

**Analysis of Chinese Population Change Amid Rising Housing Costs in  
LA County from 2015 to 2023**

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## Introduction

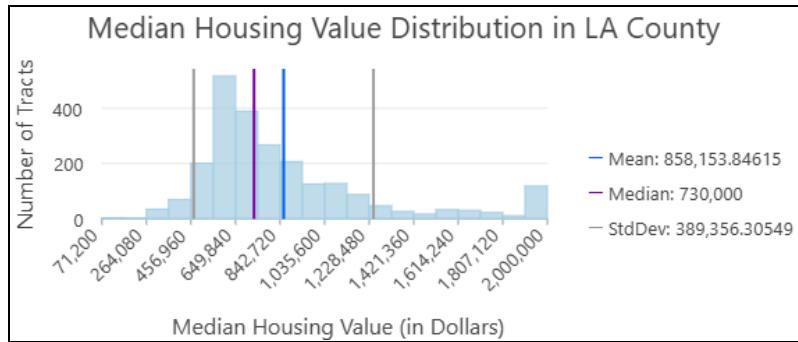
Los Angeles County is home to one of the most diverse Asian American populations in the United States, with ethnic enclaves long established in areas such as Chinatown, Little Tokyo, and Koreatown. In recent decades, however, Asian communities have expanded beyond these historic districts, forming residential clusters throughout the county. Some reasons driving Asian residential migration include pressures from gentrification and rising housing costs. Among all Asian ethnic groups in LA County, Chinese Americans constitute the largest share, not only making them a significant community of interest, but also providing an abundance of data for analyzing broader migration trends.

This project identifies major Chinese population clusters in Los Angeles County and examines changes in the Chinese population by census tract from 2015 to 2023. By mapping these shifts alongside variations in housing costs, this analysis highlights emerging spatial patterns that reflect displacement and migration within LA County's evolving demographic landscape.

## Methods

This analysis combines demographic and housing data to examine patterns of Chinese population change across Los Angeles County. First, census tract-level housing cost data from 2015 and 2023 were collected. These years represent both the earliest and most recent years available from the ACS 5-Year Estimates, allowing for a clear comparison of change over time. These datasets were joined to the appropriate tracts using *Join Field*, then copied over to new fields using *Fields View* and *Calculate Field* to convert them from text to numeric formatting. Then, the 2023 median housing value dataset was symbolized using graduated colors and a four-category Natural Breaks (Jenks) classification to produce a map output visualizing the

distribution of housing costs across LA County. This classification method was chosen to visualize clusters and gaps between data values, and to best analyze skewed datasets. As shown in the adjacent figure, the 2023 dataset is positively skewed, with most data falling on the lower end while a scattering of high housing values pull the mean to the right. The results are displayed in the “LA County Median Housing Value, 2023” map.



To examine the socioeconomic conditions of Chinese residential clusters, census tracts with high Chinese population percentages and low median housing values were identified. First, data on Chinese population counts were gathered for 2015 and 2023. Next, because the ACS reports Chinese and Taiwanese populations separately, the both counts were summed using Excel, producing a total that reflects shared ethnic origins and yields a more complete measure of the Chinese population. In ArcGIS Pro, these data were cleaned and joined to the corresponding census tract geometries using *Join Fields*. A new column detailing the Chinese population percentage of each census tract was created and calculated by dividing the tract total population counts with the Chinese population counts, then multiplying by 100. The entire map, including all layers, were projected into *WGS 84 UTM Zone 11N*, which minimizes distortion at mid-latitudes regions like LA County.

Using the *Hot Spot Analysis (Getis Ord Gi\*)* tool on the new percentage column, tract-level Chinese population hotspots were then identified. Hot Spot Analysis provides z-scores and p-values that offer statistical proof that each hotspot is not a result of random chance, but is

statistically significant. Out of the seven categories the tool returned, *Select by Attribute* was used to isolate and export hotspots with 95-99% confidence levels. Tracts with the highest concentrations of Chinese residents were found to be clustered in the San Gabriel Valley, aligning with prior research identifying the region as a prominent Chinese settlement in LA County. Then, these tracts were intersected with a newly exported layer of tracts with low median housing values (defined by values below LA County's overall median housing value, which was \$400,000 in 2015 and \$730,000 in 2023, after rounding to the nearest ten thousandth). Results for both years are shown in the maps “Census Tracts with High Percentage of Chinese Residents and Low Median Housing Values in LA County, 2023” and “Census Tracts with High Percentage of Chinese Residents and Low Median Housing Values in LA County, 2015.”

To evaluate how demographic and housing conditions changed over time, this project then calculated percent change in Chinese population from 2015–2023 for each census tract. Mapping population change allows areas experiencing growth, stability, or decline to be identified. Percent change was added in a new column, then calculated through *Calculate Field* with the following formula:  $100 * (2023 \text{ Chinese Population Count} - 2015 \text{ Chinese Population Count}) / 2015 \text{ Chinese Population Count}$ . The results were then symbolized using a diverging color ramp and a six-category manual interval classification method that broke down the percent change into intuitive categories in the map “Percent Change in Chinese Population by Census Tract in LA County, 2015 - 2023.”

Similarly, percent change in median housing value was calculated and mapped in “Percent Change in Median Housing Value by Census Tract in LA County, 2015 - 2023” using an intuitive, five-category manual interval classification method to visualize shifts in affordability across the county. Tracking housing cost increase provides a way to identify areas

experiencing intensifying market pressures that strain housing affordability. Together, measuring these two variables over time enables an examination of whether rising housing costs correspond with population decline or displacement in areas with a significant Chinese presence.

Lastly, census tracts with major increases or declines in Chinese population percentages were selected, exported, and intersected with tracts with high percentages of housing value increase. These were broken into three categories that measured displacement and expansion. Displacement was categorized further into “Severe Displacement” (areas where Chinese population declined by 1% - 100% while housing value increased by more than 100%) and “Moderate Displacement” (areas where Chinese population declined by 1% - 100% while housing value increased by more than 50% - 100%). Expansion was determined by areas where both Chinese population and housing value increased by more than 100%. The map “Chinese Population Change Amid Rising Housing Costs by LA County Census Tracts, 2015 - 2023” displays these results, and additionally includes an inset map highlighting the San Gabriel Valley without obstructing the main map.

## **Results & Conclusions**

Notably, the “Census Tracts with High Percentage of Chinese Residents and Low Median Housing Values in LA County, 2023” map shows more tracts that contained high Chinese population concentrations while remaining on the lower end of the housing market compared to the “Census Tracts with High Percentage of Chinese Residents and Low Median Housing Values in LA County, 2015” map. This suggests that between 2015 and 2023, Chinese residents became more concentrated in areas that remained relatively affordable within the broader Los Angeles housing market. Even as housing values drastically increased in surrounding areas, housing costs

in the San Gabriel Valley remained relatively stable or increased at rates lower than broader market trends, allowing most Chinese residents to remain in their homes.

The map “Chinese Population Change Amid Rising Housing Costs by LA County Census Tracts, 2015–2023” supports this interpretation. While potential displacement and expansion appear in Beverly Hills, Pasadena, the San Fernando Valley, and a few other tracts, the San Gabriel Valley remains relatively stable. Moderate displacement is observed in some tracts, but the measured increases in housing value are not substantial enough when adjusted for inflation to firmly attribute Chinese emigration to rising costs. These findings are limited by the availability of housing and population data, as well as null values in tracts that reported Chinese populations of zero in 2015, which could not be computed in the percent change calculations.

## Data References

Natural Earth. (n.d.). *Ocean* [Vector data].

<https://www.naturalearthdata.com/downloads/10m-physical-vectors/10m-ocean/>

Natural Earth. (n.d.). *Roads* [Vector data].

<https://www.naturalearthdata.com/downloads/10m-cultural-vectors/roads/>

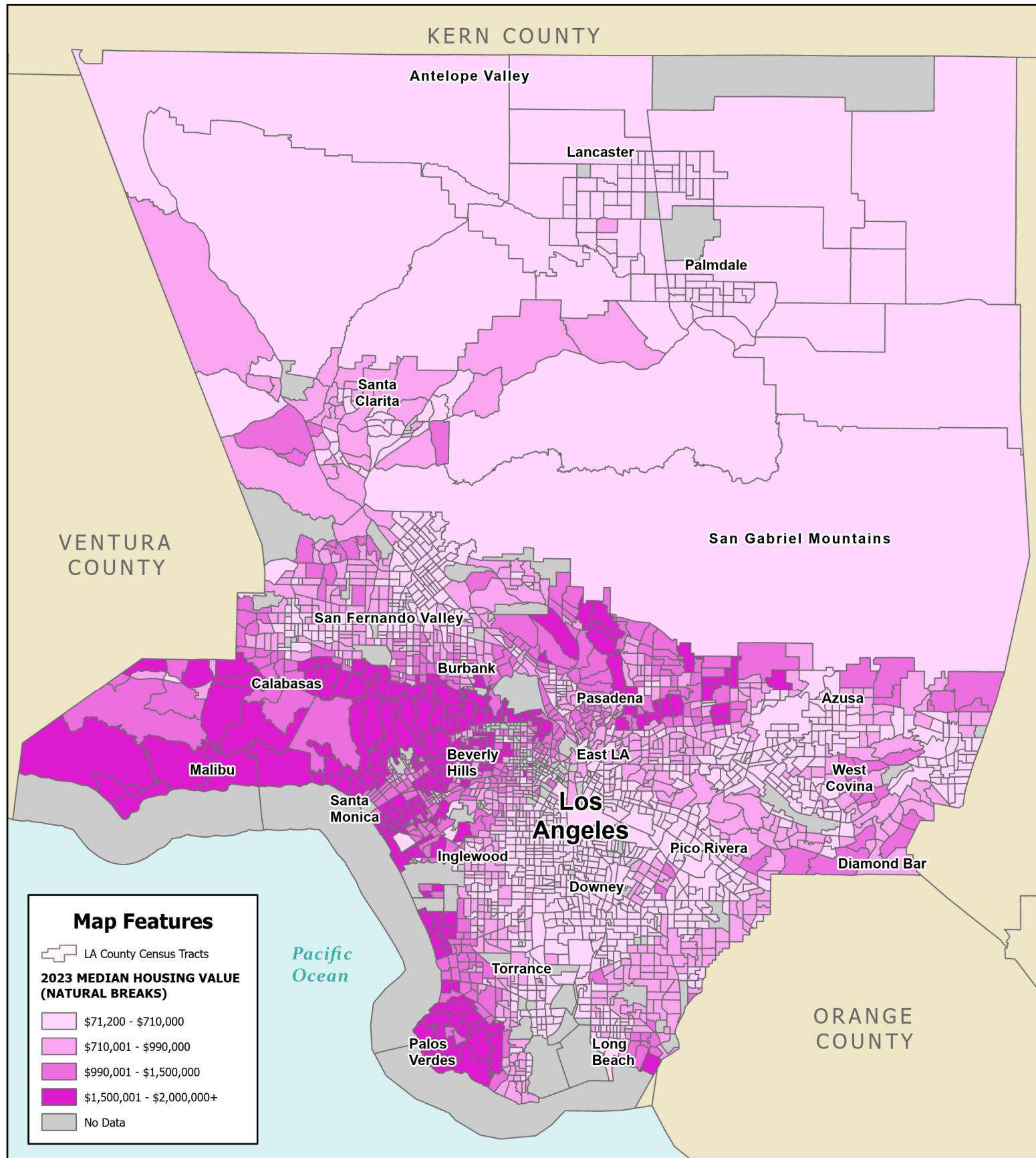
U.S. Census Bureau. (2015). *American Community Survey 5-year estimates, tables B01003, B02018, B25077* [Data set]. <https://www.census.gov/programs-surveys/acs>

U.S. Census Bureau. (2023). *American Community Survey 5-year estimates, tables B01003, B02018, B25077* [Data set]. <https://www.census.gov/programs-surveys/acs>

U.S. Census Bureau. (2025). *TIGER/Line shapefiles: Census tract and county* [Data set].

<https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.html>

# LA County Median Housing Value, 2023



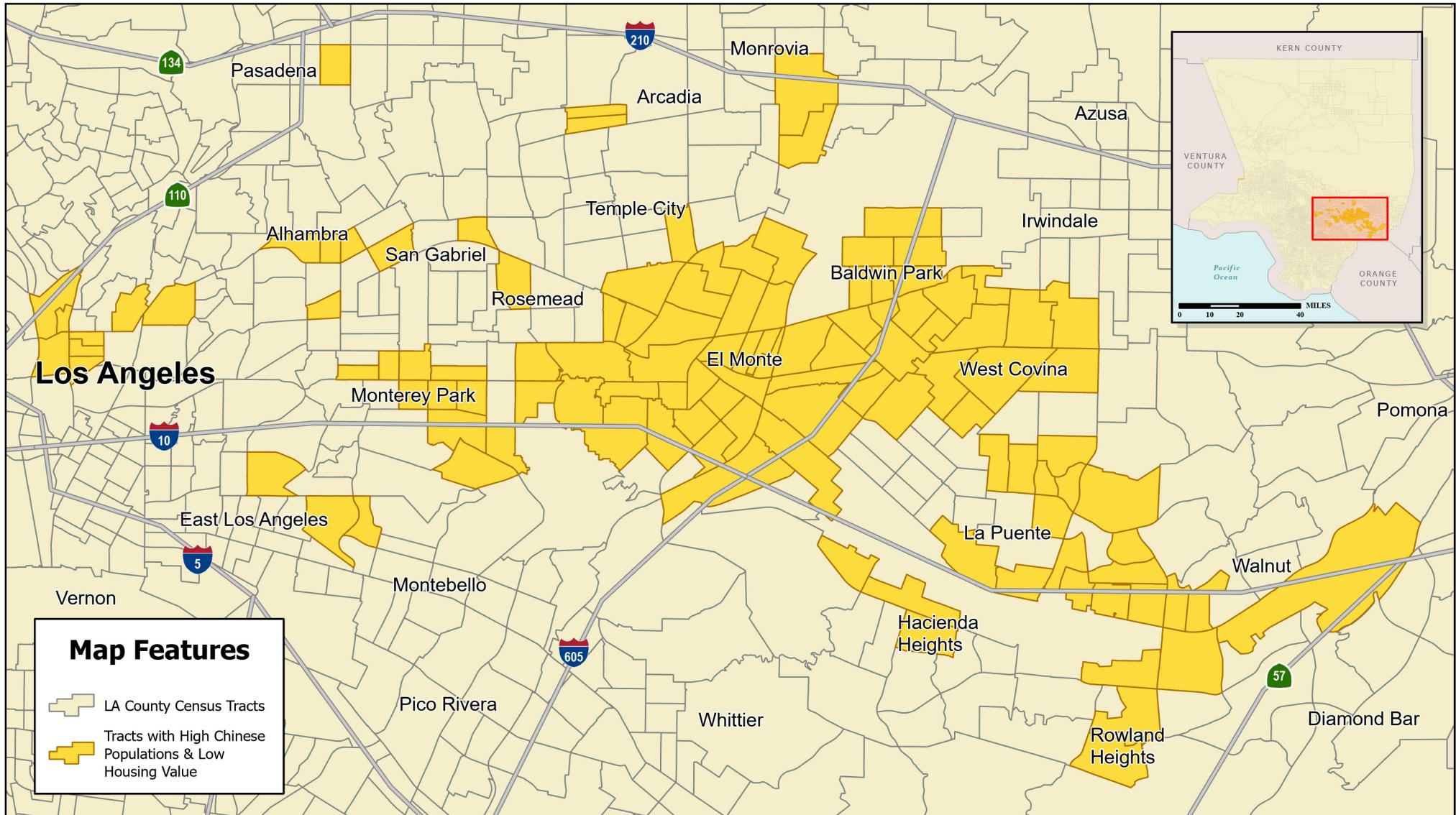
MAP SCALE: 1 : 600,000

0 10 20 40 MILES

Cartography by Amber Chen  
Projection: WGS 84 UTM Zone 11N  
Sources: Natural Earth, LA County eGIS,  
U.S. Census Bureau (TIGER/LINE, ACS)

# Census Tracts with High Percentage of Chinese Residents and Low Median Housing Values in LA County, 2023

*Low median housing values defined as below the overall median of LA County housing values*



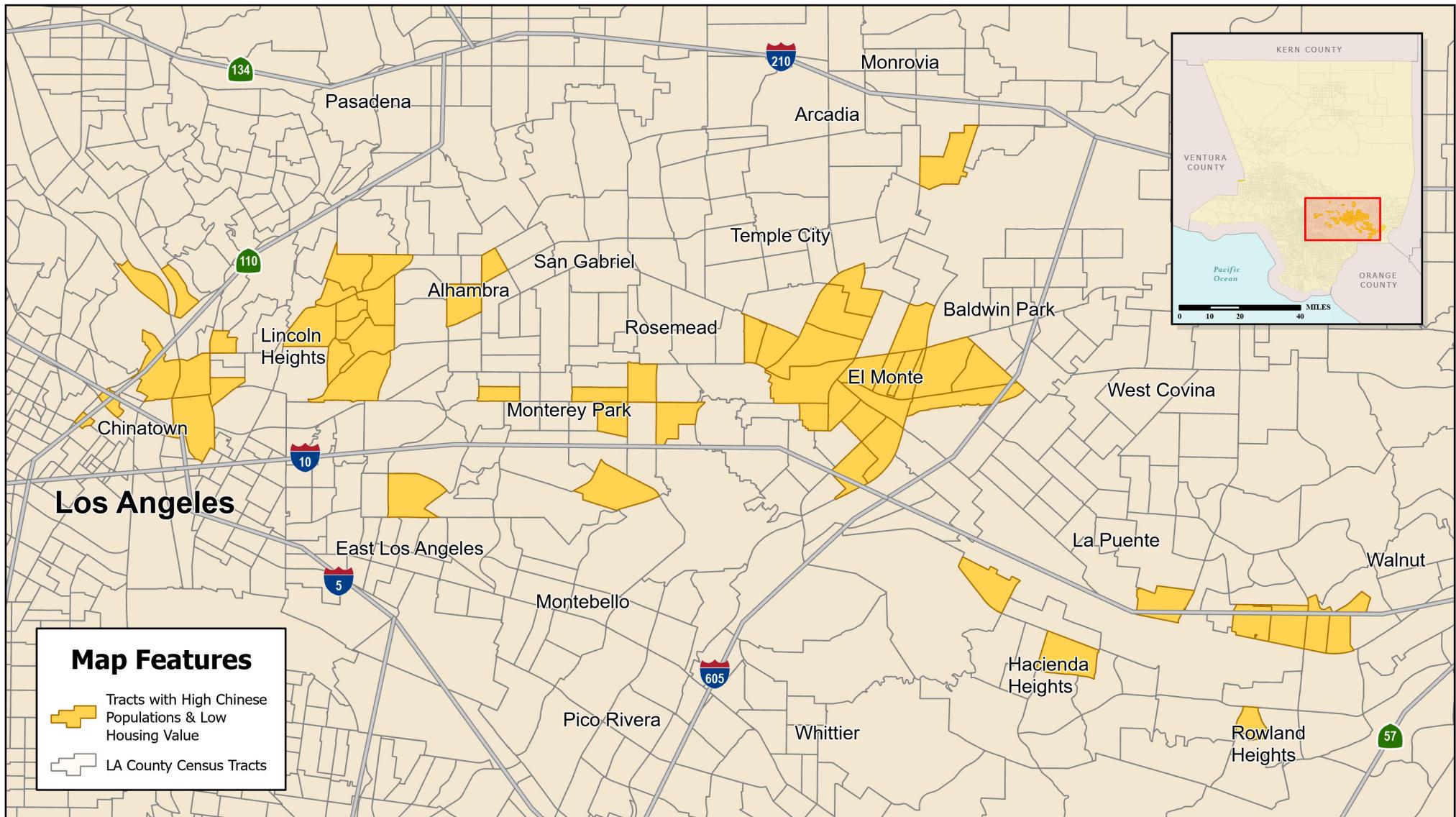
MAP SCALE: 1 : 150,000

0 3 6 12 MILES

Cartography by Amber Chen  
Projection: WGS 84 UTM Zone 11N  
Sources: Natural Earth, LA County eGIS, U.S.  
Census Bureau (TIGER/LINE, ACS), USGS

# Census Tracts with High Percentage of Chinese Residents and Low Median Housing Values in LA County, 2015

*Low median housing values defined as below the overall median of LA County housing values*

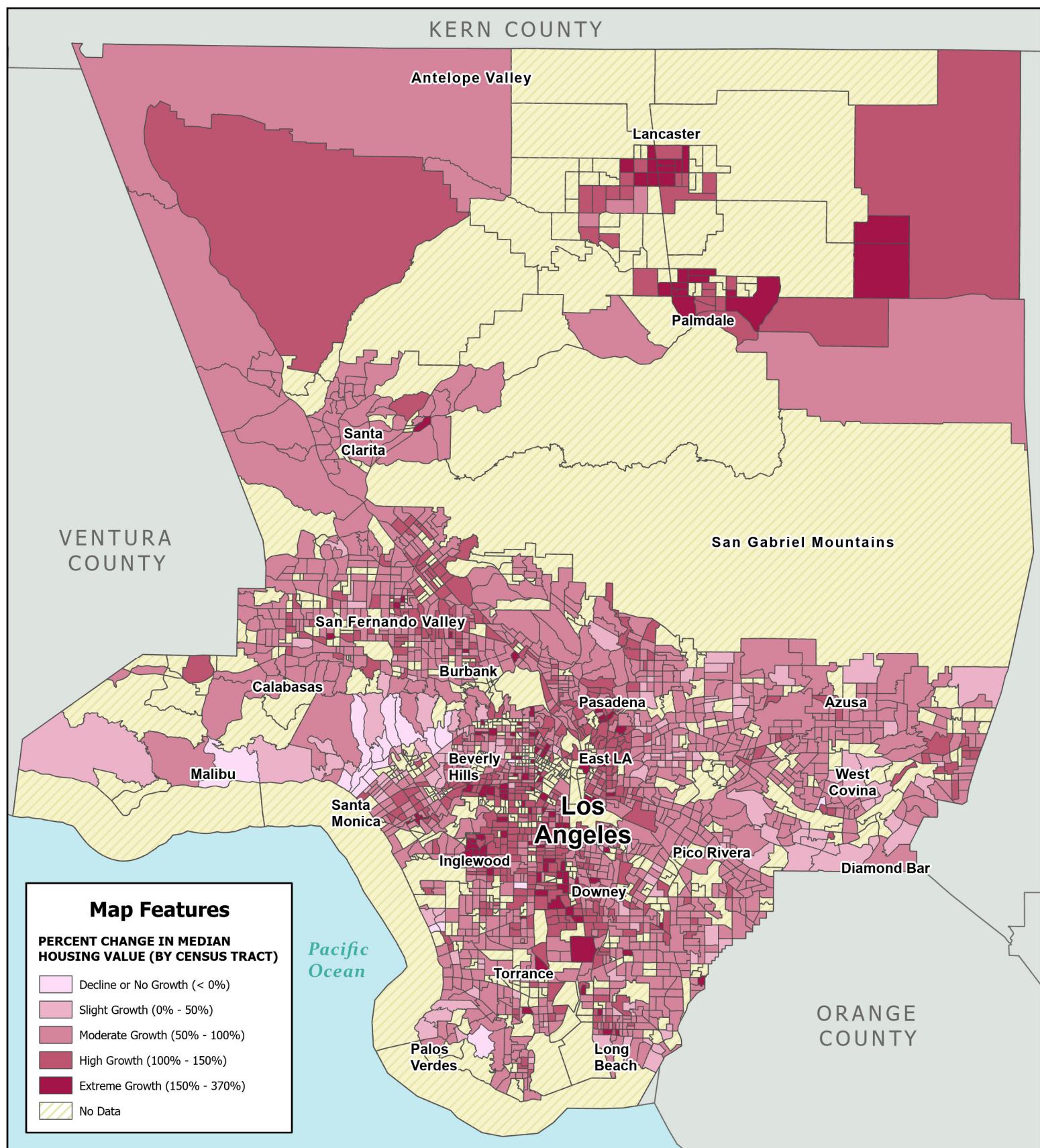


MAP SCALE: 1 : 150,000

0 3 6 12 MILES

Cartography by Amber Chen  
Projection: WGS 84 UTM Zone 11N  
Sources: Natural Earth, LA County eGIS, U.S.  
Census Bureau (TIGER/LINE, ACS), USGS

# Percent Change in Median Housing Value by Census Tract in LA County, 2015 - 2023

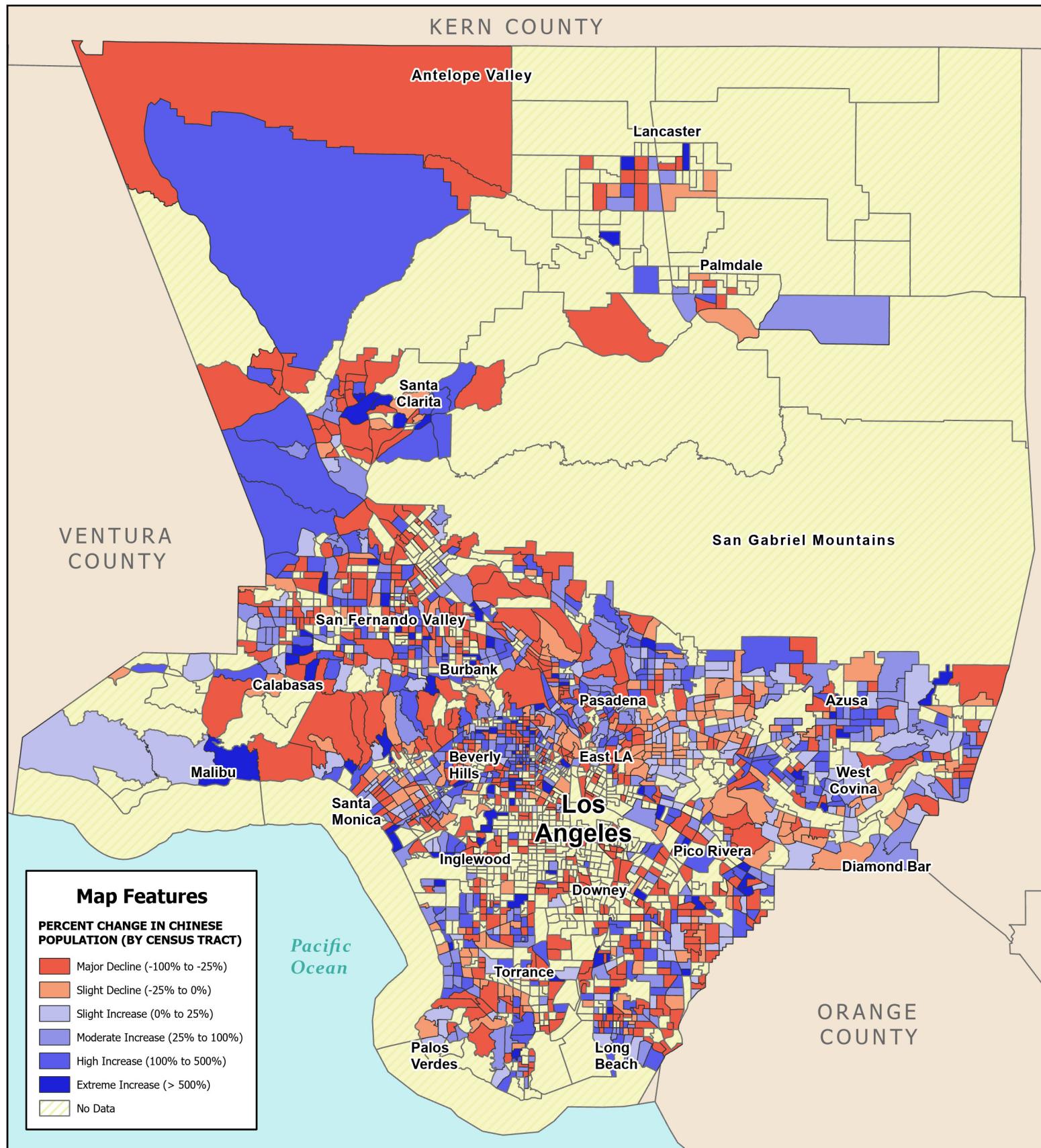


MAP SCALE: 1 : 600,000

0 10 20 40 MILES

Cartography by Amber Chen  
Projection: WGS 84 UTM Zone 11N  
Sources: Natural Earth, LA County eGIS,  
U.S. Census Bureau (TIGER/LINE, ACS)

# Percent Change in Chinese Population by Census Tract in LA County, 2015 - 2023

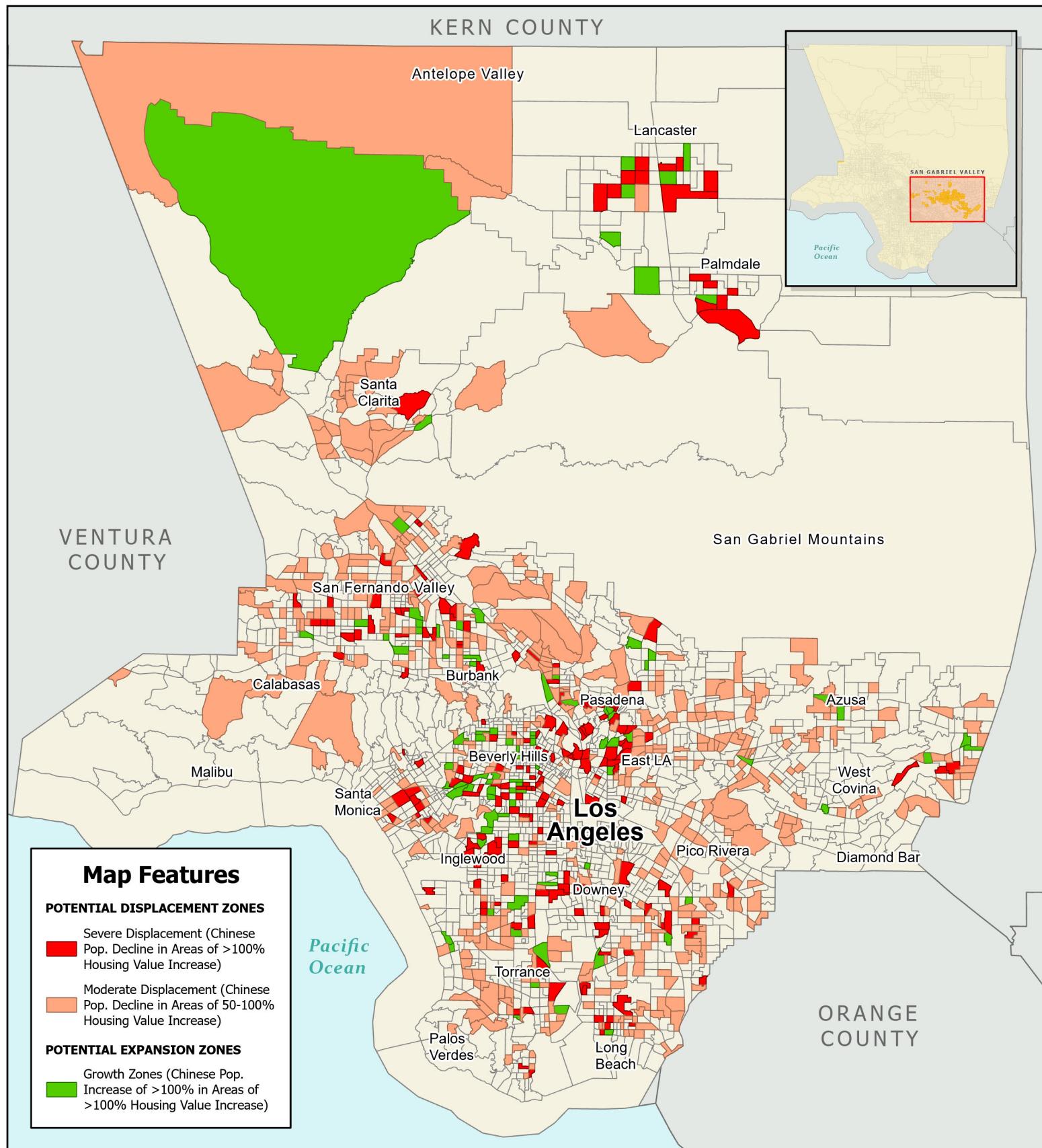


MAP SCALE: 1 : 600,000

0 10 20 40 MILES

Cartography by Amber Chen  
Projection: WGS 84 UTM Zone 11N  
Sources: Natural Earth, LA County eGIS,  
U.S. Census Bureau (TIGER/LINE, ACS)

# Chinese Population Change Amid Rising Housing Costs by LA County Census Tracts, 2015 - 2023



MAP SCALE: 1 : 600,000

0

10

20

MILES

40

Cartography by Amber Chen  
Projection: WGS 84 UTM Zone 11N  
Sources: Natural Earth, LA County eGIS,  
U.S. Census Bureau (TIGER/LINE, ACS)