

May 2010

Sacramento **SCORECARD**

The Sacramento Coalition on Regional Equity
Collaborative Assessment of Regional Development

Baseline Regional Report

We would like to thank The California Endowment and the UC Davis College of Agricultural and Environmental Sciences for the financial support that made this report possible.

Acknowledgements

This report is a joint project of the Coalition on Regional Equity and the UC Davis Center for Regional Change.

CORE (Coalition on Regional Equity) is a coalition of community groups including affordable housing developers, environmentalists, transportation advocates, homeless and anti-poverty advocates, social service providers, organized labor, the faith community, civil rights organizations and health groups. CORE advocates for regional change that is equitable and sustainable and promotes public health for lower income people and communities of color in the greater Sacramento region. CORE is a project of the Sacramento Housing Alliance.

For more information, please visit www.equitycoalition.org.

The Center for Regional Change at UC Davis brings together faculty, students and communities to collaborate on innovative research to create just, sustainable and healthy regional change in California's Central Valley and Sierra Nevada.

For more information, please visit <http://regionalchange.ucdavis.edu>.

Contributors to this report

Chris Benner, UC Davis Center for Regional Change: Writing and Production of Final Report, Project Conceptualization

Kendra Bridges, Coalition on Regional Equity: Writing and Production of Final Report, Project Conceptualization, Creation of Map Prototypes

Ganlin Huang, UC Davis Center for Regional Change: Writing and Production of Final Report, Production of Report Maps

Jonathan London, UC Davis Center for Regional Change: Project Conceptualization

Shamus Roller, Coalition on Regional Equity: Editing of Final Report, Project Conceptualization

Constance Slider, Coalition on Regional Equity: Editing of Final Report, Project Conceptualization

Eric Schultheis, Legal Services of Northern California: Creation of Map Prototypes

Additionally, the CORE Steering Committee helped develop ideas for broad areas of examination.

Table of Contents

Executive Summary.....	6–9
Introduction	10–11
Demographics	12–31
Economic Opportunities	32–43
Housing	44–55
Education.....	26–63
Transportation.....	64–71
Health & Environment.....	72–75
Methods	77

Map Index

All Maps Depict Census Tracts

Demographics

Percent of White Population 1990	14
Percent of White Population 2008	15
Change in Percent of White Population 1990-2008	16
Percent of Latino Population 1990	17
Percent of Latino Population 2008	18
Change in Percent of Latino Population 1990-2008	19
Percent of African American Population 1990	20
Percent of African American Population 2008	21
Change in Percent of African American Population 1990-2008	22
Percent of Asian Pacific Population 1990	23
Percent of Asian Pacific Population 2008	24
Change in Percent of Asian Pacific Population 1990-2008	25
Percent of Native American Population 1990	26
Percent of Native American Population 2008	27
Change in Percent of Native American Population 1990-2008	28
Percent of Foreign Born Population 1990	29
Percent of Foreign Born Population 2000	30
Change in Percent of Foreign Born Population 1990-2000	31

Economic Opportunities

Median Household Income 2000	34
Median Household Income 2008	35
Median Household Income for Non-Hispanic White 2000	36
Median Household Income for Latino 2000	37
Median Household Income for African American 2000	38
Median Household Income for Asian 2000	39
Median Household Income for Pacific Islander 2000	40
Median Household Income for Native American 2000	41
Percent of Population Below 200% Federal Poverty Line 1990	42
Percent of Population Below 200% Federal Poverty Line 2000.....	43

Housing

Home Ownership Rate 1990	46
Home Ownership Rate 2008	47
Change in Percent Home Ownership Rate 1990-2008	48
Home Ownership Rate for Non-Hispanic White 2000	49
Home Ownership Rate for Latino 2000	50

Home Ownership Rate for African American 2000	51
Home Ownership Rate for Asian 2000	52
Home Ownership Rate for Native American 2000	53
Home Ownership Rate for Pacific Islander 2000	54
Percent of Renting Households Paying More Than 30% Income on Rent 2000	55

Education

Percent of Population with a Bachelor's Degree or Higher 1990	58
Percent of Population with a Bachelor's Degree or Higher 2008	59
Change in Percent of Pop. with a Bachelor's Degree or Higher 1990-2008	60
Percent of Population with Less Than a High School Diploma 1990	61
Percent of Population with Less Than a High School Diploma 2008	62
Change in Percent of Pop. with Less Than a High School Diploma 1990-2008.....	63

Transportation

Percent of Working People who Drive Alone to Work 1990	66
Percent of Working People who Drive Alone to Work 2000	67
Change in Percent of Working People who Drive Alone to Work 1990-2000	68
Percent of Working People who Drive More Than 30 Minutes to Work 1990	69
Percent of Working People who Drive More Than 30 Minutes to Work 2000	70
Change in Percent. of Working People who Drive More Than 30 Min. to Work 1990-2000	71

Health and Environment

Toxic Release Inventory Sites 2006	74
Percent of Tree Canopy 2000	75

Executive Summary

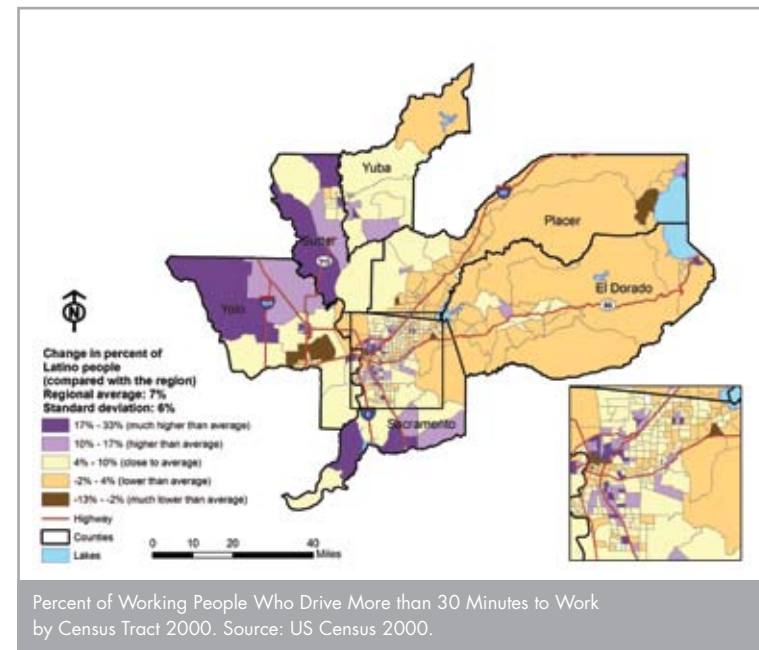
Many of the challenges and opportunities facing our families and communities cannot be solved at a neighborhood or even city level. Whether it is access to jobs, quality education, adequate health services, or affordable housing, dynamics at a regional scale largely shape individual opportunities and challenges. Similarly, an increasingly large body of research is showing that the economic health of entire regions is shaped by levels of social equity, with more equality at a regional scale contributing to greater economic growth for all.ⁱ

What are the patterns of social and economic opportunity in the Sacramento region? Are we growing more equitably, or becoming more unequal over time? In what areas are we improving and where are there areas of concern?

These are the basic questions that we attempt to answer in this report. The SCORECARDⁱⁱ Baseline Report provides an overview of levels and patterns of opportunity and disparity in the region. This report is part of a longer term process dynamically linking community involvement with regional mapping and GIS analysis to support advocacy and organizing that promotes regional equity and health in the six county Sacramento region.

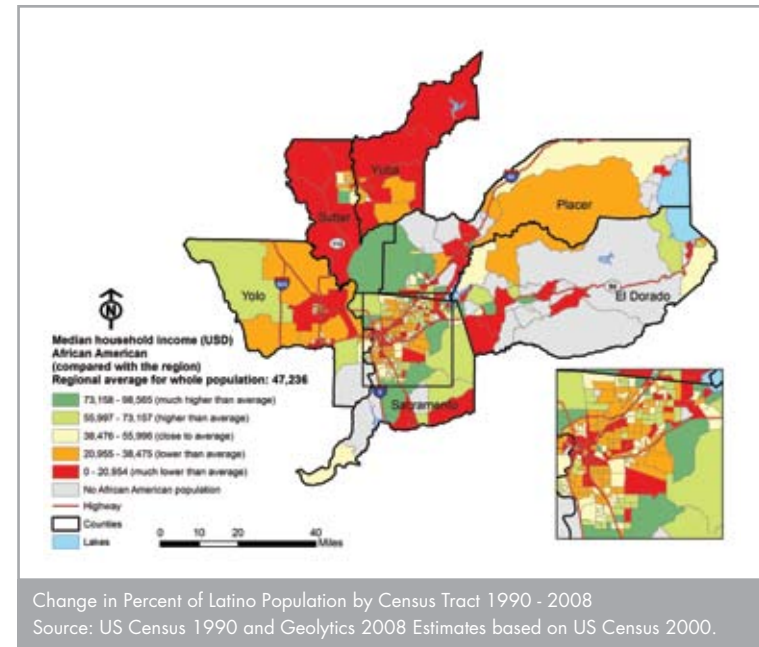
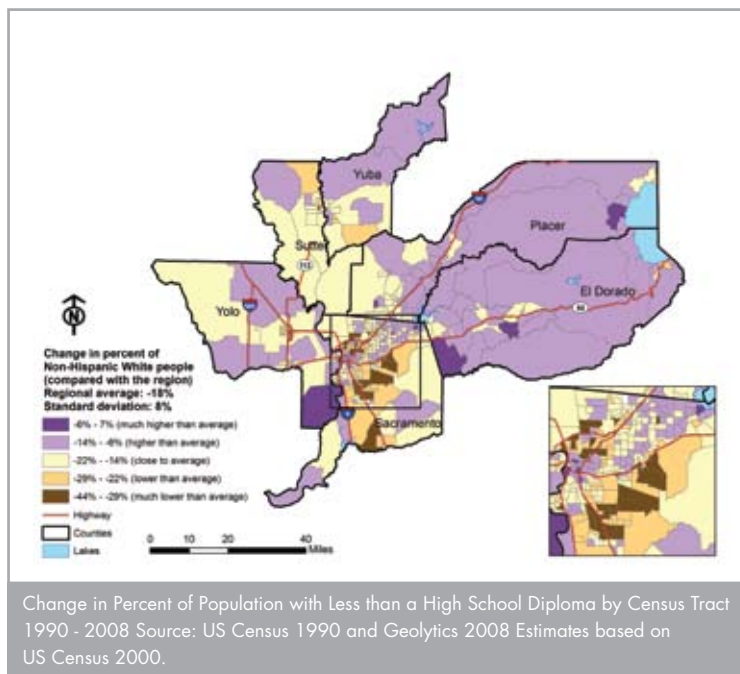
We examine patterns of development and change over time on a variety of issues that are critical for residents of the Sacramento region, providing detailed maps showing these patterns. Briefly, we find the following patterns:

Demographically, the Sacramento region is very diverse, with multiple different racial groups in different areas of the region. Latino and Asian populations are increasing numerically and as a percentage of the population in the region. Despite the diver-



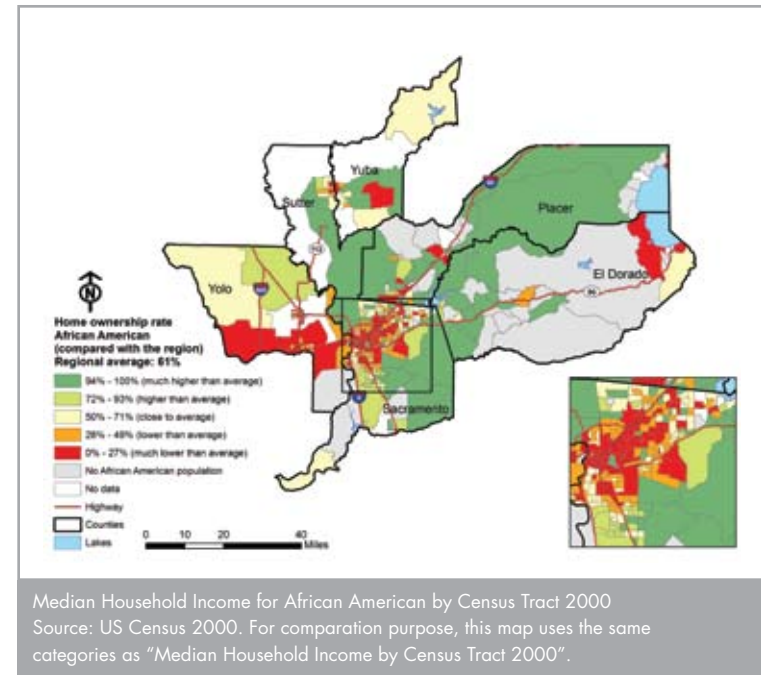
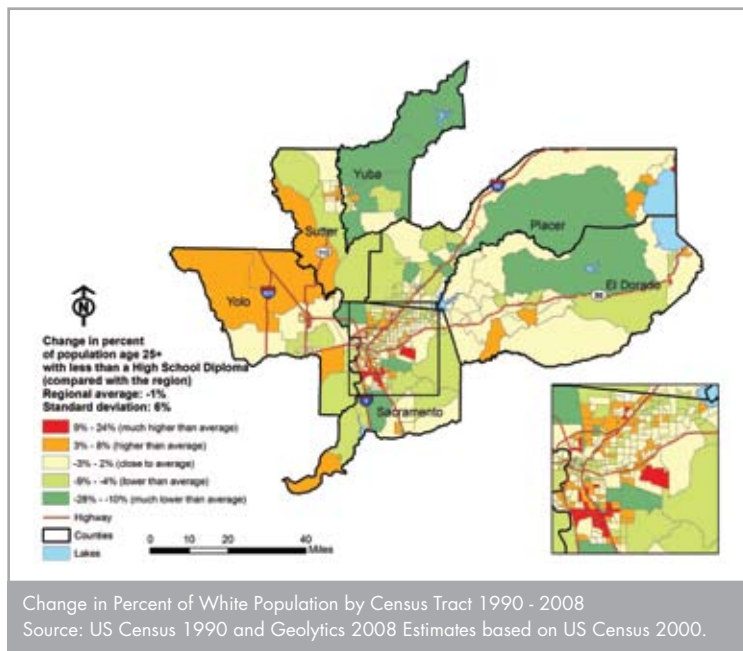
sity and relative spatial integration, there remains substantial racial segregation across the region, with city-suburban, rural-urban, and east-west differences clearly evident in the region. For example, since 1990, the overall population of the region has gone from 75% non-Hispanic white, to 57% non-Hispanic white, but portions of the eastern suburbs and large sections of rural areas in the region remain predominantly white.

Income levels are also distributed unequally across the region. While overall the median household income in census tracts throughout the region grew from \$47,236 in 2000 to \$48,377 in 2008, large portions of the region lag. These patterns are particularly pronounced when examining income levels by race, where large portions of the African American, Latino and Asian populations fall into the lowest income category in the region, making below \$20,954 per household in 2000.



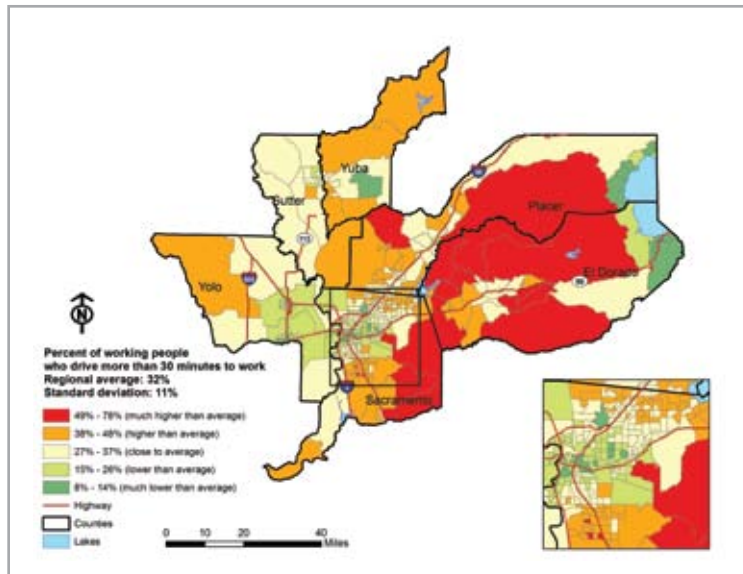
Poverty also remains a significant problem in the region, with poor communities concentrated in the urban neighborhoods of south Sacramento, Del Paso Heights, and in large portions of Yolo, Sutter and Yuba counties.

Education clearly emerges as one of the priority areas for attention in the region. Many studies have documented how important higher education is for improved economic opportunities. A community college degree generally leads to substantially higher incomes than having a high school degree. Yet our progress in expanding educational attainment in the region is critically slow. Overall there have been only slight improvements in educational attainment levels over the 1990-2008 period, with the proportion of the adult population with a Bachelor's Degree or higher growing from 23% to 25% and the proportion with less than a high school degree dropping from 18% to 17%. In large portions of south Sacramento in particular, the proportion of the population with low educational attainment has been increasing.



Patterns of **homeownership** in the region show relative stability overall, with an estimated 61% homeownership rate in the region in 2008, unchanged since 1990. Yet the patterns of homeownership vary dramatically by race across the region as well. For large portions of the region, homeownership rates for African Americans and Latinos were below 27% in 2000, much lower than the regional average. This is significant considering that homeownership remains a substantial mechanism for building wealth for many Americans.

In terms of **transportation** patterns, driving alone continues to dominate our region's commuting patterns, with 74% of working people in 2000 driving by themselves to work, down only 1% from 1990. More people are driving further distances as well. In 2000 32% drove more than 30 minutes to work, up from 27% in 1990. Residents of the eastern suburbs of Sacramento and rural parts of Placer and El Dorado counties have the highest proportions of people driving more than 30 minutes to work.



Home Ownership Rate for African American by Census Tract 2000
Source: US Census 2000. *Home ownership rate was calculated by dividing the housing units occupied by owners with the total occupied housing units.

Overall, Sacramento itself is a highly diverse city and county, with a higher percentage of the population having lower incomes, lower homeownership, and lower education levels than the regional average. Rural areas in the western and northern part of the region also face significant challenges, with high levels of poverty and educational attainment, and with a much higher concentration of Latino populations. In contrast, the suburbs and foothill communities to the east of Sacramento have disproportionately high concentrations of non-Hispanic whites, with higher income, education, and home ownership levels. A major concern is that these patterns of social and spatial inequality seem to be growing worse in many areas.

There is clearly need for substantial attention to promoting greater equity within the Sacramento region, and this will require strategies targeted at both urban and rural parts of the region.

This report uses both maps and narrative to describe the region. The report is divided in to six broad sections: demographics, economic opportunity, housing, transportation, and environment.

Introduction

The Sacramento Coalition on Regional Equity Collaborative Assessment of Regional Development (SCORECARD) Baseline Regional Report provides an overview of the state of the Sacramento region in terms of distribution of opportunity and disparity, both geographically and racially. This report uses both maps and narrative to describe the region. The report is divided into six broad sections:

- **Demographics:** Presenting racial patterns of residence;
- **Economic opportunity:** Focusing on median household and income by race, and the spatial distribution of poverty;
- **Housing:** Focusing on home ownership by race, and distribution of households paying more than 30% of their income on rent;
- **Transportation:** Including proportion of population driving alone to work, and average commute times;
- **Environment:** Focusing on access to environmental amenities.

In all of the maps in this document, the unit of analysis is a census tract, which is one of the basic levels at which census data is gathered. Census tracts are designed to include approximately 5,000 people each. Using census tracts as a unit of analysis allows comparisons across what approximates a neighborhood level scale.

Each census tract is assigned to one of five different categories. The middle category includes those census tracts that are close to the overall average for the region (within half

a standard deviation above or below the regional average). We then have two categories that are somewhat higher and lower than average (between .5 and 1.5 standard deviations from the average). The final two categories are for those census tracts that are much higher or lower than the regional average (more than 1.5 standard deviations away from the average), demonstrating high levels of difference from the regional average. The standardization of categories makes it simpler to compare patterns of disparities across multiple indicators and time periods, and to easily spot those areas of the region that significantly diverge from the regional average.

*When viewed as a whole, the Saramento
region is remarkably diverse and
integrated.*

Demographics

When viewed as a whole, the Sacramento region is remarkably diverse and integrated. In 2002, responding to a request by Time Magazine, the Harvard Civil Rights Project determined that the City of Sacramento itself was the most diverse city in the U.S.ⁱⁱⁱ This was partially based on the relatively even representation of the major racial groupings^{iv}. The analysis was also partially based on the relatively low levels of racial segregation compared to other cities.

Yet, from a regional perspective it is clear that while we have a diverse population in the region, we still face substantial racial segregation in where people live.

In 2008, in the average census tract in the region, 57% of the population were white, down from 75% in 1990. The places in the region that have disproportionately high white populations are virtually all east of the city of Sacramento—in the suburbs along the American River and the foothills to the east and north east of the city.

In contrast, the Latino population, which on average accounted for 19% of the population in each census tract in 2008 (up from 11% in 1990) lives disproportionately in the western parts of the region, particularly in the agricultural areas of western Yolo, Sutter and Yuba counties.

The African American population is highly concentrated in the urban core, with large populations in south Sacramento and the Del Paso Heights area in northern Sacramento. The African

American population grew slightly from an average of 6% of the region's population 1990 to an estimated 7% in 2008.

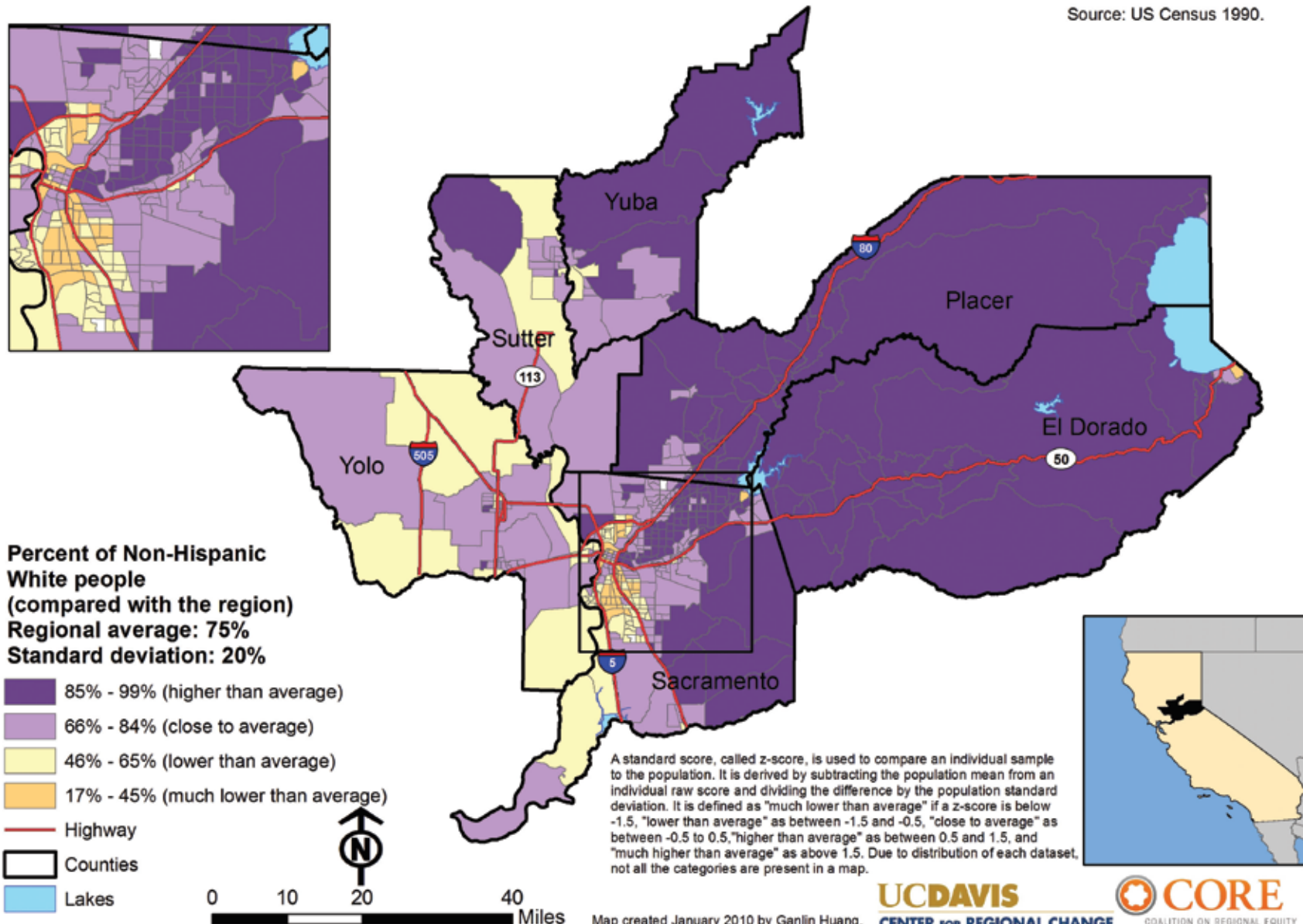
The Asian population is also highly concentrated in particular places in the region, predominantly in south Sacramento and in certain areas of Yuba City in Sutter County. In 1990, the population of the average census tract was 7% Asian, which rose to 11% by 2008.

The Native American population remained almost unchanged between 1990 and 2008 at 1.1% of the population. There are certain neighborhoods in Sacramento itself, and the far rural areas of Yuba County which show particularly high concentrations of Native American populations.

The percentage of the population that is foreign born in the average census tract in the region grew from 9 % in 1990 to 14% in 2000. Large portions of south Sacramento have substantially higher proportions of foreign born population, with some census tracts reaching 46% of the population born abroad.

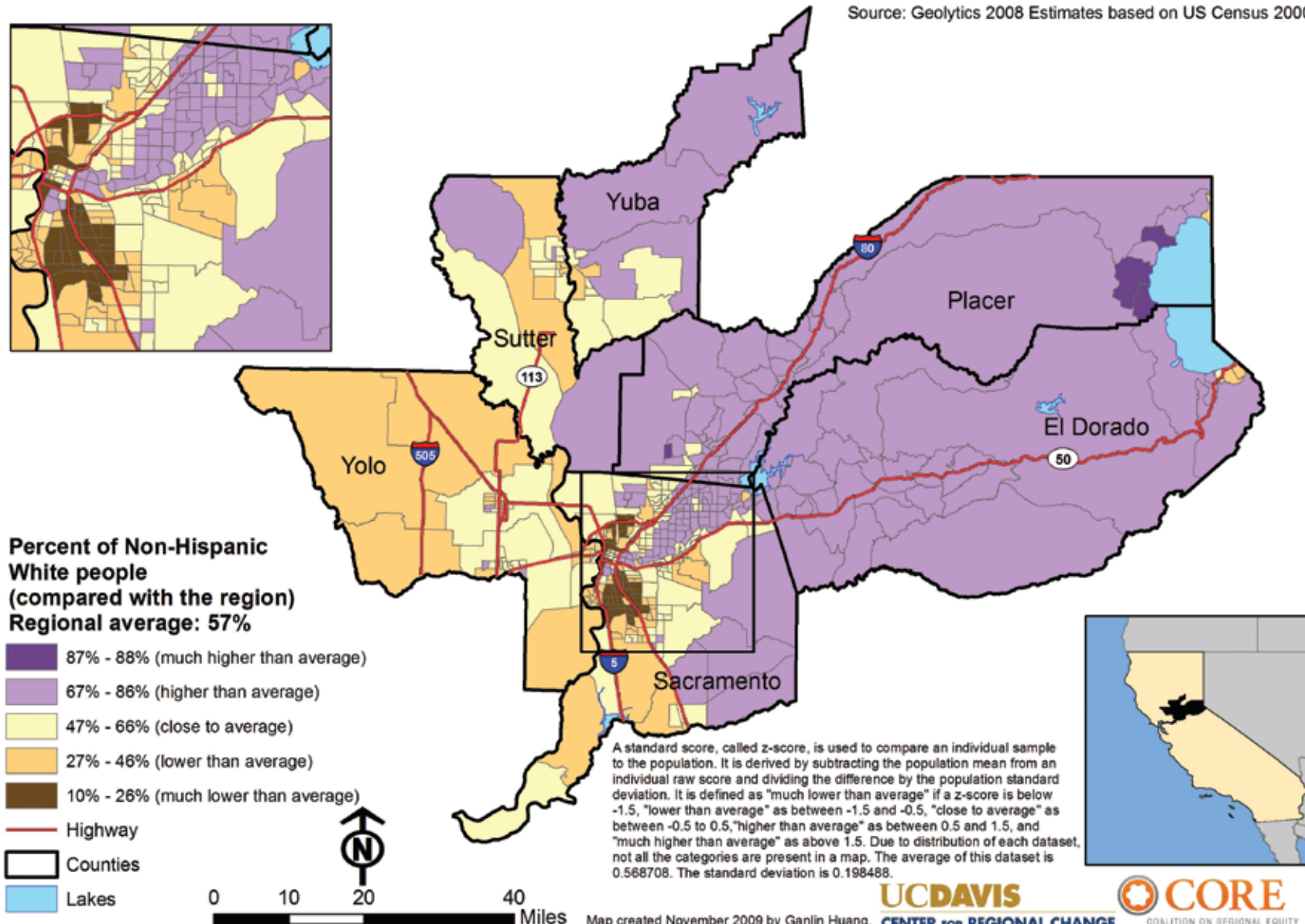
Percent of White Population by Census Tract 1990

Source: US Census 1990.



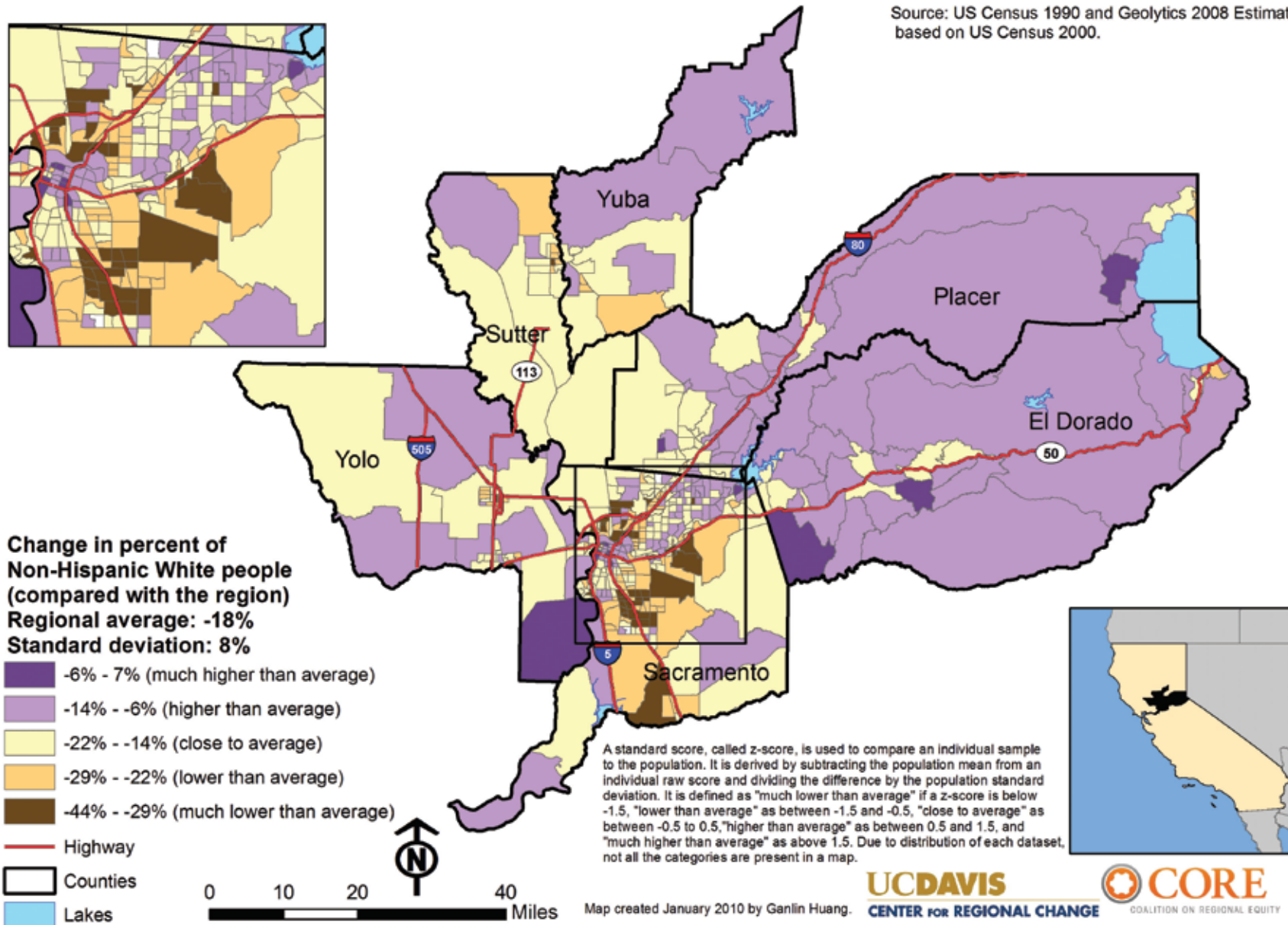
Percent of White Population by Census Tract 2008

Source: Geolytics 2008 Estimates based on US Census 2000.



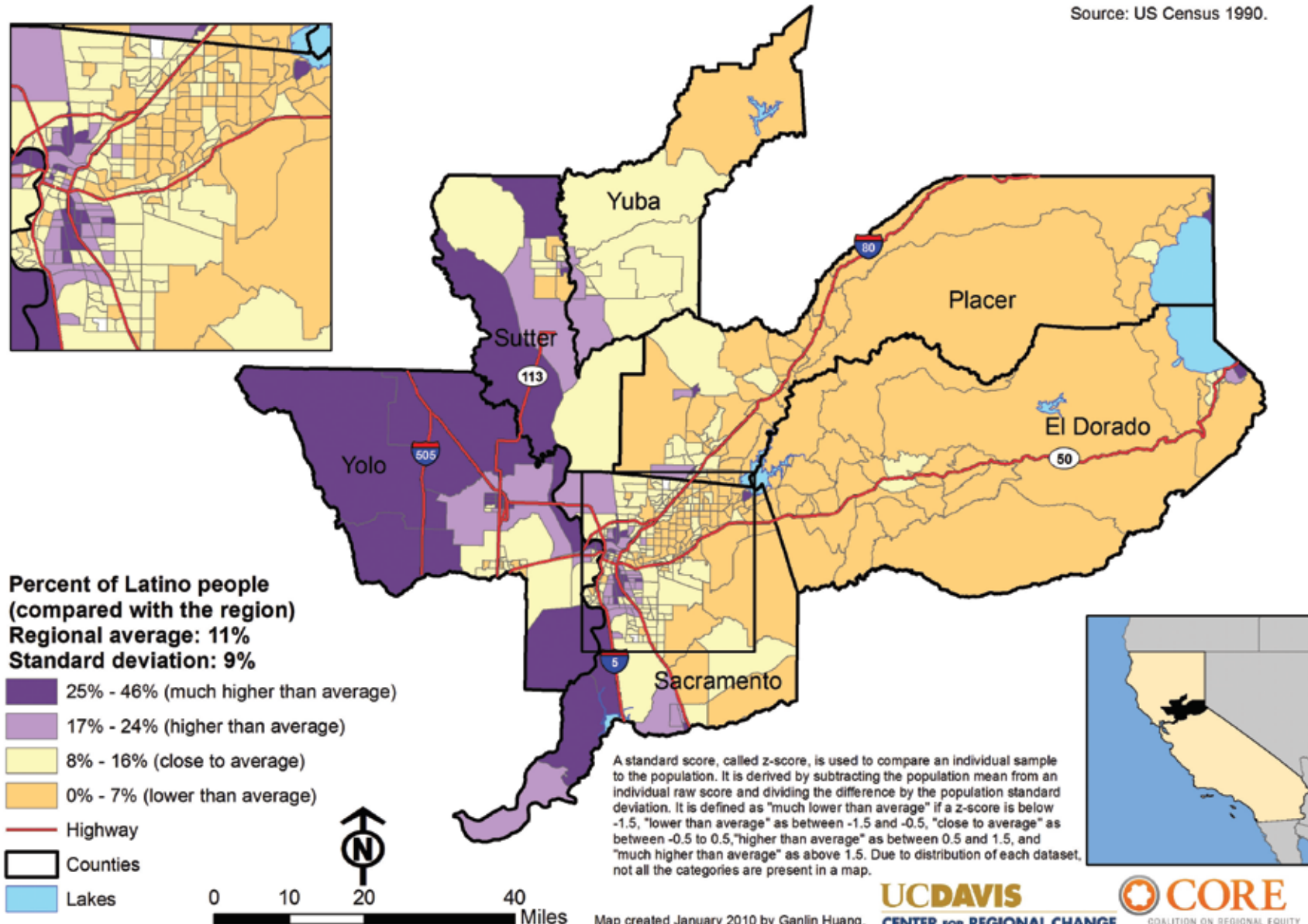
Change in Percent of White Population by Census Tract 1990 - 2008

Source: US Census 1990 and Geolytics 2008 Estimates based on US Census 2000.



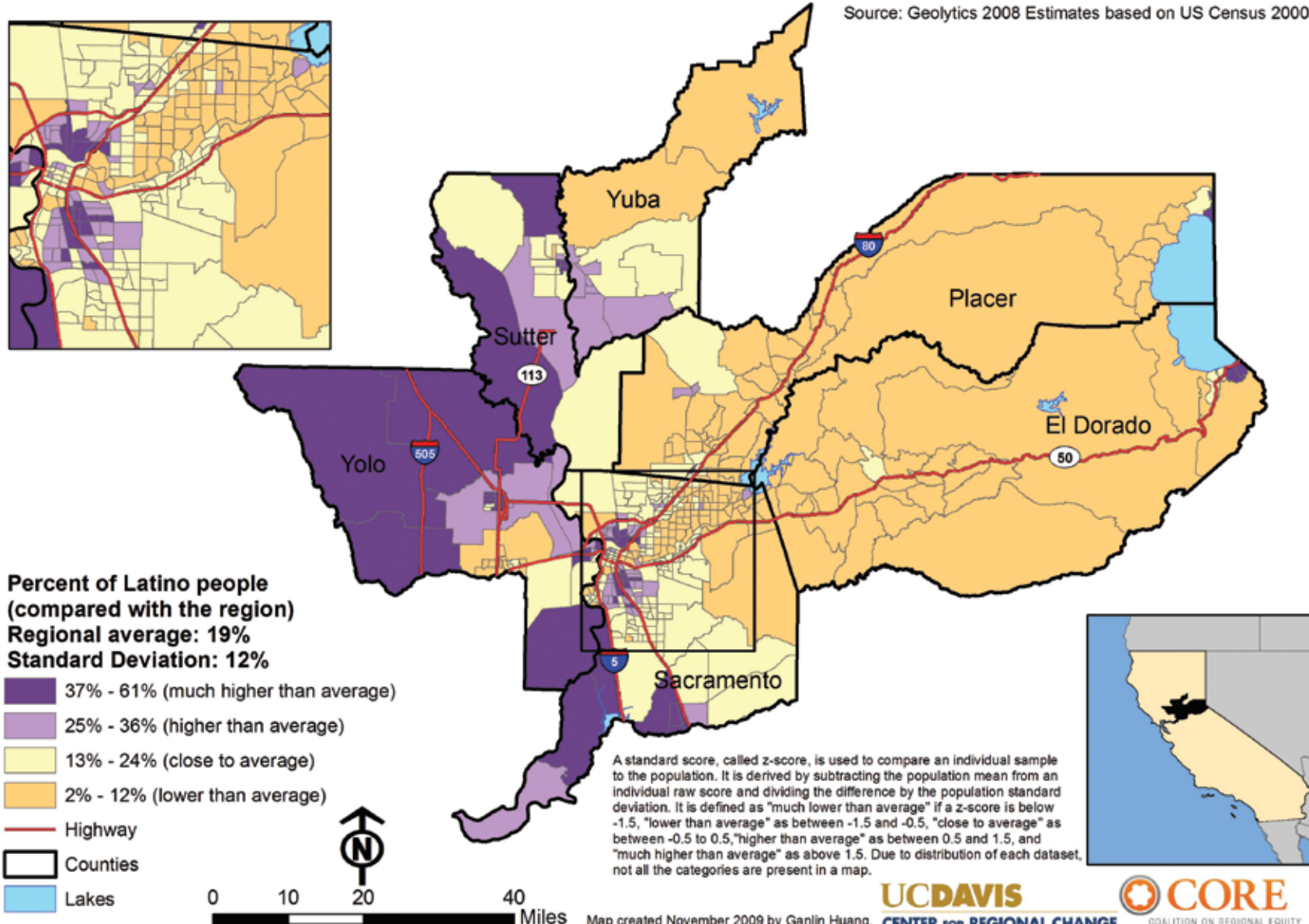
Percent of Latino Population by Census Tract 1990

Source: US Census 1990.



Percent of Latino Population by Census Tract 2008

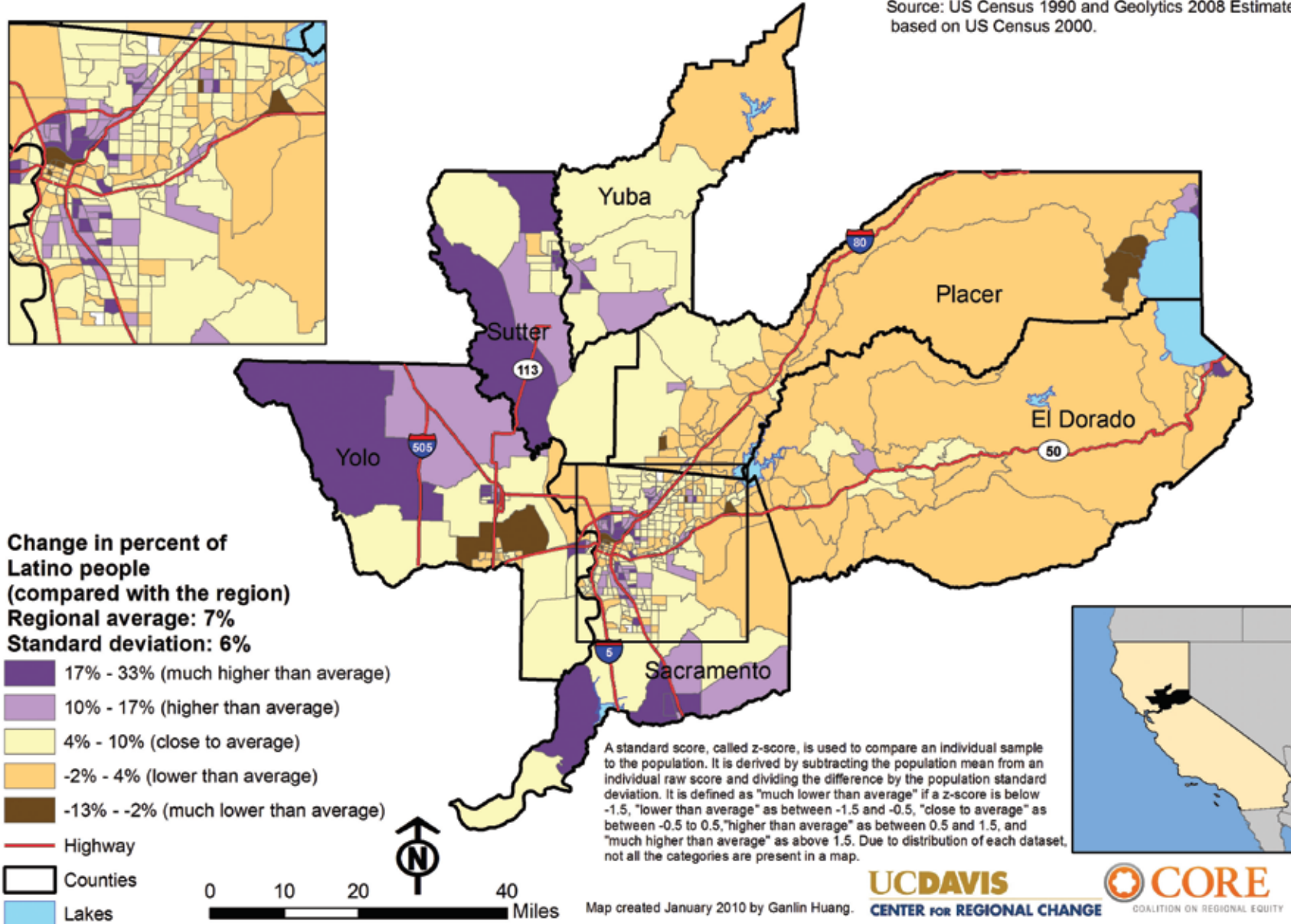
Source: Geolytics 2008 Estimates based on US Census 2000.



Map created November 2009 by Ganlin Huang.

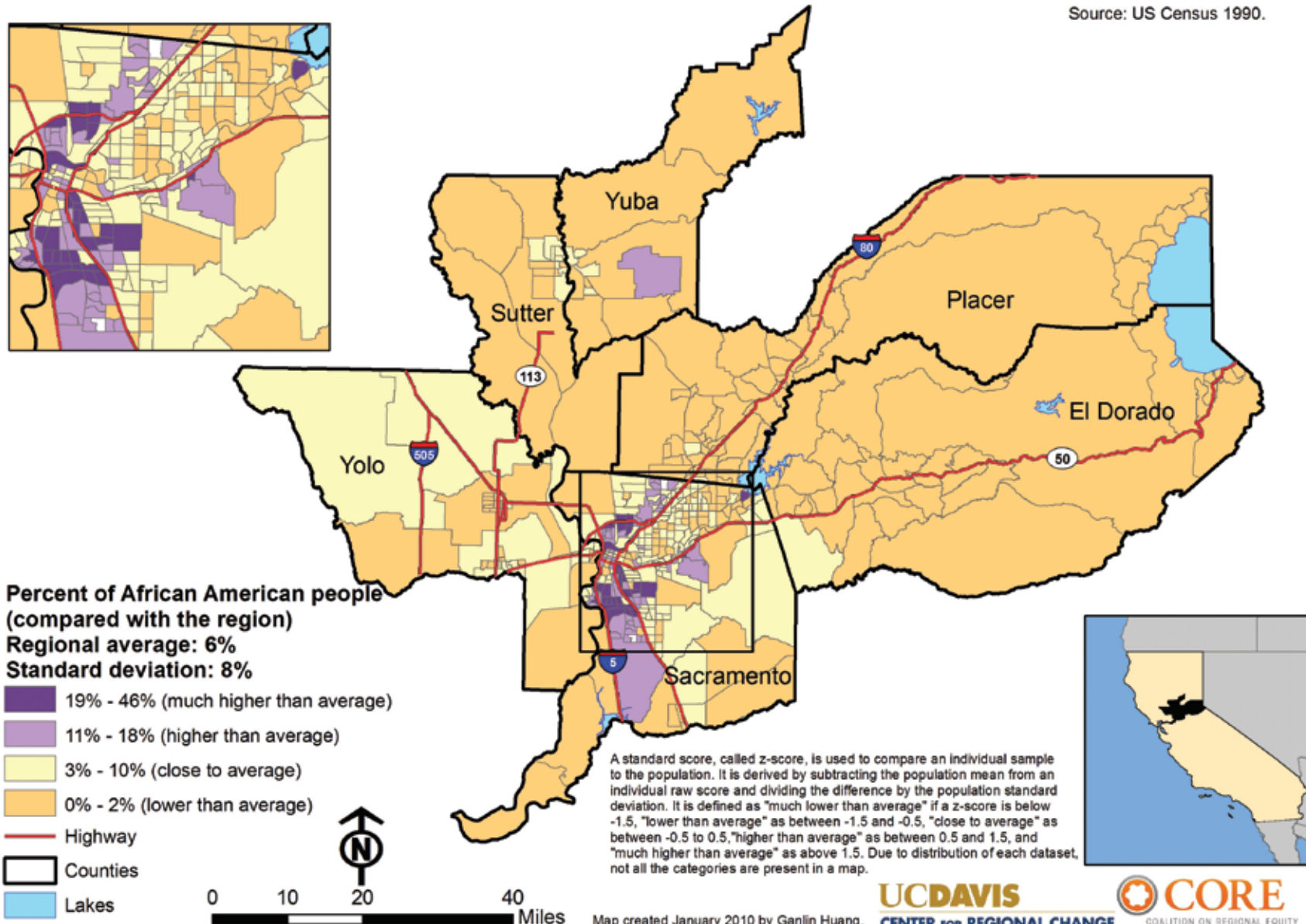
Change in Percent of Latino Population by Census Tract 1990 - 2008

Source: US Census 1990 and Geolytics 2008 Estimates based on US Census 2000.



Percent of African American Population by Census Tract 1990

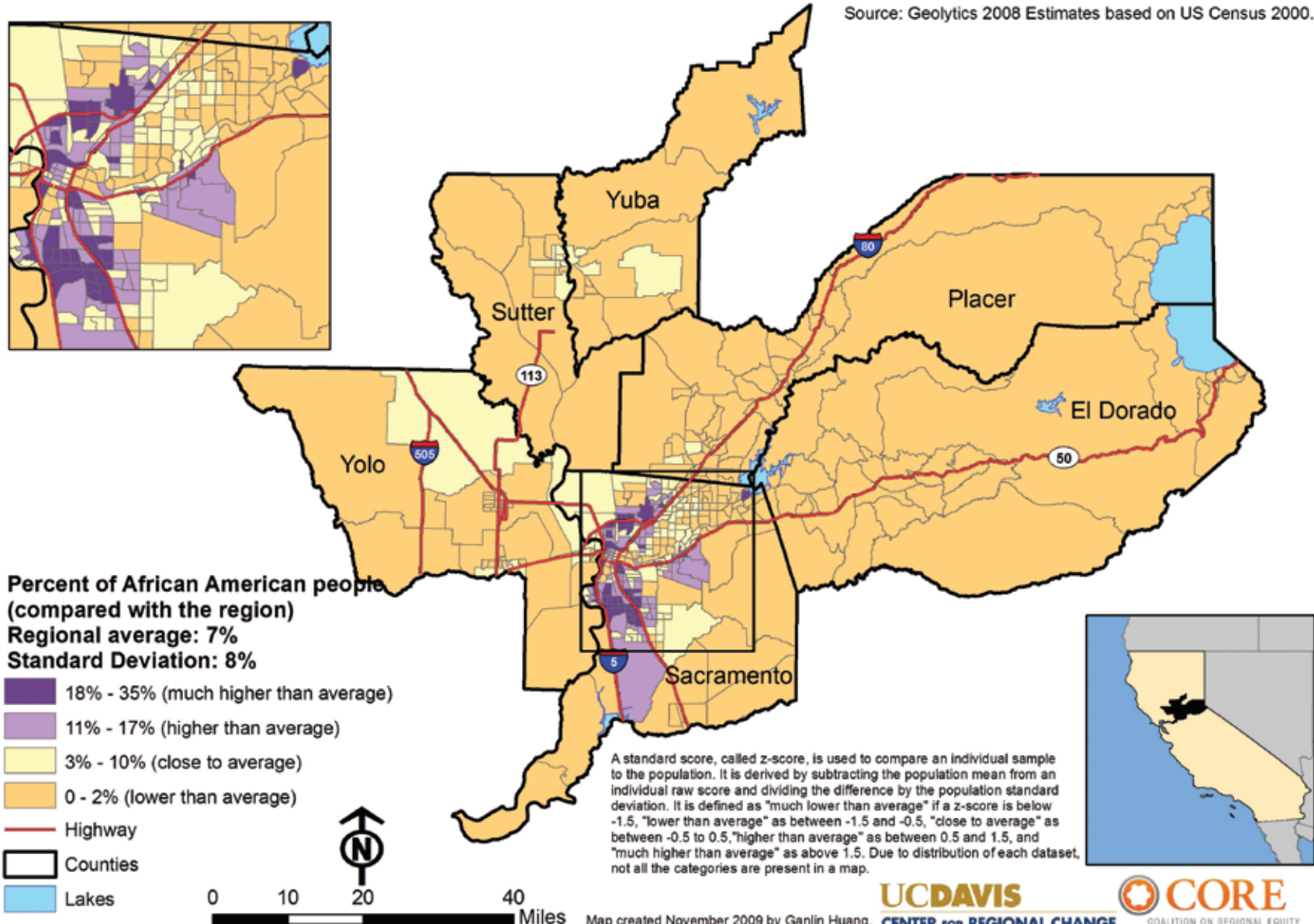
Source: US Census 1990.



Map created January 2010 by Ganlin Huang.

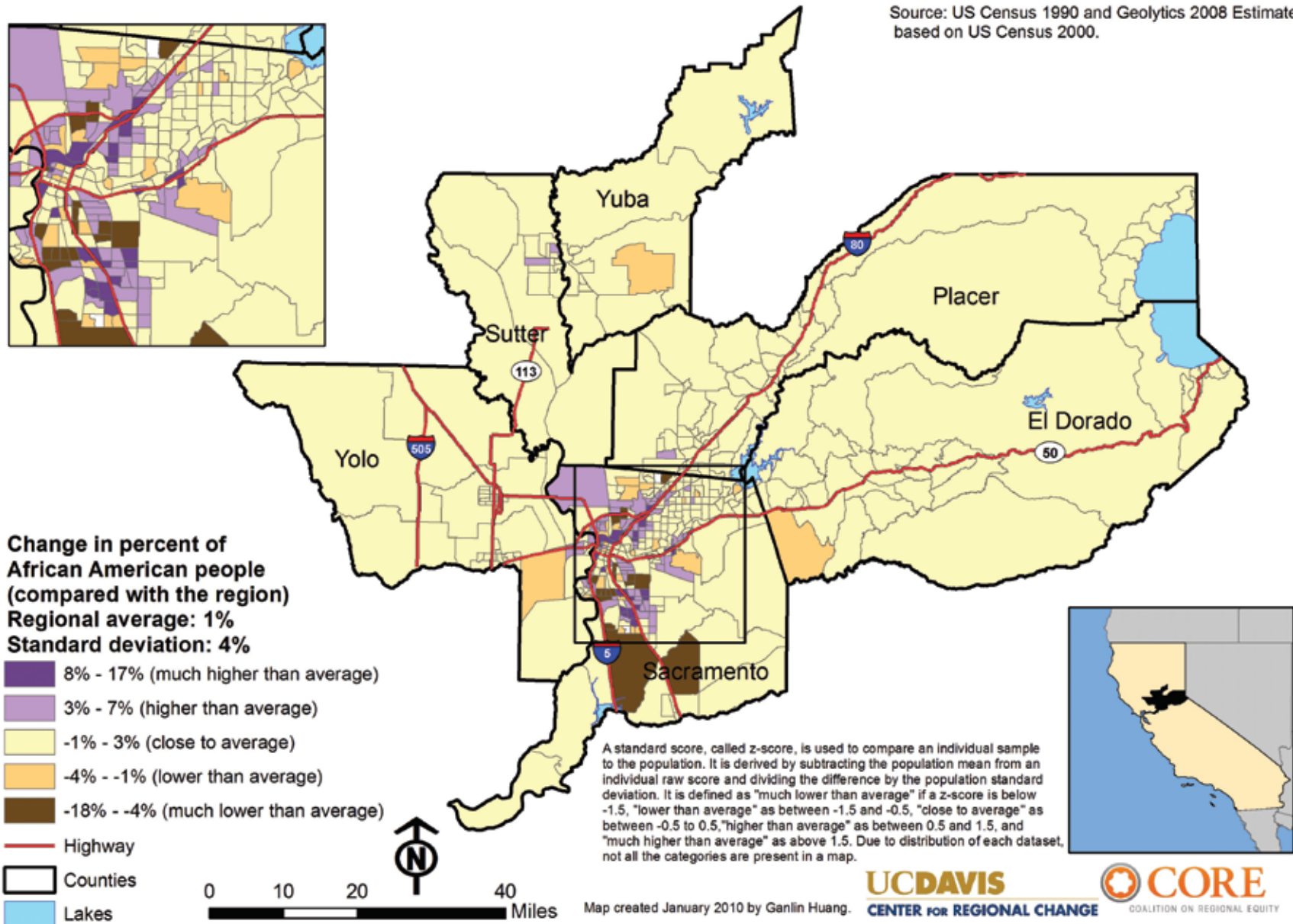
Percent of African American Population by Census Tract 2008

Source: Geolytics 2008 Estimates based on US Census 2000.



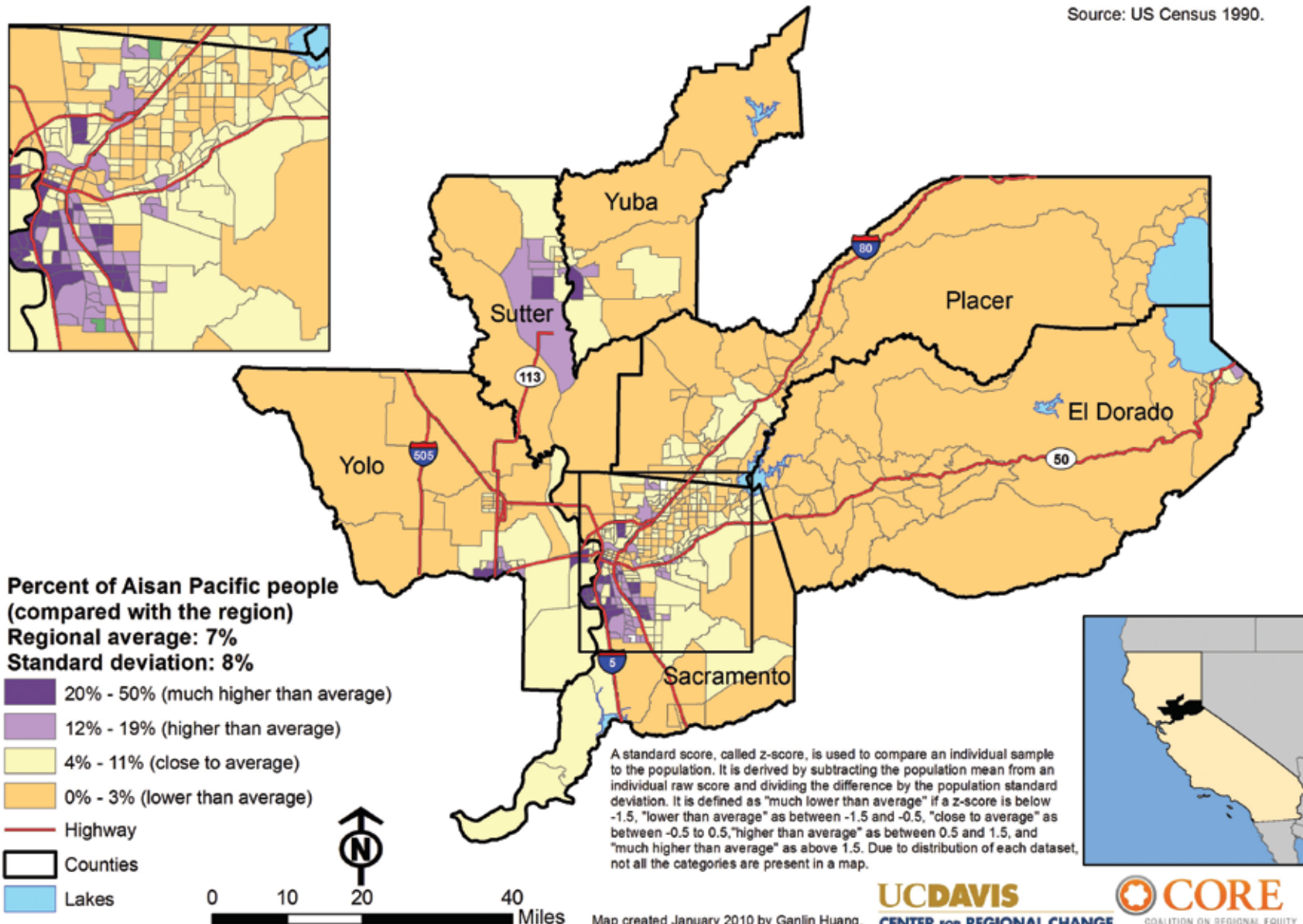
Change in Percent of African American Population by Census Tract 1990 - 2008

Source: US Census 1990 and Geolytics 2008 Estimates based on US Census 2000.



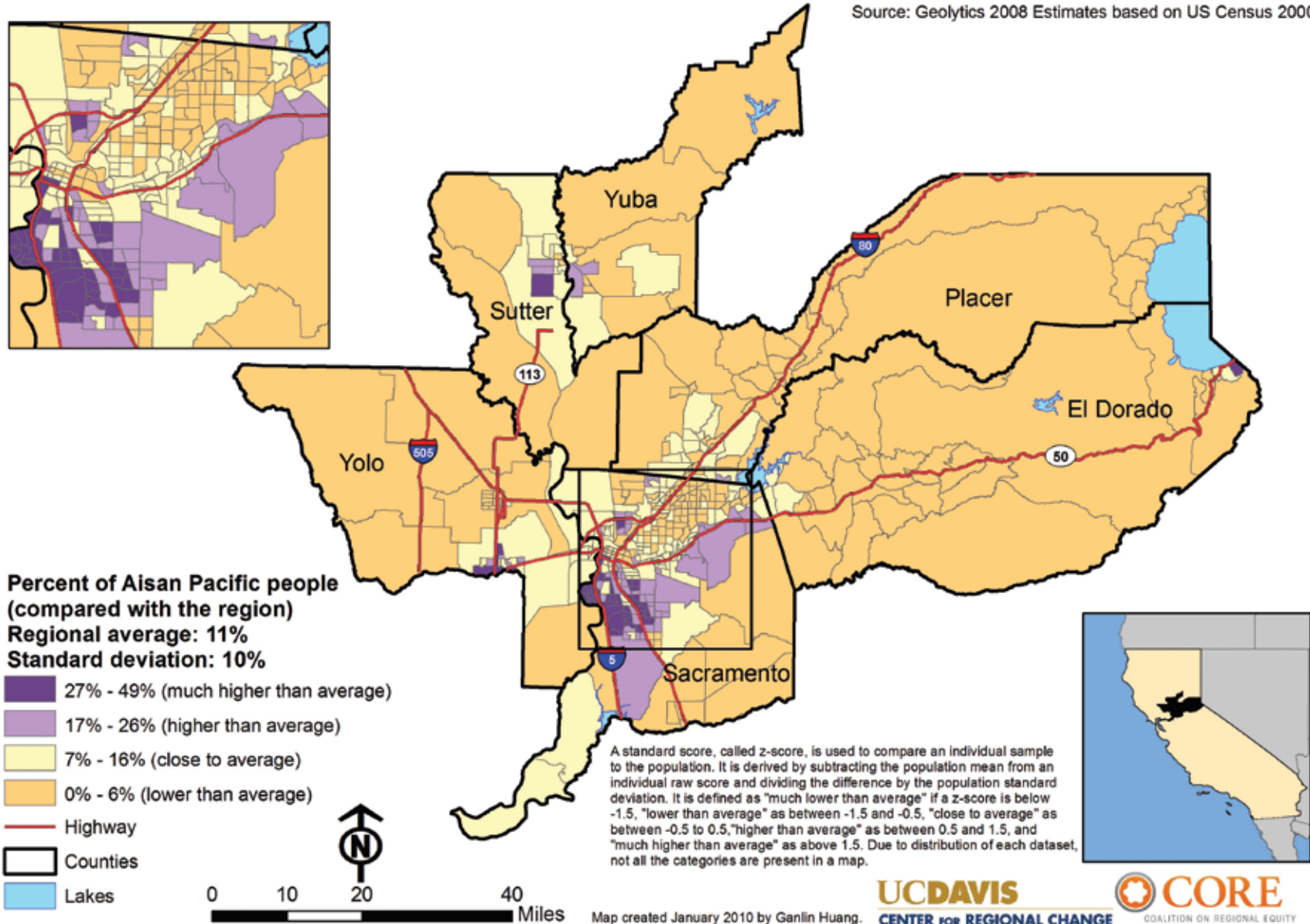
Percent of Asian Pacific Population by Census Tract 1990

Source: US Census 1990.



Percent of Asian Pacific Population by Census Tract 2008

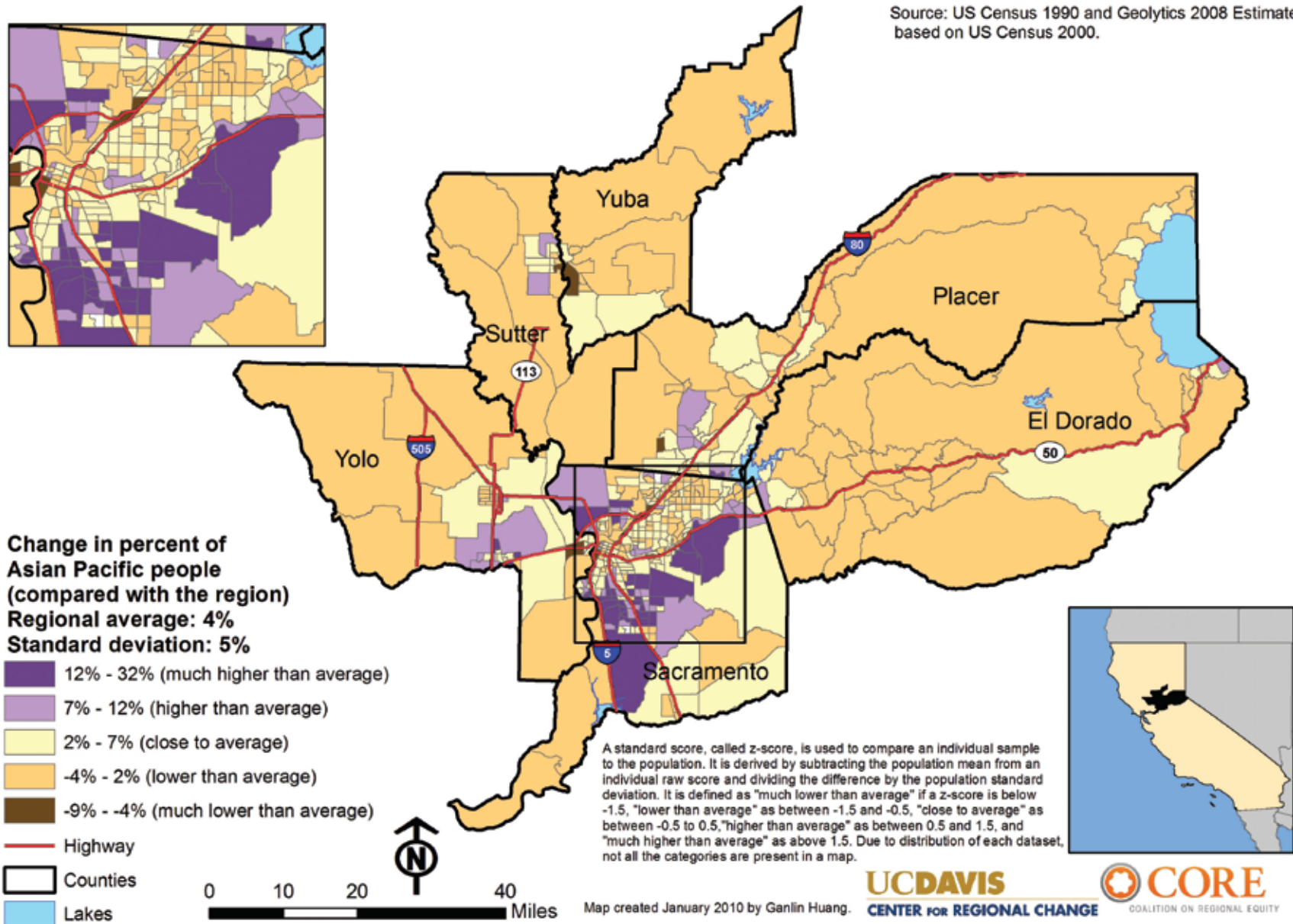
Source: Geolytics 2008 Estimates based on US Census 2000.



Map created January 2010 by Ganlin Huang.

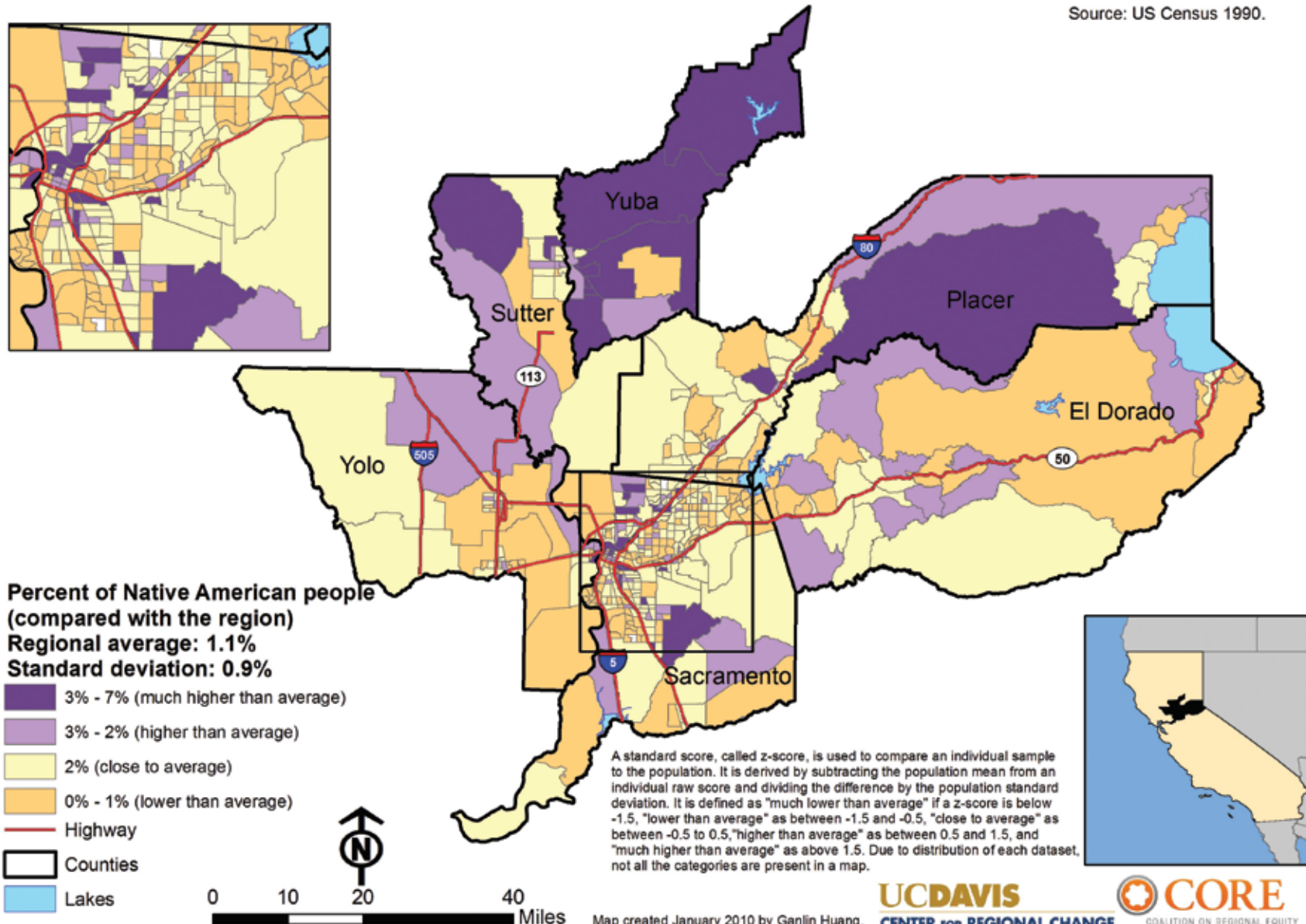
Change in Percent of Asian Pacific Population by Census Tract 1990 - 2008

Source: US Census 1990 and Geolytics 2008 Estimates based on US Census 2000.



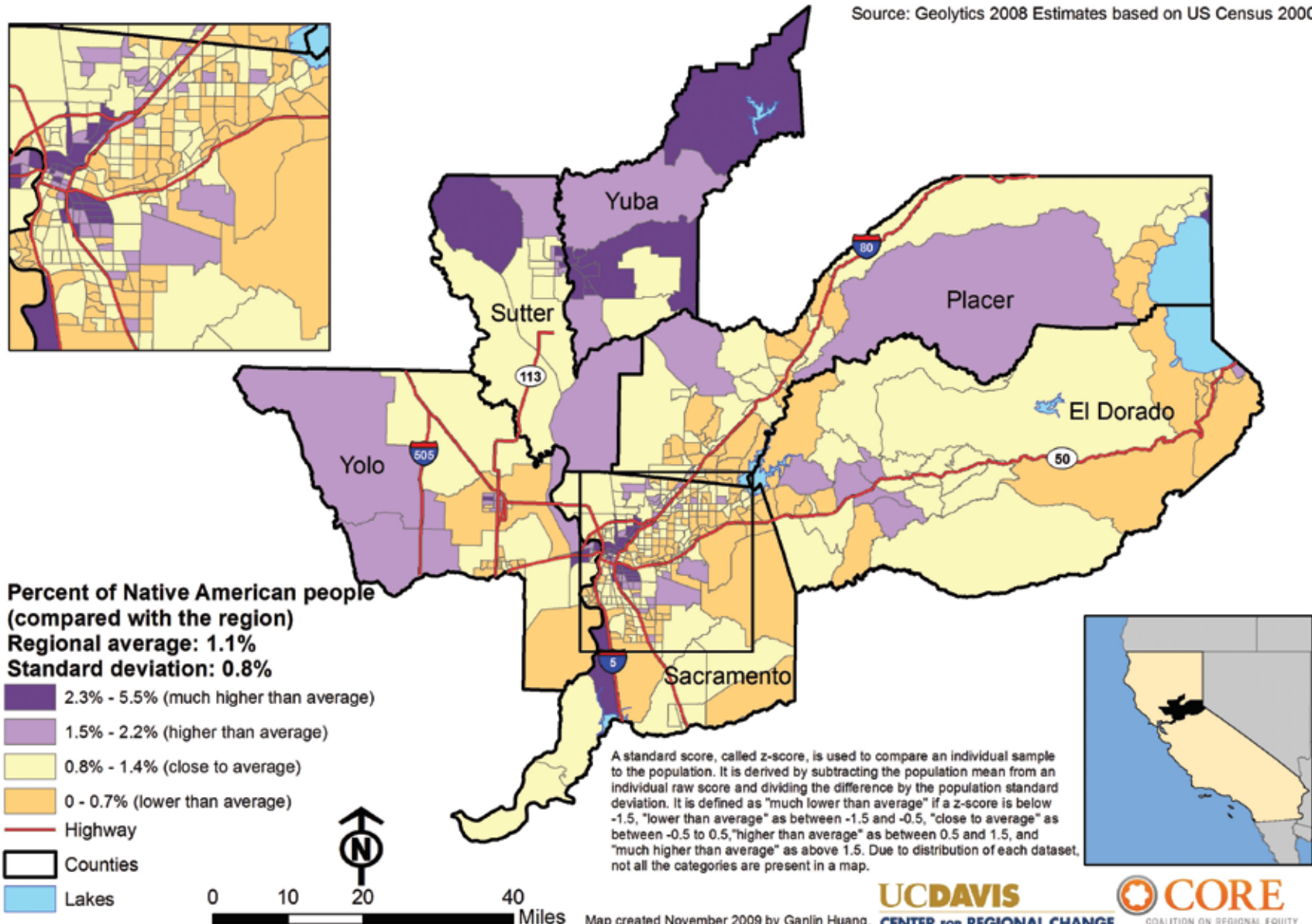
Percent of Native American Population by Census Tract 1990

Source: US Census 1990.



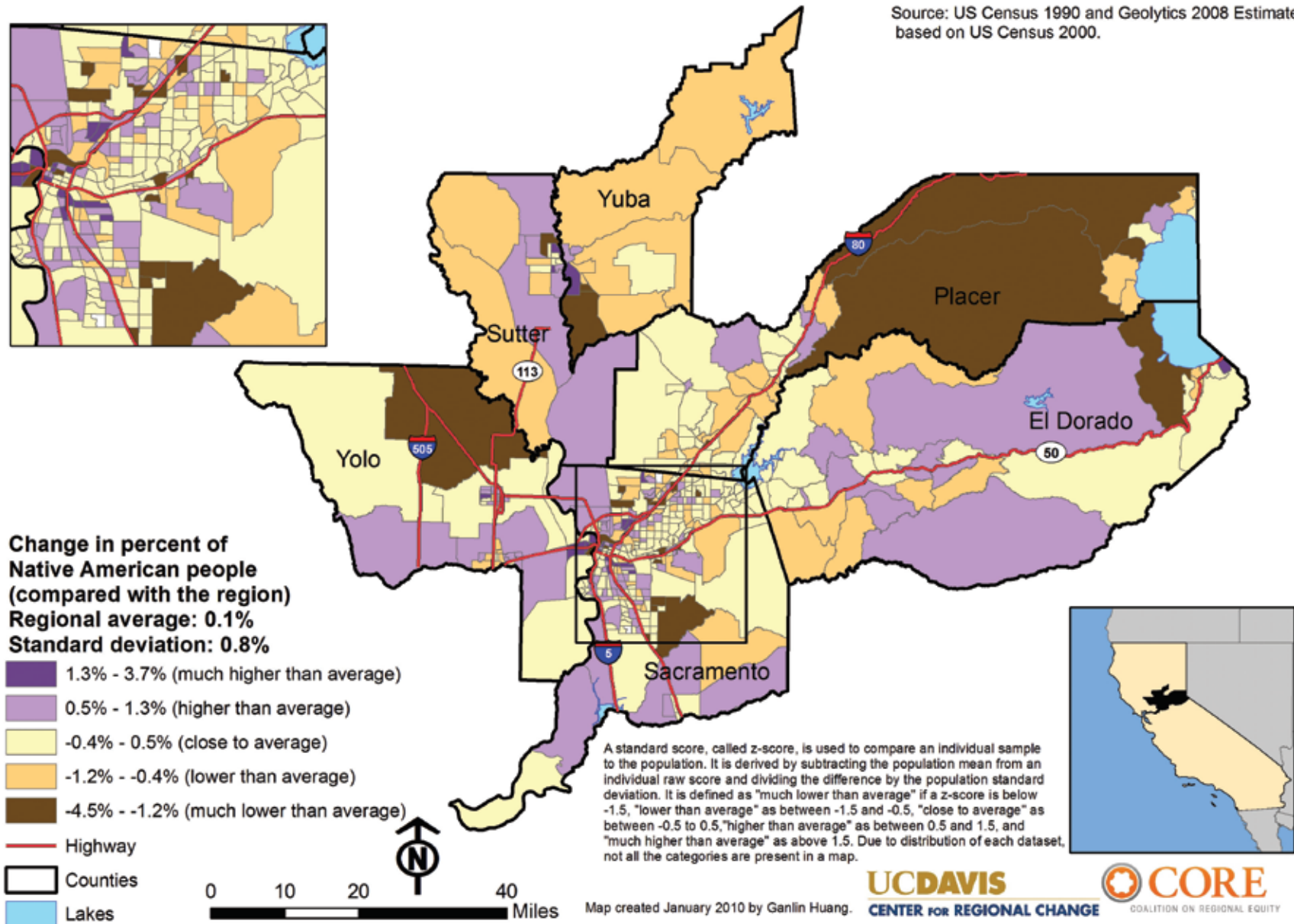
Percent of Native American Population by Census Tract 2008

Source: Geolytics 2008 Estimates based on US Census 2000.



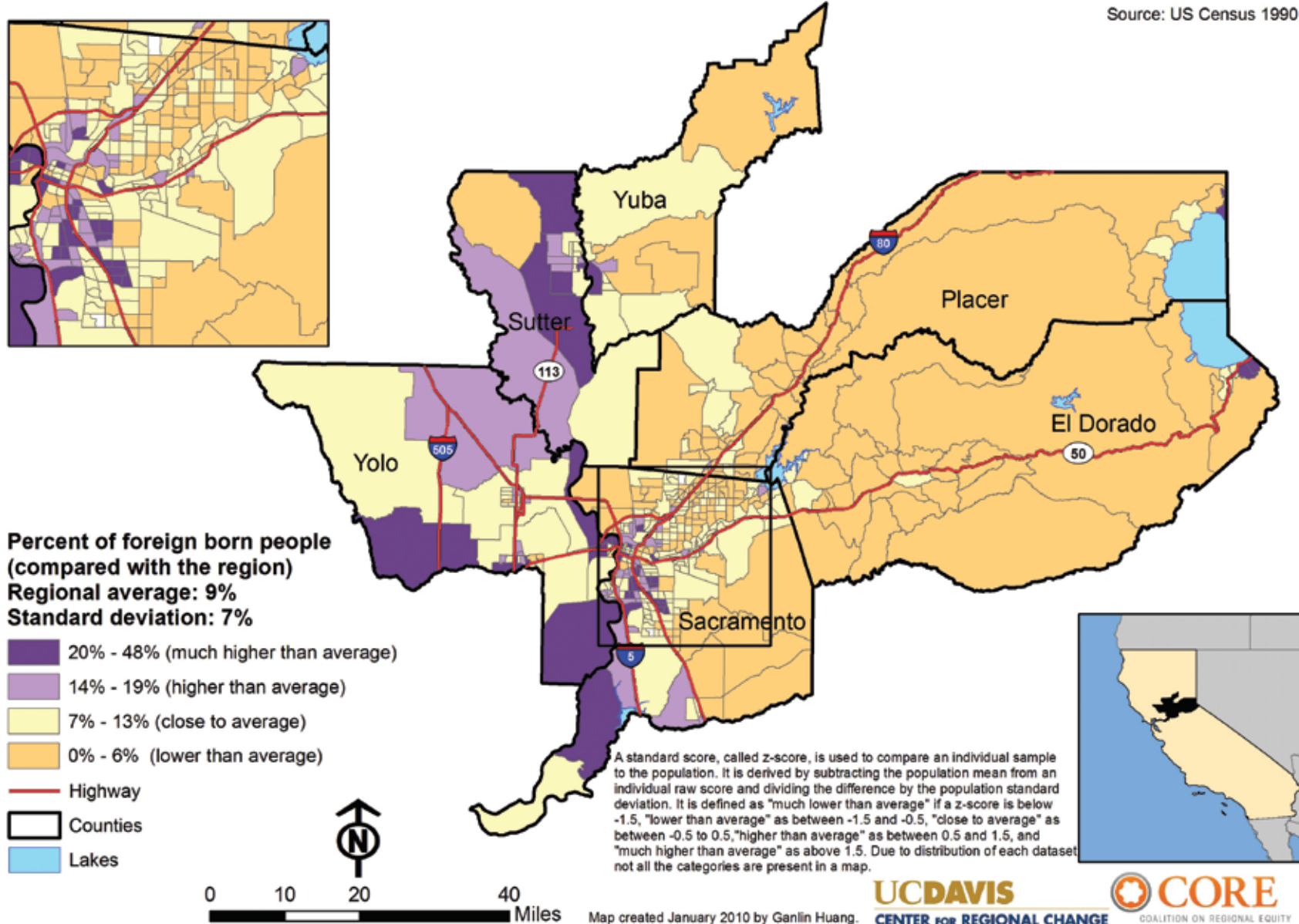
Change in Percent of Native American Population by Census Tract 1990 - 2008

Source: US Census 1990 and Geolytics 2008 Estimates based on US Census 2000.



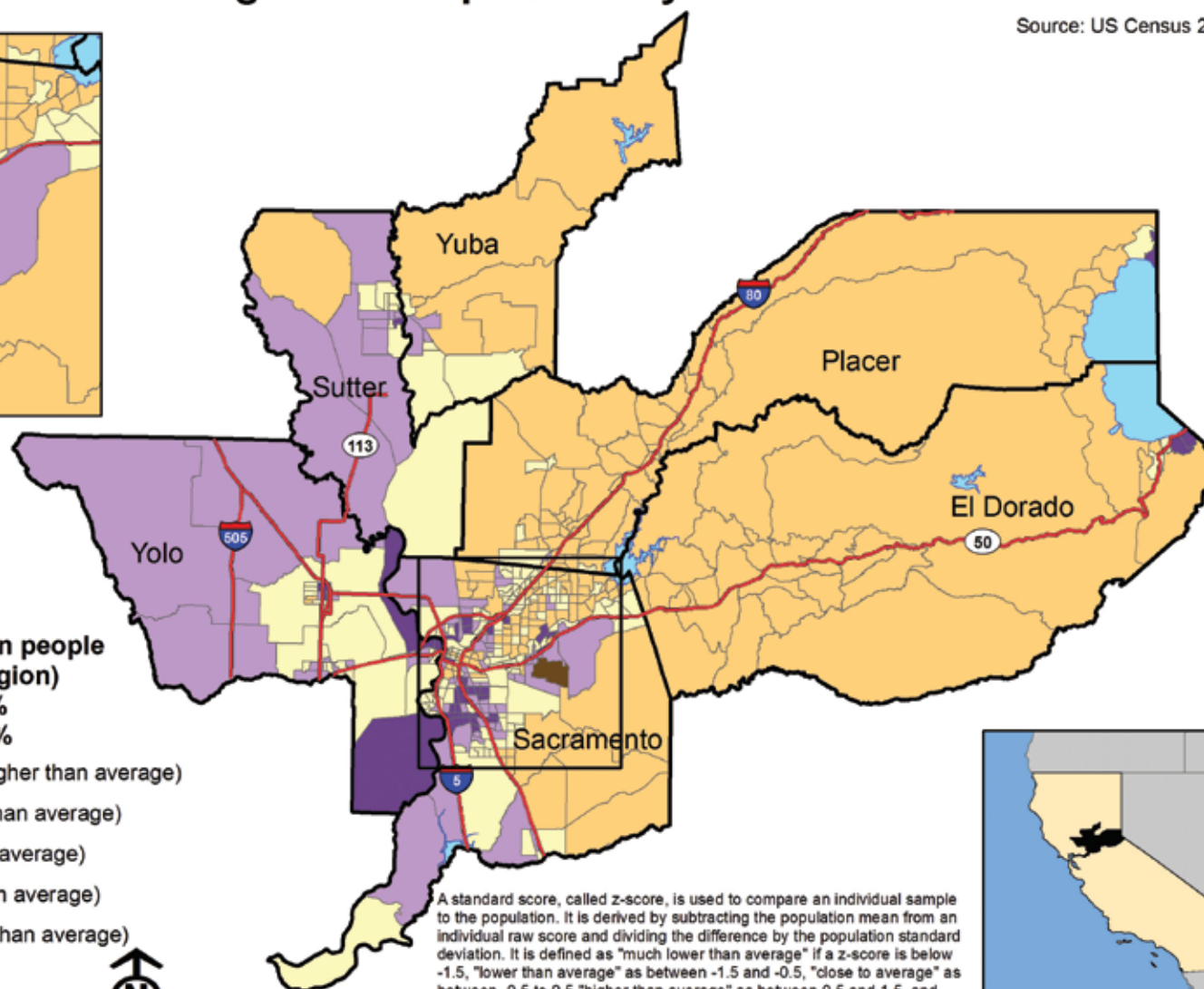
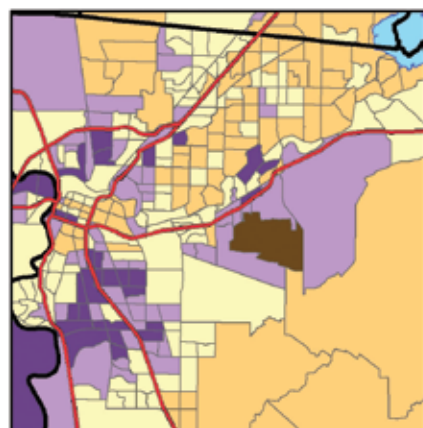
Percent of Foreign Born Population by Census Tract 1990

Source: US Census 1990.



Percent of Foreign Born Population by Census Tract 2000

Source: US Census 2000.



**Percent of foreign born people
(compared with the region)**

Regional average: 14%

Standard deviation: 9%

28% - 46% (much higher than average)

20% - 27% (higher than average)

11% - 19% (close to average)

2% - 10% (lower than average)

0 - 1% (much lower than average)

Highway

Counties

Lakes



0 10 20 40 Miles

A standard score, called z-score, is used to compare an individual sample to the population. It is derived by subtracting the population mean from an individual raw score and dividing the difference by the population standard deviation. It is defined as "much lower than average" if a z-score is below -1.5, "lower than average" as between -1.5 and -0.5, "close to average" as between -0.5 to 0.5, "higher than average" as between 0.5 and 1.5, and "much higher than average" as above 1.5. Due to distribution of each dataset not all the categories are present in a map.



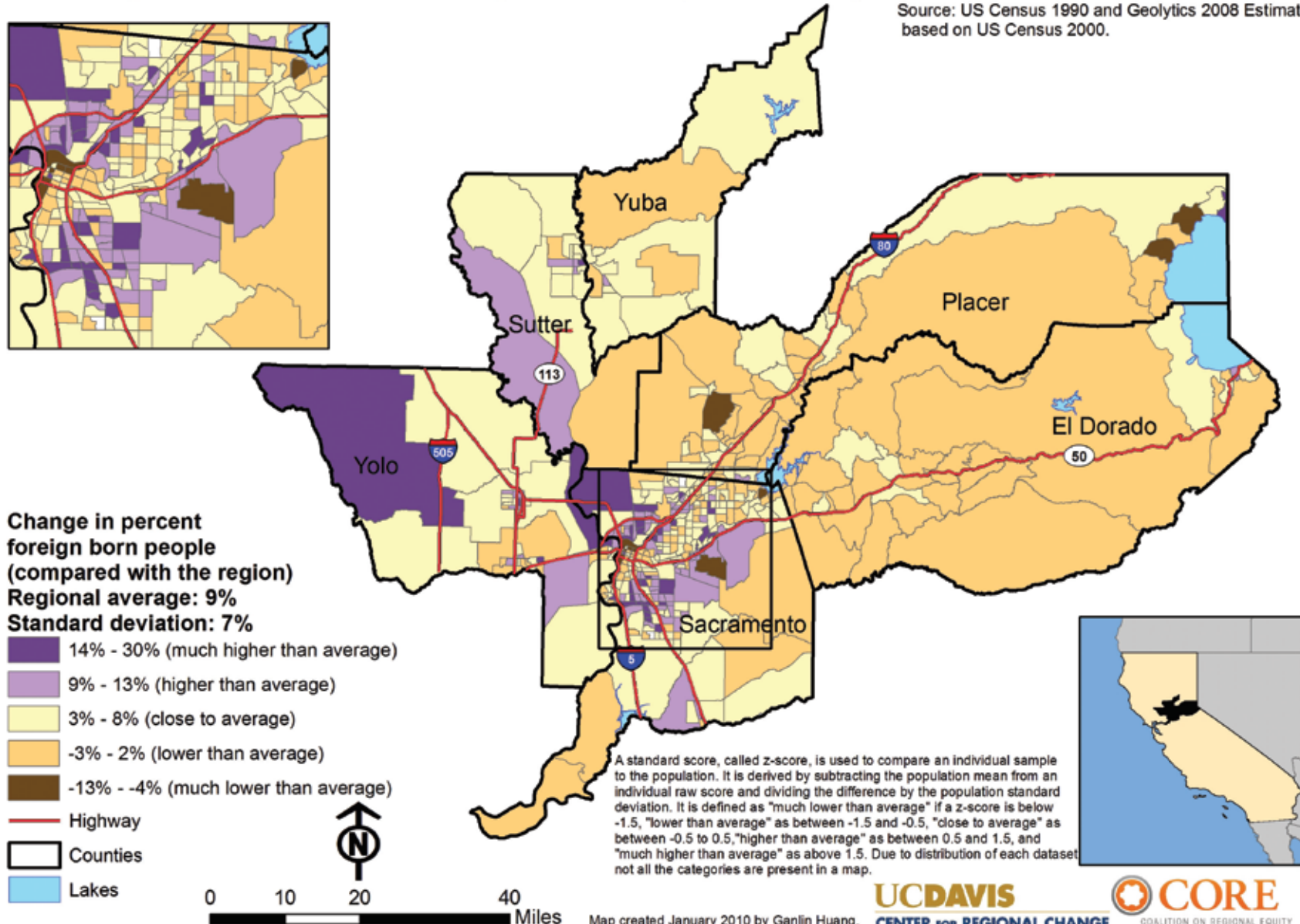
UCDAVIS
CENTER FOR REGIONAL CHANGE

CORE
COALITION ON REGIONAL EQUITY

Map created September 2009 by Ganlin Huang.

Change in Percent of Foreign Born Population by Census Tract 1990-2000

Source: US Census 1990 and Geolytics 2008 Estimates based on US Census 2000.



Disparities in economic circumstance are prevalent, with relatively affluent areas in the region being predominantly white and poorer areas being predominantly people of color.

Economic Opportunities

Across the Sacramento region, location is closely linked to economic opportunity. Disparities in economic circumstance are prevalent, with relatively affluent areas in the region being predominantly white and poorer areas being predominantly people of color.

Overall in 2000, the region had a median household income of \$47,236, meaning that half the households earned more and half earned less than this amount. By 2008, this had risen to \$48,377. Most of the neighborhoods in the City of Sacramento had median household income levels lower than this regional level. The neighborhoods with the highest median incomes were in the eastern and northeastern suburbs of Sacramento and the foothills of El Dorado County.

When median household income is compared for households of different races and in different areas of the region, patterns of economic disparity become apparent. Both African American and Latino households are concentrated in the lowest median household income category (shown in red on the maps) more often than white and Asian households. While there are a few areas in the eastern suburbs with high median incomes among Latino households, in most parts of the region median income amongst the Latino population is lower than the regional average, with pockets of communities in Sacramento and the Yuba City/Marysville area with median incomes much lower than the regional average. Similarly, median household incomes for African American households fall into the very lowest category in much of Sacramento itself.

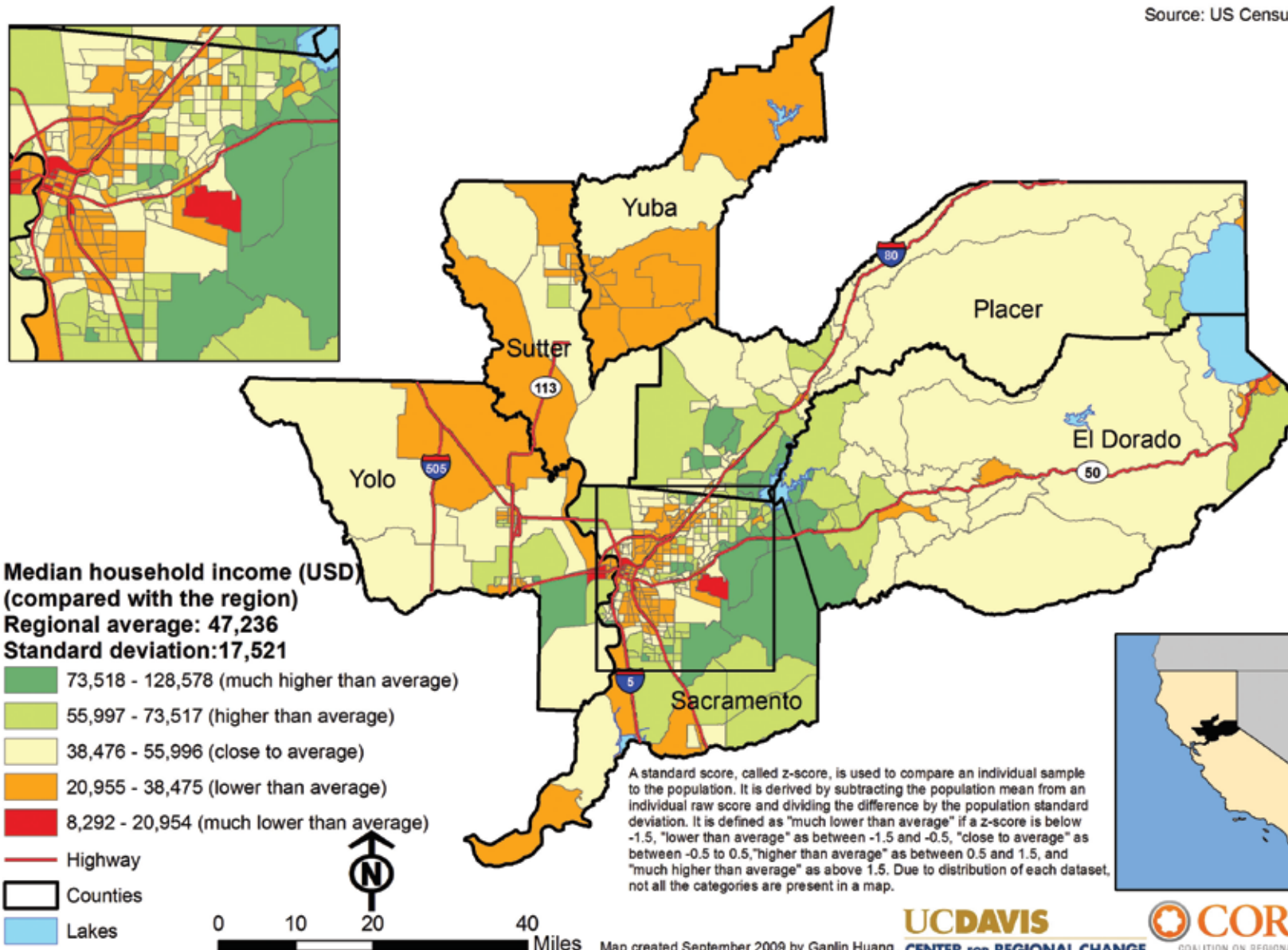
The map for the Asian population reflects a certain degree of bifurcation. In certain parts of the region, particularly north east of Sacramento and the southern portions of Sacramento County, the median household income for Asian households falls into the highest category. Yet in much of Sacramento itself, and in Sutter and Yuba counties, the median income for Asian families falls into the very lowest category for the region.

The disparity in patterns of racial income levels are also reflected in a map of the percent of population living below 200% of the Federal Poverty Line (a more reasonable measure of economic hardship than the official poverty line, which understates economic hardship). In 2000, 200% of the poverty line equaled \$34,100 for a family of four, or \$16,700 for a single individual. On average in the region 30% of the population lived below this income threshold in 2000, up from 28% in 1990. But for large sections of southern and northern Sacramento city, and in Yuba City/Marysville, over 57% of the households were living on less than 200% of the federal poverty line, and these patterns have changed little since 1990.

Substantial pockets of poverty exist in both urban and rural parts of the region, with poor communities concentrated in south Sacramento, Del Paso Heights, and large portions of Yolo, Sutter and Yuba counties. There are patterns of substantial racial inequality in income levels.

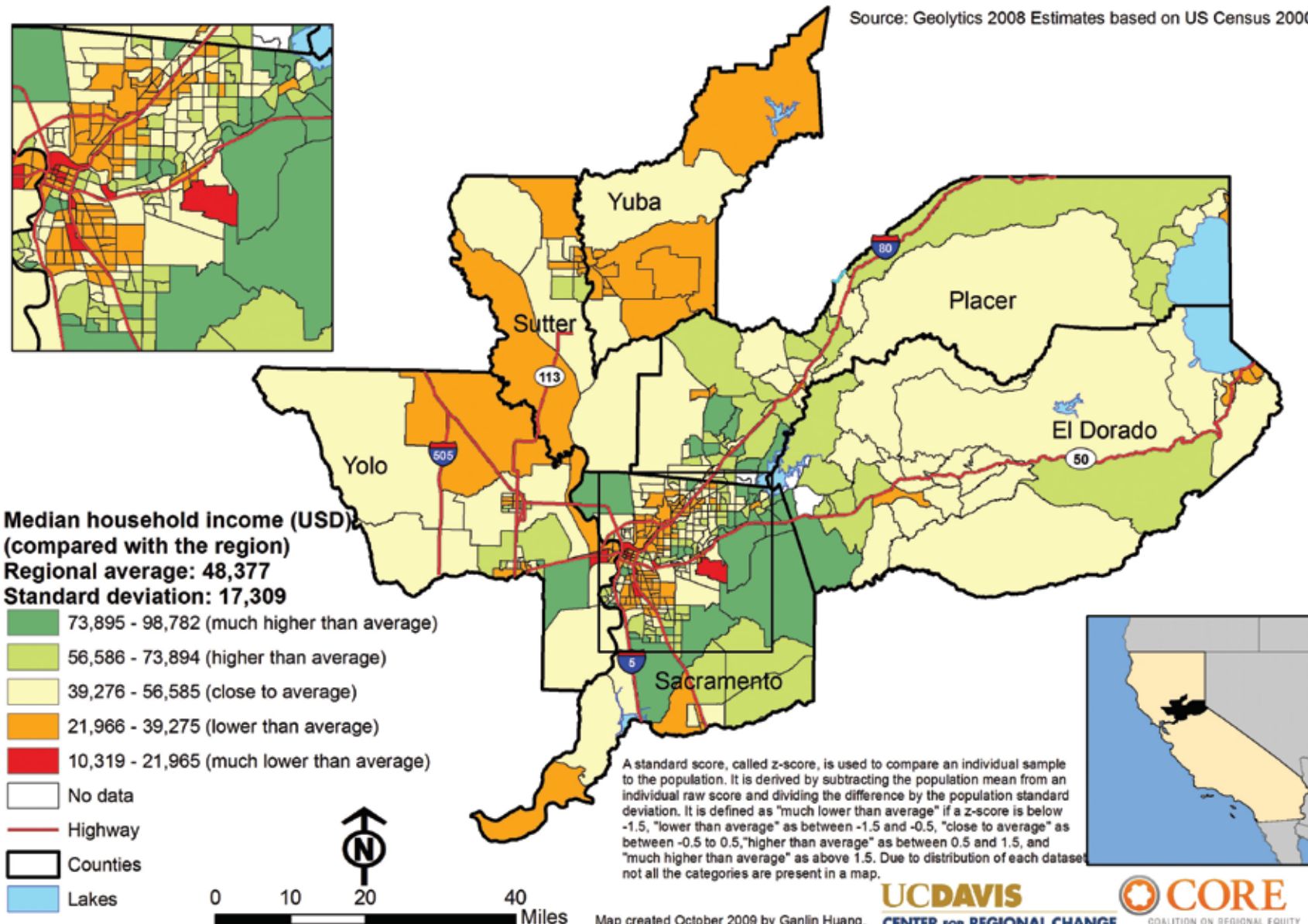
Median Household Income by Census Tract 2000

Source: US Census 2000.



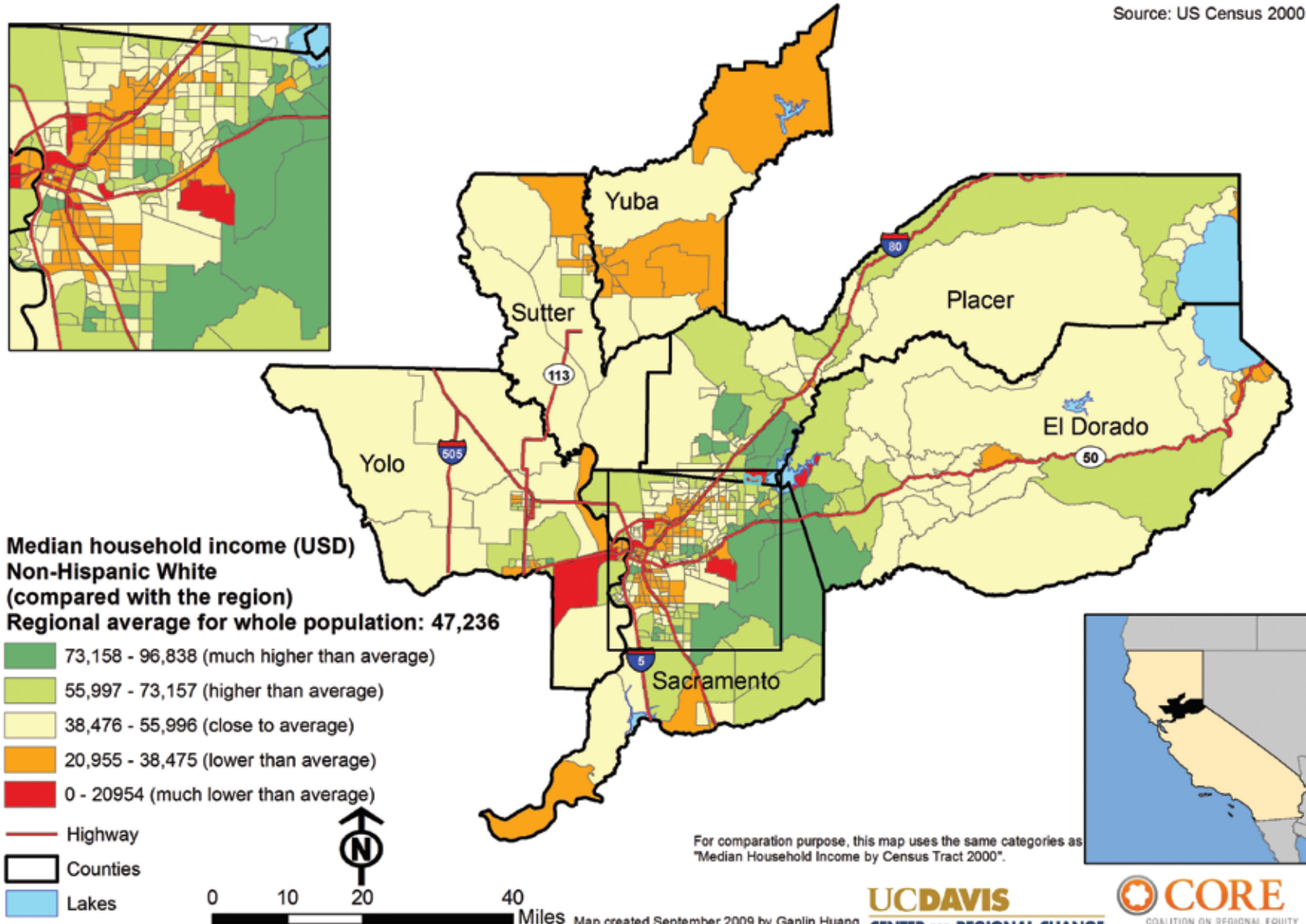
Median Household Income by Census Tract 2008

Source: Geolytics 2008 Estimates based on US Census 2000.



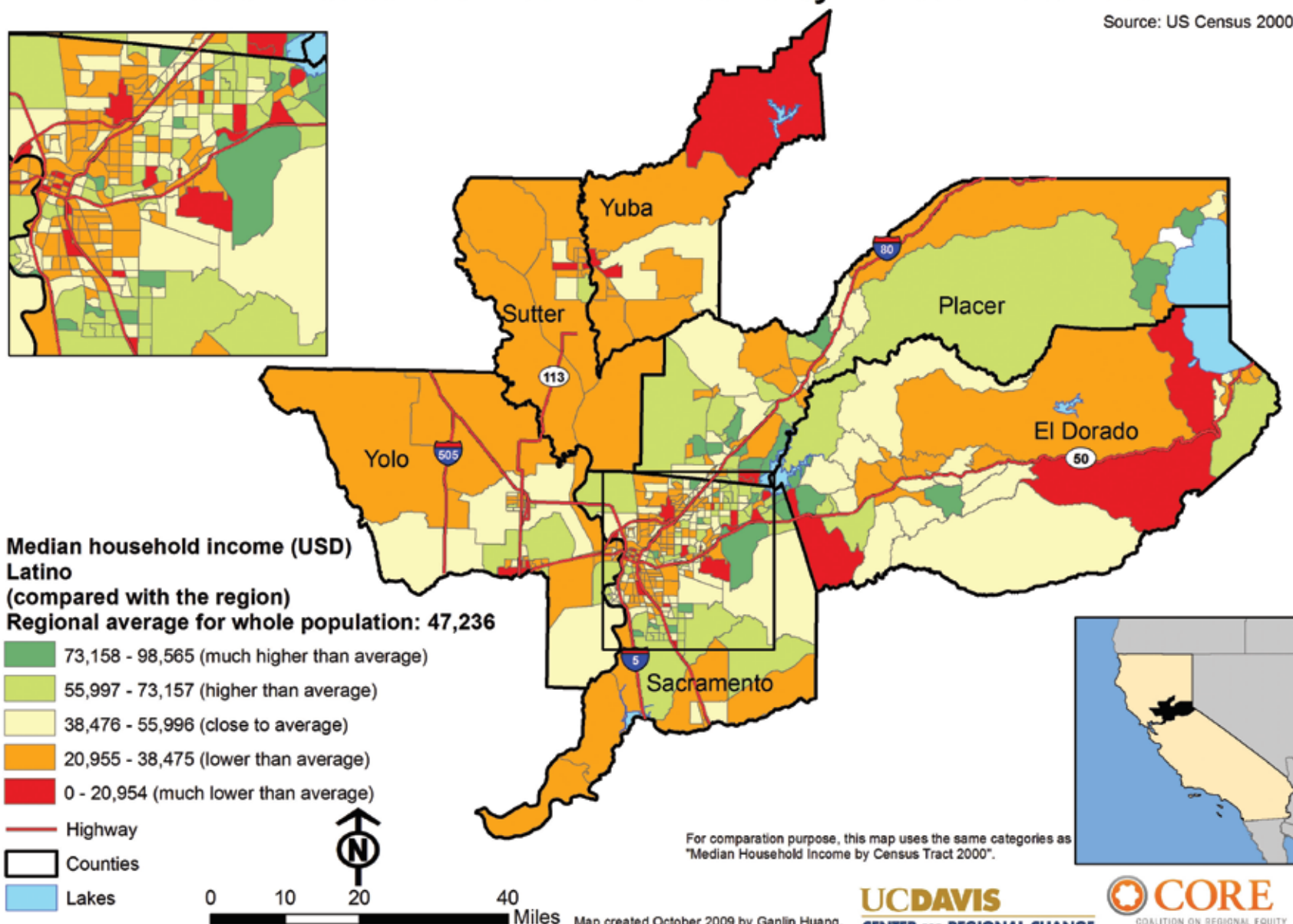
Median Household Income for Non-Hispanic White by Census Tract 2000

Source: US Census 2000.



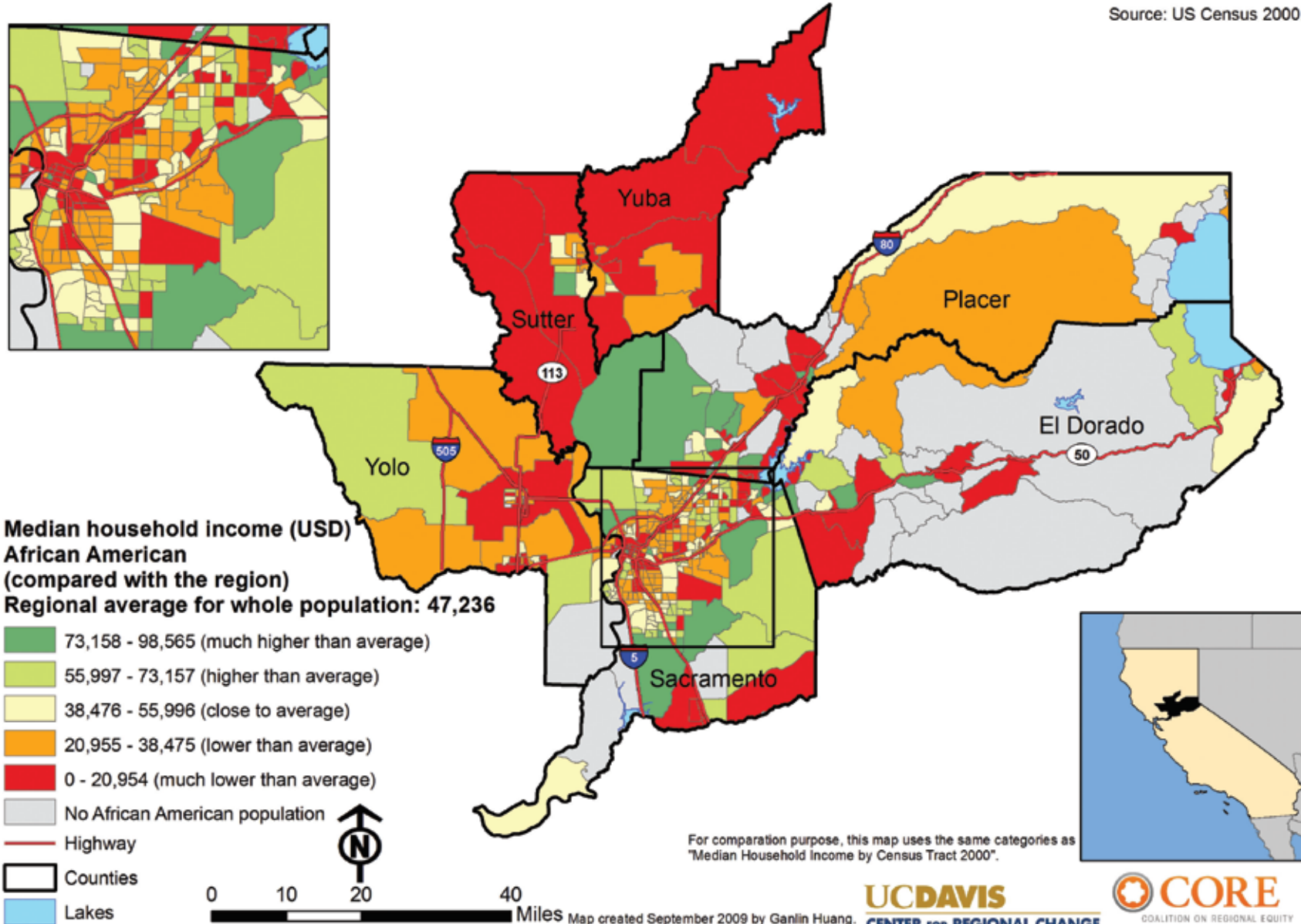
Median Household Income for Latino by Census Tract 2000

Source: US Census 2000.



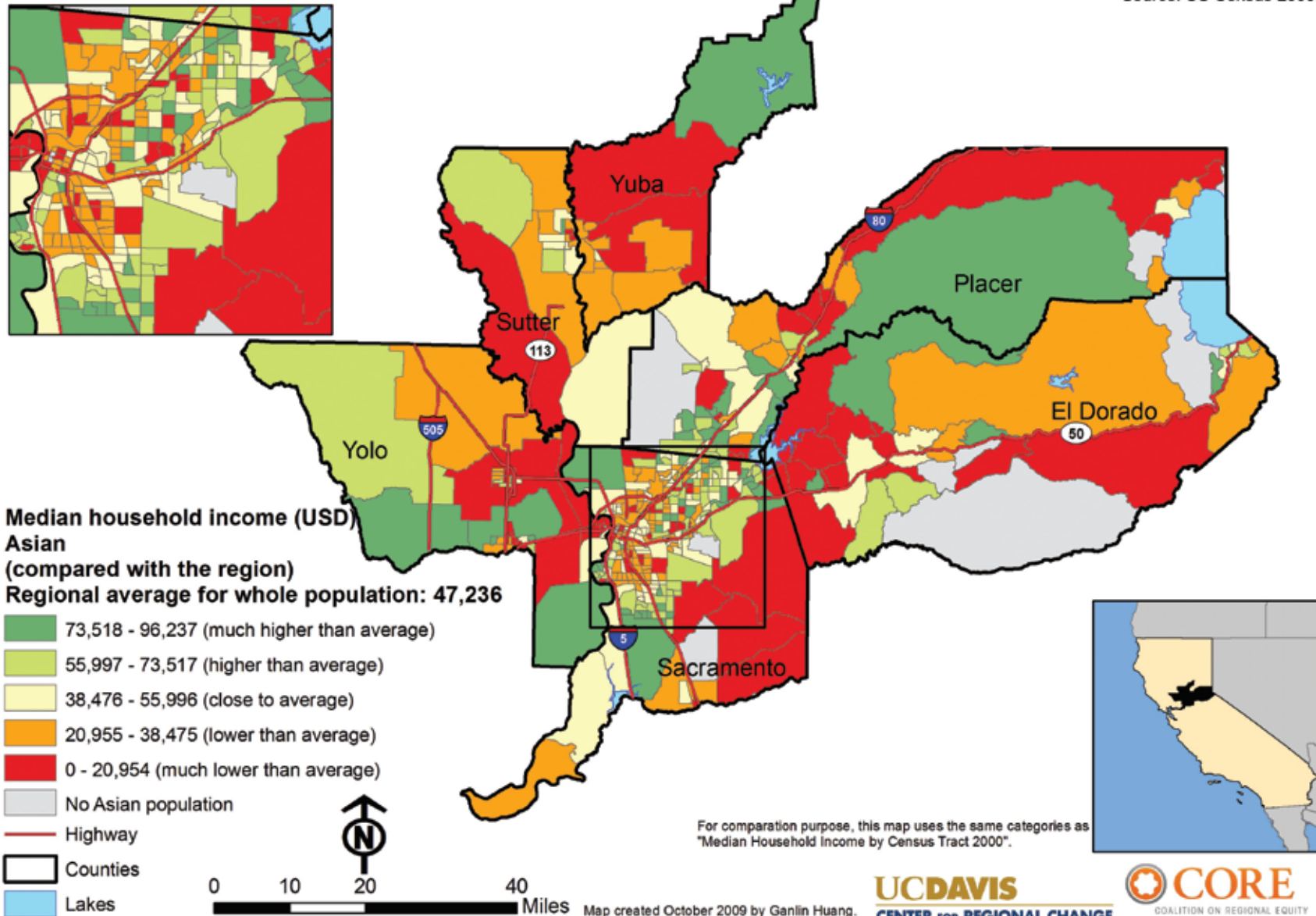
Median Household Income for African American by Census Tract 2000

Source: US Census 2000.



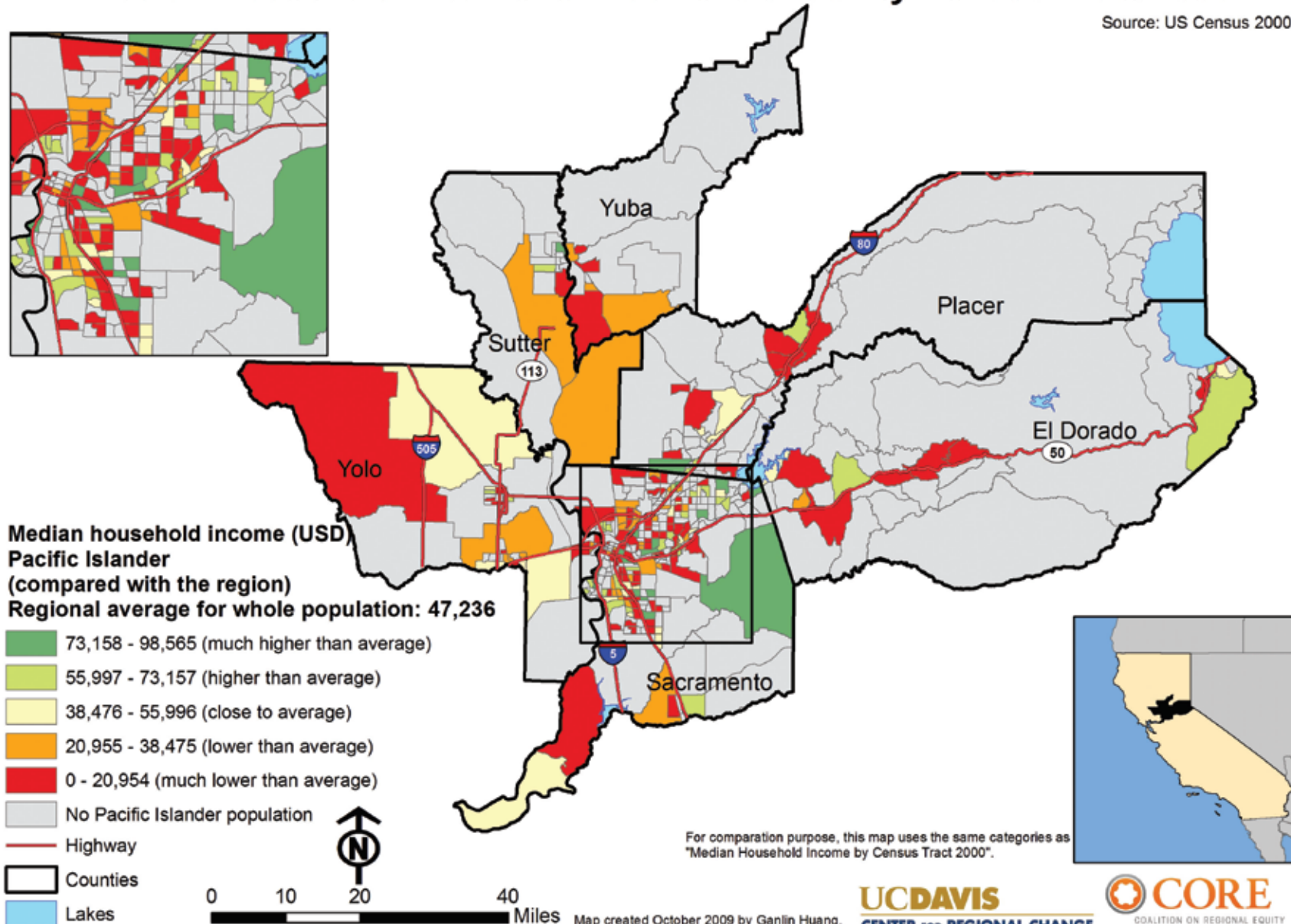
Median Household Income for Asian by Census Tract 2000

Source: US Census 2000.



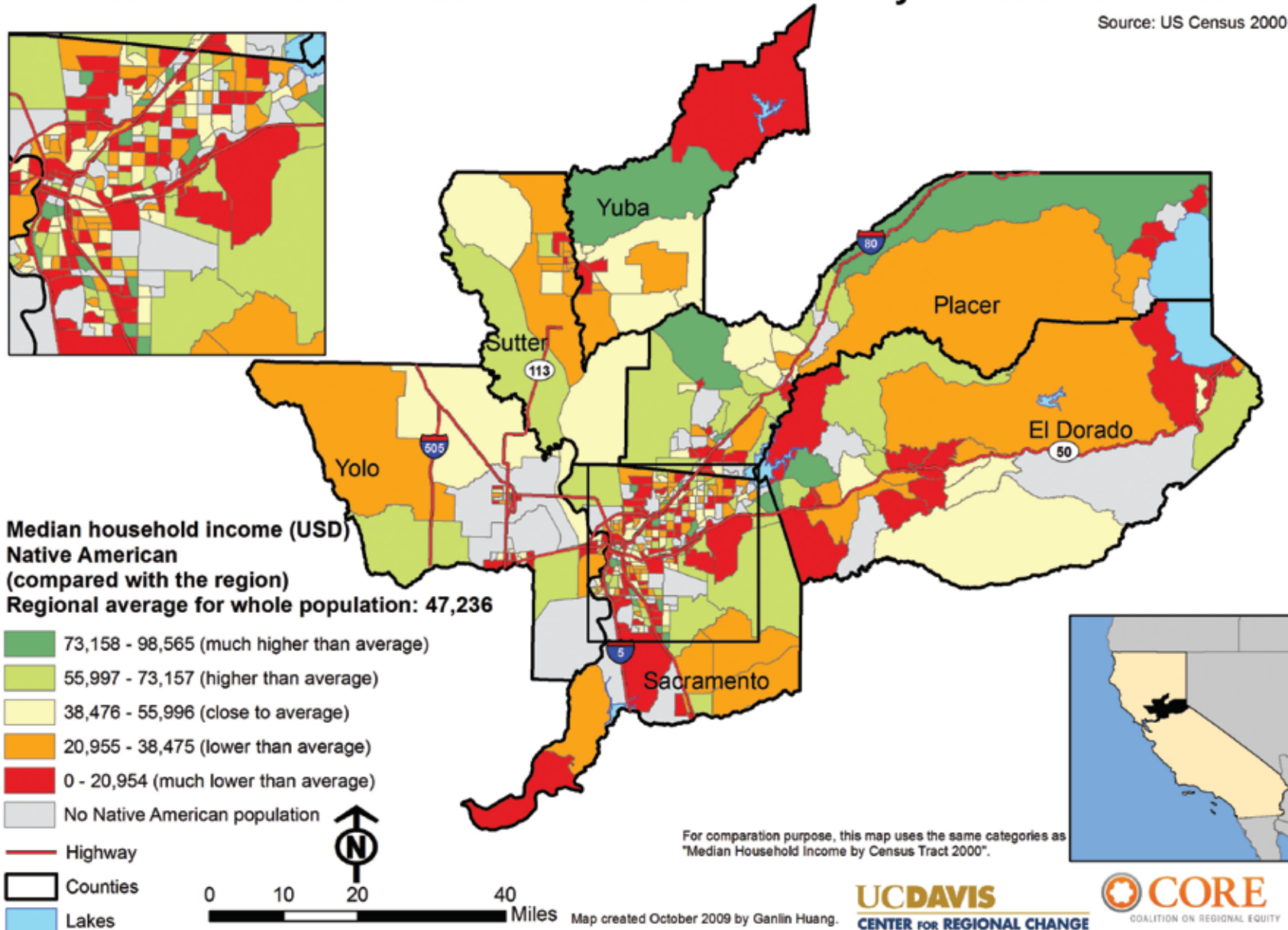
Median Household Income for Pacific Islander by Census Tract 2000

Source: US Census 2000.



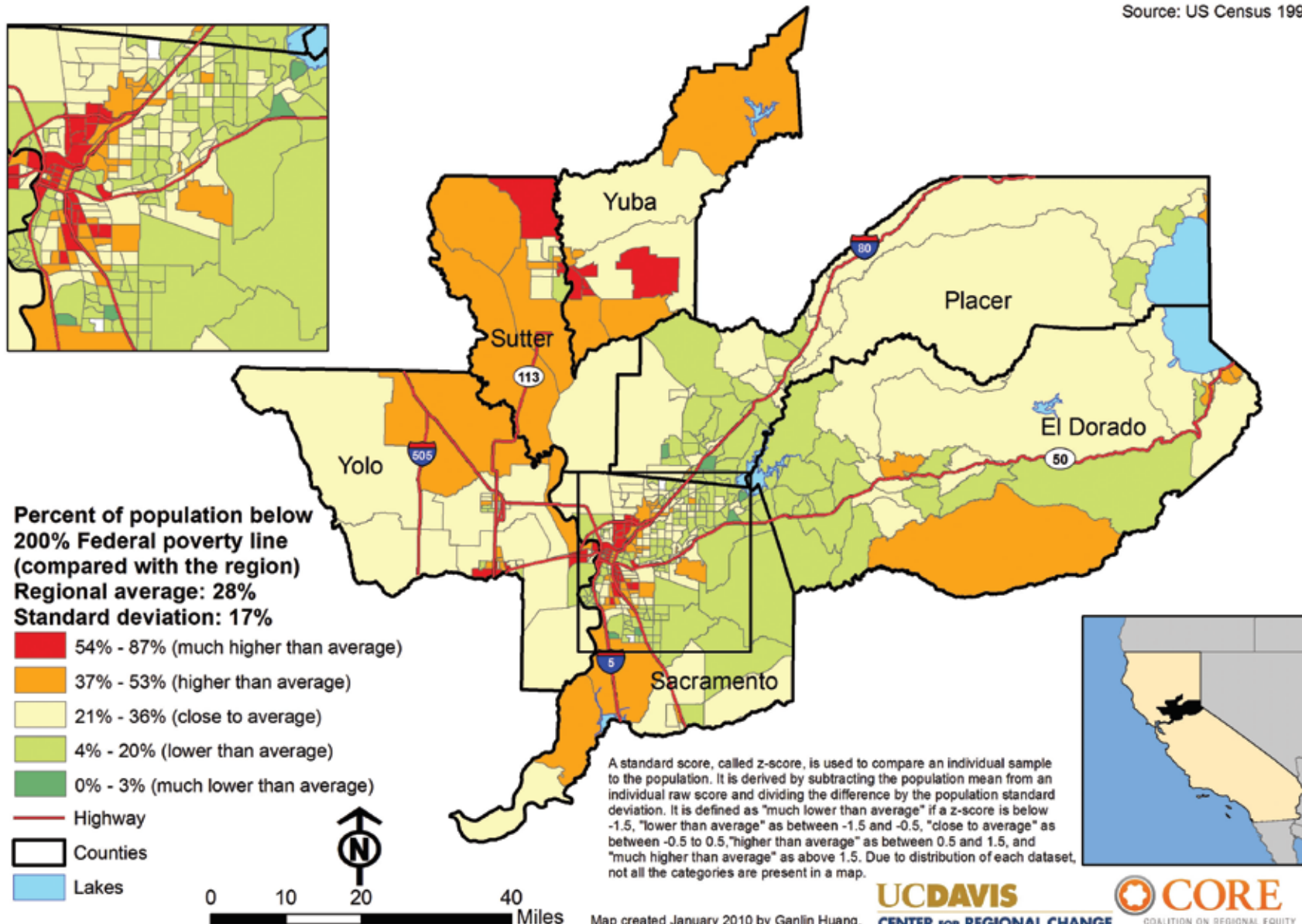
Median Household Income for Native American by Census Tract 2000

Source: US Census 2000.



Percent of Population below 200% Federal Poverty Line by Census Tract 1990

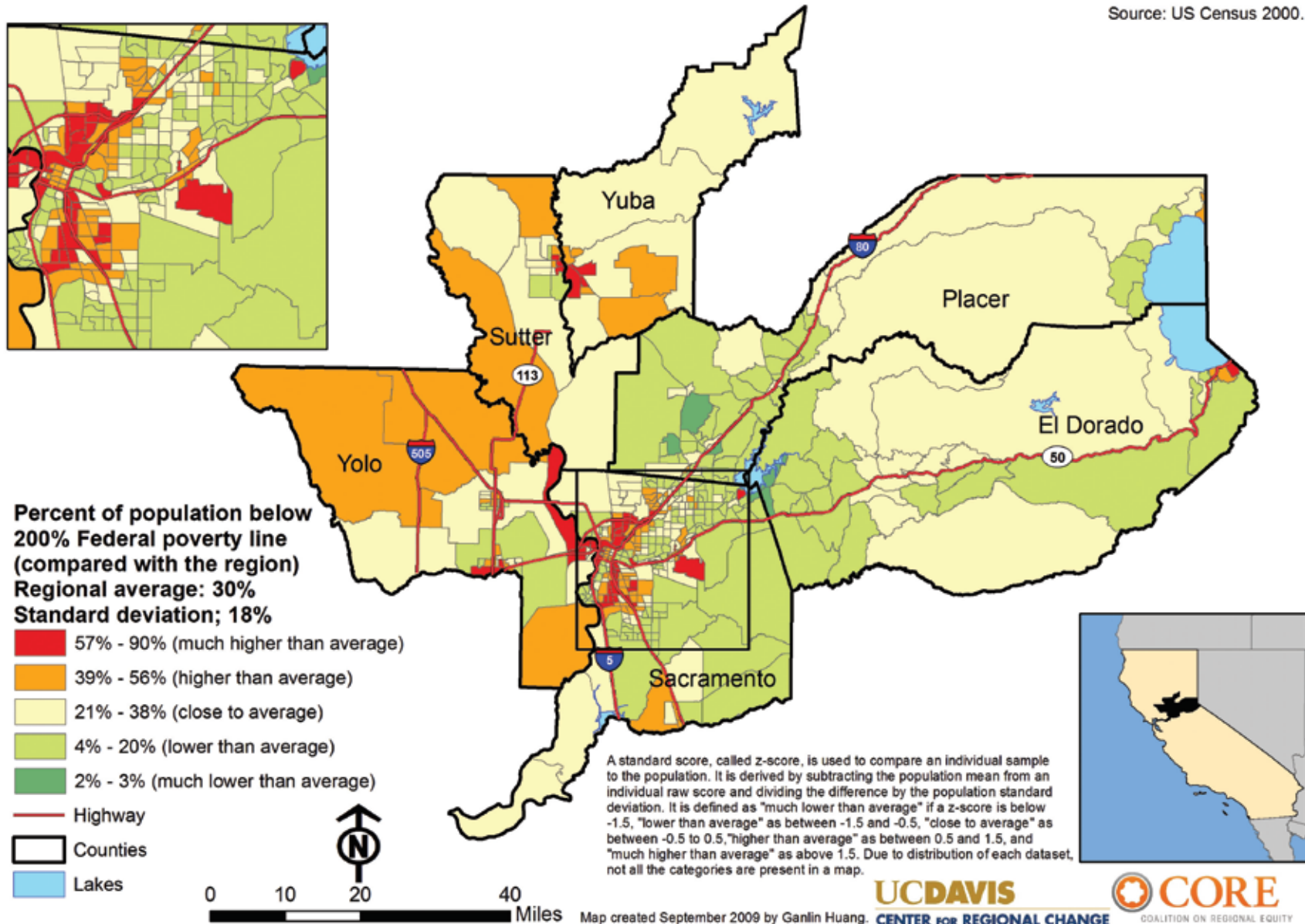
Source: US Census 1990.



Map created January 2010 by Ganlin Huang.

Percent of Population below 200% Federal Poverty Line by Census Tract 2000

Source: US Census 2000.



On average throughout the region 61% of housing units are owner-occupied, and this number has remained essentially the same since 1990.

Housing

The health and stability of individuals and families is closely tied to their homes. The cost of housing is one of the major expenses in people's lives, often consuming nearly 50% of the income of low income people.

In many areas large portions of the population are paying more than 30% of their income on rent.^v On average in the region, 39% of renting households paid more than 30% of their income on rent in 2000. In substantial portions of south Sacramento, upwards of 57% of renting households were paying more than 30% of their income on rent. Other areas with overburdened renters include Del Paso Heights, Yuba City, and rural parts of Yolo, Sutter, and Yuba Counties.

In addition to examining the cost of housing, examining patterns of homeownership can indicate neighborhood stability and economic prosperity. Homeownership provides a substantial mechanism for generating savings and accumulating wealth for the majority of the middle class.

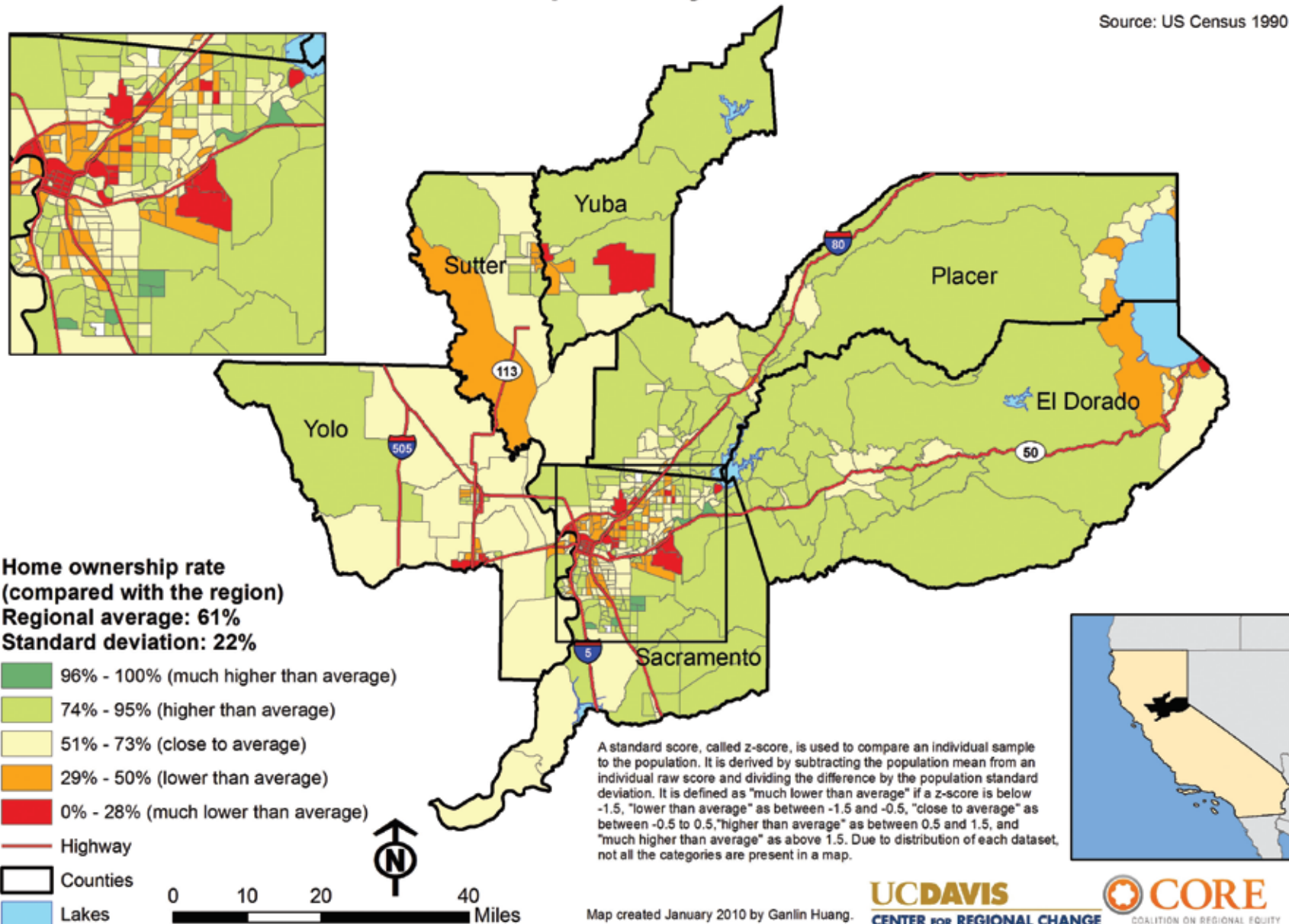
On average throughout the region 61% of housing units are owner-occupied, and this number has remained essentially the same since 1990. Large portions of the region have somewhat higher than average homeownership rates. This is especially true in the eastern half of the region, which had between 72% and 93% homeownership rates in 2008. Near Galt in southern Sacramento County, and Lincoln in western Placer County, there are areas with upwards of 94% of the housing units owner-occupied. In contrast, in portions of midtown and north

Sacramento, and in the Yuba City area, fewer than 27% of the housing units are owner-occupied.

Disparities in homeownership rates by race are immediately apparent in the following maps which show the percentage of heads of households of different racial groups that are living in their own owner-occupied units. In the average census tract in 2000, the home-ownership rate for non-Hispanic whites was 65%, 58% for Asians, 53% for Latinos, 47% for Pacific Islanders, 46% for African Americans and Asians. Areas with disproportionately low levels of homeownership rates tend to cluster in the same places for all racial groups: south Sacramento, Del Paso Heights area, Yuba City, and rural parts of Yolo, Sutter and Yuba counties.

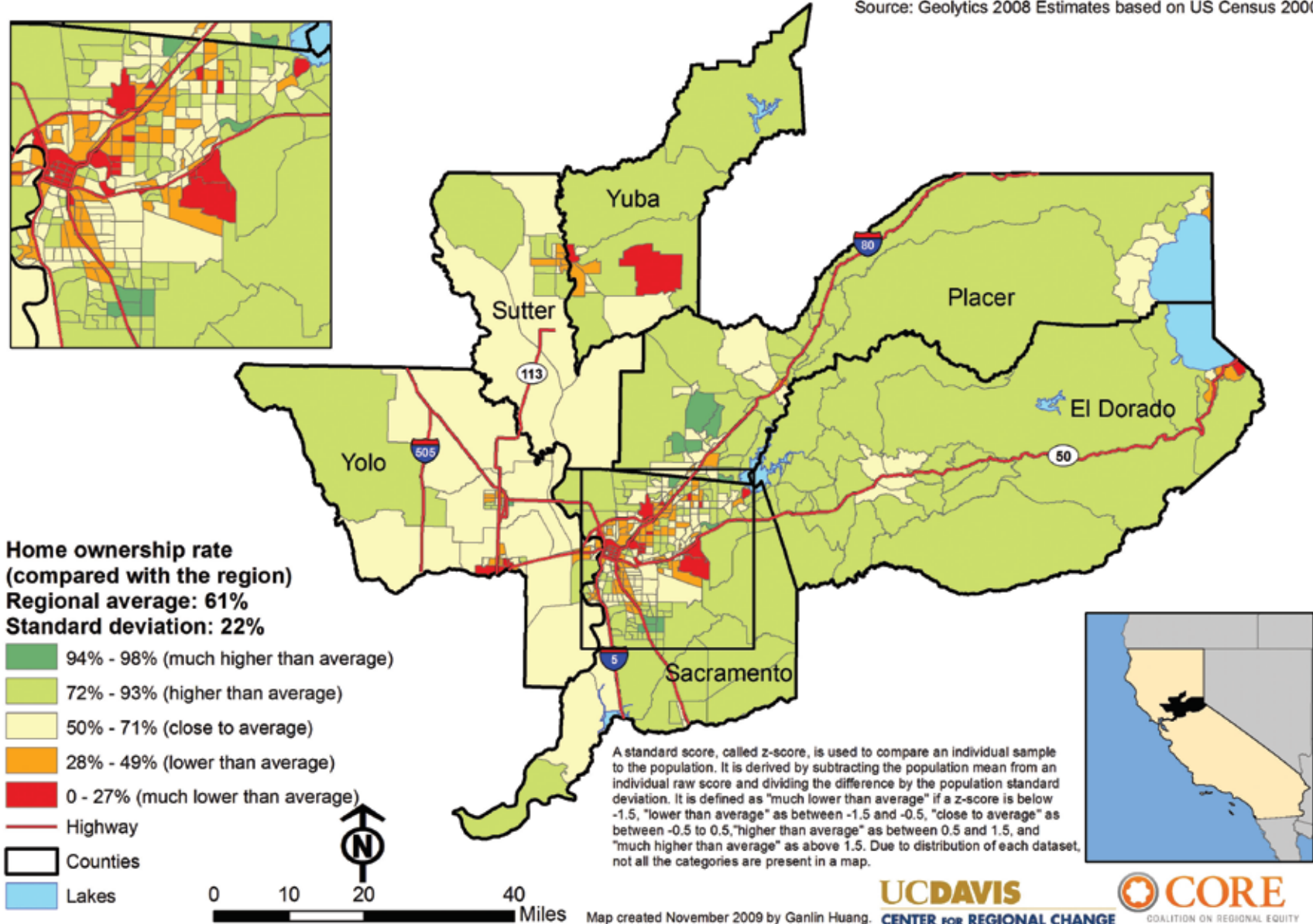
Home Ownership Rate by Census Tract 1990

Source: US Census 1990.



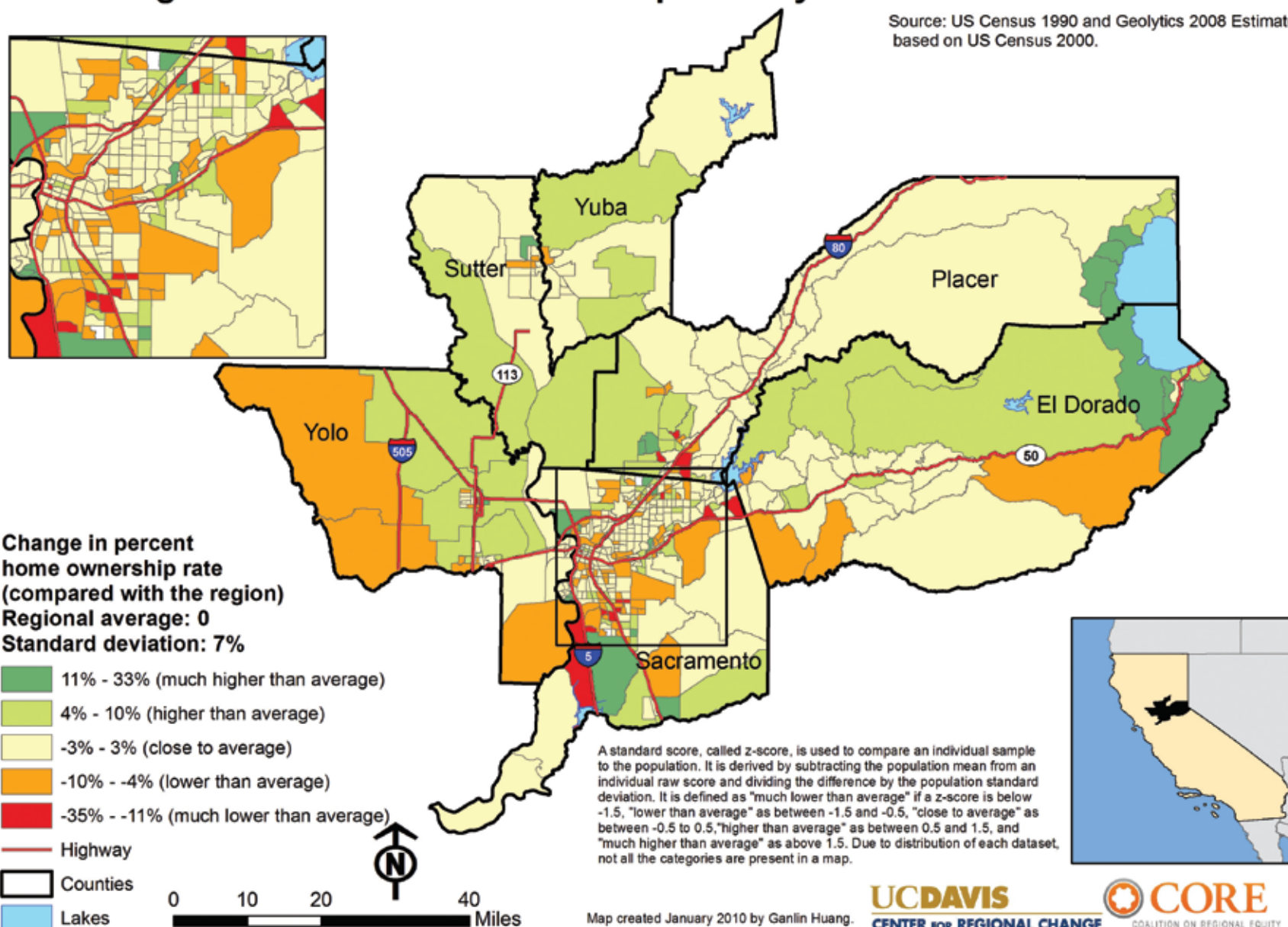
Home Ownership Rate by Census Tract 2008

Source: Geolytics 2008 Estimates based on US Census 2000.



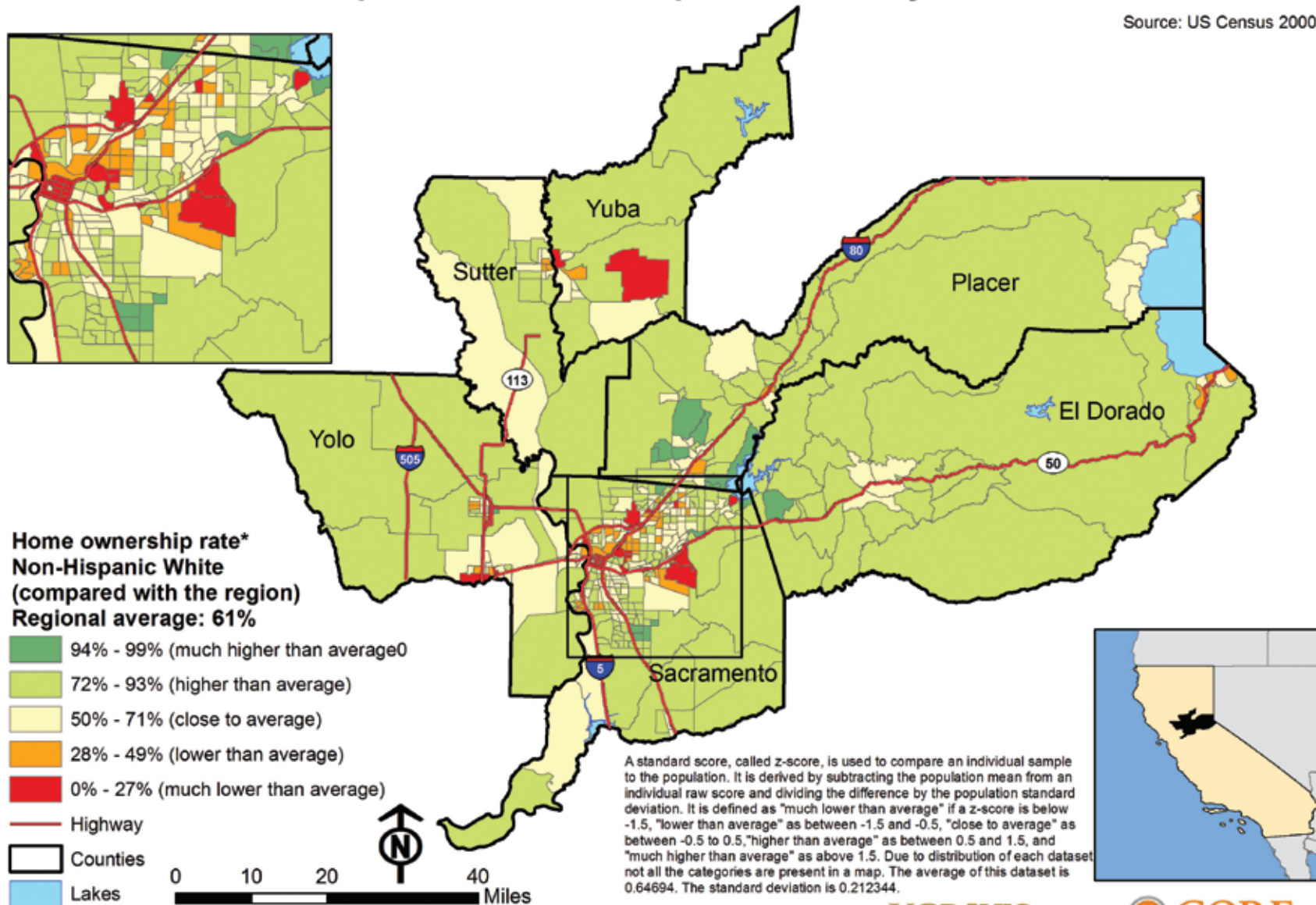
Change in Percent Home Ownership Rate by Census Tract 1990 - 2008

Source: US Census 1990 and Geolytics 2008 Estimates based on US Census 2000.



Home Ownership Rate for Non-Hispanic White by Census Tract 2000

Source: US Census 2000.



*Home ownership rate was calculated by dividing the housing units occupied by owners with the total occupied housing units.

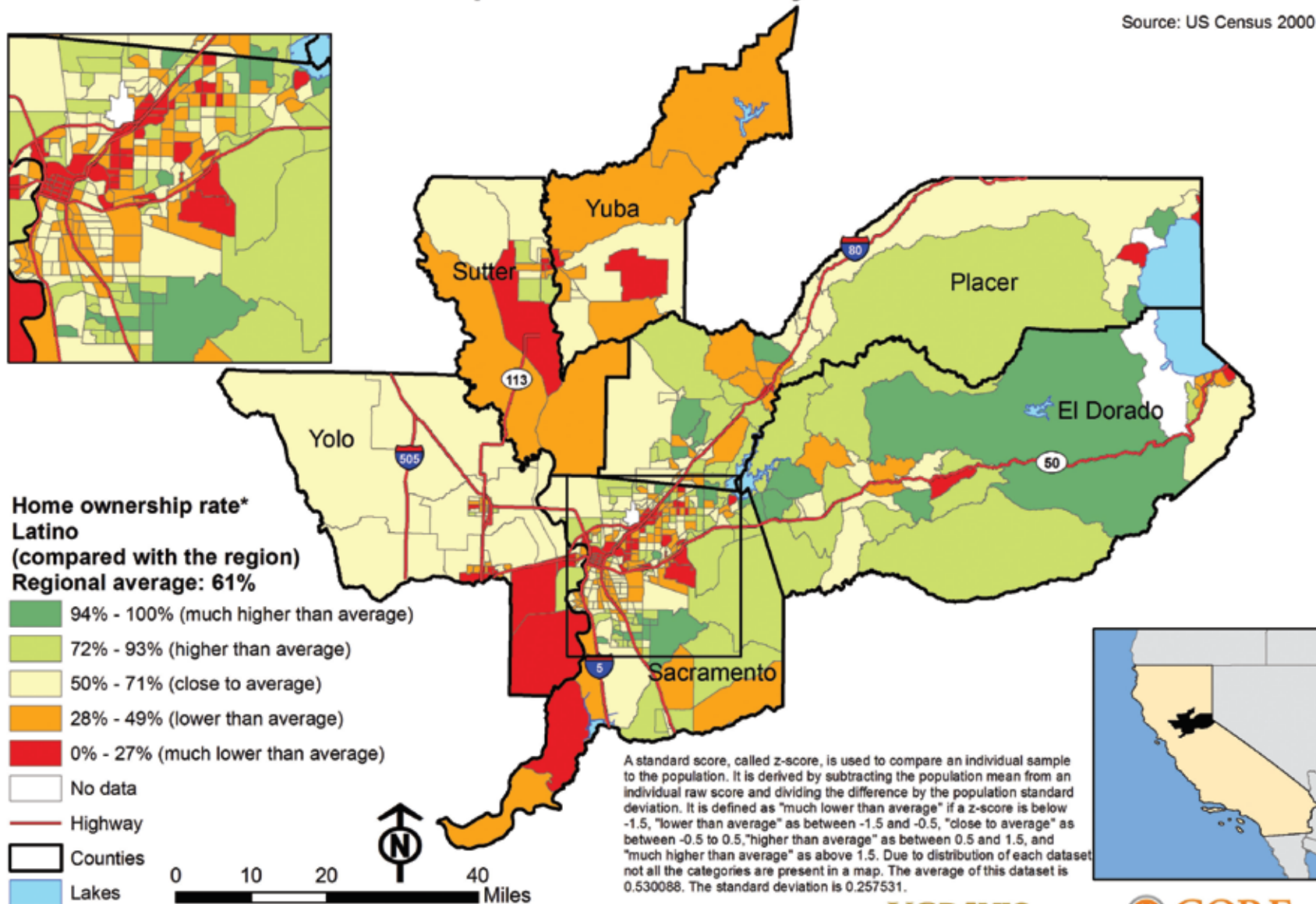
Map created November 2009 by Ganlin Huang.

UCDAVIS
CENTER FOR REGIONAL CHANGE

CORE
COALITION ON REGIONAL EQUITY

Home Ownership Rate for Latino by Census Tract 2000

Source: US Census 2000.



*Home ownership rate was calculated by dividing the housing units occupied by owners with the total occupied housing units.

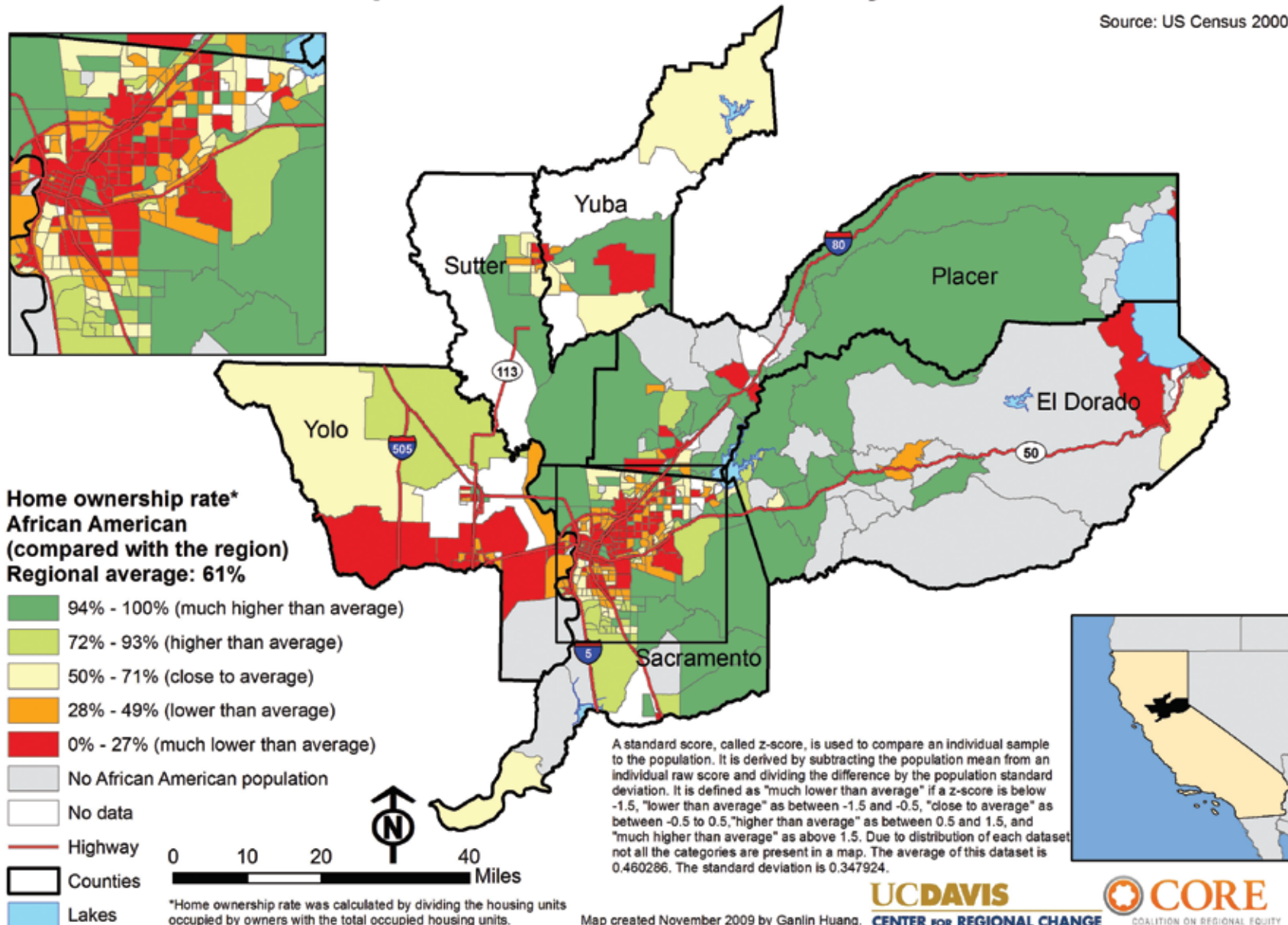
Map created November 2009 by Ganlin Huang.

UCDAVIS
CENTER FOR REGIONAL CHANGE

CORE
COALITION ON REGIONAL EQUITY

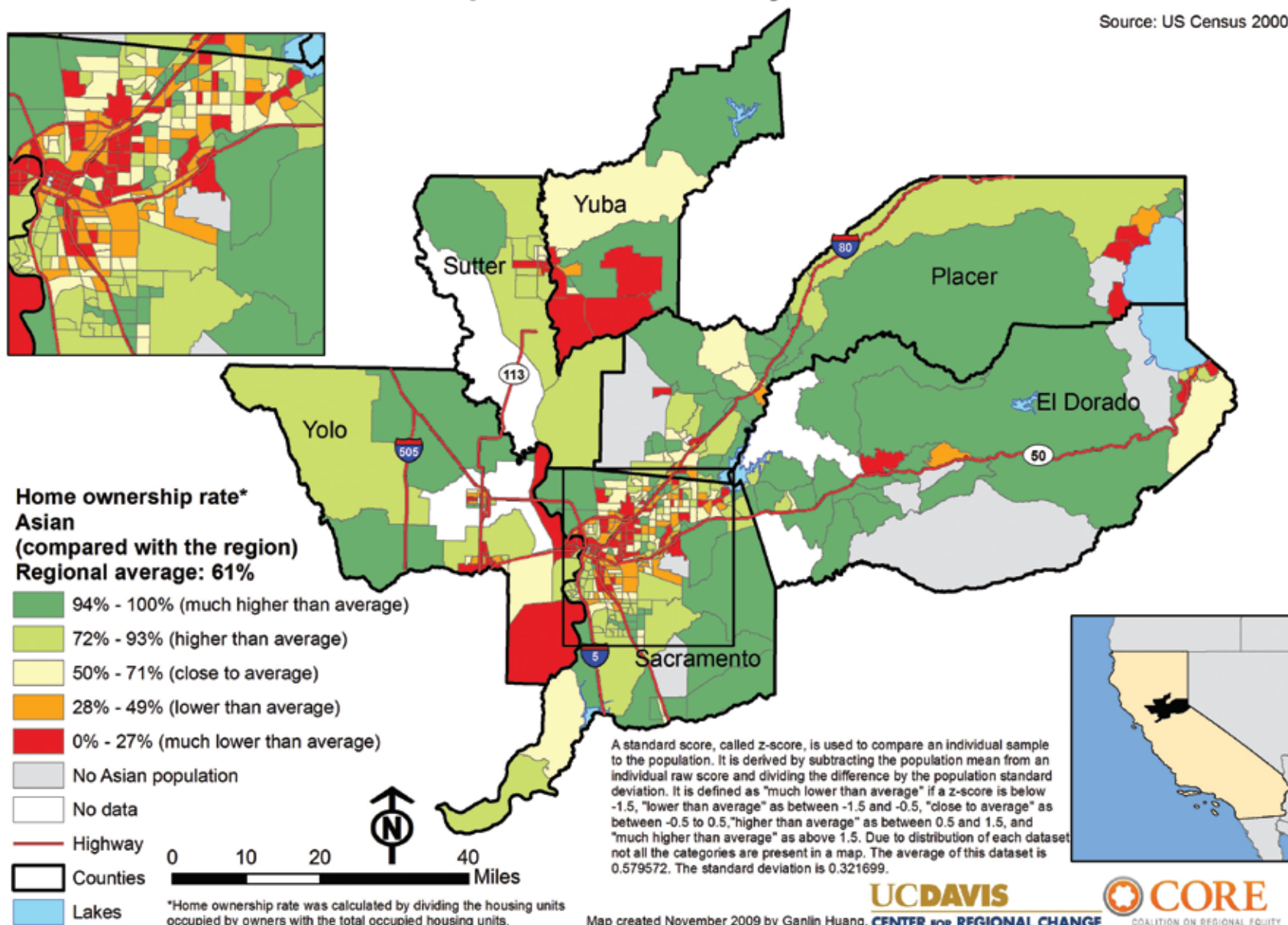
Home Ownership Rate for African American by Census Tract 2000

Source: US Census 2000.



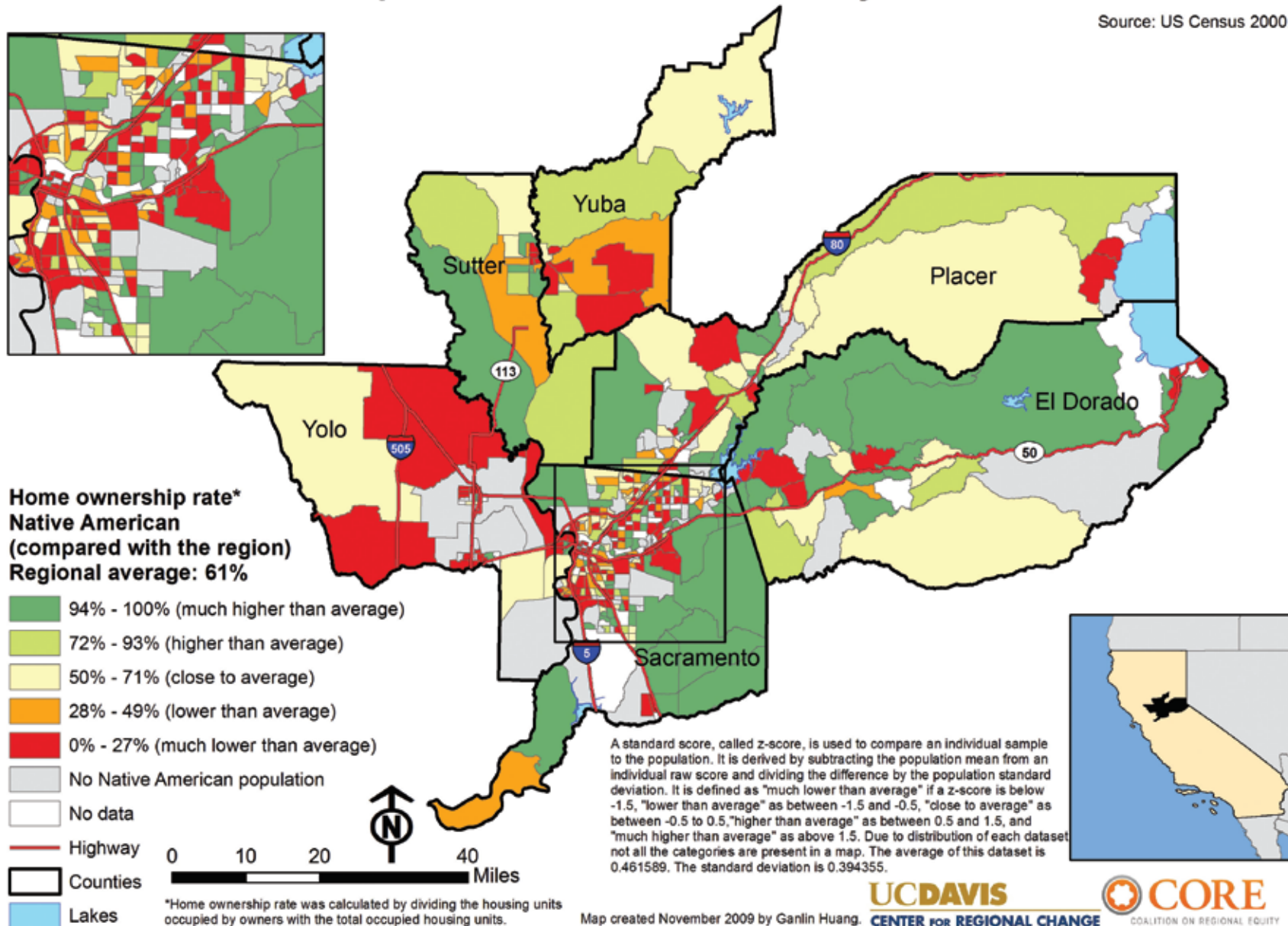
Home Ownership Rate for Asian by Census Tract 2000

Source: US Census 2000.



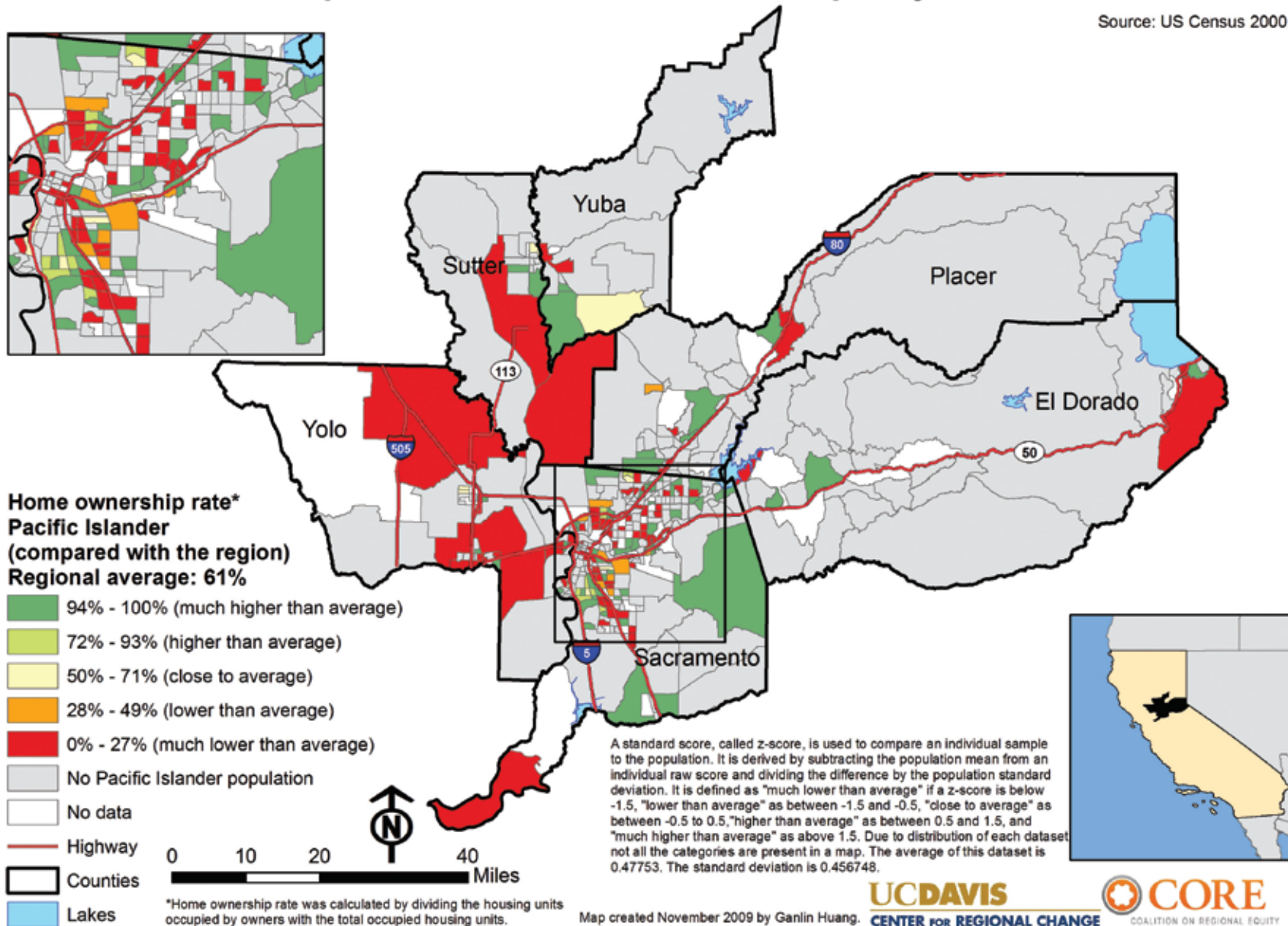
Home Ownership Rate for Native American by Census Tract 2000

Source: US Census 2000.



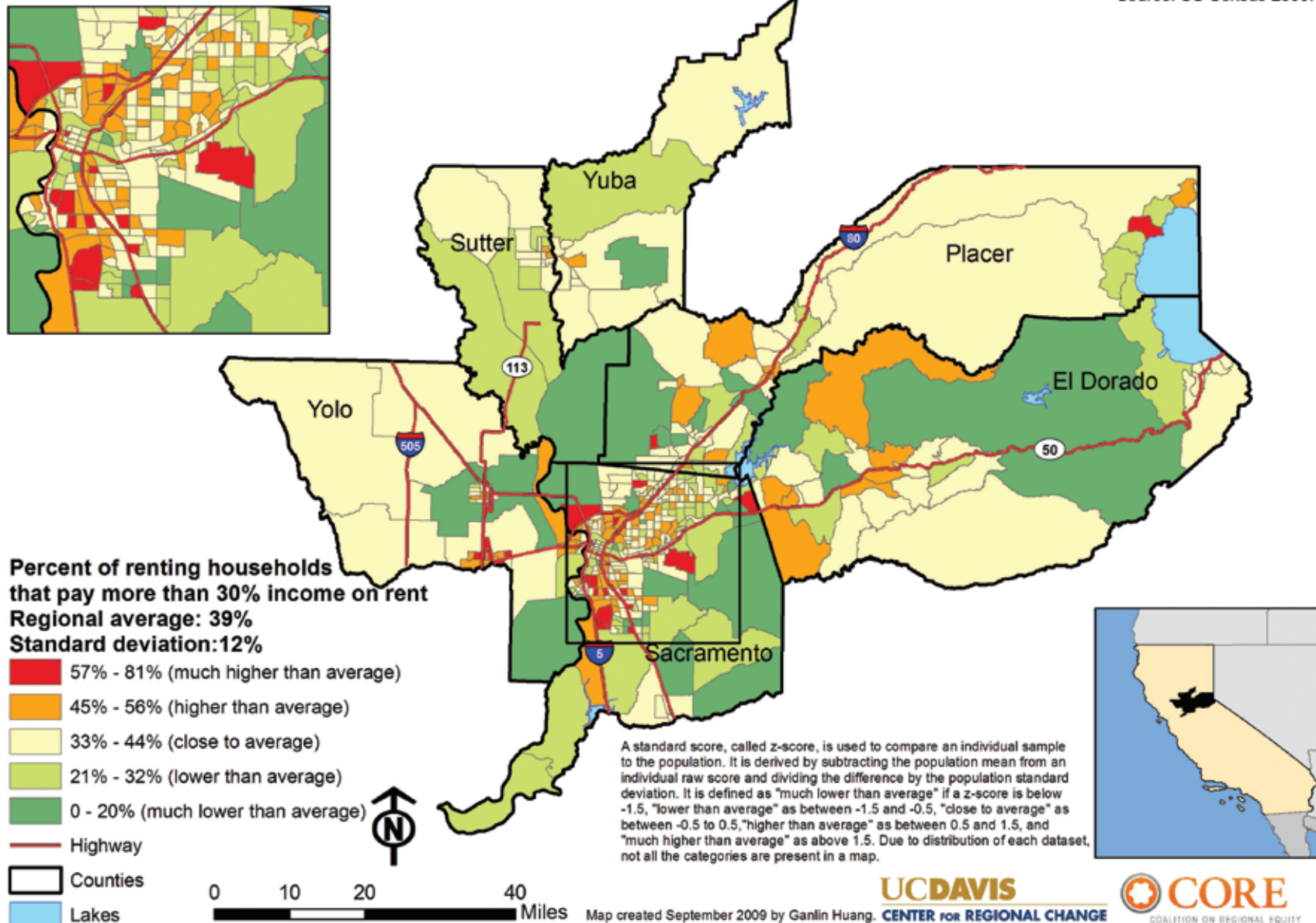
Home Ownership Rate for Pacific Islander People by Census Tract 2000

Source: US Census 2000.



Percent of Renting Households Paying More than 30% Income on Rent by Census Tract 2000

Source: US Census 2000.



*Not much headway has been made
over the past two decades to improve
educational outcomes in the region.*

Education

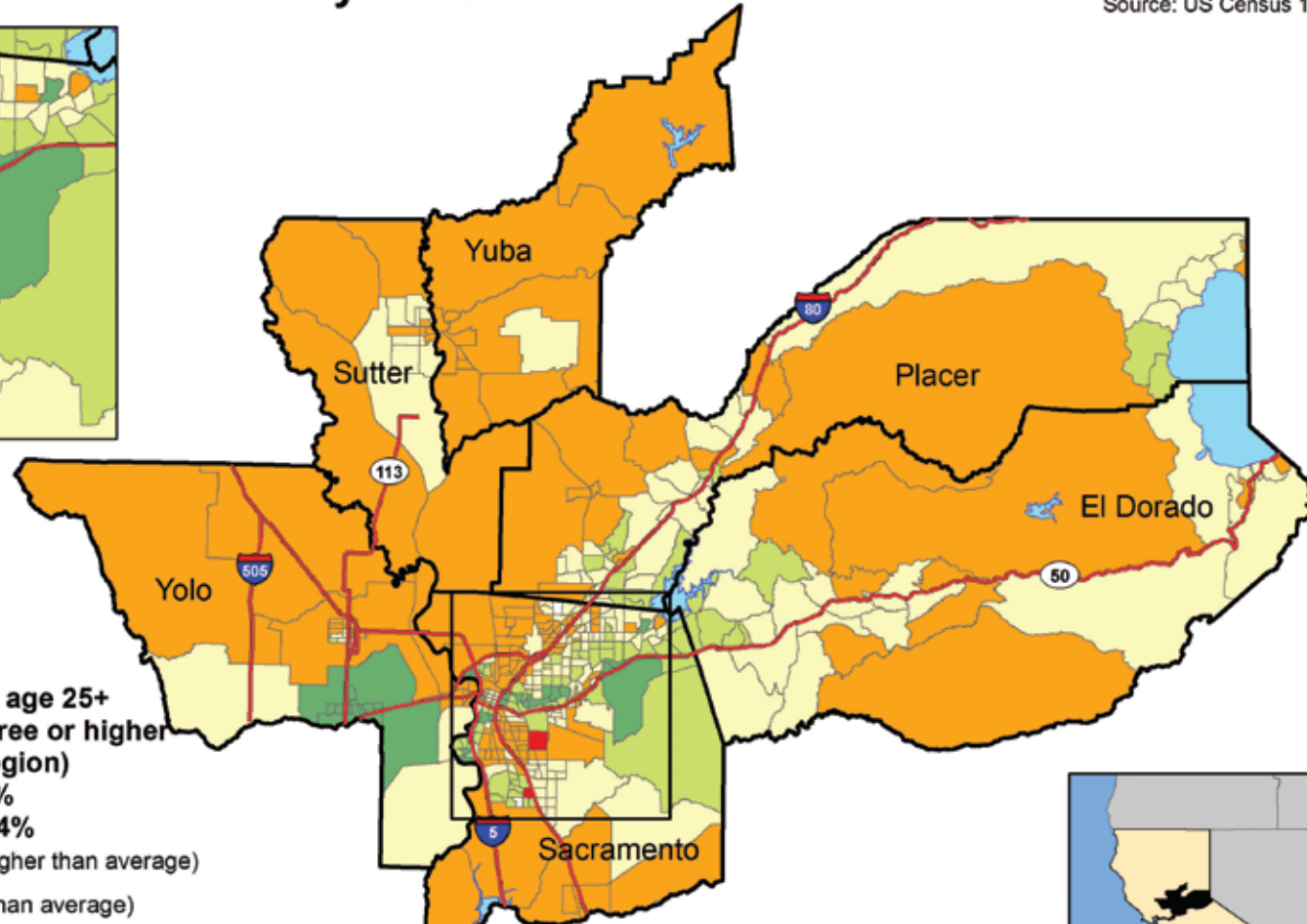
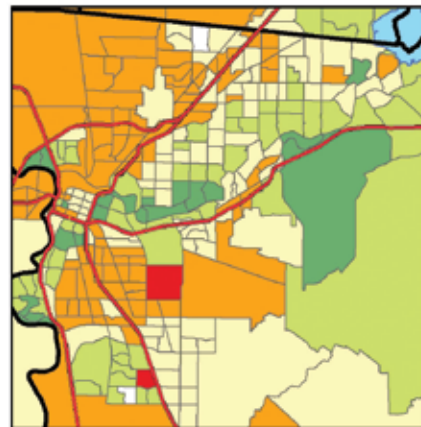
Education provides a path to economic opportunity, as well as personal and professional growth, and is a building block of healthy communities. Educational attainment is a hallmark for determining how opportunity is distributed with the region, and demonstrates patterns of inequality.

In 2008, in the average census tract an estimated 25% of the population 25 years old or older had a Bachelor's Degree or higher. This was only slightly higher than 1990, nearly two decades earlier, when 23% of the population 25 years and older had a Bachelor's degree. Of the population over age 25, 17% did not have a high school diploma in 2008, down only 1% from 1990. Not much headway has been made over the past two decades to improve educational outcomes in the region.

The patterns of spatial disparity in these levels of education attainment closely mirror the patterns seen in income levels and homeownership rates. The areas with the largest concentrations of highly educated people are in the suburbs east and north east of Sacramento, while the areas with the lowest levels of educational attainment are concentrated in the City of Sacramento itself, and in rural portions Yolo County and western Sutter County.

Percent of Population with a Bachelor's Degree or Higher by Census Tract 1990

Source: US Census 1990.



Percent of population age 25+
with a Bachelor's degree or higher
(compared with the region)

Regional average: 23%

Standard deviation: 14%

46% - 75% (much higher than average)

32% - 45% (higher than average)

17% - 31% (close to average)

3% - 16% (lower than average)

0% - 2% (much lower than average)

Highway

Counties

Lakes



0 10 20 40
Miles

A standard score, called z-score, is used to compare an individual sample to the population. It is derived by subtracting the population mean from an individual raw score and dividing the difference by the population standard deviation. It is defined as "much lower than average" if a z-score is below -1.5, "lower than average" as between -1.5 and -0.5, "close to average" as between -0.5 to 0.5, "higher than average" as between 0.5 and 1.5, and "much higher than average" as above 1.5. Due to distribution of each dataset, not all the categories are present in a map.



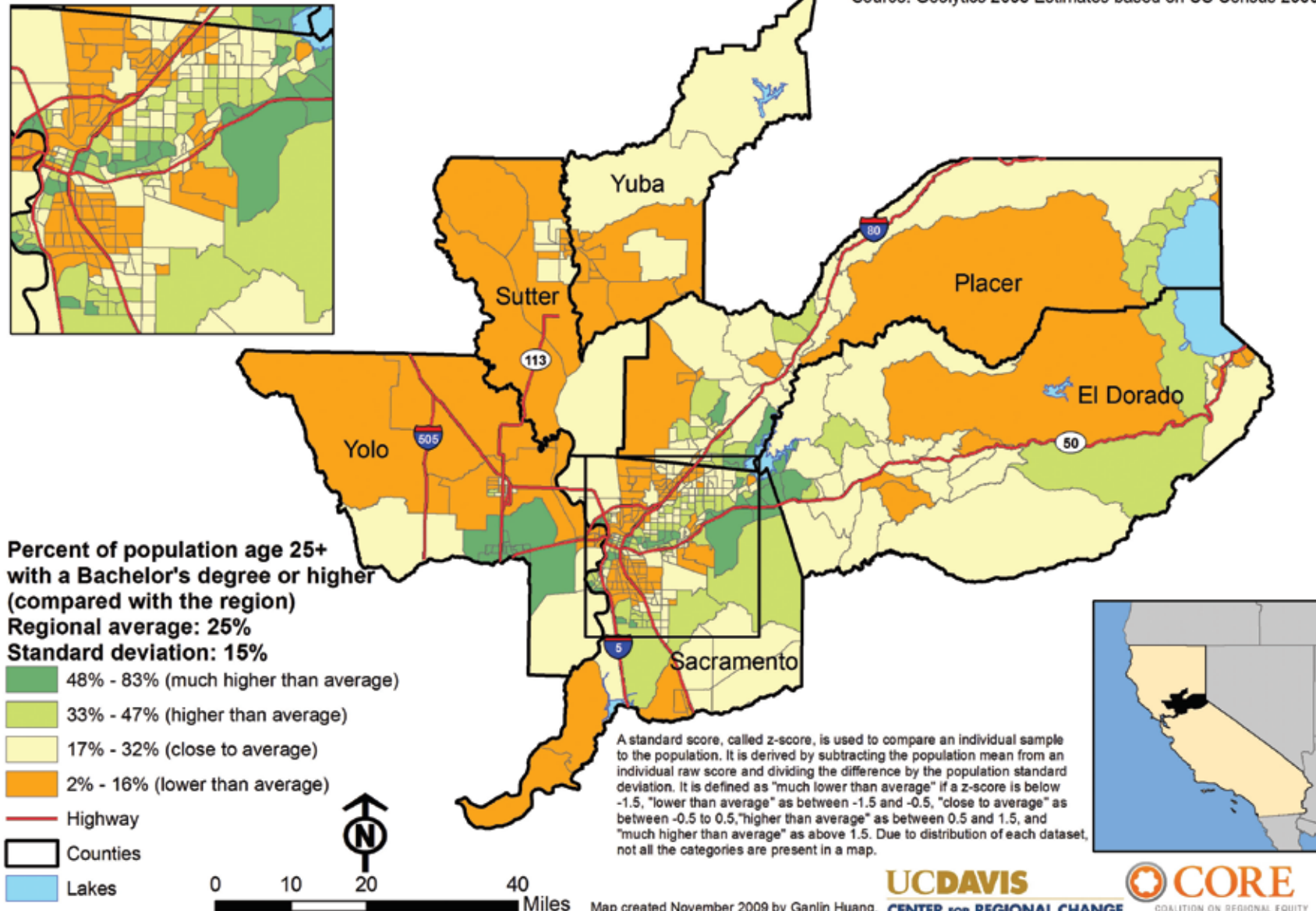
UCDAVIS
CENTER for REGIONAL CHANGE

CORE
COALITION ON REGIONAL EQUITY

Map created January 2009 by Ganlin Huang.

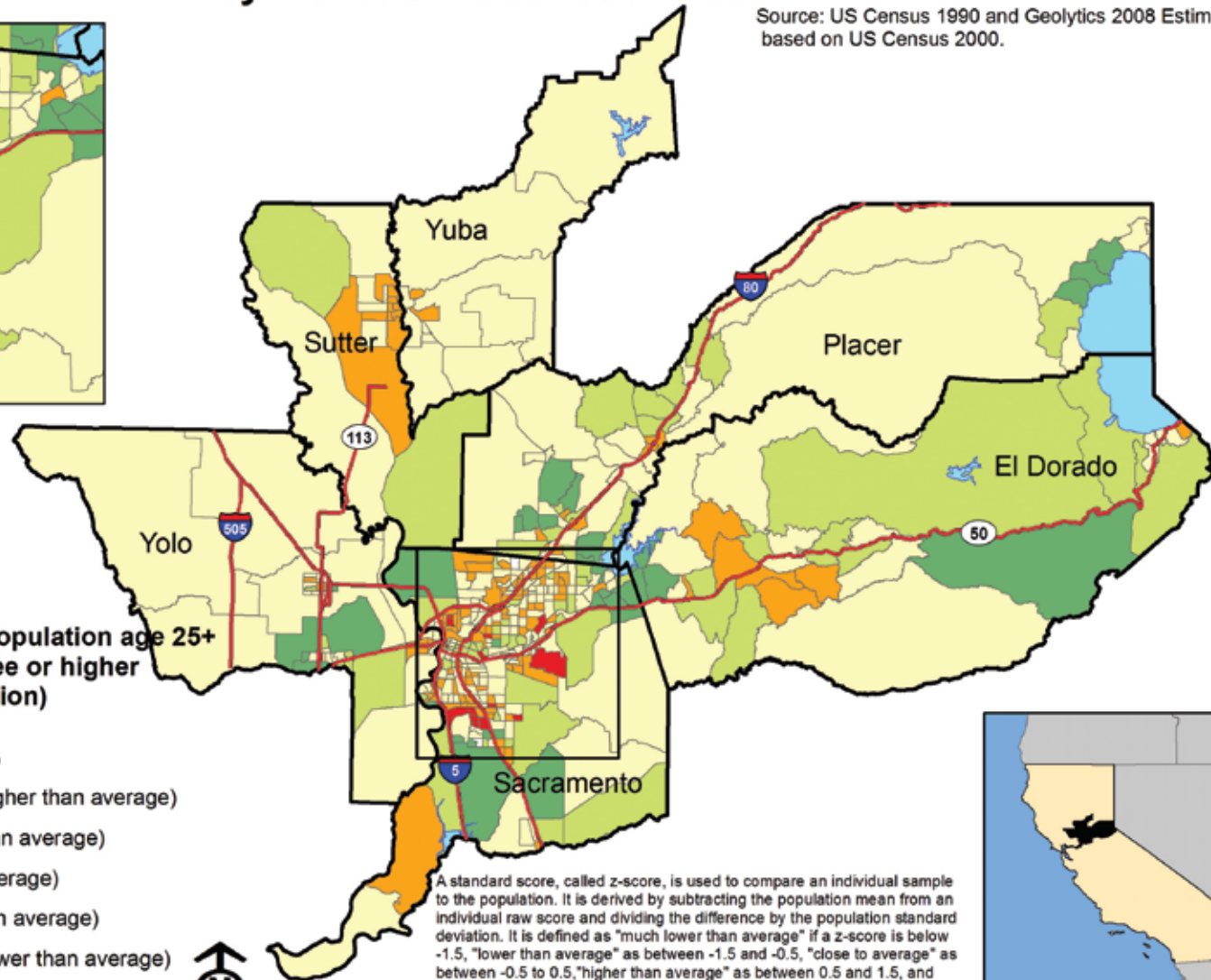
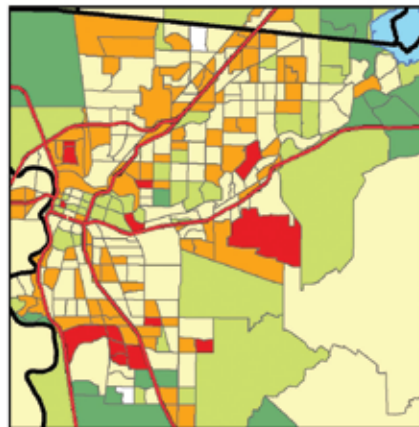
Percent of Population with a Bachelor's Degree or Higher by Census Tract 2008

Source: Geolytics 2008 Estimates based on US Census 2000.



Change in Percent of Population with a Bachelor's Degree or Higher by Census Tract 1990 - 2008

Source: US Census 1990 and Geolytics 2008 Estimates
based on US Census 2000.



Change in percent of population age 25+
with a Bachelor's degree or higher
(compared with the region)
Regional average: 2%
Standard deviation: 7%

- 14% - 34% (much higher than average)
- 7% - 13% (higher than average)
- 0% - 6% (close to average)
- 7% - -1% (lower than average)
- 24% - -8% (much lower than average)

- Highway
- Counties
- Lakes



0 10 20 40
Miles

A standard score, called z-score, is used to compare an individual sample to the population. It is derived by subtracting the population mean from an individual raw score and dividing the difference by the population standard deviation. It is defined as "much lower than average" if a z-score is below -1.5, "lower than average" as between -1.5 and -0.5, "close to average" as between -0.5 to 0.5, "higher than average" as between 0.5 and 1.5, and "much higher than average" as above 1.5. Due to distribution of each dataset, not all the categories are present in a map.



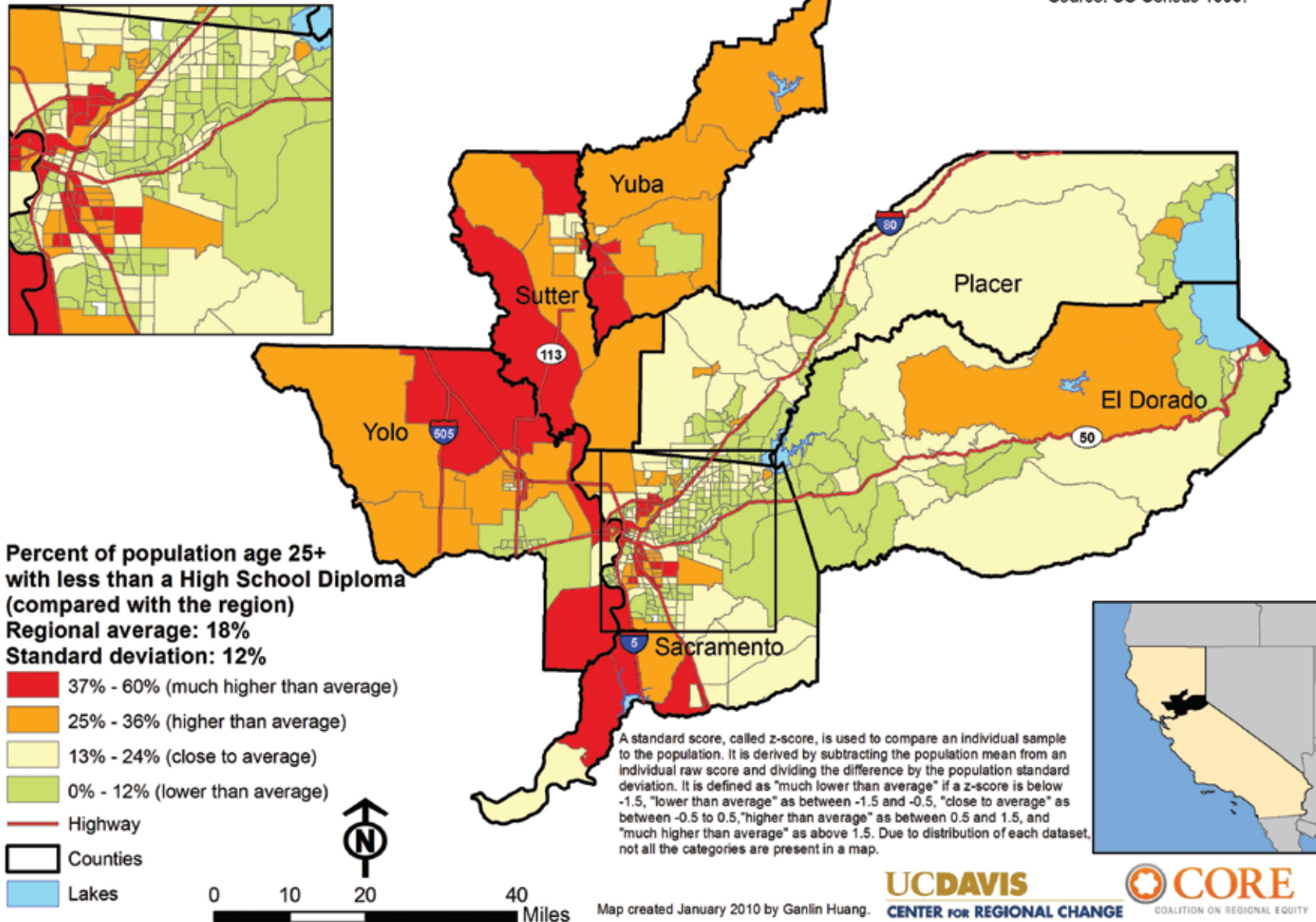
UCDAVIS
CENTER for REGIONAL CHANGE

CORE
COALITION ON REGIONAL EQUITY

Map created January 2010 by Ganlin Huang.

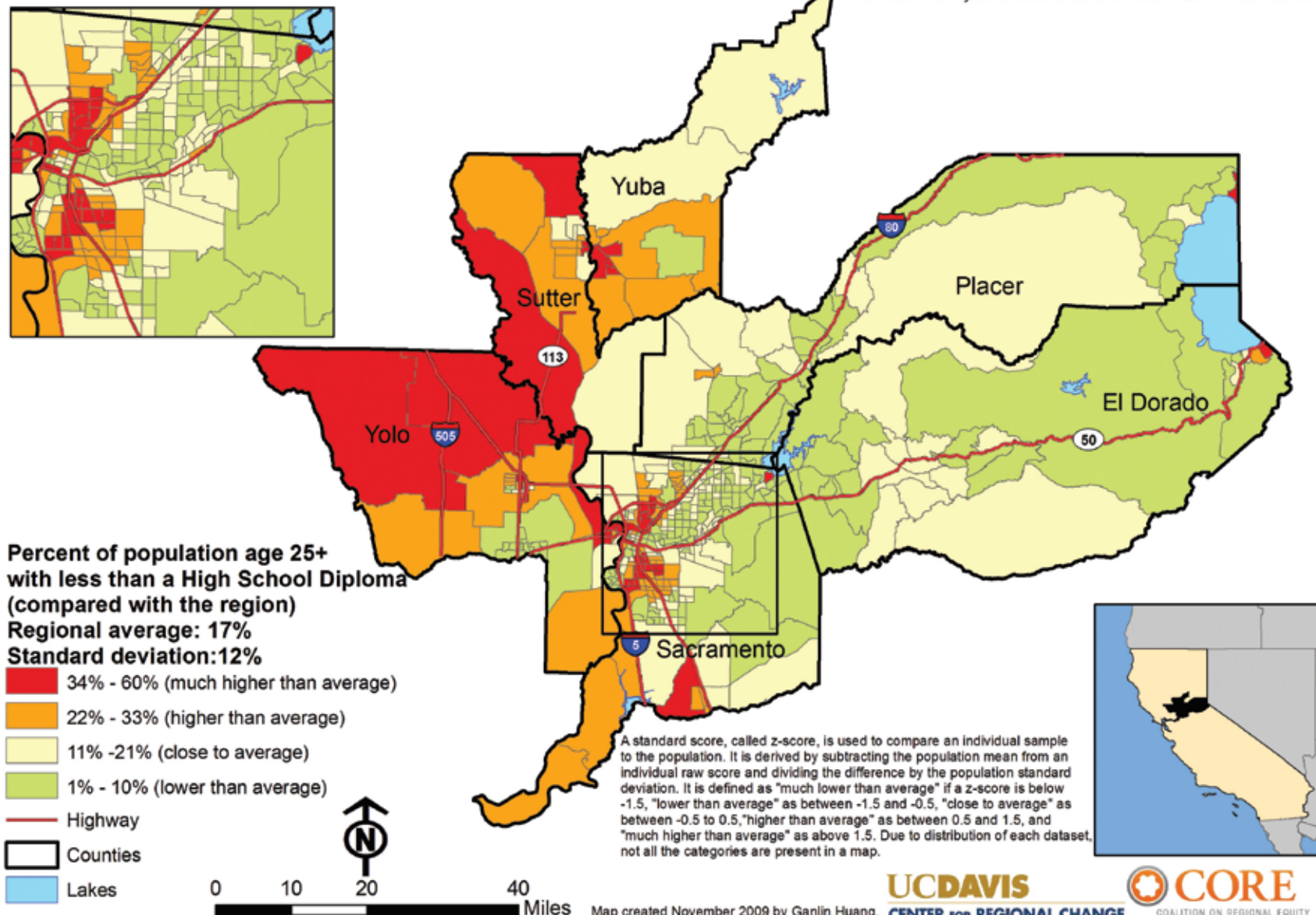
Percent of Population with Less than a High School Diploma by Census Tract 1990

Source: US Census 1990.



Percent of Population with Less than a High School Diploma by Census Tract 2008

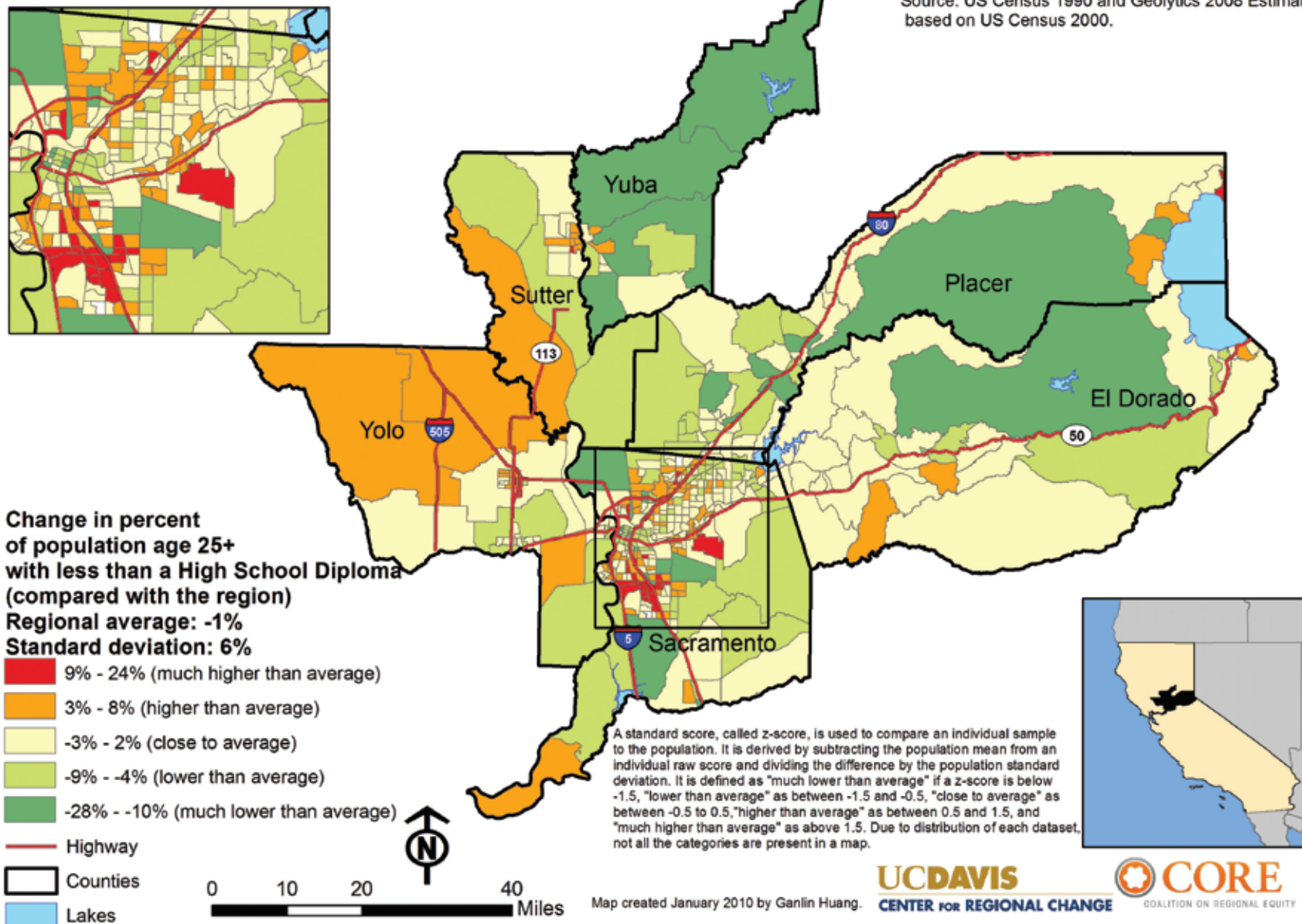
Source: Geolytics 2008 Estimates based on US Census 2000.



Map created November 2009 by Ganlin Huang.

Change in Percent of Population with Less than a High School Diploma by Census Tract 1990 - 2008

Source: US Census 1990 and Geolytics 2008 Estimates
based on US Census 2000.



Not only are large percentages of people driving to work, but the length of their time spent driving is quite substantial.

Transportation

After housing, transportation is the second largest expense incurred by most families. Transportation systems generally require significant public investment and reflect the priorities of government. Reducing the distance and amount that people travel by automobile is an important goal in improving our air quality and in reducing greenhouse gas emissions. Increasing the availability, quality and cost of transit is important in increasing economic opportunities for disadvantaged populations. Linking job centers with affordable housing locations is also critical for promoting cleaner, healthier, and more equitable communities and region.

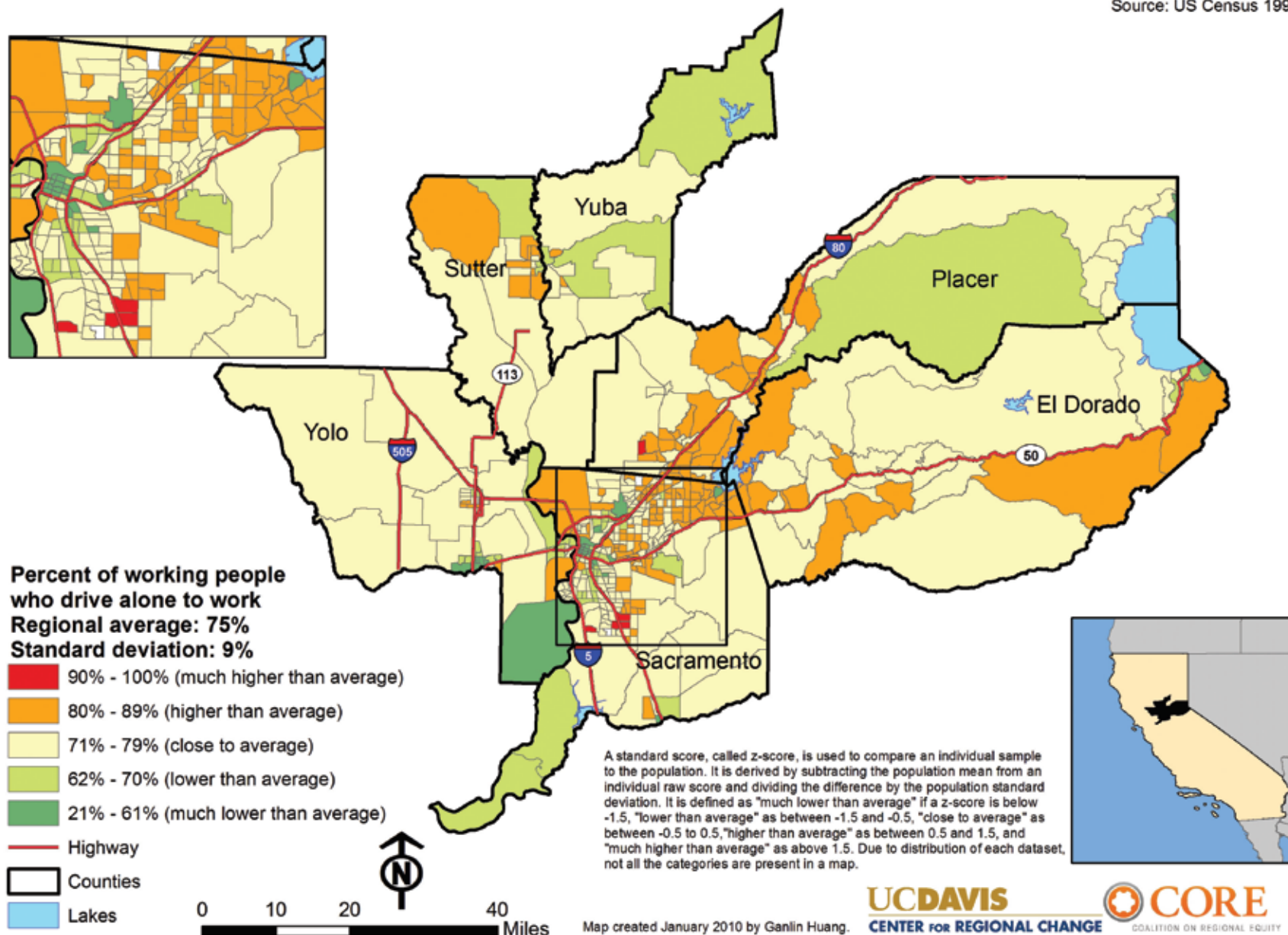
In the Sacramento region, 74% of the population drove alone to work in 2000, down only 1% from 1990. Most areas of the region are not too far from this regional average, though again large portions of the east and northeast suburbs of Sacramento have upwards of 80% of the population driving alone to work. What is even more disturbing is that in large portions of the region, particularly in the north-eastern suburbs along with I-80 corridor, the proportion of people driving alone to work increased between 1990 and 2000. Not only are large percentages of people driving to work, but the length of their time spent driving is quite substantial. In the average census tract in the region, 32% of the population drove more than 30 minutes to get to work on a typical day in 2000, up from 27% in 1990. In the east and northeast suburbs, this is more typically 38 to 48% of the population. In many areas of the foothills of Placer and El Dorado counties, upwards of 50% of the population

drive more than 30 minutes to work each day. This is a substantial contributor to poor air quality, green house gas emissions, and overall environmental degradation.

The available data focuses on trips to work which comprise much less than half of the trips made. One of the areas needing more data and research is trips made for shopping, childcare, recreation and other reasons.

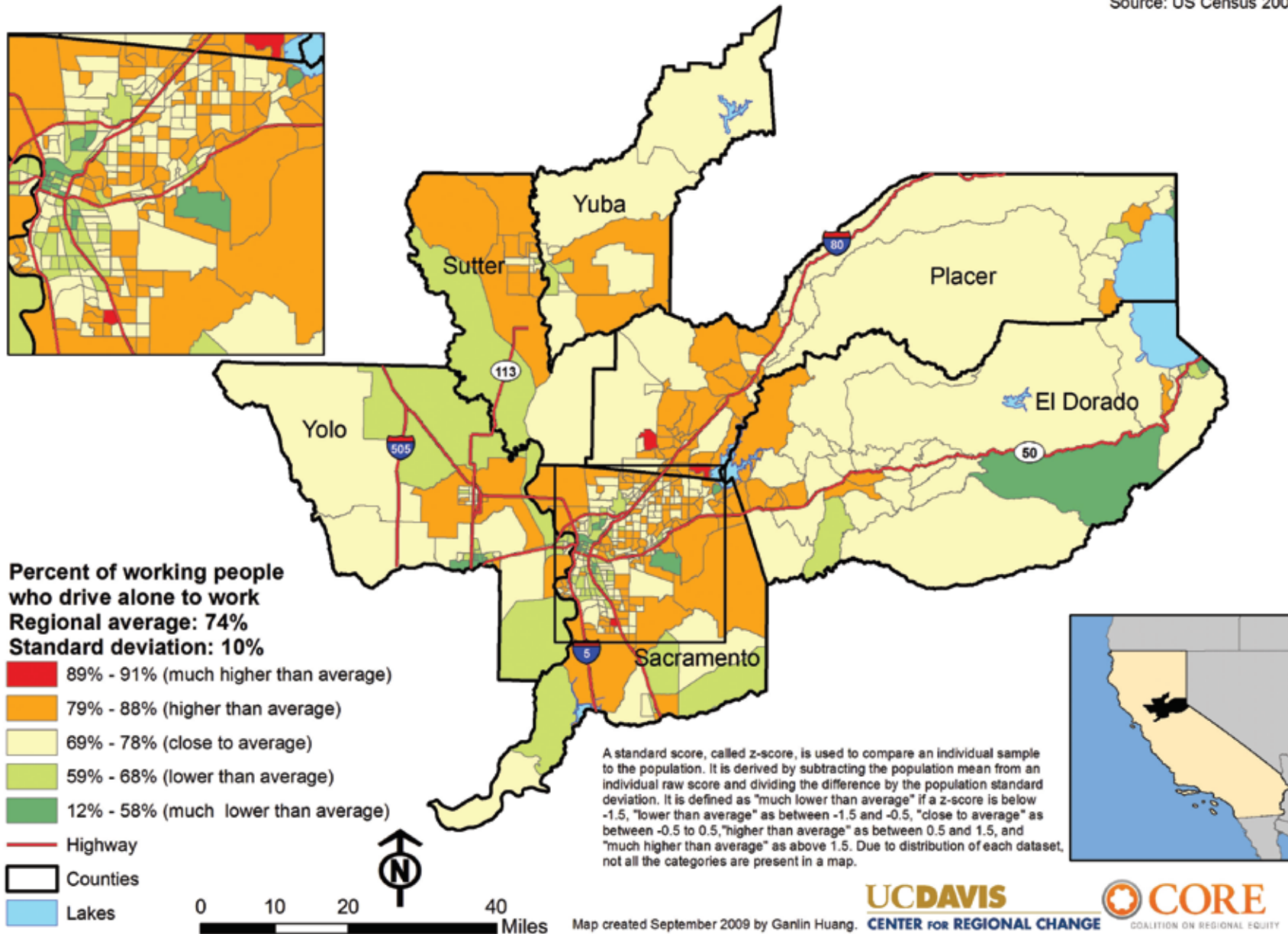
Percent of Working People Who Drive Alone to Work by Census Tract 1990

Source: US Census 1990.



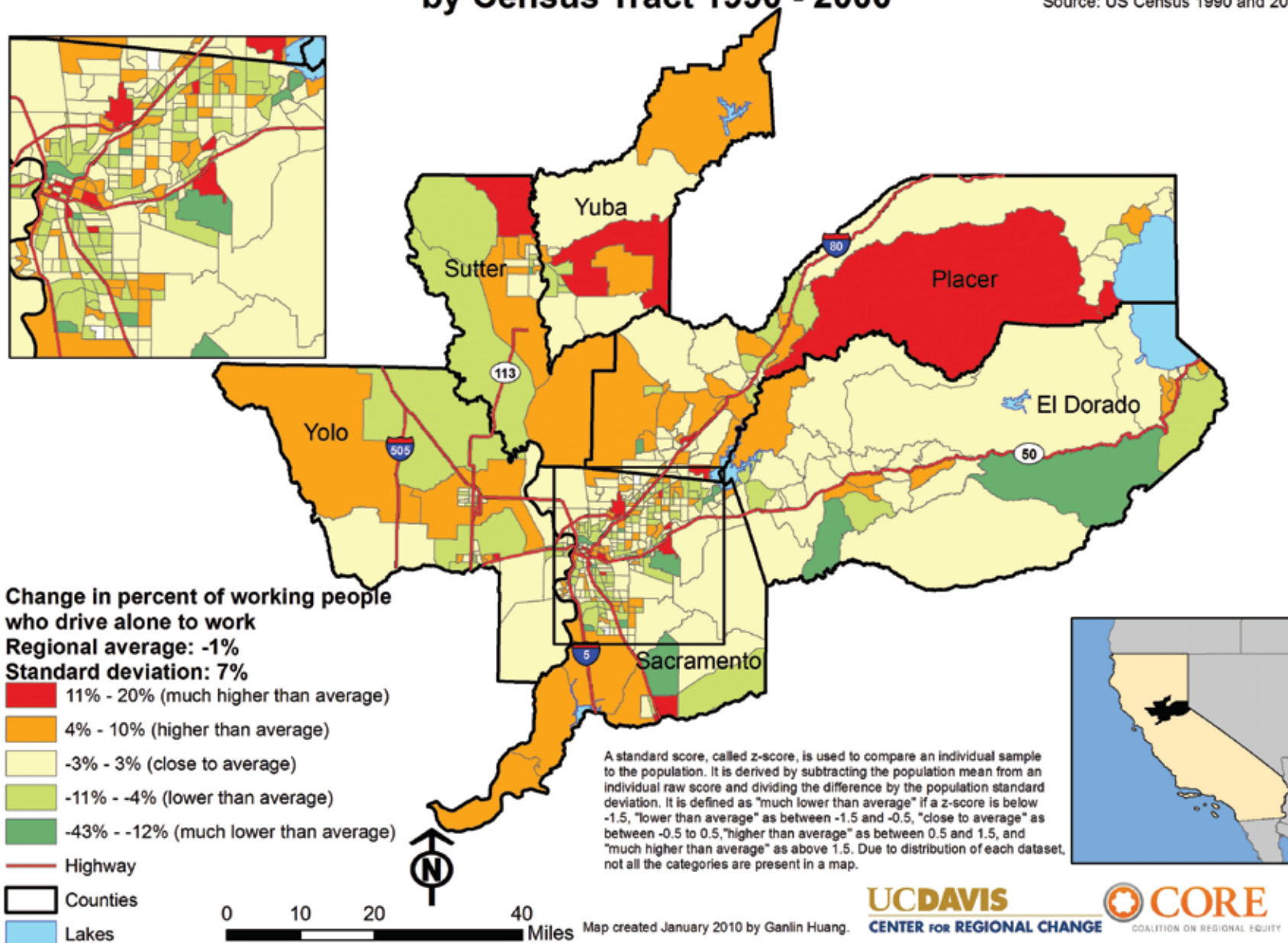
Percent of Working People Who Drive Alone to Work by Census Tract 2000

Source: US Census 2000.



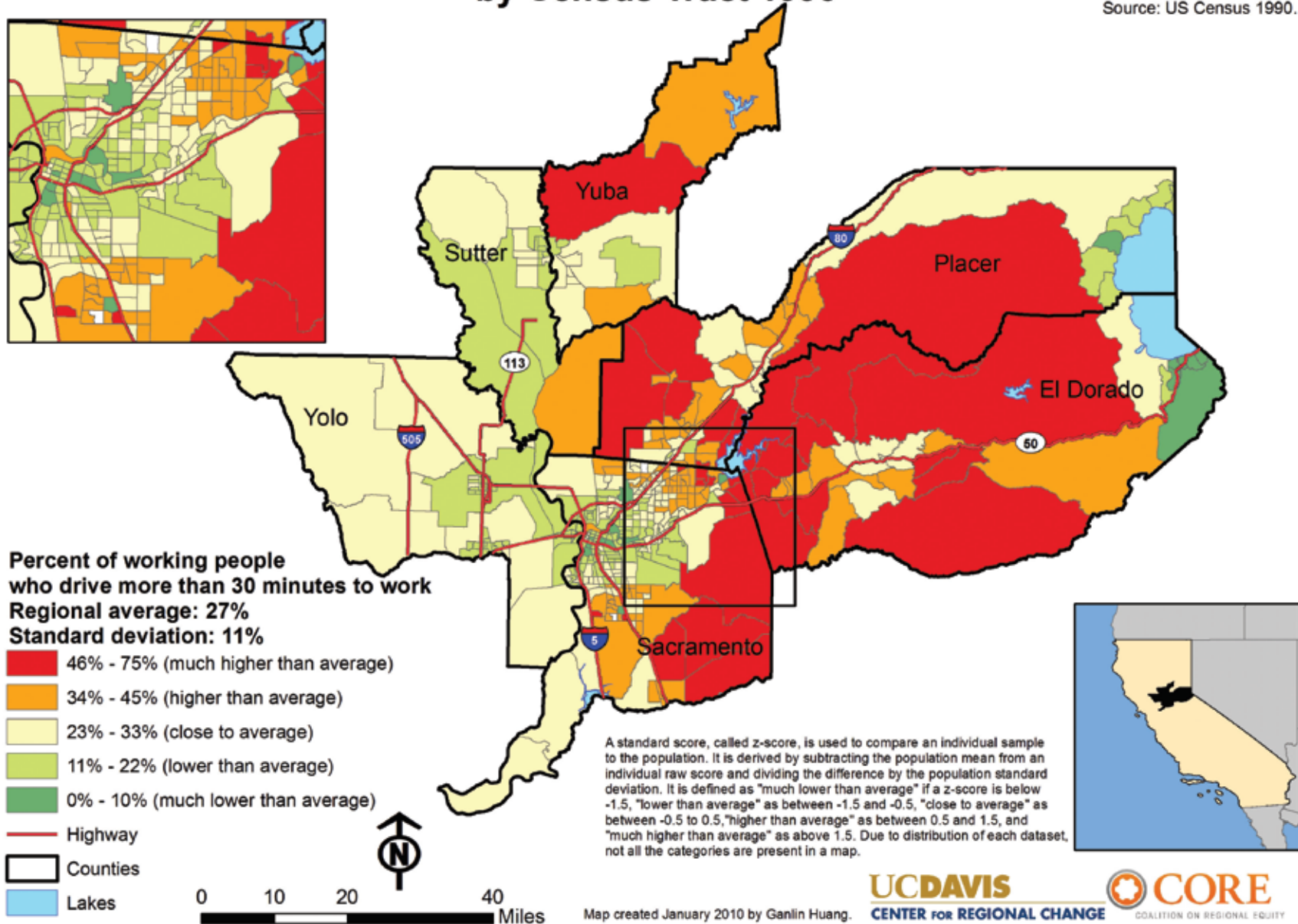
Change in Percent of Working People Who Drive Alone to Work by Census Tract 1990 - 2000

Source: US Census 1990 and 2000.



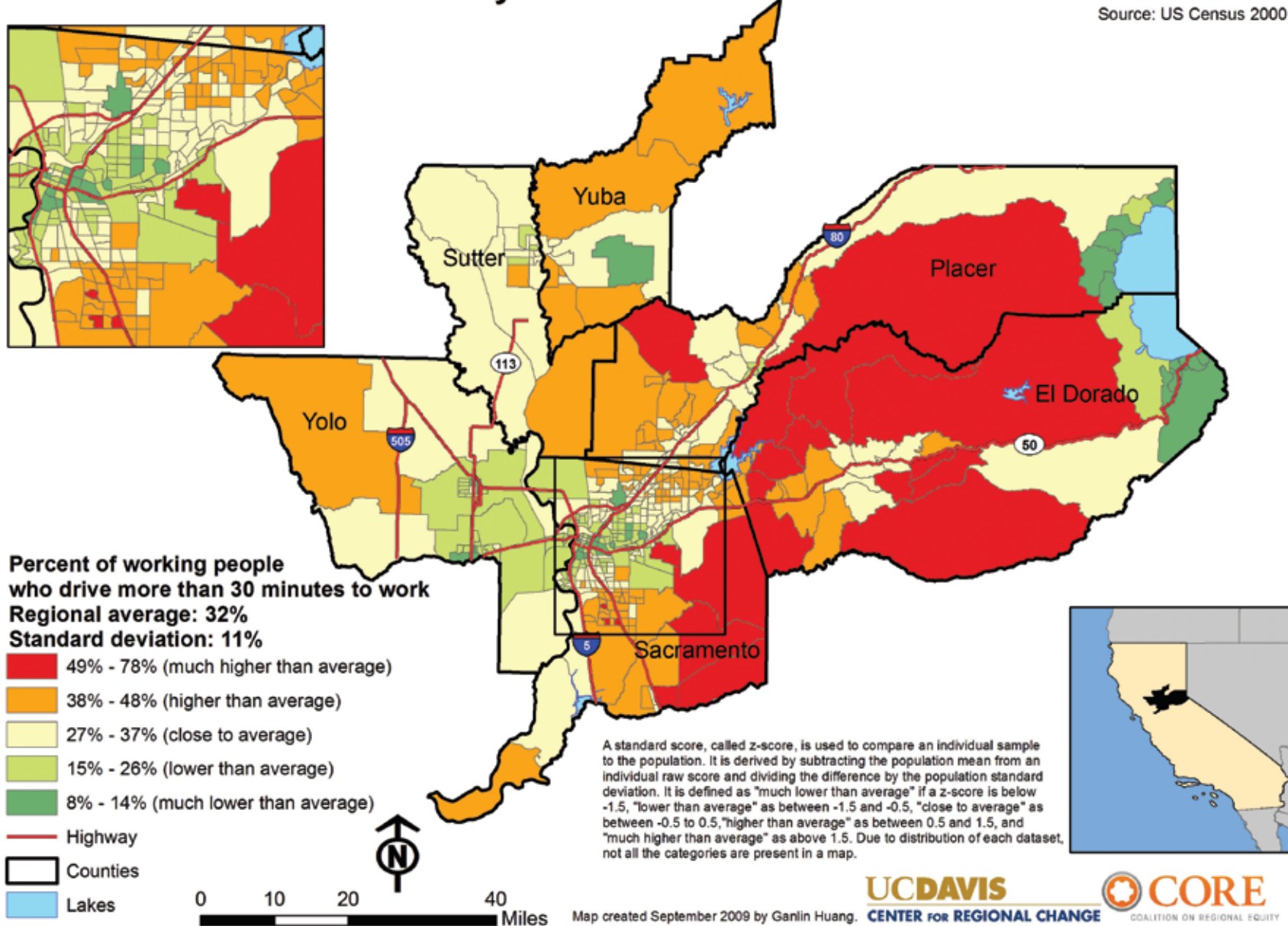
Percent of Working People Who Drive More than 30 Minutes to Work by Census Tract 1990

Source: US Census 1990.



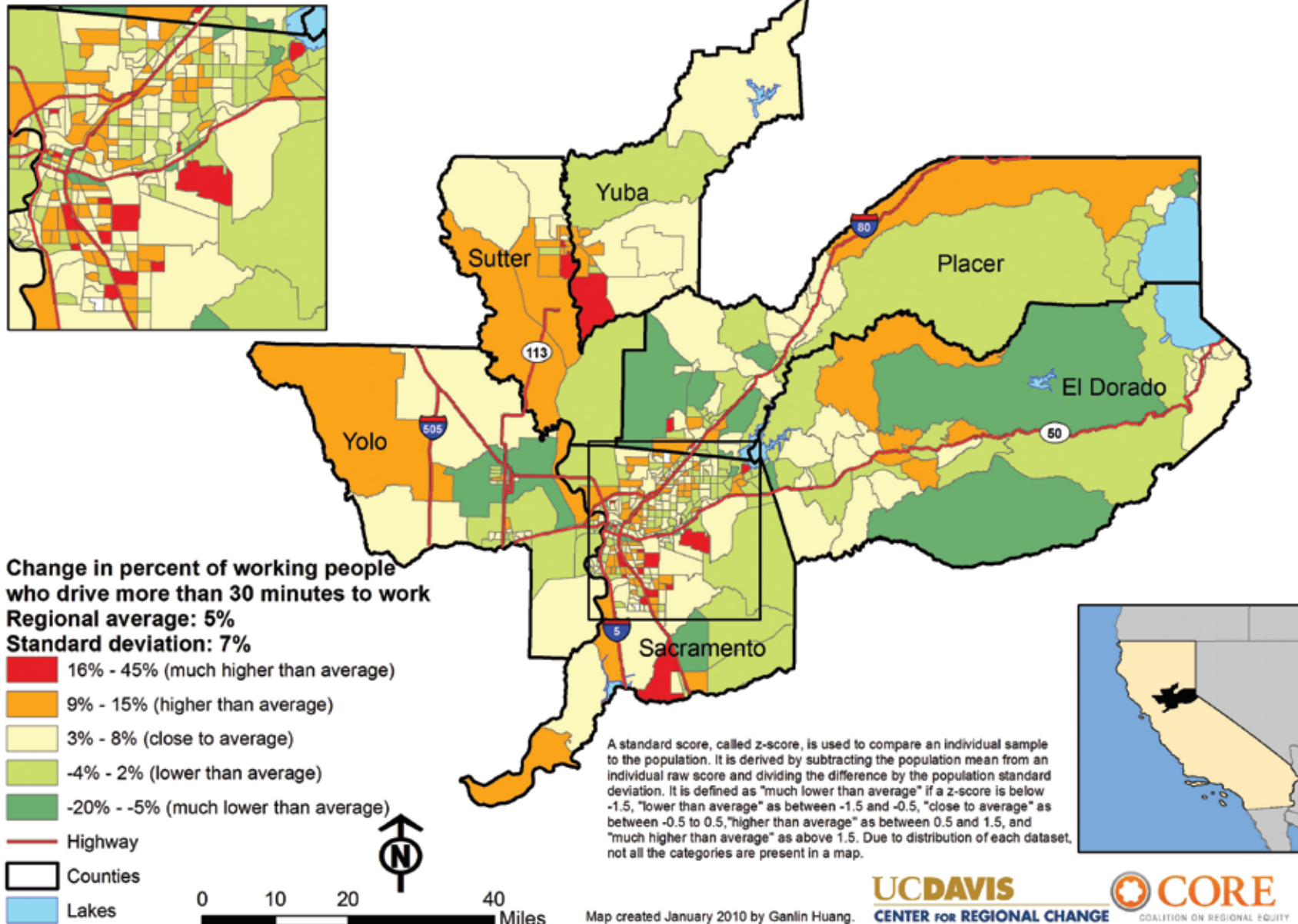
Percent of Working People Who Drive More than 30 Minutes to Work by Census Tract 2000

Source: US Census 2000.



Change in Percent of Working People Who Drive More than 30 Minutes to Work by Census Tract 1990 - 2000

Source: US Census 1990 and 2000.



The availability of environmental amenities, and exposure to environmental harms, are not distributed equally through the region.

Health and Environment

The availability of environmental amenities, and exposure to environmental harms, are not distributed equally through the region. Areas that lack access to amenities such as parks and other open spaces may also be exposed to higher levels of environmental pollutants than their amenity-rich counterparts.

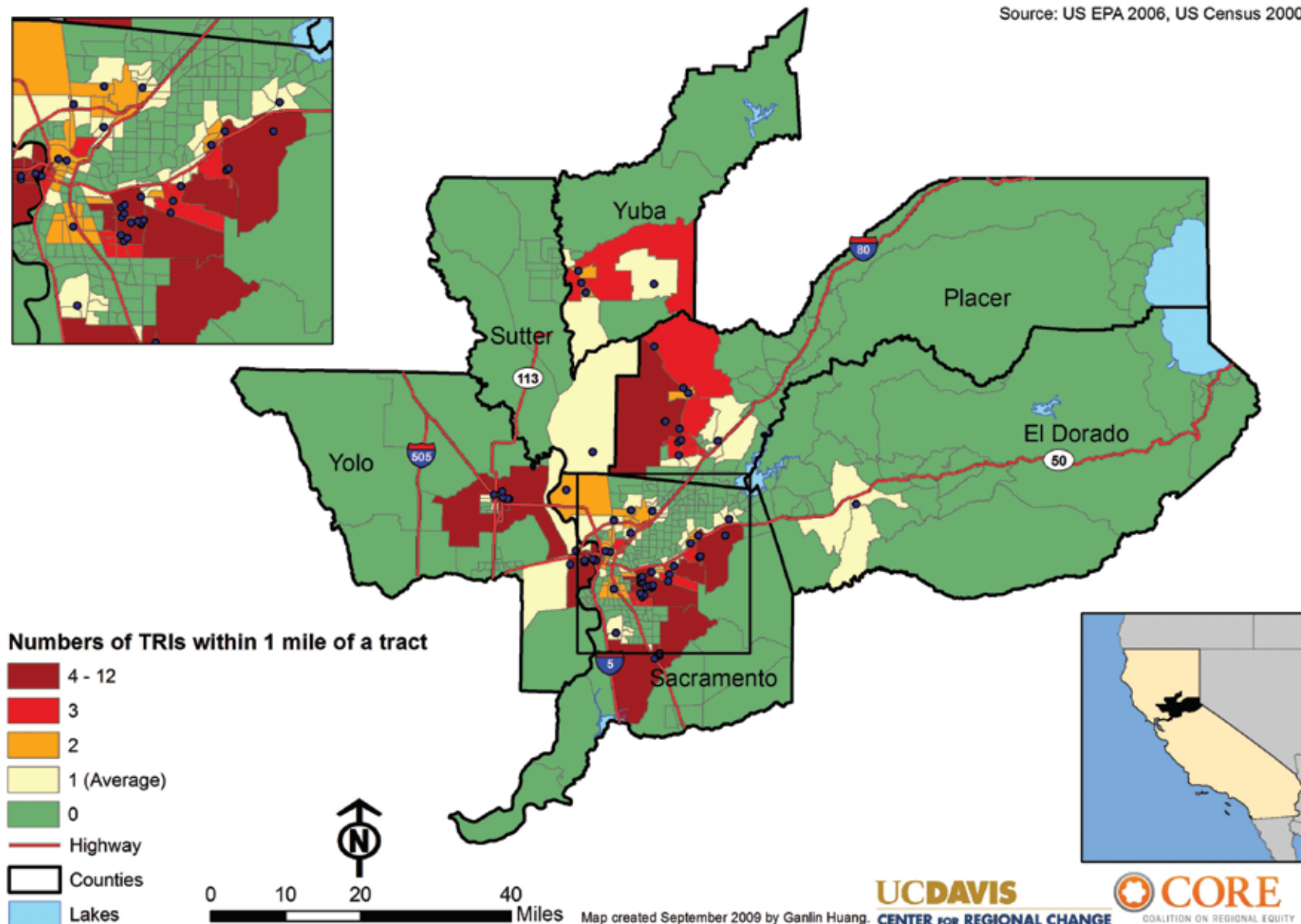
One environmental amenity we studied was the percent of land area covered by a tree canopy, which is often viewed as environmentally beneficial, and aesthetically beneficial as well. The average for the region is 74%, but this is somewhat skewed by the nearly 100% tree canopy coverage in the rural mountain areas of Placer, El Dorado and Yuba counties. From the map on the following page, it is clear that portions of the area east of Sacramento along the American River have high levels of tree canopy coverage, while agricultural areas of the region have relatively low levels of tree canopy cover.

The subsequent map shows the physical location of sites identified by the Environmental Protection Agency as being sources of toxics released into the environment, as part of their toxic release inventory (TRI). The color coding of the map shows the number of TRI sites within one mile of the census tract. Here, it is clear there are substantial concentrations of TRI sites along the I-50 corridor, and in southwestern Placer County, showing elevated levels of environmental harms faced by residents of these areas.

Subsequent versions of the SCORECARD will provide a broader range of health and environmental indicators of regional equity.

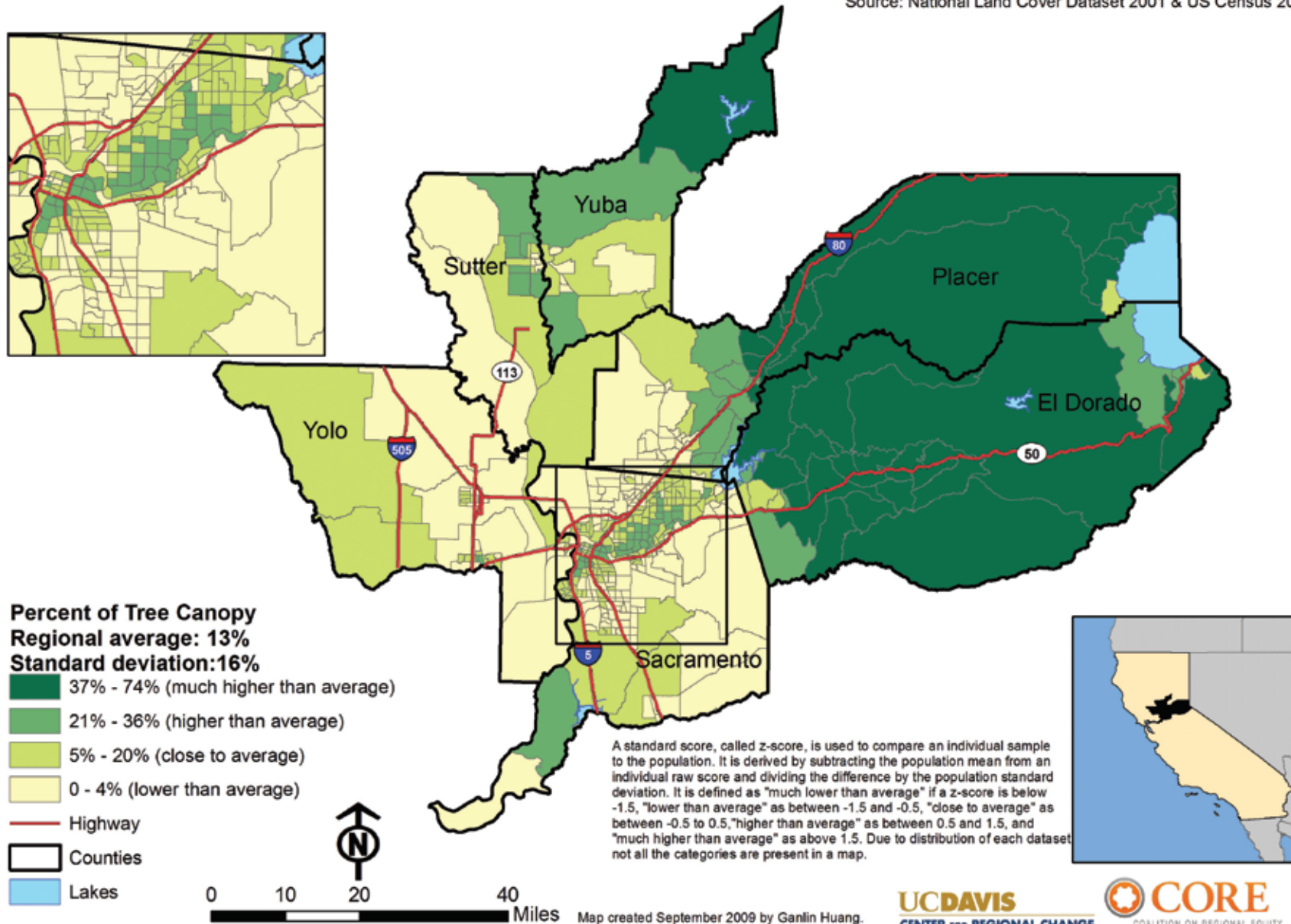
Toxics Release Inventory Sites in Census Tracts 2006

Source: US EPA 2006, US Census 2000.



Percent of Tree Canopy by Census Tract 2000

Source: National Land Cover Dataset 2001 & US Census 2000.





Methods

In all of the maps created for this report, census tracts were used as the basic unit of analysis. Six categories of indicators were developed: demographics, economic opportunities, housing, education, transportation and health and environment. Within each category, several indicators were selected and mapped out to show the difference in the region.

To break values into distinct categories, we employed a Z score to indicate the relationship between a tract and the region. A Z score compares an individual sample to the total population. It is a dimensionless quantity derived by subtracting the population mean from an individual raw score and dividing the difference by the population standard deviation. It is defined as “much lower than average” if a Z score is below -1.5, “lower than average” as between -1.5 and -0.5, “close to average” as between -0.5 to 0.5, “higher than average” as between 0.5 and 1.5, and “much higher than average” as above 1.5.

Using the map of poverty as an example to explain the Z score concept, the percent of population under 200% federal poverty line ranges from 2% to 90% in a tract. We first calculated Z scores for each tract, which ranged from -1.59671 to 3.3798. Then we divided all the tracts into five categories, using Z score values of 1.5, 0.5, -0.5 and -1.5 as cutting points. To make the map easy to read, we use percent of population instead of Z score values in the legend, and add brief descriptions about how the categories do compare with the region. In this way, when people see that a tract falls into the first category, not only they know it means this tract has 57% to 90% of the

population living under 200% federal poverty line, but they also learn from our description that this rate is really high comparing with the whole region.

After we determine the Z scores, a value between 1 and 5 is assigned as the individual indicator score. A score of 5 indicates that the Z score is “much higher than average” for a desirable resource (such as tree canopy) or “much lower than average” for an undesirable resource (such as poverty). A score of 1 would indicate the other end of this value spectrum. Lastly, we take the average of all the individual indicator scores in one category as the index for that category.

References

Geolytics 2000.

Census 1990 in 2000 Boundaries. East Brunswick, NJ: Geolytics Incorporated.

Geolytics 2000.

Census 2000 Long Form Dataset. East Brunswick, NJ: Geolytics Incorporated.

Geolytics 2008.

2008 Estimates Dataset. East Brunswick, NJ: Geolytics Incorporated.

Homer, C., C. Huang, L. Yang, B. Wylie, and M. Coan, 2004.

Development of a 2001 National Land Cover Database for the United States.

Photogrammetric Engineering & Remote Sensing 70(7): 829-840.

Sacramento Regional Transit.

Regional Transit Google Transit™ Feed Specification.

Available at: <http://www.sacrt.com/gtfs.stm>

US Environmental Protection Agency 2006.

Toxics Release Inventory Dataset.

Available at: <http://www.epa.gov/tri/tridata/index.htm>

US Geological Survey Earth Resources Observation and Science Center 2001.

National Land Cover Dataset.

Endnotes

i See, for example, Pastor, M., B. Lester & J. Scoggins (2009) “Why Regions? Why Now? Who Cares?” *Journal of Urban Affairs*, v 31 for a recent review of research on regionalism, or Pastor, M., C. Benner & M. Matsuoka. 2009 *This Could Be the Start of Something Big: Social Movements for Regional Equity and the Future of Metropolitan America* Ithaca: Cornell University Press for a comprehensive review of regional equity movements around the country.

ii The SCORECARD (Sacramento Coalition on Regional Equity Collaborative Assessment of Regional Development) is a collaborative project between the UC Davis Center for Regional Change (CRC) and the Coalition on Regional Equity (CORE).

iii See Todghill, Ron and Amanda Bower (2002) “Welcome to America’s Most Diversity City” *Time Magazine* August 25, 2002.

iv In 2000, the population of the City of Sacramento was 41% non-Hispanic white, 22% Latino, 16% Asian and 15% African American.

v Paying more than 30% of household income on housing expenses is considered unaffordable to most households, threatening other areas of necessary household spending such as food and health care.



Center for Regional Change
University of California, Davis
One Shields Ave, 1309 Hart Hall
Davis, CA 95616
530.751.8799
<http://regionalchange.ucdavis.edu>