



Uneven Foundations

The Impact of Urbanization on Household Dynamics in South Carolina

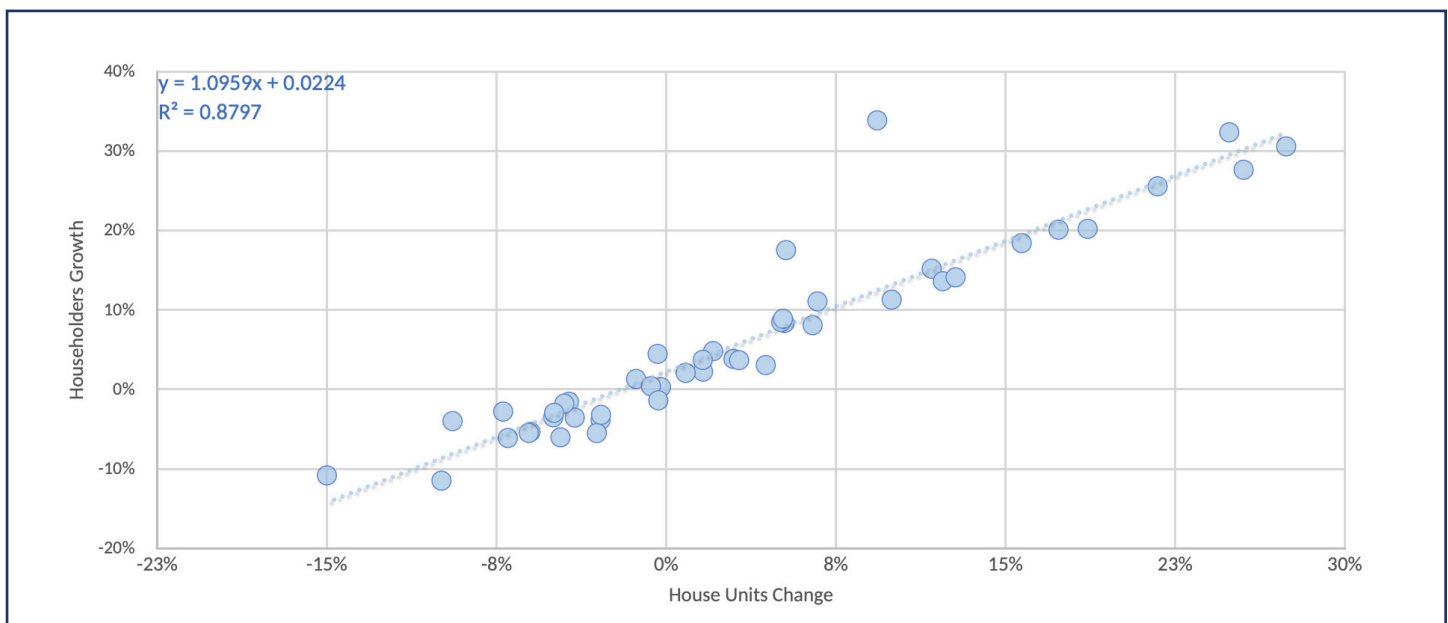
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Summary

This comprehensive study investigates the profound impact of urbanization on household dynamics in South Carolina using decennial census housing data from 2010 to 2020. By exploring the relationship between urbanization and household growth, the research uncovers a distinctive two-humped pattern that reveals varying effects across different racial and ethnic groups. The findings shed light on the challenges posed by limited housing markets and underscore the need for targeted policies to address disparities affecting affordable housing access.

Recent U.S. Census Bureau data shows South Carolina's households grew 13.8% from 2010 to 2020, significantly faster than the 9.7% growth in housing units. This gap indicates rising demand outstripped supply in the residential market, creating a shortfall in vacant properties that exacerbated a crisis in affordable housing. However, state-level and county-level data indicate that changes were unevenly distributed, and with proper analysis, gluts and shortfalls can be better predicted and addressed. This statistical study investigates urbanization's impact on the dynamics of household formation, finding strong but unequal associations across different racial/ethnic groups.

Figure 1. Regression Analysis of Household Growth (%) by Change in Housing Units, 2010 to 2020

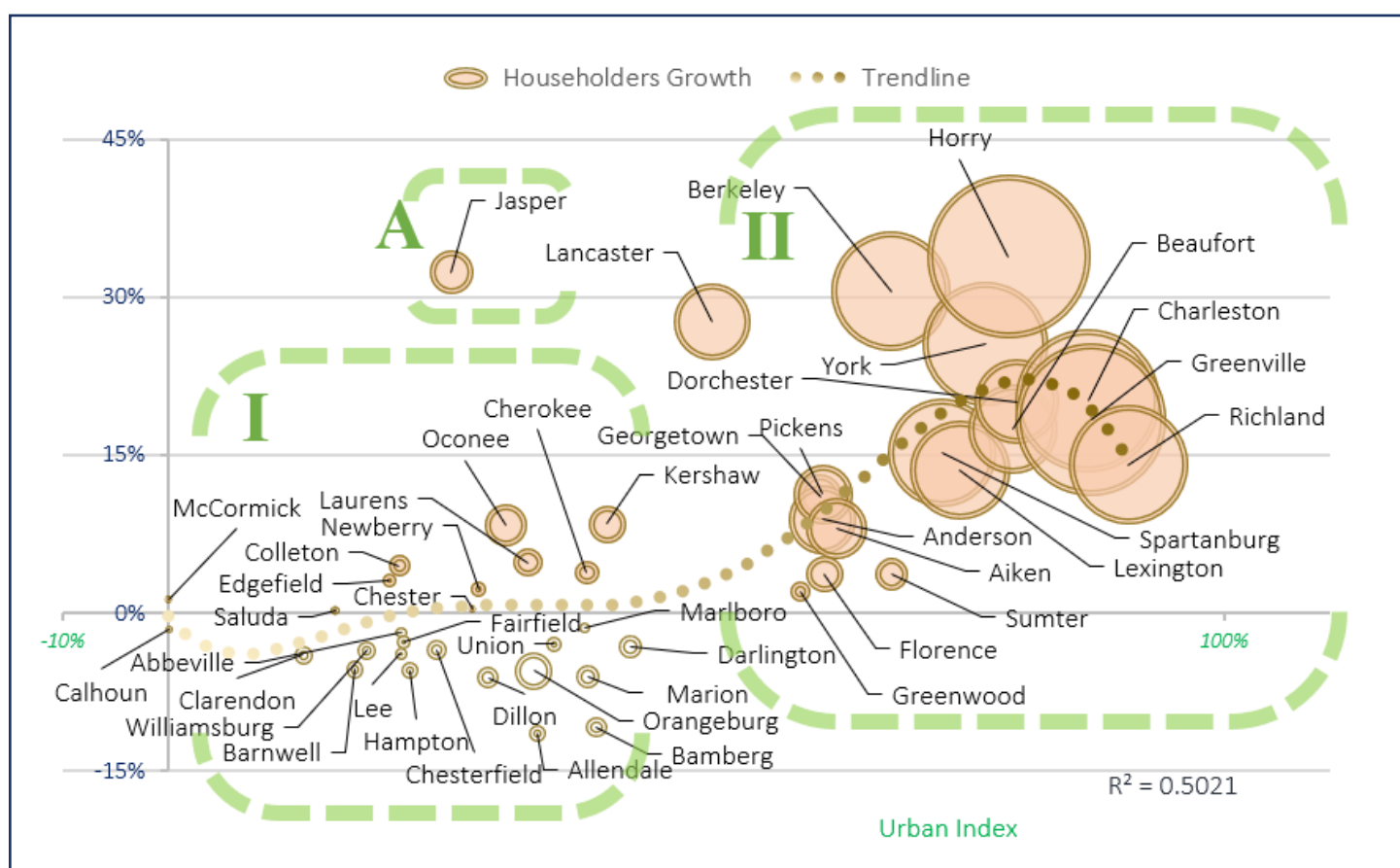




Urban Impact on Householders

We took decennial census data on housing for 2010 and 2020 and examined changes against the share of housing units in “urban” space, as calculated in 2010. Our research found that a two-humped relationship emerged between urbanization and householder growth, revealing two groups of counties differentially affected by urbanization. Below 46% urbanization, growth was mostly stagnant or negative. Above that threshold, growth in households increases, before reaching an urban index of 59%, where we find a rapid acceleration that peaks around 80% urbanized, before tapering off. We also identified one egregious outlier in Jasper County (see Figure 2). These two groups became the basis for a cluster analysis that saw “rural” and “urban” counties. Jasper was clustered, however, with the “urban” cluster due to its proximity to Beaufort, and Greenwood was clustered with “rural” counties due to its relative isolation (Figure 3).

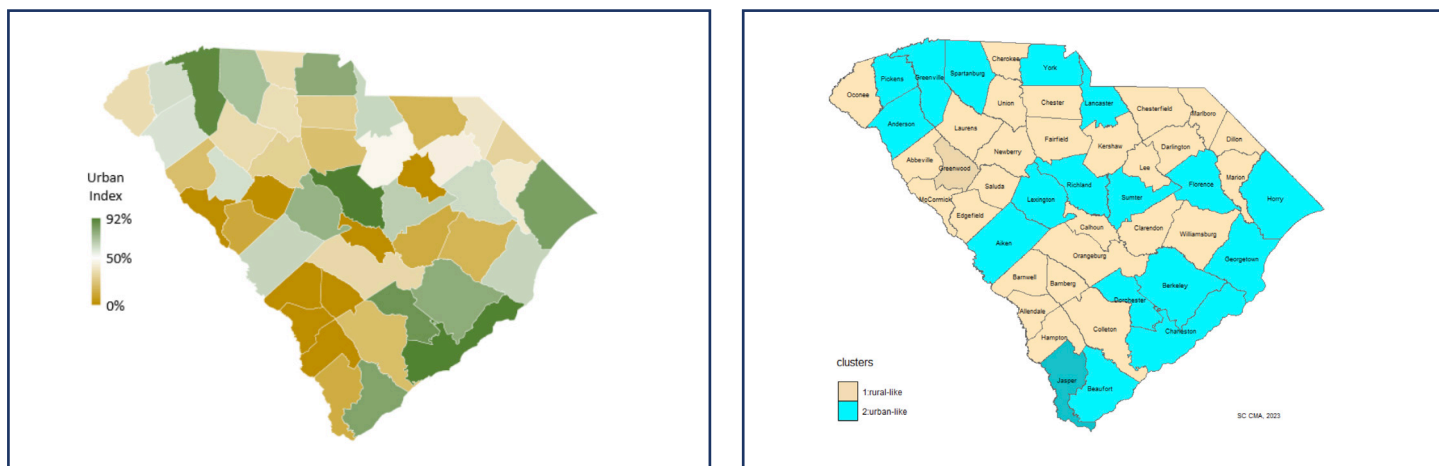
Figure 2. Growth in Households from 2010 to 2020 by Place on Urban Index (w/Polynomial Trendline)



“Below 46% urbanization, growth [in household formation] was mostly stagnant or negative. Above that threshold, growth... increases, before reaching an urban index of 59%, where we find a rapid acceleration that peaks around 80%... before tapering off.”



Figure 3. Counties by Urbanization Rate and then Clustered



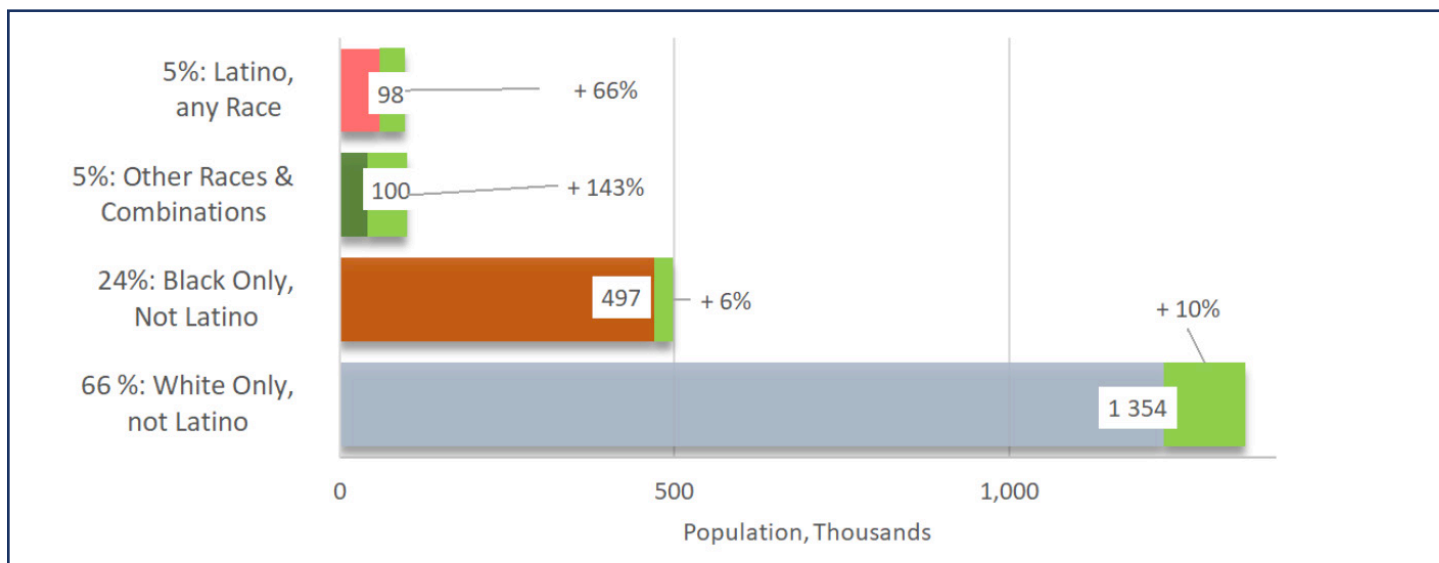
Note: Jasper County has been included in the “urban-like” cluster due to its proximity to major urban areas, whereas Greenwood County has been included in the “rural-like” cluster due to its relative distance from major urban areas.

Our data confirmed that urbanization was strongly associated with new household formation, and that the state’s overall vacancy rate must consider these more localized dynamics. However, these dynamics also suggest that racial/ethnic differences in homeownership rates (see Research Brief 1:1) might affect more localized push/pull effects of household formations.

Race/ethnicity householders’ groups study

We created four racial/ethnic categories (White, Black, Hispanic, and “Other”) to analyze this data across all 46 South Carolina counties. When separated into these categories, this two-humped pattern held for White householders but not for African Americans, Hispanics, or Others. At its core, this difference is likely driven by historical inequities and current trends like gentrification in growing cities like Charleston (see Research Brief 1:8). For Latino householders a weaker but slightly positive growth-to-urbanization association was revealed. Finally, for all “Others,” rapid growth was registered across all counties, but much of this change might be due to how the Census handled multiracial identities for the 2020 U.S. Census.

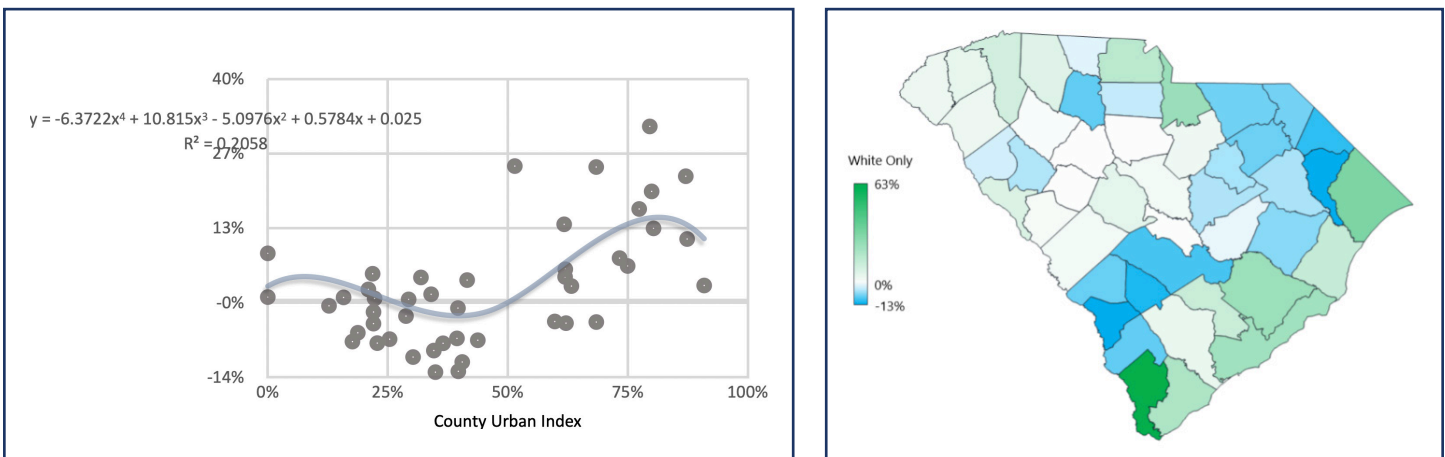
Figure 4. Change in Racial and Ethnic Group Householders from 2010 to 2020





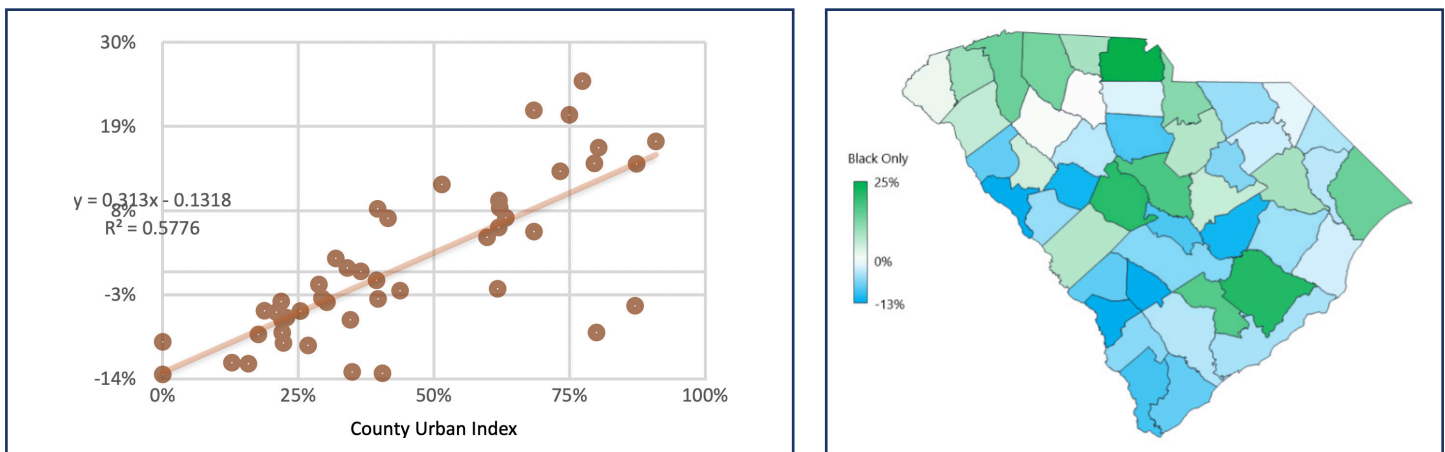
Changes in White households mirrors the two-hump pattern identified above. The association between growth and the urbanization index is slightly lower, but this is due to more outliers. At nearly two-thirds of all householders, Whites affect the overall distribution greatly, and are the primary force producing the two-hump phenomenon in Figure 2. The bi-modal division in White household development is most likely driven by confounding variables we will continue to explore elsewhere. For example, as White population growth in South Carolina has been largely driven by out-of-state retirees moving to coastal counties, we should assess how age and employment demands affect household formation dynamics for Whites differently than they may for other groups. As it stands, White rural decline is less pronounced than it is for Black households, which suggests that older White householders in rural areas are likely not moving towards more urban areas as are the younger Black populations in rural areas.

Figure 5. White Household Dynamics from 2010 to 2020



Dynamics for Black households are expressed more linearly, as the urban index score is associated positively with the growth in households, i.e., that rural counties grew slower (and often negatively) than more urbanized counties, in general. This may be due to the fact that new households for Blacks are largely the result of a younger population relocating from rural counties with a lower perceived level of employment opportunities. However, there significant outliers along the coastal region, particularly in Charleston, Beaufort, Georgetown, and Jasper counties, which were boom areas for White household growth. However, since 2020, with the influx of White retirees and wealthy individuals before the COVID-19 pandemic, we can only assume that this tendency has become more acute.

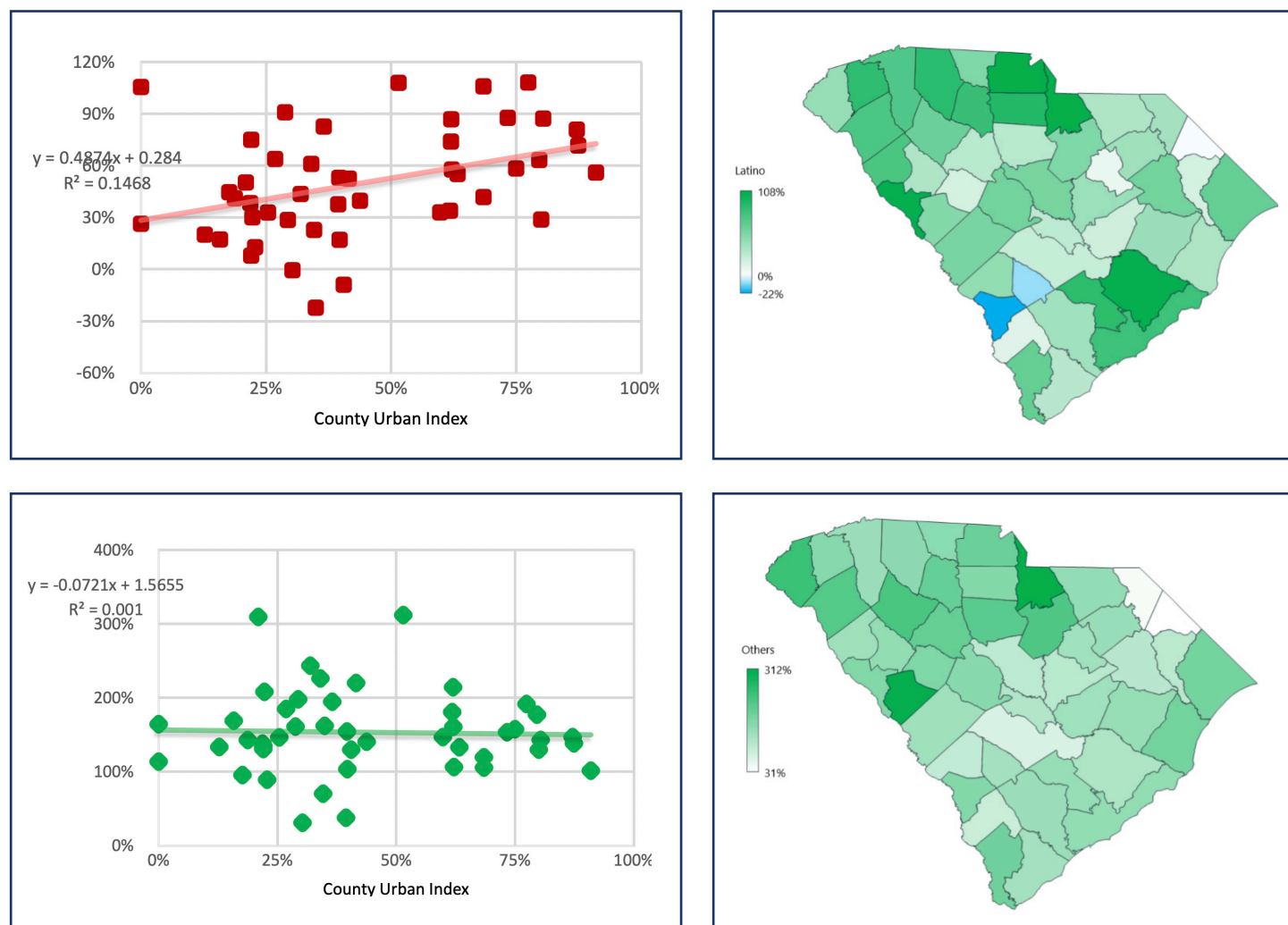
Figure 6. Black Household Dynamics from 2010 to 2020





The rapid expansion of Latinos (+66%) and “Others” (+143%) across much of the state makes uncovering clear-cut trends difficult. In general, Hispanic households increased in almost all counties (except for two), but the largest increases tended to be in the more urbanized cluster of counties, with one outlier in McCormick County. For “Others,” all changes were positive, but the two counties with the greatest increases were Lancaster and Edgefield Counties. Due to the irregular nature of several of the underlying variables and the low baseline 2010 numbers in some counties, it is difficult to extrapolate much from this information.

Figure 7. Latino and “Others” Households Dynamics from 2010 to 2020



“In sum, by exploring the link between urbanization and the dynamics of housing markets at a county level, our work can be used to highlight areas where general, as well as more targeted, policies may be implemented to ensure that access to affordable housing is enhanced or preserved in the future.”



Conclusion

In the wake of the COVID-19 pandemic, an already-reeling market for affordable housing experienced a surge in pent-up demand, which rocked it even further. In other words, our research captures the prelude to this explosion, by analyzing trends in urbanization and household growth, highlighting county level trends that were differently affected by limited housing markets prior to the pandemic. We were also able to examine how these dynamics affected different racial/ethnic groups. In sum, by exploring the link between urbanization and the dynamics of housing markets at a county level, our work can be used to highlight areas where general, as well as more targeted, policies may be implemented to ensure that access to affordable housing is enhanced or preserved in the future. Simultaneously, our maps provide objective visualizations for how an influx of relatively wealthy retirees relocating to the state's coast, or young professionals moving to the Charlotte suburbs in York County, might disrupt limited local housing markets and uproot long-standing populations that can no longer afford to live in specific boom areas. However, for a more complete picture, we need to examine more local areas and/or analyze these dynamics in relation to the movement of other variables such as home value, age, income levels, and other associated factors, a project that we are currently undertaking here at the Commission for Minority Affairs.

Resources and Links:

1. <https://www.census.gov/programs-surveys/decennial-census/data.html>
2. Urban and Rural (census.gov): <https://www.federalregister.gov/d/2022-28286/p-3>, <https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html>

Additional information about the data used, methods, and results of the analysis can be provided electronically, upon request.

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