



An Equity Profile of

Sunflower County







Acknowledgments

PolicyLink and the Program for Environmental and Regional Equity (PERE) at the University of Southern California are grateful to the W.K. Kellogg Foundation for their generous support of this project and our long-term organizational partnership.

We also thank the Delta Health Alliance, Mississippi Center for Justice, and Sunflower County United for Children, who contributed their insight and expertise to help make the analyses presented in this profile reflective of and valuable to equity initiatives underway in the county.

Finally, we are grateful to our partners Dolores Acevedo-Garcia and Erin Hardy at The diversitydatakids.org Project for allowing us to include their unique data on child and family well-being in this series of profiles. This profile was written by Jessica Pizarek at PolicyLink; the data, charts, and maps were prepared by Sheila Xiao, Pamela Stephens, and Justin Scoggins at PERE; and Heather Tamir and Jennifer Pinto of PolicyLink assisted with formatting, editing, and design.

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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.

Summary

Located in the Mississippi Delta, Sunflower County is home to a resilient community of residents, local leaders, and advocates committed to reversing systemic, pervasive disparities. As historically discriminatory policies and practices in education, housing, lending, and juvenile justice continue to be challenged, certain disparities in quality of life experienced by county residents have begun to improve. For example, access to early education is higher in the county than the state or nation. Overall employment and perperson job growth have also shown recent improvements. However, the county continues to experience population decline, weak overall economic growth, and persistent racial inequities across indicators of employment, income, education, health, and opportunity.

Looking forward, communities of color will continue to represent the majority of resident in the county, especially African Americans. Equitable growth could provide a path to sustained economic prosperity in Sunflower County. The state of Mississippi's economy could have been \$21 billion stronger in 2014 if racial gaps in income had been closed — a 20 percent increase. By advancing policy strategies to grow good jobs, build healthy communities of opportunity, prevent displacement, and ensure just policing and court systems, Sunflower County can put all residents on the path towards reaching their full potential, and secure a bright future for the county and region.

Key Findings

- Sunflower County has experienced population decline since 1980. The majority of the county's population loss has occurred in the White population, which has decreased by 45 percent since 1980.
- The county is majority African American, and the Black population has grown from 61 to 73 percent of the population since 1980.
 Demographic populations estimate that in 2050, 77 percent of residents will be Black.
- Fewer than half of all residents are participating in the labor force. This is notably low for Latino residents, of whom only 41 percent are actively searching for work.
- By 2020, 22 percent of jobs in Mississippi will require a bachelor's degree or higher, yet only 14 percent of all residents are prepared to enter those jobs. Sunflower County could face a skills gap unless education levels increase among communities of color, and especially among Black men and Latinos.

Percent of youth who are people of color:

84%

Percent of residents participating in the labor force:

48%

Potential statewide GDP gains from closing racial gaps in income:

\$21billion

Introduction





Introduction Overview

Across the country, community organizations and residents, local governments, business leaders, funders, and policymakers are striving to put plans, policies, and programs in place that build healthier, more equitable communities and foster inclusive growth.

These efforts recognize that equity – just and fair inclusion into a society in which all can participate, prosper, and reach their full potential – is fundamental to a brighter future for their communities.

Knowing how a community stands in terms of equity is a critical first step in planning for greater equity. To assist 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 and equitable growth locally.

This document presents an equity analysis of the Sunflower County, Mississippi. It was developed with the support of the W.K. Kellogg Foundation to support local community groups, elected officials, planners, business leaders, funders, and others working to build a stronger and more equitable city. The foundation is supporting the development of equity profiles in 10 of its priority communities across Louisiana, Michigan, Mississippi, and New Mexico.

The data in this profile are drawn from a regional equity database that includes data for the largest 100 cities and 150 regions in the United States, as well as all 50 states. This database incorporates hundreds of data points from public and private data sources including the U.S. Census Bureau, the U.S. Bureau of Labor Statistics, the Behavioral Risk Factor Surveillance System, and Woods and Poole Economics. It also includes unique data on child and family well-being from the W.K. **Kellogg Foundation Priority Communities** Dashboard Database, contributed by The diversitydatakids.org Project based at the Institute for Child, Youth and Family Policy at the Heller School for Social Policy and Management at Brandeis University.

See the "Data and methods" section of this profile for a detailed list of data sources.

This profile uses a range of data sources to describe the state of equity in Sunflower County as comprehensively as possible, but there are limitations. Not all data collected by public and private sources is disaggregated by race/ethnicity and other demographic characteristics. And in some cases, even when disaggregated data is available, the sample size for a given population is too small to report with confidence. Because of this limitation. communities facing deep challenges and barriers to inclusion may be absent from some of the analysis presented here. Local data sources and the lived experiences of diverse residents should supplement the data provided in this profile to more fully represent the state of equity in Sunflower County.

Introduction Why equity matters now

The face of America is changing.

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

Yet racial and income inequality is high and persistent.

Over the past several decades, long-standing inequities in income, wealth, health, and opportunity have reached unprecedented levels. Wages have stagnated for the majority of workers, inequality has skyrocketed, and many people of color face racial and geographic barriers to accessing economic opportunities.

Racial and economic equity is necessary for economic growth and prosperity.

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

For example:

- More equitable regions experience stronger, more sustained growth.¹
- Regions with less segregation (by race and income) and lower-income inequality have more upward mobility.²
- The elimination of health disparities would lead to significant economic benefits from reductions in health-care spending and increased productivity.³
- Companies with a diverse workforce achieve a better bottom line.⁴
- A diverse population more easily connects to global markets.⁵
- Less economic inequality results in better health outcomes for everyone.⁶

The way forward is with an equity-driven growth model.

To secure America's health and prosperity, the nation must implement a new economic model based on equity, fairness, and opportunity. Leaders across all sectors must remove barriers to full participation, connect more people to opportunity, and invest in human potential.

Counties play a critical role in building this new growth model.

Local communities are where strategies are being incubated that foster equitable growth: growing good jobs and new businesses while ensuring that all – including low-income people and people of color – can fully participate as workers, consumers, entrepreneurs, innovators, and leaders.

- 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.
- Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez, "Where is the Land of Economic Opportunity? The Geography of Intergenerational Mobility in the U.S." http://obs.rc.fas.harvard.edu/chetty/website/v2/Geography%20Executive% 20Summary%20and%20Memo%20January%202014.pdf
- ³ Darrell Gaskin, Thomas LaVeist, and Patrick Richard, "The State of Urban Health: Eliminating Health Disparities to Save Lives and Cut Costs." National Urban League Policy Institute, 2012.
- ⁴ 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.
- ⁵ 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.
- ⁶ Kate Pickett and Richard Wilkinson, "Income Inequality and Health: A Causal Review." Social Science & Medicine, 128 (2015): 316-326

Introduction What is an equitable county?

Counties are equitable when all residents – regardless of their race/ethnicity, and nativity, neighborhood of residence, or other characteristics – are fully able to participate in the county's economic vitality, contribute to the county's readiness for the future, and connect to the county's assets and resources.

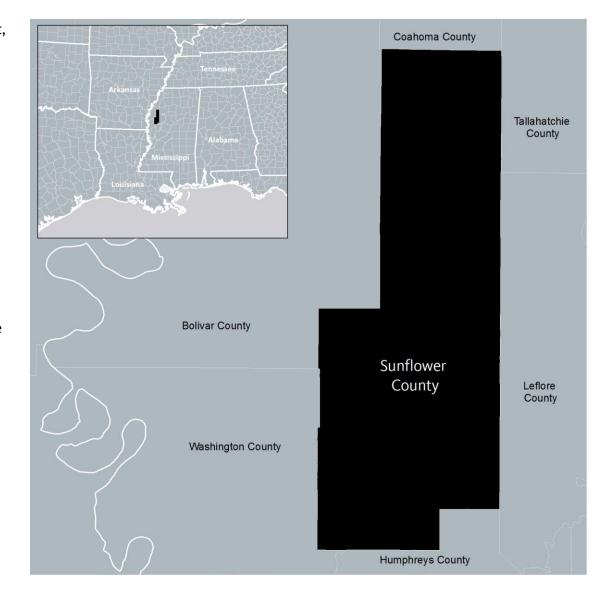
Strong, equitable cities:

- Possess economic vitality, providing highquality jobs to their residents and producing new ideas, products, businesses, and economic activity so the county 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 county (and beyond) via transportation or technology, participate in political processes, and interact with other diverse residents.

Introduction **Geography**

This profile describes demographic, economic, and health conditions in Sunflower County, portrayed in black on the map to the right. Sunflower County is situated within the Cleveland-Indianola, Mississippi Combined Statistical Area, which includes Bolivar and Sunflower counties, situated in the broader Mississippi Delta region.

Unless otherwise noted, all data follow the county geography, which is simply referred to as "Sunflower County." Some exceptions, due to lack of data availability, are noted beneath the relevant figures. Information on data sources and methodology can be found in the "Data and methods" section beginning on page 77.



Introduction **Equity indicators framework**

The indicators in this profile are presented in five sections. The first section describes the county's demographics. The next four sections present indicators of the county and region's economic vitality, readiness, and connectedness. The final section estimates the economic benefits of racial equity. Below are the questions answered within each of the five sections.

Demographics:

Who lives in the county, and how is this changing?

- Is the population growing?
- Which groups are driving growth?
- How diverse is the population?
- How does the racial composition vary by age?

Economic vitality:

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

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

Readiness:

How prepared are the county'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?
- Can all residents access healthy food?

Connectedness:

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

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

Economic benefits:

How would addressing racial inequities affect the regional economy?

- How would the region's gross domestic product be affected?
- How much would residents benefit from closing racial gaps in income and employment?

Demographics





Demographics Highlights

Who lives in the county and how is it changing?

- The county has experienced overall population decline since 1980. The majority of the county's population loss has occurred in the White population, which has decreased by 45 percent since 1980. Since 2000, the White population declined by 27 percent.
- Sunflower is a majority people-of-color county: 73 percent of its residents are Black while 25 percent of residents are White. By 2050, the African American population is expected to be 77 percent of the county's population.
- Sunflower County's 31 percentage point racial generation gap between its young and old is larger than that of both the state of Mississippi and the nation as a whole.

Percent of residents who are people of color:

75%

Percent of youth who are people of color:

84%

Decline in White population since 2000:

27%

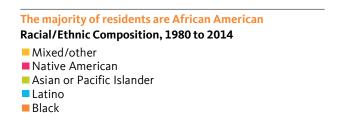
Demographics Three out of every four residents are people of color

■White

Sunflower has long been a majority African American county, despite the decline of the African American population since 2000.

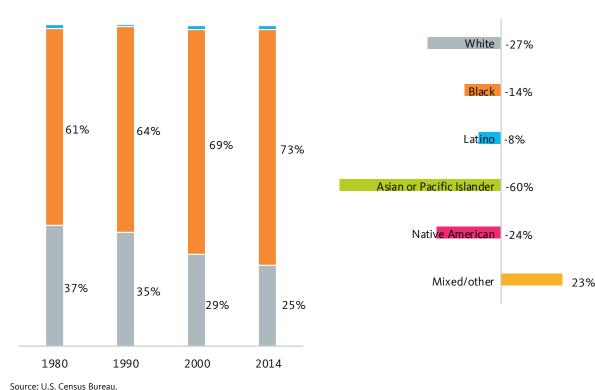
Whites represent the second largest demographic in Sunflower County, accounting for 25 percent of the population. All other racial/ethnic groups combined make up only 2 percent of the population.

While Sunflower County's very small multiracial population is experiencing population growth, all other racial/ethnic groups declined between 2000 and 2014. The Black population shrank by 14 percent and the White population decreased by 27 percent.



All racial/ethnic groups in the county are declining, except for the small multiracial population

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



Source: U.S. Census Bureau.

Note: Data for 2014 represents a 2010 through 2014 average. Much of the increase in the Mixed/other population between 1990 and 2000 is due to a change in the survey question on race.

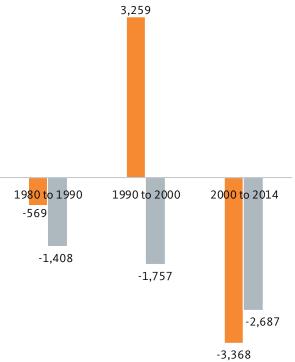
Source: U.S. Census Bureau. Note: Data for 2014 represents a 2010 through 2014 average.

Demographics Overall population decline

Sunflower County has experienced long-term population decline, and that trend has continued since 2000. Between 2000 and 2014, the county's population shrank from about 34,400 to 28,300, an 18 percent decrease.

While the data show an increase in the people-of-color population and overall population during the 1990s, the increase in the people-of-color population was likely due to mass incarceration. Nearly 14 percent of the county's population in 2000 was incarcerated, and the Prison Policy Initiative found that Sunflower County's population would have declined by about 430 people in the 1990s absent the growth in its incarcerated population.1 As of 2010, Sunflower county still had a large incarcerated population, accounting for 13 percent of its total population.2

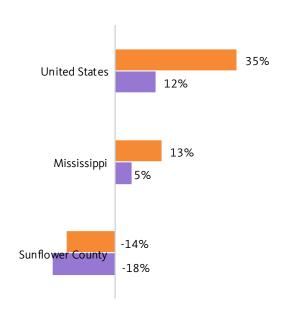
The county has experienced population decline Composition of Net Population Growth by Decade, 1980 to 2014 White People of Color



Long-term population decline continued after 2000

Percent Change in Population, 2000 to 2014

■ People of Color ■ Total Population



Peter Wagner (2004), "Prison expansion made 56 counties with declining populations appear to be growing in Census 2000." https://www.prisonersofthecensus.org/news/2004/04/26/fiftysix/
 Kristen Crandall (2012), "The U.S. Prison Population and the Census." https://www.policymap.com/2012/03/the-u-s-prison-population-and-the-census/

Demographics

The majority of residents were born in the United States

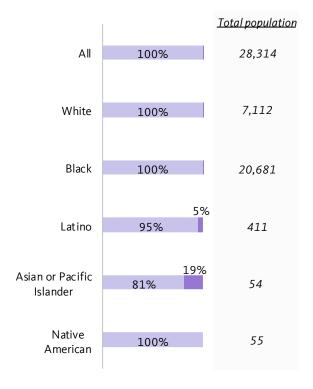
Sunflower County is home to very few immigrants, and the vast majority of residents were born in the United States. Among its Black and White populations, 100 percent were born in the United States.

Among the county's small Latino population (about 400 individuals), only 5 percent are immigrants. Most of the county's Latinos identify as having a Mexican heritage. Immigrants make up a larger share of the county's very small Asian or Pacific Islander community: 19 percent.

Most residents are U.S.-born

Race, Ethnicity, and Nativity, 2014

U.S.-bornImmigrant

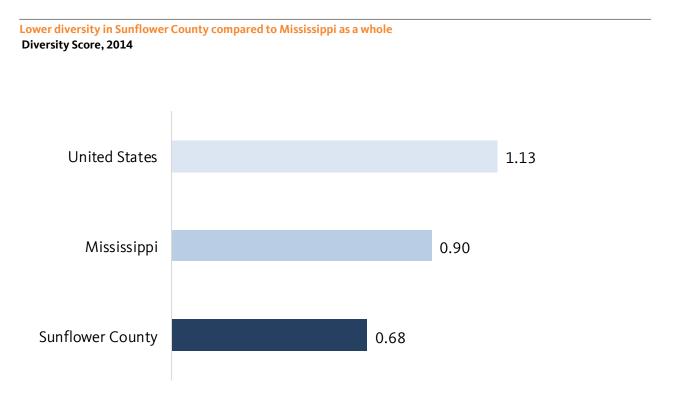


Demographics Sunflower County is less diverse than the state

Given its predominantly Black and White demographic mix, the county is relatively less diverse than the state of Mississippi and the nation as a whole. Diversity has actually declined slightly over time, as the White share of the population decreases and the majority Black share continues to increase.

The diversity score is a measure of racial/ethnic diversity a given area. It measures the representation of the six major racial/ethnic groups (White, Black, Latino, Asian or Pacific Islander, Native American, and Mixed/other 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 55 and 56.



Demographic change varies by neighborhood

Mapping the growth in people of color by census block group illustrates variation in growth and decline in communities of color throughout the county. The map highlights how the population of color has declined or experienced no growth in most neighborhoods throughout the county.

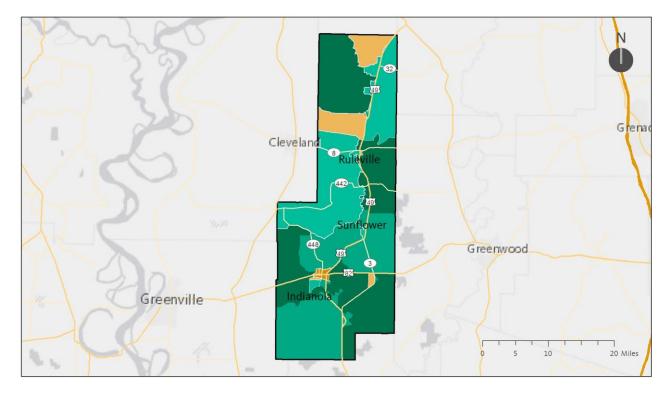
Areas highlighted in shades of green include neighborhoods in which the people of color population has declined or seen no growth over the last decade. The majority of Ruleville, Sunflower, and Indianola's residential neighborhoods have seen a decline or no growth.

The largest increases in the people-of-color population are found in the heart of Indianola, slightly east of Indianola, and just north of Ruleville.

Significant declines of communities of color

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

- Decline of 36% or more
- Decline of 36% to 19%
- Decline of less than 19% or no growth
- Increase of less than 49%
- Increase of 49% or more



Source: U.S. Census Bureau, GeoLytics, Inc.; TomTom, ESRI, HERE, DeLorme, MaymyIndia, © OpenStreetMap contributors, and the GIS user community.

Note: One should keep in mind when viewing this map and others that display a share or rate that while there is wide variation in the size (land area) of the census block groups in the region, each has a roughly similar number of people. Thus, care should be taken not to assign unwarranted attention to large block groups just because they are large. Data for 2014 represents a 2010 through 2014 average.

Demographics A changing Indianola

As the county's population has decreased and demographics have changed, where residents live in relation to one another has also shifted.

As the maps illustrate, between 1990 and 2014, Black residents living in the northern section of the county seemed to become more concentrated along highway 49.

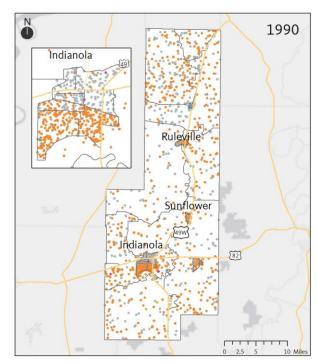
The highly segregated city of Indianola has also experienced demographic shifts. As the inset maps show, the clear Black-White divides in the southern and northern parts of the city present in 1990 (divided by the railroad tracks) have softened. Today, in the northern census tract, about 53 percent of residents are Black, compared with just 6 percent in 1990 and 18 percent in 2000. As the area's Black population has grown, its White population has shrunk, from 3,068 residents in 1990, to 2,719 in 2000 to 1,515 residents today.

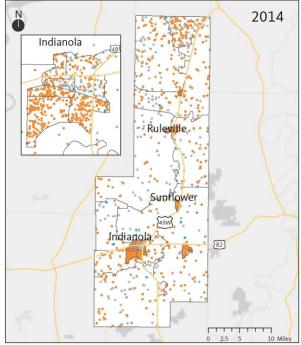
Increased diversity in the northern part of Indianola since

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

Race/ethnicity

- 1 Dot = 20 people
- White
- Black
- Latino
- Asian or Pacific Islander
- Native American
- Mixed/other





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

Demographic change will continue through 2050

Asian or Pacific Islander

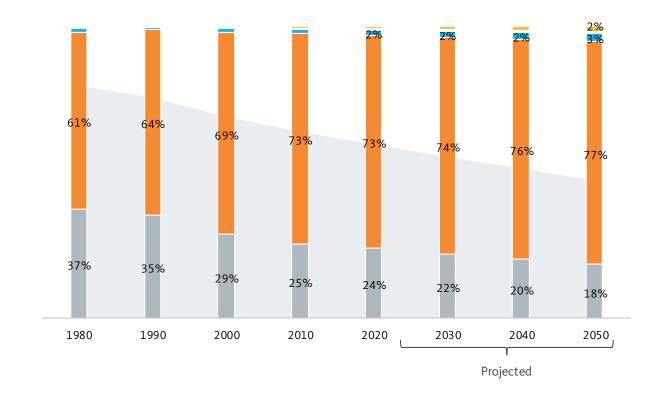
Sunflower County is expected to continue to experience population decline and demographic shifts through 2050. The Black population is projected to grow from 73 to 77 percent of the population, while the White population will decrease from 25 to 18 percent of the population.

The share of Sunflower County residents who are Latino, Asian or Pacific Islander (API), multiracial, or of another racial/ethnic background will slowly grow from 2 percent in 2010 to 5 percent by 2050.



20

- Latino
- Black
- White



Demographics More than eight in ten youth are people of color

Today, 84 percent of the Sunflower County's youth (under age 18) are people of color, compared with 53 percent of the county's seniors (over age 64). This 31 percentage point difference between the share of people of color among young and old can be measured as the racial generation gap.

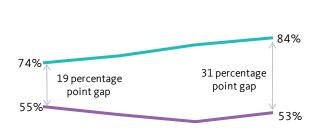
The county's communities of color are much more youthful than its White population. The median age of the White population is 45, compared with 31 years for the Black population and just 24 years for the Latino population. The very small Asian population is quite old with a median age of 68, while the similarly small Native American and Mixed race populations are quite young, with median ages of 25 and 23, respectively.

The racial generation gap may negatively affect the county if seniors do not invest in the educational systems and community infrastructure needed to support a youth population that is more racially diverse.

The county's generation gap has grown since 1980

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

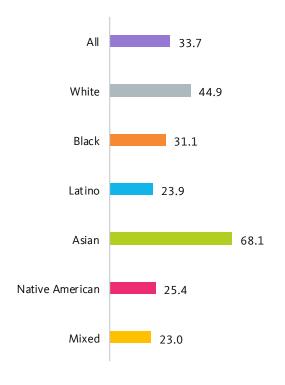
- Percent of seniors who are POC
- Percent of youth who are POC





The county's White population is much older than its communities of color

Median Age by Race/Ethnicity, 2014



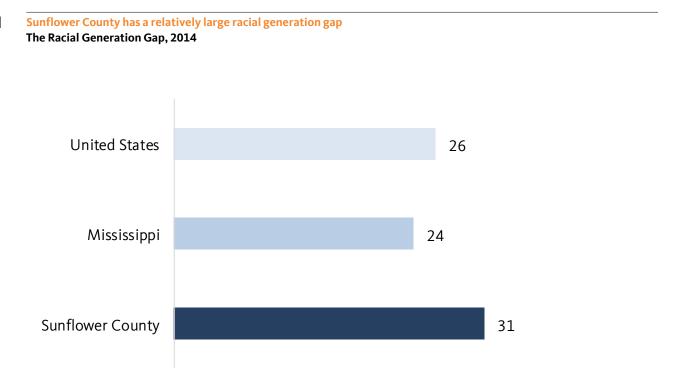
Source: U.S. Census Bureau.

Note: Data represent a 2010 through 2014 average. "White" is defined as non-Hispanic white and "Latino" includes all who identify as being of Hispanic origin. "Asian" does not include those who identify as "Pacific Islander". All other racial/ethnic groups include any Latinos who identify with that particular racial category.

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

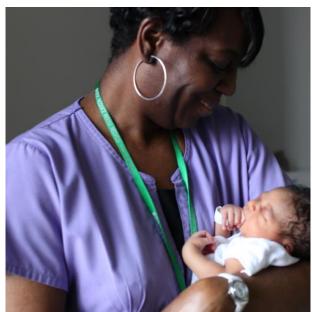
Demographics A large racial generation gap

Sunflower County's 31 percentage point racial generation gap is larger than that of both the state of Mississippi (24 percentage point gap) and the national as a whole (26 percentage point gap).



Economic vitality





Economic vitality Highlights

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

- Sunflower County has experienced longterm economic decline, with declining levels of growth in terms of jobs and economic output.
- The county is losing middle- and high-wage jobs faster than it is losing low-wage jobs.
- Unemployment remains high, and all racial/ethnic groups of color are more than twice as likely to be unemployed as White residents.
- Fewer than half of all residents are participating in the labor force (48 percent), compared with the state average of 58 percent.
- Sixty-nine percent of Mixed/other children, 59 percent of Black children, and 55 percent of Latino children are poor, compared with 20 percent of White children.

Unemployment (2015):

10.8%

Decline in high-wage jobs since 1990:

-54%

Labor force participation:

48%

Economic vitality Long-term economic decline

Sunflower County's economic outlook has worsened significantly since 2000. Economic growth, as measured by increases in jobs and gross regional product (GRP) – the value of all goods and services produced within the county – has declined severely. Currently, the county suffers from both negative GRP (-8 percent) and job growth (-14 percent).





Declining job growth despite national increases Cumulative Job Growth, 1979 to 2014

Sunflower County
United States



Economic vitality Unemployment remains high

Unemployment has been consistently high in Sunflower County – about twice the national unemployment rate – since at least 1990. During the downturn, unemployment peaked at about 16 percent. As of 2015, the county's unemployment rate was 10.8 percent compared to the national average of 5.3 percent.

Unemployment has improved but is still very high

Unemployment Rate, 1990 to 2015

Sunflower County
United States



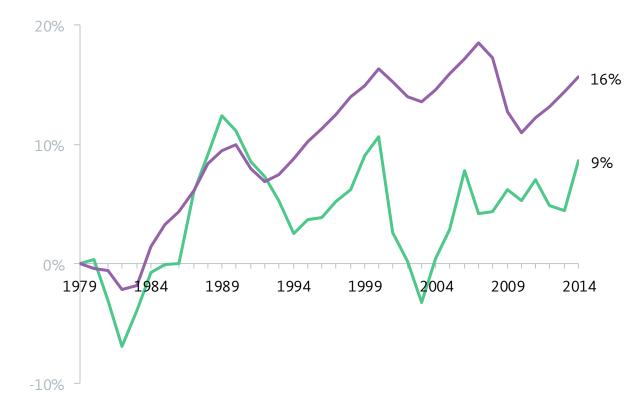
Source: U.S. Bureau of Labor Statistics. Universe includes the civilian noninstitutional population ages 16 and older.

Economic vitality Job growth per person is lower than national average

While overall job growth is important, the real question is whether there are enough jobs for a given population. On this measure of job growth-per-person, Sunflower County is also behind, but improving. The number of jobs per person has job growth per person has been slower than the national average for the past couple of decades. The number of jobs per person in Sunflower County has only increased by 9 percent since 1979, while it has increased by 16 percent for the nation overall.

Below-average job growth per person Cumulative Growth in Jobs-to-Population Ratio, 1979 to 2014

Sunflower County
United States



Source: U.S. Bureau of Economic Analysis.

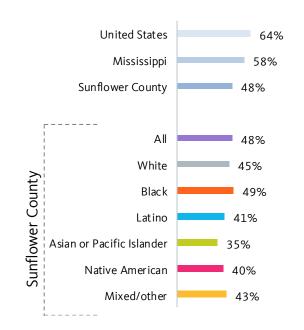
Economic vitality Low labor force participation and high unemployment

As compared to the nation and the state of Mississippi, labor force participation rates are low for the county, while unemployment is relatively high. Fewer than half of all residents are participating in the labor force, and rates of labor force participation are low for all racial/ethnic groups.

The overall unemployment rate for Sunflower County presented here is much higher, and less current, than that reported on page 26, and this is due to the different time period covered (there was a rapid decline in unemployment leading up to 2015), and the different data source used – the 2014 5-year American Community Survey (ACS). However, the ACS allows us to examine unemployment by race/ethnicity in the county, and when we do, we find that Black and Latino residents are more than twice as likely to be unemployed as the average Mississippi resident and as White residents in the county, and the unemployment rate for Asian or Pacific Islanders and those of Mixed/other race is even higher.

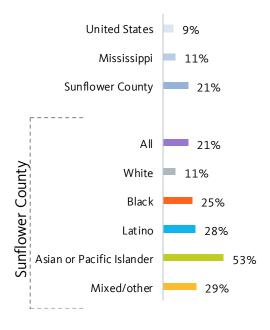
Fewer than half of all residents participate in the labor force

Labor Force Participation Rate by Race/Ethnicity, 2014



All racial/ethnic groups of color are more than twice as likely to be unemployed as White residents

Unemployment Rate by Race/Ethnicity, 2014



Source: U.S. Census Bureau. Universe includes the population age 16 or older. Note: Data represent a 2010 through 2014 average. "White" is defined as non-Hispanic White and "Latino" includes all who identify as being of Hispanic origin. All other racial/ethnic groups include any Latinos who identify with that particular racial category.

Source: U.S. Census Bureau. Universe includes the civilian labor force age 16 or older. Note: Data represent a 2010 through 2014 average. "White" is defined as non-Hispanic White and "Latino" includes all who identify as being of Hispanic origin. All other racial/ethnic groups include any Latinos who identify with that particular racial category.

Economic vitality Higher unemployment in some parts of the county

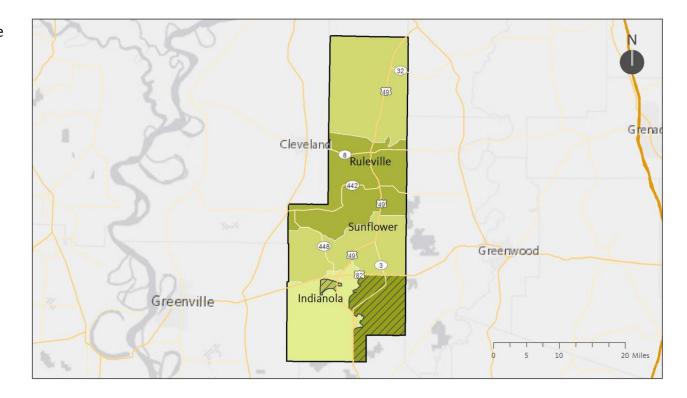
While unemployment is high overall in Sunflower County, it is higher in some areas than others, including parts of Indianola, the southeast corner of the county including Moorhead, and around Ruleville and Drew.

Unemployment is highest in neighborhoods where a large majority of residents are people of color. For example, in neighborhoods east and southeast of Indianola, at least 84 percent of residents are people of color, and the unemployment rate was 39 percent. But in the northern part of Indianola, which is 43 percent White, unemployment was about 12 percent.

Most census tracts in the county have an average unemployment rate of at least 14 percent

Unemployment Rate by Census Tract, 2014

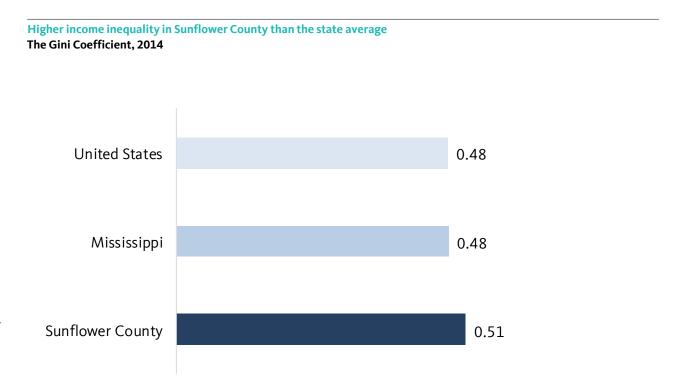
- Less than 14%
 14% to 22%
- 84% or more people of color
- 22% to 23%
- 23% to 25%
- 25% or more



Economic vitality High levels of income inequality

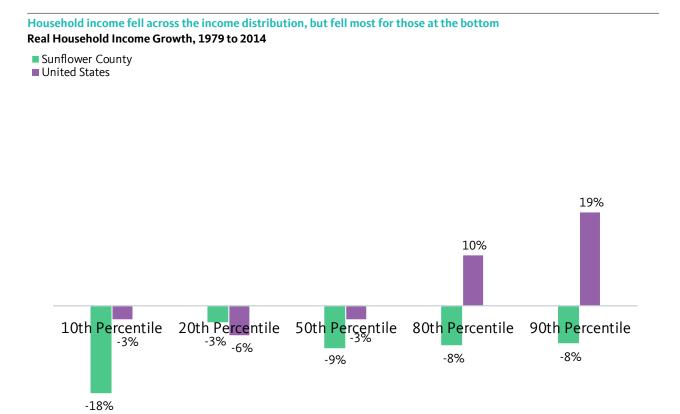
Income inequality is higher in Sunflower County than in the state of Mississippi or the national average. The county has a Gini coefficient of 0.51, compared with 0.48 for the state and nation.

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



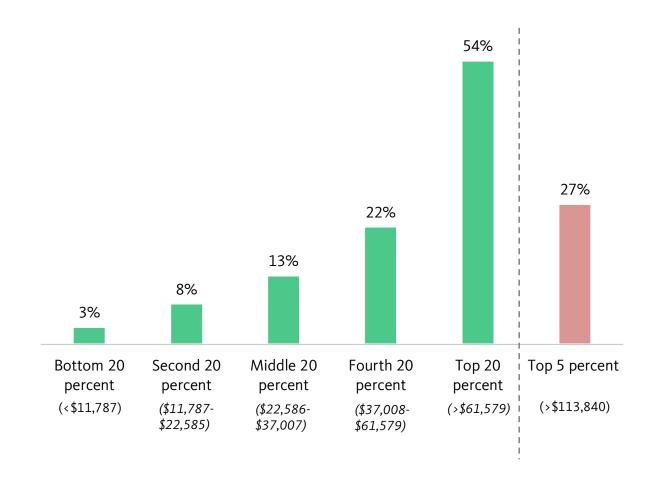
Economic vitality Declining income for all households, particularly those with lowest income

After adjusting for inflation, incomes have declined for all of the county's households since 1979. Even the county's highest-income households have seen, on average, 8 percent declines in income as compared to 10 and 19 percent increases for the average American household in the 80th and 90th percentiles. Declines have been most striking, however, for the poorest households who have seen their incomes drop by 18 percent – twice the decline seen for households at the 50th percentile and more than double the decline for households at the 80th and 90th percentiles.



Economic vitality Income heavily concentrated among wealthiest households

Income is concentrated among the highestearning households in Sunflower County. The wealthiest 20 percent of county households take home more than half of all income earned in the county. The wealthiest 5 percent take home more than a quarter of all income. The poorest 40 percent of households collectively earn just 11 percent of the county's total income. Over a quarter of income goes to the top 5 percent of households Aggregate Household Income by Quantile, 2014



Economic vitality

Households of color are overrepresented among low earners and underrepresented among high earners

People of color are over represented in the county's poorest group of households, and under represented among the county's wealthiest households.

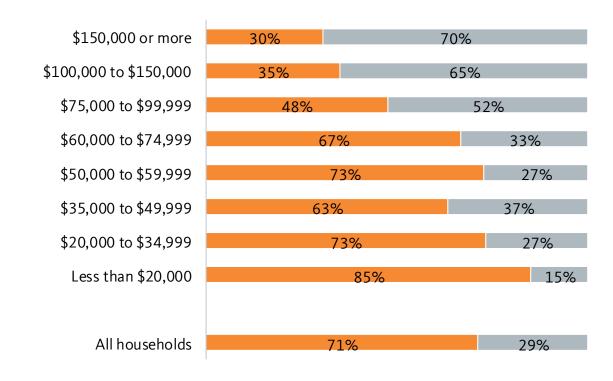
In 2014, households of color constituted 71 percent of all the county's households. However, more than four in five households earning less than \$20,000 annually are headed by households of color. At the same time, fewer than half of households earning \$75,000 to \$99,000 are headed by people of color. Only one in three households earning above \$100,000 is headed by people of color.

In the majority-Black county, 70 percent of households earning \$150,000 or more are headed by White households

Racial Composition of Households by Income Level, 2014

■ White

■ People of Color



Economic vitality Latino male and Black female workers earn the least

The county's residents experience marked inequities in median earnings by race and gender. While White men and women earn higher median wages than any other group of residents in the county, White women still earn \$6,500 less than their White male counterparts.

The median income for Black women is nearly \$10,000 less per year than White women living in the county.

This trend is worse for men of color. The median income for Black men is nearly 30 percent less than of White men. Latino men are likely to earn less than half of the median income of White men.

There are gender and racial earnings gap in Sunflower County

Median Earnings by Race/Ethnicity and Gender, 2014

- Male
- Female



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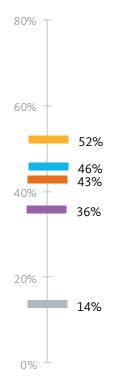
Economic vitality Notable differences in poverty by race

Residents of color are much more likely to live in poverty than White residents. With poverty rates of 52, 46, and 43 percent respectively, Mixed/other, Latino and Black residents are more than three times as likely to be poor as White residents.

This trend is consistent for child poverty in the county. Sixty-nine percent of Mixed/other children, 59 percent of Black children, and 55 percent of Latino children are poor, compared with 20 percent of White children. Mixed/other, Black and Latino residents are more than three times as likely to be poor than White residents

Poverty Rate by Race/Ethnicity, 2014

■ All
■ White
■ Black
■ Latino
■ Mixed/other

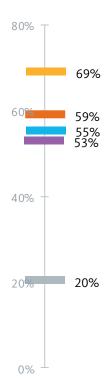


Source: U.S. Census Bureau. Universe includes all persons not in group quarters. Note: "White" is defined as non-Hispanic white and "Latino" includes all who identify as being of Hispanic origin. All other racial/ethnic groups include any Latinos who identify with that particular racial category. Data represent a 2010 through 2014 average.

More than half of Mixed/other, Black and Latino children live in poverty in the county

Child Poverty Rate by Race/Ethnicity, 2014

■ All
■ White
■ Black
■ Latino
■ Mixed/other

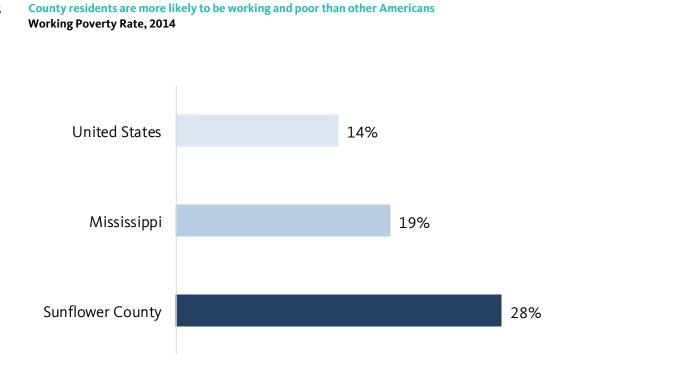


Source: U.S. Census Bureau. Universe includes the population age 17 or younger not in group quarters. Note: "White" is defined as non-Hispanic white and "Latino" includes all who identify as being of Hispanic origin. All other racial/ethnic groups include any Latinos who identify with that particular racial category. Data represent a 2010 through 2014 average.

Economic vitality High rates of working poverty

One in every four Sunflower County residents (28 percent) is working poor. County residents are more than twice as likely to live in poverty despite working than the average American.

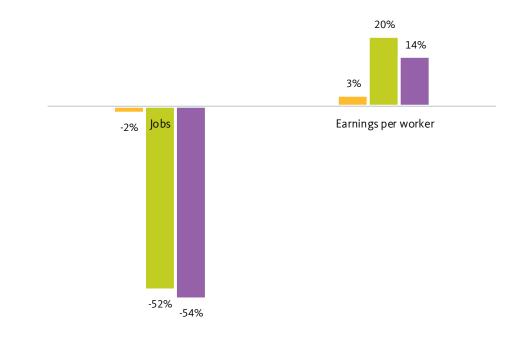
Working poor is defined here as workers age 16 or older with a family income below 150 percent of the federal poverty level.



Economic vitality Major loss of middle- and high-wage jobs

As the county has lost population, it has also lost jobs. Since 2004, jobs have declined across all wage categories, but the steepest declines have been among middle- and highwage jobs. The number of middle- and highwage jobs decreased by more than 50 percent over the past decade. While low-wage jobs were the most stable, they saw the least wage growth: just 3 percent. In contrast, wages grew 20 percent for middle-wage jobs and 14 percent for high-wage jobs.





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Economic vitality Wage growth varies by industry

Wage growth in the county tends to be faster for jobs that are already high-wage. With the exception of wholesale trade, which saw no wage growth between 1990 and 2015, high-wage industries saw earnings increase between 28 percent to 45 percent.

Wage growth was mixed among middle-wage industries. While workers in manufacturing and construction experienced earnings increases of 40 to 45 percent, workers in health care and education saw little to no wage growth.

This trend was even more exaggerated for low-wage industries. Earnings for workers in retail, administrative and support, and waste management and remediation services saw no or negative growth. Some low-wage industries saw dramatic increases, including mining jobs (228 percent). However, miners still earn some of the lowest incomes of all workers in the county.

Largest gains in earnings is seen in mining and real estate and rental and leasing industries Industries by Wage-Level Category, 2015

		Average Annual Earnings	Average Annual Earnings	Percent Change in Earnings 1990-	Share of Jobs
Wage Category	Industry	1990	2015	2015	2015
	Utilities	\$56,802	\$75,712	33%	
	Wholesale Trade	\$41,205	\$41,068	0%	
High	Management of Companies and Enterprises	\$38,204	\$54,884	44%	13%
High	Information	\$36,808			13%
	Finance and Insurance	\$32,416	\$41,507	28%	
	Professional, Scientific, and Technical Services	\$27,196	\$38,621	42%	
	Health Care and Social Assistance	\$26,248	\$26,507	1%	
	Manufacturing	\$25,738	\$35,976	40%	
	Transportation and Warehousing	\$25,677	\$33,629	31%	
Middle	Construction	\$24,714	\$35,881	45%	54%
	Agriculture, Forestry, Fishing and Hunting	\$23,235	\$26,201	13%	
	Education Services	\$22,625	\$24,141	7%	
	Arts, Entertainment, and Recreation	\$20,942	\$15,782	-25%	
Low	Other Services (except Public Administration)	\$20,320	\$25,875	27%	
	Retail Trade	\$19,901	\$19,941	0%	
	Real Estate and Rental and Leasing	\$17,112	\$38,493	125%	
	Administrative and Support and Waste Management and Remediation Services	\$14,935	\$12,442	-17%	33%
	Accommodation and Food Services	\$11,498	\$12,476	9%	
	Mining	\$5,278	\$17,329	228%	

Economic vitality Job growth highest in health care and education

While employment projections are not available for Sunflower County itself, they are available for the larger Delta Workforce Investment Area which includes Sunflower and 13 other counties. The area expected to grow 7,210 jobs between 2012 and 2022. More than half of those jobs (3,520) are expected to be in health

care, about a third (2,410) will be in education, and another third (1,650) will be in public administration. While accommodation and food services is the region's largest industry, they are not expected to add many jobs.

Annual Δνσ

In the Delta Workforce Investment Area which includes Sunflower County, employment is expected to grow by 7 percent between 2012 and 2022

Industry Employment Projections, 2012 to 2022

Industry	Estimated	Projected	Total 2012 to 2022 Employment Change	Percent	Total Percent Change
Health Care and Social Assistance	Employment 15,290	Employment 18,810	3,520	Change 2.1%	23%
Educational Services	12,460	14,870	2,410	1.8%	19%
Public Administration	5,850	7,500	1,650	2.5%	28%
Professional, Scientific, and Technical Services	2,060	2,740	680	2.9%	33%
Accommodation and Food Services	16,210	16,830	620	0.4%	4%
Administrative and Support and Waste Management and Remediation Services	2,890	3,490	600	1.9%	21%
Retail Trade	11,930	12,530	600	0.5%	5%
Construction	2,940	3,480	540	1.7%	18%
Manufacturing	10,650	11,110	460	0.4%	4%
Transportation and Warehousing	2,890	3,220	330	1.1%	11%
Finance and Insurance	2,340	2,500	160	0.7%	7%
Wholesale Trade	3,830	3,980	150	0.4%	4%
Other Services (except Public Administration)	2,000	2,140	140	0.7%	7%
Arts, Entertainment, and Recreation	2,040	2,160	120	0.6%	6%
Real Estate and Rental and Leasing	1,070	1,180	110	1.0%	10%
Utilities	530	590	60	1.1%	11%
Management of Companies and Enterprises	630	670	40	0.6%	6%
Information	800	830	30	0.4%	4%
Agriculture, Forestry, Fishing and Hunting	3,710	3,730	20	0.1%	1%
Mining, Quarrying, and Oil and Gas Extraction	120	120	0	0.0%	0%
Total, All Industries	100,200	107,410	7,210	0.7%	7%

Source: Mississippi Department of Employment Security, Industry and Employment Projections (Long Term). Note: Data reflects the Delta Workforce Investment Area which includes Tunica, Panola, Coahoma, Quitman, Bolivar, Tallahatchie, Sunflower, Washington, Leflore, Carroll, Humphreys, Holmes, Sharkey, and Issaquena counties in Mississippi. Figures may not sum to total due to rounding and/or issues relating to the projection methodology.

Economic vitality

The fastest-growing occupations are in healthcare and personal services

Looking at occupational categories (rather than industries as shown on the previous slide), the fastest-growing jobs with expected growth of 15 to 17 percent between 2012 and 2022 are in healthcare and personal services. Education, community and social services, arts and design, and protective services will also grow 12-13 percent.

Many of these same occupations top the list in terms of total employment change between 2012 and 2022 as well.

Education, healthcare, and personal care occupations projected to add most jobs but growth expected for arts, design, and entertainment, and other services as well

Occupational Employment Projections, 2012 to 2022

	2012 Estimated	2022 Projected	Total 2012 to 2022	Annual Avg.	Total Percent
Occupation	Employment	Employment	Employment Change	Percent Change	Change
Education, Training, and Library	9,530	10,810	1,280	1.3%	13%
Healthcare Practitioners and Technical	5,930	6,850	920	1.5%	16%
Personal Care and Service	5,130	5,890	760	1.4%	15%
Healthcare Support	3,510	4,120	610	1.6%	17%
Transportation and Material Moving	8,390	8,970	580	0.7%	7%
Building and Grounds Cleaning and Maintenance	4,580	5,020	440	0.9%	10%
Protective Service	3,090	3,470	380	1.2%	12%
Production	8,740	9,090	350	0.4%	4%
Sales and Related	10,470	10,780	310	0.3%	3%
Installation, Maintenance, and Repair	4,240	4,510	270	0.6%	6%
Office and Administrative Support	13,730	13,980	250	0.2%	2%
Community and Social Services	1,490	1,690	200	1.3%	13%
Food Preparation and Serving Related	9,610	9,790	180	0.2%	2%
Business and Financial Operations	1,570	1,740	170	1.0%	11%
Management	4,530	4,670	140	0.3%	3%
Arts, Design, Entertainment, Sports, and Media	860	970	110	1.2%	13%
Construction and Extraction	1,870	1,980	110	0.6%	6%
Architecture and Engineering	760	810	50	0.6%	7%
Computer and Mathematical	580	630	50	0.8%	9%
Life, Physical, and Social Science	480	510	30	0.6%	6%
Farming, Fishing, and Forestry	670	690	20	0.3%	3%
Legal	470	450	-20	-0.4%	-4%
Total, All Occupations	100,200	107,410	7,210	0.7%	7%

Source: Mississippi Department of Employment Security, Occupation and Employment Projections (Long Term). Note: Data reflects the Delta Workforce Investment Area which includes Tunica, Panola, Coahoma, Quitman, Bolivar, Tallahatchie, Sunflower, Washington, Leflore, Carroll, Humphreys, Holmes, Sharkey, and Issaquena counties in Mississippi. Figures may not sum to total due to rounding and/or issues relating to the projection methodology.

Economic vitality Identifying strong industries in Sunflower County

Understanding which industries are strong and competitive in the county is critical for developing effective strategies to attract and grow businesses. To identify strong industries in Sunflower County specifically, 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 county's economy is changing.

Industry strength index =

Size + Concentration + Job quality Growth (2015)(2005 to 2015) (2015)**Total Employment Location Quotient Average Annual Wage** Change in the number The total number of jobs A measure of The estimated total of jobs in a particular industry. employment annual wages of an concentration calculated industry divided by its by dividing the share of estimated total employment for a employment Percent change in the particular industry in the number of jobs region by its share nationwide. A score >1 indicates higher-thanaverage concentration. Real wage growth

Note: This industry strength index is only meant to provide general guidance on the strength of various industries in the county, 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 Transportation and agriculture are dominant industries

According to the industry strength index, transportation and warehousing – the county's largest industry with 970 employees – is also its strongest, performing well on measures of concentration, job quality, and growth over the past decade. The county's next largest industries, retail and health care, do not rank as highly on the industry strength index due to the loss of employment in health care, and the

low wages in retail. Agriculture ranks third due to its size and concentration but the county is losing agriculture jobs. The higher-wage utilities and management industries also rank highly on the index, have a much smaller employment base, so are not very accessible.

 $\label{thm:continuous} \textbf{Transportation and warehousing are strong and expanding in the region}$

Industry Strength Index

	Size	Concentration	Job Quality	Growth		Industry Strength	
	Total employment	Location Quotient	Average annual wage	Change in employment	% Change in employment	Real wage growth	Index
Industry	(2015)	(2015)	(2015)	(2005 to 2015)	(2005 to 2015)	(2005 to 2015)	
Transportation and Warehousing	970	3.4	\$33,629	140	17%	12%	72.0
Utilities	21	0.6	\$75,712	1	5%	65%	68.2
Agriculture, Forestry, Fishing and Hunting	491	6.4	\$26,201	-366	-43%	10%	62.7
Management of Companies and Enterprises	93	0.7	\$54,884	26	39%	9%	30.0
Wholesale Trade	252	0.7	\$41,068	-66	-21%	17%	0.9
Finance and Insurance	190	0.5	\$41,507	-45	-19%	13%	-3.1
Retail Trade	814	0.9	\$19,941	77	10%	4%	-3.5
Construction	163	0.4	\$35,881	19	13%	20%	-4.1
Information	23	0.1	\$53,442	-17	-43%	-13%	-8.4
Other Services (except Public Administration)	278	1.1	\$25,875	-20	-7%	17%	-11.8
Professional, Scientific, and Technical Services	64	0.1	\$38,621	-22	-26%	23%	-16.2
Health Care and Social Assistance	627	0.6	\$26,507	-262	-29%	15%	-21.0
Real Estate and Rental and Leasing	46	0.4	\$38,493	-16	-26%	-5%	-21.6
Education Services	104	0.6	\$24,141	8	8%	12%	-24.8
Arts, Entertainment, and Recreation	47	0.4	\$15,782	25	114%	-3%	-26.7
Accommodation and Food Services	481	0.6	\$12,476	13	3%	4%	-34.0
Manufacturing	321	0.4	\$35,976	-978	-75%	47%	-44.2
Mining	3	0.1	\$17,329	1	50%	-75%	-66.3
Administrative and Support and Waste Management and Remediation Services	36	0.1	\$12,442	-61	-63%	-38%	-86.6

Readiness





Readiness Highlights

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

- By 2020, 22 percent of jobs in Mississippi will require a bachelor's degree or higher, yet only 14 percent of Sunflower County residents are prepared for those jobs.
- A high proportion of youth are disconnected from work or school: 14 percent in the county, compared with 11 percent statewide.
- Preschool enrollment is high in the county:
 77 percent of 3- and 4- year-olds are enrolled in school, compared with 52 percent in Mississippi.
- School attendance rates are also high: 89
 percent of elementary students attend at
 least 95 percent of school days, with few
 differences by race/ethnicity.
- Black and Latino adults are less likely to have health insurance (66 and 68 percent are covered, respectively) than their White counterparts (80 percent).

Percent of workers with at least a bachelor's degree:

14%

Preschool enrollment:

77%

Black-White gap in health insurance coverage:

14 percentage points

Readiness

Lower educational attainment among Black, Latino and Native American and Mixed/other residents

There remain large differences in educational attainment by race in Sunflower County.

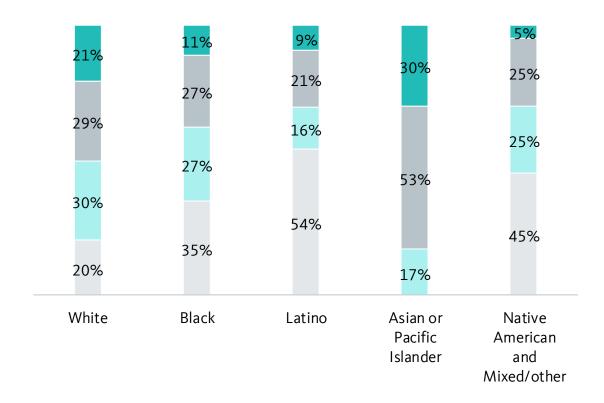
The White and Asian or Pacific Islander populations have the highest education levels. About half of White adults have at least some college education and over 80 percent of Asian or Pacific Islanders have at least some college education. Compare this with 38 percent of Black adults and 30 percent for Latino adults, and Native American and Mixed/other adults, with at least some college education.

Looking at low education levels, a very high share of the county's small Latino population – more than half – do not have a high school diploma, as do 45 percent of Native American and Mixed/other adults, 35 percent of Black adults, and 20 percent of White adults.

There are racial gaps in educational attainment

Educational Attainment by Race/Ethnicity, 2014

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



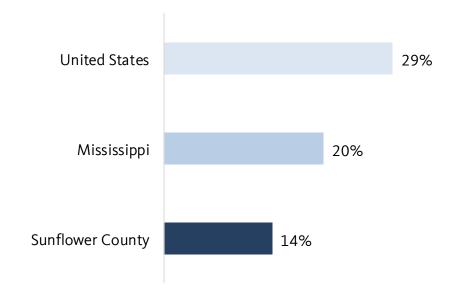
Readiness

Relatively low education levels regionally

Residents in the county are less likely to hold a bachelor's degree or higher than other Mississippians and Americans. While 29 percent of all Americans and 20 percent of all Mississippi residents have earned at least a bachelor's degree, only 14 percent of Sunflower County residents have.

Educational attainment in the county is lower than the state and nationally

Percent of the Population with a Bachelor's Degree or Higher, 2014



Readiness

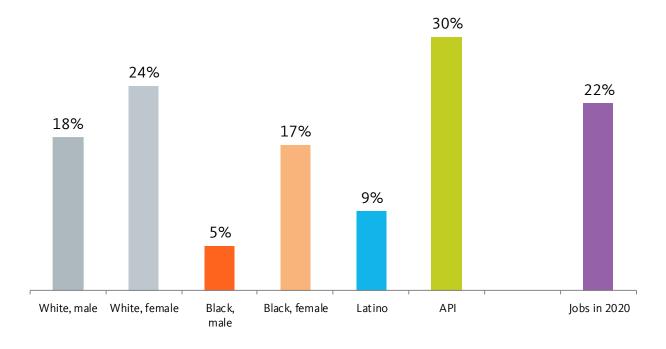
A potential education and skills gap

By 2020, 22 percent of jobs in Mississippi will require a bachelor's degree or higher, yet only 14 percent of all residents are prepared to enter those jobs. Sunflower County could face a skills gap unless education levels increase among communities of color, especially Black men.

As the chart illustrates, there are wide differences in educational attainment by gender in the county. Among Black adults, women are three times as likely to have a BA degree or higher as compared with men. White women are also more likely to have a bachelor's degree or higher than White men, although the difference is not as large. While the sample sizes were not large enough to disaggregate data by gender for API and Latino adults, we find that levels of educational attainment vary greatly between these groups, with 9 percent of Latino adults having a bachelor's degree or higher and 30 percent of API adults.

There is a large gender disparity in college access for Black adults

Share of Working-Age Population with a Bachelor's Degree or Higher by Race/Ethnicity, 2014, and Projected Share of Jobs in Mississippi that Require a Bachelor's Degree or Higher, 2020



Source: Georgetown Center for Education and the Workforce; U.S. Census Bureau. Universe for education levels of workers includes all persons age 25 or older. Note: "White" is defined as non-Hispanic white and "Latino" includes all who identify as being of Hispanic origin. All other racial/ethnic groups include any Latinos who identify with that particular racial category. Data on education levels by race/ethnicity represents a 2010 through 2014 average for Sunflower County while data on educational requirements for jobs in 2020 are based on statewide projections for Mississippi. Data for some groups by race/ethnicity and gender are not reported due to small sample size.

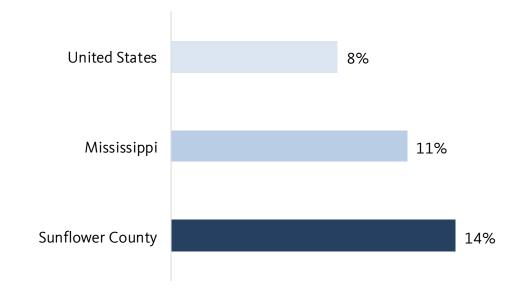
Readiness

Many youth remain disconnected from work or school

The share of "disconnected youth" who are neither in school nor working is notably high in Sunflower County as compared to the nation and the rest of the state. Nationally, only 8 percent of youth aged 16 to 19 are disconnected from school or employment; through out the rest of the state of Mississippi, 11 percent are. In Sunflower County, however, 14 percent of all youth are disconnected.

Sunflower County youth are more likely to be disconnected than in the rest of the state and nationally

Percent of 16 to 19-Year-Olds Not in Work or School, 2014



Readiness

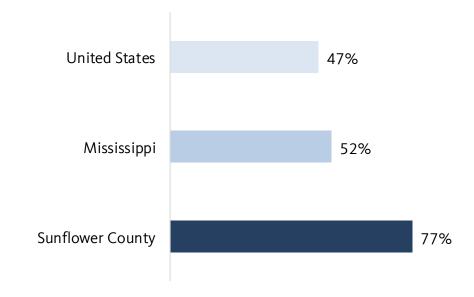
Preschool enrollment is high in the county

Sunflower County's 3- and 4-year-olds are much more likely to benefit from early childhood education than children their age across the county and throughout the state of Mississippi. While only 47 percent of the nation's 3- and 4-year-olds and 52 percent of the state's 3- and 4-year-olds are enrolled in school, 77 percent of all children in this age range in Sunflower County are enrolled in preschool.

Children living in the county have greater access to early childhood education than is typical in the state and across the country

49

Percent of 3 to 4-Year-Olds Enrolled in School, 2014



Readiness

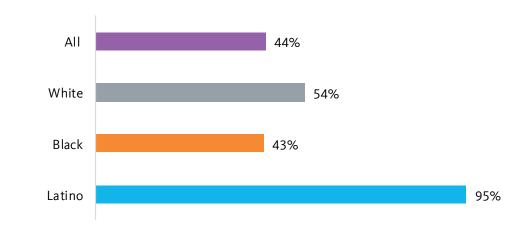
High levels of school attendance, but low reading proficiency

Third grade reading proficiency levels are low for most students living in the county. On average, only two of every five third-grade students (in public and charter schools) can read at grade level by the end of the year. White students have better outcomes than Black students (54 percent are proficient vs. 43 percent). Latino students, however, have drastically better outcomes as compared to their peers: 95 percent of Latino third-graders read at grade level.

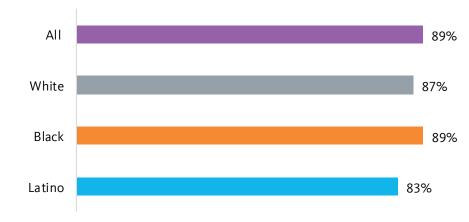
Elementary attendance for kindergarten through third grade, defined missing fewer than 15 days of school during the year, is high and fairly even among the county's students. Latino students have a slightly lower attendance rate than their peers at 83 percent, compared with 89 percent for Black students and 87 percent for White students.

Latino 3rd grade reading proficiency is highest among all other students

Share Achieving 3rd Grade Reading Proficiency, 2014



Share of K-3 Children Absent Fewer than 15 Days in School Year, 2014-2015



Source: <u>diversitydatakids.org</u> calculations of data from the Mississippi Department of Education. Note: Data for some racial/ethnic groups are excluded due to data availability.

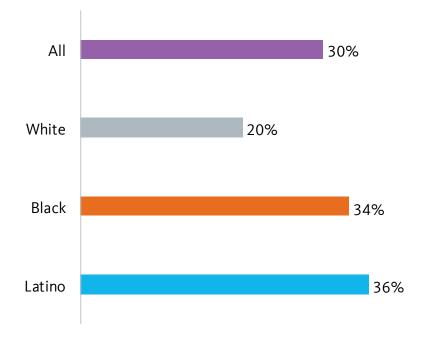
Readiness

Latino and African American adults are less likely to have health insurance

Black and Latino adults are less likely to have health insurance than their White peers. While 80 percent of White residents are insured, only 64 percent of Latino residents and 66 percent of African American residents are.

People of color are less likely to have health insurance

Percent Without Health Insurance by Race/Ethnicity, 2014

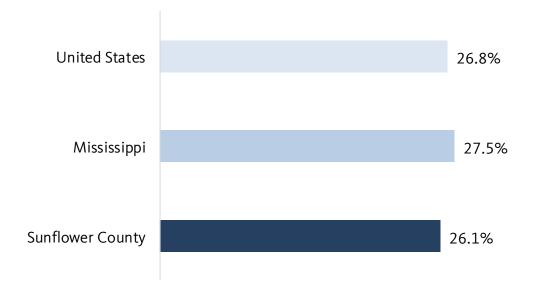


51

Readiness

On average, fewer elderly residents live alone in the county

The share of elderly residents living alone in Sunflower County is similar to the national rate, and slightly below the average for the state. Elderly residents are similarly likely to live alone in the county as the state and the nation as a whole Percent of Elderly Living Alone, 2014



Connectedness





Connectedness Highlights

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

- The county has consistently had lower levels of residential segregation than both the state and the nation as a whole. The greatest decreases in segregation occurred between Asian or Pacific Islander residents and African Americans, Latinos, and Whites.
- Poverty and unemployment are most concentrated just south of Indianola and in the southeastern census tracts of the county.
- More than half of the county's renters are burdened, meaning they spend more than 30 percent of household income on housing costs. Thirty percent are severely rent burdened and spend more than half of income on housing costs.

Share of Whites who would need to move to achieve integration with Blacks:

32%

Percent of households without a car:

12%

Percent of renters who pay too much for housing:

53%

Connectedness Segregation is slowly decreasing

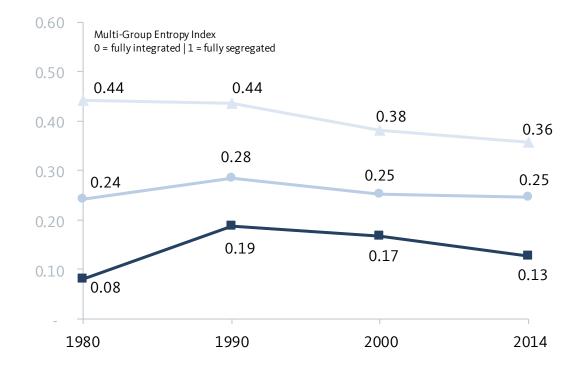
Based on the multi-group entropy index, Sunflower County is less segregated by race/ethnicity than Mississippi or the United States as a whole. After an increase between 1980 and 1990, overall residential segregation in the county decreased between 1990 and 2014, from .19 to .13.

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

Overall residential segregation has declined since 1990

Residential Segregation, 1980 to 2014

- Sunflower County
- ----Mississippi
- United States



55

Connectedness Black-White segregation has barely changed since 1990

The dissimilarity index estimates the share of a given racial/ethnic group that would need to move to a new neighborhood to achieve complete residential integration.

According to this measure, Black-White segregation is about the same in 2014 as it was in 1990. Segregation has decreased for many racial/ethnic groups, such as Whites and Latinos, and Blacks and Asians or Pacific Islanders. But it has increased for others: Black-Latino segregation increased during recent decades, and segregation between Native residents and many other ethnic groups (with the exception of African Americans) have also increased since 1990.

The dissimilarity index tells an important story of where residents can live and the level of connectedness in a neighborhood.

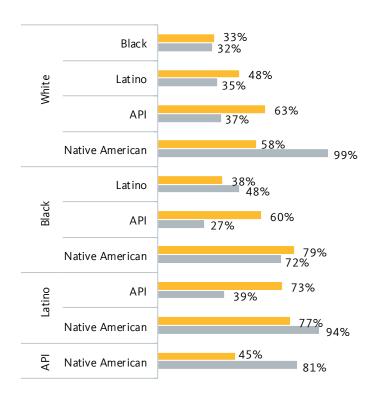
However, the degree to which a neighborhood is integrated according to the index should be complemented by residents' lived experience of segregation, which is also impacted by the opportunities and resources they can access throughout a county.

Black-Latino segregation has increased since 1990

Residential Segregation, 1990 and 2014, measured by the Dissimilarity Index

1990

■ 2014



56

Connectedness **Concentrated poverty is a challenge**

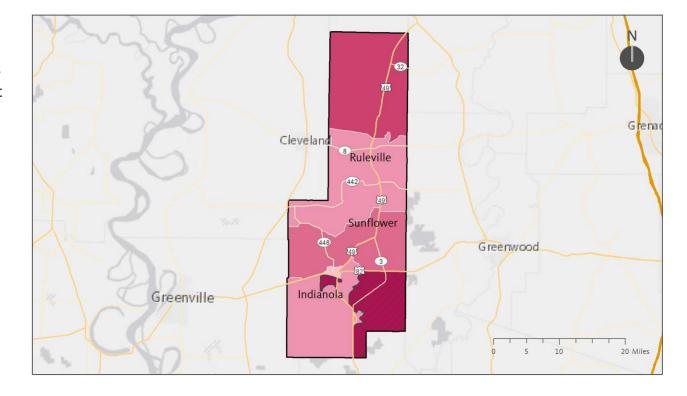
The share of Sunflower County residents that live below the poverty level is high overall, at 36 percent, but some areas have higher poverty than others. The northern and southeastern areas of the county have particularly high levels of poverty.

The two census tracts in which at least 84 percent of residents are people of color have the highest poverty rates in the county (of 43 percent or more). These include the tract that forms the southern portion of the city of Indianola (with a poverty rate of 43 percent), and the tract in the southeast corner of the county (with a poverty rate of 47 percent).

Southern Indianola and the Southeastern corner of the county have the highest levels of poverty

Percent Population Below the Poverty Level by Census Tract, 2014

- Less than 30% 30% to 35%
- 84% or more people of color
- 35% to 42%
- 42% to 43%
- 43% or more



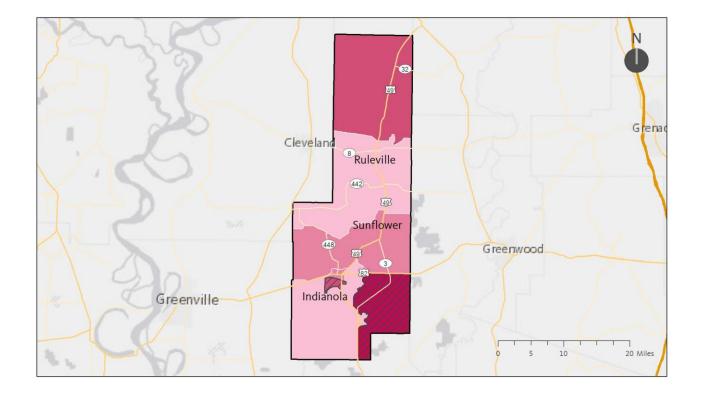
Connectedness Poverty is increasing where it is already high

Looking at how poverty grew since 2000, we see that the same areas with high levels of poverty are the places where poverty is growing the most. Some of the largest increases are found in the two census tracts with at least 84 percent residents of color.

Poverty is increasing in many parts of the county

Percentage Point Change in Poverty Rate by Census Tract, 2000 to 2014

- Less than 1% increase 84% or more people of color
- 1% to 8% increase
- 8% to 11% increase
- 11% increase or more



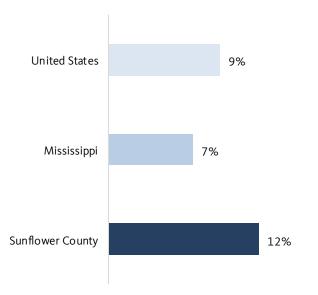
Connectedness The majority of the county's residents rely on a vehicle to commute

Car access is a challenge for some residents. In 2014, the county had a higher share of households without a vehicle (12 percent) than either the state or the nation as a whole.

While a majority of residents at all income levels commute to work alone using a car, lower-income workers are more likely to carpool or take an alternate form of transit than higher-income workers. Ninety-two percent of residents who earn \$65,000 or more annually commute alone by car, compared with 76 percent of those who earn less than \$15,000 per year.

Higher share of carless households than the state and the nation

Percent of Households without a Vehicle, 2014



Low-wage workers are more likely to carpool or rely on alternate modes of transit

Mode of Transit to Work by Annual Earnings, 2014

- Public transportation or other
- Auto-carpool
- Auto-alone



Connectedness Lower car access in some high-poverty areas

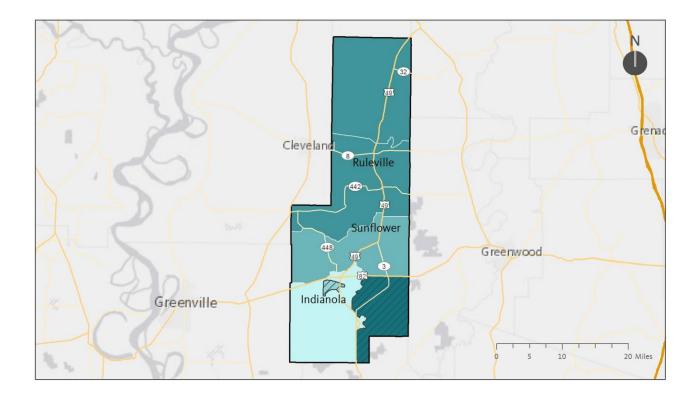
Access to a vehicle remains a challenge for many residents living in Sunflower County, and the areas with lower car access tend to also be the areas with higher levels of poverty and lower employment.

In the most southeastern census tract of the county, at least 14 percent of households do not have access to a vehicle – the same tract where 47 percent of residents live in poverty and over 39 percent of residents are unemployed.

Households without access to vehicles coincide with areas with higher rates of poverty

Percent of Households Without a Vehicle by Census Tract, 2014

- Less than 10% 10% to 13.3%
- 84% or more people of color
- 13.3% to 13.5%
- 13.6% to 14%
- 14% or more



Connectedness Commute times vary across the county

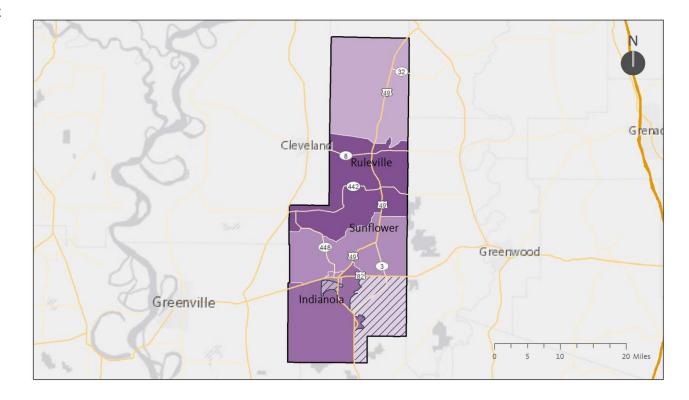
Average commute times tend to be longest for residents living in and south of Ruleville and southwest of Indianola.

Notably, commute times are shortest in the southeastern corner of the county where car access is low and poverty and unemployment are high.

Most commuters travel at least 17 minutes to work

Average Travel Time to Work by Census Tract, 2014

- Less than 17.7 minutes 84% or more people of color
- 17.7 to 18 minutes
- 18 to 19.5 minutes
- 19.5 to 19.6 minutes
- 19.6 minutes or more



Connectedness Half of renters in the county pay too much for housing

More than half of the county's renters are burdened, meaning they spend more than 30 percent of household income on housing costs. Thirty percent are severely rent burdened and spend more than half of their income on housing costs.

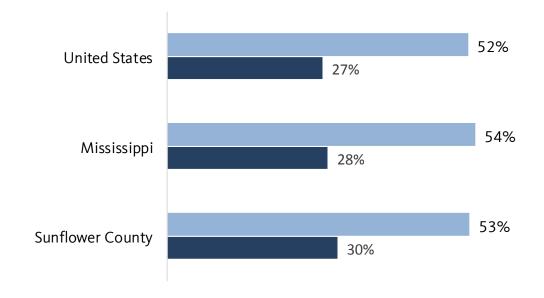
These rates are consistent with those for the state and the nation as a whole.

Sunflower County residents are similarly as rent-burdened as residents in the rest of the state and nation

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Share of Households that are Rent Burdened, 2014

- Rent burdened
- Severely rent burdened



Connectedness Healthy food access likely a challenge for some residents

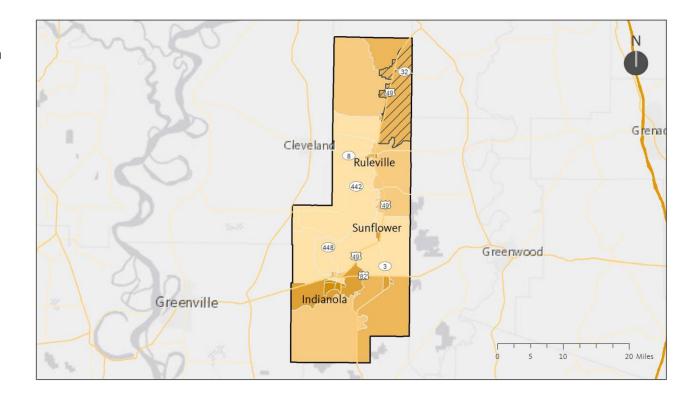
Limited Supermarket Access Areas, or LSAs, are defined as areas where residents must travel significantly farther to reach a supermarket than the "comparatively acceptable" distance traveled by residents in well-served areas with similar population densities and car ownership rates.

According to this measure, residents living in the northeastern part of the county lack access to supermarkets.

Residents living in the northeastern part of the county have limited access to supermarkets

Percent People of Color by Census Block Group, 2014, and Limited Supermarket Access

- Less than 55% 55% to 64%
- ☐ Limited Supermarket Access
- 64% to 74%
- 74% to 97%
- 97% or more



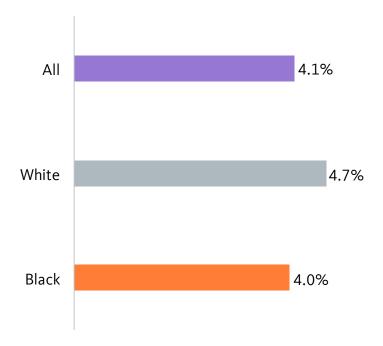
Connectedness No large differences in healthy food access by race

Overall, White residents are slightly more likely to live in areas that have limited access to supermarkets than the average resident. Five percent of White residents live in LSAs, as opposed to 4 percent of all residents.

Whites are more likely to live in neighborhoods with below average access to supermarkets

64

Percent Living in Limited Supermarket Access Areas by Race/Ethnicity, 2014



Connectedness Communities with lowest healthy food access are also poor

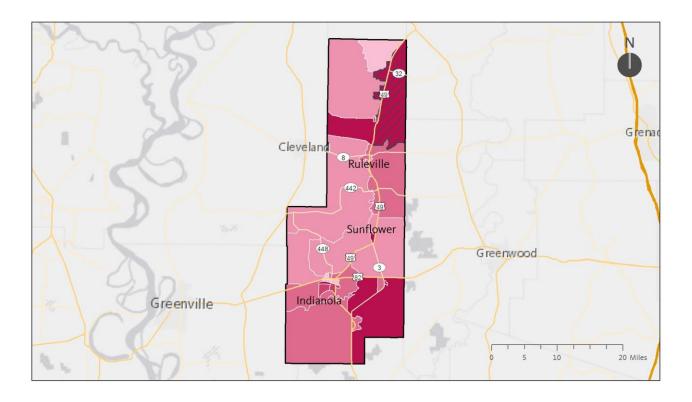
County residents who live in an LSA are more likely to be poor than most. In the county's major census tract denoted as an LSA, at least 47 percent of residents are poor.

Residents who live in LSAs are also more likely to be poor

Percent Population Below the Poverty Level by Census Block Group, 2014, and Limited Supermarket Access

☐ Limited Supermarket Access

- Less than 23%
- 23% to 32%
- 32% to 38%
- 38% to 47%
- 47% or more

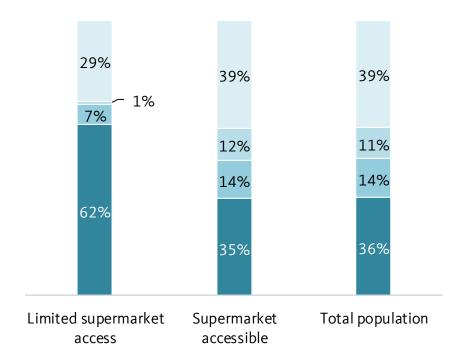


Connectedness Health food access varies by income

Residents who live in LSAs are more likely to be poor. Of those residents who have limited access to supermarkets in the county, 62 percent live below the federal poverty line. Only 35 percent of residents in supermarket accessible areas live below the poverty line. The majority of individuals who live in LSAs live below the federal poverty line

Poverty Composition of Food Environments, 2014

- 200% poverty or above
- 150-199% poverty
- 100-149% poverty
- Below poverty



Economic benefits





Economic benefits Highlights

What are the benefits of racial economic inclusion to the broader economy?

- Mississippi's economy could have been \$21 billion stronger in 2014 – a 20 percent increase – if its racial gaps in income had been closed.
- In Mississippi, 55 percent of the racial income gap between African Americans and Whites is due to differences in wages, while 45 percent is due to differences in employment.
- With racial equity in income in Sunflower County, African Americans would see their average annual income grow to \$28,100 – an increase of \$14,200.

Equity dividend for Mississippi:

\$21billion

Average annual income gain with racial equity for people of color in the county:

\$14k

Economic benefits of inclusion A potential \$21 billion per year GDP boost from racial equity

Mississippi stands to gain a great deal from addressing racial inequities. The state's economy could have been \$21 billion stronger in 2014 if its racial gaps in income had been closed: a 20 percent increase.

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

We also examined how much of the state's racial income gap between people of color and Whites was due to differences in wages and how much was due to differences in employment (measured by hours worked). Nationally, 64 percent of the racial income gap between all people of color and Whites is due to wage differences. In Mississippi, the share of the gap attributable to wages is 55 percent.

Mississippi's GDP would have been nearly \$21 billion higher if there were no racial gaps in income

Statewide Actual GDP and Estimated GDP without Racial Gaps in Income, 2014

- GDP in 2014 (billions)
- GDP if racial gaps in income were eliminated (billions)



Economic benefits of inclusion

Average income for people of color would increase by about 70 percent with racial equity

People of color in Mississippi as a whole are projected to see their incomes grow by 70 percent with racial equity compared to 54 percent nationwide.

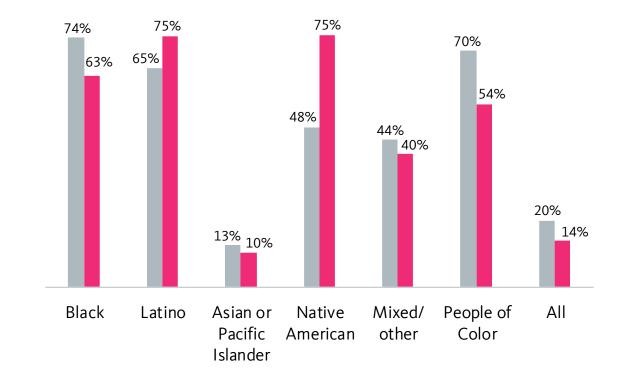
African Americans would see the largest gain in average annual income at 74 percent, while Asians or Pacific Islanders would see only a 13 percent gain.

Income gains were estimated by calculating the percentage increase in income for each racial/ethnic group if they had the same average annual income (and income distribution) and hours of work as non-Hispanic Whites, controlling for age.

African Americans in Mississippi would experience the largest income increases with racial equity

Statewide Percentage Gain in Income with Racial Equity by Race/Ethnicity, 2014

- Mississippi
- United States



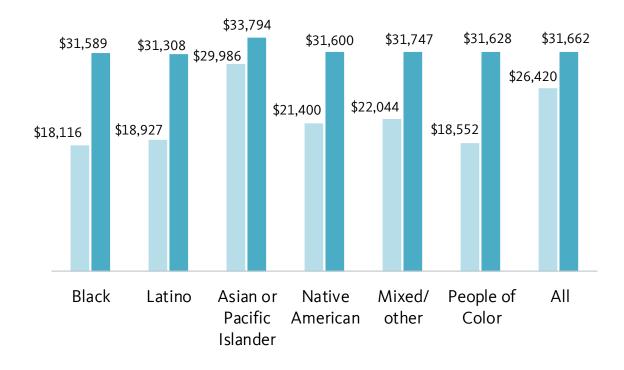
Economic benefits of inclusion Average income for Black workers would increase by over \$13,000 per year

On average, people of color in Mississippi are projected to see their incomes grow by \$13,000 with racial equity. Latinos and African Americans would see slightly larger increases while other groups would see smaller, but still substantial, increases.

People of color in Mississippi would see an average income gain of about \$13,000 with racial equity

Statewide Gain in Average Income with Racial Equity by Race/Ethnicity, 2014

- Average Annual Income
- Projected Annual Income



Economic benefits of inclusion

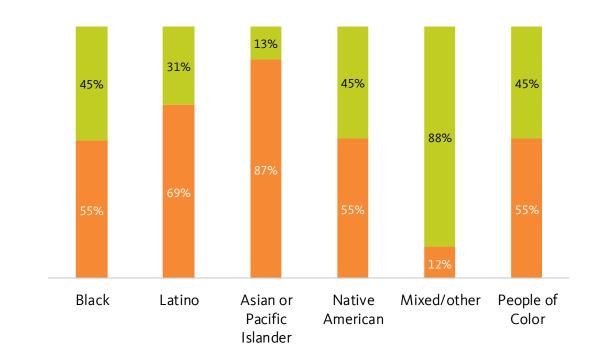
Most of the potential income gains would come from closing the racial wage gap

We also examined how much of the state's racial income gap was due to differences in wages and how much was due to differences in employment (measured by hours worked). In Mississippi, 55 percent of the racial income gap is due to differences in wages, while 45 percent is due to differences in employment. For all groups except for people of mixed or other racial backgrounds, wages account for the majority of the income gap.

Most of the racial income gap in Mississippi is due to differences in wages

Statewide Source of Gains in Income with Racial Equity By Race/Ethnicity, 2014

- Employment
- Wages



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Economic benefits of inclusion

Income gains with racial equity are likely to be larger in Sunflower County than for the state overall

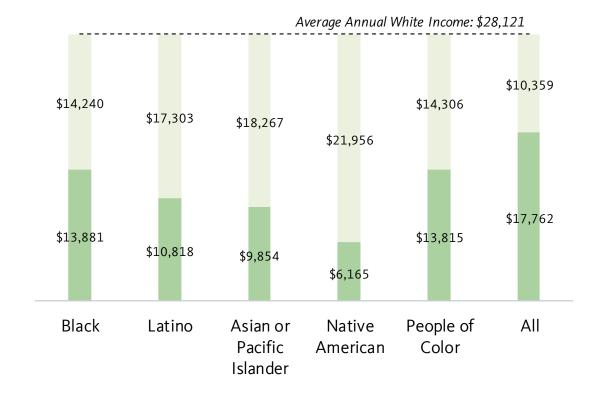
Although there is insufficient data to conduct a full analysis of gains in income and GDP with racial equity in Sunflower County, a comparison of average annual average income by race/ethnicity for the population 16 and older suggests that the gains would be even larger for county than for the state overall.

If average annual income for groups of color rose to the levels we observe for Whites, we would anticipate that average annual income for African Americans – whom account for about 97 percent of all people of color in the county – would rise by over \$14,000, from about \$13,900 to \$28,100. While the Latino, Asian or Pacific Islander, and Native American populations are quite small in the county, they would see the largest estimated gains in income with racial equity.

People of color in Sunflower County would see an average income gain of about \$14,000 with racial equity

Estimated Gain in Average Income with Racial Equity by Race/Ethnicity, 2014

- Income Gain with Racial Equity
- Average Annual Income



Implications





Implications Advancing racial equity and inclusive growth

Sunflower County's diverse population is a major economic asset that can help the county compete in the global economy, if the county's leaders invest in ensuring all of its residents can contribute their talent and creativity to building a strong next economy.

Grow good, accessible jobs that provide pathways to the middle class

Good jobs that are accessible to workers of color and other marginalized workers who are likely to live in poor, isolated neighborhoods form the bedrock of equitable cities. A job that pays enough to support one's family and put some away for the future, provides health care and other benefits, and safe, dignified, family-friendly working conditions is a universal foundation for well-being and prosperity. Sunflower County should target its economic development efforts to grow highroad, inclusive businesses in high-opportunity sectors; leverage public investments to help entrepreneurs of color and triple-bottom-line businesses grow more good jobs; and set high standards for wages and benefits for all workers.

Increase the economic security and mobility of vulnerable families and workers

Economic security—having enough money to cover basic needs and enough savings to weather setbacks and invest for the future—is critical to the health and well-being of families, neighborhoods, and local economies. In Sunflower County, 46 percent of Latino and 43 percent of Black residents live in poverty. The county can make strides to reduce this insecurity and strengthen its economy by connecting vulnerable residents with jobs and opportunities to save and build assets, removing discriminatory barriers to employment, and protecting families from predatory financial practices. An example of this is the Delta DREAMS program, sponsored by the Indianola Promise Community in partnership with Guaranty Bank and Sunflower County United for Children. The program offers low-income individuals an opportunity to leverage their savings by using Individual Development Accounts (IDAs) to build wealth. Through an IDA program, participants' savings are matched by a bank or sponsoring institution, and can be used to assist with post-secondary education opportunities, the purchase of a home, and a qualified business capitalization venture.

Cultivate homegrown talent through a strong cradle-to-career pipeline

A skilled workforce is the key to county success in the global economy, so Sunflower County and other counties must prioritize equipping youth of color with the skills to excel in the 21st century workforce. By 2020, 61 percent of jobs in Mississippi will require an associate's degree or higher, yet only 20 percent of all. residents are prepared to enter those jobs Sunflower county can nurture home-grown talent by taking a cradle-to-career approach that includes a strong workforce system to connect adult workers - including those facing barriers to employment – with employment opportunities. In Sunflower County, Sunflower County United for Children is already leading Generation YES (Young adults Engaged for Success!), a program designed to provide coaching, training, and navigational support to young adults who seek to go to college, enter the workforce, or serve in the military.

Create healthy, opportunity-rich neighborhoods for all

High-quality neighborhoods are fundamental building blocks for health and economic

(continued)

Implications Advancing racial equity and inclusive growth

opportunity. People who live in resource-rich neighborhoods with good schools, safe streets, parks, transit, clean air and water, and places to buy healthy food and other services are much more likely to live long, healthy, secure lives. The county should work to improve services and quality of life in its poorest neighborhoods and make catalytic investments that reconnect disinvested neighborhoods to the regional economy and spur equitable development that builds community wealth.

Build resilient, connected infrastructure

Infrastructure—roads, transit, sidewalks, bridges, ports, broadband, parks, schools, water lines, and more—is the skeletal support that allows counties to function and connects their residents to each other and to the regional and global economy. Sunflower County should leverage investments in existing and new infrastructure investments, targeting resources to high-need, underserved neighborhoods to foster equitable growth and economic opportunity.

Increase access to high-quality, affordable homes and prevent displacement
Housing is the lynchpin for opportunity: the

location and quality of the home you can afford not only affects your living space and your household budget—it determines the quality of your schools, the safety of your streets, the length of your commute, your exposure to toxics, and more. Sunflower County must take proactive steps to ensure that working-class families of color can live in healthy homes that connect them to opportunity – and that they can afford to stay in those homes. More than half of renters are housing burdened. A multi-strategy approach that includes funding sources, policy levers, code enforcement, and tenant protections and services can expand housing opportunity and protect low-income communities of color from displacement.

An Equity Profile of **Sunflower County**

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PolicyLink and PERE

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County and metropolitan area estimates

bling a complete dataset on employment and wages ustry h in jobs and earnings by industry wage level, 1990 to 2015 is of access to healthy food res of diversity and segregation

Data and methods Data source summary and regional geography

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

While much of the data and analysis presented in this 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 county is profiled here, many of the analytical choices in generating the underlying data and analyses were made with an eye toward replicating the analyses in other counties and regions and the ability to update them over time. Thus, while more regionally specific data may be available for some indicators, the data in this profile draws from our regional equity indicators database that provides data that are comparable and replicable over time.

Source	Dataset		
Integrated Public Use Microdata Series (IPUMS)	2010 American Community Survey, 5-year microdata sample		
	2010 American Community Survey, 1-year microdata sample		
U.S. Census Bureau	1980 Summary Tape File 1 (STF1)		
	1980 Summary Tape File 2 (STF2)		
	1990 Summary Tape File 2A (STF2A)		
	1990 Modified Age/Race, Sex and Hispanic Origin File (MARS)		
	1990 Summary Tape File 4 (STF4)		
	2000 Summary File 1 (SF1)		
	2010 Summary File 1 (SF1)		
	2014 American Community Survey, 5-year summary file		
	2010 TIGER/Line Shapefiles, 2010 Census Block Groups		
	2014 TIGER/Line Shapefiles, 2014 Census Tracts		
	2010 TIGER/Line Shapefiles, 2010 Counties		
Geolytics	1980 Long Form in 2010 Boundaries		
	1990 Long Form in 2010 Boundaries		
	2000 Long Form in 2010 Boundaries		
Woods & Poole Economics, Inc.	2016 Complete Economic and Demographic Data Source		
U.S. Bureau of Economic Analysis	Gross Domestic Product by State		
	Gross Domestic Product by Metropolitan Area		
	Local Area Personal Income Accounts, CA30: Regional Economic Profile		
U.S. Bureau of Labor Statistics	Quarterly Census of Employment and Wages		
	Local Area Unemployment Statistics		
The Reinvestment Fund	2014 Analysis of Limited Supermarket Access (LSA)		
The diversitydatakids.org Project	W.K. Kellogg Foundation Priority Communities Dashboard Database		
Mississippi Department of Employment Security	Industry and Employment Projections (Long Term)		
	Occupation and Employment Projections (Long Term)		
Georgetown University Center on Education and	Updated projections of education requirements of jobs in 2020,		
the Workforce	originally appearing in: Recovery: Job Growth And Education		
	Requirements Through 2020; State Report		

An Equity Profile of **Sunflower County**

PolicyLink and PERE

Data and methods Selected terms and general notes

Broad racial/ethnic origin

Unless otherwise noted, the categorization of people by race/ethnicity is based on their response to two separate questions on race and Hispanic origin, and people are placed in six mutually exclusive categories as follows:

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

being of Hispanic origin.

- "Mixed/other," "other or mixed race," etc. 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.

However, much of the analysis by race/ethnicity presented in this profiles relies upon the 2014 5-year American Community Survey (ACS) summary file. In most of the ACS tables that provide socioeconomic data disaggregated by race/ethnicity, those who identify Hispanic or Latino can only be excluded from the White population. As indicated in the note beneath the relevant figures, this means that the data presented for the Black, Asian or Pacific Islander, Native American, and Mixed/other populations may include some number of people from the Latino category. The Mixed/other category is likely to have the largest share of Latinos

included in the socioeconomic data reported for them, but this really depends on the geography being examined. To provide some context when reviewing data in this profile that is *not* presented by the six mutually exclusive racial/ethnic categories, it may be useful to know that in Sunflower County, Latinos account for 0.3 percent of the Black population, 0 percent of the Asian or Pacific Islander population, 60 percent of the Native American population, and 67 percent of the Mixed/other population.

Nativity

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

Detailed racial/ethnic ancestry

Given the diversity of ethnic origin and large presence of immigrants among the Latino and Asian populations, we present tables that

Data and methods Selected terms and general notes

(continued)

provide detailed racial/ethnic categories within these groups. The categories, referred to as "ancestry," are based on tables in the ACS summary file that break down the Latino, Native American, and Asian or Pacific Islander populations by more detailed racial/ethnic or tribal categories. Such detailed tables are not available for the White, Black, and Mixed/other populations.

Other selected terms

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

- The term "region" may refer to a city or county but typically refers to metropolitan areas or other large urban areas (e.g. large cities and counties).
- The term "neighborhood" is used at various points throughout the 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 school diploma" refers to both an actual high school diploma as well as high school equivalency or a General Educational Development (GED) certificate.
- The term "full-time" refers to all persons who reported working at least 50 weeks and usually worked at least 35 hours per week during the 12 months prior to the survey.

General notes on analyses

Below, we provide some general notes about the analysis conducted:

 In regard to monetary measures (income, earnings, wages, etc.) the term "real" indicates the data has been adjusted for inflation. All inflation adjustments are based on the Consumer Price Index for all Urban Consumers (CPI-U) from the U.S. Bureau of Labor Statistics.

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

For the racial generation gap indicator, we generated consistent estimates of populations by race/ethnicity and age group (under 18, 18-64, and over 64 years of age) for the years 1980, 1990, 2000, and 2014 (which reflects a 2010-2014 average), at the city and county levels, which were then aggregated to the regional level and higher. The racial/ethnic groups include non-Hispanic White, non-Hispanic Black, Hispanic/Latino, non-Hispanic Asian and Pacific Islander, non-Hispanic Native American/Alaska Native, and non-Hispanic Other (including other single race alone and those identifying as multiracial, with the latter group only appearing in 2000 and later due to a change in the survey question). While for 2000 and later years, this information is readily available in SF1 and in the ACS, 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 city and county

levels for all the requisite groups in STF2, for race/ethnicity by age group we had to look to STF1, 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 Native Asian/Pacific Islanders, non-Hispanic Native Americans, and non-Hispanic Others among the remainder for each age group, we applied the distribution of these three groups from the overall city and county populations (across all ages) to that remainder.

For 1990, the level of detail available in the underlying data differed at the city and county levels, calling for different estimation strategies. At the county level, data by race/ethnicity was taken from STF2A, while data by race/ethnicity and age was taken from the 1990 MARS file—a special tabulation of people by age, race, sex, and Hispanic origin. However, to be consistent with the way race is categorized by the OMB's Directive 15, the MARS file allocates all persons identifying as "other race alone" or multiracial to a specific race. After confirming that population totals

by county (across all ages) were consistent between the MARS file and STF2A, we calculated the number of "other race alone" or multiracial people who had been added to each racial/ethnic group in each county by subtracting the number who were reported in STF2A for the corresponding group. We then derived the share of each racial/ethnic group in the MARS file (across all ages) that was made up of "other race alone" or multiracial people and applied it to estimate the number of people by race/ethnicity and age group exclusive of "other race alone" or multiracial people and the total number of "other race alone" or multiracial people in each age group.

For the 1990 city-level estimates, all data were from STF1, which provided counts of the total population for the six broad racial/ethnic groups required but not counts by age. Rather, age counts were only available for people by single race alone (including those of Hispanic origin) as well as for all people of Hispanic origin combined. To estimate the number of people by race/ethnicity and age for the six

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

(continued)

broad racial/ethnic groups that are detailed in the profile, we first calculated the share of each single-race alone group that was Hispanic based on the overall population (across all ages). We then applied it to the population counts by age and race alone to generate an initial estimate of the number of Hispanic and non-Hispanic people in each age/race alone category. This initial estimate was multiplied by an adjustment factor (specific to each age group) to ensure that the sum of the estimated number of Hispanic people across the race alone categories within each age group equated to the "actual" number of Hispanic origin by age as reported in STF1. Finally, an Iterative Proportional Fitting (IPF) procedure was applied to ensure that our final estimate of the number of people by race/ ethnicity and age was consistent with the total population by race/ethnicity (across all ages) and total population by age group (across all racial/ethnic categories) as reported in STF1.

Data and methods Adjustments made to demographic projections

National projections

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

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

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

County and regional projections

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

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

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

Data and methods Adjustments made to demographic projections

(continued)

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

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

Data and methods Estimates and adjustments made to BEA data on GDP

The data on national gross domestic product (GDP) and its analogous regional measure, gross regional product (GRP) – both referred to as GDP in the text – are based on data from the U.S. Bureau of Economic Analysis (BEA). However, due to changes in the estimation procedure used for the national (and statelevel) data in 1997, and a lack of metropolitan area estimates prior to 2001, a variety of adjustments and estimates were made to produce a consistent series at the national, state, metropolitan-area, and county levels from 1969 to 2014.

Adjustments at the state and national levels

While data on gross state product (GSP) are not reported directly in the 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 prevent 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 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 BFA estimate to our initial estimate, and multiplied it by our initial estimates for 2000 and earlier to get our final estimate of gross product at the metropolitan-area level.

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

Data and methods Estimates and adjustments made to BEA data on GDP

county. Next, we calculated the difference between our final estimate of gross product for each state and the sum of our seconditeration 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. The resulting county-level estimates were then aggregated to the regional and metro area levels.

data for all counties in the United States, but rather groups some counties that have had boundary changes since 1969 into county groups to maintain consistency with historical data. Any such county groups were treated the same as other counties in the estimate techniques described above.

We should note that BEA does not provide

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

Analysis of jobs and wages by industry, reported on pages 37-38, and 41-42, is based on an industry-level dataset constructed using two-digit NAICS industries from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW). Due to some missing (or nondisclosed) data at the county and regional levels, we supplemented our dataset using information from Woods & Poole Economics, Inc., which contains complete jobs and wages data for broad, twodigit NAICS industries at multiple geographic levels. (Proprietary issues barred us from using Woods & Poole data directly, so we instead used it to complete the QCEW dataset.)

Given differences in the methodology underlying the two data sources (in addition to the proprietary issue), it would not be appropriate to simply "plug in" corresponding Woods & Poole data directly to fill in the QCEW data for nondisclosed industries.

Therefore, our approach was to first calculate the number of jobs and total wages from nondisclosed industries in each county, and

then distribute those amounts across the nondisclosed industries in proportion to their reported numbers in the Woods & Poole data.

To make for a more accurate application of the Woods & Poole data, we made some adjustments to it to better align it with the QCEW. One of the challenges of using Woods & Poole data as a "filler dataset" is that it includes all workers, while QCEW includes only wage and salary workers. To normalize the Woods & Poole data universe, we applied both a national and regional wage and salary adjustment factor; given the strong regional variation in the share of workers who are wage and salary, both adjustments were necessary. Another adjustment made was to aggregate data for some Woods & Poole industry codes to match the NAICS codes used in the QCEW.

It is important to note that not all counties and regions were missing data at the twodigit 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.

The same above procedure was applied at the county and state levels. To assemble data at for regions and metro areas, we aggregated the county-level results.

Data and methods Growth in jobs and earnings by industry wage level, 1990 to 2015

The analysis on pages 37-38 uses our filled-in QCEW dataset (see the previous page) and seeks to track shifts in regional job composition and wage growth by industry wage level.

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

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

This approach was adapted from a method used in a Brookings Institution report by Jennifer S. Vey, *Building From Strength: Creating Opportunity in Greater Baltimore's Next Economy* (Washington D.C.: Brookings Institution, 2012).

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 access to healthy food

Analysis of access to healthy food is based on the 2014 Analysis of Limited Supermarket Access (LSA) from the The Reinvestment Fund (TRF). LSA areas are defined as one or more contiguous census block groups (with a collective population of at least 5,000) where residents must travel significantly farther to reach a supermarket than the "comparatively acceptable" distance traveled by residents in well-served areas with similar population densities and car ownership rates.

The methodology's key assumption is that block groups with a median household income greater than 120 percent of their respective metropolitan area's median (or nonmetro state median for nonmetropolitan areas) are adequately served by supermarkets and thus travel an appropriate distance to access food. Thus, higher-income block groups establish the benchmark to which all block groups are compared, controlling for population density and car ownership rates.

An LSA score is calculated as the percentage by which the distance to the nearest supermarket would have to be reduced to make a block group's access equal to the access observed for adequately served areas. Block groups with an LSA score greater than 45 were subjected to a spatial connectivity analysis, with 45 chosen as the minimum threshold because it was roughly equal to the average LSA score for all LSA block groups in the 2011 TRF analysis.

Block groups with contiguous spatial connectivity of high LSA scores are referred to as LSA areas. They represent areas with the strongest need for increased access to supermarkets. Our analysis of the percent of people living in LSA areas by race/ethnicity and poverty level was done by merging data from the 2014 5-year ACS summary file with LSA areas at the block group level and aggregating up to the city, county, and higher levels of geography.

For more information on the 2014 LSA analysis, see:

https://www.reinvestment.com/wp-content/uploads/2015/12/2014_Limited_Sup ermarket Access Analysis-Brief 2015.pdf.

Data and methods Measures of diversity and segregation

In the profile, we refer to measures of residential segregation by race/ethnicity (the "diversity score" on page 17, the "multi-group entropy index" on page 55 and the "dissimilarity index" on page 56). 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 measures are based on census-tract-level data for 1980, 1990, and 2000 from Geolytics, and for 2014 (which reflects a 2010-2014 average) from the 2014 5-year ACS. While the data for 1980, 1990, and 2000 originate from the decennial censuses of each year, an advantage of the Geolytics data we use is that it has been "re-shaped" to be expressed in 2010 census tract boundaries, and so the underlying geography for our calculations is consistent over time; the census tract boundaries of the original decennial census data change with each release, which could potentially cause a change in the value of residential segregation

indices even if no actual change in residential segregation occurred. In addition, while most of 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 56, but keep the 1980 data in the chart on page 55 as this minor inconsistency in the data is not likely to affect the analysis.

The formula for the multi-group entropy index was drawn from a 2004 report by John Iceland of the University of Maryland, *The Multigroup Entropy Index* (Also Known as *Theil's H* or the *Information Theory Index*) available at: https://www.census.gov/topics/housing/housing-patterns/about/multi-group-entropy-index.html. In that report, the formula used to calculate the multi-group entropy index (referred to as the "entropy index" in the report) appears on page 8.

The formula for the dissimilarity index is well established, and is made available by the U.S. Census Bureau at:

https://www.census.gov/library/publications/2002/dec/censr-3.html.

Data and methods Estimates of GDP without racial gaps in income

Estimates of the gains in average annual income and GDP under a hypothetical scenario in which there is no income inequality by race/ethnicity are based on the 2014 5-Year IPUMS ACS microdata. We applied a methodology similar to that used by Robert Lynch and Patrick Oakford in chapter two of All-In Nation: An America that Works for All, with some modification to include income gains from increased employment (rather than only those from increased wages). As in the Lynch and Oakford analysis, once the percentage increase in overall average annual income was estimated, 2014 GDP was assumed to rise by the same percentage.

We first organized individuals aged 16 or older in the IPUMS ACS into six mutually exclusive racial/ethnic groups: White, Black, Latino, Asian or Pacific Islander, Native American, and Mixed/other (with all defined non-Hispanic except for Latinos, of course). Following the approach of Lynch and Oakford in *All-In Nation*, we excluded from the non-Hispanic Asian/Pacific Islander category subgroups whose average incomes were

higher than the average for non- Hispanic Whites. Also, to avoid excluding subgroups based on unreliable average income estimates due to small sample sizes, we added the restriction that a subgroup had to have at least 100 individual survey respondents in order to be included.

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

were then averaged for each racial/ethnic group (other than non-Hispanic Whites) to get projected average incomes and work hours for each group as a whole, and for all groups combined.

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

Data and methods Estimates of GDP without racial gaps in income

Note that because no GDP data is available at the city level (partly because economies tend to operate at well beyond city boundaries), our estimates of gains in GDP with racial equity are only reported at the regional level. Estimates of income gains and the source of gains by race/ethnicity, however, are reported for the profiled geography.

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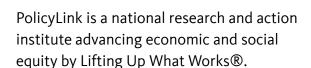
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