Severe Weather Impacts on NC Coastal Counties

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This project attempts to identify and analyze any correlation between climate related events and population density as well as property values. Three North Carolina coastal counties were identified as particularly prone to impacts from severe weather phenomena such as high wind speeds and rainfall. Data was gathered for Dare, Hyde, and Carteret counties in order to visualize relevant trends. Sources for data include Zillow, NOAA, OECD, NCEI, NC Office of State Budget and Management, US census, and GeoViews.

For each county, property values as well as net migration over time were compared to both hurricane wind speed and rainfall data.

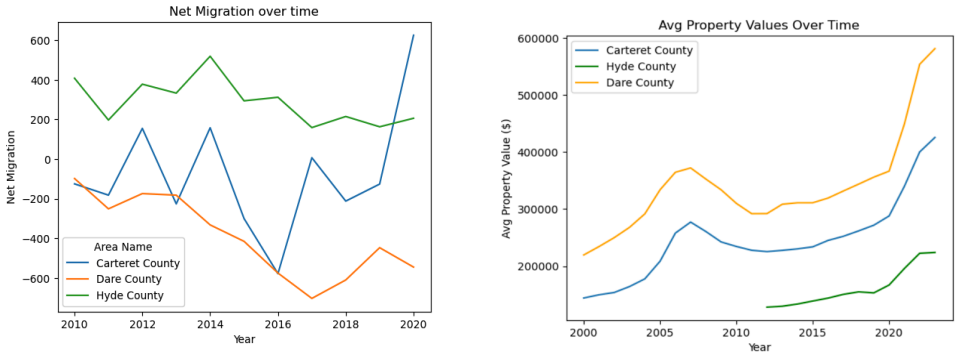

FIG 1: Net Migration and Average Property Values over time for each county.

Upon visual comparison for each county, no significant correlation can be found between the weather data and population or property value data.

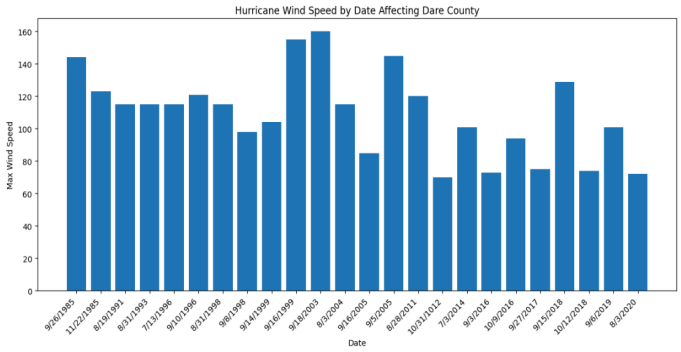

FIG 2: Hurricane Wind Speed in Dare County

Property values saw relatively continuous growth over time, and net migration was fairly stable throughout the time periods analyzed. Although particularly severe weather events were identifiable from graphed weather data, no correlated changes were seen.

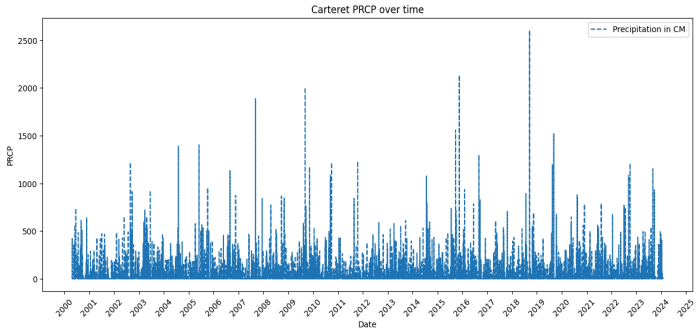

FIG 3: Rainfall in Carteret county.

One county in particular, Hyde, has a relatively small population in comparison to the other two counties in question. Data was found to be insufficient from the sources selected for this project. Analysis was inconclusive due to missing time periods in datasets.

Overall we can see a correlation between net migration and property values but no strong evidence that our weather data has any effect on either. Therefore we were not able to make any conclusions.