

# An Equity Profile of **Farmington**



# Acknowledgments

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We also thank the City of Farmington, and 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 James Crowder Jr. at PolicyLink; the data, charts, and maps were prepared by Sheila Xiao, Pamela Stephens, and Justin Scoggins at PERE; and Rosamaria Carrillo 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

While the nation is projected to become a people-of-color majority by the year 2044, Farmington is poised to reach that benchmark much sooner. The city is already 50 percent people of color, and the White population has been steadily declining since 1980. Indeed, Farmington has experienced dramatic demographic growth and transformation – driven mostly by an increase in the Latino and Native American populations.

Farmington's diversity is a major asset in the regional economy, but inequities and disparities are holding the city back. Unemployment in the city is higher than the national average. Racial wage gaps persist in the labor market. Closing racial gaps in economic opportunity and outcomes will be key to the city's future.

Equitable growth is the path to sustained economic prosperity in Farmington. New Mexico's economy could have been more than \$29 billion stronger in 2014 if its racial gaps in income had been closed: a 30 percent increase. By growing good jobs, connecting younger generations with older ones, integrating immigrants into the economy, building communities of opportunity, and ensuring educational and career pathways to good jobs for all, Farmington can put all residents on the path toward reaching their full potential, and secure a bright future for the city and region.

# Key Findings

- The share of residents who are people of color in Farmington increased from 24 to 50 percent between 1980 and 2014.
- The city's 42-percentage point racial generation gap is larger than that of both the state of New Mexico and the nation as a whole.
- Farmington has a smaller share of three- and four-year-olds enrolled in school than the nation as a whole, and third grade reading proficiency is far lower for Native American and Latino children in San Juan County than for other children.
- Real household incomes have fallen for those in the bottom half of the income distribution since 1979, while there have been modest increases at the top.
- Native American and Latino residents are far less likely to have health insurance than other racial/ethnic groups.

Percentage of youth who are people of color:

65%

Share of Native Americans living in poverty:

29%

Potential increase in state GDP with equitable incomes:

\$29 billion

# 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 City of Farmington. 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 Farmington 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.

Communities facing deep challenges and barriers to inclusion may be absent from some of the analysis presented here due to small sample size. 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 Farmington.

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

### 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.

### Cities 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.

<sup>1</sup> Manuel Pastor, "Cohesion and Competitiveness: Business Leadership for Regional Growth and Social Equity," OECD Territorial Reviews, Competitive Cities in the Global Economy, Organisation For Economic Co-operation And Development (OECD), 2006; Manuel Pastor and Chris Benner, "Been Down So Long: Weak-Market Cities and Regional Equity" in *Retooling for Growth: Building a 21<sup>st</sup> Century Economy in America's Older Industrial Areas* (New York: American Assembly and Columbia University, 2008); Randall Eberts, George Erickcek, and Jack Kleinhenz, "Dashboard Indicators for the Northeast Ohio Economy: Prepared for the Fund for Our Economic Future" (Federal Reserve Bank of Cleveland: April 2006), <http://www.clevelandfed.org/Research/workpaper/2006/wp06-05.pdf>.

<sup>2</sup> Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez, "Where is the Land of Economic Opportunity? The Geography of Intergenerational Mobility in the U.S." <https://scholar.harvard.edu/hendren/publications/economic-impacts-tax-expenditures-evidence-spatial-variation-across-us>.

<sup>3</sup> 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.

<sup>4</sup> Cedric Herring, "Does Diversity Pay?: Race, Gender, and the Business Case for Diversity." *American Sociological Review*, 74, no. 2 (2009): 208-22; Slater, Weigand and Zwirlein. "The Business Case for Commitment to Diversity." *Business Horizons* 51 (2008): 201-209.

<sup>5</sup> U.S. Census Bureau. "Ownership Characteristics of Classifiable U.S. Exporting Firms: 2007" *Survey of Business Owners Special Report*, June 2012, <https://www.census.gov/library/publications/2012/econ/2007-sbo-export-report.html>.

<sup>6</sup> Kate Pickett and Richard Wilkinson, "Income Inequality and Health: A Causal Review." *Social Science & Medicine*, 128 (2015): 316-326

# Introduction

## What is an equitable city?

Cities 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 city’s economic vitality, contribute to the city’s readiness for the future, and connect to the city’s assets and resources.

### Strong, equitable cities:

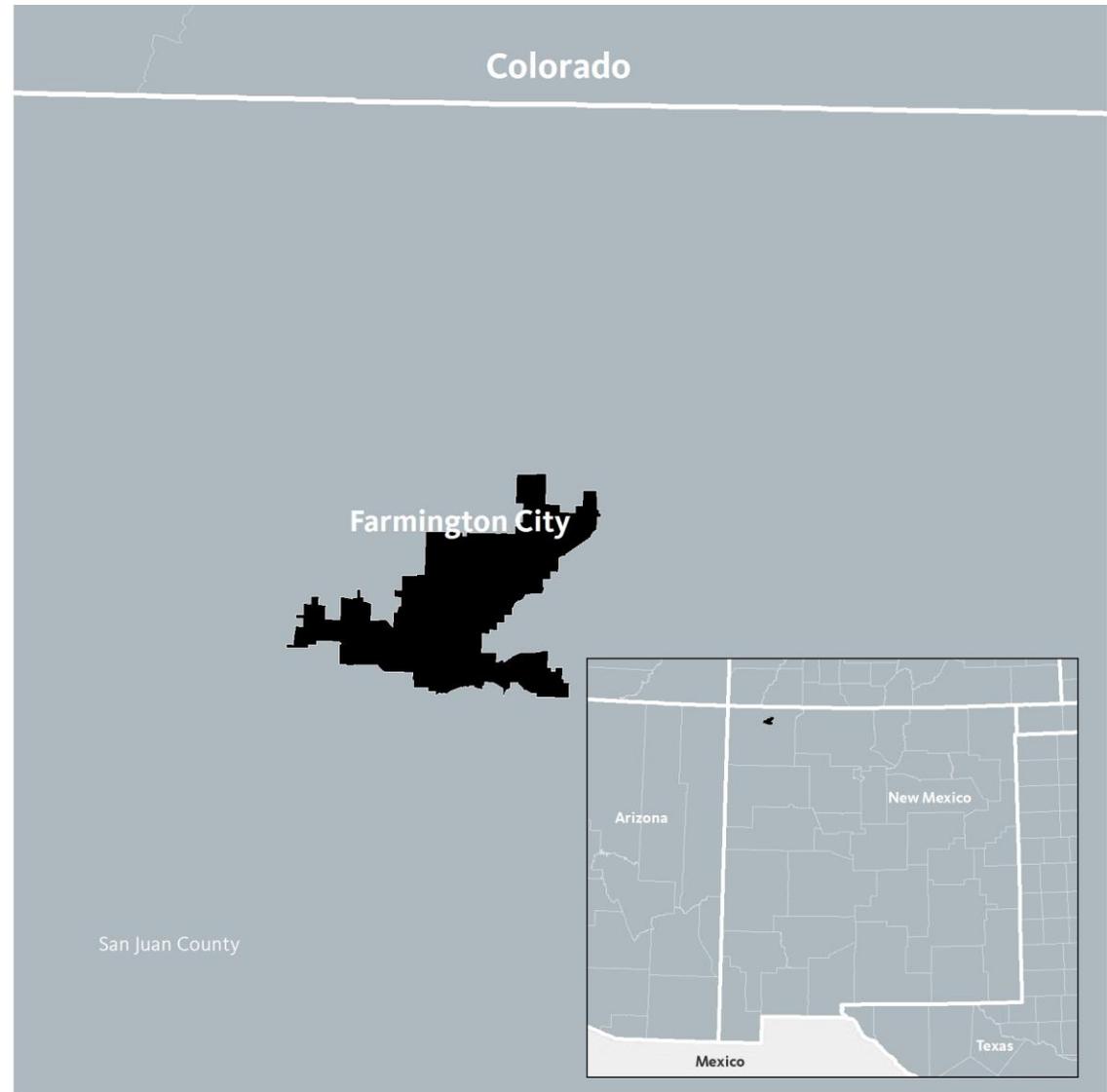
- Possess **economic vitality**, providing high-quality jobs to their residents and producing new ideas, products, businesses, and economic activity so the city remains sustainable and competitive.
- Are **ready for the future**, with a skilled, ready workforce, and a healthy population.
- Are **places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

# Introduction

## Defining the geography

This profile describes demographic, economic, and health conditions in the City of Farmington, New Mexico, portrayed in black on the map to the right. Farmington is situated in the northeast portion of San Juan County, which is coterminous with the Farmington, NM Metropolitan Statistical Area.

Unless otherwise noted, all data follow the city geography, which is simply referred to as “Farmington.” 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 80.



# Introduction

## Equity indicators framework

The indicators in this profile are presented in five sections. The first section describes the city's demographics. The next four sections present indicators of the city 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 city and how is this changing?

- Is the population growing?
- Which groups are driving growth?
- How diverse is the population?
- What is the age distribution of the population?

### 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 city's residents for the 21<sup>st</sup> 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 health disparities decreasing?
- Are racial gaps in education decreasing?

### Connectedness:

Are the city's residents and neighborhoods connected to one another and to the city'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, convenient housing?
- Do neighborhoods reflect the city's diversity? Is segregation decreasing?
- Can all residents access healthy food?

### 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 city and how is it changing?

- The total population of Farmington has increased by 20 percent since 2000. This increase has been driven by people of color, whose population increased by 62 percent during the same time period.
- The share of residents who are people of color increased from 24 to 50 percent between 1980 and 2014.
- The White population will continue to decrease in the coming years. By 2050, only 29 percent of residents in San Juan County will be White.
- Farmington's 42-percentage point racial generation gap is larger than that of both the state of New Mexico and the nation as a whole.

Percentage of residents who are people of color:

50%

Percentage of youth who are people of color:

65%

Median age of Latino residents:

25

# Demographics

## Half of residents are people of color

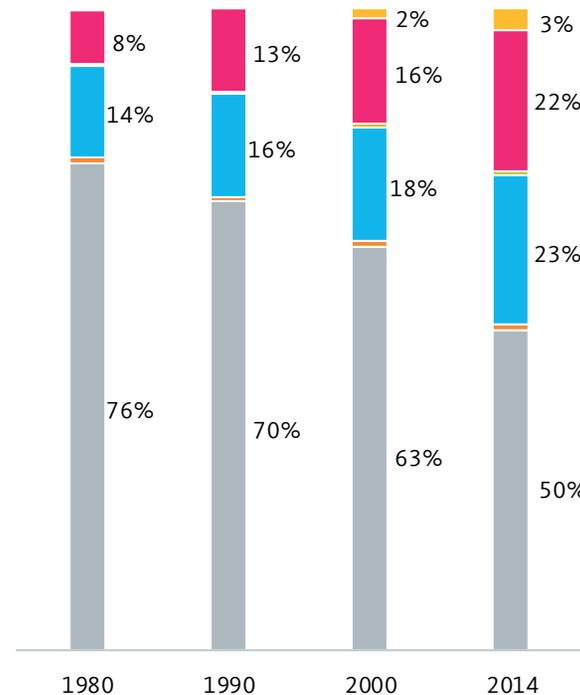
Farmington is a fast-growing city. Between 1980 and 2014, the city's population increased by almost 50 percent, from 31,200 residents to 45,400.

Growth is being driven by people of color, and that is changing the demographic mix of the city. The overall percentage of residents who are people of color has steadily increased by 26 percentage points over four decades. The majority of the city's population growth has been driven by the Native American population, which has increased by 14 percentage points since 1980. Today, 50 percent of residents are people of color.

**Latinos and Native Americans are the largest racial/ethnic group after Whites**

**Racial/Ethnic Composition, 1980 to 2014**

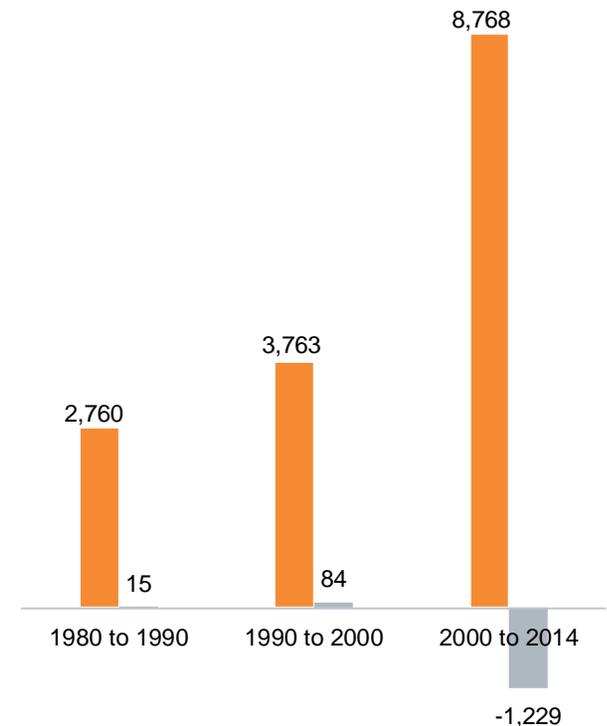
- Mixed/other
- Native American
- Asian or Pacific Islander
- Latino
- Black
- White



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.

**The city has experienced overall population growth**  
**Composition of Net Population Growth by Decade, 1980 to 2014**

- White
- People of Color



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

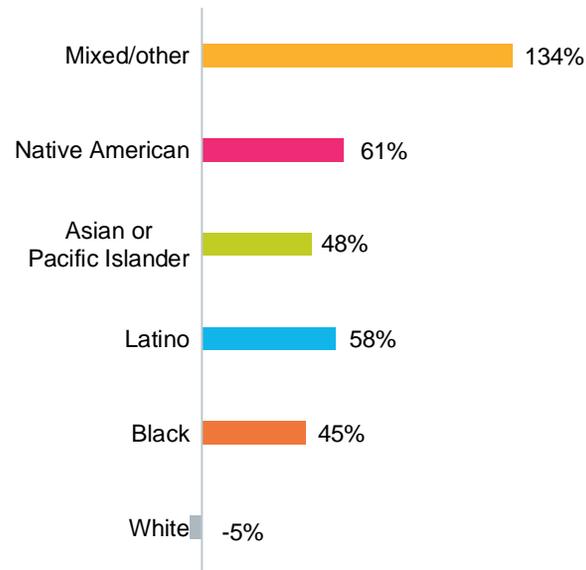
# Demographics

## People of color are driving population growth

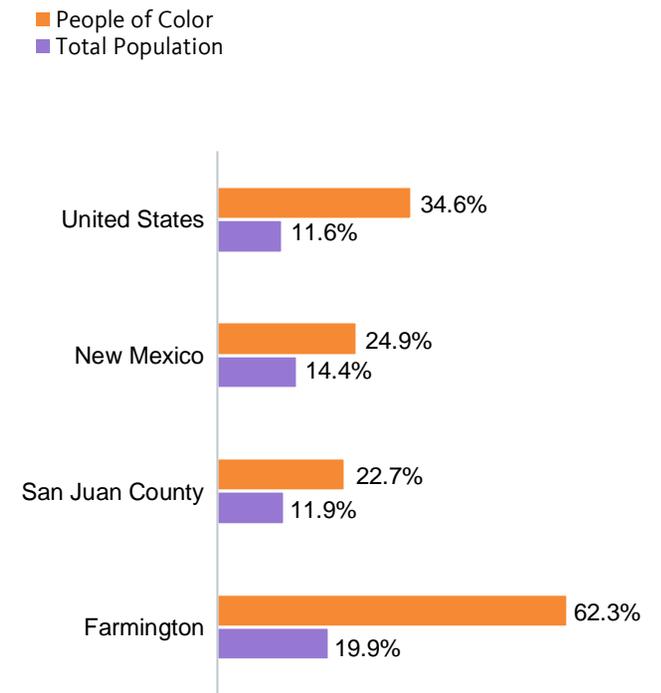
Farmington’s demographic shifts look similar to those occurring state-wide in New Mexico and in the nation as a whole. However, Farmington’s total population growth and people-of-color growth was more substantial between 2000 and 2014. During this time, the city saw an overall population increase of 20 percent.

Despite these overall trends, the number of White residents living in the city has decreased. The number of Native American and Latino residents have increased by 61 percent and 58 percent respectively. Residents identifying as multiracial have increased by 134 percent since 2000. However this change is less impactful to the city’s overall diversity due to small population size.

**The White population is decreasing**  
**Growth Rates of Major Racial/Ethnic Groups, 2000 to 2014**



**Farmington’s total population has increased at a faster rate than the state, county and nation**  
**Percent Change in Population, 2000 to 2014**



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

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

# Demographics

## The Latino population will continue to grow while the White population will continue to decrease

Demographic change in San Juan County is occurring at a pace slightly faster than the nation as a whole, and is projected to continue diversifying into the future. In 1980, the county was 45 percent people of color - a larger share than the U.S. overall. The county is projected to remain majority people of color into 2050.

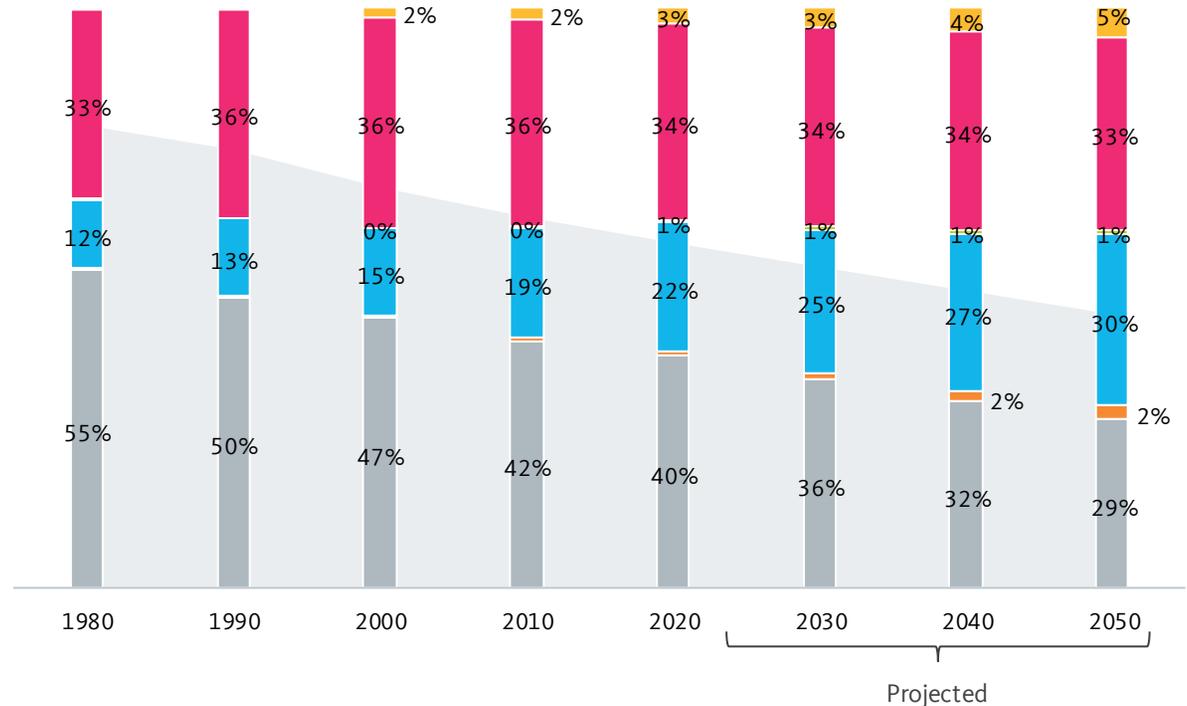
During that time, the Native American population will remain relatively constant. The majority of change will be driven by an increasing ratio between Latino and White residents in the county. By 2050, Latino residents will represent 30 percent of county residents (doubling their presence from 2000) while the percentage of residents who are White will decrease by 18 percentage points (from 47 percent in 2000).

The county's Asian or Pacific Islander and multiracial communities are projected to grow modestly through 2050.

The majority of demographic change will occur among Latinos and Whites

Racial/Ethnic Composition, 1980 to 2050

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



Source: U.S. Census Bureau; Woods & Poole Economics, Inc. Note: Data is for San Juan County, NM. Much of the increase in the Mixed/other population between 1990 and 2000 is due to a change in the survey question on race.

# Demographics

## The majority of residents were born in the United States

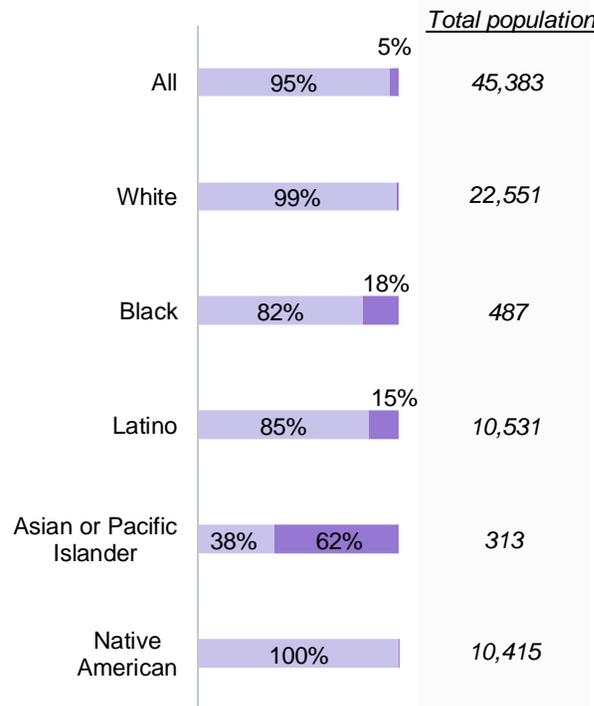
The majority of Farmington residents - 95 percent - were born in the United States (or abroad to American parents). Among the city's large Latino population, the vast majority (85 percent) are U.S.-born, while 15 percent are immigrants. Conversely, the majority of Asian or Pacific Islander residents (62 percent) are immigrants.

Breaking down the city's major racial/ethnic groups by ancestry, we see that the majority of Latino residents are of Mexican ancestry (59 percent). Among the city's small Asian population, the most common ancestries are Indian and Chinese.

Asian or Pacific Islander is the racial/ethnic group with the largest share of foreign-born residents

Race, Ethnicity, and Nativity, 2014

■ U.S.-born  
■ Immigrant



More than half of all Latinos in the city are of Mexican descent

Populations by Ancestry, 2014

All	Population
English	2,200
American	2,197
German	1,238
All other	39,748
<b>Total</b>	<b>45,383</b>

Latino	Population
Mexican	6,228
All other Latinos	4,303
<b>Total</b>	<b>10,531</b>

Asian	Population
Indian	92
Chinese	66
All other Asians	100
<b>Total</b>	<b>258</b>

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

Source: U.S. Census Bureau.  
Note: Data represent a 2010 through 2014 average. "Asian" does not include Pacific Islanders.

# Demographics

## Farmington is a diverse city

(continued)

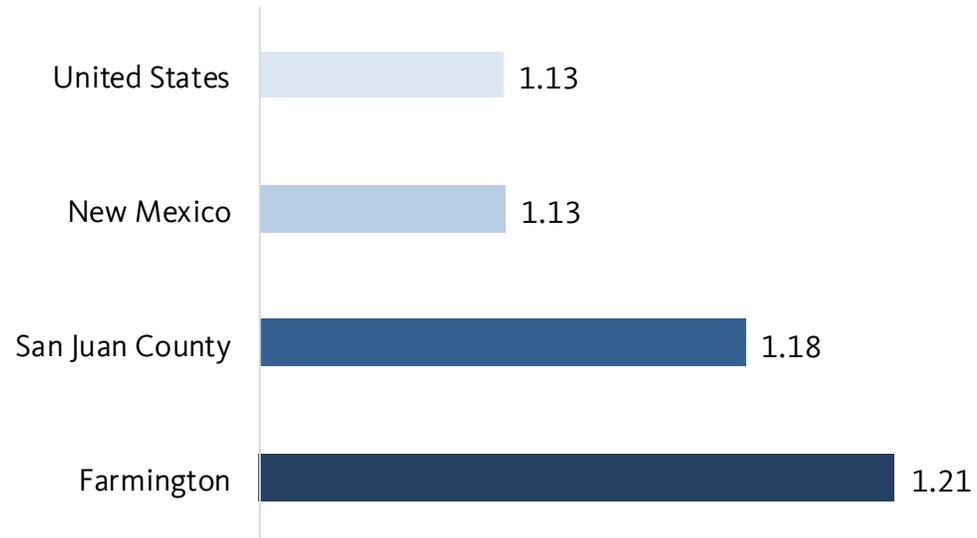
Home to many different residents, Farmington’s population is more diverse than San Juan County, the rest of New Mexico, and the nation as a whole.

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

Note that the diversity score describes the city 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 60 and 61.

The city is relatively diverse compared to the broader region

Diversity Score, 2014



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

# Demographics

## Demographic change varies by neighborhood

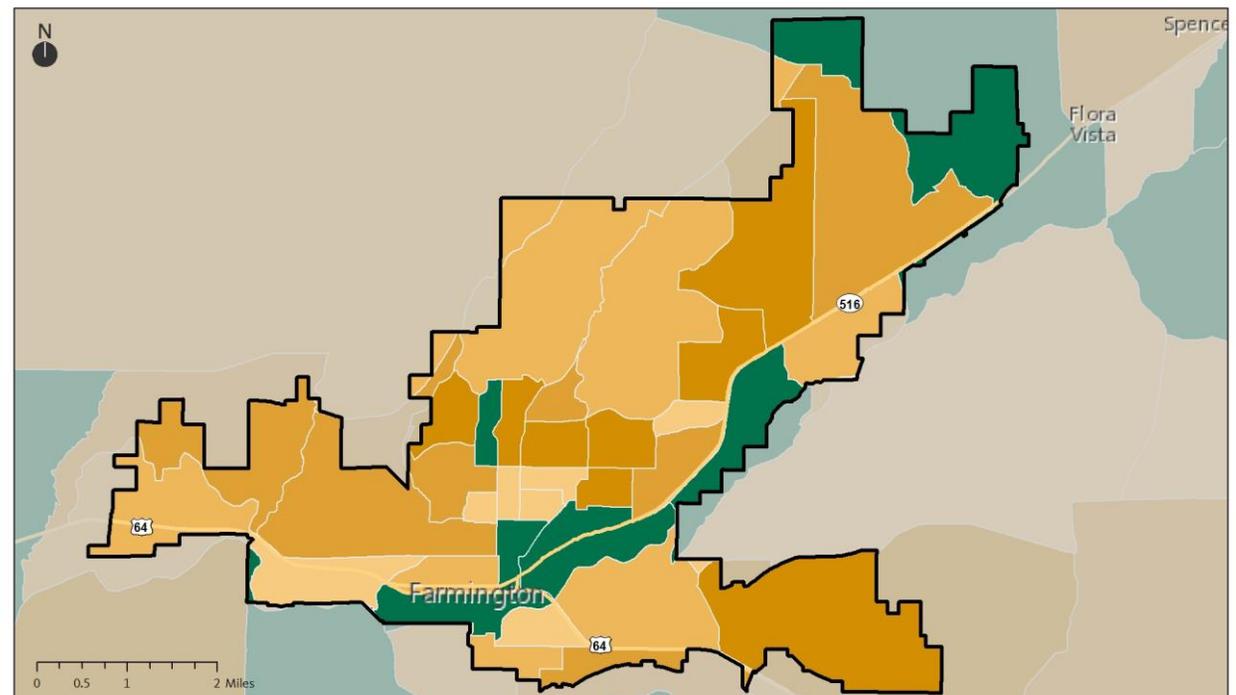
Mapping the growth in people of color by census block group illustrates variation in growth and decline in communities of color throughout the city. The map highlights how the population of color has significantly increased in most areas in Farmington, with a few exceptions.

Areas highlighted in green include neighborhoods in which the people of color population has declined or seen no growth over the last decade. This is largely observed along route 516 in the southern half of Farmington city.

### Significant increases in population of people of color for most of Farmington city

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

- Decline or no population growth
- Less than 26% increase
- 26% to 62% increase
- 62% to 133% increase
- 133% increase or more



Source: U.S. Census Bureau, Geolytics, Inc.; TomTom, ESRI, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community. Note: One should keep in mind when viewing this map and others that display a share or rate that while there is wide variation in the size (land area) of the census block groups in the region, each has a roughly similar number of people. Thus, 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

## Latino population is dispersing while Native Americans are growing in the central part of the city

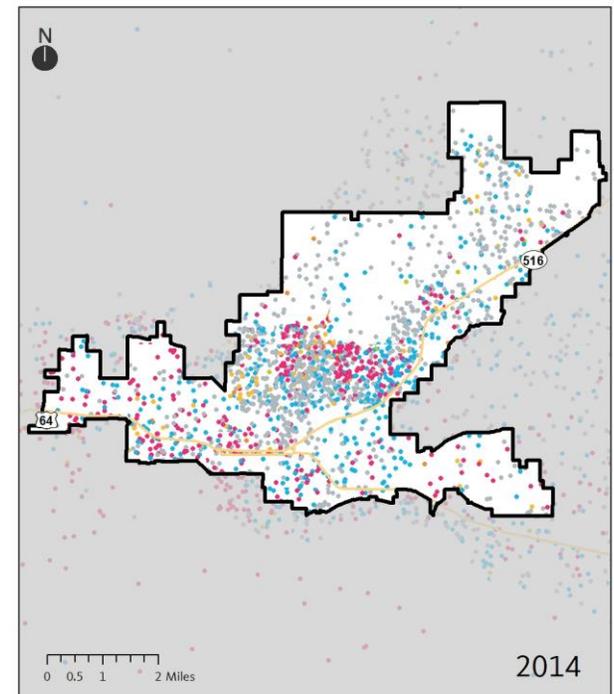
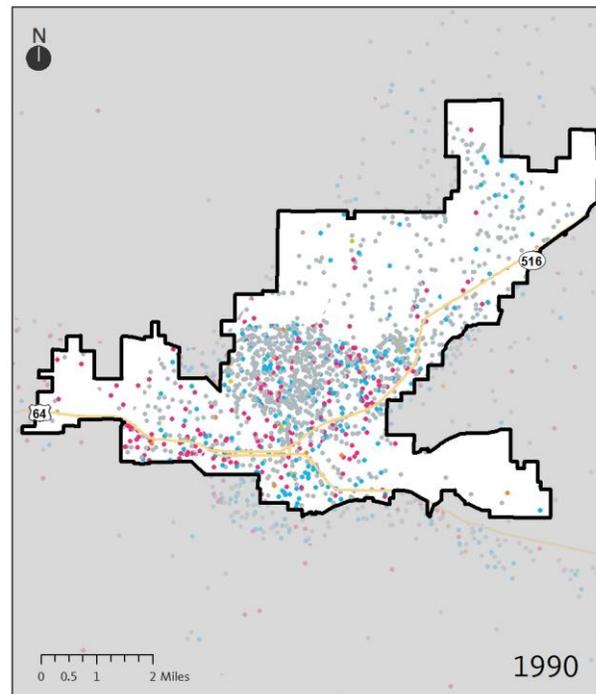
As the city's population size and demographic make up have shifted, where residents live in relation to one another has also changed.

Since 1990, there has been notable geographic movement among White, Latinos, and Native Americans. The White and Latino populations have spread outside of the center of the city, while Native Americans are now more concentrated there.

### Significant increase in Native and Latino populations throughout the city

#### 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, MapmyIndia, © OpenStreetMap contributors, and the GIS user community. Note: Data for 2014 represents a 2010 through 2014 average.

# Demographics

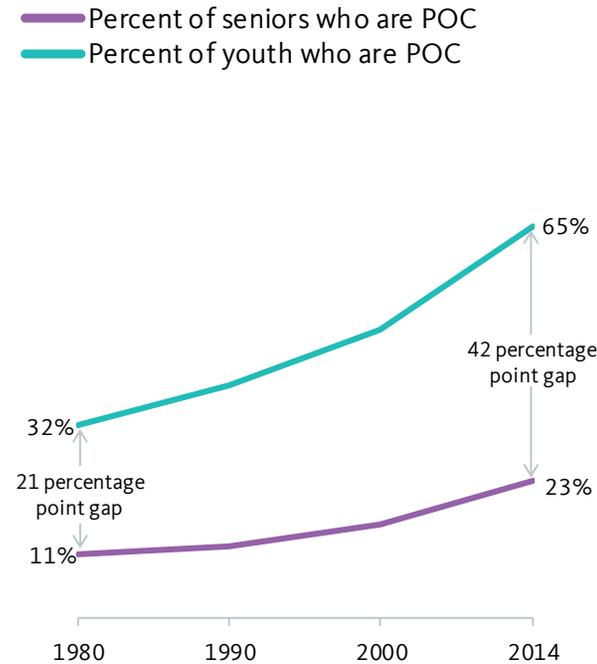
## 65 percent of the city's youth are people of color

Youth are leading the demographic shift occurring in the city. Today, 65 percent of Farmington's youth (under age 18) are people of color, compared with 23 percent of the city's seniors (over age 64). This 42-percentage point difference between the share of people of color among young and old can be measured as the racial generation gap.

The city's growing population of people of color is much more youthful than its White population. The median age of residents who are Latino is 25, which is significantly less than the median age of 43 for the White population. Similarly, the median age of Native American residents is 16 years younger than that of White residents.

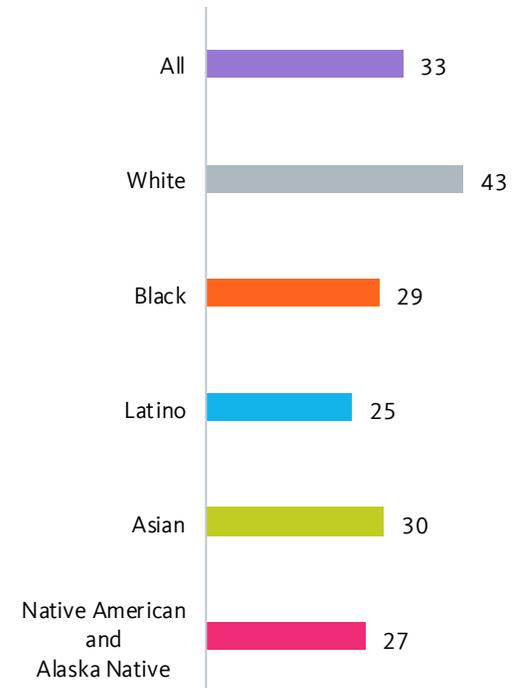
The racial generation gap helps to illustrate the necessity of seniors investing in the educational systems and community infrastructure needed to support a youth population, and especially one that is more racially diverse.

**The city's generation gap has doubled**  
**Percent People of Color (POC) by Age Group, 1980 to 2014**



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

**Residents of color tend to be significantly younger than their White peers**  
**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.

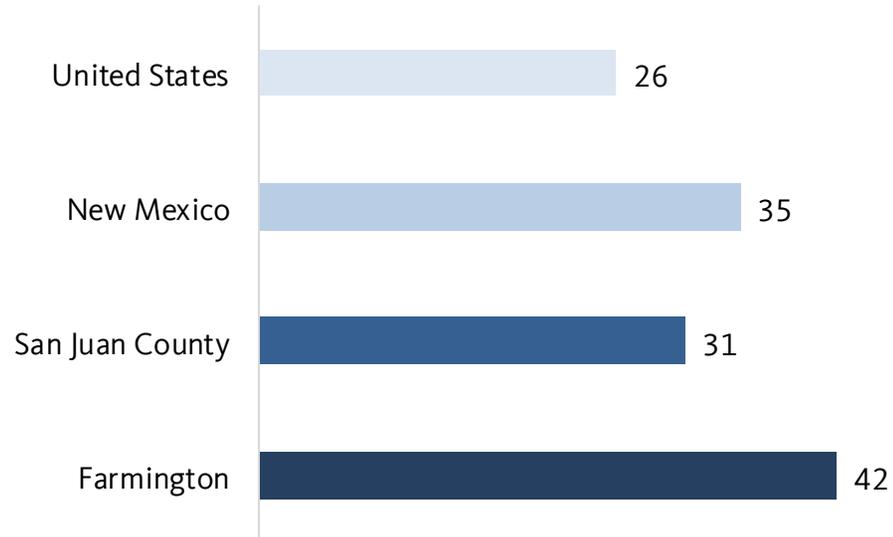
# Demographics

## The city's racial generation gap is relatively large

Farmington's 42-percentage point racial generation gap is larger than that of San Juan County, the state of New Mexico, and the nation as a whole.

**Farmington has a relatively large racial generation gap**

**The Racial Generation Gap, 2014**



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

# Economic vitality



# Economic vitality

## Highlights

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

- San Juan County has experienced similar growth in gross regional product since 1979 as the nation overall, but faster job growth.
- Despite this growth, Native American residents in Farmington are more likely to be unemployed than any other racial/ethnic group.
- Real household incomes have fallen for those in the bottom half of the income distribution since 1979, while there have been modest increases at the top.

Percentage of total household income going to the top 20 percent:

50%

Share of Native Americans living in poverty:

29%

Share of Farmington workers who are working poor:

14%

# Economic vitality

## Strong long-term job growth

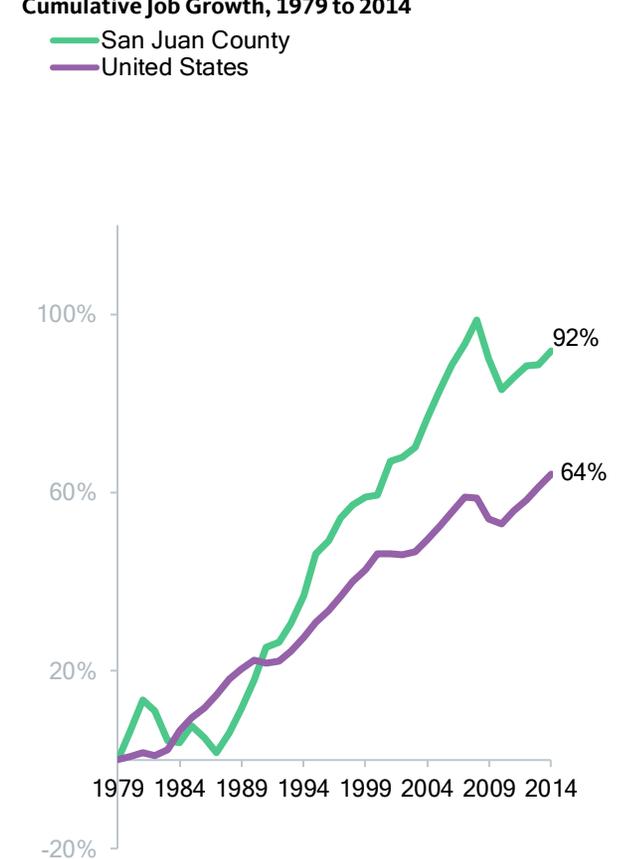
As compared to the rest of the country, San Juan County's economic vitality has fluctuated significantly over the past three decades. Economic growth, as measured by increases in jobs and gross regional product (GRP) – the value of all goods and services produced within the county – is about the same as the national average. Conversely, job growth in the county has consistently been higher than that of the nation since 1990. Currently, job growth is 28 percentage points higher than the nation as a whole.

**Fluctuating gross regional product**  
**Cumulative Growth in Real GRP, 1979 to 2014**



Source: U.S. Bureau of Economic Analysis.

**Job growth in the city is stronger than the nation as a whole**  
**Cumulative Job Growth, 1979 to 2014**



Source: U.S. Bureau of Economic Analysis.

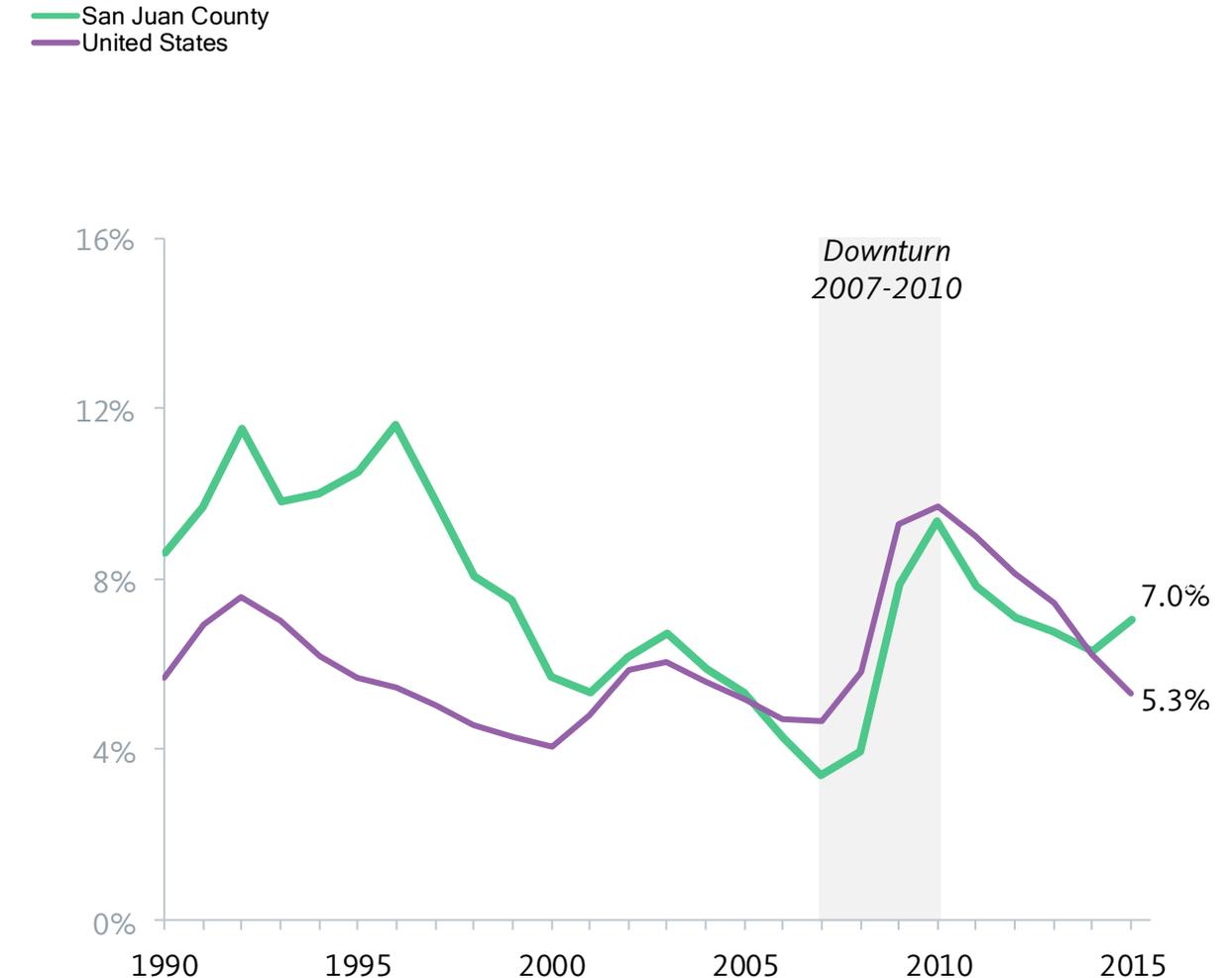
# Economic vitality

## Unemployment is high despite recovery

Unemployment is higher today in San Juan County compared with the national average. Unemployment in San Juan County peaked in 1996 at 11.6 percent, more than double the national rate at the time (5.5 percent). During the economic downturn (2007-2010), unemployment in the county mirrored that of the country, spiking in 2009 and 2010. However, despite the decrease in unemployment between 2012 and 2014, it jumped back up to 7 percent in 2015 and is now higher than the national average.

Unemployment has dropped significantly since 2010

Unemployment Rate, 1990 to 2015



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

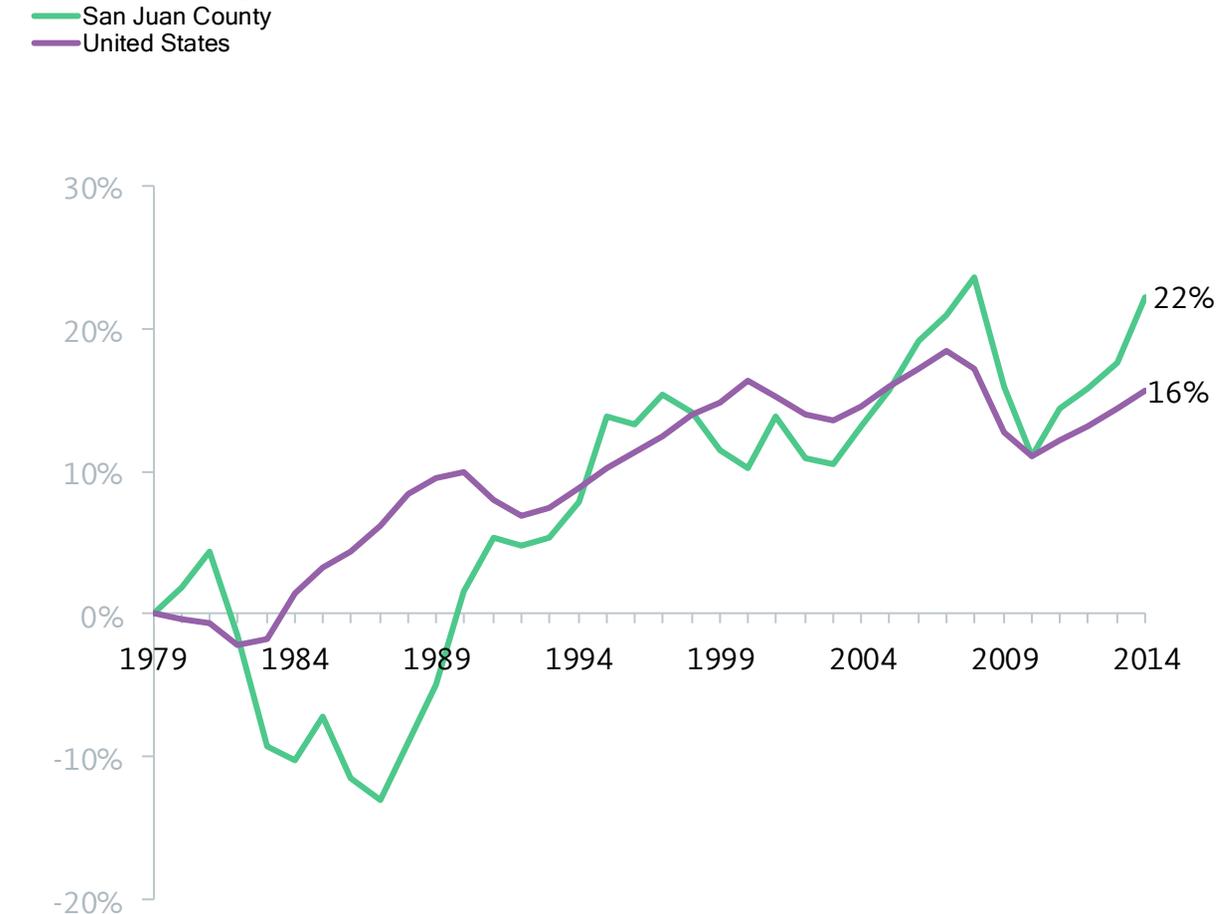
# Economic vitality

## Job growth is keeping up with population growth

Overall job growth in San Juan County has been positive. Similarly, the rate of job creation as compared to the number of residents living in the county has been stronger than the nation as a whole since 2011. The county is 28 percentage points higher than the national average in job growth, and six percentage points higher in its jobs-to-population ratio.

Job growth relative to population growth is higher than the national average

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



Source: U.S. Bureau of Economic Analysis.

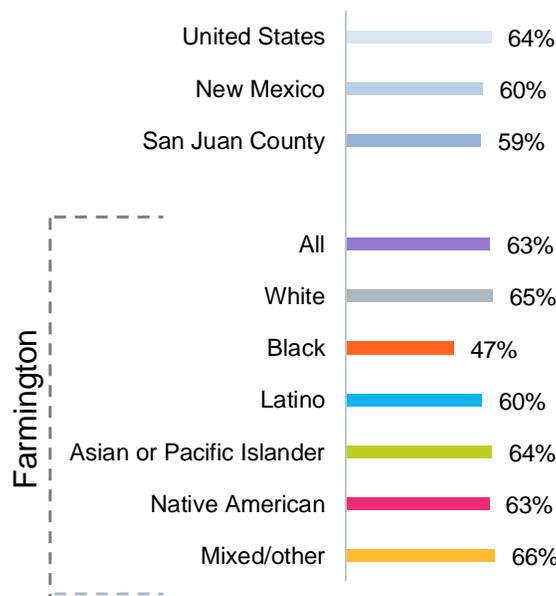
# Economic vitality

## Unemployment lowest for Latinos

Sixty-three percent of Farmington residents between ages 25 and 64 are participating in the labor force. However, the labor participation rate for African American residents is much lower, at 47 percent. The city's overall unemployment rate is 7 percent, as compared to 10 percent for the state and nine percent nationally. Native American residents are more likely to be unemployed than every other racial/ethnic group.

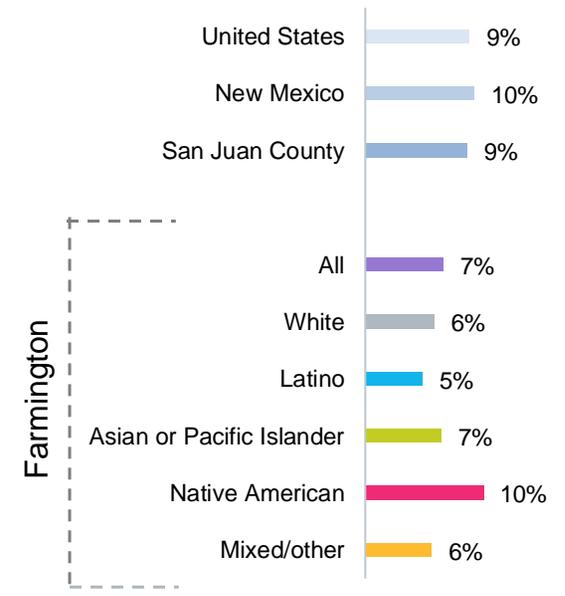
The overall unemployment rate for San Juan County presented here is higher, and less current, than that reported on page 26, and this is due to the different time period covered (there was a rapid decline in unemployment leading up to 2015), and the different data source used – the 2014 5-year American Community Survey (ACS). However, the ACS allows us to examine unemployment by race/ethnicity in the county, and when we do, we find that Native American residents are most likely to be unemployed compared to other ethnic groups.

**African Americans have the lowest rate of labor force participation**  
**Labor Force Participation 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.

**Native American residents are twice as likely to be unemployed compared to Latino residents**  
**Unemployment Rate by Race/Ethnicity, 2014**



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. Data for some racial/ethnic groups are not available due to small sample size.

# Economic Vitality

## Unemployment concentrated in or near communities of color

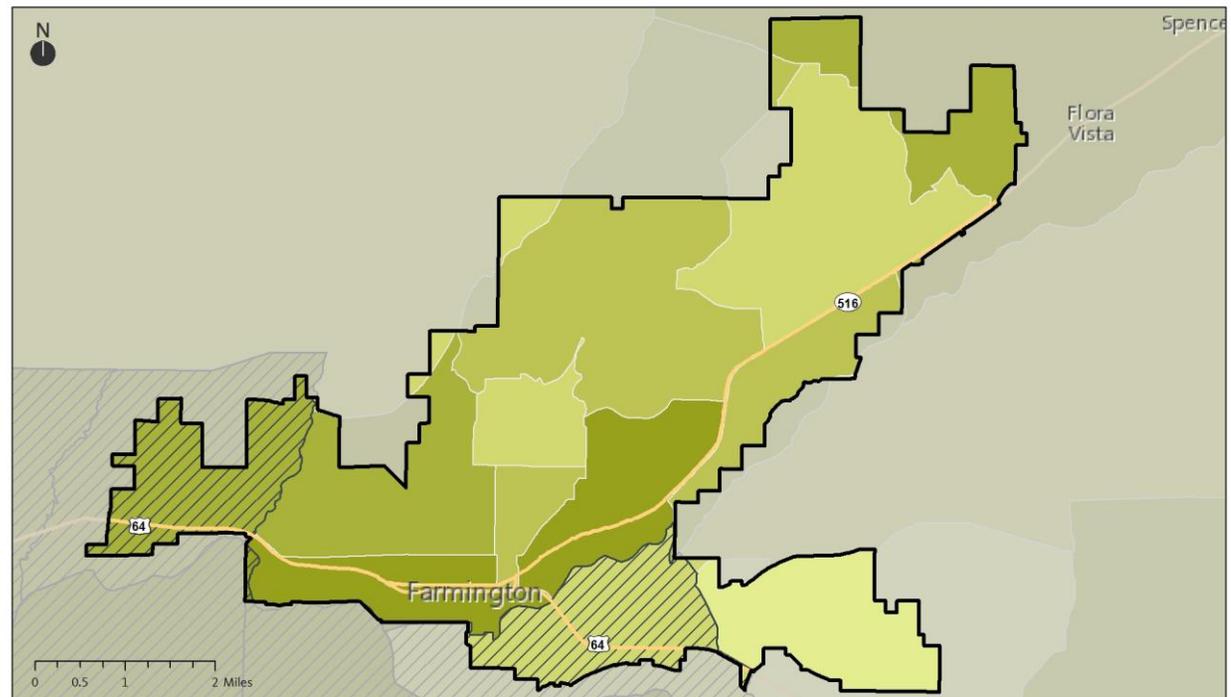
Knowing where high-unemployment communities are located in the city can help the city’s leaders develop targeted solutions.

Areas in the southwestern and northeastern parts of the city have unemployment rates that are at least 8 percent or higher.

### Unemployment concentrated near the southwest part of the city

#### Unemployment Rate by Census Tract, 2014

- Less than 3%
  - 3% to 5%
  - 5% to 8%
  - 8% to 11%
  - 11% or more
- 65% or more people of color



Source: U.S. Census Bureau; TomTom, ESRI, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community. Universe includes the civilian noninstitutional labor force age 16 and older. Note: Data represent a 2010 through 2014 average.

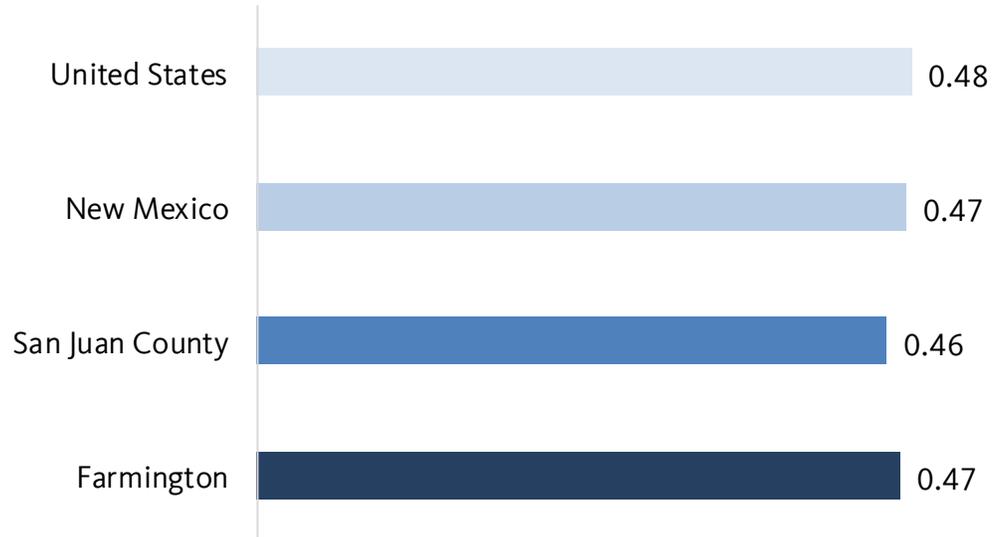
# Economic vitality

## Income inequality is comparable to state and nation

Farmington has a similar level of income inequality as San Juan County, the state of New Mexico, and the U.S. as a whole.

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

Farmington residents are as likely to experience income inequality as those in the county and state  
The Gini Coefficient, 2014



Source: U.S. Census Bureau. Universe includes all households (no group quarters).  
Note: Data represents a 2010 through 2014 average.

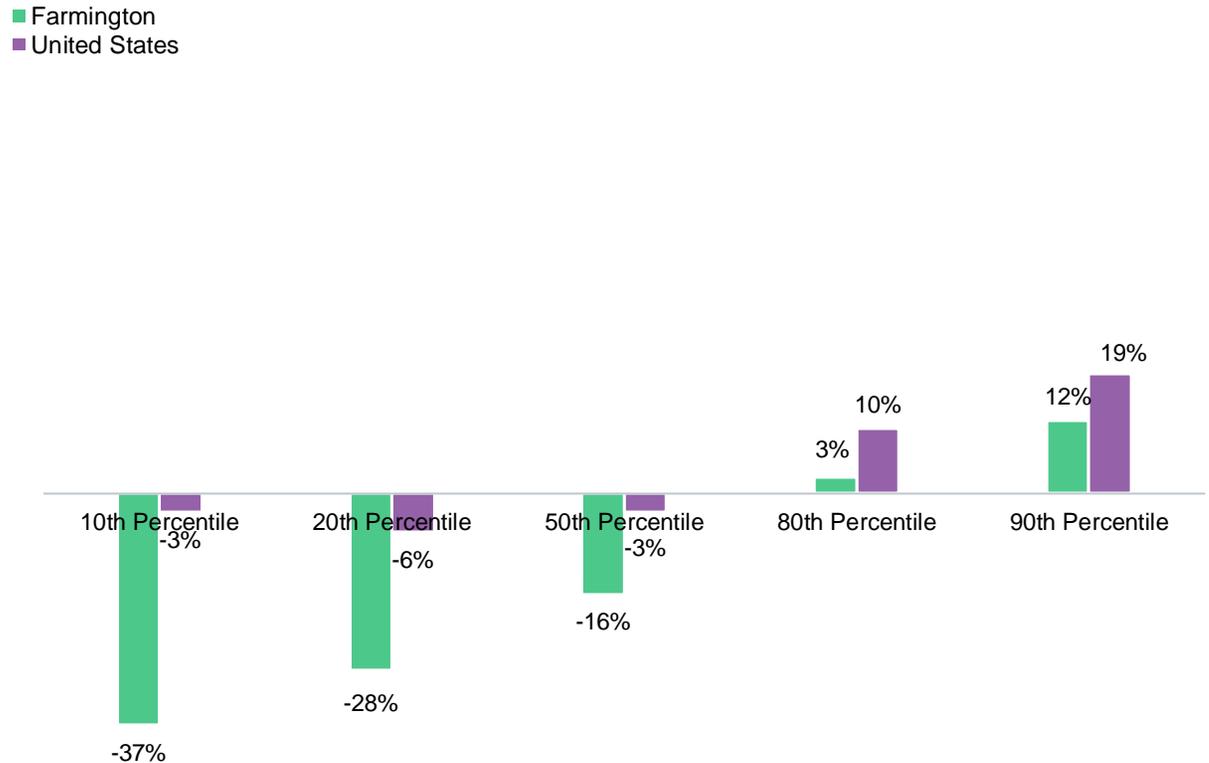
# Economic vitality

## Declining income for those with lowest income

After adjusting for inflation, incomes have declined for the bottom half of the city's households since 1979. However, the highest-income households have only seen slight increases in income. Households at the 80<sup>th</sup> percentile only saw 3 percent of growth and at the 90<sup>th</sup> percentile, 12 percent of growth since 1979. Declines have been most striking for the poorest households who have seen their incomes drop by 37 percent – more than twice the decline seen for households at the 50<sup>th</sup> percentile.

### Household income declined across the bottom half of the income distribution

Real Household Income Growth, 1979 to 2014



Source: U.S. Census Bureau. Universe includes all households (no group quarters).

Note: Data for 2014 represent a 2010 through 2014 average. Percentile values are estimated using Pareto interpolation.

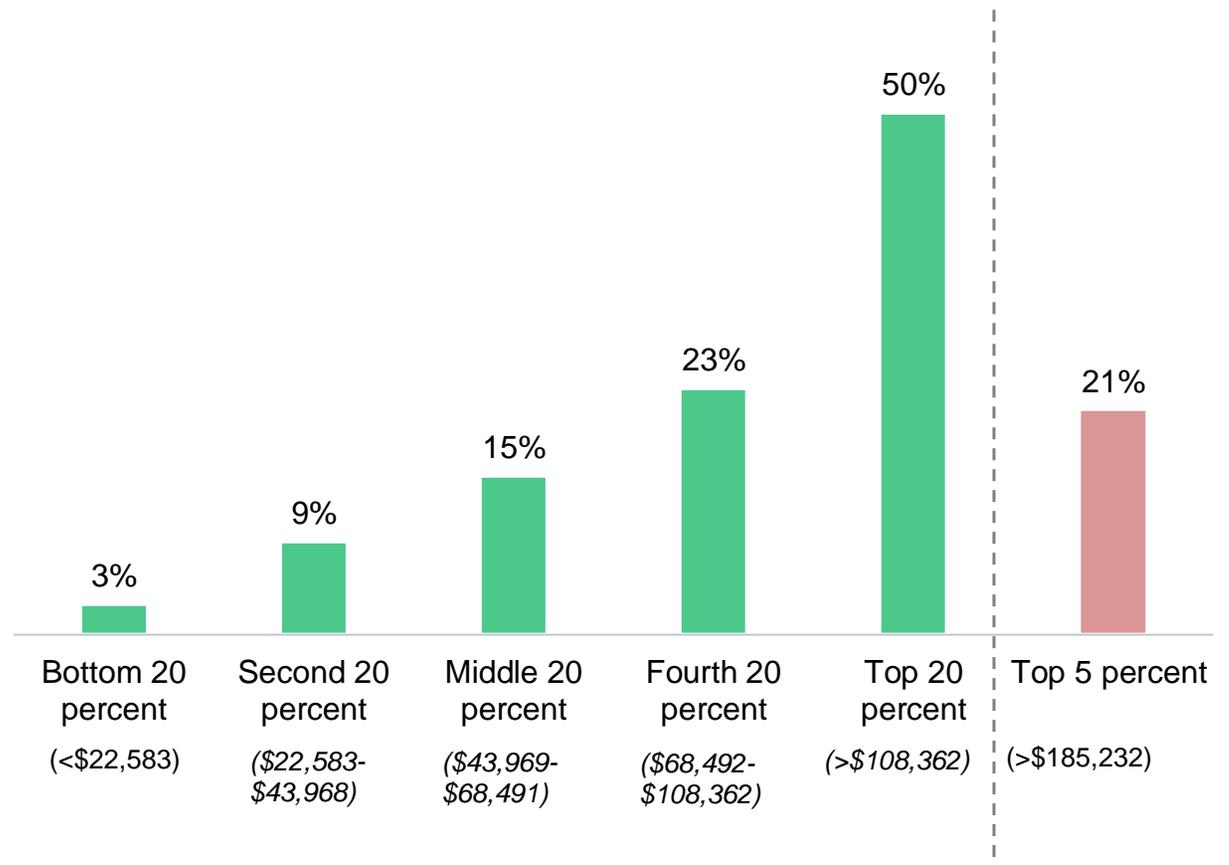
# Economic vitality

## Income heavily concentrated among wealthiest households

Income distribution is skewed amongst Farmington residents. The wealthiest 20 percent of city households take home half of all income earned in the city, earning more than \$108,362 annually. The wealthiest 5 percent take home more than 20 percent of all income – these household incomes exceed \$185,232, which is more than double the upper bound of household incomes for the middle 20<sup>th</sup> percent of city residents. The poorest 40 percent of households collectively earn 12 percent of the city’s total income.

Over one-fifth of income goes to the top five percent of households

Aggregate Household Income by Quantile, 2014



Source: U.S. Census Bureau. Universe includes all households (no group quarters).  
 Note: Data represent a 2010 through 2014 average. Dollar values are in 2014 dollars.

# Economic vitality

## Households of color are underrepresented among high earners

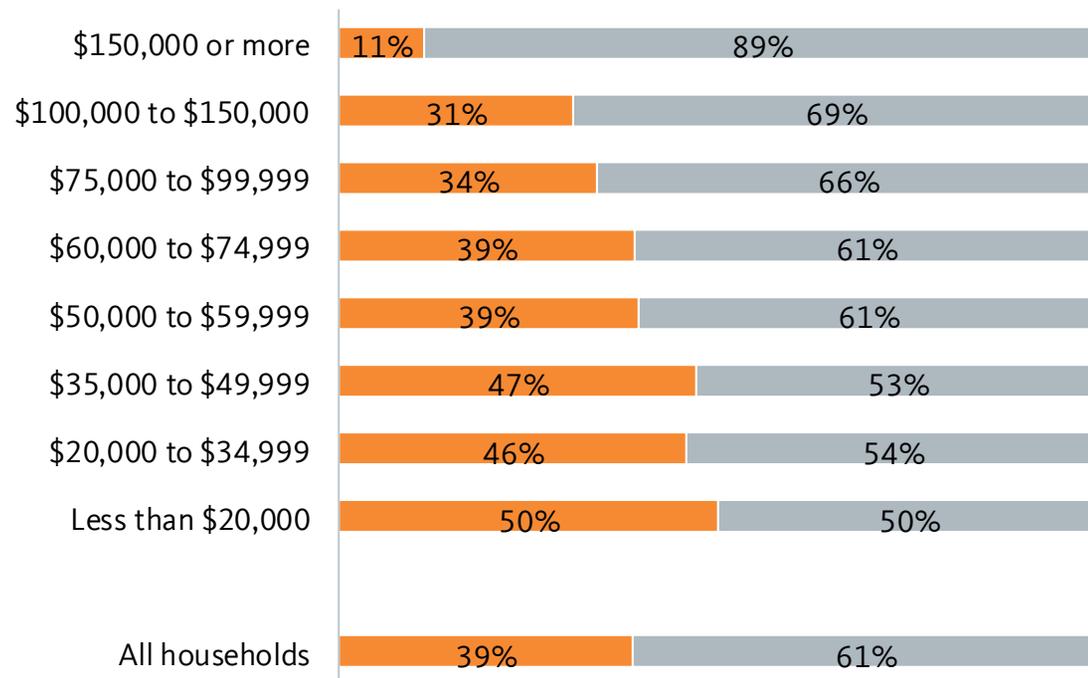
Income inequality overlaps with racial inequity in Farmington. Households headed by people of color are highly underrepresented among the city’s wealthiest households. Households of color represent close to half of those among the poorest households.

In 2014, people of color headed 39 percent of the city’s households. However, only 11 percent of households earning above \$150,000 is headed by a person of color. Meanwhile, half of households earning less than \$20,000 annually are headed by a person of color.

The middle class reflects the city's racial/ethnic composition

Racial Composition of Households by Income Level, 2014

- White
- People of Color



Source: U.S. Census Bureau. Universe includes all households (no group quarters).  
 Note: Data represent a 2010 through 2014 average. Dollar values are in 2014 dollars.

# Economic vitality

## Latina and Native American women have the lowest earnings

Farmington’s residents experience marked disparities in median earnings depending upon their race and gender. Although gender disparity is present, Black men and Asian women earn higher median wages than any other group of residents in the county.

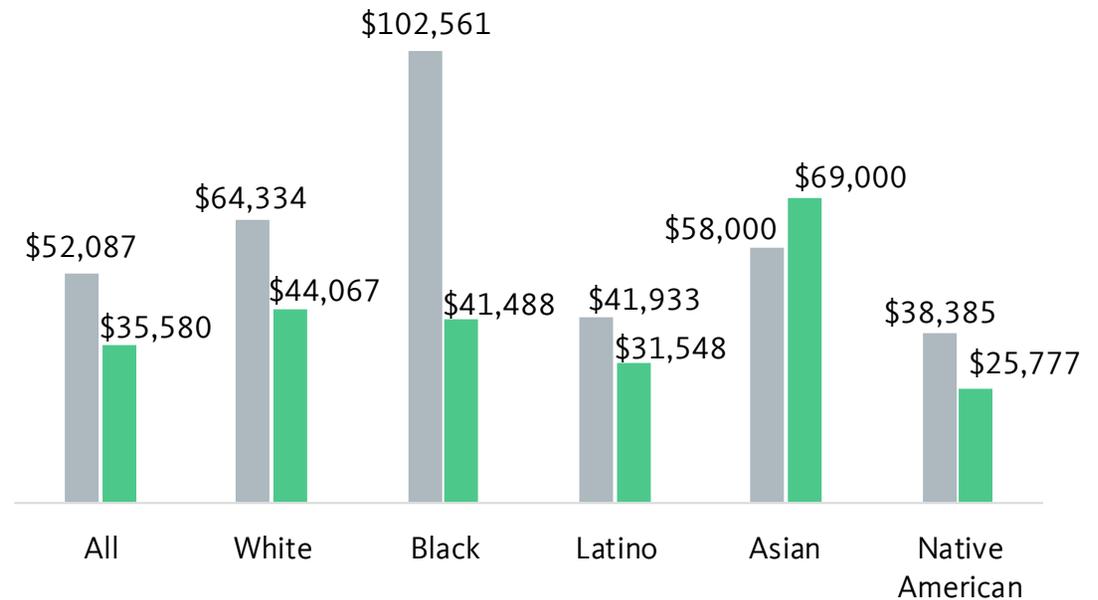
The median incomes for Native and Latina women are less than half of that of Asian women living in the city.

This trend is worse among men of color working in the city. The median income for Native American men working in the city is close to 40 percent of Black men. Similarly, Latino men are likely to earn almost \$20,000 less than half of the median income of White men.

Median earnings are highest for Black men and Asian women

Median Earnings by Race/Ethnicity and Gender, 2014

■ Male  
■ Female



Source: U.S. Census Bureau. Universe includes full-time workers with earnings age 16 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. Values are in 2014 dollars.

# Economic vitality

## Notable disparities in poverty by race

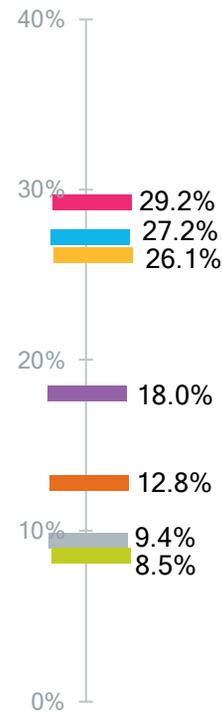
Farmington city residents' likelihood of living in poverty varies by race. With poverty rates of 29 and 27 percent respectively, Native American and Latino residents are almost three times as likely to live in poverty than White residents.

This trend is consistent for child poverty. Thirty-nine percent of Native American children and 36 percent of Latino children are poor, as compared to 8 percent of White children.

### Native American and Latino residents are almost three times as likely to be poor than White residents

Poverty Rate by Race/Ethnicity, 2014

- All
- White
- Black
- Latino
- Asian or Pacific Islander
- Native American
- Mixed/other

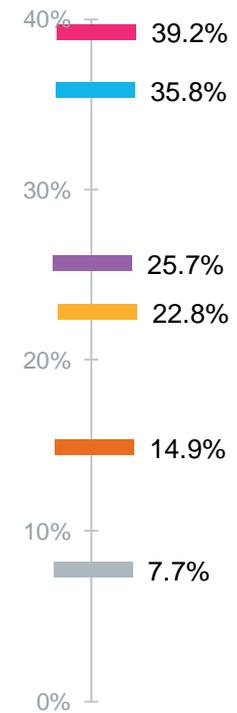


Source: U.S. Census Bureau. Universe includes all persons not in group quarters. Note: "White" is defined as non-Hispanic White and "Latino" includes all who identify as being of Hispanic origin. All other racial/ethnic groups include any Latinos who identify with that particular racial category. Data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

### Over one-third of Native American and Latino children live in poverty

Child Poverty Rate by Race/Ethnicity, 2014

- All
- White
- Black
- Latino
- Asian or Pacific Islander
- Native American
- 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.

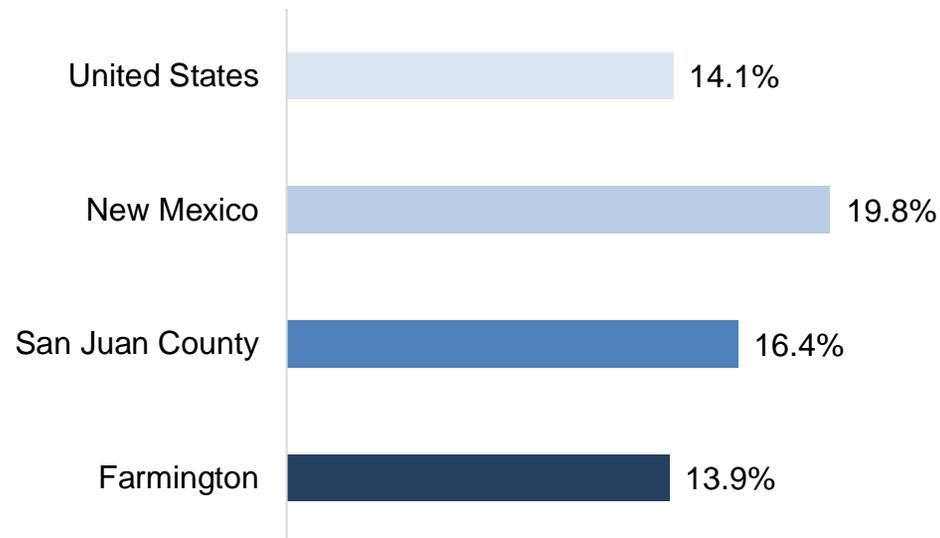
# Economic vitality

## Lower working poverty than the state average

Despite working full time, 14 percent of Farmington workers live below 150 percent of poverty. However, Farmington's working-poverty rate is less than San Juan County's and the state of New Mexico's. Working poor is defined here as workers age 16 or older with a family income below 150 percent of the federal poverty level.

Farmington workers are less likely to be working and poor than workers in New Mexico

Working-Poverty Rate, 2014



Source: U.S. Census Bureau. Universe includes workers age 16 or older not in group quarters.  
Note: Data represent a 2010 through 2014 average.

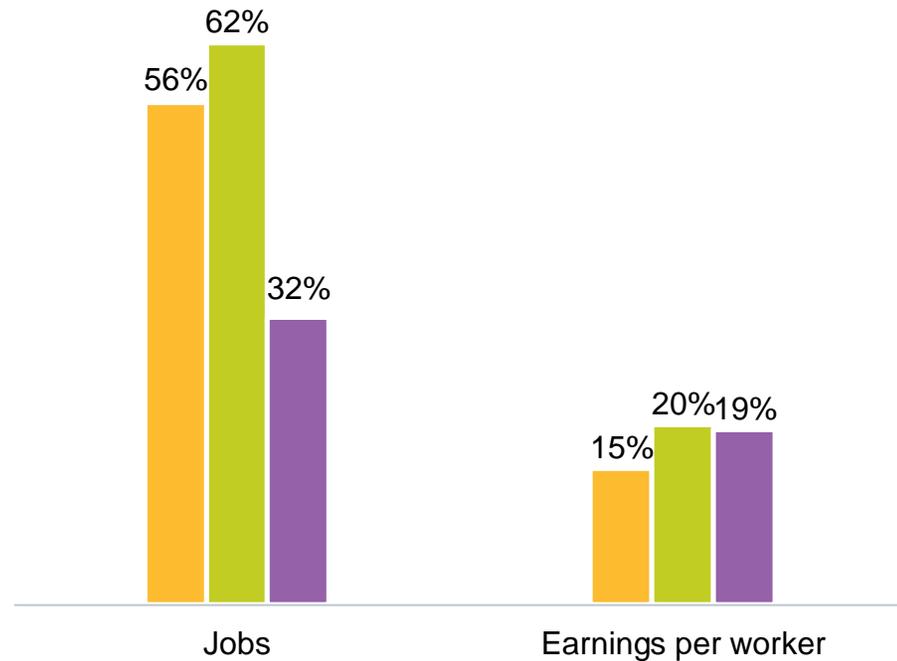
# Economic vitality

## Earnings have increased across wage categories

In San Juan County, low- and middle-wage jobs have seen the most growth. Although earnings have increased modestly for workers at all wage levels since 1990, low-wage workers have seen the least growth: 15 percent. Middle-wage and high-wage workers have seen earnings increases of 20 percent and 19 percent, respectively.

**Low and Middle- wage jobs have seen the most growth**  
**Growth in Jobs and Earnings by Industry Wage Level, 1990 to 2015**

- Low wage
- Middle wage
- High wage



Source: U.S. Bureau of Labor Statistics; Woods & Poole Economics, Inc. Universe includes all private sector jobs covered by the federal Unemployment Insurance (UI) program. Note: Data is for San Juan County, NM.

# Economic vitality

## Wage growth across all industry sectors except professional, scientific, and technical services

Earnings growth in San Juan County between 1990 and 2015 has tended to be faster among middle-wage jobs. However, there were noticeable gaps in wage growth between industries. While workers in the real estate and rental and leasing industries experienced income increases of 43 percent, growth in education services, agricultural, forestry, fishing and hunting jobs was limited to 7 percent.

This trend was also true for low-wage industries. Incomes for workers in retail, agriculture, forestry, fishing, and hunting saw a 4 percent growth in earnings, while workers in arts, entertainment, and recreation saw a 31 percent increase.

**Largest gains can be found in the utilities industry**  
**Industries by Wage-Level Category, 1990 and 2015**

Wage Category	Industry	Average Annual Earnings	Average Annual Earnings	Percent Change in Earnings	Share of Jobs
		1990	2015	1990-2015	2015
High	Utilities	\$74,207	\$109,091	47%	31%
	Mining	\$66,248	\$83,382	26%	
	Transportation and Warehousing	\$50,543	\$51,144	1%	
	Professional, Scientific, and Technical Services	\$44,362	\$43,023	-3%	
	Wholesale Trade	\$42,783	\$53,465	25%	
	Manufacturing	\$38,857	\$46,123	19%	
Middle	Construction	\$38,514	\$49,095	27%	33%
	Health Care and Social Assistance	\$37,756	\$42,576	13%	
	Management of Companies and Enterprises	\$36,173	\$47,317	31%	
	Finance and Insurance	\$34,773	\$40,991	18%	
	Real Estate and Rental and Leasing	\$31,898	\$45,539	43%	
	Information	\$30,558	\$34,542	13%	
	Education Services	\$29,604	\$31,742	7%	
Low	Retail Trade	\$26,726	\$33,389	25%	36%
	Other Services (except Public Administration)	\$26,690	\$32,249	21%	
	Administrative and Support and Waste Management and Remediation Services	\$26,506	\$30,205	14%	
	Agriculture, Forestry, Fishing and Hunting	\$23,474	\$24,517	4%	
	Arts, Entertainment, and Recreation	\$14,088	\$18,464	31%	
	Accommodation and Food Services	\$12,512	\$15,061	20%	

Source: U.S. Bureau of Labor Statistics; Woods & Poole Economics, Inc. Note: Data is for San Juan County, NM. Universe includes all private sector jobs covered by the federal Unemployment Insurance (UI) program. Note: Dollar values are in 2015 dollars.

# Economic vitality

## Health care and social assistance projected to add the most jobs

The broader Farmington region is projected to add over 4,360 jobs to the region between 2014 and 2024. More than 1,500 of these jobs will be in the health care and social assistance industry. About 750 jobs will be added through educational services, with approximately another 630 added through accommodation and food services.

### New jobs projected in health care and educational services Industry Employment Projections, 2014 to 2024

Industry	2014 Estimated Employment	2024 Projected Employment	Total 2014 to 2024 Employment Change	Annual Avg. Percent Change	Total Percent Change
Health Care & Social Assistance	7,266	8,774	1,508	2.1%	21%
Educational Services	5,100	5,857	757	1.5%	15%
Accommodation & Food Services	4,293	4,928	635	1.5%	15%
Professional, Scientific & Technical Services	971	1,093	122	1.3%	13%
Administrative & Support & Waste Management & Remediation Services	1,160	1,254	94	0.8%	8%
Arts, Entertainment & Recreation	774	833	59	0.8%	8%
Construction	3,559	3,822	263	0.7%	7%
Other Services (Ex. Public Administration)	1,246	1,333	87	0.7%	7%
Utilities	912	956	44	0.5%	5%
Retail Trade	6,277	6,568	291	0.5%	5%
Real Estate & Rental & Leasing	500	520	20	0.4%	4%
Management of Companies & Enterprises	252	262	10	0.4%	4%
Finance & Insurance	896	931	35	0.4%	4%
Transportation & Warehousing	1,388	1,437	49	0.4%	4%
Wholesale Trade	1,813	1,874	61	0.3%	3%
Government	5,269	5,397	128	0.2%	2%
Mining, Quarrying & Oil & Gas Extraction	6,723	6,772	49	0.1%	1%
Manufacturing	1,320	1,299	-21	-0.2%	-2%
Agriculture, Forestry, Fishing & Hunting	243	238	-5	-0.2%	-2%
Information	250	243	-7	-0.3%	-3%
Self-Employment & Unpaid Family Workers	3,054	3,239	185	0.6%	6%
<b>Total, All Industries</b>	<b>53,266</b>	<b>57,630</b>	<b>4,364</b>	<b>0.8%</b>	<b>8%</b>

Source: New Mexico Department of Workforce Solutions.  
Note: Data is for Farmington Metropolitan Statistical Area.

# Economic vitality

## Most jobs projected to be added to personal care and food preparation and serving related occupations

Of the roughly 4,360 jobs to be added to the Farmington region in the coming years, personal care and service occupations, food preparation and serving occupations, and education, training and library occupations will contribute the most, adding almost 1,800 jobs.

**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**

Occupation	2014 Estimated Employment	2024 Projected Employment	Total 2014 to 2024 Employment Change	Annual Avg. Percent Change	Total Percent Change
Personal Care & Service Occupations	2,497	3,154	657	2.6%	26%
Healthcare Support Occupations	1,125	1,323	198	1.8%	18%
Education, Training & Library Occupations	3,316	3,852	536	1.6%	16%
Community & Social Service Occupations	956	1,092	136	1.4%	14%
Food Preparation & Serving Related Occupations	4,243	4,845	602	1.4%	14%
Computer & Mathematical Occupations	250	283	33	1.3%	13%
Healthcare Practitioners & Technical Occupations	2,510	2,831	321	1.3%	13%
Building & Grounds Cleaning & Maintenance Occupations	1,575	1,734	159	1.0%	10%
Business & Financial Operations Occupations	1,188	1,288	100	0.8%	8%
Installation, Maintenance & Repair Occupations	3,361	3,611	250	0.7%	7%
Life, Physical & Social Science Occupations	277	296	19	0.7%	7%
Management Occupations	2,596	2,773	177	0.7%	7%
Arts, Design, Entertainment, Sports & Media Occupations	316	337	21	0.7%	7%
Protective Service Occupations	1,316	1,402	86	0.7%	7%
Sales & Related Occupations	5,336	5,630	294	0.6%	6%
Transportation & Material Moving Occupations	3,765	3,970	205	0.5%	5%
Legal Occupations	130	136	6	0.5%	5%
Construction & Extraction Occupations	7,418	7,685	267	0.4%	4%
Office & Administrative Support Occupations	7,252	7,479	227	0.3%	3%
Production Occupations	2,953	3,032	79	0.3%	3%
Architecture & Engineering Occupations	710	707	-3	0.0%	0%
Farming, Fishing & Forestry Occupations	176	170	-6	-0.3%	-3%
<b>Total, All Occupations</b>	<b>53,266</b>	<b>57,630</b>	<b>4,364</b>	<b>0.8%</b>	<b>8%</b>

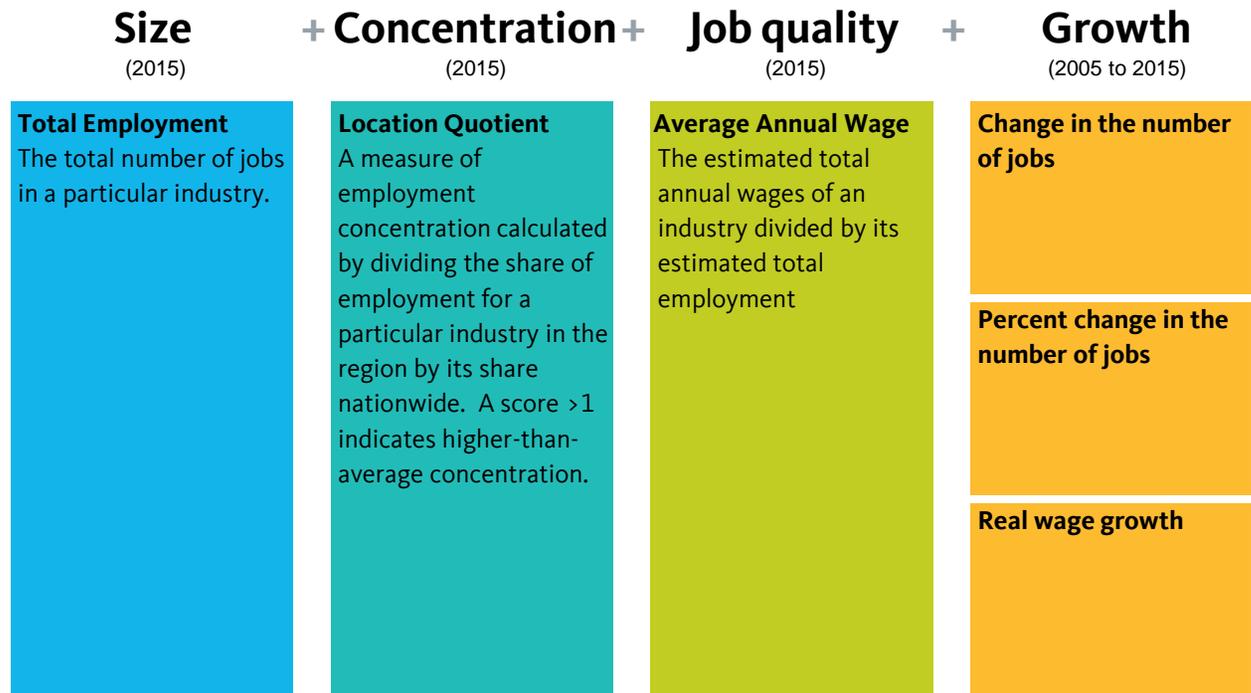
Source: New Mexico Department of Workforce Solutions.  
 Note: Data is for Farmington Metropolitan Statistical Area.

# Economic vitality

## Identifying the region’s strong industries

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

### Industry strength index =



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

# Economic vitality

## Mining and health care dominate

According to the industry strength index, San Juan County’s strongest industries are mining, health care and social assistance. This is due to strong concentration of jobs in the county and a high rate of growth. Utilities is the third strongest industry in the county with the highest average annual wage at \$109,091 – a 15 percent increase between 2005 and 2015. Utilities occupations are an example of

high-wage jobs that have skewed incomes in the county. Although this is a high-paying job, it is relatively inaccessible given the decrease in jobs in the last 10 years.

Transportation and warehousing are strong and expanding in the county

Industry	Size	Concentration	Job Quality	Growth			Industry Strength Index
	Total employment (2015)	Location Quotient (2015)	Average annual wage (2015)	Change in employment (2005 to 2015)	% Change in employment (2005 to 2015)	Real wage growth (2005 to 2015)	
Mining	6,046	22.3	\$83,382	970	19%	13%	216.2
Health Care and Social Assistance	6,652	1.0	\$42,576	1,794	37%	7%	77.5
Utilities	852	4.3	\$109,091	-437	-34%	15%	61.0
Retail Trade	6,340	1.1	\$33,389	234	4%	19%	34.9
Construction	3,778	1.6	\$49,095	-124	-3%	19%	23.4
Wholesale Trade	1,705	0.8	\$53,465	31	2%	3%	-3.4
Transportation and Warehousing	1,402	0.8	\$51,144	66	5%	-3%	-11.6
Accommodation and Food Services	4,533	1.0	\$15,061	-55	-1%	18%	-11.8
Manufacturing	1,245	0.3	\$46,123	-342	-22%	18%	-21.6
Finance and Insurance	914	0.4	\$40,991	61	7%	3%	-24.5
Real Estate and Rental and Leasing	540	0.7	\$45,539	8	2%	0%	-26.5
Agriculture, Forestry, Fishing and Hunting	233	0.5	\$24,517	91	64%	-4%	-33.6
Professional, Scientific, and Technical Services	993	0.3	\$43,023	-152	-13%	-1%	-36.5
Administrative and Support and Waste Management and Remediation Services	1,145	0.4	\$30,205	-85	-7%	10%	-37.6
Management of Companies and Enterprises	267	0.3	\$47,317	5	2%	-16%	-42.0
Other Services (except Public Administration)	1,265	0.8	\$32,249	-399	-24%	7%	-45.7
Education Services	335	0.3	\$31,742	-17	-5%	-2%	-51.0
Arts, Entertainment, and Recreation	424	0.5	\$18,464	27	7%	-7%	-64.3
Information	210	0.2	\$34,542	-108	-34%	-13%	-71.7

Source: U.S. Bureau of Labor Statistics; Woods & Poole Economic, Inc. Note: Data is for San Juan County, NM. Universe includes all private sector jobs covered by the federal Unemployment Insurance (UI) program. Dollar values are 2015 dollars.

# Economic vitality

## Identifying high-opportunity occupations

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

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

### Occupation opportunity index =



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

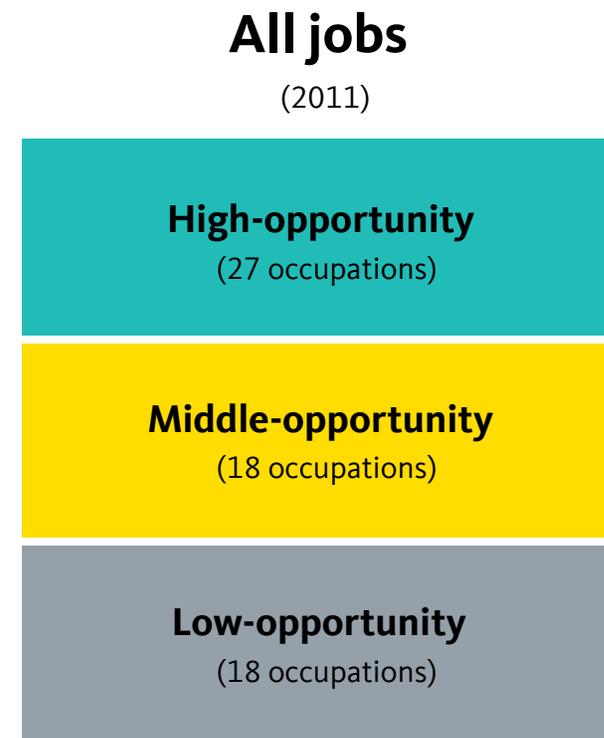
# Economic vitality

## Identifying high-opportunity occupations

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

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

Given that the regional economy has experienced widespread employment decline across many occupation groups, it is important to note that this index is only meant to provide general guidance on the strength of various occupations. Its interpretation should be informed by examining all metrics of job quality and growth.



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

# Economic vitality

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

Supervisors of production workers, vehicle and mobile equipment mechanics, installers and repairers, and supervisors of transportation and material moving workers are among high-opportunity occupations for workers with a high school diploma or less

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

Occupation	Employment (2011)	Job Quality Median Annual Wage (2011)	Growth			Occupation Opportunity Index	
			Real Wage Growth (2011)	Change in Employment (2005-11)	% Change in Employment (2005-11)		Median Age (2010)
<b>High-Opportunity</b>							
Supervisors of Production Workers	190	\$70,270	46.3%	10	5.6%	45	1.32
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	1,430	\$52,869	44.0%	640	81.0%	34	0.81
Supervisors of Transportation and Material Moving Workers	160	\$59,868	32.6%	-60	-27.3%	43	0.79
Other Installation, Maintenance, and Repair Occupations	1,270	\$47,709	58.7%	590	86.8%	39	0.78
Supervisors of Construction and Extraction Workers	610	\$57,440	19.5%	60	10.9%	47	0.72
Extraction Workers	1,770	\$44,301	27.2%	350	24.6%	30	0.22
<b>Middle-Opportunity</b>							
Other Construction and Related Workers	80	\$39,045	N/A	N/A	N/A	44	-0.02
Construction Trades Workers	2,610	\$33,655	23.0%	480	22.5%	40	-0.04
Metal Workers and Plastic Workers	690	\$38,616	11.4%	90	15.0%	35	-0.11
Supervisors of Building and Grounds Cleaning and Maintenance Workers	120	\$34,630	21.2%	-20	-14.3%	44	-0.13
Material Moving Workers	960	\$35,774	52.9%	-590	-38.1%	31	-0.16
Motor Vehicle Operators	1,930	\$33,557	15.9%	-140	-6.8%	43	-0.24
Other Production Occupations	160	\$28,996	11.3%	20	14.3%	42	-0.39
Nursing, Psychiatric, and Home Health Aides	1,150	\$21,098	2.3%	590	105.4%	45	-0.47
Other Personal Care and Service Workers	970	\$18,181	-1.2%	660	212.9%	43	-0.50
<b>Low-Opportunity</b>							
Food Processing Workers	140	\$24,947	-14.5%	80	133.3%	39	-0.62
Material Recording, Scheduling, Dispatching, and Distributing Workers	900	\$25,318	-13.0%	190	26.8%	39	-0.67
Supervisors of Food Preparation and Serving Workers	400	\$22,450	0.7%	60	17.6%	36	-0.74
Assemblers and Fabricators	50	\$24,060	-4.7%	-110	-68.8%	42	-0.79
Retail Sales Workers	3,300	\$20,445	2.4%	-110	-3.2%	39	-0.83
Grounds Maintenance Workers	390	\$19,310	-3.6%	110	39.3%	36	-0.85
Building Cleaning and Pest Control Workers	880	\$19,162	4.2%	-280	-24.1%	45	-0.86
Other Protective Service Workers	320	\$22,390	-3.8%	-250	-43.9%	40	-0.87
Cooks and Food Preparation Workers	1,170	\$18,857	6.0%	80	7.3%	29	-0.91
Personal Appearance Workers	50	\$19,270	-7.5%	-20	-28.6%	39	-0.95
Food and Beverage Serving Workers	2,070	\$17,882	21.4%	-360	-14.8%	29	-0.96
Textile, Apparel, and Furnishings Workers	110	\$18,030	N/A	N/A	N/A	45	-1.01
Other Food Preparation and Serving Related Workers	380	\$17,712	18.1%	-180	-32.1%	23	-1.03
Other Transportation Workers	60	\$19,360	N/A	N/A	N/A	36	-1.08

Source: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes all nonfarm wage and salary jobs for which the typical worker is estimated to have a high school degree or less.  
 Note: Analysis reflects the Farmington, NM Metropolitan Statistical Area as defined by the U.S. Office of Management and Budget. Dollar values are in 2011 dollars. "NA" indicates that no data are available.

# Economic vitality

## High-opportunity occupations for workers with more than a high school degree but less than a bachelor's degree

Supervisors of protective service workers, drafters, engineering technicians and mapping technicians, and plant and systems operators are high-opportunity jobs for workers with more than a high school degree but less than a bachelor's degree

Occupation Opportunity Index: Occupations by Opportunity Level for Workers with More Than a High School Diploma but Less Than a Bachelor's Degree

Occupation	Employment	Job Quality	Growth			Median Age	Occupation Opportunity Index	
	(2011)	Median Annual Wage (2011)	Real Wage Growth (2011)	Change in Employment (2005-11)	% Change in Employment (2005-11)			
<b>High-Opportunity</b>	Supervisors of Protective Service Workers	50	\$69,810	N/A	N/A	N/A	46	1.49
	Drafters, Engineering Technicians, and Mapping Technicians	190	\$58,051	45.8%	120	171.4%	43	1.06
	Plant and System Operators	600	\$58,040	N/A	N/A	N/A	46	0.93
	Supervisors of Installation, Maintenance, and Repair Workers	210	\$60,810	31.2%	-70	-25.0%	47	0.86
	Law Enforcement Workers	380	\$49,936	13.6%	90	31.0%	39	0.36
	Health Technologists and Technicians	390	\$46,876	29.1%	0	0.0%	40	0.32
	Supervisors of Office and Administrative Support Workers	560	\$38,430	7.7%	210	60.0%	48	0.07
<b>Middle-Opportunity</b>	Fire Fighting and Prevention Workers	60	\$37,880	N/A	N/A	N/A	38	-0.16
	Other Healthcare Support Occupations	650	\$28,475	17.2%	310	91.2%	36	-0.28
	Secretaries and Administrative Assistants	1,440	\$30,747	19.3%	-150	-9.4%	39	-0.36
	Other Education, Training, and Library Occupations	920	\$21,059	38.4%	170	22.7%	43	-0.41
	Financial Clerks	1,170	\$29,576	2.3%	30	2.6%	40	-0.46
<b>Low-Opportunity</b>	Other Office and Administrative Support Workers	940	\$22,338	-3.3%	320	51.6%	45	-0.59
	Information and Record Clerks	1,300	\$23,893	2.7%	200	18.2%	37	-0.64
	Supervisors of Sales Workers	510	\$30,020	-21.7%	-150	-22.7%	42	-0.67

Source: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes all nonfarm wage and salary jobs for which the typical worker is estimated to have more than a high school degree but less than a BA. Note: Analysis reflects the Farmington, NM Metropolitan Statistical Area as defined by the U.S. Office of Management and Budget. Dollar values are in 2011 dollars. "NA" indicates that no data are available.

# Economic vitality

## High-opportunity occupations for workers with a bachelor's degree or higher

Health diagnosing and treating practitioners, advertising, marketing promotion, public relations and sales managers, and engineers are high-opportunity occupations for workers with a bachelor's degree or higher

Occupation Opportunity Index: All Levels of Opportunity for Workers with a Bachelor's Degree or Higher

Occupation	Employment	Job Quality	Growth				Occupation Opportunity Index
	(2011)	Median Annual Wage (2011)	Real Wage Growth (2011)	Change in Employment (2005-11)	% Change in Employment (2005-11)	Median Age (2010)	
<b>High-Opportunity</b>							
Health Diagnosing and Treating Practitioners	1,220	\$90,856	32.2%	110	9.9%	49	2.01
Advertising, Marketing, Promotions, Public Relations, and Sales Managers	90	\$88,610	20.2%	-30	-25.0%	41	1.69
Engineers	250	\$83,406	19.1%	120	92.3%	43	1.67
Top Executives	820	\$84,830	14.1%	60	7.9%	41	1.56
Operations Specialties Managers	170	\$69,957	22.3%	-200	-54.1%	44	1.02
Other Management Occupations	480	\$69,092	13.1%	-170	-26.2%	48	1.00
Sales Representatives, Services	170	\$50,792	34.7%	90	112.5%	42	0.65
Sales Representatives, Wholesale and Manufacturing	410	\$53,780	16.3%	20	5.1%	44	0.52
Physical Scientists	50	\$50,160	N/A	N/A	N/A	41	0.47
Lawyers, Judges, and Related Workers	80	\$60,240	-55.4%	40	100.0%	46	0.34
Business Operations Specialists	270	\$50,983	8.6%	-140	-34.1%	44	0.29
Librarians, Curators, and Archivists	70	\$42,547	35.4%	-20	-22.2%	48	0.28
Computer Occupations	130	\$49,856	-1.9%	0	0.0%	39	0.19
Preschool, Primary, Secondary, and Special Education School Teachers	1,490	\$45,421	0.4%	-200	-11.8%	46	0.07
<b>Middle-Opportunity</b>							
Financial Specialists	260	\$42,641	1.2%	50	23.8%	43	0.04
Counselors, Social Workers, and Other Community and Social Service Specialists	760	\$35,920	4.6%	300	65.2%	41	-0.09
Social Scientists and Related Workers	50	\$43,930	-22.6%	0	0.0%	44	-0.11
Other Teachers and Instructors	50	\$44,610	-21.2%	-90	-64.3%	40	-0.21
<b>Low-Opportunity</b>							
Entertainers and Performers, Sports and Related Workers	80	\$17,900	N/A	N/A	N/A	36	-1.15

Source: U.S. Bureau of Labor Statistics; Integrated Public Use Microdata Series. Universe includes all nonfarm wage and salary jobs for which the typical worker is estimated to have a BA degree or higher.  
 Note: Analysis reflects the Farmington, NM Metropolitan Statistical Area as defined by the U.S. Office of Management and Budget. Dollar values are in 2011 dollars. "NA" indicates that no data are available.

# Readiness



# Readiness

## Highlights

### How prepared are the city's residents for the 21<sup>st</sup> century economy?

- There is a looming skills and education gap for Native Americans and Latinos, whose rate of postsecondary education (bachelor's degree or higher) is lower than the share of future jobs, statewide, that will require that level of education.
- Farmington has a smaller share of three- and four-year-olds enrolled in school than the nation as a whole, and third grade reading proficiency is far lower for Native American and Latino children in San Juan County than for other children.
- The share of disconnected youth who are not working or in school is larger than the nation as a whole.
- Native American and Latino residents are far less likely to have health insurance than other racial/ethnic groups.

Percent of adults with at least a Bachelor's Degree or higher:

20%

Percent of youth who are disconnected:

10%

Percent of Native American residents without health insurance:

46%

# Readiness

## Lower education levels for Latinos and Native Americans

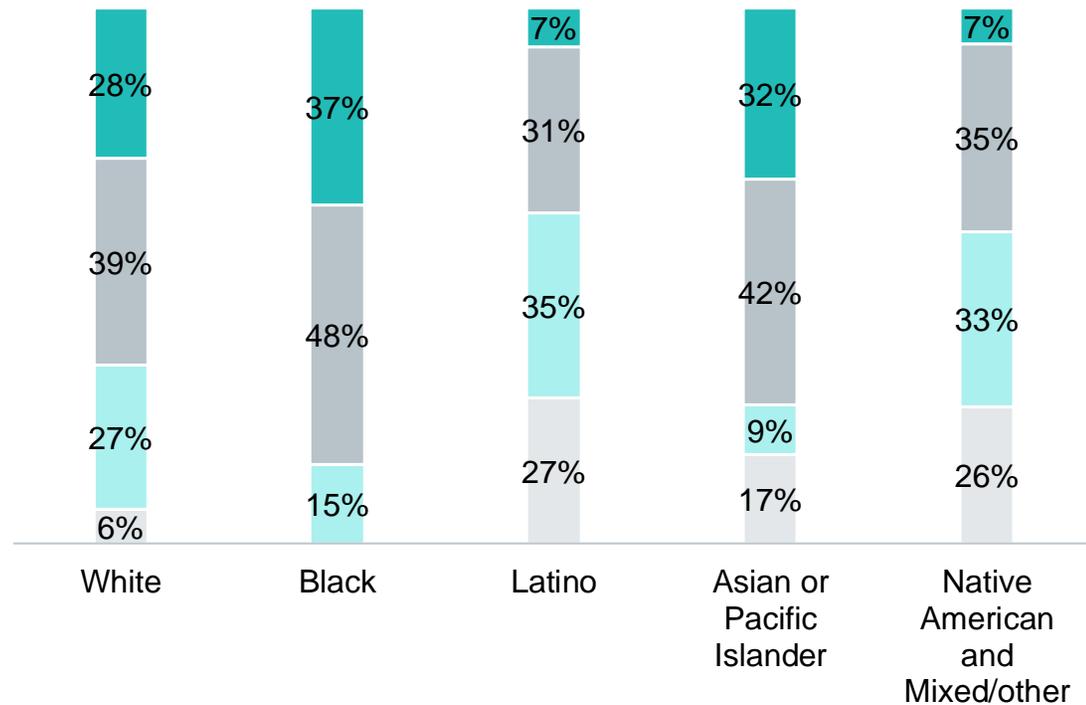
Noticeable gaps exist in educational attainment among racial/ethnic groups in the city. Approximately one in four Latino, or Native American and mixed or other residents have less than a high school diploma, as compared with only 6 percent of White residents.

Native American and mixed or other and Latino residents graduate from high school at relatively similar rates. Thirty-three percent of Native American and mixed or other, and 35 percent of Latino youth graduate from high school. Rates are markedly lower for Latinos and Native American and mixed or other residents completing college. Latino youth graduate from college at one-fourth the rate of their White peers.

Unlike many other cities in the country, Black residents are the most likely to obtain at least a bachelor's degree. Thirty-seven percent of Black residents obtain higher than a bachelor's degree, as compared to 28 percent of White residents.

**White, Black and Asian or Pacific Islanders have higher education attainments than their Latino and Native counterparts**  
**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



Source: U.S. Census Bureau. Universe includes all persons age 25 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.

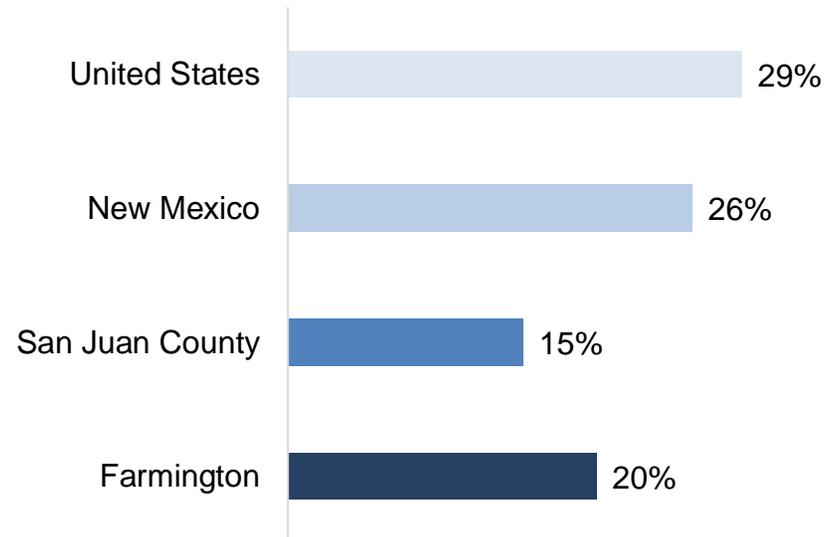
# Readiness

## Relatively low education levels

Residents in Farmington are less likely to hold an bachelor's degree or higher than other New Mexico residents and the nation as a whole. While 29 percent of all Americans and 26 percent of all New Mexico residents have earned at least a bachelor's degree, only 20 percent of Farmington residents have.

### Educational attainment in the city is lower than the state and nationally

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



Source: U.S. Census Bureau. Universe includes all persons age 25 or older.  
Note: Data represent a 2010 through 2014 average.

# Readiness

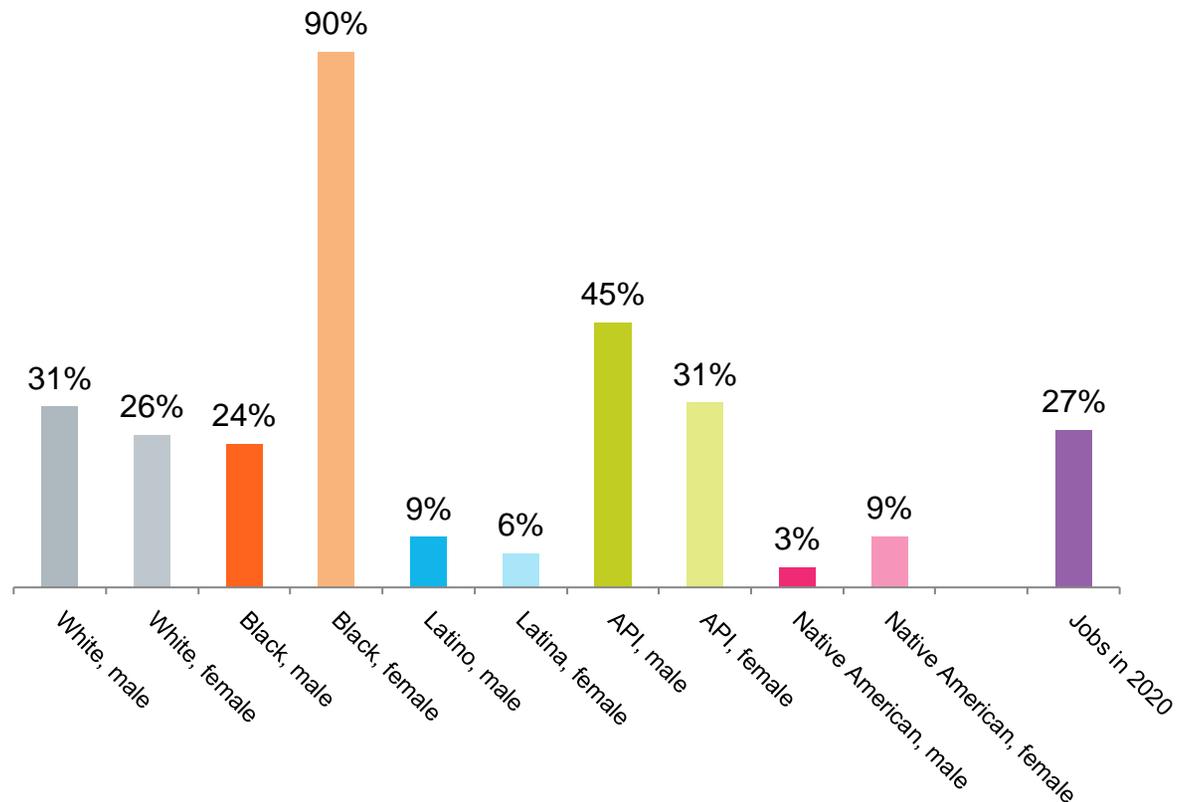
## A potential education and skills gap for Latinos and Native Americans

(continued)

By 2020, 27 percent of jobs in New Mexico will require a bachelor’s degree or higher, yet only 6 percent of Latina women residents and 3 percent of Native American men residents are prepared to enter those jobs. Farmington could face a skills gap unless education levels increase among these groups, particularly Native American men and Latina women.

**The city will face a skills gap unless education levels increase**

Share of Working-Age Population with a BA degree or Higher by Race/Ethnicity, 2014, and Projected Share of Jobs that Require a BA degree or Higher, 2020



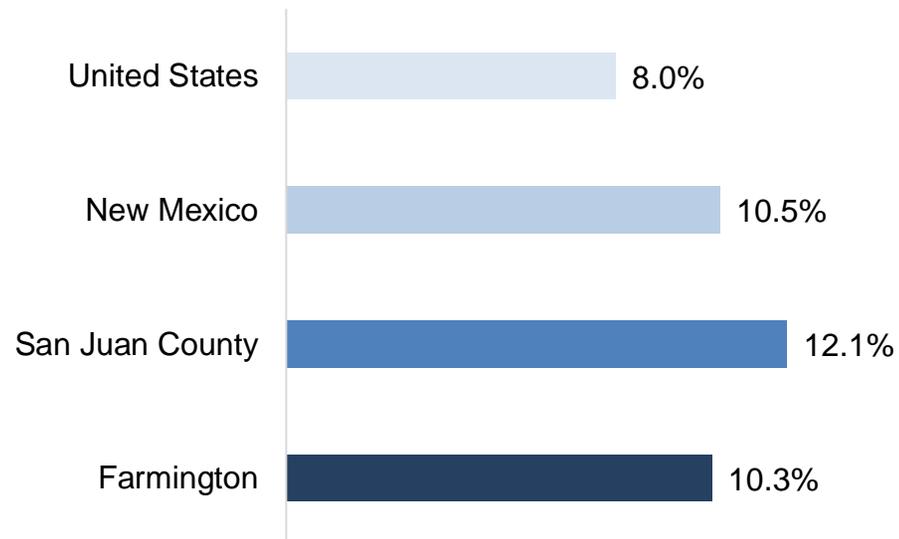
Source: Georgetown Center for Education and the Workforce; U.S. Census Bureau. Universe for education levels of workers includes all persons age 25 or older. Note: “White” is defined as non-Hispanic White and “Latino” includes all who identify as being of Hispanic origin. All other racial/ethnic groups include any Latinos who identify with that particular racial category. Data on education levels by race/ethnicity represent a 2010 through 2014 average for the city of Farmington while data on educational requirements for jobs in 2020 are based on statewide projections for New Mexico. 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 total number of “disconnected youth” who are neither in school nor working is higher in Farmington compared to the nation as a whole. Nationally, only 8 percent of youth aged 16 to 19 are disconnected from school or employment. Throughout the rest of the state of New Mexico, 10 percent are. The disconnected youth rate is highest in San Juan County, at 12 percent.

**Farmington city youth are slightly more disconnected than the national average**  
Percent of 16 to 19-Year-Olds Not in Work or School, 2014



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

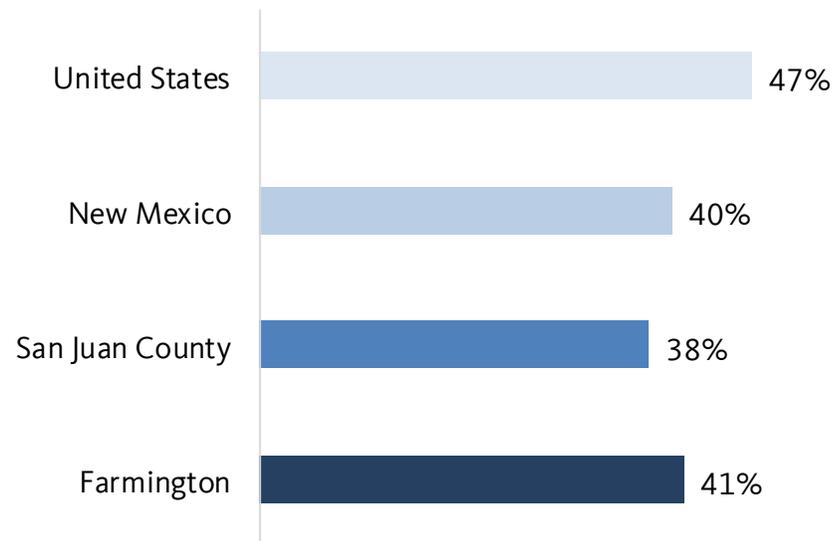
# Readiness

## Relatively low preschool enrollment

Farmington's three- and four-year-olds are slightly more likely to be enrolled in pre-school than San Juan County as a whole. However, the pre-school enrollment rates in Farmington, San Juan County, and the state of New Mexico are all lower than the nation as a whole. While 47 percent of the nation's three- and four-year-olds are enrolled in school, 41 percent of Farmington children in this age range are enrolled in preschool.

**Farmington three- and four-year-olds are less likely to be enrolled in pre-school than compared to the national average**

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



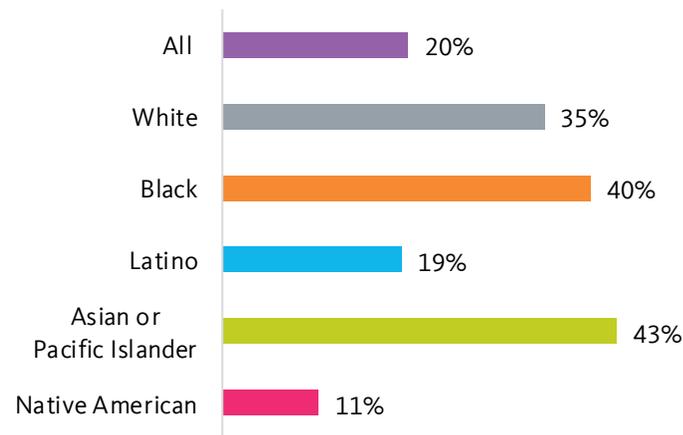
# Readiness

## Racial inequities in the early years of learning

Third grade reading proficiency levels are low for Latino and Native American students living in San Juan County. On average, roughly one in every five third-grade students can read at grade level by the end of the year. There are higher shares of Asian or Pacific Islander and Black students reading at grade level than any other racial/ethnic group; more than twice the average.

Native American children living in San Juan County attend pre-kindergarten or kindergarten at lower levels than other students. Less than half of Native American children access the critical formal early learning foundation provided by pre-K and kindergarten.

**Less than 20 percent of Latino and Native American 3<sup>rd</sup> graders can read at grade-level proficiency**  
**Share Achieving 3rd Grade Reading Proficiency, 2015**



**Share of 3- to 5-Year-Olds Who Are Enrolled in Nursery School, Preschool or Kindergarten, 2010-2014**



Source: [diversitydatakids.org](http://diversitydatakids.org) calculations of data from the American Community Survey, 2010-2014 and the New Mexico Public Education Department.  
 Note: Data is for San Juan County. Data for some racial/ethnic groups are excluded due to data availability. Estimates for school enrollment for 3- to 5-year-olds are derived from survey data and subject to sampling variability; please interpret accordingly. Estimates based on survey data are not reported if the margin of error at the 95 percent confidence interval is one-third of the estimate value or more.

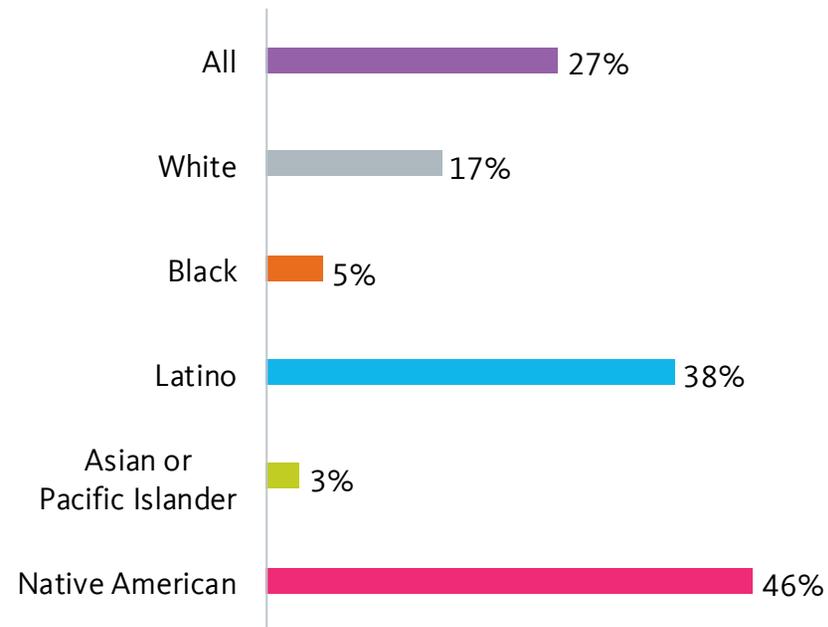
# Readiness

## Almost half of Native Americans are uninsured

Access to health insurance benefits in Farmington varies across racial/ethnic groups. Only 3 percent of Asian or Pacific Islander and 5 percent of Black residents lack health insurance, compared to 38 percent of Latinos and almost half of Native American residents.

Latinos and Native Americans are more than twice as likely as Whites to be without health insurance

Percent Without Health Insurance by Race/Ethnicity, 2014



Source: U.S. Census Bureau. Universe includes the civilian noninstitutionalized population ages of 18 through 64.

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.

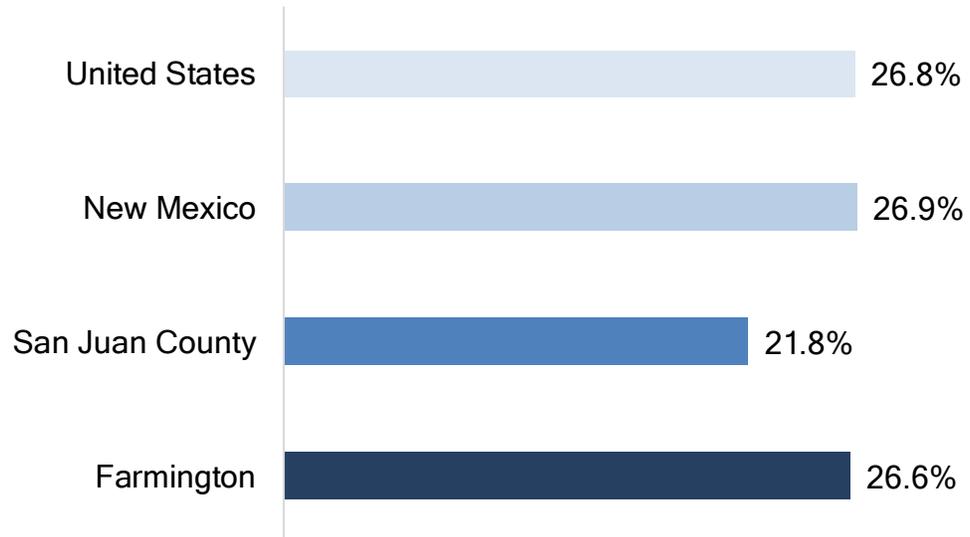
# Readiness

## Close to a quarter of Farmington elderly residents live alone

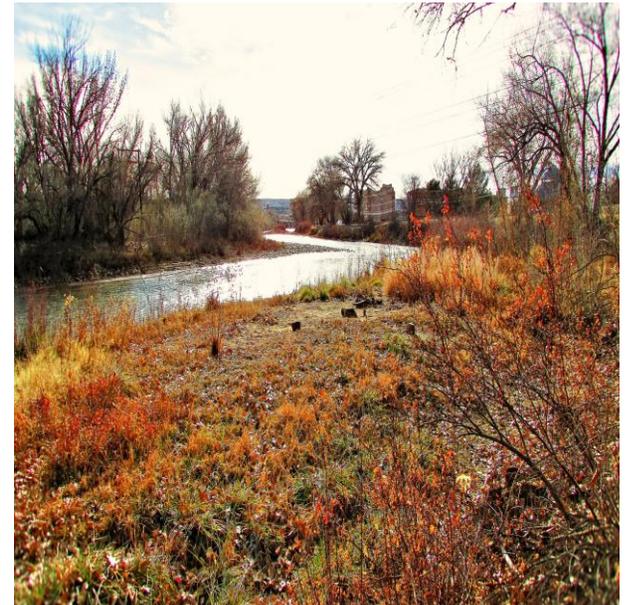
The percentage of elderly Farmington residents living alone is similar to that of the state of New Mexico and the nation as a whole: 27 percent. That percentage is lower in San Juan County at 22 percent.

The percentage of elderly residents living alone in the city mirrors the nation as a whole

Percent of Elderly Living Alone, 2014



# Connectedness



# Connectedness

## Highlights

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

- Segregation in Farmington, though low, has increased since 1980 while it has declined in the state of New Mexico and the United States overall
- Low-income households are the most likely to rely on public transit.
- Native American and Latino residents are most likely to live in areas with limited supermarket access.

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

30%

Percent of households without a car:

6%

Percent of renters who pay too much for housing:

50%

# Connectedness

## Segregation is relatively low compared to the state and the nation

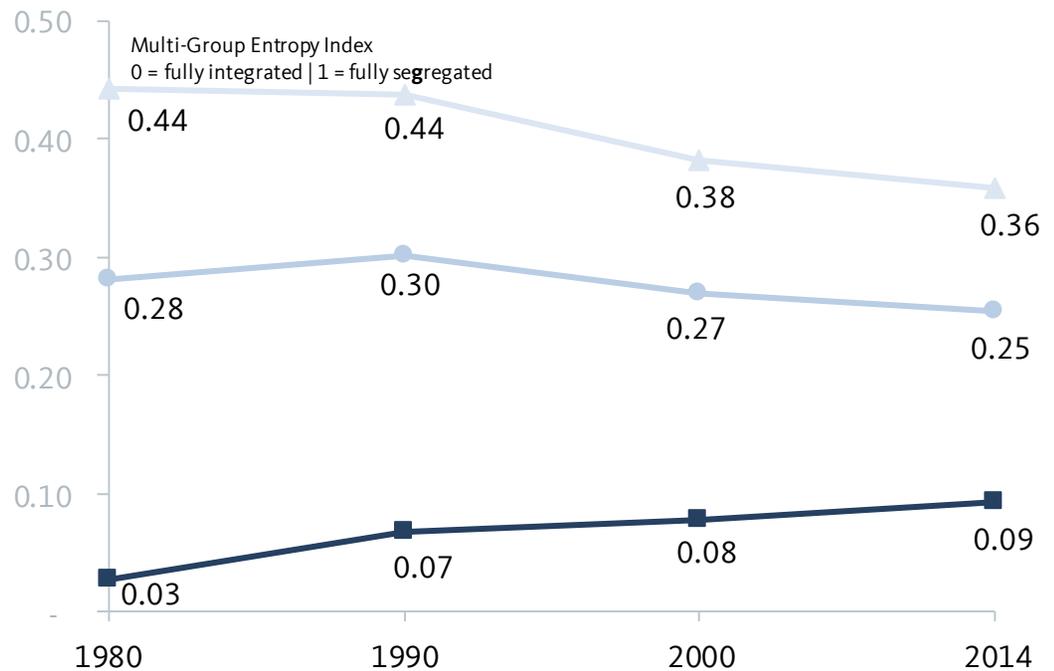
Despite the fact that Farmington is generally less segregated than the state and nation as a whole, segregation is on the rise.

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

**Overall residential segregation has increased steadily since 1980**

**Residential Segregation, 1980 to 2014**

- Farmington
- New Mexico
- ▲ United States



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

# Connectedness

## Black-White segregation has decreased slightly since 1990

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

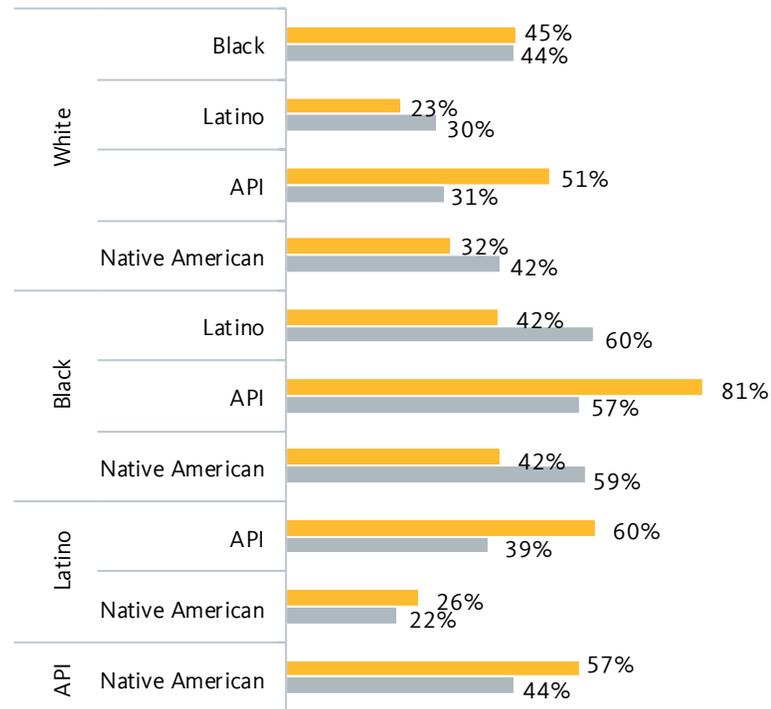
This index shows that White-Latino and White-Native American segregation has increased since 1990. Forty-two percent of White Farmington residents would need to move to achieve integration with Native Americans, and 30 percent of White residents would need to move to achieve integration with Latinos.

Segregation is also increasing among several other groups. For example, Blacks and Latinos and Blacks and Native Americans are more segregated from each other now than in 1990.

Unlike the trends noted above, Asian or Pacific Islanders have experienced a decrease in segregation with all racial/ethnic groups since 1990.

**Segregation has increased between many groups, with the exception of Asian or Pacific Islanders**  
**Residential Segregation, 1990 and 2014, Measured by the Dissimilarity Index**

■ 1990  
 ■ 2014



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

# Connectedness

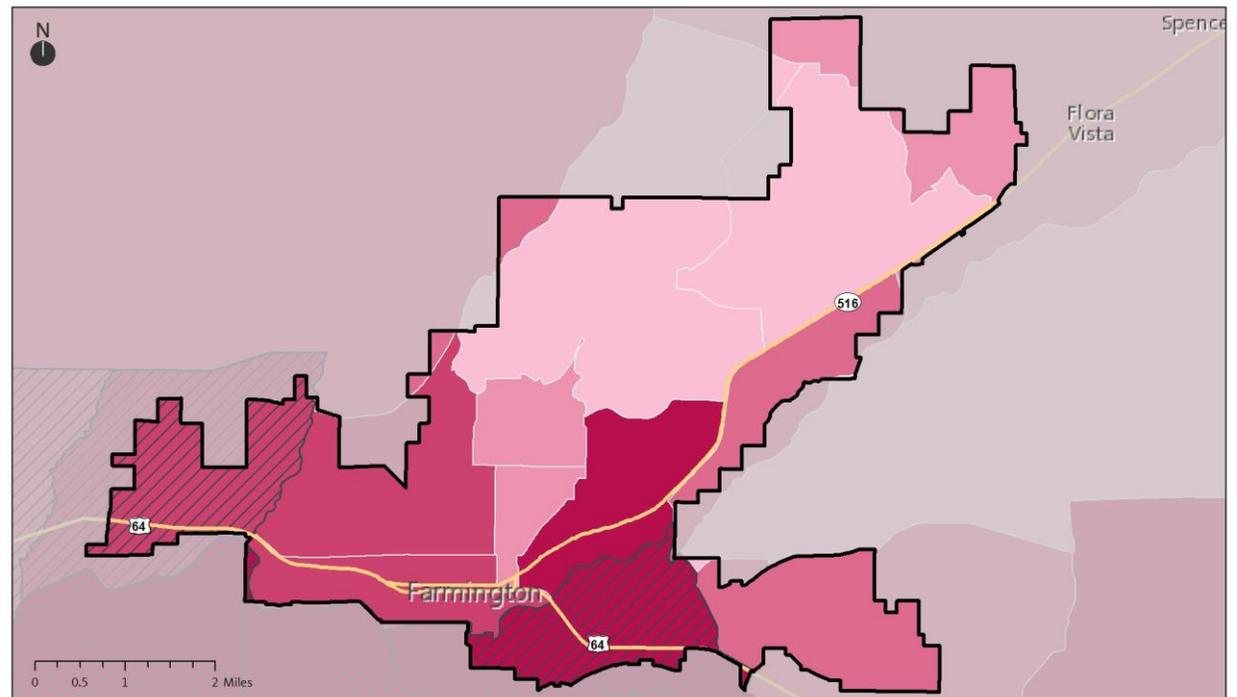
## Concentrated poverty, a challenge for communities of color

In Farmington, the neighborhoods with high poverty are concentrated in the southern part of the city. As the maps shows, the area with the highest poverty tend to overlap with areas that are majority people of color.

Areas of high poverty (26 percent or more) are found primarily in the southern part of the city

Percent Population Below the Poverty Level by Census Tract, 2014

- Less than 7%
- 7% to 11%
- 11% to 17%
- 17% to 26%
- 26% or more
- 65% or more people of color



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

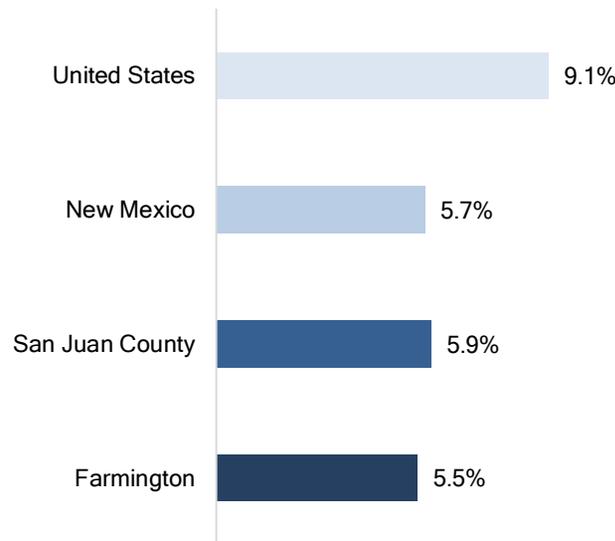
# Connectedness

## Low-income residents are more likely to rely on the city's transit system to get to work

Income plays a role in determining who uses the city's public transit systems to get to work. Poor and low-income households are more likely to be dependent on public transit than higher-income workers in Farmington. Use of public transportation declines as earnings increase. However, overall public transit use in Farmington is very low.

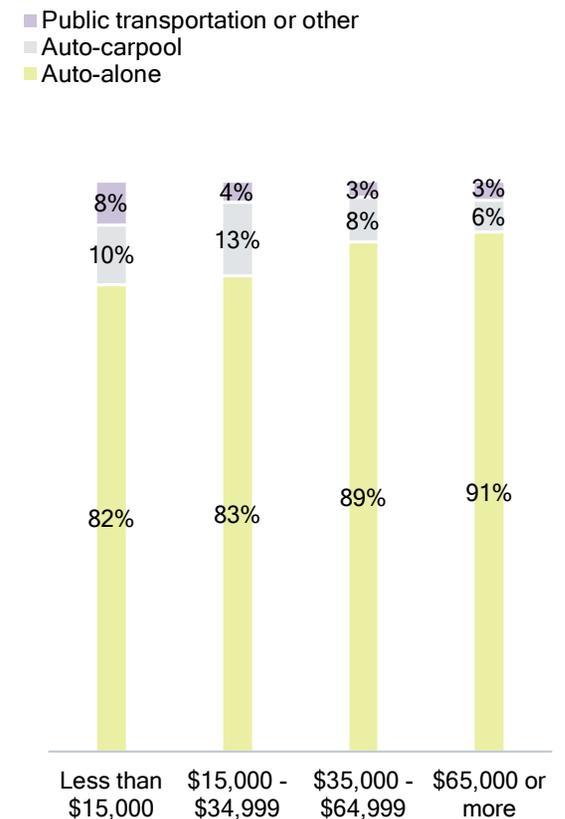
Households in Farmington are as likely to own a vehicle as households elsewhere in the state, and slightly more likely than in the nation as a whole.

**Lower share of carless households than the nation**  
**Percent of Households without a Vehicle, 2014**



Source: U.S. Census Bureau. Universe includes all households (no group quarters). Note: Data represent a 2010 through 2014 average.

**Low-wage workers are more likely to carpool or take public transportation**  
**Mode of Transit to Work by Annual Earnings, 2014**



Source: U.S. Census Bureau. Universe includes workers age 16 or older with earnings. Note: Data represent a 2010 through 2014 average. Dollar values are in 2014 dollars.

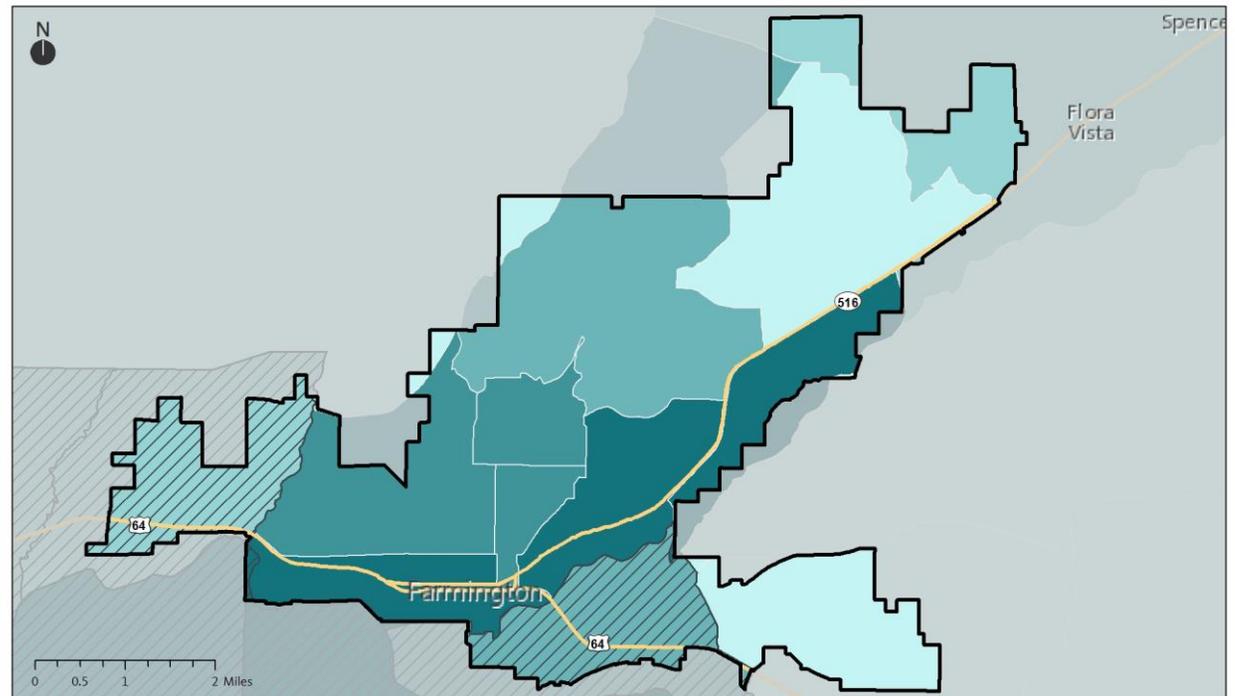
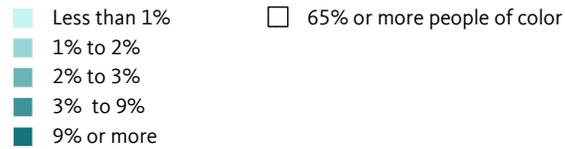
# Connectedness

## Car access varies across the city

Although the vast majority of households in Farmington have access to at least one vehicle, vehicle access varies across the city. Neighborhoods with relatively high shares of carless households are found in the southern half of the city, along the 516 highway.

**Concentrations of households without a vehicle are focused in the southern half of the city**

**Percent of Households Without a Vehicle by Census Tract, 2014**



Source: U.S. Census Bureau; TomTom, ESRI, HERE, DeLorme, MaymyIndia, © OpenStreetMap contributors, and the GIS user community.  
Notes: Universe includes all households (no group quarters). Data represent a 2010 through 2014 average.

# Connectedness

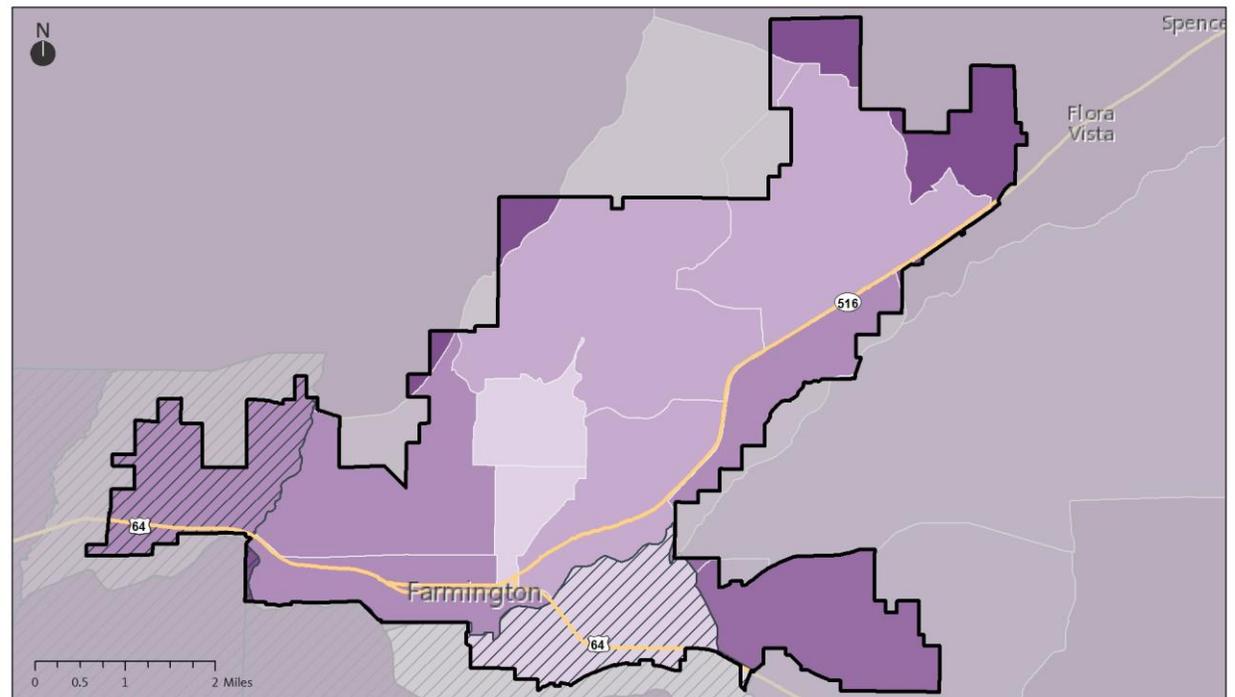
## Long commute times for residents on the periphery of the city

Average commute times tend to be longest for residents living on the periphery of the city.

### Workers on the outskirts of the city have longer commute times

#### Average Travel Time to Work by Census Tract, 2014

- Less than 16.8 minutes
  - 16.8 to 17.1 minutes
  - 17.1 to 21 minutes
  - 21 to 25 minutes
  - 25 minutes or more
- 65% or more people of color



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

# Connectedness

## Half of renters in the city are rent burdened

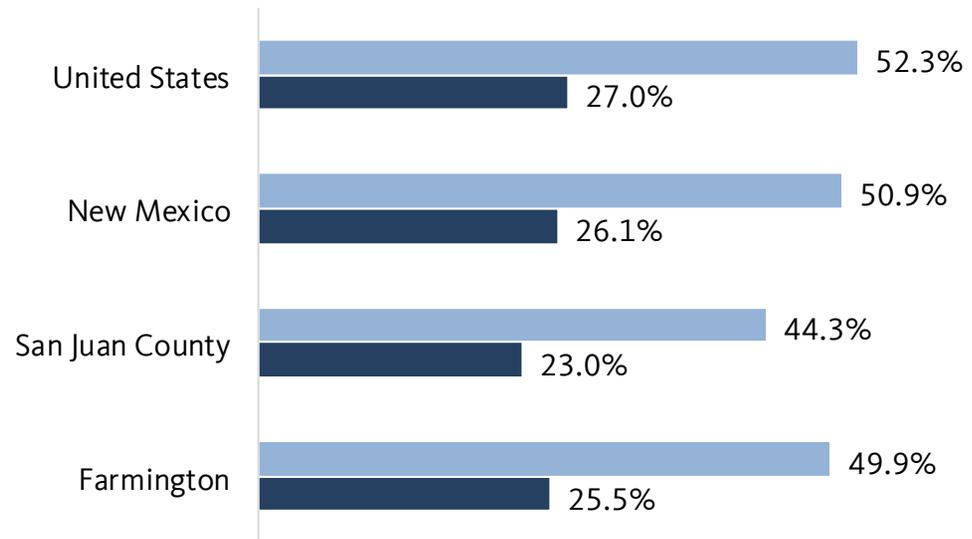
There are slightly more households that are rent burdened in Farmington than in San Juan County. However, the share of rent burdened households in the city is similar to that of the state of New Mexico and the nation.

Rent burdened is defined as spending more than 30 percent of household income on housing costs while severely rent burdened means spending more than half of income on housing costs.

### One-quarter of Farmington households are severely rent burdened

Share of Households that Are Rent Burdened, 2014

- Rent burdened
- Severely rent burdened



Source: U.S. Census Bureau. Universe includes renter-occupied households with cash rent (no group quarters).  
 Note: Data represent a 2010 through 2014 average.

# Connectedness

## Access to healthy food varies by income

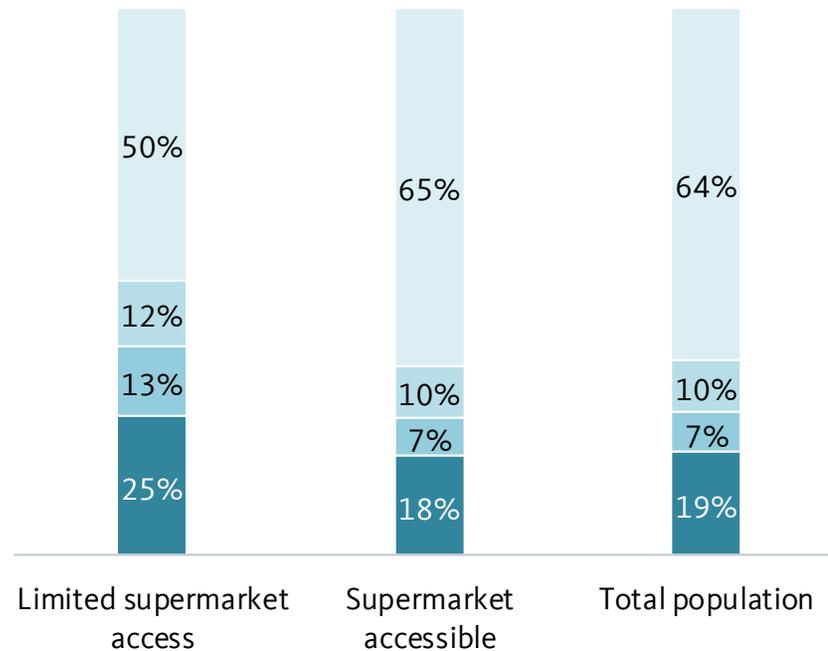
Limited Supermarket Access areas (LSAs) are defined as areas where residents must travel significantly farther to reach a supermarket than the “comparatively acceptable” distance traveled by residents in well-served areas with similar population densities and car ownership rates.

Similar to the trend seen in other cities, the economically insecure population (those living below 200 percent of poverty) are less likely to live in areas with adequate supermarket access than the economically secure population (those living at or above 200 percent of poverty).

**A larger share of those who live in limited supermarket access areas are economically insecure compared to those who live in supermarket accessible areas**

**Poverty Composition of Food Environments, 2014**

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



Source: The Reinvestment Fund, 2014 LSA analysis; U.S. Census Bureau. Universe includes all persons not in groups quarters.  
 Note: Data on population by poverty status reflects a 2010 through 2014 average.

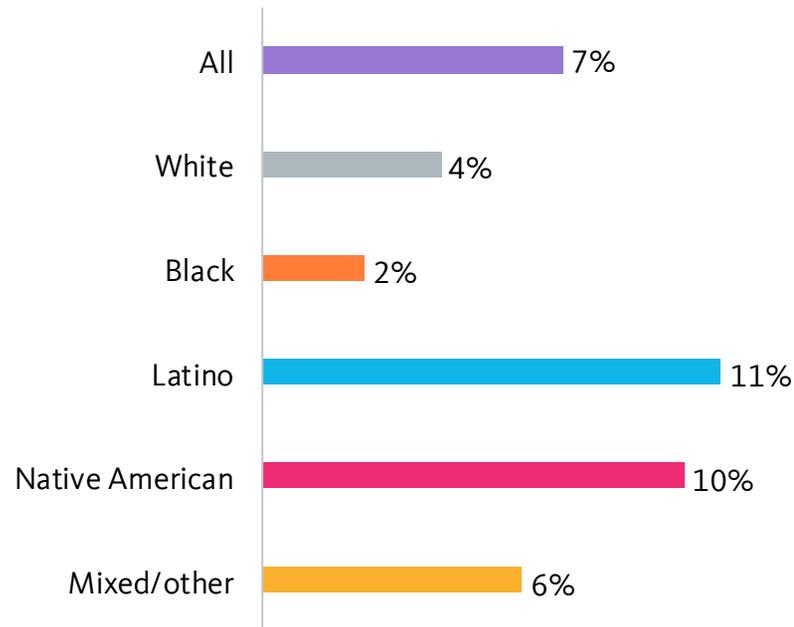
# Connectedness

## Latinos and Native Americans less likely to have access to healthy food

Latino and Native American residents have an above average likelihood of living in an area with limited supermarket access. In fact, Latino residents are almost three times as likely as White residents to live in a limited supermarket access area.

Latinos and Native Americans are more likely to live in neighborhoods with limited access to supermarkets

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



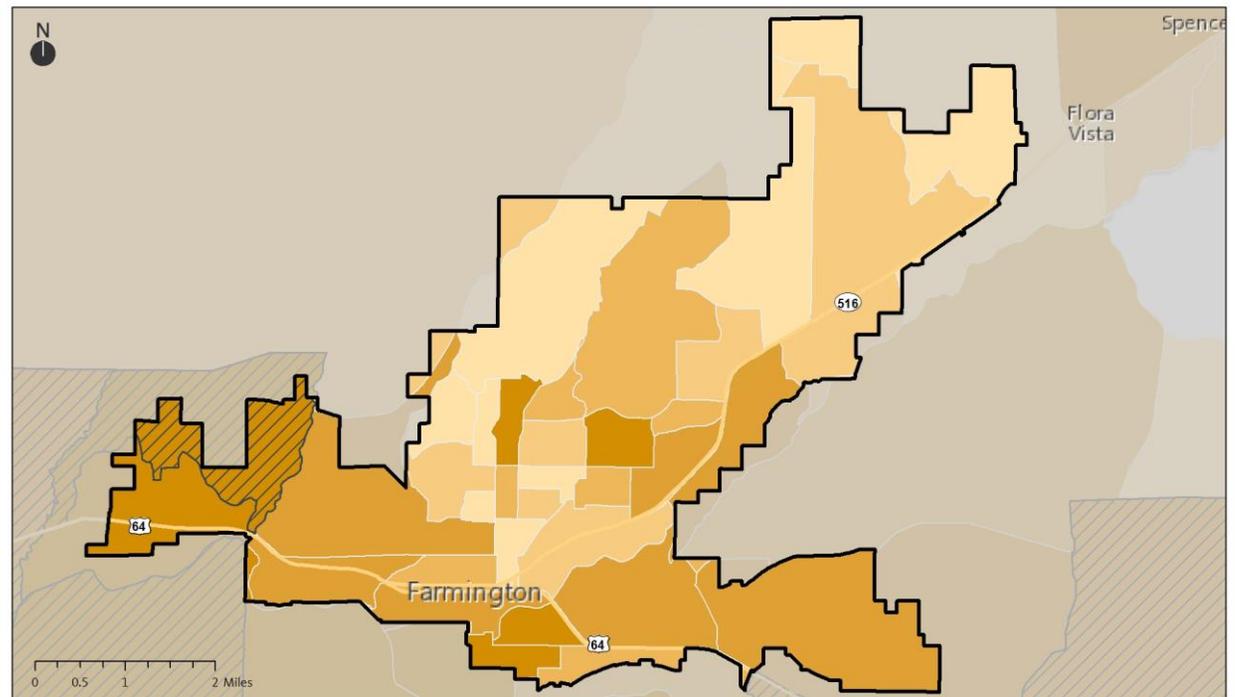
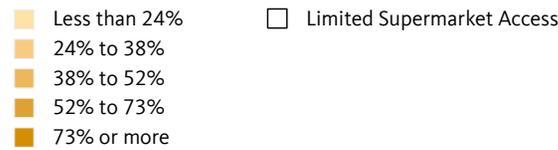
Source: The Reinvestment Fund, 2014 LSA analysis; U.S. Census Bureau.  
Note: Data on population by poverty status reflects a 2010 through 2014 average.

# Connectedness

## Healthy food access varies by neighborhood

Farmington residents who live in an LSA are more likely to be people of color. In the city's major census tract denoted as an LSA, at least 52 percent of residents are residents of color.

Residents who live in LSAs are also more likely to be people of color  
Percent People of Color by Census Block Group and Limited Supermarket Access



Source: The Reinvestment Fund, 2014 LSA analysis; U.S. Census Bureau; TomTom, ESRI, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community. Note: Universe includes all households (no group quarters). Data on population by poverty status reflects a 2010 through 2014 average.

# Economic benefits



# Economic benefits

## Highlights

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

- New Mexico's economy could have been \$29 billion stronger in 2014 – a 30 percent increase – if its racial gaps in income had been closed.
- In New Mexico, two-thirds of the racial income gap between Latinos and Whites is due to differences in wages, while one-third is due to differences in employment.
- With racial equity in income in Farmington, Native Americans would see their average annual income grow by \$25,600 while Latinos would see an average increase of \$20,200.

Equity dividend for New Mexico:

\$29 billion

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

\$22k

# Economic benefits of inclusion

## A potential \$29 billion per year GDP boost from racial equity

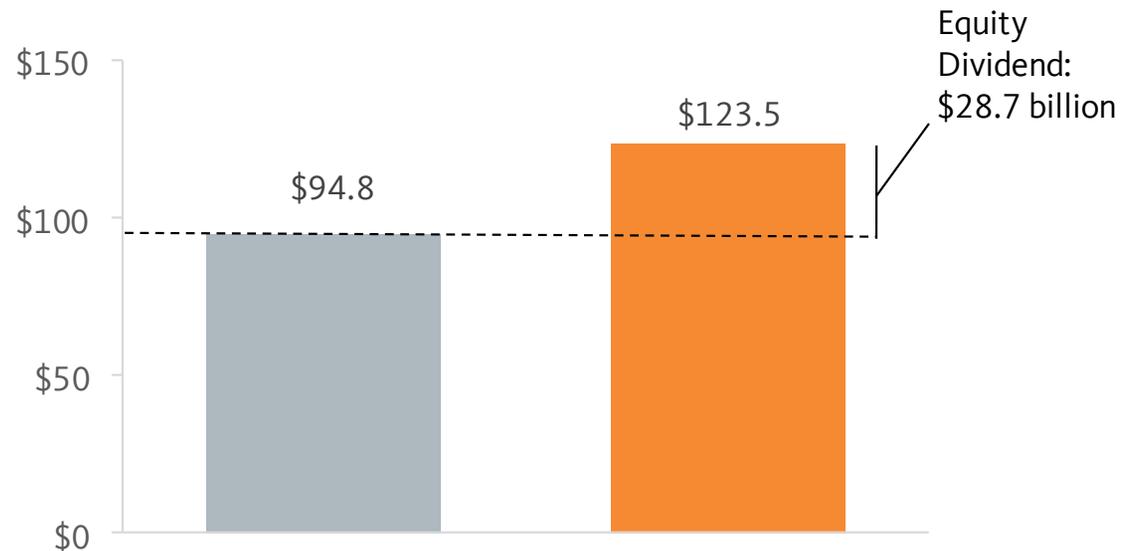
New Mexico stands to gain a great deal from addressing racial inequities. The state's economy could have been \$29 billion stronger in 2014 if its racial gaps in income had been closed: a 30 percent increase.

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 New Mexico, the share of the gap attributable to wages is very similar (63 percent).

**New Mexico's GDP would have been nearly \$29 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)



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

Notes: Data reflect the state of New Mexico and represent a 2010 through 2014 average. Values are in 2014 dollars.

# Economic benefits of inclusion

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

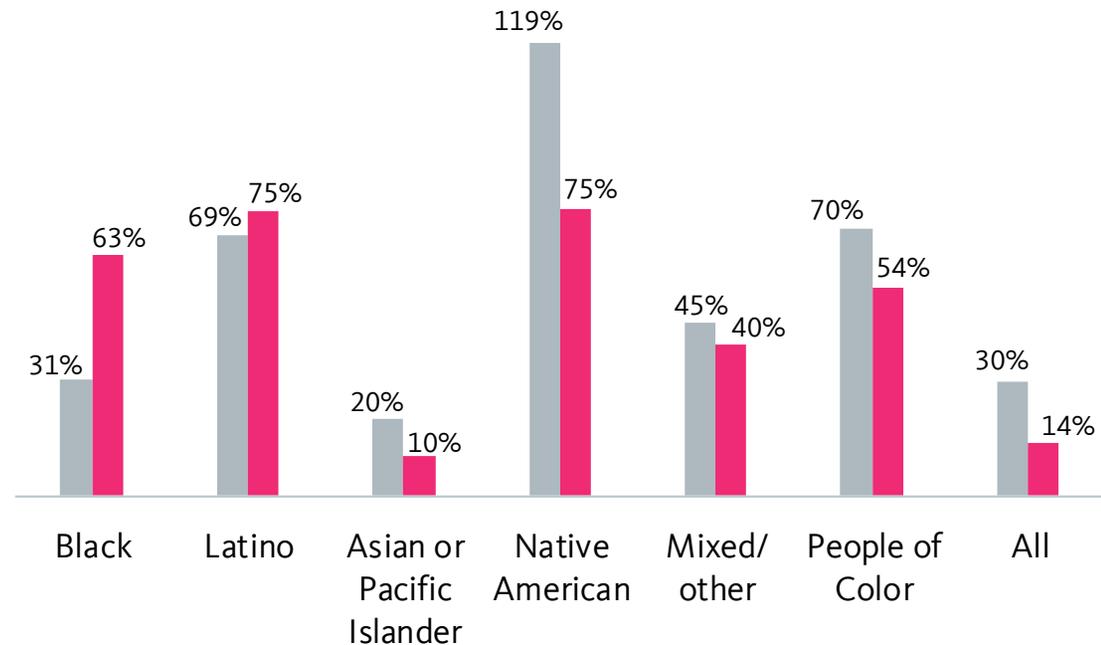
People of color in New Mexico as a whole would see their incomes grow by 70 percent with racial equity compared with 54 percent nationwide.

Native Americans would see the largest gain in average annual income at 119 percent, while Asians or Pacific Islanders would see only a 20 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 New Mexico would experience the largest income increases with racial equity**  
**Statewide Percentage Gain in Income with Racial Equity by Race/Ethnicity, 2014**

■ New Mexico  
 ■ United States



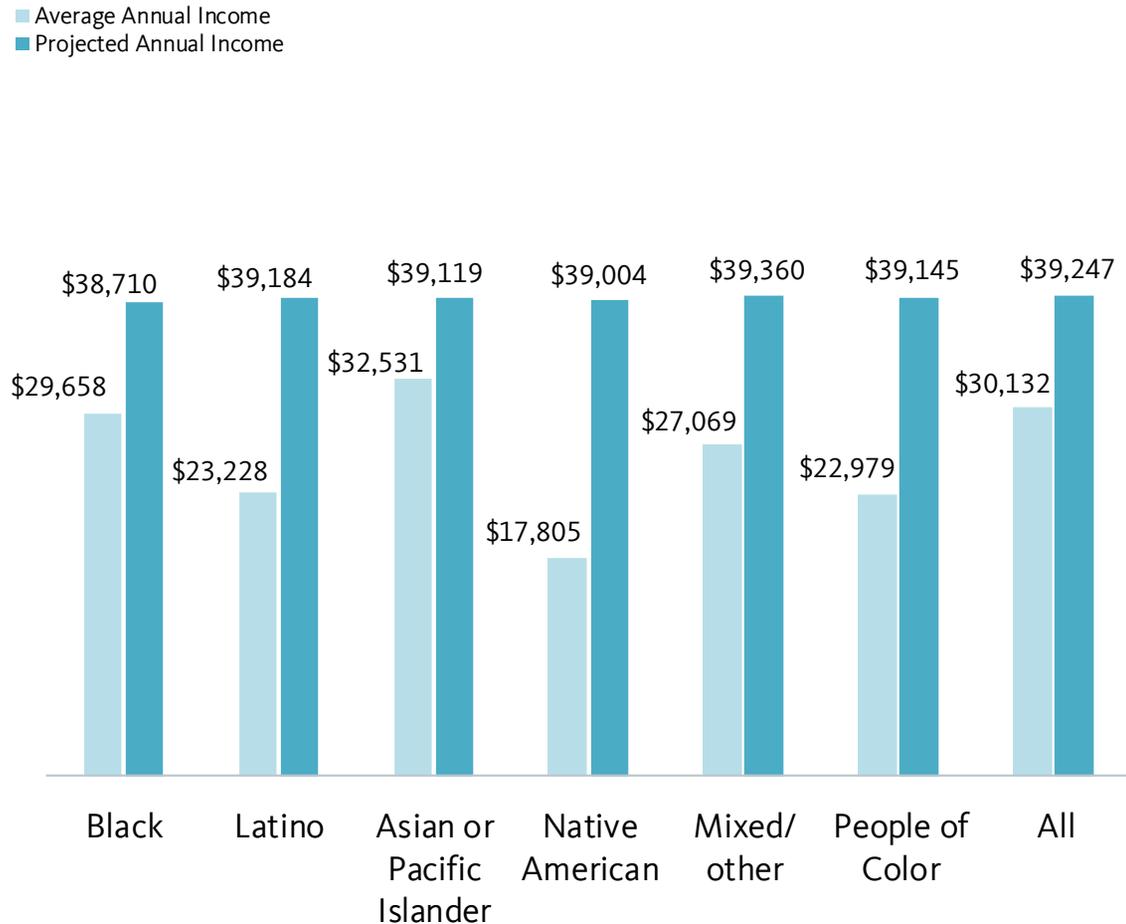
Source: Integrated Public Use Microdata Series. Universe includes all persons ages 16 and older.  
 Note: Data reflect the state of New Mexico and represent a 2010 through 2014 average.

# Economic benefits of inclusion

## Average income for Native Americans would increase by over \$21,000 per year

On average, people of color in New Mexico are projected to see their incomes grow by \$16,200 with racial equity. Native American average incomes would rise the most, by about \$21,200, while average income for Latinos would rise by about \$16,000. African Americans, Asian or Pacific Islanders, and those of mixed or other races would see smaller, but still substantial increases.

People of color in New Mexico would see an average income gain of about \$16,200 with racial equity  
**Statewide Gain in Average Income with Racial Equity by Race/Ethnicity, 2014**



Source: Integrated Public Use Microdata Series. Universe includes all persons ages 16 and older.  
 Notes: Data reflect the state of New Mexico and represent a 2010 through 2014 average. Values are in 2014 dollars.

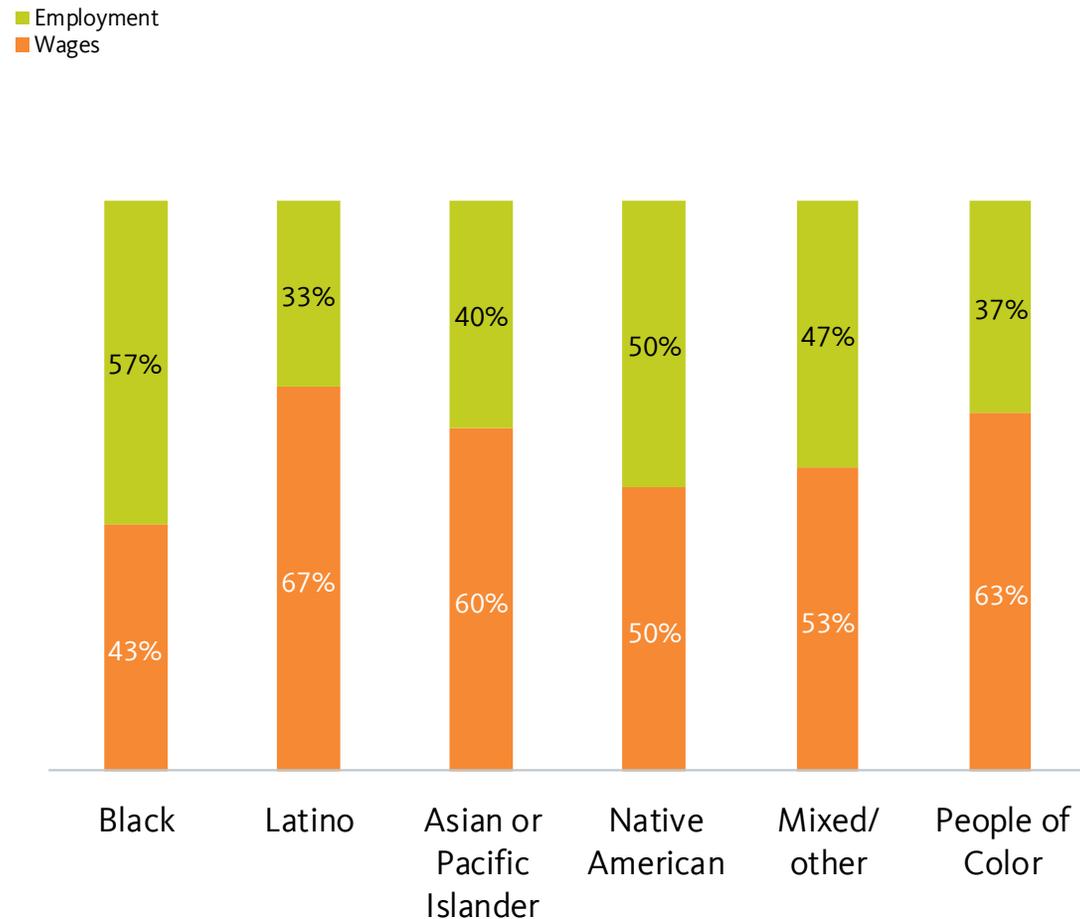
# Economic benefits of inclusion

## Most of the potential income gains would come from closing the racial wage gap, but employment differences matter too

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 New Mexico, 63 percent of the racial income gap is due to differences in wages, while 37 percent is due to differences in employment.

The share of the racial income gap attributable to wages is largest for Latinos, followed by Asian or Pacific Islanders. For Native Americans, the racial income gap is equally driven by differences in wages and employment. African Americans are the only group for which over half of the gap is attributable to differences in employment.

Most of the racial income gap in New Mexico is due to differences in wages  
**Statewide Source of Gains in Income with Racial Equity By Race/Ethnicity, 2014**



Source: Integrated Public Use Microdata Series. Universe includes all persons ages 16 and older.  
 Note: Data reflect the state of New Mexico and represent a 2010 through 2014 average.

# Economic benefits of inclusion

## Income gains with racial equity are likely to be much larger in Farmington than for the state overall

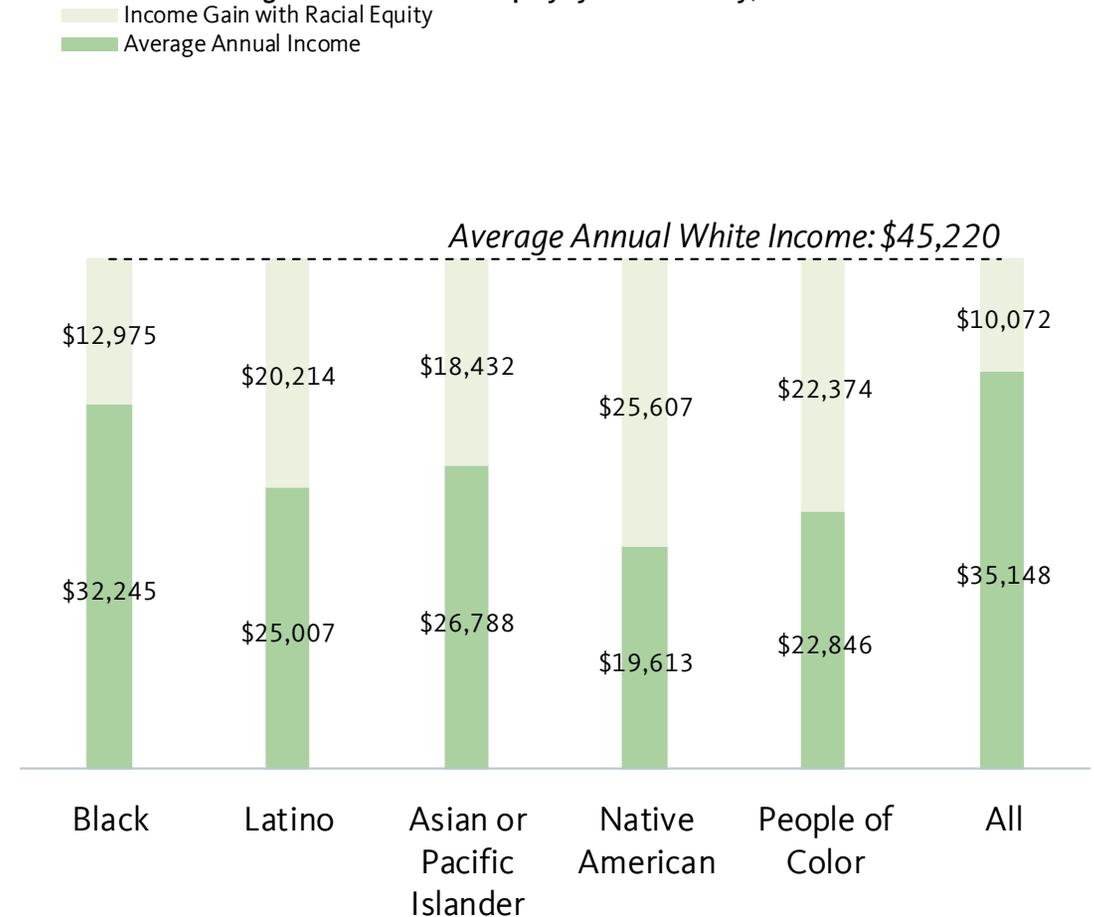
Although there is insufficient data to conduct a full analysis of gains in income and GDP with racial equity in Farmington, a comparison of average annual income by race/ethnicity for the population 16 and older suggests that gains in the city would likely be much larger than for the state overall.

If average annual income for groups of color rose to the levels we observe for non-Hispanic Whites, we would anticipate that average annual income for all people of color combined would rise by over \$22,000, from about \$22,800 to \$45,200.

Native Americans would see the largest gain of about \$25,600, followed by Latinos at \$20,200, and Asian or Pacific Islanders at \$18,400 (although their small numbers in the city make this estimate less reliable). African Americans would see an estimated gain of about \$13,000.

People of color in Farmington would see an average income gain of about \$22,400 with racial equity

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



Source: U.S. Census Bureau. Universe includes all persons ages 16 and 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. Values are in 2014 dollars.

# Implications



# Implications

## Advancing racial equity and inclusive growth

Farmington's growing, diverse population is a major economic asset that will help the city compete in the global economy, if the city's leaders invest in ensuring all of its residents can connect to good jobs and contribute their talent and creativity to building a strong next economy. Business, community, and political leaders must work together to connect communities of color to jobs, business opportunities, quality education, and career training. Tremendous work is already underway, which can be strengthened and built upon. PolicyLink and PERE suggest the following areas of focus to ensure all residents – particularly low-income residents and communities of color – contribute to and benefit from the city's vibrant, equitable economic future.

### Grow good jobs

Job growth in San Juan County has accelerated since the end of the recession, and is currently higher than the nation as a whole. However, unemployment and poverty – particularly in communities of color – are still above the national averages, and household income is concentrated among the

top 20 percent. Farmington and San Juan County need to create a significant number of new, well-paying jobs – and ensure that the city's growing labor force (majority youth of color) are connected to those jobs. This entails a two-pronged approach. First, economic and workforce development efforts should focus on entrepreneurship and business development in industries that are growing and tend to pay good wages.

Second, the jobs that are being created need to be good jobs. Fifty percent of the aggregate household income in the city is concentrated among the top 20 percent of workers. Advocates and policymakers can galvanize momentum to raise wages for workers and to provide important benefits, such as guaranteed sick days, which recently passed in Massachusetts.

### Connect unemployed and low-wage workers to careers in high-growth industries

In tandem with job creation efforts, it is vital for Farmington to connect its workforce with jobs that pay good wages and offer career

opportunities. Native Americans and Latinos face the highest unemployment and higher rates of poverty than their White peers.

Our analysis of strong industries and high-opportunity occupations reinforces the importance of current workforce training efforts in industries like health care and information technology. Partnerships between employers and workforce agencies have proven track records connecting workers to good careers.

### Strengthen educational pathways

Educational attainment for Native American and Latino residents is a critical issue for the long-term economic strength of the city; while 63 percent of all jobs in New Mexico by 2020 will require an associate's degree or higher, only 38 percent of Latinos and 45 percent of Native Americans have attained this level of education or higher. The region's rate of disconnected youth – those not in school or working – have needs that should be prioritized.

Scholarship programs linked to postsecondary

# Implications

## Advancing racial equity and inclusive growth

enrollment can reduce financial barriers to higher education and can encourage high school students to stay connected to school, addressing the high rate of disconnected youth in the region. Programs like these should be strengthened and expanded to increase high school and associate degree graduation rates throughout the city. Educational supports should begin even earlier, with middle-school and high-school curricula that introduce important 21<sup>st</sup> century skills, like coding and app and website development. Scholarship programs linked to postsecondary enrollment can reduce financial barriers to higher education and can encourage high school students to stay connected to school, addressing the population of disconnected youth in the city.

### **Build communities of opportunity throughout the city**

All neighborhoods located throughout the city should provide residents with the ingredients they need to thrive, and also open up opportunities for low-income people and people of color to live in neighborhoods that are already rich with opportunity (and from

which they've historically been excluded). Coordinating transportation, housing, and economic development investments over the long term will foster more equitable development patterns and healthier neighborhoods across the city. Addressing lingering racially discriminatory housing and lending practices and enforcing fair housing laws are also critical to expand opportunity for all.

### **Conclusion**

Community leaders in the public, private, and nonprofit sectors are already taking steps to connect its more vulnerable communities to educational and economic opportunities, and these efforts must continue. To secure a prosperous future, Farmington needs to implement a growth model that is driven by equity – just and fair inclusion into a society in which everyone can participate and prosper. Concerted investments and policies for, and developed from within, communities of color will also be essential to ensure the city's fastest-growing populations are ready to lead it into the next economy.

# Data and methods

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# 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 the city of Farmington, New Mexico. 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 city 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 cities 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 are drawn 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 2014 National Population Projections 2015 Population Estimates 2015 American Community Survey, 1-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 Occupational Employment Statistics
The Reinvestment Fund	2014 Analysis of Limited Supermarket Access (LSA)
The diversitydatakids.org Project	W.K. Kellogg Foundation Priority Communities Dashboard Database
New Mexico Department of Workforce Solutions	Industry Employment Projections Occupation Employment Projections
Georgetown University Center on Education and the Workforce	Updated projections of education requirements of jobs in 2020, originally appearing in: Recovery: Job Growth And Education Requirements Through 2020; State Report

# 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 profile 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 the city of Farmington, Latinos account for 15 percent of the Black population, 8 percent of the Asian or Pacific Islander population, 4 percent of the Native American population, and 69 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 counts of 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 but typically refers to metropolitan areas or other large urban areas (e.g. large cities and counties). The terms “metropolitan area,” “metro area,” and “metro” are used interchangeably to refer to the geographic areas defined as Metropolitan Statistical Areas under the December 2003 definitions of the Office of Management and Budget (OMB).

- 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 used the U.S. Census Bureau files to generate 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 or Pacific Islander, non-Hispanic Native American/Alaskan 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 the SF1 dataset 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 the STF2 dataset, for race/ethnicity by age group we had to look to the STF1 dataset, 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 Asians and 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 the STF2A dataset, 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 the STF2A dataset, 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 the STF2A dataset 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 the STF1 dataset, 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

## Data and methods

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

(continued)

(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 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 the STF1 dataset. 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 the STF1 dataset.

# 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 state-level) 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 BEA estimate to our initial estimate, and multiplied it by our initial estimates for 2000 and earlier to get our final estimate of gross product at the metropolitan-area level.

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

# Data and methods

## Estimates and adjustments made to BEA data on GDP

(continued)

county. Next, we calculated the difference between our final estimate of gross product for each state and the sum of our second-iteration county-level gross product estimates for metropolitan counties contained in the state (that is, counties contained in metropolitan areas). This difference, total non-metropolitan gross product by state, was then allocated to the non-metropolitan 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 each 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, two-digit NAICS industries at multiple geographic levels. (Proprietary issues barred us from using Woods & Poole data directly, so we instead used it to complete the QCEW dataset.)

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 two-digit NAICS level in the QCEW, and the majority of larger counties and regions with missing data were only missing data for a

small number of industries and only in certain years. Moreover, when data are missing it is often for smaller industries. Thus, the estimation procedure described is not likely to greatly affect our analysis of industries, particularly for larger counties and regions.

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

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# 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 high-wage 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.

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## Analysis of occupations by opportunity level

The analysis of occupations on pages 43-47 seeks to classify occupations in the region by opportunity level. To identify “high-opportunity” occupations, we developed an “occupation opportunity index” based on measures of job quality and growth, including median annual wage, wage growth, job growth (in number and share), and median age of workers (which represents potential job openings due to retirements). Once the “occupation opportunity index” score was calculated for each occupation, occupations were sorted into three categories (high, middle, and low opportunity). Occupations were evenly distributed into the categories based on employment.

There are some aspects of this analysis that warrant further clarification. First, the “occupation opportunity index” that is constructed is based on a measure of job quality and set of growth measures, with the job-quality measure weighted twice as much as all of the growth measures combined. This weighting scheme was applied both because we believe pay is a more direct measure of

“opportunity” than the other available measures, and because it is more stable than most of the other growth measures, which are calculated over a relatively short period (2005-2011). For example, an increase from \$6 per hour to \$12 per hour is fantastic wage growth (100 percent), but most would not consider a \$12-per-hour job as a “high-opportunity” occupation.

Second, all measures used to calculate the “occupation opportunity index” are based on data for metropolitan statistical areas from the Occupational Employment Statistics (OES) program of the U.S. Bureau of Labor Statistics (BLS), with one exception: median age by occupation. This measure, included among the growth metrics because it indicates the potential for job openings due to replacements as older workers retire, is estimated for each occupation from the 2010 5-year IPUMS ACS microdata file (for the employed civilian noninstitutional population ages 16 and older). It is calculated at the metropolitan statistical area level (to be consistent with the geography of the OES

data), except in cases for which there were fewer than 30 individual survey respondents in an occupation; in these cases, the median age estimate is based on national data.

Third, while most of the data used in the analysis are regionally specific, information on the education level of “typical workers” in each occupation, which is used to divide occupations in the region into the three groups by education level (as presented on pages 45-47), was estimated using national 2010 IPUMS ACS microdata (for the employed civilian noninstitutional population ages 16 and older). Although regionally specific data would seem to be the better choice, given the level of occupational detail at which the analysis is conducted, the sample sizes for many occupations would be too small for statistical reliability. And, while using pooled 2006-2010 data would increase the sample size, it would still not be sufficient for many regions, so national 2010 data were chosen given the balance of currency and sample size for each occupation. The implicit assumption in using national data is that the

# Data and methods

## Analysis of occupations by opportunity level

(continued)

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

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

for entry is lower.

Finally, the level of occupational detail at which the analysis was conducted, and at which the lists of occupations are reported, is the three-digit standard occupational classification (SOC) level. While considerably more detailed data is available in the OES, it was necessary to aggregate to the three-digit SOC level in order to align closely with the occupation codes reported for workers in the ACS microdata so that it could be used to estimate typical education levels of workers by occupation.

# 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 Reinvestment Fund. 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 Reinvestment Fund 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\\_Supermarket\\_Access\\_Analysis-Brief\\_2015.pdf](https://www.reinvestment.com/wp-content/uploads/2015/12/2014_Limited_Supermarket_Access_Analysis-Brief_2015.pdf).

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## Measures of diversity and segregation

In the profile, we refer to measures of residential segregation by race/ethnicity (the “diversity score” on page 18, the “multi-group entropy index” on page 60 and the “dissimilarity index” on page 61). 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 61, but keep the 1980 data in the chart on page 60 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>.

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## Estimates of GDP without racial gaps in income

Estimates of the gains in average annual income and GDP under a hypothetical scenario in which there is no income inequality by race/ethnicity are based on the 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 non-working, 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

(continued)

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.

# Photo credits

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## Introduction

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