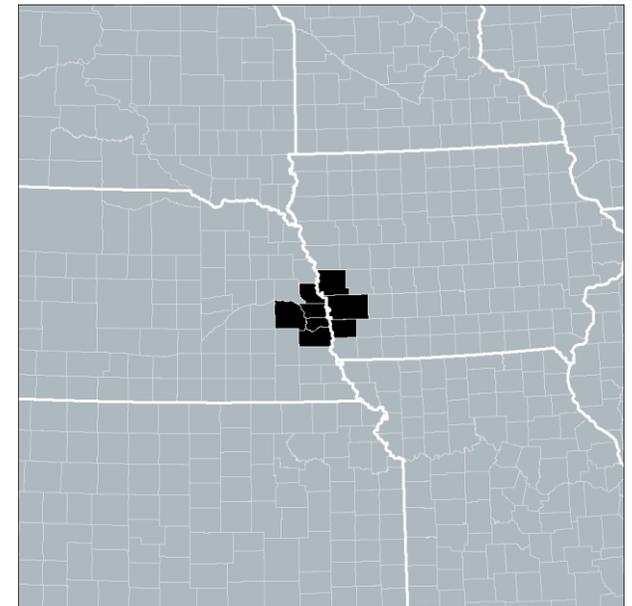
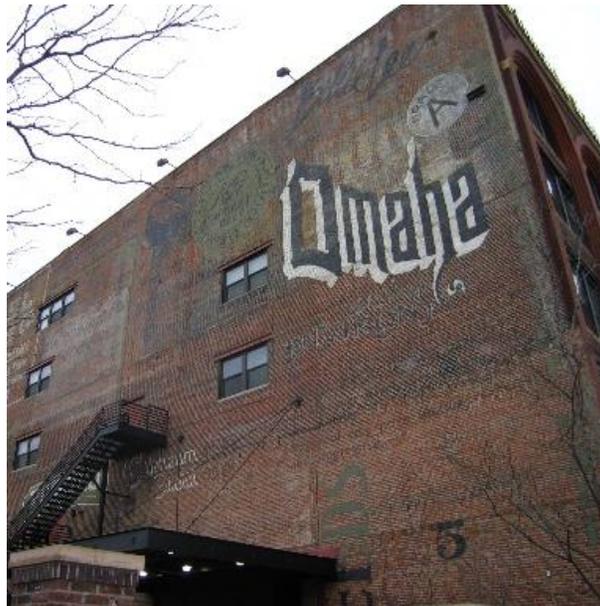


# Equitable Growth Profile of the Omaha-Council Bluffs Region



# Summary

Communities of color are driving the Omaha-Council Bluffs region's population growth, and their ability to participate in the economy and thrive is central to the region's success now and in the future. While the region demonstrates overall strength and resilience, wide racial gaps in education, employment, and income – along with a shrinking middle class and rising inequality – place the region's economic future at risk.

Equitable growth is the path to sustained economic prosperity. By connecting people with good jobs, raising the floor for low-wage workers, and building communities of opportunity metro-wide, the region's leaders can continue to put all residents on the path toward reaching their full potential, and secure a bright economic future for the whole region.

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# Introduction

## Foreword

The Heartland region is vibrant and filled with opportunity for many. Nationally we are rated as one of the best places to live in America. We have high quality-of-life, a solid economy, low cost of living, good schools, and strong neighborhoods. At the same time, there are serious inequities. We simultaneously have great affluence and one of the highest rates of black child poverty and male homicide of any U.S. metro area. We also face major demographic shifts, fueled by high growth of our Latino population combined with low growth of our existing resident population. These challenges will test our region's resiliency, openness, and economic competitiveness.

Over the past two years, we have worked to forge a long-term vision of our region's future. Our aim is to grow responsibly as a place where people of all walks of life want to live, work, play, and contribute. Including principles and policies to address regional equity – the full inclusion of all the region's residents in the economic, social, and political life of our communities – is a core value.

The Heartland 2050 Equity and Engagement Committee partnered with PolicyLink and the USC Program for Environmental and Regional Equity to produce this profile. We believe these data provide an excellent starting point for understanding the growth realities we face, and opportunities for addressing our disparities as a strategy for our economic growth and competitiveness. We welcome your feedback, and commit to continuing our analysis of the data to provide public, private, and community leaders with the information needed to guide our path toward our “more perfect union.”



**Greg Youell**

Executive Director  
Metropolitan Area Planning  
Agency (MAPA)



**David Harris**

Chair, Heartland 2050 Equity and  
Engagement Community Metropolitan  
Area Planning Agency (MAPA)

# 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, nativity, age, gender, neighborhood of residence, or other characteristics – is an essential element of the plans.

Knowing how a region stands in terms of equity is a critical first step in planning for equitable growth. To assist communities with that process, PolicyLink and the Program for Environmental and Regional Equity (PERE) developed a framework to understand and track how regions perform on a series of indicators of equitable growth.

This profile was developed to help Heartland 2050 implement its plan for equitable growth. We hope that it is broadly used by advocacy groups, elected officials, planners, business leaders, funders, and others working to build a stronger and more equitable region.

The data are drawn from a regional equity database that covers 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 the Integrated Public Use Microdata Series (IPUMS). Note that while we disaggregate most indicators by major racial/ethnic group, figures for the Asian/Pacific Islander population as a whole often mask wide variation on educational and economic indicators. Also, there is often too little data to break out indicators for the Native American population.

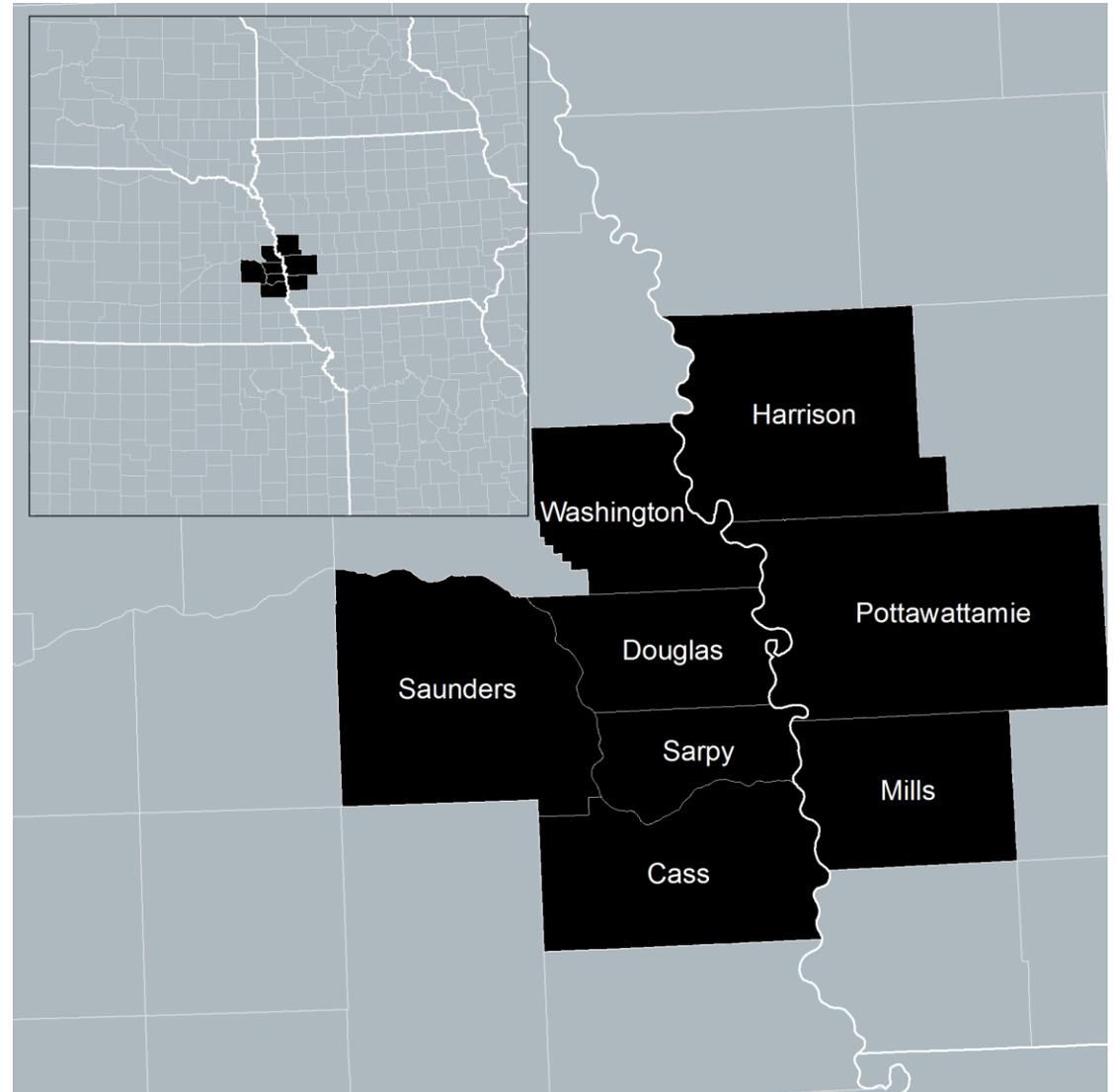
See the “Data and methods” section for a more detailed list of data sources.

# Introduction

## Overview

For the purposes of this profile, we define the region as the eight-county area highlighted on this map, including Cass, Douglas, Sarpy, Saunders, and Washington counties in Nebraska and Harrison, Mills, and Pottawattamie counties in Iowa. These are the counties included in the Heartland 2050 regional vision developed by the Metropolitan Area Planning Agency and partners. This definition also aligns with the Census-designated metropolitan statistical area.

All data presented in the profile use this regional boundary. Minor exceptions due to lack of data availability are noted in the “Data and methods” section.



# 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 2043, 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.<sup>1</sup>
- Regions with less segregation (by race and income) and lower income inequality have more upward mobility.<sup>2</sup>
- Companies with a diverse workforce achieve a better bottom line.<sup>3</sup>
- A diverse population more easily connects to global markets.<sup>4</sup>

### The way forward: 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.

<sup>1</sup> Manuel Pastor, "Cohesion and Competitiveness: Business Leadership for Regional Growth and Social Equity," OECD Territorial Reviews, Competitive Cities in the Global Economy, Organisation For Economic Co-Operation And Development (OECD), 2006; Manuel Pastor and Chris Benner, "Been Down So Long: Weak-Market Cities and Regional Equity" in *Retooling for Growth: Building a 21<sup>st</sup> Century Economy in America's Older Industrial Areas* (New York: American Assembly and Columbia University, 2008); 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), <http://www.clevelandfed.org/Research/workpaper/2006/wp06-05.pdf>.

<sup>2</sup> 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>

<sup>3</sup> 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.

<sup>4</sup> 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 race/ethnicity/nativity, neighborhood, age, gender, or other characteristics – can fully participate in the region’s economic vitality, contribute to its readiness for the future, and connect to its 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.

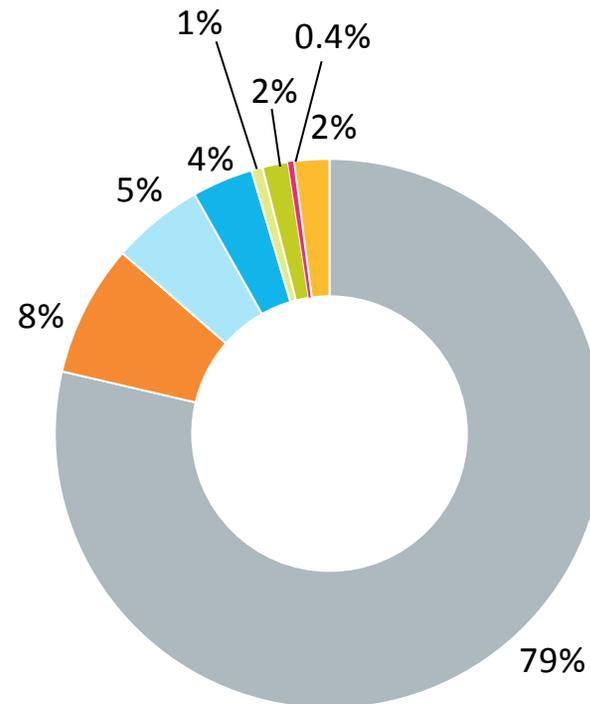
# Demographics

## Who lives in the region and how is this changing?

**Omaha-Council Bluffs is less diverse than most other regions.** One-fifth (21 percent) of residents are people of color, compared with 36 percent nationwide. After Whites, Latinos are the largest racial/ethnic group (9 percent), closely followed by African Americans (8 percent).

Race/Ethnicity and Nativity, 2012

- White
- Black
- Latino, U.S.-born
- Latino, Immigrant
- API, U.S.-born
- API, Immigrant
- Native American and Alaska Native
- Other or mixed race



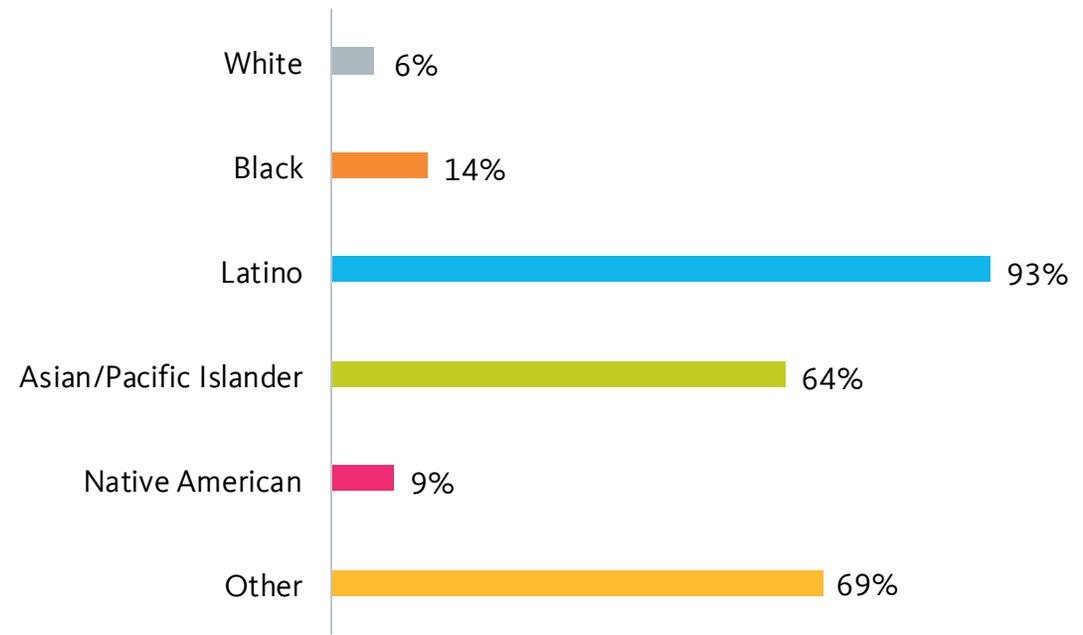
Source: IPUMS.  
 Note: Data represents a 2008 through 2012 average.

# Demographics

## Who lives in the region and how is this changing?

**Communities of color are leading the region's growth.** The Latino population grew by 93 percent from 2000 to 2010, adding 37,000 residents. The Asian and Mixed/Other Race populations also grew quickly (more than 60 percent). The Black, Native American, and Whites grew more slowly.

### Growth Rates of Major Racial/Ethnic Groups, 2000 to 2010



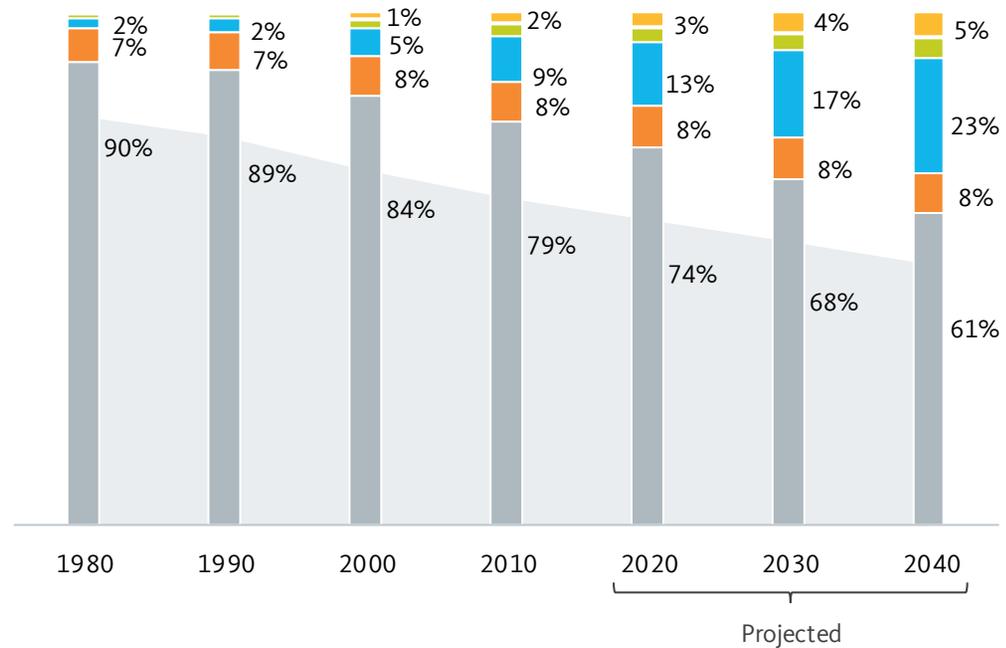
# Demographics

## Who lives in the region and how is this changing?

**The region is experiencing a rapid demographic shift.** Latinos will continue to drive growth, rising from 9 percent to 23 percent of the population between 2010 and 2040. When the nation becomes majority people of color around 2043, 39 percent of the region’s population will be of color.

Racial/Ethnic Composition, 1980 to 2040

- U.S. % White
- Other
- Native American
- Asian/Pacific Islander
- Latino
- Black
- White



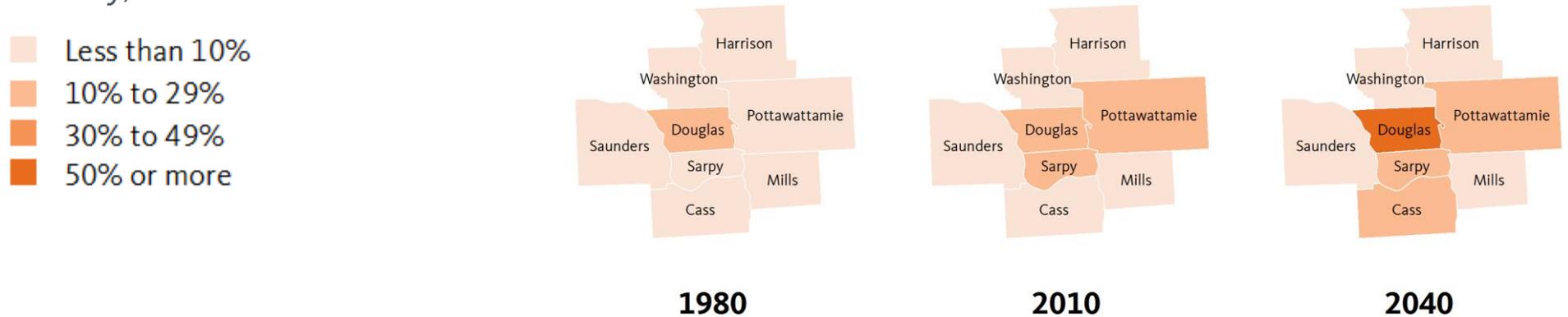
Source: U.S. Census Bureau; Woods & Poole Economics, Inc.

# Demographics

## Who lives in the region and how is this changing?

**Diversity is increasing throughout the region.** Between 2010 and 2040, the share of people of color is projected to double everywhere except for Sarpy County, where it will still increase significantly (56 percent). In 2040, Douglas County will be majority people of color.

Percent People of Color by County, 1980 to 2040

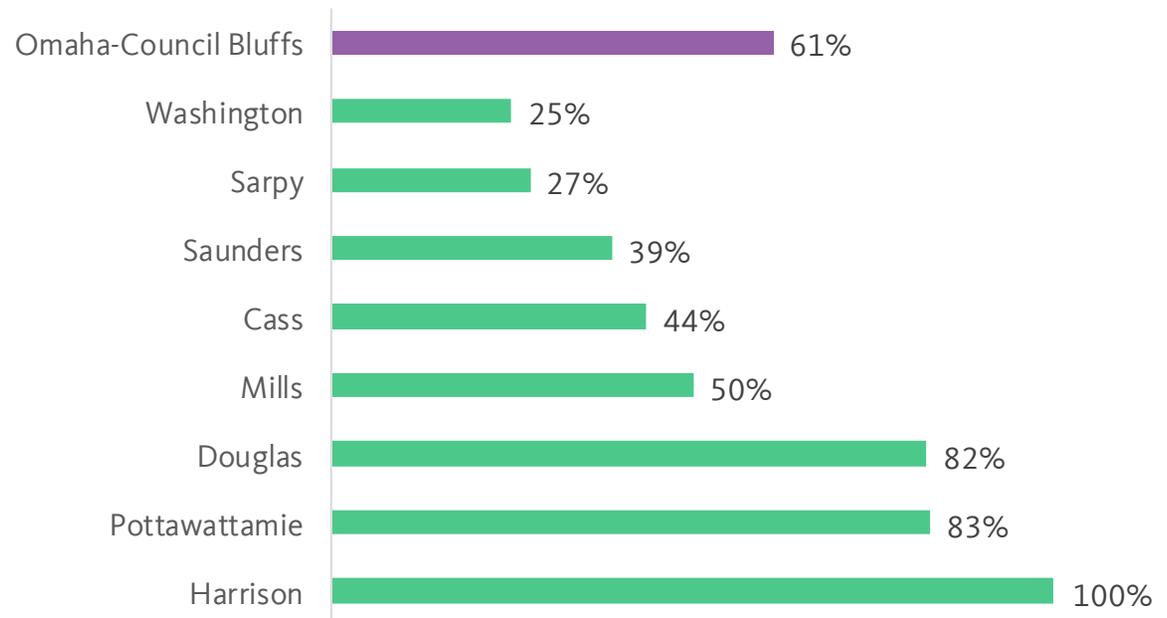


# Demographics

## Who lives in the region and how is this changing?

**In the past decade, communities of color contributed the majority of population growth (61 percent).** People of color contributed more than 80 percent of net growth in Douglas, Pottawattamie, and Harrison Counties, and 25 to 50 percent of growth in the region's other five counties.

### Share of Population Growth Attributable to People of Color by County, 2000 to 2010



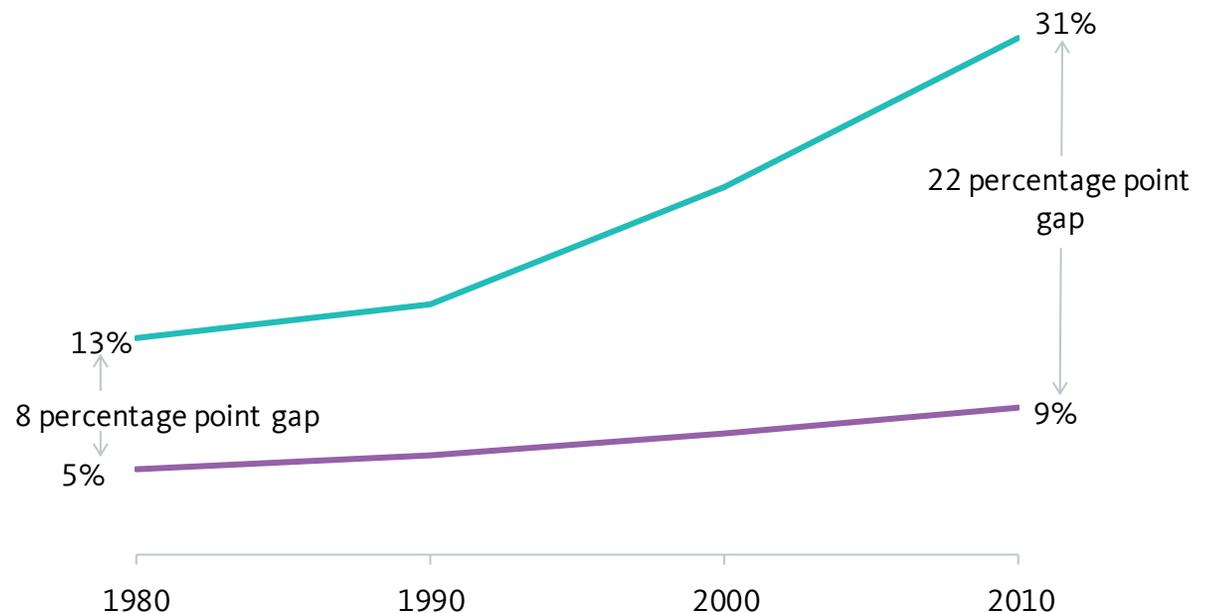
# Demographics

## Who lives in the region and how is this changing?

**There is a growing racial generation gap.** Today, 31 percent of youth are of color, compared with 9 percent of seniors. This 22 percentage point racial generation gap is below the national average (26 percentage points) but has grown rapidly, almost tripling since 1980.

### Racial Generation Gap: Percent People of Color (POC) by Age Group, 1980 to 2010

- Percent of seniors who are POC
- Percent of youth who are POC



Source: U.S. Census Bureau.

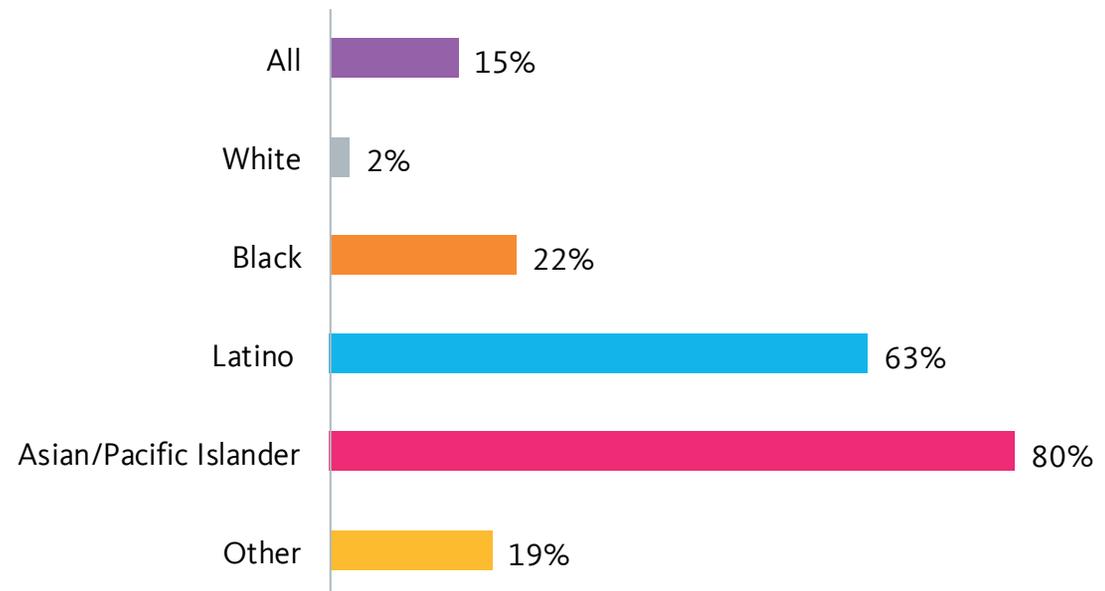
Note: Youth include persons under age 18 and seniors include those age 65 or older..

# Demographics

## Who lives in the region and how is this changing?

**A large share of children are children of immigrants.** Today, 15 percent of all youth in the region have at least one immigrant parent. Asian youth are most likely to have an immigrant parent (80 percent), followed by Latino youth (63 percent).

### Share of Children with at Least One Immigrant Parent, 2012

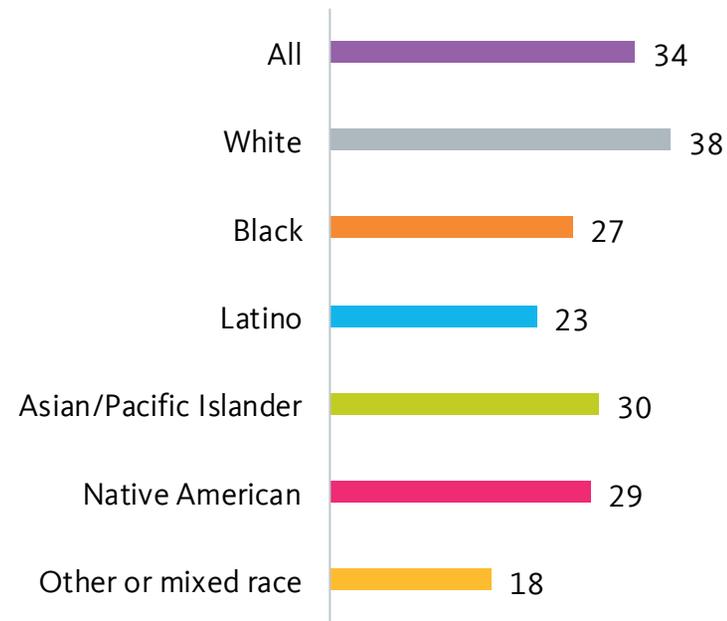


# Demographics

## Who lives in the region and how is this changing?

**The region's fastest-growing demographic groups are also comparatively young.** The Latino population in the region has a median age of 23, and the African American population has a median age of 27, whereas the White population has a median age of 38.

### Median Age by Race/Ethnicity, 2012



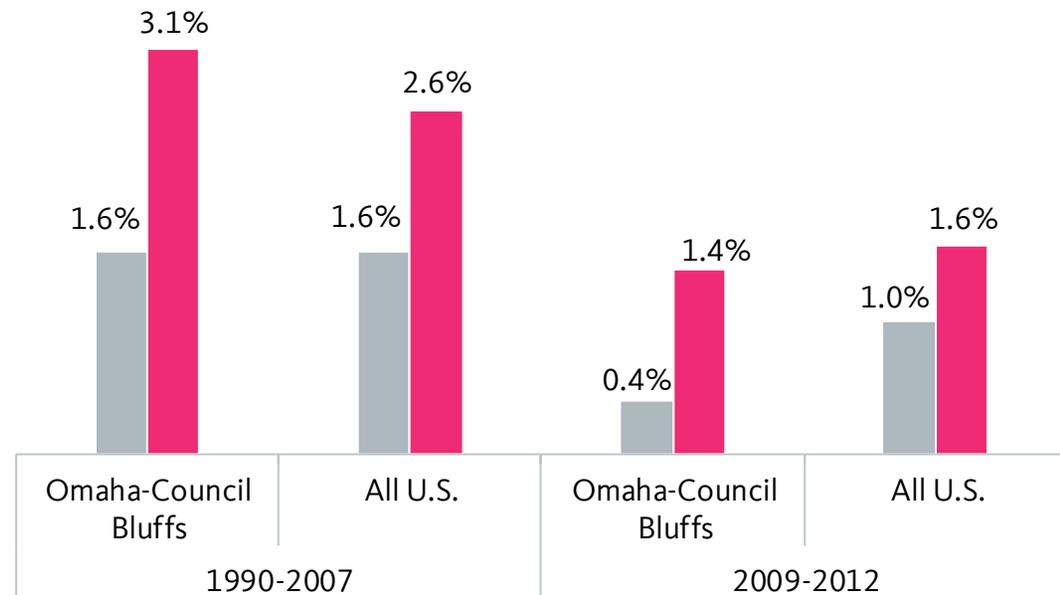
# Inclusive growth

## Is economic growth creating more jobs?

**The region is recovering from the Great Recession.** Pre-downturn, the region’s economy performed as well as or better than the nation in terms of job and GDP growth. Since 2009, it has experienced slightly slower growth in both jobs and GDP than the overall U.S. economy.

Average Annual Growth in Jobs and GDP, 1990 to 2007 and 2009 to 2012

- Jobs
- GDP



Source: U.S. Bureau of Economic Analysis.

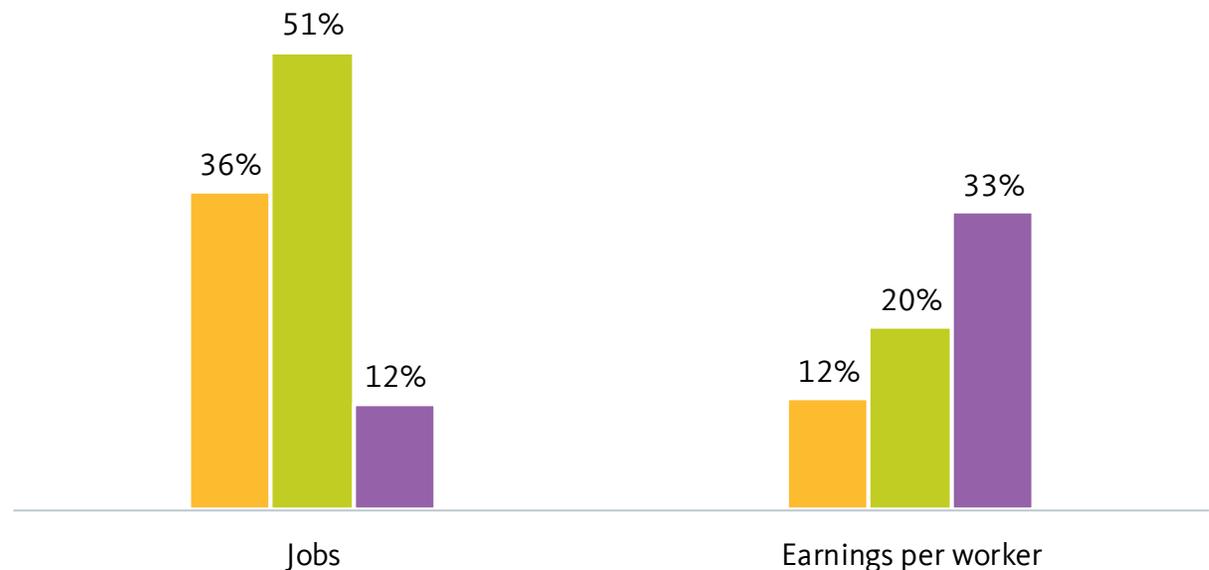
# Inclusive growth

## Is the region growing good jobs?

**The region is quickly growing low-wage jobs – but also middle-wage ones.** Middle-wage job growth was much stronger in the region (51 percent) than the U.S. overall (11 percent). Wage growth for those jobs was also stronger than the national average (20 percent versus 14 percent).

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

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



# Inclusive growth

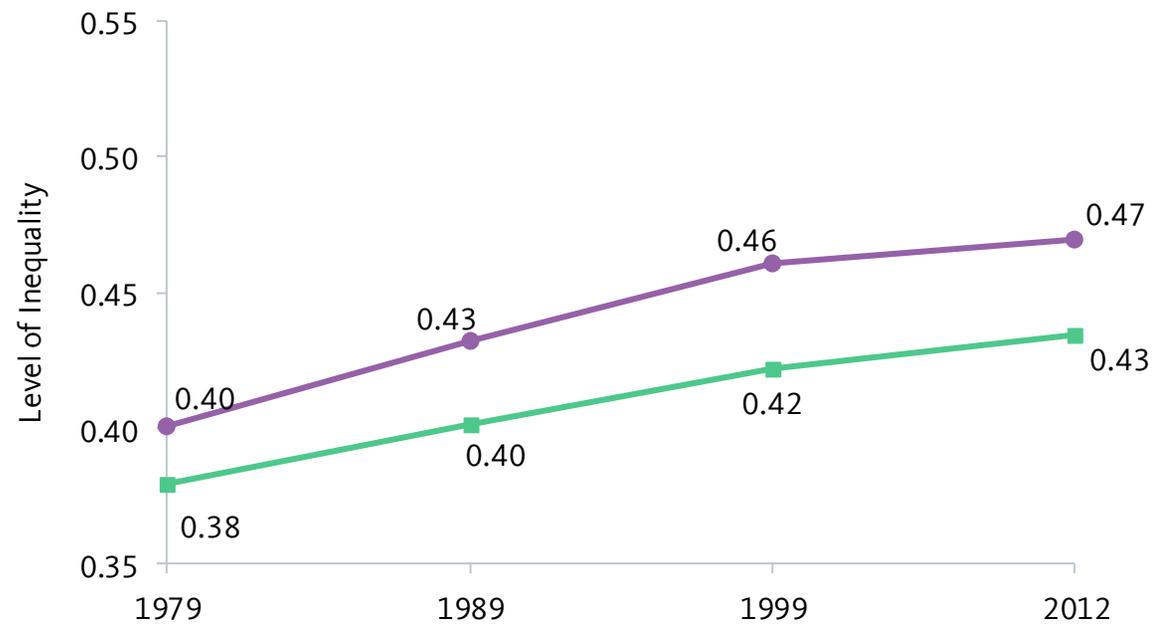
## Is inequality low and decreasing?

**Income inequality is relatively low but increasing.** Inequality is below the national average and is not rising as rapidly as it is nationally. Still, inequality has steadily increased over the past three decades.

### Income Inequality, 1979 to 2012

- Omaha Council Bluffs
- United States

Inequality is measured here by the Gini coefficient, which ranges from 0 (perfect equality) to 1 (perfect inequality: one person has all of the income).



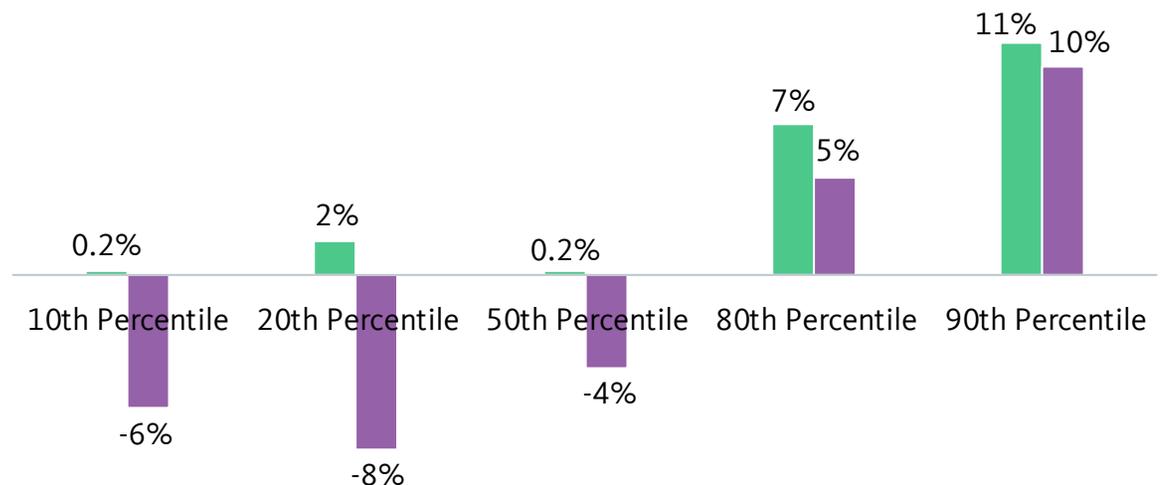
# Inclusive growth

## Are incomes increasing for all workers?

**Wages have stagnated for all but the top earners.** Incomes for workers in the bottom half of the income spectrum have been flat over the past two decades; nationally these workers have seen their wages decline. The region's higher-earners have seen above-average wage increases.

### Real Earned Income Growth for Full-Time Wage and Salary Workers, 1989 to 2012

■ Omaha Council Bluffs  
■ United States



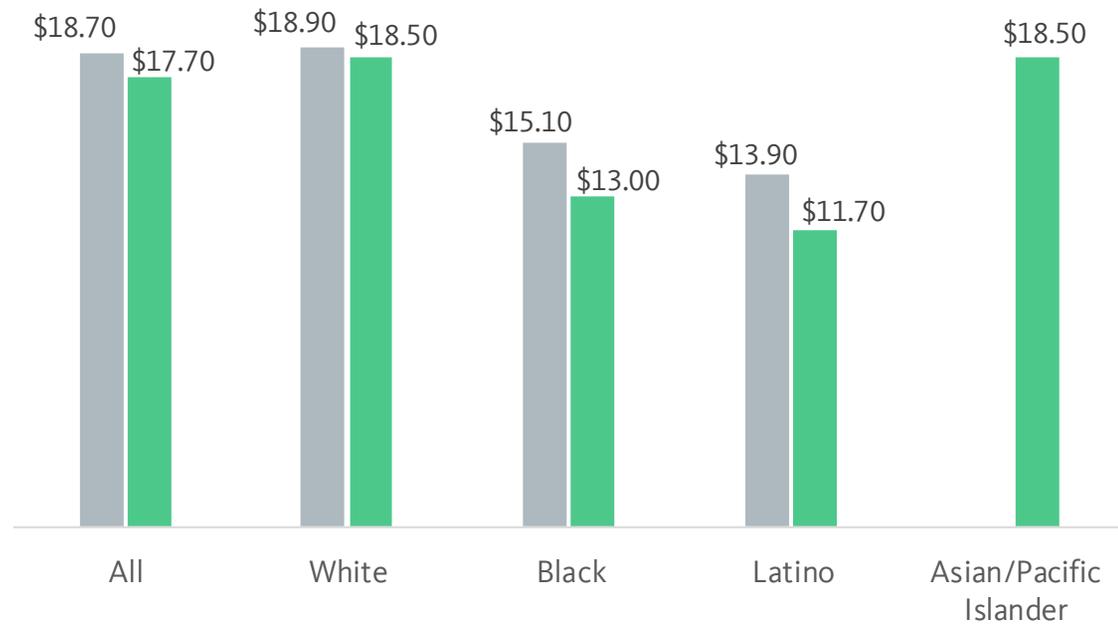
# Inclusive growth

## Are incomes increasing for all workers?

**Racial gaps in wages have grown over the past decade.** From 2000 to 2012, white workers saw their median hourly wage increase slightly, while blacks and Latinos experienced wage declines.

Median Hourly Wage by Race/Ethnicity, 2000 and 2012

- 2000
- 2012



Source: IPUMS. Universe includes the civilian noninstitutional population ages 25 through 64.

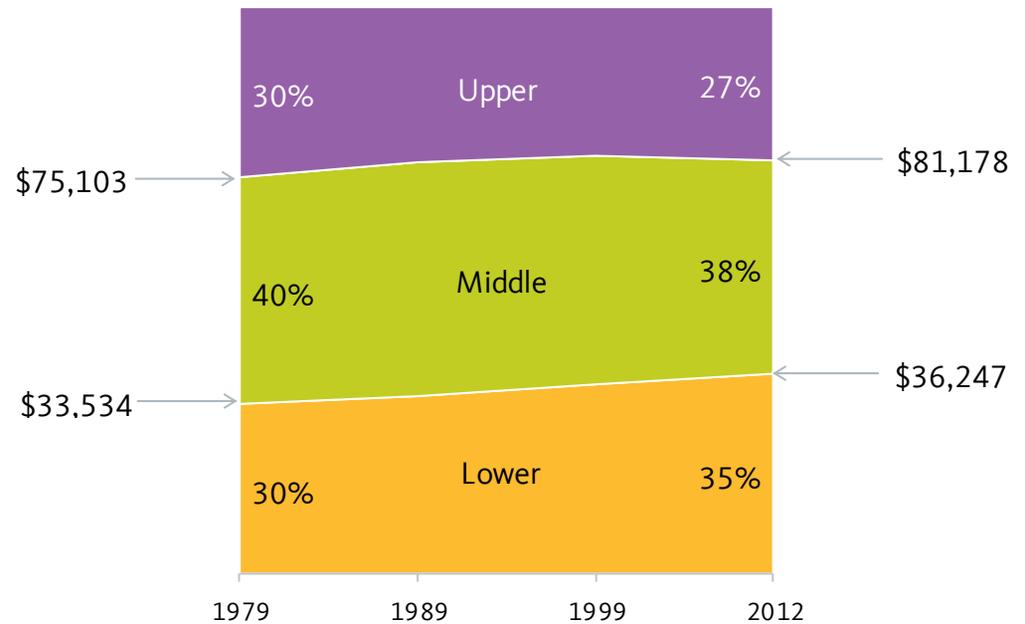
Note: Wages for Asian/Pacific Islanders for 2000 is excluded due to small sample size. Data for 2012 represents a 2008 through 2012 average. Values are in 2010 dollars.

# Inclusive growth

## Is the middle class expanding?

**The middle class is shrinking.** Following the national trend, the share of households with middle-class incomes fell from 40 to 38 percent since 1979. The share of upper-income households fell from 30 to 27 percent, and lower-income households grew from 30 to 35 percent.

Households by Income Level, 1979 and 2012



Source: IPUMS. Universe includes all households (no group quarters).  
 Note: Data for 2012 represents a 2008 through 2012 average. Dollar values are in 2010 dollars.

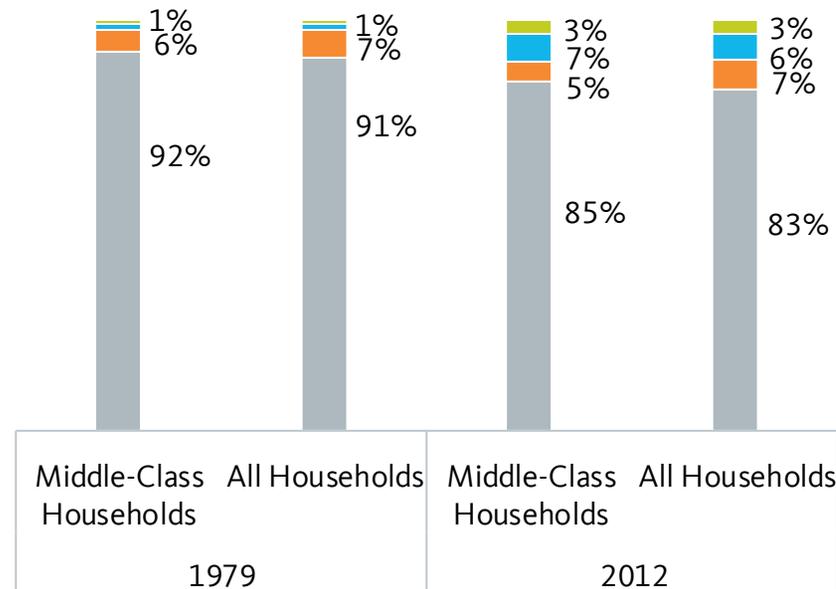
# Inclusive growth

## Is the middle class becoming more inclusive?

**The middle class remains less diverse than the population as a whole.** Asians and Latinos have increased their presence in the middle class over time. Black households, however, are a smaller share of the middle class now than in 1979 and are disproportionately lower-income.

Racial Composition of Middle-Class Households and All Households, 1979 and 2012

- Asian, Native American or Other
- Latino
- Black
- White



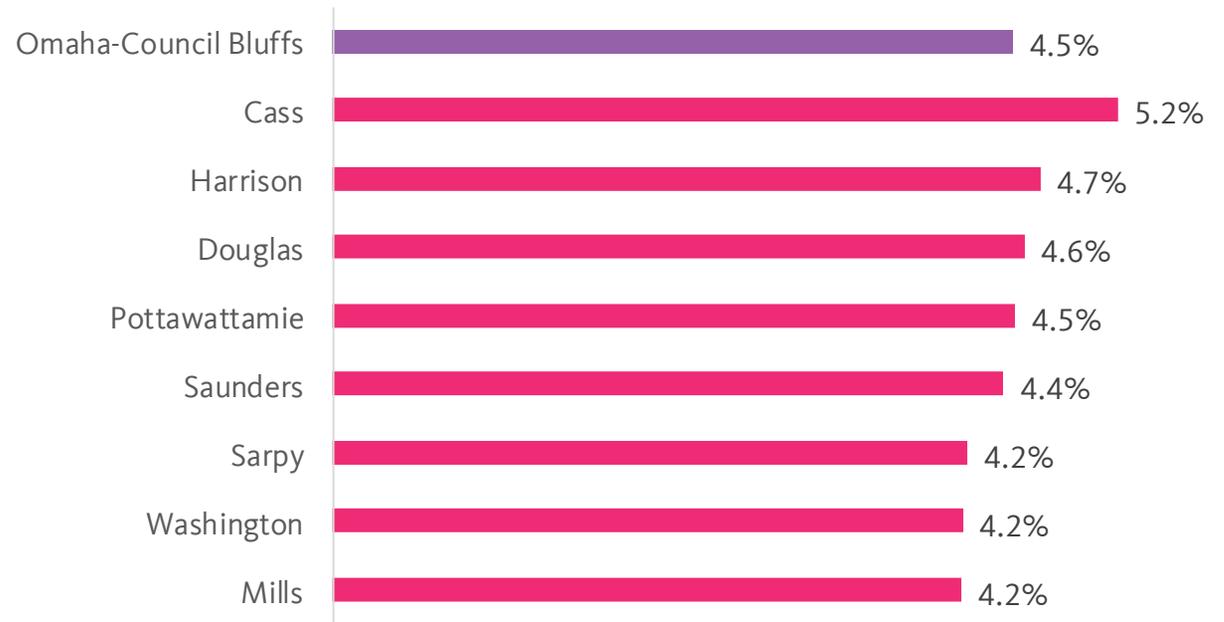
Source: IPUMS. Universe includes all households (no group quarters).  
 Note: Data for 2012 represents a 2008 through 2012 average.

# Full employment

## How close is the region to reaching full employment?

**Unemployment is low in the region.** As of March 2014, the U.S. unemployment rate was 6.7 percent, compared with Omaha-Council Bluffs' 4.5 percent. There is little variation across the region, and the highest unemployment rate, in Cass County (5.2 percent), was still well-below the U.S. average.

### Unemployment Rate by County, March 2014

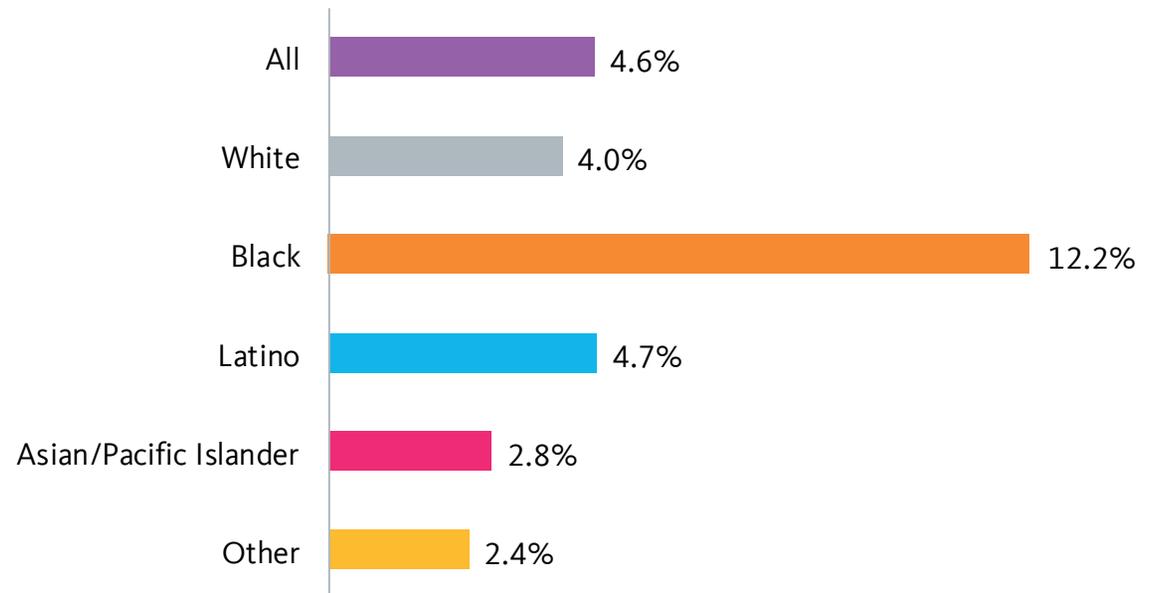


# Full employment

## How close is the region to reaching full employment?

**Racial inequities in employment persist.** While most racial/ethnic groups in the region have similarly low rates of unemployment, African Americans still have recession-level unemployment rates (12.2 percent).

### Unemployment Rate by Race/Ethnicity, 2012



Source: IPUMS. Universe includes the civilian non-institutional population ages 25 through 64.

Note: The full impact of the Great Recession is not reflected in the data shown, which is averaged over 2008 through 2012. These trends may change as new data become available.

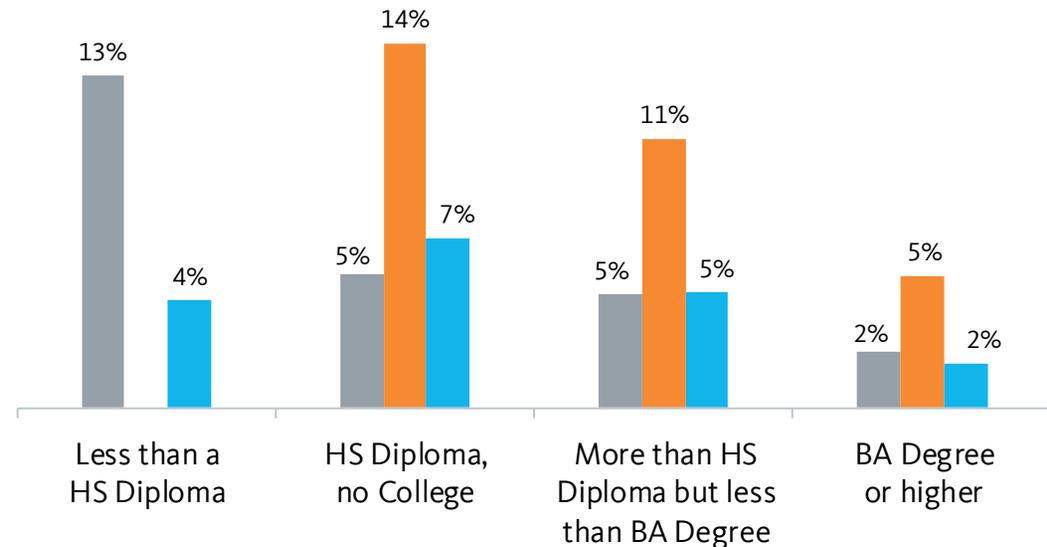
# Full employment

## How close is the region to reaching full employment?

**Unemployment decreases as educational attainment rises, but racial gaps remain.** Blacks and Latinos are more likely to be unemployed than Whites. White high school dropouts and African Americans without a college degree face the highest levels of unemployment overall.

### Unemployment Rate by Educational Attainment and Race/Ethnicity, 2012

- White
- Black
- Latino



Source: IPUMS. Universe includes the civilian noninstitutional population ages 25 through 64.

Note: Unemployment for blacks with less than a HS diploma is excluded due to small sample size. Data represents a 2008 through 2012 average.

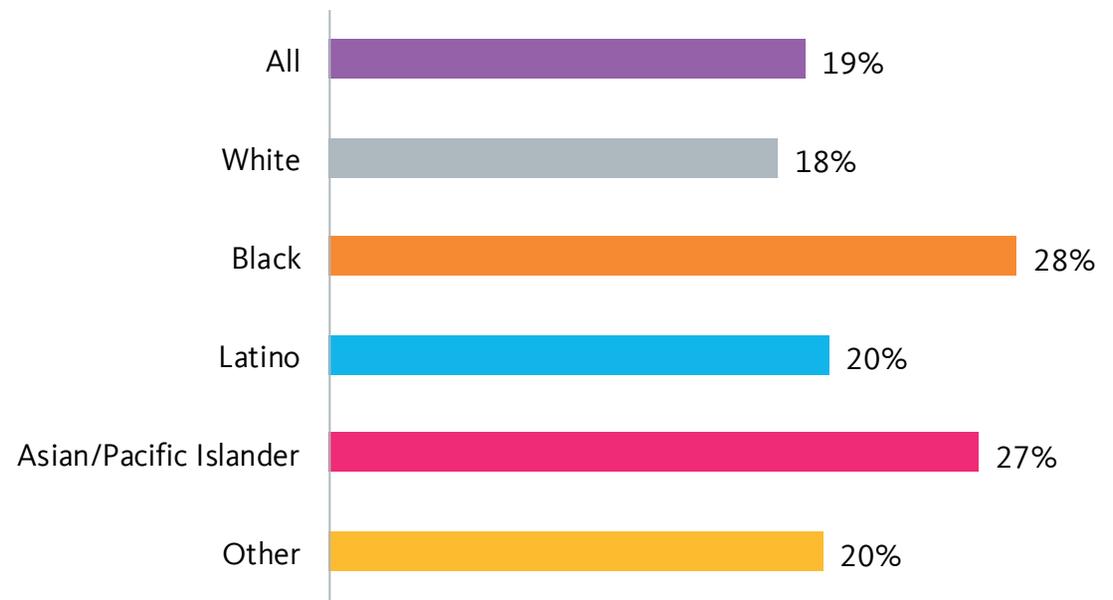
# Full employment

## How close is the region to reaching full employment?

### **Blacks and Asians have the highest levels of joblessness.**

Joblessness measures the share of the population not working (whether or not they are looking for work), so captures people who have dropped out of the labor force due to lack of opportunity as well as those who choose not to work.

### Jobless Rate by Race/Ethnicity, 2012



Source: IPUMS. Universe includes the civilian noninstitutional population ages 25 through 64.

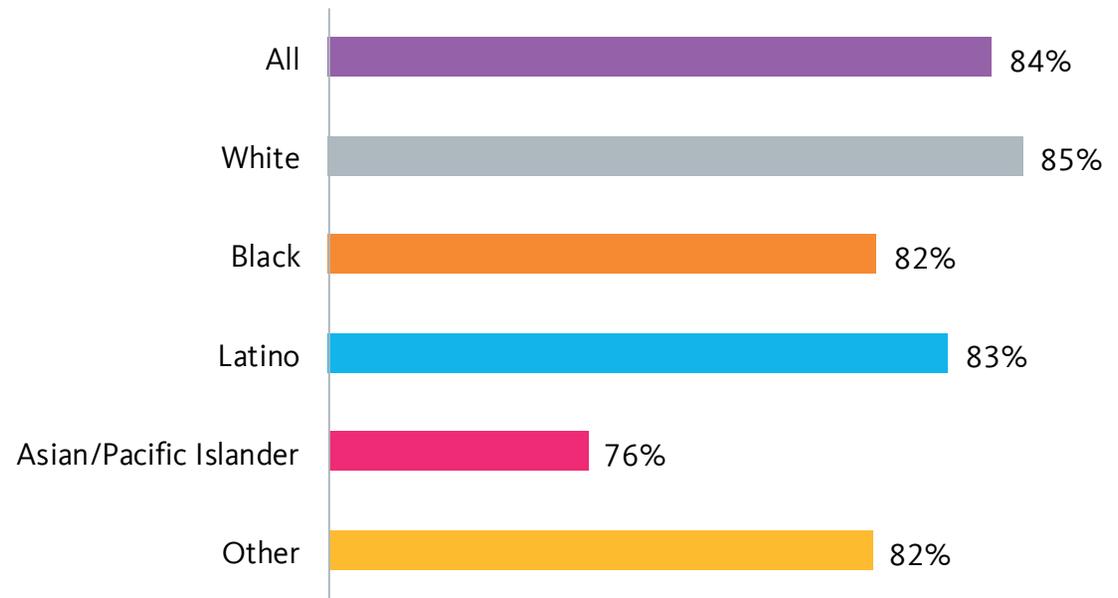
Note: The jobless rate is figured as the number not employed as a share of the population. The full impact of the Great Recession is not reflected in the data shown, which is averaged over 2008 through 2012. These trends may change as new data become available.

# Full employment

## How close is the region to reaching full employment?

**There are racial differences in labor force participation.** The Asian community has the lowest participation rate (76 percent), followed by the African American community (82 percent).

Labor Force Participation Rate  
by Race/Ethnicity, 2012



Source: IPUMS. Universe includes the civilian noninstitutional population ages 25 through 64.

Note: The labor force participation rate is figured as the number either employed or looking for work as a share of the population. The full impact of the Great Recession is not reflected in the data shown, which is averaged over 2008 through 2012. These trends may change as new data become available.

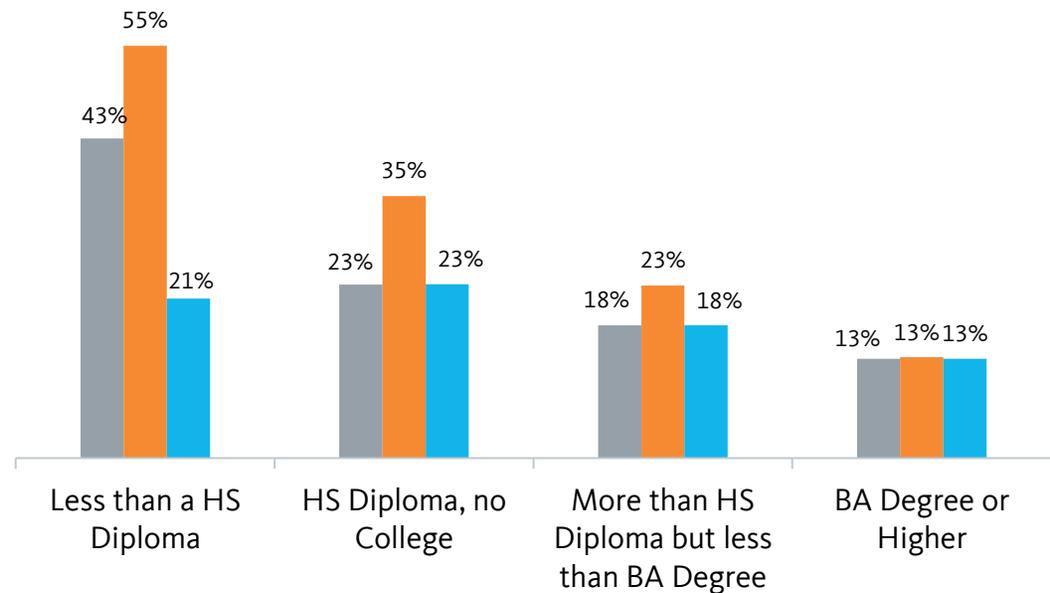
# Full employment

## How close is the region to reaching full employment?

**Joblessness also decreases as education rises, but racial inequities for African Americans without a four-year degree persist.** More than half of Black high school dropouts are not working, and their White counterparts also face high levels of joblessness (42 percent).

Jobless Rate by Educational Attainment and Race/Ethnicity, 2012

- White
- Black
- Latino



Source: IPUMS. Universe includes the civilian noninstitutional population ages 25 through 64.  
 Note: The jobless rate is figured as the number not employed as a share of the population. The full impact of the Great Recession is not reflected in the data shown, which is averaged over 2008 through 2012. These trends may change as new data become available.

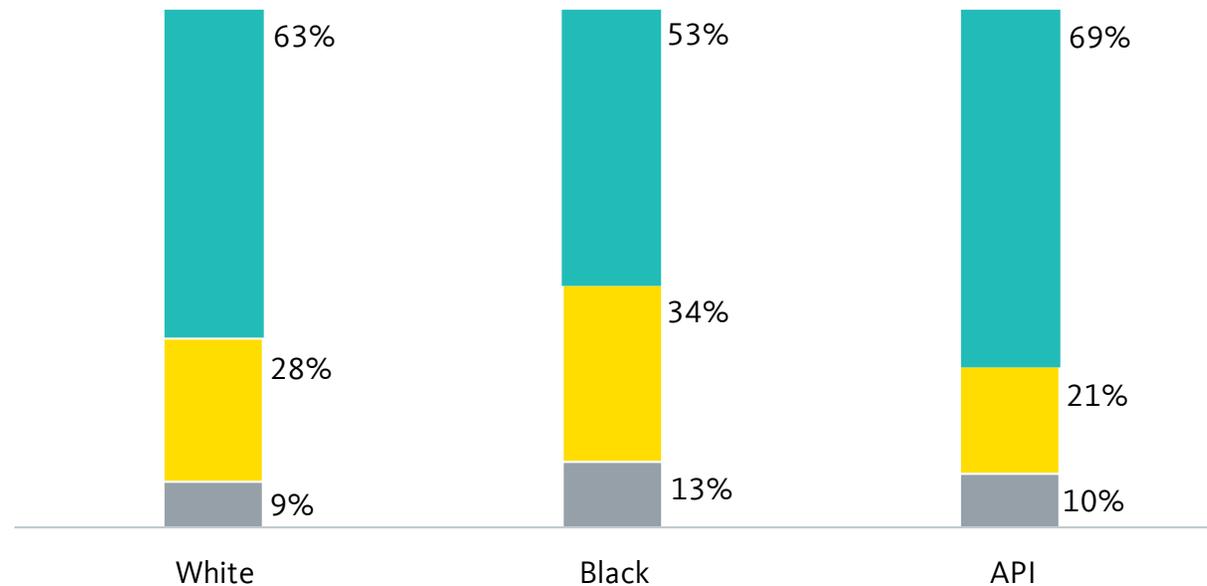
# Access to good jobs

## Can workers access high-opportunity jobs?

**African Americans with college degrees have less access to good jobs.** Fifty-three percent of the region's college-educated Black workers are employed in high-opportunity jobs, compared to 63 percent of their White counterparts.

### Jobs by Opportunity Level by Race/Ethnicity for Workers with a Bachelor's Degree or Higher, 2011

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



Source: U.S. Bureau of Labor Statistics; IPUMS. Universe includes the employed civilian noninstitutional population ages 25 through 64.

Note: High-opportunity jobs are those that rank among the top third of jobs on an "occupation opportunity index," based on five measures of job quality and growth. See the "data and methods" section for a description of the index.

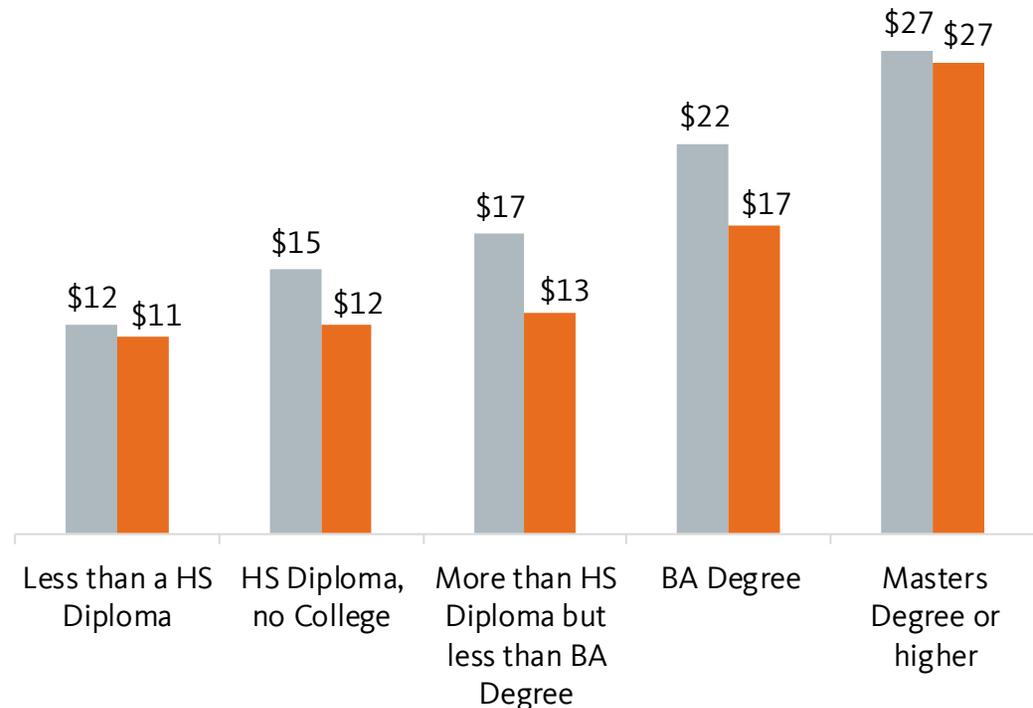
# Access to good jobs

## Can all workers earn a living wage?

**People of color earn lower wages than Whites at every education level.** People of color with BA degrees still earn \$5 less per hour than their White counterparts. People of color with a high school degree but no college earn \$3 less per hour than their White counterparts.

Median Hourly Wage by Educational Attainment and Race/Ethnicity, 2012

■ White  
 ■ People of Color



Source: IPUMS. Universe includes civilian noninstitutional full-time wage and salary workers ages 25 through 64.  
 Note: Data represents a 2008 through 2012 average. Dollar values are in 2010 dollars.

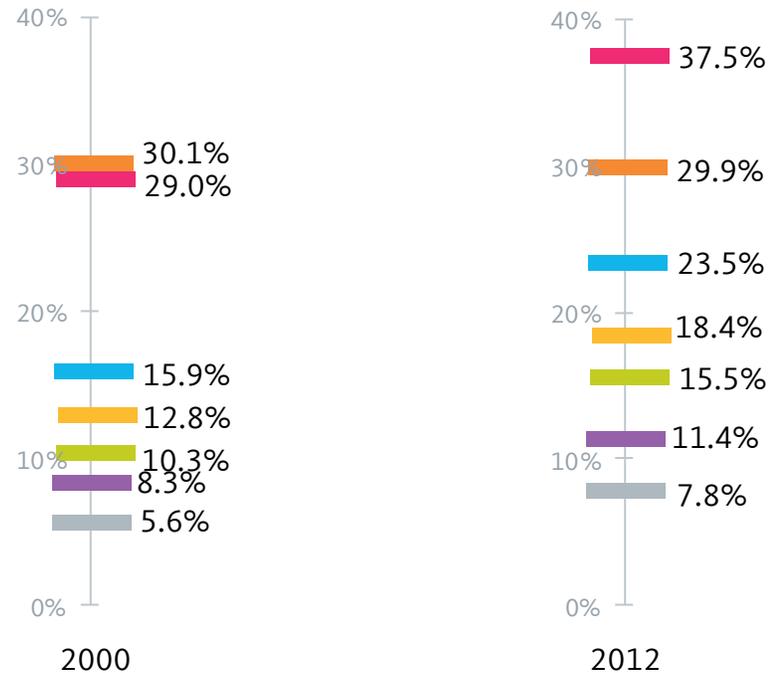
# Economic security

## Is poverty low and decreasing?

**Poverty is on the rise, and it is higher for communities of color.** About one in three African Americans and Native Americans and one in four Latinos live in poverty in the region, compared with less than one in 10 Whites. Poverty has increased dramatically for people of color.

Poverty Rate by Race/Ethnicity, 2000 and 2012

- All
- White
- Black
- Latino
- Asian/Pacific Islander
- Native American
- Other



Source: IPUMS. Universe includes all persons not in group quarters.  
 Note: Data for 2012 represents a 2008 through 2012 average.

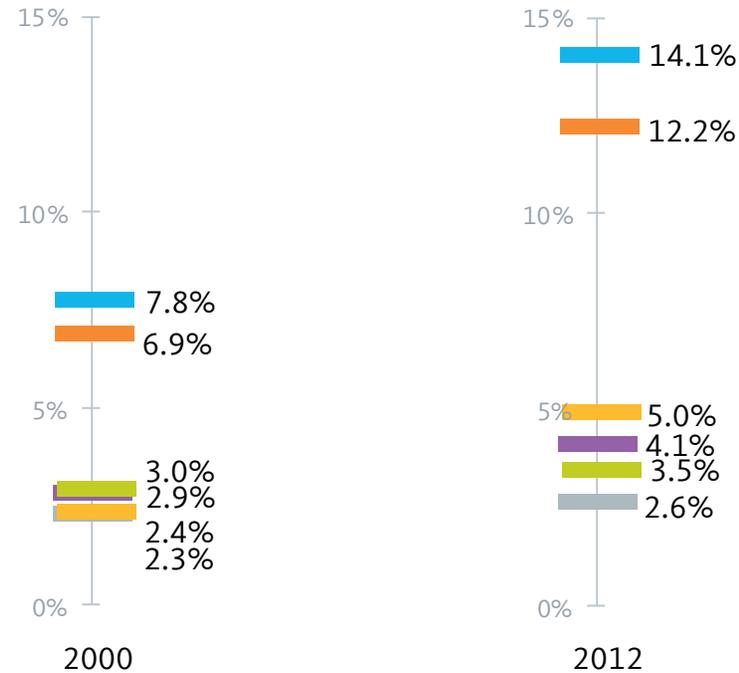
# Economic security

## Is working poverty low and decreasing?

**Working poverty is also on the rise and is particularly high among Latinos and Blacks.** 12.2 percent of Omaha-Council Bluff’s African Americans are working poor –defined as working full-time with incomes below 150 percent of the poverty level – compared with 7.1 percent nationally.

Working Poverty Rate by Race/Ethnicity, 2000 and 2012

- All
- White
- Black
- Latino
- Asian/Pacific Islander
- Other



Source: IPUMS. Universe includes the civilian noninstitutional population ages 25 through 64 not in group quarters.  
 Note: Data for 2012 represents a 2008 through 2012 average.

# Strong industries and occupations

## What are the region's strongest industries?

**Professional services, transportation, and health care are strong and growing industries in the region.** Manufacturing, which traditionally provided many good, middle-skill jobs for people without college degrees, is experiencing severe job losses.

Industry	Size	Concentration	Job Quality	Growth		
	Total employment (2010)	Location Quotient (2010)	Average annual wage (2010)	Change in employment (2000-10)	% Change in employment (2000-10)	Real wage growth (2000-10)
Health Care and Social Assistance	56,055	1.0	\$41,838	13,190	31%	7%
Retail Trade	50,209	1.0	\$24,858	-5,080	-9%	0%
Accommodation and Food Services	36,128	1.0	\$14,339	1,783	5%	-8%
Finance and Insurance	31,374	1.7	\$58,769	1,399	5%	10%
Manufacturing	31,021	0.8	\$44,227	-7,252	-19%	-2%
Administrative and Support and Waste Management and Remediation Services	27,914	1.1	\$29,356	-4,723	-14%	12%
Professional, Scientific, and Technical Services	26,447	1.0	\$62,869	7,457	39%	2%
Construction	20,598	1.1	\$44,125	-2,772	-12%	2%
Transportation and Warehousing	20,392	1.5	\$33,548	2,715	15%	-21%
Wholesale Trade	17,524	0.9	\$54,876	-2,646	-13%	3%
Other Services (except Public Administration)	12,042	0.8	\$29,767	173	1%	16%
Information	10,937	1.2	\$62,075	-7,761	-42%	0%
Arts, Entertainment, and Recreation	7,543	1.2	\$19,447	980	15%	6%
Management of Companies and Enterprises	7,227	1.1	\$90,752	-1,016	-12%	30%
Education Services	6,785	0.8	\$45,974	868	15%	32%
Real Estate and Rental and Leasing	5,438	0.8	\$34,964	-614	-10%	8%
Utilities	1,133	0.6	\$105,466	-194	-15%	71%
Agriculture, Forestry, Fishing and Hunting	1,064	0.3	\$32,923	358	51%	7%
Mining	303	0.1	\$49,933	-349	-54%	1%

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

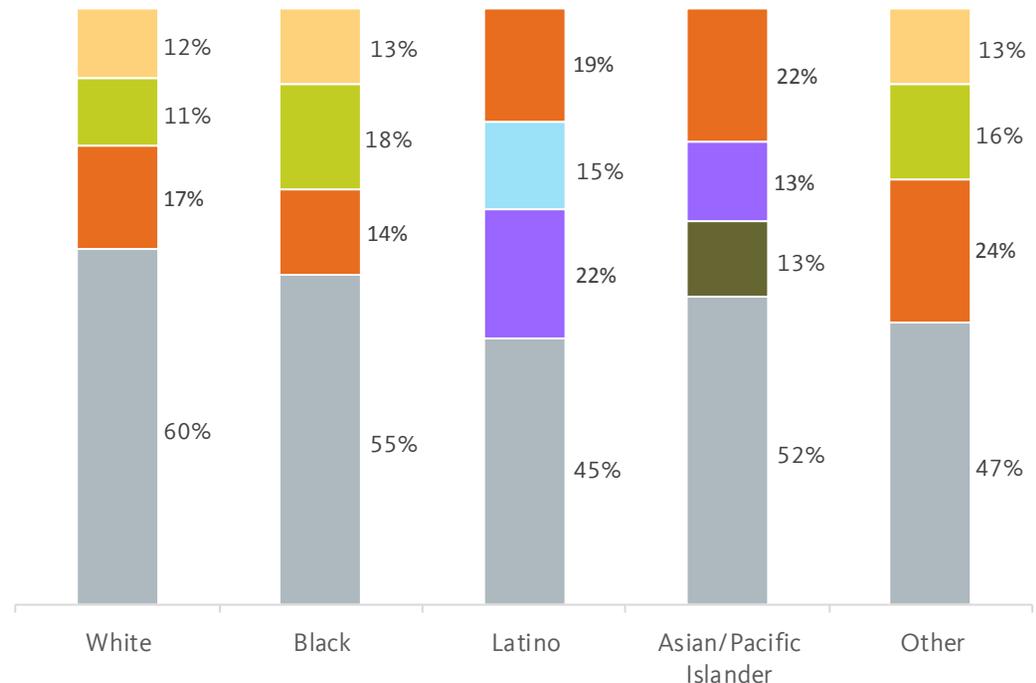
# Strong industries and occupations

## Who works in the region's major industry sectors?

**The region's Latino workers are more concentrated in struggling industry sectors.** Compared with other groups, Latino workers are much more concentrated in sectors that are suffering job losses; 37 percent of Latinos work in manufacturing or construction.

Employment by Industry for Major Racial/Ethnic Groups, 2012

- Health Care and Social Assistance
- Other Services (except Public Administration)
- Retail Trade
- Construction
- Manufacturing
- Education Services
- Other Industries



Source: IPUMS.

Note: Only the top three industries by employment are broken out for each racial/ethnic group. Data represents a 2008 through 2012 average.

# Strong industries and occupations

## What are the region's strongest occupations?

### Health diagnostics, computer operations, and business operations are strong and growing occupations in the region.

These job categories all pay good wages, employ many people, and have exhibited gains in recent years.

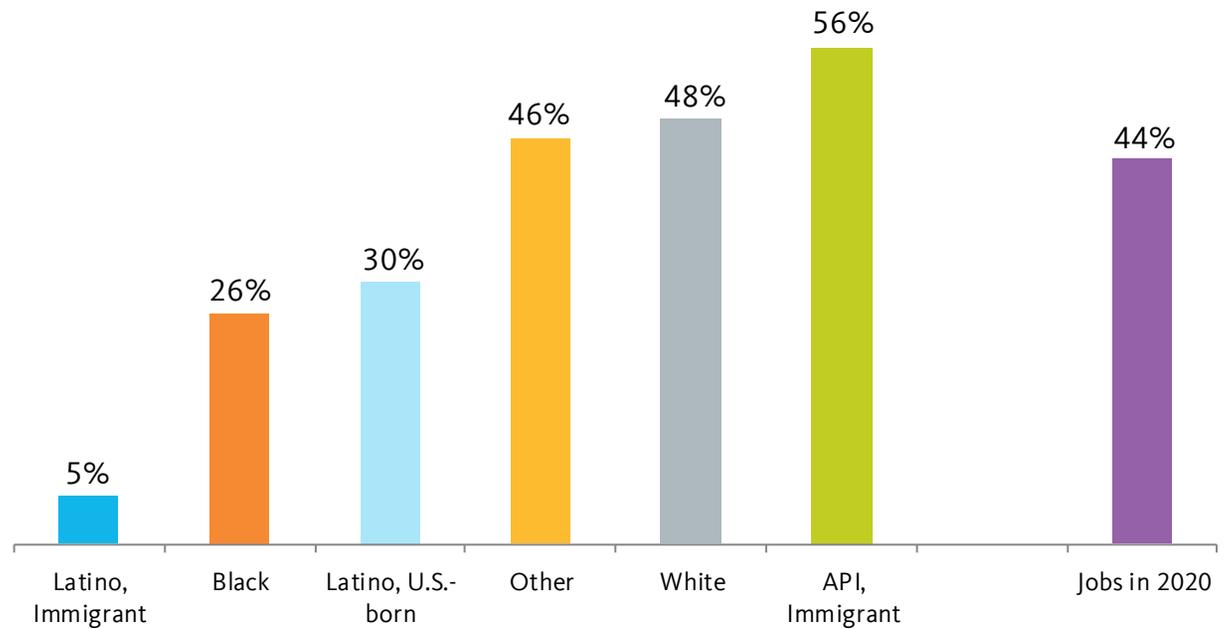
Occupation	Employment	Job Quality	Growth			
	(2011)	Median Annual Wage (2011)	Real Wage Growth (2011)	Change in Employment (2005-11)	% Change in Employment (2005-11)	Median Age (2010)
Motor Vehicle Operators	19,320	\$39,614	41%	12,780	195%	48
Health Diagnosing and Treating Practitioners	17,670	\$70,033	-8%	3,410	24%	40
Computer Occupations	16,200	\$69,975	3%	2,330	17%	41
Business Operations Specialists	14,730	\$57,210	5%	4,400	43%	42
Financial Specialists	9,340	\$59,298	8%	1,160	14%	42
Sales Representatives, Wholesale and Manufacturing	7,040	\$55,239	-1%	360	5%	43
Sales Representatives, Services	6,700	\$49,860	10%	1,910	40%	42
Other Management Occupations	5,170	\$76,017	5%	0	0%	46
Supervisors of Sales Workers	5,170	\$48,141	3%	1,030	25%	42
Top Executives	4,930	\$104,022	-1%	-520	-10%	46
Supervisors of Office and Administrative Support Workers	4,610	\$47,720	2%	870	23%	44
Other Teachers and Instructors	4,080	\$35,336	13%	3,480	580%	46
Operations Specialties Managers	3,860	\$97,015	10%	-520	-12%	43
Engineers	2,980	\$79,713	1%	200	7%	37
Media and Communication Workers	2,300	\$42,989	2%	140	6%	40
Electrical and Electronic Equipment Mechanics, Installers, and Repairers	2,240	\$45,132	-3%	510	29%	41
Law Enforcement Workers	2,210	\$50,687	6%	20	1%	36
Drafters, Engineering Technicians, and Mapping Technicians	1,810	\$44,540	1%	700	63%	43
Advertising, Marketing, Promotions, Public Relations, and Sales Managers	1,690	\$105,755	8%	-80	-5%	41
Supervisors of Construction and Extraction Workers	1,620	\$55,700	-6%	-50	-3%	41

# Skilled workforce

**Do workers have the education and skills needed for the jobs of the future?**

**The region will face a skills gap unless education levels increase for Blacks and Latinos.** By 2020, an estimated 44 percent of jobs in the region will require at least an Associate’s degree. 30 percent of U.S.-born Latinos, 26 percent of Blacks, and 5 percent of Latino immigrants have that level of education.

Share of Working-Age Population with an Associate’s Degree or Higher by Race/Ethnicity and Nativity, 2012 and Projected Share of Jobs that Require an Associate’s Degree or Higher, 2020



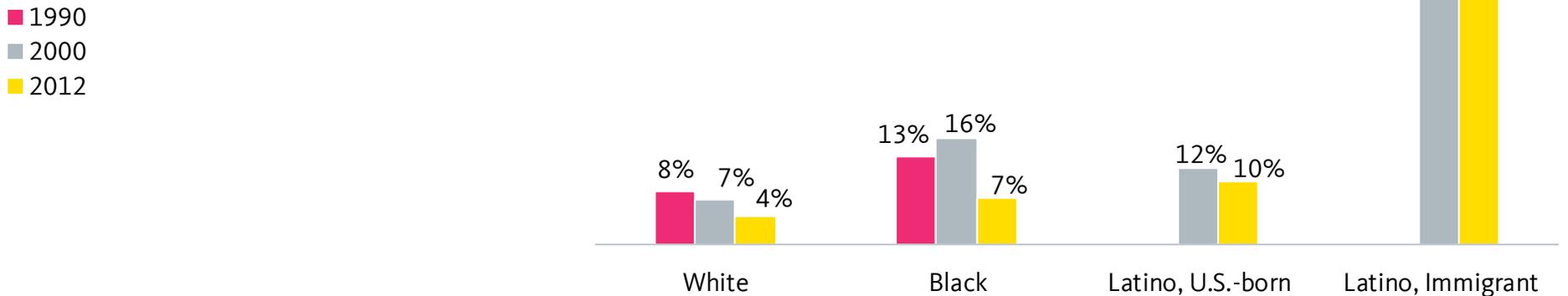
Source: Georgetown Center for Education and the Workforce; IPUMS. Universe for education levels of workers includes all persons ages 25 through 64.  
 Note: Data for 2012 by race/ethnicity/nativity represents a 2008 through 2012 average and is at the regional level; data on jobs in 2020 represents a regional job-weighted average of state-level projections for Nebraska and Iowa.

# Youth preparedness

## Are youth ready to enter the workforce?

**More of the region’s youth are getting high school degrees, but racial gaps remain.** Latino youth are still much less likely to finish school than their white and black counterparts, and Latino immigrants have particularly high rates of dropout or non-enrollment (half currently do not have diplomas).

Share of 16-24-Year-Olds Not Enrolled in School and without a High School Diploma by Race/Ethnicity and Nativity, 1990 to 2012



Source: IPUMS.  
 Note: Data for 2010 represents a 2008 through 2012 average. Data for US-born and immigrant Latinos in 1990 is excluded due to small sample size.

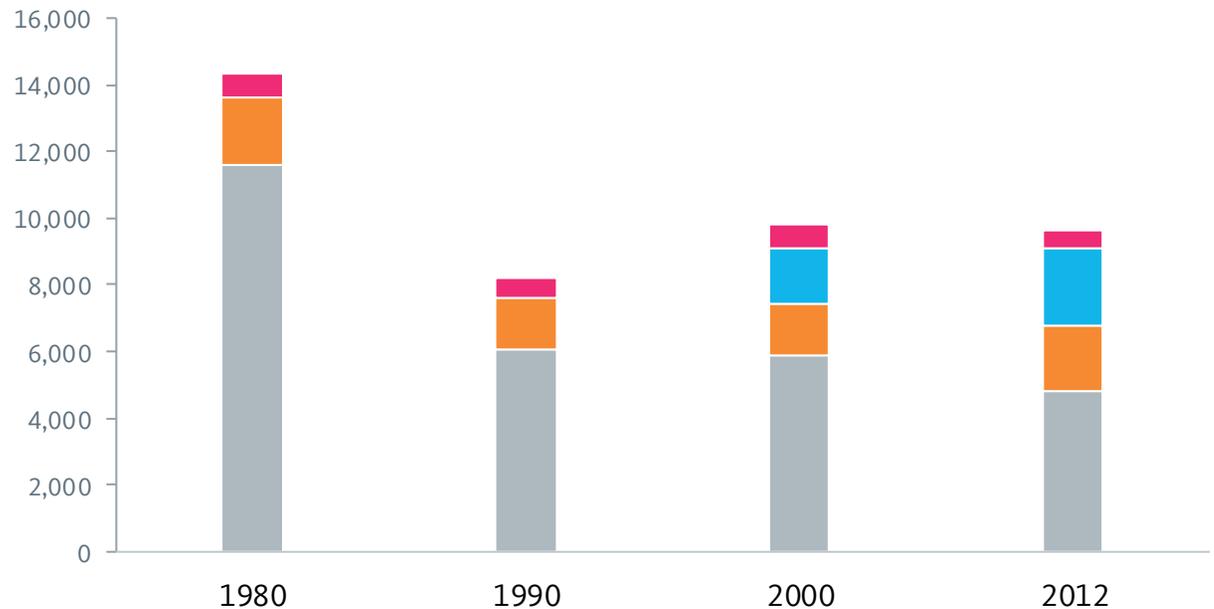
# Youth preparedness

## Are youth ready to enter the workforce?

**More youth are connected to work or school now than in the past, but youth of color are disproportionately disconnected.** Of the 9,600 disconnected youth in the area in 2012, 20 percent were black and 24 percent were Latino. These two groups only make up 9 percent and 10 percent of the youth population.

Disconnected Youth: 16-24-Year-Olds Not in School or Work, 1980 to 2012

- Asian, Native American or Other
- Latino
- Black
- White



Source: IPUMS.

Note: In 1980 and 1990, Latino youth are included with Asian/Pacific Islander, Native American, and Other. Data for 2012 represents a 2008 through 2012 average.

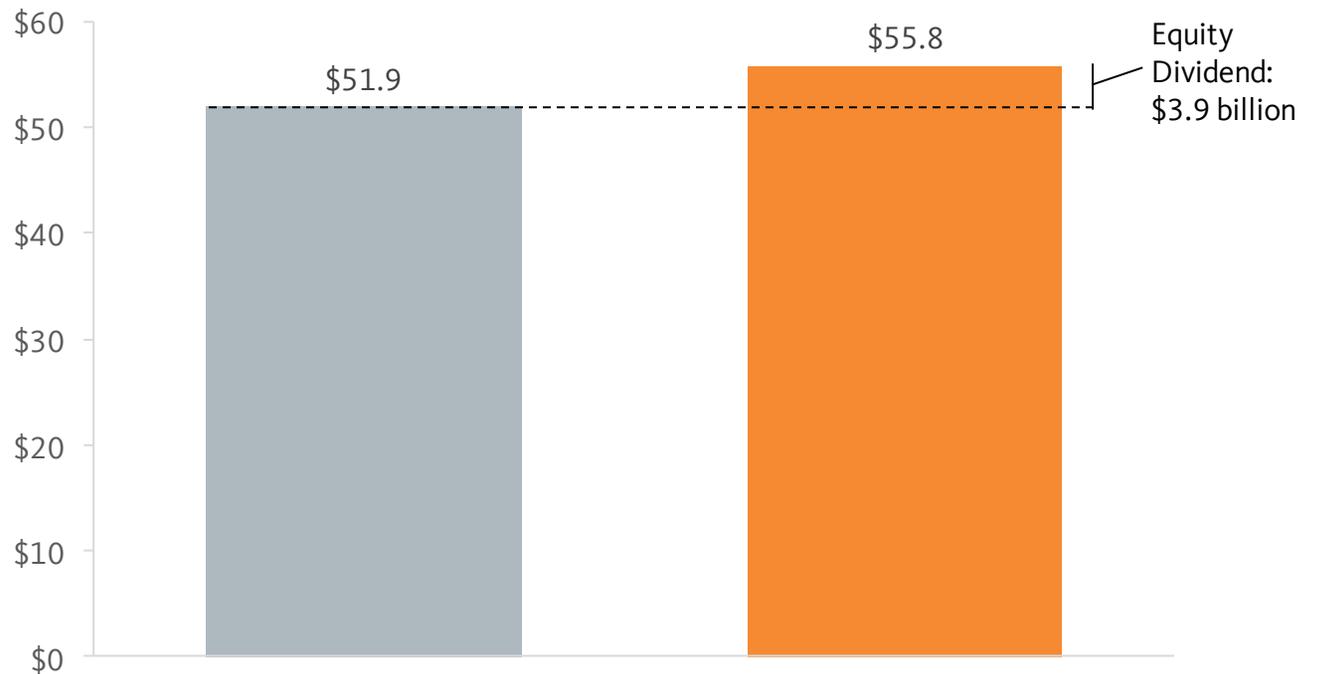
# Economic benefits of equity

How much higher would GDP be without racial economic inequalities?

The Omaha-Council Bluffs region's GDP would have been \$3.9 billion higher in 2012 if its racial gaps in income were closed.

Actual GDP and Estimated GDP without Racial Gaps in Income, 2012

- GDP in 2012 (billions)
- GDP if racial gaps in income were eliminated (billions)



Source: Bureau of Economic Analysis; IPUMS.  
Note: Data for 2012 represents a 2008 through 2012 average.

# Data and methods

## Data source summary and regional geography

### Selected terms and general notes

Broad racial/ethnic origin

Nativity

Other selected terms

General notes on analyses

### Summary measures from IPUMS microdata

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

### Adjustments made to demographic projections

National projections

County and regional projections

### Estimates and adjustments made to BEA data on GDP

Adjustments at the state and national levels

County and metropolitan area estimates

### Middle class analysis

### Assembling a complete dataset on employment and wages by industry

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

### Analysis of occupations by opportunity level

### Estimates of GDP without racial gaps in income

# 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 the USC Program for Environmental and Regional Equity (PERE).

The specific data sources are listed in the table on the right. Unless otherwise noted, the data used to represent the region were assembled to match the eight counties served by Heartland 2050.

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

<b>Source</b>	<b>Dataset</b>
Integrated Public Use Microdata Series (IPUMS)	1980 5% State Sample
	1990 5% Sample
	2000 5% Sample
	2010 American Community Survey, 5-year microdata sample
	2012 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)
	2012 National Population Projections, Middle Series
	2010 TIGER/Line Shapefiles, 2010 Counties
Woods & Poole Economics	2014 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
Georgetown University Center on Education and the Workforce	Recovery: Job Growth And Education Requirements Through 2020; State Report

# Data and methods

## Data source summary and regional geography

(continued)

available for some indicators, the data in this profile draw from our regional equity indicators database that provides data that are comparable and replicable over time. At times, we cite local data sources in the Summary document.

# 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,” “Asian/Pacific Islander,” and “API” are used to refer to all people who identify as Asian 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.
- “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 of American parents. The term “immigrant” refers to all people who identify as being born abroad, outside of the United States, of non-American parents.

### **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 by the U.S. Office of Management and Budget, as well as to the region that is the subject of this profile as defined previously.
- 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 American Community Survey (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

# Data and methods

## Selected terms and general notes

(continued)

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 [http://www.census.gov/acs/www/Downloads/methodology/content\\_test/P6b\\_Weeks\\_Worked\\_Final\\_Report.pdf](http://www.census.gov/acs/www/Downloads/methodology/content_test/P6b_Weeks_Worked_Final_Report.pdf).

### General notes on analyses

Below we provide some general notes about the analyses conducted:

- In the summary document that accompanies this profile, we may discuss rankings comparing the profiled region to the largest 150 metros. In all such instances, we are referring to the largest 150 metropolitan statistical areas in terms of 2010 population.
- In regard to monetary measures (income, earnings, wages, etc.) the term “real” indicates the data have been adjusted for inflation, and, unless otherwise noted, all dollar values are in 2010 dollars. 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 <ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt>.
- Note that income information in the decennial censuses for 1980, 1990, and 2000 is reported for the year prior to the survey.

# Data and methods

## Summary measures from 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 2008 through 2012 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 2008 through 2012 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 2008 through 2012 period.

Compared with the more commonly used census “summary files,” which include 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 provides a more nuanced view of groups defined by age, race/ethnicity, and nativity in each region of the United States.

The IPUMS microdata allows for the tabulation of detailed population characteristics, but 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.

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) or “County Groups.” PUMAs are drawn to contain a population of about 100,000, and vary greatly in 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.

Because PUMAs do not neatly align with the boundaries of metropolitan areas, we created a geographic crosswalk between PUMAs and the region for the 1980, 1990, 2000, and 2008-2012 microdata. This involved estimating the share of each PUMA’s population that falls inside the region using population information from Geolytics for 2000 census block groups (2010 population information was used for the 2008-2012 geographic crosswalk). If the share was at least 50 percent, the PUMAs were assigned to the region and included in generating regional summary measures. For the remaining PUMAs, the share was somewhere between 50 and 100 percent, and this share was used as the “PUMA adjustment factor” to adjust downward the survey weights for individuals included in such PUMAs in the microdata when estimating regional summary measures.

## Data and methods

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

For the racial generation gap indicator, we generated consistent estimates of populations by race/ethnicity and age group (under 18, 18-64, and over 64 years of age) for the years 1980, 1990, 2000, and 2010, 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/Alaskan Native, and non-Hispanic other (including other single race alone and those identifying as multiracial). While for 2000 and 2010, this information is readily available in SF1 of each year, 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 of non-Hispanic Asian and Pacific Islanders, non-Hispanic Native Americans/Alaskan Natives, and non-Hispanic others 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 was taken from the 1990 Modified Age Race Sex (MARS) file – special tabulation of people by age, race, sex, and Hispanic origin. However, to be consistent with the way race is categorized by the Office of Management and Budget’s (OMB) Directive 15, the MARS file allocates all persons identifying as “other race” or multiracial 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 race” or multiracial 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 race” or multiracial people and applied this share to estimate the number of people by race/ethnicity and age group exclusive of the “other race” and multiracial, and finally the number of the “other race” and multiracial by age group.

# Data and methods

## Adjustments made to demographic projections

### **National projections**

National projections of the non-Hispanic white share of the population are based on the U.S. Census Bureau's 2012 National Population Projections, Middle Series. 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 in the projected data for 2010 to the actual percentage reported in SF1 of the 2010 Census. We subtracted the projected percentage from the actual percentage for each group to derive an adjustment factor, and carried this adjustment factor forward by adding it to the projected percentage for each group in each projection year. Finally, we applied the adjusted population distribution by race/ethnicity to

the total projected population from 2012 National Population Projections to get the projected number of people by race/ethnicity.

### **County and regional projections**

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 multiracial 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 others or multiracials.

To estimate the county-level share of population for those classified as other or multiracial 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 multiracial 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.

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

# Data and methods

## Adjustments made to demographic projections

(continued)

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

The data on national Gross Domestic Product (GDP) and its analogous regional measure, Gross Regional Product (GRP) – both referred to as GDP in the text – are 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, 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 2012.

### **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 a NAICS basis occurred in 1997, BEA also provides estimates under an 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 earnings of employees working in each

# Data and methods

## Estimates and adjustments made to BEA data on GDP

(continued)

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

To analyze middle class decline over the past four decades, 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 of the middle class examined the share of households enjoying the same relative standard of living in each year as the middle 40 percent of households did in 1979.

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# Assembling a complete dataset on employment and wages by industry

Analysis of jobs and wages by industry, reported on pages 18 and 34, is based on an industry-level dataset constructed using two-digit NAICS industries from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW). 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 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 regional and state levels of geography.

Given differences in the methodology underlying the two data sources (in addition to the proprietary issue), 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 accurate 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 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 are available on an annual basis, the Woods & Poole data are available on a decadal basis until 1995, at which point they become available on an annual basis. For the 1990-1995 period, we estimated the Woods & Poole annual jobs and wages figures using a

figures using a straight-line approach. Finally, we standardized the CEDDS 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.

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

The analysis on page 18 uses our filled-in QCEW dataset (see the previous page) and seeks to track shifts in regional job composition and wage growth 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, middle, 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-, middle-, 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:

[http://www.brookings.edu/~media/research/files/reports/2012/4/26%20baltimore%20economy%20vey/0426\\_baltimore\\_economy\\_vey.pdf](http://www.brookings.edu/~media/research/files/reports/2012/4/26%20baltimore%20economy%20vey/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.

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## Analysis of occupations by opportunity level

The analysis of strong occupations on page 36 and jobs by opportunity level on page 30 are related and based on an analysis that seeks to classify occupations in the region by opportunity level. Industries and occupations with high concentrations in the region, strong growth potential, and decent and growing wages are considered strong.

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 (which represents potential job openings due to retirements).

Once the “Occupation Opportunity Index” score was calculated for each occupation, occupations were sorted into three categories (high, middle, and low opportunity).

Occupations were evenly distributed into the categories based on employment. The strong occupations shown on page 36 are restricted to the top high-opportunity occupations

above a cutoff drawn at a natural break in the “Occupation Opportunity Index” score.

There are some 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 same 2010 5-year IPUMS American Community Survey microdata file that is used for many other analyses (for the employed civilian noninstitutional population ages 16 and older). The median age measure is also based on data for Metropolitan Statistical Areas (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 considerably more detailed data is available in the OES, it was necessary to aggregate to the three-digit SOC level in

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# Analysis of occupations by opportunity level

(continued)

order to align closely with the occupation codes reported for workers in the American Community Survey microdata, making the analysis reported on page 30 possible.

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## Estimates of GDP 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 IPUMS 2012 5-Year American Community Survey (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.



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.

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

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