

UVA Team 2 Congressional Competitive Map

Equi-Population:

For the competitive Congressional districts, I began by distributing equal population throughout each district. The most difficult areas to evenly disperse the population were in Southwest and in Northern Virginia. Since the greatest population increase over the past 10 years occurred in Northern VA while the counties in the Southwest lost population, requiring the Southwest districts to be expanded to cover a greater geographic area and the Northern VA districts to be contracted. In our map, all districts fall within 350 people of the target population.

A comparison of the population distribution within the existing districts and the distribution following our proposed changes:

District #	Current District Population	Proposed Plan's Population
1	786,237	727,351
2	646,184	727,284
3	663,390	727,402
4	738,639	727,167
5	685,859	727,303
6	704,056	727,710
7	757,917	727,322
8	701,010	727,325
9	656,200	727,341
10	869,437	727,188
11	792,095	727,631

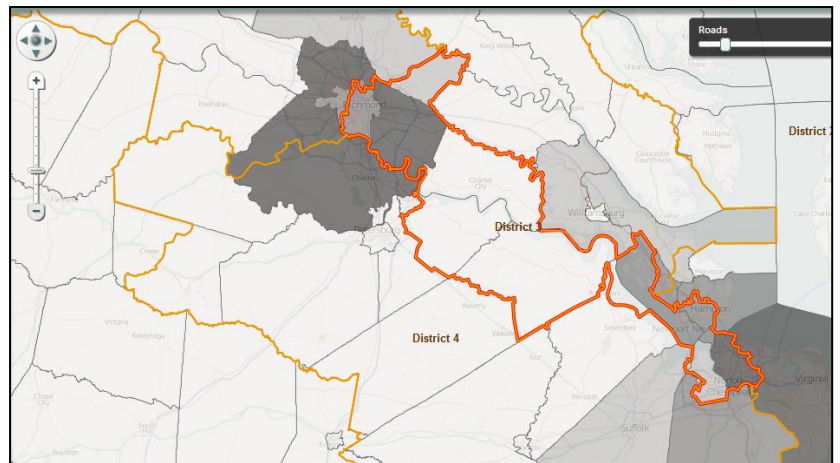
Minority-Majority District:

I achieved a minority-majority district in the third district, where the minority-majority district from the 2000 existed. This district has an African-American Voting Age Population of

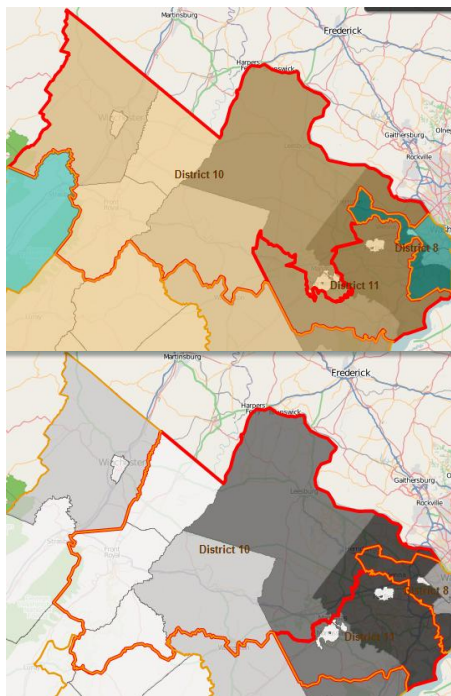
51.73%. Our proposed minority-majority district, which has a compactness of 31.26%, is more compact than the existing district which has a compactness of 30.89%

Compactness:

We attempted to keep a compactness level of at least 45% for all districts. However, the minority-majority district made this exceedingly difficult for itself and the districts surrounding it, specifically Congressional Districts 4 and 1. We were able to bring the compactness of District 4 up to 45.00%. However, I did not have the same luck with Districts 3 and 1. All attempts to make the districts more symmetric had too much of a negative effect on the minority population in District 3. This was due to the large concentrated populations in areas such as Norfolk and Richmond where the Minority-Majority district lies.



District 3: Had to Reduce Compactness in order to Achieve Majority-Minority, outlined in red



We were able to keep a high level of compactness in Northern Virginia, specifically districts 10 and 11 because the heavily populated areas were broken into smaller precincts which made it possible to get more specific numbers and symmetry.

In comparison to the districts drawn in 2,000 the competitive Congressional districts of team are much more compact than the way they currently exist. For example, in 2000 district 11 had a compactness of 39.3%, in this map the district has a compactness level of 57.15%. Similarly, the previous District 10 had a compactness of 40.70%, while this District 10 has a compactness of 51.11%.

A comparison of current compactness and the compactness of our proposed plan: 9 out of 11 districts equal to or more compact than existing plan.

District #	Current Compactness	Proposed Plan Compactness
1	39.83%	37.95%
2	51.75%	49.21%
3	30.89%	31.26%
4	45.00%	45.00%
5	46.56%	52.81%
6	37.46%	48.60%
7	40.90%	45.42%
8	40.20%	48.28%
9	41.91%	48.83%
10	40.70%	51.11%
11	39.30%	57.15%

Competitiveness and Representational Fairness:

These categories were the most difficult to achieve while maintaining the preceding 5 requirements. We began with a map that was extremely close to equi-population, and tried to adjust the district lines for competitiveness without deviating too much from mathematical equality. We also had to take care to keep District 3 Majority-Minority, and so could not spread its higher Democratic percentage among the surrounding districts. The result was that we only have one district that is “generally competitive”—District 11 at 45%--but there are three more that are within +/- 6%.

The Representational Fairness of our plan is close to the 41% Democratic Party vote in the 2009 Gubernatorial Election, with 5 districts considered to be Democratic and 6 Republican.