

1154-VN-1144 **Haley Colgate*** (h_colgate@coloradocollege.edu). *Measuring Gerrymandering in Colorado*. Preliminary report.

After the 2020 census, every state in the U.S. will redraw their congressional and legislative voting districts. When plans are proposed, they will be examined for compliance to state laws, and in Colorado, Amendments Y and Z, passed in 2018, will require that plans be free of partisan bias. This summer we gathered data and ran analysis on Colorado to contextualize measures of gerrymandering when applied to the current voting districts. We used statistical sampling methods with real population and voting data to model election outcomes and partisan advantage under thousands of possible district plans. Future work will examine communities of interest and fairness criteria specific to the state of Colorado. With the upcoming redistricting and new census data, our work will serve as the backbone of a tool that may be used to analyze proposed plans, both by politicians and by the public. (Received September 13, 2019)