



County of San Diego Independent Redistricting Commission Demographic Services Contractor

Racially Polarized Voting Analysis Statement of Work

July 22, 2021

Racially Polarized Voting Analysis for County of San Diego, California

Statement of Work

FLO Analytics (FLO) seeks a qualified applicant (Applicant) to complete a racially polarized voting (RPV) analysis in support of the County of San Diego (County) Independent Redistricting Commission's (IRC) efforts to adopt revised county supervisorial district boundaries based on the 2020 decennial census. As the demographic redistricting service provider, FLO will assist the County IRC in a technical capacity, providing the necessary data, tools, and demographic expertise required to draw and adopt new supervisorial districts. To this end, FLO will assess the validity of each proposed configuration of the supervisorial districts, ensuring they comply with all state and federal redistricting criteria.

One important criterion is compliance with the federal Voting Right Act (VRA, 1965), which states within Section 2, in pertinent part, that "no voting qualification or prerequisite to voting, or standard, practice, or procedure shall be imposed or applied by any State or political subdivision in a manner which results in a denial or abridgement of the right of any citizen of the United States to vote on account of race or color," As it applies to redistricting, Section 2 is a protection against vote dilution on the basis of race or ethnicity.

The U.S. Supreme Court case *Thornburg v. Gingles* (1986) established a three-part test for proving whether vote dilution in violation of Section 2 of the VRA has occurred in a district or districts:

- 1) "The minority group must be able to demonstrate that it is sufficiently large and geographically compact to constitute a majority in a single-member district."
- 2) "The minority group must be able to show that it is politically cohesive."
- 3) "The minority must be able to demonstrate that the white majority votes sufficiently as a bloc to enable it usually to defeat the minority's preferred candidate."

The second and third preconditions constitute RPV. Although there is no fixed formula for ascertaining when voting is racially polarized, generally, voting can be said to be racially polarized when the political preferences of majority-race and minority-race voters diverge substantially, and the racial majority votes with enough cohesion to usually defeat the minority's candidates of choice (Elmendorf, 2015). RPV itself is neither a constitutional nor a statutory violation but is rather a predicate condition for vote dilution (Crum, 2020). In jurisdictions with RPV, line drawers can predict that particular district boundary configurations could dilute a

racial/ethnic minority's voting power. Therefore, vote dilution is the result of a set of district boundaries that prevent racial/ethnic minorities from having an equal opportunity to elect the candidates of their choice. To ensure that such a violation of Section 2 of the VRA does not occur, RPV analysis should be conducted by any entity with a significant minority population to avoid the drawing of potential redistricting plans that crack or pack geographically concentrated and politically cohesive racial/ethnic minority populations.

Determining whether RPV has occurred or is occurring is based on statistical analyses of a series of elections over time. Elections for the office at issue are most probative, although other elections may be relevant; more recent elections are generally more probative than older elections; elections in which minority voters had the choice of voting for a minority candidate may most clearly demonstrate polarization, although other elections are relevant; non-partisan or same-party elections may be more probative than elections in which candidates are of different political parties; whether the minority candidate won the election is also relevant and the margin of victory. Analysis should focus the inquiry to the existing supervisorial districts. The intent is to ascertain whether minorities are "politically cohesive" and whether the "majority votes sufficiently as a bloc to enable it to usually defeat the minority's preferred candidate" (Crum, 2020). If statistical analyses suggest RPV has occurred, majority-minority districts are often used as an approach to prevent the dilution of minorities' voting power in compliance with the VRA.

SCOPE OF WORK

Task 1—Data Collection

The Applicant shall determine which elections—since the 2011 redistricting effort—to analyze for evidence of the existence of RPV and shall analyze a minimum of twenty elections including elections for Board of Supervisors and other elections within the boundaries of each of the five existing supervisorial districts.

The Applicant shall acquire the necessary election and geographic data, which is available from the Statewide Database for the State of California (SWDB). Additional data may be required and should be collected and documented within the metadata to be submitted as a task deliverable.

Since the U.S. election process does not require the collection of race/ethnicity information for the registered voting population during an election, methods of prediction (e.g., Bayesian Improved Surname Geocoding) are often required to complete RPV analyses. However, such prediction techniques will not be necessary for this analysis, because the SWDB elections data includes race/ethnicity information (see Statement of Registration Codebook). Descriptions of the election and geographic data provided by SWDB are summarized below, including denotation of the specific datasets to be used in the RPV analysis:

Geographic Data - Precinct Types

The Applicant shall use SRPREC precinct types for the County IRC RPV analysis.

- MPREC: Geography for Registration precincts, corresponding with RRPREC tabular data. RRPREC data aggregate the original reported registration data (RGPREC data) into these MPREC geographic precincts.
- SRPREC: Consolidation of Registration (RR) and Voting (SV) precincts. Both Registration and Voting data are available as SRPREC tabular datasets.

Election Data - State of Registration (SOR) File Types

The Applicant shall use VOTE SOR file type for the County IRC RPV analysis.

- REG = registration data for all registered voters
- ABS = registration data for absentee voters
- MAIL = registration data for mail ballot voters
- POLLV = registration data for polling place voters
- VOTE = registration data for all voters that voted
- NONVOTE = registration data for voters who did not vote

Election Data - Precinct Types

The Applicant shall use SR precinct type for the County IRC RPV analysis.

- RG = Original Registration Precincts (designated by County Registrar)
- RR = Registration Precincts (geographic unit constructed for statistical merging purposes by SWDB)
- SV = Original Voting Precincts (designated by County Registrar)
- SR = Consolidated Precinct (geographic unit constructed for statistical merging purposes by SWDB)

Task Deliverables

- Identification of elections to be analyzed and rationale for selection of each election for analysis
- Database containing source election and geographic data, as well as intermediate and ancillary data used in the analysis
- Documentation or metadata describing any necessary data preparation steps

Task 2—Statistical Analysis

There are three overarching methods of determining if RPV has occurred: homogeneous precinct analysis, ecological regression (ER, weighted and unweighted), and ecological

inference (EI). The RPV analysis performed by the Applicant for the County IRC should include implementation of ER and EI methods due to their prevalence in redistricting case law and ability to analyze voting data in non-homogeneous precincts.

For the County IRC RPV analysis, ER and EI statistical analyses are to be conducted on the Applicant-selected primary and general elections, utilizing the existing supervisorial district boundaries (2011). For each election, data for registration and turnout rates by race and language minority group, as well as the most recent estimate for percent of eligible voters by race and language minority group based on the most recent five-year estimates from the U.S. Census Bureau American Community Survey shall be provided to the extent available on the SWDB.

RPV analysis may be performed using one of many available statistical programming languages (e.g., R, python, Julia).

Task Deliverables

- Documentation of the methods and parameters used within the ER and EI analyses
- Database of intermediate (if applicable—understanding the nature of simulated data analysis) and final results

Task 3—Interpretation of Results

The results of the statistical analyses shall be used by the Applicant to conclude whether RPV has occurred in the County in previous primary and general elections at the geographic level of the supervisorial districts. A written report should be produced, including sections that introduce the analysis; outline the data and methods used; summarize results including standard errors, confidence intervals, and other appropriate measures of statistical robustness in data visualization; discuss the results; and make conclusions about the outcomes of the analysis, such as the degree of polarization and the proportion of minority eligible voters necessary to provide an equal opportunity to elect chosen candidates without packing or cracking minority concentrations. The interpretation shall focus on voting patterns of individual racial and language minority groups as defined in the federal VRA, as well as coalitions formed by such minority groups, and the voting patterns of the rest of the electorate.

If the results indicate that RPV has occurred and FLO has determined that the first Gingles precondition has been met, recommendations should be made concerning approaches for drawing redistricting plans that do not fragment, submerge, or unnecessarily pack a geographically concentrated racial/ethnic minority population in violation of Section 2 of the VRA. One such approach may be the recommendation to create one or more majority-minority districts that provide racial/ethnic minority voters with an equal opportunity to elect candidates

of choice. Additional recommendations to bolster the redistricting process are also welcomed, such as analyses that apply past election results to prospective district boundary plans to assess how candidates would perform if the proposed supervisorial districts were approved and enacted (i.e., performance analyses on reconstructed election results).

Task Deliverables

- Written report of results, including the following sections: Introduction, Data & Methods, Results, Discussion, and Conclusions & Recommendations
- Presentation to the County IRC summarizing the written report

References

- Crum, Travis. 2020. "Reconstructing Racially Polarized Voting." <https://scholarship.law.duke.edu/dlj/vol70/iss2/1>
- Elmendorf, Christopher S., Kevin M. Quinn, and Marisa A. Abrajano. 2015. "Racially Polarized Voting." <https://lawreview.uchicago.edu/publication/racially-polarized-voting-0>
- Statewide Database for the State of California (SWDB). 2021. <https://statewidedatabase.org/>
 - [Elections Data](#)
 - Technical documentation: [Creating California's Official Redistricting Database](#)
 - Geographic Data: General Election Precinct Boundaries
 - e.g., [2020 General Election Geographic Data](#)
 - [Precinct Type Descriptions](#)
 - Election Data: General Election Precinct Data
 - e.g., [2020 General Election Precinct Data](#)
 - [Voting & Registration Precinct Data](#)
 - [Statement of Registration \(SOR\) Codebook](#)

TIMELINE

The anticipated period of performance for this work is August 1 to September 30.