# THE EFFECT OF REDISTRICTING COMMISSIONS

Daniel B. Magleby, Ph.D.

# Outline of Presentation

1. Define gerrymandering(s)

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3. Are commissions a solution?

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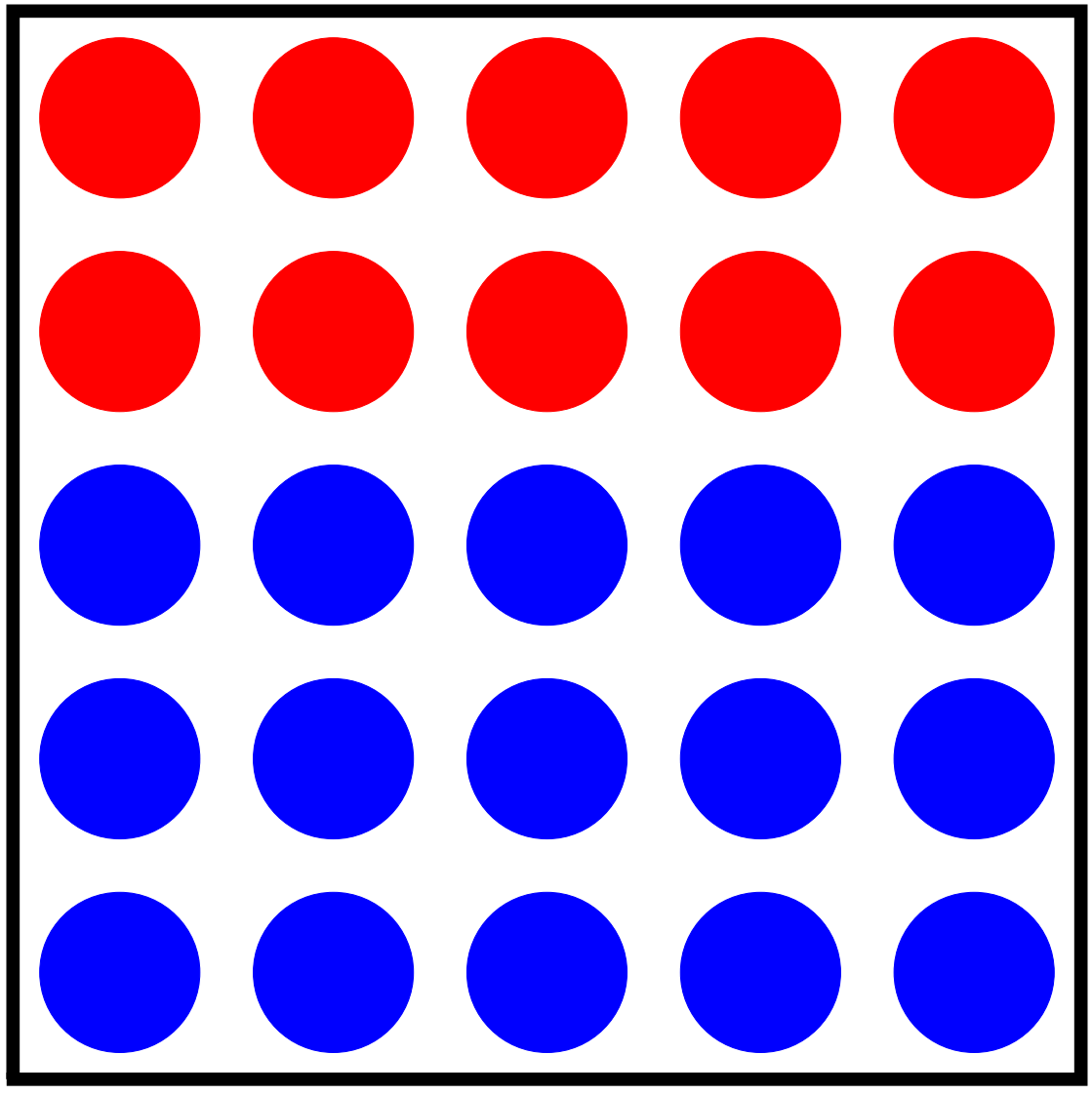
2. Simulation methods
3. Are commissions a solution?

# 1. Definitions

# Cracking vs. Packing Gerrymanders

# Cracking vs. Packing Gerrymanders



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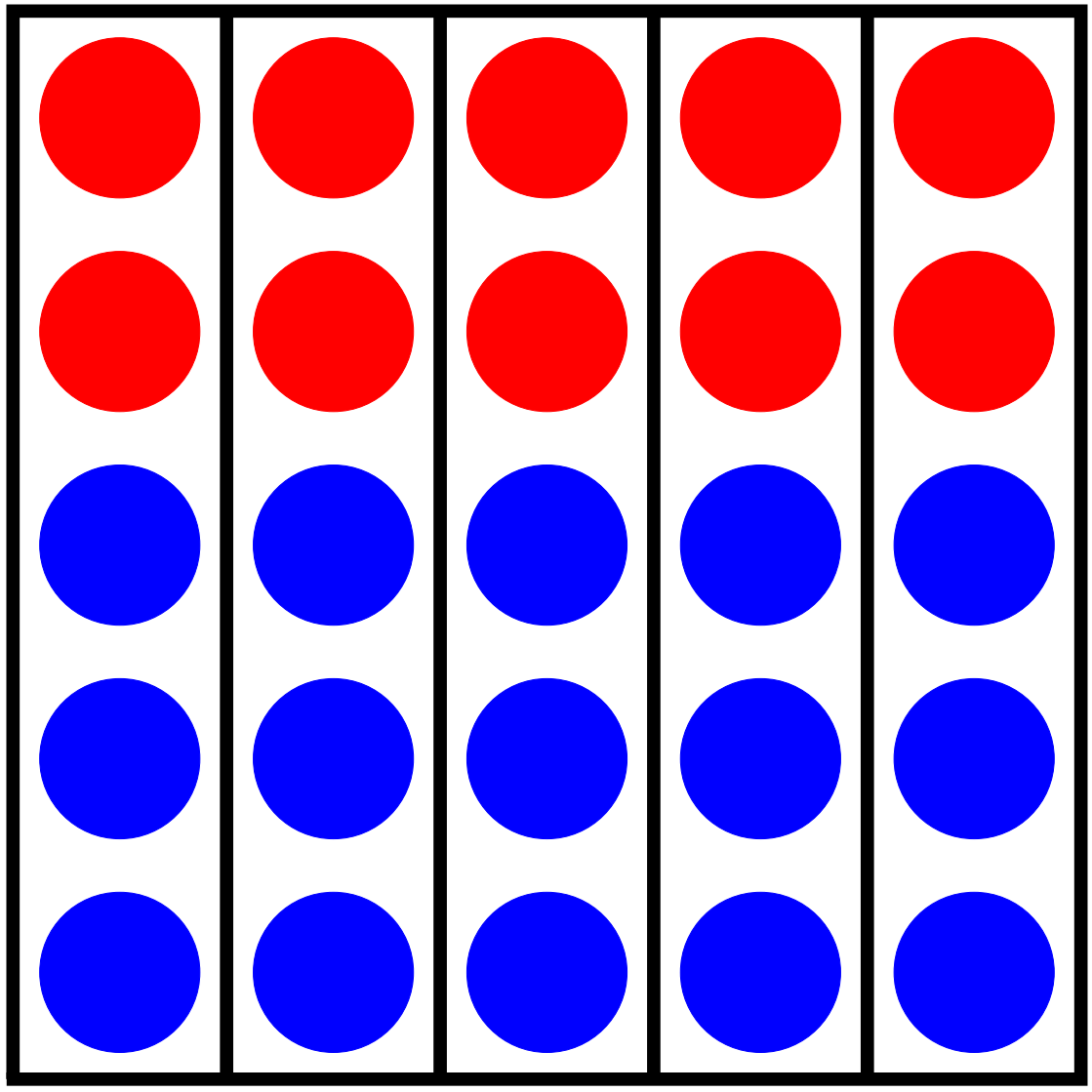

Cracking Gerrymander

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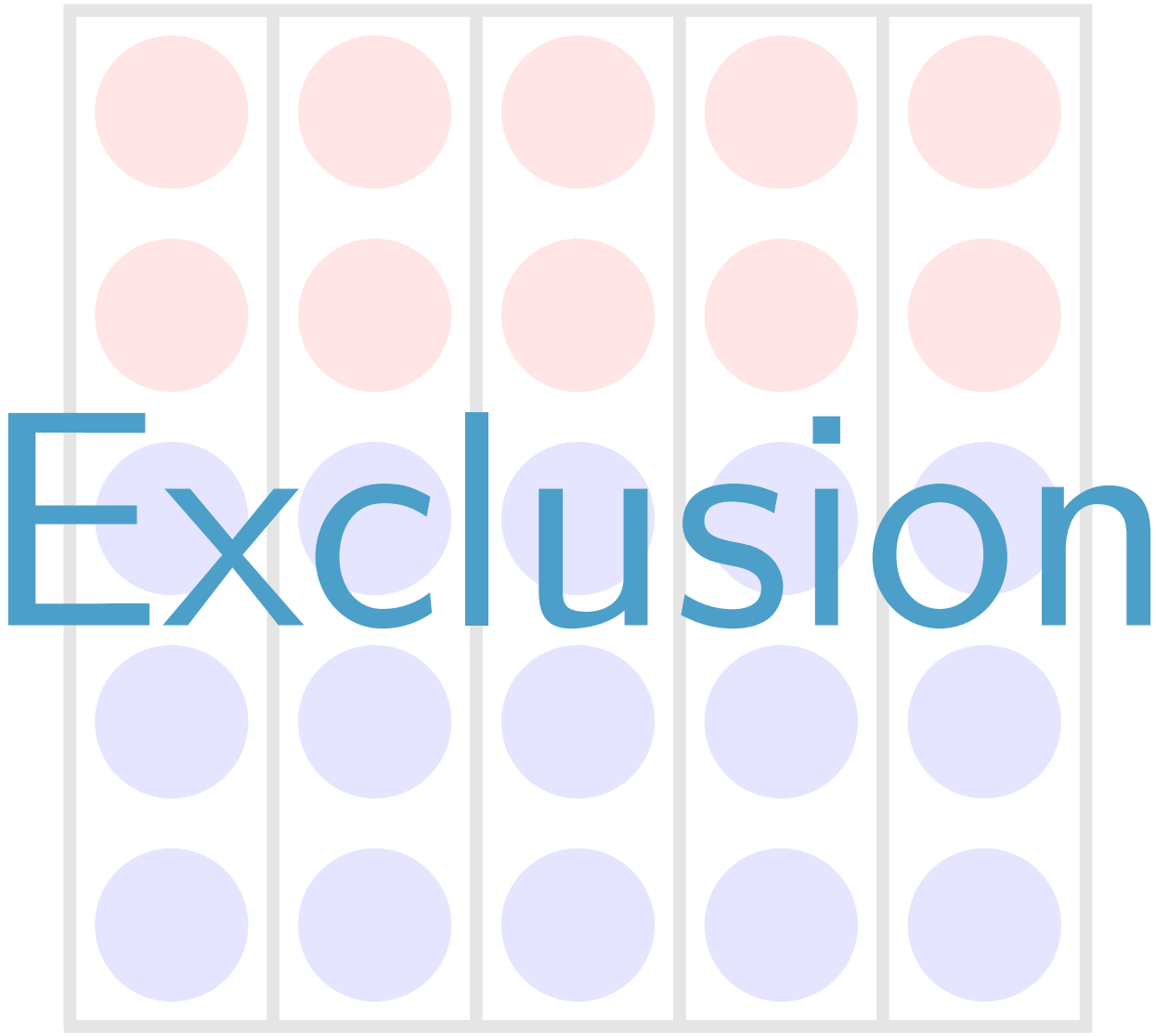


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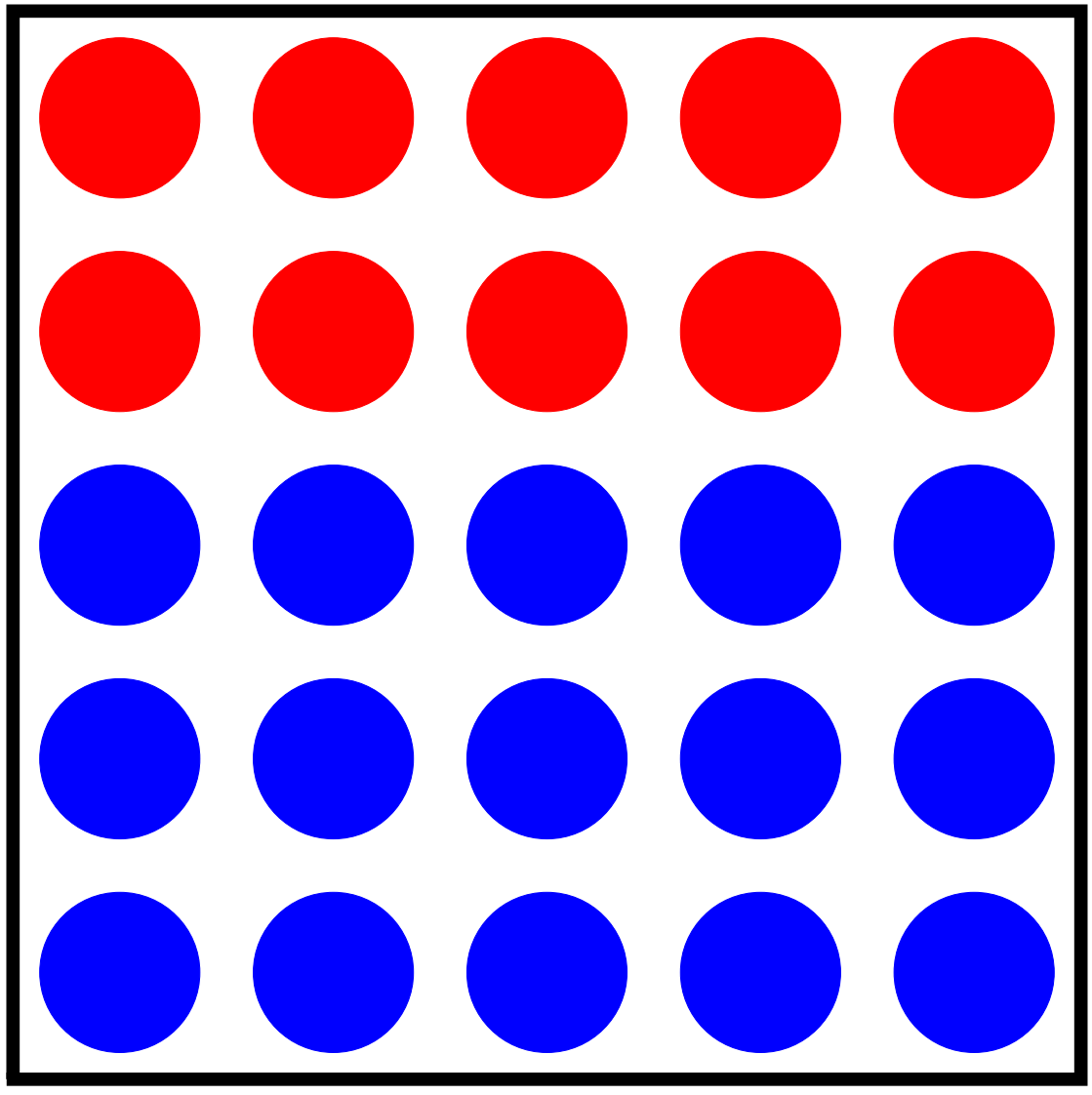

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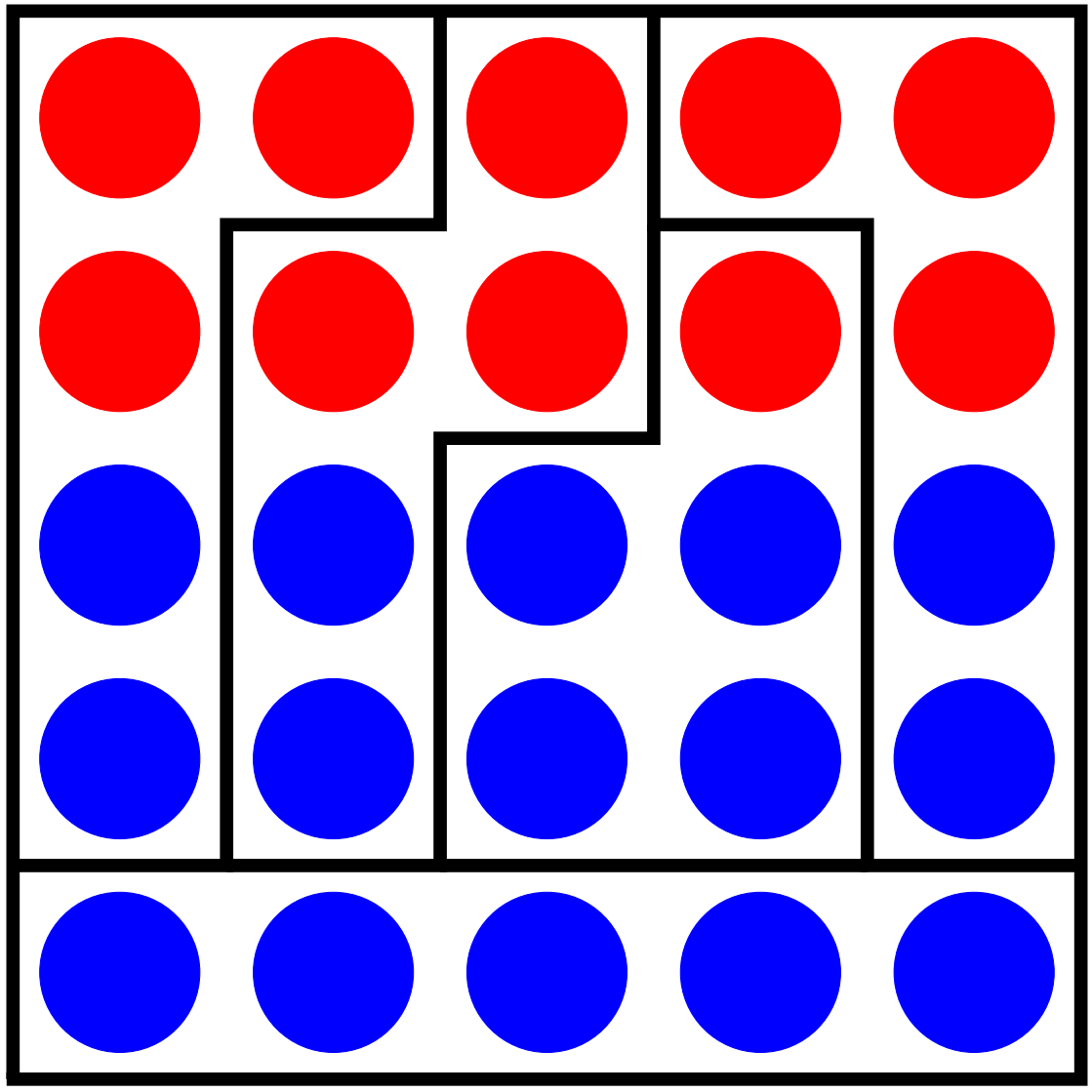

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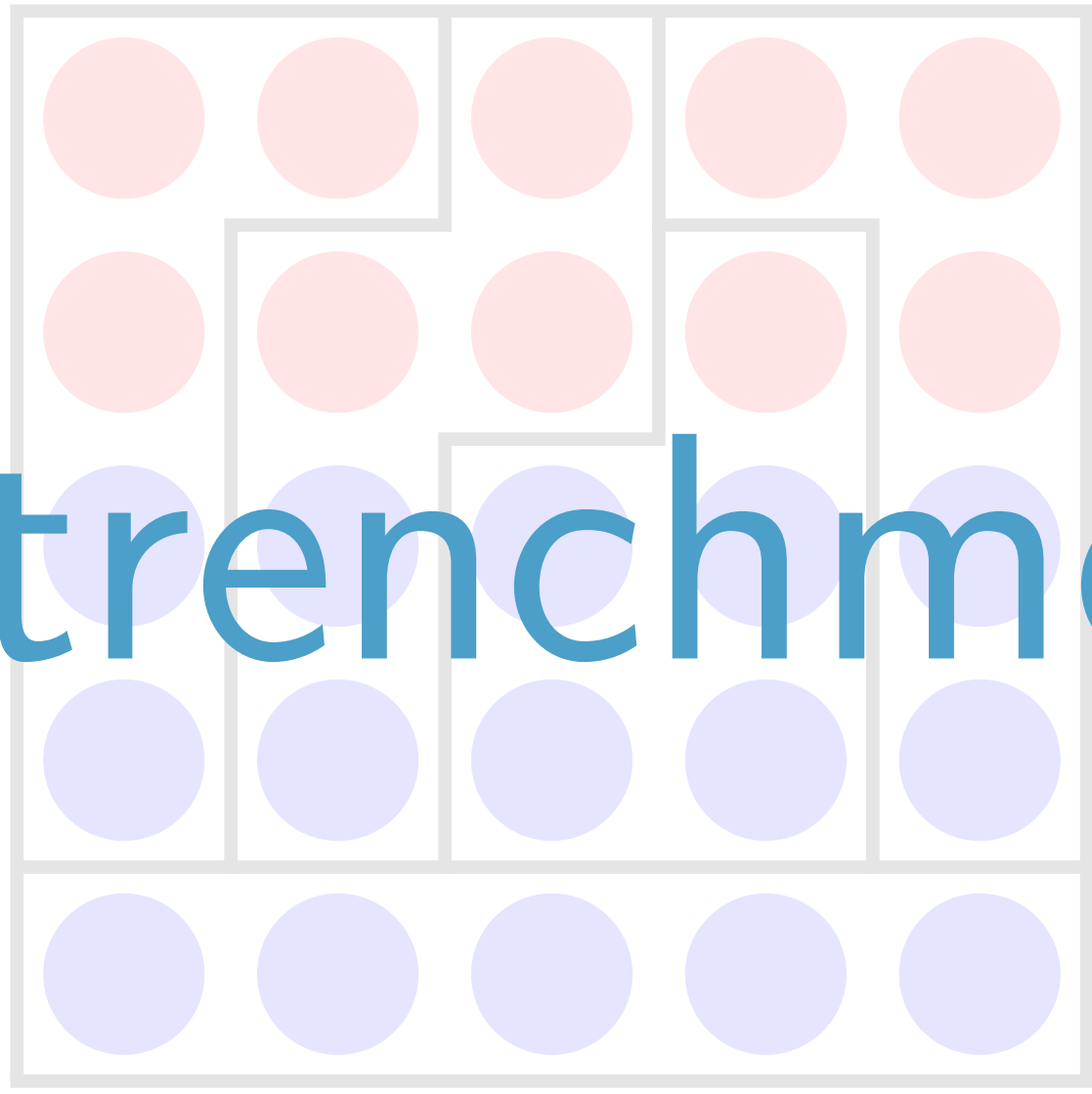


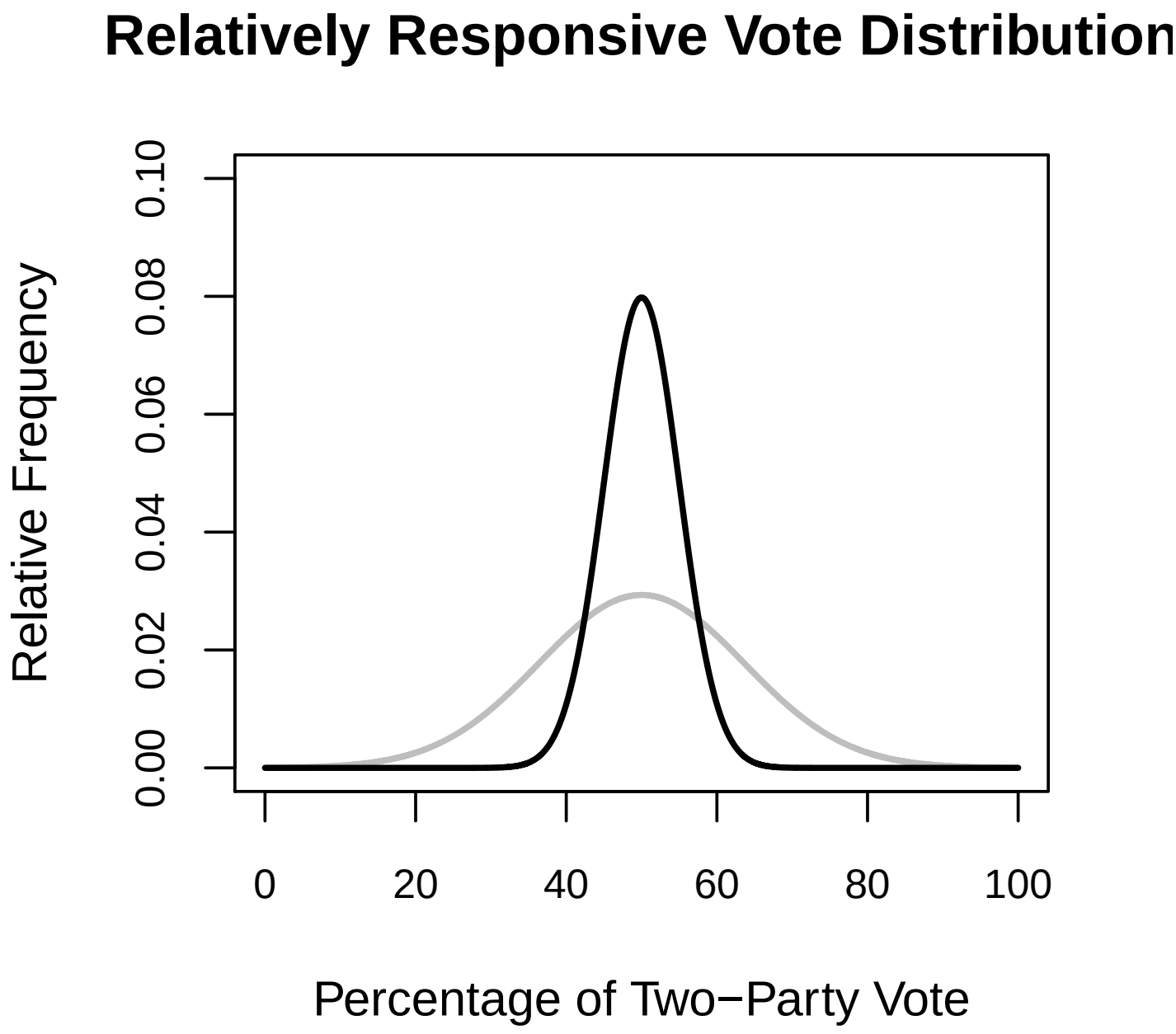

Packing Gerrymander

# Different Phenomena, Different Measures

## Different Phenomena, Different Measures

$$\text{Cracking} \Rightarrow \text{Compressed SD}$$

# Different Phenomena, Different Measures



# Different Phenomena, Different Measures

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$$\text{Packing} \Rightarrow \text{Skew}$$

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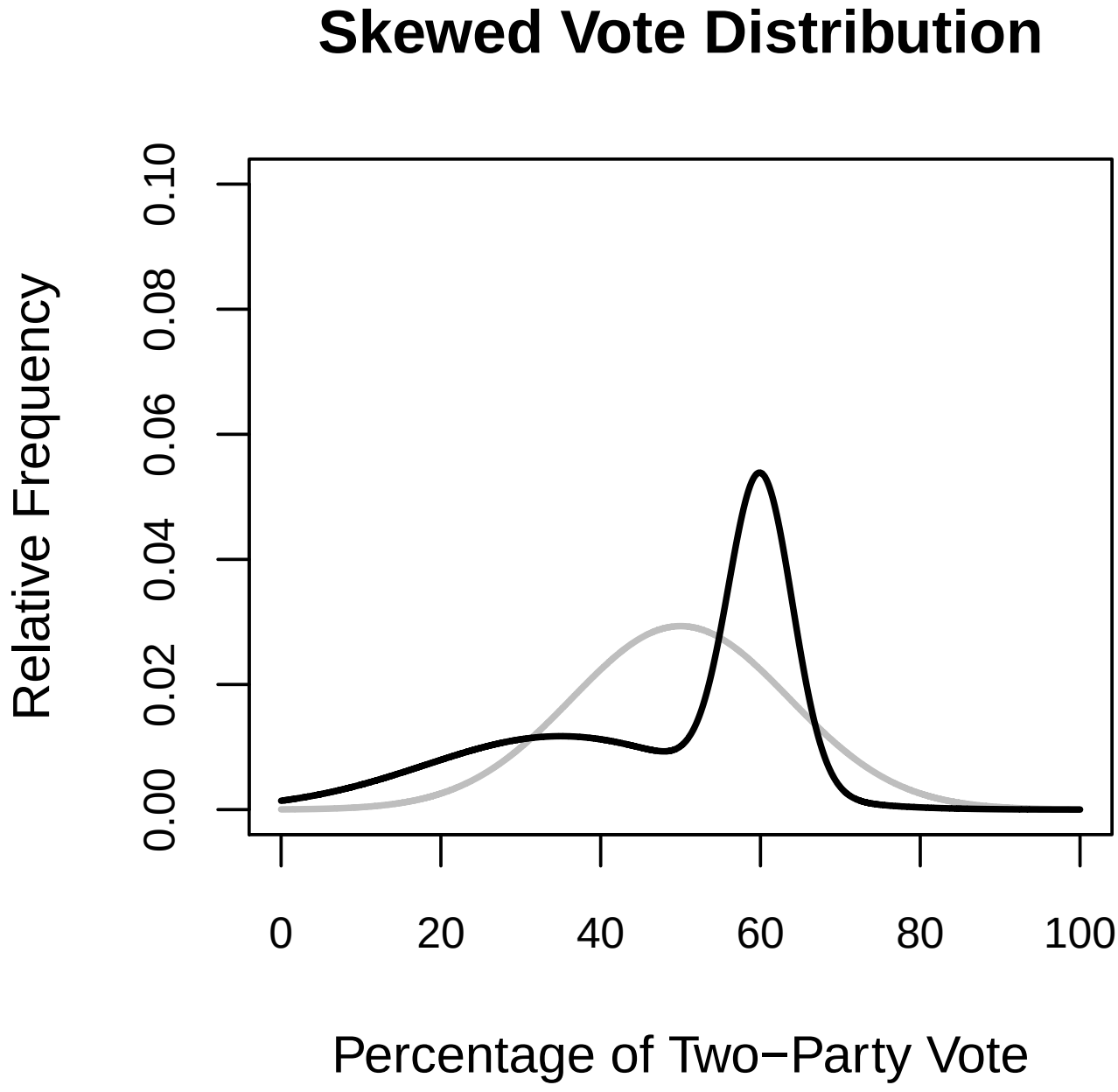


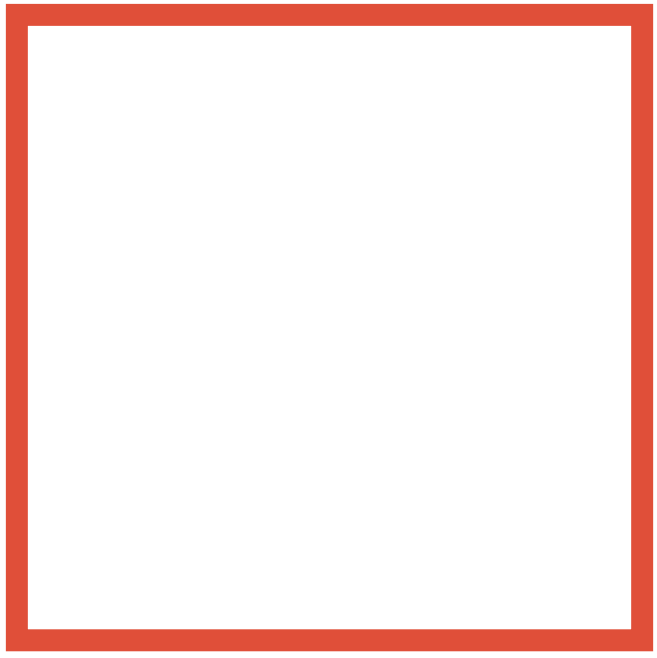
# 2. Simulations

# Moderna COVID-19 vaccine 100% effective in adolescents, company says

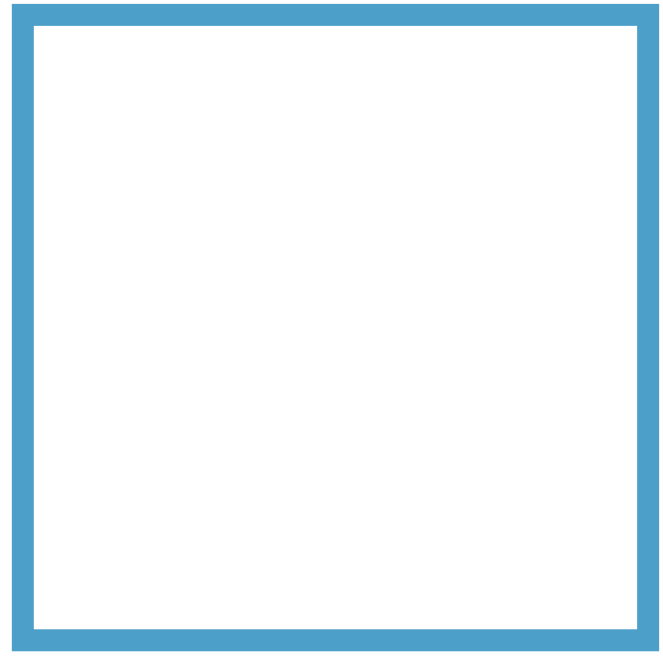
The news comes after Pfizer announced that its COVID-19 vaccine was safe and 100% effective in kids aged 12-15

# Measuring the Effects of Vaccines

Control



Treatment



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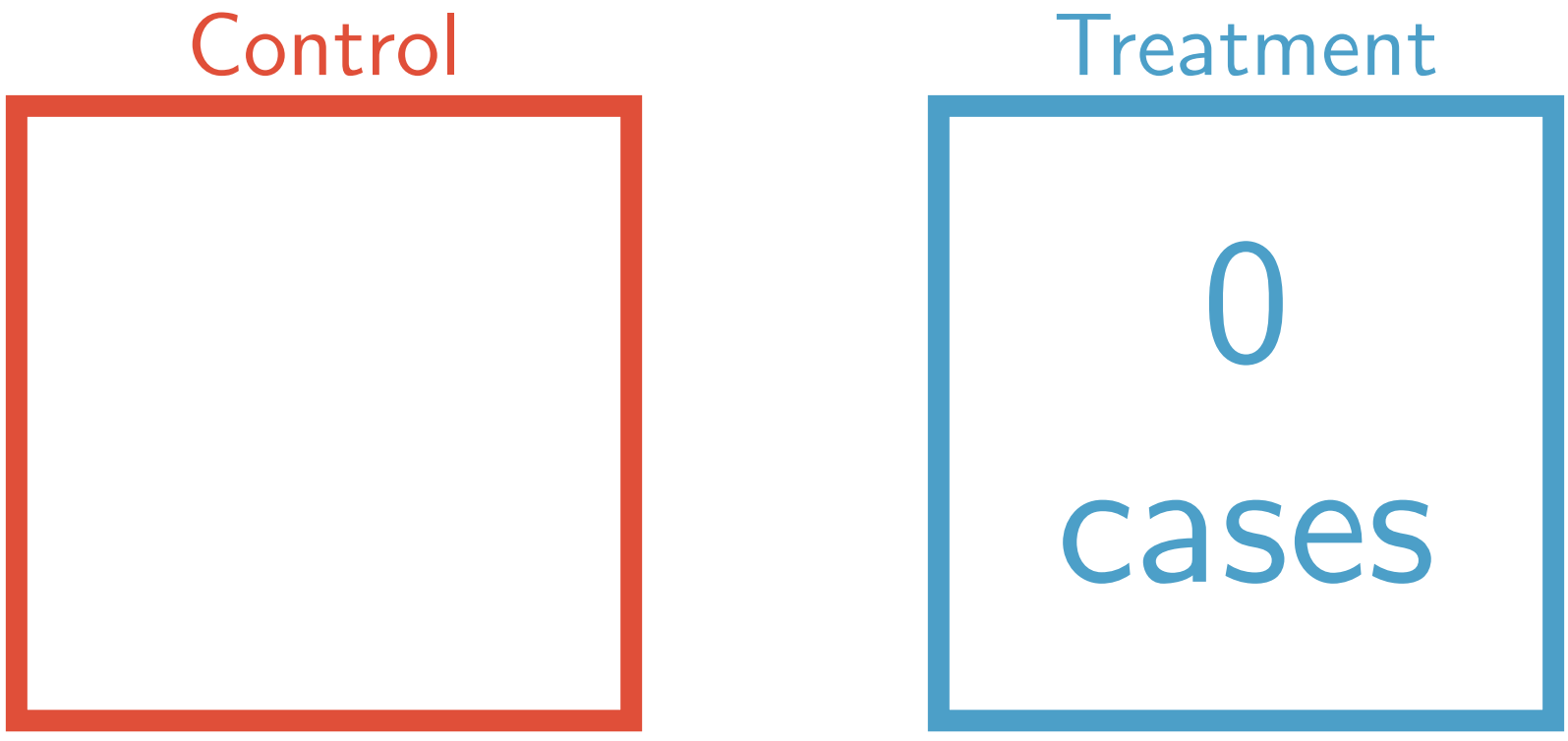

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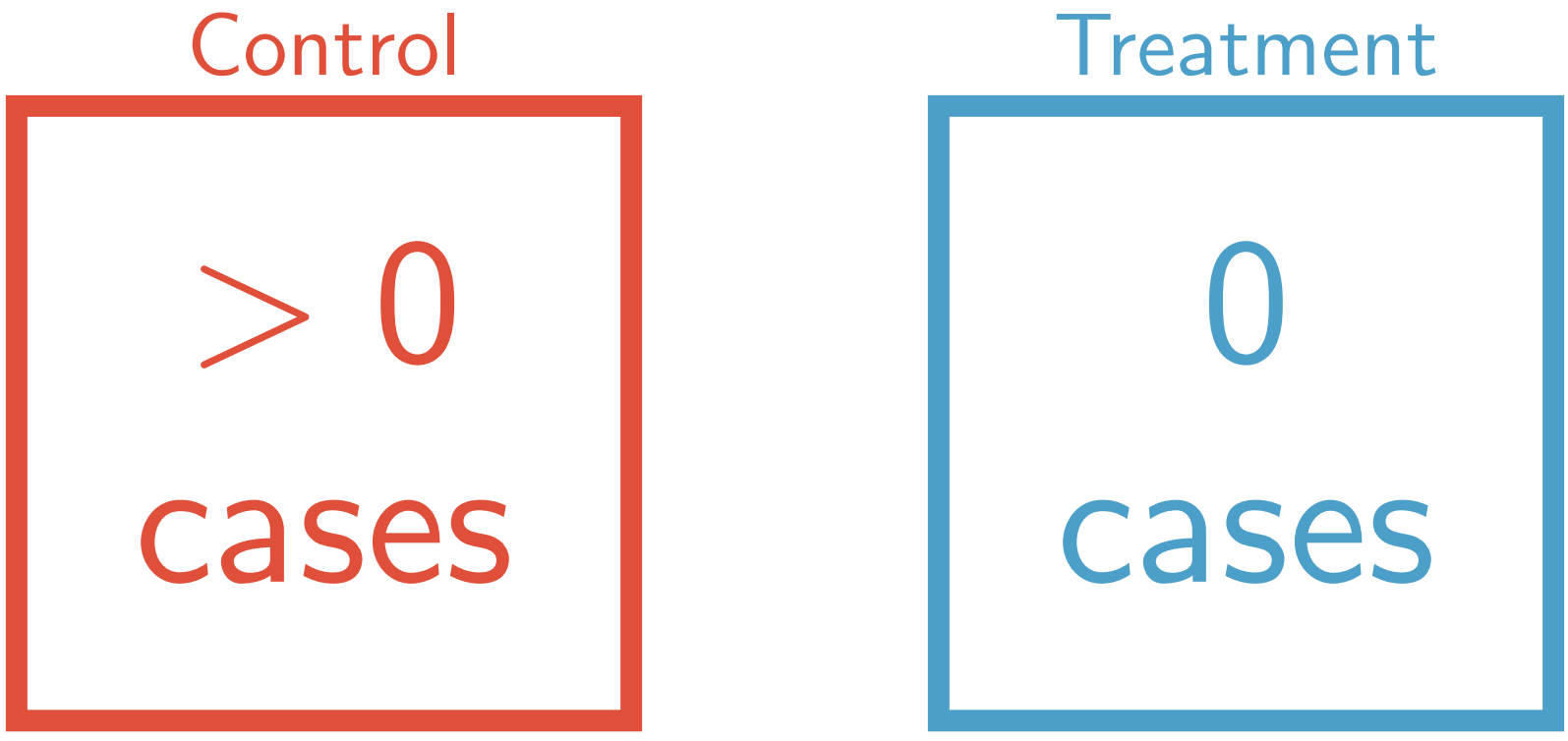
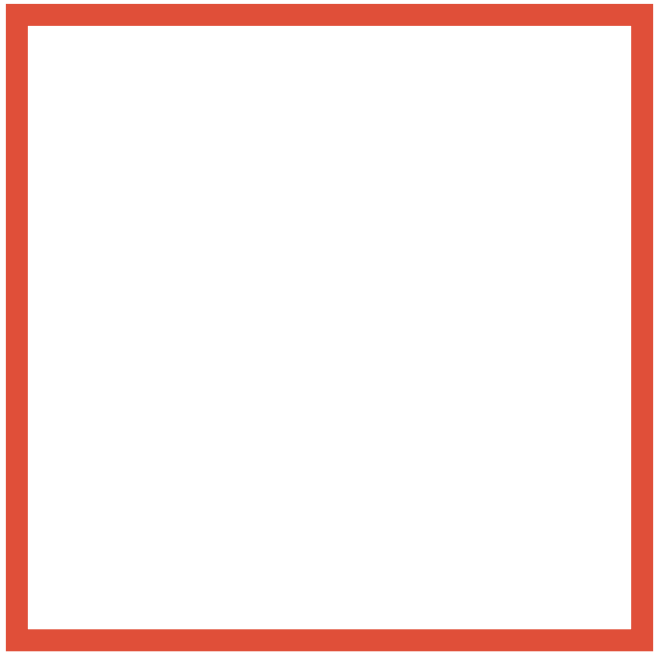


# Measuring the Effects of Gerrymanders

Control



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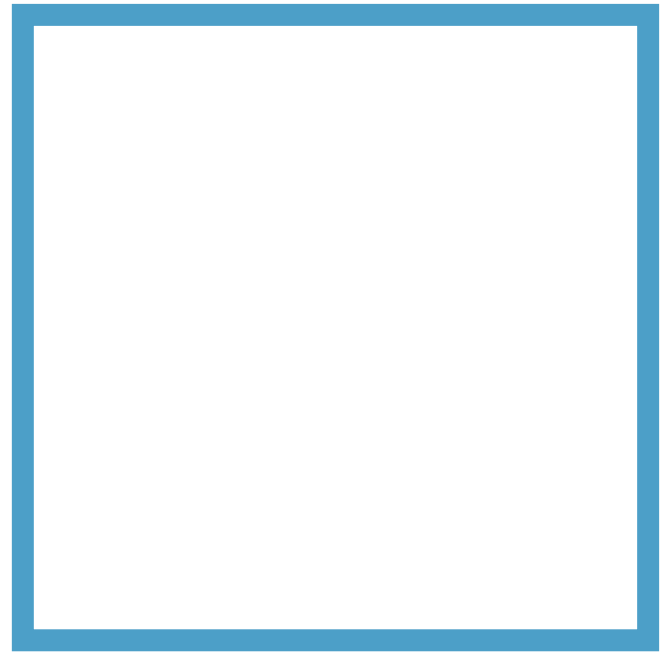

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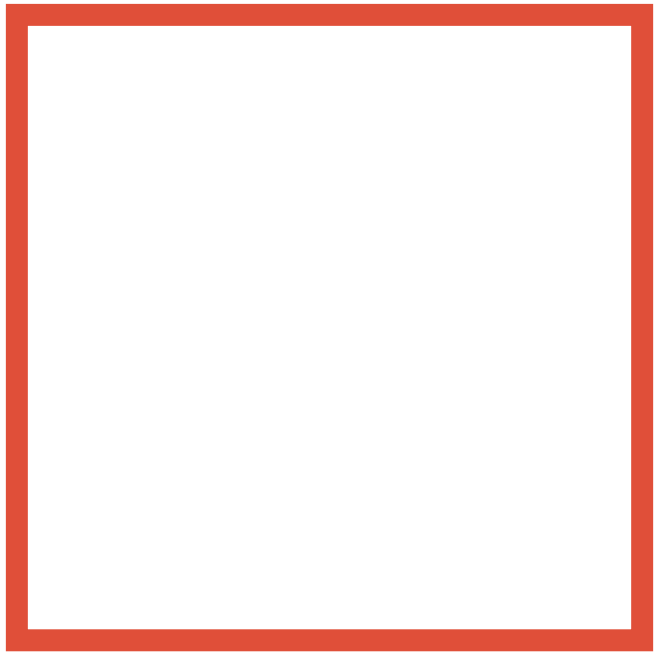
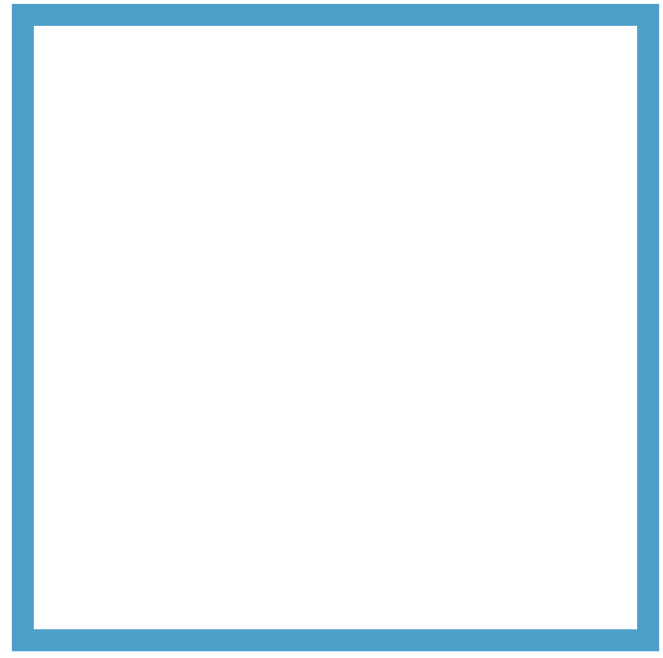


Legislature or Commission-Drawn



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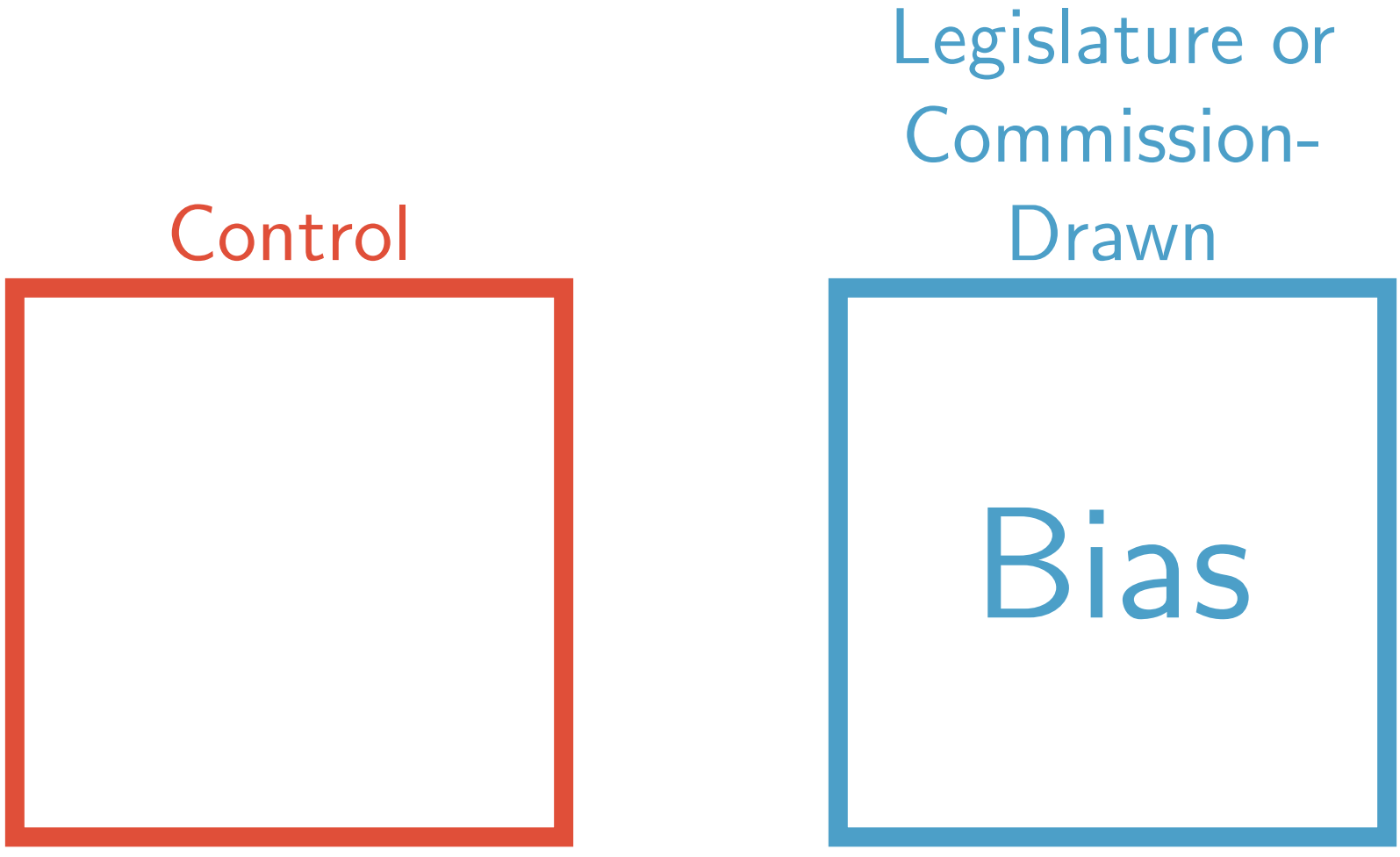

# Measuring the Effects of Gerrymanders

Control

?

Legislature or Commission-Drawn

Bias

# Geography is Complicated

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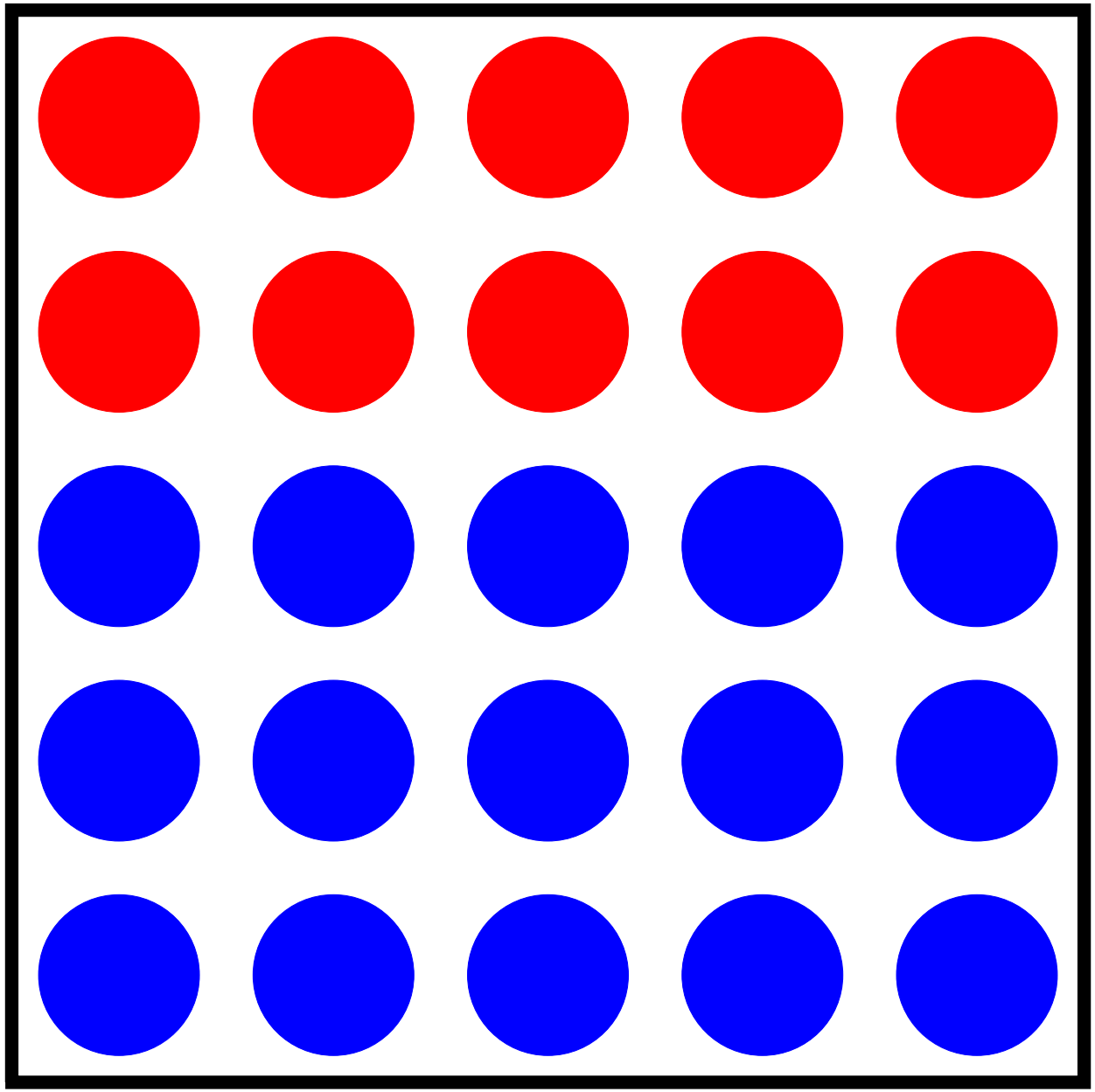

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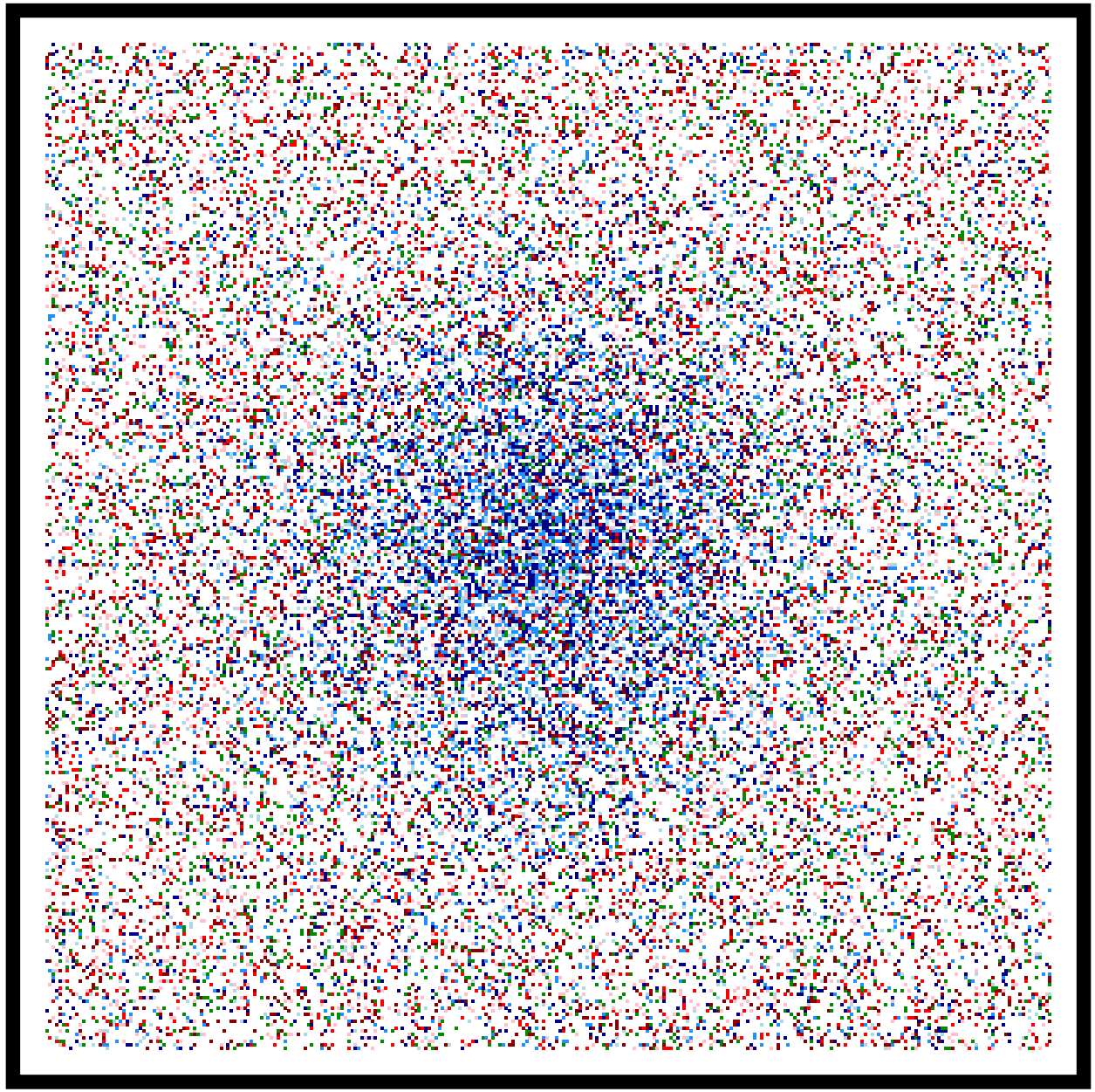


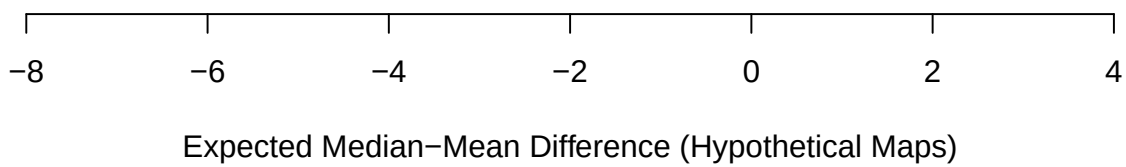
# Control

$=$

# Randomly Drawn Maps

# 3. How did commissions do?

# Packing Gerrymanders Nationwide



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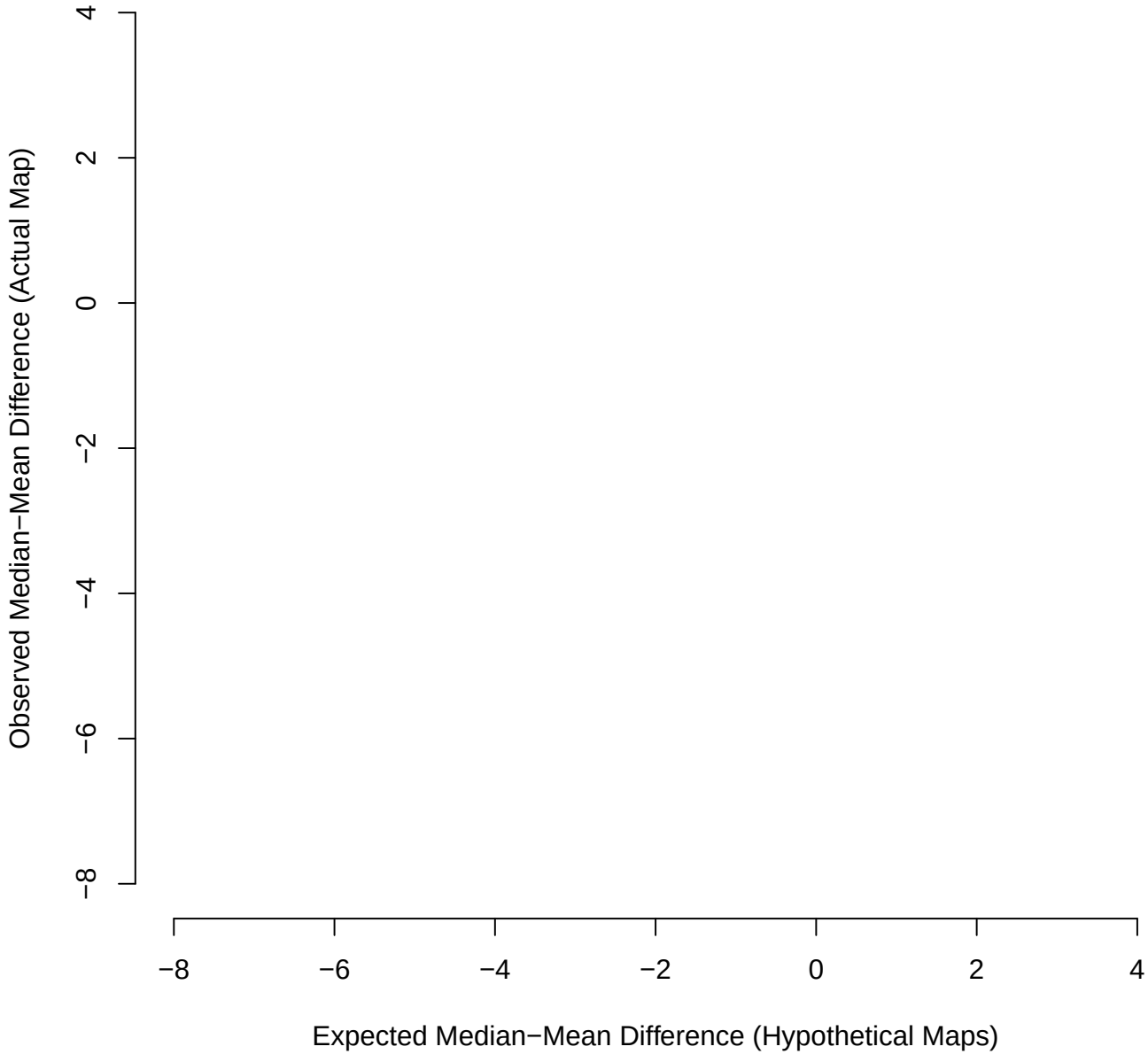

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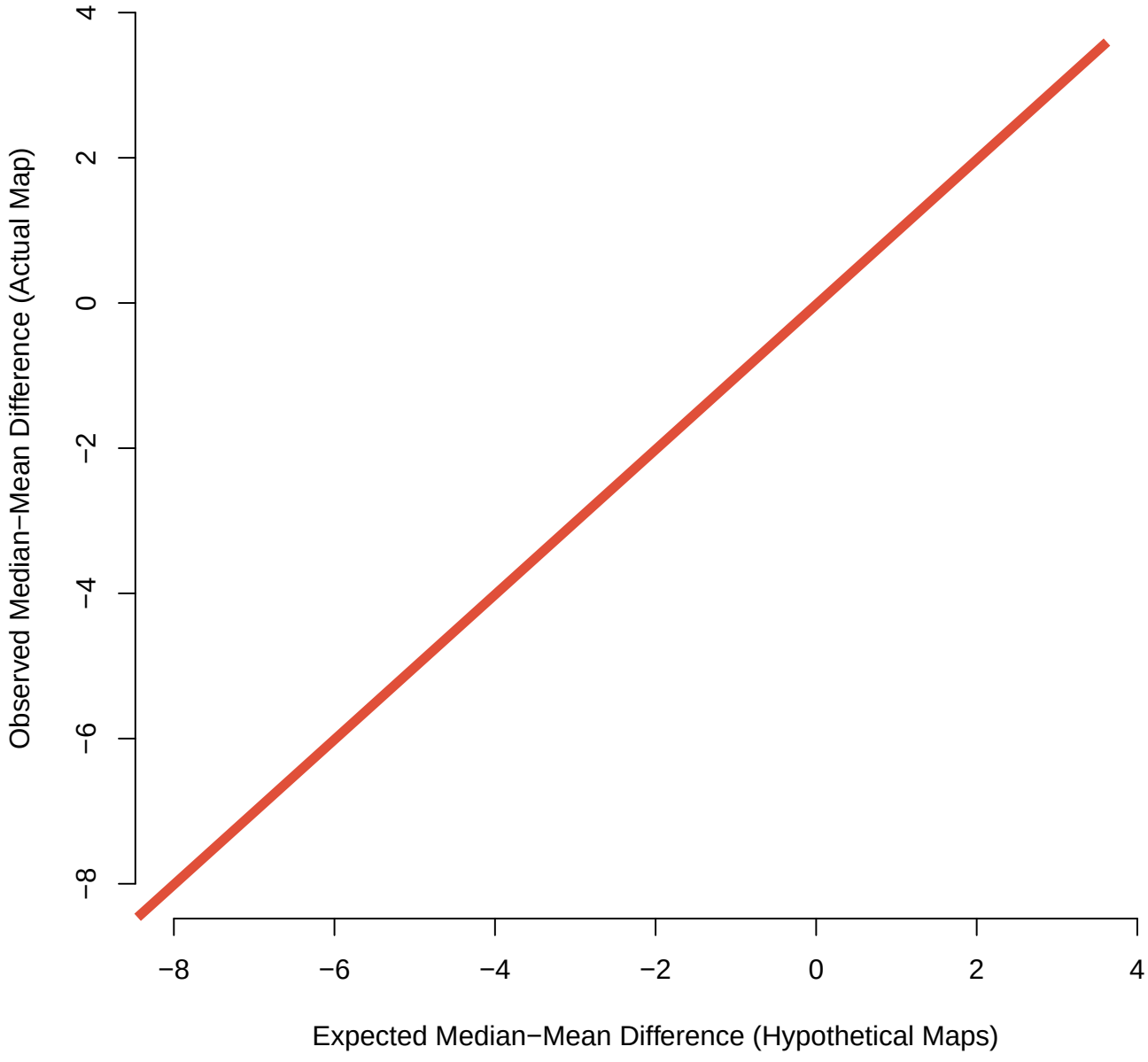

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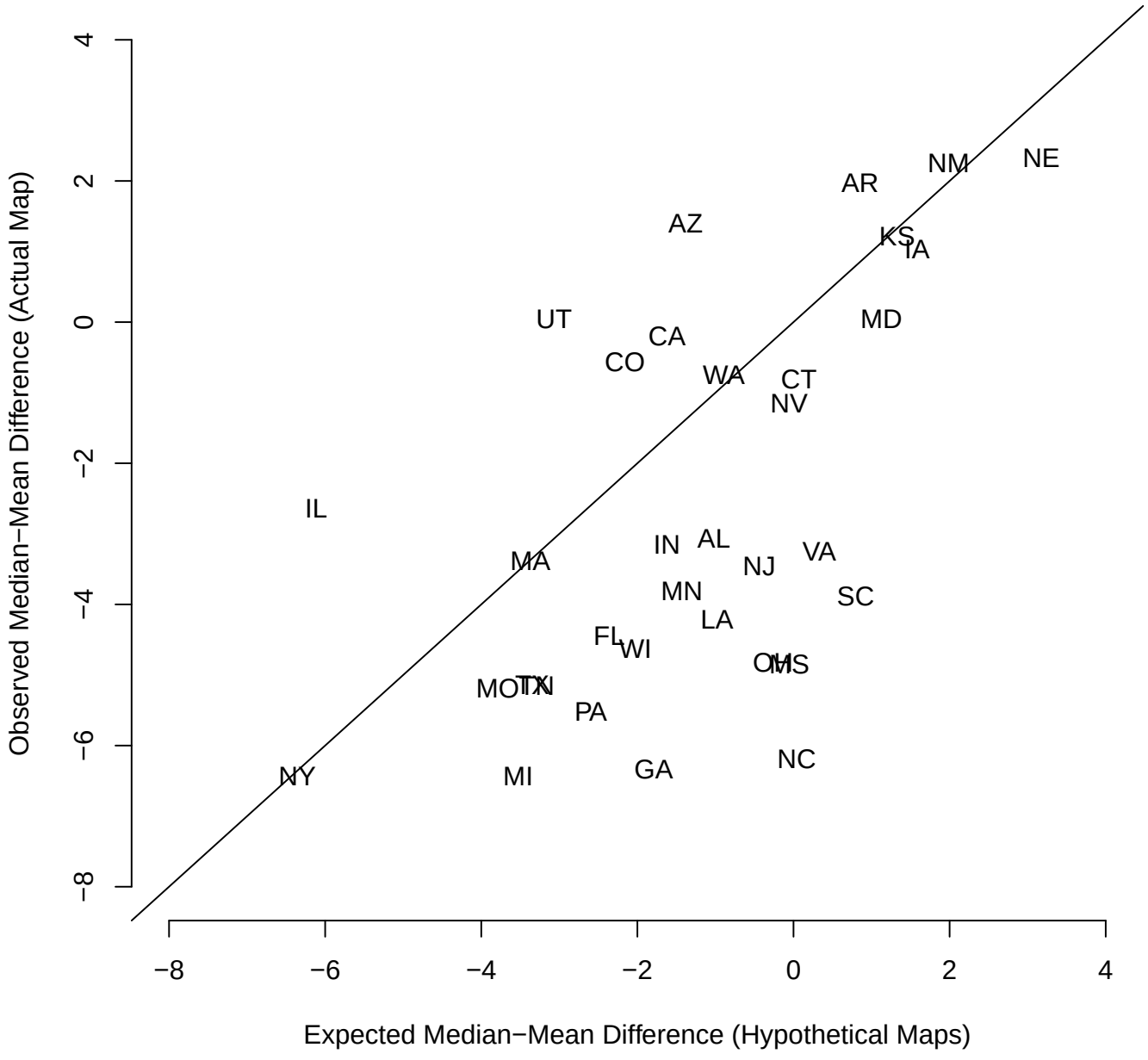

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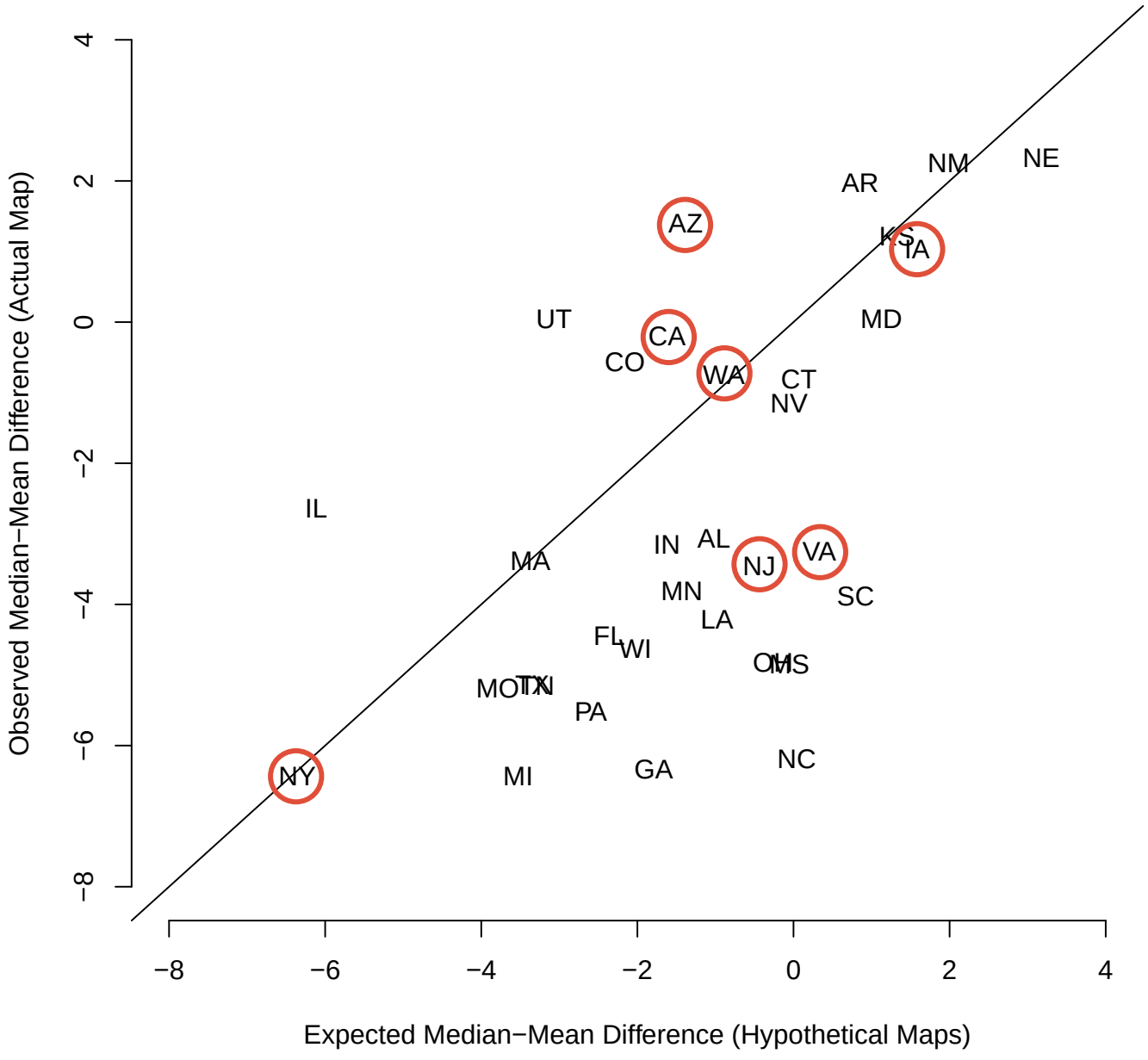

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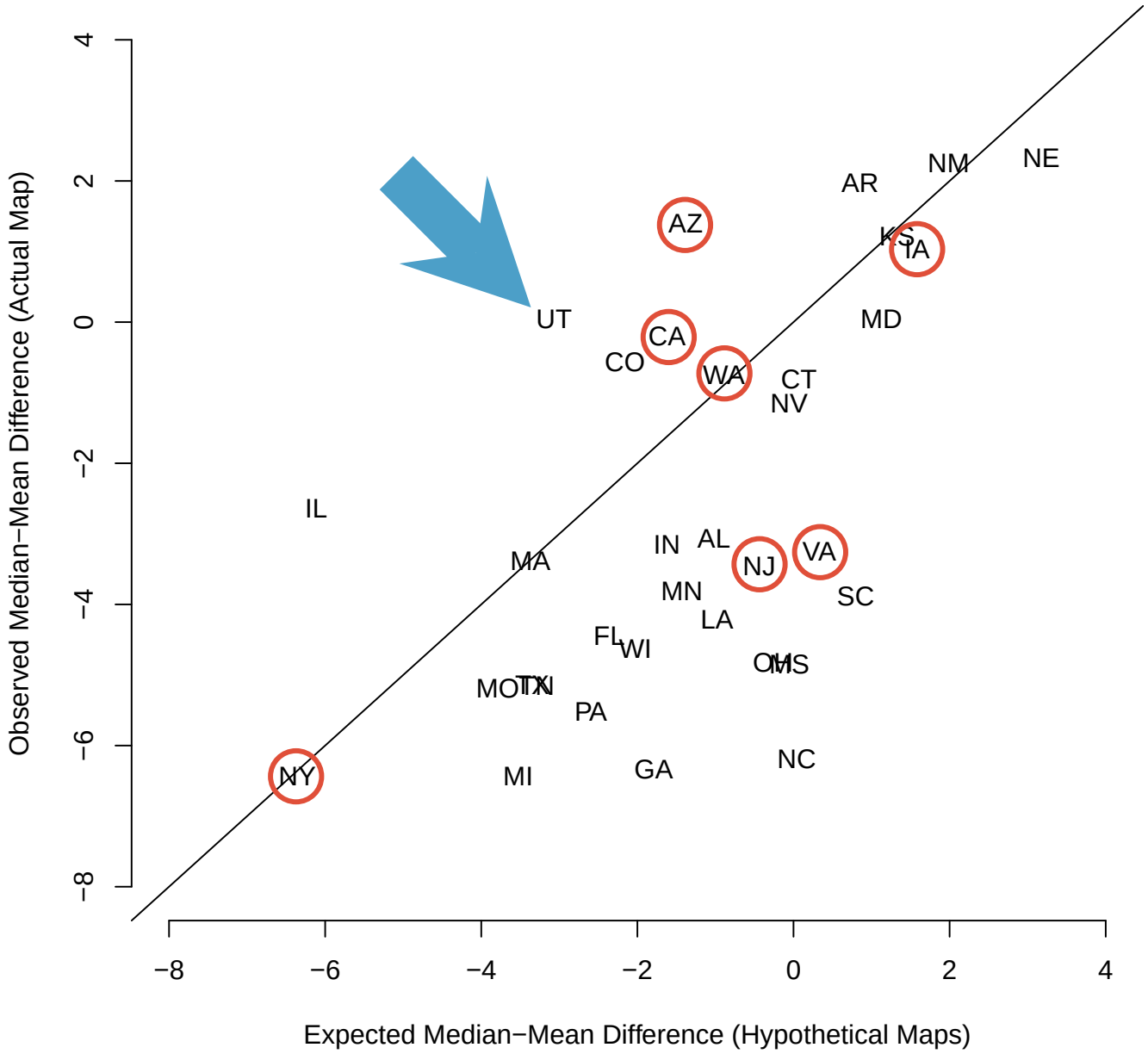

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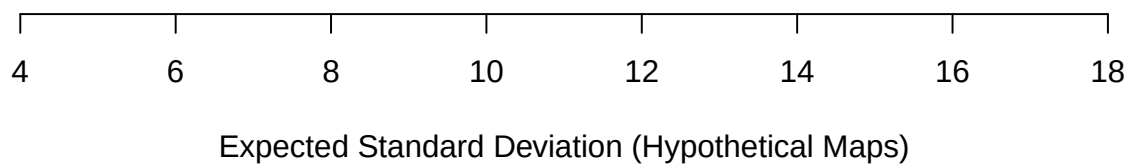

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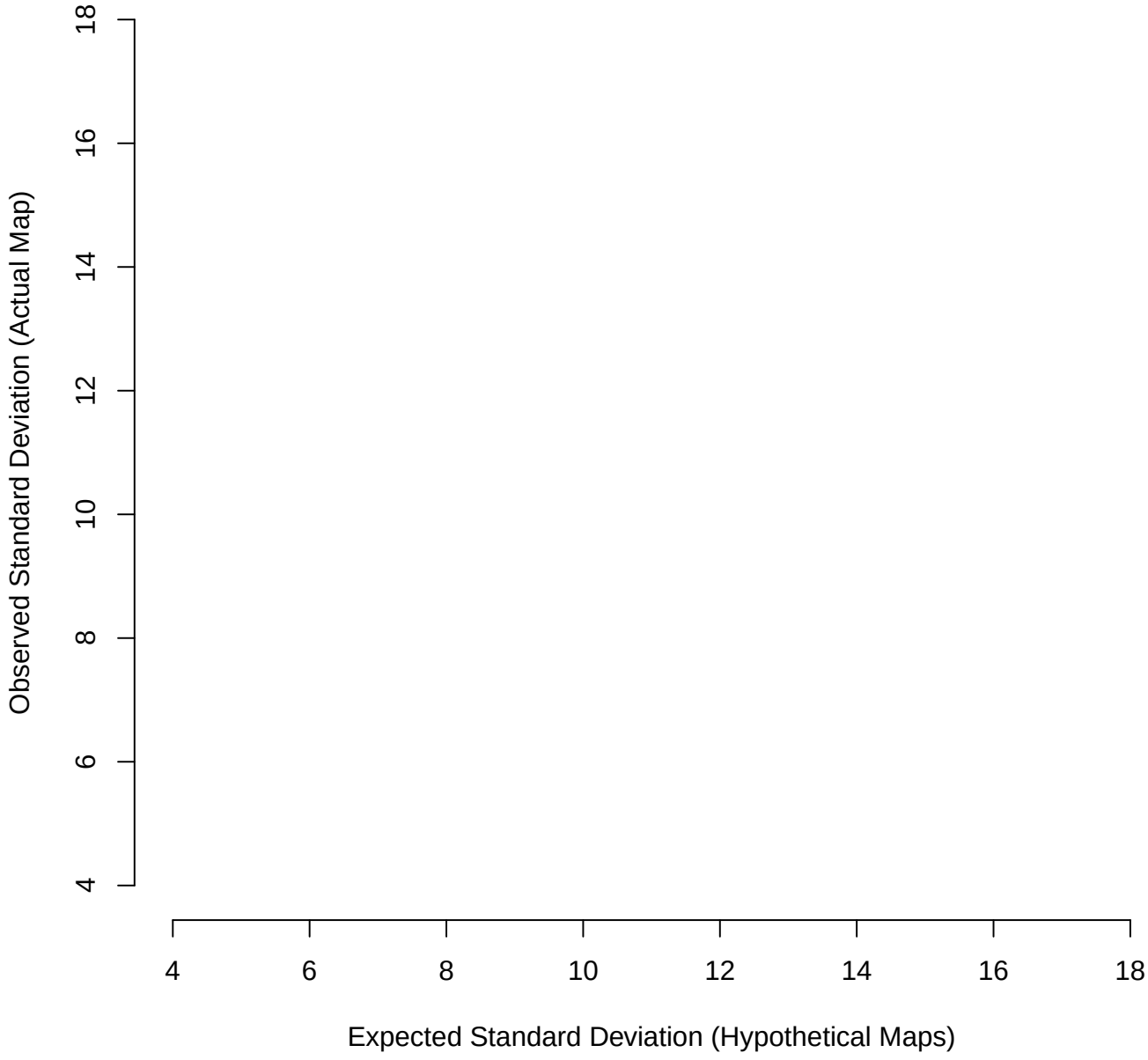

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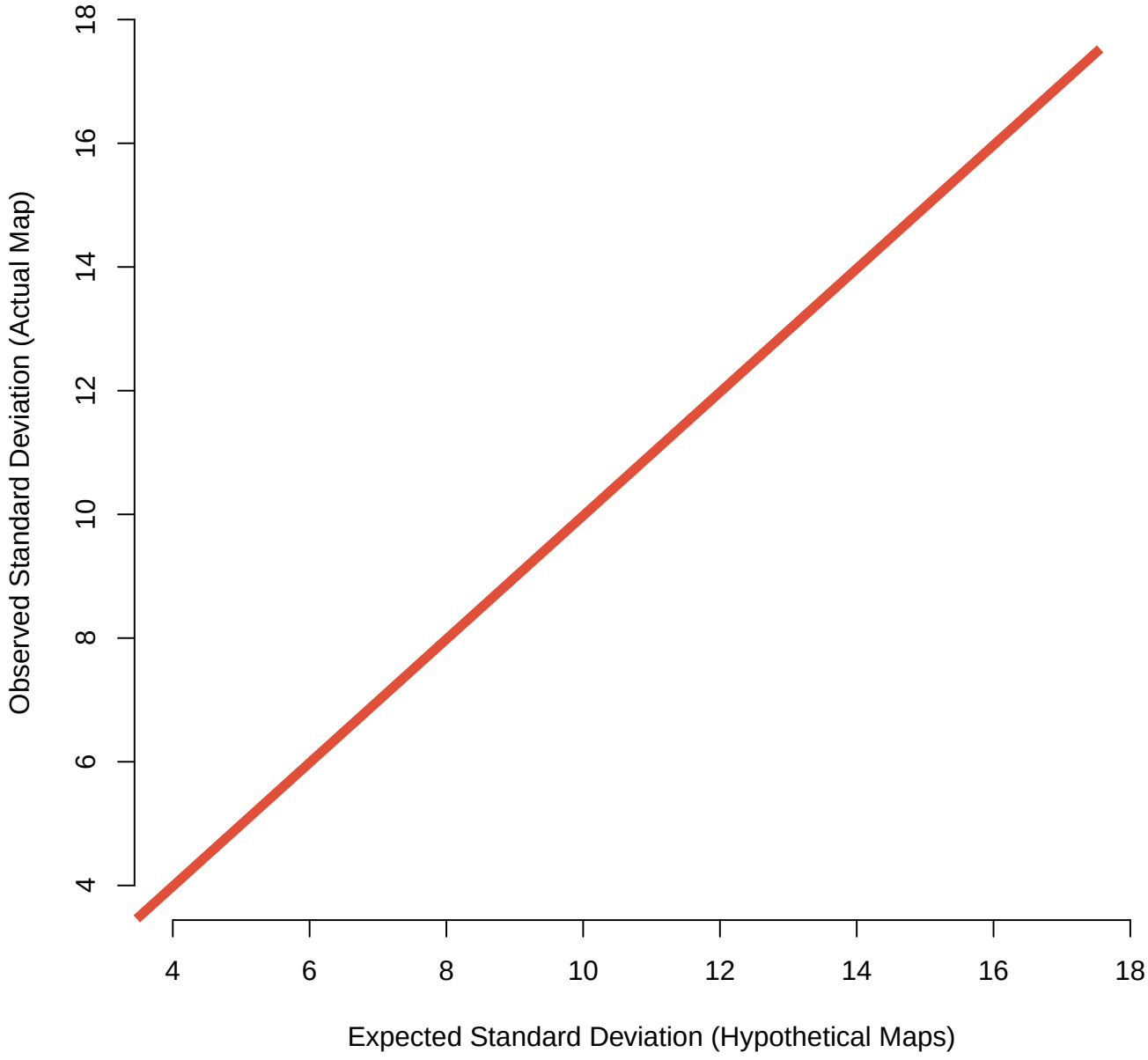

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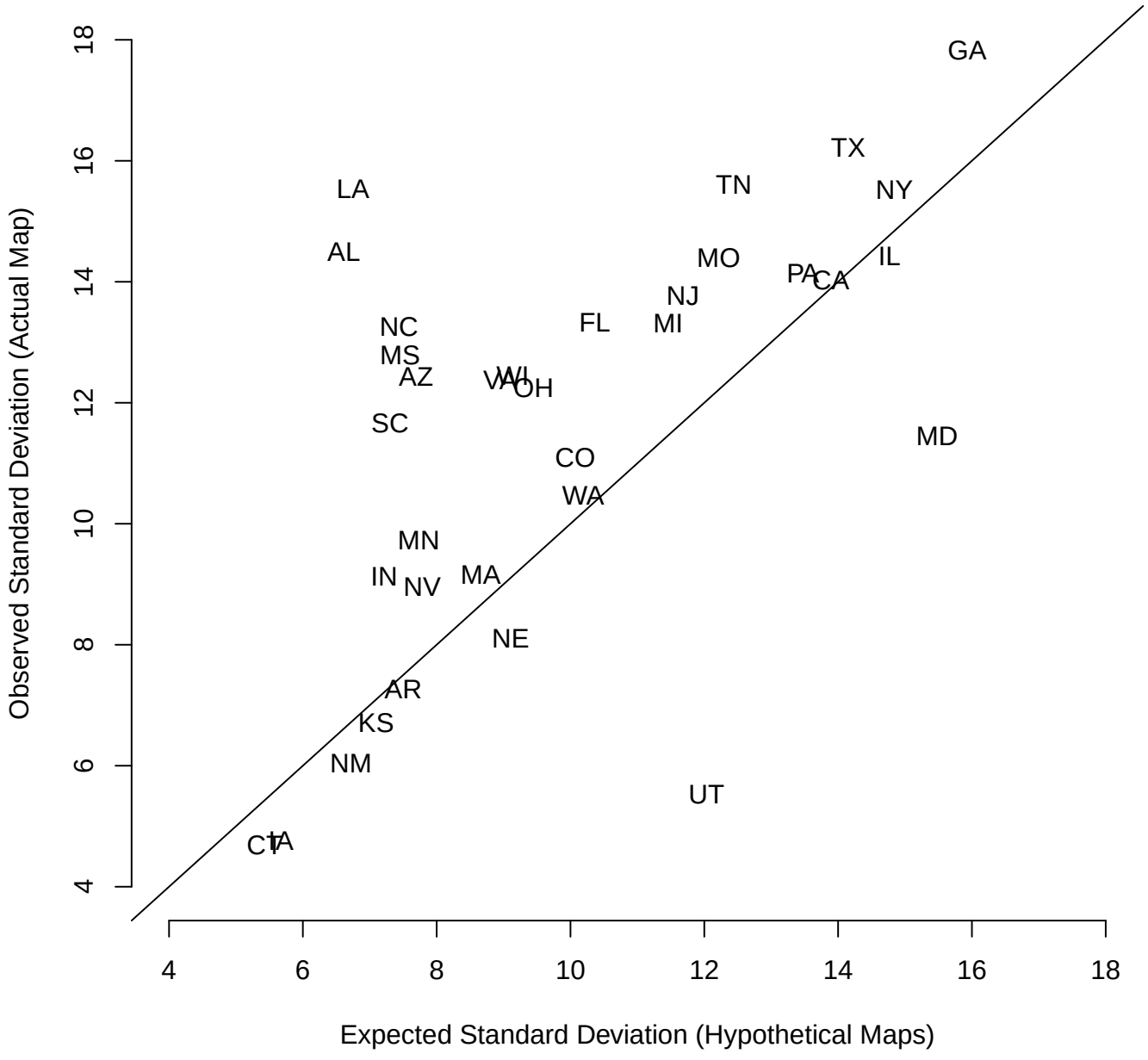

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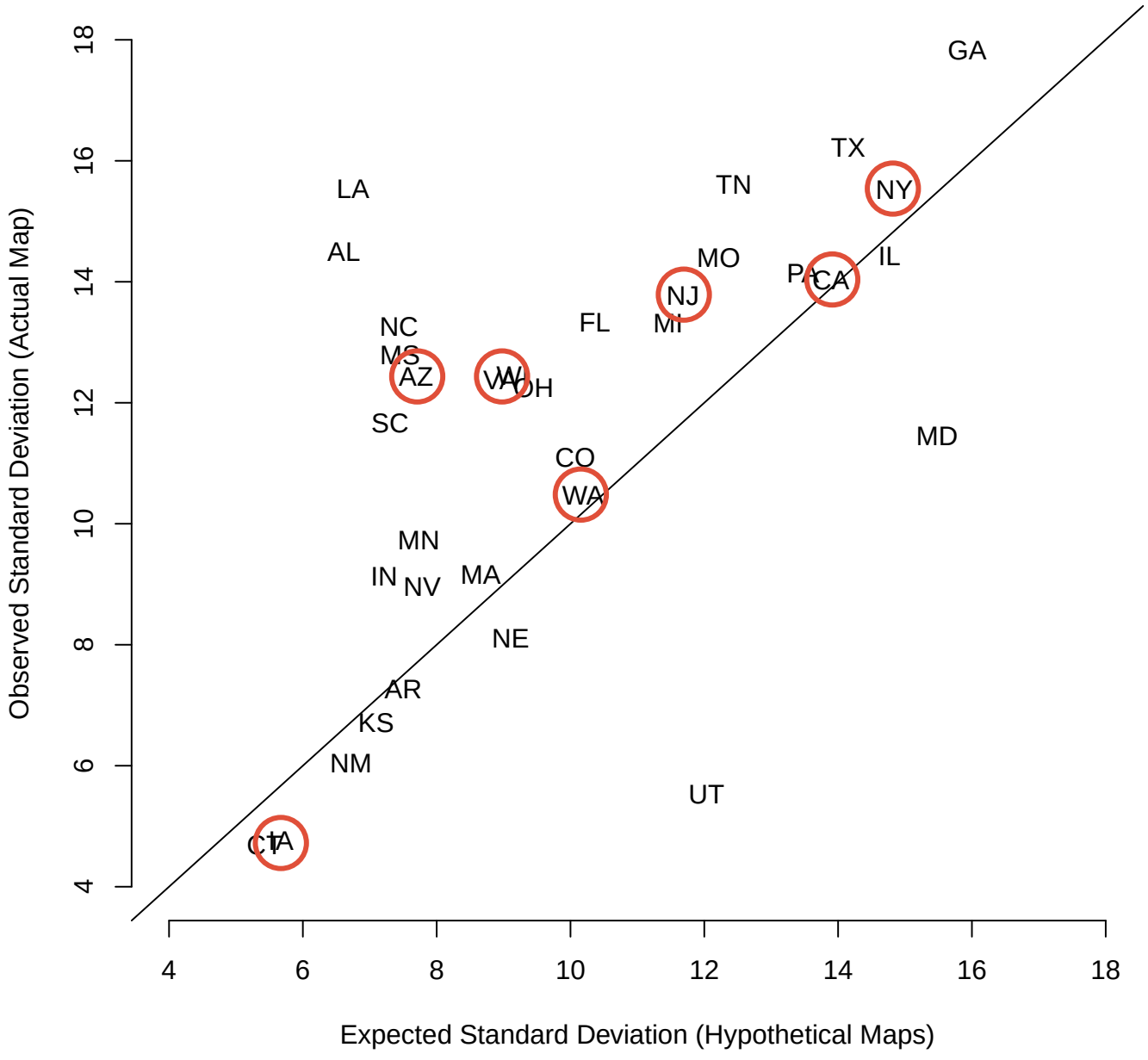

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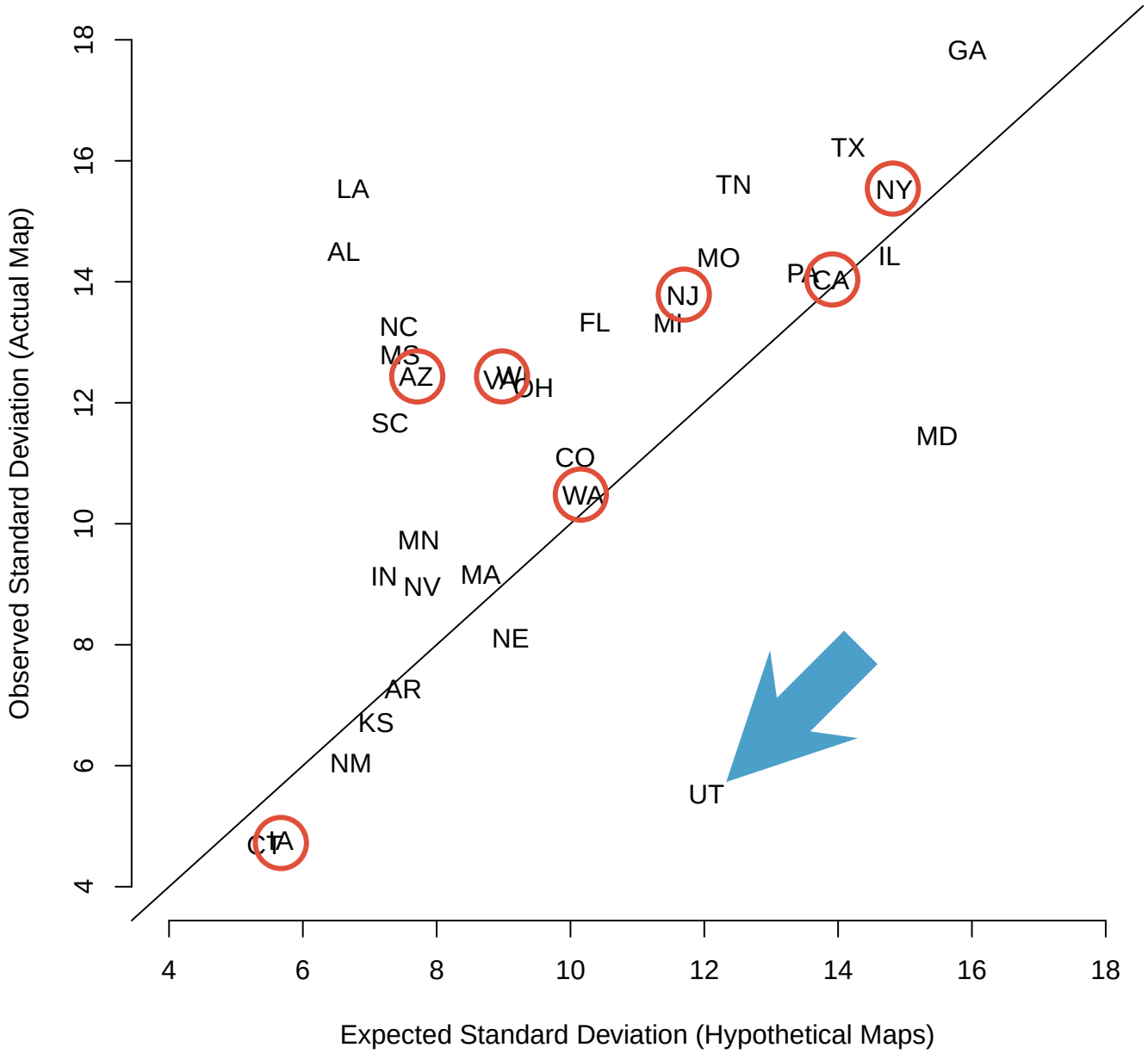

# Thank You

# A Neutral Algorithm for Redistricting

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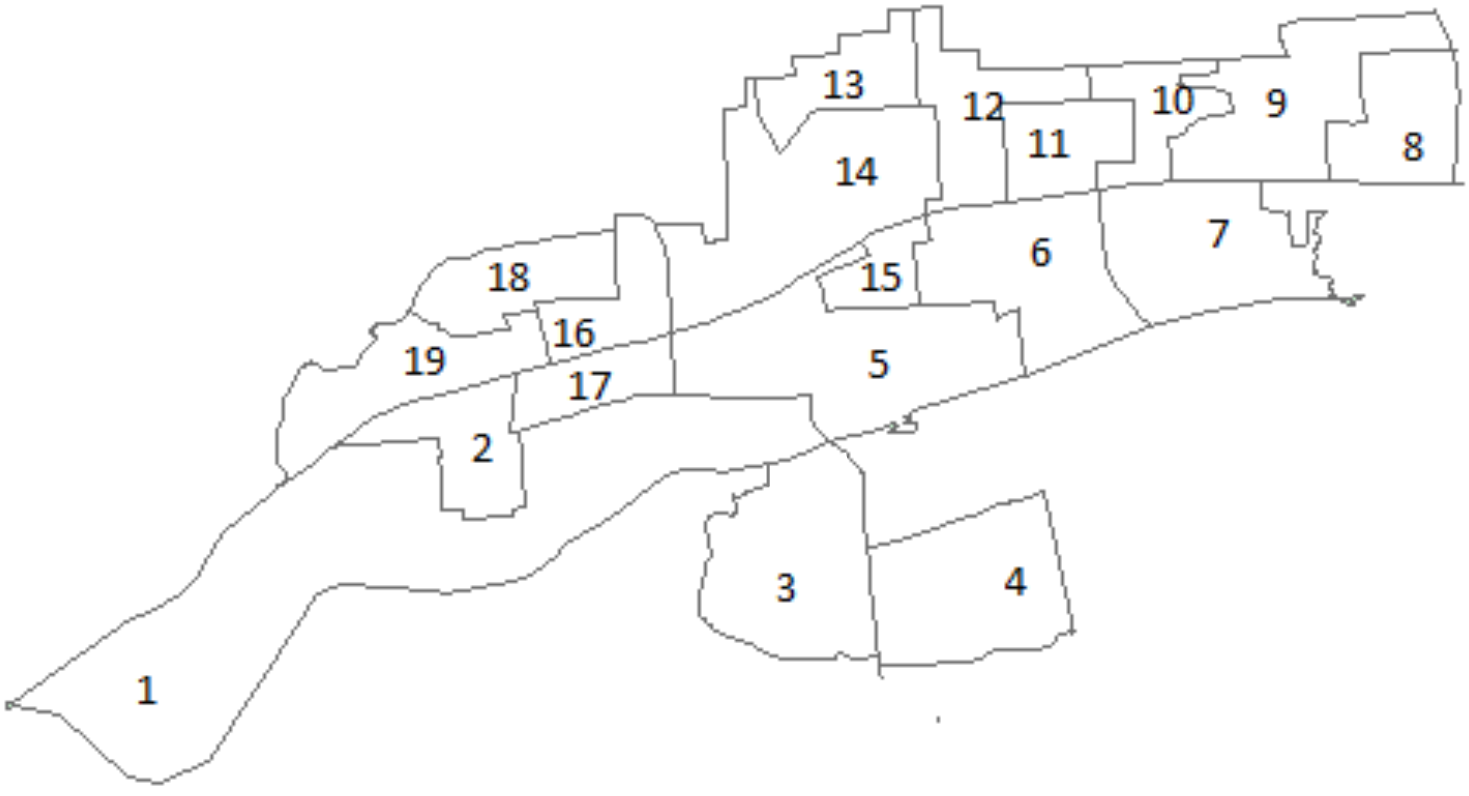

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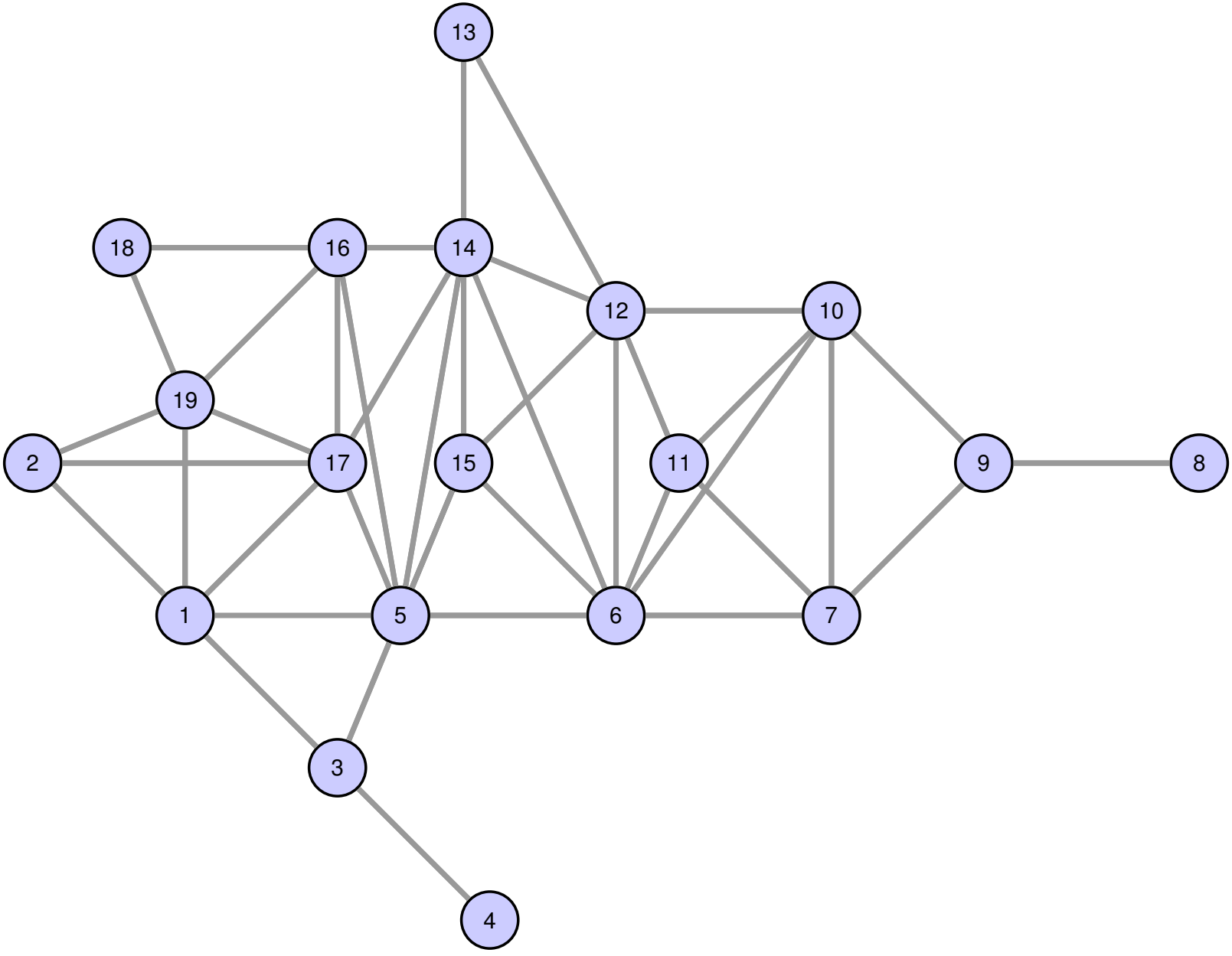

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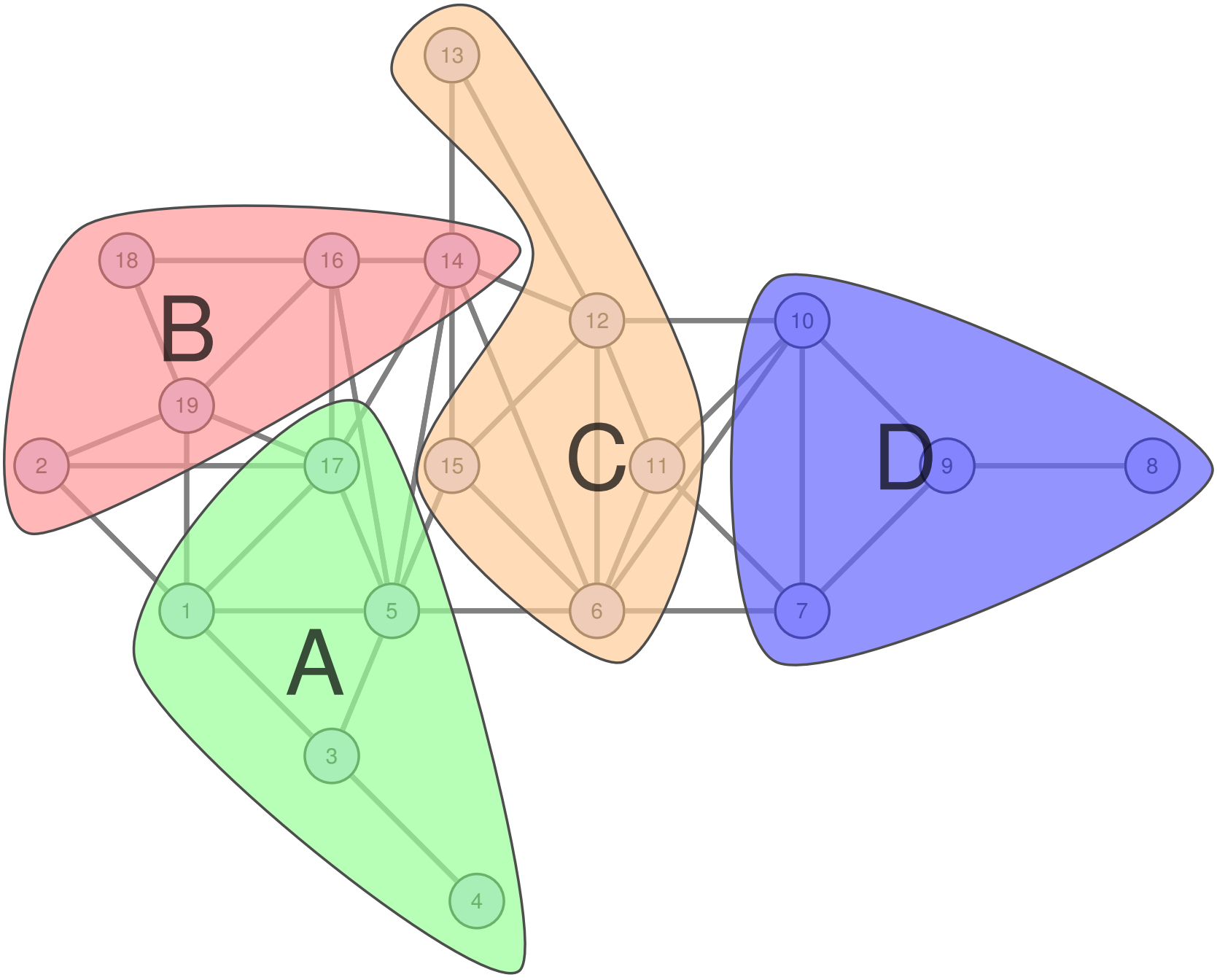

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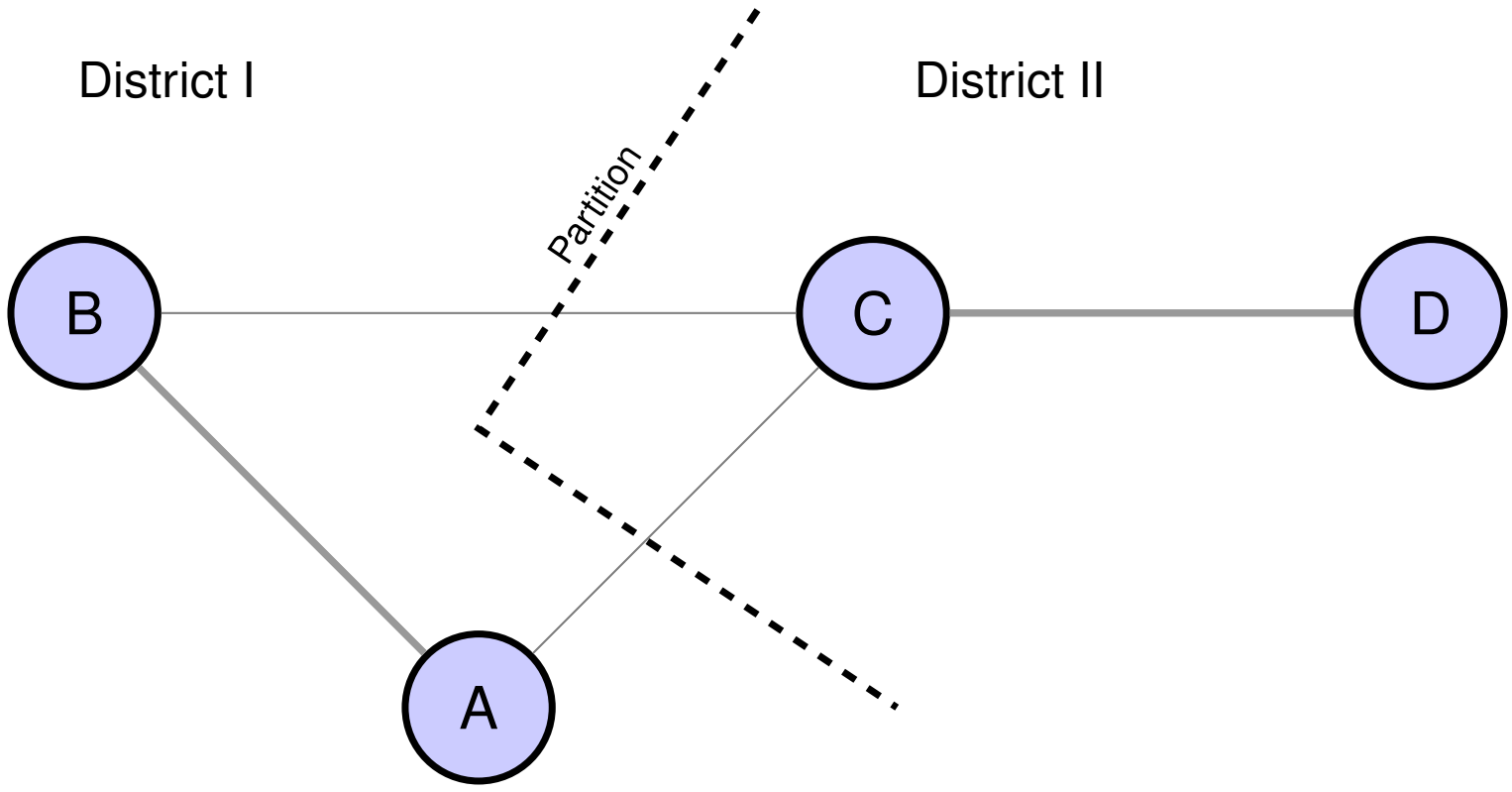

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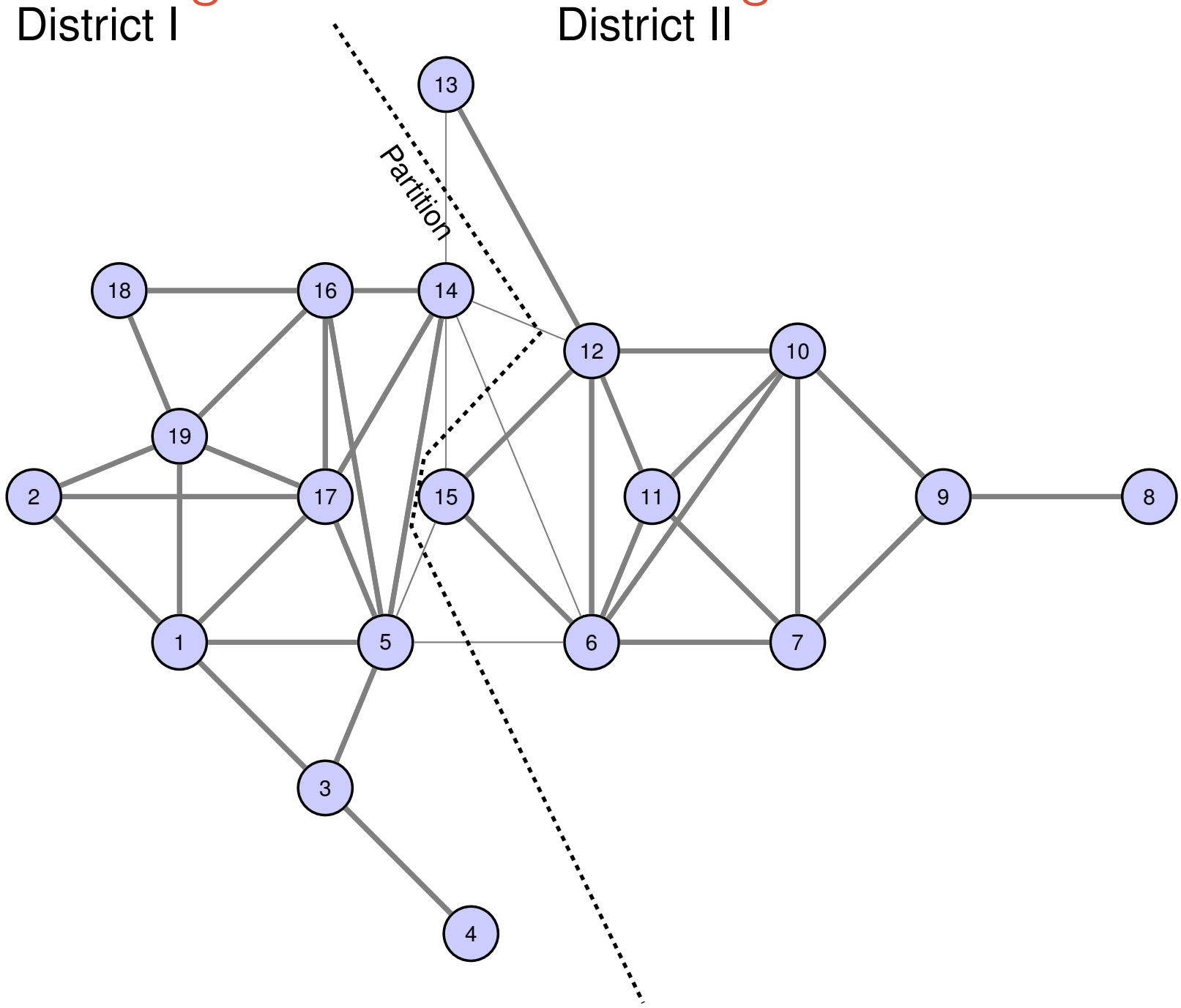
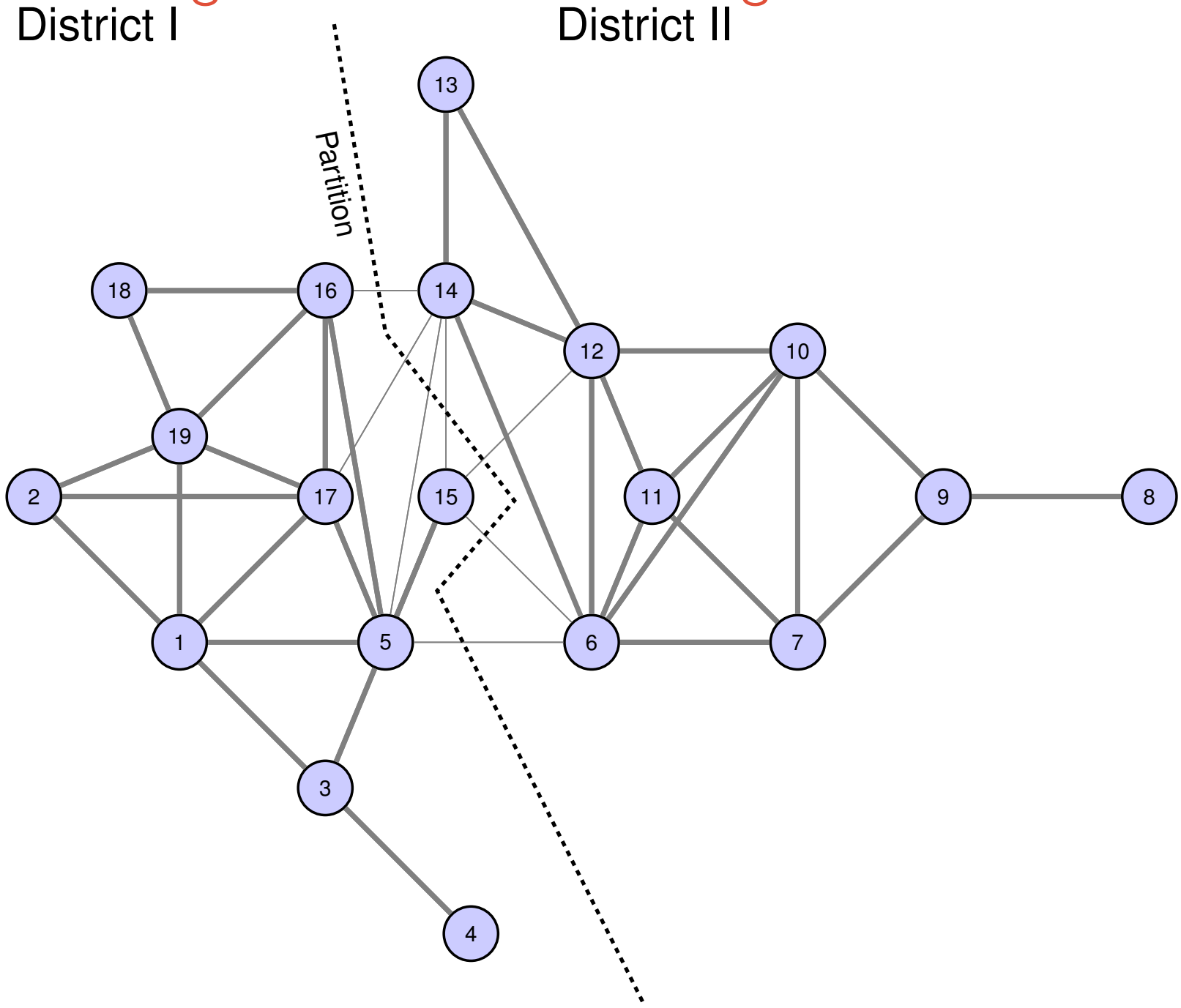
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