

# GIS for Elections and Redistricting: Making the Two Ends Meet

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MIT

NCSL Forum  
December 10, 2019



FOX

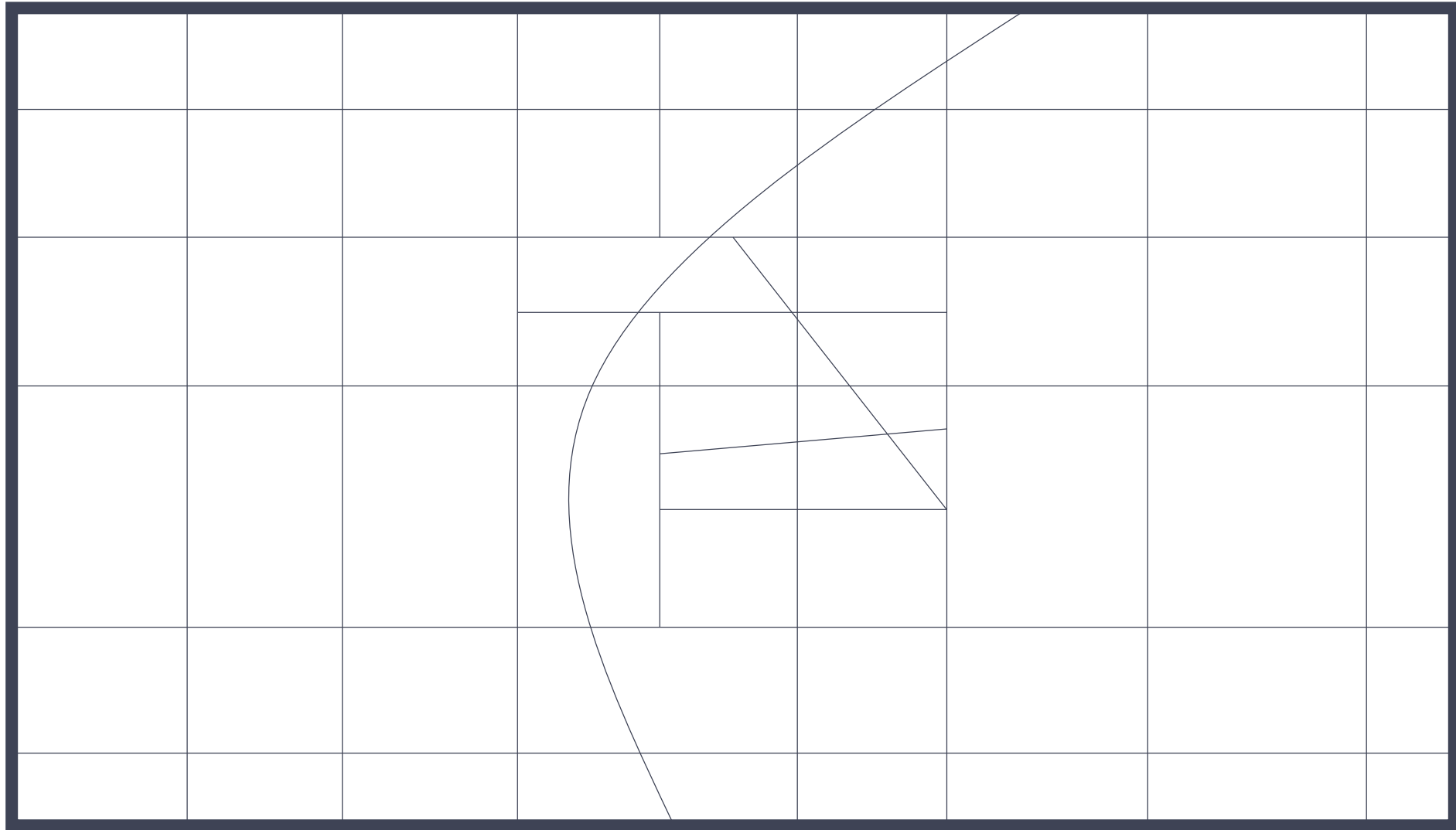
# The Myth of the Redistricter and the Election Administrator



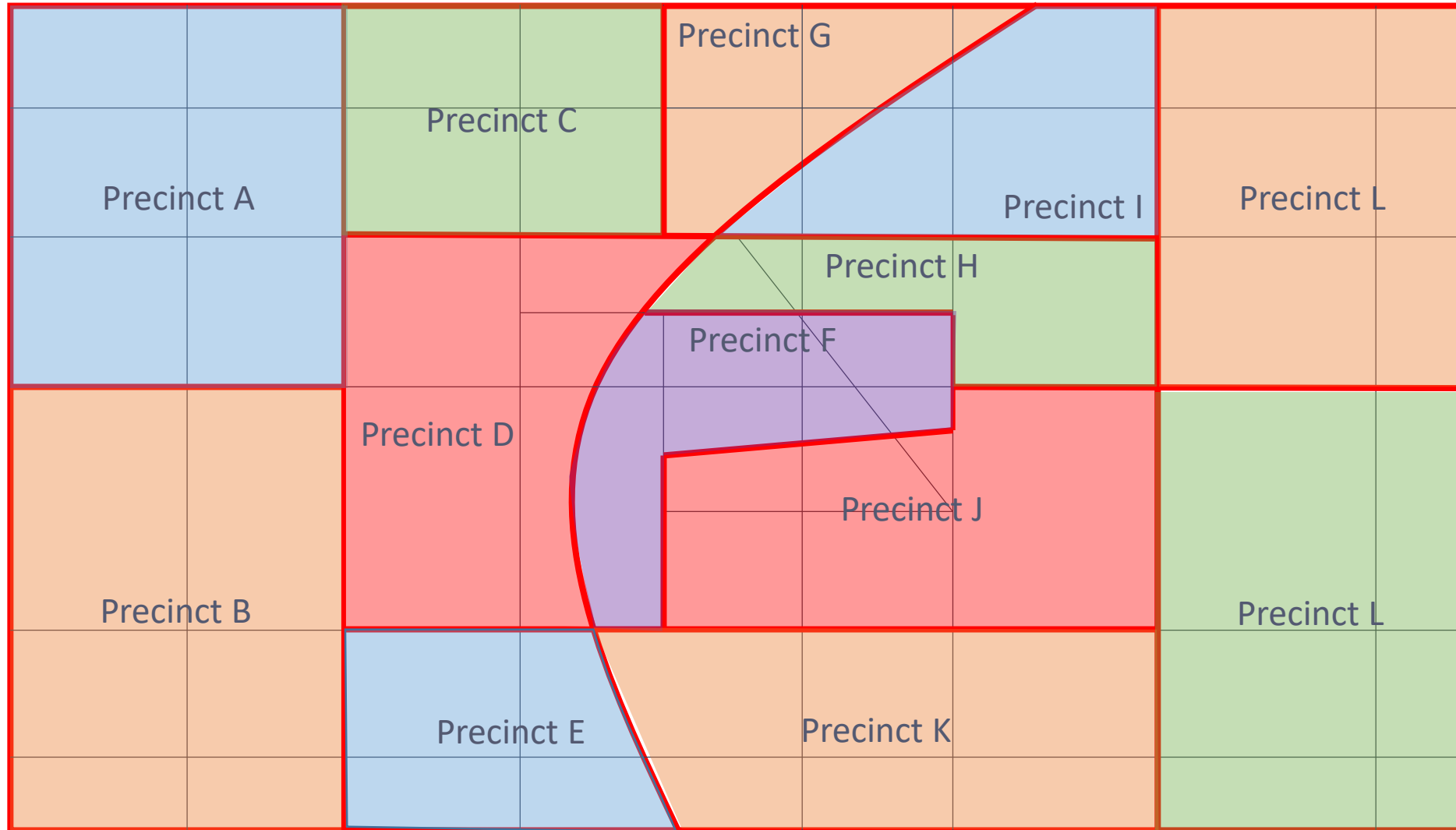
# The Redistricter(s)



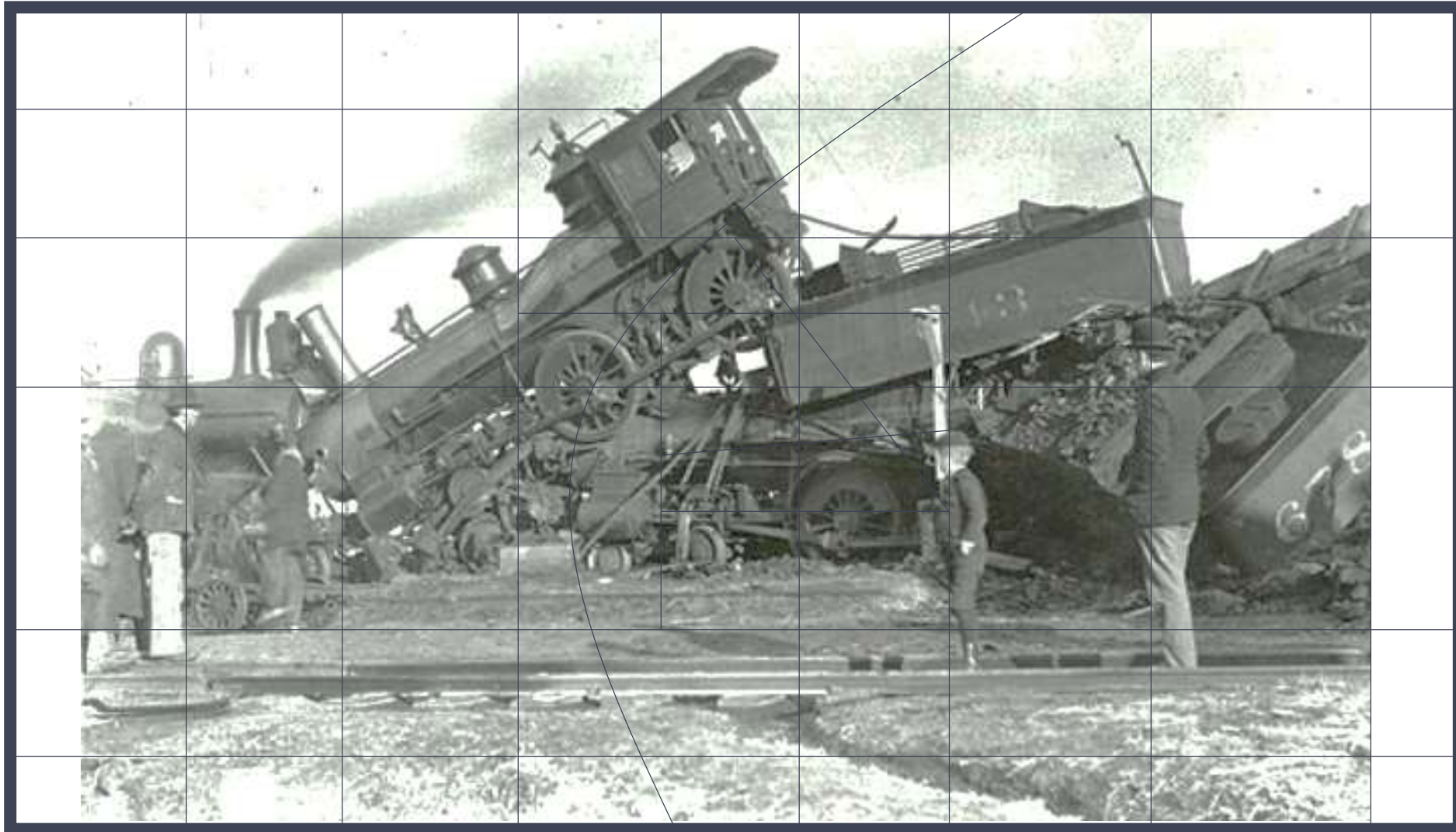
# Census Blocks



# Voting Tabulation Districts (Precincts)



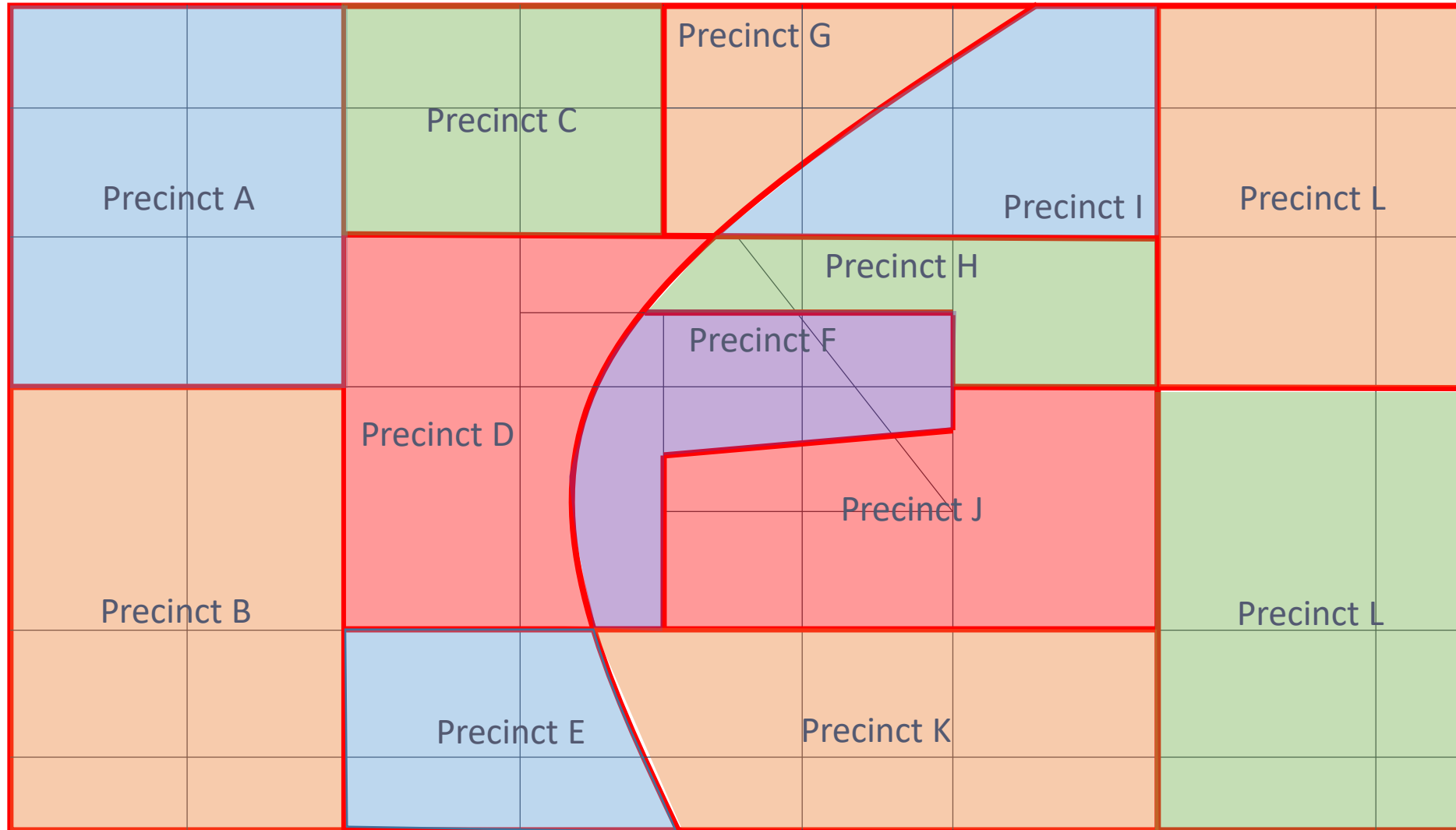
# Voting Tabulation Districts (Precincts)\*



\*Avoid this

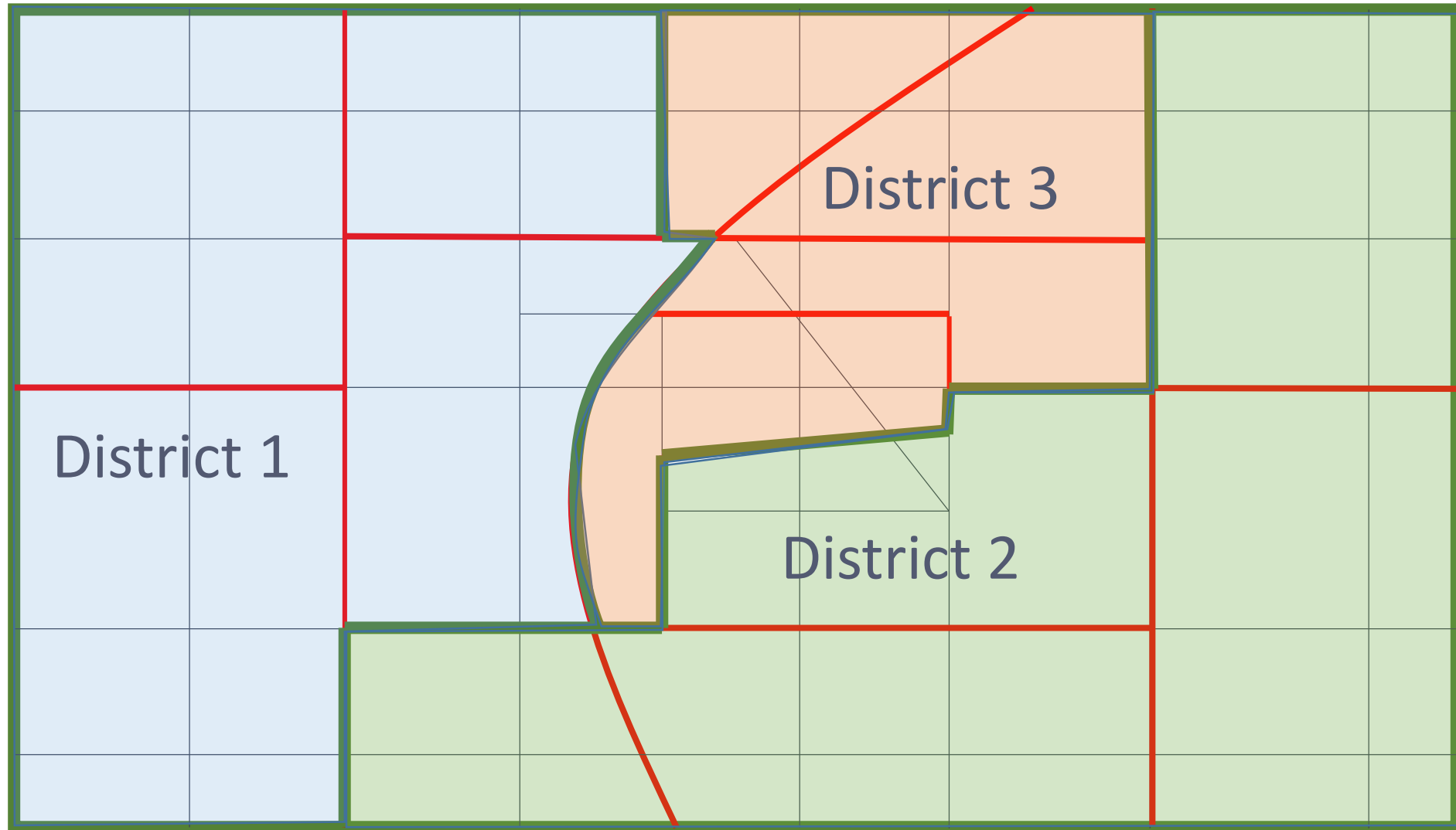


# Voting Tabulation Districts (Precincts)

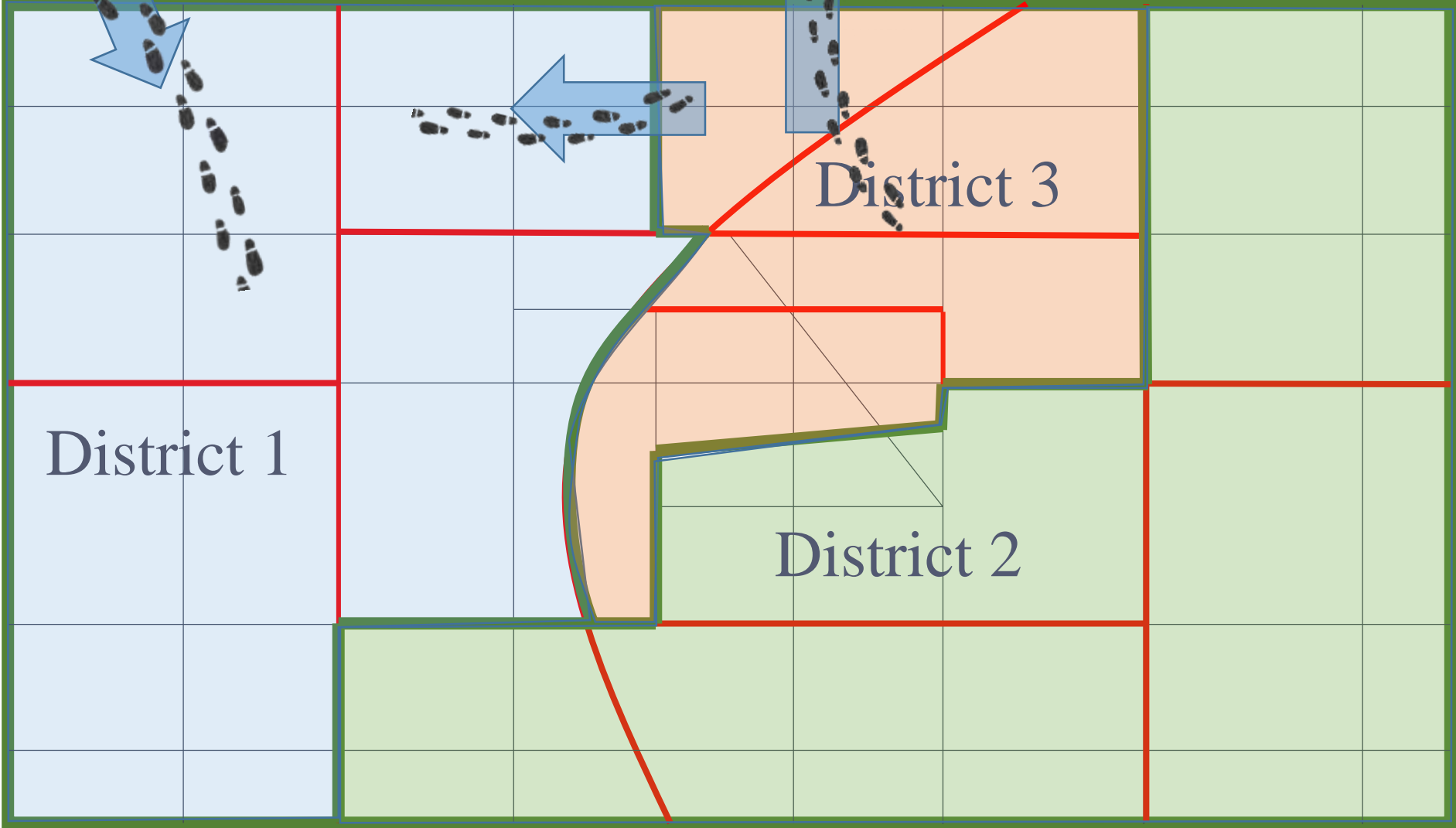




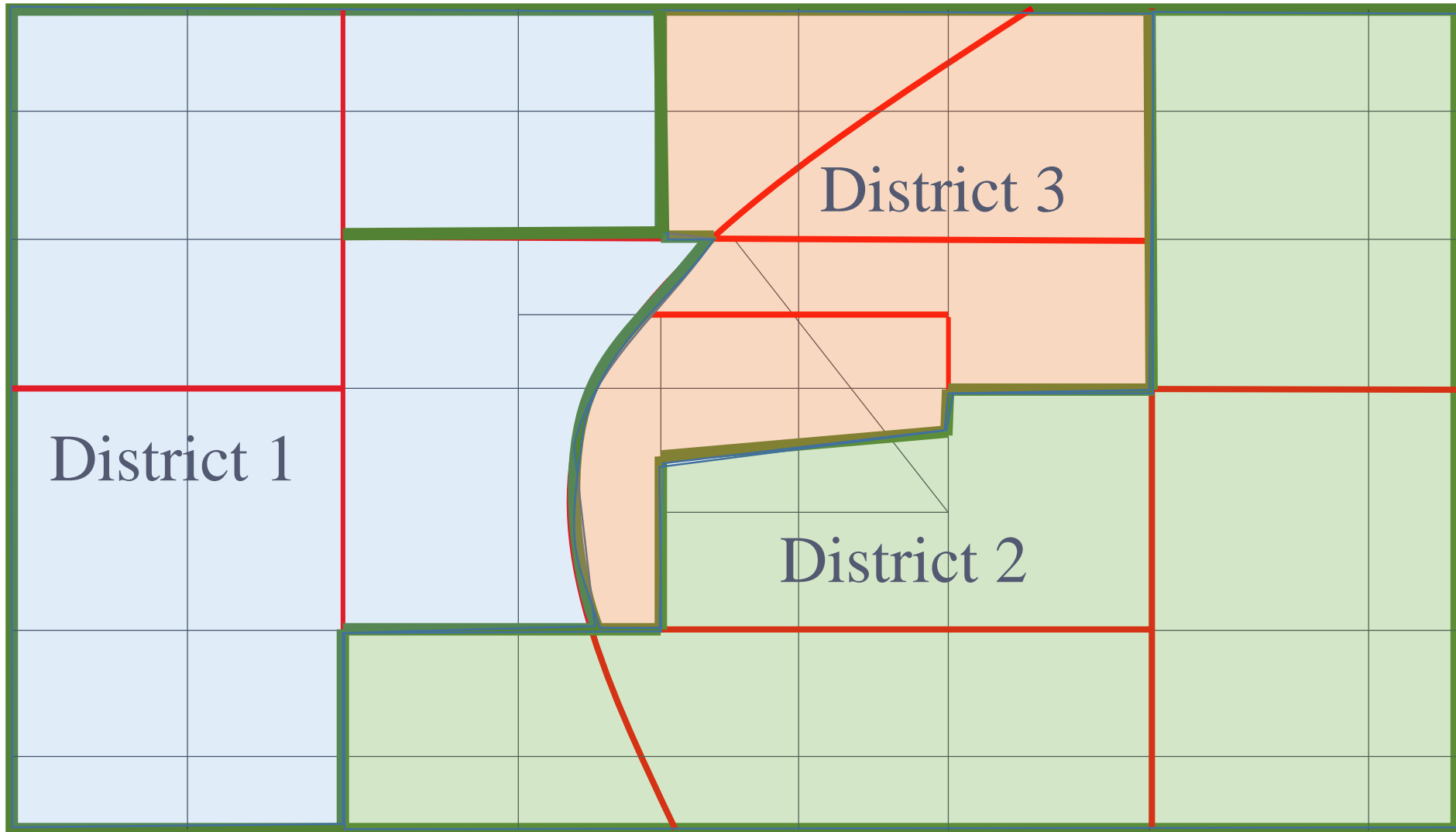
# Legislative Districts (Existing)



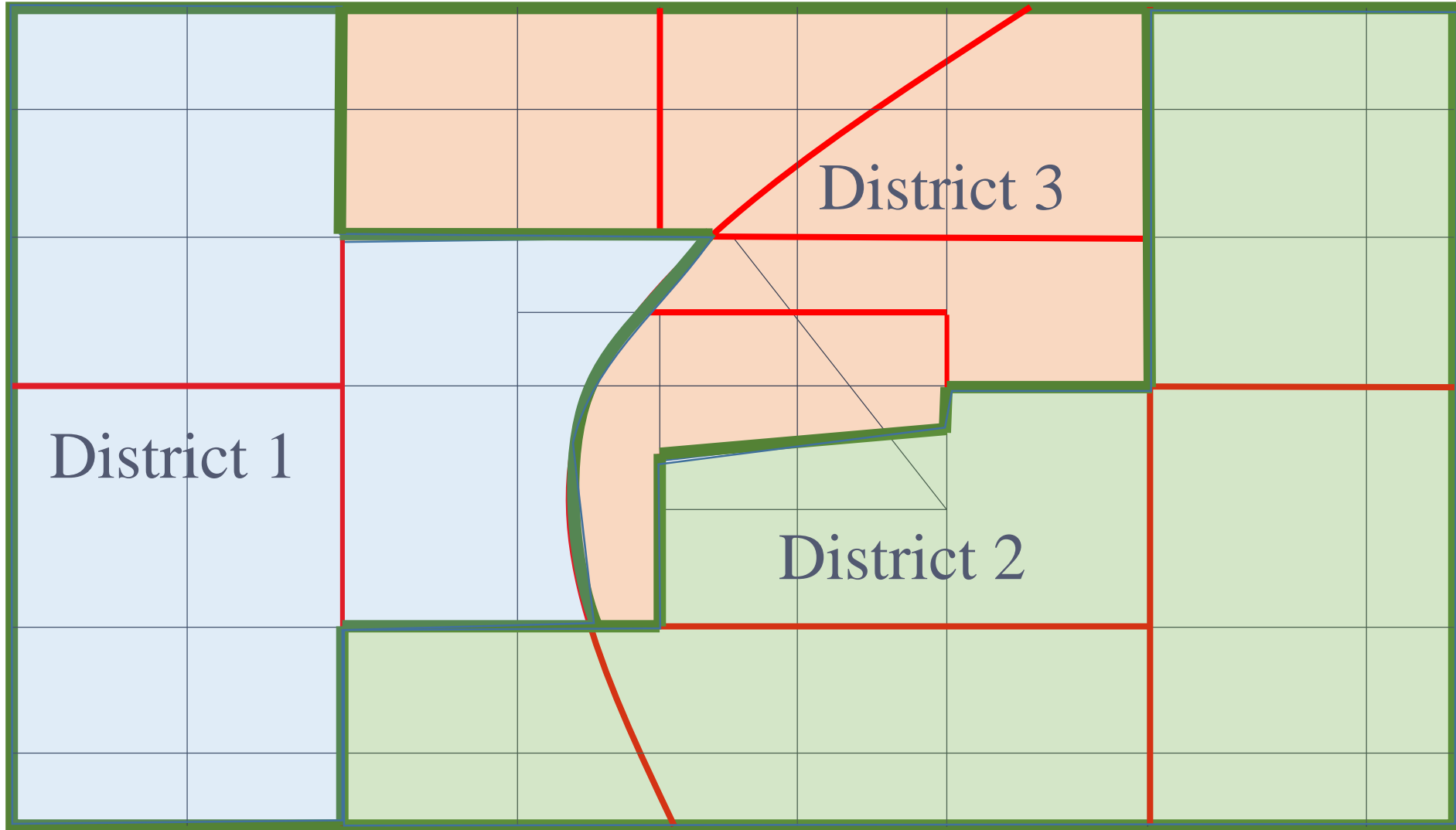
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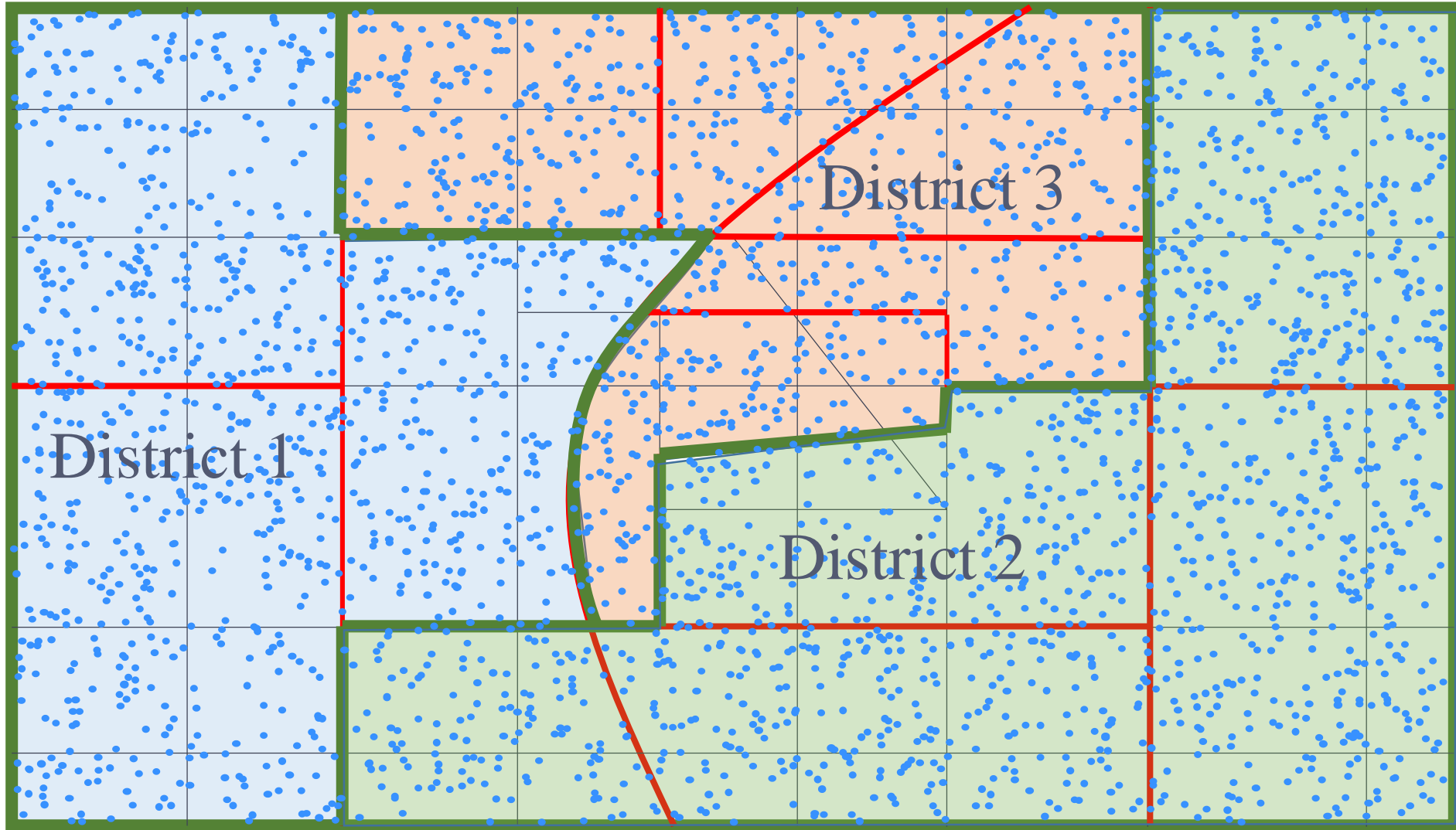
# Legislative Districts (II)



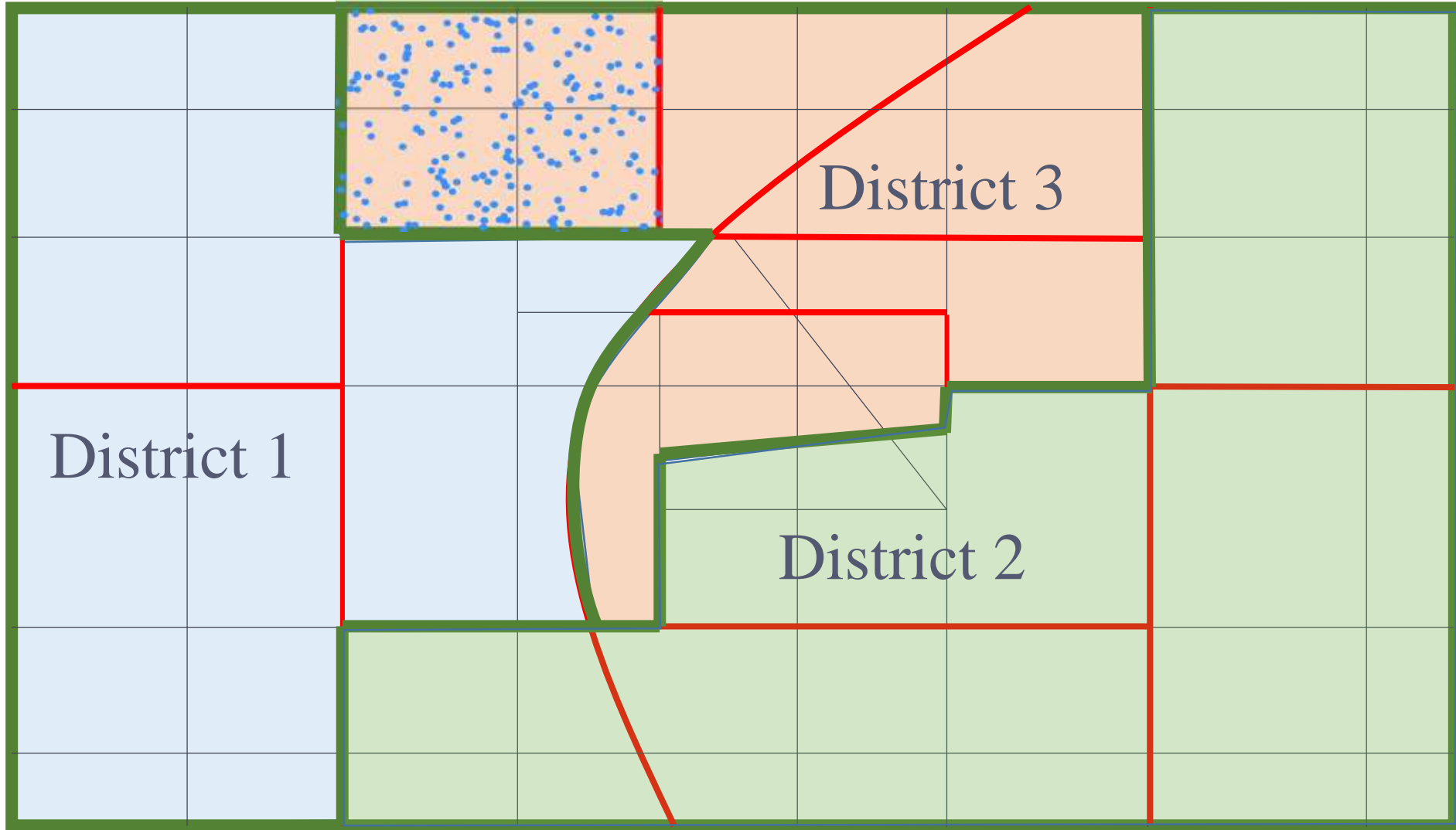
# Legislative Districts (New)



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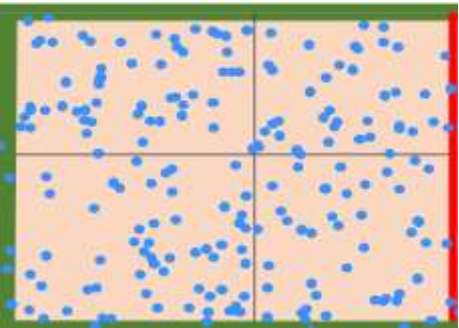


# The Election Administrator



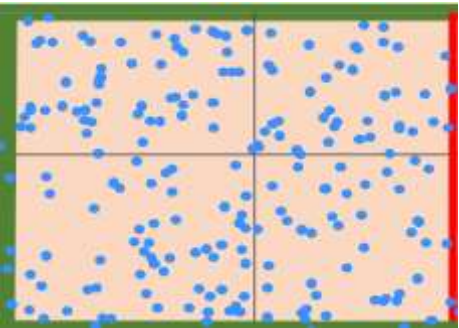


## Precinct C



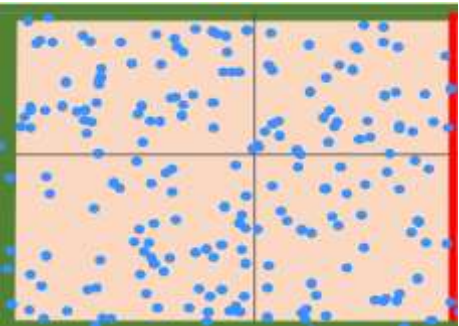
ID	Lastname	Firstname	Street	Number	Precinct	Old District	New District
3931154	Smith	John	7th Avenue	1858	C	1	3
4420947	Adams	Samuel	12th Avenue	1659	C	1	3
3342913	Adams	Martha	Elm Street	453	C	1	3
4301660	Rodriguez	Edward	Main Street	1901	C	1	3
4414091	McDonald	Michael	Main Street	1902	G	1	1

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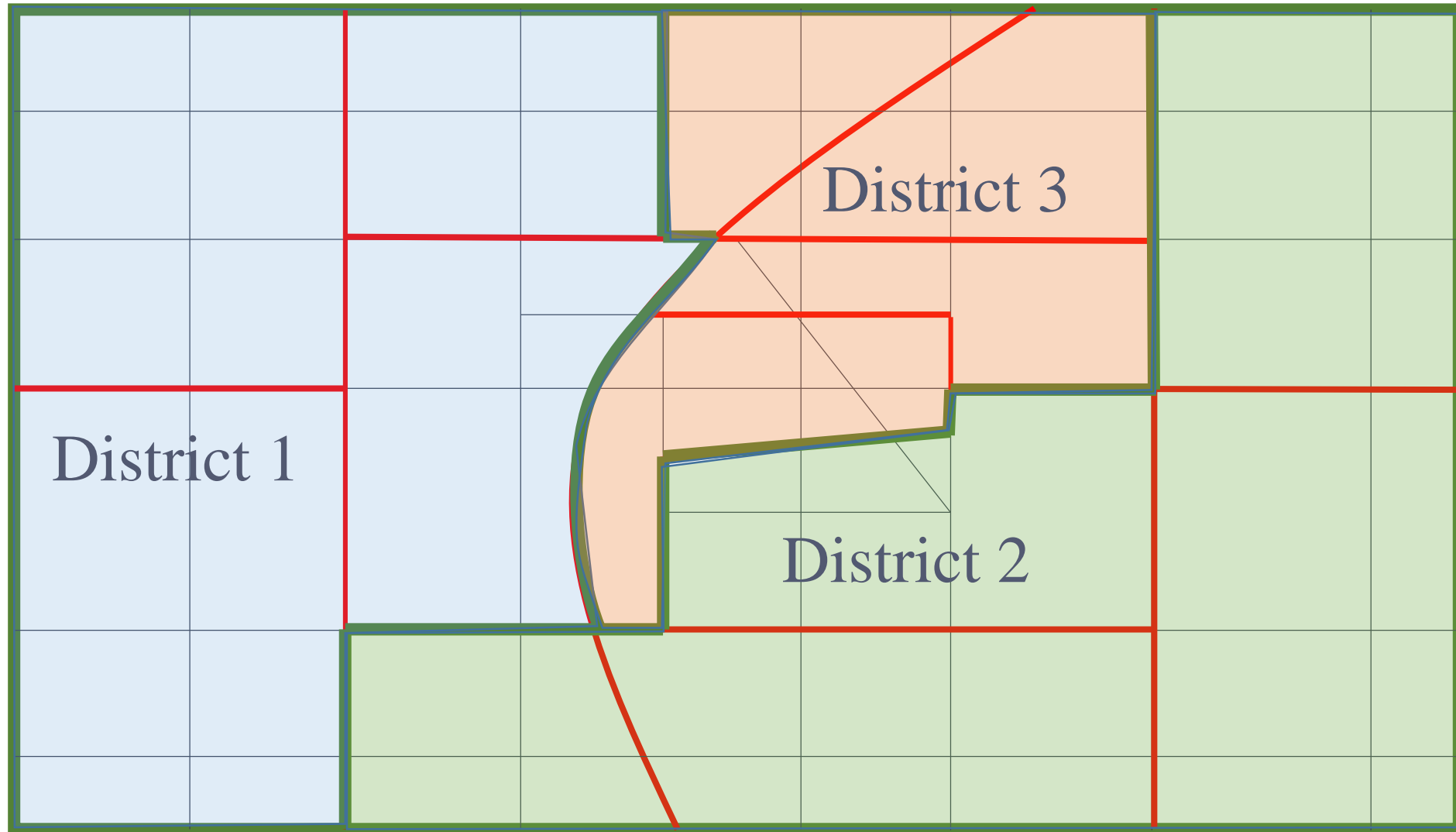


# Why This Is a Feel-Good Story

- + The geographies all lined up.
- + Both the redistricters and administrators had **Geographic Information Systems**

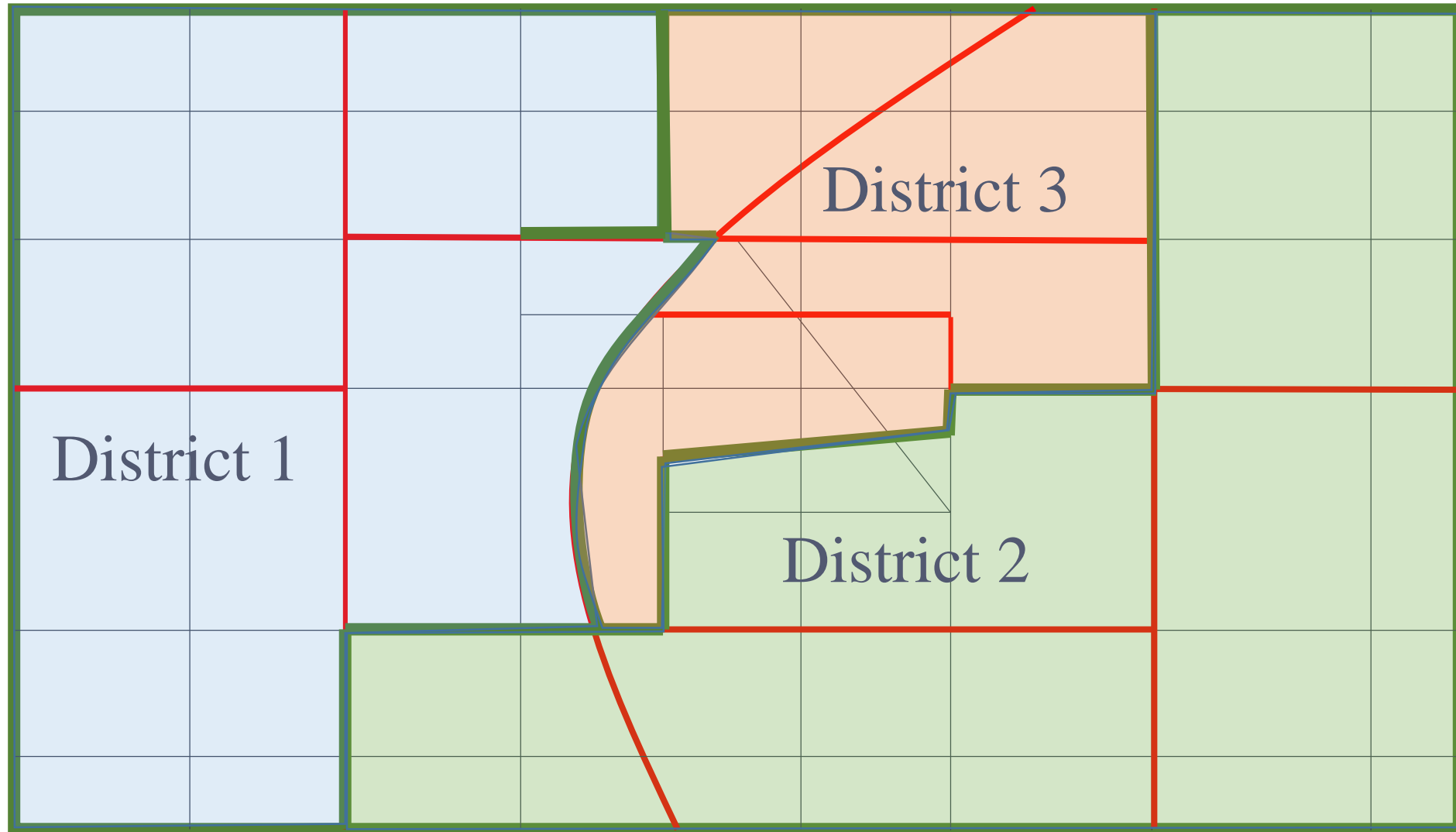
# The Redistricter(s)

# Legislative Districts (Existing)

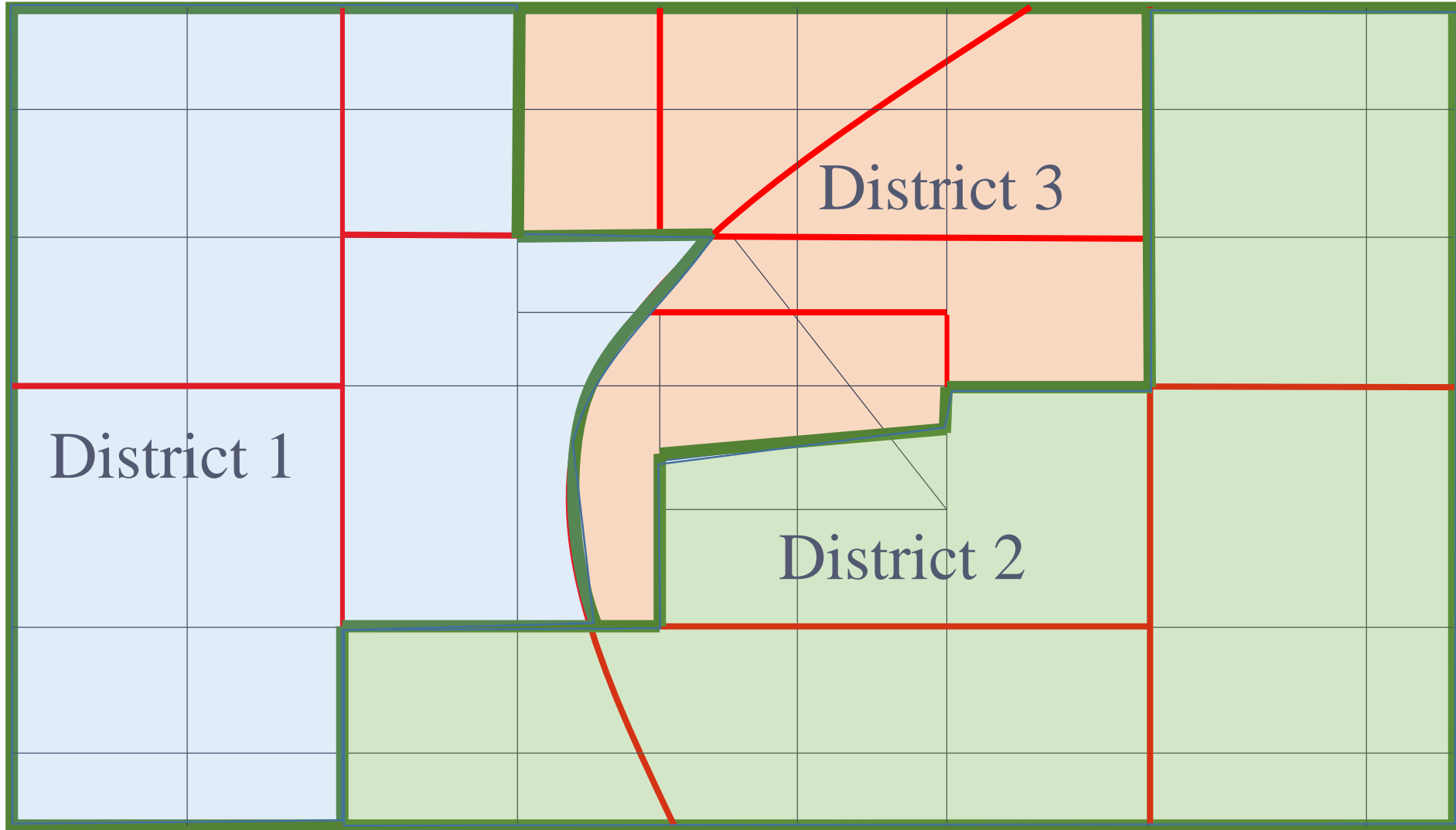




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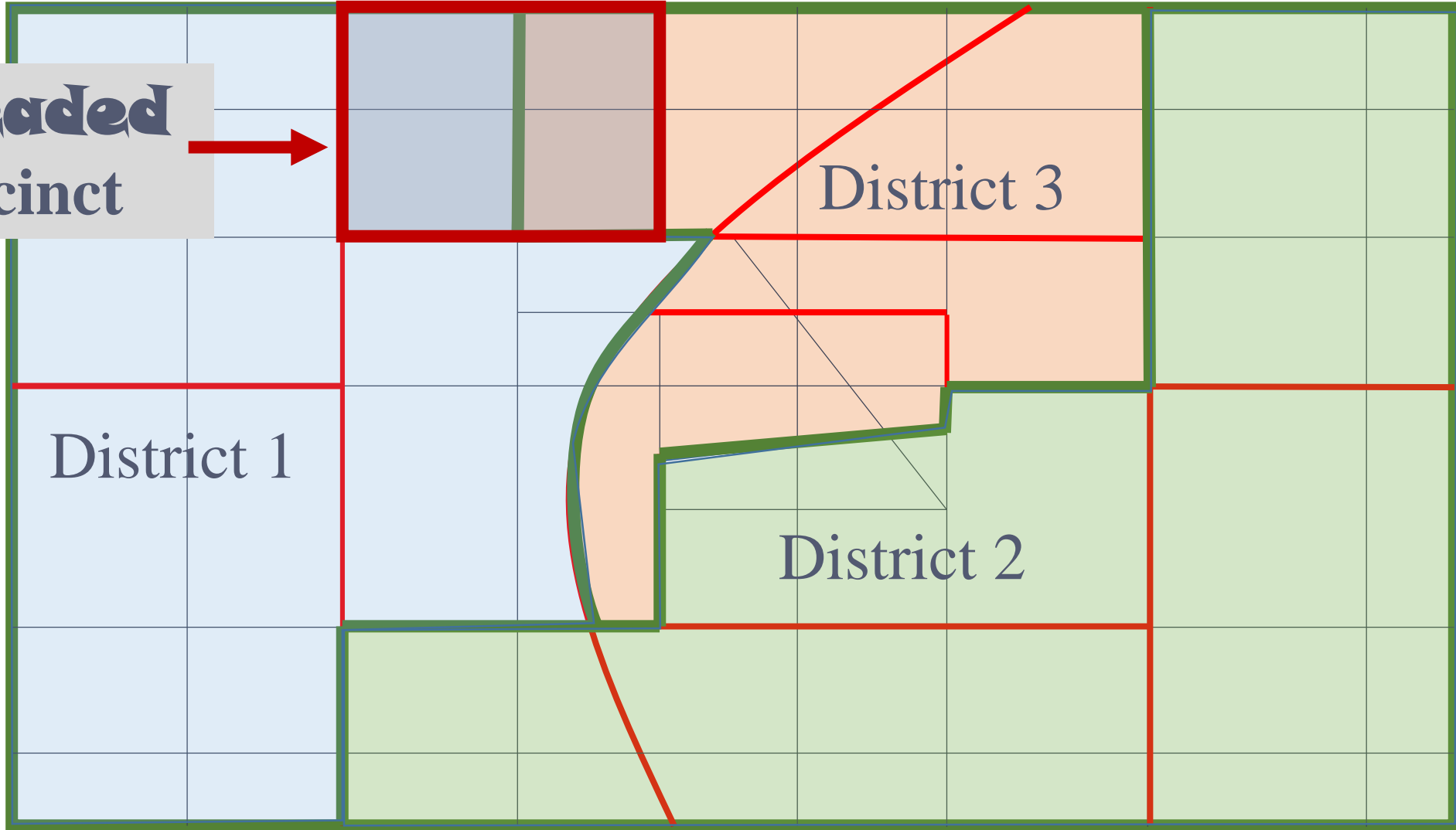


# Legislative Districts (New)

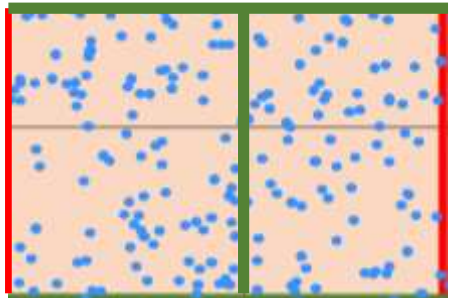


# Legislative Districts (New)

The **dreaded** split precinct

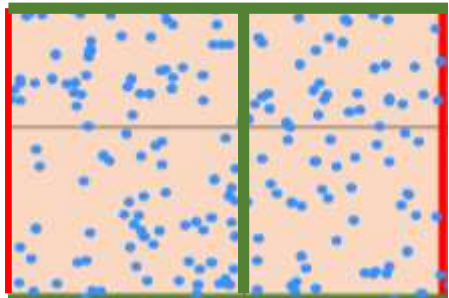


## Precinct C



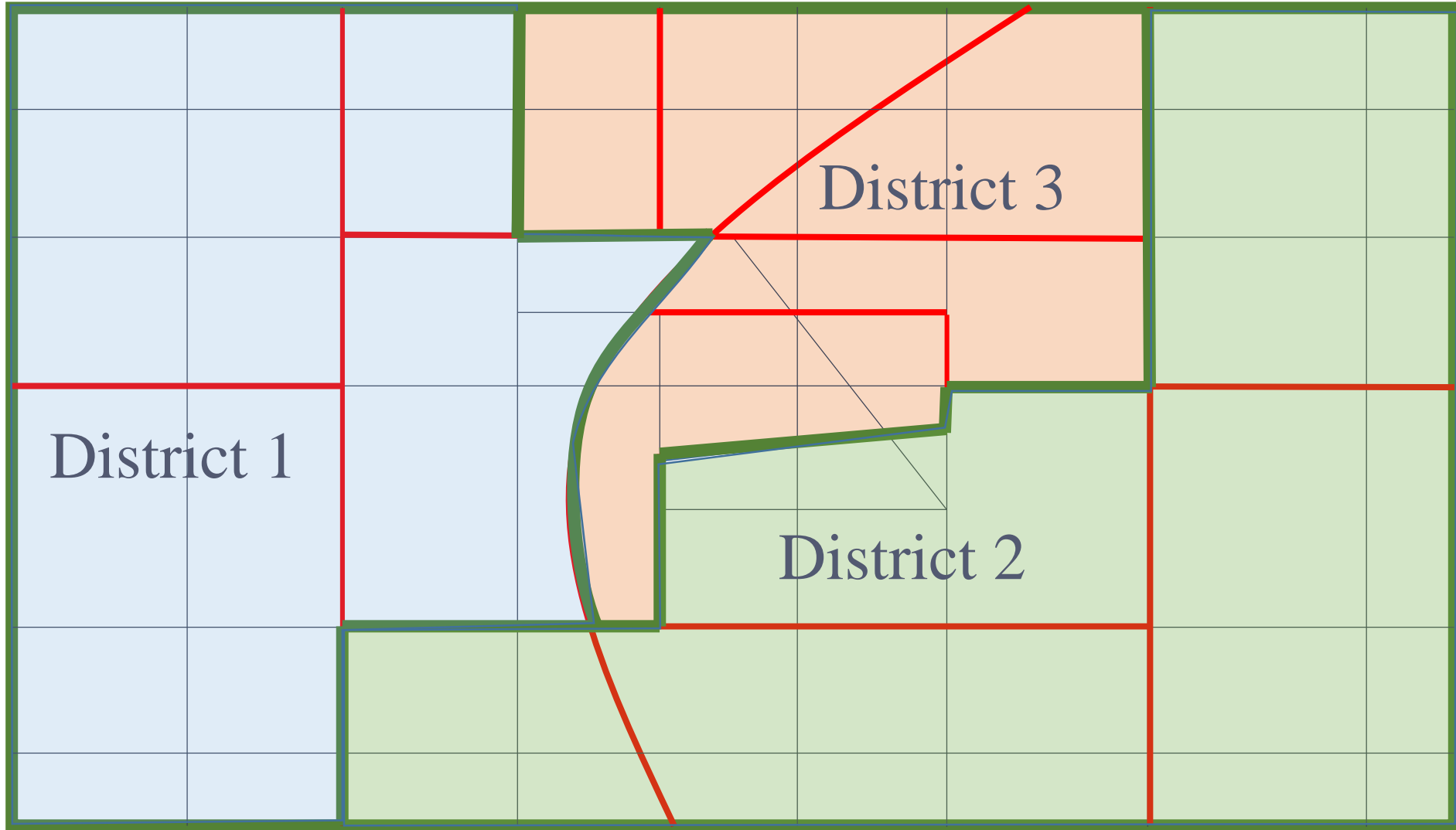
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124845	Smith	John	7th Avenue	1858	C-1	1	3
2672148	Adams	Samuel	12th Avenue	1659	C-1	1	3
237400	Adams	Martha	Elm Street	453	C-2	1	1
978858	Rodriguez	Edward	Main Street	1901	C-2	1	1
1679647	McDonald	Michael	Main Street	1902	G	1	1

## Precinct C

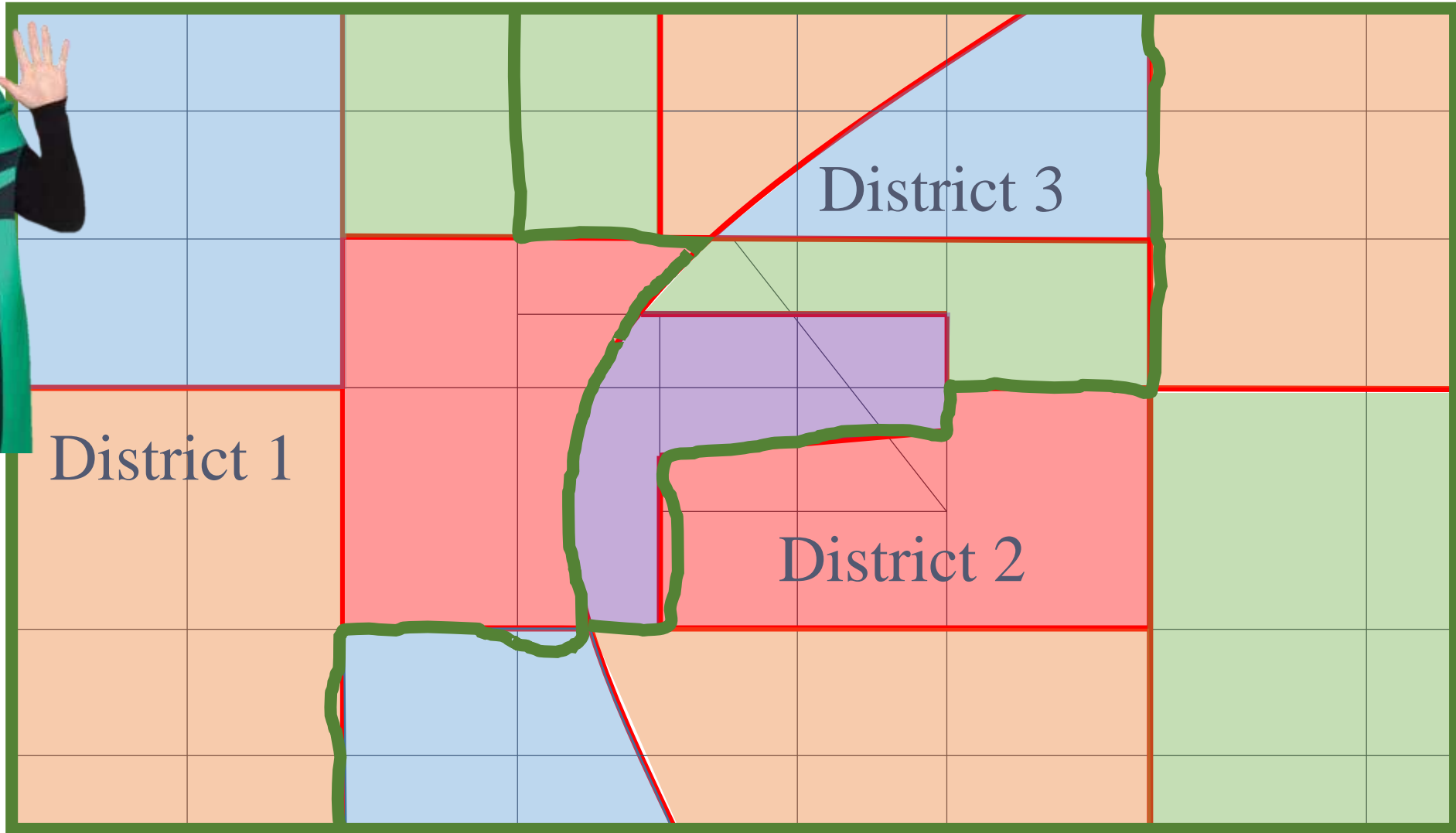


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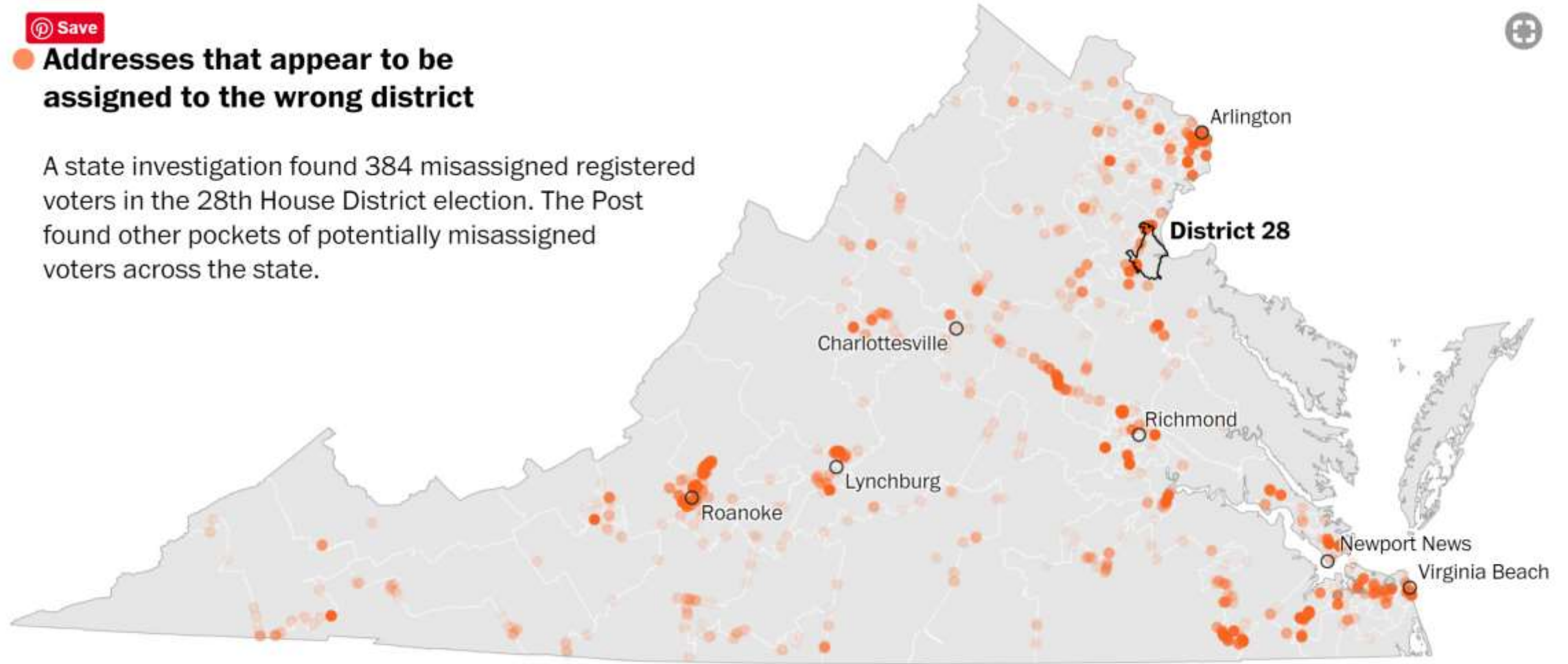
# The Worries

- + Election officials can make mistakes, depending on the hand-off and quality of tools.
- + Voters can get the wrong ballots
  - 10% of voters may be in this category
- + Intercensal changes to geography can cause mistakes to creep into assignments.



## Addresses that appear to be assigned to the wrong district

A state investigation found 384 misassigned registered voters in the 28th House District election. The Post found other pockets of potentially misassigned voters across the state.



Source: <https://www.washingtonpost.com/graphics/2018/local/virginia-wrong-districts/>

