1046-90-1592   **Micah Altman*** (`micah_altman@harvard.edu`), 1737 Cambridge St. # 325, Cambridge, MA 02145. *The Promises and Perils of Optimal Redistricting.*

Attempts to rigidly apply simple rules to the creation of districts will often have unintended political consequences when politics, the law, geography, mathematics,and computation interact. Redistricting is a political activity that conducted at the juncture of these fields, underpinned by philosophical understandings of political representation,and measurable primarily through statistics. It is perhaps unsurprising that there remains much disagreement over the goals, processes, and outcomes of redistricting.

Over the last fifty years there have been repeated scholarly attempts to remove politics from redistricting (and partisan attempts to create the ultimate gerrymander) by applying combinatoric optimization techniques to the problem of drawing electoral boundaries. In this presentation, I discuss the frontiers of this approach to redistricting, along with its specific technical and broader theoretical limitations. (Received September 16, 2008)