

Olivia Young

Geography 311: Geovisualization and GIS

Metropolitan Planning Commission Parking Analysis

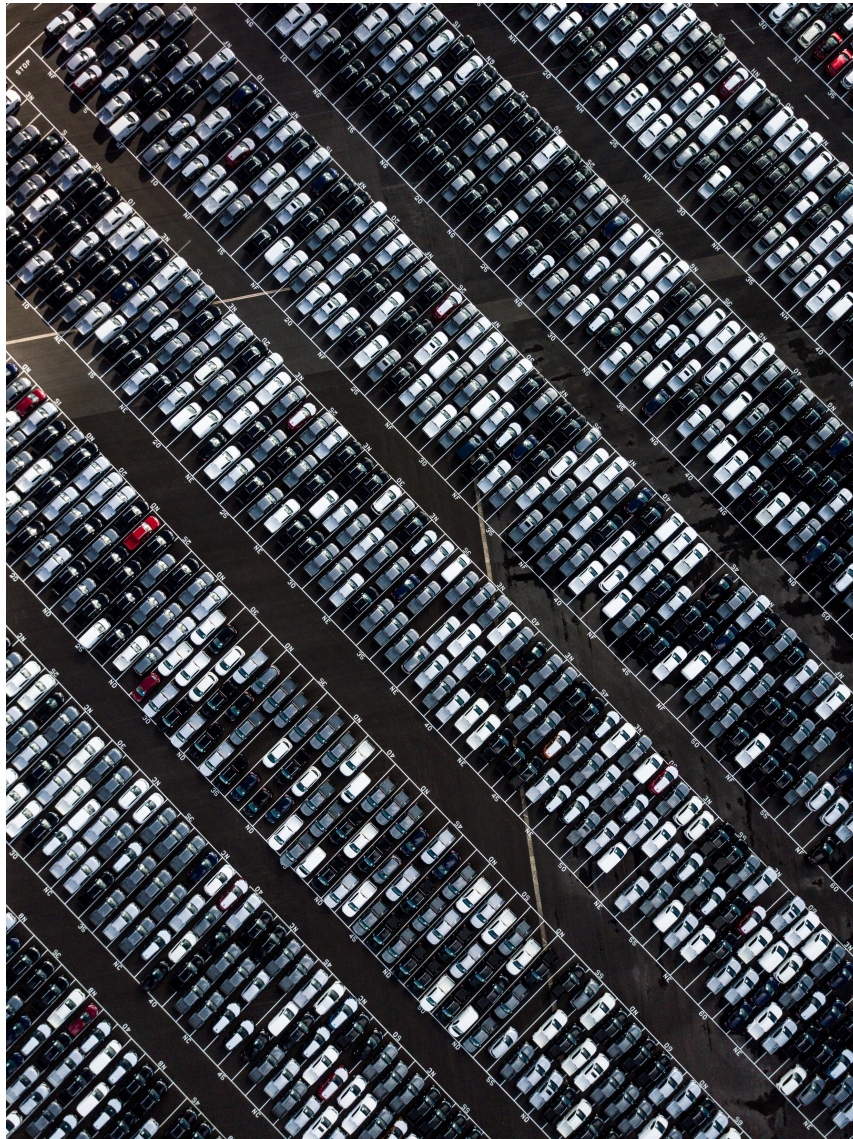


Image from Unsplash by Ryan Searle

Results:

➤ City Level Analysis:

- Area of Knoxville in acres: 66,715.4 acres
- Total number of parking spaces: 137,505 parking spaces
- Average parking density in parking spaces per acre: 2.06
- Population of City: 178,874
- Parking per Capita: 2.68

➤ Block Group Analysis:

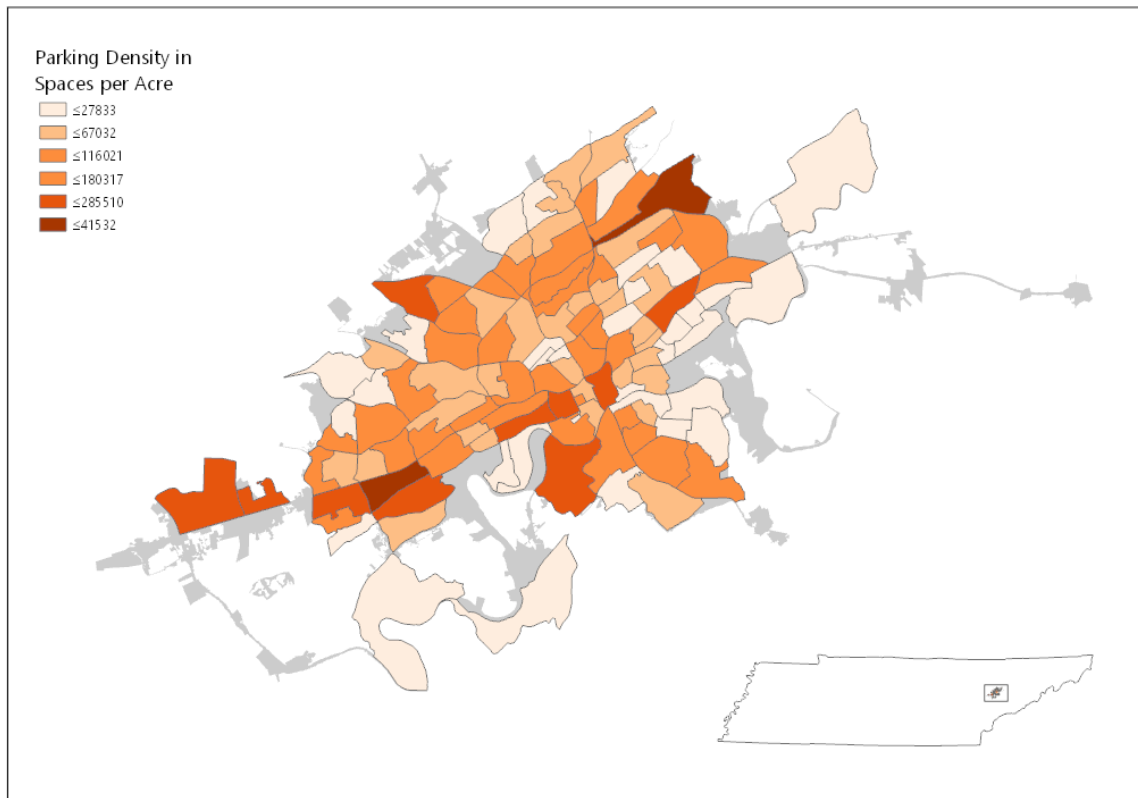
- The block group with the most parking spaces, GEOID 470930044042, had 4153 spaces.
- The block group with the highest parking density, GEOID 470930069001, had 18.45 spots per acre.
- The block group with the highest parking per household, GEOID 470930009011, had 48.08 spots per household.

➤ Knoxville Comparison

City	Population	Land Area (miles ²)	Spaces per Household	Spaces per Acre
Jackson	10,529	3	27.1	53.8
Des Moines	215,473	89	19.4	28.4
Seattle	704,352	84	5.2	29.7
Philadelphia	1,567,872	134	3.7	25.3
New York	8,537,673	303	0.6	10.1
Knoxville	178,874	104.2	1.71	2.06

➤ Map

Knoxville Parking Density by Block Group



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Source: NHGIS

➤ Lessons Learned

- The most challenging part of identifying parking spaces within the city was distinguishing what was an empty paved lot and what was a parking lot. Lots of the spots did not have visible lines, making it difficult to know how many spots were in one polygon.
- Higher quality imaging would help to produce more accurate results. Additionally, having a guide of what parking we were and weren't supposed to count would have been handy.