FairyMander

Jeysen Angous, Dylan Franco, Sophia Ingram, Ceanna Jarrett, and Izaac Molina

Our team

Jeysen Angous

Release Manager

Dylan Franco

Architect

Sophia Ingram

Customer Communicator

Izaac Molina

Team Lead

Ceanna Jarrett

Recorder

Project Introduction

- Gerrymandering a problem?
- Voting Representation Matters
- Creating a solution for gerrymandering through the power of computing
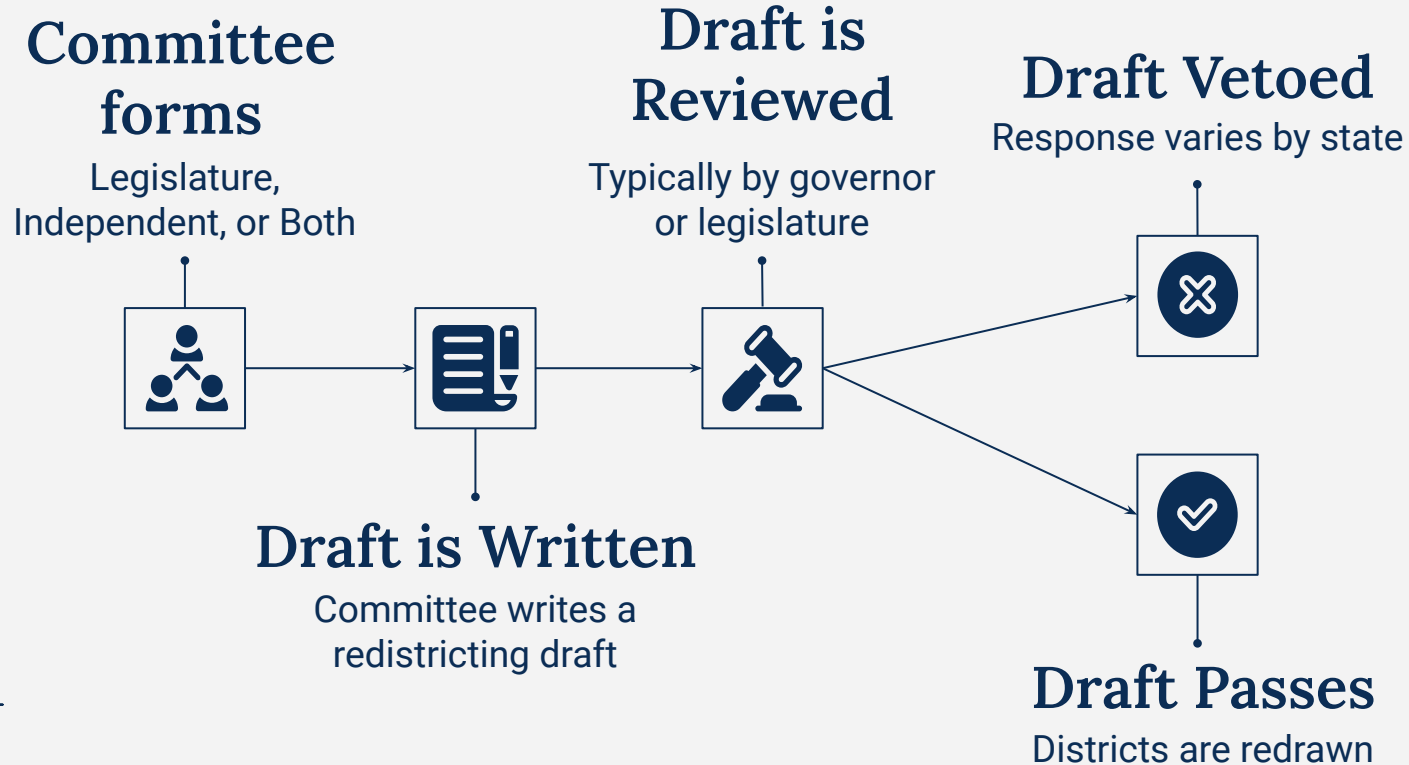
Meet Our Client

Dr. Bridget Bero, P.E.

Professor at Northern Arizona University
Associate Chair for CENE Programs

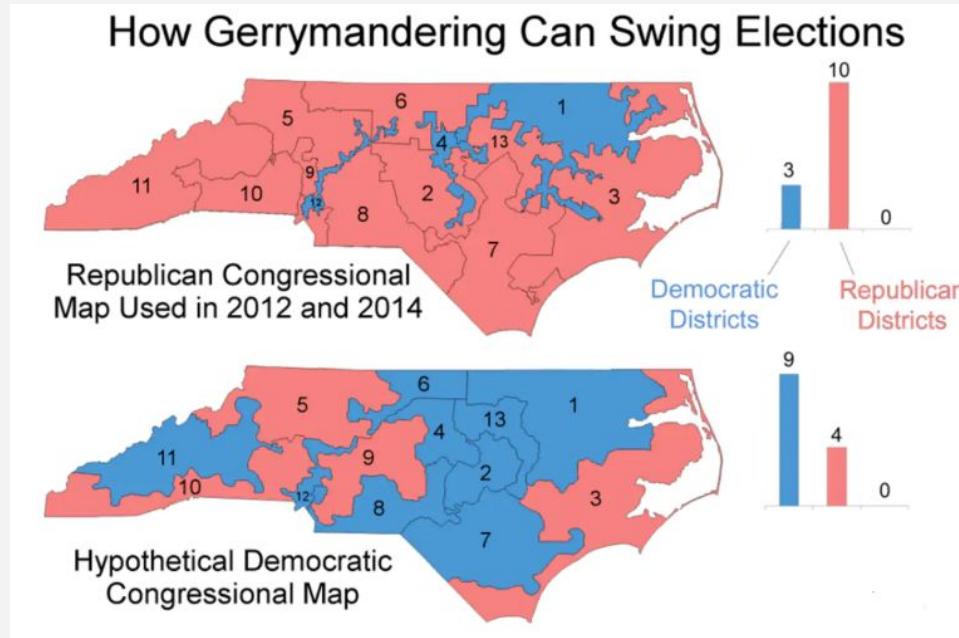Dept. of Construction Management, Civil and Environmental Engineering

Redistricting Process (High Level)

Committee forms

Legislature, Independent, or Both

Draft is Reviewed

Typically by governor or legislature

Draft Vetoed

Response varies by state

Draft is Written

Committee writes a redistricting draft

Draft Passes

Districts are redrawn

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The Problem

- Gerrymandering negatively impacts democracy
- Packing and Cracking

How Gerrymandering Can Swing Elections

Republican Congressional Map Used in 2012 and 2014

Democratic Districts — Republican Districts

Hypothetical Democratic Congressional Map

Solution

- Use census data and GIS to create fair, unbiased voting districts

- Establish clear, transparent criteria for how districts are drawn

- Ensure districts remain fair and representative over time

Credit: Engineering Elections Without Bias | Brian Olson | TEDxCambridge

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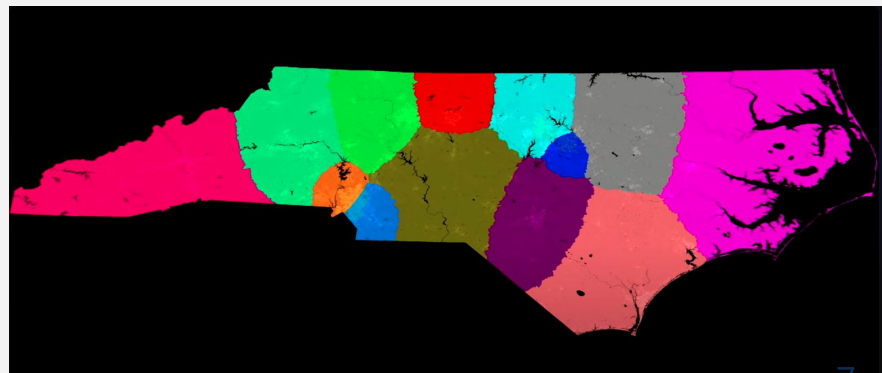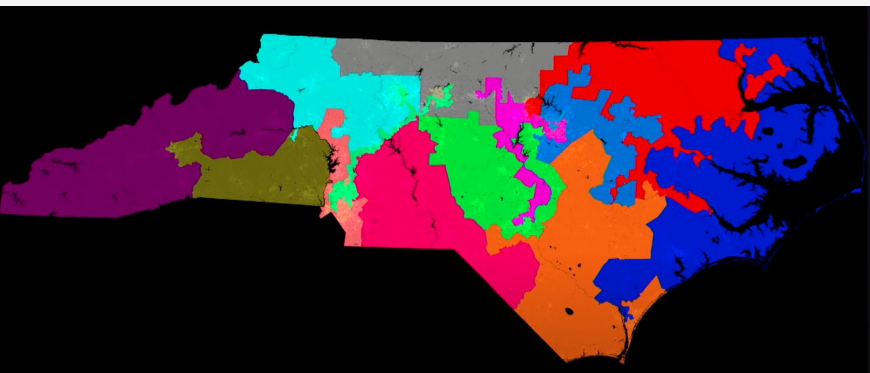
Plan for Development

- Requirements Acquisition
  - Monthly Client Meeting updating her on everything that was done
- In depth research phase on fair redistricting techniques
- Technical Investigation
  - FrontEnd
    - HTML, CSS, JavaScript
  - BackEnd
    - Python
    - PHP
    - SQL
- Census API
- Github as the Codebase

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Conclusion

- Working to create a redistricting algorithm

- Several challenges in the area of gerrymandering

- Solution should be able to use census data and GIS to create fair, unbiased voting districts

Thank You

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