IN THE UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

STATE OF CALIFORNIA, by and through Attorney General Xavier Becerra, Plaintiff, v. WILBUR L. ROSS, JR., in his official capacity as Secretary of the U.S. Department of Commerce; U.S. DEPARTMENT OF COMMERCE; RON JARMIN, in his official capacity as Acting Director of the U.S. Census Bureau; U.S. Census Bureau; DOES 1-100, Defendants.	Case No. 3:18-cv-01865
CITY OF SAN JOSE, a municipal corporation; and BLACK ALLIANCE FOR JUST IMMIGRATION, a California Non-Profit Corporation, Plaintiffs, vs. WILBUR L. ROSS, JR., in his official capacity as Secretary of the U.S. Department of Commerce; U.S. DEPARTMENT OF COMMERCE; RON JARMIN, in his official capacity as Acting Director of the U.S. Census Bureau; U.S. CENSUS BUREAU, Defendants.	Case No. 5:18-cv-02279

DECLARATION OF LISA HANDLEY, PhD IN SUPPORT OF PLAINTIFFS' OPPOSITION TO DEFENDANTS' MOTION FOR SUMMARY JUDGMENT

I. Professional experience

I have over thirty years of experience as a voting rights and redistricting expert. I have advised scores of jurisdictions and other clients on minority voting rights and redistricting-related issues and have served as an expert in dozens of voting rights cases. My clients have included state and local jurisdictions, the U.S. Department of Justice, national civil rights organizations, and such international organizations as the United Nations.

I have been actively involved in researching, writing and teaching on subjects relating to voting rights, including minority representation, electoral system design and redistricting. I co-authored a book, *Minority Representation and the Quest for Voting Equality* (Cambridge University Press, 1992) and co-edited a volume, *Redistricting in Comparative Perspective* (Oxford University Press, 2008), on these subjects. In addition, my research on these topics has appeared in peer-reviewed journals such as *Journal of Politics*, *Legislative Studies Quarterly*, *American Politics Quarterly*, *Journal of Law and Politics*, and *Law and Policy,* as well as law reviews (e.g., *North Carolina Law Review*) and a number of edited books. I hold a Ph.D. in political science from The George Washington University.

I have been a principal of Frontier International Electoral Consulting since co-founding the company in 1998. Frontier IEC specializes in providing electoral assistance in transitional democracies and post-conflict countries. In addition, I am a Visiting Research Academic at Oxford Brookes University in Oxford, United Kingdom. Attached to this report is a copy of my *curriculum vitae*.

I have served as an expert witness in more than 25 voting rights cases, including six cases on behalf of the U.S. Department of Justice. A number of cases in which I have been accepted by courts as an expert have required me to ascertain the impact of various electoral systems or redistricting plans on minority voters in which at least one of the minority groups at issue in the jurisdiction was impacted by citizenship rates. For example, in the last dozen years, I have served as an expert in four cases that involved Voting Rights Act challenges in which Hispanic voting strength was of concern, three as an expert on behalf of the U.S. Department of Justice: *Perry v. Perez*, a Section 2 case challenging Texas congressional and state house districts; *State of Texas v. U.S.,* a Section 5 case regarding proposed congressional and state

legislative districts in Texas before the U.S. District Court of the District of Columbia; and *U.S. v. Village of Port Chester,* a Section 2 challenge brought by the U.S. Department of Justice on behalf of Hispanic voters in the Village of Port Chester, New York. (*Lopez v. Abbott*, a Section 2 challenge to the at-large method of electing Texas Supreme Court justices and appellate court judges, is the fourth case.)

In addition, since the most recent round of decennial redistricting commenced in 2011, I have served as a voting rights consultant for a number of jurisdictions concerned with the possible effects of redistricting plans, alternative voting systems, and other electoral reforms on Hispanic voting rights, including the Village of Port Chester (2017-2018),[1] New York City (2008, 2010 and 2018),[2] and Miami-Dade County (2011).[3]

II. Scope of inquiry

I was retained in July 2018 by plaintiffs in the New York Immigration Coalition and New York State Office of the Attorney General cases, in August 2018 by plaintiffs in the City of San Jose case, and in September 2018 by the State of California in the State of California case against the Department of Commerce and others concerning the addition of a citizenship question to the 2020 decennial census questionnaire. They have asked me to provide my expert opinion on the

[1] A consent decree entered by the court in *U.S. v. Village of Port Chester* expired in June 2016 and, faced with the decision of whether to retain the current cumulative voting scheme or adopt another electoral system, the Port Chester Board of Trustees hired me to assist them with exploring alternative governance options and identifying the potential impact of these options on Hispanic voting strength.

[2] I was a voting rights consultant to the New York City Districting Commission in 2003 and 2013; I evaluated the likely impact of proposed Local Law 51 (the extension of term limits from two to three terms) on minority voters for the City Law Department in 2008-2009; and I analyzed the likely consequences for minority voters of the adoption of proposed changes to the City Charter for the New York City Charter Revision Commission in 2010 (when a reinstatement of a two-term limit on city offices and the adoption of the Instant Runoff Vote were considered) and in 2018 (when the adoption of Instant Runoff Voting was once again under consideration).

[3] I was retained by the Miami-Dade Board of County Commissioners to conduct an analysis of voting patterns by race and ethnicity in recent Miami-Dade elections and, using this information, to provide guidance during the redistricting process to ensure that the redrawn commission districts did not dilute Hispanic voters in violation of the Voting Rights Act of 1965.

effectiveness of current U.S. Census Bureau data resources for enforcing Section 2 of the Voting Rights Act ("VRA") – in particular, in circumstances in which the citizenship rate of the minority group impacts their ability to participate in the electoral process and elect candidates of their choice to office.[4]

I understand that in December 2017, Arthur Gary, General Counsel in the Justice Management Division of the U.S. Department of Justice, submitted a letter to the Census Bureau requesting a citizenship question on the decennial census to aid in the Department's Section 2 enforcement work. That letter argued that the information was needed to accurately determine whether the citizen voting age population of a particular minority group was sufficiently large to constitute a majority in a single-member district – contending the current citizenship data available from the American Community Survey ("ACS") is inadequate for this task.

In my decades of experience as a voting rights expert – including several cases for the Department of Justice – my work has not been hampered in any way by the lack of citizenship information in the decennial census. It is therefore my opinion, held to a reasonable degree of professional certainty and based on my experience as an expert in VRA cases, that currently available census data, including the citizenship data derived from the Census Bureau's ACS, has proven to be perfectly sufficient to ascertain whether an electoral system or redistricting plan dilutes minority votes.

III. Section 2 of the Voting Rights Act and the use of census data

In *Thornburg v. Gingles*,[5] the first U.S. Supreme Court case to consider the 1982 Amendments to the Voting Rights Act of 1965, the Court determined that minority plaintiffs had to satisfy three threshold factors to establish a violation of Section 2 of the VRA:

1) the minority group must be sufficiently large and geographically compact to constitute a majority in a single-member district;

[4] I am being compensated at a rate of $300 per hour for my work.

[5] 478 U.S. 30 (1986).

2) the minority group must be politically cohesive; and
3) the minority group must be able to demonstrate that the white majority votes sufficiently as a bloc to enable it to usually defeat the minority's preferred candidate.

Social scientists such as myself typically conduct the analyses required to determine if a minority group residing within a given jurisdiction meets these three preconditions.

The first precondition that a minority group must satisfy – that it is sufficiently large to constitute a majority in a single-member district – is designed to demonstrate to the Court that it is possible to remedy the potential violation. This precondition is met by presenting the Court with an illustrative districting plan that includes at least one, for example, majority black voting age population district or majority Hispanic citizen voting age population district.

Evidence that the minority group is politically cohesive (the second precondition) is necessary to show that minority voters' shared political interests lead them to support the same candidates – if they are not politically cohesive there is no distinct minority interest to protect. If the white majority consistently votes against minority-preferred candidates and these candidates are usually defeated (the third precondition), then minority voters do not have an opportunity to elect their preferred candidates to office. An analysis of voting patterns by race/ethnicity is required to show that minorities satisfy the second and third *Gingles* preconditions. Because the race/ethnicity of the voter is not, of course, obtainable from the ballot, a statistical analysis must be conducted using data from a database that incorporates election results by precinct with the demographic composition of these precincts.

In most if not all Section 2 cases, plaintiffs use data collected and reported by the Census Bureau to determine if there are a sufficient number of geographically concentrated minorities to satisfy the first *Gingles* precondition. In addition, census data may be used to conduct an analysis of voting patterns by race/ethnicity in the absence of registration or turnout data by race/ethnicity.

If a court finds that a jurisdiction is violating Section 2 of the Voting Rights Act, census data may be informative in fashioning an effective remedy. However, creating a district that offers minority voters an opportunity to elect candidates of their choice requires more than

census data; it requires a district-specific, functional analysis that also takes into account the registration and turnout rates of minorities and whites, the degree of minority cohesion, and the amount of white crossover votes for minority-preferred candidates that might generally be expected in the specific area of the proposed remedial district.[6]

IV. Drawing illustrative districts to ascertain whether the minority group is sufficiently large

The first precondition that a minority group must satisfy to establish a violation of Section 2 of the VRA is that it is sufficiently large and geographically compact enough to form a majority in at least one single-member district. In *Bartlett v. Strickland*,[7] the U.S. Supreme Court interpreted this to mean that black voters had to demonstrate that it was possible to draw a single-member district that was at least 50 percent black in voting age population. As noted in the recent letter signed by Arthur Gary of the Department of Justice (the "Gary Letter"), some federal courts have indicated that citizenship rates are relevant to ascertaining whether certain minority plaintiffs (for example, Hispanics) satisfy this precondition of *Gingles*.[8] Thus, expert analysis often focuses on whether a single-member district can be created that is, for example, at least 50 percent Hispanic in *citizen* voting age population. Notably, the majority of the cases cited in the Gary letter were decided decades before the current proposal to add a citizenship question to the decennial census enumeration questionnaire.[9] Hence, sample

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[6] For an in-depth discussion of this district-specific, functional approach to creating effective minority districts, see Bernard Grofman, Lisa Handley and David Lublin, "Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence," 79 N.C. L. Rev. 1383 (2001).

[7] 556 U.S. 1 (2009).

[8] *See* Letter from Arthur E. Gary, General Counsel, Justice Management Division, U.S. Department of Justice to Dr. Ron Jarmin, Performing the Non-Exclusive Functions and Duties of the Director, U.S. Census Bureau (December 12, 2017) (citing *Reyes v. City of Farmers Branch*, 586 F.3d 1019, 1023-24 (5th Cir. 2009); *Barnett v. City of Chicago*, 141 F.3d 699, 704 (7th Cir. 1998); *Negron v. City of Miami Beach*, 113 F.3d 1563, 1567-69 (11th Cir. 1997); *Romero v. City of Pomona*, 883 F.2d 1418, 1426 (9th Cir. 1989), *overruled in part on other grounds* by *Townsend v. Holman Consulting Corp.*, 914 F.2d 1136 (9th Cir. 1990); *LULAC v. Perry*, 548 U.S. 399, 423-442 (2006)).

[9] *See Reyes*, 586 F.3d at 1023-24; *Barnett*, 141 F.3d at 704; *Negron*, 113 F.3d at 1567-69; *Romero*, 883 F.2d at 1426; *LULAC*, 548 U.S. at 423-442.

survey data from census questionnaires other than the decennial census has always served as the source for citizenship information for purposes of VRA enforcement, and has always sufficed for that purpose.

Sources of citizenship data Because the decennial census enumeration questionnaire distributed to the entire population has not collected data on citizenship since 1950 – before the passage of the VRA – voting rights experts have relied upon other sources of census data to demonstrate that a minority group is large enough to comprise a majority of the citizen voting age population in at least one single-member district. Between 1970 and 2000, citizenship data was available from the census "long form."[10] The census long form was given to only a sample of the population; for example, in 2000 it was given to approximately one in every six households. Even though the information collected was based on a sample survey rather than a complete enumeration, the margins of errors associated with each of the estimates were not reported by the Bureau.

In 2005, the American Community Survey (ACS) was introduced to collect citizenship data, as well as other demographic, housing, social and economic data. The ACS essentially replaced the census long form but is conducted on a rolling annual basis, which means that it offers the advantage of more recent data than the decennial data collection. Because the annual sample size is smaller, however, estimates for areas with populations of less than 65,000 are pooled in five-year increments to increase their reliability. Cumulating to five-year pooled estimates yields approximately a one-in–every-eight-household sample. Like data from the census long form, ACS estimates, including citizenship estimates, are only reported down to the census block group level; data from the decennial census enumeration is reported down to the census block level. Unlike with estimates from the census long form, margins of errors are

[10] The decennial census enumeration data is collected via what used to be called the short form, which in 2000 contained six population subjects and one housing subject. This form is sent out to and supposed to be filled out by every household. The 2000 census long form included the same seven subjects, as well as an additional 27 subjects. The long form was sent out to one in every six households in lieu of the short form. In 2010, there was only one form, containing 10 questions, and it was sent to every household.

reported for each of the ACS estimates. (Margins of error provide a measure of the sampling error associated with each estimate.)

Examples of citizenship data incorporated into the district drawing process To explain how Census Bureau survey data regarding citizenship is used in the context of voting rights cases and analyses, I provide several examples from my work below. As the discussion illustrates, the absence of citizenship data has not hampered my work as a redistricting or voting rights expert in any way.

Statewide Redistricting. I recently served as an expert for the plaintiffs in *Lopez v. Abbott*,[11] a challenge by Hispanic voters to the at-large method of electing justices to the Supreme Court of Texas and judges to the Texas Court of Criminal Appeals that is still pending before the court. To demonstrate that Hispanics satisfy the first prong of *Gingles*, I drew two illustrative districting plans, one with nine districts and the other with eight districts,[12] to establish that two compact majority Hispanic citizen voting age population districts could easily be created. The current forms of data available from the decennial census and ACS were sufficient for me to perform this analysis. Figure 1 provides a map of the illustrative nine-district plan and Tables 1 and 2 contain the corresponding district demographics for this nine-district plan.

The total population and voting age population data reported in Table 1 are derived from the 2010 decennial census. Although the illustrative districts were drawn in 2017, I used 2010 census data rather than more recent population estimates in order to reflect what the population in each district would have been at the time of the decennial census.

[11] Civil Action No. 2:16-CV-303 (S.D. Tex.).

[12] There are nine justices on the Texas Supreme Court and nine judges on the Texas Court of Criminal Appeals; all 18 justices/judges are elected statewide. I created two illustrative plans: a nine-district plan in which all nine justices/judges would be elected from single-member districts and an eight-district plan in which eight justices/judges would be elected from single-member districts and the chief justice/presiding judge would be elected statewide.

Figure 1: Illustrative Nine-District Plan for State of Texas

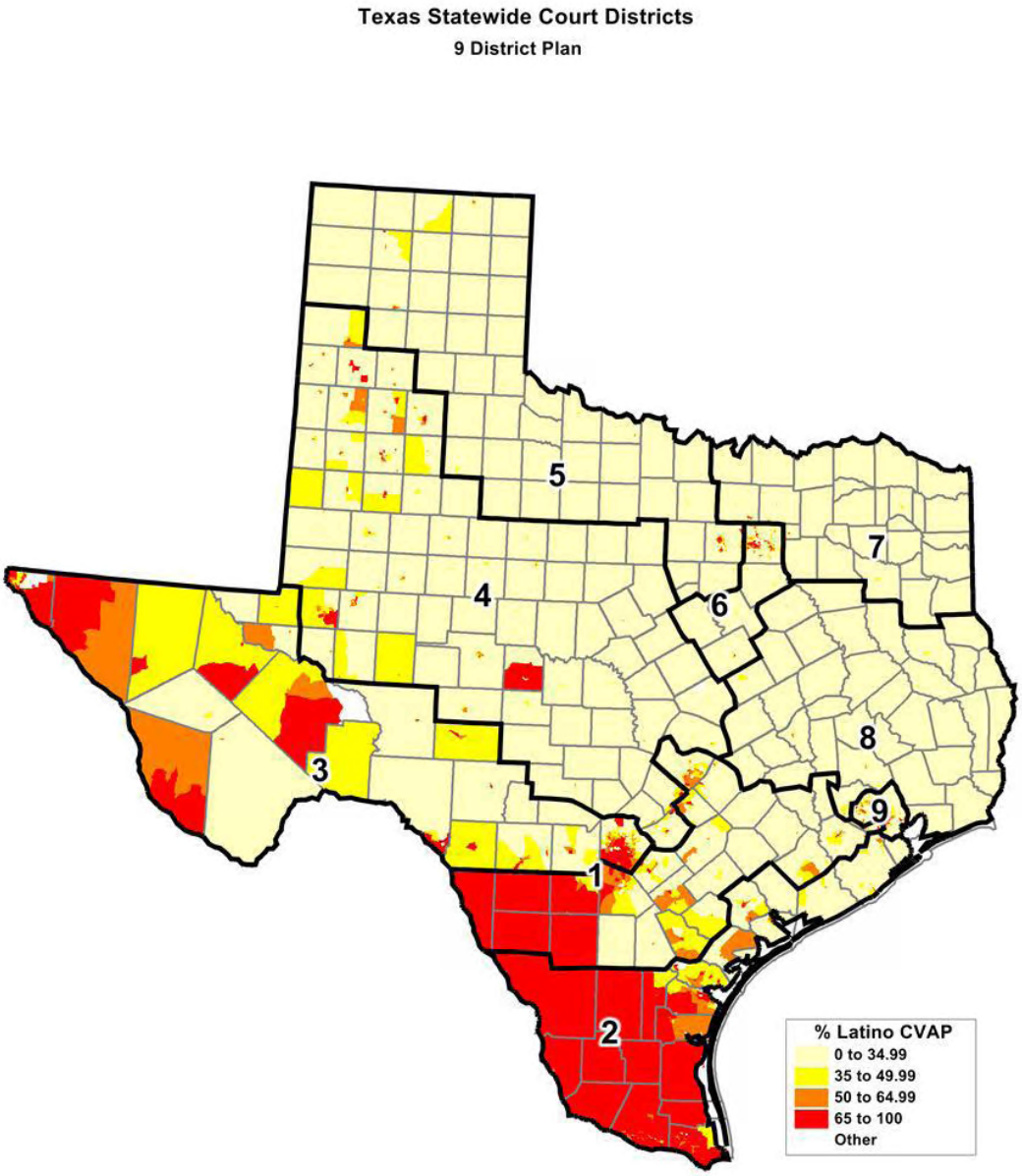

Table 1: Population and Voting Age Population for the Illustrative Nine-District Plan

District	Total Population	Deviation from Ideal District Size	Percent Population Deviation	Voting Age Population	Hispanic Voting Age Population	Percent Hispanic Voting Age Population
1	2,749,632	-44,319	-1.59	2,011,631	664,378	33.03
2	2,825,027	31,076	1.11	1,960,159	1,260,806	64.32
3	2,747,341	-46,610	-1.67	1,980,689	1,228,267	62.01
4	2,774,913	-19,038	-.68	2,050,265	535,162	26.10
5	2,817,613	23,662	.85	2,053,330	422,610	20.58
6	2,805,956	12,005	.43	2,035,942	631,206	31.00
7	2,829,861	35,910	1.29	2,073,068	258,036	12.45
8	2,831,790	37,839	1.35	2,098,473	360,729	17.19
9	2,763,428	-30,523	-1.09	2,016,180	781,950	38.78

Table 2: Citizen Voting Age Population for the Illustrative Nine-District Plan

District	Citizen Voting Age Population	Hispanic Citizen Voting Age Population	Percent Hispanic Citizen Voting Age Population
1	1,633,090	426,320	26.11
2	1,593,403	951,096	59.69
3	1,701,369	1,007,115	59.19
4	1,877,721	437,823	23.32
5	1,787,681	267,183	14.95
6	1,577,169	320,965	20.35
7	1,839,054	151,604	8.24
8	1,839,494	222,759	12.11
9	1,500,925	428,937	28.58

Because the decennial census does not collect data on citizenship, the total citizen voting age population (CVAP) and Hispanic citizen voting age population (HCVAP) reported in Table 2 are derived from ACS data (for the 253 counties not split by district boundaries) or a combination of decennial census and ACS data (for Harris County). In order to align in time

with the total and voting age population data from the 2010 decennial census in Table 1, the CVAP figures in Table 2 have been calculated to reflect the district CVAP in 2010, using five-year pooled ACS estimates.

The five-year pooled ACS estimates for each county that was not divided by district boundaries (253 of the 254 counties in Texas were wholly contained within single districts in the illustrative plan) were simply summed to reflect the configurations of the illustrative districts.[13] In other words, for my purposes, ACS citizenship data at the county level was sufficient to account for 253 of 254 Texas counties in the illustrative map.

The population of Harris County, however, was too large to include within a single district and was divided across three districts.[14] This required citizenship data at a smaller level of geographic specificity than the county. To produce CVAP and HCVAP figures for the portions of the county assigned to different districts in the illustrative districting plan, CVAP and HCVAP estimates for all census blocks in Harris County were produced and then summed to reflect each of the portions. The lack of citizenship data at the block level did not impede this analysis, however, because I was able to adopt one of several available estimation procedures to derive this information. Under my direction, the Hispanic citizenship ratio (i.e., the percentage of voting age Hispanics who are citizens) for each census tract in Harris County was calculated by dividing the census tract HCVAP by the census tract Hispanic voting age population (HVAP), as reported in the five-year pooled ACS data. The citizenship ratio for each census tract was then applied to the 2010 HVAP (as reported in the 2010 decennial census) of each of the census blocks falling within the given tract. These calculations generated estimates of the 2010 HCVAP for all of the census blocks in Harris County.[15] These census-block HCVAP estimates were then summed to reflect the portion of Harris County included within the given district.

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[13] U.S. Census Bureau, American Community Survey 5-Year dataset for 2009-2013.

[14] Harris County had to be split because it exceeds the ideal population size in both the eight and nine district plans. The ideal district size, calculated by dividing the total population of the state by the number of districts to be created, is 2,793,951 in a nine-district plan and 3,143,195 in an eight-district plan. Harris County had a population of 4,092,459 in 2010.

[15] For a description of the estimation procedure I used, see Jorge Chapa, Ana Henderson, Aggie Jooyoon Noah, Werner Schink and Robert Kengle, "Redistricting: Estimating Citizen Voting Age Population"

The defendants in *Lopez* did not attack the district CVAP or HCVAP numbers I presented in my report and in trial testimony. While the judge has not rendered a decision in this case to date, other recent Texas decisions have accepted the use of ACS data for the purpose of satisfying the first prong of *Gingles*. For example, in *Rodriguez v. Harris County*, the Court found ACS data "sufficiently probative on the issue of citizen voting age population," indicating that "ACS data is perhaps the best measure of citizen voting age data currently available; it is collected by the Census Bureau and the Census Bureau's publication of and reliance on ACS data 'suggests that the Bureau considers ACS data reliable and intends for it to be relied upon in decisions such as Voting Rights Act compliance.' "[16]

Local Redistricting. Because the illustrative judicial districts I created for Texas in *Lopez* were large, very little drawing at the census block level was required and therefore few inferences about the citizenship population at the block level had to be made. But even when drawing illustrative districts in small jurisdictions, courts have not hesitated to accept citizenship estimates.

Taking an example from my own work at the local level, I served as a voting rights expert for the U.S. Department of Justice in the Section 2 challenge to Port Chester, New York's at-large method of electing its Board of Trustees in *United States v. Village of Port Chester.*[17] Because Port Chester is geographically quite compact (2.5 square miles), illustrative plans presented to the court had to be drawn at the census block level. The demographic expert for the Department drew two illustrative single-member districting plans, both of which included a majority Hispanic CVAP district. To determine the citizen composition of these illustrative districts, he relied on data derived from the 2000 census long form.

Research Brief, The Chief Justice Earl Warren Institute on Law and Social Policy, University of California, Berkeley Law School, Sept. 2011.

[16] 964 F. Supp. 2d 686, 727-28 (S.D. Tex. 2013). *See also Patino v. City of Pasadena*, 230 F. Supp. 3d 667, 687-89 (S.D. Tex. 2017) and *Benavidez v. Irving Independent School District*, No. 3:13–CV–0087–D, 2014 WL 4055366, at *17 (N.D. Tex. 2014).

[17] *United States v. Village of Port Chester*, No. 06 Civ. 15173(SCR), 2008 WL 190502 (S.D.N.Y. 2008).

The Court accepted the illustrative plans as evidence that Hispanics were sufficiently large and geographically compact in the Village of Port Chester to constitute a majority of the CVAP in a single-member district. The Court also determined that Hispanic voters satisfied the second and third *Gingles* preconditions and that the at-large system for electing the Board of Trustees violated Section 2 of the Voting Rights Act. As a consequence of a consent order entered by court in 2009, the Village of Port Chester adopted a cumulative voting system (rather than a single-member district system) to provide Hispanic voters with the ability to elect their preferred candidates to office.

When the consent decree expired in June 2016, the Board of Trustees hired me to assist them in determining whether to retain the cumulative voting system or to adopt an alternative electoral system. The Hispanic population had grown since the 2006 litigation and, as part of my mandate, I drew several illustrative single-member districting plans to determine how many compact majority HCVAP districts it was now possible to create in Port Chester. The HCVAP percentages I reported for each district were produced using the same HCVAP/HVAP ratio estimation procedure described above for Harris County, Texas. The illustrative six-district plan (Figure 2) and the corresponding district demographics for this plan (Table 3) are found below. The percentages in Table 3 reflect 2010 HCVAP percentages to align with the 2010 total population figures reported in the table. Because of the marked increase in the Hispanic population since 2010 (as reported in ACS data), the HCVAP percentages for the majority Hispanic districts in the illustrative plan are likely to be substantially higher. Once again, the citizenship data provided by the ACS was sufficient for my work, even when drawing districts for a small municipality like Port Chester.

Figure 2: Illustrative Six-District Plan for Village of Port Chester

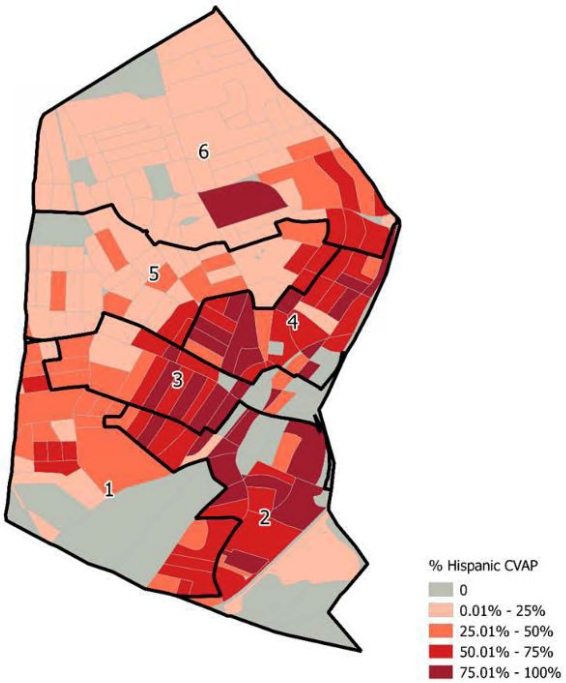

Table 3: Total population and citizen voting age population for illustrative six-district plan

District	Total Population	Deviation from Ideal District Size	Percent Population Deviation	Citizen Voting Age Population Estimate	Hispanic Citizen Voting Age Population Estimate	Percent Hispanic Citizen Voting Age Population
1	4840	12	.25	2087	832	39.87
2	4770	-58	-1.20	1749	1166	66.69
3	4924	96	1.99	2031	875	43.08
4	4805	-23	-.48	1699	1088	64.05
5	4767	-61	-1.26	2356	630	26.74
6	4861	33	.68	2861	406	14.18

V. Evaluating potential remedial districting plans

Courts have accepted illustrative plans showing that at least one majority-minority district can be drawn as evidence that a minority group satisfies the first prong of *Gingles*. But fashioning an effective *remedy* for a Section 2 violation requires more than simply drawing, for example, a 50 percent black VAP or Hispanic CVAP district. Creating a district that offers minority voters a realistic opportunity to elect candidates of their choice requires a district-specific, functional analysis – one that takes into account not only population concentrations and citizenship rates, but also the participation rates and voting patterns of white and minority voters. Drawing minority districts informed by a district-specific, functional analysis avoids creating districts that either fail to provide minorities with an effective opportunity to elect their preferred candidates, on the one hand, or pack minority voters into a district unnecessarily, on the other hand.

While citizenship rates are incorporated into a functional approach, an analysis of voting patterns by race and ethnicity plays the essential role in the evaluation. An analysis of voting patterns allows me to ascertain the relative participation rates of minorities and whites, the degree of minority cohesion, and the expected amount of white "crossover" votes for minority-preferred candidates in the specific geographic area of the proposed remedial district.[18] Because

[18] The voting patterns of white and minority voters must be estimated using statistical techniques because direct information about how individuals have voted is simply not available – the race of the voter is not, of course, obtainable from the secret ballot. Regardless of the statistical technique used, a database that matches precinct election results with the demographic composition of the electorate of these precincts must be constructed to conduct the analysis. The best data to use for this purpose is voter turnout data by race/ethnicity or, if this is not available, voter registration data by race/ethnicity. However, only a handful of southern states collect this information and report it at the election precinct level. In jurisdictions that do not collect this data, VAP by race and Hispanic origin as reported by the decennial census is often used as a proxy for the demographic composition of the electorate in each precinct. However, this data can be problematic if there have been dramatic shifts in the racial or ethnic composition of the precincts in the jurisdiction over the course of the decade. If there have been sizeable changes, relying on the decennial census results for an election that occurred more than a couple of years before or after the census will produce an inaccurate indication of the demographic composition of the electorate in each of the precincts and therefore inaccurate estimates of voting patterns by race and ethnicity. Using demographic data from ACS, including citizenship rates if citizenship is an issue, provides a better indication of the demographic composition of the precincts over shorter periods of time (at intervals less than 10 years). For example, because of the rapidly increasing minority population in Eastpointe, Michigan, I used estimates of the CVAP by race and ethnicity by precinct based on the ACS to conduct a racial bloc voting analysis on behalf of the U.S. Department of

this approach focuses on turnout rates and voting behavior, citizenship rates are taken into account only indirectly. The lack of citizenship data in the decennial census has not impacted this functional approach in any way.

This type of district-specific, functional analysis was the approach used by the Department of Justice when reviewing proposed redistricting plans under Section 5 of the Voting Rights Act. According to Department guidelines:

> In determining whether the ability to elect exists in the benchmark plan and whether it continues in the proposed plan, the Attorney General does not rely on any predetermined or fixed demographic percentages at any point in the assessment. Rather, in the Department's view, this determination requires a functional analysis of the electoral behavior within the particular jurisdiction or election district. As noted above, census data alone may not provide sufficient indicia of electoral behavior to make the requisite determination.[19]

For example, I employed a district-specific, functional approach on behalf of the Department of Justice in *Texas v. United States*,[20] a lawsuit filed by the state of Texas seeking judicial preclearance under Section 5 of the VRA of the congressional and state house districts proposed by the state in 2011. Following the release of the 2010 census data, the State of Texas redrew Congressional District 23 to include a comparable percentage of HCVAP (58.4 percent HCVAP prior to redistricting and 58.5 percent HCVAP after redrawing), but replaced Hispanic citizens who were likely to turn out to vote with Hispanic citizens who were less likely to vote. This meant that Congressional District 23 as proposed would no longer provide Hispanic voters with the opportunity to elect candidates of choice.

I presented an illustrative map to the Court to demonstrate that Congressional District 23 could easily be modified so that it would continue to provide Hispanic voters with an opportunity to elect Hispanic-preferred candidates. I relied on an analysis of the electoral behavior of white and minority voters to make my assessments of the effectiveness of

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Justice in voting rights litigation currently underway in the jurisdiction. (*United States v. City of Eastpointe*, No. 4:17-CV-10079 (E.D. Mich.)).

[19] 76 F.R. 7649, 7471 (Feb. 9, 2011).

[20] 887 F. Supp. 2d 133 (D.D.C. 2012), *vacated on other grounds*, 570 U.S. 928 (2013).

Congressional District 23 in the existing plan, the plan proposed by the State of Texas, and my illustrative plan.

Although there is no longer an operative coverage formula under Section 4 of the VRA, meaning that the Department no longer undertakes Section 5 preclearance reviews for jurisdictions (unless they have specifically been "bailed-in" to preclearance coverage under Section 3(c) of the VRA),[21] I continue to use a district-specific, functional approach rather than relying solely on VAP or CVAP to evaluate the effectiveness of both existing and proposed districts in the context of my consulting work and as an expert witness in Section 2 litigation, including in my work on behalf of the Department of Justice. Only a functional analysis can determine if minority voters will be provided with an effective opportunity to participate in the political process and to elect representatives of their choice. As noted above, the lack of decennial census CVAP data has not hindered my analysis using this approach.

VI. Flaws in census data

While currently available census citizenship data is not flawless, it is sufficient for determining if a jurisdiction is diluting minority voting strength in violation of Section 2 of the VRA. It is important to note that "flawless" census data does not exist. Citizenship data derived from the ACS is based on a sample, and as such, is subject to margins of error. Decennial census data is not subject to sampling error because it is an enumeration rather than a sample, but it does have errors associated with it – errors that I understand could be magnified if a question about citizenship is included in the enumeration questionnaire.[22] Furthermore,

[21] As stated on the U.S. Department of Justice website: On June 25, 2013, the United States Supreme Court held that it is unconstitutional to use the coverage formula in Section 4(b) of the Voting Rights Act to determine which jurisdictions are subject to the preclearance requirement of Section 5 of the Voting Rights Act, *Shelby County v. Holder*, 133 S. Ct. 2612 (2013). The effect of the *Shelby County* decision is that the jurisdictions identified by the coverage formula in Section 4(b) no longer need to seek preclearance for the new voting changes, unless they are covered by a separate court order entered under Section 3(c) of the Voting Rights Act. *See* https://www.justice.gov/crt/about-section-5-voting-rights-act.

[22] See, for example, J. David Brown, Misty L. Heggeness, Suzanne M. Dorinksi, Lawrence Warren and Moises Yi, "Understanding the Quality of Alternative Citizenship Data Sources for the 2020 Census," U.S. Census Bureau, CES 18-38, August 2018, at

because of confidentiality concerns, citizenship data reported in the decennial census will have to go through a disclosure avoidance process that will by necessity introduce further errors into CVAP data produced at the block level, and, according to the Chief Scientist at the Bureau, it is questionable whether redistricting offices and the Department of Justice will ultimately be able to use the census block CVAP data effectively.[23]

There are three broad sources of error associated with existing decennial census enumeration data. First, there are *coverage errors*. These arise when persons are incorrectly excluded or included, or are duplicated in the count.[24] Second, there are *geographic errors*. These happen when an address was placed in the wrong census geographic location or when there is a misunderstanding of the census residence rules (e.g., the person counted was assigned to the wrong residence from among several part-time residences). Third, there are *demographic errors.* These occur when a person's demographic characteristics have been incorrectly reported, recorded or imputed.

The Census Bureau has documented these errors in the decennial enumeration through the use of survey data. Based on the post-2010 enumeration survey,[25] conducted by the Bureau to provide a measure of the accuracy of the 2010 decennial census, the Bureau estimates that "among the 300.7 million people who live in housing units, about 94.7 percent were counted correctly, 3.3 percent were counted erroneously, 1.6 percent provided only a

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https://apps.npr.org/documents/document.html?id=4797159-Understanding-the-Quality-of-Alternative.

[23] Deposition of Dr. John Abowd, Chief Scientist, U.S. Census Bureau, August 29, 2018, at 54-56, 100-01.

[24] Persons included in the count who should not have been are those who were not residents of the U.S. on census day (e.g., babies born after census day or persons who died before census day, temporary visitors to the U.S., and fabricated persons). Examples of duplicate counts are persons with more than one residence who were counted at more than one residence (e.g., college students, retirees with two homes).

[25] The post-enumeration survey (PES) draws samples of census block clusters and compares the information collected to the census enumeration data for the same geographic clusters.

census count and had their demographic characteristics imputed, and .4 percent needed more extensive imputation after all census follow-up efforts were attempted."[26]

In addition to enumeration errors, the Census Bureau estimated there were 16.0 million omissions in the 2010 census (although the Bureau indicates that 6.0 million of these people were likely to have been counted in the census but could not be verified in the post-enumeration survey).[27] Omissions are not random – certain segments of the population, including blacks and Hispanics, are more likely not to be counted in the decennial census than others. For example, the Census Bureau reports that the 2010 census under-counted 2.1 percent of the black population and 1.5 percent of the Hispanic population; the non-Hispanic white population, on the other hand, was over-counted by .8 percent.[28]

Citizenship data collected through the decennial census will be subject to these same types of errors. Indeed, some of these errors could be magnified, as there are reasons to believe that including a question about citizenship on the decennial census form in 2020 will exacerbate the undercount of at least some minority groups.[29]

The reliability of citizenship information based on information collected through the decennial census, especially at small levels of geography such as the census block, faces at least one additional challenge. As mentioned above, the Census Bureau uses disclosure avoidance procedures to modify or remove data that puts confidential information at risk of disclosure. Thus, while it may appear that census data is providing information about a specific individual or group of individuals who reside within a given census block, the Census Bureau has taken

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[26] *See* News Release, "Census Bureau Releases Estimates of Undercount and Overcount in the 2010 Census" (May 22, 2012), https://www.census.gov/newsroom/releases/archives/2010_census/cb12-95.html.

[27] *Id.*

[28] *Id.*

[29] See, for example, D'Vera Cohn, "What to know about the citizenship question the Census Bureau is planning to ask in 2020," Pew Research Center, March 30, 2018, http://www.pewresearch.org/fact-tank/2018/03/30/what-to-know-about-the-citizenship-question-the-census-bureau-is-planning-to-ask-in-2020/.

steps to disguise or suppress the actual characteristics associated with that individual or group through either data swapping or the use of synthetic data.[30] While disclosure avoidance techniques have less impact on larger geographic areas since the data swapping often occurs within neighboring areas, these techniques have a distinctly greater effect at the census block level.

A disclosure avoidance system will have to be put in place to protect citizenship information collected during the 2020 decennial enumeration. According to the deposition testimony of Dr. John Abowd, Chief Scientist at the Census Bureau, the Bureau has not yet set the parameters for the 2020 disclosure avoidance system.[31] Furthermore, the Bureau has not determined if, once disclosure avoidance is implemented, the error margins associated with block level CVAP data based on the 2020 decennial enumeration will be any smaller than the error margins associated with the ACS block group level citizenship data currently relied on for purposes of VRA enforcement. Dr. Abowd indicated that he did not know if the error margins that would ultimately be associated with the block level CVAP data based on information collected through the decennial enumeration will "still allow redistricting offices and the Department of Justice to use the data effectively."[32]

VII. Conclusion

The lack of citizenship information in the decennial census has not hampered my work as a voting rights expert in any way. Based on my experience and expertise as an expert in voting rights litigation, I conclude that the citizenship estimates currently available in the ACS have been adequate for demonstrating that the Hispanic population is sufficiently large to constitute a majority of the citizen voting age population in an illustrative single-member

[30] Data swapping is done by exchanging records for the purposes of confidentiality: a sample of households is selected and matched on a set of key variables with households in neighboring geographic areas that have similar characteristics (e.g., same number of adults and children) and these records are then swapped. Synthetic data uses statistical modeling to generate contrived household characteristics in order to avoid the disclosure of confidential information.

[31] *See supra*, note 23.

[32] Deposition of Dr. John Abowd, Chief Scientist, U.S. Census Bureau, August 29, 2018, at 101.

district for the purposes of satisfying the first precondition of *Gingles*. This has been true for the cases in which I have participated, including three in which I served as an expert for the Department of Justice.

Moreover, in fashioning a remedy or assessing a proposed minority district, the district-specific, functional analysis I use, while indirectly incorporating citizenship rates, relies on minority and white participation rates and voting patterns. In fact, as the example of Congressional District 23 in Texas above demonstrates, an assessment based on the percentage HCVAP alone can be misleading to the determination of whether a district will provide minority voters with an opportunity to elect candidates of their choice to office.

Finally, no census data set is flawless. Citizenship data collected through the decennial enumeration will feature the same errors found in the decennial census data in general, and including a citizenship question may even exacerbate some of these errors. Perhaps more importantly, the Bureau has indicated that disclosure avoidance may render the block level citizenship data no more reliable than the block group level citizenship data reported by the ACS.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on November 6, 2018.

Lisa Handley

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Professional Experience

Dr. Handley has over thirty years of experience in the areas of redistricting and voting rights, both as a practitioner and an academician, and is recognized nationally (as well as internationally) as an expert on these subjects. She has advised numerous jurisdictions and other clients on redistricting and has served as an expert in dozens of redistricting and voting rights court cases. Her clients have included the U.S. Department of Justice and scores of state and local jurisdictions, as well as redistricting commissions and civil rights organizations. Internationally, Dr. Handley has provided electoral assistance in more than a dozen countries, serving as a consultant on issues of democratic governance – including voting rights, electoral system design and electoral boundary delimitation (redistricting) – for the United Nations, the United Nations Development Fund (UNDP), IFES, and International IDEA. In addition, Dr. Handley served as Chairman of the Electoral Boundaries Commission in the Cayman Islands.

Dr. Handley has been actively involved in research, writing and teaching on the subjects of voting rights and redistricting. She has written a book, Minority Representation and the Quest for Voting Equality (Cambridge University Press, 1992) and numerous articles, as well as edited a volume (Redistricting in Comparative Perspective, Oxford University Press, 2008) on these subjects. She has taught political science and methodology courses at several universities, most recently George Washington University. Dr. Handley is a Visiting Research Academic at Oxford Brookes University in the United Kingdom.

Dr. Handley is the President of Frontier International Consulting, a consulting firm that specializes in providing electoral assistance in transitional and post-conflict democracies. She also works as an independent election consultant for such international organizations as the United Nations.

Education

Ph.D. The George Washington University, Political Science, 1991

Present Employment

President, Frontier International Electoral Consulting LLC (since co-founding company in September of 1998).

Senior International Consultant, provides electoral assistance to such international clients as the UN, UNDP and IFES on electoral district delimitation, electoral system design and minority voting rights.

U.S. Clients since 2000

US Department of Justice (expert witness testimony in several Section 2 and Section 5 cases)

Alaska: Alaska Redistricting Board (redistricting consultation, expert witness testimony)

Arizona: Arizona Independent Redistricting Board (redistricting consultation, expert witness)

Arkansas: expert witness for Plaintiffs in Jeffers v. Beebe

Colorado: Colorado Redistricting Board (redistricting consultation)

Connecticut: State Senate and State House of Representatives (redistricting consultation)

Florida: State Senate (redistricting consultation)

Illinois: State Senate (redistricting litigation consultation)

Kansas: State Senate and House Legislative Services (redistricting consultation)

Louisiana: Louisiana Legislative Black Caucus (expert witness testimony)

Massachusetts: State Senate (redistricting consultation)

Maryland: Attorney General (redistricting consultation, expert witness testimony)

Miami-Dade County, Florida: County Attorney (redistricting consultation)

Nassau County, New York: Redistricting Commission (redistricting consulting)

New Mexico: State House (redistricting consultation, expert witness testimony)

New York: State Assembly (redistricting consultation)

New York City: Redistricting Commission and Charter Commission (redistricting consultation and Section 5 submission assistance)

New York State Court: Expert to the Special Master (drew congressional lines for state court)

Ohio: State Democratic Party (redistricting litigation support, expert witness testimony)

Pennsylvania: Senate Democratic Caucus (redistricting consultation)

Rhode Island: State Senate and State House (litigation support, expert witness testimony)

Texas: Lieutenant Governor (redistricting litigation/expert witness testimony)

Vermont: Secretary of State (redistricting consultation)

Wisconsin: State Senate (redistricting litigation consultation)

International Clients since 2000

United Nations

- Afghanistan – electoral system design and district delimitation expert
- Bangladesh (UNDP) – redistricting expert
- Sierra Leone (UNDP) – redistricting expert
- Liberia (UNMIL, UN peacekeeping mission) – redistricting expert
- Democratic Republic of the Congo (MONUC, UN peacekeeping mission) – election feasibility mission, electoral system design and redistricting expert
- Kenya (UN) – electoral system design and redistricting expert
- Haiti (UN) – election feasibility mission, electoral system design and redistricting expert
- Lead Writer on the topic of boundary delimitation (redistricting) for ACE (Administration and Cost of Elections Project)

International Foundation for Election Systems (IFES)

- Afghanistan – district delimitation expert
- Sudan – redistricting expert
- Kosovo – electoral system design and redistricting expert
- Nigeria – redistricting expert
- Nepal – redistricting expert
- Georgia – electoral system design and district delimitation expert
- Yemen – redistricting expert
- Lebanon – electoral system design and redistricting expert
- Myanmar – electoral system design and redistricting expert
- Ukraine – electoral system design and redistricting expert
- Pakistan – consultant for developing redistricting software
- Principal consultant for the Delimitation Equity Project – conducted research, wrote reference manual and developed training curriculum
- Writer on electoral boundary delimitation (redistricting), Elections Standards Project
- Training – developed training curriculum and conducted training workshops on electoral boundary delimitation (redistricting) in Azerbaijan and Jamaica

International Institute for Democracy and Electoral Assistance (International IDEA):

- Consultant on electoral dispute resolution systems
- Technology consultant on use of GIS for electoral district delimitation
- Training – developed training material and conducted training workshop on electoral boundary delimitation (redistricting) for African election officials (Mauritius)
- Curriculum development – boundary delimitation curriculum for the BRIDGE Project
- Project coordinator for the ACE project

Other international clients have included The Cayman Islands; the Australian Election Commission; the Boundary Commission of British Columbia, Canada; and the Global Justice Project for Iraq.

Previous Employment

Project Coordinator and Lead Writer on Boundary Delimitation, Administration and Cost of Elections (ACE) Project. As Project Coordinator (1998 – 2000) of the ACE Project, Dr. Handley served as a liaison between the three partner international organizations – the United Nations, the International Foundation for Election Systems and International IDEA – and was responsible for the overall project management of ACE, a web-based global encyclopedia of election administration. She also served as Lead Writer on Boundary Delimitation for ACE.

Research Director and Statistical Analyst, Election Data Services, Inc. (1984 to 1998). Election Data Services (E.D.S.) is a Washington D.C. political consulting firm specialising in election administration. Dr. Handley's work at E.D.S. focused on providing redistricting and voting rights consulting and litigation support to scores of state and local jurisdictions.

Adjunct Professor (1986 to 1998). Dr. Handley has taught political science and methodology courses (both at the graduate and undergraduate level) at George Washington University, the University of Virginia, and the University of California at Irvine. She has served as a guest lecture at Harvard, Princeton, Georgetown, American University, George Mason University and Oxford Brookes University in the UK.

Grants

National Science Foundation Grant (2000-2001): Co-investigator (with Bernard Grofman) on a comparative redistricting project, which included hosting an international conference on "Redistricting in a Comparative Perspective" and producing an edited volume based on the papers presented at the conference.

Publications

Books*:*

Does Torture Prevention Work? Liverpool University Press, 2016 (served as editor and author, with Richard Carver)

Comparative Redistricting in Perspective, Oxford University Press, 2008 (first editor, with Bernard Grofman).

Delimitation Equity Project: Resource Guide, Center for Transitional and Post-Conflict Governance at IFES and USAID publication, 2006 (lead author).

Minority Representation and the Quest for Voting Equality, Cambridge University Press, 1992 (with Bernard Grofman and Richard Niemi).

***Academic Articles**:*

"Has the Voting Rights Act Outlived its Usefulness: In a Word, "No," Legislative Studies Quarterly, volume 34 (4), November 2009 (with David Lublin, Thomas Brunell and Bernard Grofman).

"Delimitation Consulting in the US and Elsewhere," Zeitschrift für Politikberatung, volume 1 (3/4), 2008 (with Peter Schrott).

"Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence," North Carolina Law Review, volume 79 (5), June 2001 (with Bernard Grofman and David Lublin).

"A Guide to 2000 Redistricting Tools and Technology" in The Real Y2K Problem: Census 2000 Data and Redistricting Technology, edited by Nathaniel Persily, New York: Brennan Center, 2000.

"1990s Issues in Voting Rights," Mississippi Law Journal, 65 (2), Winter 1995 (with Bernard Grofman).

"Minority Turnout and the Creation of Majority-Minority Districts," American Politics Quarterly, 23 (2), April 1995 (with Kimball Brace, Richard Niemi and Harold Stanley).

"Identifying and Remedying Racial Gerrymandering," Journal of Law and Politics, 8 (2), Winter 1992 (with Bernard Grofman).

"The Impact of the Voting Rights Act on Minority Representation in Southern State Legislatures," Legislative Studies Quarterly, 16 (1), February 1991 (with Bernard Grofman).

"Minority Population Proportion and Black and Hispanic Congressional Success in the 1970s and 1980s," American Politics Quarterly, 17 (4), October 1989 (with Bernard Grofman).

"Black Representation: Making Sense of Electoral Geography at Different Levels of Government," Legislative Studies Quarterly, 14 (2), May 1989 (with Bernard Grofman).

"Minority Voting Equality: The 65 Percent Rule in Theory and Practice," Law and Policy, 10 (1), January 1988 (with Kimball Brace, Bernard Grofman and Richard Niemi).

"Does Redistricting Aimed to Help Blacks Necessarily Help Republicans?" Journal of Politics, 49 (1), February 1987 (with Kimball Brace and Bernard Grofman).

***Chapters in Edited Volumes**:*

"Redistricting" in *Oxford Handbook of Electoral Systems*, Erik Herron Robert Pekkanen and Matthew Shugart (eds), Oxford: Oxford University Press, 2018.

"Role of the Courts in the Electoral Boundary Delimitation Process," in *International Election Remedies*, John Hardin Young (ed.), Chicago: American Bar Association Press, 2017.

"One Person, One Vote, Different Values: Comparing Delimitation Practices in India, Canada, the United Kingdom, and the United States," in Fixing Electoral Boundaries in India, edited by Mohd. Sanjeer Alam and K.C. Sivaramakrishman, New Delhi: Oxford University Press, 2015.

"Delimiting Electoral Boundaries in Post-Conflict Settings," in Comparative Redistricting in Perspective, edited by Lisa Handley and Bernard Grofman, Oxford: Oxford University Press, 2008.

"A Comparative Survey of Structures and Criteria for Boundary Delimitation," in Comparative Redistricting in Perspective, edited by Lisa Handley and Bernard Grofman, Oxford: Oxford University Press, 2008.

"Drawing Effective Minority Districts: A Conceptual Model," in Voting Rights and Minority Representation, edited by David Bositis, published by the Joint Center for Political and Economic Studies, Washington DC, and University Press of America, New York, 2006.

"Electing Minority-Preferred Candidates to Legislative Office: The Relationship Between Minority Percentages in Districts and the Election of Minority-Preferred Candidates," in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman and Wayne Arden).

"Estimating the Impact of Voting-Rights-Related Districting on Democratic Strength in the U.S. House of Representatives," in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman).

"Voting Rights in the 1990s: An Overview," in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman and Wayne Arden).

"Racial Context, the 1968 Wallace Vote and Southern Presidential Dealignment: Evidence from North Carolina and Elsewhere," in Spatial and Contextual Models in Political Research, edited by Munroe Eagles; Taylor and Francis Publishing Co., 1995 (with Bernard Grofman).

"The Impact of the Voting Rights Act on Minority Representation: Black Officeholding in Southern State Legislatures and Congressional Delegations," in The Quiet Revolution: The Impact of the Voting Rights Act in the South, 1965-1990, eds. Chandler Davidson and Bernard Grofman, Princeton University Press, 1994 (with Bernard Grofman).

"Preconditions for Black and Hispanic Congressional Success," in United States Electoral Systems: Their Impact on Women and Minorities, eds. Wilma Rule and Joseph Zimmerman, Greenwood Press, 1992 (with Bernard Grofman).

***Electronic Publication**:*

“Boundary Delimitation” Topic Area for the Administration and Cost of Elections (ACE) Project, 1998. Published by the ACE Project on the ACE website (www.aceproject.org).

***Additional Writings of Note**:*

Amicus brief presented to the US Supreme Court in Gill v. Whitford, Brief of Political Science Professors as Amici Curiae, 2017 (one of more than a political scientists to sign brief)

Amicus brief presented to the US Supreme Court in Shelby County v. Holder, Brief of Historians and Social Scientists as Amici Curiae, 2013 (one of several dozen historians and social scientists to sign brief)

Amicus brief presented to the US Supreme Court in Bartlett v. Strickland, 2008 (with Nathaniel Persily, Bernard Grofman, Bruce Cain, and Theodore Arrington).

Court Cases since 2005

U.S. v. City of Eastpointe (ongoing) – City of Eastpointe, Michigan, at-large city council

Alabama NAACP v. State of Alabama (ongoing) – Alabama statewide judicial elections

Lopez v. Abbott (ongoing) – Texas statewide judicial elections

Personhaballah v. Alcorn (2016) – Virginia congressional districts

Perez v. Abbott (2012, decided 2017) – Texas congressional and state house districts

Jeffers v. Beebe (2012) – Arkansas state senate district

State of Texas v. U.S. (2011-2012) – Texas congressional and state house districts

In RE 2011 Redistricting Cases (2011-2012) – Alaska state legislative districts

U.S. v. Euclid City School Board (2008-9) – City of Euclid, Ohio at-large school board

U.S. v. City of Euclid (2006-7) – City of Euclid, Ohio council districts

U.S. v. Village of Port Chester (2006-7) – Village of Port Chester, New York at-large city council