Redistricting Game

1 Introduction

The goal of this project is to create a congressional district plan and present that plan in a simulated binding arbitration game. You will work in groups and your group will be assigned a role as a Philadelphia-based independent consultancy advising a political group in Louisiana. Your group is tasked to prepare a district plan in the interests of your assigned sponsor and present it in class.

Your group will be assigned one of three possible clients: the Democratic Party, the Republican Party, and the League of Women Voters. Naturally, the Democrats and the Republicans should seek to maximize their partisan advantages, subject to constraints imposed by the game. The League of Women Voters, however, should seek to maximize the interests of the general public, laying aside all partisan objectives. The (simulated) non-partisan arbitrator will evaluate your work product and, among other things, choose a winning plan from every 2-tuple (Democratic, Republican) or 3-tuple (Democratic, Republican, League) as appropriate. Thus your score/grade will depend upon how well you impress the arbitrator (who seeks to be fair), including how well you compare with other groups having your role. Also, as described below, your written report will include a public description of the district plan and a private memo to your client describing the anticipated performance of the plan. The quality of this work will also contribute to your grade.

Although this is a simulated exercise, we will use real data to produce the district plan. We will use 2010 Census data from Louisiana for this assignment. The population of Louisiana after the 2010 Census was 4,533,372 and the state was apportioned six congressional districts. The ideal district population, then, is 755,562 for each congressional district. Additionally, there are 64 parishes (counties), 473 places (cities and towns), and 1,142 census tracts in the state that will need to be incorporated into the district plan. It will be your task to sort these political subunits into six congressional districts. The following criteria are in place to guide your work.

2 Criteria

The district plans will be judged in accordance to a set of mandatory and discretionary criteria.

The mandatory criteria include

- Population Equality: The total population of any district must be within 1% of the ideal population, i.e. between 748,006 and 763,118.
- Voting Rights Act: The district map must comply with §2 of the Voting Rights Act of 1965 (as amended), the relevant federal statute. This section prohibits the creation of a district that results in a denial or abridgement of voting rights on account of race, color, or language-minority. A district plan may be rejected if it denies the equal right to elect representatives of their choice to a protected class of people.
- Contiguity: Districts must be contiguous.

Louisiana statute does not impose any additional criteria.

For the purposes of this game, however, the following discretionary criteria are suggested, to the extent practicable and as long as mandatory criteria are not violated to satisfy discretionary criteria

- Compactness: Districts ought to be compact, that is they should not have an outrageous or contorted shape.
- Political Subunits: Districts ought to respect borders of political subunits, i.e. parishes and places (but not Census-Designated Places).
- Competition: Districts ought to be competitive and not drawn to be safe for one party or another. Note, however, that this is a contested criterion.
- Communities of Interest: District plans should seek to avoid splitting up natural communities of interest, such as ethnic groups and occupational groups. The data we provide for this project, however, may not easily apply to this criterion.

3 Materials and Information

Every group will be given a folder `Redistricting Project Data` in which the following materials are included:

1. Shapefiles: in the folder `Shapefiles` you will find all the files that you will need for QGIS for the tutorial described in item 2 below. So please use this folder as instructed in the tutorial.
2. Assignment, Workflow and Tutorial: in the folder `Assignment, Workflow and Tutorial`, you will find a copy of the document you are reading, a work flow description and a tutorial on how to use a program called QGIS (that is available for your use in the library or you may download it for free at http://qgis.org/en/site/ and install it on your personal computer) for your aid and to facilitate the project.
3. Data and Python: in the `Data` folder, there are three Excel files. The table “Adjacency matrix" indicated which census tracts share a physical border. This is essential for determining contiguity. The other Excel file is called “Data for redistricting" where you will find all numeric data that you need for the project at, in worksheet one, the census tract level and, in worksheet two, at the parish level. The third file is called "Data for redistricting edited". This document has a column called "districts". If you assign a number of 1 through 6 to a field in that column the stats in the sheet called "district overview". Further there is a python file called “checkForContiguity.py”. Executing this peace of code will tell you if the districts in your current map are contiguous or not.
4. Visual Aid: in the folder `Visual Aid` you can find a number of files that will provide the same information as the Excel files, but in a graphical format. The file “Population Louisiana.pdf" shows how many people live in each census tract, the file “Louisiana Parishes.pdf" identifies each parish in the state by its FIPS code. Importantly, however, these codes only identify tracts within each parish. The file “Demographic Maps.pdf" contains a number of different maps including, for example, the census tracts in which there are more Democrats than Republicans (dark always indicates more). The file “Congressional Districts.pdf" shows a map of the Louisiana congressional districts as they exist. The file “Clipped Census Tracts.pdf" is a large document containing the census tracts–with their identifying FIPS code–and the surrounding parish borders. Printing this file allows you to build a large map of Louisiana that will make finding census tracts easier. Cut out all pieces along the border and glue them together from left to right (start from the north west portion of the state) and start a new line when the next portion of the map does not fit.

In addition, you are free–but not required–to acquire additional information that you can use to formulate and support your plan (whether for the arbitrator or not). This information could be anything relevant, including additional criteria that have been judged important for district planning and demographic information about Louisiana.

4 Work Products

Your primary deliverables for this simulation game will be:

1. The district plan you propose. This plan will consist of two Excel worksheets and associated graphical maps. First, a spreadsheet sorting each census tract–identified by FIPS code–into one of six congressional districts. A second Excel worksheet will include summary statistics for each district, including the total population and deviation from the ideal population, the number and proportion of white and non-white people in the district, and any other information you would like to include.

2. A PowerPoint presentation describing your plan and its virtues, with further instructions to follow. This is a sales pitch to the non-partisan arbitrator, so touting purely partisan benefits will be counter-productive.

3. A written document with two components. First, a discussion aimed at the non-partisan arbitrator that complements the PowerPoint presentation. Second, a private memorandum to your client describing how your work project fits their objectives. The private document should also identify the contributions of each member of the group. The maximum word limit will be set out at a later date.

4. A short (limit of 400 words) document responding to either or both of the alternative plans proposed by the other groups.

5 Procedures

Groups will be formed at a later date. Once the groups are formed the non-partisan arbitrator will assign each group one of the three roles. And then you should get to work.

During your development work you should feel free to ask questions and seek support. Raise issues, if at all possible, during class so that everyone can benefit. In addition, we have TA support available and will provide help to the degree feasible. In particular, we will schedule a TA to be available in the library for assistance with the QGIS portion of the project.

All of your work products are due on our courseware support system in the `Redistricting Game` assignment folder. You should then be prepared to present your plan during class that day.