

Redistricting 2021

Coalition for a Strong Nebraska

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Background

Collaboration with Kristie Pfabe



Outline and Goal

Assume a basic understanding of redistricting and gerrymandering.

Several new web resources track redistricting in each state using mathematical methods.

My goal:

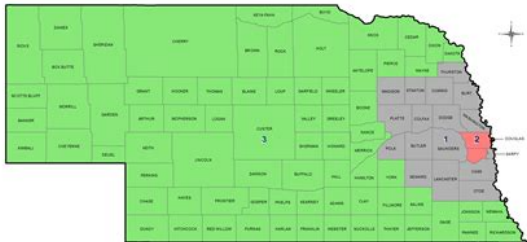
- point out resources
- give introduction to the methods

Redistricting In Nebraska

3 Congressional Districts

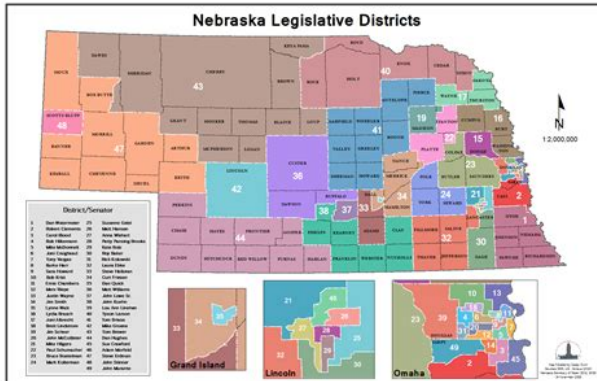
U.S. House of Representatives - LB 704 (2011)

(Districts took effect May 27, 2011)



GIS
LEGISLATIVE
Geographic Information Systems
Map Created by: Yvonne Schiller, GIS Specialist
Source: U.S. Census Bureau
Date Created: 6/17/2009

49 Nebraska Legislative Districts



Others

- 6 Supreme Court Judicial Districts
- 8 State Board of Education Districts
- 8 Board of Regents Districts
- 5 Public Service Commission Districts

Nebraska (and U.S.) Constitutional Requirements

- Compact districts
- Contiguous districts
- Equal population
- Follow county lines “whenever practicable”
- Voting Rights Act

LR 134, May 18, 2021

- All of the above
- “Preserve communities of interest” (?)
- “Preservation of cores of prior districts” (?)
- Allows 1% population deviation for Congressional Districts
- Allows 10% population deviation for Legislative Districts

Main point

Justice Kagan's Dissent to *Rucho v. Common Cause*, 2019

- In 4 years of study, the best single summary I have read about gerrymandering.
- Includes best single summary of the mathematical/statistical ideas!

The Takeaway: Part 1

Computer applications make gerrymandering easy!
“...today’s mapmakers can generate thousands of possibilities at the touch of a key – and then choose the one giving their party maximum advantage...” Justice Kagan’s dissent on *Rucho*, p. 9

The Takeaway: Part 2

Mathematical ideas developed in last 3 years detect gerrymandering

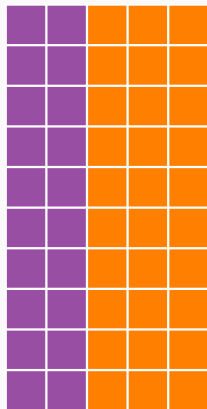
“... the same technologies and data that today facilitate extreme partisan gerrymanders also enable courts to discover them, by exposing just how much they dilute votes...” Justice Kagan’s dissent on *Rucho*, p. 18

Resources Using Mathematical Methods

- FiveThirtyEight's Redistricting Tracker
<https://projects.fivethirtyeight.com/redistricting-2022-maps/>
- All About Redistricting (Loyola Law School)
<https://redistricting.lls.edu/>
- Princeton Gerrymandering Group
<https://gerrymander.princeton.edu/>
- Metric Geometry and Gerrymandering Group
<https://mggg.github.io/>

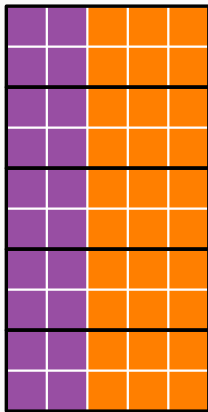
Districting Rectangle City

- Goal: Divide 50 people into 5 districts of 10 people each.
- 40% Purple, 60% Orange



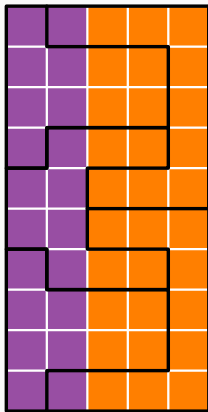
Gerrymandering by Cracking

- Losing Parties are thinly distributed
- Orange wins all 5 seats



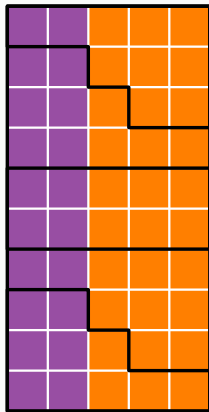
Gerrymandering by Packing

- Losing Parties have unnecessary super-majorities
- Orange Wins 2 seats, Purple wins 3 seats



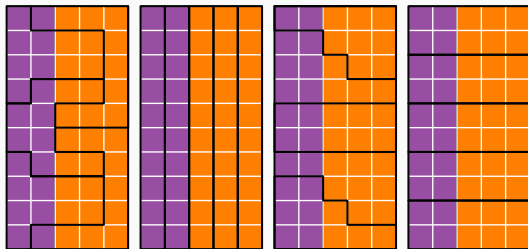
Districting Meeting Requirements

- Compact, contiguous, equal population,
- Orange Wins 3



Mathematical Districting with Statistics

- Make lots of valid maps (20,000 to 100,000 or more)
- Line them up by an outcome
- Orange wins 3 districts is common
- Orange wins 5 districts is extremely unusual
- Unusual outcomes probably “carefully crafted”



2Orange

3Orange

3Orange

5Orange

Pressure Points in Nebraska

- Population shift to urban counties
- 56% of population in Douglas, Sarpy, Lancaster counties
- Means 27 Legislative seats from those counties
- Boundaries of Congressional Districts

Resources Again

- Nebraska Legislature Redistricting Site
<http://news.legislature.ne.gov/red/>
- FiveThirtyEight's Redistricting Tracker
<https://projects.fivethirtyeight.com/redistricting-2022-maps/>
- Metric Geometry and Gerrymandering Group
<https://mggg.github.io/>
- All About Redistricting (Loyola Law School)
<https://redistricting.lls.edu/>
- Princeton Gerrymandering Group
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