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Title of Talk: The Electoral College and the Proportional Plan: A New Analysis Using the Shapley-Shubik Power Index

Abstract:

This paper analyzes the Electoral College and the Proportional Plan in order to determine which method is better for selecting the United States president from an individual voter's standpoint. This analysis is conducted using voting theory elements, the Shapley-Shubik power index, and election data from three different elections years: 1984, 1992, and 2000. The two voting systems are set up as weighted voting games in which the 50 states and the District of Columbia are the players. Using a C++ computer program, each state's Shapley-Shubik index is calculated. The same algorithm is used to compute the relative power of an individual in each state. Simulations are created by introducing randomness in the data for the three election years. The data indicated different results based on the election year. For a landslide election, the proportional plan seems to be similar if not slightly better than the current system. For a close election, the proportional plan appears to even out the power discrepancies between the states.