



# Long-Term Demographic Effects of Hurricane Katrina on the Gulf Coast

## Alabama, Louisiana, Mississippi : 2000-2009

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### Background:

- Hurricane Katrina devastated the Gulf Coast region of The United States, contributing to the loss of nearly 2,000 lives and displacing approximately 1.5 million residents
- Total property damage was estimated at \$108 billion.

### Objective:

- The objective of this analysis is to focus on the population decrease, driving factors and reasons for diaspora seen in the Gulf Coast region.

### Methods:

- The data was downloaded from Cesus.gov for the population and the Hurricane data is downloaded from noaa.gov

#### Formula for Calculating Population Change:

$$PC = [(P_{209} - P_{200})/Pop_{209}] * 100$$

Where,

PC = Percent change

P<sub>209</sub> = Population for 2009

P<sub>200</sub>= Population for 2000

#### Formula for Annual Growth rate:

$$AG = \{[(Pop_{209} - Pop_{200})/Pop_{209}] * 100\}/T$$

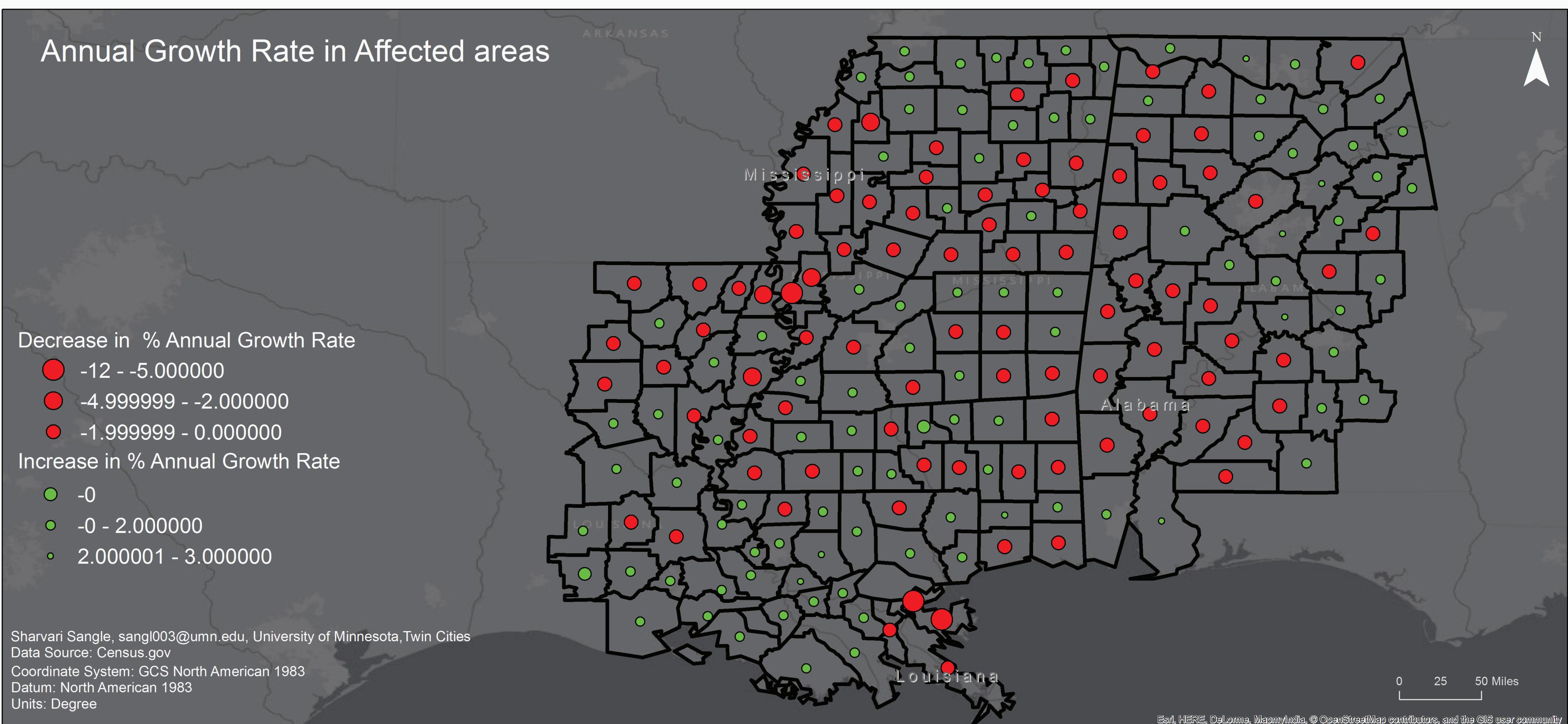
Where,

AG = Annual growth rate

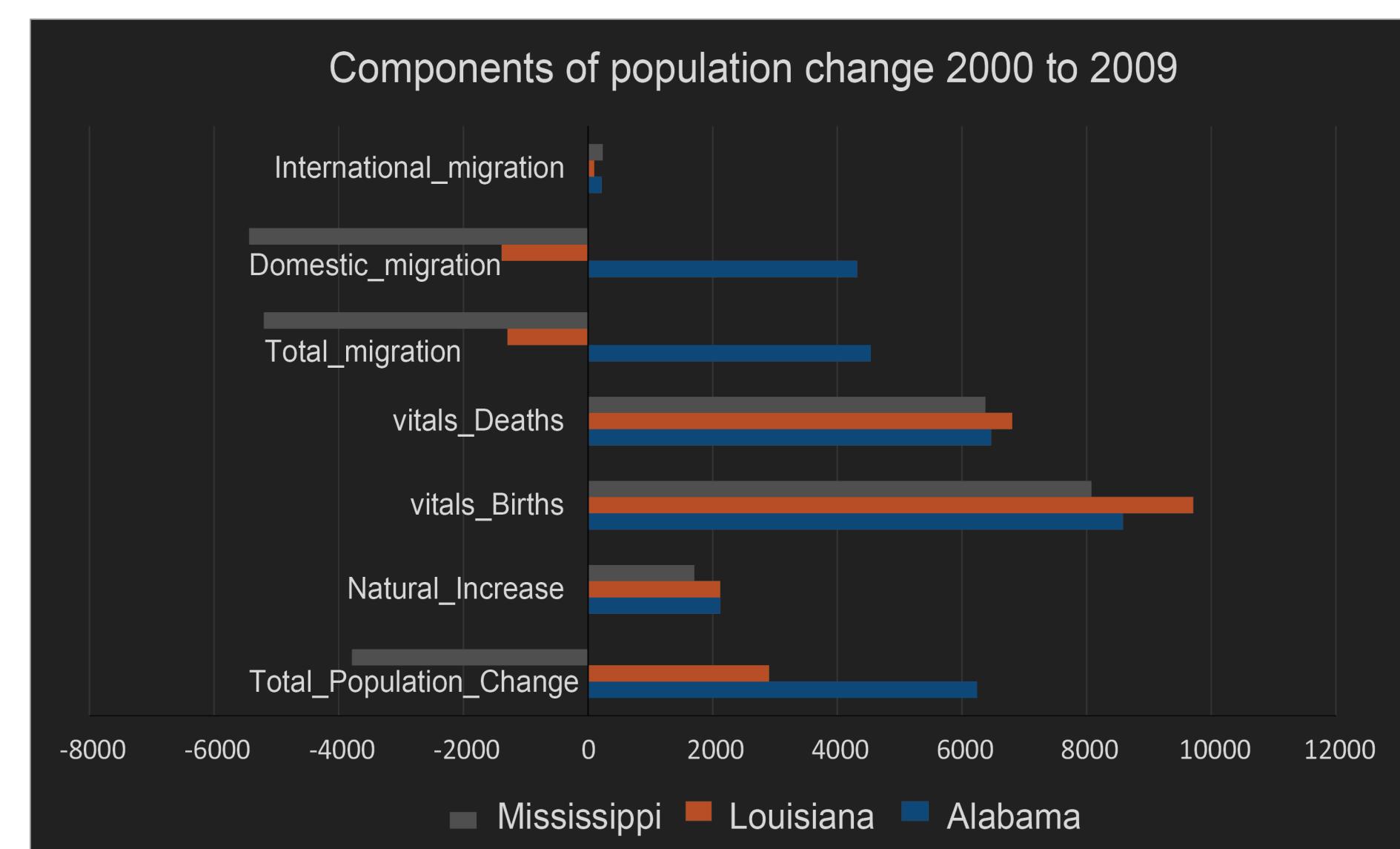
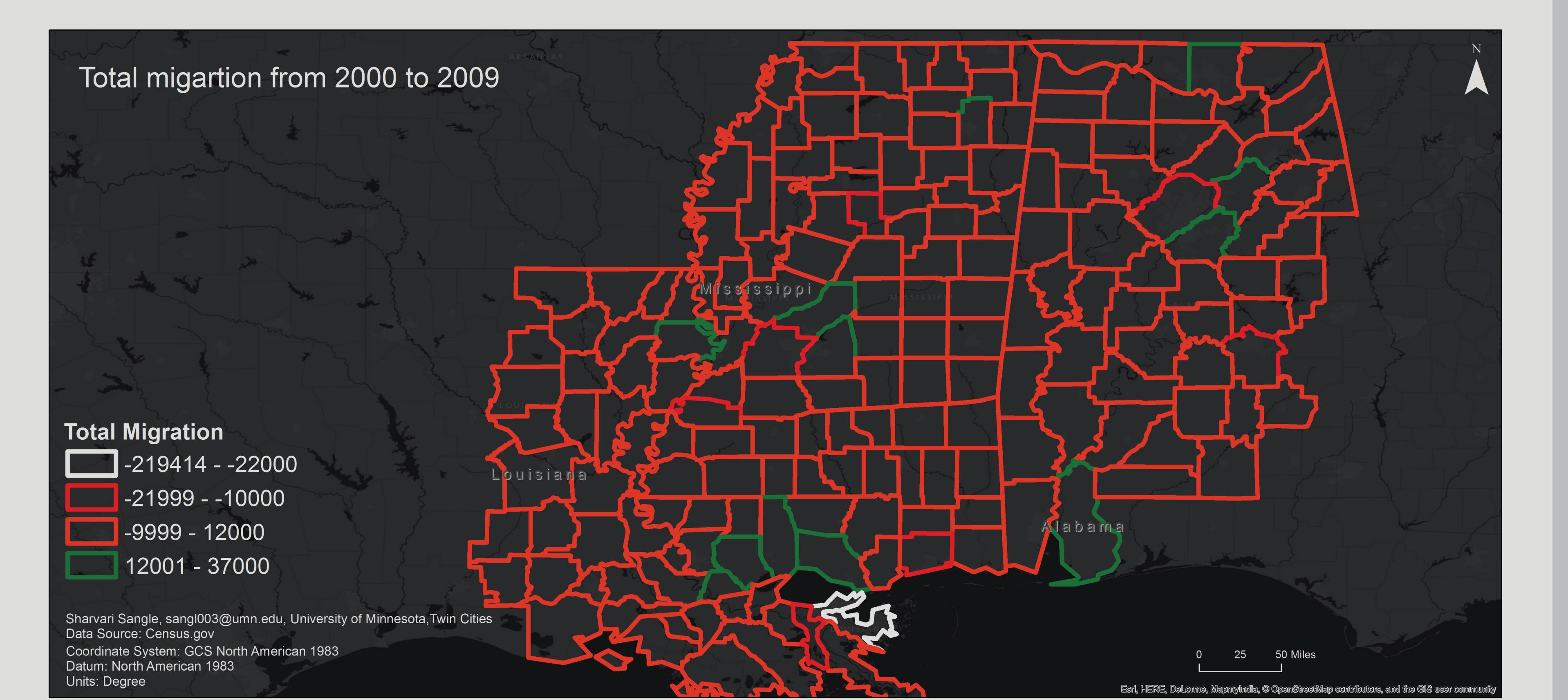
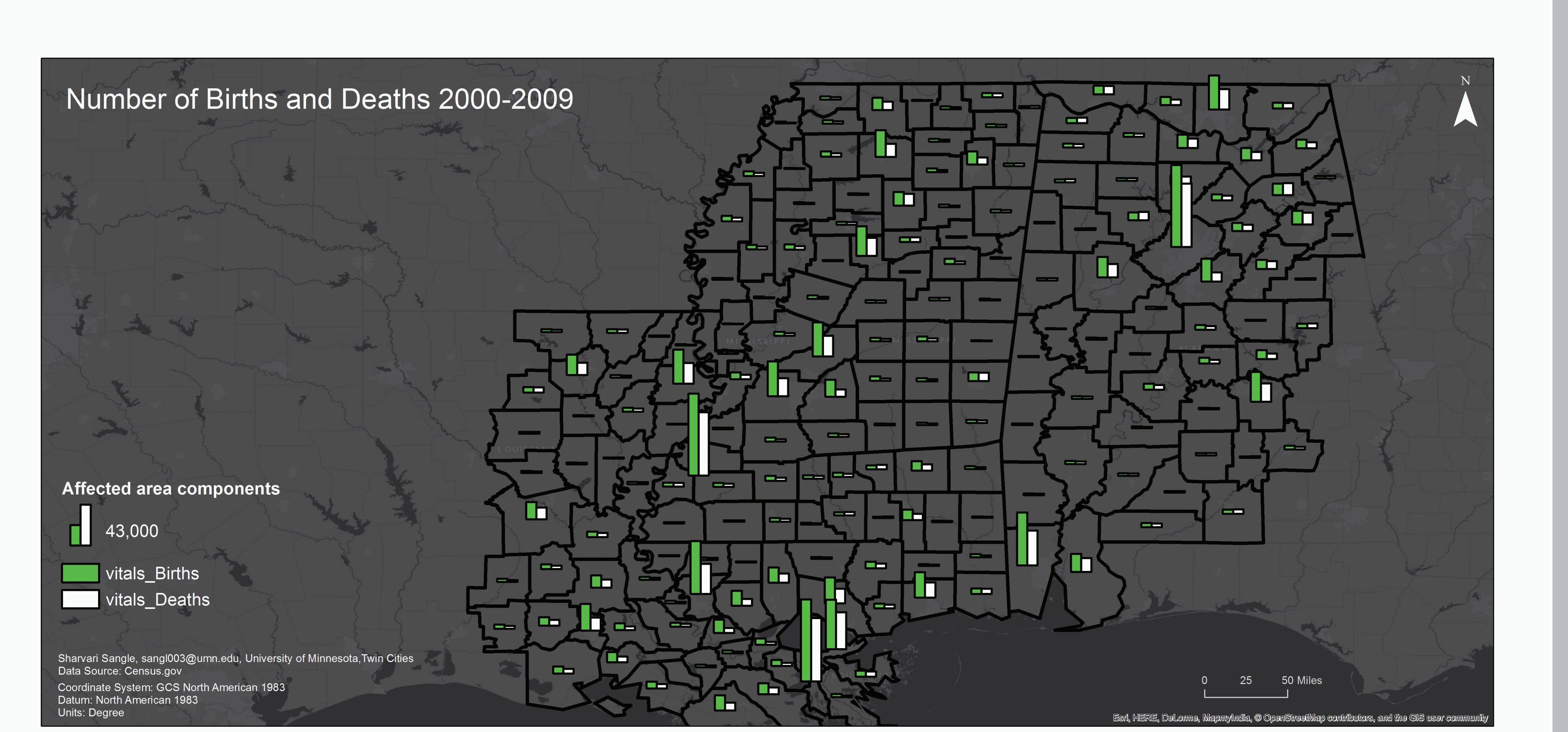
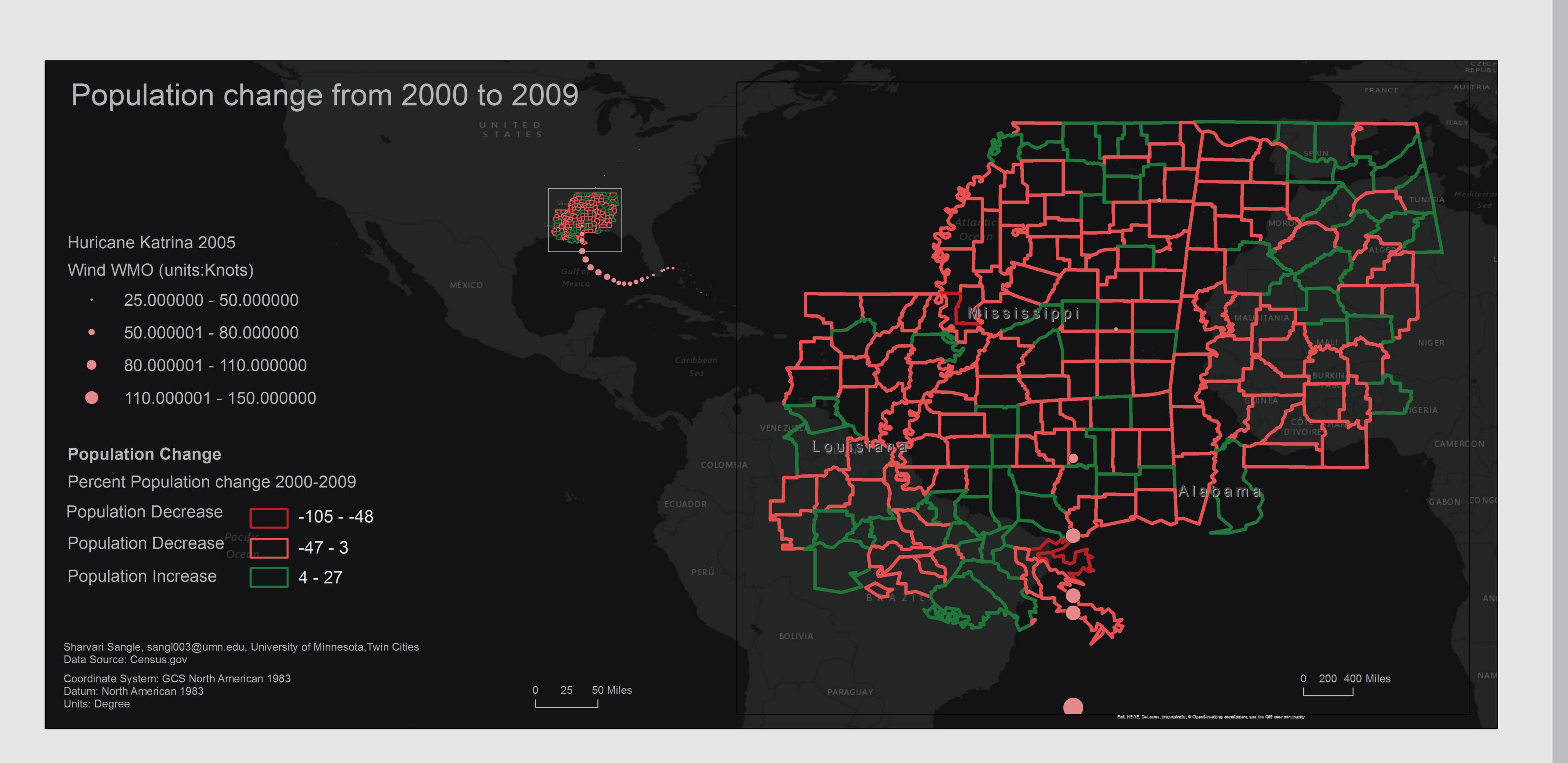
P<sub>209</sub> = Population for 2009

P<sub>200</sub>= Population for 2000

### Annual Growth Rate in Affected areas



- Counties with % population change: St Bernard -105%, Orleans -48%, Plaquemines 18%, Jefferson -1% from LA and Issaquena -56%, Harrison -3%, Jackson -3 % from Mi , Washington -3% , Clarke -7% from Al
- Notice the negative and positive demographic changes by use of colors and the intensity of the change by the graduated symbols



The graph shows the different components of the population change like: international , domestic migrations, birth and death vitals, total population change natural increase.

### Conclusion:

- Substantial decrease in the demographics: - The highest positive growth rate is around 3%, whereas the growth rate is negative for a large number of counties varying from -0 to -11.7.
- Higher Migrating Population: - Only 9 counties have positive migration numbers.
- Imbalance in Vitals: - The number of deaths are more than number of births in these regions.
- Devastating Economics is major factor affecting the demographics: -
  - The businesses like Oil production, casinos, agriculture and forestry suffered a lot due to the flooding of the areas.
  - Unemployment lead to no tax revenues for state to provide resources and eventually slow recovery.
  - Major components like the domestic, international migrations and deaths in these counties are high and the births are low in comparison, which eventually affects the demographics

### Future Scope:

- Analyzing external factors affecting long term demographic changes.
- Factors can be Economic, Race, Employment, Income, Poverty level
- Working on a disaster plan considering all the factors for taking preventive measures for diaspora.