MS-GIST Projects Summer 2022
Friday, August 05

**** There will be 5 minute breaks between each back-to-back presentation to facilitate transitions in Zoom.***
***** Zoom links are available on request. Please contact Andrew Grogan - atgrogan@arizona.edu***

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08/05/22 03:30 - 03:55 PM	A Spatial Analysis of Investor-Owned Single-Family Rentals in Phoenix	Stanko Zovko
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A Spatial Analysis of Investor-Owned Single-Family Rentals in Phoenix

Stanko Zovko
stankozovko@arizona.edu

08/05/22, 03:30 - 03:55 PM

Abstract:

The City of Phoenix is the 5th most populous city in the United States as well as one of the fastest growing. According to the Census Bureau, from 2010 to 2020 Phoenix grew by 11.2% from a population of 1.4 million to 1.6 million. While it has long been characterized as a relatively affordable place to live which offered a high standard of living, the combination of a serious decline the production of new housing units and the influx of new residents has greatly impacted housing opportunity and affordability. As of February 2022, Phoenix has seen the highest housing price increases in the country with a 33% year-over-year price increase compared to the national average of 19.8%. Phoenix's land use is dominated by suburban sprawl and single-family housing stock and was hit especially hard during the Great Recession. This created a real estate market attractive to large institutional investors aiming to purchase single family homes as rental units. These investors often out compete typical homebuyers with cash offers and aggressive outreach to potential sellers who have not yet entered the market. The aim of this study is to analyze the spatial pattern of investor-owned single-family homes and compare the socioeconomic, racial, and ethnic composition of the neighborhoods where they are found. Using data from the Maricopa County Assessors office, the City of Phoenix, and the US Census Bureau; a methodology was established to identify investor-owned single-family rentals which were then plotted against the characteristics of the neighborhoods in which they were located. Understanding the impact these investor-owned properties have on the City's housing stock can help better shape housing policy at the local and regional levels.

Keywords: Phoenix, Single Family Homes, Investor-owned, Rental Housing, Housing Policy

A Site Suitability Analysis for the Creation of New Green Space in Maricopa County

Heather Barnard
hbarnard@email.arizona.edu

08/05/22, 06:30 - 06:55 PM

Abstract:

Green space is an area of vegetated land (grass, trees, shrubs, etc.) within an urban context. Green spaces can be community gardens, parks, common land, playing fields, green corridors like exercise paths, rivers, and canals. Green spaces play an important role in an urban â€˜ecosystemâ€™ by providing a place for physical activity, relaxation, social interaction, community events, and so on. In high-density urban areas, green spaces can provide a place relatively free from air and noise pollution. Green spaces with water features can play a critical role in cooling cities. Maricopa County added more new residents than any county in the nation from April 1, 2020, to July 1, 2021, according to the Census Bureau. With the growth of the population and many new developments, it is important to determine the best placement for new green spaces. This analysis uses GIS processes to perform a site suitability analysis that locates potential sites for new green spaces within Maricopa County. The first part of this analysis performs a Boolean Suitability Modeling which identify areas best suitable for new green spaces based on different criteria. The criteria making a new green space are more suitable areas further away from existing parks, unused/undeveloped land, higher populated areas, lower income areas, and areas closer to public transportation routes. The second part of the analysis preforms weighted suitability analysis. The outcome of this project will provide a roadmap for the county to determine areas best for new green spaces and to meet the community needs.

Keywords: Green Space, Maricopa County, Suitability Analysis, a Boolean Suitability, Weighted Suitability