

Racially Polarized Voting: From RPV Data to RPV Analysis

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Section 3: From RPV Data to RPV Analysis

1. Conducting a RPV analysis: Homogenous Precincts, Ecological Regression and Ecological Inference
2. 5th Circuit: Race v. Party
3. Complying with the Voting Rights Act and avoiding racial gerrymandering: district-specific, functional analyses
4. What to look for in a practitioner

Gingles Criteria

Gingles I

Is the minority group sufficiently numerous and geographically compact to constitute a majority of a single-member district?

Gingles II

Is the minority group politically cohesive (i.e. do minority voters tend to vote similarly to one another)?

Gingles III

Is the majority group politically cohesive and have they consistently voted as a bloc such that the minority preferred candidate is usually defeated?

Racially Polarized Voting

- According to *Thornburg v. Gingles*, racially polarized voting is the “evidentiary linchpin” of a vote dilution claim. It is used to ascertain whether minority voters are cohesive and if whites bloc vote to defeat minority-preferred candidates.
- Voting is racially polarized if minorities and whites consistently vote for different candidates.
- If voting is polarized, and the minority-preferred candidates usually lose, and a majority minority district can be drawn, the jurisdiction must draw a district that provides minority voters with an opportunity to elect their candidates of choice.

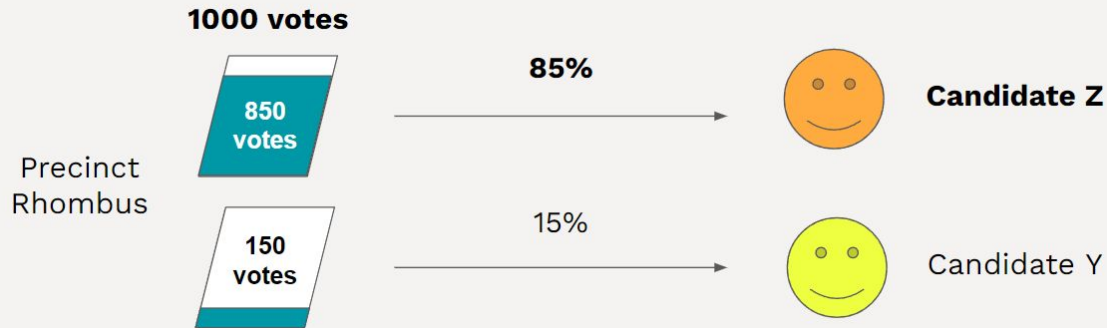
Data Required for RPV Analysis

Election precinct data needed for analyzing voting patterns by race/ethnicity:

- Election returns - votes cast for each of the candidates competing in a given election
 - Most relevant elections are recent contests that include minority candidates for the office at issue
- Demographic composition of precinct
 - Voting age population by race
 - Citizen voting age population by race/ethnicity
 - Registration by race, if available
 - Turnout by race, if available
 - Spanish surname registration or turnout using voter file
 - BISG using geocoded voter file

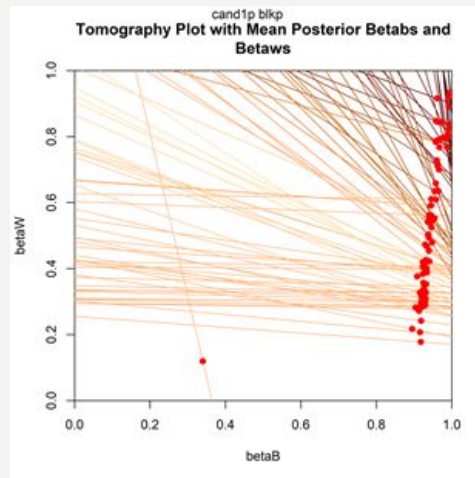
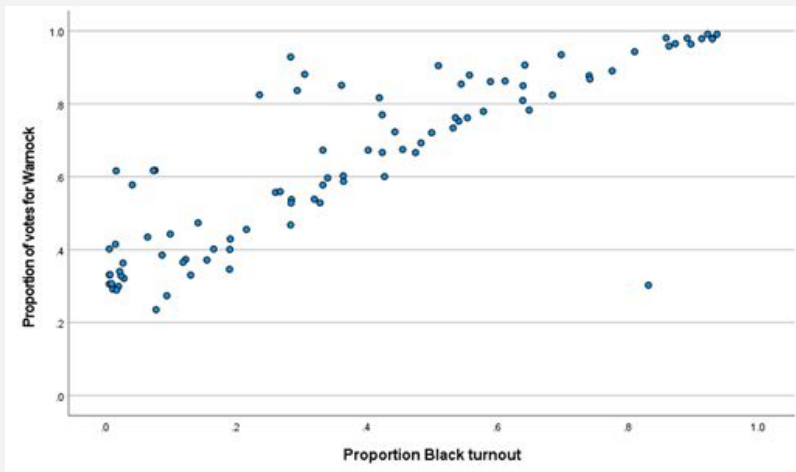
Analyzing Voting Behavior by Race

- The simplest method for estimating voting behavior by race/ethnicity would be to compare voting patterns in election precincts that are composed of a single racial/ethnic group (i.e., “homogeneous” precincts).
- In many jurisdictions there are no precincts that can be classified as homogeneous. Even if there are, they may be few in number and voters residing in them may not be representative of voters living in more racially diverse precincts.
- However, homogeneous precinct percentages serve as a check on estimates derived from other statistical methods.

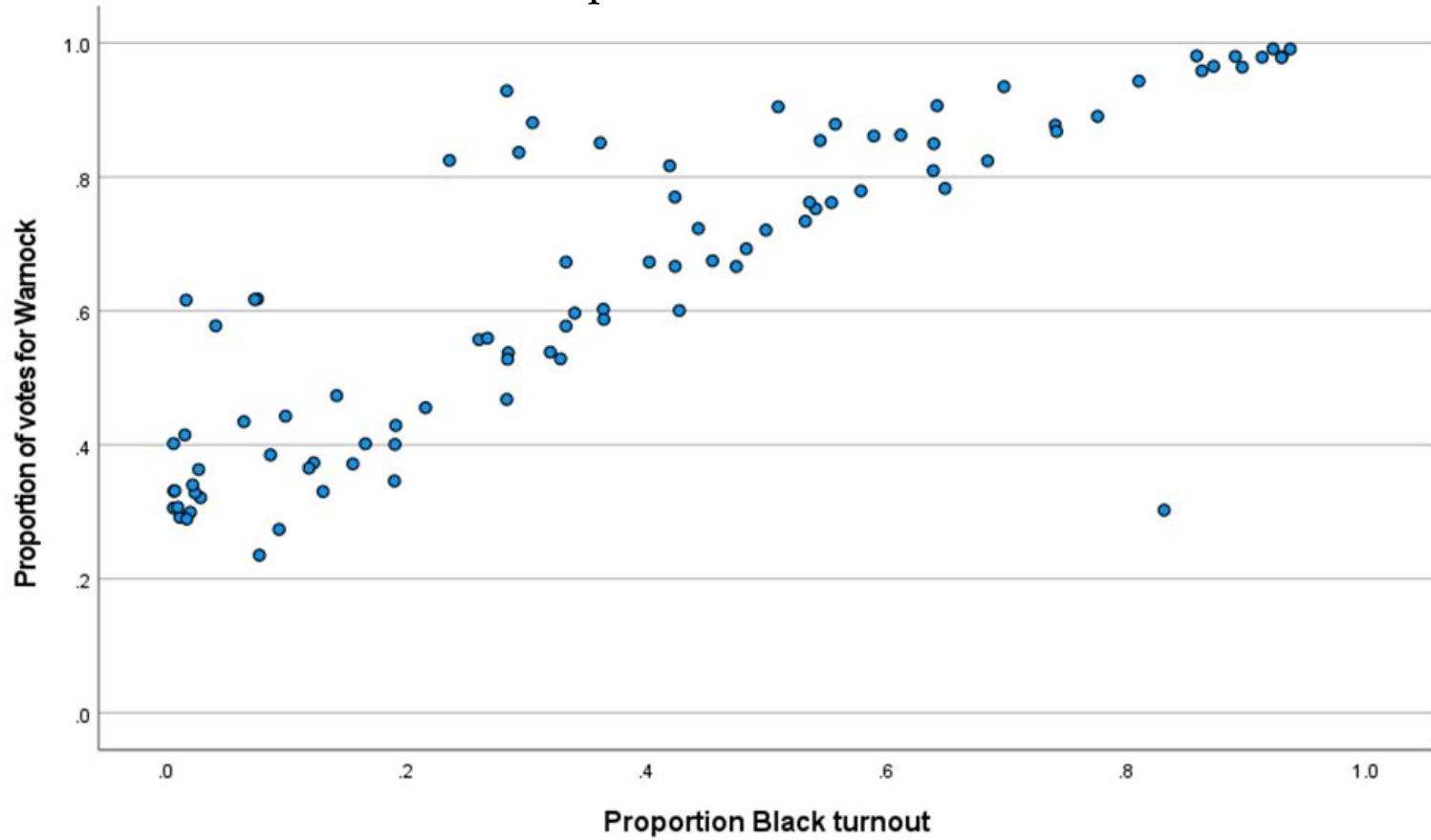


Analyzing Voting Behavior by Race

- Two standard statistical techniques for estimating voting patterns by race:
 - Ecological regression analysis (ER)
 - Ecological inference analysis (EI)



Ecological regression: Plot of black proportion turnout and proportion of votes for Raphael Warnock

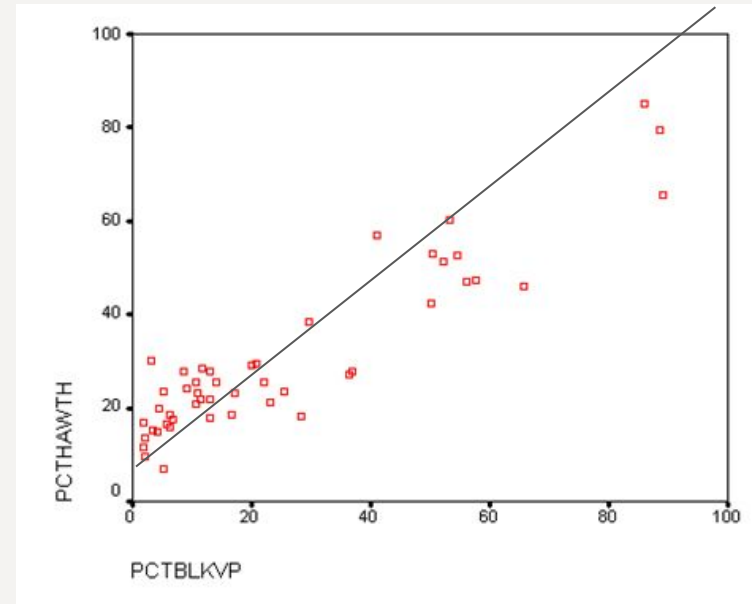


Producing Regression Estimates

- Regression analysis provides a statistical means of summarizing the relationship depicted on the graph between the two variables (“proportion Black turnout” and “proportion of votes for Warnock”).
- The regression line that fits the data "best" is the straight line in which combined distances between each of the points on the graph and the line is less than for any other possible line.
- The point at which the line reaches 100 percent on the horizontal axis (100% Black turnout) is the estimate of the percentage of black votes that went to the candidate.

Disadvantages of ER Analysis

- The assumption must be made that voting patterns are constant across all of the precincts.
- The technique can produce estimates that fall outside the bounds of possibility – that is, estimates of over 100% or less than 0% of a group supporting a candidate.

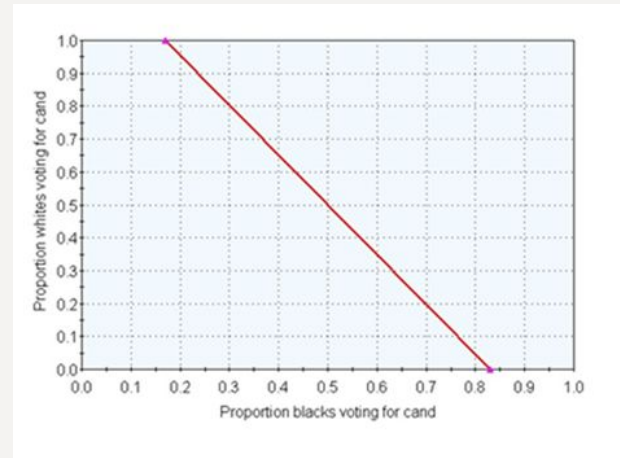


Ecological Inference Analysis

- EI was developed by Prof. Gary King in part to address the problem of out-of-bounds estimates possible with ER analysis.
- EI uses more information about each precinct than ER by incorporating the method of bounds into the calculation of the estimates.
- Instead of each precinct being represented as a single point on a scatter plot, each precinct is represented as a line on a tomographic plot. The line reflects all of the possible combinations of, for example, Black and white voting proportions, that could have produced the election result given the demographic composition of the precinct.

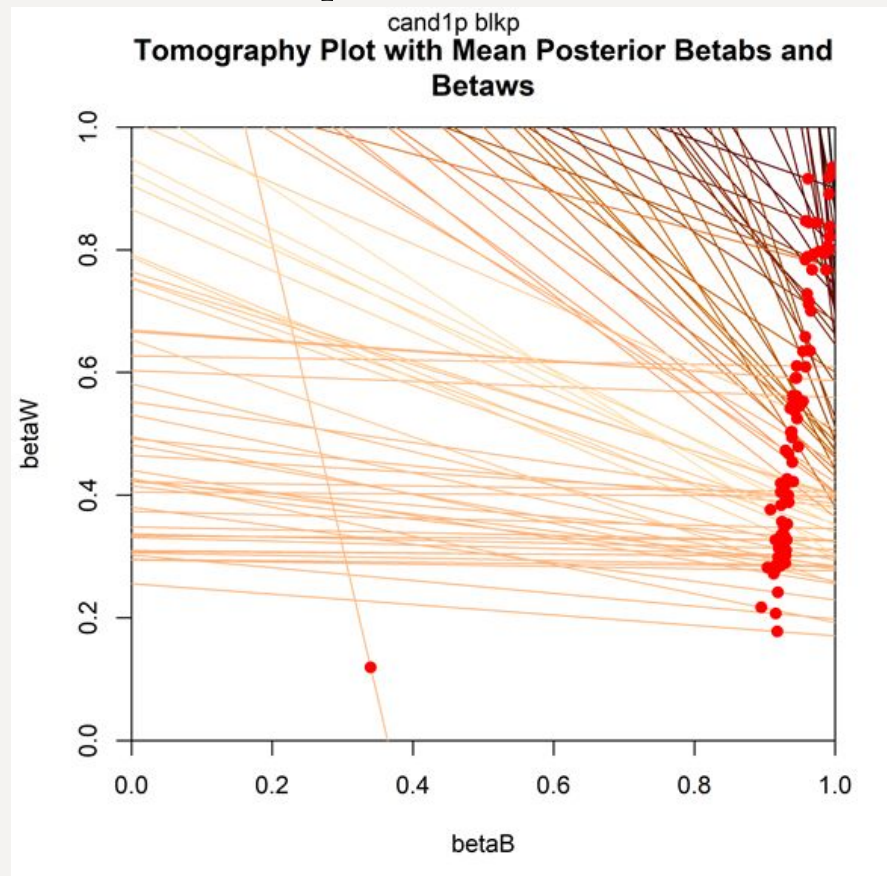
Method of Bounds

- In Precinct 101 we know that there are 100 voters, 60 of whom are Black and 40 of whom are white. We also know that Candidate Z received 50 votes.
 - The maximum number of Black voters who could have voted for Candidate Z is 50/60 and the minimum number is 10/60 (since even if all white voters cast a vote for the candidate, 10 votes would still be unaccounted for).
 - As few as 0 whites and as many as all whites (40) could have voted for Candidate Z given that she received 50 votes.



- A line can be plotted representing each possible value for the proportion of Black and white voters supporting Candidate Z in this precinct. The line would begin at (1.0, .17), which is the maximum estimate for whites and minimum for Blacks, and end in the bottom right hand corner at (0.0, .83), which is the minimum for whites and maximum for Blacks. Somewhere on the line segment is the single point that is the true proportion of Black and white votes for Z.

Ecological inference:
Tomographic plot of black proportion turnout and proportion of votes for
Raphael Warnock



Drawbacks of EI Analysis

- Because the estimates are the result of a simulation procedure, the estimates can change slightly each time the simulation is run (i.e., the estimates are not perfectly replicable).
- King's EI was developed for 2x2 tables. This is problematic in jurisdictions with more than two racial groups. Recent developments have extended EI approach to tables greater than 2x2 (e.g., Rosen et al.) but this RxC methodology is new to the courts.
- EI can be quite challenging to explain to the court.

Ecological inference:
Tomographic plot of black proportion turnout and proportion of votes for
Raphael Warnock

Candidates	Race	Party	Percent of Actual Votes	Percent of Black Votes		Percent of White Votes	
				<i>ER</i>	<i>EI</i>	<i>ER</i>	<i>EI</i>
Warnock	AA	D	59.8%	94.9%	94.4%	23.5%	25.5%
Loeffler	W	R	40.2%	5.1%	5.9%	76.5%	74.4%

- Conclusion: In the 2021 Runoff Special Election for U.S. Senate in Georgia, in this county, both sets of estimates (ER and EI) point to very strong support (more than 94%) for African American Democratic candidate Raphael Warnock among Black voters and strong support (around 75%) for his opponent, Kelly Loeffler, among White voters.

Complexities: Race versus Party

5th Circuit decision in *LULAC v. Clements* (1993)

- Court moved away from straightforward question of whether minority-preferred candidates lose because of white bloc voting to asking if voting patterns can be explained by party rather than race
- Court held that racially polarized voting occurs only “where Democrats lose because they are black, not where blacks lose because they are Democrats”
- Very difficult to demonstrate statistically – cannot separate out the effects of race and party

Complexities: Racial Gerrymandering

- *Shaw v. Reno* (1993) and its progeny – race cannot be the predominant factor in drawing districts unless the Voting Rights Act requires the creation of districts that provide minority voters with opportunity to elect their candidates of choice
- *Alabama Legislative Black Caucus v. Alabama* (2015) – Alabama legislators cannot simply set an arbitrary demographic target (e.g., 50% black voting age population) for all minority opportunity districts. A district-specific, functional analysis is required.
- District-specific, functional analysis is needed to produce narrowly tailored districts that satisfy the Voting Rights Act

District-Specific, Functional Analysis

Two related approaches:

- Estimates derived from a racial bloc voting analysis can be used to calculate the percent minority population needed in a specific area for minority-preferred candidates to win a district in that area.
- Election results from previous contests that included minority-preferred candidates (“bellwether elections” as identified by a racial bloc voting analysis) can be recompiled to reflect the boundaries of the proposed district to determine if minority-preferred candidates would consistently carry this proposed district.

Questions?

What to look for in a practitioner

- Assessing Gingles I and Gingles II/III require different skills
 - Gingles I requires mapping skills (demographer, geographer, GIS analyst)
 - Gingles II requires statistical skills (statistician, political scientist)
- Prior experience serving as an RPV analyst or providing expert testimony is, of course, ideal
 - Also any other work in voting rights analysis
 - Any times they testified in court or submitted expert testimony
 - Any times they were criticized by the courts for doing something wrong
- Otherwise for Gingles II/III, you can ask whether they:
 - Are comfortable with regression (used in ecological regression)
 - Have conducted Ecological Inference analysis
 - Have previously worked with the datasets being used in analysis (election results, census data, etc.)
 - Understand and can interpret point estimates and confidence intervals
- Can also ask whether they are comfortable with programming software, such as R (which has some packages available to facilitate RPV analysis) or Python
- Previous and current colleagues/collaborators