An Equity Profile of the
Kansas City Region

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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, and do not necessarily represent those of the Mid-America Regional Council or its partners.

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Summary

This analysis of equity in the Kansas City region shows that communities of color are driving the region's population growth, making their economic inclusion essential to the region's success. While the region demonstrates overall economic strength and resilience, wide racial gaps in income, health, and opportunity – coupled with declining wages, a shrinking middle class, and rising inequality – place its economic future at risk.

To secure a prosperous future, the region's leaders must take steps to build a more equitable and sustainable economy. Critical strategies include growing good jobs, connecting unemployed and low-wage workers to job training and career opportunities, and increasing access to economic opportunity throughout the region. Implementing these strategies would put all the region's residents on the path to reaching their full potential, bringing shared economic prosperity regionwide.

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 Kansas City region. It was developed to help the Mid-America Regional Council (MARC) – the sponsor of the Creating Sustainable Places Initiative (a HUD Sustainable Communities Initiative) – and its local partners effectively address equity issues as they plan for a more integrated and sustainable region. MARC's local partners include Communities Creating Opportunity (CCO), Green Impact Zone, Latino Civic Engagement Collaborative, Metropolitan Organization for Racial and Economic Equity (MORE2), and Urban League of Greater Kansas City. PolicyLink and PERE also hope this will be a useful tool for advocacy groups, elected officials, planners, and others.

The data in this profile draw 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 Survey, and Woods and Poole Economics. See the "Data and methods" section of this profile for a detailed list of data sources.

Introduction
Defining the region

Throughout this profile and data analysis, the Kansas City region is defined as the 9-county area served by the Mid-America Regional Council and depicted on the map to the right. 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 beginning on page 81.

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 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 growth.[1]
- Companies with a diverse workforce achieve a better bottom line.[2]
- A diverse population better connects to global markets.[3]

The way forward: an equity-driven growth model.
To secure America's prosperity, the United States 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, and the level where strategies are being incubated that bring about robust job growth that is linked to low-income communities and communities of color.

[1] 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 21st 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.

[2] 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.

[3] 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/nativity, neighborhood of residence, or other characteristics – 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 four sections. The first section describes the region's demographics. The next three sections present indicators of the region's economic vitality, readiness, and connectedness. Below are the questions answered within each of the four 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?

Demographics

Demographics
Highlights
Who lives in the region and how is it changing?

- The Kansas City region is moderately diverse and becoming more diverse, with growing representation from all major racial/ethnic groups except non-Hispanic whites.

- The region has experienced rapid demographic change over the past several decades, with its share of people of color increasing from 16 percent to 27 percent since 1980.

- Diverse communities, especially Latinos and Asians, are driving growth and change in the region and will continue to do so over the next several decades.

- The people-of-color population is growing rapidly in every county within the region, doubling or nearly doubling in four of nine counties since 2000.

- There is a large and growing racial generation gap between the region's mainly white senior population and its increasingly diverse youth population.

People of color:

27%

Diversity rank
(out of largest 150 regions):

#79

Share of population growth attributable to communities of color since 2000:

67%

Demographics
A moderately diverse region

Twenty-seven percent of residents in the Kansas City region are people of color, including many different racial and ethnic groups. The Latino population is predominantly of Mexican ancestry (80 percent). Despite its relatively small share of the overall regional population, the Asian population is quite diverse; large groups include Asian Indian, Chinese/Taiwanese, Vietnamese, Filipino, and Korean.

The region's population is 27 percent people of color
1. Race, Ethnicity, and Nativity, 2010

- White
- Black
- Latino, U.S.-born
- Latino, Immigrant
- API, U.S.-born
- API, Immigrant
- Native American and Alaska Native
- Other or mixed race
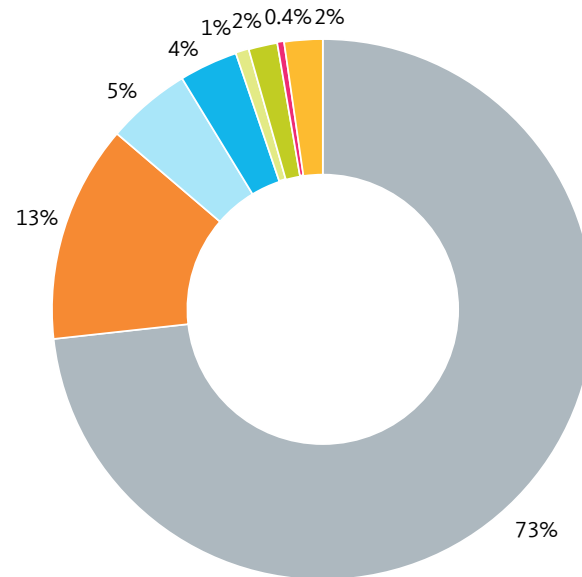
A diverse Asian population and predominantly Mexican-ancestry Latino population
2. Latino and Asian Populations by Ancestry, 2006-2010

Ancestry	Population
Mexican	119,691
All other Latinos	30,552
Total	**150,243**

Asian/Pacific Islander

Ancestry	Population
Asian Indian	12,434
Chinese or Taiwanese	7,155
Vietnamese	6,550
Filipino	4,115
Korean	3,856
All other Asians	9,846
Total	**43,956**

Sources: IPUMS; U.S. Census Bureau. 2006-2010 IPUMS data adjusted to match 2010 census results.

Source: IPUMS.

Demographics
A moderately diverse region
(continued)

Kansas City ranks 79th among the largest 150 metros in diversity. Kansas City has a diversity score of 0.90, making it more diverse than similarly sized metro areas in the Midwest, including Indianapolis (0.85) and Columbus (0.82).

The diversity score is a measure of racial/ethnic diversity in 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 65-66.

Kansas City has a moderate level of diversity compared to other regions
3. Diversity Score in 2010: Largest 150 Metros Ranked

Vallejo-Fairfield, CA: #1 (1.45)

Kansas City: #79 (0.90)

Portland-South Portland-Biddeford, ME: #150 (0.34)
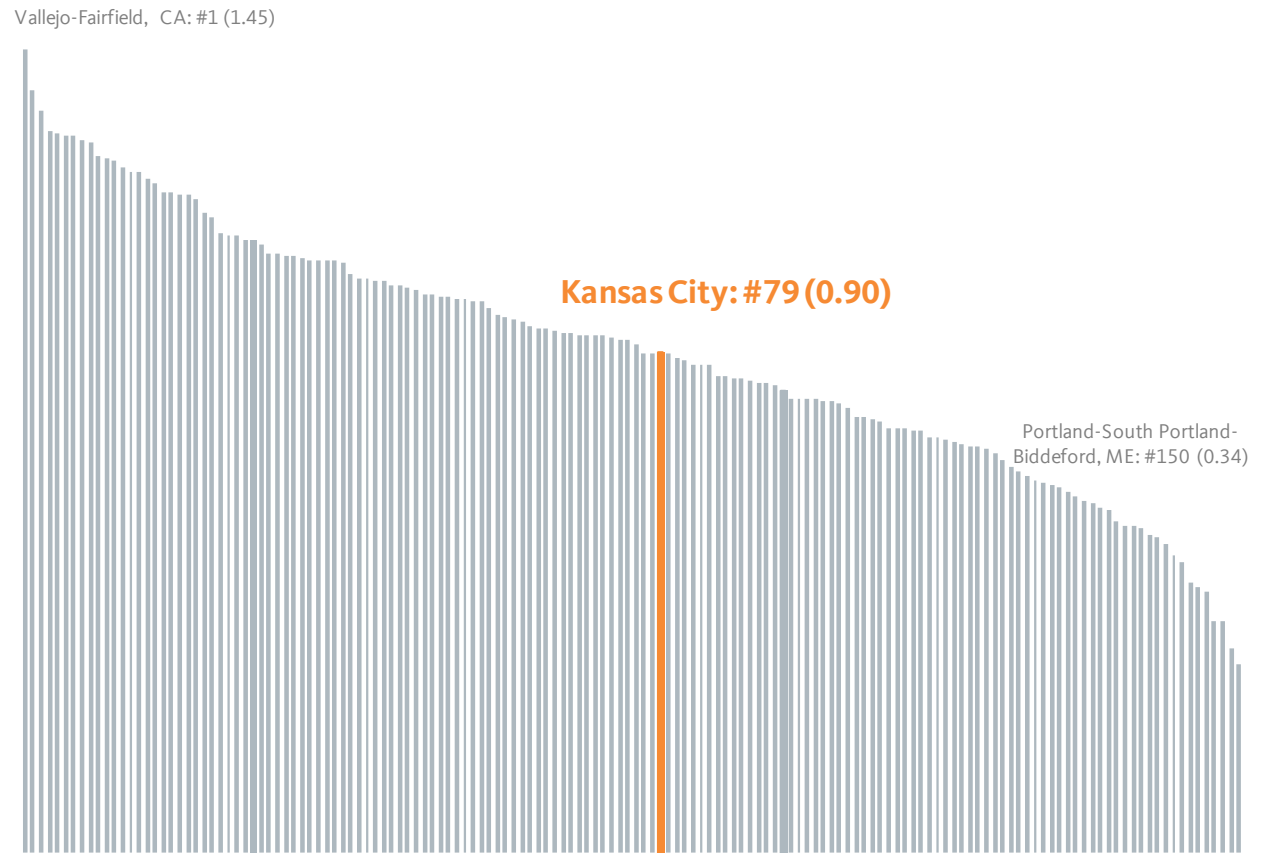
Source: U.S. Census Bureau.

Demographics
Rapid demographic change over the past several decades

The Kansas City region has experienced steady population growth since 1980, growing from 1.4 million to 1.9 million residents. In the same time period, the region's people-of-color population has grown from 16 percent to 27 percent. Most of the region's growth has come from people of color – 61 percent of the growth in the 1990s and 67 percent of the growth in the 2000s.

The population is rapidly diversifying
4. Racial/Ethnic Composition, 1980 to 2010

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

Year	White	Black	Latino	Asian/Pacific Islander	Native American	Other
1980	84%	13%	2%			1%
1990	83%	13%	3%			1%
2000	78%	13%	5%	2%		2%
2010	73%	13%	9%	3%		2%
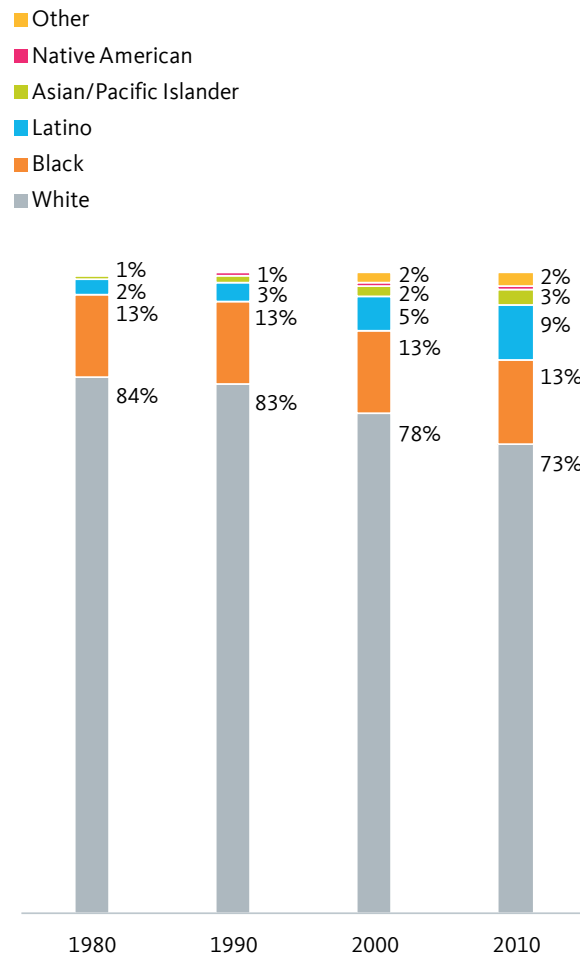
Source: U.S. Census Bureau.

People of color contributed the majority of the region's growth over the past two decades
5. Composition of Net Population Growth by Decade, 1980 to 2010

- Non-Hispanic White
- People of Color

Decade	Total	Non-Hispanic White	People of Color
1980-1990	131,640	71%	29%
1990-2000	188,950	39%	61%
2000-2010	194,966	33%	67%
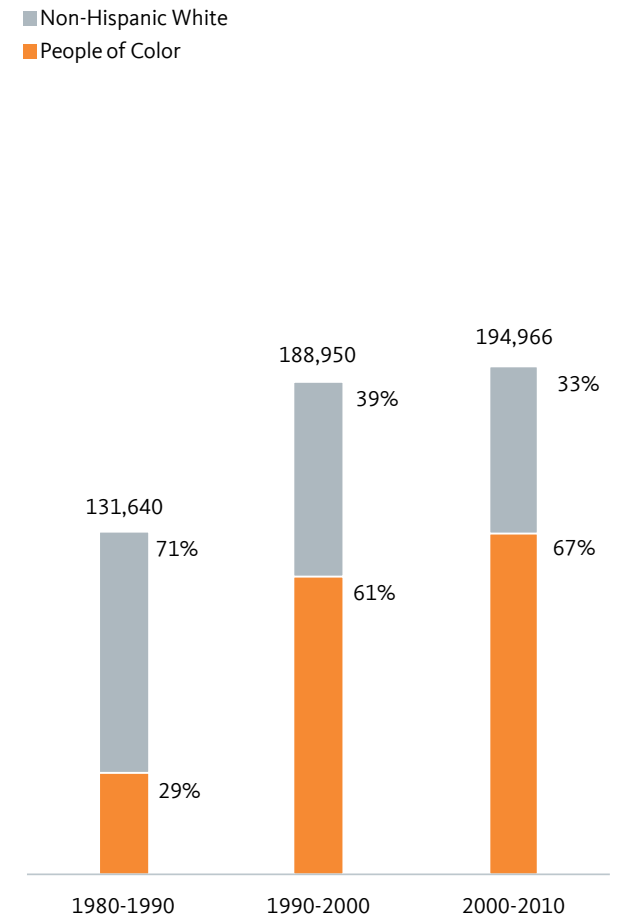
Source: U.S. Census Bureau.

Demographics
Latinos are leading the region's growth

In the past decade, Kansas City's Latino population grew 78 percent, adding 72,000 residents. The region's Asian and other/mixed racial background populations also grew rapidly (61 and 51 percent), but did not contribute as many new residents given their smaller size. The non-Hispanic white population grew by only 5 percent, but because of its large population share added 64,000 residents. The African American and Native American populations also grew, but more slowly (11 and 8 percent).

Most of the growth in the region's Latino population is due to new births among Latino U.S. residents (57 percent). On the other hand, 59 percent of growth in the region's Asian population came from Asian immigrants.

The Latino and Asian populations had the fastest growth in the past decade, while the white population had the slowest growth
6. Growth Rates of Major Racial/Ethnic Groups, 2000 to 2010

White 5%
Black 11%
Latino 78%
Asian/Pacific Islander 61%
Native American 8%
Other 51%
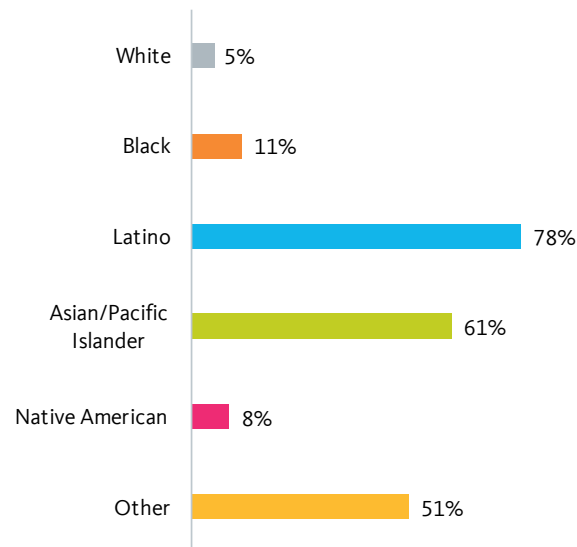
Source: U.S. Census Bureau.

Latino population growth was mainly due to births among U.S.-born Latinos, and vice versa for the Asian population
7. Share of Net Growth in Latino and Asian Population by Nativity, 2000 to 2006-2010

■ Foreign-born Latino
■ U.S.-born Latino

43%
57%

■ Foreign-born API
■ U.S.-born API

41%
59%
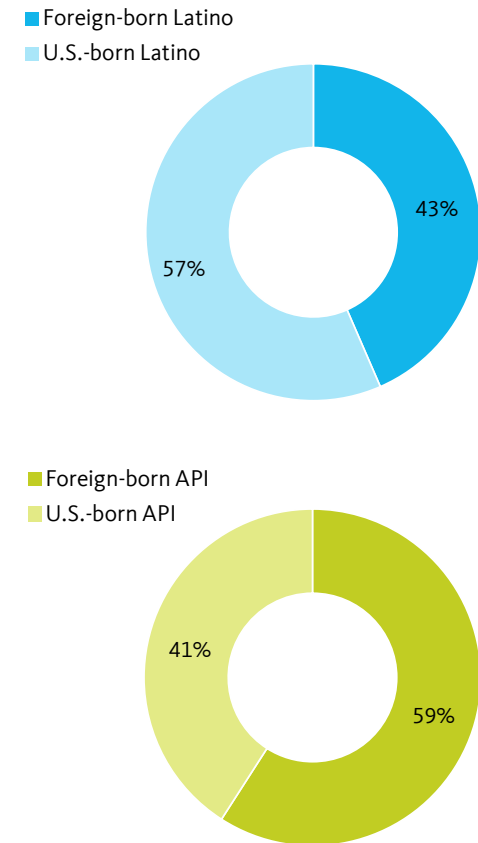
Source: IPUMS.

Demographics
People of color are driving growth throughout the region

Most of the region's counties (Johnson, Clay, Cass, Platte, and Miami) experienced moderate population growth of 16 to 22 percent over the past decade. The most populous county, Jackson, along with Ray and Leavenworth Counties, grew more slowly. Wyandotte County's population declined slightly.

In every county within the region, the people-of-color population grew at a much faster rate than the population as a whole. Cass, Clay, Johnson, and Platte Counties saw the fastest growth of their people-of-color populations.

The people-of-color population is growing faster than the overall population in every county
8. Percent Change in Population, 2000 to 2010 (in descending order by 2010 population)

- People of color growth
- Population growth

County	People of color growth	Population growth
Jackson	17%	3%
Johnson	98%	21%
Clay	101%	21%
Wyandotte	17%	-0.2%
Cass	116%	21%
Platte	88%	21%
Leavenworth	22%	11%
Miami	46%	16%
Ray	19%	1%
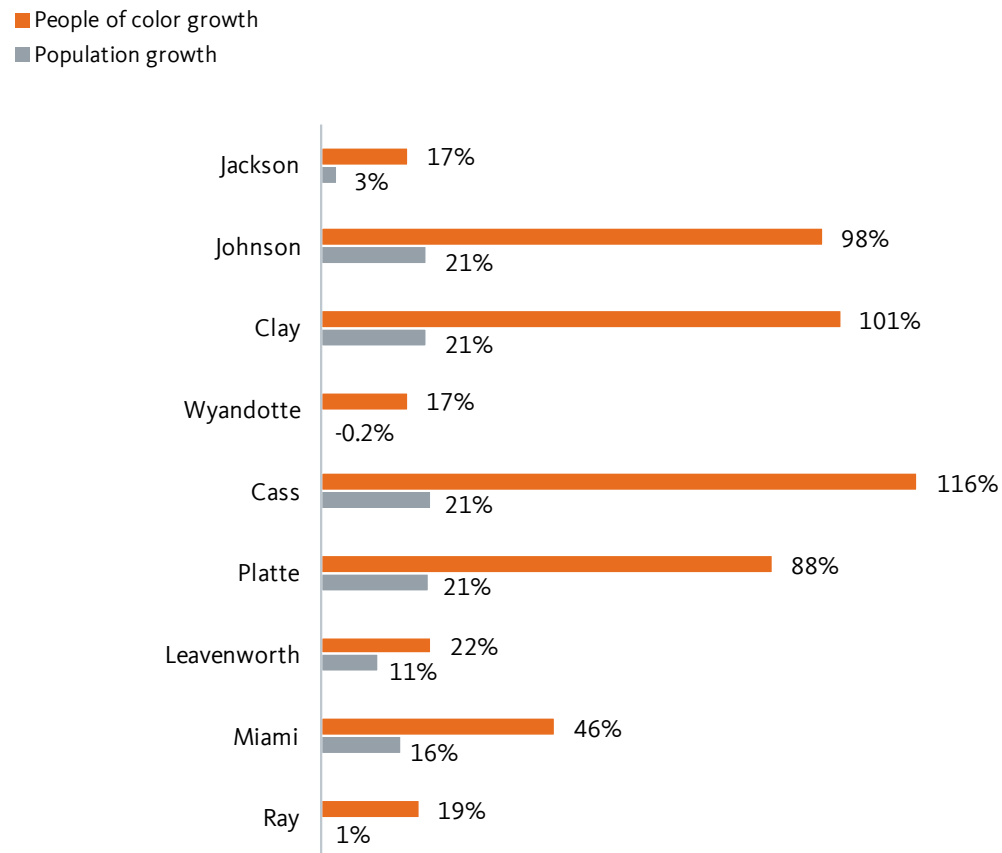
Source: U.S. Census Bureau.

Demographics
People of color are driving growth throughout the region
(continued)

Rapidly growing communities of color can be found in nearly every county in the region. The people-of-color population has more than doubled since 2000 in many block groups in Clay, Johnson, and Jackson Counties. While the people-of-color population in Cass County grew quickly (116 percent), these maps show how that growth is concentrated in several of the region's block groups. Growth in communities of color is slower in Ray County, which is 95 percent white, and in Kansas City's urban core, where the people-of-color population is already large.

Significant growth in communities of color throughout the region
9. Percent Change in People of Color by Census Block Group, 2000 to 2010

- Decline
- Less than 31% increase
- 31% to 64% increase
- 65% to 125% increase
- 126% or more increase
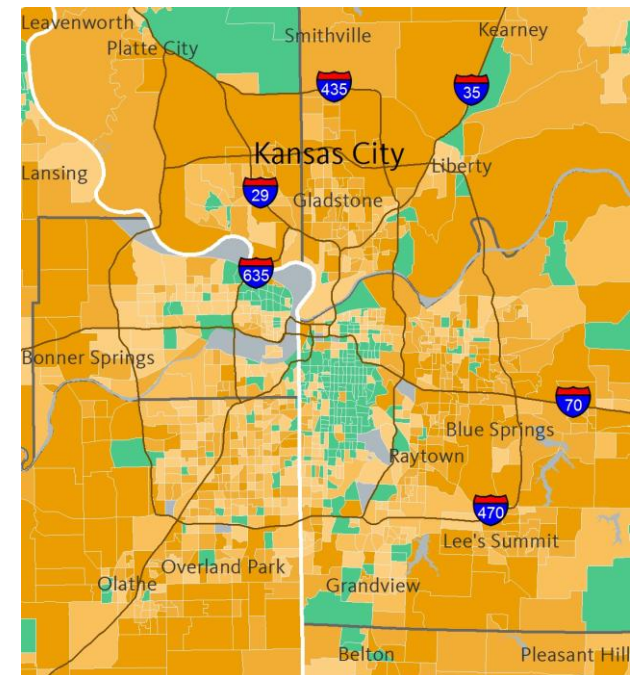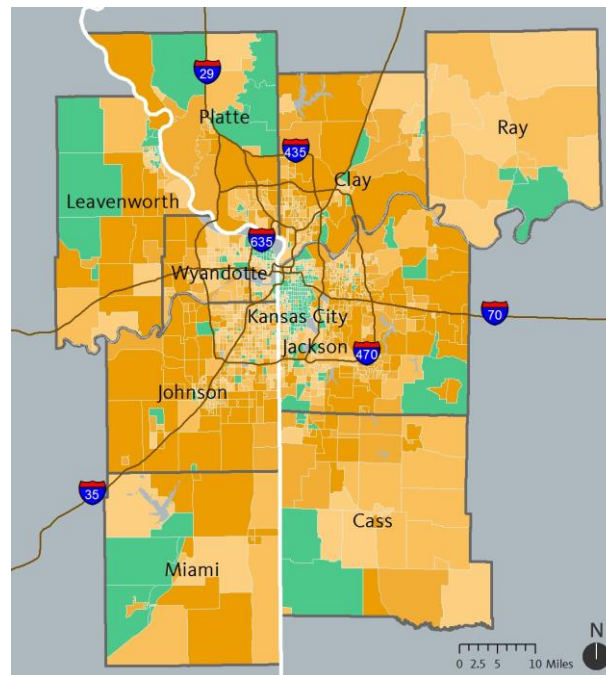
Sources: U.S. Census Bureau; Geolytics.
Note: To more accurately visualize change, block groups with a small populations (50 or fewer people in either 2000 or 2010) were excluded from the analysis. Excluded block groups are shaded in white.

Demographics
People of color are driving growth throughout the region
(continued)

The Latino population is growing quickly in most of the region's neighborhoods, and areas with fast growth of Latinos (where the population has doubled in size) can be found in every county in the region.

Significant growth in the Latino population throughout the region

10. Percent Change in the Latino Population by Census Block Group, 2000 to 2010

Legend:
- Decline
- Less than 54% increase
- 54% to 104% increase
- 105% to 200% increase
- 201% or more increase
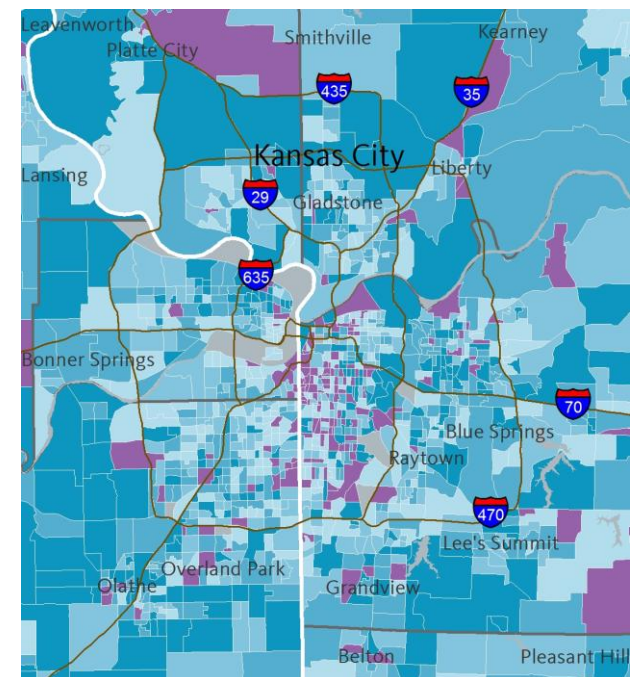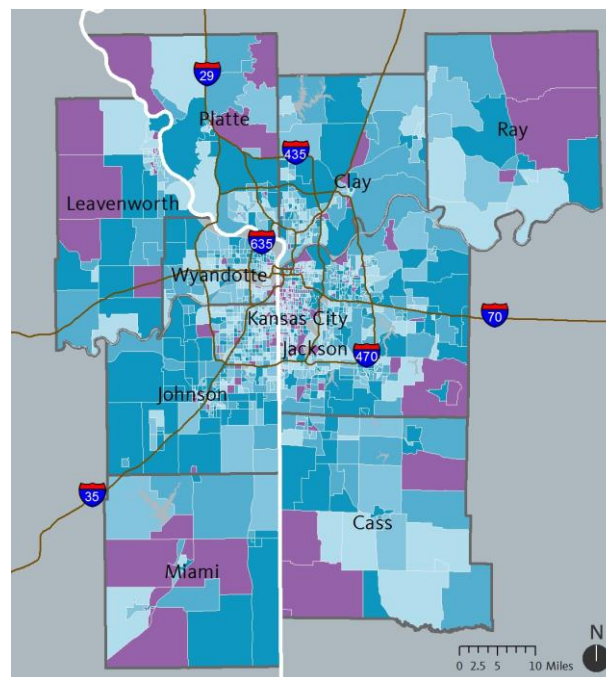
Sources: U.S. Census Bureau; Geolytics.
Note: To more accurately visualize change, block groups with a small populations (50 or fewer people in either 2000 or 2010) were excluded from the analysis. Excluded block groups are shaded in white.

Demographics
Diversity is increasing in the suburbs

Since 1990, population growth was focused primarily in Johnson County, which grew by 53 percent and added 190,000 residents, along with large increases in every racial/ethnic group. Most other counties also saw increases in people of all racial/ethnic backgrounds, resulting in a population in 2010 that was more diverse than in 1990.

Diversity is increasing in the urban core and spreading outwards
11. Racial and Ethnic Composition by Census Tracts, 1990 and 2010

Race/Ethnicity
1 dot = 300
- Non-Hispanic White
- Black
- Latino
- Asian/Pacific Islander
- American Indian or Alaska Native
- Other or Mixed Race
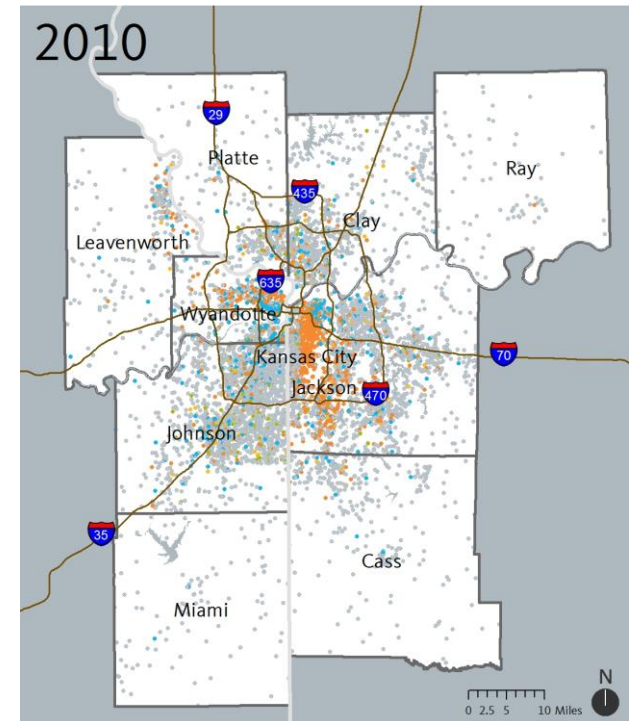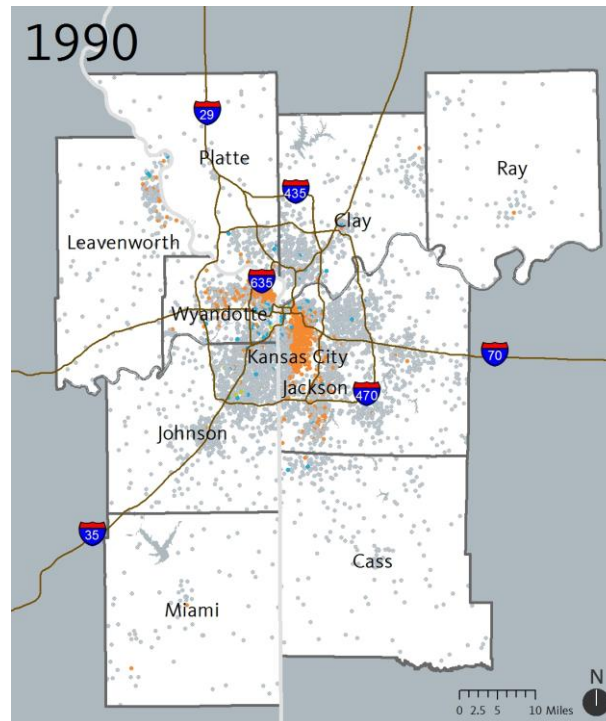
Sources: U.S. Census Bureau; Geolytics.

Demographics
The region will continue to diversify

Kansas City will continue to grow more diverse into the future, at a rate that is similar to that of the past few decades and about the same as the nation as a whole. When the nation as a whole becomes majority people of color around the year 2043, about 42 percent of the Kansas City region's residents will be people of color.

The share of people of color is projected to increase through 2040
12. Racial/Ethnic Composition, 1980 to 2040
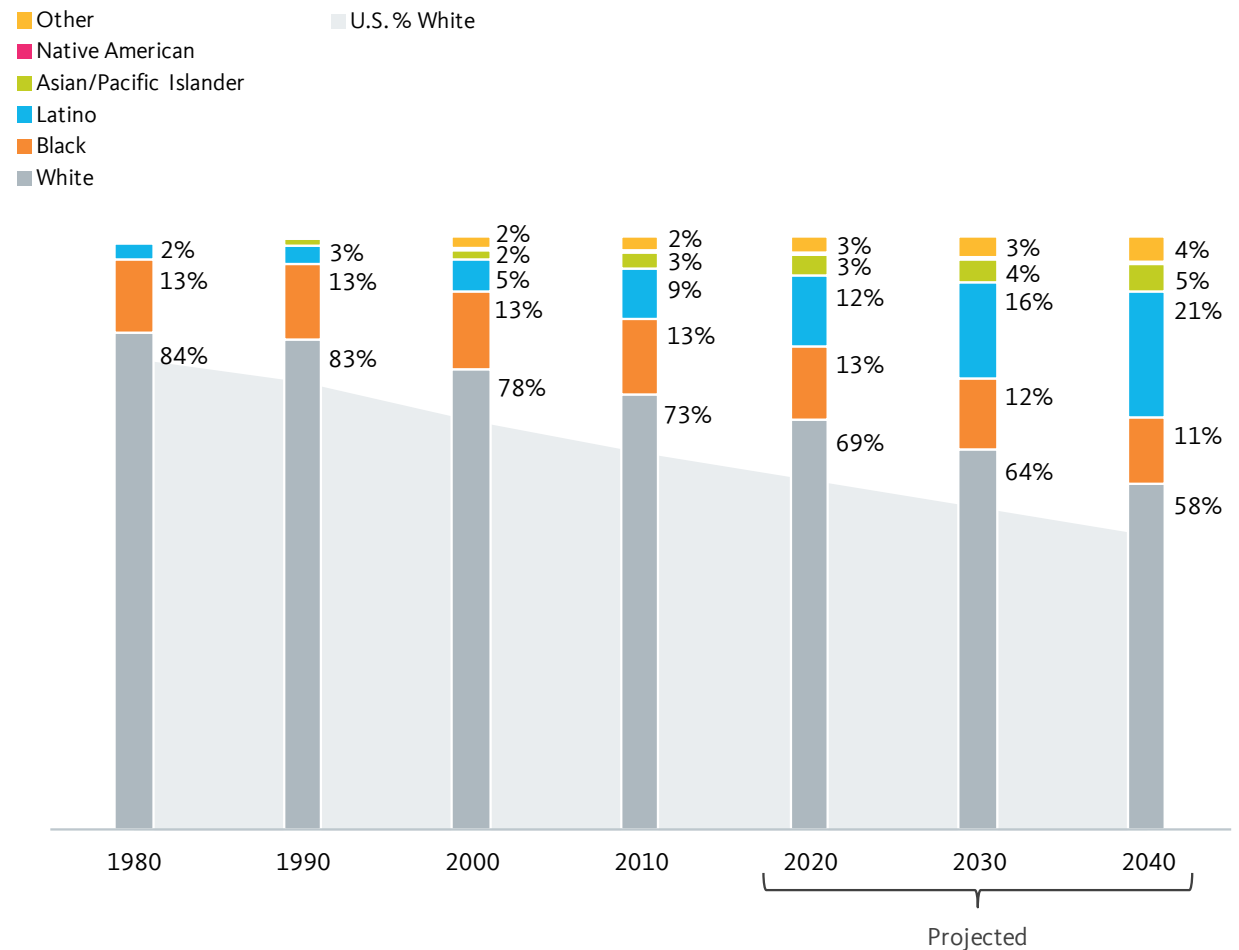
■ Other   ▨ U.S. % White
■ Native American
■ Asian/Pacific Islander
■ Latino
■ Black
■ White

	1980	1990	2000	2010	2020	2030	2040
Other			2%	2%	3%	3%	4%
Asian/Pacific Islander			2%	3%	3%	4%	5%
Latino	2%	3%	5%	9%	12%	16%	21%
Black	13%	13%	13%	13%	13%	12%	11%
White	84%	83%	78%	73%	69%	64%	58%

Projected

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

Demographics
The region will continue to diversify
(continued)

In 1980, Kansas City did not have a single county that was majority people of color. Now, Wyandotte County is majority people of color. By 2040, Jackson County is expected to become majority people of color and Johnson County will be more than 40 percent people of color.

Jackson and Wyandotte counties will be majority people of color by 2040
13. Percent People of Color by County, 1980 to 2040

Less than 30%
30% to 39%
40% to 49%
50% or more

1980

2010

2040

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

Demographics
A growing racial generation gap

Nationwide, the racial/ethnic profiles of young and old are diverging, with the youth population increasingly diverse while the senior population remains largely white. This "racial generation gap" can be measured as the difference between the share of people of color among young and old. The racial generation gap may negatively affect the region if seniors do not invest in the educational systems and community infrastructure needed to support a youth population that is more racially diverse.

Today, 36 percent of Kansas City's youth (under age 18) are people of color, compared to 15 percent of the region's seniors (over age 64). This 21-percentage point gap is more than double what it was in 1980.

The region's communities of color are much more youthful than its white population. The median age of Latinos, for example, is 13 years younger than the median age of whites.

The racial generation gap between youth and seniors has more than doubled since 1980
14. Percent People of Color (POC) by Age Group, 1980 to 2010

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

36%

21 percentage point gap

9 percentage point gap

21%

15%

12%

1980   1990   2000   2010

The region's communities of color are more youthful than its white population
15. Median Age by Race/Ethnicity, 2006-2010

All	36
White	39
Black	31
Latino	26
Asian/Pacific Islander	32
Native American and Alaska Native	35
Other or mixed race	17

Source: U.S. Census Bureau.
Note: Gap value may not equal the difference in percentages shown due to rounding.
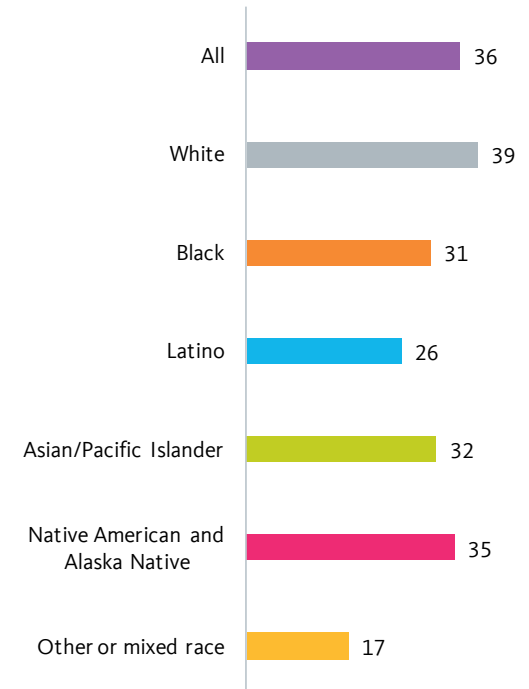
Source: IPUMS.

Demographics
A growing racial generation gap
(continued)

Kansas City's 21-percentage point racial generation gap ranks 102nd among the largest 150 regions. Even though the gap more than doubled in the region since 1980, it still remains less than the national average (26 percentage points).

Kansas City's racial generation gap is relatively low compared to other regions
16. The Racial Generation Gap in 2010: Largest 150 Metros Ranked

#1: Naples-Marco Island, FL (48)

#102: Kansas City (21)

#150: Honolulu, HI (7)
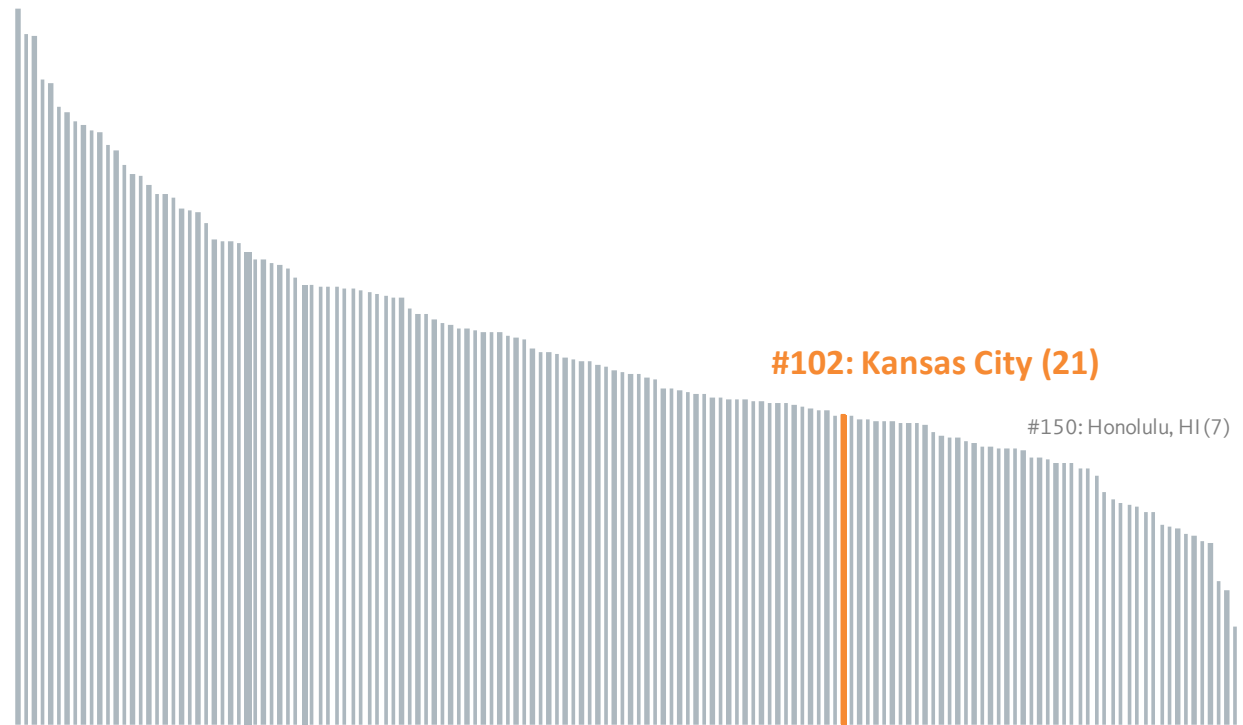
Source: U.S. Census Bureau.

Economic vitality

Economic vitality
Highlights
How is the region doing on measures of economic growth and well-being?

- Kansas City's economy has generally kept pace with national growth trends over the past few decades.

- The region has below average unemployment, but communities of color are more likely to be jobless.

- Income inequality is increasing in Kansas City, but remains lower than the United States as a whole, partly because wages are not declining in the region as quickly as they have elsewhere.

- Since 1990, poverty and working poverty were below national averages, but rates are higher for people of color.

- Racial and gender gaps persist in the labor market. At nearly every level of educational attainment people of color have worse outcomes than whites, and both white women and women of color earn less than their male counterparts.

Wage growth for the bottom half of workers since 1979:

-6%

Share of blacks and Latinos living in poverty:

26%

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

$3.50/hr

Economic vitality
Moderate long-term growth

Economic growth, as measured by increases in jobs and Gross Regional Product (GRP) – which is the value of all goods and services produced – has been moderate in the Kansas City region over the past several decades, generally keeping pace with national averages. GRP growth itself has been slower than the national average over the past decade.

Job growth keeping pace with the national average since 1985

17. Cumulative Job Growth, 1979 to 2010
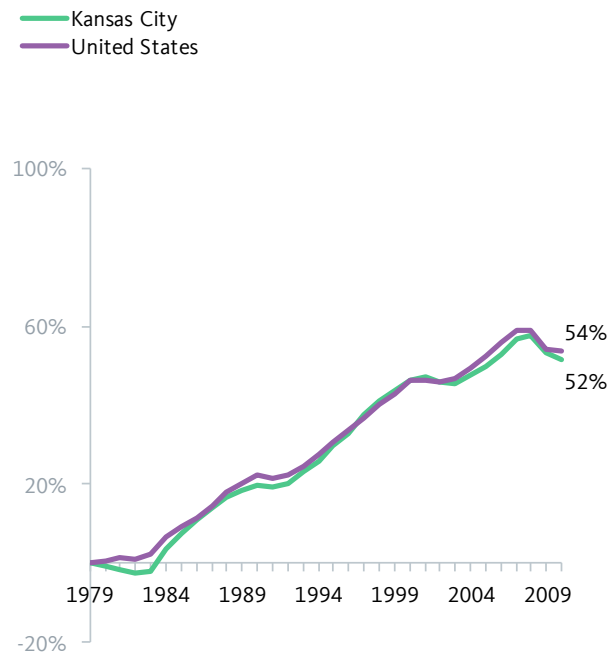
Source: U.S. Bureau of Economic Analysis.

Gross Regional Product (GRP) growth is moderate, but prone to downturns and has lagged behind the national average since 2003

18. Cumulative Growth in Real GRP, 1979 to 2010
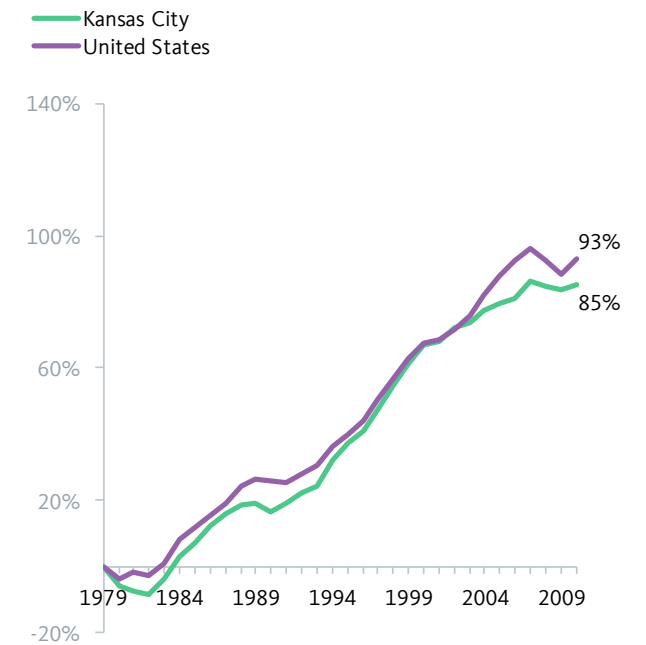
Source: U.S. Bureau of Economic Analysis.

Economic vitality
Economic resilience through the downturn

Kansas City's economy showed signs of resilience during the economic downturn. Despite a sharp rise in Kansas City's unemployment rate, it never reached the height of the national average and it dropped faster than the national average since 2009.

However, according to recent data from the Brookings Institution, the regional economy has not done as well since the end of the recession. As of March 2013, the Kansas City-Overland Park-Kansas City, MO-KS metro area ranks in the bottom half of the 100 largest regions (76th) in its economic recovery, based on measures of employment, unemployment, GRP, and housing prices.

Below-average unemployment during the recovery
19. Unemployment Rate, 1990 to 2011

Downturn 2007-2009

— Kansas City
— United States

9.0%
8.0%
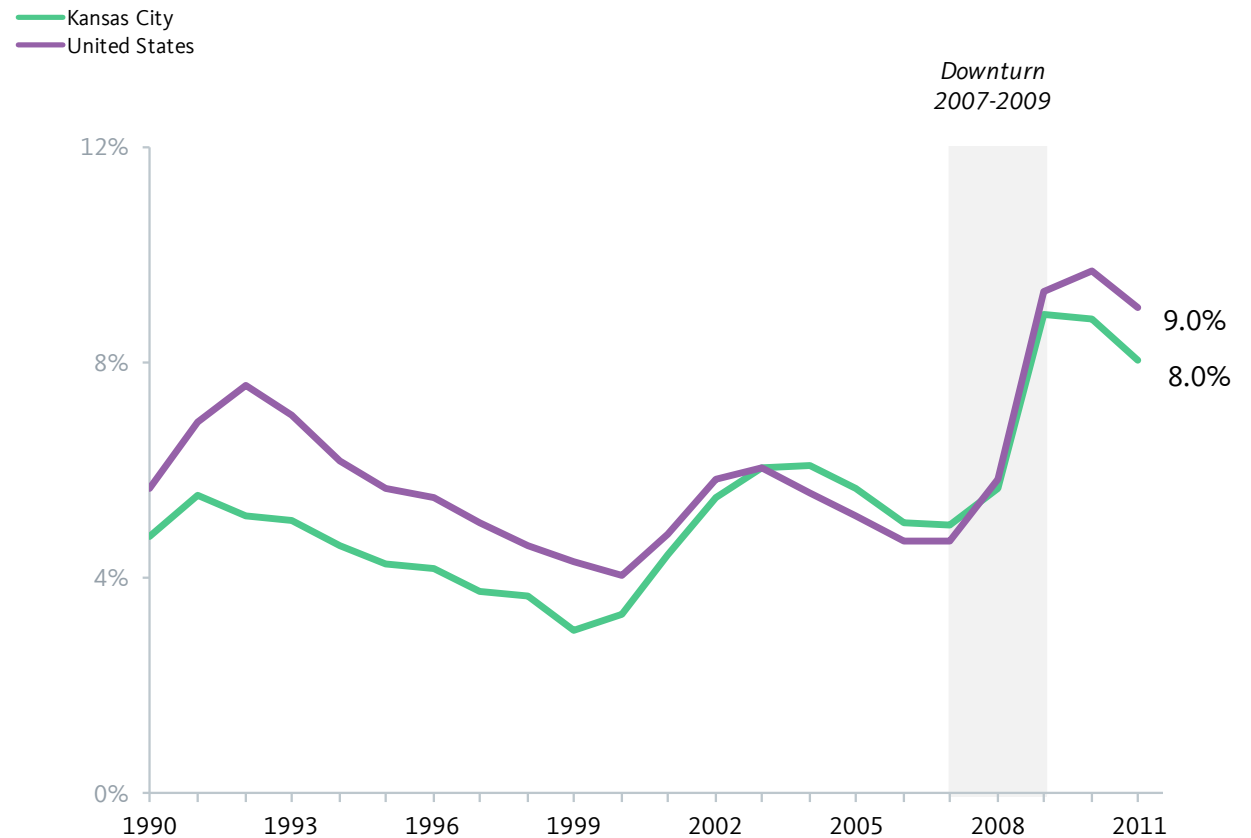
Source: U.S. Bureau of Labor Statistics. Universe includes the civilian noninstitutional population ages 16 and older.

Economic vitality
Unemployment higher for people of color

Examining unemployment by race over the past two decades we find that despite some progress, racial employment gaps persist in the Kansas City region.

Whites participate in the labor force (either working or actively seeking employment) at a slightly higher rate than communities of color, whose participation rates have decreased since 1990.

Unemployment rates tend to be much higher among people of color – particularly African Americans, who have the highest unemployment rate (13 percent).

Labor force participation among communities of color is slightly lower than whites
20. Labor Force Participation Rate by Race/Ethnicity, 1990 and 2006-2010
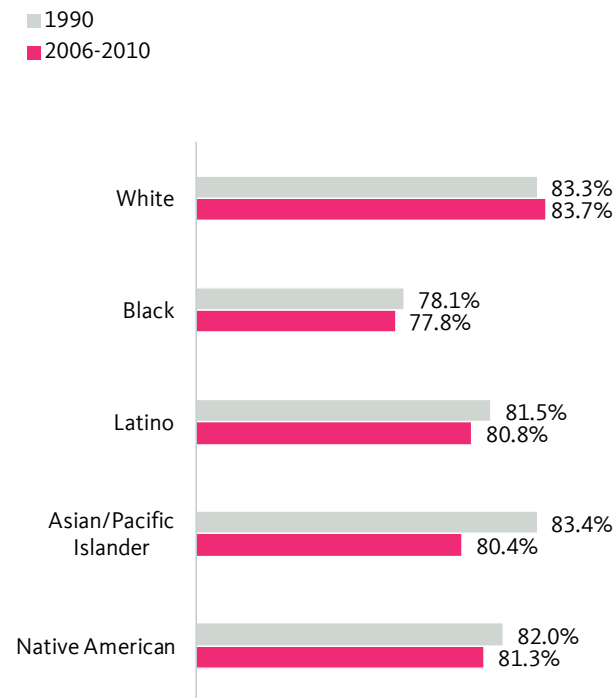
■ 1990
■ 2006-2010

Race/Ethnicity	1990	2006-2010
White	83.3%	83.7%
Black	78.1%	77.8%
Latino	81.5%	80.8%
Asian/Pacific Islander	83.4%	80.4%
Native American	82.0%	81.3%

All communities of color have higher unemployment rates than whites
21. Unemployment Rate by Race/Ethnicity, 1990 and 2006-2010
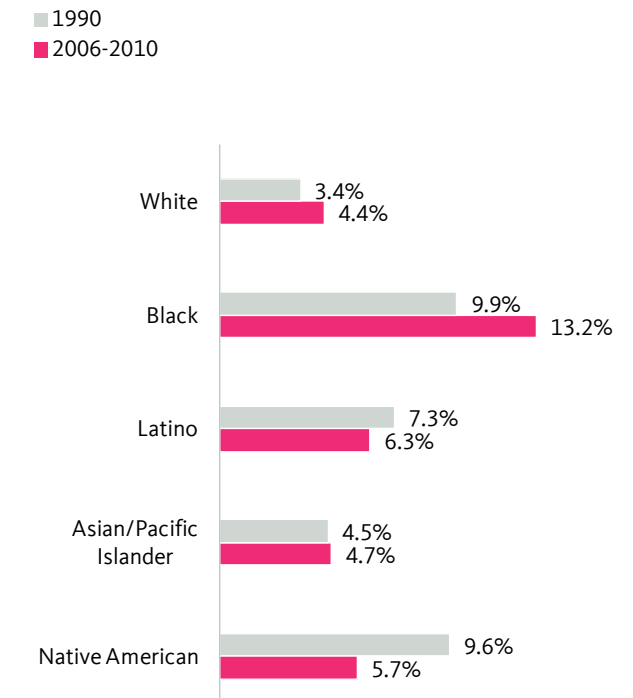
■ 1990
■ 2006-2010

Race/Ethnicity	1990	2006-2010
White	3.4%	4.4%
Black	9.9%	13.2%
Latino	7.3%	6.3%
Asian/Pacific Islander	4.5%	4.7%
Native American	9.6%	5.7%

Source: IPUMS. Universe includes the civilian noninstitutional population ages 25 through 64.
Note: The full impact of the Great Recession is not reflected in the latest data shown, which is averaged over 2006 through 2010. These trends may change as new data become available.

Source: IPUMS. Universe includes the civilian noninstitutional population ages 25 through 64.
Note: The full impact of the Great Recession is not reflected in the latest data shown, which is averaged over 2006 through 2010. These trends may change as new data become available.

Economic vitality
High unemployment in urban communities of color and outer communities

Knowing where high-unemployment communities are located in the region can help the region's leaders develop targeted solutions. One in four of the region's unemployed residents live in the 20 percent of neighborhoods where at least 60 percent of residents are people of color. Concentrations of unemployment can be found in communities of color in Jackson and Wyandotte counties. Clusters of unemployment can also be found in outlying cities like Leavenworth, Olathe, Bonner Springs, and Richmond, and in Miami County's rural areas.

Clusters of unemployment can be found in Jackson and Wyandotte Counties' communities of color and in rural areas
22. Unemployment Rate by Census Tract and High People-of-Color Tracts, 2006-2010

Less than 4%
4%
5% to 6%
7% to 11%
12% or more

60% or more people of color
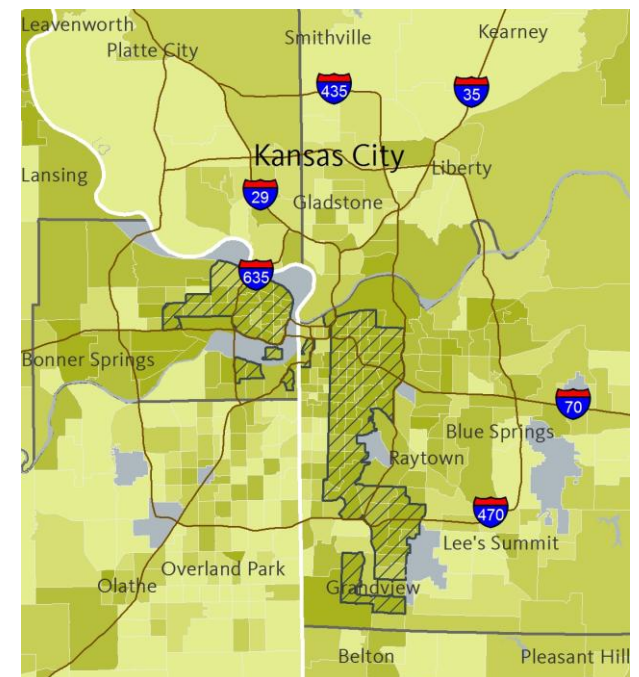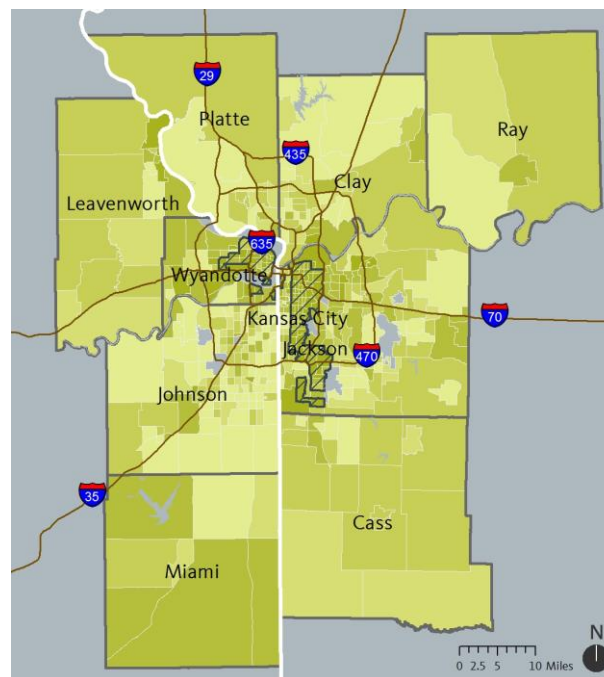
Source: U.S. Census Bureau. Areas in white are missing data.
Note: One should keep in mind when looking at this map and other maps displaying a share or rate that while there is wide variation in the size (land area) of the census tracts in the region, each has a roughly similar number of people. Thus, a large tract on the region's periphery likely contains a similar number of people as a seemingly tiny tract in the urban core, and so care should be taken not to assign an unwarranted amount of attention to large tracts just because they are large.

Economic vitality
Increasing income inequality

Income inequality is lower in the region than the national average, but has been steadily increasing over the past three decades.

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) and one (complete inequality, one household has all of the income).

Household income inequality has increased since 1979
23. Gini Coefficient, 1979 to 2006-2010
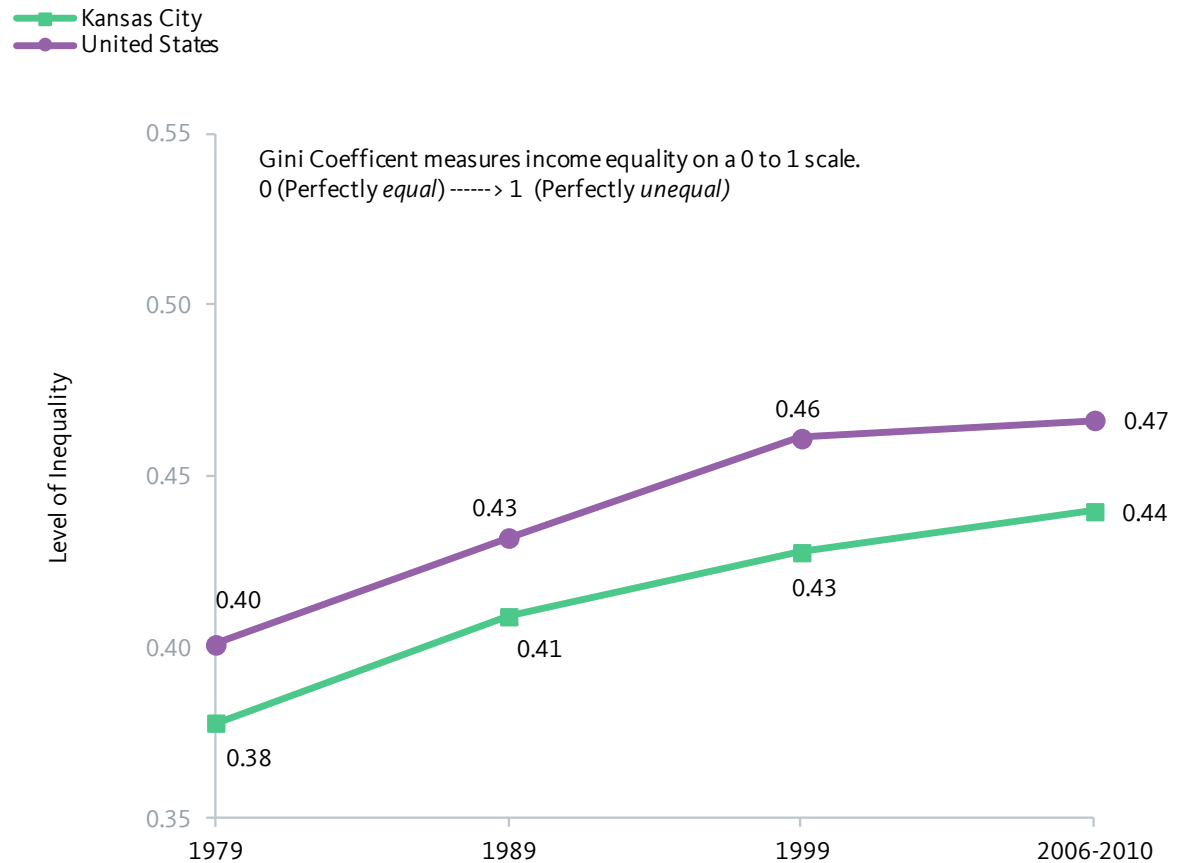
Kansas City
United States

Gini Coefficent measures income equality on a 0 to 1 scale.
0 (Perfectly *equal*) ------> 1 (Perfectly *unequal*)

Level of Inequality

	1979	1989	1999	2006-2010
United States	0.40	0.43	0.46	0.47
Kansas City	0.38	0.41	0.43	0.44

Source: IPUMS. Universe includes all households (no group quarters).

Economic vitality
Increasing income inequality
(continued)

Kansas City ranks 104th among the largest 150 regions in terms of income inequality, right in between Springfield, MO (103rd) and Youngstown, PA (105th). Compared to other similarly sized metros in the Midwest, the level of inequality in Kansas City (0.443) is slightly lower than Indianapolis (0.445), and much lower than Columbus (0.451), which rank 91st and 68th, respectively.

Kansas City's inequality ranking is relatively low compared to other regions
24. The Gini Coefficient in 2006-2010: Largest 150 Metros Ranked

#1: Bridgeport-Stamford-Norwalk, CT (0.53)

#104: Kansas City (0.44)

#150: Ogden-Clearfield, UT (0.39)
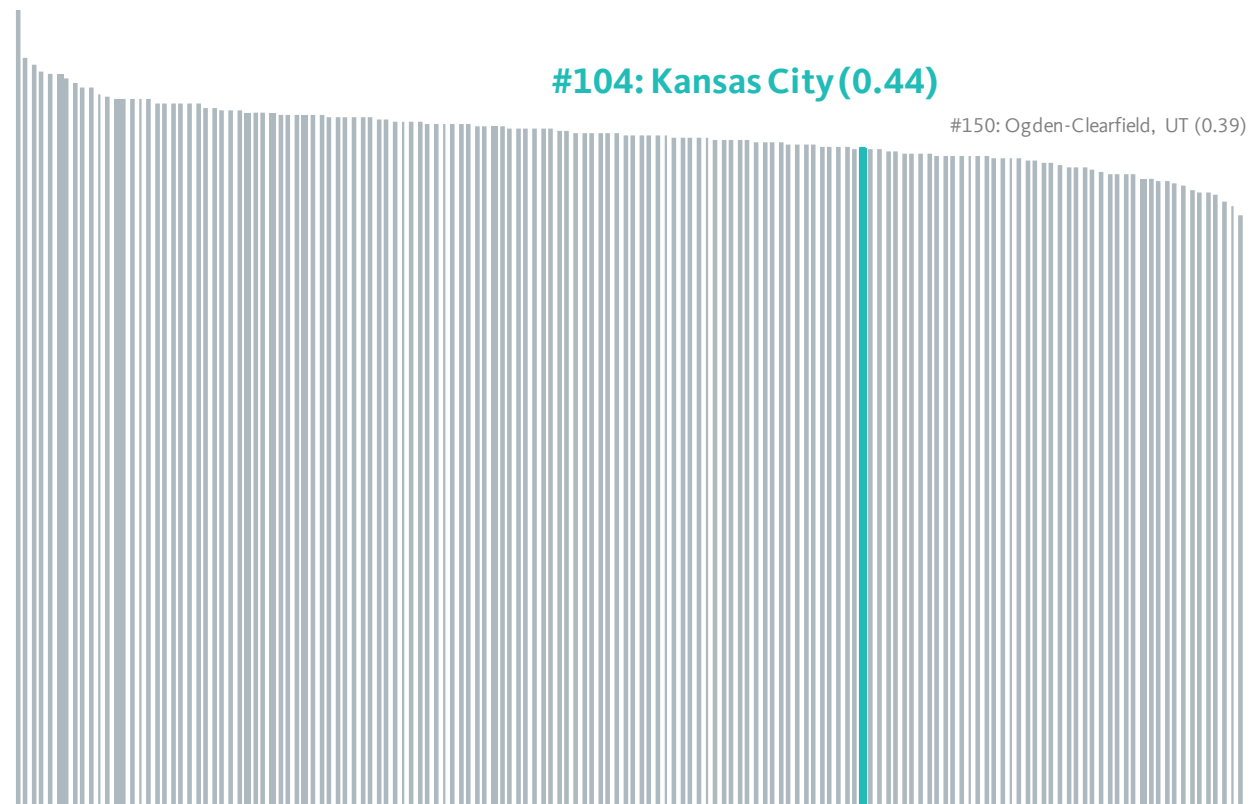
Higher ←   **Income Inequality**   → *Lower*

Source: IPUMS. Universe includes all households (no group quarters).

Economic vitality
Declining or stagnant wages for most workers

Declining wages play an important role in the region's increasing inequality. After adjusting for inflation, wages have declined or stagnated for the vast majority of Kansas City's workers over the past three decades. Wage decline for lower- and middle-income workers has been slightly lower in the region than the nation overall, and wage increases for higher earners have also been below the national average. Wages fell 6 percent for the bottom half of workers, while wages increased 13 percent for workers in the 90th percentile (i.e., the top 10 percent of earners)

Wages have dropped or stagnated for the majority of full-time workers
25. Real Earned Income Growth for Full-Time Wage and Salary Workers Ages 25-64, 1979 to 2006-2010
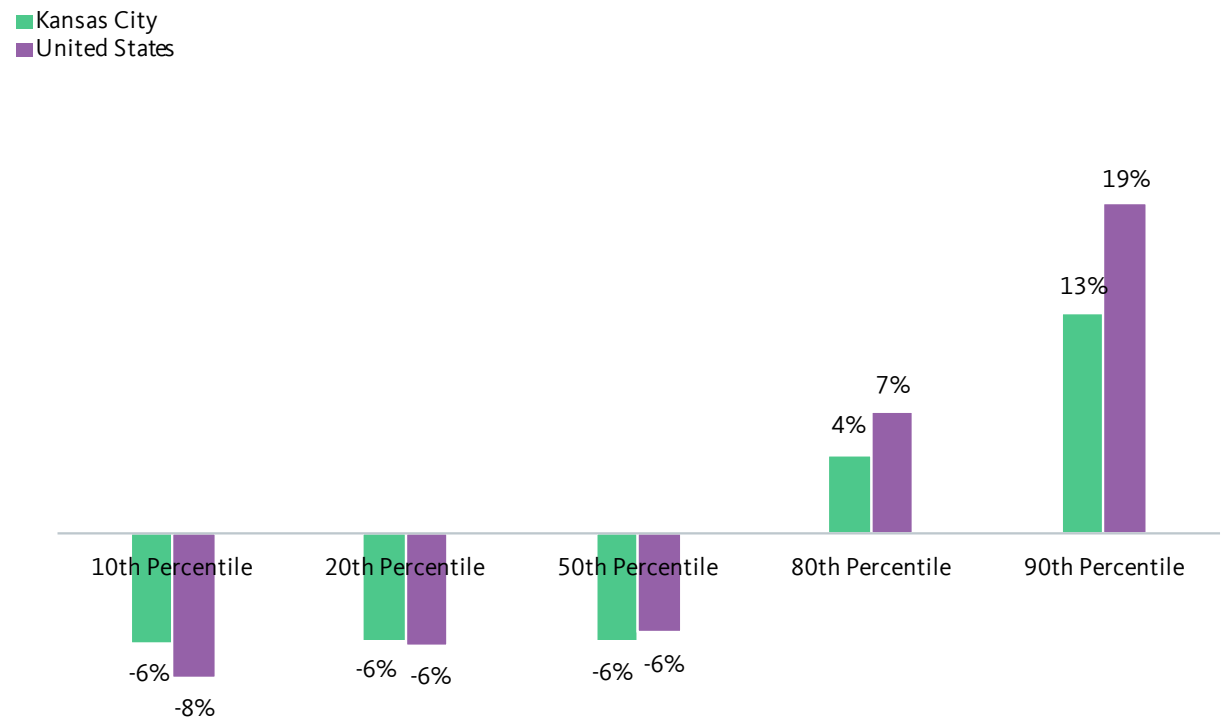
■ Kansas City
■ United States

	10th Percentile	20th Percentile	50th Percentile	80th Percentile	90th Percentile
Kansas City	-6%	-6%	-6%	4%	13%
United States	-8%	-6%	-6%	7%	19%

Source: IPUMS. Universe includes civilian noninstitutional full-time wage and salary workers ages 25 through 64.

Economic vitality
A shrinking middle class

Kansas City's middle class is shrinking: since 1980, the share of households with middle-class incomes dropped from 40 to 38 percent. The share of upper-income households declined from 30 to 27 percent, while the share of lower-income households grew from 30 to 36 percent.

In this analysis, middle-income households are defined as having incomes in the middle 40 percent of household income distribution. In 1980, those household incomes ranged from $35,547 to $79,924. 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 overall. Today's middle-class incomes would be $40,112 to $90,188 and 38 percent of households fall in that income range.

The share of middle-class households declined since 1979
26. Households by Income Level, 1979 and 2006-2010 (all figures in 2010 dollars)

Upper
30%   27%

$79,924 →   ← $90,188

Middle   38%
40%

$35,547 →   ← $40,112

Lower   36%
30%

1979   1989   1999   2006-2010

Source: IPUMS. Universe includes all households (no group quarters).

Economic vitality
Poverty and working poverty are increasing

While poverty and working poverty rates in the region are below national averages, both are increasing rapidly. About one out of every nine residents now live below the poverty level (about $22,000 a year for a family of four), and about one out of every 30 residents between the ages of 25 and 64 are working poor (working full-time with incomes below 150 percent of the poverty level).

Poverty is not just an urban issue. The majority of the region's poor people now live outside of Kansas City proper. According to the Mid-America Regional Council's analysis of census data, the share of the poor population residing in the suburbs increased from 41 percent to 53 percent between 2000 and 2011.

Poverty is on the rise
27. Poverty Rate, 1980 to 2006-2010

— Kansas City
— United States

Source: IPUMS. Universe includes all persons not in group quarters.
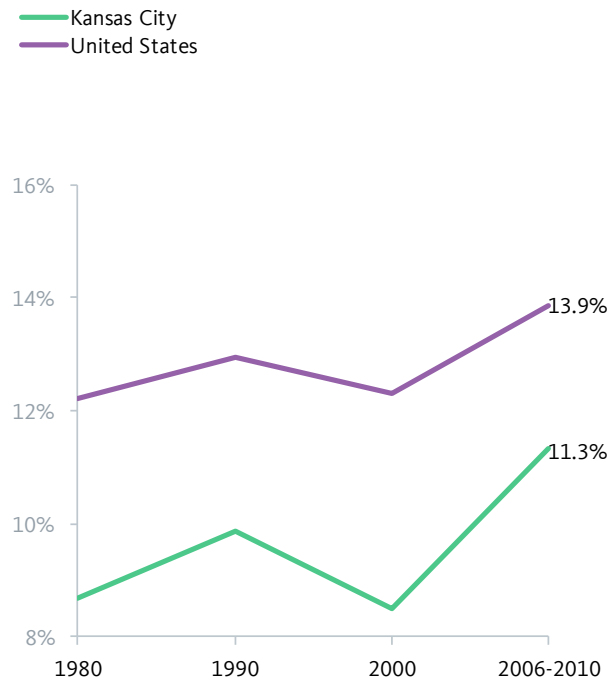
Working poverty is also increasing
28. Working Poverty Rate, 1980 to 2006-2010
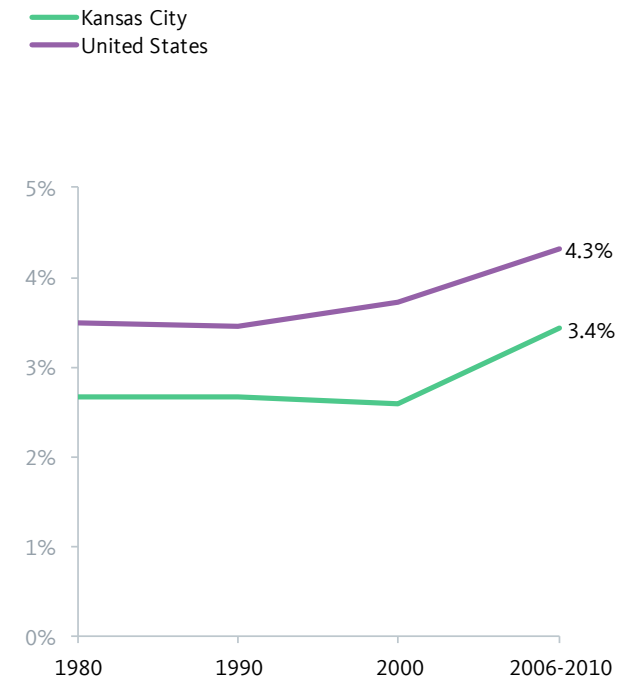
— Kansas City
— United States

Source: IPUMS. Universe includes the civilian noninstitutional population ages 25 through 64 not in group quarters.

Economic vitality
Higher poverty and working poverty for people of color

More than one out of every four of the region's African Americans and Latinos live below the poverty level – compared to about one in 14 whites. Poverty is also higher for people of other and mixed racial background, Native Americans, and Asians.

Latinos are much more likely to be working poor compared to other groups, with rates that are six times those of whites. African Americans also have an above average working poverty rate. Whites have the lowest rate of working poverty.

Poverty is highest for African Americans and Latinos
29. Poverty Rate by Race/Ethnicity, 2006-2010

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

26.5%
25.9%
16.5%
11.3%
10.9%
10.2%
7.1%
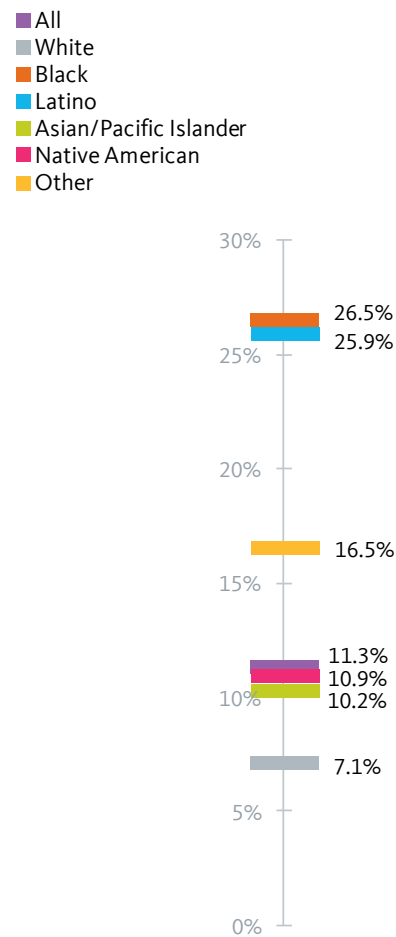
Source: IPUMS. Universe includes all persons not in group quarters.

Working poverty rates are highest for Latinos
30. Working Poverty Rate by Race/Ethnicity, 2006-2010
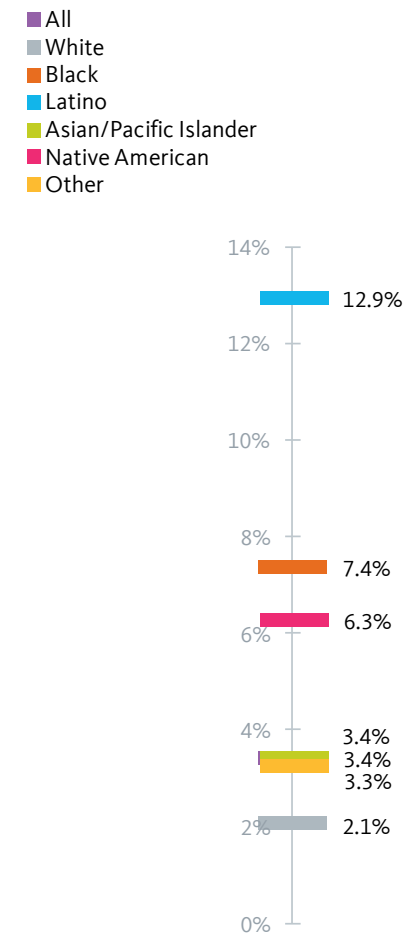
- All
- White
- Black
- Latino
- Asian/Pacific Islander
- Native American
- Other

12.9%
7.4%
6.3%
3.4%
3.4%
3.3%
2.1%

Source: IPUMS. Universe includes the civilian noninstitutional population ages 25 through 64 not in group quarters.

Economic vitality
Education is a leveler but racial economic gaps persist

In general, unemployment decreases and wages increase with higher educational attainment. But at every education level, people of color have worse outcomes than whites.

Among college graduates, unemployment levels are more than three percentage points higher and wages are more than $3/hour lower for people of color compared to whites. The unemployment rate for African Americans with less than a high school degree is nearly triple that of their white counterparts. Latino unemployment rates are comparable with those for whites, with the exception of Latinos with less than a high school degree, who have the lowest unemployment among all groups.

African Americans at every education level have higher unemployment and lower wages than whites

31. Unemployment Rate by Educational Attainment and Race/Ethnicity, 2006-2010
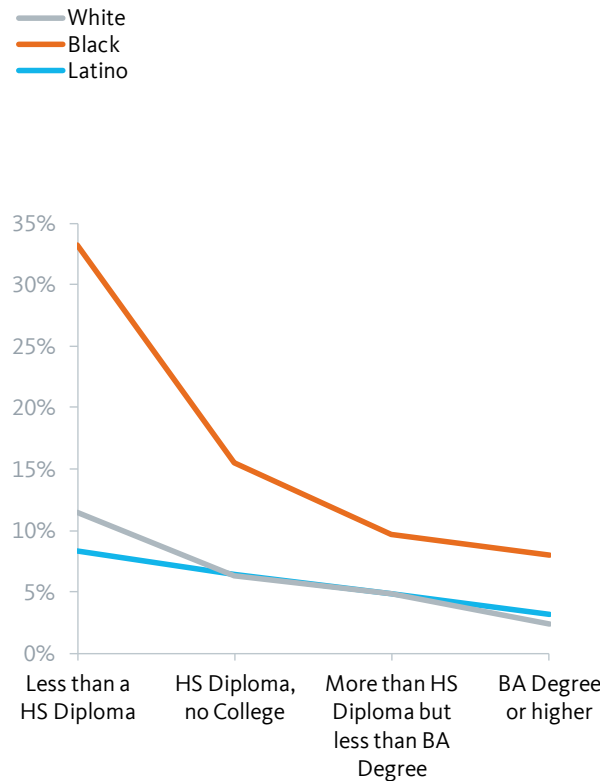
White
Black
Latino

32. Median Hourly Wage by Educational Attainment and Race/Ethnicity, 2006-2010

White
Black
Latino

Source: IPUMS. Universe includes the civilian noninstitutional population ages 25 through 64.
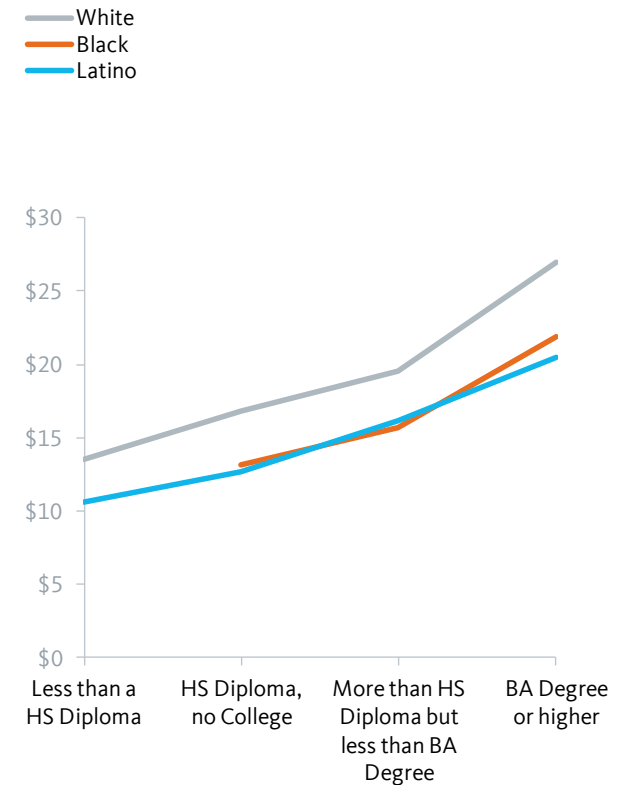
Source: IPUMS. Universe includes civilian noninstitutional full-time wage and salary workers ages 25 through 64.

Economic vitality
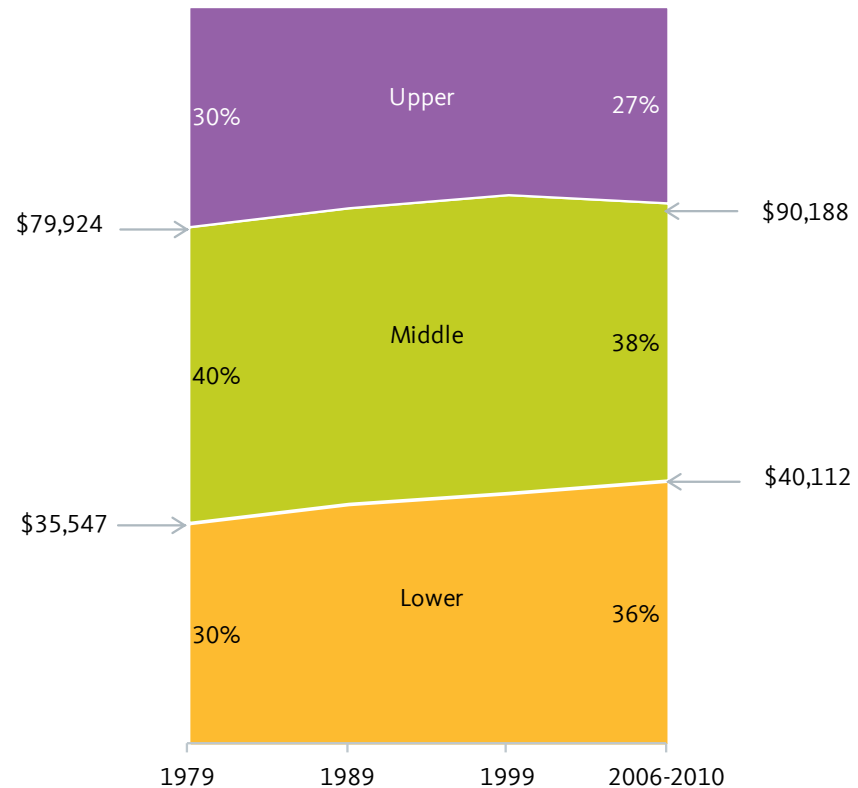# There is also a gender gap in pay

At every level of education, white women and women of color earn less than their male counterparts, and women of color are paid the least among all groups examined. Both the most and least educated women of color (those who have a college education and those who did not graduate from high school) are more likely to be unemployed than their male counterparts, but women of color with a high school degree but less than a BA have lower unemployment rates than their male counterparts. There is not a significant gender gap in unemployment between white men and women.

Women of every education level earn less than their male counterparts

33. Unemployment Rate by Educational Attainment, Race/Ethnicity, and Gender, 2006-2010

- Women of color
- Men of color
- White women
- White men

BA Degree or higher
- 6.5%
- 4.8%
- 2.1%
- 2.6%

More than HS Diploma, Less than BA
- 7.4%
- 9.5%
- 4.8%
- 4.7%

HS Diploma, no College
- 9.5%
- 13.2%
- 6.0%
- 6.5%

Less than a HS Diploma
- 17.3%
- 13.0%
- 11.1%
- 11.8%

34. Median Hourly Wage by Educational Attainment, Race/Ethnicity, and Gender, 2006-2010

- Women of color
- Men of color
- White women
- White men

BA Degree or higher
- $21
- $26
- $23
- $30

More than HS Diploma, Less than BA
- $15
- $17
- $17
- $22

HS Diploma, no College
- $13
- $13
- $15
- $18

Less than a HS Diploma
- $10
- $12
- $12
- $16
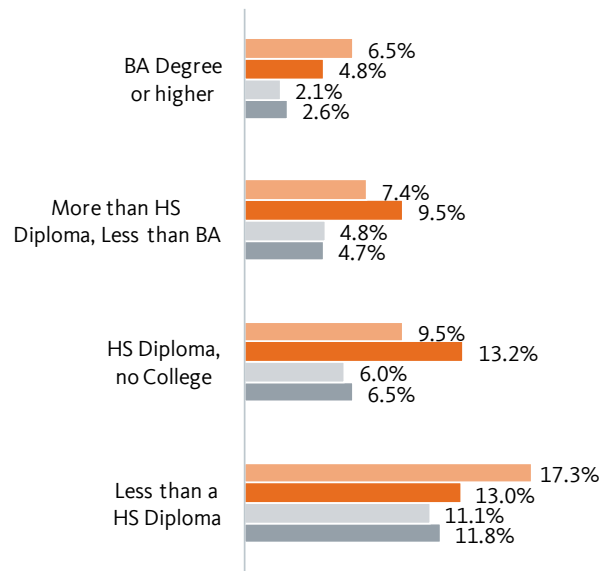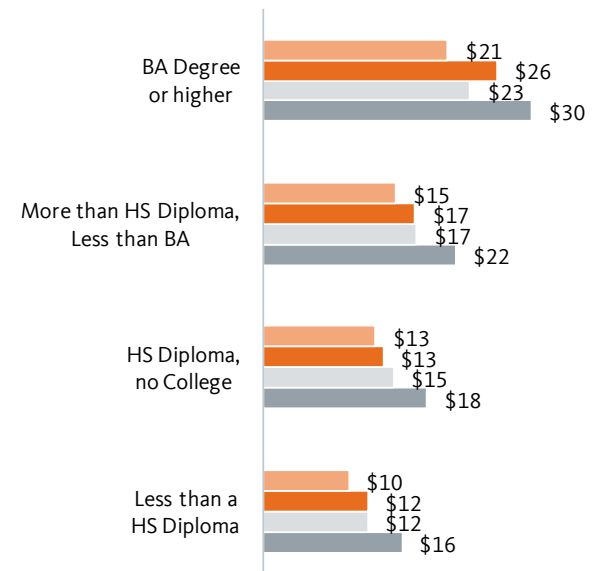
Source: IPUMS. Universe includes the civilian noninstitutional population ages 25 through 64.

Source: IPUMS. Universe includes civilian noninstitutional full-time wage and salary workers ages 25 through 64.

Economic vitality
Growing low-wage jobs – but also middle-wage ones

Following the national trend, over the past two decades the region saw fast growth in its low-wage jobs. But while the U.S. economy as a whole is growing low- and high-wage jobs at a faster pace than middle-wage jobs, Kansas City is primarily growing low- and middle-wage jobs, with less growth in high-wage jobs. This middle-wage job growth is a strong point for the region, because these jobs are often accessible to workers without four-year college degrees and provide a pathway in to the middle class.

While the region has been growing middle-wage jobs at a good pace, the wages of these jobs are not increasing by much. Wage growth has been much higher for jobs that were already high-wage, while low- and middle-wage jobs have seen much less wage growth.

The fastest job growth is in low- and middle-wage jobs, but high-wage jobs had the most wage growth
35. Growth in Jobs and Earnings by Wage Level, 1990 to 2010
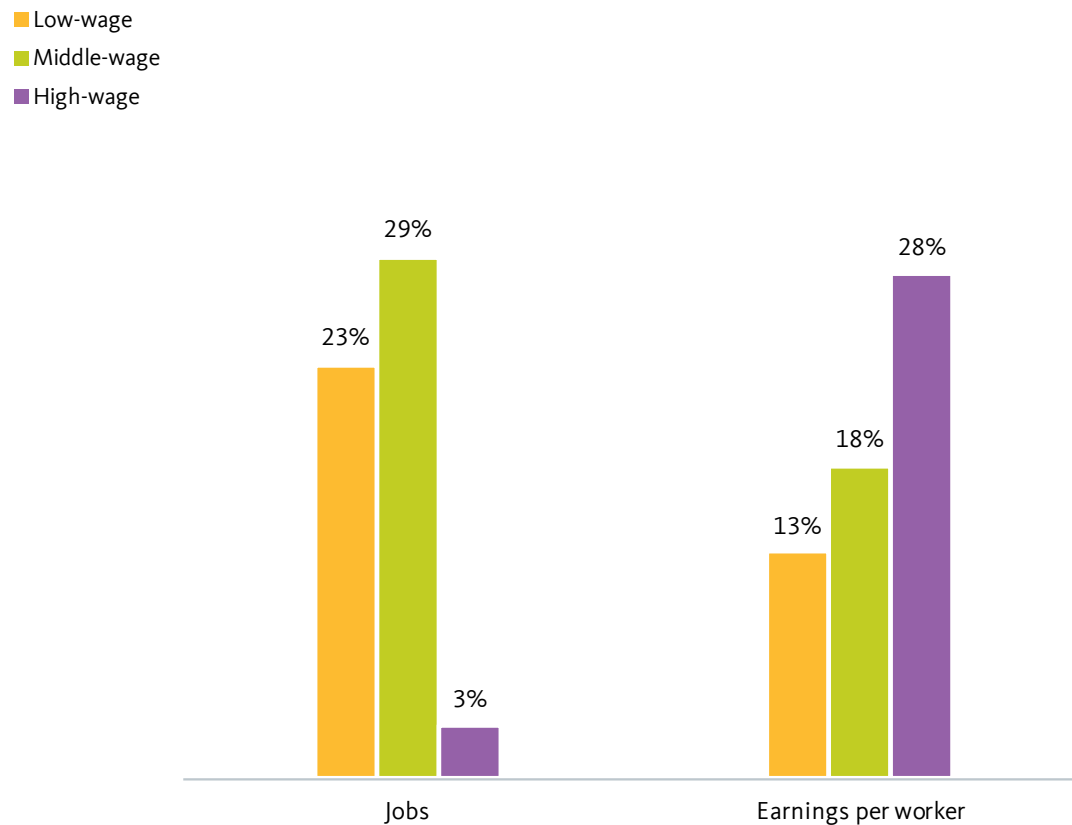
■ Low-wage
■ Middle-wage
■ High-wage

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

Economic vitality
Uneven wage growth across industry sectors

Wage growth has been uneven across industry sectors, with higher growth in high-wage industries and slower growth in lower-wage industries as well as many of the region's largest industries, including manufacturing, health care, retail, and accommodations and food services.

High-wage workers in management, utilities, and professional services saw substantial wage increases, as did middle-wage workers in finance and insurance. Wages declined, however, for transportation and warehousing workers.

Some low-wage workers in industries such as arts and entertainment, administration, and agriculture saw decent wage growth. But the wages of others have grown little, if at all. The region's nearly 100,000 retail workers, for example, earn on average only $162 more per year than they did in 1990 – a collective raise of only one percent. And its 75,000-plus hotel and restaurant workers continue to earn less than $16,000 per year – below the poverty level for a family of three.

Slow wage growth for workers in many of the region's largest industries
36. Industries by Wage-Level Category in 1990

Wage Category	Industry	Average Annual Earnings 1990 ($2010)	Average Annual Earnings 2010 ($2010)	Percent Change in Earnings 1990 to 2010	Number of Jobs 2010
High	Management of Companies and Enterprises	$68,912	$79,993	16%	16,841
	Utilities	$59,299	$82,229	39%	4,004
	Information	$54,323	$73,333	35%	29,949
	Professional, Scientific, and Technical Services	$51,767	$71,597	38%	64,857
	Wholesale Trade	$50,745	$62,356	23%	44,183
	Manufacturing	$48,298	$56,227	16%	70,924
Middle	Finance and Insurance	$45,910	$66,452	45%	53,528
	Transportation and Warehousing	$44,841	$38,856	-13%	32,983
	Construction	$44,324	$53,782	21%	36,174
	Mining	$41,683	$45,082	8%	947
	Health Care and Social Assistance	$39,091	$44,778	15%	105,388
	Real Estate and Rental and Leasing	$31,142	$37,729	21%	14,543
	Education Services	$27,193	$34,898	28%	11,472
Low	Arts, Entertainment, and Recreation	$26,880	$35,194	31%	14,575
	Other Services (except Public Administration)	$26,106	$28,670	10%	26,128
	Retail Trade	$25,616	$25,778	1%	98,718
	Administrative and Support and Waste Management and Remediation Services	$23,278	$32,164	38%	54,933
	Agriculture, Forestry, Fishing and Hunting	$23,020	$29,831	30%	1,115
	Accommodation and Food Services	$13,833	$15,788	14%	75,018

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 =

Size (2010)	+	**Concentration** (2010)	+	**Job quality** (2010)	+	**Growth** (2000 to 2010)
Total Employment The total number of jobs in a particular industry.		**Location Quotient** A measure of employment concentration calculated by dividing the share of employment for a particular industry in the region by its share nationwide. A score >1 indicates higher-than-average concentration.		**Average Annual Wage** The estimated total annual wages of an industry divided by its estimated total employment.		**Change in the number of jobs**
						Percent change in the number of jobs
						Real wage growth

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
Professional services, health care, finance and insurance, and management dominate

According to the industry strength index, the region's strongest industries are **professional services, health care, finance and insurance, and management**. The professional, scientific, and technical services sector has the highest index score due to its above average concentration of jobs in the region, growing annual wages, and

sizable and growing employment base. Health care and social assistance has the second highest score, with rapid employment growth and steadily increasing annual wages, but a lower concentration in the region.

Professional services tops the list of strongest industries in the region, followed by health care, finance and insurance, and management
37. Industry Strength Index

Industry	Size Total employment (2010)	Concentration Location Quotient (2010)	Job Quality Average annual wage (2010)	Growth Change in employment (2000 to 2010)	% Change in employment (2000 to 2010)	Real wage growth (2000 to 2010)	Industry Strength Index
Professional, Scientific, and Technical Services	64,857	1.2	$71,597	8,755	16%	12%	88.9
Health Care and Social Assistance	105,388	0.9	$44,778	25,057	31%	6%	73.7
Finance and Insurance	53,528	1.4	$66,452	2,448	5%	10%	72.1
Management of Companies and Enterprises	16,841	1.3	$79,993	401	2%	3%	45.8
Wholesale Trade	44,183	1.1	$62,356	-6,794	-13%	4%	21.2
Utilities	4,004	1.0	$82,229	-776	-16%	10%	20.1
Information	29,949	1.6	$73,333	-25,997	-46%	-2%	19.8
Manufacturing	70,924	0.9	$56,227	-16,644	-19%	5%	4.0
Administrative and Support and Waste Management and Remediation Services	54,933	1.1	$32,164	-3,236	-6%	14%	1.5
Retail Trade	98,718	1.0	$25,778	-8,165	-8%	-7%	-10.3
Accommodation and Food Services	75,018	1.0	$15,788	5,454	8%	-2%	-18.3
Construction	36,174	0.9	$53,782	-14,381	-28%	8%	-18.7
Arts, Entertainment, and Recreation	14,575	1.1	$35,194	-1,737	-11%	10%	-27.0
Real Estate and Rental and Leasing	14,543	1.1	$37,729	-1,671	-10%	7%	-27.8
Transportation and Warehousing	32,983	1.2	$38,856	-7,215	-18%	-8%	-30.7
Education Services	11,472	0.7	$34,898	3,104	37%	6%	-41.3
Other Services (except Public Administration)	26,128	0.9	$28,670	-1,246	-5%	-5%	-59.2
Mining	947	0.2	$45,082	-246	-21%	-5%	-109.0
Agriculture, Forestry, Fishing and Hunting	1,115	0.1	$29,831	-242	-18%	14%	-110.6

Sources: U.S. Bureau of Labor Statistics; Woods & Poole Economics. 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
(2011)
+
Growth
(2005-2011)

Median Annual Wage

Real wage growth

Change in the number of jobs

Percent change in the number of jobs

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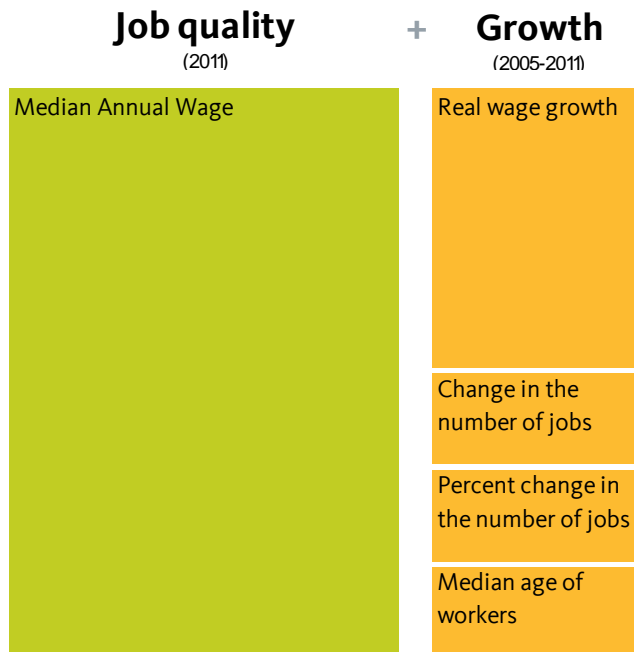
Note: Each indicator was normalized as a cross-occupation z-score before taking a weighted average to derive the index.

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.

All jobs
(2011)

High-opportunity
(32 occupations)

Middle-opportunity
(21 occupations)

Low-opportunity
(18 occupations)

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

Supervisors of construction and extraction workers, production workers, and transportation and material-moving workers are high-opportunity jobs for workers without postsecondary education

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

	Occupation	Employment	Job Quality Median Annual Wage	Real Wage Growth	Growth Change in Employment	% Change in Employment	Median Age	Occupation Opportunity Index
		(2011)	(2011)	(2011)	(2005-11)	(2005-11)	(2010)	
High-Opportunity	Supervisors of Construction and Extraction Workers	2,830	$62,380	-5.2%	-580	-17.0%	45	0.54
	Supervisors of Production Workers	3,530	$53,660	-7.3%	-600	-14.5%	45	0.24
	Supervisors of Transportation and Material Moving Workers	2,870	$48,046	-4.1%	-330	-10.3%	45	0.11
	Assemblers and Fabricators	15,380	$37,904	20.8%	-340	-2.2%	40	0.09
Middle-Opportunity	Metal Workers and Plastic Workers	8,500	$36,952	7.9%	30	0.4%	42	-0.08
	Other Installation, Maintenance, and Repair Occupations	17,010	$40,911	-1.0%	-1,250	-6.8%	43	-0.11
	Construction Trades Workers	27,030	$48,025	-0.2%	-10,750	-28.5%	37	-0.18
	Other Construction and Related Workers	2,350	$40,209	-5.2%	-120	-4.9%	38	-0.21
	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	10,620	$38,199	-4.9%	-360	-3.3%	40	-0.26
	Supervisors of Building and Grounds Cleaning and Maintenance Workers	1,750	$35,877	-2.1%	-70	-3.8%	41	-0.27
	Other Production Occupations	16,820	$32,749	3.2%	-40	-0.2%	43	-0.28
	Motor Vehicle Operators	30,990	$32,762	-0.5%	0	0.0%	47	-0.29
	Printing Workers	3,200	$35,150	0.3%	-1,410	-30.6%	40	-0.33
	Material Recording, Scheduling, Dispatching, and Distributing Workers	29,870	$30,875	-6.9%	1,020	3.5%	41	-0.47
Low-Opportunity	Other Transportation Workers	1,700	$26,381	2.0%	190	12.6%	38	-0.53
	Woodworkers	980	$28,782	-5.9%	-1,040	-51.5%	42	-0.61
	Supervisors of Food Preparation and Serving Workers	7,670	$29,356	-10.8%	1,430	22.9%	33	-0.62
	Building Cleaning and Pest Control Workers	20,070	$22,282	-0.3%	770	4.0%	44	-0.63
	Grounds Maintenance Workers	6,610	$24,681	-1.0%	430	7.0%	32	-0.68
	Food Processing Workers	2,100	$26,400	-10.1%	-1,170	-35.8%	41	-0.75
	Nursing, Psychiatric, and Home Health Aides	16,020	$22,885	-10.2%	3,140	24.4%	35	-0.76
	Other Personal Care and Service Workers	15,600	$20,351	-6.5%	3,790	32.1%	35	-0.76
	Personal Appearance Workers	3,000	$23,404	-5.0%	-540	-15.3%	38	-0.77
	Animal Care and Service Workers	1,170	$20,160	0.4%	300	34.5%	32	-0.78
	Other Protective Service Workers	8,250	$24,430	-9.9%	-1,480	-15.2%	41	-0.79
	Material Moving Workers	29,910	$25,397	-5.7%	-3,020	-9.2%	35	-0.79
	Food and Beverage Serving Workers	47,570	$18,014	8.6%	1,950	4.3%	24	-0.81
	Other Food Preparation and Serving Related Workers	8,700	$18,193	4.0%	400	4.8%	23	-0.91
	Cooks and Food Preparation Workers	19,660	$19,880	-5.8%	60	0.3%	28	-0.96
	Textile, Apparel, and Furnishings Workers	2,680	$19,861	-16.6%	-1,130	-29.7%	49	-0.96
	Retail Sales Workers	57,560	$20,077	-5.3%	-6,530	-10.2%	32	-1.07

Sources: U.S. Bureau of Labor Statistics; IPUMS. Universe includes all nonfarm wage and salary jobs for which the typical worker is estimated to have less than a high school degree. Analysis reflects the Houston Core Based Statistical Area as defined by the U.S. Office of Management and Budget.

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

Supervisors of protective service workers and installation workers, and plant operators are high-opportunity jobs for workers with more than a high school degree but less than a BA
39. 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 Median Annual Wage	Real Wage Growth	Change in Employment	% Change in Employment	Median Age	Occupation Opportunity Index
		(2011)	(2011)	(2011)	(2005-11)	(2005-11)	(2010)	
High-Opportunity	Supervisors of Protective Service Workers	1,600	$63,357	0.0%	140	9.6%	45	0.69
	Plant and System Operators	1,330	$47,227	11.5%	630	90.0%	46	0.43
	Supervisors of Installation, Maintenance, and Repair Workers	2,940	$57,550	-8.5%	30	1.0%	48	0.40
	Drafters, Engineering Technicians, and Mapping Technicians	4,900	$52,535	5.2%	340	7.5%	43	0.40
	Supervisors of Office and Administrative Support Workers	9,560	$48,550	-0.4%	-1,210	-11.2%	46	0.17
	Occupational Therapy and Physical Therapist Assistants and Aides	1,080	$42,862	11.8%	270	33.3%	37	0.15
	Fire Fighting and Prevention Workers	2,850	$46,894	--	--	--	40	0.13
Middle-Opportunity	Law Enforcement Workers	7,550	$44,484	6.1%	280	3.9%	37	0.09
	Health Technologists and Technicians	20,440	$40,630	3.2%	470	2.4%	39	-0.05
	Electrical and Electronic Equipment Mechanics, Installers, and Repairers	3,770	$44,011	-8.3%	-710	-15.8%	40	-0.14
	Supervisors of Sales Workers	10,000	$42,113	-11.0%	740	8.0%	42	-0.16
	Life, Physical, and Social Science Technicians	1,500	$39,453	-7.2%	410	37.6%	42	-0.17
	Secretaries and Administrative Assistants	26,260	$34,632	-3.3%	770	3.0%	49	-0.23
	Other Healthcare Support Occupations	8,230	$30,346	2.0%	2,680	48.3%	38	-0.31
	Other Education, Training, and Library Occupations	8,590	$26,230	10.8%	1,170	15.8%	44	-0.33
	Financial Clerks	28,120	$31,587	0.8%	-3,260	-10.4%	43	-0.44
	Other Office and Administrative Support Workers	29,790	$29,933	5.3%	-3,980	-11.8%	42	-0.45
Low-Opportunity	Supervisors of Personal Care and Service Workers	1,130	$32,117	-7.9%	150	15.3%	39	-0.47
	Information and Record Clerks	43,430	$30,616	-1.3%	-1,190	-2.7%	38	-0.49
	Communications Equipment Operators	1,550	$25,190	-4.5%	-130	-7.7%	41	-0.65
	Media and Communication Equipment Workers	1,480	$27,563	-23.9%	180	13.8%	34	-0.89
	Entertainment Attendants and Related Workers	4,080	$18,215	3.8%	0	0.0%	25	-0.91

Sources: U.S. Bureau of Labor Statistics; IPUMS. Universe includes all nonfarm wage and salary jobs for which the typical worker is estimated to have at least a high school degree but less than a BA. Analysis reflects the Kansas City Core Based Statistical Area as defined by the U.S. Office of Management and Budget .

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

Lawyers, judges, executives, and operations specialties managers are high-opportunity occupations for workers with a BA degree or higher

40. Occupation Opportunity Index: All Levels of Opportunity for Workers with a BA Degree or Higher

| | | Employment | Job Quality | Growth | | | Occupation Opportunity Index |
| | | | Median Annual Wage | Real Wage Growth | Change in Employment | % Change in Employment | Median Age | |
	Occupation	(2011)	(2011)	(2011)	(2005 to 2011)	(2005 to 2011)	(2010)	
High-Opportunity	Lawyers, Judges, and Related Workers	5,010	$105,142	0.1%	1,120	28.8%	43	2.05
	Top Executives	19,030	$98,159	-12.0%	3,930	26.0%	46	1.75
	Operations Specialties Managers	10,570	$93,564	0.2%	1,150	12.2%	42	1.65
	Health Diagnosing and Treating Practitioners	36,060	$85,097	12.3%	4,710	15.0%	43	1.65
	Advertising, Marketing, Promotions, Public Relations, and Sales Managers	4,540	$92,876	-8.2%	400	9.7%	42	1.49
	Engineers	10,450	$78,640	0.3%	2,200	26.7%	41	1.21
	Mathematical Science Occupations	1,200	$78,906	-1.8%	150	14.3%	44	1.15
	Other Management Occupations	13,610	$77,521	-3.9%	2,230	19.6%	44	1.14
	Other Healthcare Practitioners and Technical Occupations	960	$56,376	41.2%	10	1.1%	41	0.99
	Business Operations Specialists	35,990	$61,469	2.9%	10,690	42.3%	44	0.94
	Computer Occupations	31,590	$69,876	-4.2%	1,190	3.9%	39	0.80
	Social Scientists and Related Workers	1,440	$68,604	4.6%	-1,730	-54.6%	42	0.78
	Sales Representatives, Wholesale and Manufacturing	17,860	$62,914	0.2%	2,260	14.5%	44	0.72
	Physical Scientists	1,600	$65,173	-4.1%	100	6.7%	39	0.63
	Financial Specialists	22,530	$57,366	4.0%	3,960	21.3%	42	0.63
	Life Scientists	1,610	$64,133	0.2%	280	21.1%	34	0.62
	Architects, Surveyors, and Cartographers	1,540	$63,462	1.6%	-520	-25.2%	40	0.62
	Postsecondary Teachers	5,050	$56,303	-2.6%	440	9.5%	48	0.46
	Legal Support Workers	2,890	$47,962	14.8%	-2,540	-46.8%	44	0.28
	Art and Design Workers	4,210	$43,210	17.7%	20	0.5%	39	0.22
	Librarians, Curators, and Archivists	2,060	$43,207	9.6%	-50	-2.4%	46	0.17
	Media and Communication Workers	4,860	$48,682	3.2%	-1,120	-18.7%	40	0.16
	Preschool, Primary, Secondary, and Special Education School Teachers	28,470	$44,640	6.3%	-350	-1.2%	42	0.13
Middle-Opportunity	Sales Representatives, Services	12,850	$51,288	-13.5%	440	3.5%	42	0.09
	Other Sales and Related Workers	4,010	$35,545	8.6%	-1,540	-27.7%	45	-0.16
	Specialists	11,280	$37,905	-4.7%	1,620	16.8%	40	-0.20
	Other Teachers and Instructors	6,270	$31,862	5.9%	-730	-10.4%	41	-0.31
Low-Opportunity	Entertainers and Performers, Sports and Related Workers	2,660	$34,417	-18.2%	650	32.3%	35	-0.55

Sources: U.S. Bureau of Labor Statistics; IPUMS. Universe includes all nonfarm wage and salary jobs for which the typical worker is estimated to have a BA degree or higher. Analysis reflects the Kansas City Core Based Statistical Area as defined by the U.S. Office of Management and Budget .
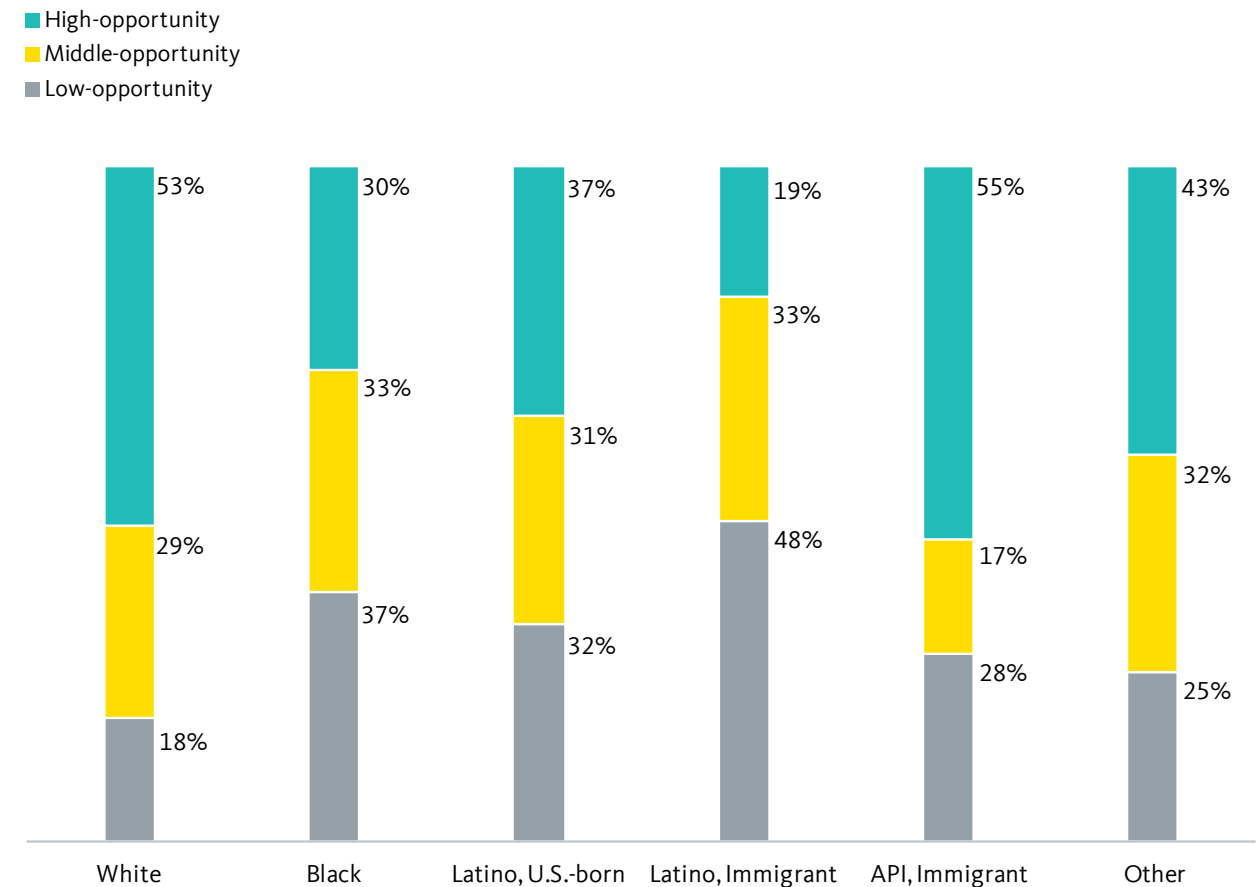
Economic vitality
Access to high-opportunity jobs by race/ethnicity/nativity

Examining access to high-opportunity jobs by race/ethnicity and nativity, we find that whites and immigrant Asian/Pacific Islanders (APIs) are most likely to hold high-opportunity jobs and Latino immigrants are by far the least likely to be in these occupations.

Differences in education levels play a large role in determining access to high-opportunity jobs (and this is examined next), but racial discrimination, work experience, social networks, and, for immigrants, legal status and English language ability are also contributing factors.

Latino immigrants and blacks are the least likely, and whites and Asian immigrants the most likely, to hold high-opportunity jobs

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

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

	White	Black	Latino, U.S.-born	Latino, Immigrant	API, Immigrant	Other
High-opportunity	53%	30%	37%	19%	55%	43%
Middle-opportunity	29%	33%	31%	33%	17%	32%
Low-opportunity	18%	37%	32%	48%	28%	25%

Sources: U.S. Bureau of Labor Statistics; IPUMS. Universe includes the employed civilian noninstitutional population ages 25 through 64. While data on workers are from the MARC 9-county region, the opportunity ranking for each worker's occupation is based on analysis of the Kansas City Core Based Statistical Area as defined by the U.S. Office of Management and Budget.

Economic vitality
Access to high-opportunity jobs for workers with a high school degree or less

Among workers with low education levels, whites and people of other or mixed racial backgrounds are most likely to be in the highest-opportunity occupations. African Americans and immigrants (Latino and API) are most likely to be in occupations with less opportunity and the most likely to be in low-opportunity jobs.

Of those with low education levels, blacks and immigrants (both Asian and Latino) are least likely to hold high-opportunity jobs

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

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

	White	Black	Latino, U.S.-born	Latino, Immigrant	API, Immigrant	Other
High-opportunity	30%	13%	21%	14%	16%	25%
Middle-opportunity	40%	36%	33%	35%	26%	39%
Low-opportunity	30%	51%	47%	51%	58%	35%

Sources: U.S. Bureau of Labor Statistics; IPUMS. Universe includes the employed civilian noninstitutional population ages 25 through 64 with less than a high school degree. While data on workers are from the MARC 9-county region, the opportunity ranking for each worker's occupation is based on analysis of the Kansas City Core Based Statistical Area as defined by the U.S. Office of Management and Budget.
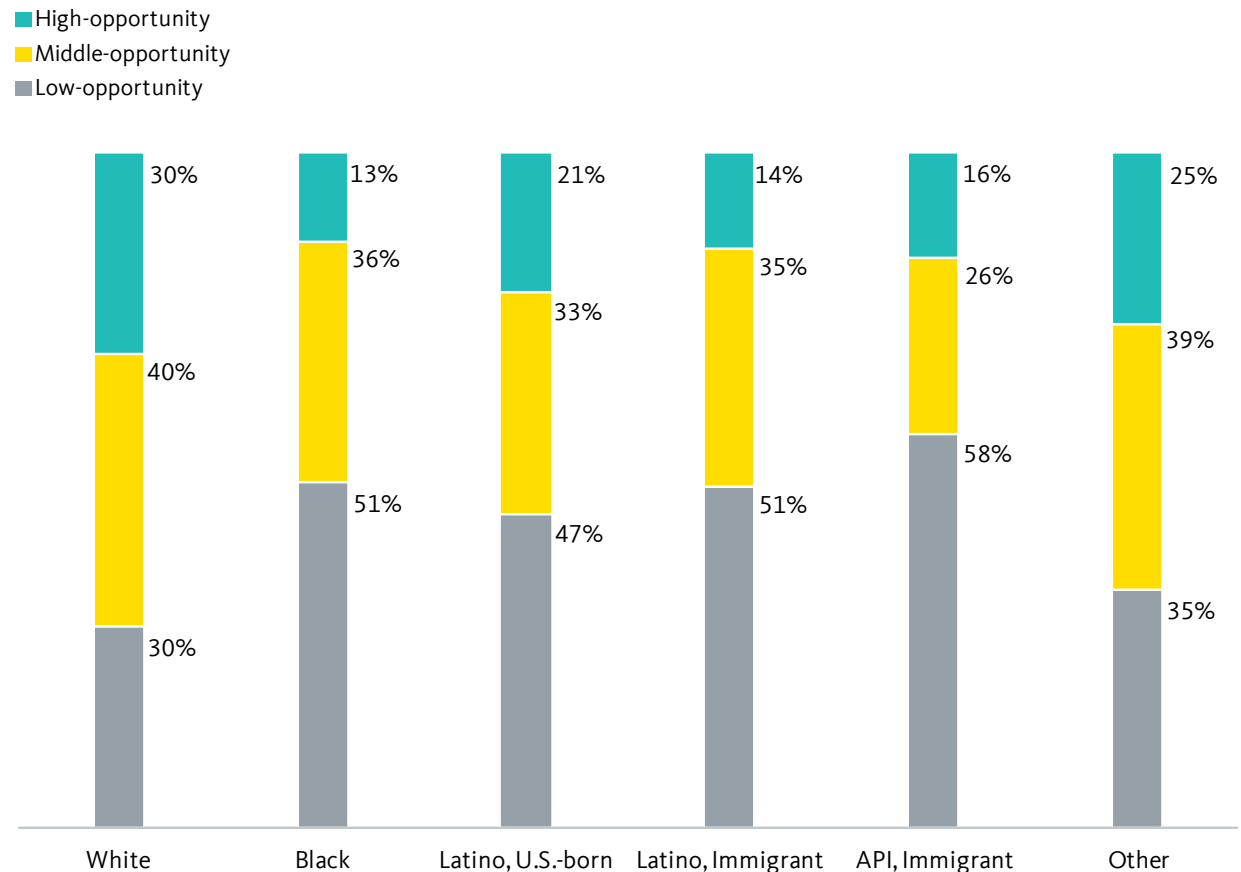
Economic vitality
Access to high-opportunity jobs for workers with more than a high school degree but less than a BA

Among workers with middle education levels, whites and people of other and mixed racial backgrounds are most often in high-opportunity occupations, but whites have higher access to middle-opportunity occupations. African Americans, Latino immigrants, and API immigrants are most likely to be in low-opportunity occupations.

Of those with middle education levels, blacks and Latino immigrants are least likely to be in high-opportunity jobs
43. Opportunity Ranking of Occupations by Race/Ethnicity/Nativity, Workers with Middle Educational Attainment

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

	White	Black	Latino, U.S.-born	Latino, Immigrant	API, Immigrant	Other
High-opportunity	43%	28%	34%	28%	36%	41%
Middle-opportunity	36%	36%	39%	32%	22%	30%
Low-opportunity	21%	36%	27%	40%	42%	29%

Sources: U.S. Bureau of Labor Statistics; IPUMS. Universe includes the employed civilian noninstitutional population ages 25 through 64 with at least a high school degree but less than a BA. While data on workers are from the MARC 9-county region, the opportunity ranking for each worker's occupation is based on analysis of the Kansas City Core Based Statistical Area as defined by the U.S. Office of Management and Budget.
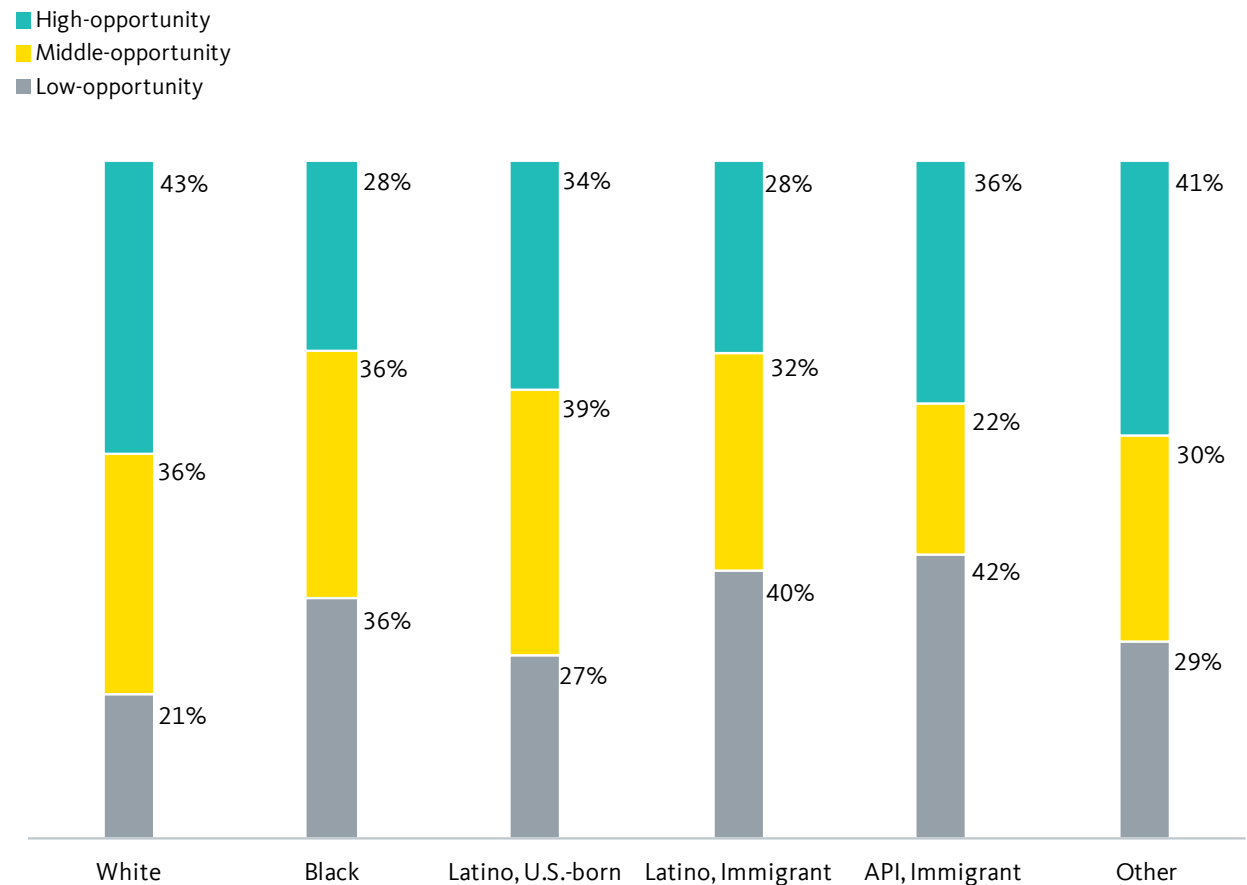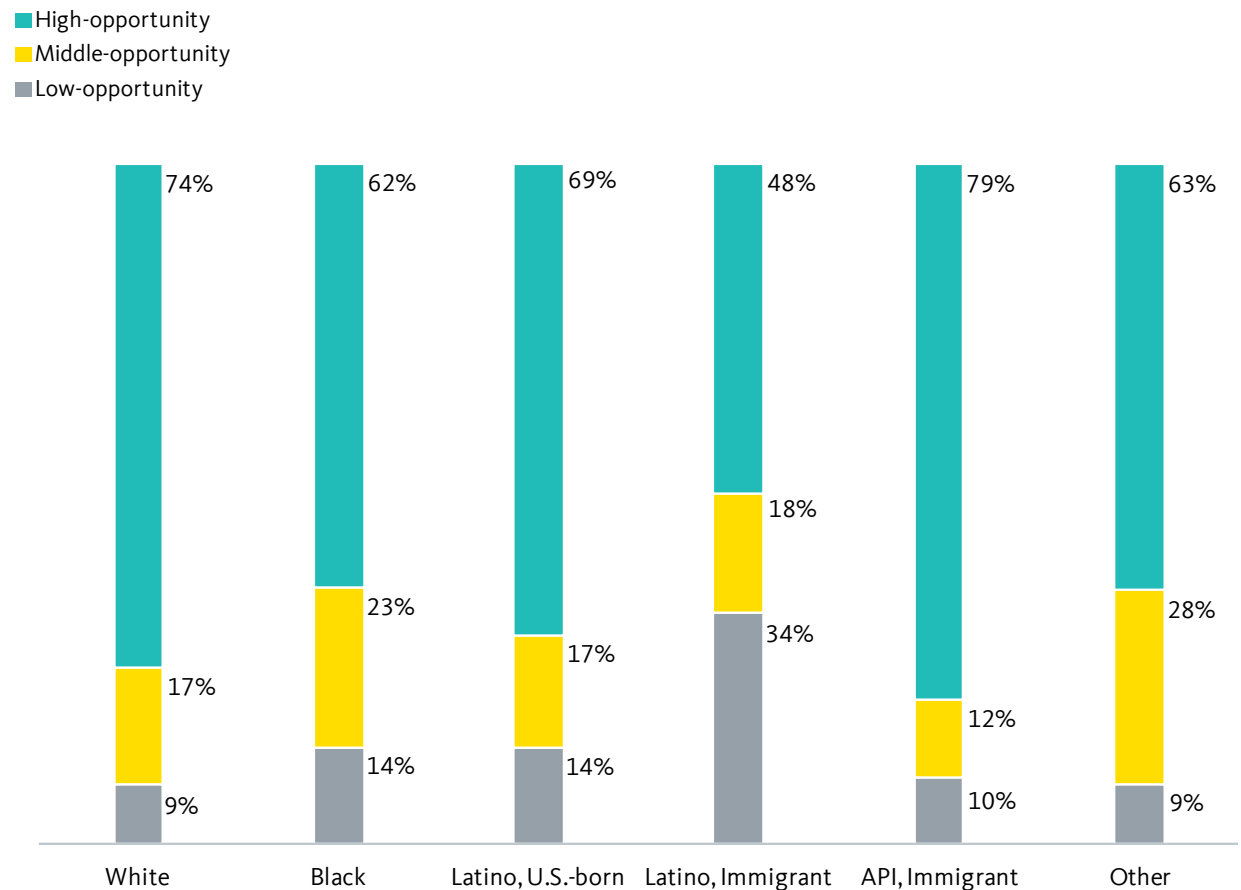
Economic vitality
Access to high-opportunity jobs for workers with a BA or higher

Among workers with college degrees, Asian immigrants and whites are most likely to be in high-opportunity occupations. College-educated Latino immigrants are least likely to hold high-opportunity jobs and most likely to be in in low-opportunity ones.

This analysis of access to high-opportunity jobs by education level illustrates how the region's Asian immigrant population includes workers with high-levels of education who are likely to hold high-opportunity jobs as well as less educated workers who are concentrated in low-opportunity jobs.

Among college-educated workers, Latino immigrants are least likely to hold high-opportunity jobs
44. Opportunity Ranking of Occupations by Race/Ethnicity/Nativity, Workers with High Educational Attainment

High-opportunity
Middle-opportunity
Low-opportunity

	White	Black	Latino, U.S.-born	Latino, Immigrant	API, Immigrant	Other
High-opportunity	74%	62%	69%	48%	79%	63%
Middle-opportunity	17%	23%	17%	18%	12%	28%
Low-opportunity	9%	14%	14%	34%	10%	9%

Sources: U.S. Bureau of Labor Statistics; IPUMS. Universe includes the employed civilian noninstitutional population ages 25 through 64 with a BA degree or higher. While data on workers are from the MARC 9-county region, the opportunity ranking for each worker's occupation is based on analysis of the Kansas City Core Based Statistical Area as defined by the U.S. Office of Management and Budget.

Readiness

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

- There is a looming skills and education gap for the region's African Americans and Latinos, whose rates of postsecondary education (having at least an associate's degree) are lower than the share of future jobs that will require that level of education.

- Education levels differ dramatically among the region's immigrants.

- Educational attainment for youth of color has increased significantly over the past two decades, with the exception of Latino immigrants.

- The number of disconnected youth that are not working or in school is on the rise, and rates are highest among African American and Latino youth.

- Communities of color are facing significant health challenges, with particularly high rates of overweight/obesity and diabetes for African Americans.

Percent of U.S.-born Latinos with at least an associate's degree :

29%

Percent of youth who are disconnected:

12%

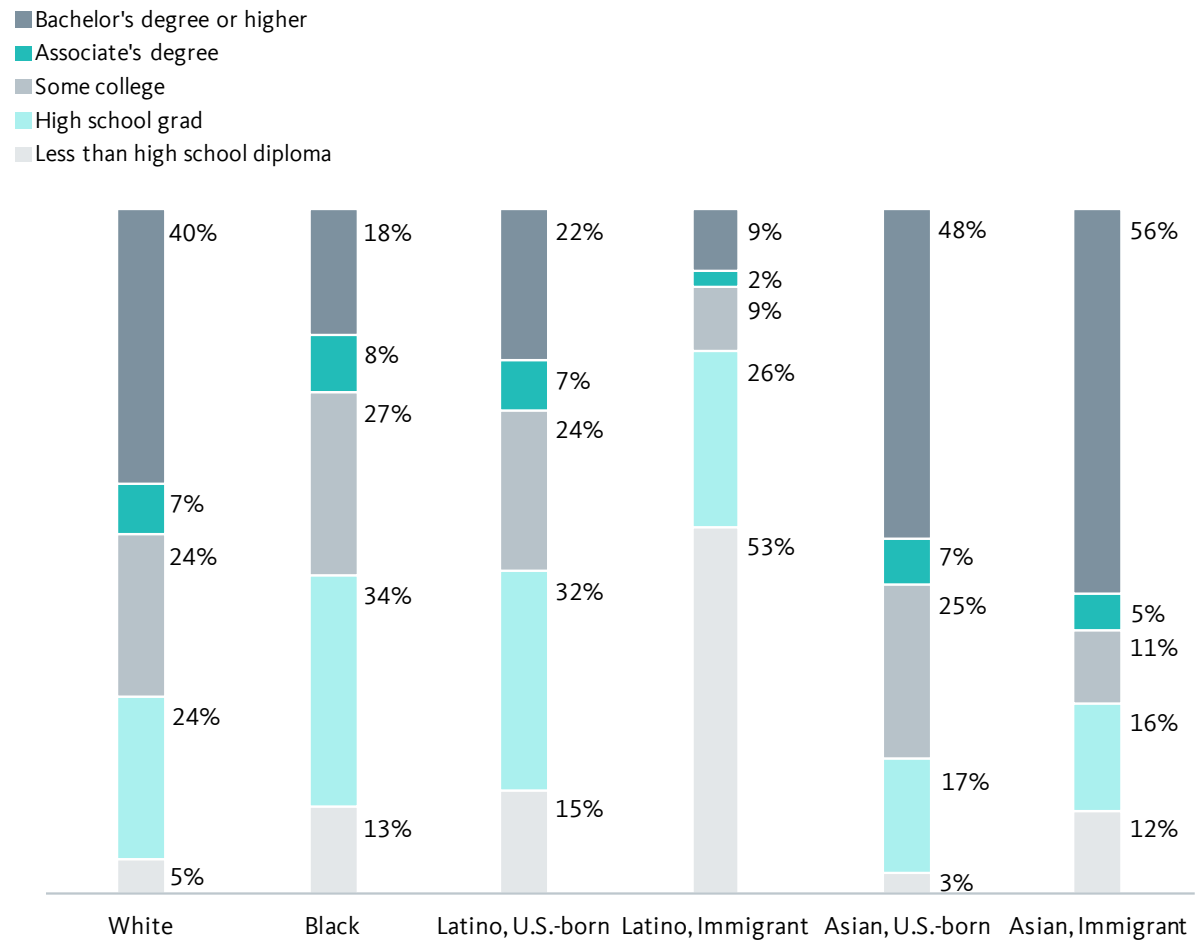Percent of adults that are overweight or obese:

64%

Readiness
An education and skills gap for people of color

According to the Georgetown Center for Education and the Workforce, by 2018 35 percent of Missouri's jobs and 38 percent of Kansas jobs will require an associate's degree or above. Although 43 percent of the region's population currently have that level of education, there are large differences in educational attainment by race/ethnicity and nativity. Only 29 percent of US-born Latinos, 26 percent of African Americans, and 11 percent of Latino immigrants have at least that level of education.

While not shown in the graph, people of every race/ethnicity/nativity except Latino immigrants improved their education levels since 1990. Despite this progress, Latinos and African Americans, who will account for an increasing share of the region's workforce, remain less prepared for the future economy than their white counterparts.

There are wide gaps in educational attainment
45. Educational Attainment by Race/Ethnicity/Nativity, 2006-2010

- ■ Bachelor's degree or higher
- ■ Associate's degree
- ■ Some college
- ■ High school grad
- ■ Less than high school diploma

Source: IPUMS. Universe includes all persons ages 25 through 64.

Readiness
Relatively high education levels

Kansas City has relatively high educational attainment. It ranks in the top third of the largest 150 regions on the share of residents with an associate's degree or higher (43 percent), ahead of Columbus (42 percent) and Indianapolis (41 percent).

Kansas City ranks among the top third for residents with an associate's degree or higher
46. Percent of the Population with an Associate's Degree or Higher in 2006-2010: Largest 150 Metros Ranked

#1: Ann Arbor, MI (60%)

#37: Kansas City (43%)

#150: Visalia-Porterville, CA (21%)
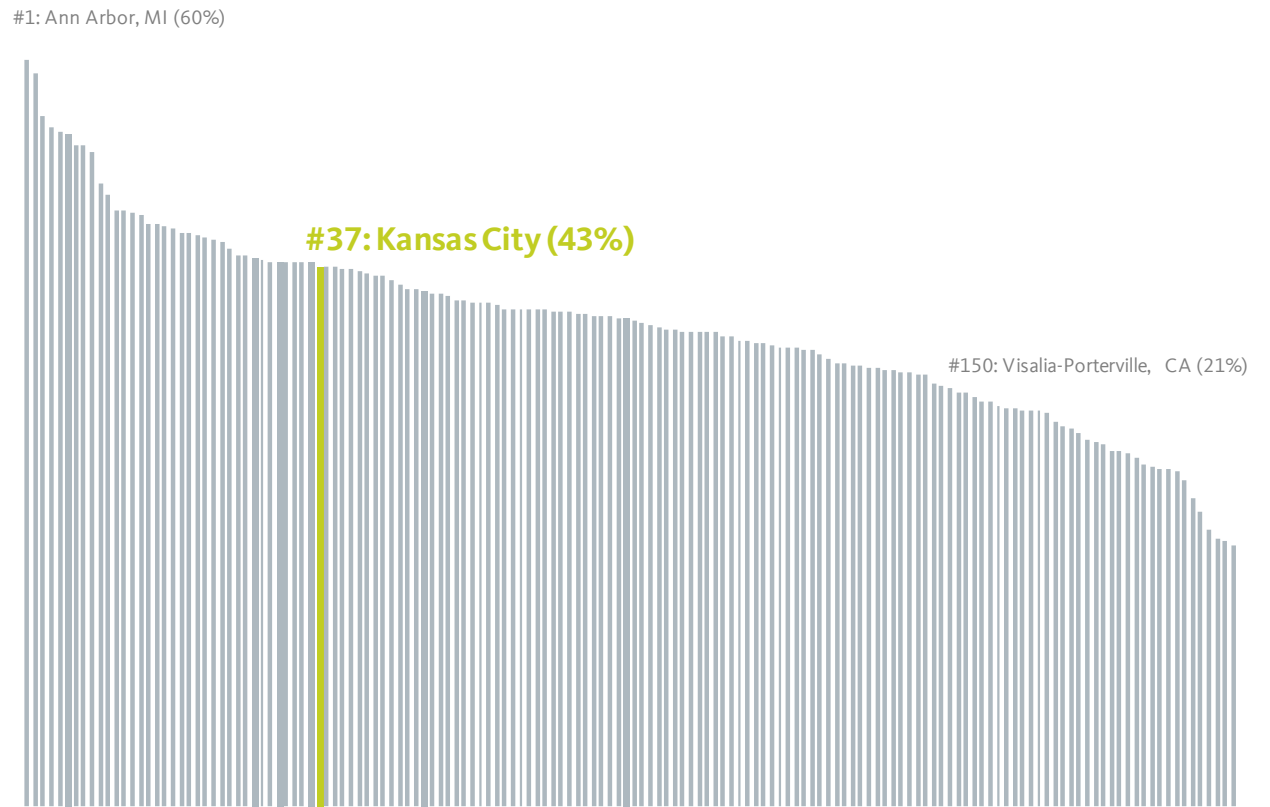
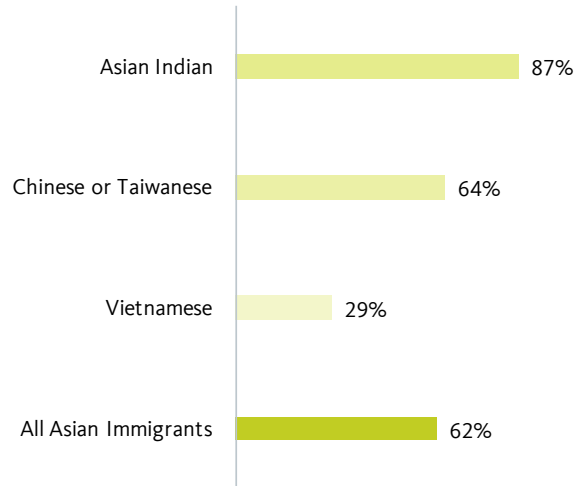Source: IPUMS. Universe includes all persons ages 25 through 64.

Readiness
# High variation in immigrant education levels

Among the region's immigrant communities, Mexicans and other Latino immigrants tend to have very low education levels. Education levels are higher among Asian immigrants overall, but there is still variation: only 29 percent of Vietnamese immigrants have an associate's degree or higher, for example, compared to 87 percent of Asian Indian immigrants.

Asian immigrants tend to have higher education levels compared to Latino immigrants, but there are still major differences within the Asian immigrant community

47. Asian Immigrants, Percent with an Associate's Degree or Higher by Origin, 2006-2010

Origin	Percent
Asian Indian	87%
Chinese or Taiwanese	64%
Vietnamese	29%
All Asian Immigrants	62%

48. Latino Immigrants, Percent with an Associate's Degree or Higher by Origin, 2006-2010
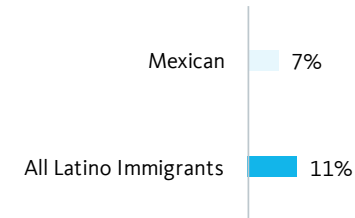
Origin	Percent
Mexican	7%
All Latino Immigrants	11%

Source: IPUMS. Universe includes all persons ages 25 through 64.

Source: IPUMS. Universe includes all persons ages 25 through 64.

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

High school dropout and nonenrollment rates have improved considerably for the region's white, African American, and Latino immigrant youth over the past two decades, but not for its U.S.-born Latino youth. Overall, Kansas City's youth of color are still less likely to finish high school, and its immigrant Latinos have particularly high rates of dropout or non-enrollment, with more than one in three lacking and not pursuing a high school degree.

Educational attainment has improved across the board for whites and blacks, but not for Latinos since 1990
49. Percent of 16-24 Year-Olds Not Enrolled in School and Without a High School Diploma, 1990 to 2006-2010

■ 1990
■ 2000
■ 2006-2010
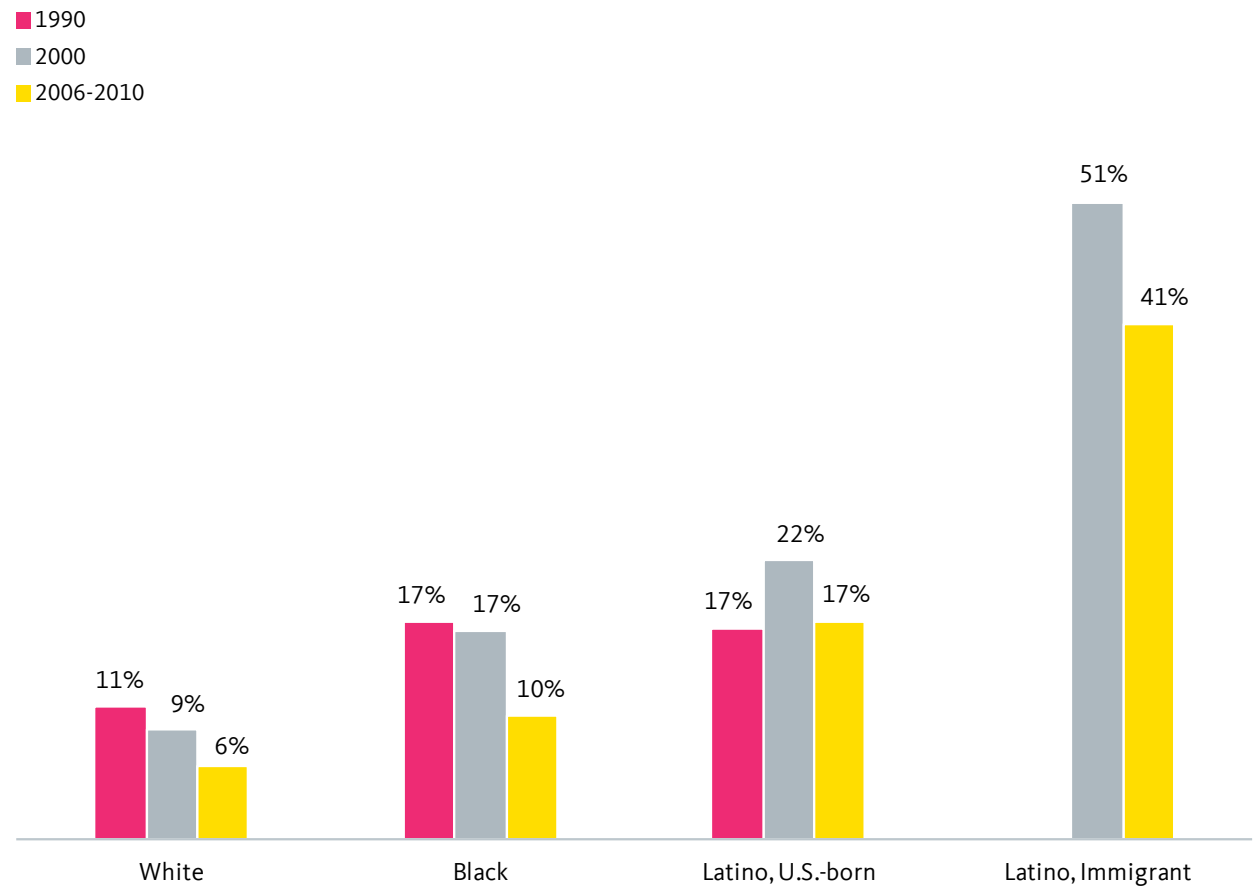
Source: IPUMS.

Readiness
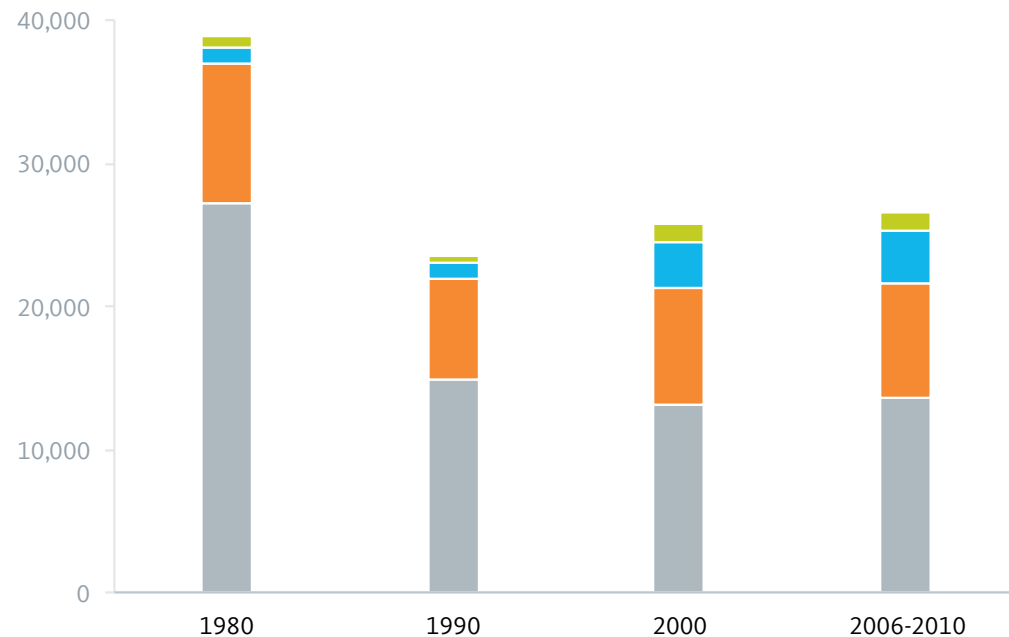## Many youth are disconnected from work or school

While trends in the pursuit of education have been mostly positive for youth of color, the number of "disconnected youth" who are neither in school nor working is on the rise. Of the region's almost 27,000 disconnected youth in the region, 51 percent are white, 30 percent are African American, 14 percent are Latino, and one percent are Asian. As a share of the youth population, African Americans have the highest rate of disconnection (23 percent), followed by Latinos (19 percent), whites (9 percent), and Asians (7 percent).

After a considerable decrease during the 1980s, the Kansas City region has seen a slow and steady increase in the number of disconnected youth since 1990. The increase since 2000 has been from white and Latino youth.

There are about 27,000 disconnected youth in the region
50. Disconnected Youth: 16-24-Year-Olds Not in Work or School, 1980 to 2006-2010

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

Source: IPUMS.

Readiness
Many youth are disconnected from work or school
(continued)

More than one in eight of Kansas City's youth are not in work or school. This places the region at 78th out of the largest 150 metro areas—a ranking that is better than Indianapolis (51st), but slightly worse than Columbus (79th).

Kansas City has a moderate percentage of disconnected youth compared to other regions
51. Percent of 16-24-Year-Olds Not in Work or School, 2006-2010: Largest 150 Metros Ranked

#1: Brownsville-Harlingen, TX (23%)

#150: Madison, WI (5%)

#78: Kansas City (12%)
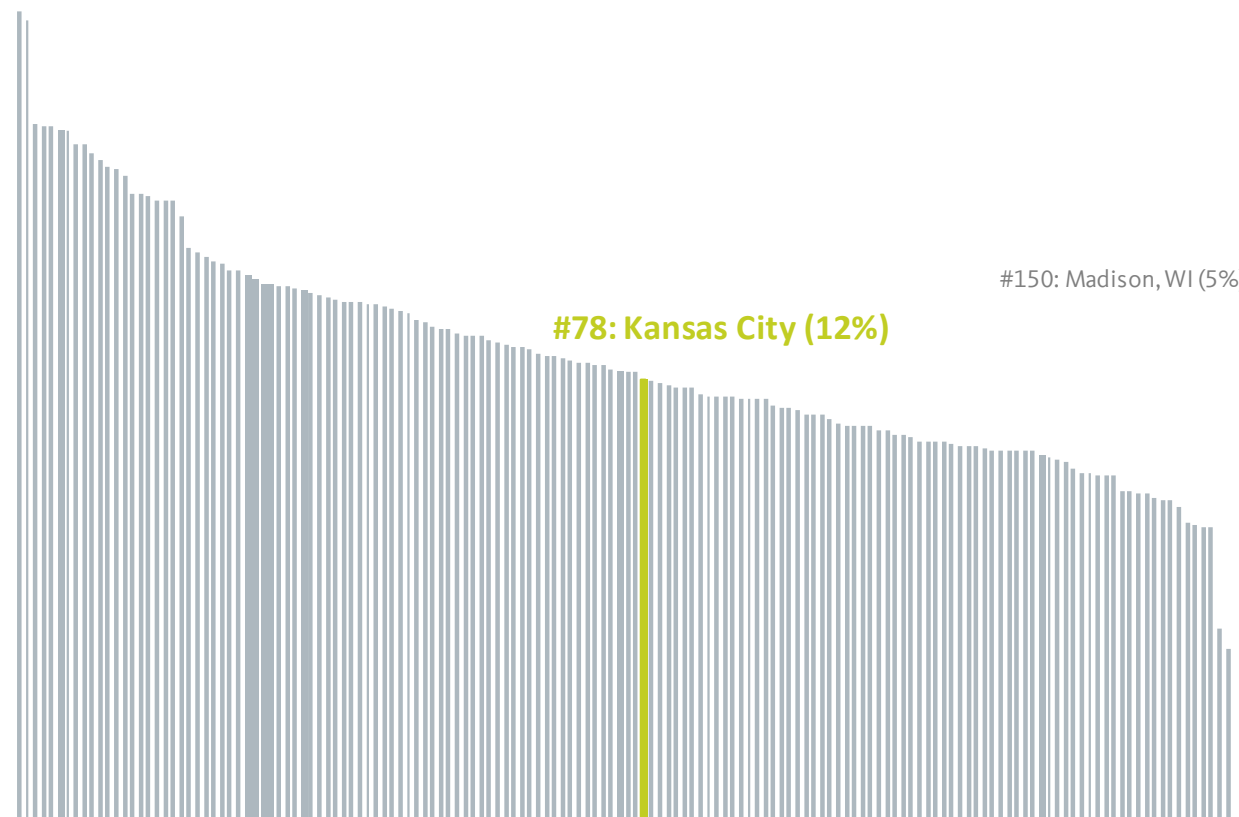
Source: IPUMS.

Readiness
Health challenges among communities of color
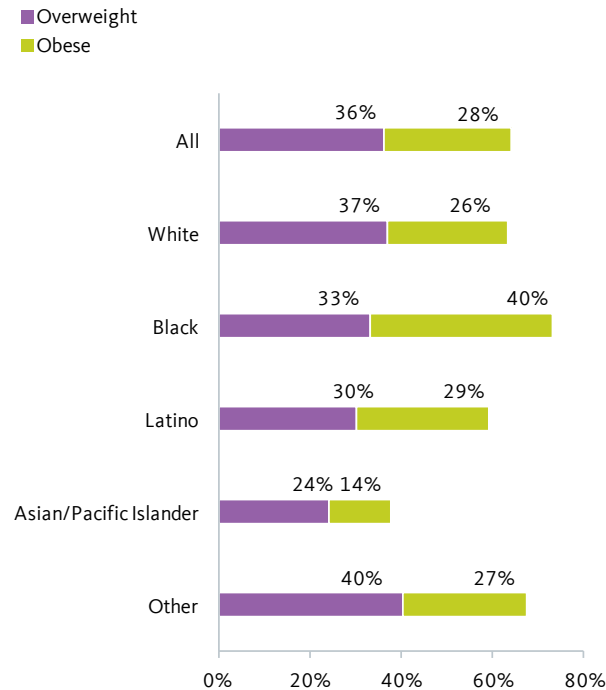
African Americans suffer from high rates of obesity, asthma, and diabetes. People of other or mixed racial backgrounds have above average obesity and very high asthma rates. Seven in 10 of the region's African Americans are overweight or obese. People of other or mixed

racial background have the highest asthma rates at 16 percent, almost double the regional average. Whites fare about average on all measures, while Asians and Latinos show better than average marks across the board.

African Americans face above-average rates of obesity, diabetes, and asthma

52. Adult Overweight and Obesity Rates by Race/Ethnicity, 2006-2010

- Overweight
- Obese

	Overweight	Obese
All	36%	28%
White	37%	26%
Black	33%	40%
Latino	30%	29%
Asian/Pacific Islander	24%	14%
Other	40%	27%

Source: Centers for Disease Control and Prevention. Universe includes adults ages 18 and older.

53. Adult Diabetes Rates by Race/Ethnicity, 2006-2010
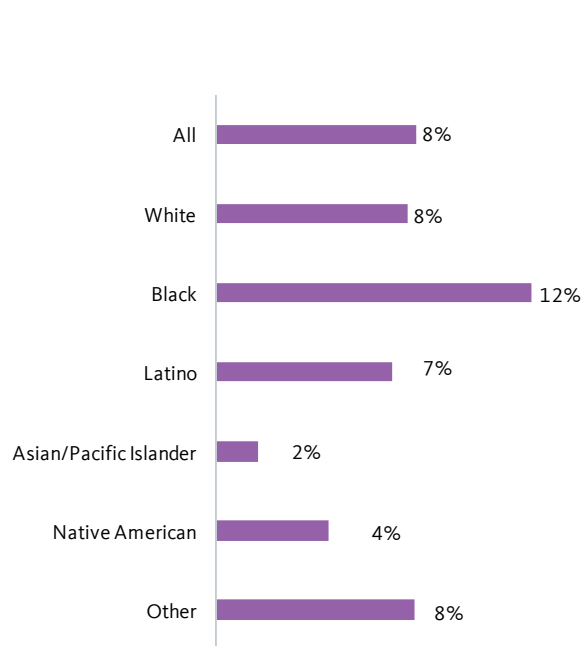
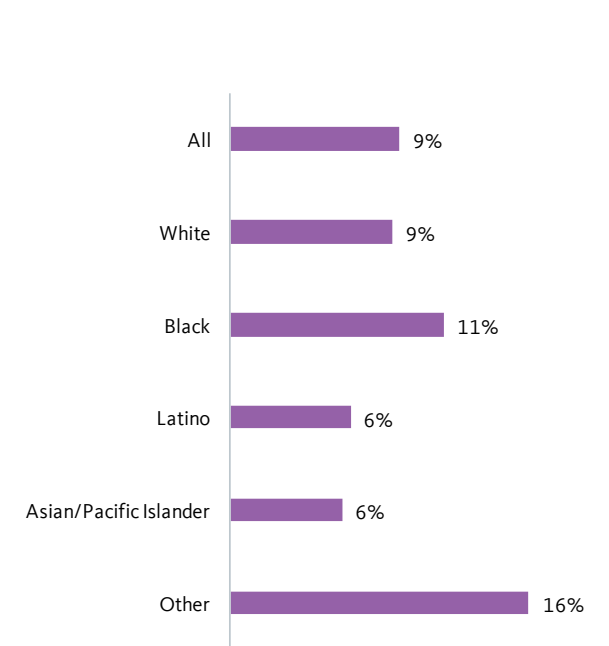|	
All	8%
White	8%
Black	12%
Latino	7%
Asian/Pacific Islander	2%
Native American	4%
Other	8%

Source: Centers for Disease Control and Prevention. Universe includes adults ages 18 and older.

54. Adult Asthma Rates by Race/Ethnicity, 2006-2010

All	9%
White	9%
Black	11%
Latino	6%
Asian/Pacific Islander	6%
Other	16%

Source: Centers for Disease Control and Prevention. Universe includes adults ages 18 and older.

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 faster in the region than in the United States overall. Latinos, however, are increasingly isolated from other groups.

- Communities of color are more likely to live in neighborhoods of concentrated poverty. More than 8 percent of the region's people of color live in high-poverty tracts compared to less than 1percent of whites.

- Kansas City is overwhelmingly auto dependent, with 83 percent of residents driving alone to work, ranking the region 27th among the largest 150 metro areas.

- Communities of color have higher housing burdens, especially for those who are renters.

- Food deserts are clustered around Kansas City, MO, and suburban areas to the south in Jackson County, which are predominantly in communities of color.

Percent of people of color living in high-poverty tracts:

8.4%

Percent of whites living in high-poverty tracts:

0.9%

Share of renters who pay too much for housing:

44%

Connectedness
Segregation is decreasing

Kansas City is less residentially segregated by race/ethnicity than the nation, and segregation has steadily declined 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 metropolitan area (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
55. Residential Segregation, 1980 to 2010

Kansas City
United States

Multi-Group Entropy Index
0 = fully integrated | 1 = fully segregated
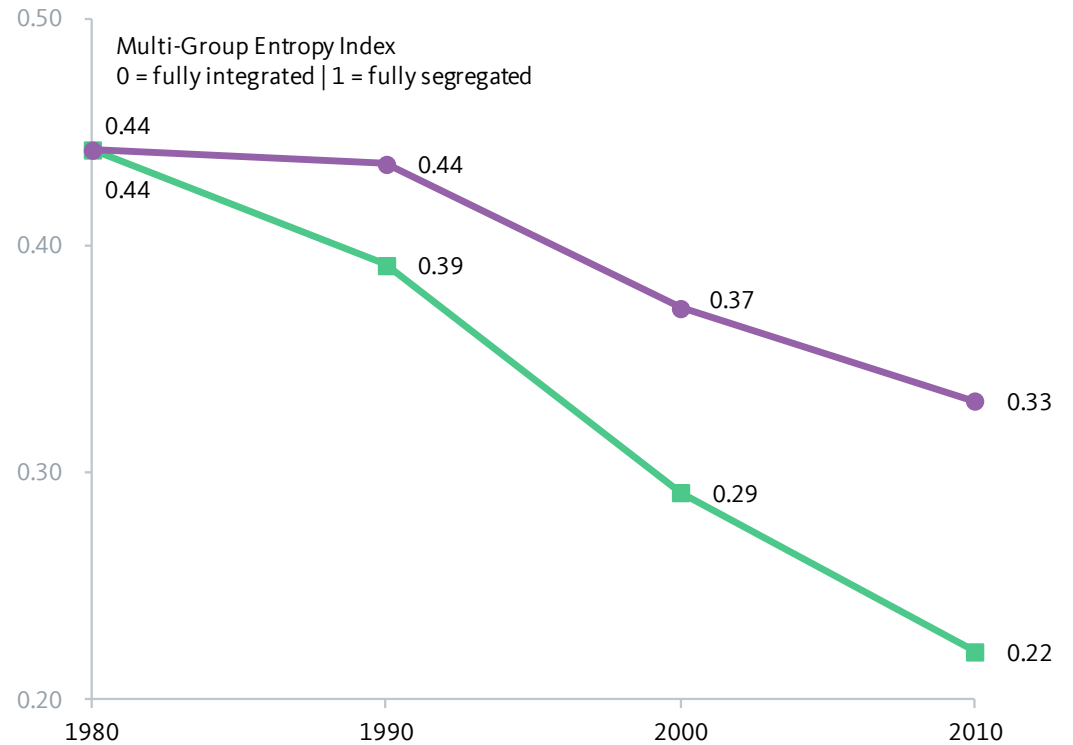
Sources: U.S. Census Bureau; Geolytics. See the "Data and methods" section for details of the residential segregation index calculations.

Connectedness
# Increased integration among people of color

Declining racial segregation in the region is due more to increased integration among communities of color than to integration between whites and people of color.

The dissimilarity index estimates the share of a given racial/ethnic group that would need to move to a new neighborhood to achieve complete integration. Calculating this index for 1990 and 2010, we see that segregation decreased significantly between most groups of color, except Latinos and Asians, who only experienced a slight decline. Segregation between whites and blacks also dropped considerably, but segregation between whites and Latinos increased.

Segregation between all groups of color has decreased, but white-Latino segregation increased
56. Residential Segregation, 1990 and 2010, Measured by the Dissimilarity Index.

■ 1990
■ 2010
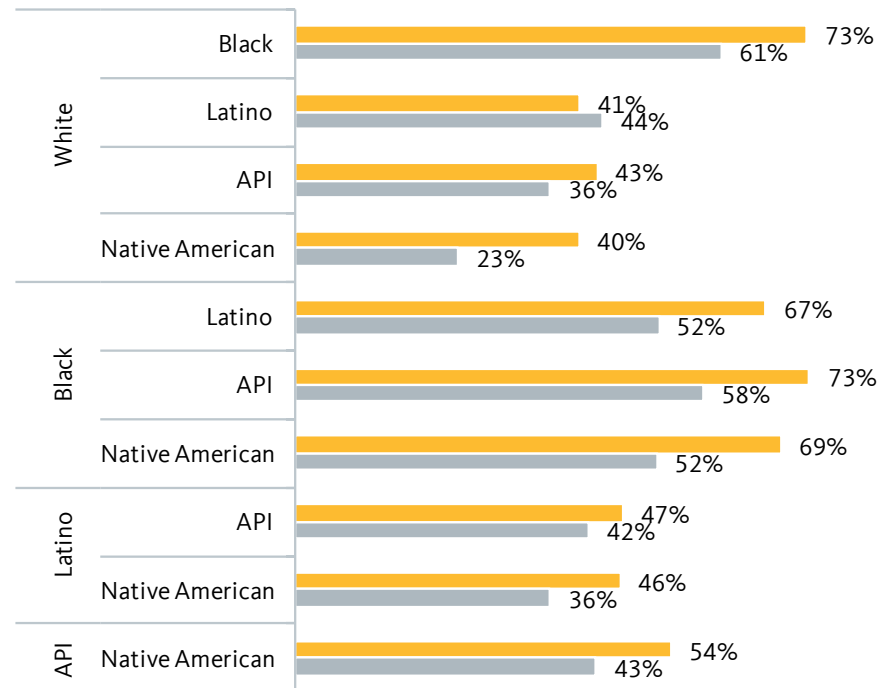
Sources: U.S. Census Bureau; Geolytics. Data show the dissimilarity index for each combination of racial/ethnic groups. See the "Data and methods" section for details of the residential segregation index calculations.
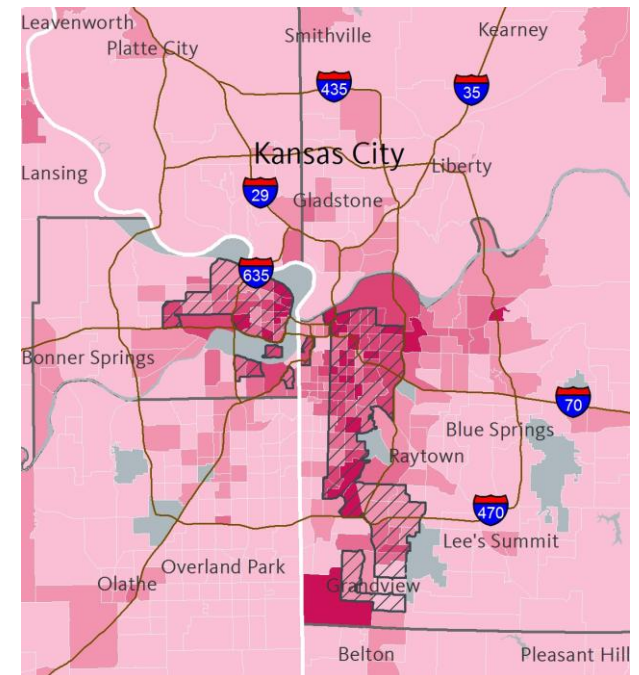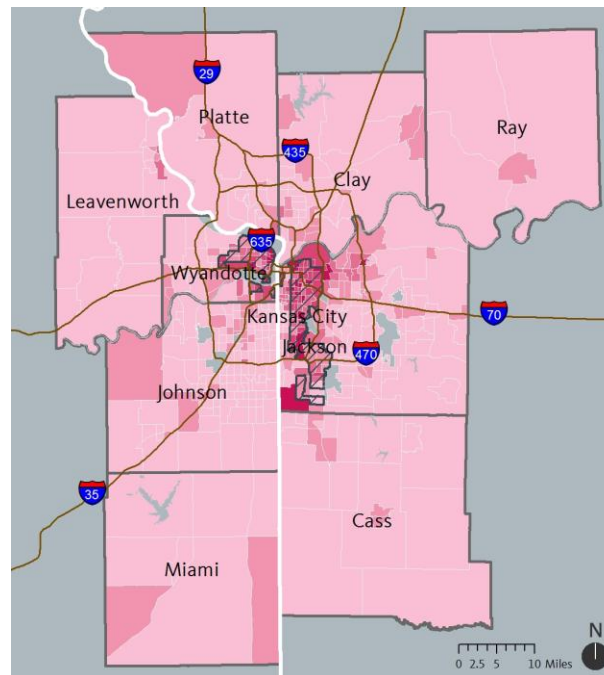
Connectedness
Concentrated poverty a challenge for communities of color

The share of high-poverty neighborhoods (with poverty rates of 40 percent or higher) in the region increased from 1.3 to 2.9 percent since 1980. People of color are much more likely to live in these neighborhoods than whites: 8.4 percent of people of color live in high-poverty tracts compared to only 0.9 percent of whites. In neighborhoods with the highest shares of people of color (60 percent or more), the average poverty rate is about 30 percent, compared to 8 percent for all other neighborhoods and 11 percent for the region overall.

As the maps illustrate, almost all of the high-poverty neighborhoods in the region coincide with areas that are predominantly people of color, stretching south of the urban core to Grandview, and they have significantly higher poverty rates than surrounding areas.

Areas of high poverty (40 percent or higher) are found primarily in the urban core, stretching south to Grandview
57. Percent Population Below the Poverty Level by Census Tract and High People of Color Tracts, 2006-2010

Less than 10%
10% to 19%
20% to 29%
30% to 39%
40% or more

60% or more people of color

Source: U.S. Census Bureau. Areas in white are missing data.

Connectedness
Low-income people of color are more likely to rely on the region's transit system to get to work

Income and race each play a role in determining who uses Kansas City's transit system to get to work. Very low-income African American residents and those of other or mixed race are most likely to get to work using public transit, but their use of transit declines rapidly as incomes rise.

Households of color are also much less likely to own cars than whites. Across the region, 96 percent of white households have at least one car. African Americans are the most likely to lack a vehicle, with only 82 percent having at least one car.

Given the high reliance on transit for low-income people of color, it is important that the transit system provide good connections to jobs, but according to an analysis by the Brookings Institution, while 89 percent of the region's low-income residents live near a bus stop, buses only serve 26 percent of low- and middle-skill jobs.

Transit use generally declines as income rises
58. Percent Using Public Transit by Annual Earnings and Race/Ethnicity/Nativity, 2006-2010
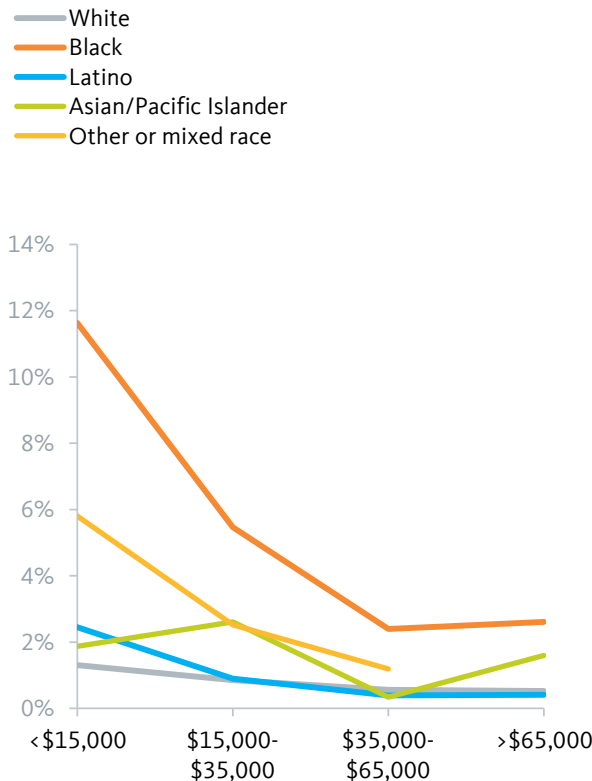
White
Black
Latino
Asian/Pacific Islander
Other or mixed race

Households of color are less likely to own cars
59. Percent of Households without a Vehicle by Race/Ethnicity, 2006-2010

Source: IPUMS. Universe includes workers ages 16 and older with earnings.
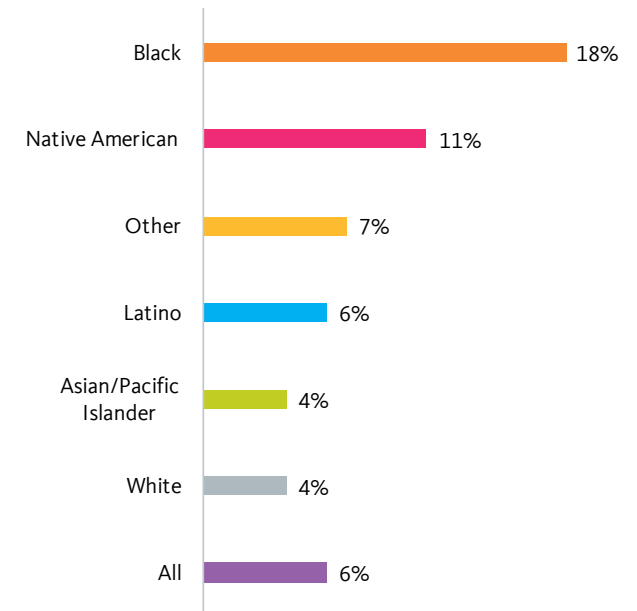
Source: IPUMS. Universe includes all households (no group quarters).

Connectedness
Lone commuting increases as income increases

The vast majority of residents in the region – 83 percent – drive alone to work. In terms of auto dependency, Kansas City ranks 27th out of the top 150 metros. Single-driver commuting varies by income, however. Only 75 percent of very low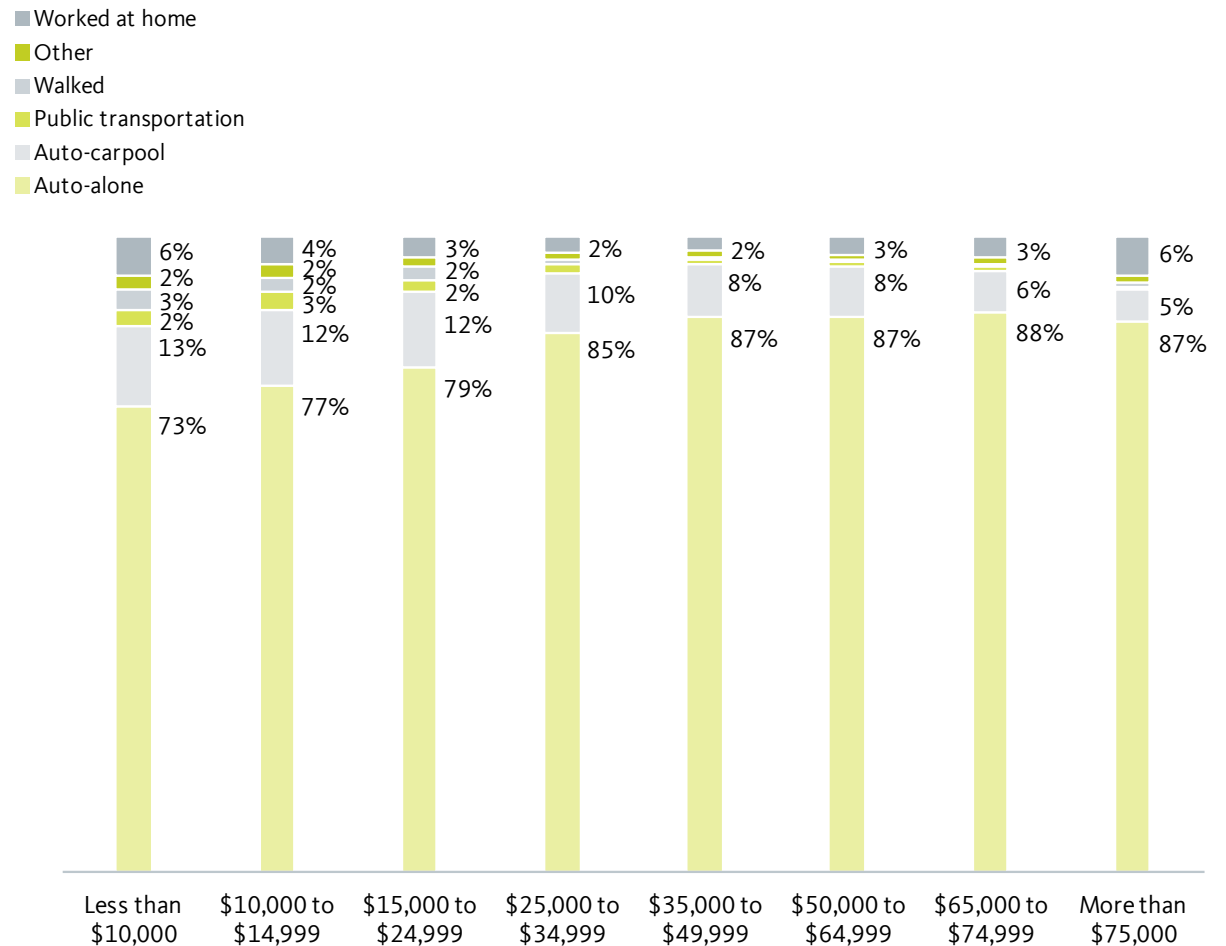-income workers (earning under $15,000 per year) drive alone to work, compared to 87 percent of workers that make over $65,000 a year.

Lower-income residents are less likely to drive alone to work
60. Means of Transportation to Work by Annual Earnings, 2006-2010

Legend:
- Worked at home
- Other
- Walked
- Public transportation
- Auto-carpool
- Auto-alone

|	Less than $10,000	$10,000 to $14,999	$15,000 to $24,999	$25,000 to $34,999	$35,000 to $49,999	$50,000 to $64,999	$65,000 to $74,999	More than $75,000
Worked at home	6%	4%	3%	2%	2%	3%	3%	6%
Other	2%	2%	2%					
Walked	3%	2%	2%					
Public transportation	2%	3%	2%					
Auto-carpool	13%	12%	12%	10%	8%	8%	6%	5%
Auto-alone	73%	77%	79%	85%	87%	87%	88%	87%

Source: U.S. Census Bureau. Universe includes workers ages 16 and older with earnings.

Connectedness
Communities of color are more likely to be carless

Although the vast majority of households have access to at least one vehicle, car ownership varies across the region. Neighborhoods with relatively high shares of zero-vehicle households are found not only in the urban core of Kansas City, but also at the region's periphery. Carlessness is also particularly high in areas with high concentrations of people of color, mostly stretching south from Kansas City, Missouri, to Grandview.

Concentrations of carless households are found in urban communities of color as well as at the region's periphery
61. Percent of Households Without a Vehicle by Census Tract and High People-of-Color Tracts, 2006-2010

Less than 1%
1% to 2%
3% to 5%
6% to 11%
12% or more

60% or more people of color
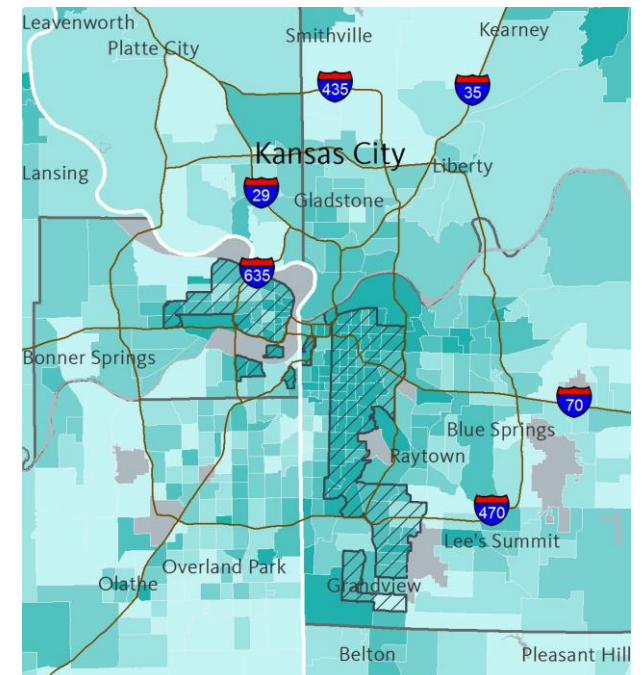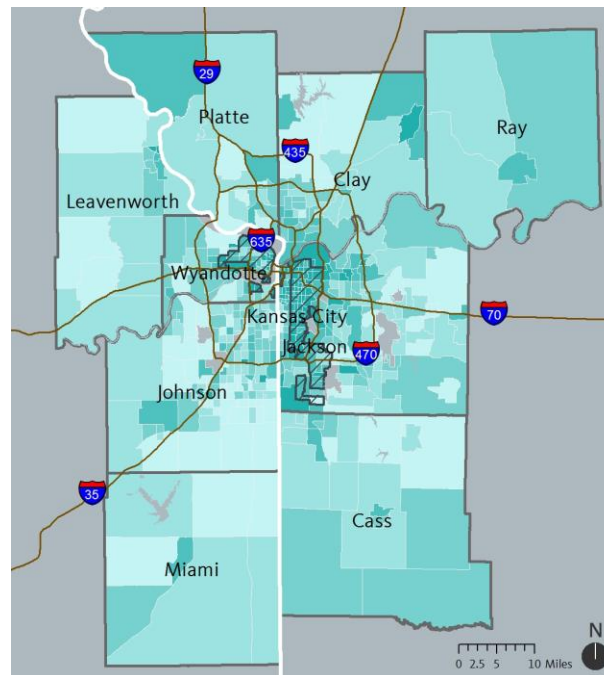
Source: U.S. Census Bureau. Areas in white are missing data.

Connectedness
Long commutes for urban communities of color and many suburban communities

Commute times are highest for the region's rural and suburban residents. There are wide ranges of commute times for urban communities of color, suggesting that many residents commute out of the city center for employment.

Workers throughout the region have long commute times, including urban communities of color
62. Average Travel Time to Work by Census Tract and High People-of-Color Tracts, 2006-2010

Less than 19 minutes
19 to 20 minutes
21 minutes
22 to 24 minutes
25 minutes or more

60% or more people of color
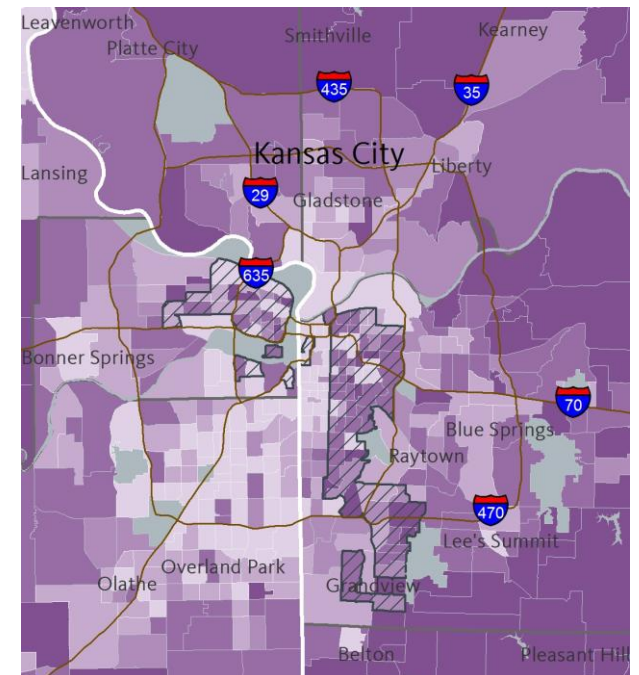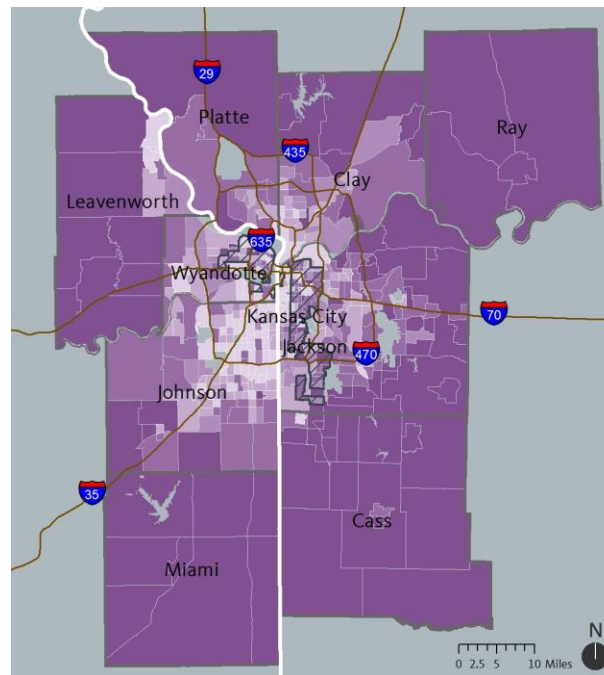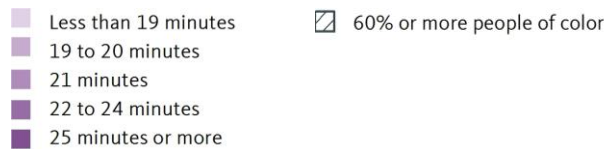
Source: U.S. Census Bureau. Areas in white are missing data.

Connectedness
A relatively low-cost housing market

The Kansas City region ranks 137th in rent burden among the largest 150 metros. Still, 44 percent of renters are housing burdened, defined as spending more than 30 percent of their income on housing Compared to other similarly sized metros, this is slightly better than Columbus (47 percent) and Indianapolis (48 percent).

Kansas City has a relatively low ranking for rent burdened households compared to other regions
63. Share of Households that Are Rent Burdened, 2006-2010: Largest 150 Metros Ranked

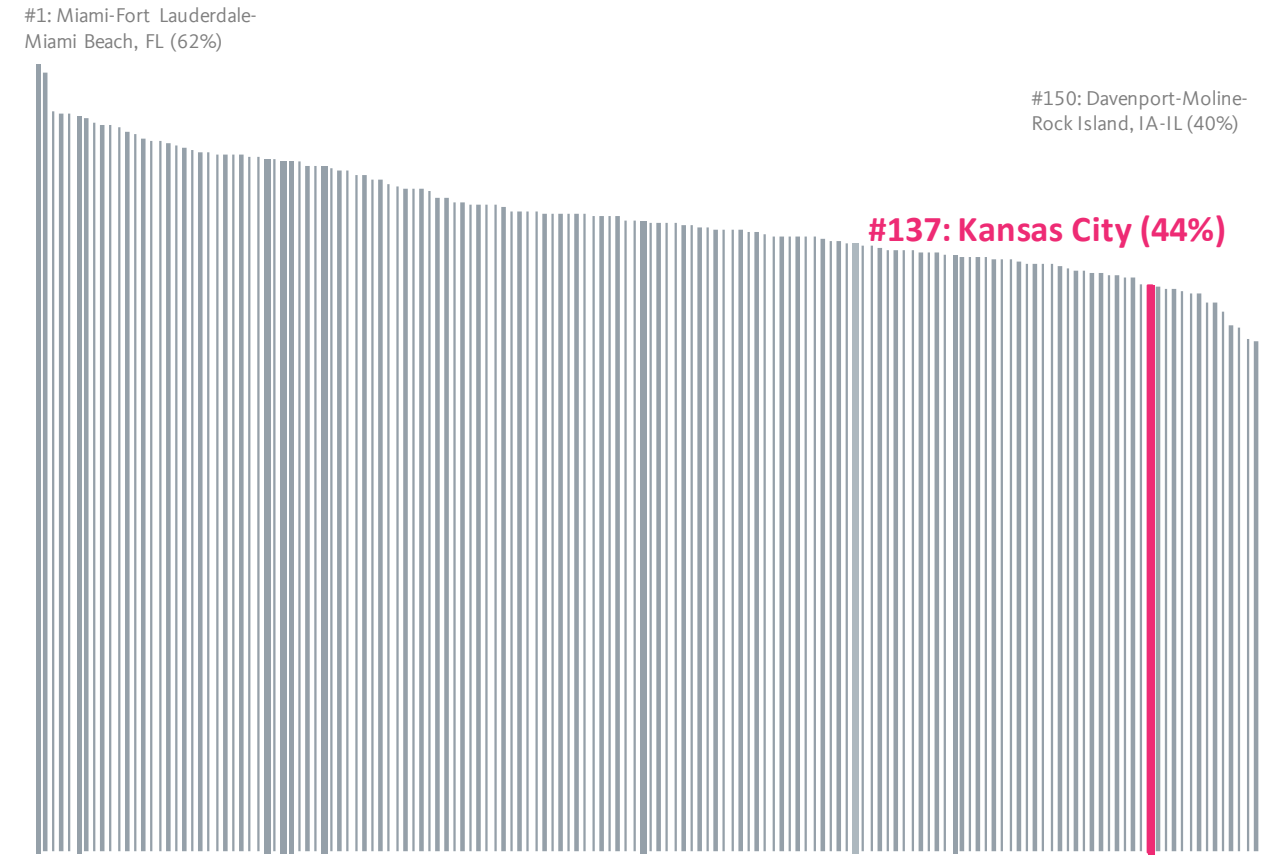#1: Miami-Fort Lauderdale-Miami Beach, FL (62%)

#150: Davenport-Moline-Rock Island, IA-IL (40%)

#137: Kansas City (44%)

Source: IPUMS. Universe includes renter-occupied households with cash rent (excludes group quarters).

Connectedness
People of color face higher housing burdens

The region's African Americans, Latinos, and people of color or mixed race are much more likely than whites to pay too much for housing, whether they rent or own. More than half of African American and Latino renters are housing burdened, compared to 41 percent of whites and 28 percent of Asians. Asian homeowners also have higher housing burdens than whites, but this is not the case for Asian renters.

African Americans and Latinos have the highest renter housing burden

64. Renter Housing Burden by Race/Ethnicity, 2006-2010

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

54.8%
51.1%
44.5%
40.9%
35.8%
27.6%
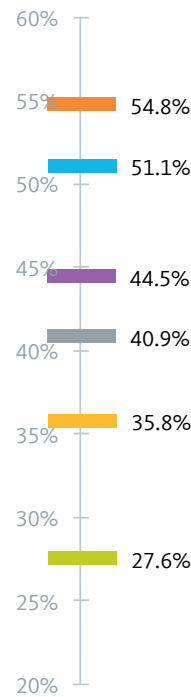
Source: IPUMS. Universe includes renter-occupied households with cash rent (excludes group quarters).

African American and Latino homeowners also have the highest housing burdens

65. Homeowner Housing Burden by Race/Ethnicity, 2006-2010

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

36.2%
36.1%
32.6%
28.0%
23.8%
21.8%

Source: IPUMS. Universe includes owner-occupied households (excludes group quarters).

Connectedness
Large differences in affordable rental housing by county
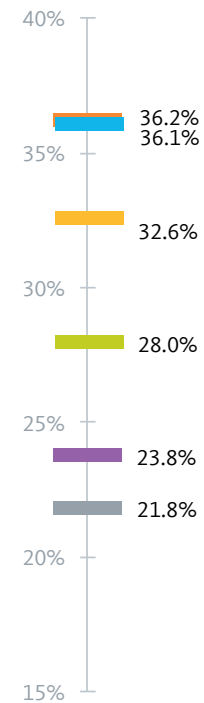
Across the region, 48 percent of rental units are affordable for low-wage worker households (rent of $749 per month or less, or less than 30 percent of household income, for households where two workers each earn $1,250 or less per month). But there is wide variation among the region's counties: Johnson and Cass Counties have much smaller shares of affordable rental housing (34 to 36 percent), while Ray, Wyandotte, and Miami have much higher shares (56 to 62 percent).

Nearly a quarter of the region's jobs are low-wage (24 percent). Most of the centrally located counties in the region have about this share of low-wage jobs (including Jackson, Johnson, Clay, Wyandotte, Platte). The outer counties of Cass, Leavenworth, Miami, and Ray all have higher shares of low-wage jobs (28 to 33 percent).

The share of affordable rentals differs greatly by county
66. Low-Wage Jobs and Affordable Rental Housing by County

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

County	Share of rental housing units that are affordable	Share of jobs that are low-wage
Kansas City Region	48%	24%
Jackson	54%	23%
Johnson	34%	25%
Clay	53%	25%
Wyandotte	57%	22%
Platte	40%	26%
Cass	36%	33%
Leavenworth	46%	28%
Miami	56%	31%
Ray	62%	32%
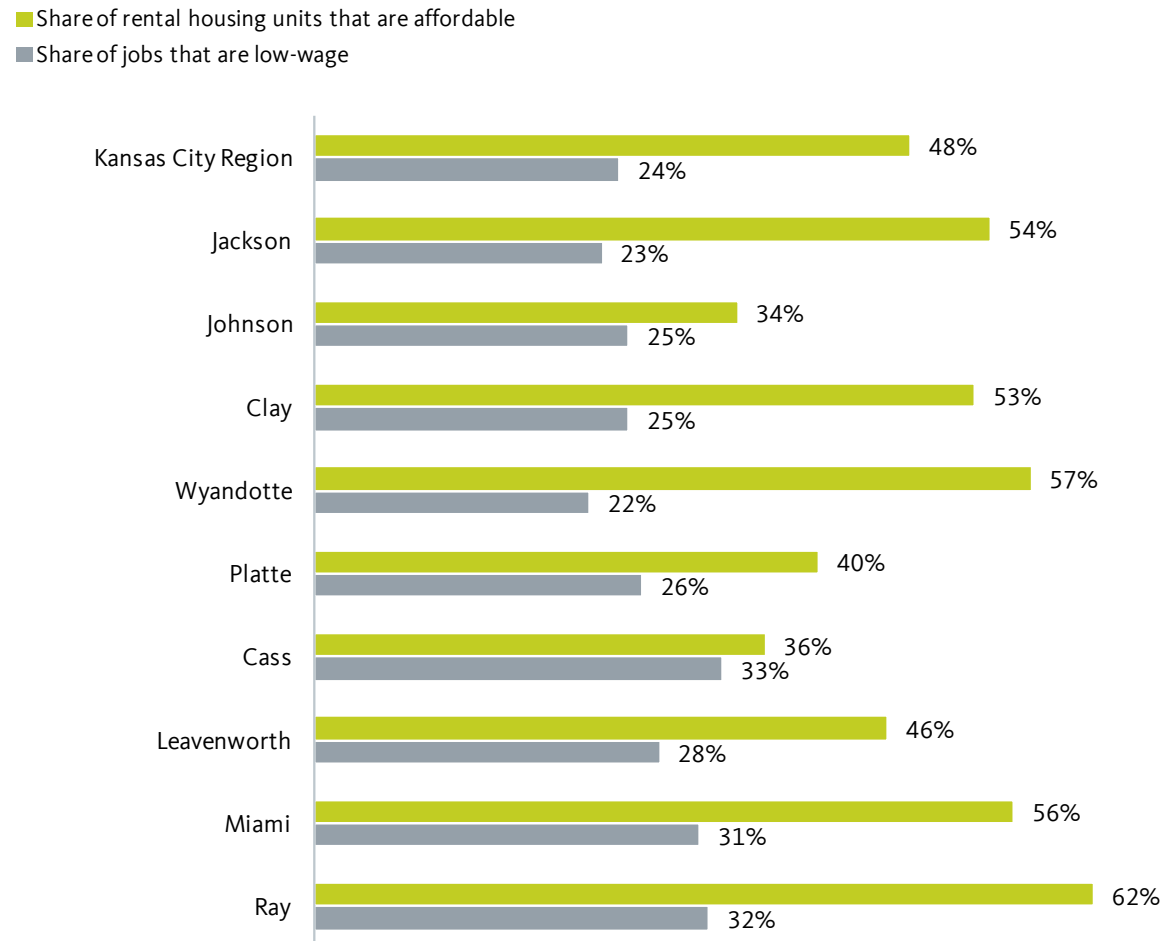
Source: U.S. Census Bureau.

Connectedness
A potential jobs-housing mismatch for low-wage workers in some parts of the region

Historically, many suburban communities that are home to large and growing job centers have not developed enough housing that is affordable to low-wage workers. This "jobs-housing mismatch" leads to long commutes and high transportation costs for low-wage workers, a lack of job access for job seekers who face limited housing and transportation options, and high greenhouse gas emissions for the region.

Examining the ratio of low-wage jobs to rental homes that are affordable to low-wage worker households by county, we find that some counties in the Kansas City region may have a mismatch. A low-wage jobs/affordable rental housing ratio that is higher than the regional average indicates a potential shortfall in affordable rentals. According to this measure, Cass and Johnson counties have potential shortages of affordable units, whereas Jackson, Clay and Wyandotte counties are doing fairly well in providing affordable rental housing for its workers.

Johnson and Cass counties may have a shortage of rental homes affordable for their low-wage workforces
67. Low-Wage Jobs, Affordable Rental Housing, and Jobs-Housing Ratios by County

	Jobs (2010)		Housing (2006-2010)			Jobs-Housing Ratios	
	All	Low-wage	All	Rental*	Affordable Rental*	All Jobs: All Housing	Low-wage Jobs: Affordable Rentals
Jackson	356,302	82,224	271,192	95,472	51,620	1.3	1.6
Johnson	299,332	75,508	210,278	56,947	19,298	1.4	3.9
Clay	89,179	22,497	86,034	22,471	11,878	1.0	1.9
Wyandotte	74,293	16,407	57,207	19,839	11,377	1.3	1.4
Platte	39,500	10,391	35,065	10,867	4,385	1.1	2.4
Cass	23,461	7,674	36,399	6,870	2,481	0.6	3.1
Leavenworth	17,542	4,855	25,778	7,395	3,393	0.7	1.4
Miami	7,642	2,361	11,931	2,078	1,163	0.6	2.0
Ray	4,192	1,326	9,196	1,762	1,098	0.5	1.2
Kansas City	**911,443**	**223,243**	**743,080**	**223,701**	**106,693**	**1.2**	**2.1**

*Includes only those units paid for in cash rent.

Source: U.S. Census Bureau.

Connectedness
Food deserts are primarily in urban communities of color and rural areas

The region's food deserts, defined as low-income census tracts where a substantial number or share of residents have low access to a supermarket or large grocery store, are primarily found in neighborhoods that have high shares of people of color. This includes a fairly large swath of the urban core and stretching south through Grandview. Food deserts are also found in the more rural areas of Miami County, which is majority white.

Food deserts are mostly concentrated in the urban communities of color and in rural areas
68. Percent People of Color by Census Tract, 2010, and Food Desert Tracts

Less than 12%
12% to 17%
18% to 30%
31% to 68%
69% or more
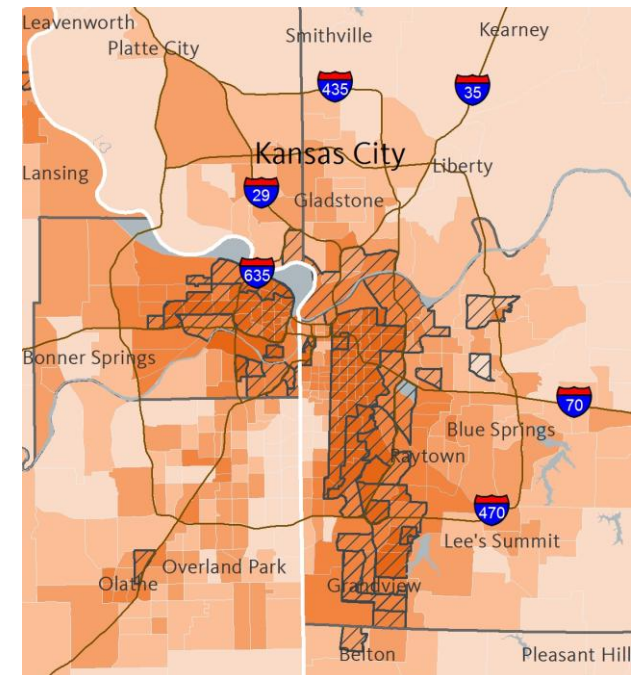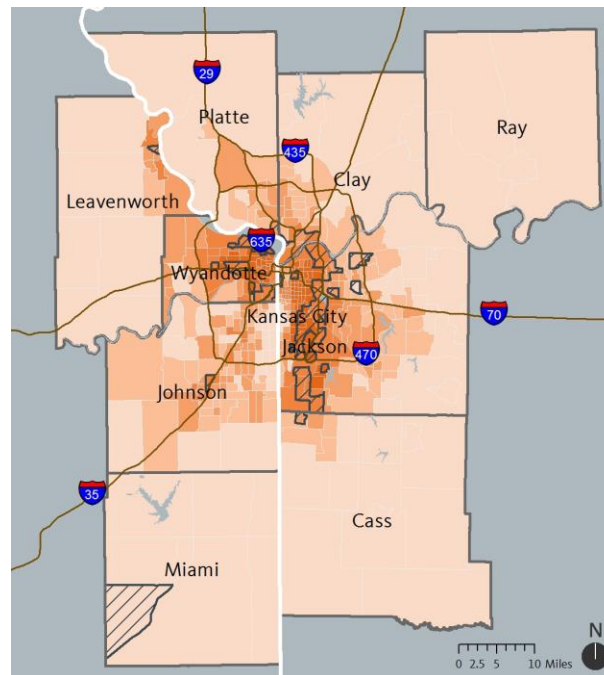
Food Desert

Sources: Geolytics; U.S. Department of Agriculture. See the "Data and methods" section for details.

Connectedness
Food deserts are primarily in urban communities of color and rural areas
(continued)

The state's food deserts are home to higher shares of people of color compared with neighborhoods that are not food deserts. African Americans and Latinos make up a much higher share of the population in food deserts (45 percent) than in areas with better food access (19 percent).

People of color are disproportionately represented in food deserts
69. Racial/Ethnic Composition of Food Environments, 2010

■ Other
■ Native American
■ Asian/Pacific Islander
■ Latino
■ Black
■ White

Food desert
- 2%
- 13%
- 32%
- 50%

Food accessible
- 2%
- 3%
- 8%
- 11%
- 75%
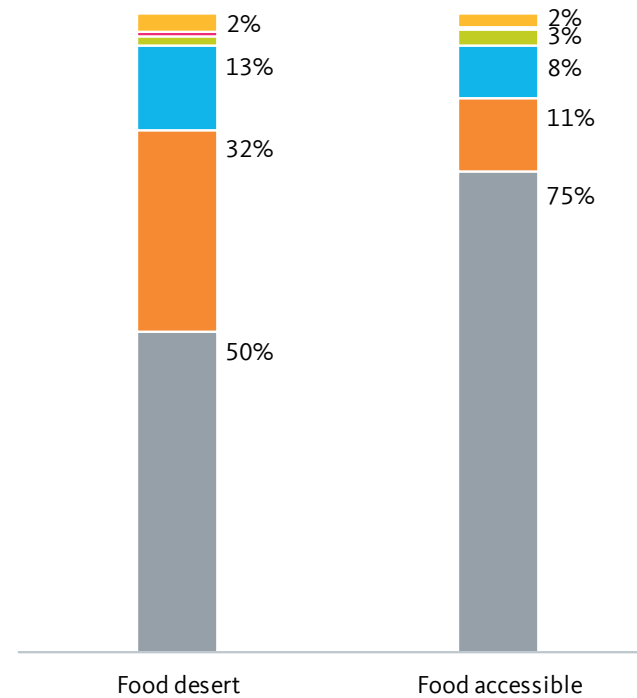
Sources: U.S. Census Bureau; U.S. Department of Agriculture. See the "Data and methods" section for details.

Implications

Implications
Building a more equitable region

As Kansas City continues its rapid demographic transformation, ensuring that all of its residents can participate in and contribute to the regional economy is an economic imperative. To take advantage of its growing, diverse population and build a more equitable and sustainable regional economy, Kansas City must take steps to better connect communities of color to jobs, housing, transportation, healthy neighborhoods, and quality education and training opportunities.

PolicyLink and PERE suggest the following areas of focus:

Bridge the racial generation gap.
Bridging the racial generation gap between youth of color and a predominantly white senior population will be critical to the region's economy, since support for strong public schools for all children and workforce training are needed to prepare the region's emerging workforce for the jobs of tomorrow. One way to build these bridges is to plan for multigenerational communities, which "make cities and neighborhoods accessible, safe, and

inclusive for children, youth, families, adults, and the elderly." [1] This will allow the elderly to age in place at the same time as provide safe and healthy environments for families to raise children. By supporting infrastructure investments in community facilities and public spaces, Kansas City can create built environments that facilitate social interaction between residents of all ages.

Grow good jobs.
With increasing inequality and a shrinking middle class, Kansas City needs to focus on growing middle-wage jobs and improving the quality of low-wage jobs. To do this, it should focus its economic and workforce development efforts on industry sectors and occupations that show signs of strength and pay living wages. The region should also support strategies that ensure strong and rising wages, especially for low-wage workers.

Connect unemployed and low-wage workers to careers in high-growth industries.
Kansas City is fortunate to have some

occupations that show strong growth potential to employ workers without four-year college degrees in middle-skills jobs that pay good wages and offer opportunities for upward mobility. Kansas City should mobilize its economic and workforce development resources to create workforce partnerships between community colleges and employers, ensuring that all workers –including those who face high barriers to employment or who have previously not had success in school – can get the advanced training or education they need to access a good job. These partnerships will be essential for building a workforce that is prepared for jobs in the region's strong and growing industries. Additionally, public infrastructure investments throughout the region present an opportunity to build bridges out of poverty. Construction jobs offer workers without a college degree a career pathway with greater mobility and higher-paying wages.

Help disconnected youth get back on track.
Although a number of regional initiatives aim to integrate youth into educational and work

Implications
Building a more equitable region

opportunities, the rising number of disconnected youth demonstrates the need to achieve greater scale. The current program operators of these programs, including Prep KC, the KC STEM Alliance, and the Kauffman Foundation, along with the region's civic leaders, should come together develop and execute a strategy to connect all youth in the region, but particularly youth of color, with educational and work opportunities.

Ensure diverse civic participation and leadership.
Given the region's rapid demographic shifts, public sector leaders need to take steps to ensure active and accessible public engagement by all of its racial and ethnic communities in local and regional planning processes. The public, private, and philanthropic sectors should support leadership development and capacity-building efforts focused on the region's growing, diverse communities to build the region's multicultural and multiracial regional leadership.

Create healthier neighborhoods.
Ensuring that the region's neighborhoods promote health would reduce health gaps for people of color, create more vibrant places, strengthen economic productivity, and reduce healthcare costs. Implementing strategies focused on healthy neighborhoods such as complete streets for all users, access to healthy food, and good community design in low-income communities of color can foster healthy, active living among the groups that are most at-risk for preventable diseases.

Coordinate public investments.
To foster growth and prosperity, Kansas City should coordinate transportation, housing, and economic development investments to address concentrated poverty, segregation, and high housing and transportation burdens – all of which have disproportionately negative effects on communities of color. It is important to focus investments near employment centers for low-wage as well as middle-skill workers to improve job access and reduce commute times. In addition, transportation investments should enhance

the mobility of transit-dependent residents, connecting them to jobs and services. And regional plans should incentivize and prioritize the development and preservation of affordable housing that is co-located with multi-modal transportation investments and near employment centers.

[1] American Planning Association, Multigenerational Planning: Using smart growth and universal design to link the needs of children and the aging population, 2011, http://www.planning.org/research/family/briefingpapers/multigenerational.htm

Data and methods

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 9-county regional definition used by the Mid-America Regional Council (MARC), and includes the following counties: Cass, Clay, Jackson, Johnson, Leavenworth, Miami, Platte, Ray, and Wyandotte.

While much of the data and analyses 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

Source	Dataset
Integrated Public Use Microdata Series (IPUMS)	1980 5% State Sample
	1990 5% Sample
	2000 5% Sample
	2006 through 2010 American Community Survey (ACS), pooled single-year, 1%, samples
	2010 American Community Survey
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)
	2000 Summary File 3 (SF3)
	2010 ACS 5-year Summary File (2010 5-year ACS)
	2010 Summary File 1 (SF1)
	2010 Local Employment Dynamics, LODES 6
	2008 National Population Projections
	Cartographic Boundary Files, 2000 Census Block Groups
	Cartographic Boundary Files, 2000 Census Block Tracts
	2010 TIGER/Line Shapefiles, 2010 Census Tracts
	2010 TIGER/Line Shapefiles, 2010 Counties
Geolytics	1980 Long Form in 2000 Boundaries
	1990 Long Form in 2000 Boundaries
	2010 Summary File 1 in 2000 Boundaries
U.S. Department of Agriculture	Food Desert Locator
Woods & Poole Economics	2011 Complete Economic and Demographic Data Source
U.S. Bureau of Economic Analysis	Gross Domestic Product by State, 1979 through 2010
	Gross Domestic Product by Metropolitan Area, 1979 through 2010
	Local Area Personal Income Accounts, CA30: regional economic profile, 1979 through 2010
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

Data and methods
Data source summary and regional geography
(continued)

analyses were made with an eye toward
replicating the analyses in other regions and
the ability to update them over time. Thus,
while there may be regionally specific data
available that is more recent and/or
illuminating than what is presented here, a
necessary and often painful choice was made
(given our love of all data!) to disregard such
sources to serve the higher purpose of
comparability and replicability over time.

Data and methods
Selected terms and general notes

Broad racial/ethnic origin

In all of the analysis 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.

Detailed racial/ethnic ancestry

Given the diversity of ethnic origin and substantial 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 "origin" or "ancestry") are drawn from the same two questions on race and Hispanic origin. 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 detailed origin we report – i.e., the vast majority of immigrants from El Salvador mark "Salvadoran" under Hispanic origin – it is an important point of clarification.

Data and methods
Selected terms and general notes
(continued)

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 above.

• 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 "high-poverty neighborhood" refers to census tracts with a poverty rate of greater than or equal to 40 percent.

• The term "high POC tracts" (or "high people-of-color tracts") refers to census tracts in which people of color account for 60 percent of the population or more.

• 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 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.

Data and methods
Selected terms and general notes
(continued)

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. If the geography of the profiled region does not conform to the "official" metro area definitions used by the U.S. Office of Management and Budget, then we substitute the "custom" profiled region in place of the best corresponding official metro area. For example, for the profile created for the 9-county area served by the Mid-America Regional Council, we substitute the 9-county region in for the official 15-county Kansas City metro area.

- In regard to monetary measures (income, earnings, wages, etc.) the term "real" indicates the data have 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: ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt.

- Some may wonder why the graph on page 33 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 37 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 2006 through 2010 "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 2006 through 2010 files are from the 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 2006 through 2010 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 (i.e., unweighted N < 100).

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) or "County Groups" in 1980. PUMAs are generally 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.

The major challenge for our purposes is that PUMAs do not neatly align with the boundaries of metropolitan areas, often with several PUMAs entirely contained within the core of the metropolitan area but several other, more peripheral PUMAs straddling the metropolitan area boundary.

The map of 2000 PUMAs shown on the following page illustrates the geographic issue, using the Kansas City region as an example. Each PUMA is given a unique color, and overlaid on the PUMAs are county boundaries and the boundaries of the Kansas City region.
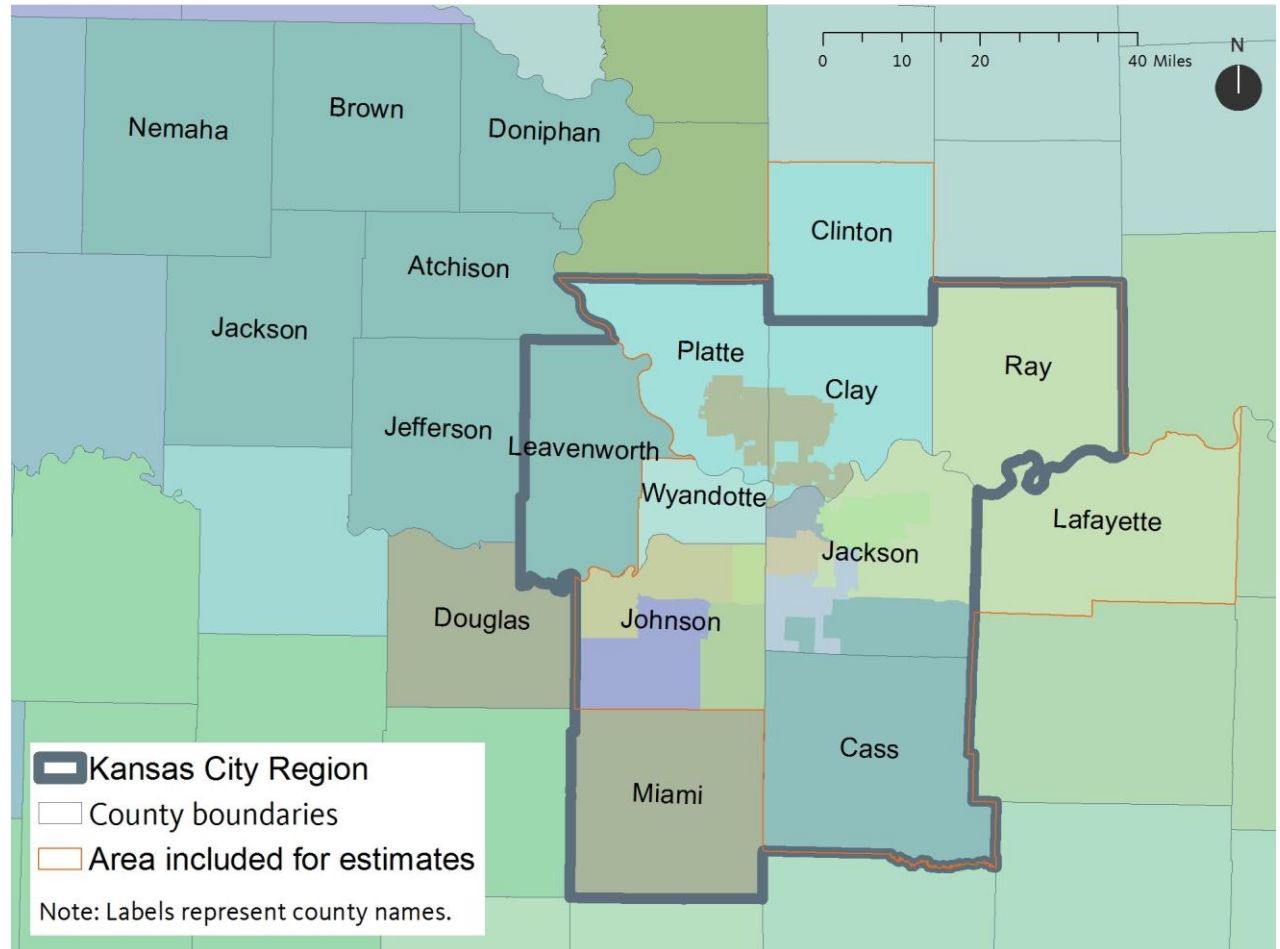
Data and methods
Summary measures from IPUMS microdata
(continued)

The area outlined in orange is the area that was used to generate summary measures for the region from the 2000 microdata. As can be seen, the area used for estimation approximates the region but does not match it perfectly. For example, Lafayette County to the east falls outside the region but is included because it is part of the same PUMA that contains Ray County and part of Jackson County – which are a part of the region.

Leavenworth County, while part of the region, is excluded from our estimates because the PUMA it is a part of includes several counties that fall outside the region. Adding to the challenge is that while the same PUMAs were used for both the 2000 and 2006-2010 microdata, the 1980 and 1990 microdata each have their own distinct PUMA geographies. Thus, in order to summarize measures at the regional level, we had to first create a set of geographic crosswalks between the PUMAs and the region for each year of microdata, down-weighting appropriately when PUMAs extended beyond the regional boundary.

Data and methods
Summary measures from IPUMS Microdata
(continued)

PUMA-to-Region Crosswalk

To create a geographic crosswalk between PUMAs and the region for the 1980, 1990, 2000, and 2006-2010 microdata, we estimated the share of each PUMA's population that fell inside the region using population information for each year from Geolytics at the 2000 census block group level of geography (2010 population information was used for the 2006-2010 geographic crosswalk). If the share was at least 50 percent, then the PUMAs were assigned to the region and included in generating our regional summary measures. For most PUMAs assigned to the region, the share was 100 percent – and we refer to these below as "completely contained" PUMAs. 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. For example, in the map shown earlier, the PUMA containing Ray, Jackson and Lafayette Counties was

estimated to have 82 percent of its population falling inside the region (in Ray and Jackson Counties), and 18 percent outside the region (in Lafayette County). Because we cannot identify where individuals in microdata in this PUMA live – we only know their PUMA – we downweighted all individuals from this PUMA by 18 percent (multiplying their survey weights by 0.82) when making estimates for the region. Finally, we made one final adjustment to the individual survey weights in the microdata to ensure that the weighted sum of the population from the PUMAs assigned to the region matched the regional total population that we got from the official census summary files for each year. In terms of our example shown earlier, our population estimate for the region from the microdata turned out to be a bit too low given that the sum of the population in the counties excluded from the region (Miami and Leavenworth) was a bit greater than the sum of the population in the counties added to the region (Clinton and Lafayette). Thus, we calculated a "regional adjustment factor" that was equal to the total

population count we got for the region from the 2000 Census Summary File 1 divided by the weighted sum of the population across the included PUMAs (after applying the PUMA adjustment factor described earlier). Thus, the final adjusted survey weight we used to make all regional estimates was equal to the product of the original survey weight in the IPUMS microdata, the PUMA adjustment factor, and the regional adjustment factor. The table below summarizes the characteristics of the geographic fit for the Kansas City region for each year of the microdata:

	1980	1990	2000	2006-2010
Percentage of regional population from "completely contained" PUMAs	0.9457	0.8869	0.7758	0.7722
Regional adjustment factor	1.0551	1.0181	1.0574	1.0521

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 25-26) 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 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 – a 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 number of the "other race" and multiracial by age group.

Data and methods
Adjustments made to demographic projections

National projections

On page 23, national projections of the non-Hispanic white share of the population are shown. These are based on the latest national projections from the U.S. Census Bureau of the population by race/ethnicity at the time of the analysis (the 2008 National Population Projections). However, because those projections are based on the 2000 census and the 2010 census has since been released, we made some minor adjustments to incorporate the recently released 2010 census results and to ensure consistency in the racial/ethnic categories included in our historical analysis of demographic change.

As noted above, while our categorization of race/ethnicity includes a non-Hispanic other category (including other single race alone and those identifying as multiracial), the 2008 National Population Projections follow OMB 1997 guidelines and essentially distribute the non-Hispanic other single race alone group across the other defined racial ethnic categories. 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 by 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 the 2008 National Population Projections to get the projected number of people by race/ethnicity.

Data and methods
Adjustments made to demographic projections
(continued)

County and regional projections

On page 24, projections of the racial/ethnic composition by region and county are also presented. These are based on initial county-level projections from Woods & Poole Economics, Inc. However, given that they were made prior to the release of the 2010 Census, and they use a different categorization of race than we use, a careful set of adjustments were made to incorporate the recently released 2010 Census results and to ensure consistency with the racial/ethnic categories included in our historical analysis of demographic change. Once all adjustments were made at the county level, the results were aggregated to produce a final set of projections at the regional and state levels.

Similar to the 1990 MARS file described above, the Woods & Poole projection follows the OMB Directive 15 race categorization, assigning all persons identifying as "other race" or multiracial to one of the 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 and multiracial group from each of these five categories. This was done by comparing the Woods & Poole projections for 2010 to the actual 2010 census results, figuring out the share of each racial ethnic group in the Woods & Poole data that was composed of others and multiracials 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 the five groups (white, black, Latino, Asian/Pacific Islander, and Native American), exclusive of others and multiracials.

To estimate the county-level "other" and multiracial share of the population 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 and 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 for the six-group racial/ethnic distribution in each county, which was then applied to projections of the total population by county from Woods & Poole to get projections of the number of people for each of the six racial/ethnic groups. Finally, these county-level projections were adjusted to match our adjusted national projections by race/ethnicity using a simple Iterative Proportional Fitting (IPF) procedure.

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

The data presented on page 29 on national Gross Domestic Product (GDP) and its analogous regional measure, Gross Regional Product (GRP) – both referred to as GRP 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, 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 2010. Because the regional definition used for this particular equity profile does not match the official metropolitan area definition used by BEA, the GRP data reported are an aggregation of our final county-level estimate of gross product across the counties contained in the region.

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.

Data and methods
Estimates and adjustments made to BEA data on GDP, GRP, and GSP
(continued)

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 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. 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 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.

Data and methods
Assembling a complete dataset on employment and wages by industry

We report analyses of jobs and wages by industry and "industry strength" on pages 41-44. These analyses were 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' Complete Economic and Demographic Data Source (CEDDS), which contains complete jobs and wages data for broad, two-digit NAICS industries at multiple geographic levels. (Proprietary issues barred us from using CEDDS 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 CEDDS 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 CEDDS data.

To make for a more accurate application of the CEDDS, we made some adjustments to it to better align it with the QCEW. One of the challenges of using CEDDS as a "filler dataset" is that it includes all workers, while QCEW includes only wage and salary workers. To normalize the CEDDS 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 CEDDS 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 CEDDS annual jobs and wages

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.

Data and methods
Change in jobs and wages by industry/wage level, 1990 to 2010

The analysis presented on pages 41-42 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: 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.

Data and methods
Analysis of occupations by opportunity level

Pages 45-53 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/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.

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 same pooled 2006-2010 IPUMS American Community Survey (ACS) 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 (i.e., unweighted N < 30) 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

Data and methods
Analysis of occupations by opportunity level
(continued)

datasets 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 47-49), 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 this 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 47-49, 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 50-53. 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 2006-2010 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,

Data and methods
Analysis of occupations by opportunity level
(continued)

with three categories applied to each. For the 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 50-53, this was kept broad to ensure reasonably large sample sizes in the 2006-2010 IPUMS ACS microdata that were 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 2006 through 2010. 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 (i.e., unweighted N < 100). This is similar to, but more stringent than, a rule indicated in the documentation for the 2010 BRFSS data of not reporting (or interpreting) percentages based on a denominator of fewer than 50 respondents. 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/.

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 16) and several measures of residential segregation by race/ethnicity (the "multigroup entropy index" on page 65 and the "dissimilarity index" on page 66). 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, 2000, and 2010 from Geolytics. While the data originate from the decennial censuses of each year, an advantage of the Geolytics data we use is that (with the exception of 2000) they have been "re-shaped" to be expressed in 2000 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 66, 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 multigroup 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: http://www.census.gov/housing/patterns/about/multigroup_entropy.pdf. 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: http://www.census.gov/hhes/www/housing/housing_patterns/app_b.html.

Data and methods
Food desert analysis

There are many ways to define a food desert or to measure access to food. The U.S. Department of Agriculture's (USDA's) Healthy Foods Financing Initiative working group defines a food desert as a low-income census tract where a substantial number or share of residents have low access to a supermarket or large grocery store.

To qualify as a "low-income community," a census tract must have either 1) a poverty rate of 20 percent or higher, OR 2) a median family income at or below 80 percent of the statewide or metropolitan area median family income (in the case of urban tracts, the "area median" income applied is the greater of the metro area median and the state median; for rural tracts, the "area median" applied is always the state median).

To qualify as a "low-access community," at least 500 people and/or at least 33 percent of a census tract's population must reside more than one mile from a supermarket or large grocery store (for rural census tracts, the distance is more than 10 miles).

The USDA's data on population and income are derived from block-level data from the 2000 Census of Population and Housing, which are allocated to a 1-km square grid where it can be matched with data on food access from the Socioeconomic Data and Applications Center.

An inventory of supermarkets and large grocery stores (defined as having at least $2 million in annual sales and similar food departments as those found in a supermarket) was created by the USDA from a directory. The directory consisted of stores authorized to receive Supplemental Nutrition Assistance Program (SNAP) benefits, and was supplemented with data from Trade Dimensions TDLinx (a Nielsen company), a proprietary supermarket store listing – both for the year 2006.

The USDA has released a food desert locator (http://www.ers.usda.gov/data-products/food-desert-locator.aspx) that shows census tracts considered food deserts by the USDA.

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PolicyLink

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

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

http://www.policylink.org

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USC Program for Environmental & Regional Equity

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

http://dornsife.usc.edu/pere