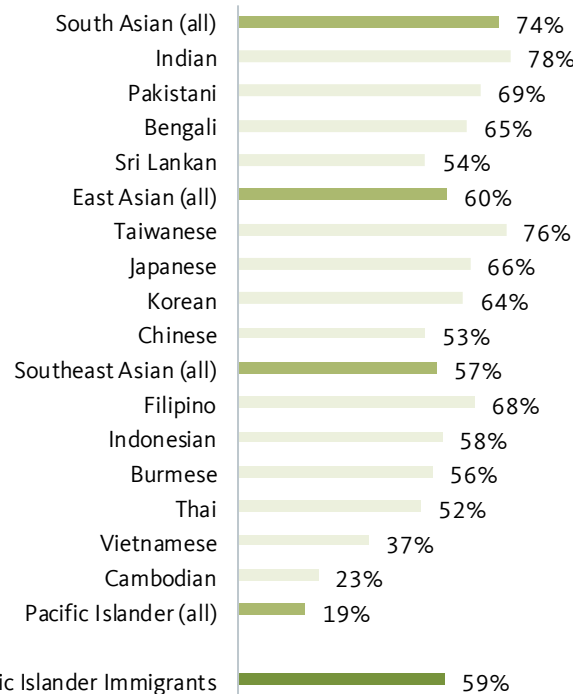
High variation in education levels among immigrants

Latino immigrants from Central America and Mexico tend to have very low education levels while those from South America (and to some extent, the Caribbean) tend to have higher education levels. For example, less than 10 percent of those from Mexico, Guatemala, and Honduras have at least an associate’s degree while more than 40 percent of those from Argentina, Colombia, and Chile do.

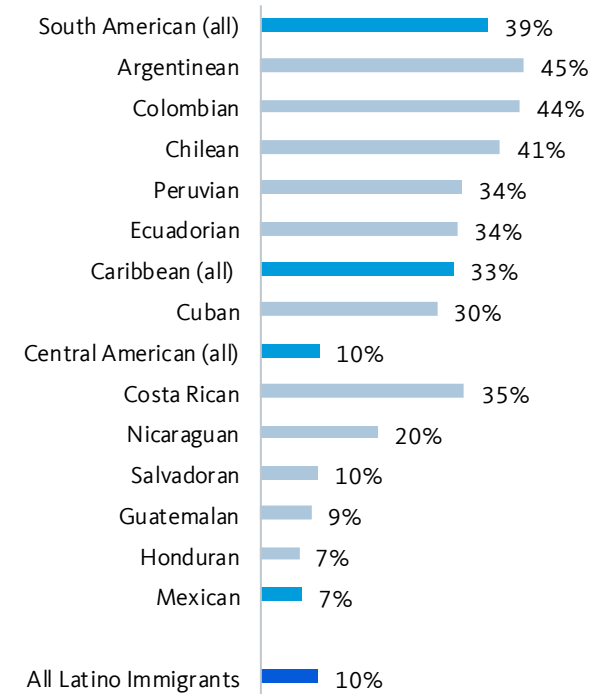
Education levels vary among Asian American and Pacific Islander immigrants as well: South and East Asian immigrants tend to have higher education levels while Southeast Asian immigrants and Pacific Islander immigrants have lower levels. For example, only 23 percent of Cambodian immigrants have an associate’s degree or higher compared to 78 percent of Asian Indian immigrants.

Asian immigrants tend to have higher education levels compared with Latino immigrants, but there are major differences in educational attainment among immigrants by ancestry

49. Asian or Pacific Islander Immigrants, Percent with an Associate’s Degree or Higher by Ancestry, 2014



50. Latino Immigrants, Percent with an Associate’s Degree or Higher by Ancestry, 2014



Source: Integrated Public Use Microdata Series. Universe includes all persons ages 25 through 64. Note: Data represent a 2010 through 2014 average.

Source: Integrated Public Use Microdata Series. Universe includes all persons ages 25 through 64. Note: Data represent a 2010 through 2014 average.

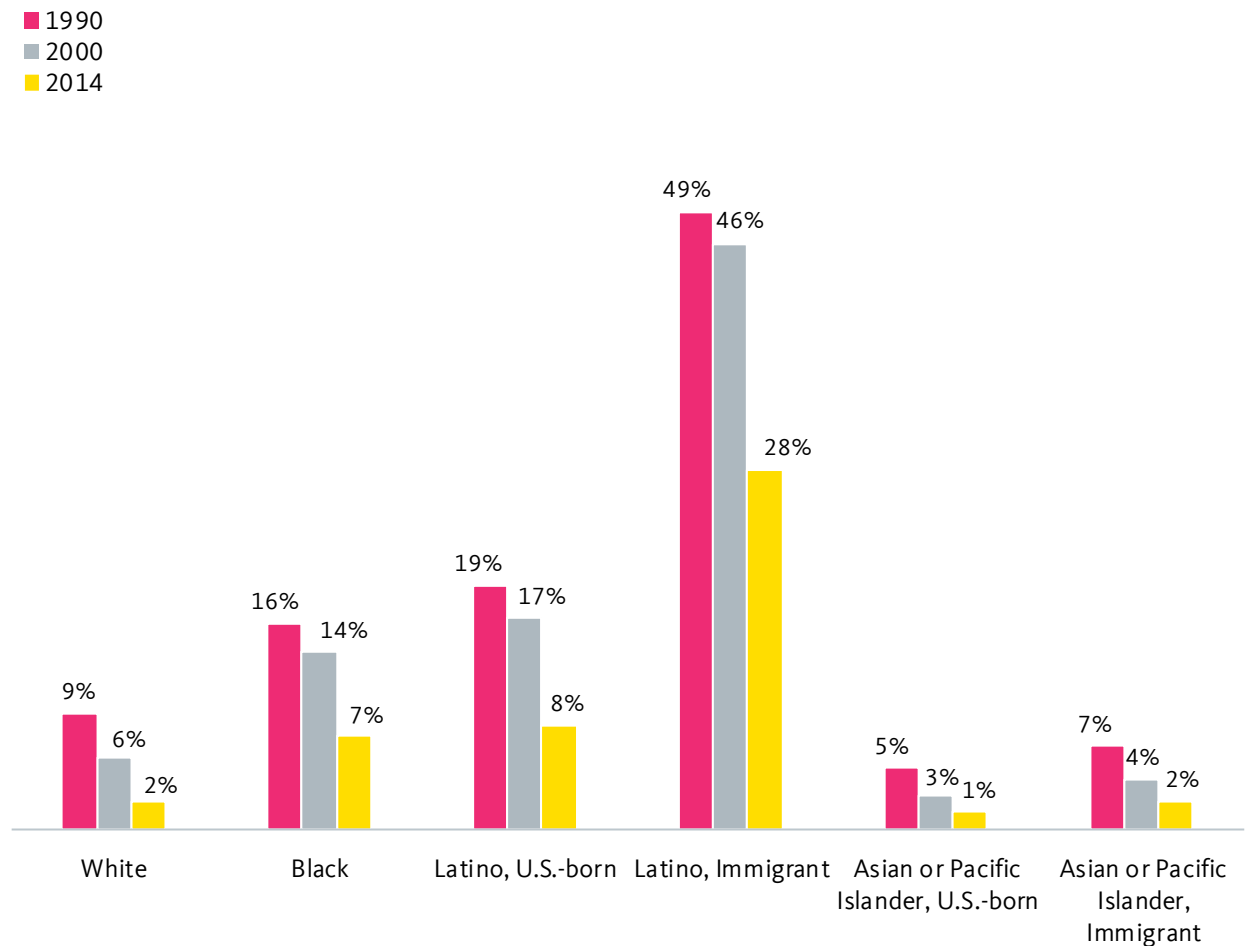
Readiness

More youth are getting high school degrees, but Latino immigrants are more likely to be behind

The share of youth who do not have a high school education and are not pursuing one has declined considerably since 1990 for all groups by race/ethnicity and nativity. Despite the overall improvement, youth of color (with the exception of Asians) are still less likely to have finished high school or be enrolled in school. Immigrant Latinos have particularly high rates of dropout or non-enrollment, with 28 percent lacking and not pursuing a high school degree.

Educational attainment and enrollment among youth has improved for all groups since 1990

51. Percent of 16-24-Year-Olds Not Enrolled in School and Without a High School Diploma, 1990 to 2014



Source: Integrated Public Use Microdata Series.
 Note: Data for 2014 represents a 2010 through 2014 average.

Readiness

Many youth remain disconnected from work or school

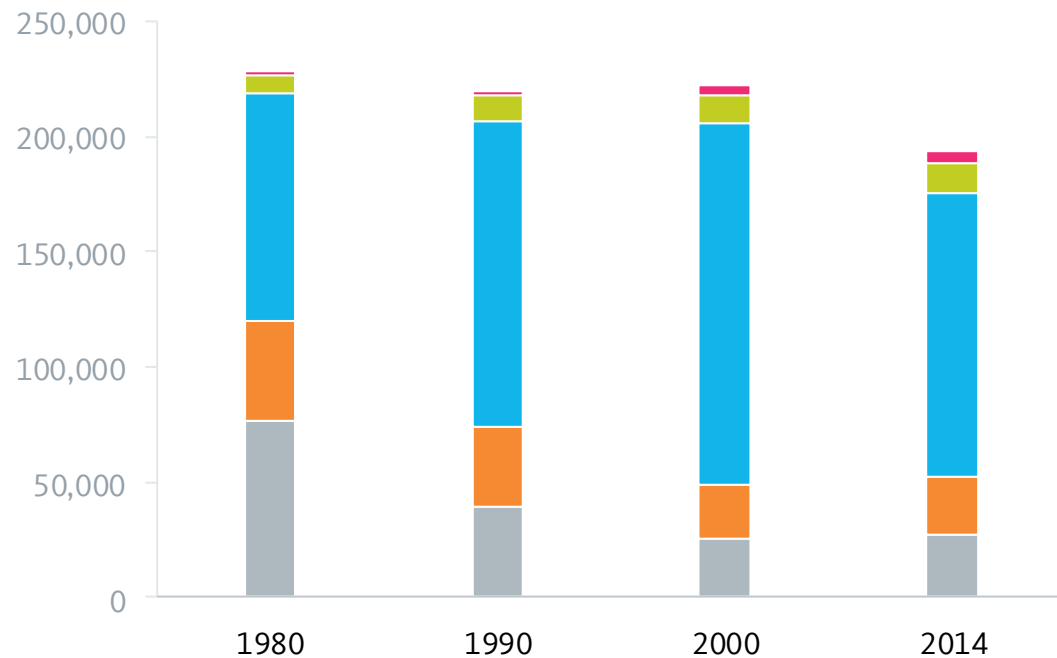
While trends in high school completion and pursuit of further education have been positive for youth of color, the number of “disconnected youth” who are neither in school nor working remains high. Of the region’s 193,000 disconnected youth, 64 percent are Latino, 14 percent are White, 13 percent are African American, and 7 percent are Asian American or Pacific Islander. As a share of the youth population of each racial/ethnic group, African Americans have the highest rate of disconnection (23 percent), followed by Latinos (16 percent), those of other or mixed race (11 percent), Whites (10 percent), and then Asian Americans and Pacific Islanders (8 percent).

Since 2000, the number of disconnected youth decreased slightly. This was due to improvements among Latino youth; all other groups saw slight increases.

There are over 193,000 disconnected youth in the region

52. Disconnected Youth: 16-24-Year-Olds Not in Work or School, 1980 to 2014

- Native American and all other
- Asian or Pacific Islander
- Latino
- Black
- White



Source: Integrated Public Use Microdata Series.
 Note: Data for 2014 represent a 2010 through 2014 average.

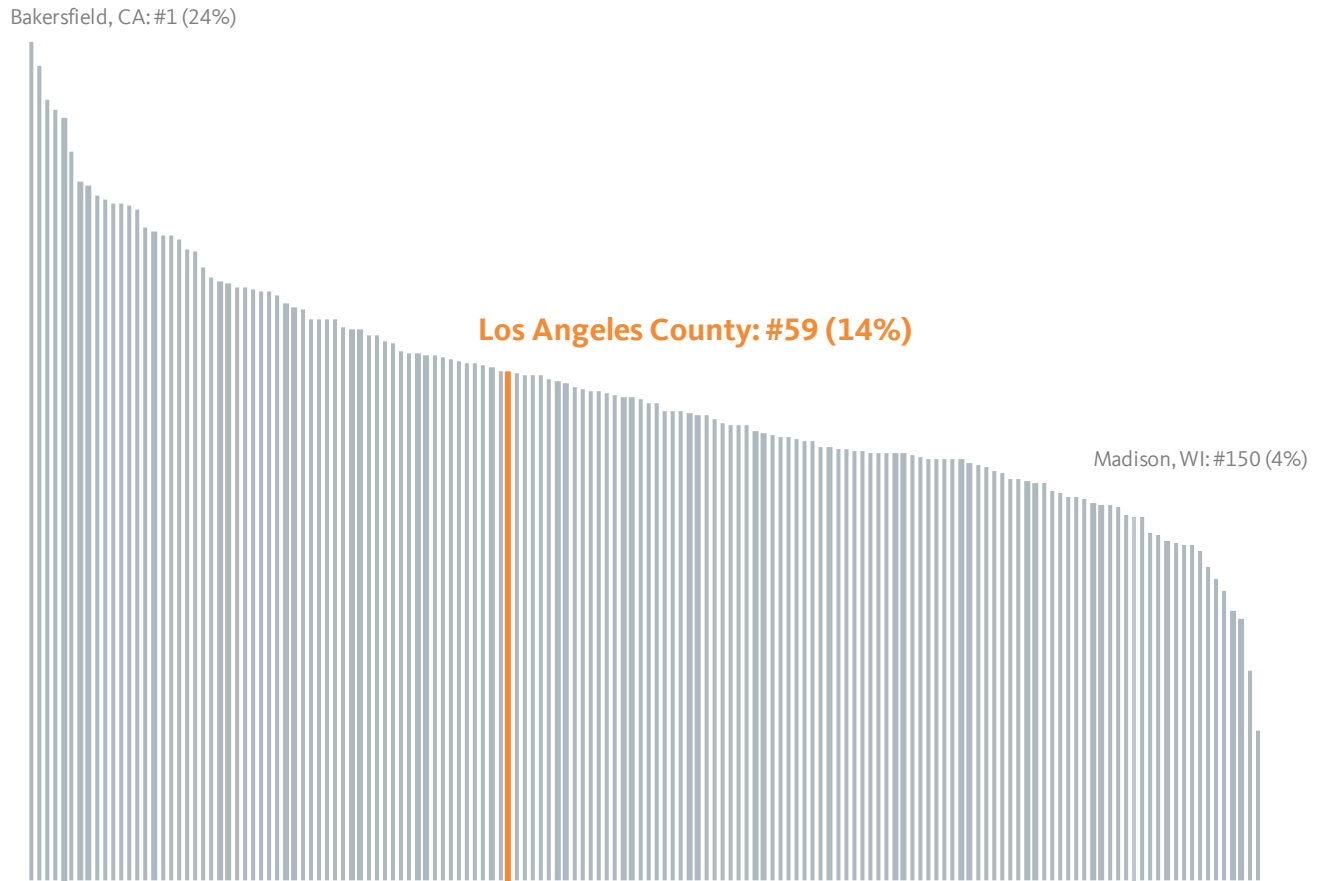
Readiness

Many youth remain disconnected from work or school

(continued)

Despite the drop in disconnected youth over the last decade, 14 percent of Los Angeles' youth are not in work or school. This places the region 59th out of the largest 150 metro areas. Compared to other California metro areas, the region is doing worse than the Bay Area which is ranked 119th, but better than Riverside, which is ranked 21st.

Los Angeles County ranks among the top half of regions in its share of disconnected youth
53. Percent of 16-24-Year-Olds Not in Work or School, 2014: Largest 150 Metros Ranked



Source: Integrated Public Use Microdata Series.
 Note: Data represent a 2010 through 2014 average.

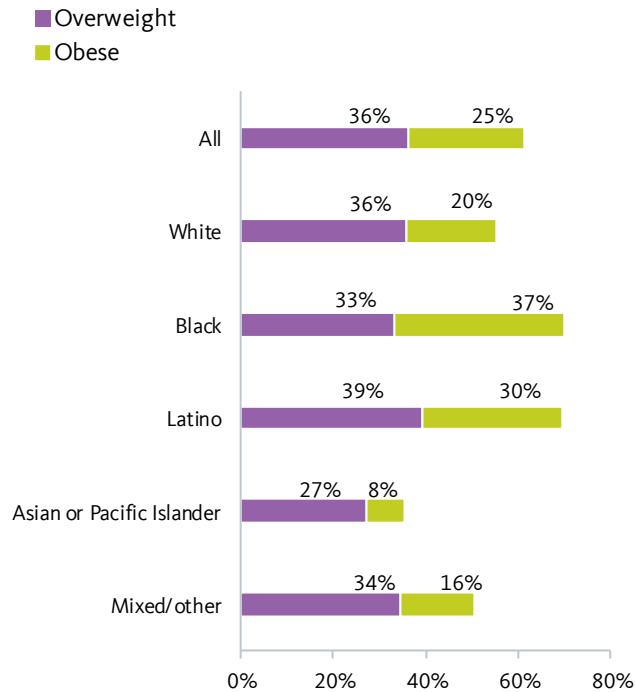
Readiness

Health challenges among communities of color

The region’s African Americans have particularly high rates of obesity, diabetes, and asthma. Latinos are at high risk of being overweight and obese but have average rates of diabetes and below average rates of asthma. Whites and those of other or mixed race do better than average on all measures except for asthma.

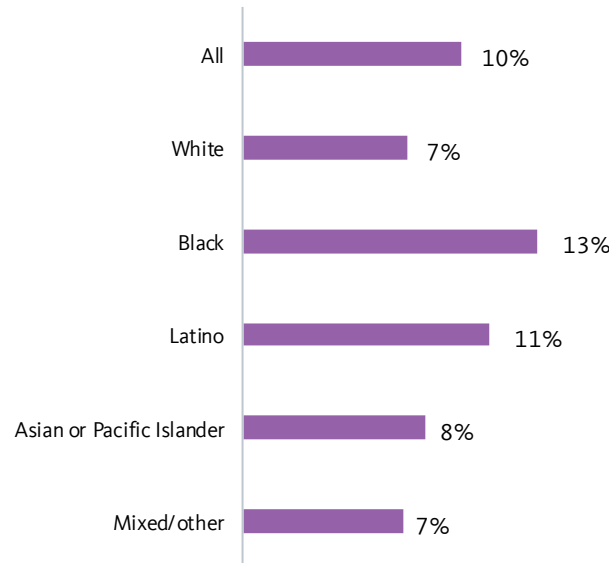
African Americans face above average obesity, diabetes, and asthma rates, while Latinos have high rates of being overweight and obese

54. Adult Overweight and Obesity Rates by Race/Ethnicity, 2012



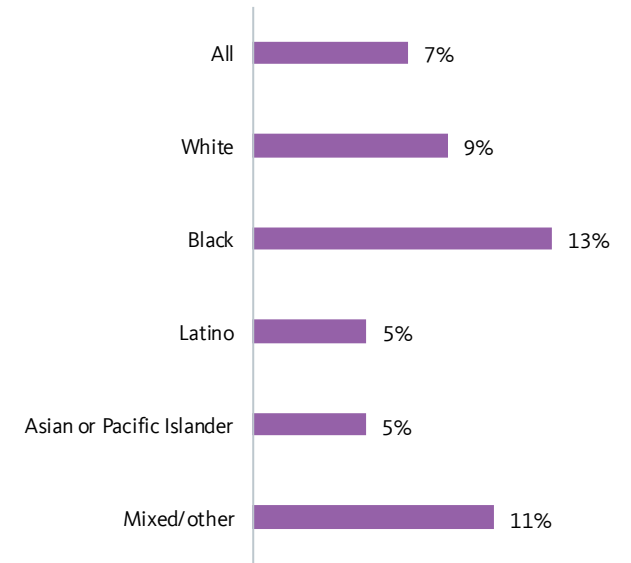
Source: Centers for Disease Control and Prevention. Universe includes adults ages 18 and older.
 Note: Data represent a 2008 through 2012 average.

55. Adult Diabetes Rates by Race/Ethnicity, 2012



Source: Centers for Disease Control and Prevention. Universe includes adults ages 18 and older.
 Note: Data represent a 2008 through 2012 average.

56. Adult Asthma Rates by Race/Ethnicity, 2012



Source: Centers for Disease Control and Prevention. Universe includes adults ages 18 and older.
 Note: Data represent a 2008 through 2012 average.

Connectedness



Connectedness

Highlights

Are the region's residents and neighborhoods connected to one another and to the region's assets and opportunities?

- Residential segregation is declining at the regional scale for all groups, but Black-White segregation remains high and Latino-White and Latino-Asian segregation is increasing.
- Communities of color have higher housing burdens, especially for those who are renters: 65 percent of Black renters are housing burdened while the rate is 63 percent for Latinos.
- In a region where people rely heavily on automobiles to get around, 18 percent of Black households and 11 percent of Latino households do not have access to a car.

Percent of Black residents that would have to move to achieve integration with Whites:

68%

Renter housing burden rank (out of largest 150 regions):

#7

Number of Black households with no access to a vehicle:

2 in 5

Connectedness

Segregation is slowly decreasing

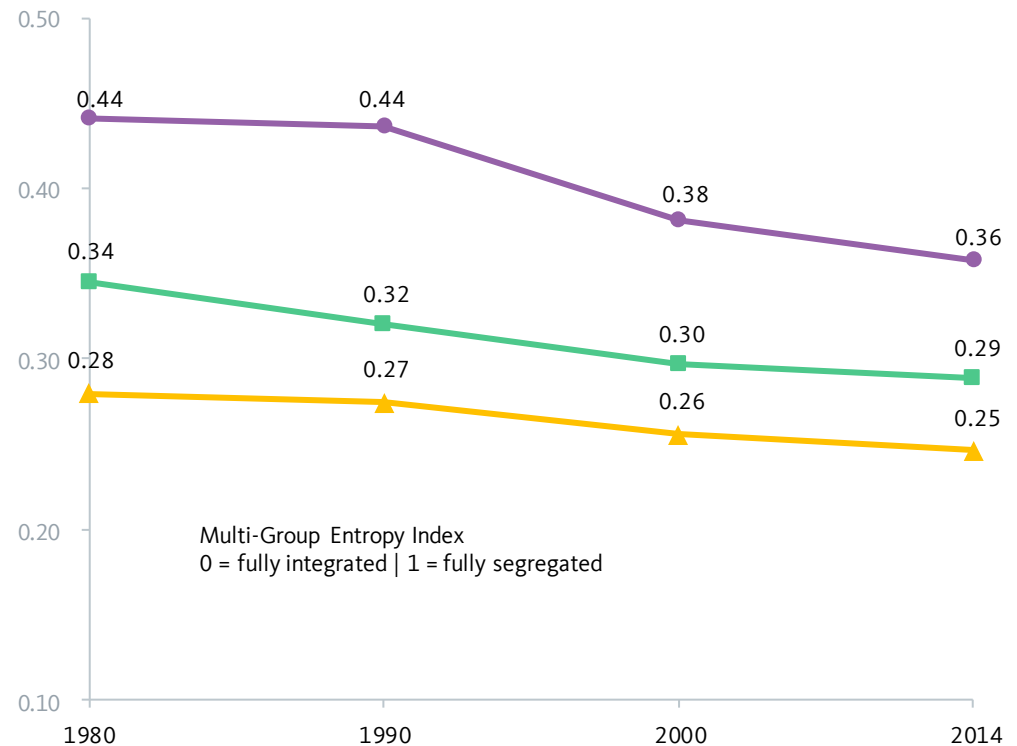
Los Angeles County is more segregated by race/ethnicity than the state of California but less than the nation, and segregation has declined somewhat over time as the region has become more diverse.

Segregation is measured by the entropy index, which ranges from a value of 0, meaning that all census tracts have the same racial/ethnic composition as the entire region overall (maximum integration), to a high of 1, if all census tracts contained one group only (maximum segregation).

Residential segregation is decreasing over time at the regional scale

57. Residential Segregation, 1980 to 2014

- United States
- Los Angeles County
- ▲— California



Source: U.S. Census Bureau; Geolytics.

Note: Data for 2014 represent a 2010 through 2014 average. See the "Data and methods" section for details of the residential segregation index calculations.

Connectedness

Segregation remains high between some groups and White-Latino and API-Latino segregation is on the rise

While racial segregation overall has been on the decline in the region, it remains very high between certain groups, and is increasing for others.

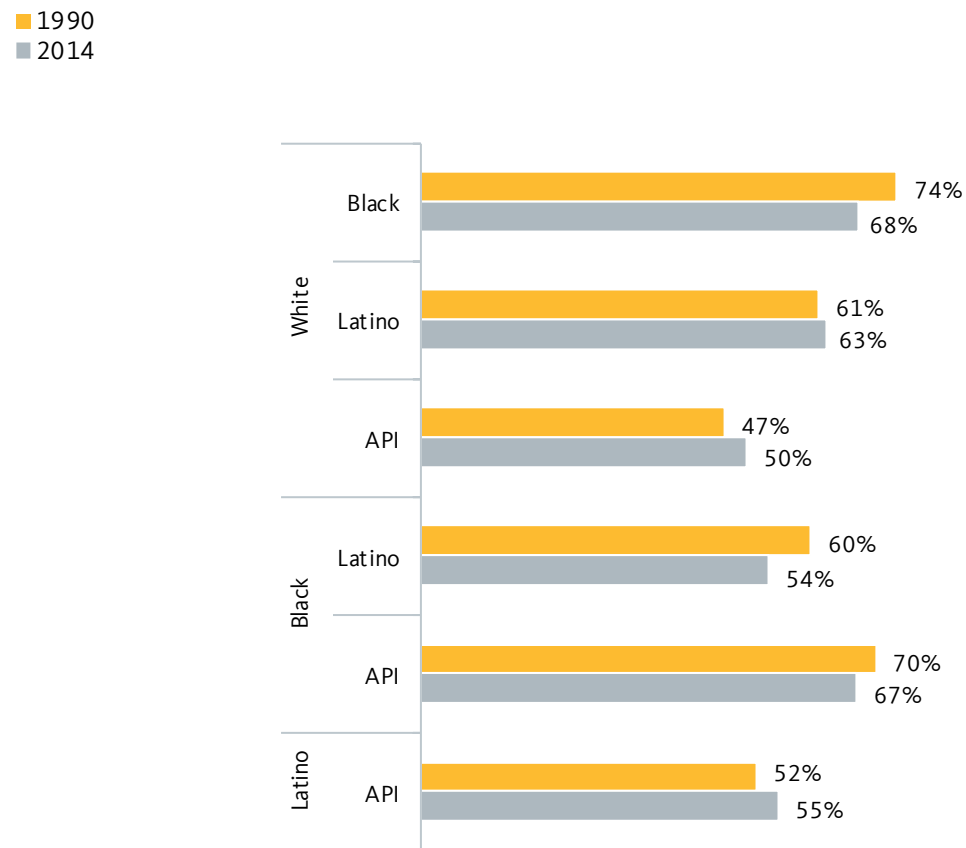
The chart at the right displays the dissimilarity index, which estimates the share of a given racial/ethnic group that would need to move to a new neighborhood to achieve complete integration with the other group.

Using this measure, segregation between Blacks and all other groups has decreased though Black-White segregation remains high: 68 percent of Black residents would need to move to achieve perfect integration with Whites.

It also shows that segregation is increasing between several groups. Latinos and Whites are more segregated from each other now than in 1990, and the same is true for Latinos and Asian Americans and Pacific Islanders.

Segregation has decreased between Blacks and all other racial/ethnic groups, but has increased for most others

58. Residential Segregation, 1990 and 2014, Measured by the Dissimilarity Index



Source: U.S. Census Bureau; Geolytics.

Note: Data reported is the dissimilarity index for each combination of racial/ethnic groups. Data for 2014 represent a 2010 through 2014 average. See the "Data and methods" section for details of the residential segregation index calculations.

Connectedness

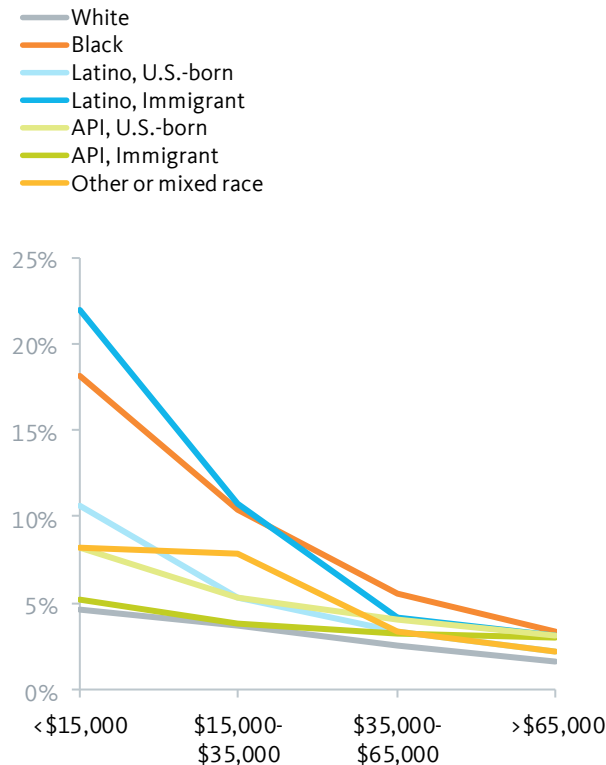
Black and Latino people are more likely to rely on the region's transit system to get to work

Income and race both play a role in determining who uses Los Angeles County's bus and rail systems to get to work. Very low-income African Americans and Latino immigrants are most likely to get to work using public transit, but transit use declines for these groups as incomes increase.

Households of color are much less likely to own cars than Whites. Across the region, 93 percent of White households have at least one car, but among households headed by a person of color, only 89 percent do. African American and Native American households are the most likely to be carless.

Transit use varies by income and race

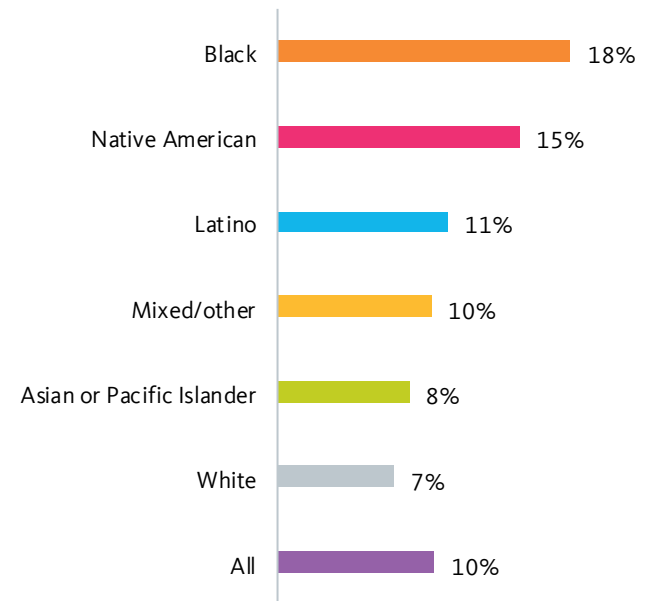
59. Percent Using Public Transit by Annual Earnings and Race/Ethnicity and Nativity, 2014



Source: Integrated Public Use Microdata Series. Universe includes workers ages 16 and older with earnings.
 Note: Data represent a 2010 through 2014 average.

Households of color are less likely to own cars

60. Percent of Households without a Vehicle by Race/Ethnicity, 2014



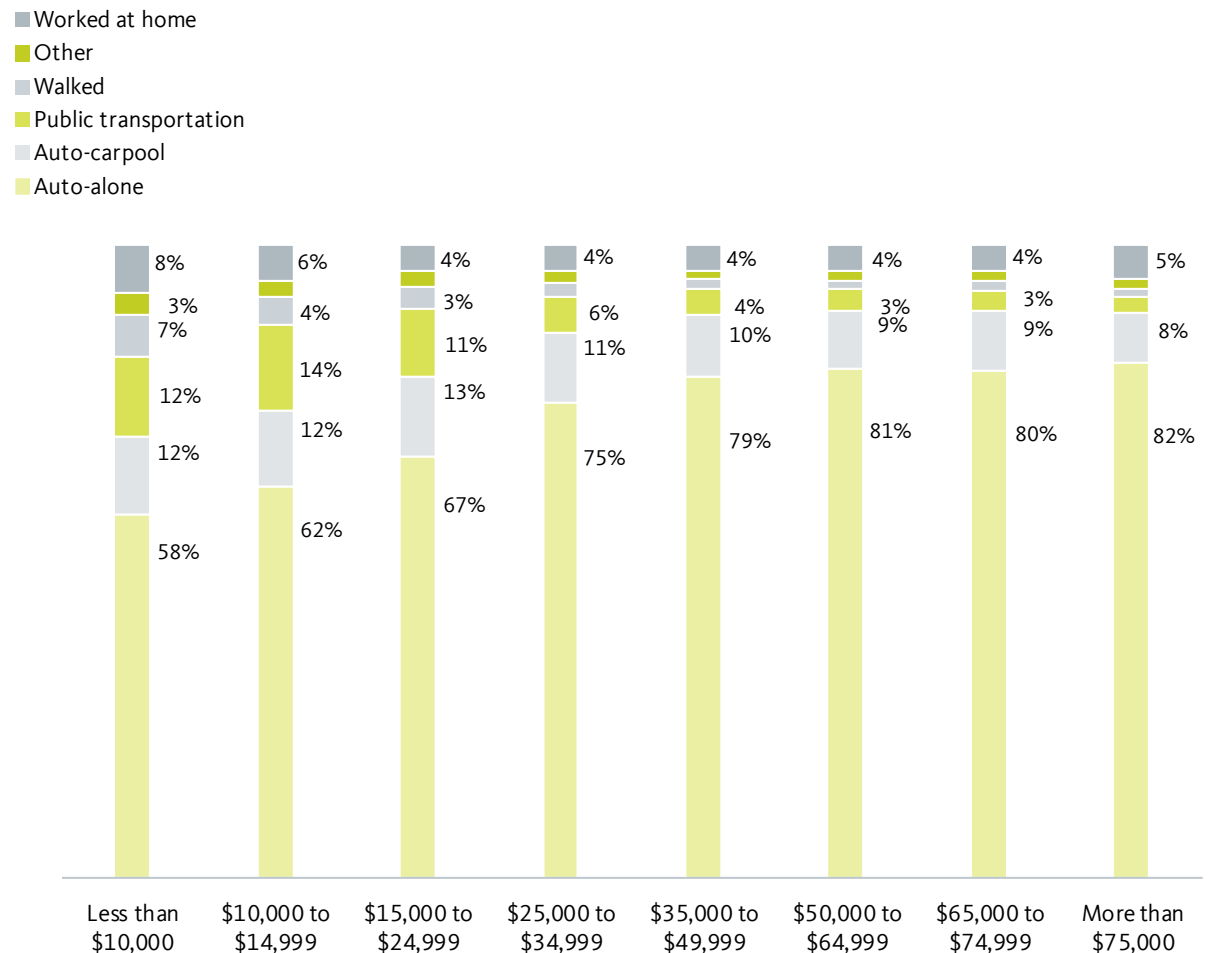
Source: Integrated Public Use Microdata Series. Universe includes all households (no group quarters).
 Note: Data represent a 2010 through 2014 average.

Connectedness

Low-income residents are least likely to drive alone to work

The majority of residents in the region—73 percent—drive alone to work. Single-driver commuting varies by income. Only 58 percent of very low-income workers (earning under \$15,000 per year) drive alone to work, compared with 82 percent of workers who make over \$75,000 a year.

Lower-income residents are less likely to drive alone to work
61. Means of Transportation to Work by Annual Earnings, 2014



Source: U.S. Census Bureau. Universe includes workers ages 16 and older with earnings.
 Note: Data represent a 2010 through 2014 average.

Connectedness

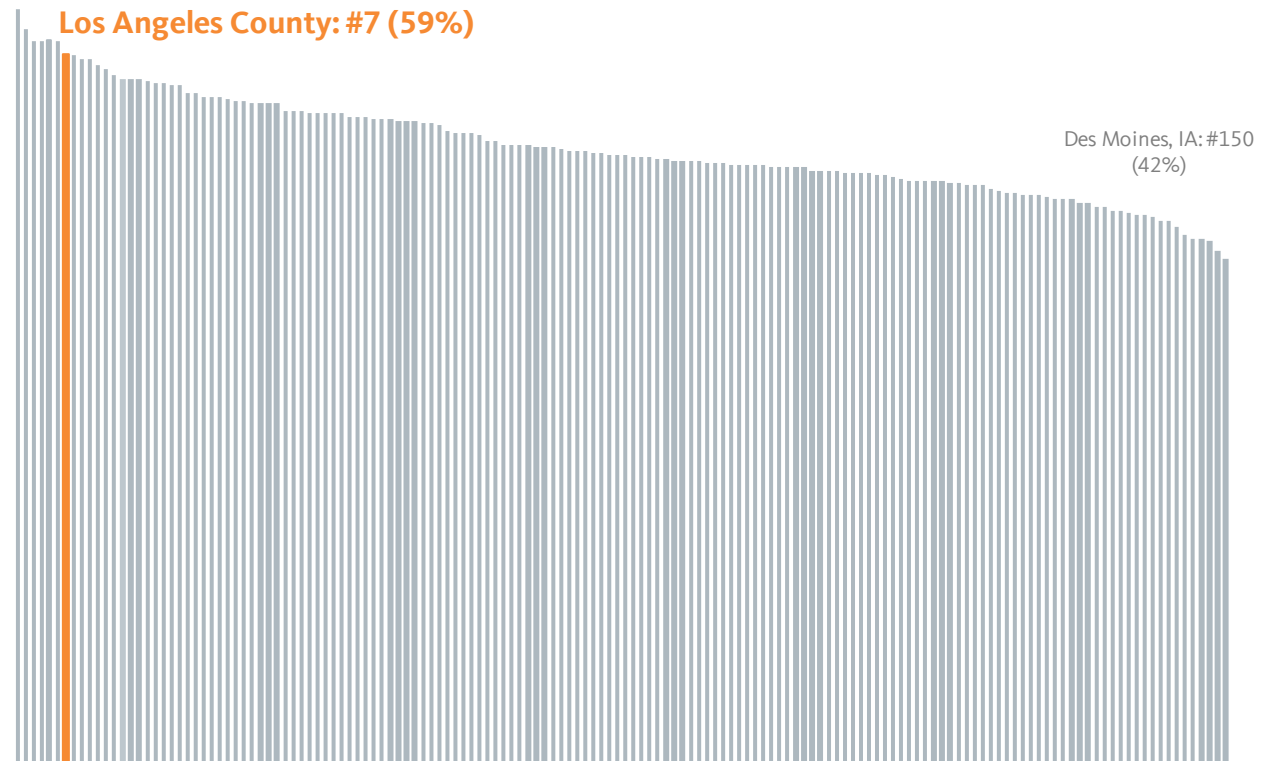
Half of renters in the region are housing burdened

Los Angeles County ranks 7th in renter housing burden among the largest 150 metros. Nearly 6 in 10 (59 percent) of renters are housing burdened, defined as spending more than 30 percent of their household income on housing costs. Compared with other metros in California, Los Angeles County ranks higher than all except for Riverside, where 60 percent of renters are housing burdened. These rates are higher than other high-cost-of-living metro areas in California such as the Bay Area (50 percent) and San Diego (57 percent).

Los Angeles County ranks near the top for rent-burdened households compared with other regions

62. Share of Households that are Rent Burdened, 2014: Largest 150 Metros Ranked

Miami-Fort Lauderdale-Miami Beach,
FL: #1 (63%)



Source: Integrated Public Use Microdata Series. Universe includes renter-occupied households with cash rent (excludes group quarters).
Note: Data represent a 2010 through 2014 average.

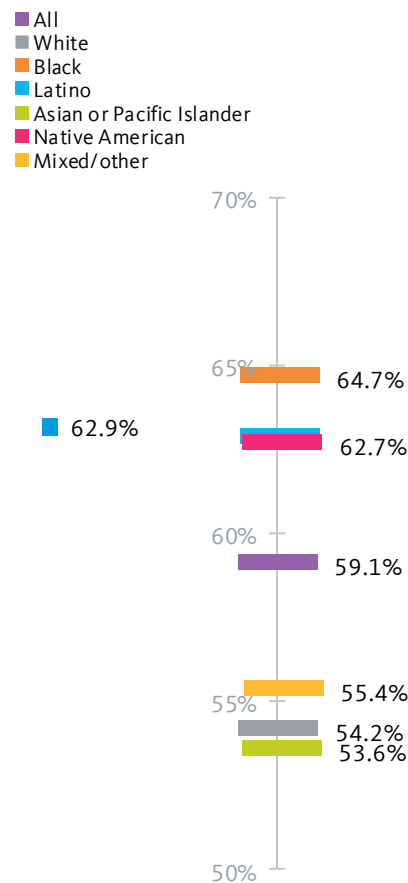
Connectedness

People of color face higher housing burdens

African Americans and Latinos are most likely to spend a large share of their income on housing, whether they rent or own. Asian renters have a similar housing burden to White renters, but Asian homeowners have higher housing burdens than Whites. Native Americans have among the highest levels of housing burden for renters but lowest levels for homeowners.

African Americans and Latinos have the highest renter housing burden

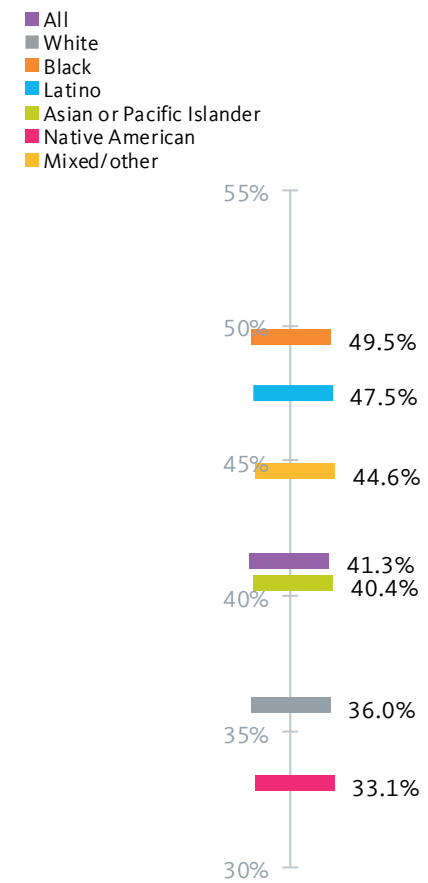
63. Renter Housing Burden by Race/Ethnicity, 2014



Source: Integrated Public Use Microdata Series. Universe includes renter-occupied households with cash rent (excludes group quarters).
 Note: Data represent a 2010 through 2014 average.

Latinos and African Americans have the highest homeowner housing burden

64. Homeowner Housing Burden by Race/Ethnicity, 2014



Source: Integrated Public Use Microdata Series. Universe includes owner-occupied households (excludes group quarters).
 Note: Data represent a 2010 through 2014 average.

Connectedness

Jobs-housing mismatch for low-wage workers

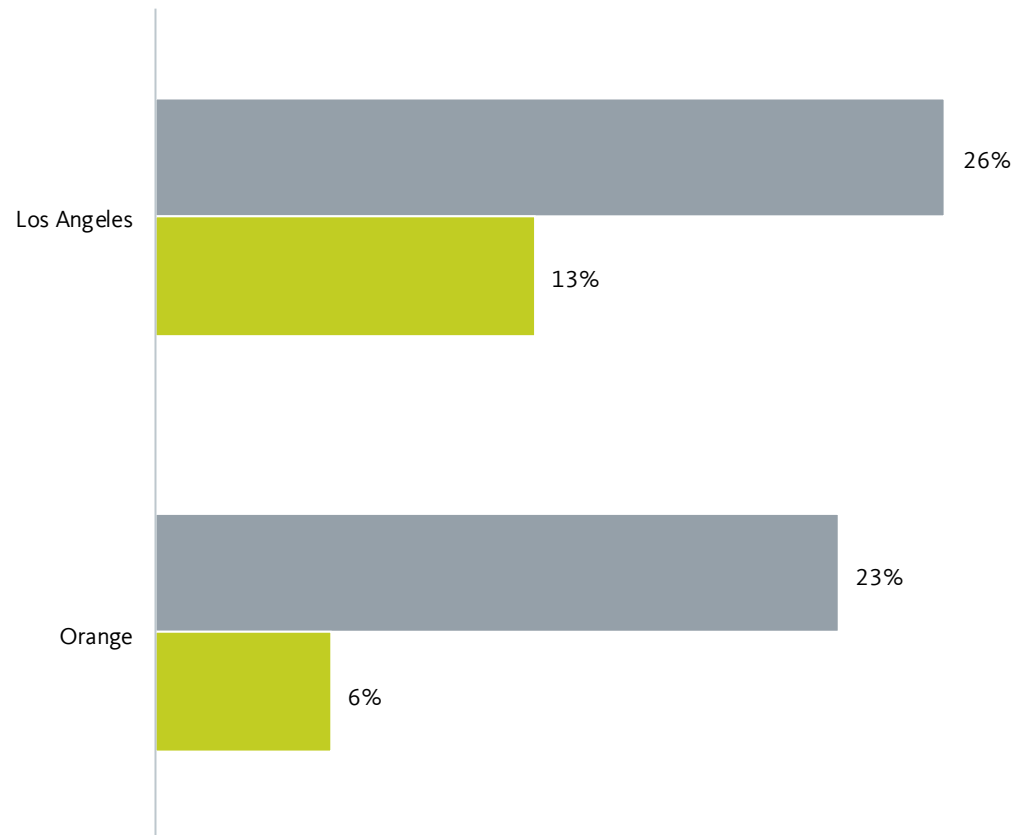
Low-wage workers in the region are not likely to find affordable rental housing. In Los Angeles County, 26 percent of jobs are low-wage (paying \$1,250 per month or less) and only 13 percent of rental units are affordable (defined as having rent of \$749 per month or less, which would be 30 percent or less of two low-wage workers' incomes).

The gap in the share of low-wage jobs and affordable rental housing is even greater in Orange County.

Both Los Angeles and Orange counties have a low-wage jobs - affordable housing gap

65. Low-Wage Jobs and Affordable Rental Housing by County, 2014

■ Share of rental housing units that are affordable
 ■ Share of jobs that are low-wage



Source: U.S. Census Bureau.

Note: Data on the share of affordable rental units represent a 2010 through 2014 average, while data on the share of low-wage jobs are from 2012 and are calculated on a place-of-work basis.

Connectedness

Jobs-housing mismatch for low-wage workers

(continued)

A low-wage jobs to affordable rental housing ratio in a county with a higher than regional average ratio indicates a lower availability of affordable rental housing for low-wage workers in that county relative to the region overall.

While there is a job-housing mismatch for low-wage workers throughout the Los Angeles metro area (which consists of Los Angeles and Orange counties), the challenge of affordable housing for low-wage workers is greater in Orange County than in Los Angeles County.

The job-housing mismatch for low-wage workers is greater in Orange County
66. Low-Wage Jobs, Affordable Rental Housing, and Jobs-Housing Ratios by County

	Jobs (2012)		Housing (2010-2014)			Jobs-Housing Ratios	
	All	Low-wage	All	Rental*	Affordable Rental*	All Jobs: All Housing	Low-wage Jobs: Affordable Rentals
Los Angeles	4,175,002	1,103,589	3,242,391	1,694,352	215,050	1.3	5.1
Orange	1,452,699	331,767	1,002,285	408,888	24,176	1.4	13.7
Los Angeles Metro Area	5,627,701	1,435,356	4,244,676	2,103,240	239,226	1.3	6.0

*Includes only those units paid for in cash rent.

Source: U.S. Census Bureau.

Note: Data on the number of affordable rental units represent a 2010 through 2014 average, while data on the number of low-wage jobs are from 2012 and are calculated on a place-of-work basis.

Neighborhoods



Neighborhoods

Highlights

Are the residents of Southeast Los Angeles County, Watts and Willowbrook, and SLATE-Z connected to the region's opportunities?

- In South Los Angeles Transit Empowerment Zone (SLATE-Z), 41 percent of the population lives below the poverty level which is more than double the poverty rate of Los Angeles County overall.
- The average child opportunity index for the Watts and Willowbrook community is considerably lower (-0.86) than that for the county as a whole (-0.12).
- A higher percentage of households in the Southeast cities of Los Angeles County are linguistically-isolated (26 percent) than the county overall (14 percent).

Unemployment rate in Watts and Willowbrook:

16%

Percent of households in SLATE-Z without access to a vehicle:

25%

Percent of linguistically-isolated households in Southeast L.A. County:

26%

Neighborhoods

High unemployment in urban communities of color and in the outer suburbs

Knowing where high-unemployment communities are located in the region can help the region’s leaders develop targeted solutions.

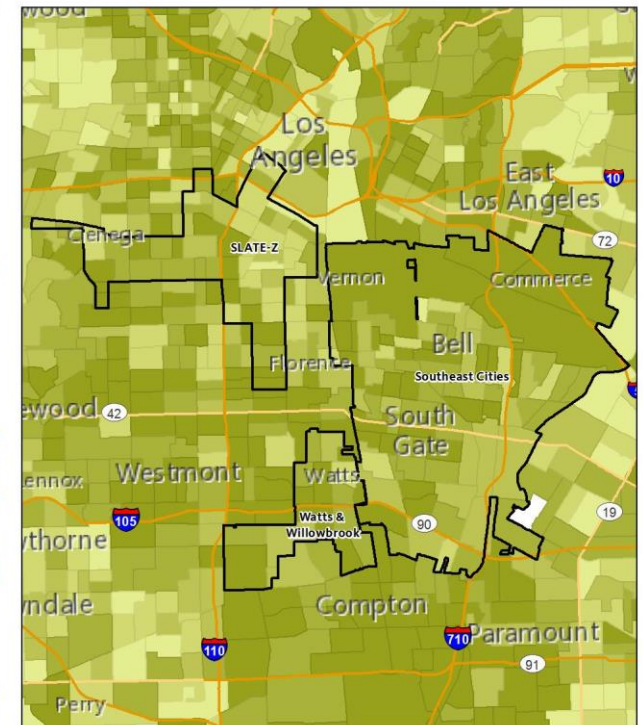
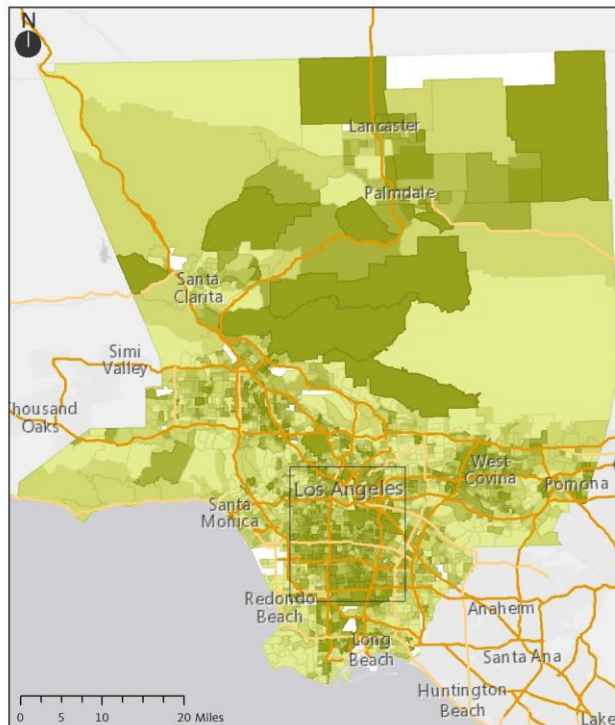
As the maps to the right illustrate, concentrations of unemployment exist in pockets throughout the region, but are more prevalent in South Los Angeles, the cities of Compton and Paramount and the community of Westmont, parts of the San Fernando and San Gabriel Valleys, and in the cities of Lancaster and Palmdale to the north.

The unemployment rate of Los Angeles County is 11 percent. In the community of Watts and Willowbrook, the unemployment rate is 16 percent. The unemployment rates of the Southeast cities and SLATE-Z area are 14 percent and 13 percent, respectively.

Clusters of unemployment can be found throughout the region—in South Los Angeles and suburban communities

67. Unemployment Rate by Census Tract, 2014

- Less than 7%
- 7% to 10%
- 10% to 12%
- 12% to 15%
- 15% or more



Source: U.S. Census Bureau; TomTom, ESRI, HERE, DeLorme, MaymyIndia, © OpenStreetMap contributors, and the GIS user community. Universe includes the civilian noninstitutional population ages 16 and older. Note: Data represent a 2010 through 2014 average. Areas in white have missing data.

Neighborhoods

Linguistic isolation is a challenge

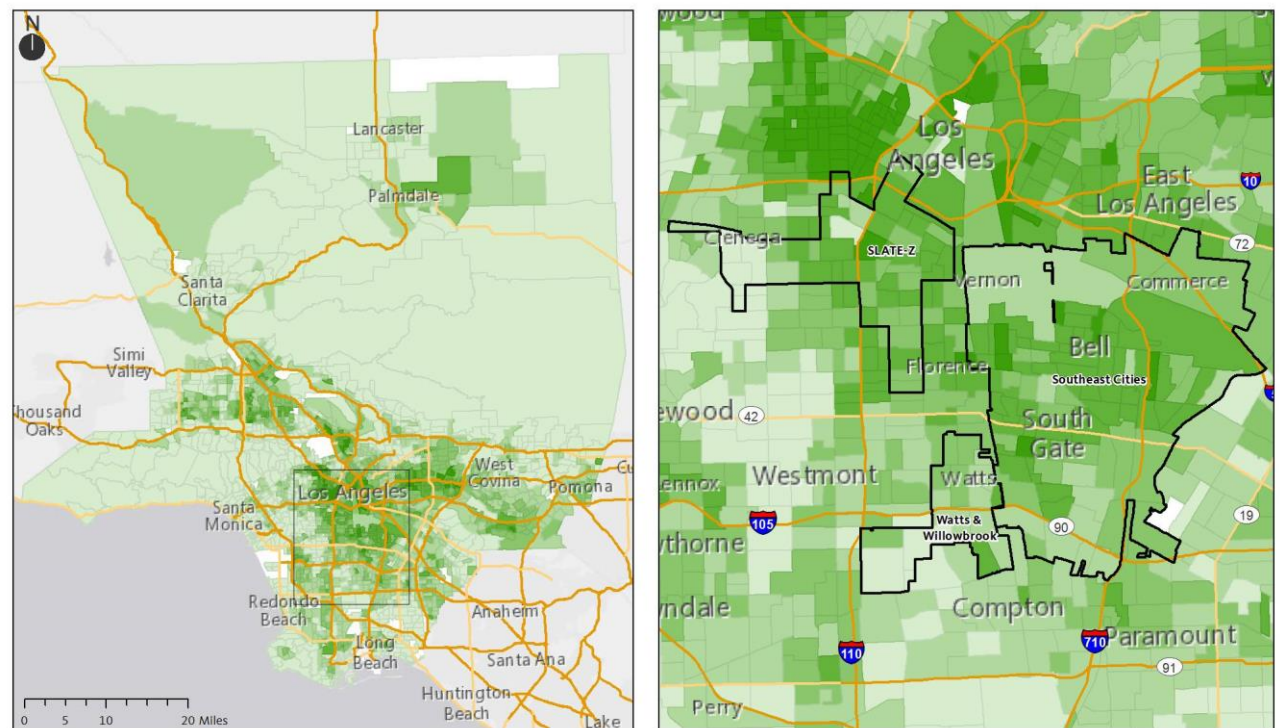
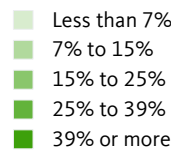
Los Angeles has always been a region of immigrants and high levels of linguistic isolation—defined as the percentage of households in which no member age 14 or older speaks only English or speaks English at least “very well.”

Not surprisingly, areas of linguistic isolation tend to be concentrated in neighborhoods with more immigrants—and likely more recently-arriving immigrants. Such areas include Koreatown, parts of South Los Angeles, parts of the San Fernando and San Gabriel Valleys, the city of Palmdale to the north, and parts of Long Beach to the south.

In Los Angeles County, 14 percent of households are linguistically isolated. In the Southeast cities, 26 percent of households are linguistically isolated; in SLATE-Z, that figure is 23 percent; and in Watts and Willowbrook, it is 15 percent.

Linguistic isolation is a challenge in the urban core of the region and in some suburbs

68. Linguistic Isolation by Census Tract, 2014



Source: U.S. Census Bureau; TomTom, ESRI, HERE, DeLorme, MaymyIndia, © OpenStreetMap contributors, and the GIS user community. Universe includes all households. Note: Data represent a 2010 through 2014 average. Areas in white have missing data.

Neighborhoods

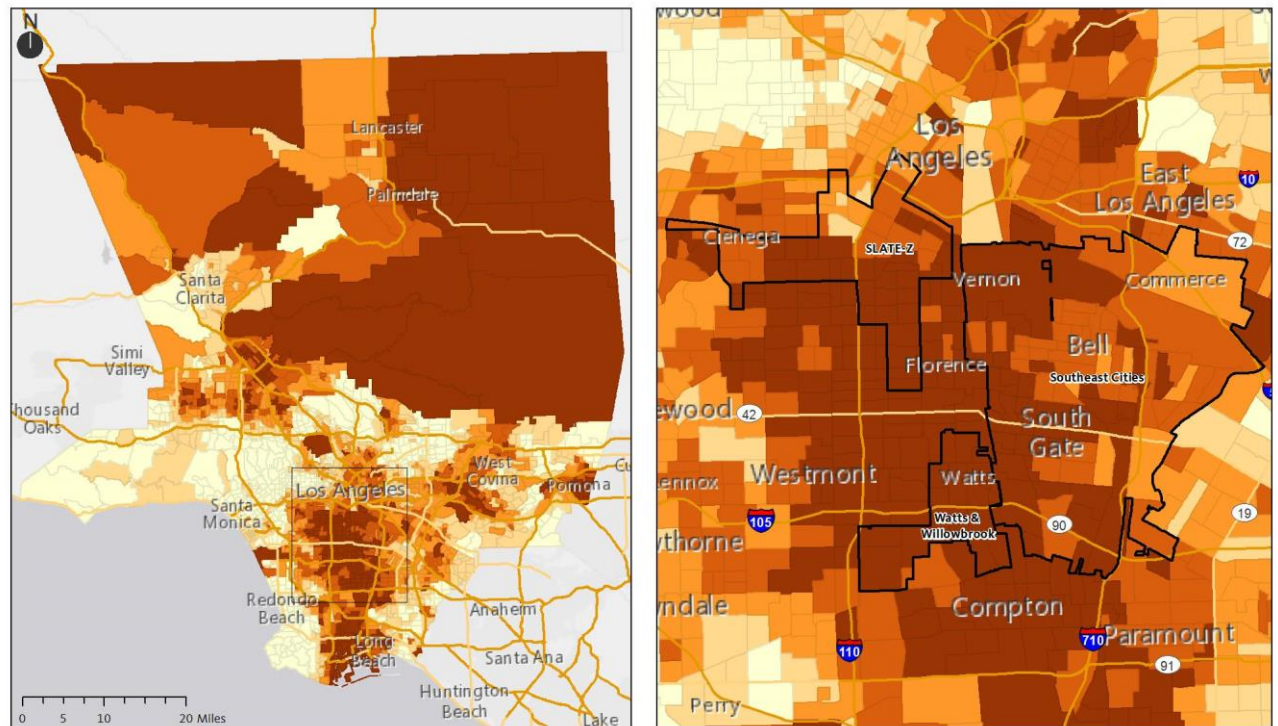
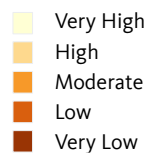
Child opportunities are limited

The Child Opportunity Index measures relative opportunity across neighborhoods in the region based on indicators from three domains: educational opportunity, health and environmental opportunity, and social and economic opportunity. By this measure, child opportunities are limited in much of South and Southeast Los Angeles, as well as some suburban communities such as the cities of El Monte and Pomona to the east, the Los Angeles neighborhood of Pacoima to the north, and Los Angeles neighborhoods near the ports along with parts of the City of Long Beach to the south.

In Watts and Willowbrook, the average child opportunity index (weighted by the number of minor children under age 18) is “very low” (-0.86), which is considerably lower than average for Los Angeles County overall, which is “moderate” (-0.12). The average child opportunity index for SLATE-Z is also “very low” (-.50), while it is “low” for the Southeast cities (-.40).

Child access to opportunity is limited in neighborhoods throughout South and Southeast Los Angeles

69. Child Opportunity Index by Census Tract



Sources: The diversitydatakids.org and the Kirwan Institute for the Study of Race and Ethnicity; TomTom, ESRI, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community. Note: The Child Opportunity Index is a composite of indicators across three domains: educational opportunity, health and environmental opportunity, and social and economic opportunity. The vintage of the underlying indicator data varies, ranging from years 2007 through 2013. The map was created by ranking the census tract level Overall Child Opportunity Index Score into quintiles for the region.

Neighborhoods

Concentrated poverty is a challenge

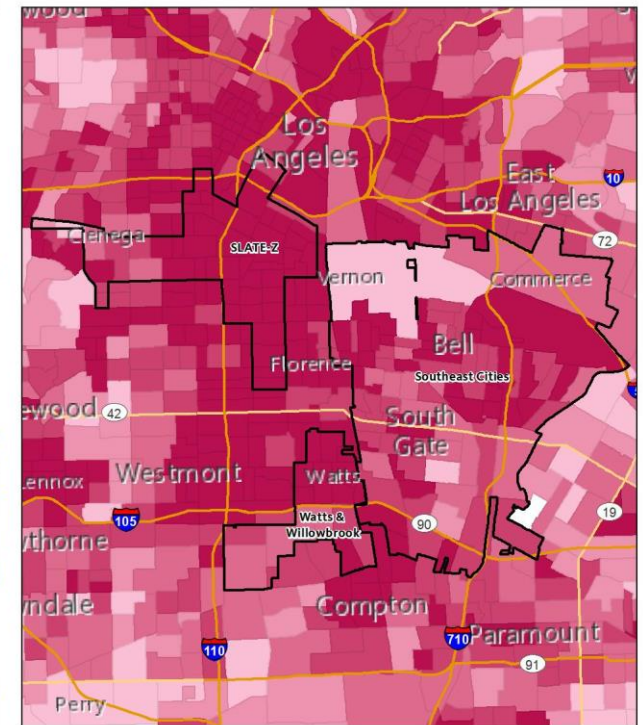
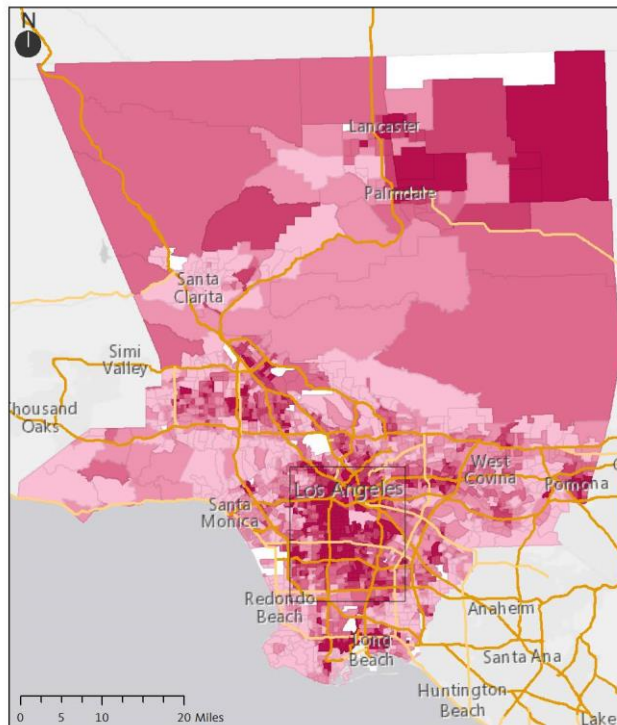
The percent of the population in Los Angeles County that lives below the poverty level is 18 percent. As the maps illustrate, concentrated poverty is a challenge for neighborhoods in many parts of the region, including much of South and Southeast Los Angeles, parts of the San Fernando and San Gabriel Valleys, and in some outer suburbs, such as the cities of Lancaster and Palmdale to the north and Pomona to the east, as well as in Los Angeles neighborhoods near the ports and parts of the City of Long Beach to the south.

In SLATE-Z, the average poverty rate is 41 percent which is more than double that of Los Angeles County. In Watts and Willowbrook, 36 percent of the population lives below the poverty level; in the Southeast cities, 26 percent live below the poverty level.

Areas of high poverty are found throughout South and Southeast Los Angeles and in some suburbs

70. Percent Population Below the Poverty Level by Census Tract, 2014

- Less than 7%
- 7% to 13%
- 13% to 20%
- 20% to 29%
- 29% or more



Source: U.S. Census Bureau; TomTom, ESRI, HERE, DeLorme, MaymyIndia, © OpenStreetMap contributors, and the GIS user community. Universe includes all persons not in group quarters. Note: Data represent a 2010 through 2014 average. Areas in white have missing data.

Neighborhoods Car access is a problem

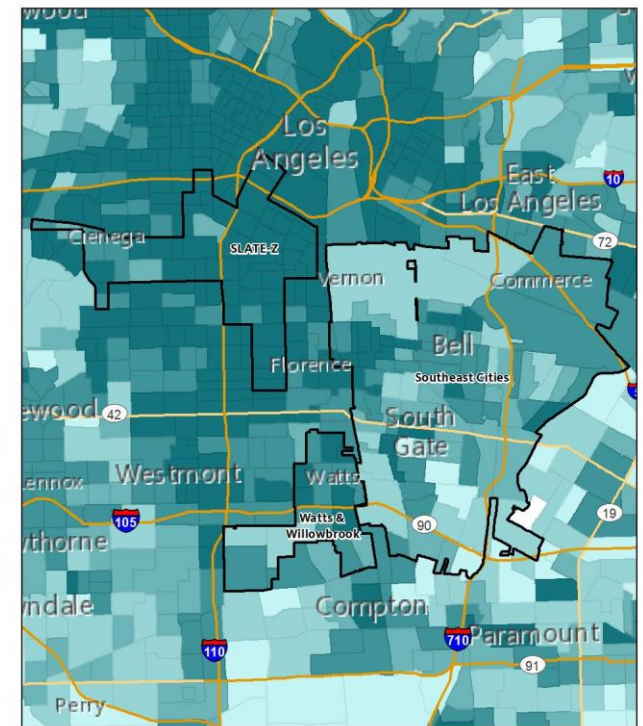
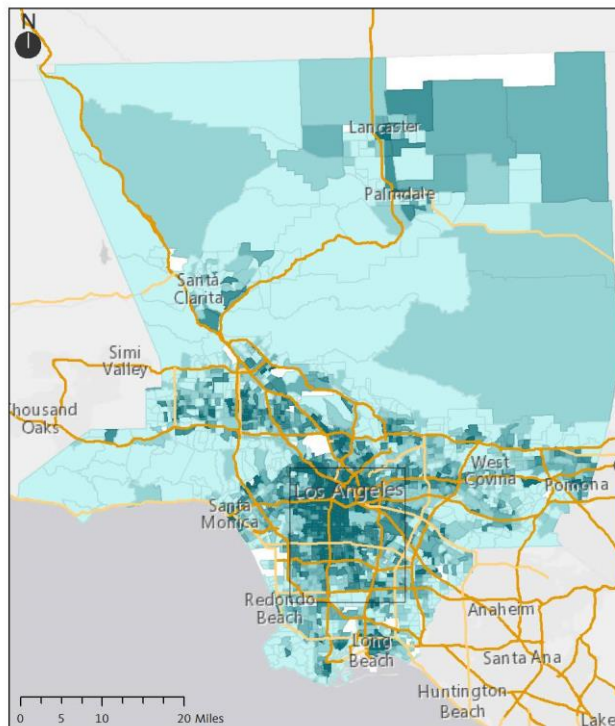
In a region where people still rely heavily on driving, the vast majority of households (90 percent) have access to at least one vehicle. But access to a vehicle remains a challenge for households in many areas of Los Angeles County, with a particular concentration of carless households in parts of South Los Angeles and Koreatown.

In SLATE-Z, 25 percent of households do not have access to a vehicle. In Watts and Willowbrook, 16 percent lack access; and in the Southeast cities, 11 percent of households lack access.

Households without a vehicle are most concentrated in parts of South Los Angeles and Koreatown

71. Percent of Households Without a Vehicle by Census Tract, 2014

- Less than 3%
- 3% to 6%
- 6% to 9%
- 9% to 16%
- 16% or more



Source: U.S. Census Bureau; TomTom, ESRI, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community. Universe includes all households (no group quarters). Note: Data represent a 2010 through 2014 average. Areas in white have missing data.

Neighborhoods

Long commute times for residents

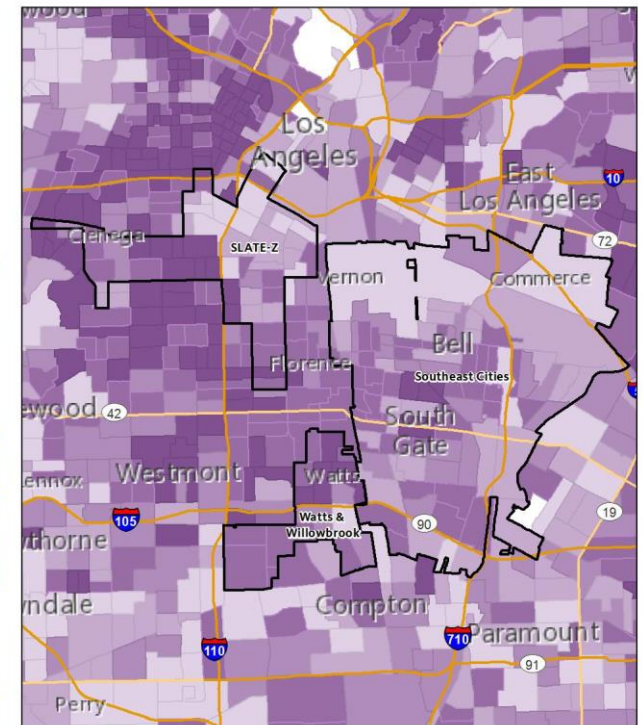
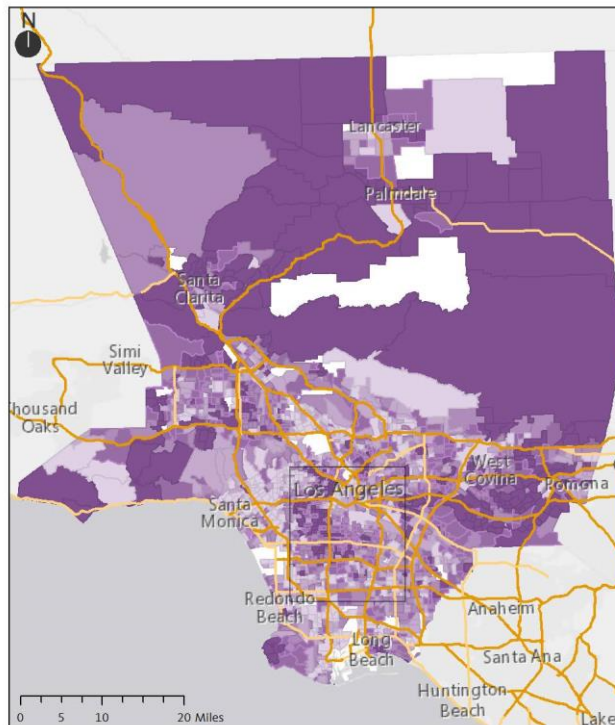
Workers throughout Los Angeles County have long commute times, with an average travel time of 30 minutes for workers in the county compared with 26 minutes for the United States overall. Workers with the longest commute times tend to live away from the urban core.

Workers who live in Watts and Willowbrook travel on average 32 minutes to work. In SLATE-Z, workers travel 30 minutes; in the Southeast cities, workers travel 29 minutes to work on average.

Workers throughout the region have long commute times

72. Average Travel Time to Work by Census Tract, 2014

- Less than 26 minutes
- 26 to 28 minutes
- 28 to 30 minutes
- 30 to 33 minutes
- 33 minutes or more



Source: U.S. Census Bureau; TomTom, ESRI, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community. Universe includes all persons ages 16 or older who work outside of home. Note: Data represent a 2010 through 2014 average. Areas in white have missing data.

Neighborhoods

Affordable housing needs

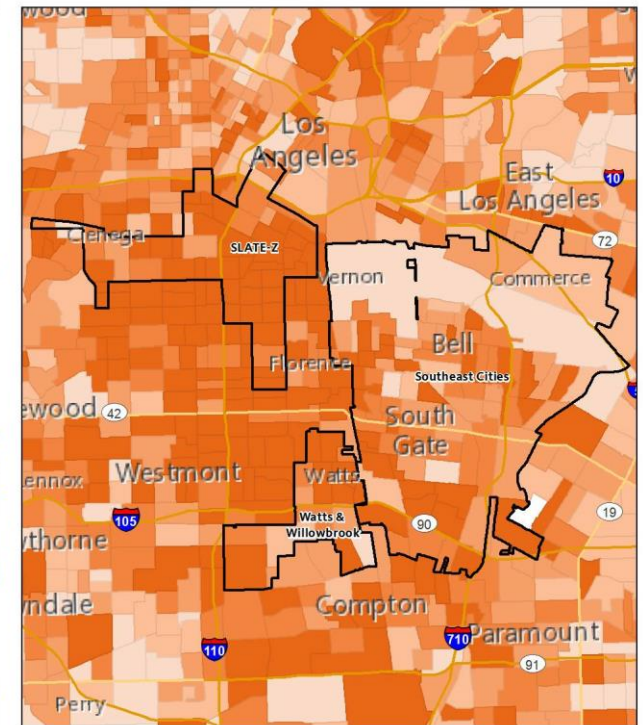
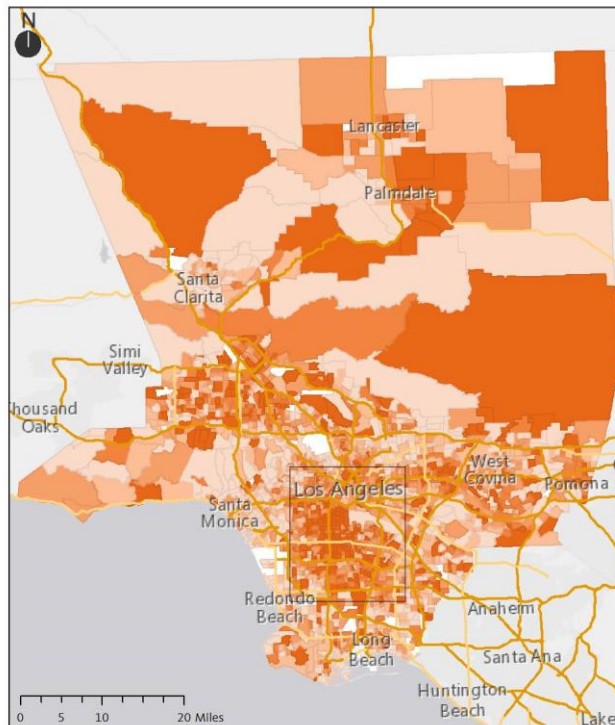
Los Angeles County residents face a housing crisis. Rent burden is one measure of the housing crisis that is defined as spending more than 30 percent of household income on rent. While neighborhoods with rates of rent burden of 70 percent or higher can be found throughout the county, there are particular concentrations in South Los Angeles, the San Fernando and San Gabriel Valleys, and even in the far-flung outer suburban cities of Lancaster, Palmdale, and Pomona.

In Los Angeles County, 59 percent of renter-occupied households are rent-burdened. In SLATE-Z, the percent rent-burdened is 73 percent. The percent rent-burdened in the communities of Watts and Willowbrook and the Southeast cities is 68 percent and 66 percent, respectively.

Rent is unaffordable for most renters in the region

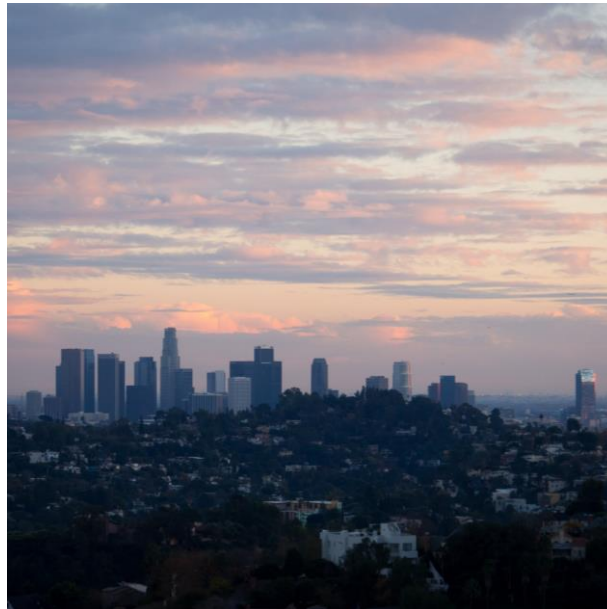
73. Rent Burden by Census Tract, 2014

- Less than 50%
- 50% to 58%
- 58% to 64%
- 64% to 70%
- 70% or more



Source: U.S. Census Bureau; TomTom, ESRI, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community. Universe includes renter-occupied households with cash rent. Note: Data represent a 2010 through 2014 average. Areas in white have missing data.

Implications



Economic benefits of inclusion

A potential \$379 billion per year GDP boost from racial equity

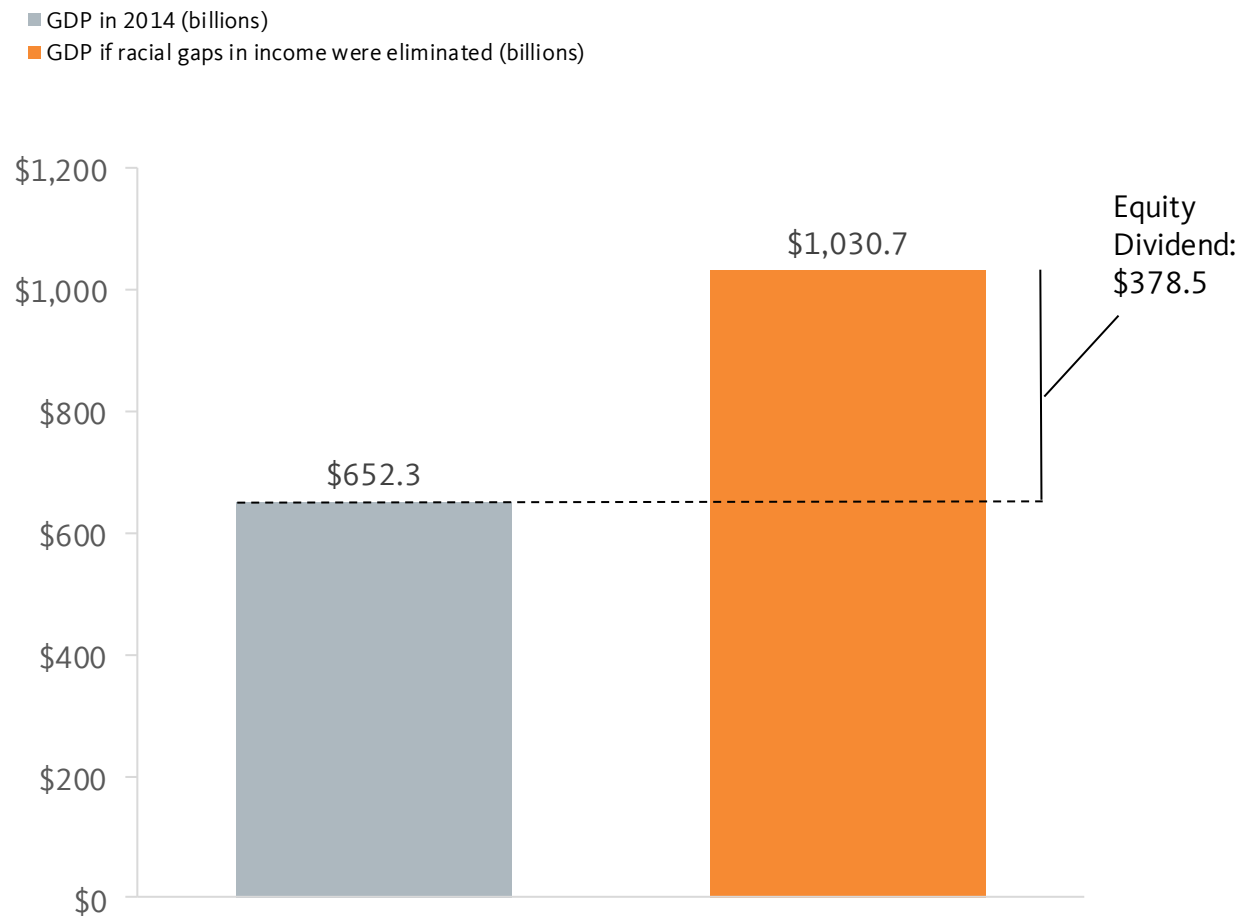
Los Angeles stands to gain a great deal from addressing racial inequities. The county’s economy could have been nearly \$380 billion stronger in 2014 if its racial gaps in income had been closed: a 58 percent increase. The dollar value of this equity dividend is larger than that of any metropolitan region in the country except for New York, and ranks fourth as a percentage of GDP.

Using data on income by race, we calculated how much higher total economic output would have been in 2014 if all racial groups who currently earn less than Whites had earned similar average incomes as their White counterparts, controlling for age.

We also examined how much of the region’s racial income gap was due to differences in wages and how much was due to differences in employment (measured by hours worked). Nationally, 36 percent of the racial income gap is due to differences in employment. In Los Angeles, that share is only 24 percent, with the remaining 76 percent due to differences in hourly wages.

Los Angeles’ GDP would have been \$379 billion higher if there were no racial gaps in income

74. Actual GDP and Estimated GDP without Racial Gaps in Income, 2014 (in 2014 dollars)



Sources: Bureau of Economic Analysis; Integrated Public Use Microdata Series.

Note: The “equity dividend” is calculated using data from IPUMS for 2010 through 2014 and is then applied to estimated GDP in 2014. See the “Data and methods” section for details.

Implications

Building a more equitable Los Angeles

Los Angeles' diversity is a major potential asset in the global economy, but inequities and disparities are holding the region back. Los Angeles is the seventh most unequal among the largest 150 metro regions. A widening gap in wages is partly to blame. Since 1979, the highest-paid workers have seen their wages increase by 13 percent while wages for the lowest-paid workers have declined by 25 percent.

In general, unemployment decreases and wages increase with higher educational attainment, yet racial and gender gaps persist in the labor market. At all education levels, African Americans are most likely to be unemployed and all people of color earn lower wages than Whites.

To build a more equitable and sustainable regional economy, Los Angeles must take steps to better connect its communities of color to quality education, high-opportunity jobs, and affordable housing. To do that, PolicyLink and PERE suggest that the region:

Choose strategies that promote equity and growth simultaneously.

Equity and growth have traditionally been pursued separately but both are needed to secure Los Angeles' future. The winning strategies are those that maximize quality job creation while promoting health and economic opportunity for low-income populations. This will require equity advocates to take growth more seriously and growth proponents to adopt equity at the forefront, not as an after-thought.

Target programs and investments to the people and places most left behind.

Focusing resources and investments on the communities that have been left behind will produce the greatest returns. This includes reducing environmental burdens and increasing services and programs in low-income communities. Improving outcomes for the most vulnerable populations—such as residents in Southeast Los Angeles County, Watts and Willowbrook, and the SLATE-Z area, will help improve outcomes for the county as a whole.

Leverage public investment for equitable outcomes.

In November 2016, Los Angeles voters approved tax measures to expand the build out of the region's transportation infrastructure, increase green space, and address homelessness. These and other public investments provide immediate opportunities to ensure that both the processes and outcomes are equitable. This means policies and practices in the implementation of these measures must forge participation by those communities most disconnected from the region's opportunities.

Make economic and social integration a common agenda.

Closing the economic gap requires an understanding of the particular needs of African-American youth, Latino native-born residents, and Asian immigrants. Yet solutions should be pursued through multi-racial efforts. Promoting immigrant integration and the integration of the re-entry population should be seen as part of a common agenda for a more equitable Los Angeles.

Implications

Building a more equitable Los Angeles

Use data to inform dialogue and deliberation.

Data can help stakeholders come together to gain a shared understanding of the equity challenges, to develop solutions and joint action, and to track progress towards equity and growth over time. Such collaborations will not be without conflict—but such tension can be creative and generative as all Los Angelenos find new common ground. In an era in which facts are often suspect, grounding strategies in empirical realities can build new bonds across unusual allies.

Assess equity impacts at every stage of the policy process.

From when the policy process begins through its implementation and evaluation, ask who will benefit, who will pay, and who will decide and adjust decisions and policies as needed to ensure equitable impacts. For example, when deciding infrastructure projects and priorities, policymakers should examine how it will contribute to the sustainability and capabilities of its diverse populations.

Ensure meaningful community participation, voice, and leadership.

Los Angeles' diverse populations, particularly immigrants and low-income people, are not only left out of opportunity but are frequently left out of the civic conversations and decision-making processes. Intentional strategies are needed to build the authentic avenues for increased participation in all aspects of the political process—from the basic act of voting to serving on board and commissions to being elected as political leaders.

Restore civic life and instill a spirit of stewardship.

Part of what sent Los Angeles adrift has been a sense of social disconnection—that the problems are in other neighborhoods, that the impact of inequality is felt just by some, that the task is to protect the fate of just one group, neighborhood, or sector. Spreading the message that we are in it together is important—and philanthropy can play a key role in convening actors to develop multi-sectoral commitments.

Stick with equity strategies for the long haul.

There is often a sense that one single effort—improve education, raise the minimum wage, or facilitate small business start-ups—will be the “silver bullet” that finally transforms Los Angeles from a landscape of inequality to a promised land of opportunity. But the challenges we face did not emerge overnight and they are not just driven by one factor; leaders must be willing to stick with comprehensive strategies over the long haul and patient investments by philanthropy are key.

Pioneer model equity strategies for the nation.

Just as Los Angeles has led the nation in demographic transformation and income inequality so can it lead the nation in its strategies and solutions for a more equitable future. Doing so will require mechanisms for documenting solutions, evaluating progress, and for broadcasting lessons learned and successes that can be scaled to change the course of the nation.

Data and methods

90	Data source summary and regional geography	101	Assembling a complete dataset on employment and wages by industry
91	Selected terms and general notes	102	Growth in jobs and earnings by industry wage level, 1990 to 2012
91	Broad racial/ethnic origin	103	Analysis of occupations by opportunity level
91	Nativity	106	Health data and analysis
91	Detailed racial/ethnic ancestry	107	Measures of diversity and segregation
92	Neighborhood definitions	108	Estimates of GDP gains without racial gaps in income
92	Other selected terms		
93	General notes on analyses		
94	Summary measures from IPUMS microdata		
94	About IPUMS microdata		
94	A note on sample size		
94	Geography of IPUMS microdata		
95	Adjustments made to census summary data on race/ethnicity by age		
96	Adjustments made to demographic projections		
98	Estimates and adjustments made to BEA data on GDP, GRP, and GSP		
98	Adjustments at the state and national levels		
98	County and metropolitan area estimates		
100	Middle-class analysis		

Data and methods

Data source summary and regional geography

Unless otherwise noted, all of the data and analyses presented in this equity profile are the product of PolicyLink and USC Program for Environmental and Regional Equity (PERE), and reflect Los Angeles County. The specific data sources are listed in the table shown here.

While much of the data and analysis presented in this equity profile are fairly intuitive, in the following pages we describe some of the estimation techniques and adjustments made in creating the underlying database, and provide more detail on terms and methodology used. Finally, the reader should bear in mind that while only a single region is profiled here, many of the analytical choices in generating the underlying data and analyses were made with an eye toward replicating the analyses in other regions and the ability to update them over time. Thus, while more regionally specific data may be available for some indicators, the data in this profile draws from our regional equity indicators database that provides data that are comparable and replicable over time.

Source	Dataset
Integrated Public Use Microdata Series (IPUMS)	1980 5% State Sample
	1990 5% Sample
	2000 5% Sample
	2010 American Community Survey, 5-year microdata sample
	2014 American Community Survey, 5-year microdata sample
U.S. Census Bureau	1980 Summary Tape File 1 (STF1)
	1980 Summary Tape File 2 (STF2)
	1980 Summary Tape File 3 (STF3)
	1990 Summary Tape File 2A (STF2A)
	1990 Modified Age/Race, Sex and Hispanic Origin File (MARS)
	1990 Summary Tape File 4 (STF4)
	2000 Summary File 1 (SF1)
	2010 Summary File 1 (SF1)
	2014 ACS 5-year Summary File (2012 5-year ACS)
	2012 Local Employment Dynamics, LODES 7
	2014 National Population Projections
Geolytics	1980 Long Form in 2010 Boundaries
	1990 Long Form in 2010 Boundaries
	2000 Long Form in 2010 Boundaries
Woods & Poole Economics, Inc.	2016 Complete Economic and Demographic Data Source
U.S. Bureau of Economic Analysis	Gross Domestic Product by State
	Gross Domestic Product by Metropolitan Area
	Local Area Personal Income Accounts, CA30: Regional Economic Profile
U.S. Bureau of Labor Statistics	Quarterly Census of Employment and Wages
	Local Area Unemployment Statistics
	Occupational Employment Statistics
Centers for Disease Control and Prevention	Behavioral Risk Factor Surveillance System
Georgetown University Center on Education and the Workforce	Updated projections of education requirements of jobs in 2020, originally appearing in: Recovery: Job Growth And Education Requirements Through 2020; State Report
The diversitydatakids.org project and the Kirwin Institute for the Study of Race and Ethnicity	Child Opportunity Index Maps

Data and methods

Selected terms and general notes

Broad racial/ethnic origin

In all of the analyses presented, all categorization of people by race/ethnicity and nativity is based on individual responses to various census surveys. All people included in our analysis were first assigned to one of six mutually exclusive racial/ethnic categories, depending on their response to two separate questions on race and Hispanic origin as follows:

- “White” and “non-Hispanic White” are used to refer to all people who identify as White alone and do not identify as being of Hispanic origin.
- “Black” and “African American” are used to refer to all people who identify as Black or African American alone and do not identify as being of Hispanic origin.
- “Latino” refers to all people who identify as being of Hispanic origin, regardless of racial identification.
- “Asian American and Pacific Islander,” “Asian or Pacific Islander,” “Asian,” and “API” are used to refer to all people who identify as Asian American or Pacific Islander alone and do not identify as being of Hispanic origin.

- “Native American” and “Native American and Alaska Native” are used to refer to all people who identify as Native American or Alaskan Native alone and do not identify as being of Hispanic origin.
- “Mixed/other” and “other or mixed race” are used to refer to all people who identify with a single racial category not included above, or identify with multiple racial categories, and do not identify as being of Hispanic origin.
- “People of color” or “POC” is used to refer to all people who do not identify as non-Hispanic White.

Nativity

The term “U.S.-born” refers to all people who identify as being born in the United States (including U.S. territories and outlying areas), or born abroad to American parents. The term “immigrant” refers to all people who identify as being born abroad, outside of the United States, to non-American parents.

Detailed racial/ethnic ancestry

Given the diversity of ethnic origin and large presence of immigrants among the Latino and Asian populations, we sometimes present data for more detailed racial/ethnic categories within these groups. In order to maintain consistency with the broad racial/ethnic categories, and to enable the examination of second-and-higher generation immigrants, these more detailed categories (referred to as “ancestry”) are drawn from the first response to the census question on ancestry, recorded in the IPUMS variable “ANCESTR1.” For example, while country-of-origin information could have been used to identify Filipinos among the Asian population or Salvadorans among the Latino population, it could only do so for immigrants, leaving only the broad “Asian” and “Latino” racial/ethnic categories for the U.S.-born population. While this methodological choice makes little difference in the numbers of immigrants by origin we report—i.e., the vast majority of immigrants from El Salvador mark “Salvadoran” for their ancestry—it is an important point of clarification.

Data and methods

Selected terms and general notes

(continued)

Neighborhood definitions

In the “neighborhoods” section of this profile beginning on page 76, we provide a series of maps that show key indicators of opportunity across neighborhoods of Los Angeles County, highlighting the Weingart Foundation’s targeted geographic areas of focus. These include: the the South Los Angeles Transit Empowerment Zone (SLATE-Z), which is a federal Promise Zone that includes parts of Vernon-Central, South Park, Florence, Exposition Park, Vermont Square, Leimert Park, and the Baldwin Hills/Crenshaw neighborhood; the Watts and Willowbrook area, which includes the Watts neighborhood of the city of Los Angeles and the unincorporated area of Los Angeles County known as Willowbrook, which is also a census-designated place; and the Southeast Los Angeles County cities area, which includes the cities of Bell, Bell Gardens, Commerce, Cudahy, Huntington Park, Lynwood, Maywood, South Gate, Vernon, and Walnut Park. The geographic boundaries for each of these three areas is depicted in the outlines shown in the maps, and averaged data for

each area reported in text accompanying the maps is based on selecting all census tracts that are contained, or mostly contained, within each area’s boundaries, and taking a weighted average across those tracts using the universe of each variable as the weight.

Other selected terms

Below we provide some definitions and clarification around some of the terms used in the equity profile:

- The terms “region,” “metropolitan area,” “metro area,” and “metro” are used interchangeably to refer to the geographic areas defined as Metropolitan Statistical Areas under the OMB’s December 2003 definitions.
- The term “neighborhood” is used at various points throughout the equity profile. While in the introductory portion of the profile this term is meant to be interpreted in the colloquial sense, in relation to any data analysis it refers to census tracts.
- The term “communities of color” generally refers to distinct groups defined by race/ethnicity among people of color.

- The term “full-time” workers refers to all persons in the IPUMS microdata who reported working at least 45 or 50 weeks (depending on the year of the data) and usually worked at least 35 hours per week during the year prior to the survey. A change in the “weeks worked” question in the 2008 ACS, as compared with prior years of the ACS and the long form of the decennial census, caused a dramatic rise in the share of respondents indicating that they worked at least 50 weeks during the year prior to the survey. To make our data on full-time workers more comparable over time, we applied a slightly different definition in 2008 and later than in earlier years: in 2008 and later, the “weeks worked” cutoff is at least 50 weeks while in 2007 and earlier it is 45 weeks. The 45-week cutoff was found to produce a national trend in the incidence of full-time work over the 2005-2010 period that was most consistent with that found using data from the March Supplement of the Current Population Survey, which did not experience a change to the relevant survey questions. For more information, see:

Data and methods

Selected terms and general notes

(continued)

https://www.census.gov/content/dam/Census/library/working-papers/2012/demo/Gottschalck_2012FCSM_VII-B.pdf.

General notes on analyses

Below we provide some general notes about the analysis conducted:

- At several points in the profile we present rankings comparing the profiled region to the “largest 150 metros” or “largest 150 regions,” and refer in the text to how the profiled region compares with these metros. In all such instances, we are referring to the largest 150 metropolitan statistical areas in terms of 2010 population, based on the OMB’s December 2003 definitions, but substituting Los Angeles County in for the Los Angeles metro area (which includes both Los Angeles and Orange Counties).
- In regard to monetary measures (income, earnings, wages, etc.) the term “real” indicates the data has been adjusted for inflation. All inflation adjustments are based on the Consumer Price Index for all Urban Consumers (CPI-U) from the U.S. Bureau of Labor Statistics, available at:

<https://www.bls.gov/cpi/cpid1612.pdf> (see table 24).

- Some may wonder why the graph on page 36 indicates the years 1979, 1989, and 1999 rather than the actual survey years from which the information is drawn (1980, 1990, and 2000, respectively). This is because income information in the decennial census for those years is reported for the year prior to the survey. While seemingly inconsistent, the actual survey years are indicated in the graphs on page 38 depicting rates of poverty and working poverty, as these measures are partly based on family composition and work efforts at the time of the survey, in addition to income from the year prior to the survey.

Data and methods

Summary measures from IPUMS microdata

About IPUMS microdata

Although a variety of data sources were used, much of our analysis is based on a unique dataset created using microdata samples (i.e., “individual-level” data) from the Integrated Public Use Microdata Series (IPUMS), for four points in time: 1980, 1990, 2000, and 2010 through 2014 pooled together. While the 1980 through 2000 files are based on the decennial census and cover about 5 percent of the U.S. population each, the 2010 through 2014 files are from the American Community Survey (ACS) and cover only about 1 percent of the U.S. population each. Five years of ACS data were pooled together to improve the statistical reliability and to achieve a sample size that is comparable to that available in previous years. Survey weights were adjusted as necessary to produce estimates that represent an average over the 2010 through 2014 period.

Compared with the more commonly used census “summary files,” which includes a limited set of summary tabulations of population and housing characteristics, use of

the microdata samples allows for the flexibility to create more illuminating metrics of equity and inclusion, and provide a more nuanced view of groups defined by age, race/ethnicity, and nativity in each region of the United States.

A note on sample size

While the IPUMS microdata allows for the tabulation of detailed population characteristics, it is important to keep in mind that because such tabulations are based on samples, they are subject to a margin of error and should be regarded as estimates—particularly in smaller regions and for smaller demographic subgroups. In an effort to avoid reporting highly unreliable estimates, we do not report any estimates that are based on a universe of fewer than 100 individual survey respondents.

Geography of IPUMS microdata

A key limitation of the IPUMS microdata is geographic detail. Each year of the data has a particular lowest level of geography associated with the individuals included

known as the Public Use Microdata Area (PUMA) for years 1990 and later, or the County Group in 1980. PUMAs are generally drawn to contain a population of at least 100,000, and vary greatly in geographic size from being fairly small in densely populated urban areas, to very large in rural areas, often with one or more counties contained in a single PUMA.

While the geography of the IPUMS microdata generally poses a challenge for the creation of regional summary measures, this was not the case for the Los Angeles region, as the geography of Los Angeles County could be assembled perfectly by combining entire 1980 County Groups and 1990, 2000, and 2010 PUMAs.

Data and methods

Adjustments made to census summary data on race/ethnicity by age

Demographic change and what is referred to as the “racial generation gap” (pages 24-25) are important elements of the equity profile. Due to their centrality, care was taken to generate consistent estimates of people by race/ethnicity and age group (under 18, 18-64, and over 64) for the years 1980, 1990, 2000, and 2014 (which reflects a 2010 through 2014 average) at the county level, which was then aggregated to the regional level and higher. The racial/ethnic groups include non-Hispanic White, non-Hispanic Black, Hispanic/Latino, non-Hispanic Asian and Pacific Islander, non-Hispanic Native American/Alaska Native, and non-Hispanic Other (including other single race alone and those identifying as multiracial). While for 2000, this information is readily available in SF1, for 1980 and 1990, estimates had to be made to ensure consistency over time, drawing on two different summary files for each year.

For 1980, while information on total population by race/ethnicity for all ages combined was available at the county level for

all the requisite groups in STF1, for race/ethnicity by age group we had to look to STF2, where it was only available for non-Hispanic White, non-Hispanic Black, Hispanic, and the remainder of the population. To estimate the number non-Hispanic Asian and Pacific Islanders, non-Hispanic Native Americans/Alaska Natives, and non-Hispanic other or mixed race among the remainder for each age group, we applied the distribution of these three groups from the overall county population (of all ages) from STF1.

For 1990, population by race/ethnicity at the county level was taken from STF2A, while population by race/ethnicity and age was taken from the 1990 Modified Age Race Sex (MARS) file—a special tabulation of people by age, race, sex, and Hispanic origin. However, to be consistent with the way race is categorized by the OMB’s Directive 15, the MARS file allocates all persons identifying as other or mixed race to a specific race. After confirming that population totals by county were consistent between the MARS file and STF2A, we calculated the number of other

or mixed race people that had been added to each racial/ethnic group in each county (for all ages combined) by subtracting the number that is reported in STF2A for the corresponding group. We then derived the share of each racial/ethnic group in the MARS file that was made up of other or mixed race people and applied this share to estimate the number of people by race/ethnicity and age group exclusive of the other or mixed race category, and finally number of the other or mixed race people by age group.

For 2014 (which, again, reflects a 2010 through 2014 average), population by race/ethnicity and age was taken from the 2014 ACS 5-year summary file, which provides counts by race/ethnicity and age for the non-Hispanic White, Hispanic/Latino, and total population combined. County by race/ethnicity and age for all people of color combined was derived by subtracting non-Hispanic Whites from the total population.

Data and methods

Adjustments made to demographic projections

On page 23, national projections of the non-Hispanic White share of the population are based on the U.S. Census Bureau's 2014 National Population Projections. However, because these projections follow the OMB 1997 guidelines on racial classification and essentially distribute the other single-race alone group across the other defined racial/ethnic categories, adjustments were made to be consistent with the six broad racial/ethnic groups used in our analysis.

Specifically, we compared the percentage of the total population composed of each racial/ethnic group from the Census Bureau's Population Estimates program for 2015 (which follows the OMB 1997 guidelines) to the percentage reported in the 2015 ACS 1-year Summary File (which follows the 2000 Census classification). We subtracted the percentage derived using the 2015 Population Estimates program from the percentage derived using the 2015 ACS to obtain an adjustment factor for each group (all of which were negative except that for the

mixed/other group) and carried this adjustment factor forward by adding it to the projected percentage for each group in each projection year. Finally, we applied the resulting adjusted projected population distribution by race/ethnicity to the total projected population from the 2014 National Population Projections to get the projected number of people by race/ethnicity in each projection year.

Similar adjustments were made in generating county and regional projections of the population by race/ethnicity. Initial county-level projections were taken from Woods & Poole Economics, Inc. Like the 1990 MARS file described above, the Woods & Poole projections follow the OMB Directive 15-race categorization, assigning all persons identifying as other or multiracial to one of five mutually exclusive race categories: White, Black, Latino, Asian/Pacific Islander, or Native American. Thus, we first generated an adjusted version of the county-level Woods & Poole projections that removed the other or multiracial group from each of these five

categories. This was done by comparing the Woods & Poole projections for 2010 to the actual results from SF1 of the 2010 Census, figuring out the share of each racial/ethnic group in the Woods & Poole data that was composed of other or mixed race persons in 2010, and applying it forward to later projection years. From these projections, we calculated the county-level distribution by race/ethnicity in each projection year for five groups (White, Black, Latino, Asian/Pacific Islander, and Native American), exclusive of other and mixed race people.

To estimate the county-level share of population for those classified as Other or mixed race in each projection year, we then generated a simple straight-line projection of this share using information from SF1 of the 2000 and 2010 Census. Keeping the projected other or mixed race share fixed, we allocated the remaining population share to each of the other five racial/ethnic groups by applying the racial/ethnic distribution implied by our adjusted Woods & Poole projections for each county and projection year.

Data and methods

Adjustments made to demographic projections

(continued)

The result was a set of adjusted projections at the county level for the six broad racial/ethnic groups included in the profile, which were then applied to projections of the total population by county from the Woods & Poole data to get projections of the number of people for each of the six racial/ethnic groups.

Finally, an Iterative Proportional Fitting (IPF) procedure was applied to bring the county-level results into alignment with our adjusted national projections by race/ethnicity described above. The final adjusted county results were then aggregated to produce a final set of projections at the metro area and state levels.

Data and methods

Estimates and adjustments made to BEA data on GDP, GRP, and GSP

The data presented on page 28 on national gross domestic product (GDP) and its analogous regional measure, gross regional product (GRP), is based on data from the U.S. Bureau of Economic Analysis (BEA). However, due to changes in the estimation procedure used for the national (and state-level) data in 1997, a lack of metropolitan area estimates prior to 2001, and no available county-level estimates for any year, a variety of adjustments and estimates were made to produce a consistent series at the national, state, metropolitan area, and county levels from 1969 to 2014.

Adjustments at the state and national levels

While data on gross state product (GSP) are not reported directly in the equity profile, they were used in making estimates of gross product at the county level for all years and at the regional level prior to 2001, so we applied the same adjustments to the data that were applied to the national GDP data. Given a change in BEA's estimation of gross product at the state and national levels from a Standard Industrial Classification (SIC) basis

to a North American Industry Classification System (NAICS) basis in 1997, data prior to 1997 were adjusted to avoid any erratic shifts in gross product in that year. While the change to NAICS basis occurred in 1997, BEA also provides estimates under a SIC basis in that year. Our adjustment involved figuring the 1997 ratio of NAICS-based gross product to SIC-based gross product for each state and the nation, and multiplying it by the SIC-based gross product in all years prior to 1997 to get our final estimate of gross product at the state and national levels.

County and metropolitan area estimates

To generate county-level estimates for all years, and metropolitan-area estimates prior to 2001, a more complicated estimation procedure was followed. First, an initial set of county estimates for each year was generated by taking our final state-level estimates and allocating gross product to the counties in each state in proportion to total earnings of employees working in each county—a BEA variable that is available for all counties and years. Next, the initial county estimates were

aggregated to metropolitan-area level, and were compared with BEA's official metropolitan area estimates for 2001 and later. They were found to be very close, with a correlation coefficient very close to one (0.9997). Despite the near-perfect correlation, we still used the official BEA estimates in our final data series for 2001 and later. However, to avoid any erratic shifts in gross product during the years up until 2001, we made the same sort of adjustment to our estimates of gross product at the metropolitan-area level that was made to the state and national data. We figured the 2001 ratio of the official BEA estimate to our initial estimate, and multiplied it by our initial estimates for 2000 and earlier to get our final estimate of gross product at the metropolitan-area level.

We then generated a second iteration of county-level estimates—just for counties included in metropolitan areas—by taking the final metropolitan-area-level estimates and allocating gross product to the counties in each metropolitan area in proportion to total

Data and methods

Estimates and adjustments made to BEA data on GDP, GRP, and GSP

(continued)

earnings of employees working in each county. Next, we calculated the difference between our final estimate of gross product for each state and the sum of our second-iteration county-level gross product estimates for metropolitan counties contained in the state (that is, counties contained in metropolitan areas). This difference, total nonmetropolitan gross product by state, was then allocated to the nonmetropolitan counties in each state, once again using total earnings of employees working in each county as the basis for allocation. Finally, one last set of adjustments was made to the county-level estimates to ensure that the sum of gross product across the counties contained in each metropolitan area agreed with our final estimate of gross product by metropolitan area, and that the sum of gross product across the counties contained in state agreed with our final estimate of gross product by state. This was done using a simple IPF procedure.

Data and methods

Middle-class analysis

Page 36 of the equity profile shows a decline in the share of households falling in the middle class in the region over the past four decades, while page 37 shows the racial/ethnic composition of middle-class households. To analyze middle-class decline, we began with the regional household income distribution in 1979—the year for which income is reported in the 1980 Census (and the 1980 IPUMS microdata). The middle 40 percent of households were defined as “middle class,” and the upper and lower bounds in terms of household income (adjusted for inflation to be in 2010 dollars) that contained the middle 40 percent of households were identified. We then adjusted these bounds over time to increase (or decrease) at the same rate as real average household income growth, identifying the share of households falling above, below, and in between the adjusted bounds as the upper, lower, and middle class, respectively, for each year shown.

Thus, the analysis of the size and composition of the middle class examines households enjoying the same relative standard of living in each year as the middle 40 percent of households did in 1979.

Data and methods

Assembling a complete dataset on employment and wages by industry

We report analyses of jobs and wages by industry on pages 43-46. These are based on an industry-level dataset constructed using two-digit NAICS industry data from the Quarterly Census of Employment and Wages (QCEW) of the U.S. Bureau of Labor Statistics (BLS). Due to some missing (or nondisclosed) data at the county and regional levels, we supplemented our dataset using information from Woods & Poole Economics, Inc., which contains complete jobs and wages data for broad, two-digit NAICS industries at multiple geographic levels. (Proprietary issues barred us from using the Woods & Poole data directly, so we instead used it to complete the QCEW dataset.) While we refer to counties in describing the process for “filling in” missing QCEW data below, the same process was used for the metro area and state levels of geography.

Given differences in the methodology underlying the two data sources, it would not be appropriate to simply “plug in” corresponding Woods & Poole data directly to fill in the QCEW data for nondisclosed

industries. Therefore, our approach was to first calculate the number of jobs and total wages from nondisclosed industries in each county, and then distribute those amounts across the nondisclosed industries in proportion to their reported numbers in the Woods & Poole data.

To make for a more consistent application of the Woods & Poole data, we made some adjustments to it to better align it with the QCEW. One of the challenges of using the Woods & Poole data as a “filler dataset” is that it includes all workers, while QCEW includes only wage and salary workers. To normalize the Woods & Poole data universe, we applied both a national and regional wage and salary adjustment factor; given the strong regional variation in the share of workers who are wage and salary, both adjustments were necessary. Second, while the QCEW data is available on an annual basis, the Woods & Poole data is available on a quinquennial basis (once every five years) until 1995, at which point it becomes annual. For individual years in the 1990 to 1995 period, we estimated the

Woods & Poole jobs and wages figures using a simple straight-line approach. We then standardized the Woods & Poole industry codes to match the NAICS codes used in the QCEW.

It is important to note that not all counties and regions were missing data at the two-digit NAICS level in the QCEW, and the majority of larger counties and regions with missing data were only missing data for a small number of industries and only in certain years. Moreover, when data are missing it is often for smaller industries. Thus, the estimation procedure described is not likely to greatly affect our analysis of industries, particularly for larger counties and regions.

Data and methods

Growth in jobs and earnings by industry wage level, 1990 to 2012

The analysis presented on pages 43-44 uses our filled-in QCEW dataset (for more on the creation of this dataset, see the previous page, “Assembling a complete dataset on employment and wages by industry”), and seeks to track shifts in regional industrial job composition and wage growth over time by industry wage level.

Using 1990 as the base year, we classified broad industries (at the two-digit NAICS level) into three wage categories: low-, medium-, and high-wage. An industry’s wage category was based on its average annual wage, and each of the three categories contained approximately one-third of all private industries in the region.

We applied the 1990 industry wage category classification across all the years in the dataset, so that the industries within each category remained the same over time. This way, we could track the broad trajectory of jobs and wages in low-, medium-, and high-wage industries.

This approach was adapted from a method used in a Brookings Institution report, *Building From Strength: Creating Opportunity in Greater Baltimore's Next Economy*. For more information, see:

https://www.brookings.edu/wp-content/uploads/2016/06/0426_baltimore_economy_vey.pdf.

While we initially sought to conduct the analysis at a more detailed NAICS level, the large amount of missing data at the three- to six-digit NAICS levels (which could not be resolved with the method that was applied to generate our filled-in two-digit QCEW dataset) prevented us from doing so.

Data and methods

Analysis of occupations by opportunity level

Pages 47-51 of the equity profile present an analysis of “occupational opportunity.” The analysis seeks to identify occupations in the region that are of “high opportunity” for workers, but also to associate each occupation with a “typical” level of education that is held by workers in that occupation, so that specific occupations can be examined by their associated opportunity level for workers with different levels of educational attainment. In addition, once each occupation in the region is defined as being of either high, medium, or low opportunity, based on the “occupation opportunity index,” this general level of opportunity associated with jobs held by workers with different education levels and backgrounds by race/ethnicity and nativity is examined, in an effort to better understand differences in access to high-opportunity occupations in the region while holding broad levels of educational attainment constant. For that analysis, which appears on pages 52-55, data on workers is from the 2014 5-year IPUMS ACS, while data on occupations is mostly from 2011 (as described below).

There are several aspects of this analysis that warrant further clarification. First, the “occupation opportunity index” that is constructed is based on a measure of job quality and set of growth measures, with the job quality measure weighted twice as much as all of the growth measures combined. This weighting scheme was applied both because we believe pay is a more direct measure of “opportunity” than the other available measures, and because it is more stable than most of the other growth measures, which are calculated over a relatively short period (2005-2011). For example, an increase from \$6 per hour to \$12 per hour is fantastic wage growth (100 percent), but most would not consider a \$12-per-hour job as a “high-opportunity” occupation.

Second, all measures used to calculate the “occupation opportunity index” are based on data for Metropolitan Statistical Areas from the Occupational Employment Statistics (OES) program of the U.S. Bureau of Labor Statistics (BLS), with one exception: median age by occupation. This measure, included

among the growth metrics because it indicates the potential for job openings due to replacements as older workers retire, is estimated for each occupation from the 2010 5-year IPUMS ACS microdata file (for the employed civilian noninstitutional population ages 16 and older). It is calculated at the metropolitan statistical area level (to be consistent with the geography of the OES data), except in cases for which there were fewer than 30 individual survey respondents in an occupation; in these cases, the median age estimate is based on national data.

Third, the level of occupational detail at which the analysis was conducted, and at which the lists of occupations are reported, is the three-digit standard occupational classification (SOC) level. While data of considerably more detail is available in the OES, it was necessary to aggregate the OES data to the three-digit SOC level in order to associate education levels with the occupations. This information is not available in the OES data, and was estimated using 2010 IPUMS ACS microdata. Given differences between the two datasets

Data and methods

Analysis of occupations by opportunity level

(continued)

in the way occupations are coded, the three-digit SOC level was the most detailed level at which a consistent crosswalk could be established.

Fourth, while most of the data used in the analysis are regionally specific, information on the education level of “typical workers” in each occupation, which is used to divide occupations in the region into the three groups by education level (as presented on pages 53-55), was estimated using national 2010 IPUMS ACS microdata (for the employed civilian noninstitutional population ages 16 and older). Although regionally specific data would seem to be the better choice, given the level of occupational detail at which the analysis is conducted, the sample sizes for many occupations would be too small for statistical reliability. And, while using pooled 2006-2010 data would increase the sample size, it would still not be sufficient for many regions, so national 2010 data were chosen given the balance of currency and sample size for each occupation. The implicit assumption in using national data is that the

occupations examined are of sufficient detail that there is not great variation in the typical educational level of workers in any given occupation from region to region. While this may not hold true in reality, we would note that a similar approach was used by Jonathan Rothwell and Alan Berube of the Brookings Institution in *Education, Demand, and Unemployment in Metropolitan America* (Washington D.C.: Brookings Institution, September 2011).

We should also note that the BLS does publish national information on typical education needed for entry by occupation. However, in comparing these data with the typical education levels of actual workers by occupation that were estimated using ACS data, there were important differences, with the BLS levels notably lower (as expected). The levels estimated from the ACS were determined to be the appropriate choice for our analysis as they provide a more realistic measure of the level of educational attainment necessary to be a viable job candidate—even if the typical requirement

for entry is lower.

Fifth, it is worthwhile to clarify an important distinction between the lists of occupations by typical education of workers and opportunity level, presented on pages 49-51, and the charts depicting the opportunity level associated with jobs held by workers with different education levels and backgrounds by race/ethnicity/nativity, presented on pages 53-55. While the former are based on the national estimates of typical education levels by occupation, with each occupation assigned to one of the three broad education levels described, the latter are based on actual education levels of workers in the region (as estimated using 2014 5-year IPUMS ACS microdata), who may be employed in any occupation, regardless of its associated “typical” education level.

Lastly, it should be noted that for all of the occupational analysis, it was an intentional decision to keep the categorizations by education and opportunity level fairly broad, with three categories applied to each. For the

Data and methods

Analysis of occupations by opportunity level

(continued)

categorization of occupations, this was done so that each occupation could be more justifiably assigned to a single typical education level; even with the three broad categories some occupations had a fairly even distribution of workers across them nationally, but, for the most part, a large majority fell in one of the three categories. In regard to the three broad categories of opportunity level, and education levels of workers shown on pages 52-55, this was kept broad to ensure reasonably large sample sizes in the 2014 5-year IPUMS ACS microdata that was used for the analysis.

Data and methods

Health data and analysis

Health data in this study were taken from the Behavioral Risk Factor Surveillance System (BRFSS) database, housed in the Centers for Disease Control and Prevention. The BRFSS database is created from randomized telephone surveys conducted by states, which then incorporate their results into the database on a monthly basis.

The results of this survey are self-reported and the population includes all related adults, unrelated adults, roomers, and domestic workers who live at the residence. The survey does not include adult family members who are currently living elsewhere, such as at college, a military base, a nursing home, or a correctional facility.

The most detailed level of geography associated with individuals in the BRFSS data is the county. Using the county-level data as building blocks, we created additional estimates for the region, state, and United States.

While the data allow for the tabulation of personal health characteristics, it is important to keep in mind that because such tabulations are based on samples, they are subject to a margin of error and should be regarded as estimates—particularly in smaller regions and for smaller demographic subgroups.

To increase statistical reliability, we combined five years of survey data, for the years 2008 through 2012. As an additional effort to avoid reporting potentially misleading estimates, we do not report any estimates that are based on a universe of fewer than 100 individual survey respondents. This is similar to, but more stringent than, a rule indicated in the documentation for the 2012 BRFSS data of not reporting (or interpreting) percentages based on a denominator of fewer than 50 respondents (see: https://www.cdc.gov/brfss/annual_data/2012/pdf/Compare_2012.pdf). Even with this sample size restriction, regional estimates for smaller demographic subgroups should be regarded with particular care.

For more information and access to the BRFSS database, please visit: <http://www.cdc.gov/brfss/index.html>.

Data and methods

Measures of diversity and segregation

In the equity profile we refer to a measure of racial/ethnic diversity (the “diversity score” on page 17) and several measures of residential segregation by race/ethnicity (the “multi-group entropy index” on page 68 and the “dissimilarity index” on page 69). While the common interpretation of these measures is included in the text of the profile, the data used to calculate them, and the sources of the specific formulas that were applied, are described below.

All of these measures are based on census-tract-level data for 1980, 1990, and 2000 from Geolytics, and for 2014 (which reflects and 2010 through 2014 average) from the 2014 5-year ACS. While the data for 1980, 1990, and 2000 originate from the decennial censuses of each year, an advantage of the Geolytics data we use is that it has been “re-shaped” to be expressed in 2010 census tract boundaries, and so the underlying geography for our calculations is consistent over time; the census tract boundaries of the original decennial census data change with each release, which could potentially cause a

change in the value of residential segregation indices even if no actual change in residential segregation occurred. In addition, while most all the racial/ethnic categories for which indices are calculated are consistent with all other analyses presented in this profile, there is one exception. Given limitations of the tract-level data released in the 1980 Census, Native Americans are combined with Asians and Pacific Islanders in that year. For this reason, we set 1990 as the base year (rather than 1980) in the chart on page 69, but keep the 1980 data in other analyses of residential segregation as this minor inconsistency in the data is not likely to affect the analyses.

The formulas for the diversity score and the multi-group entropy index were drawn from a 2004 report by John Iceland of the University of Maryland, *The Multigroup Entropy Index (Also Known as Theil’s H or the Information Theory Index)* available at: <https://www.census.gov/topics/housing/housing-patterns/about/multi-group-entropy-index.html>. In that report, the formula used to calculate the Diversity Score (referred to as

the “entropy score” in the report) appears on page 7, while the formulas used to calculate the multigroup entropy index (referred to as the “entropy index” in the report) appear on page 8.

The formula for the other measure of residential segregation, the dissimilarity index, is well established, and is made available by the U.S. Census Bureau at: <https://www.census.gov/library/publications/2002/dec/censr-3.html>.

Data and methods

Estimates of GDP gains without racial gaps in income

Estimates of the gains in average annual income and GDP under a hypothetical scenario in which there is no income inequality by race/ethnicity are based on the 2014 5-Year IPUMS ACS microdata. We applied a methodology similar to that used by Robert Lynch and Patrick Oakford in Chapter Two of *All-in Nation: An America that Works for All* with some modification to include income gains from increased employment (rather than only those from increased wages).

We first organized individuals aged 16 or older in the IPUMS ACS into six mutually exclusive racial/ethnic groups: non-Hispanic White, non-Hispanic Black, Latino, non-Hispanic Asian/Pacific Islander, non-Hispanic Native American, and non-Hispanic other or multiracial. Following the approach of Lynch and Oakford in *All-In Nation*, we excluded from the non-Hispanic Asian/Pacific Islander category subgroups whose average incomes were higher than the average for non-Hispanic Whites. Also, to avoid excluding subgroups based on unreliable average

income estimates due to small sample sizes, we added the restriction that a subgroup had to have at least 100 individual survey respondents in order to be excluded.

We then assumed that all racial/ethnic groups had the same average annual income and hours of work, by income percentile and age group, as non-Hispanic Whites, and took those values as the new “projected” income and hours of work for each individual. For example, a 54-year-old non-Hispanic Black person falling between the 85th and 86th percentiles of the non-Hispanic Black income distribution was assigned the average annual income and hours of work values found for non-Hispanic White persons in the corresponding age bracket (51 to 55 years old) and “slice” of the non-Hispanic White income distribution (between the 85th and 86th percentiles), regardless of whether that individual was working or not. The projected individual annual incomes and work hours were then averaged for each racial/ethnic group (other than non-Hispanic Whites) to get projected average incomes and work

hours for each group as a whole, and for all groups combined.

The key difference between our approach and that of Lynch and Oakford is that we include in our sample all individuals ages 16 years and older, rather than just those with positive income values. Those with income values of zero are largely non working, and they were included so that income gains attributable to increases in average annual hours of work would reflect both an expansion of work hours for those currently working and an increase in the share of workers—an important factor to consider given measurable differences in employment rates by race/ethnicity. One result of this choice is that the average annual income values we estimate are analogous to measures of per capita income for the age 16 and older population and are notably lower than those reported in Lynch and Oakford; another is that our estimated income gains are relatively larger as they presume increased employment rates.

Photo credits

Cover

<https://flic.kr/p/9jpm9f>

All other unlisted photos are courtesy of PolicyLink (all rights reserved).

Introduction

Left photo by: USC Center for the Study of Immigrant Integration (CSII)

Right photo by: <https://flic.kr/p/fjxU2E>

This work is licensed under [Creative Commons Attribution 4.0](#).

Economic Vitality

L: <https://flic.kr/p/dkLJgs>

Readiness

L: <https://flic.kr/p/dMq5Xs>

R: <https://flic.kr/p/dNj87S>

Connectedness

R: <https://flic.kr/p/vbR8ti>

Neighborhoods

Both photos by: USC Center for the Study of Immigrant Integration (CSII)

Implications

L: <https://flic.kr/p/fjxU2E>

R: <https://flic.kr/p/wFmfDr>



PolicyLink is a national research and action institute advancing economic and social equity by Lifting Up What Works®.

The USC Program for Environmental and Regional Equity (PERE) conducts research and facilitates discussions on issues of environmental justice, regional inclusion, and social movement building.

Headquarters:

1438 Webster Street
Suite 303
Oakland, CA 94612
t 510 663-2333
f 510 663-9684

University of Southern California
950 W. Jefferson Boulevard
JEF 102
Los Angeles, CA 90089
t 213 821-1325
f 213 740-5680

Communications:

55 West 39th Street
11th Floor
New York, NY 10018
t 212 629-9570
f 212 763-2350

<http://dornsife.usc.edu/pere>

<http://www.policylink.org>

©2017 by PolicyLink and PERE.
All rights reserved.