GEOGRAPHY MEETS GEOMETRY IN REDISTRICTING

Moon Duchin
• Segregation and compactness

• Intertwining of theory (metrics), technology, and human outcomes - sometimes perversely

• Role of demonstration plans as benchmarks

• “Method of ensembles”
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(a) Plan with 11,996 cut edges

(b) Plan with 5702 cut edges
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• Segregation in practice: Chicago project – districtr.org/chicago
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- Markov chain Monte Carlo (MCMC) gives you ways to sample representatively from the universe of plans - does a plan behave as though chosen only from the stated rules?
The redistricting problem is aggressively interdisciplinary - must forge collaborations of geographers, political scientists, urban sociologists, legal and political theorists, litigators, mathematicians and computer scientists, developers, …

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