## Worksheet #1A Gerrymandering Intro Investigation Workshop Version



AMS Engaged Pedagogy Workshop Mathematical Foundations for Democratic Processes

**Introduction:** Redistricting is a deeply interdisciplinary endeavor, and a mathematical approach is only useful if it is informed by the larger social, legal, and political context of the problem. We will do a little introductory research to get started.

Goal(s): Develop basic familiarity with a few examples of US Congressional districts. Begin inquiry into quantifiable aspects of districts.

**Activity:** Take 10 minutes to investigate on your own as many of the following as you can. You'll be put in a breakout room to share in small groups for 4 minutes, then have an opportunity to share with larger group. A good resource for some of this information is ballotpedia.org, but part of the goal of this exercise is to look for reliable resources on your own.

- 1. Look up your own US congressional district and congressperson. Now, look up a district in another, perhaps very different state.
- 2. Who is in charge of redistricting in each of your examples?
- 3. Find the population of each district and compare. Why would these populations be different? What are some important demographics in the district?
- 4. The data for reapportionment and redistricting comes from the decennial US Census. What happens if a group of people are systematically undercounted? How could this affect apportionment? How could this affect redistricting?
- 5. Do the shapes of the districts seem to make sense? What seems good and what doesn't? Can you find the perimeter and area of your districts?
- 6. What are some different measures you could use to understand the partisan balance of the district? Is there one way to know what this balance is? Do you see any issues with any of the measures you are thinking of?



**Discussion Questions:** Once you've completed the exercise, use the following questions to reflect on this exercise (we'll also discuss them together in a little bit):

1. Do you think that the district boundaries that you examined are fair? Are they good? How could you tell?

