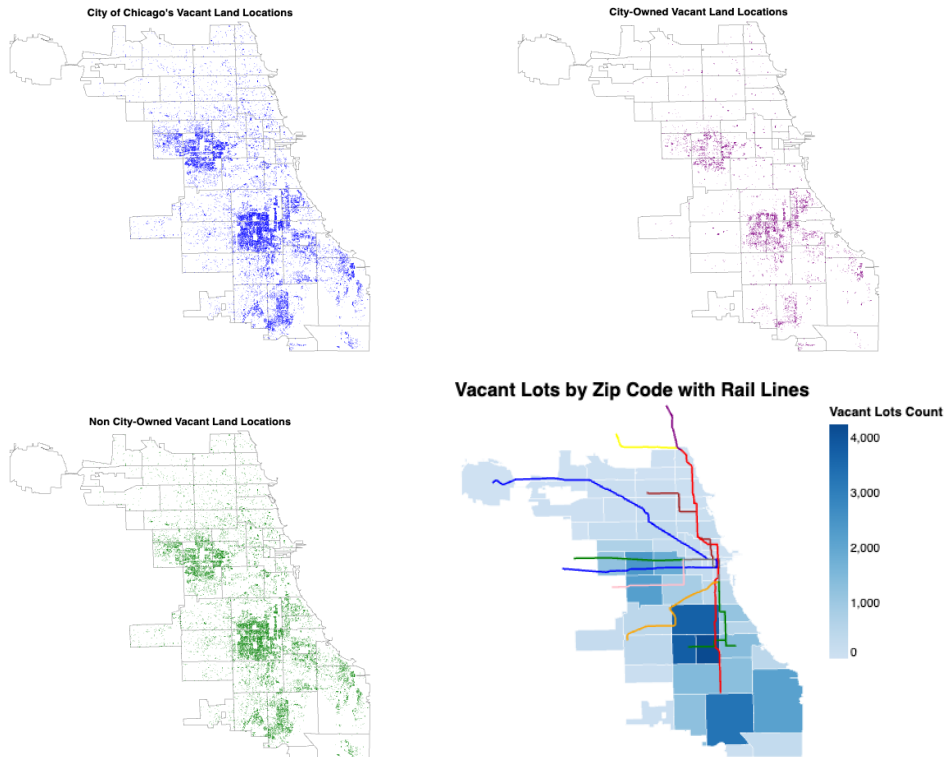


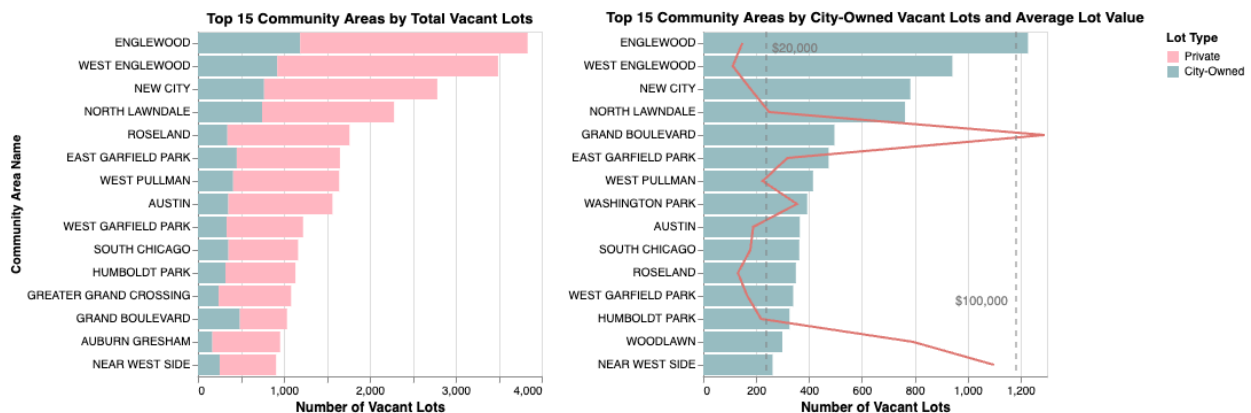
Understanding Chicago's Vacant Lands: Patterns and Socioeconomic Associations

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Static Plots

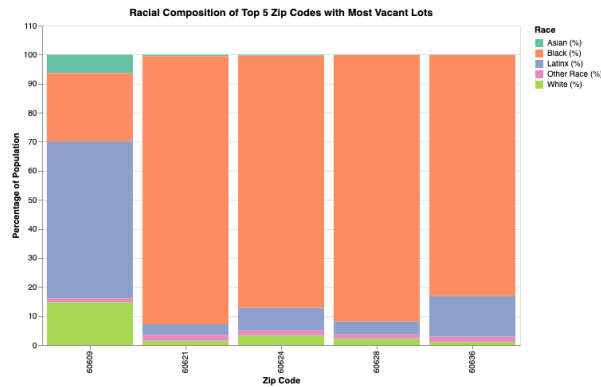


From the figures above, it is evident that vacant lots are predominantly concentrated in the west and south sides of Chicago. Analyzing ownership data reveals that 75% of these lots are privately owned, while the City of Chicago owns the remaining 25%. Furthermore, although vacant lots are primarily visible in the west and south, zip codes along CTA lines tend to have a higher density of vacant lots.



Englewood and West Englewood are the top two community areas in Chicago with the highest number of vacant lots, with Englewood having over 3,500 lots and West Englewood nearly 3,000. The bar chart on the

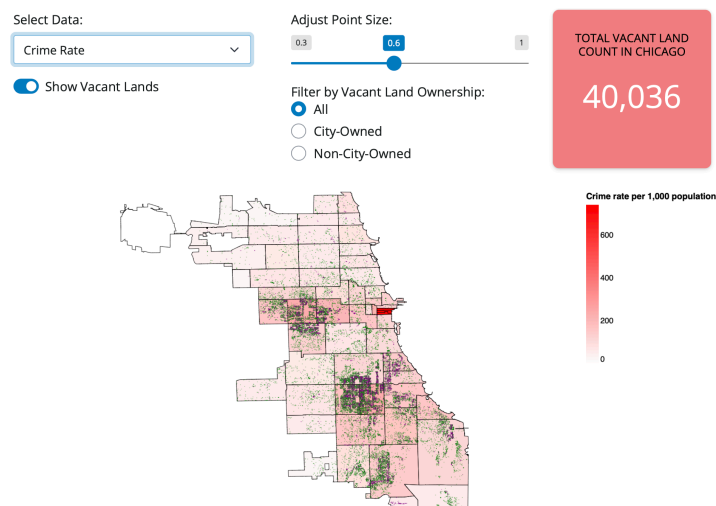
right illustrates that in the 15 community areas with the most city-owned vacant lots, the average value of these lots is relatively low, with most valued below \$20,000.



The figure above reveals that 4 of the top 5 zip codes with the highest number of vacant lots are predominantly Black communities, with the remaining one being predominantly Latinx. This highlights a significant issue, as the concentration of vacant lots is disproportionately located in minority communities.

Shiny App

Vacant Land Distribution and Socioeconomic Features in Chicago



Our Shiny app features interactive choropleth maps displaying demographic and socioeconomic data, including crime rates, income levels, unemployment, business density, and population. Users can select the dataset to display using a drop-down menu. An additional key feature is a toggle that activates a scatterplot overlay of vacant lands. When enabled, users can adjust the scatter point size with a slider and choose to display city-owned lots, non-city-owned lots, or both. The app's primary purpose is to visualize the relationship between socioeconomic factors and the distribution of vacant lots on a map.

Policy Implications

1. The Shiny app analysis reveals that the presence of vacant lots is negatively correlated with income levels and business density, while showing a positive correlation with crime rates and unemployment. These findings indicate that communities with a high concentration of vacant lots face compounded socio-economic challenges, emphasizing the need for targeted urban planning and redevelopment initiatives to drive positive change.
2. Our analysis shows that the majority of Chicago's vacant lots are owned by entities other than the city. To address this, the city could consider introducing programs or incentives that encourage private owners to effectively utilize their vacant land, fostering community development and economic growth.