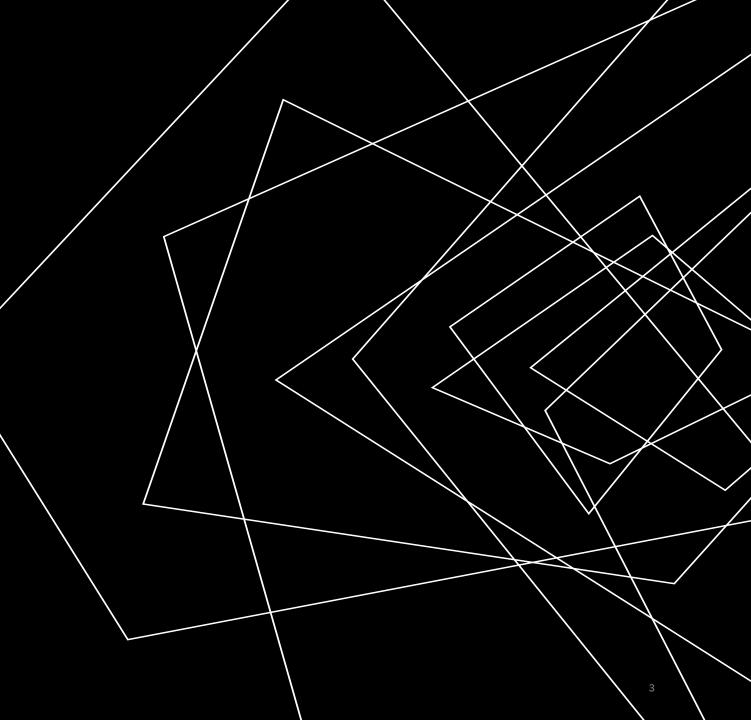




- Civic Gardens: strong political participation, educational attainment, and health outcomes.
- Civic Deserts: exhibit significant deficits across political participation,
 educational attainment, and health outcomes.
- This visualization project will map and analyze voter turnout, education,
 and health across the state, primarily at the county level.

BACKGROUND

- Builds on foundational work in political inequality and civic capacity
- Texas is often seen as a bellwether
 state for future demographic and
 political shifts, yet its internal variation
 in civic life is understudied at sub county levels.



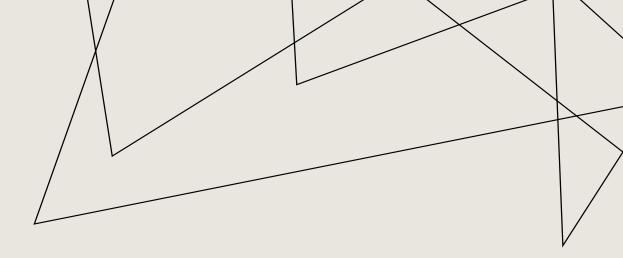
RESEARCH OBJECTIVE

- 1. Classify Texas counties and voting precincts into 'civic gardens,' 'civic deserts,' and transitional zones;
- 2. Visualize these spatial patterns through maps, comparative graphics, and dashboards;
- 3. Analyze clusters and outliers;
- 4. Publish results through a public-facing tools, through Quarto, Shiny, Leaflet, or other suitable tools.

DATA AND METHODOLOGY

We will examine three primary types of variables:

- Turnout: 2020 presidential election turnout, aggregated at the county and precinct level (Harvard Dataverse);
- Education: Education levels (ACS 5-year estimates);
- Health: Self reported health status (CDC PLACES data, 2021).



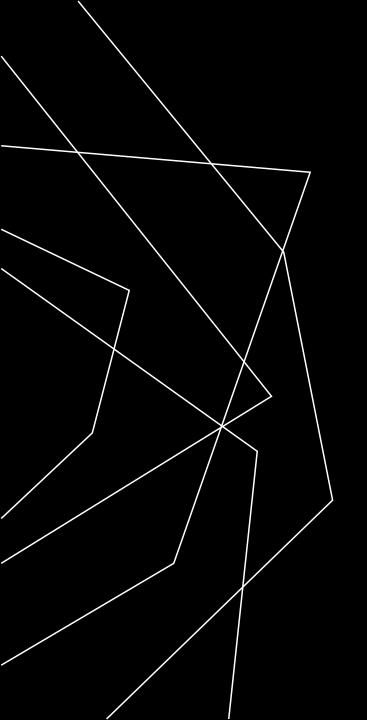
ANALYSIS

- Normalize this data to a common scale and combine it into a civic index.
- Counties and precincts will then be sorted into quintiles, with the top quintile across all three metrics designated as 'civic gardens', and the bottom quintile as 'civic deserts'.
- Adjustments as needed to better understand these classifications.

VISUALIZATION TECHNIQUES

The project will rely on graphical analysis and spatial storytelling.

All visualizations will be created using tools in R including ggplot2, sf, tigris, leaflet, Shiny, etc., ensuring reproducibility and transparency.



CONCLUSION

Apply the metaphor of civic gardens and deserts to the Texas landscape, this project reimagines civic engagement as a spatially and visually interpretable phenomenon.