

what is "fair"?

neutral process

use a human-independent process to remove corruption and political bias

→ typically an algorithm optimizing *compactness*

equitable outcome

give groups an equal opportunity to elect candidates of choice

→ in light of recent court cases, lots of new work on *partisan symmetry*

generating plans

use a Markov chain to draw millions of legal plans for North Carolina and Pennsylvania

use Monte Carlo methods to search for plans which have high degrees of compactness and/or partisan symmetry

extract and examine the plans at the *Pareto frontier*

the desire and ability to use algorithms to draw electoral districts is growing

drawing fair electoral districts requires a definition of "fairness"

how do standard notions trade-off in practice?

trade-offs in fair redistricting

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results

