



A Social Science Approach to Race, Redistricting, and Representation

David Epstein; Sharyn O'Halloran

The American Political Science Review, Vol. 93, No. 1 (Mar., 1999), 187-191.

Stable URL:

<http://links.jstor.org/sici?sici=0003-0554%28199903%2993%3A1%3C187%3AASSATR%3E2.0.CO%3B2-5>

The American Political Science Review is currently published by American Political Science Association.

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/journals/apsa.html>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is an independent not-for-profit organization dedicated to creating and preserving a digital archive of scholarly journals. For more information regarding JSTOR, please contact support@jstor.org.

A Social Science Approach to Race, Redistricting, and Representation

DAVID EPSTEIN and SHARYN O'HALLORAN *Columbia University*

In his critique of our earlier paper on majority-minority voting districts, David Lublin suggests that our conclusions with respect to the election of minorities to office are flawed, and that we incorrectly estimate optimal districting strategies for the substantive representation of minority interests in Congress. Subjecting these claims to direct empirical examination, we find that our previous results are unaltered by the inclusion of Latino voters in our estimates of equal opportunity, and that incumbency advantage cannot fully explain the recent victories of minority candidates in the South. Neither do the critiques of our results regarding substantive representation stand up to systematic analysis: Evidence at both the state level and over time confirm our conclusion that districts on the order of 45% black voting age population maximize the expected number of votes for minority-supported legislation.

The debate over race and redistricting lies at the intersection of a number of charged issues in contemporary American politics. Most directly, it addresses minorities' right to vote, to elect candidates of their choice, and to participate effectively in the political process, especially in view of the historical record of discrimination in the South. At a more fundamental level, the districting debate touches on the degree to which political institutions can ameliorate social tensions and protect minorities from the tyranny of the majority. Given the contentious nature of these issues, the public debate over redistricting in general, and over the federally mandated creation of majority-minority districts in particular, has tended at times to become polemic, losing its original focus on the ability of minorities to have a voice in determining the policies under which they live.

Cameron, Epstein, and O'Halloran (1996) sought to apply a social scientific approach to these questions by devising a method for systematically evaluating the effect of alternative districting schemes on the representation of minority interests in Congress. We developed a two-step process. First, we estimated the probability of electing different types of candidates—Republicans, nonblack Democrats, and black Democrats—to Congress, given different district characteristics. Second, we investigated how these representatives, once in office, are likely to vote on policies favored by the minority community. We concluded that minority candidates have a substantial chance of winning elections in districts with a concentrated, but less than 50%, minority population. We also found that past a certain point a tradeoff exists between descriptive representation (electing more minorities to office) and substantive representation (enacting policies favored by the minority community). Specifically, in the South, assigning as many districts as possible in the

range of 45–47% black voting-age population (BVAP) maximizes the overall substantive representation of minority interests in Congress, even though higher concentrations of minority voters maximize the expected number of minority representatives elected.

In his critique of our article, Lublin raises a number of interesting and important points concerning the relation of Latino voters to minority electoral success, incumbency factors in electing minorities to office, and regional differences in tradeoffs over substantive representation. The empirical evidence presented in support of these arguments is largely anecdotal, however. The social scientific approach we present below reveals that these concerns do not undermine our argument; to the contrary, many of Lublin's assertions only bolster our claim that, on average, majority-minority districts are no longer necessary to assure minorities of descriptive representation and may actually reduce substantive representation. Our response first addresses questions relating to the election of minority representatives to office, after which we analyze the effect of racial redistricting on policy outcomes.

EQUAL OPPORTUNITY AND THE ELECTION OF MINORITIES

Latino Voters and Minority Representation

The most significant point raised in Lublin's critique concerns the role of Latino voters in the election of black representatives. The claim is that African Americans cannot win election outside black majority districts unless a substantial number of Hispanic voters reside in the district. This assertion, however, is not tested directly by disaggregating the effect of constituency composition on a candidate's electoral success. When we do so with data from recent elections, we find that the addition of Latino voters leaves unaltered our original prediction that minority candidates can now win office outside majority-minority districts.

To begin with, it is to a large extent unsurprising that adding Latino voters to a concentrated black district increases the likelihood that a black candidate will be elected. Latino voters are more likely to be Democrats—in 1992, 50% were registered Democrats, 24% Republicans. A finding that a district's Hispanic voting-

David Epstein is Associate Professor of Political Science, Columbia University, New York, NY 10027, and National Fellow, Hoover Institution, Stanford University. Sharyn O'Halloran is Associate Professor of Political Science and International Affairs, Columbia University, New York, NY 10027, and Visiting Associate Professor of Public Policy, Stanford University.

The authors thank Morris Fiorina, Simon Jackman, and Gary Jacobson for helpful comments and assistance, and the Bechtel Corporation and the Hoover Institution for financial support.

age population is positively correlated with the election of a black representative is therefore similar to stating that blacks are more likely to be elected as the percentage of unionized workers, educators, or registered Democratic voters increases.

The issue takes on independent significance only in the case that black and Hispanic voters are to be treated as a single "community of interest," as defined under the Voting Rights Act of 1965, meaning that both populations share similar policy preferences and other socioeconomic characteristics, and they tend to vote for the same candidates in elections at all levels. In many instances, the relevant Hispanic population is so small that these issues never arise; Louisiana, South Carolina, and Virginia, for instance, keep no detailed records on their Hispanic populations, as Latinos have been too few in number to be an issue in any voting rights cases. In other instances, policy differences between the black and Hispanic communities obviate the possibility of their being combined, as preferences of Latino voters tend to be more heterogeneous than those of African Americans.¹ Grofman, Handley, and Niemi (1992, 70–3), for example, cite two cases in which a combination of black and Hispanic voters was approved by the courts and four cases in which it was disapproved.

Assuming for the moment, however, that these two groups of voters should be treated as a single community, one can quantify the effect of Hispanic voters by regressing the presence or absence of a minority representative (MinRep) on the total minority voting-age population (MinVAP) in each district, via the probit equation: $\text{Prob}(\text{MinRep}) = \Phi(\alpha + \beta \cdot \text{MinVAP})$, where $\Phi(\cdot)$ is the cumulative normal distribution. From this equation: the point at which a minority representative has a 50% chance of winning election (the point of "equal opportunity") can be calculated as $-\alpha/\beta$.²

Performing these calculations for southern elections to the 103d through 105th Congress yields equalization percentages of 48.57, 46.60, and 42.47, respectively. Despite the fact that eligible Hispanic voters tend to register and vote in lower proportions than do black or white voters,³ these equalization percentages all fall under 50% total minority voting-age population. Thus, even when minority voters are aggregated into a single group, majority-minority districts are, on average, unnecessary to assure minority candidates equal opportunity of gaining office.

¹ Three Latino majority districts have elected Hispanic Republicans to the House of Representatives during the 1990s, whereas no black Republican has been elected to office from a black majority district since Reconstruction.

² See Epstein and O'Halloran (n.d.b) for details of this estimation procedure.

³ Current data supplied by the Texas Legislative Council, for example, indicate that 66.26% of the state's Hispanic voting-age population is registered to vote, compared with 86.27% of the non-Hispanic population.

Current Black Equal Opportunity

Note that these results differ significantly from those presented in Lublin's (1997) excellent survey of race and redistricting, from which the majority of the analysis in the critique is drawn. This discrepancy can be attributed partly to the fact that Lublin estimates only the probability of electing a black, rather than either a black or Hispanic representative to office. More directly, however, the analysis in his book combines electoral data from 1972–94 into a single estimation.⁴ While there are obvious advantages to pooling the data—larger sample size and greater variation in the size and composition of concentrated-minority districts—the conclusions drawn will be reliable only if voting patterns have remained constant over the period. As we shall argue below, voting behavior both in Congress and in the public at large changed substantially during that time, which suggests that conclusions based on aggregated data will tend to be biased, painting an inaccurate picture of the current electoral conditions that minorities face in gaining public office.

In particular, Lublin (1997, 45) predicts that "the election of an African American from a non-majority-minority district is an incredibly unlikely event." Almost contemporaneously, based on data drawn only from the 103d Congress, we predicted that black candidates had a substantial chance of winning election from sub-50% black districts, with the point of equal opportunity occurring at 40.3% black voting-age population. Subsequent events have favored our predictions: In 1996, four black candidates, three of whom were from the South, won in districts with less than 40% black voting age population (all with negligible Hispanic populations).

Lublin's critique accounts for these contrary results by arguing that the southern elections were won by incumbents, so they are unrepresentative of more "typical" elections and cannot be used to predict results elsewhere. This incumbent/nonincumbent distinction has never been used in equal opportunity analysis, so raising it now has the effect of moving the goalposts. If one wishes to examine this issue carefully, however, then the social science approach is to quantify these effects in order to determine to what degree they change one's conclusions.

In fact, incorporating incumbency factors into our original analysis, using standard techniques developed in the electoral politics literature, lends support to our original predictions concerning equal opportunity. The average incumbency advantage in the 1996 election was 4.6% of the two-party vote according to the Alford-Brady (1989) freshman slump/sophomore surge measure (the "slurge" factor), or 6.9% according to the

⁴ Table 3.1 of Lublin (1997), on which the results cited in his critique are based, contains three sets of regressions, the first two of which include a trend variable. In one of these, the trend coefficient is negative and significant (meaning that blacks have less chance now than before of being elected, all else equal); in the other, it is positive and insignificant. The variable is dropped from the third set of regressions, which are then used to estimate the various probabilities of election.

Gelman-King (1990) index.⁵ Furthermore, the average victory margin in the three southern elections mentioned above was 57.6% of the vote, in districts with 36.3% BVAP on average. Using the equation

$$\begin{aligned} & \text{Equalization BVAP} \\ &= \text{Baseline BVAP} - (\text{Victory Margin} - 50) \\ & \quad + \text{Incumbency Advantage} \\ &= 36.3 - 7.6 + \text{Incumbency Advantage}, \end{aligned}$$

we can see that, based on these recent elections, even an incumbency advantage of 10% would produce results that fall within our prediction that 40% is the threshold of equal opportunity.⁶

Even after factoring in the incumbency advantage, then, recent electoral results indicate that blacks may now be able to win in sub-50% minority districts by appealing to their broader constituency and reaching out to white liberals. We did not claim before, nor do we now, that race should no longer be a factor in districting or that black candidates do not face significant barriers that their nonminority counterparts do not. After all, our estimated threshold of equal opportunity is well above the average BVAP percentage in any southern state, indicating that some degree of concentration is necessary. Nevertheless, the recent victories of black candidates in Georgia, Florida, and Indiana should be a cause for celebration rather than an opportunity to try to explain away the results case by case and argue against all evidence that majority-minority districts are still a necessary condition for descriptive minority representation.

State-Level Analysis

One difficulty with our analysis here and in our original article is its reliance on theorizing about results in districts with 30–50% BVAP. The problem is that most of these districts have been eliminated recently, precisely due to the drive by the Department of Justice to create as many majority-minority districts as possible. One might also reasonably be uncomfortable with the aggregated level of the analysis, combining as it does highly polarized areas—such as the Mississippi Delta, where a district more than 50% black twice elected a conservative white Republican—with areas in which racial tensions are a less decisive factor, and with areas in which the Hispanic population is either significant or minimal. For all these reasons, it is enlightening to examine representation issues at the state as well as national level.

⁵ We thank Gary Jacobson for providing these figures. The question arises as to whether the incumbency advantage might be greater for black representatives as compared with other candidates. Over the past decade, however, black officeholders have consistently received a smaller increase in votes after gaining office, as compared with nonblack officeholders.

⁶ In fact, Lublin's critique mentions the exact mechanism that makes this prediction reasonable: A black candidate will have a good chance of winning a primary in a concentrated black district, and then needs only to secure a modest fraction of the white vote to win the general election as well.

Epstein and O'Halloran (n.d.b) analyze all elections to the South Carolina senate between 1988 and 1994. In that state the overall BVAP is 29.82%, and the Hispanic voting-age population is less than 1%. Of the 97 elections to the senate in the period studied, 20 were held in majority BVAP districts, and another 17 in 30–50% BVAP districts. South Carolina is therefore an excellent forum in which to test the robustness of our electoral analysis. Equal opportunity estimates reported in Epstein and O'Halloran (n.d.b) show that the black community's candidate of choice had a 50% chance of winning in districts with 46.64% BVAP. Thus, similar results to those derived in our original paper hold at the state level as well; the threshold of equal opportunity can be attained in districts with less than a majority of black residents.

SUBSTANTIVE REPRESENTATION

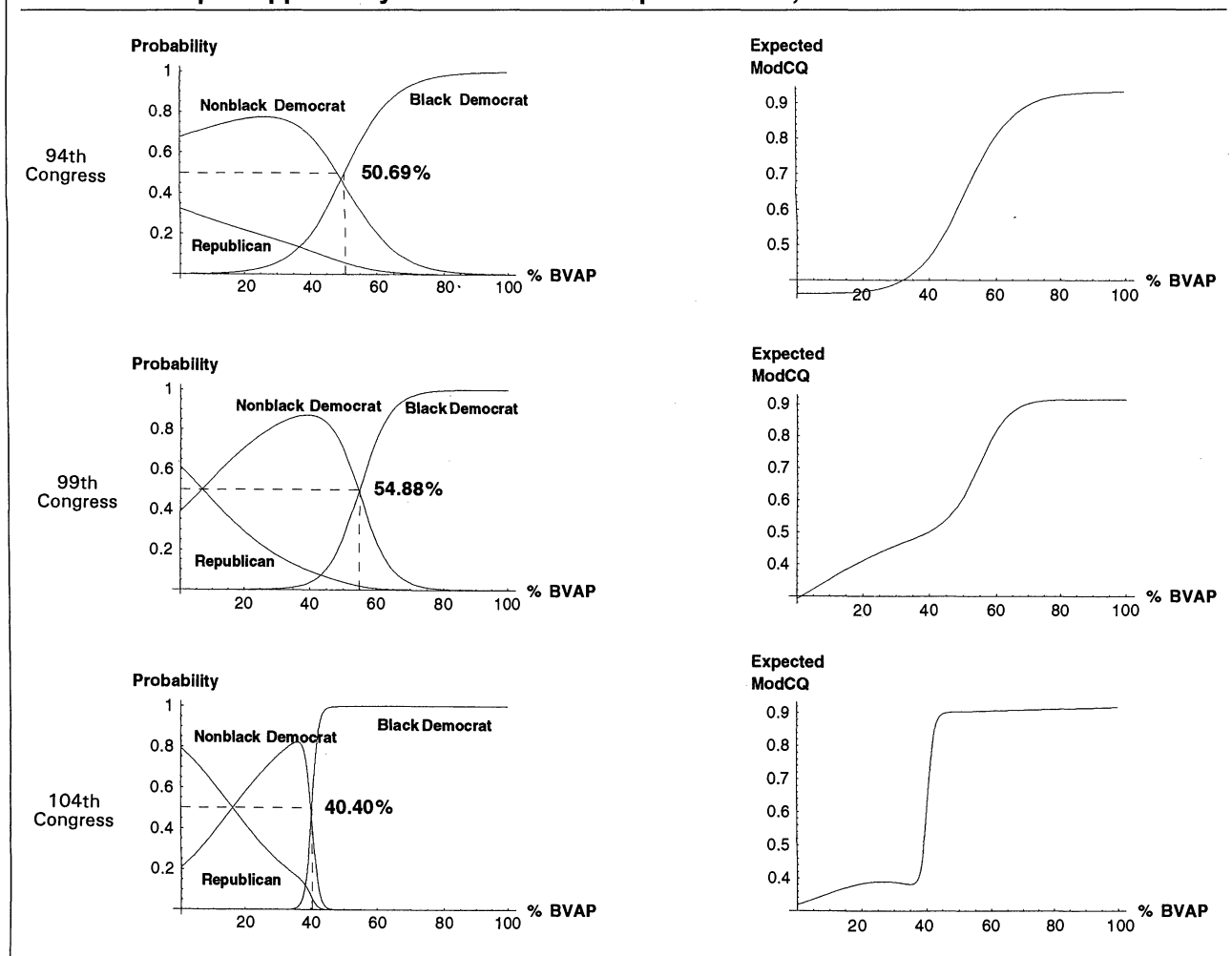
The results on equal opportunity were not the central point of our original paper. Rather, they were intermediate steps along the path to estimating the districting plan that maximizes substantive minority representation, that is, the allocation of voters to districts that will yield the highest expected total number of votes in Congress in favor of minority-sponsored legislation. In the remainder of his critique, Lublin addresses issues surrounding substantive representation, even though he does not dispute either the analytical techniques we developed or our conclusion that 45–47% minority districts are optimal in the South. The arguments he makes concerning race and representation in concentrated minority districts are important and merit closer examination, while the other critiques seem to be based on a misunderstanding of our approach to optimization.⁷

Districting and Representation over Time

As Lublin correctly notes, the lack of representatives from concentrated minority districts in the 103d Congress implies that our results concerning optimal districting depend on inferences made in ranges with relatively few data points. In particular, our recommendations depend on the shape of the curve relating the percentage of black voting-age population to expected substantive representation in the South: It rises gradually at first, levels off in the 25–35% range, then increases sharply from 35% to 50%. It is this particular functional relationship that gives rise to our view that concentrated minority districts are optimal in the South, while more even distributions of minority voters are optimal in other regions of the country.⁸ Lublin

⁷ We do not address here questions concerning maximizing mean vote scores as opposed to medians, noting only that maximizing state-by-state medians does not maximize the overall median in Congress, and these considerations, if significant, would only push our final results farther in the direction of diluting concentrated minority districts.

⁸ Note that this pattern is consistent with Lublin's estimate of a gradual decrease in conservatism with a discontinuous jump down at 40% BVAP. In fact, his finding that the decrease occurs at 40%

FIGURE 1. Equal Opportunity and Substantive Representation, Southern States

argues that the paucity of intermediate-BVAP districts renders unreliable our estimates concerning substantive representation.

To check the robustness of the original findings, Epstein and O'Halloran (n.d.a) replicate the analysis for the 94th, 99th, and 104th Congress; that is, the elections in 1974, 1984, and 1994. The resulting relationships between black voting-age population and (1) the type of representative elected and (2) substantive representation are illustrated for southern districts in Figure 1.⁹ As shown, the same basic functional relationship holds in all three cases, even in the 1970s when a greater number of districts with 30–50% BVAP existed, thus reinforcing our original findings. Interestingly, however, the optimal districting strategy implied for each decade has changed dramatically. In the 1970s, optimal districts had 100% black voters, which

rather than 50% strengthens our conclusion that overall substantive representation is maximized in districts with a submajority minority population. See Lublin (1997, chap. 5, fn. 12).

⁹ Our measure of substantive representation is derived from the degree of concordance between a member's roll-call votes on *Congressional Quarterly* Key Votes for that Congress and those of minority representatives. This variable was denoted "ModCQ" in Cameron, Epstein, and O'Halloran (1996).

implies that no tradeoff whatsoever existed between substantive and descriptive representation. In the 1980s, districts of 66.48% black voting-age population were optimal, even though the threshold of equal opportunity was only about 55%.¹⁰ In the 1990s, consistent with the results in Cameron, Epstein, and O'Halloran (1996) for the 103d Congress, optimal districts contain 45.72% BVAP, while the threshold of equal opportunity falls to 40.40%. The same technique, developed in the original paper, that finds submajority minority districts are now optimal also suggests that super-majority districts would have been necessary in earlier periods to maximize overall substantive representation.

Optimization and Indirect Effects

Our estimates concerning substantive representation agree almost perfectly with those reported in Table 5.6 of Lublin (1997): Southern Democrats have ideology scores close to those of Congress overall, and they do

¹⁰ The informal "65% rule" enforced for many years by the courts and the Department of Justice actually came close to the overall representation-maximizing districting strategy.

not change significantly over the relevant 0–40% BVAP region. Therefore, it is hard to understand the objection to our findings in these cases. Lublin further argues that white Democrats in the South would probably be much more liberal if elected from majority black districts. Since our data from the 103d and 104th Congress contain no observations of this type, it is inappropriate to extrapolate our results to these regions. Our optimization analysis would remain unaffected were this the case, however, since the election of black representatives is a near certainty once BVAP rises above 50%. So Lublin's statement that our substantive conclusions are "obviously false" is itself obviously false.

Similarly, Lublin misunderstands our project when he addresses the "indirect effect" of racial redistricting. He suggests that changing the racial composition of a district may influence the types of candidates nominated, constituent voting behavior, mobilization and turnout, and, most crucially, electoral outcomes in surrounding districts. Our approach to the optimization analysis, however, subsumes all these effects, which is precisely why we posed the question in the manner that we did. Estimating the direct relationship between district composition and the resulting voting behavior of the elected representative captures all the indirect effects, all the factors that may change with the percentage BVAP and affect either electoral outcomes or a representative's roll-call voting decisions.¹¹ And by calculating overall optimal districting schemes statewide, we automatically account for the fact that adding more minority voters to one district requires their removal from a surrounding district (otherwise, optimal districting would always be 100%). Thus, our "45% solution" represents the point at which these two effects balance each other at the margin.

North versus South

Finally, Lublin argues that "contrary to Cameron, Epstein, and O'Halloran's findings," the tradeoff between descriptive and substantive representation is more intense in the South than the North, since northern cities can be gerrymandered to elect liberal representatives of all races. In fact, we make no claim about this issue one way or the other; comparing the maxima of two functions (the districting schemes that maximize substantive representation in each region) is not the same as comparing their shadow prices with respect to a third function (the number of black representatives elected).

It is interesting, however, to use our results in estimating exactly this effect: the expected number of votes lost in Congress by gerrymandering for descriptive rather than substantive representation, across re-

gions. For levels of black voting-age population ranging from 0 to 100% in the 104th Congress, we estimated the difference between the maximum substantive representation score attainable and the score that would result from maximizing the number of black representatives. We compared these differences across northern and southern states, both as an absolute drop and as a percentage drop from the maximum voting score. We found that in districts below 53.10% BVAP, the decline in the North was greater, while for districts above this mark the southern decline was more pronounced. These findings, then, accord with the hypothesis that in northern cities with large minority populations the descriptive versus substantive representation tradeoff is less intense than in the South.

CONCLUSION

Despite raising a number of important issues regarding racial districting and representation, Lublin fails to persuade us that our previous conclusions need amending. Indeed, intervening events have only convinced us more fully that minorities can win elections in sub-50% minority districts, that overconcentration of minority voters can adversely affect their substantive representation in Congress, and that past a certain point a tradeoff exists between electing more minorities to office and passing policies favored by the minority community. It is not our place to prescribe which of these two policy objectives should be given greater weight, but the necessary public debates can only begin once this tradeoff is recognized. Toward this end, it is critically important that future discussions of the effect of minority-based districting be grounded in the systematic analysis of social science data.

REFERENCES

- Alford, John, and David Brady. 1989. "Partisan and Incumbent Advantage in U.S. House Elections, 1846–1986." In *Congress Reconsidered*, 4th ed, ed. Lawrence Dodd and Bruce Oppenheimer. Washington, DC: CQ Press.
- Cameron, Charles, David Epstein, and Sharyn O'Halloran. 1996. "Do Majority-Minority Districts Maximize Substantive Black Representation in Congress?" *American Political Science Review* 90(December): 794–812.
- Epstein, David, and Sharyn O'Halloran. N.d.a. "The Impact of Majority-Minority Districts on Congressional Elections." In *Congressional Elections in the 1990's*, ed. David Brady, John Cogan, and John Ferejohn. Stanford: Hoover Institution. Forthcoming.
- Epstein, David, and Sharyn O'Halloran. N.d.b. "Who Needs Ecological Regression? Measuring the Electoral and Policy Impact of Majority-Minority Voting Districts." *American Journal of Political Science*. Forthcoming.
- Gelman, Andrew, and Gary King. 1990. "Estimating Incumbency Advantage without Bias." *American Journal of Political Science* 34(November): 1142–64.
- Grofman, Bernard, Lisa Handley, and Richard Niemi. 1992. *Minority Representation and the Quest for Voting Equality*. New York: Cambridge University Press.
- Lublin, David. 1997. *The Paradox of Representation*. Princeton, NJ: Princeton University Press.

¹¹ Furthermore, Epstein and O'Halloran (n.d.b) demonstrate via Monte Carlo simulations that our technique avoids the ecological regression bias inherent in traditional equalization analysis.