Los Angeles City Council: Studying Reform Proposals

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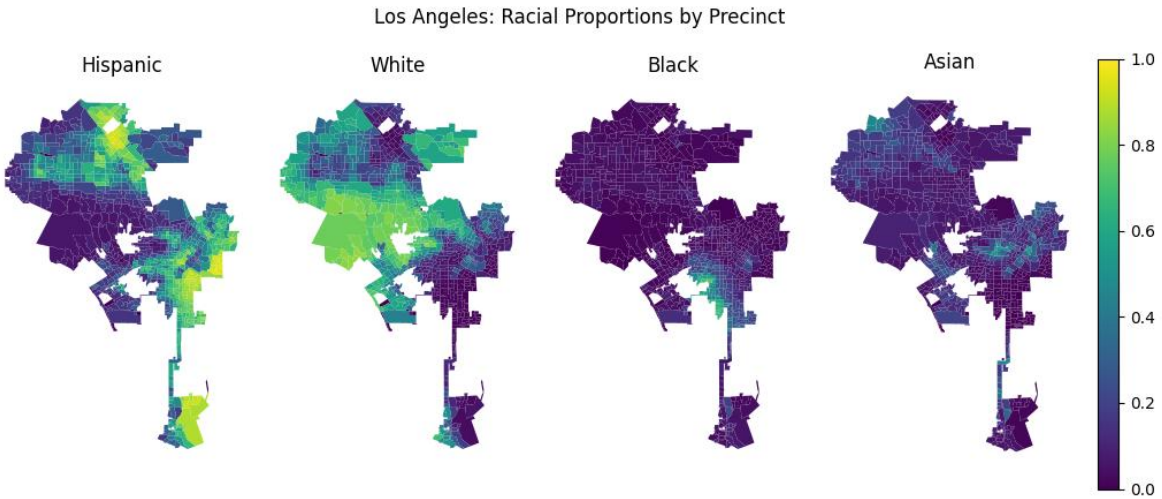

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Executive Summary

- Los Angeles has convened a Charter Reform Commission, which could alter how it elects its City Council
- Many civic groups + nonprofits advocate reforms to improve accountability & representation
- We provide analysis of efficacy of reform proposals

Los Angeles
Charter Reform Commission

OUR LA
ORGANIZE • UNITE • REFORM

FAIR REP LA

LA GOVERNANCE REFORM PROJECT

StudyLA · USC · CSUN · Pomona College · UCLA Luskin School of Public Affairs · Pat Brown Institute for Public Affairs

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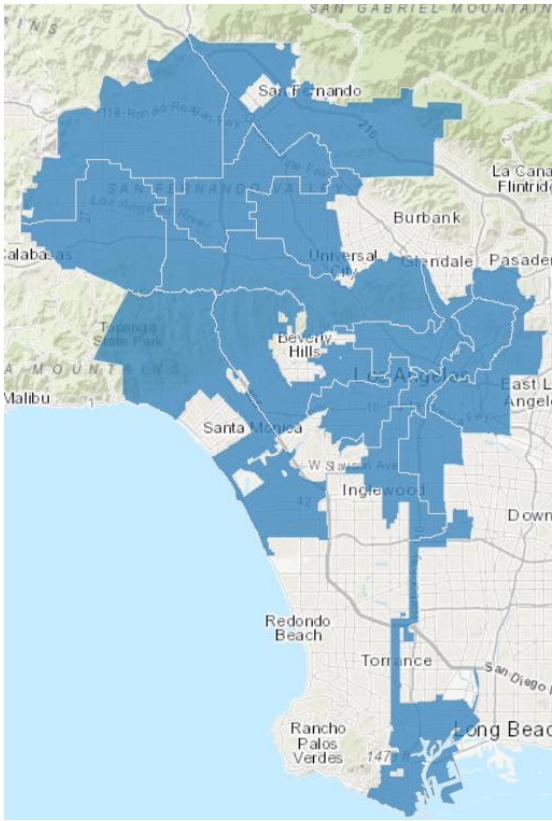
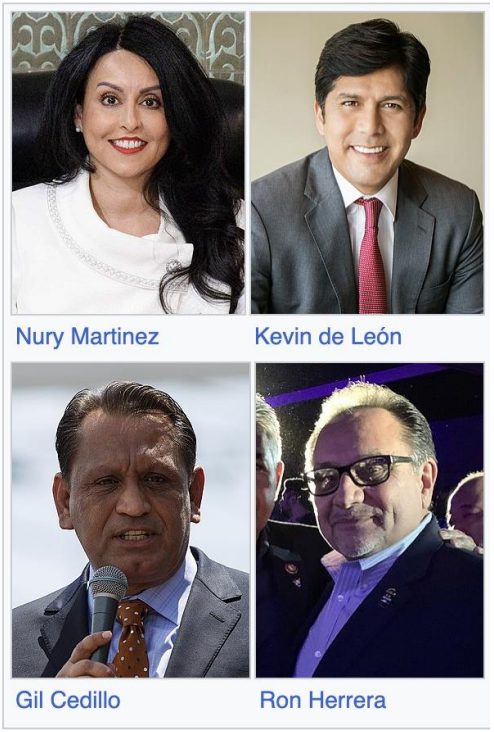
Los Angeles in context

- Country's second largest city, ~3.9 million residents
- LA is governed by a 15-member City Council
  - Each Councilor represents 250K+ residents
  - More residents per Councilor than virtually all peer cities (NYC, Chicago, Houston, Phoenix, Philadelphia, etc.)
- Among the nation's most diverse cities: 47% Hispanic, 29% non-Hispanic White, 12% Asian, and 8% Black by population



LA City Council Scandal

- **2021:** Council redraws Council district boundaries in controversial process
- **Oct 9, 2022**: Audio tape leaks of conversation between 3 City Council members & a labor leader
  - Tape contains extensive racist comments
  - Also details plans to gerrymander City Council map
- **Jan 3, 2023:** Council forms Ad Hoc Committee on Govt. Reform
- **Nov 5, 2024:** Voters pass Measure DD, creating independent redistricting commission



Proposed City Council Reforms

- ~~Establish an independent redistricting commission~~
- Revise system in which a Councilor can be elected by receiving 50%+ in the primary (8 of 15 Councilors elected in this way)
- Increase the # of single-member districts
- Add multi-member or at-large districts, with representatives selected via ranked choice voting

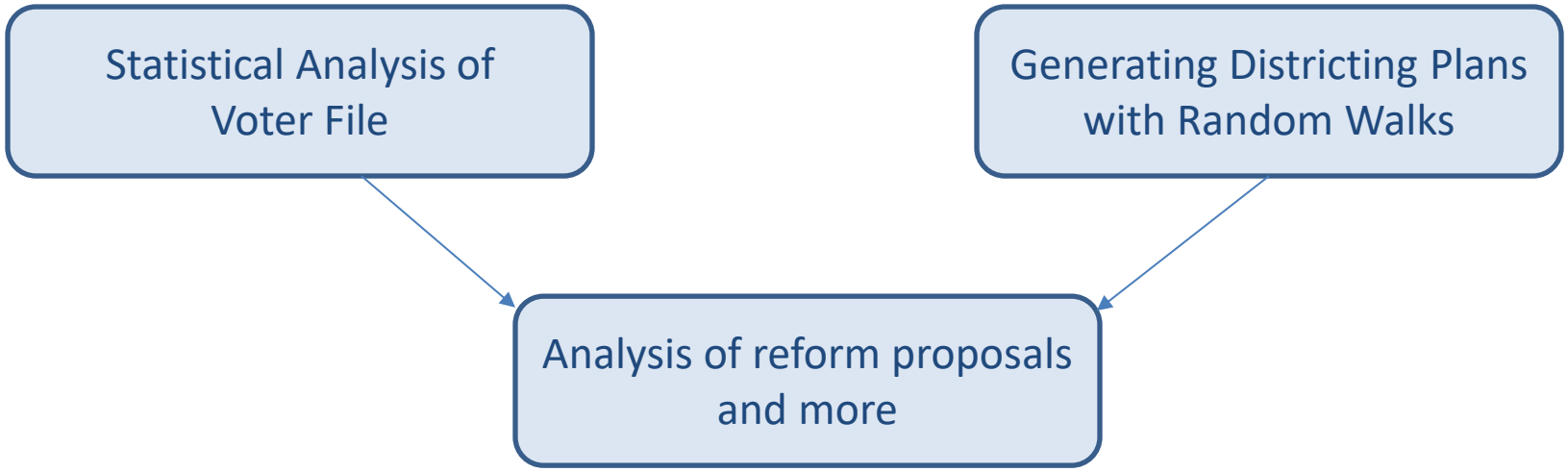
Being considered by **Charter Reform Commission**:

- Began work July 2025
- Will present options to City Council in early 2026
- Possible 2026 ballot amendments

Los Angeles
Charter Reform Commission

(2028 ballot amendments possibly a more reasonable timeline)

Research Overview



Initial Findings:

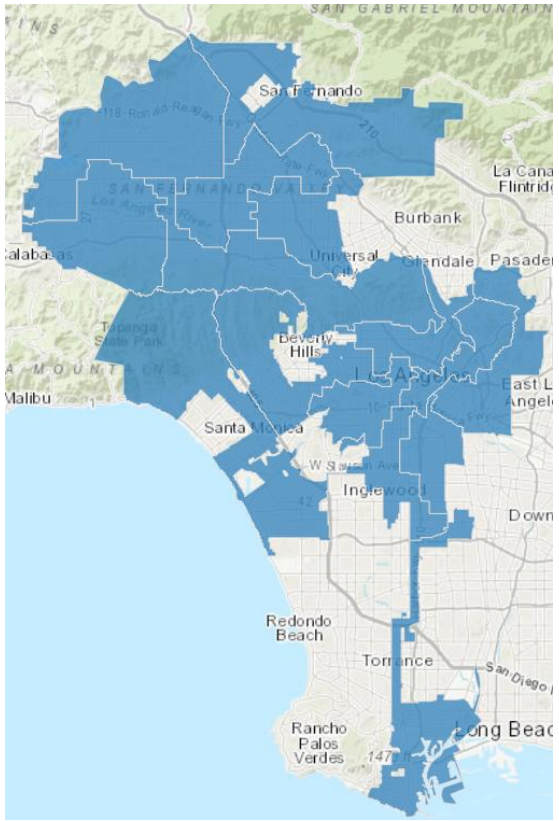
1. White voters **dramatically overrepresented** (and Latinos underrepresented) in electorates selecting LA's leaders

2. All racial groups favor Democrats, with limited evidence of **racially polarized voting** in Dem vs. Dem elections.

3. **Geographic distribution** is most **favorable** for Black representation and least favorable for Asian + Hispanic voters

Outline

- Background and Context
- Race Prediction
- Ecological Inference
- Sampling Algorithms/Ensembles
- Preliminary Reform Recommendations
- Future Work



Race Prediction

Seek to **probabilistically impute** voters' racial self-identification.

Have access to **LA Voter File**. For all 2.1MM registered voters:

- First, middle, & last names
- Voters' addresses

Approach: **Bayesian Improved Surname Geocoding (BISG)**

ID	First Name	Middle Name	Last Name	Census Block	Age	Party	Voted in Primary?	…
00001	*Kevin*	*James*	*Sweet*	4263	18	Ind	1	
00002	*John*	*David*	*Smith*	2411	37	Dem	0	
00003	*Helen*	*Ann*	*Chen*	1875	33	Dem	1	…

Race Prediction: BISG

Bayesian Improved Surname Geocoding (BISG)

(Khanna & Imai, 2016)

- Assume **geo ⊥⊥ surname | race**. Use Bayes' rule to estimate:

  P(race | surname, geo) ∝ P(race | surname) × P(geo | race)

- Probabilities estimated using Census data.
- Widely used in social science to study disparate racial policy impacts *(Edwards et al., 2019; Hepburn et al., 2020; Fraga, 2018)*

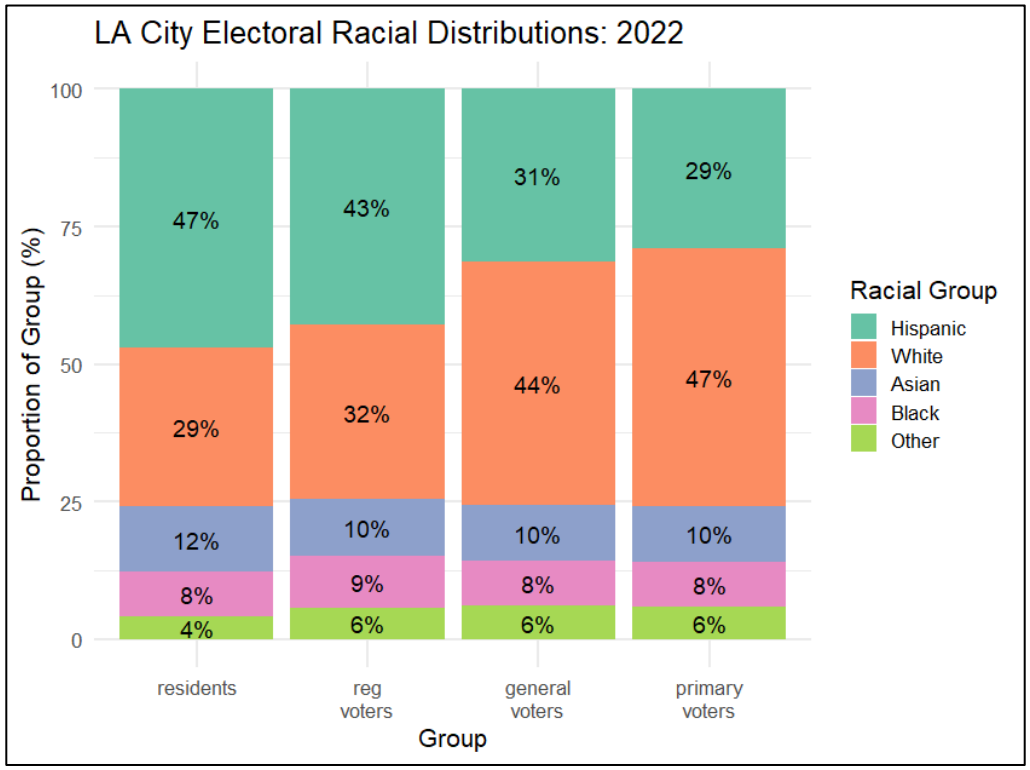
Improved BISG *(Imai, Olivella, & Rosenman, 2022)*

- Incorporates first and middle names
- Enhances probabilities via data from 6 Southern states (40MM+ voters)

LA Electorate

- Using our race probabilities, estimate 2022 composition:
  - Residents
  - Registered voters
  - General voters
  - Primary voters

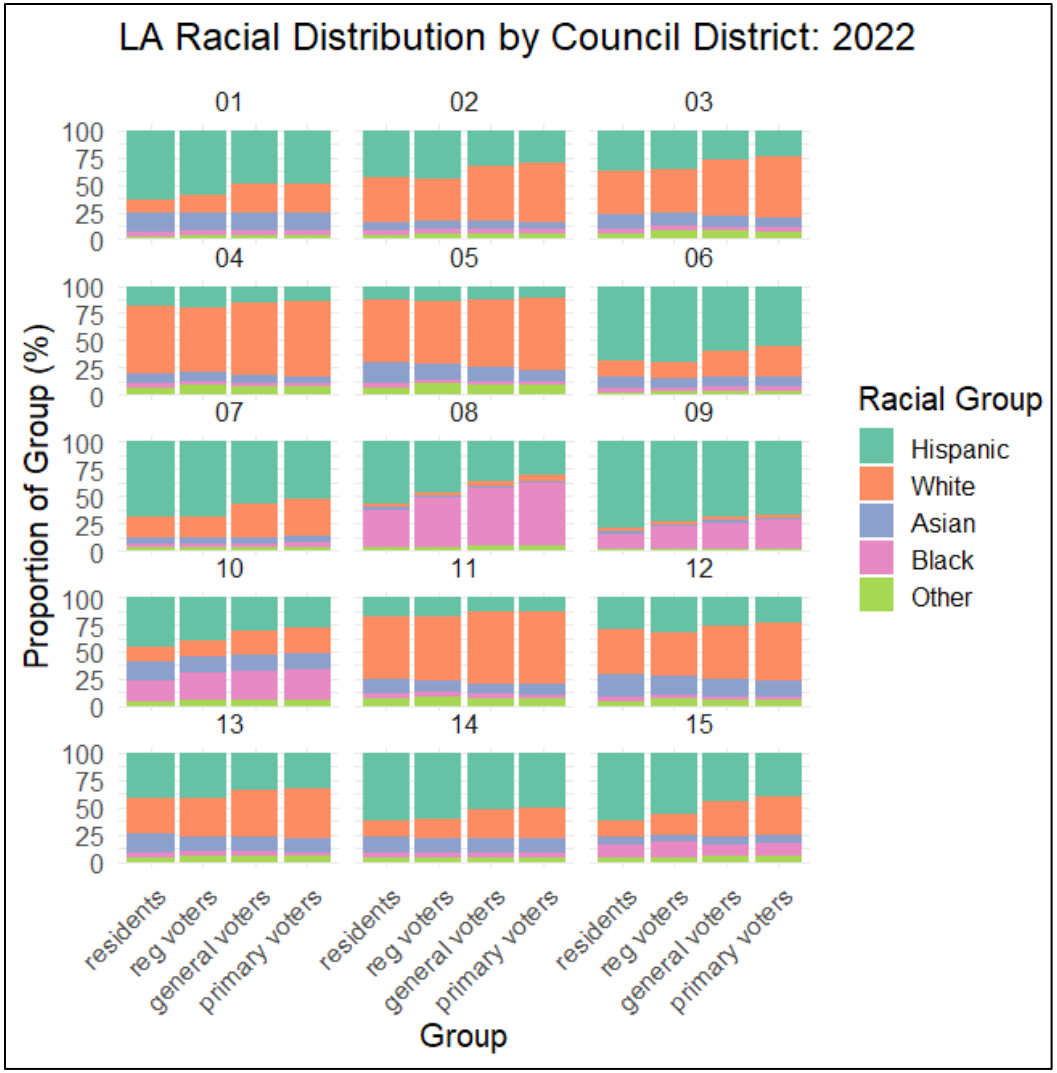
- Latinos are a progressively smaller share; non-Hispanic Whites a larger share



La Electorate: City Council Districts

As a consequence:

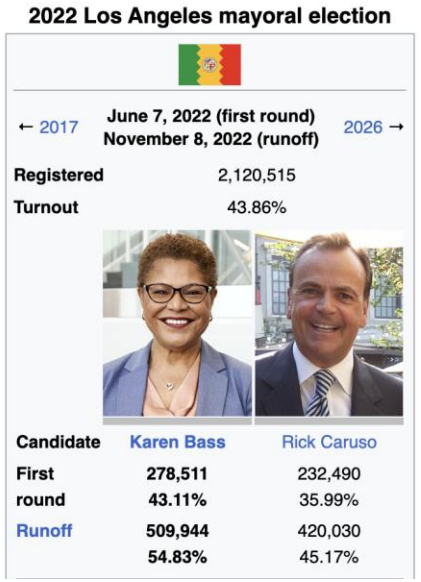
- 7 majority Hispanic CDs → 4 w/ majority Hispanic electorates
- 3 majority White CDs → 5 w/ maj. White general 6 w/ maj. White primary



Ecological Inference: Goals

- Seek to estimate **individual voters**' probabilities of supporting political candidates and causes

- Focus on the 2022 elections
  - Marquee race is **LA Mayor**, a competitive D vs. D race between progressive Karen Bass (55%) and moderate Rick Caruso (45%)
  - Also model statewide elections in LA:
    - **CA Sen**: Alex Padilla (D, 77%) vs. Mark Meuser (R, 23%)
    - **CA Gov**: Gavin Newsom (D, 75%) vs. Brian Dahle (R, 25%)
    - **Prop 1** (Abortion Rights): Yes (79%) vs. No (21%)



2022 Los Angeles mayoral election

← 2017	June 7, 2022 (first round) November 8, 2022 (runoff)	2026 →
Registered	2,120,515	
Turnout	43.86%	

Candidate	Karen Bass	Rick Caruso
First round	278,511 43.11%	232,490 35.99%
Runoff	509,944 54.83%	420,030 45.17%

Ecological Inference: Scoring

- Two-stage scoring process
  1. **Base scores:** Fit model to Berkeley IGS poll.
     - Predict vote choice using age, gender, race, & partisanship.
     - Apply to all LA voters as "base scores."

  2. **Ecological correction:** Train "ecological model" on top of scores:
     - Base scores b_{ij} (for voter i in precinct j) don't add to precinct j vote tally T_j
     - Model support probability for each voter as

$$p_{ij} = 1/(1 + \exp(-\beta^T X_{ij} + \text{logit}(b_{ij}))$$

       where X_{ij} is rich set of voter file covariates
     - Train model via maximum likelihood under approximation:

$$T_j \sim N(\sum p_{ij}, \sum p_{ij}(1 - pij))$$

- Approach bears some similarity to MRP *(Gelman & Little, 1997)*
- Plausibly reduces ecological bias by using base score as pilot estimate

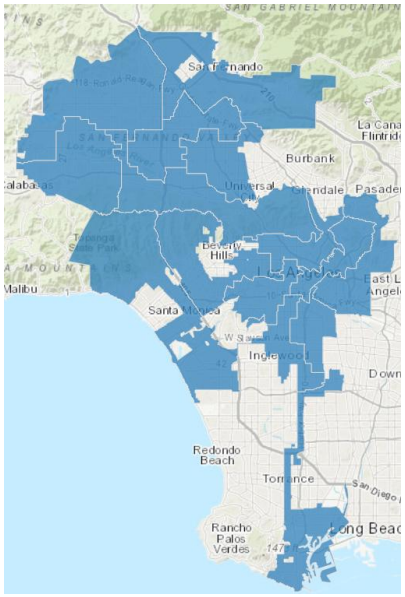
Ecological Inference: Results

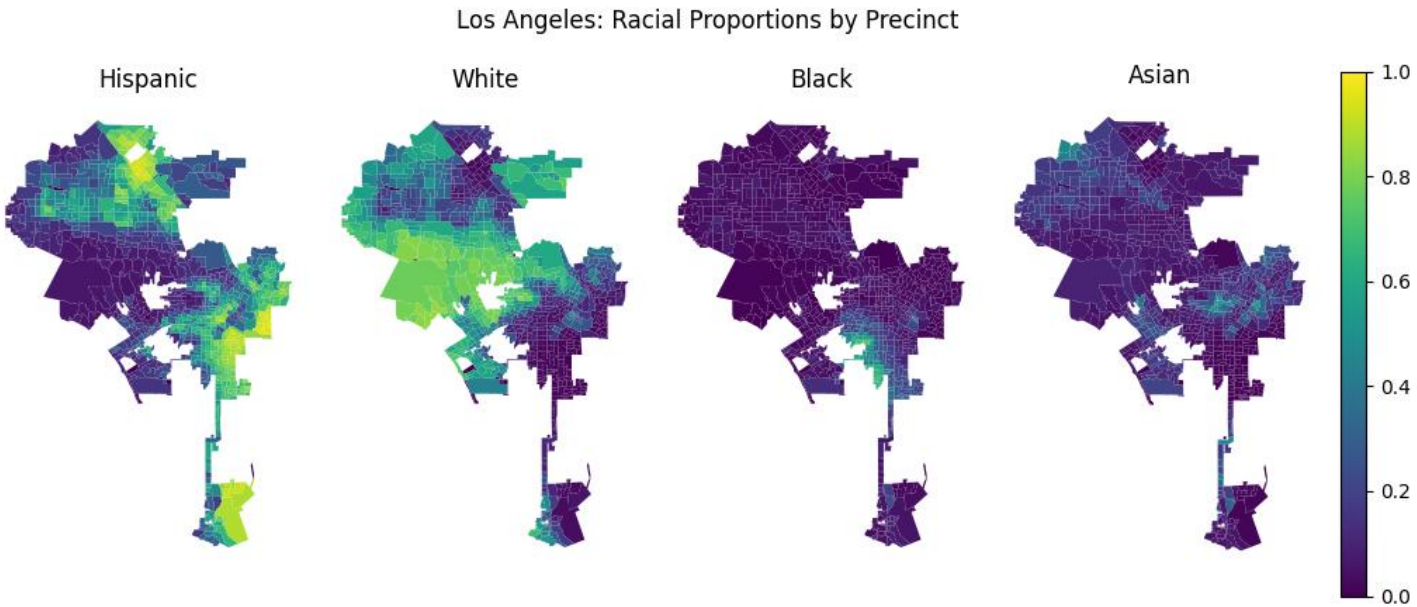
- All ethnic groups strongly prefer Dem candidates & propositions
- In Dem vs. Dem mayor's race, little evidence of racial polarization. Only Black voters strongly preferred one candidate (Bass).

Ethnic Group	***Bass***	***Newsom***	***Padilla***	***Prop 1***
White	53%	72%	75%	83%
Black	80%	90%	90%	87%
Hispanic	52%	76%	80%	72%
Asian	52%	73%	72%	79%
Other	56%	69%	72%	83%

District Sampling

- How do voter preferences interact with potential City Council Districts?
  - Voters not distributed evenly throughout LA
  - How districts are drawn can affect who's elected





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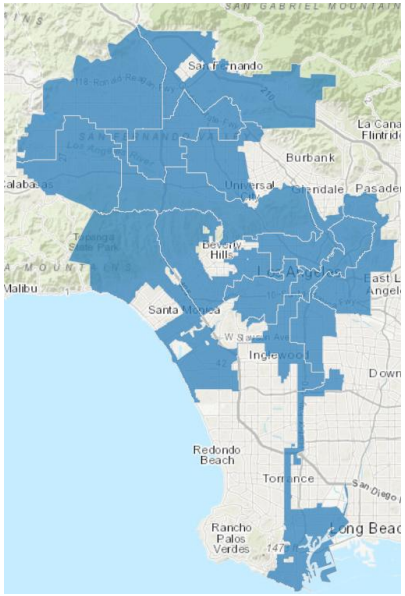
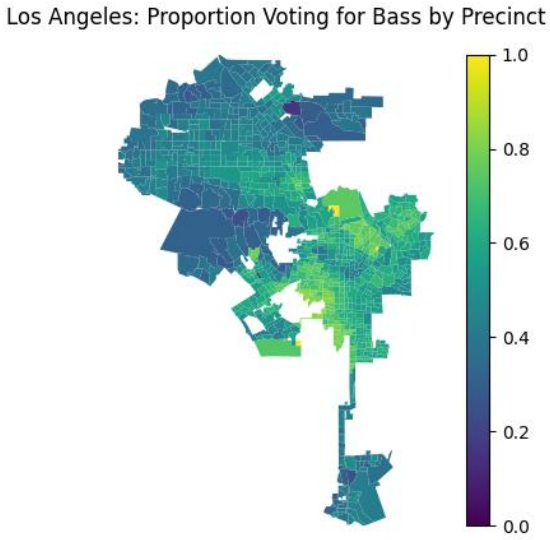
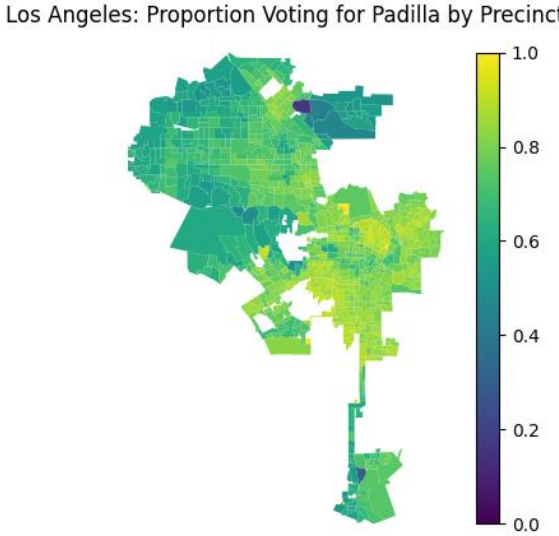




(Progressive D vs. Moderate D)



(Democrat vs. Republican)

District Sampling

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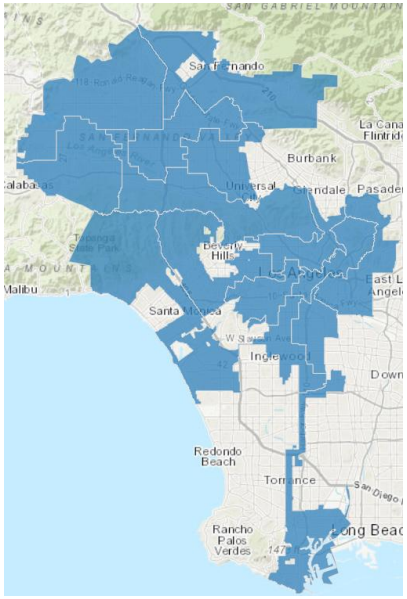
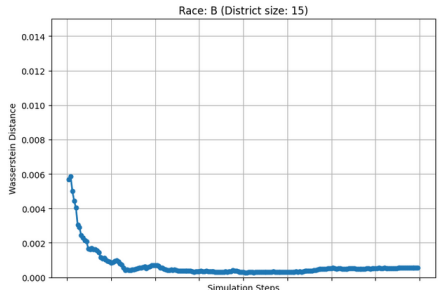
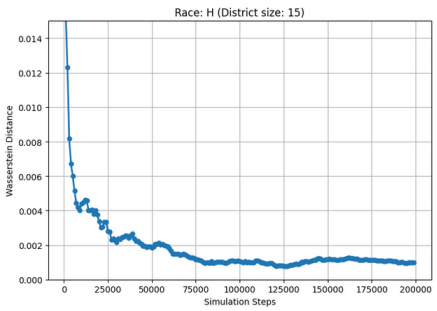
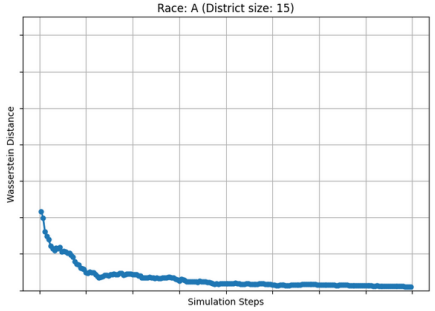
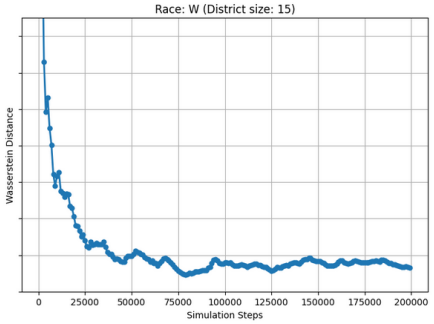
  - How districts are drawn can affect who's elected
- Randomly sample 200,000 possible districting plans using the *Recombination Markov Chain* *(DeFord, Duchin, & Solomon, 2021)*
  - Repeatedly merge two districts & split in a new way
  - Enforces only compactness and population balance
  - Does not account for other goals a line-drawer may have
  - No mixing time know; mixing heuristics good
    - Wasserstein distance between two random samples quickly gets very small for statistics of interest











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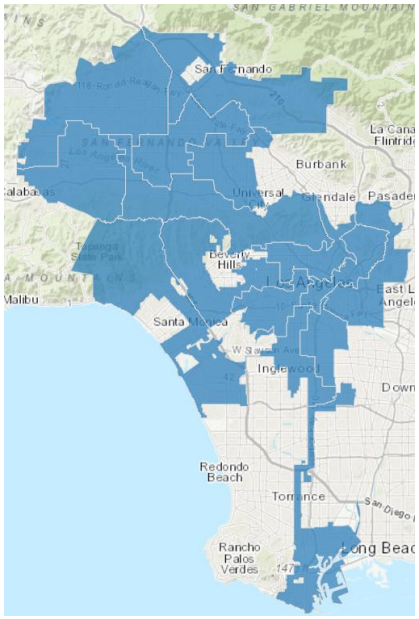
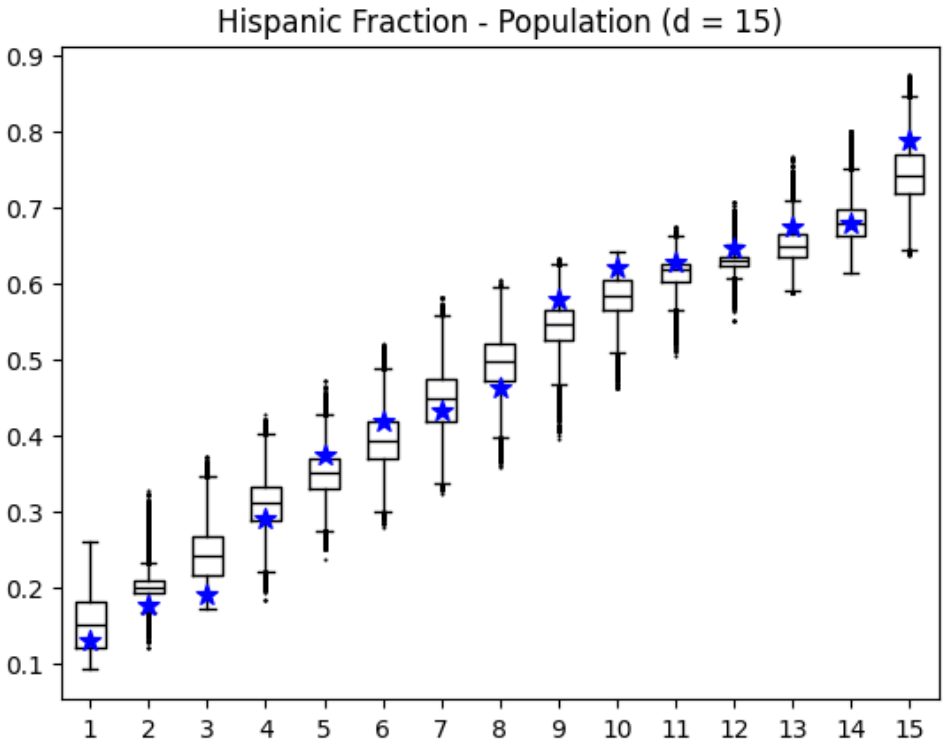
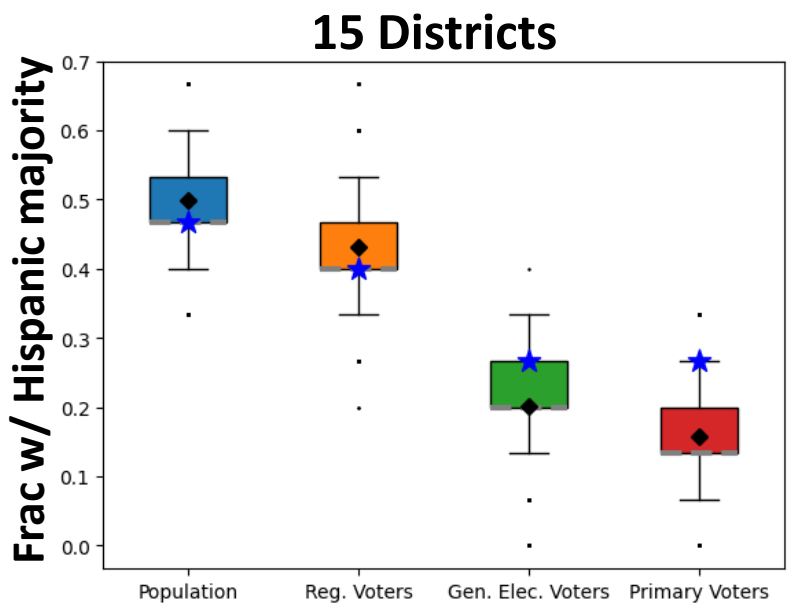
  - Enforces only compactness and population balance
  - Does not account for other goals a line-drawer may have
  - No mixing time know; mixing heuristics good
    - Wasserstein distance between two random samples quickly gets very small for statistics of interest
- Evaluate each districting plan on statistics of interest
  - E.g. number of Hispanic-majority districts; number of voters whose preferences differ from those of their district; …

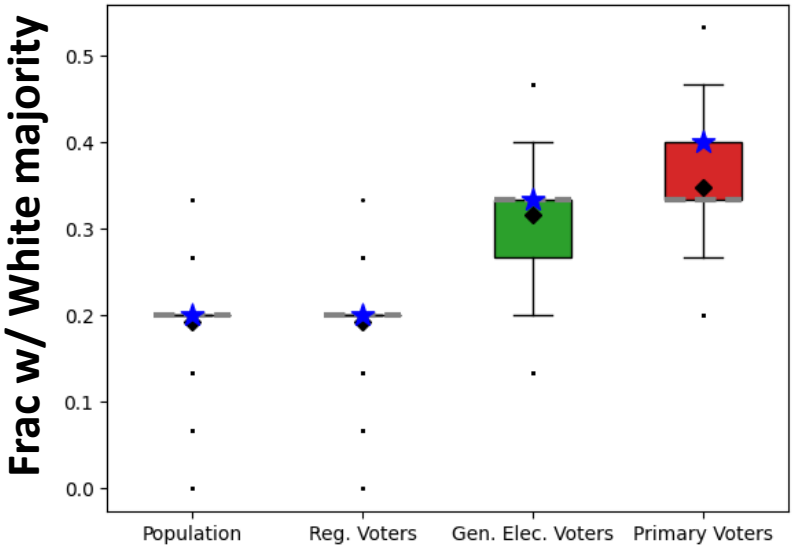


Ensemble Results: 15 Districts

Finding 1: Enacted plan not an outlier



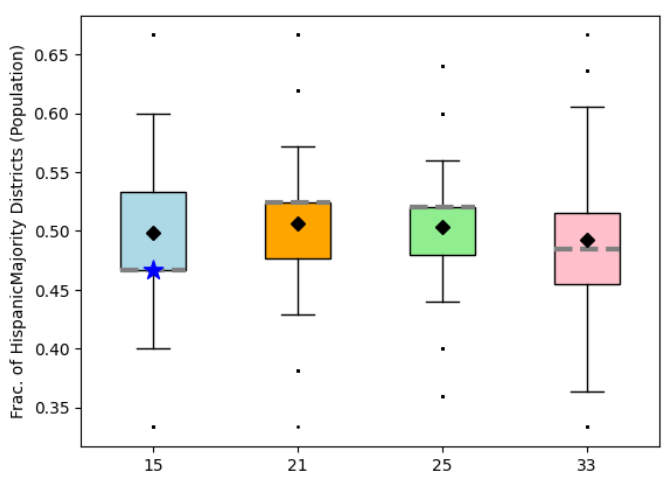


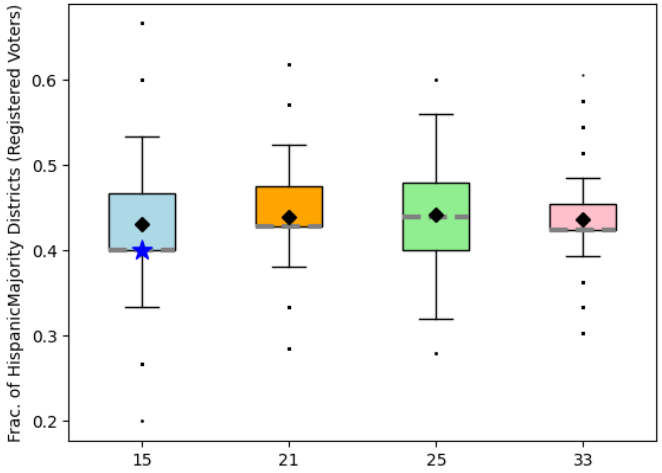


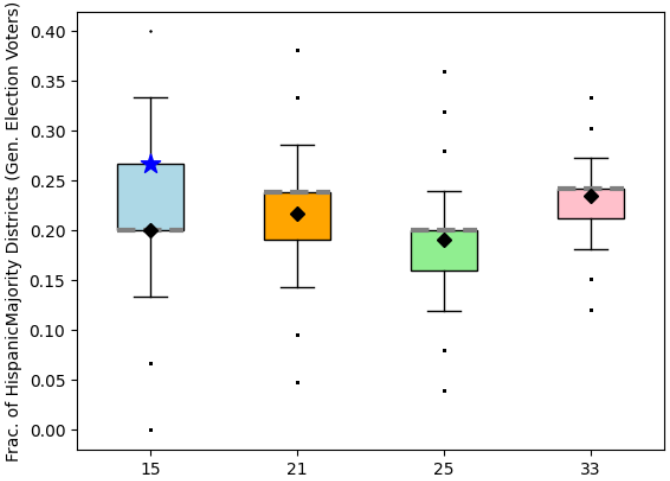
Ensemble Results: More Districts

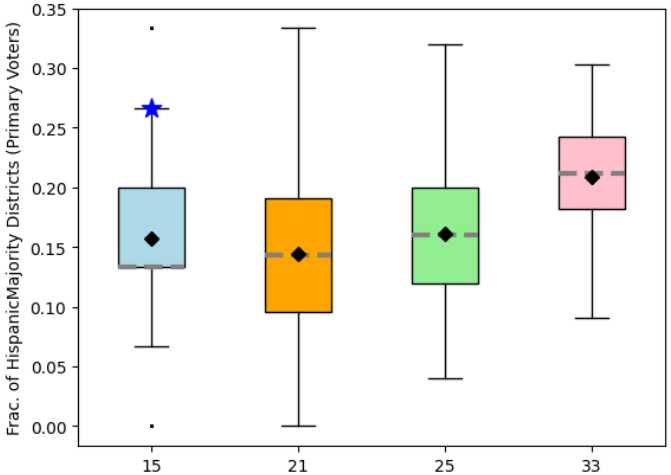
Finding 1: Enacted plan not an outlier

Finding 2: More districts, same system = little representational change









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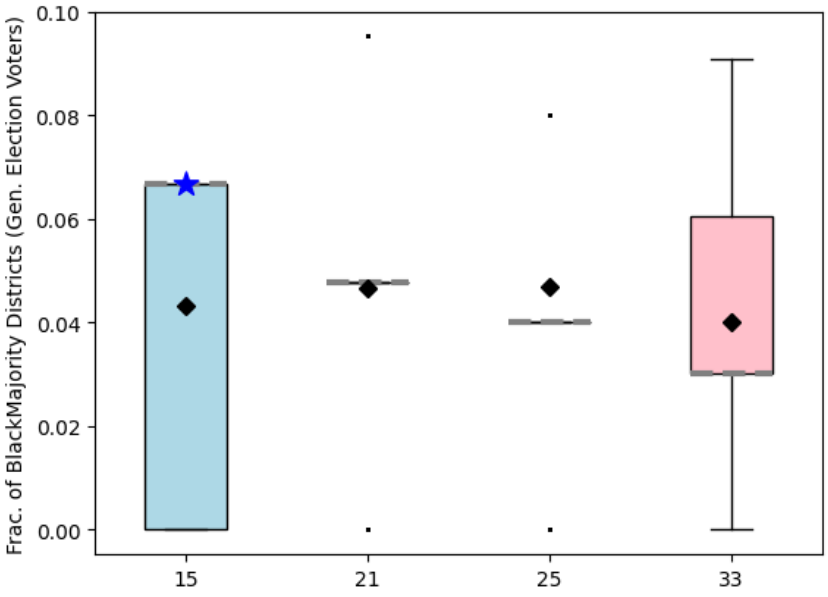

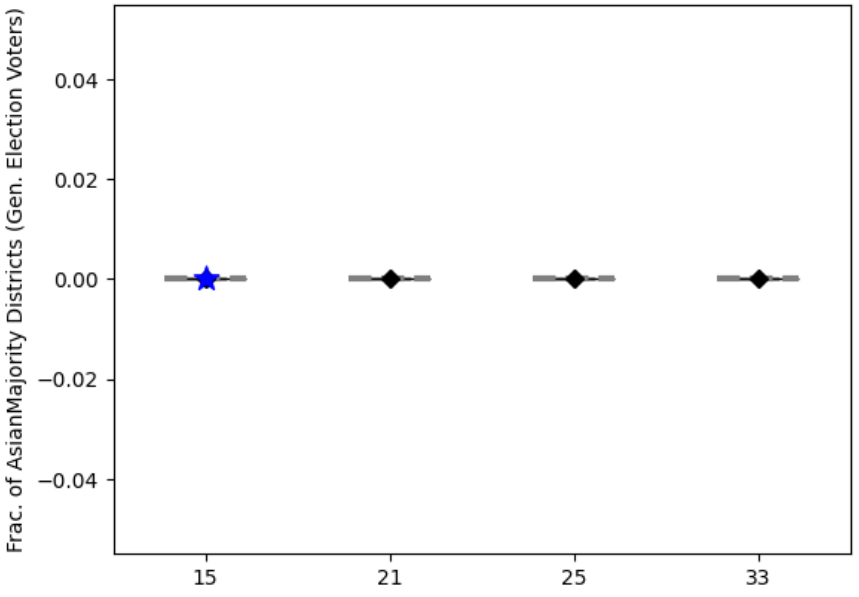

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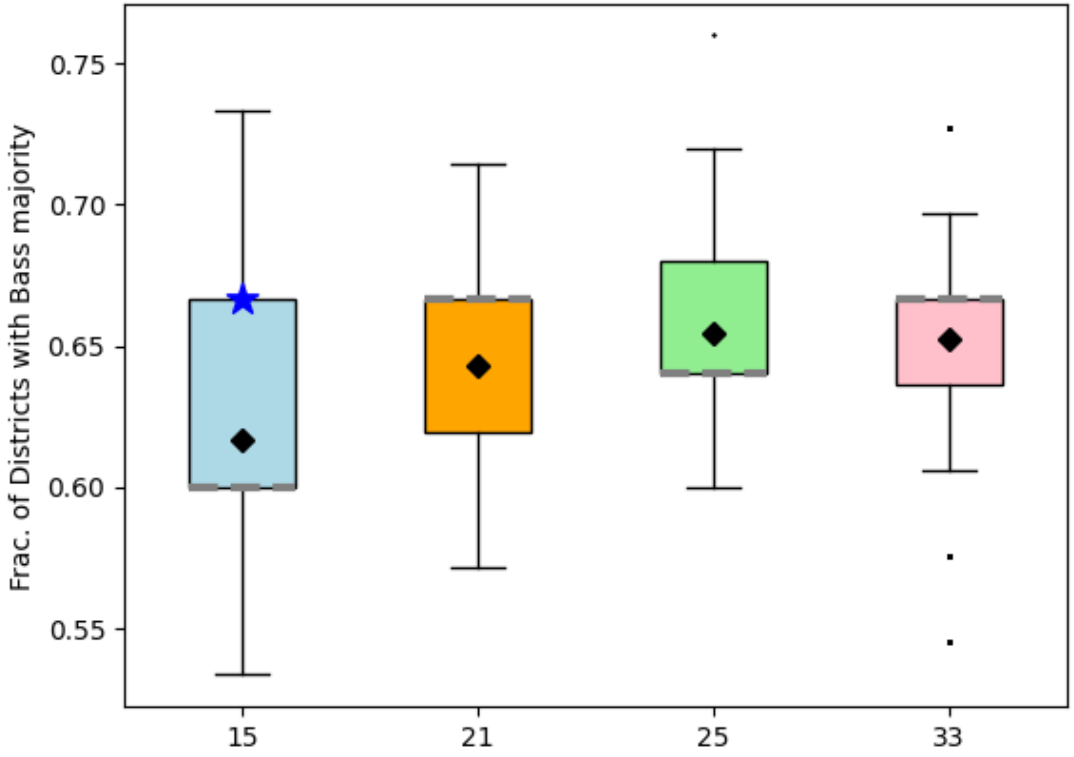
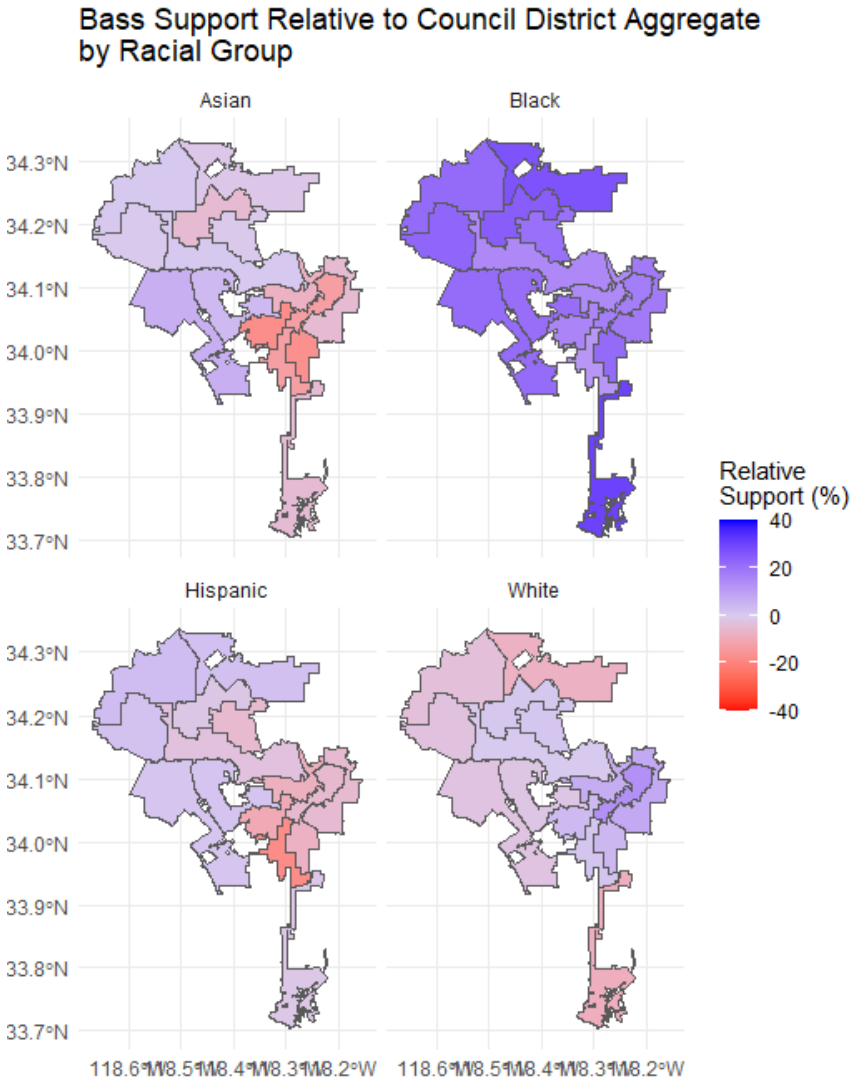


New Metric: 'Mismatches'

- Measure **geographic efficiency** as **% of each ethnicity** voting for **losing** mayor candidate **within each district**
  - Bass/Caruso race best reflects prog vs. mod competition in LA politics
  - Bass won 10 CDs; Caruso won 5.

- **Core idea:** Are most members of each ethnic group in Council Districts that share their political preferences?

- **45% of Hispanic** and **43% of Asian voters** chose district loser, vs. **40% of White** and **27% of Black voters**



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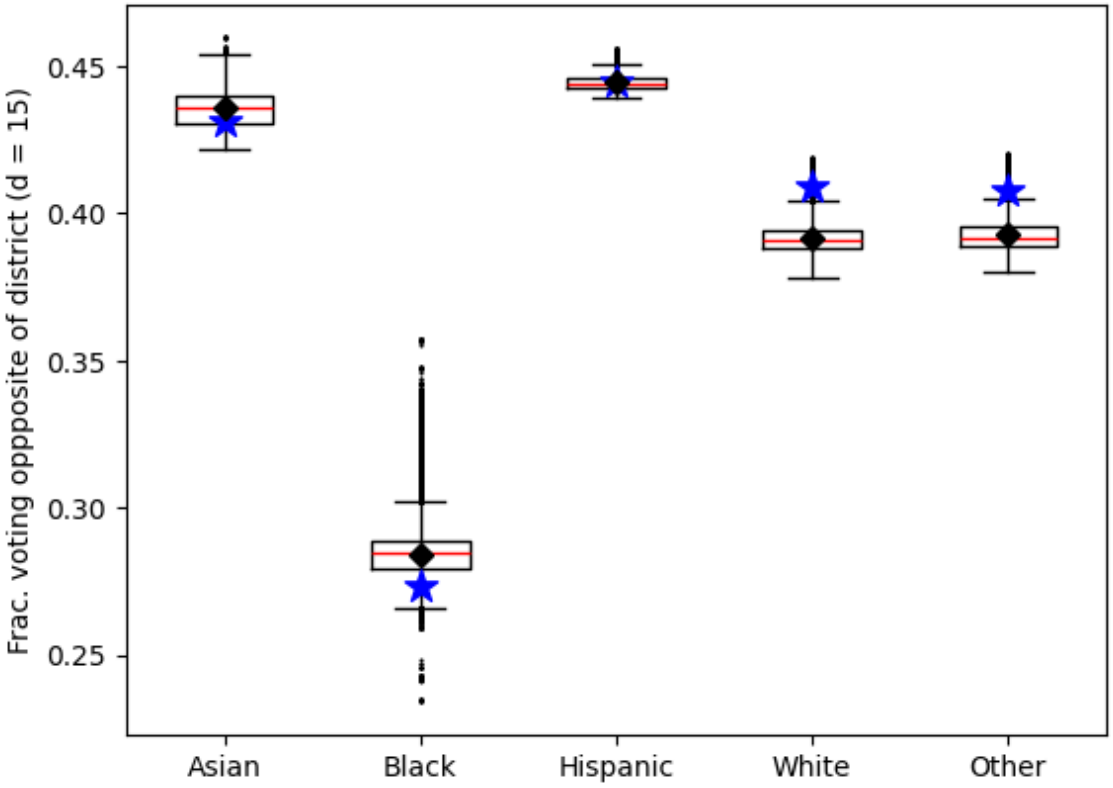
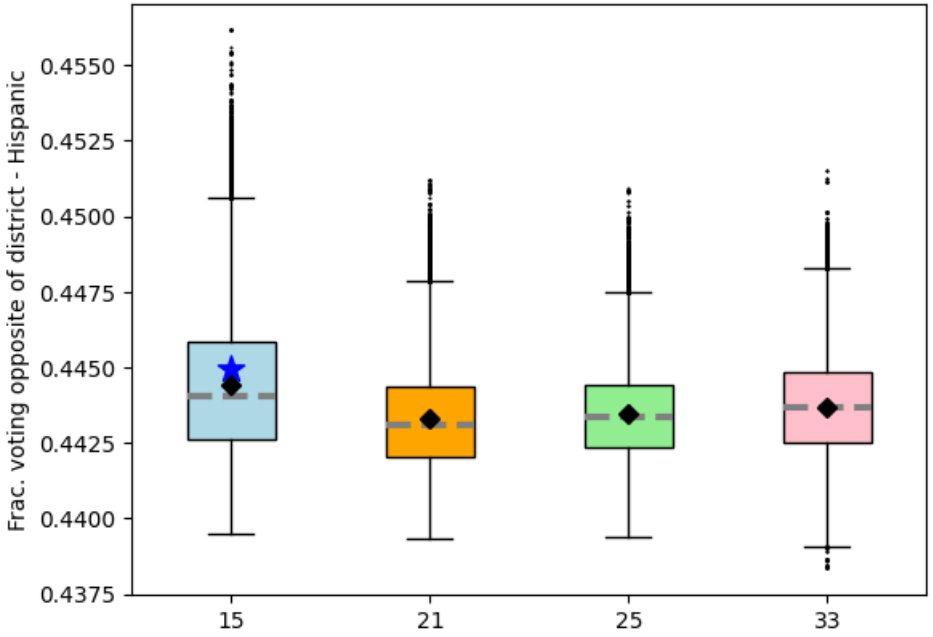
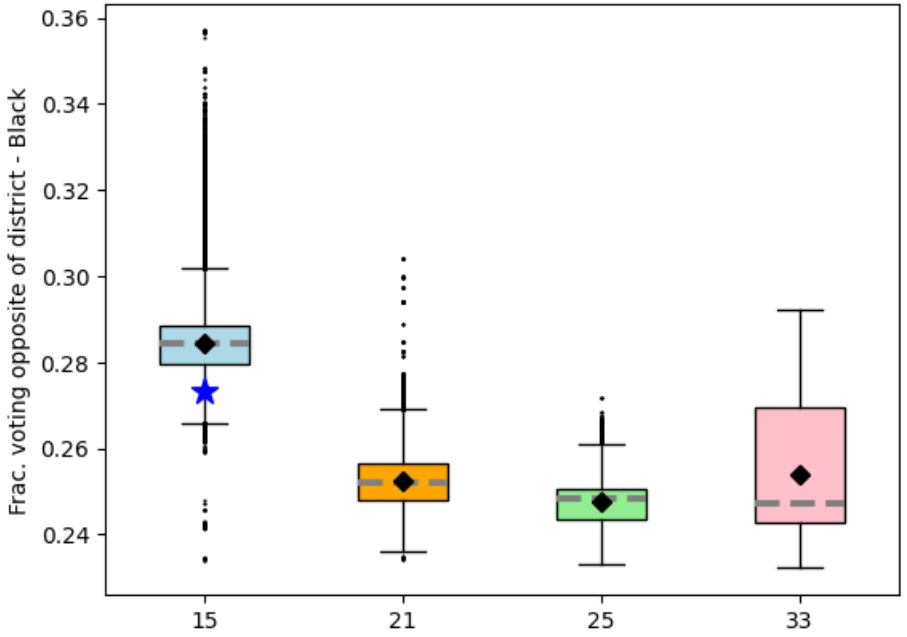


New Metric: 'Mismatches'

- Measure **geographic efficiency** as **% of each ethnicity** voting for **losing** mayor candidate **within each district**
- **Core idea:** Are most members of each ethnic group in Council Districts that share their political preferences?
- Little change when increasing number of districts:





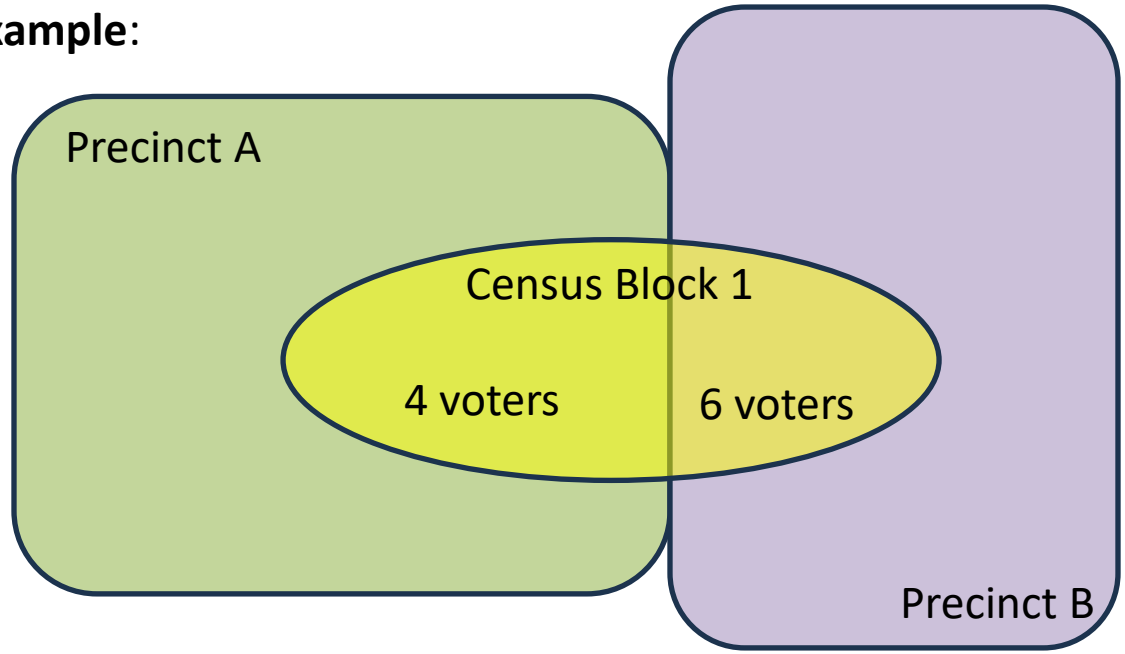
Aside: MAUP via Intersections

A new way to assign census block populations to precincts.

From voter file, can determine the number of voters in each *intersection* of a census block and a voting precinct.

Prorate population accordingly.

Example:



Solution: Assign 40% of Census Block 1's population to Precinct A, and 60% of Census Block 1's population to Precinct B

Problem: People move, so may be listed in a precinct and census block that don't overlap!

Future work: Remove impossible intersections

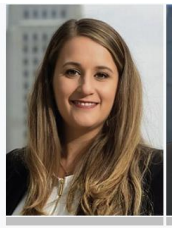
Reform Recommendations

1. Strong case for **choosing all Councilors in the general election**, rather than the primary.
   - November electorates modestly more representative than primaries
   - Primary winners routinely selected by 3-6% of district population

District 1

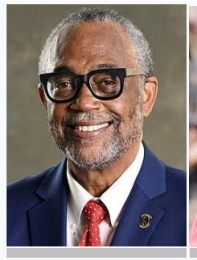

Candidate	Eunisses Hernandez	Gil Cedillo
First round	**16,108** **53.89%**	13,700 45.84%

District 6



Candidate	Imelda Padilla	Ely De La Cruz Ayao	Carmenlina Minasova
Popular vote	**16,476**	2,485	2,067
Percentage	**78.35%**	11.82%	9.83%

District 9




Candidate	Curren Price	Dulce Vasquez
First round	**8,286** **62.14%**	4,242 32.66%

Reform Recommendations

1. Strong case for **choosing all Councilors in the general election**, rather than the primary.
   - November electorates modestly more representative than primaries
   - Primary winners routinely selected by 3-6% of district population

2. **Council Expansion** unlikely *on its own* to change the delegation of power in the city (though there may be other arguments for it)

   - **Differential participation** and **unfavorable geographic distributions** impact Hispanic & Asian representation.
   - Expansion could potentially be paired with other reforms, to:
     - Boost registration & participation
     - Encourage cross-ethnic coalition building (e.g. via proportional RCV)

Next Steps

- Improved Ecological Inference (using CVAP)
- Changes to election outcome in general vs. primary?
- Additional analysis of single-member districts (goal-driven redistricting? election thresholds? coalitions? unique LA features?)
- Ranked Choice Voting
  - Modeling preferences via the **VoteKit** package (parameters from statistical analysis)
  - Single-member and multi-member districts
  - Comparative turnout investigation in cities with RCV (NYC, SF)
- Ongoing conversations with advocacy groups
- Providing feedback directly to the Charter Reform Commission

Thanks to the Haynes Foundation!

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