

Modeling HW1

1. After each census states are allowed to redistrict. That is, redraw the borders of districts to reflect the changes in population movements that happened in the last 10 years (the number of years since the last census). These districts are those that are responsible for electing members to both state and federal governments. States must make sure that the population in each district is approximately equal and some states like North Carolina require districts to be compact. Build a mathematical model that can be used on a state's proposed districting plan so that the "best" districting boundaries can be chosen. Clearly articulate your metrics for assessment.
2. Sports Illustrated, a magazine for sports enthusiasts, is looking for the "best all time college coach" male or female for the previous century. Build a mathematical model to choose the best college coach or coaches (past or present) from among either male or female coaches in such sports as college hockey or field hockey, football, baseball or softball, basketball, or soccer. Clearly articulate your metrics for assessment.