

## Affordable Housing in Los Angeles

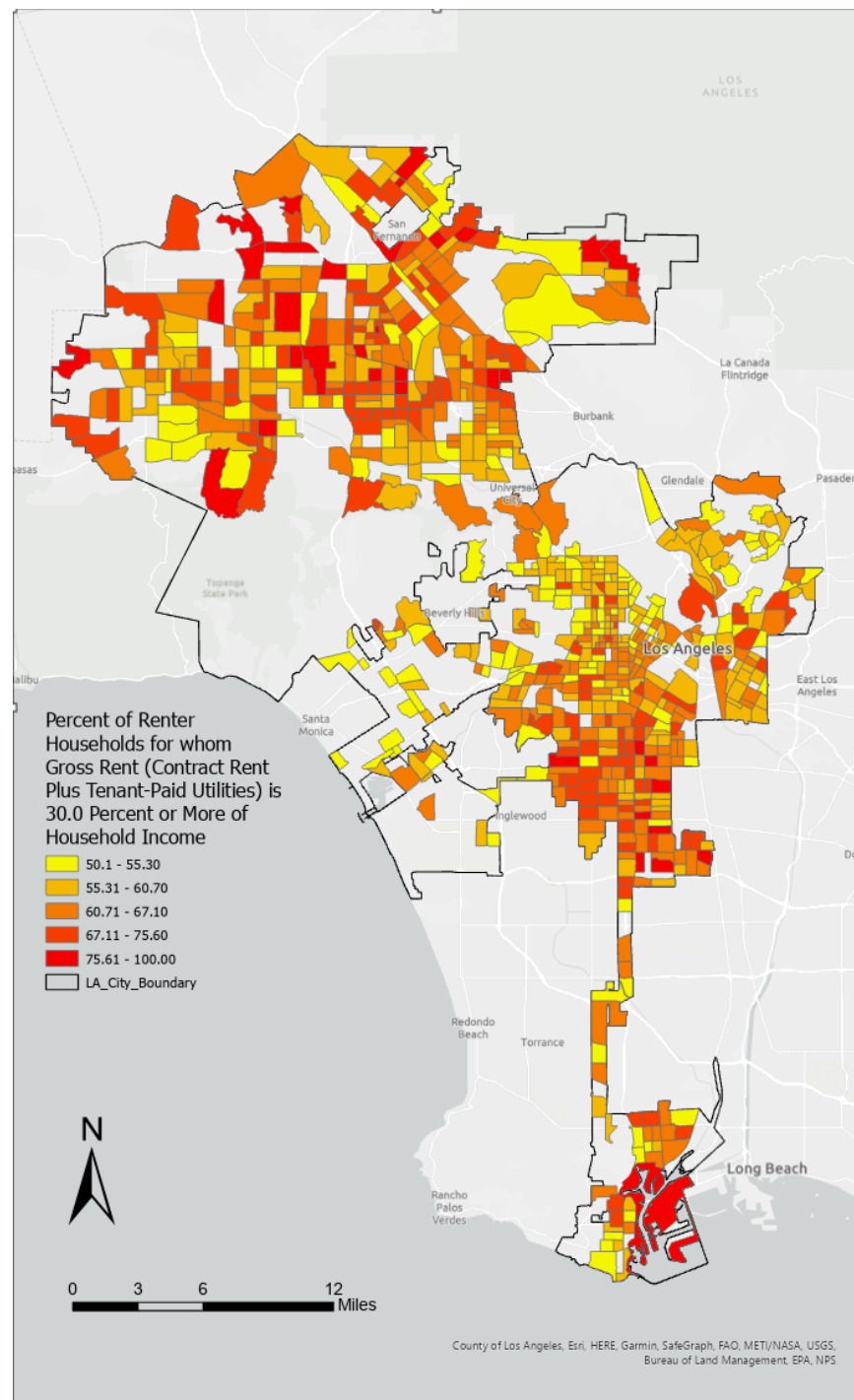
Los Angeles has been experiencing a boom in population growth since the early 20<sup>th</sup> century. Due to zoning laws of the time, that growth is becoming constrained and the immediate impacts are felt most by those already disaffected. Today there is undoubtedly a shortage of affordable rentals in the Los Angeles area. I will be looking at the extent of this shortage and proposing possible solutions to the burgeoning crisis.

The history of zoning in Los Angeles starts over 100 years ago in 1909. Large-scale development took hold of zoning and planning up until the real estate bubble of the 1920's. After the market crash and subsequent depression, the Federal Housing Authority was created in 1934. This made single-family residential neighborhoods highly profitable. Thus, leading to an expansion of single-family zoning throughout the Los Angeles region. As property values started to stabilize in the post-war years there was a considerable incentive to limit growth and housing development in already developed areas. In the latter half of the 20<sup>th</sup> century there was a noticeable theme of affluent suburban homeowners preventing the growth of urban areas throughout Los Angeles. While it can be argued that too much development and rezoning would be a disservice to the community that needs housing the most, the issue still remains that supply has not kept up with demand. In my analysis, I will be looking at the current land-use zoning in Los Angeles and comparing it to areas where the ratio of rent-to-income is disproportionately high. Based on that analysis, I will propose possible areas where zoning can be reevaluated to accommodate a growing population.

According to Chase Bank, proper budgeting should allow for at maximum 30% of one's monthly income to be allocated towards rent. Data from the American Community Survey, 5-year estimate, shows what percentage of renters in each census tract pay 30% or more of their household income on rent. I used this as a metric to determine which areas are paying excessively high rents. I then filtered the data by selecting only the census tracts where more than half (>50%) of the population is paying

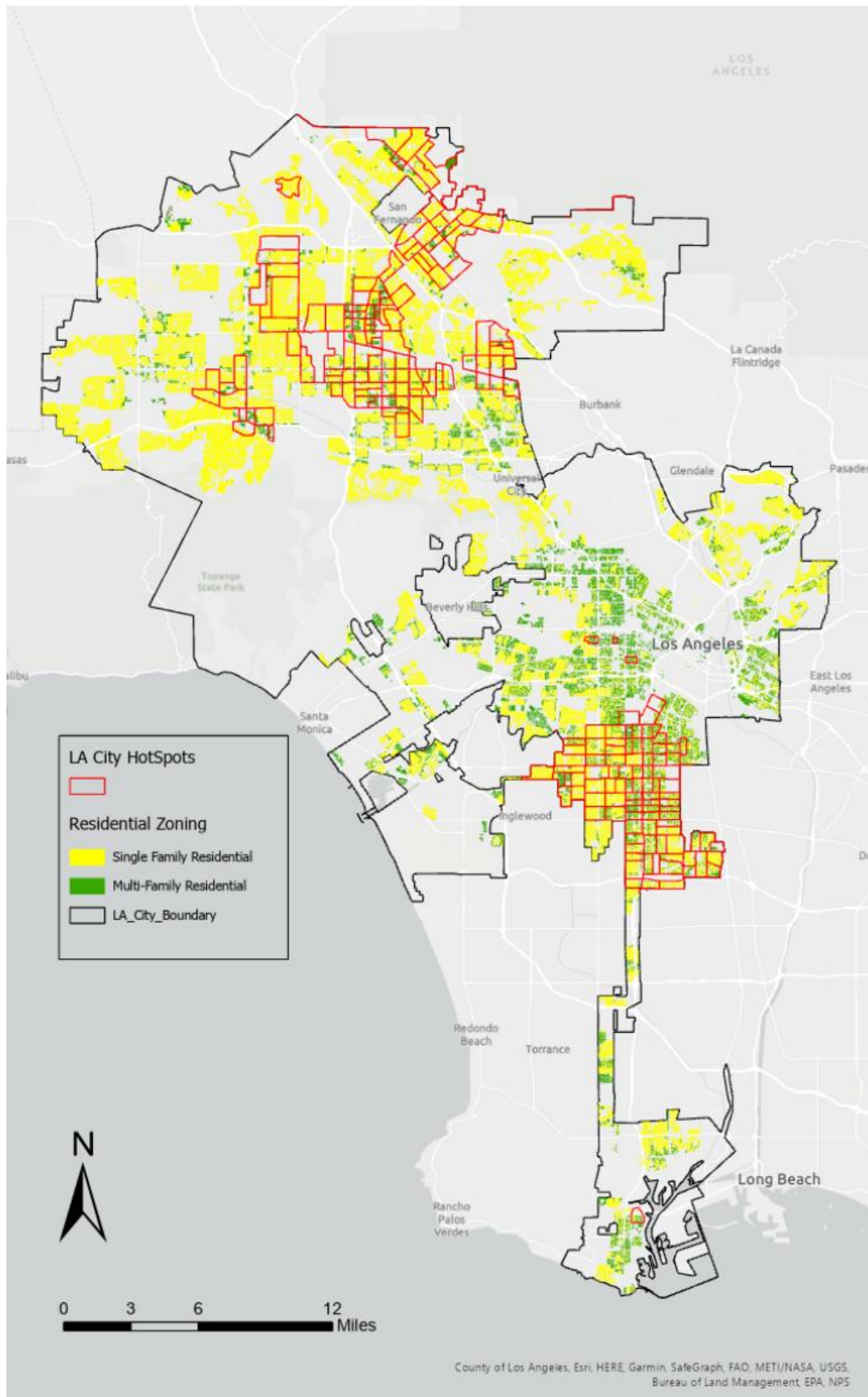
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30% or more of their income on rent. As can be seen in the map below, a considerable number of households in Los Angeles are allocating a large amount of their monthly paycheck on rent.

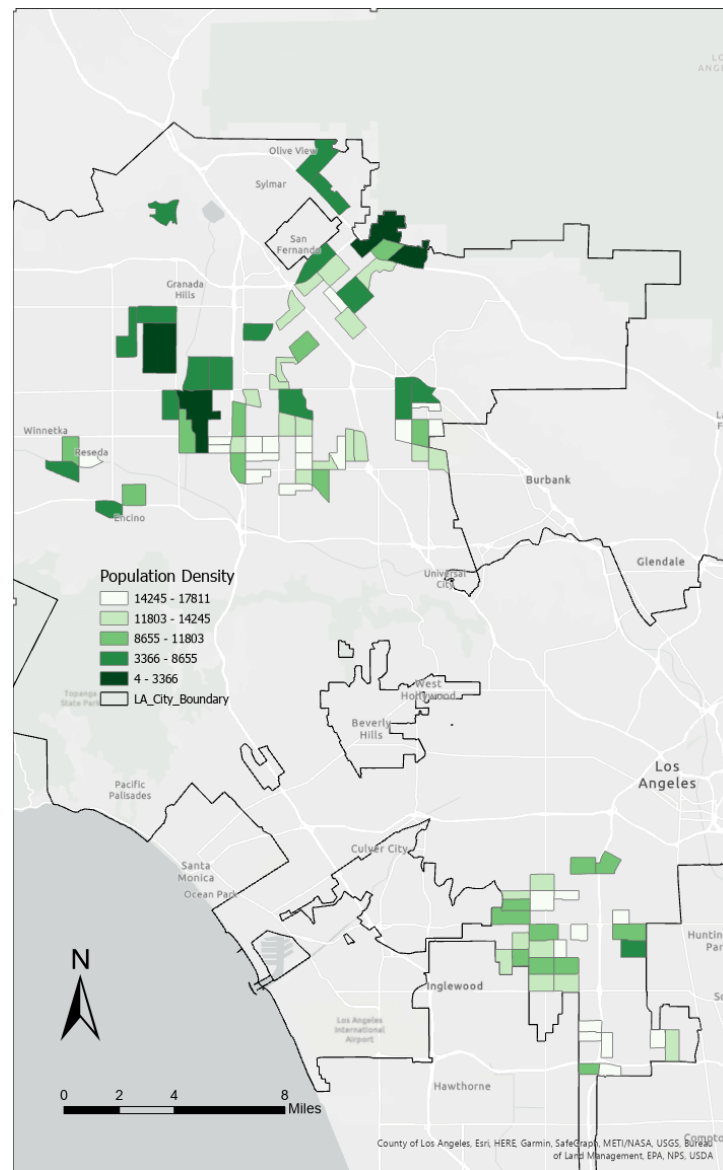


To illustrate that the surge in rent prices is tied to historic zoning, I used data from SCAG's 2016 landuse dataset. This dataset provided the existing landuse for all of Southern California. I then had to filter so that only residential zoning was visible in the City of Los Angeles. From a cursory view of the map below, one can tell that majority of the zoning in Los Angeles is for single-family residential units. It is most prominent in North-West LA and South LA. Taking the data from the first map, I ran a Getis-Ord Gi Hot Spot Analysis to determine the statistically significant areas where majority of the population pays more than 30% of their income on rent. When looking at both layers, it becomes clear that the high-rent areas are concentrated around single-family residential zones.

Fortunately, there is proposed legislation that will encourage LA City Council to reevaluate current zoning restrictions. The "fair-share" housing law proposes a Housing Element which will provide a step forward in the way cities and counties incentivize new housing developments. The Housing Element proposed by LA County has particularly set forth a bold plan to rezone properties and adopt policies that make it more equitable for disadvantaged communities. The plan lays the groundwork for creating more affordable housing in currently less dense neighborhoods. I used this analysis to come up with my own set of criteria for identifying possible tracts of land for future development of multi-family housing. The first criteria is based on population density. I sorted the dataset from the first map so that the census tracts with the lowest population would be visible. I used this metric because it only seemed feasible to create more housing in areas where there was more land per person. Next I filtered the data to show only the highest 50% of the census tracts where the population pays more than 30% of their income on rent. Therefore, the criteria is essentially sparse tracts of land where households are still paying disproportionate amounts of their income on rent. Next, I clipped my dataset so that it coincided with only the single-family resident zones. Since one of the major causes of the housing shortage is the historic zoning, the main solution seems to be reevaluating those delineations. Finally, I intersected the output with the Hot Spots from the second map.



Presented in the map below are the potential sites for new affordable housing development. The areas in dark green seem to be most favorable due to the relatively low population density and open tracts of land.



As a preliminary look into the housing crisis, this analysis provides a general overview of the spatial issues facing Los Angeles as the population continues to grow. There is still further analysis to be done in

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terms of demographics and economic impacts. Ultimately, as history shows, there must be financial and political incentives in order to affect change towards a sustainable and equitable future. California legislation is looking promising in this regard, and it will be interesting to see the effects of LA City Council's Housing Element plans once put into action.

Sources:

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