# How much is enough and how much is too much? Measuring Hispanic political strength for redistricting purposes" 

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## Introduction

Each decade, many local school districts, city councils, county boards of supervisors, and special districts that elect representatives by-district (rather than at-large) must measure election district populations and perhaps adjust district boundaries in order to meet legal requirements. This adjustment process is called "redistricting." Election districts must be fairly equal in population and uneven population and housing growth during a postcensal decade nearly always necessitates redistricting. When a local jurisdiction redistricts, the Federal Voting Rights Act (FVRA) requires that the lines be re-drawn in a way that will protect and preserve the political power of minority group members. ${ }^{1}$

During the last three rounds of redistricting (after the 1990, 2000, and 2010 Censuses), we provided redistricting services to numerous local jurisdictions in California. We have watched as legal requirements related to minority political power have changed and been re-interpreted by the courts. We assisted many jurisdictions in Monterey County, California, with initial districting and subsequent re-districting. This is noteworthy because Monterey County is one of four California counties that are required to gain approval from the United States Department of Justice (DOJ) before making any change in voting practice. This "preclearance requirement" applies to initial districting and all subsequent rounds of redistricting. The DOJ scrutinizes a local jurisdiction's process as well as its end result to ensure that minority voting rights are not diminished by any proposed changes.

Section 2 of the Federal Voting Rights Act (FVRA) provides an important legal criterion for designing or adjusting election district boundaries at the local level: under certain circumstances, districts should be constructed to empower protected minority group members to elect representatives of their choice. At the same time, the FVRA prohibits the "packing" of protected minority group members into a district, or over-concentrating them in one district and diminishing their influence in neighboring election districts. There is no single legal standard

[^0]regarding how large a group's share of the population needs to be in order to be "strong enough" and "too strong," and to a certain extent the task has devolved on demographers.
The whole question of "how much is enough" is complicated by a relatively recent Supreme Court ruling. Bartlett v. Strickland (556 U.S. 1 (2009)). This ruling states that even when there is no potential protected group majority in an election district, the group may need to be taken into account during redistricting if the group has potential influence. If the protected group can count on crossover voting (voting by majority group members for candidates supported by minorities), then the protected group does not need enough power on its own to elect representatives. This ruling means that each situation must be thoroughly analyzed to determine whether a protected group has sufficient political power to be covered by the FVRA.

In this paper, we describe and evaluate five different measures of voting power. We explain how to construct these measures and discuss the level of concentration required in order for members of groups protected by Section 2 of the FVRA to be able to elect representatives of their choice. In particular, we focus on one protected group (Hispanics). We end the paper with a case study from Monterey County, California.

## Five Measures of Potential Political Power

Five measures of potential political power have come to be used for FVRA purposes. They are the percentage or share of the group of interest in the:
(1) Total population;
(2) Voting age population (VAP);
(3) Citizen voting age population (CVAP) -the eligible voter population;
(4) Registered voters population; and
(5) Actual voters in a recent election or elections.

These measures vary with respect to how well they indicate a group's potential political influence. The share of the total population (1) is a poor measure of voting strength for any group, because only those who are at least 18 years of age and who are citizens are eligible to vote. Similarly, the share of the VAP (2) does not take citizenship into account, and citizenship rates for some groups protected by the FVRA can be low. The group's share of the CVAP (3) indicates potential political prowess, although voter registration and turnout rates affect ability to elect representatives. The share of registered voters who belong to the group of interest (4), like the CVAP measure, indicates the group's potential to elect representatives, but the most accurate indicator of a minority group's real political strength is its share of those who actually turn out and vote (5). Even this last measure has shortcomings because many factors influence the outcome of a particular election, including whether an incumbent is running (in the races we have studied, there is almost always a very large "incumbency advantage"), and how effectively various candidates campaign. There are also difficulties identifying the race/ethnicity of actual voters, as we discuss below.

## Group's Share of the Total Population

The group's share of the total population (from the most recent decennial Census) is one of the most readily available statistics, and is perhaps the most often quoted, especially by journalists and laypeople. ${ }^{2}$ Superficially, one might expect that an election district in which a particular protected group constituted a majority of the total population would be considered a "minority district." However, in most cases, this is far from the truth.

In 1984, the Court of Appeals for the Seventh Circuit, in the case of Ketchum v. Byrne, 740 F.2d 1398, endorsed the use of a 65 percent African American share of the total population to indicate a likely voting majority, in the absence of empirical evidence that some other figure was more appropriate. The relatively high percentage was established in order to take account of the facts that members of minority groups are usually younger, less likely to register to vote, and less likely to vote even when registered. This was a "rule of thumb" and, to the best of our knowledge, was not based on any demographic analysis. For African Americans, this level of concentration may be reasonable, but for minority groups which have large immigrant populations, such as Hispanics and Asians, higher concentrations may be necessary to offset noncitizenship.

As we show below, our Monterey County example suggests that Hispanics need to be about 70 to 80 percent of the total population of an election district before they have the ability to elect candidates of their choice.

## Group's Share of the Voting Age Population (VAP)

The protected group's share of the population aged 18 and over is a better measure of political power than is its share of the total population. These data, along with the total population counts, are in the first Census data release - the PL 94-171 dataset - which is used for redistricting purposes. Thus, there is no reason not to use the VAP data to measure minority voting strength. In its ruling in Ketchum v. Byrne, the court suggested that a 60 percent Black VAP share would be comparable to 65 percent share of the total population.
Most protected groups tend, on average, to have a younger age distribution than the unprotected group (non-Hispanic Whites). Chart 1 illustrates the age distribution differences between various groups. Hispanics have, by far, the youngest age distribution (the share of the population that is young is greater than is the case for other groups), followed by African Americans, Asians, and then Whites. These differences illustrate why total population shares are not a very good indicator of potential to elect candidates of choice, and why a 50 percent share of the total population may not be sufficient for the protected group to elect.

[^1]
## Chart 1



Table 1 shows the difference between the shares of the total and voting age populations for California’s largest ethnic groups. Non-Hispanic Whites are the "oldest" group, and as a result, their share of the VAP is greater than their total population share. Although they are 40.1 percent of the total population, they are 44.4 percent of the voting age population. Similarly, Asians comprise 13.9 percent of the total population but are 14.4 percent of the voting age population. The African American share of California's total and voting age populations appear similar, although this results mostly from the fact that the group's population is relatively small. ${ }^{3}$ The Hispanic pattern is most striking: because the group is, on average, much younger, they were 37.6 percent of the total population, but only 33.1 percent of the voting age population in 2010. In fact, for all California counties, Hispanics have a greater share of VAP than of the total population.

Table 1: California's Total and Voting Age Population Shares by Ethnicity (Census 2010)

|  | Total Population <br> Share | Voting Age <br> Population Share | Difference: <br> Total-VAP |
| :--- | :---: | :---: | :---: |
| Whites | $40.1 \%$ | $44.4 \%$ | $-4.2 \%$ |
| Hispanics | $37.6 \%$ | $33.1 \%$ | $4.5 \%$ |
| Asians | $13.9 \%$ | $14.4 \%$ | $-0.5 \%$ |
| Blacks | $6.2 \%$ | $6.1 \%$ | $0.1 \%$ |

[^2]Both the total population and voting age population shares are based on counts rather than estimates; although Census data are known to undercount some populations (particularly young African American males) and overcount others, these data are far superior to measures based on estimates derived from surveys, like the CVAP data. Nevertheless, because not everyone over age 18 is permitted to vote, we turn now to the effect of citizenship rates on groups' voting strength.

## Group's Share of the Citizen Voting Age Population (CVAP)

Because the Hispanic population has been growing rapidly, at least partly through immigration, citizenship rates must be considered when measuring the group's potential voting strength. If a minority group comprises a majority of the CVAP in a jurisdiction or election district, then it has the potential to elect representatives of its choice. However, in actual practice, if registration or turnout rates are lower for the minority group than for Whites, the protected group will not be able to elect representatives without additional support from other groups.
CVAP analyses require decisions about two matters: (1) how to construct the CVAP estimate, and (2) the minimum share of the CVAP that the group must have in order for it to be able to elect representatives.

## Estimating the CVAP

The CVAP is best calculated by applying estimated citizenship rates (estimated using one or more data sources) to the decennial Census VAP. Citizenship rates are extremely important because they can reduce the voting strength of the protected minority group substantially, even when the group is a large share of the total population. Potential Hispanic voting power can be two-thirds lower than the Hispanic share of the total population as a result of low citizenship rates. Because citizenship rates are so important to the CVAP estimates, we discuss data sources, show typical values, provide an example of the CVAP calculations, show typical values of the Hispanic citizenship rates, and discuss factors that affect these rates.
Citizenship rates vary tremendously by race/ethnic group and must be calculated separately for each group. We focus on the Hispanic population, since this is the dominant protected group in Monterey County, California, which we use for our case study.
There are several sources of data on citizenship:

- 2000 Census long form: The 2000 long form provided the largest survey on citizenship (generally a one-in-seven sample), but the data are becoming increasingly dated. The data are available for Census 2000 geographical units, which are not used for post-2010 political redistricting. Census 2000 citizenship estimates are available for geographical units as small as block groups, but margins of error were (presumably) much larger for block groups than for tracts. We recommend estimating citizenship rates for Census tracts rather than block groups. Other geographical units are too large to be useful for constructing CVAP estimates for redistricting purposes.
- American Community Survey (ACS) five-year estimates: The ACS provides data to calculate citizenship rates by race/ethnicity. Data are available at the block group level, but margins of error are quite high. We recommend using Census tract data for
calculating citizenship rates by race/ethnicity. Note that only the population aged 18 and over should be used in the calculation. The ACS 2006-10 results are supplied for 2010 Census geography, making it the obvious choice for post-2010 redistricting purposes.
- DOJ special tabulation of the ACS 2005-09: The DOJ ordered a special tabulation of 2005-09 ACS citizenship data from the Census Bureau to calculate citizenship rates, using DOJ race/ethnic categories. These data are available for block groups, but again we strongly recommend the use of tract-level information in order to reduce error margins for the estimates.

We strongly recommend that all three of these data sources be used only to compute citizenship rates, not the numbers of people in each CVAP category. All three of these data sources reported the estimated number of citizens 18 and over, by ethnicity, as well as the estimated population aged 18 and over. Dividing the estimated number of citizens aged 18 and over (by ethnicity) by the estimated total population 18 and over (by ethnicity) for each Census tract yields an estimated citizenship rate. This Census tract-level rate is then applied to the actual VAP count from the decennial Census for each individual Census tract, block group, or block located inside the tract for which citizenship rates have been estimated in order to arrive at an estimated number of people who are citizens (by race/ethnicity). One should not use the VAP estimates from the ACS (or 2000 Census long form) because Census counts, although imperfect, are much more accurate than ACS or long form estimates. One thereby limits estimation errors by using only the citizenship rates and not the actual numbers of citizens in the areas in question. Also, using the rates permits one to estimate CVAP numbers for a point in time later than when the rate data were gathered. The rates do not change much over time, while the VAP numbers may. Applying ACS 2006-10 rates to Census 2010 VAP counts is the preferred approach.

Table 3 demonstrates the calculation of the Hispanic CVAP for subareas of Monterey County. First, ACS 2006-10, citizenship rates were estimated (columns (1)-(3)). These rates were then multiplied by the decennial census counts (column 4) to obtain the CVAP estimate (column 5). This process is repeated for each ethnic group. The percentage share of CVAP is calculated by dividing the Hispanic CVAP by the total CVAP (CVAP of all ethnic groups summed).

Overall, the county's Hispanic citizenship rate is 50 percent, but rates vary considerably across regions. The densest Hispanic population concentration is in East Salinas. Its estimated citizenship rate is the lowest, at 29 percent. The more affluent Monterey Peninsula and South Salinas areas have rates exceeding 70 percent. See Maps 1 and 2.

The citizenship levels that matter most for political districting and redistricting purposes are for areas with large Hispanic concentrations. Thus, East Salinas and South County, with the lowest citizenship levels, are where election districts can be drawn in order to meet FVRA objectives. Estimating citizenship rates are important because they reduce Hispanic political power a great deal: they are about one-third of the Hispanic share of the total population. Hispanic population shares far higher than 50 percent are needed for the group to have the ability to elect representatives.

In Monterey County, higher Hispanic population shares are associated with lower Hispanic citizenship rates. ${ }^{4}$ Map 2 shows tract-level data for the City of Salinas and Monterey Peninsula, and compares Hispanic citizenship rates with the group's population share. Tracts with a large Hispanic population shares almost always have low Hispanic citizenship rates. This underscores the point that county-wide citizenship rates should not be assigned to the high-density Hispanic areas for purposes of estimating the Hispanic CVAP.

Table 3

| Column number: | (1) | (2) | (3) | (4) | (5) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Formula: |  |  | (1)/ (2) |  | (3) * (4) |
|  | ACS 2006-2010 |  |  |  |  |
| Region | Hispanic <br> VAP <br> (Census <br> 2010) | Hispanic Citizen Voting Age Population | Citizenship Rate | Census 2010 <br> Hispanic VAP count | estimated Census 2010 Hispanic CVAP |
| East Salinas | 25,890 | 7,488 | 29\% | 26,981 | 7,804 |
| South County | 33,553 | 15,773 | 47\% | 36,992 | 17,390 |
| Creekbridge Williams Ranch | 10,556 | 5,537 | 52\% | 10,112 | 5,304 |
| North and West Salinas | 25,584 | 15,488 | 61\% | 26,933 | 16,305 |
| North County | 15,508 | 8,680 | 56\% | 16,564 | 9,271 |
| South Salinas | 6,843 | 4,961 | 72\% | 8,076 | 5,855 |
| Marina Seaside | 12,443 | 5,888 | 47\% | 12,685 | 6,003 |
| Monterey Peninsula | 6,364 | 4,704 | 74\% | 6,262 | 4,629 |
| Total | 136,741 | 68,519 | 50\% | 144,605 | 72,460 |

## Optimal CVAP shares

As far as we know, neither the courts nor the DOJ has suggested an optimal numeric value for the CVAP. The courts have said the "totality of circumstances" should be considered, and no guideline for CVAP level has been suggested. Our discussions with attorneys specializing in redistricting suggest that a 50 percent CVAP level is an important threshold - presumably because it gives protected groups the potential to elect members of their choice.

In practice, however, the CVAP share would need to be higher to provide sufficient minority political power as long as turnout rates remain relatively low. We have found that in the case of Monterey County, analysis of voter data suggests that a Hispanic CVAP share of at least 60 percent would be needed in order for the group to comprise a majority of actual voters.
When considering preclearance submissions, ${ }^{5}$ the U.S. Department of Justice does not have any official numerical target for CVAP shares of protected groups. ${ }^{6}$ The ideal CVAP share depends

[^3]on many factors, including the extent of racial bloc voting by the protected group, the extent of crossover voting by majority group members, whether protected groups are well-organized and effectively-led, whether an incumbent is running, the minority status of the incumbent, and the voter turnout in a particular election.

## Estimating Numbers of Registered Voters by Ethnicity

A very different measure of the potential for protected groups to elect officials of their choice is the estimated share of registered voters that belongs to the group. In California, race/ethnic identity is not collected when people register to vote. However, it is possible to estimate the number of Hispanics or Asians using surname analyses. While not totally accurate, surname analysis provides a good estimate of the share of voters in precincts that are Hispanic or Asian. ${ }^{7}$

We obtained a voter database from the Monterey County Registrar of Voters that provided the name, address, and voting history of each registered voter in the County. We geocoded the individual records and assigned them to Census blocks, then performed a Spanish surname analysis. The number of Spanish surname and non-Spanish surname voters were aggregated for each Census block. This information became part of our GIS database and the number of registered (and actual) voters was tallied along with all the other measures as we constructed election districts. ${ }^{8}$

## Optimal Shares of Registered Voters

In Monterey County, as well as many other California jurisdictions, the Hispanic CVAP share resembles the share of registered voters who have Spanish surnames. Both measures indicate the potential to elect candidates. However, because Hispanic voter turnout rates tend to be lower than those for most other groups, registered voter shares generally need to be well above 50 percent in order for Hispanics to be able to elect representatives of their choice.

## Actual Voters with Spanish (or Asian) Surnames

We conducted a surname analysis for actual Monterey County voters in the 2008 and 2010 general elections just as we did for registered voters. Voter turnout is the best measure of actual minority voting strength, and, not surprisingly, Monterey County Hispanic leaders concentrated on this measure more than the others during the recent round of redistricting. Voter turnout is not potential voting strength, but demonstrated voting strength. This seems to us the best measure of minority voting prowess. However, there are three downsides to using actual voter data: (1) surname analysis only approximates the number of minority voters; (2) only Hispanic

[^4]and Asian surnames can be identified; and (3) voting patterns in a particular election may indicate what will happen in future elections.

The Hispanic share of actual voters was lower in 2010 than in 2008, while the Hispanic share of registered voters grew between 2008 and 2010. We assume that these facts resulted from the following:

1. The Hispanic adult population has been growing from both migration and aging. Hispanics comprise a larger share of the young population than they do of older groups, so over time, the Hispanic share of the older population is growing.
2. Presidential elections may have higher turnout rates than non-presidential elections, especially for minorities.
3. Barak Obama attracted an historically large number of minority voters in 2008.

For these reasons, one needs to be careful not to assume that patterns in one election will exist in other elections, especially local elections. To determine which election year best suits the redistricting process depends on when a jurisdiction's elections are held. In Monterey County, school board members are elected in odd-numbered years, and minority voter turnout is lower than in the even-numbered year elections (especially the presidential elections). However, the even-year County Board of Supervisors races are often a hotly contested, which could prompt higher turnouts, especially if a minority candidate is running against a White candidate. Ideally, a demographer would analyze actual voters from a recent election of the jurisdiction that is redistricting. Note that the characteristics of any election can affect minority turnout, such as if a minority candidate is running, how popular and well-known the candidates are, how much competition there is, and whether any high-profile statewide races or propositions are on the ballot.

## All Measures Compared

Table 4 shows the five different measures of Hispanic political power for all of Monterey County. Hispanics have a 56 percent majority of the total population, but their VAP share is 49 percent. Our estimates of citizenship rates indicate that Hispanics are approximately one-third of the CVAP. The estimated Spanish-surname share of registered voters is similar to the CVAP share at 32 percent. The share of actual voters with Spanish surnames was 26 percent in 2010 and 27 percent in 2008. Thus, while Hispanics constitute a majority of the total population, they comprise only a bit more than one-quarter of the actual voters.

Table 4

| Monterey County | Hispanic/Spanish Surname Shares |  |
| :--- | :---: | :--- |
| Hispanic Share of |  | Source |
| Total population | $56 \%$ | 2010 Decennial Census |
| Voting Age Population (VAP) | $49 \%$ | 2010 Decennial Census |
| Estimated Citizen Voting Age Population (CVAP) | $33 \%$ | 2010 Decennial Census, 2006-10 American Community Survey |
| Spanish Surname Share of |  |  |
| Registered Voters Nov 2010 | $32 \%$ | County ROV database; LGDR analysis |
| Actual Voters Nov 2010 | $26 \%$ | County ROV database; LGDR analysis |
| Registered Voters Nov 2008 | $31 \%$ | County ROV database; LGDR analysis |
| Actual Voters Nov 2008 | $27 \%$ | County ROV database; LGDR analysis |

Table 5 shows the five measures for each subarea of Monterey County for the Hispanic group. South County, with an 82 percent Hispanic total population share had only 55 percent share of actual voters in November 2010. North and West Salinas, with a 70 percent Hispanic population share, had a 53 percent Hispanic CVAP share, but a minority of actual voters (47 percent in November 2010).

In general, the eastern part of Salinas has the largest Hispanic population share along with the lowest socioeconomic levels in the county. New housing was built in the area ("New Housing in East Salinas"), including many single-family units, occupied by persons of somewhat higher socioeconomic status than in the rest of eastern Salinas, although we have been told that many new units are occupied by several families. ${ }^{9}$ Most of the occupants are Hispanic, but the share is not quite as high as in the rest of eastern Salinas. The New Housing in East Salinas area has an average Hispanic citizenship rate of 52 percent, and as a result, Hispanics need lower total and VAP shares to have a voting majority. The Hispanic share of the total population is 76 percent compared to South County's 82 percent, yet the New Housing area has a larger share of Spanish surname voters than is the case in South County. Turnout rates are much higher in the new housing area than in South County.

The comparison of the New Housing area with South County illustrates the difficulty one can have deciding upon a numeric target for the Hispanic share when using anything other than actual voter data. A particular CVAP share may be associated with a voting majority in one part of the county, but not in another.

[^5]Table 5

| Region in Monterey County | Hispanic Population Share | Hispanic VAP Share | Hispanic CVAP Share | 2008 Registered Voters Share of Spanish Surnames | 2008 Actual Voters Share of Spanish Surnames | 2010 Registered Voters Share of Spanish Surnames | 2010 Actual Voters Share of Spanish Surnames |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| East Salinas | 95\% | 94\% | 84\% | 80\% | 78\% | 81\% | 77\% |
| South County | 82\% | 78\% | 68\% | 61\% | 57\% | 63\% | 55\% |
| New Housing in East Salinas | 76\% | 73\% | 59\% | 61\% | 59\% | 62\% | 57\% |
| North and West Salinas | 70\% | 64\% | 53\% | 51\% | 49\% | 53\% | 47\% |
| North County | 60\% | 54\% | 41\% | 34\% | 31\% | 35\% | 27\% |
| South Salinas | 49\% | 43\% | 36\% | 29\% | 26\% | 30\% | 23\% |
| Marina Seaside | 37\% | 32\% | 22\% | 16\% | 15\% | 17\% | 14\% |
| Monterey Peninsula | 10\% | 9\% | 7\% | 6\% | 6\% | 6\% | 5\% |
| Total | 56\% | 49\% | 35\% | 31\% | 27\% | 32\% | 26\% |

Data from Census 2010, ACS 2006-10, and Monterey County Elections Department. Analysis by Lapkoff \& Gobalet Demographic Research, Inc.

## Case Study: Monterey County Supervisors Redistricting in 2011

Monterey County is covered under Section 5 of the FVRA, and it must preclear any changes in practices affecting elections, including redistricting, with the U.S. Department of Justice. The DOJ evaluates whether the new redistricting plan might cause retrogression, or a reduction in the ability of protected groups to elect representatives of their choice. If so, the DOJ may prevent the jurisdiction from implementing the redistricting plan. Retrogression is deemed to exist if the ability of protected groups to elect representatives of their choice is lower under the new plan than under to the existing plan. If there is retrogression, the jurisdiction must explain why the retrogression was needed. ${ }^{10}$

Monterey County Hispanics have provided advice and feedback regarding redistricting to the County Board of Supervisors for at least several decades. Complaints were sent to the DOJ regarding various proposed redistricting plans, and Hispanic plaintiffs won a lawsuit over the Board's adopted plan in the early 1990s.

To ensure a fair and transparent process with as low a risk of litigation as possible, the Board appointed a citizens advisory committee in late 2010 to recommend a redistricting plan. ${ }^{11}$ After several months of deliberation, the committee nearly unanimously recommended a plan that made very minor modifications to the current plan - just two precincts were moved from one supervisorial district to another. Because there were so few changes, retrogression was not an issue. The new plan's Hispanic shares in each of the two affected districts closely resembled those in the existing plan, and were identical to those of the old plan in the other three unaffected supervisorial districts.

Despite nearly unanimous support from the citizen's advisory committee and enthusiastic support from the Board of Supervisors, the City of Salinas (with more than one-third of the county's total population) objected to the redistricting plan. Both the new and existing plans divided Salinas among four supervisorial districts, and the City wished to be divided between only two districts. This was the clearly stated objective of the City's complaint. However, there is no legal requirement that cities should not be fragmented (although the Board had wished to avoid dividing smaller cities between districts, when possible). Dividing Salinas between only two districts would result in awkwardly-shaped districts in other parts of the county and would combine areas in ways that many people felt would divide long-standing, traditional communities of interest outside the City.

[^6]To obtain legal standing, the City hired prominent redistricting attorneys who developed a plan that kept Salinas in only two supervisorial districts. The attorneys argued that its redrawn plan better met the FVRA requirements than the advisory committee's recommended plan. The City's plan had three districts with slight Hispanic CVAP majorities (each about 50 percent), while the committee's plan had two districts with a 65 percent Hispanic CVAP share, and one district with a 45 percent Hispanic CVAP share. The City argued that Hispanics in three districts with 50 percent Hispanic CVAP shares could elect representatives of their choice and that the committee’s plan "packed" or over-concentrated Hispanics at the cost of a possible third Hispanic district. The City argued that although its proposed plan reduced Hispanic shares in the two existing Hispanic-majority districts, the decrease would not reduce Hispanics’ ability to elect candidates of their choice. Furthermore, the City argued that its plan provided a considerable increase in Latino electability in a third district.

Most Latino political activists supported the County’s plan with its stronger Hispanic districts. They argued publicly that 50 percent CVAP majorities were not sufficient. In our experience, local political activists generally pay more attention to the actual voter shares and prefer CVAP shares of 60 percent or more.

Each side provided statements that were published in the local newspapers. ${ }^{12}$ The City argued that FVRA requirements were best met by its plan, while the County argued that its plan met the requirements, and the City's did not. In addition, the County's attorneys expressed concerns that the City's plan would not be precleared by the DOJ, since the City's plan was retrogressive: Hispanic shares in the two Hispanic-CVAP-majority districts would drop too much. District 1's Hispanic CVAP share would decline from 65 to 52 percent, while District 3's share would drop from 63 percent to 50 percent. Under the City's plan, no district would have a majority of actual voters with Spanish surnames: the three districts had 42, 41, and 39 percent of voters with Spanish surnames, compared with 59,58 , and 36 percent in the County's plan.

Table 6 compares the existing, or baseline plan, the County's adopted plan, and the City's recommended plan.

In summary, this 2010-2011 redistricting effort for Monterey County supervisors posed a philosophical and technical challenge for demographers. The County's Citizen's Redistricting Committee unanimously approved a new redistricting plan that was also unanimously approved by the Board of Supervisors. However, the new plan divided the City of Salinas, the county's largest City, among four (out of five) county supervisorial districts. The City of Salinas objected, arguing that the City should be divided into only two supervisorial districts. Attorneys for both the County and the City cited the Federal Voting Rights Act, racially-polarized voting, and, above all, minority voting strength as arguments for and against the county's approved plan. In the end, the County's "minimum change" plan was precleared by the U.S. Department of Justice. To date, no lawsuit has been filed over the new plan.

[^7]Meanwhile, Hispanic shares of the County's CVAP will almost certainly continue to grow, and during the next round of redistricting it is highly likely that it will be possible to draw plans with three supervisorial districts with substantial Hispanic CVAP majorities.

Table 6

|  |  | Hispanic share of |  |  | Spanish Surname share of |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Plan | District | Total population | Voting Age Population | Estimated Citizen Voting Age Population (based on $2005-2009$ rates)* | Registered Voters Nov 2010 | Actual Voters <br> Nov 2010 | Registered Voters Nov 2008 | Actual Voters Nov 2008 |
| Baseline (2001) Plan |  |  |  |  |  |  |  |  |
|  | 1 | 85\% | 82\% | 66\% | 67\% | 62\% | 66\% | 63\% |
|  | 2 | 64\% | 58\% | 45\% | 44\% | 36\% | 42\% | 39\% |
|  | 3 | 84\% | 80\% | 63\% | 65\% | 58\% | 64\% | 59\% |
|  | 4 | 38\% | 33\% | 22\% | 21\% | 17\% | 20\% | 18\% |
|  | 5 | 10\% | 9\% | 7\% | 6\% | 5\% | 6\% | 6\% |
|  | Total | 56\% | 49\% | 33\% | 32\% | 26\% | 31\% | 27\% |
|  |  |  |  |  |  |  |  |  |
| Adopted Plan |  |  |  |  |  |  |  |  |
|  | 1 | 84\% | 80\% | 65\% | 65\% | 59\% | 64\% | 61\% |
|  | 2 | 64\% | 58\% | 45\% | 43\% | 36\% | 42\% | 39\% |
|  | 3 | 84\% | 80\% | 63\% | 65\% | 58\% | 64\% | 59\% |
|  | 4 | 38\% | 33\% | 22\% | 21\% | 17\% | 20\% | 18\% |
|  | " 5 | 10\% | 9\% | 7\% | 6\% | 5\% | 6\% | 6\% |
|  | Total | 56\% | 49\% | 33\% | 32\% | 26\% | 31\% | 27\% |
|  |  |  |  |  |  |  |  |  |
| City of Salinas Plan |  |  |  |  |  |  |  |  |
|  | 1 | 70\% | 64\% | 51\% | 50\% | 43\% | 48\% | 45\% |
|  | 2 | 75\% | 70\% | 52\% | 51\% | 42\% | 49\% | 45\% |
|  | \% | 72\% | 67\% | 50\% | 47\% | 39\% | 45\% | 40\% |
|  | 4 | 47\% | 42\% | 28\% | 26\% | 21\% | 25\% | 23\% |
|  | \% | 13\% | 11\% | 7\% | 6\% | 5\% | 6\% | 5\% |
|  | Total | 56\% | 49\% | 33\% | 32\% | 26\% | 31\% | 27\% |

* During the Monterey County Board of Supervisors redistricting process, ACS data for 2006-10 were not yet available


## Conclusion

We have described five different types of data that may be used when trying to answer the question posed in our paper title, "How much is enough and how much is too much?" We have explained why shares of the total and voting age populations are not adequate when attempting to determine whether a particular set of election district boundaries will meet the requirements of Section 2 of the Federal Voting Rights Act.

We also have explained that the answer to our question remains unclear when CVAP is used as the measure of potential voting strength. The level of concentration of members of a protected group that is needed to comply with Section 2 has not been established by the courts. In our experience the level varies by jurisdiction and by the person or group that voices an opinion on the subject. Our Monterey County case study illustrates this: on the one hand, a group of people
advocated having two "safe" Hispanic supervisorial districts, and on the other hand, another group advocated having three districts with small Hispanic majorities. A 50 percent share of the CVAP may seem adequate, but in reality this level is associated with voter turnout rates that are well below the 50 percent level. This is certainly the case in Monterey County. Local Hispanic leaders complained that the City of Salinas' plan would seriously dilute the political power of Hispanic voters. Moreover, the subarea analysis of Monterey County shows that different levels of CVAP are needed to provide a majority of actual voters, depending on the citizenship rates of the Hispanics in the particular subarea.

All the possible measures of protected group concentration have flaws. We believe it is important for those engaged in districting and redistricting efforts to be aware of the shortcomings of these measures of potential political influence, as well as of the others discussed here. The group's shares of the total and voting age populations, although often used to advocate for the by-district election method, do not reflect ability to elect representatives of choice. The measures that do a better job of indicating political power have other flaws. The measures of a group's share of the citizen voting age population rely on estimates of citizenship rates that have rather large margins of error. Estimates of Hispanic and Asian shares of the registered and actual voters based on surname analyses are subject to error, as well, but they are probably the best indicator of true minority voting power. The most important drawback of these databases is that no surname method is possible to identify African American voters. ${ }^{13}$

For Hispanics and Asian Americans, we believe that surname analysis of voter databases can provide the best indicator of potential voting strength. However, the quality of the voter data may vary considerably and the shortcomings of surname analysis must be recognized.
Nevertheless, we expect these data may be accepted by the courts more broadly in the future.
For the time being, we must conclude that the answer to the question posed in our paper title is not simple. "How much is enough" depends on many factors that we have described here.

## Possible Further Research

Analysis of particular elections may help answer our question about how large a share of the population, VAP, CVAP, registered voters, or actual voters is needed to elect representatives of a group's choice. For these analyses, one would need to identify races in which a candidate supported by members of the group ran against a candidate or candidates not supported by the group. We could then test patterns of voting for the candidates of choice in precincts with different Hispanic shares of CVAP, registered voters, and actual voters. Because the results of any race can be affected by many factors (other races or measures on the ballot, the popularity of each candidate, and incumbency, among others), a large number of races would need to be analyzed to evaluate the relationship between minority voting strength as measured in different ways and the opportunity to elect representatives of their choice.

[^8]
## Map 1



Map 2
Estimated Citizenship Rates
for the Hispanic Voting Age Populatio
with Hispanic and non-Hispanic Shares of the Total Population

## by Census 2010 Tract




[^0]:    ${ }^{1}$ Text from the FVRA: "(a) No voting qualification or prerequisite to voting or standard, practice, or procedure shall be imposed or applied by any State or political subdivision in a manner which results in a denial or abridgement of the right of any citizen of the United States to vote on account of race or color [or membership in a language minority group], as provided in subsection (b) of this section.
    "(b) A violation of subsection (a) of this section is established if, based on the totality of circumstances, it is shown that the political processes leading to nomination or election in the State or political subdivision are not equally open to participation by members of a class of citizens protected by subsection (a) of this section in that its members have less opportunity than other members of the electorate to participate in the political process and to elect representatives of their choice." 42 U.S.C. § 1973.

[^1]:    ${ }^{2}$ In a recent article, San Mateo County (California) Daily Journal reported that the county's voters had not elected a Hispanic representative (at-large) despite the fact that Hispanics were 25 percent of the total population. As we explain below, a 25 percent population share results in a small share of actual voters - the lack of Hispanic representatives is not surprising.
    http://www.smdailyjournal.com/article_preview.php?id=231354\&title=Colleges\%20eye\%20district\%20elections

[^2]:    ${ }^{3}$ The result for Blacks is somewhat deceiving, biased by the very young distribution of Hispanics. If only California's Whites and Blacks were compared, Blacks would have a much smaller share of the VAP than of the total population.

[^3]:    ${ }^{4}$ We measured the correlation between ACS 2006-10 estimates of the share of the VAP that was Hispanic and the median household income in Monterey County Census 2010 tracts, and the result was -. 667 ( $\mathrm{p}<.01$ ). The correlation between the share of the Hispanic VAP that were citizens and the median household income was . 706 ( $\mathrm{p}<.01$ ).
    ${ }^{5}$ As we discuss in more detail in the case study, four California counties and most southern states must submit their redistricting plans to the Department of Justice for approval ("preclearance") to ensure that groups protected by the FVRA have not been disadvantaged by the change. This requirement derives from Section 5 of the FVRA.
    ${ }^{6}$ Federal Register Volume 76, No. 27/ Wednesday February 9, 2011/Notices: Guidance Concerning Redistricting Under Section 5 of the Voting Rights Act.

[^4]:    ${ }^{7}$ See Abrahamse, A. F., P. A. Morrison, and N. B. Minter. 1994. "Surname Analysis for Estimating Local Concentration of Hispanics and Asians," Population Research and Policy Review, 1994; and Lauderdale, D. and B. Kestenbaum. 2000. "Asian American Ethnic Identification by Surname," Population Research and Policy Review 19: 283-300
    ${ }^{8}$ California also offers an alternative approach to estimating registered voters by surname. The State-Wide Data Base (SWDB) affiliated with the University of California, Berkeley, conducts surname analyses of voter databases and provides the numbers of registered and actual voters with Spanish and Asian subgroup surnames for each statewide election and for each precinct. Occasionally the SWDB also estimates the number of voters with various surnames for each Census block. Our figures for the November 2008 and November 2010 general elections were similar to those provided by the SWDB, though they did not match exactly.

[^5]:    ${ }^{9}$ Analysis of Census 2010 data indicates an average of 3.2 persons per occupied housing unit county-wide, with averages of 4.9 in East Salinas, 4.2 in the New Housing area, and 4.1 in South County.

[^6]:    ${ }^{10}$ Sometimes retrogression is unavoidable when one is complying with the Fourteenth Amendment-based requirement of population equality. For example, if a non-minority area's population grew during the decade, it might need to lose population, which could reduce a protected group's shares in neighboring election districts. ${ }^{11}$ Many jurisdictions convene some sort of citizens' redistricting advisory committee to make recommendations to the governing board. In California, Proposition 11, passed in 2008, assigned the drawing of California's state and congressional election districts to a citizens committee. Such committees are charged with taking legal requirements into account, often along with placing priority on easily identifiable boundary lines and compact districts. If instructed to do so, they recommend plans with only one incumbent per election district (but sometimes are instructed to disregard incumbency altogether). Representatives of protected groups on these committees, in our experience, advocate the creation of election districts in which their groups can easily elect candidates of choice.

[^7]:    ${ }^{12}$ The Monterey Herald and the Salinas Californian.

[^8]:    ${ }^{13}$ We believe that it may be possible to make reasonable inferences about voters' race/ethnicity, including for African Americans, by combining Census 2010 race/ethnic data with registered voter data, but have not yet attempted to do so.

