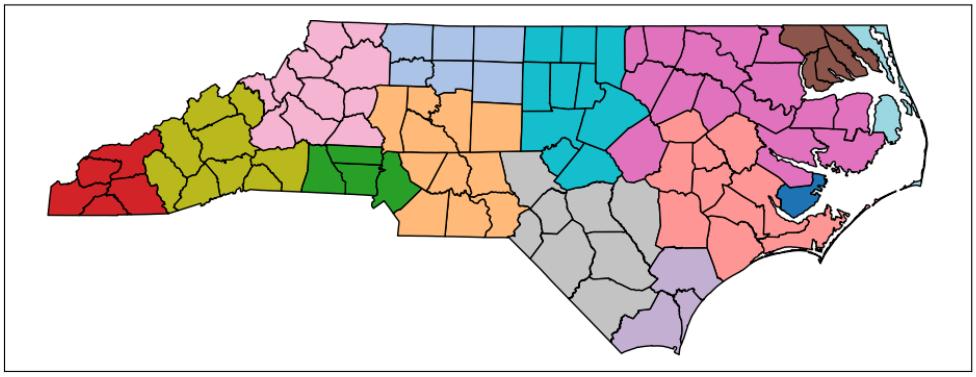
To the North Carolina General Assembly,

We are a team of data scientists residing in North Carolina. Our state's recent redistricting has left us with concerns if the new lines have been drawn with consideration to communities of interest. We believe the existing districts divide communities that share relevant social, historical, and economic ties, which could lead to unfair and ineffective representation in the state.

To investigate this issue, we have created a computational model to draw a new congressional district map dividing North Carolina into fourteen districts that better protect communities of interest. Our model considers numerous demographic and economic factors on the county level such as age, race, language, income, educational attainment, and commute time and means of transportation, all obtained from data collected by the American Community Survey (ACS) in 2023. These factors are used to understand the communities of interest in our state. Using this data, the model calculates the extent to which counties are similar to their neighbors. By clustering counties which are most similar to each other, we have created a new map of fourteen congressional districts that do a better job of preserving communities of interest.



Understanding communities of interest is vitally important to ensuring North Carolina is a leading state in terms of fair representation of its citizens. Because the model factors in demographic, social, and economic distributions, it avoids splitting communities with shared characteristics. Unifying communities of interest ensures that their voice is heard in legislation. Although the map we have produced is not necessarily suitable for redistricting as the populations of the resulting districts are not considered, the framework used is a step in the right direction towards more fair redistricting techniques. Using this model also enables more transparency in redistricting because it is driven by what truly holds communities together: shared background, experiences, and institutions, not by the political agendas of legislators.

No map is perfect, but we believe our map can help to make sure the voice of every community is heard in our state.

Thank you,
Suhaib Mansour, Oliver Lublin, and Alex Zhang