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MEMORANDUM

TO: Members, Redistricting Task Force

FROM: Ana Flores *A.F.*
Gus Guibert *G.G.*
Andrew Shen *A.S.*
Deputy City Attorneys

DATE: March 14, 2022

RE: Voting Rights Act Section 2 Analysis

SUMMARY

As we advised since the beginning of this process, the Redistricting Task Force (“Task Force”) must ensure that the new supervisorial district lines comply with Section 2 of the federal Voting Rights Act (“Section 2”). Section 2 protects racial minorities and language minorities from discriminatory voting practices. For redistricting here, Section 2 prohibits the City from adopting redistricting plans that would dilute the voting power of racial or language minorities. 52 U.S.C. § 10301. Under some circumstances, Section 2 may require creating a majority-minority district to prevent vote dilution and to ensure that minority voters have an equal opportunity to elect their candidates of choice. To assist with advising on voting rights issues, we retained two well-regarded and experienced experts: Q2 Data & Research, which analyzed redistricting data in the City (the “Redistricting Consultant”) and Blockwell Consulting, LLC, which analyzed past electoral contests in the City for the existence of racially polarized voting patterns (the “Racially Polarized Voting Expert”)

Based on our review of the voting rights analyses performed by the Redistricting Consultant and the Racially Polarized Voting Expert, Section 2 does not require the Task Force to draw any majority-minority districts.

In this memorandum we first provide an overview of the general legal standards that courts use in Section 2 cases involving redistricting. Those standards include the three necessary factors (sometimes called “*Gingles* factors” after the seminal U.S. Supreme Court case that established them) that courts examine to determine whether Section 2 may require creating a majority-minority district. We then apply these legal standards to the analyses that our experts performed based on 2020 census data and past election results.

As a threshold matter, the Redistricting Consultant examined demographic data for all protected minority groups in the City, including Latino, African-American, Indigenous, and Asian-American populations to determine whether any required further analysis under Section 2. Section 2 analysis first requires that a minority population be “sufficiently large and geographically compact” for the purposes of a hypothetical district. To be “sufficiently large,” the minority voting-age population in the proposed area must be greater than 50% of the voting-age population of that district. Based on the 2020 census data, the Redistricting Consultant found only the possibility of creating “sufficiently large and geographically compact” Asian-American majority districts that could satisfy this requirement; no other minority group met that

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requirement. Accordingly, the analysis by the Racially Polarized Voting Expert focuses on the possibility of Asian-American majority districts in the City.

Given the potential existence of sufficiently large and geographically compact Asian-American majority districts, the next key legal questions in a Section 2 inquiry are whether (1) Asian-American voters engage in racially-polarized voting and (2) whether racially-polarized voting by other groups usually prevents Asian-American voters from having an equal opportunity to elect the candidates of their choice. As we explain further below, the analysis by the Racially Polarized Voting Expert does not support the legal conclusion that these factors were satisfied.

Because Section 2 does not require creating any majority-minority districts, in redrawing supervisorial districts based on the recent census, the Task Force may only allow population variation between districts up to 5% to keep neighborhoods intact, as provided under the City Charter. Also, even though Section 2 does not require the Task Force to create any majority-minority districts, the Task Force may create a majority district for minority groups based on the criteria other than race as described in the Charter, such as preservation of recognized neighborhoods and consideration of communities of interest.

DISCUSSION

The City could be sued in federal court either for 1) failing to create a majority Asian-American district if the Voting Rights Act requires one, or for 2) creating a race-based majority Asian-American district (or other race-based majority district) if the Voting Rights Act does not require one. The Charter also provides that the Task Force may allow population variation between districts up to 5%, only as necessary to prevent Section 2 violations, or to keep recognized neighborhoods intact. S.F. Charter § 13.110(d).

The party arguing in court for a majority Asian-American district would have to establish three factors: 1) the minority group at issue is “sufficiently large and geographically compact to constitute a majority in a single district,” 2) the minority group is “politically cohesive,” and 3) the majority group “votes sufficiently as a bloc to enable it . . . usually to defeat the minority’s preferred candidate.” *Thornburg v. Gingles*, 478 U.S. 30, 50-51 (1986); *Grove v. Emison*, 507 U.S. 25, 40 (1993). Courts examine racially polarized voting analyses to determine whether the second and third preconditions are satisfied. Then, if a court determines that all three of the *Gingles* preconditions are satisfied, it would then consider the totality of the circumstances to make a final determination about whether a majority Asian-American district is required to ensure that Asian-American voters have “an equal measure of political and electoral opportunity.” *Johnson v. De Grandy*, 512 U.S. 997, 1013 (1994).

As we describe further below, based on a population map prepared by our Redistricting Consultant, Karin Mac Donald of Q2 Data & Research, the first *Gingles* factor is satisfied for a possible majority Asian-American district in four parts of the City (shown on the attached map). Based on the racially polarized voting analysis, it does not appear that either the second factor—cohesive voting by Asian-American voters—or third factor—majority bloc voting that defeats Asian-American voters’ preferred candidates—is satisfied.

Even if the Voting Right Act does not *require* the Task Force to create a majority Asian-American district, the Task Force may create a majority Asian-American district based on the other criteria described in the Charter, such as preservation of neighborhoods and consideration of communities of interest. For example, the Task Force may continue with a version of District

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4 that tracks the existing Sunset neighborhood and that may result in a majority Asian-American supervisorial district.

A. *Gingles* Preconditions**1. Size and Geographical Compactness**

The first *Gingles* factor requires the minority group to be “sufficiently large and geographically compact to constitute a majority in a single-member district.” *Gingles*, 478 U.S. at 50.

To be “sufficiently large,” the minority voting-age population in the proposed area must be greater than 50% of the voting-age population of that district. *Bartlett v. Strickland*, 556 U.S. 1, 18-19 (2009) (plurality opinion). *See also Pope v. County of Albany*, 687 F.3d 565, 576 (2d Cir. 2012) (“the first *Gingles* question is straightforward and statistical: does the identified minority group form at least a simple majority of the relevant population in the proposed district?”). To assess this factor, courts measure minority population by citizen voting-age population (“CVAP”) data. *See Romero v. City of Pomona*, 883 F.2d 1418, 1426 (9th Cir.1989), abrogated on other grounds, *Townsend v. Holman Consulting Corp.*, 914 F.2d 1136, 1141 (9th Cir.1990) (en banc). The legal question here is whether a minority group could constitute an effective voting majority, and therefore the focus is on the minority population that is eligible to vote rather than the total minority population. *Id.*

There is no precise legal rule governing compactness. But a district that has lines reaching out to include one or more small and apparently isolated minority communities is not reasonably compact. *Bush v. Vera*, 517 U.S. 952, 979 (1996).

2. Minority Political Cohesiveness

Minority voters are “‘politically cohesive’ if they have ‘expressed clear political preferences that are distinct from those of the majority.’” *Old Person v. Cooney*, 230 F.3d 1113, 1121 (9th Cir. 2000) (quoting *Gomez v. City of Watsonville*, 863 F.2d 1407, 1415 (9th Cir. 1988)). There is no bright line for political cohesiveness. But as a point of reference, in *Gingles* the Court held that cohesiveness was “clearly established” where “[i]n all but 5 of 16 primary elections, black support for black candidates ranged between 71% and 92%; and in the general elections, black support for black Democratic candidates ranged between 87% and 96%.” *Gingles*, 478 U.S. at 59. Courts generally use racially polarized voting (“RPV”) analysis to measure political cohesiveness. This analysis is discussed in more detail in Section 4, below.

3. Majority Bloc Voting

The majority engages in legally significant bloc voting, satisfying the third *Gingles* precondition, if it “votes sufficiently as a bloc to enable it—in the absence of special circumstances, such as the minority candidate running unopposed—usually to defeat the minority’s preferred candidate.” *Gingles*, 478 U.S. at 51 (internal citations omitted). *See also Johnson v. Hamrick*, 196 F.3d 1216, 1221 (11th Cir. 1999) (“a plaintiff must show not only that whites vote as a bloc, but also that white bloc voting *regularly* causes the candidate preferred by [minority] voters to lose). Courts generally use RPV analysis to measure majority bloc voting.

4. Racially-polarized voting analysis

As noted above, courts use RPV analysis to assess whether the second and third *Gingles* factors are met. Courts use a two-step process to determine whether there was majority bloc

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voting in a particular contest: 1) identifying the minority-preferred candidate, and 2) determining whether non-minority voters usually voted as a bloc to defeat the minority preferred candidate. See *Old Person*, 230 F.3d at 1122. The following points provide useful background information for your review of the attached RPV analyses:

- The RPV analysis uses census data, incorporating the census definitions of different minority groups. As defined by the 2020 Census, “Asian” refers to a person having origins in East Asia, Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. It includes people who indicated their race(s) as “Asian” or reported entries such as “Asian Indian,” “Chinese,” “Filipino,” “Korean,” “Japanese,” “Vietnamese,” and “Other Asian” or provided other detailed Asian responses. Even though different communities that the Census identifies as “Asian” may have different voting patterns and political histories, the RPV analysis is necessarily limited by the Census data.
- The minority preferred candidate is the “candidate who receives sufficient votes to be elected if the election were held only among the minority group in question.” *Ruiz v. City of Santa Maria*, 160 F.3d 543, 552 (9th Cir. 1998). There is no requirement that the minority-preferred candidate be a member of the minority group. *Id.* at 551.
- The RPV analysis should consider more than one election. *Gingles*, 478 U.S. at 57. The most useful data will be from recent elections. See *Montes v. City of Yakima*, 40 F.Supp.3d 1377, 1402 (E.D. Wash. 2014).
- There are no specific legal requirements about which elections to analyze, but cases provide direction about which elections are most probative:
 - Courts give less weight to elections involving special circumstances such as elections in which an incumbent runs or a candidate runs unopposed. *Gingles*, 478 U.S. at 57.
 - Election contests between a minority candidate and a non-minority candidate are given greater weight than contests that do not involve a minority candidate. *Ruiz*, 160 F.3d at 553. But election contests between two non-minority candidates can provide relevant and admissible evidence. *Id.*
 - Elections for the particular office and district at issue (referred to as “endogenous elections”) are given greater weight than other elections encompass or include same geographic area (referred to as “exogenous elections”). *Luna v. County of Kern*, 291 F.Supp.3d 1088, 1120 (E.D. Cal. 2018). But courts may consider exogenous elections, especially if there is limited data available for the endogenous elections. *United States v. Blaine County*, 363 F.3d 897, 911-12 (9th Cir. 2004); *Cano v. Davis*, 211 F.Supp.2d 1208, 1235 (C.D. Cal. 2002).

B. Totality of the Circumstances Inquiry

If a court determines that each of the *Gingles* preconditions were satisfied, it then examines the “totality of the circumstances” to determine whether Section 2 requires drawing a majority-minority district in that area. *Luna*, 291 F.Supp.3d at 1131. The court’s totality of the circumstances inquiry has focused on a specific set of factors – often referred to as the “Senate

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Factors.” Analysis of these factors is only required if all three *Gingles* preconditions have been met. These Senate Factors are:

- (1) the extent of any history of official discrimination in the state or political subdivision that touched the right of the members of the minority group to register, to vote, or otherwise to participate in the democratic process;
- (2) the extent to which voting in the elections of the state or political subdivision is racially polarized;
- (3) the extent to which the state or political subdivision has used unusually large election districts, majority vote requirements, or other voting practices or procedures that may enhance the opportunity for discrimination against the minority group;
- (4) if there is a candidate slating process, whether the members of the minority group have been denied access to that process;
- (5) the extent to which members of the minority group in the state or political subdivision bear the effects of discrimination in such areas as education, employment and health, which hinder their ability to participate effectively in the political process;
- (6) whether political campaigns have been characterized by overt or subtle racial appeals;
- (7) the extent to which members of the minority group have been elected to public office in the jurisdiction;
- (8) whether there is a significant lack of responsiveness on the part of elected officials to the particularized needs of the members of the minority group;
- (9) whether the policy underlying the state or political subdivision's use of such voting qualification, prerequisite to voting, or standard, practice or procedure is tenuous; and
- (10) proportionality, or whether the number of districts in which the minority group forms an effective majority is roughly proportional to its share of the population in the relevant area.

Gingles, 478 U.S. at 44-45; *Luna*, 291 F.Supp.3d at 1131-32.

C. Applying the *Gingles* Preconditions

The Redistricting Consultant evaluated the entire City for the first *Gingles* precondition. The Redistricting Consultant evaluated several protected minority groups, including Latino, African-American, Indigenous, and Asian-American populations. In San Francisco, there was only one group, Asian-Americans, that met the first *Gingles* precondition in certain areas. All other protected minority groups did not satisfy the requirements to be “sufficiently large and geographically compact.” The attached map prepared by the Redistricting Consultant illustrates that it would be possible to create a sufficiently large and geographically compact Asian-American CVAP district in four areas of the City. These areas are:

- the current District 4;
- an area in the northeastern part of the City that could include parts of the current Districts 3 and 6; and
- two areas in the southern part of the City that could include parts of the current Districts 7, 9, 10, and 11.

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A diagram of these areas is included as Attachment A.

The election analysis prepared by our Racially Polarized Voting Expert, Dr. Megan Gall, provides data about racially polarized voting City-wide and in the possible Section 2 areas of the City. Dr. Gall's analysis, and a copy of her current resume, are included as Attachment B. To guide her analysis, our Office considered past elections that were most likely to be probative, and provided her with the following elections held during the last decade:

- Board of Supervisors, District 3, November 2020
- District Attorney, November 2019
- Board of Supervisors, District 4, November 2018
- Mayor, June 2018
- Board of Supervisors, District 11, November 2016
- Board of Supervisors, District 3, November 2016
- State Senate, November 2016
- State Senate, June 2016
- Board of Supervisors, District 3, November 2015
- State Assembly (Assembly District 17), November 2014
- Board of Supervisors, District 10, November 2014
- State Assembly (Assembly District 17), June 2014
- Mayor, November 2011

As explained in her findings, of these 13 elections, Dr. Gall found that the second and third *Gingles* preconditions were present in only one election, the District Attorney election held in November 2019. While this is the type of evidence that is relevant for Section 2 analysis, it is unlikely that a court would conclude that these *Gingles* preconditions – especially the third – are satisfied. A finding that only one out of 13 elections had signs of “majority bloc voting” that defeated the minority’s preferred candidate is insufficient to meet the requirement that such results “usually” or “regularly” occur. As Dr. Gall reports, “the evidence overwhelmingly supports the conclusion that [Asian-American] voters can usually elect candidates of choice when they have one” and that “white voters often show significant crossover or majority support for the Asian [candidate of choice].” Such crossover voting patterns generally suggest that the third *Gingles* precondition is not present. *Bartlett*, 556 U.S. at 24.

Lastly, since the experts’ analyses demonstrate that the *Gingles* preconditions were not satisfied, there is no need to consider the “Senate Factors.”

CONCLUSION

Given that the expert evidence does not establish the *Gingles* preconditions, Section 2 does not require the Task Force to draw any majority Asian-American districts. No other minority groups meet the first *Gingles* precondition that it is sufficiently large as a percentage of voting-age population and geographically compact. Further, in the absence of these Section 2

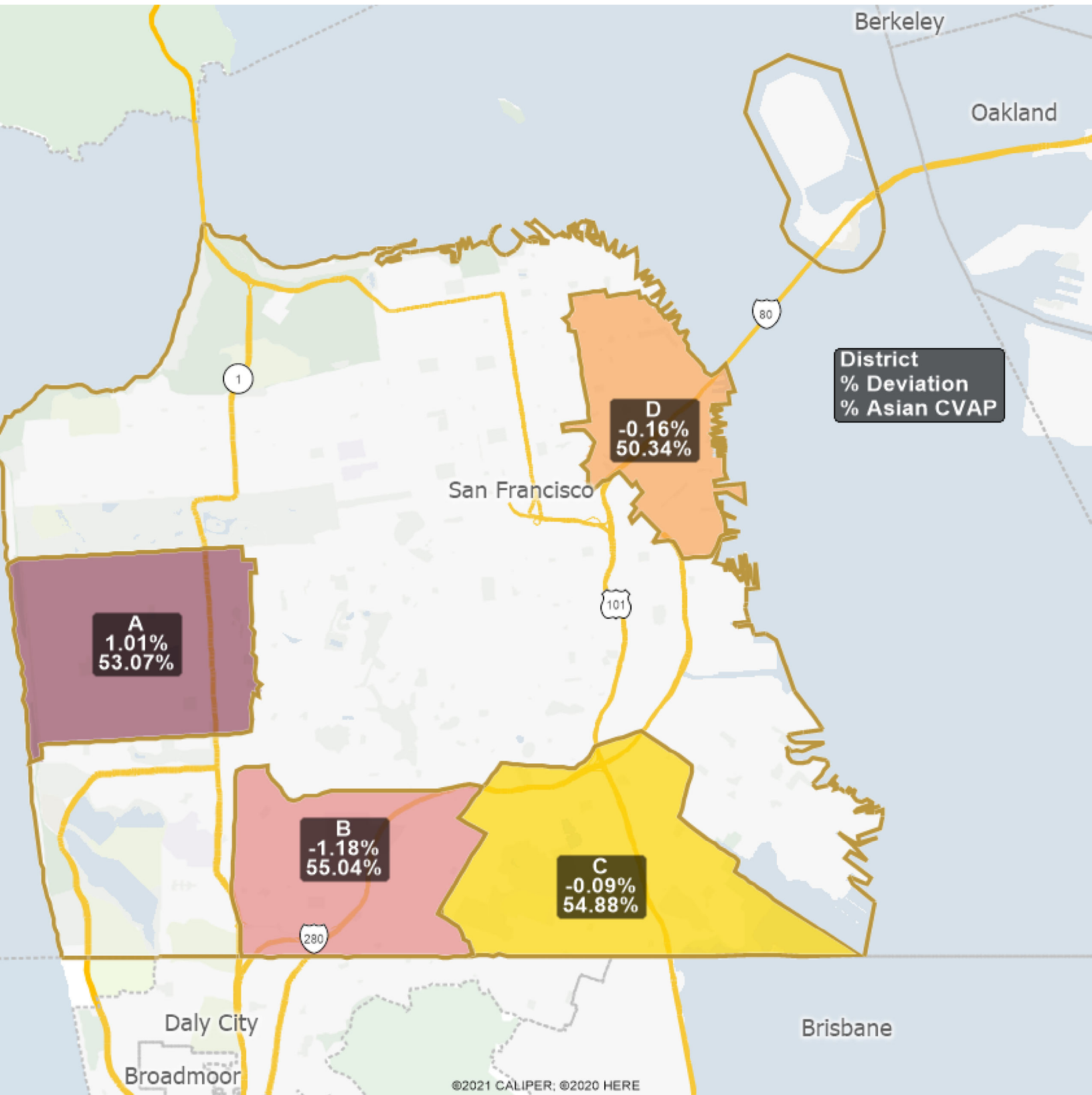
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requirements, the Task Force may only allow population variation between districts up to 5% to keep neighborhoods intact. S.F. Charter § 13.110(d).

cc: Karin Mac Donald, Redistricting Consultant
Dr. Megan Gall, Racially Polarized Voting Expert

ATTACHMENT A - MAP



ATTACHMENT B - MEMO

To: San Francisco City Attorney's Office - Andrew Shen, Ana Flores, Gus Guibert

From: Blockwell Consulting, LLC - Dr. Megan A. Gall

Date: March 9, 2022

RE: Racially Polarized Voting Analyses in San Francisco, California

Overview:

At the request of the San Francisco City Attorney's Office, I analyzed electoral contests for the existence of racially polarized voting (RPV) patterns in elections in San Francisco, California. I analyzed thirteen contests identified for analysis including contests in which Asian American or Pacific Islander (AAPI) candidates were running for elected office. Q2 prepared data using the California Statewide Database and provided it to me for analyses. Data included estimated citizen voting age population (CVAP) and candidate vote totals.

Overall, RPV does not reach levels of legal and statistical significance in San Francisco. Findings do not support the creation of majority-minority districts for the purposes of Voting Rights Act (VRA) compliance.

Background and Methods:

The U.S. Supreme Court developed the 'Gingles Preconditions', commonly referred to as Gingles 1, 2 and 3 in *Thornburg v. Gingles* (478 U.S. 30 1986). The preconditions hold that:

1. "(T)he 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. "(T)he minority group must be able to show that it is politically cohesive."
3. "(T)he minority must be able to demonstrate that the white majority votes sufficiently as a block to enable it... usually to defeat the minority's preferred candidate."

In other words, (1) the minority group must be geographically compact enough to comprise a majority in a district, (2) they must typically vote together for a shared candidate of choice, and (3) the white voters must also vote as a bloc in a way that "usually" prevails over the minority candidate of choice. All three preconditions must be met for a viable VRA claim.

Gingles 1 is determined by demographers and map experts. Gingles 2 and 3, defined by the Court as the evidentiary "linchpin" of a vote dilution case (*Thornburg v. Gingles*, 478 U.S. 30 1986), are determined through expert analysis of RPV patterns.

There are several statistical methods available to test for the presence of RPV. The first is called homogeneous precincts. This is a primitive test in which we ascribe the voting patterns in the most homogeneous precincts to precincts across the jurisdiction. The second is a bivariate regression called ecological regression (ER) that summarizes the relationship between the racial or ethnic composition of the jurisdiction and the election results for candidates.

Problematically, ER can produce estimates outside the bounds of logic. For example, ER models can show a group voted for a candidate at levels above 100% or below 0%, both real-world impossibilities.

The third and most predominant technique is called Ecological Inference (EI) by Gary King. The Court recommended EI directly and it remains the staple method. EI combines a method of bounds developed in 1953 (Otis Dudley Duncan and Beverly David 1953) and ER to calculate estimates within real-world logical boundaries. Finally, Ecological Inference Rows by Columns (EI RxC) is the most recent methodological advance. It allows modeling of two or more candidates and two or more demographic groups (Ori Rosen et al. 2001). EI and EI RxC were the primary methods used to evaluate RPV in San Francisco.

Findings:

Overall, voting in San Francisco is not racially polarized. AAPI voters are regularly able to elect their candidate of choice (COC) and white voters are typically not voting as a bloc to defeat the AAPI COC¹. See the table below for an overview of contests and findings.

Legally and statistically significant racially polarized voting patterns were not detected in twelve of the thirteen contests analyzed. The single exception was in the District Attorney contest in November 2019. In this contest, AAPI voters had a clear and distinct COC who placed first among AAPI voters. The AAPI COC placed last for white voters. Gingles 2 and 3 were likely met in this contest.

There are several relevant voting patterns in the remaining twelve elections. First, AAPI voters did not always express a clear COC. Further, in contests where AAPI voters did express a clear COC, either AAPI and white voters shared a COC or there was significant white crossover voting.

| | Office | Year | Gingles 2 and 3 Likely Met | Winner |
|---|------------------------------------|-----------|----------------------------|--------------|
| 1 | Board of Supervisors - District 3 | Nov. 2020 | No | Aaron Peskin |
| 2 | District Attorney | Nov. 2019 | Yes | Chesa Boudin |
| 3 | Board of Supervisors - District 4 | Nov. 2018 | No | Gordon Mar |
| 4 | Mayor | June 2018 | No | London Breed |
| 5 | Board of Supervisors - District 11 | Nov. 2016 | No | Ahsha Safai |
| 6 | Board of Supervisors - District 3 | Nov. 2016 | No | Aaron Peskin |
| 7 | State Senate - District 11 | Nov. 2016 | No | Scott Wiener |
| 8 | State Senate - District 11 | June 2016 | No | Jane Kim |

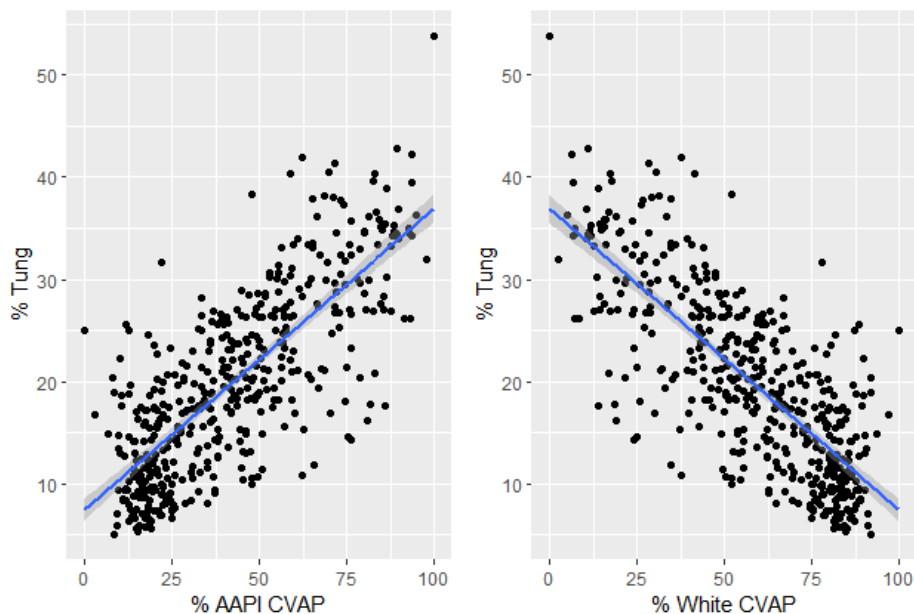
¹ Ranked-choice voting is used in San Francisco elections. Only first choice candidate votes were analyzed.

| | | | | |
|----|------------------------------------|-----------|----|--------------|
| 9 | Board of Supervisors - District 3 | Nov. 2015 | No | Aaron Peskin |
| 10 | State Assembly - District 17 | Nov. 2014 | No | David Chiu |
| 11 | Board of Supervisors - District 10 | Nov. 2014 | No | Malia Cohen |
| 12 | State Assembly - District 17 | June 2014 | No | David Chiu |
| 13 | Mayor | Nov. 2011 | No | Ed Lee |

Two scatterplots, shown below, summarize the voting patterns in San Francisco elections. Each dot represents a precinct in the analysis and is plotted according to the percentage vote for the candidate and the percentage of the demographic group. Both graphs also show the linear regression line, or line of best fit. The line of best fit represents the relationship between the points.

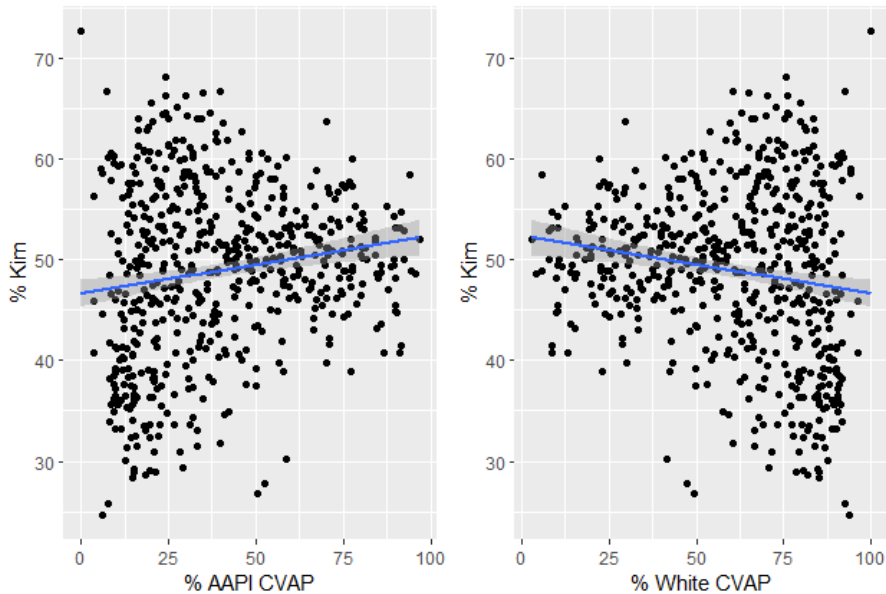
Scatterplot 1 is a visualization of the group cohesion exhibited in the District Attorney election in November 2019 where RPV was present. Nancy Tung was the AAPI COC. The graph on the left plots the vote for Tung and the AAPI citizen voting age population (CVAP). Precincts with higher percentages of AAPI voters are more likely to vote for Tung. The graph on the right plots the vote for Tung and the white CVAP. Precincts with higher percentages of white voters are less likely to vote for Tung.

Scatterplot 1:



Scatterplot 2, shown below, is a visualization of the voting patterns in the 2016 general election for State Senate District 11 where RPV was not detected. AAPI voters showed a very slight preference for Jane Kim. White voters showed a very slight preference for Wiener. The line of best fit has a smaller range and hovers around 50% showing how both groups essentially split their vote between candidates. Visually, the line is flatter than in the District Attorney contest. Both group voting patterns show a lack of group cohesion and no COC.

Scatterplot 2:



Lastly, I compared findings in San Francisco to my statewide analyses. I served as the RPV expert for the California Citizens' Redistricting Commission. I analyzed over 700 contests statewide for that effort. Results presented here are consistent with my statewide results. Gingles 1, 2, and 3 were not met throughout the Bay Area and areas extending south into the Central Coast. My maps showing statewide patterns are available [here](#).

Conclusions:

Although RPV was observed in a single contest in San Francisco, the evidence overwhelmingly supports the conclusion that AAPI voters can usually elect candidates of choice when they have one and that white voters do not usually vote as a bloc to defeat the AAPI COC. To the contrary, white voters often show significant crossover or majority support for the Asian COC.

ATTACHMENT B - RESUME

MEGAN A. GALL, PHD, GISP

megan@blockwellconsulting.com · <http://www.blockwellconsulting.com>

EDUCATION:

- PhD: Political Science** · University at Buffalo SUNY: Buffalo, NY 8/2013
Dissertation: *The Political Geography and Electoral Consequences of the Slavery and Civil Rights Eras in American History*
Thesis: *The Efficacy of 'Broken Windows' Policies in American Cities*
- MS: Geographic Information Science (GIS)** · University of Denver: Denver, CO 5/2007
Thesis: *The Scope and Nature of Panhandling and the Related Crime in Denver, Colorado*
- BS: Sociology** · Shepherd College: Shepherdstown, WV 12/2000

SOFTWARE AND SKILLS:

Statistical & Data Viz: R stats/programming, QGIS, SQL, Tableau Public, ESRI ArcGIS/Online, Maptitude/Maptitude for Redistricting, Microsoft Excel/Access

Technology: HTML, CSS, VAN, Git, GitHub, Visual Studio Code, WordPress

EMPLOYMENT:

- Principal** 1/2021 - present
Blockwell Consulting, LLC: Nationwide (full client list available upon request)
- Voting Rights Act (VRA) compliance and full consideration of the Gingles Preconditions including illustrative and remedial maps, racially polarized voting analyses, and demographic analyses.
 - Clients: Strumwasser & Woocher, LLP for the California Citizen's Redistricting Commission; the U.S. Department of Justice; national non-profit law firms; and numerous local jurisdictions including cities, counties, and special jurisdictions
 - Conducting quantitative analyses in support of voting rights and criminal justice policy and litigation
 - Researching and reporting

National Data Director 6/2018 – 5/1/2021

- All Voting is Local, a Leadership Conference Education Fund Campaign: Washington, DC
- Directing quantitative research to evaluate and recommend election administration policy, investigate voting rights violations, inform campaign strategy, and evaluate programmatic work
 - Orchestrating multiple research projects with remote teams
 - Managing large scale experiments testing efficacy of different modes of voter outreach
 - Designing and implementing scalable data pipelines, analytics, and storage systems
 - Building a scalable research team including recruitment, supervision, and mentorship
 - Consulting with vendors, stakeholders, and research communities to further programmatic goals
 - Developing program metrics and evaluation

Senior Researcher 9/2017 - 6/2018

- Thurgood Marshall Institute at the NAACP Legal Defense and Educational Fund: Washington, DC
- Maintained a research portfolio focused on voting rights, redistricting, and criminal justice policy
 - Conducted quantitative analyses in support of voting rights and criminal justice litigation

Social Scientist

3/2014 – 9/2017

Lawyers' Committee for Civil Rights Under Law: Washington, DC

- Investigated 35 U.S. jurisdictions in 14 states for voting rights violations resulting in 10 lawsuits:
 - modeled racially polarized voting patterns using multiple ecological inference statistical methods for over 200 electoral contests
 - created and evaluated political districting maps for 30 local and statewide jurisdictions
 - conducted spatial and aspatial demographic analyses
 - interpreted statistical results and relevant law, and provided litigation recommendations
- Developed quantitative evidence and writing legal declarations for employment, housing, and education litigation
- Research and reporting e.g. concept development, spatial and aspatial data analyses, statistical interpretation, writing, editing, and digital content creation
- Trained in-house and *pro bono* counsel on ecological inference, redistricting, GIS, and the collection and use of administrative and U.S. Census Bureau data
- Advised the national nonpartisan Election Protection Coalition on survey design, data collection, data privacy, and dissemination
- Assisted Development Team in grant writing when subject matter expertise is needed, including helping secure a \$1.3M, 3-year criminal justice grant
- Consulted with external expert witnesses, stakeholders, and *pro bono* counsel on research, evaluation, and data handling

Research/Teaching Assistant

9/2009 - 5/2013

University at Buffalo: Buffalo, NY

- Wrote proposal securing \$4,000 Baldy Center for Law & Social Policy Research Grant
- Conducted spatial and aspatial analyses for ongoing research
- Instructed undergraduate level class titled *Politics and Geography*

Research Associate

12/2007 - 7/2009

OMNI Institute: Denver, CO

- Supported client-based research projects e.g. proposal development, research design, data collection, data analyses, and reporting
- Integrated geospatial analyses into existing and developing research projects
- Provided company-wide geospatial analytic and cartographic support
- Designed and constructed 38 data storage systems for 24 federally funded HIV/AIDS programs throughout Colorado with cross-site evaluation capabilities
- Evaluated offender specific court systems (DUI, drug, and prostitution courts), homeless service organizations, and Hepatitis C/HIV/AIDS service programs
- Served as liaison to the Denver Office of Drug Strategy Commission

Temporary Fair Housing Researcher

5/2007 - 12/2007

Colorado Department of Local Affairs, Division of Housing: Denver, CO

- Conducted spatial and aspatial data analyses
- Assisted in the research and production of the Colorado Analysis of Impediments (AI) to Fair Housing
- Assisted in development of the Colorado Housing Needs Assessment data systems
- Designed and created an atlas of commuters in Colorado counties

Student Research & Teaching Assistant

9/2005 - 5/2007

University of Denver: Denver, CO

- Wrote proposal securing \$5,000 Public Good Scholarship Grant
- Conducted thesis research in collaboration with the National Law Enforcement and Corrections Technology Center, the Denver Police Department, the Denver Department of Health and Human Resources, and other local agencies
- Assisted with the Denver Police Department GIS Crime Analyst Needs Assessment
- Conducted various geospatial, cartographic, and research duties
- Wrote technical laboratory exercises and acted as teaching assistant for four GIS undergraduate classes, such as *Introduction to Cartographic Design* and *Introduction to GIS*

Independent Contractor: Archaeology Field/Laboratory Technician 3/2000 - 8/2005

Five state region including WV, KY, MD, OH, and VA

- Experienced with all phases of recovery with both prehistoric and historic components
- Drafted large-scale village maps, small-scale planviews, and profile maps of excavation units
- Designed and implemented on-site artifact processing and catalog system

CERTIFICATIONS:**Certified GIS Professional (GISP)**

10/2014 – present

GIS Certification Institute: Des Plaines, IL

Canadian Studies Graduate Certificate

8/2013

University at Buffalo SUNY: Buffalo, NY

Geographic Information Systems Graduate Certificate

5/2005

University of Denver: Denver, CO

TALKS AND SEMINARS:

- “Role of the Redistricting Expert” and “Differential Privacy in the 2020 Decennial Census” seminars presented at NARF Redistricting Training for Attorneys and Experts: Virtual (May 24, 2021)
- “Data in Civil Rights Litigation” seminar presented at American University Washington College of Law, Civil Rights & Public Interest class: Washington, DC (Mar. 27, 2019)
- “Data in Voting Rights Litigation” seminar presented at Howard University School of Law, Contemporary Developments in Civil Rights Law class: Washington, DC (Nov. 15, 2018)
- “Distance Analyses for Voting Rights Act Section 2 Vote Denial Investigations” workshop conducted three times at the Metric Geometry and Gerrymandering Group (MGGG) Austin Gerrymandering Workshop: Austin, TX (Feb. 1 and 2, 2018)
- “QGIS: An open-source tool for the Civil Rights & Racial Justice Community” lecture presented at the Metric Geometry and Gerrymandering Group (MGGG) Austin Gerrymandering Workshop: Austin, TX (Feb. 1, 2018)
- “Quantitative Anatomy of Section 2 Voting Rights Claim” lecture presented at the Metric Geometry and Gerrymandering Group (MGGG) 2017 Geometry of Redistricting Summer School: Medford, MA (Aug. 8, 2017)
- “Introduction to GIS & Voting Rights Litigation” workshop conducted twice at the Metric Geometry and Gerrymandering Group (MGGG) 2017 Geometry of Redistricting Summer School: Medford, MA (Aug. 8 and 9, 2017)
- “Introduction to mapping & QGIS” workshop conducted at the IASSIST 2017 Conference: Lawrence, KS (May 23, 2017)
- “Data: How we use it, the gaps, and how we fill the gaps going forward” panelist at the 2016 Election

- Protection Post-Election Convening: Washington, DC (December 2, 2016)
- “Put It On the Map: GIS & Online Mapping Tools” webinar presented in the Digital Tools in 2016 Series hosted by Election Protection: Washington, DC (May 5, 2016)
- “Using Maps for Strategic Planning and Evaluation” (with Heather Foster) workshop conducted at the 18th Annual Faces of Leadership Conference on Service and Volunteerism: Charleston, WV (August 6 - 8, 2013)

PUBLICATIONS:

Academic Publications

- Gall, Megan A. (2020). *Forthcoming – September 2021* “Making Maps: A Practitioner’s Perspective”. In Political Geometry. Ed. Moon Duchin, Ari Nieh, and Olivia Walch. Under contract with Birkhäuser Mathematics.
- Gall, Megan A. and Jennifer L. Patin (2018). “How Laquan McDonald’s Shooting Shook up the Cook County State’s Attorney Election”. In Atlas of the 2016 Elections. Ed. Stanley D. Brunn, Gerald R. Webster, Richard L. Morrill, Fred M. Shelley, Stephen J. Lavin and J. Clark Archer. Lanham, MD. Rowman & Littlefield Publishers, Inc.
- Gall, Megan A., Joshua R. Meddaugh and Joshua J. Dyck (2011). “California’s Proposition 8 (Same-Sex Marriage) and the Race Question”. In Atlas of the 2008 Elections. Ed. Stanley D. Brunn, Gerald R. Webster, Richard L. Morrill, Fred M. Shelley, Stephen J. Lavin and J. Clark Archer. Lanham, MD. Rowman & Littlefield Publishers, Inc.
- Meddaugh, Joshua R., Megan A. Gall and Joshua J. Dyck (2011). “Ballot Measures in the 2008 Election”. In Atlas of the 2008 Elections. Ed. Stanley D. Brunn, Gerald R. Webster, Richard L. Morrill, Fred M. Shelley, Stephen J. Lavin and J. Clark Archer. Lanham, MD. Rowman & Littlefield Publishers, Inc.

Organizational Publications

- Gall, Megan and Kevin Stout (2021). “Too Many Ballots of Last Resort – Disparities in Provisional Ballot Use in Ohio’s 2020 Election”. All Voting is Local: Leadership Conference Education Fund
- Banerjee, Shruti and Megan Gall (2020). “Covid-19 Silenced Voters of Color in Wisconsin”. Demos.
- Gall, Megan A. and Mike Brickner (2019). “Rejected: How the Provisional Ballot System in Franklin County, Ohio Fails Voters”. All Voting is Local: Leadership Conference Education Fund
- Patin, Jennifer L. and Megan A. Gall (2015). “The Voting Rights Act at 50: The Story of Texas Photo ID”. Lawyers’ Committee for Civil Rights Under Law
- Gall, Megan A. and Johnna Fandel (2008). “Men Who Have Sex with Men (MSM) Resource Mapping and Assessment Project”. Proprietary report prepared for the Colorado Department of Public Health and Environment and The Council by the OMNI Institute

Data Visualizations

- Gall, Megan A. and Emily Masghatti (2018). “The Fight for Fair Housing in the United States: A Retrospective of Housing Discrimination on the 50th Anniversary of the Fair Housing Act of 1969” ESRI Story Map. Last accessed in April 2018. Thurgood Marshall Institute at NAACP Legal Defense Fund
- Gall, Megan A. (2018). “Death Row USA” Tableau Data Viz. Last accessed in April 2018. Thurgood Marshall Institute at NAACP Legal Defense Fund
- Gall, Megan A. (2017). “Communities Against Hate: Community Resource Map” Interactive map. Last accessed in April 2018. Lawyers’ Committee for Civil Rights Under Law

Maps & Spatial Contributions

- Gall, Megan A. (2016). 'VRA', 'Online Voter Registration', and 'Employee Leave Time'. In: Jennifer L. Patin. "The 2016 Primaries in Review". Lawyers' Committee for Civil Rights Under Law
- Gall, Megan A. (2016). 'Rural Counties of Georgia', 'Counties with Majority Black VAP', and 'VRA Section 5'. In: Jennifer L. Patin. "Voting Rights Communication Pipelines". Lawyers' Committee for Civil Rights Under Law
- Gall, Megan A. (2014). 'Election Protection 2014'. In: Ari Berman. "Did Voting Restrictions Determine the Outcomes of Key Midterm Races?". The Nation
- Gall, Megan A. (2014). 'Appendix B' maps. In: "Protecting Minority Voters 2014". National Commission on Voting Rights
- Gall, Megan A. (2012). 'Choropleth Map of Voting on Proposition 83, 2006' and 'Sex Offender Residency Restrictions and Population Distribution'. In: Joshua J. Dyck and Annika Hagley. "Political Geography, Direct Democracy, and the Reasoning Voter: Spatial Proximity, Symbolic Politics, and Voting on California's Proposition 83". *Politics & Policy* 40(2): 195-220
- Gall, Megan A. (2010). 'Mendoza' and 'Latin America'. In: Julia H. Kentnor Corby. "For Members And Markets: Neoliberalism and Cooperativism in Mendoza's Wine Industry". *Journal of Latin American Geography* 9(2): 27-47

Other Publications

- Gall, Megan A., review of *The Road to Inequality* by Clayton Nall, *American Review of Politics*. volume 37, no. 1 (2020).
- Gall, Megan A., review of *Women in Cartography* by Judith Tyner, *WAML Information Bulletin*. volume 51, no. 2 (2020).
- Gall, Megan A., review of *Where are Our Boys? How Newspapers won the Great War* by Martin Woods, *The Globe: Journal of the Australian and New Zealand Map Society Inc.* no. 80 (2016) 89-90.
- Gall, Megan A. (May 17, 2016). "Letter: Ways to avoid gerrymandering". [Letter to the Editor] JOnline Lafayette Journal & Courier
- Patin, Jennifer L. and Megan A. Gall (February 24, 2016). "During this Election Season, Black Political Power Still Not Fully Realized". Trice Edney News Wire

CONFERENCE PARTICIPATION:

- "QGIS and Democracy: Redistricting and Reapportionment with QGIS" (with John Holden and Blake Esselstyn) presented at the QGIS North America 2020 Conference: Virtual (July 20, 2020)
- "Native Vote in Arizona, 2018" presented at Native Vote - Broadening the Electorate Conference: Scottsdale, AZ (Mar. 1, 2019)
- "Data and Evaluation in Non-Profit Civil Rights Organizations" presented at the Bend Toward Justice Conference: Washington, DC (Dec. 4, 2018)
- "The Political Geography and Electoral Consequences of the Slavery and Civil Rights Eras in American History" (with Harvey Palmer) Paper presented at the Association of American Geographers (AAG) Conference: Boston, MA (April 5, 2017)
- "District Preferences, Legislator Preferences, and Legislators' Votes" (with James C. Battista and Joshua J. Dyck) Paper presented at the State Politics and Policy Conference (SPPC): Iowa City, IA (May 25, 2013)
- "Multilevel Regression and Post-Stratification to estimate State Legislative District Opinion" (with

- James C. Battista and Joshua J. Dyck) Paper presented at the Southern Political Science Association (SPSA): New Orleans, LA (January 14, 2012)
- “The Flow of Representation: Policy Responsiveness in State Legislatures” (with James C. Battista and Joshua J. Dyck) Paper presented at the State Politics and Policy Conference (SPPC): Hanover, NH (June 3, 2011)
- “The Diffusion of MMA Legalization in the American States” (with Joshua J. Dyck) Paper presented at the Midwest Political Science Association Conference (MPSA): Chicago, IL (April 1, 2011)
- “District Characteristics and Legislator Traits” (with James C. Battista) Paper presented at the Midwest Political Science Association (MPSA) Conference: Chicago, IL (April 24, 2010)
- “Searching For Political Culture in Canada” Paper presented at Crossing Borders Conference: Niagara Falls, NY (March 26, 2009)
- “The Relationship Between Panhandling and Crime and a Public Policy Assessment” Paper presented at the Association of American Geographers (AAG) Conference: San Francisco, CA (April 18, 2007)
- “Understanding Broken Windows Policing” Paper presented at the Public Good Lecture Series and Conference: Denver, CO (February 16, 2007)

AWARDS AND DISTINCTIONS:

- DCFemTech Data Award: DCFemTech, 2021
- Advanced Spatial Analysis Program Invitation & Funding: Population Research Institute Center for Spatially Integrated Social Science, 2011
- Department of Geography Merit Award & Prize: University of Denver, 2007
- Outstanding Woman Geoscience Student Award: Association for Women Geoscientists, 2007
- GITA Consulting Scholarship: Geospatial Information & Technology Association, 2006

SERVICE:

- Member** · Native American Voting Rights Coalition: United States 10/2016 - present
- Co-Treasurer** · West Virginia Herbal Association: WV 10/2015 - 3/2018
- Board of Directors Member** · William Penn House: Washington, DC 12/2014 - 12/2017
- AAG GeoMentor** · Maret School: Washington, DC 8/2016 - 6/2017
- ‘Mapping Inequity in DC’ 11th/12th grade class
- GIS Analyst** · American Red Cross: West Virginia Region 9/2012 - 12/2014
- Conducted spatial analyses in support of volunteer services, and resource and fiscal management
- GIS Technician** · Spring Heights Education Center: Spencer, WV 6/2006 - 2/2007
- Converted paper maps to GIS enabled formats and provided cartographic services
- GIS Technician** · Denver Dept. of Health and Human Resources and the Colorado Coalition for the Homeless: Denver, CO 6/2006 - 2/2007
- Cleaned, managed, and mapped spatial data