

POPULATION DENSITY AND MEDIAN HOUSEHOLD INCOME SURROUNDING AIRPORTS IN NYC

GEOG 411 FINAL PROJECT – OLIVIA YOUNG



PROJECT OBJECTIVES & EXPECTED RESULTS

- Is there a correlation between lower household incomes and population density surrounding the airports in New York City?
- Are people disproportionately distributed in an undesirable area, i.e., within a mile of an airport?
- Hypotheses:
 - Lower income households will be concentrated around airports due to the undesirable noise.
 - The population will be less dense in these areas since it is unattractive to residents.
 - Those who can afford to live further away from airports will do so if possible.

DATASETS

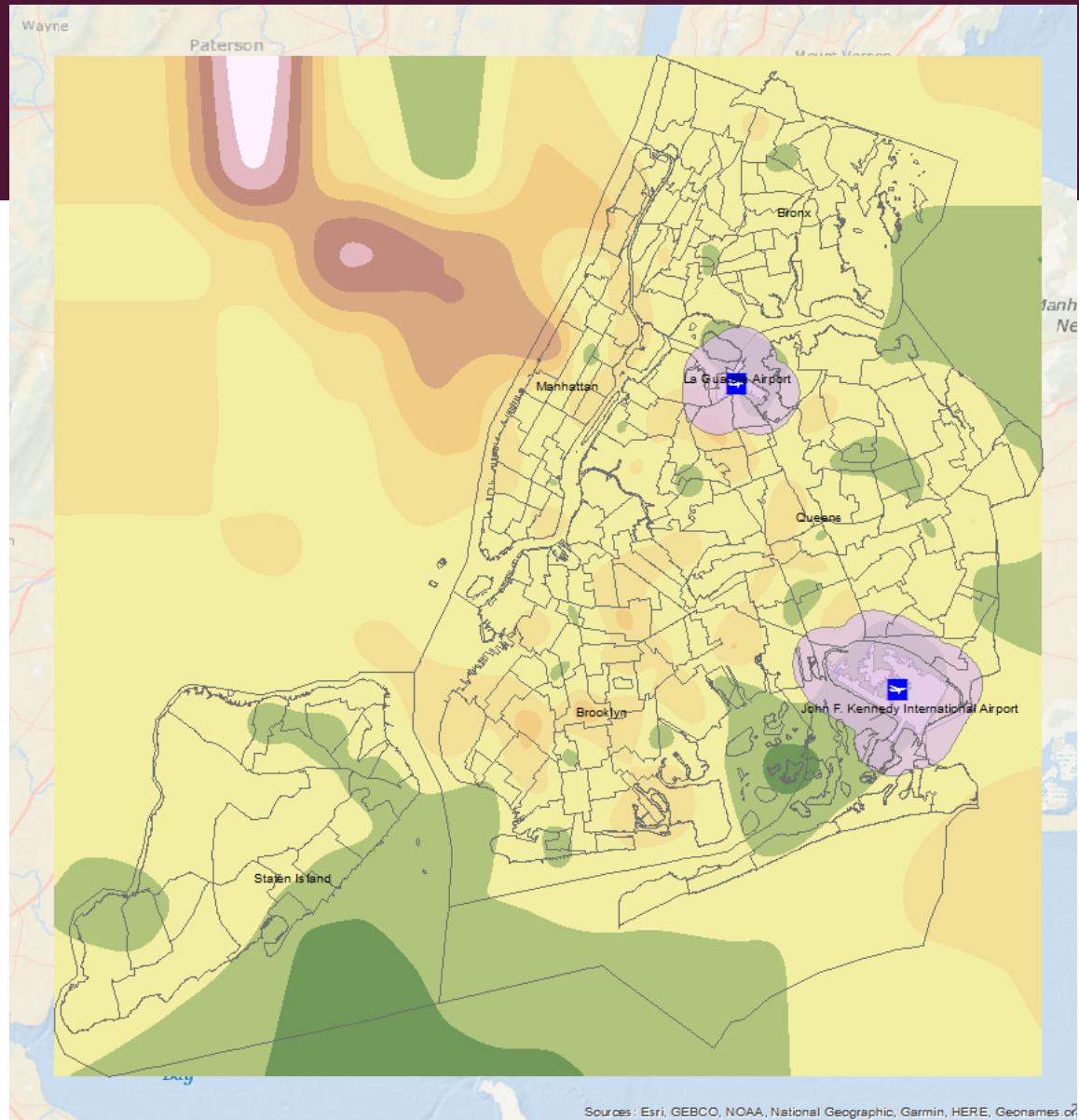
- Shapefile of NYC airports
- CSV of NY Counties
- CSV of Neighborhood Tabulation Areas
- CSV of NTA Populations
- CSV of NY County median household incomes



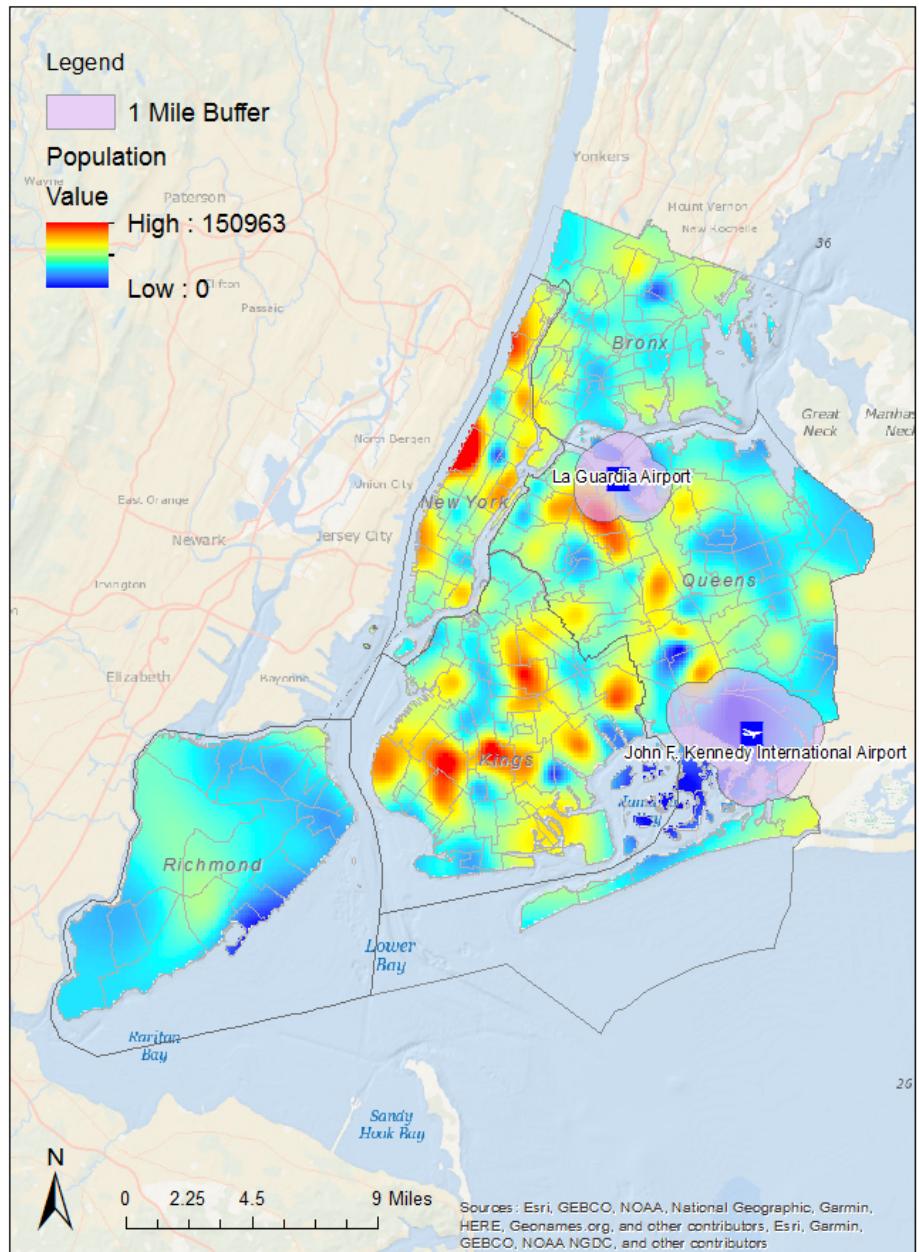
Source: Jeffrey Milstein, dailymail.co.uk

SPATIAL ANALYSES

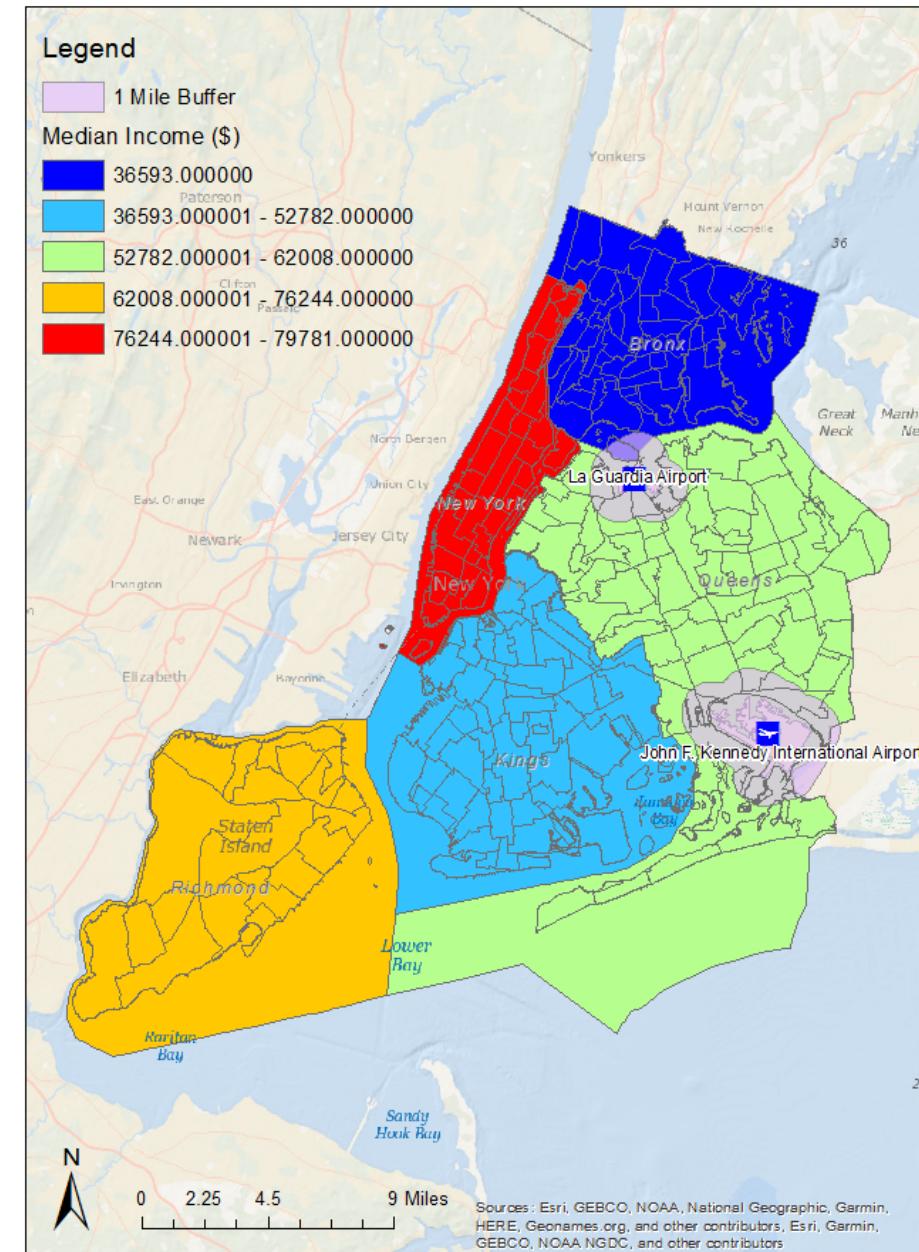
- Buffer 1 mile around airports
- Clip to NYC 5 counties
- Interpolate – Spline (population)
- Extract by Mask (NY counties)
- Choropleth (household income)



Population by Neighborhood Tabulation Area, New York City



Median Household Income by County, New York City



RESULTS

- Population is not less dense near LaGuardia Airport, but it is less dense near JFK Airport.
- Results are inconclusive on the socioeconomic profile of people living near the airports because there is not enough data on economics on the NTA level.
- Since New York is such a highly populated city, the results might be skewed because people are more willing to live in undesirable locations than they might be in, say, Knoxville, TN.



SOURCES

- <https://data.cityofnewyork.us/City-Government/Airport-Polygon/xfhz-rhsk>
- <https://www1.nyc.gov/nyc-resources/service/2123/new-york-city-counties>
- <https://data.cityofnewyork.us/City-Government/New-York-City-Population-By-Neighborhood-Tabulatio/swpk-hqdp>
- <https://geodacenter.github.io/data-and-lab//NYC-Nhood-ACS-2008-12/>
- <https://www.hok.com/design/type/aviation-transportation/laguardia-airport-terminal-b/>
- <https://www.dailymail.co.uk/news/article-2318173/Flying-high-Photographer-captures-different-view-New-Yorks-JFK-airport-takes-skies-shoot-above.html>
- <https://vastphotos.com/photo/new-york-transitions-1-cropped-by-dan-piech>